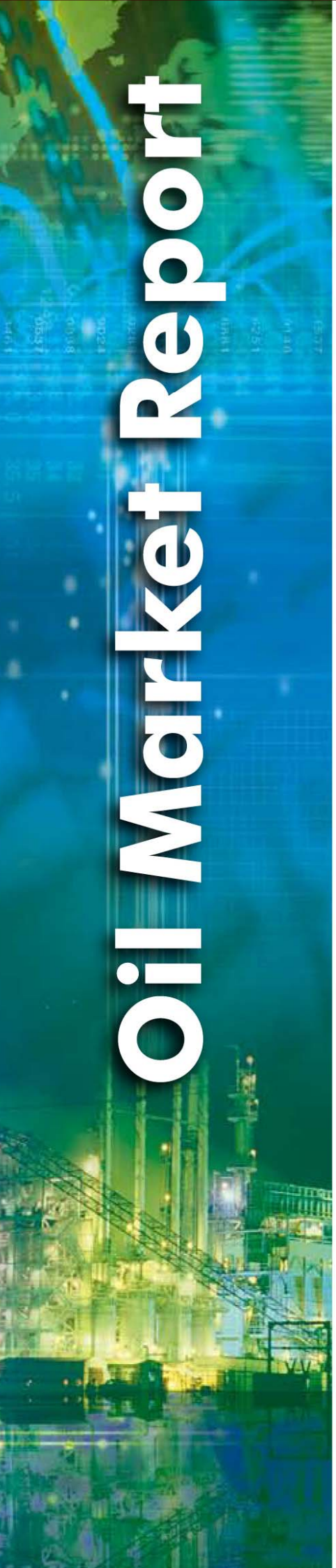

INTERNATIONAL ENERGY AGENCY

16 January 2009

HIGHLIGHTS

- **Forecast global oil demand in 2009 is revised down by 1.0 mb/d**, following a halving of assumed GDP growth to 1.2%, given the worsening outlook. Global oil demand is now projected at 85.3 mb/d in 2009 (-0.6% or -0.5 mb/d year-on-year). The 2008 estimate is revised down 70 kb/d to 85.8 mb/d (-0.3% or -0.3 mb/d versus 2007). The expected two-year contraction in oil demand would be the first since 1982 and 1983.
- **Global oil supply was flat in December at 86.2 mb/d**, with curbed OPEC output offset by gains elsewhere. Non-OPEC supply for 2008 and 2009 is forecast at 49.5 mb/d and 50.0 mb/d, lowered by 60 kb/d and 30 kb/d versus last month's report. 2008 output declined by 150 kb/d, partly due to the first fall in Russian supply since 1996. 2009 growth is forecast at 0.5 mb/d, in addition to a 0.6 mb/d increment in OPEC NGLs.
- **December OPEC crude supply was 30.9 mb/d**, down 330 kb/d versus November. This was 1 mb/d below September 2008 levels, and nearly 2 mb/d below mid-2008 highs. OPEC agreed a new target of 24.8 mb/d from January, equivalent to OPEC-13 output of 28.2 mb/d versus a reduced 2009 'call' of 29.5-30.0 mb/d.
- **1Q09 global refinery throughput is forecast at 72.3 mb/d**, 1.2 mb/d lower than last month's report. Weaker global demand and poor economics continue to hamper crude runs. Evidence of more structural changes to the refining industry is emerging in addition to reduced plant operation rates.
- **OECD industry stocks fell by 2.0 mb to 2,658 mb in November**, as a US build was offset by lower European crude and Pacific distillates. Despite a downward revision to October data, end-November forward demand cover remains high at 56.4 days on lower OECD demand. Preliminary December data indicate an OECD draw of 8.0 mb.
- **Crude oil prices rose** to nearly $50/bbl in early January, supported by cold weather, the Russian/Ukrainian gas crisis and fighting in Gaza. Subsequently, weak global refinery demand and an increasing crude overhang have pressured Brent futures to currently around $45/bbl, while WTI was at $35/bbl, distorted by record-high Cushing stocks.

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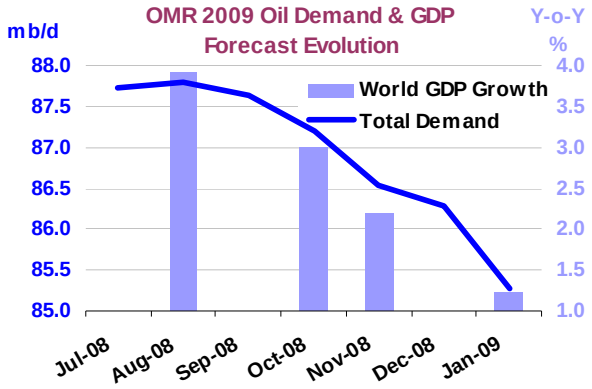
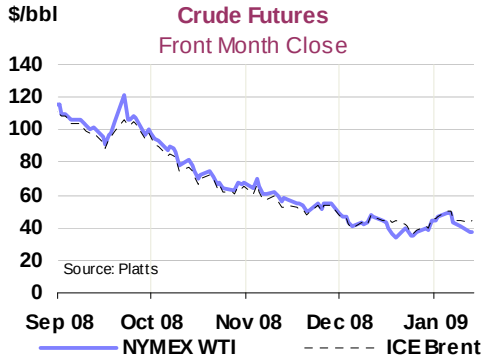
A MOVING TARGET

One problem analysts currently face is that as the economic outlook worsens, so the shelf life of prevailing forecasts for GDP and oil demand shortens. Exceptionally this month, we try to pre-empt widely flagged, but as yet unspecified, downward revisions to global GDP growth forecasts from the major international institutions. We normally rely on projections from the IMF, the OECD and Consensus Economics in trying to construct a balanced GDP view and consciously avoid dabbling in macroeconomic crystal ball gazing ourselves. This month we are forced to anticipate upcoming institutional revisions on the likelihood that the IMF and others will shortly cut their forecasts. Our GDP changes try to reflect the worsening trends evident since mid-December when we published our last *Oil Market Report (OMR)*. Crucially, the IMF's managing director has gone on record saying its next forecast will incorporate sharply lower global growth, with China in particular prone to a steep slowdown.





We now assume 2009 global real GDP growth of 1.2%, versus the IMF's November estimate of 2.1% we employed last month. Much of our interim revision rests on the recent Consensus Economics survey. The non-OECD GDP projection is cut by nearly a quarter, to 4.1% for 2009, while OECD contraction is pushed to 0.9%, from an earlier decline of 0.2%. Many forecasters go lower still, and although our assumptions are provisional and prone to adjustment, we await the IMF update before going further. For China, a recent spate of lower GDP forecasts range from 5% (mainly commercial banks) to 7.5% (World Bank). We have gone mid-range at 6.5%, acknowledging that uncertainty for China is high.

Combined with a lower 4Q08 demand baseline, this has dramatic implications for our 2009 oil demand forecast, which now stands at 85.3 mb/d, down by 1.0 mb/d from last month, and a contraction of 0.5 mb/d from 2008 (itself some 0.3 mb/d lower than 2007). OECD 2009 demand is cut by 0.5 mb/d (declining by 1.2 mb/d vs 2008), and the Chinese outlook is cut by 0.3 mb/d, suggesting 2009 growth of less than 0.1 mb/d.

Not only demand has been cut since the last *OMR* however. Non-OPEC supply and OPEC NGL have been trimmed by a combined 0.1 mb/d for 2008 and 2009. The IEA has previously flagged the need for sustained investment when economic slowdown occurs, in order to avoid a renewed supply squeeze when demand growth recovers. While government stimulus packages can help sustain investment in clean energy forms, private sector, conventional upstream oil and gas investment is already being hit. That said, modest non-OPEC growth should resume this year, reinforcing OPEC's desire to cut output in the face of weak demand, even if questions persist over compliance. In fact, OPEC's production target looks to us to be below the underlying 'call' for 2009. Commercial inventory could therefore tighten, even while spare capacity increases, albeit 4Q08 stocks are starting from a high base at 56 days plus of forward cover. Lower winter temperatures and interrupted Russian gas supplies via Ukraine have supported heating oil, but have also put a floor under crude prices in Europe at least.

However, it would be wrong to suggest that minor adjustments to non-OPEC supply and commercial stocks come close to offsetting a weaker global economic and oil demand trend that has yet to bottom out. Highlighting the weak state of demand, both for oil and for seaborne transport, floating storage is estimated to have risen recently to between 50-80 mb. This will eventually find its way into onshore storage, possibly offsetting some of OPEC's attempts to deflate what it sees as an OECD commercial stock overhang. Meanwhile, consuming nations like China and the US are taking advantage of prevailing prices to build strategic stocks. Demand will eventually rebound to absorb this oil currently struggling to find a market, but predicting the timing and extent of the rebound remains as elusive a target as ever.

DEMAND

Summary

- **Forecast global oil demand** has been sharply revised down for 2009, following a reassessment of global economic prospects partly based on the latest survey by Consensus Economics (the forthcoming IMF economic assumptions, to be released by the end of January, will be incorporated in next month's report). Global GDP growth has been roughly halved to 1.2%, given the worsening outlook in OECD and non-OECD countries alike, notably in Asia and Latin America. Global oil demand is now projected at 85.3 mb/d in 2009 (-0.6% or -0.5 mb/d year-on-year and 1.0 m/d lower than our last report). The estimate for 2008 remains broadly unchanged, at 85.8 mb/d (-0.3% or -0.3 mb/d versus 2007 and 70 kb/d lower than previously estimated). The expected two-year contraction in oil demand will be the first since the early 1980s.
- **Forecast oil demand in the OECD** remains virtually unchanged at 47.5 mb/d in 2008 (-3.3% or -1.6 mb/d versus 2007). In 2009, oil demand is forecast at 46.3 mb/d (-2.5% or -1.2 mb/d on a yearly basis), about 530 kb/d lower than previously estimated. This revision is in line with the downward adjustments to GDP assumptions. The forecast still assumes that OECD demand destruction will bottom out next year and that demand will begin to gradually recover in 2H09, on the basis that a repeat of the near financial meltdown of 2H08 is unlikely.

Global Oil Demand (2007-2009)

(million barrels per day)

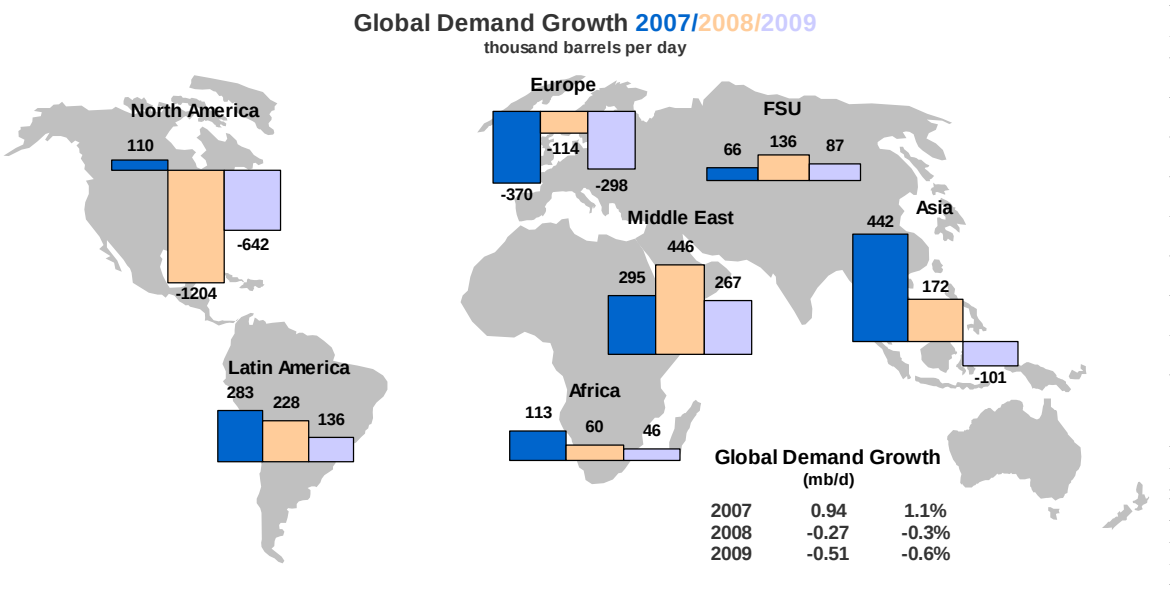
	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Africa	3.1	3.1	3.0	3.1	3.1	3.1	3.2	3.0	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Americas	31.1	31.0	31.3	31.2	31.1	30.5	30.4	29.7	30.0	30.2	29.5	29.7	29.9	29.6	29.7
Asia/Pacific	25.5	24.9	24.5	25.7	25.1	26.4	25.4	24.7	24.8	25.3	25.9	25.3	24.6	25.1	25.2
Europe	16.0	15.7	16.1	16.4	16.0	16.0	15.7	16.1	16.0	15.9	15.7	15.3	15.8	15.7	15.6
FSU	4.1	3.9	4.2	4.3	4.1	4.1	4.1	4.4	4.4	4.3	4.2	4.2	4.4	4.5	4.3
Middle East	6.4	6.5	6.7	6.4	6.5	6.7	7.0	7.3	6.9	7.0	7.0	7.2	7.6	7.1	7.2
World	**86.2**	**85.1**	**85.7**	**87.2**	**86.0**	**86.9**	**85.7**	**85.3**	**85.3**	**85.8**	**85.4**	**84.9**	**85.5**	**85.3**	**85.3**
Annual Chg (%)	0.4	1.5	1.1	1.5	1.1	0.8	0.8	-0.6	-2.2	-0.3	-1.7	-0.9	0.3	0.0	-0.6
Annual Chg (mb/d)	0.3	1.2	0.9	1.3	0.9	0.7	0.6	-0.5	-1.9	-0.3	-1.5	-0.8	0.2	0.0	-0.5
Changes from last OMR (mb/d)	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	-0.35	-0.07	-1.25	-0.79	-0.52	-1.50	-1.01

- **Forecast non-OECD oil demand** is revised down by 65 kb/d to 38.2 mb/d in 2008 (+3.7% or +1.4 mb/d) and, more significantly, by 480 kb/d to 38.9 mb/d in 2009 (+1.8% or +0.7 mb/d compared with the previous year). As with the OECD, these revisions are related to much lower economic assumptions, notably for Asia and Latin America. China's economy, in particular, appears to have sharply slowed down as its main export markets tumble. Therefore, non-OECD demand growth in both 2008 and 2009 is now seeing failing to offset the severe demand contraction expected in the OECD.
- **A new oil product price regime has been implemented in China.** Although the new regime comes a step closer to aligning domestic prices with international benchmarks, it remains far from more conventional, market-based mechanisms. A gap remains between domestic retail prices (currently at roughly US$60/bbl) and international crude prices (which hover around US$40/bbl). The price cuts will arguably ease costs for drivers, airlines and manufacturers – and help defuse social tensions over high fuel prices – but they could arguably contribute less than required under the present circumstances to cushion the economic downturn.

Global Overview

This month's report includes a significant downward adjustment to our 2009 GDP assumptions. The November and December 2008 editions of this report were based on economic forecasts published by the IMF in early November (which in turn were significantly lower than its October predictions). However, the relentless worsening of global economic conditions has once again made these prognoses outdated. On the one hand, the IMF itself has strongly hinted that it will release new – and much lower

– economic projections in the forthcoming weeks. On the other hand, the latest survey of private sector economists by Consensus Economics (*Consensus Forecasts*, December 2008) depicts a much gloomier picture for the global economy, not only in OECD countries – where the current turmoil began – but also in most emerging countries, notably in Asia and Latin America, which are increasingly affected by developments in mature economies.



As such, we have adjusted our global GDP assumption on the basis of the latest *Consensus Forecasts*, which as noted see marked downward adjustments across all regions. The global economy is now posited to expand by only 1.2% year-on-year in 2009 – at almost half the pace previously expected – with OECD countries firmly in recession (shrinking collectively by about 0.9%) and non-OECD economies growing by only 4.1% (1.25 percentage points lower). Regarding China, we have not used *Consensus Forecasts* as a source, given the precipitous deterioration of the country's economy, notably in the second half of December (after the survey was taken). Instead, we have settled for a mid-point (6.5%) between the most recent institutional forecast (the World Bank's 7.5% in early December) and gloomier private-sector prognoses (currently at around 5.0-5.5%).

From a seasonal perspective, the global economy should see a moderate recovery in 2H09, since a repeat of the sharp 2H08 slump, when the financial system came close to collapsing, is unlikely. In addition, we have lowered our oil price hypothesis to $60/bbl for 2009, versus the $80/bbl assumption that we have kept over the past two months (however, given the severity of the global economic contraction, a lower price will only have a limited offsetting effect upon oil demand).

Needless to say, these economic assumptions are temporary and likely to be revised in the light of new IMF prognoses. Yet the revisions to the 2009 global oil demand forecast are significant (roughly 1.0 mb/d lower when compared with our previous

Real GDP Growth
Latest: December 2008 - January 2009

% change	2009
WORLD	**1.24**
OECD	**(0.85)**
OECD, North America	(1.11)
OECD, Europe	(0.85)
OECD, Pacific	(0.15)
Non-OECD	**4.05**
Africa	3.29
Latin America	2.01
China (excl. Hong Kong)	6.50
Other Asia	3.74
Non-OECD Europe	2.64
FSU	2.87
Middle East	3.69

Current vs. Previous
November 2008

WORLD	**(0.90)**
OECD	**(0.63)**
OECD, North America	(0.62)
OECD, Europe	(0.64)
OECD, Pacific	(0.66)
Non-OECD	**(1.25)**
Africa	(1.15)
Latin America	(0.92)
China (excl. Hong Kong)	(2.00)
Other Asia	(1.17)
Non-OECD Europe	(0.61)
FSU	(0.44)
Middle East	(1.06)

Sources: Consensus Economics, IEA

report). Thus, at 85.3 mb/d, world demand is seen contracting by 0.6% or 500 kb/d versus 2008 – a fall for a second consecutive year, something not seen since the early 1980s.

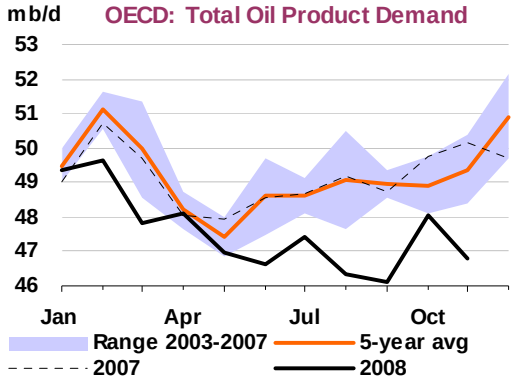
OECD

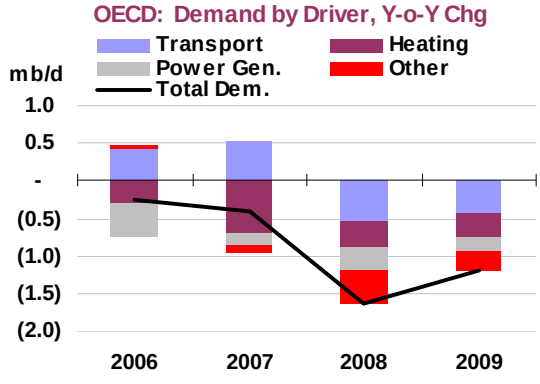
According to preliminary November data, OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) plunged by 6.8% year-on-year. As in the previous month, all three regions recorded losses, highlighting the worsening outlook for most advanced economies. In **OECD North America** (which includes US Territories), oil product demand contracted by 6.9% on prevailing weakness across all product categories bar diesel. Demand in **OECD Europe** shrank by 4.4%, as heating oil deliveries lost steam despite remaining in positive territory. In **OECD Pacific**, demand plummeted by 10.7%, dragged down by very feeble Japanese and Korean deliveries in virtually all product categories, notably for key products such as naphtha and diesel.

OECD Demand based on Adjusted Preliminary Submissions - November 2008
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.42**	**-3.8**	**1.58**	**-17.6**	**4.09**	**4.1**	**0.99**	**-20.0**	**1.13**	**-12.1**	**5.56**	**-12.05**	**23.78**	**-6.9**
US50	8.85	-4.1	1.34	-18.7	3.55	3.1	0.46	-27.9	0.70	-8.7	4.15	-13.8	19.05	-7.2
Canada	0.74	-2.3	0.14	-10.9	0.20	0.1	0.38	-3.2	0.16	2.8	0.76	-2.7	2.40	-2.6
Mexico	0.75	-1.4	0.06	-19.7	0.29	-1.5	0.12	-1.5	0.16	-37.2	0.58	-11.8	1.95	-9.4
OECD Europe	**2.26**	**-6.8**	**1.21**	**-5.4**	**4.24**	**-4.7**	**2.17**	**1.1**	**1.63**	**-7.9**	**3.66**	**-3.8**	**15.17**	**-4.4**
Germany	0.47	-2.6	0.18	-5.2	0.68	-2.4	0.56	33.3	0.18	1.5	0.54	-7.7	2.59	2.3
United Kingdom	0.38	-7.8	0.33	-5.2	0.44	-4.1	0.14	-10.0	0.08	-12.4	0.35	8.6	1.72	-3.8
France	0.18	-16.2	0.15	-5.7	0.61	-11.2	0.31	-14.2	0.10	-31.4	0.51	-2.2	1.85	-10.9
Italy	0.26	-10.0	0.07	-14.5	0.52	-7.2	0.11	-9.7	0.22	-18.3	0.38	-10.1	1.56	-10.6
Spain	0.14	-7.9	0.10	-10.6	0.49	-8.8	0.24	-9.5	0.21	-2.7	0.36	-4.9	1.53	-7.3
OECD Pacific	**1.53**	**-1.6**	**0.96**	**-8.4**	**1.24**	**-7.0**	**0.48**	**-17.0**	**0.89**	**-9.6**	**2.72**	**-16.5**	**7.83**	**-10.7**
Japan	0.97	-3.3	0.65	-10.2	0.57	-10.1	0.33	-18.9	0.53	-2.1	1.54	-19.8	4.59	-12.3
Korea	0.18	5.3	0.18	-7.9	0.28	-9.7	0.13	-14.0	0.32	-21.1	0.98	-13.8	2.06	-12.6
Australia	0.34	-0.8	0.11	1.2	0.33	-0.6	0.02	-1.0	0.04	-1.0	0.18	1.6	1.02	-0.1
OECD Total	**14.21**	**-4.0**	**3.75**	**-11.7**	**9.58**	**-1.5**	**3.65**	**-8.2**	**3.65**	**-9.7**	**11.94**	**-10.8**	**46.78**	**-6.8**

* Including US territories





Revisions to preliminary figures were again significant, mostly driven by changes in North America. However, by contrast to previous months, the October adjustments were positive (+1.5 mb/d). According to revised data, OECD demand fell by only 3.4% during that month, versus an earlier estimate of -6.0%. Coupled with preliminary data for November (and December for the US), this results in a revision of +30 kb/d in 3Q08 and -70 kb/d in 4Q08. Overall, OECD demand is expected to have averaged 47.5 mb/d in 2008 (-3.3% or -1.6 mb/d versus 2007, virtually unchanged versus our last report). In 2009, given weaker economic assumptions, OECD demand is seen contracting by 2.5% on a yearly basis (roughly -1.2 mb/d) to 46.3 mb/d (530 kb/d lower when compared with our previous assessment). This forecast still posits that OECD demand destruction will bottom out this year and that OECD economies

will begin to gradually recover in 2H09 – or at least stop declining when compared with 2H08, when they came close to the brink of financial meltdown.

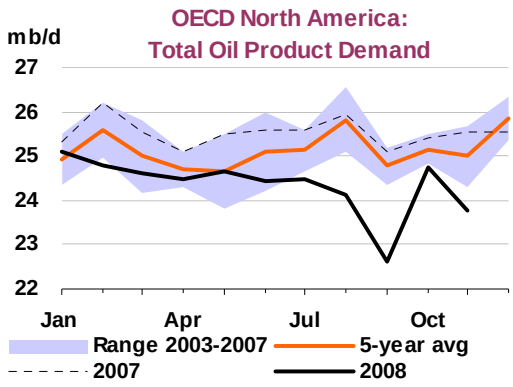
Total OECD Demand by Product
(million barrels per day)

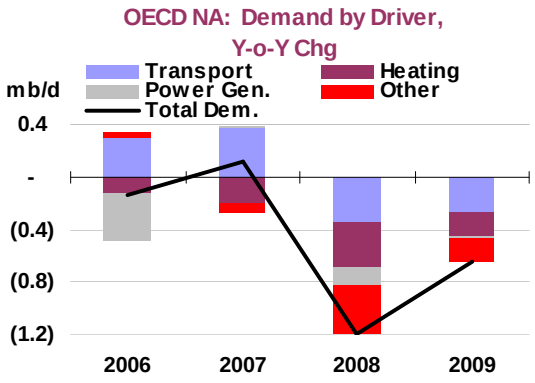
	2007	2008	4Q07	1Q08	2Q08	3Q08	Aug 08	Sep 08	Oct 08*	Latest month vs. Sep 08	Latest month vs. Oct 07
LPG & Ethane	4.82	4.68	4.93	5.16	4.58	4.33	4.42	4.03	4.52	0.49	-0.12
Naphtha	3.24	3.07	3.27	3.28	2.99	3.01	3.10	2.93	2.91	-0.01	-0.23
Motor Gasoline	14.92	14.44	14.84	14.23	14.73	14.47	14.61	14.05	14.43	0.39	-0.51
Jet & Kerosene	4.12	3.98	4.24	4.35	3.86	3.81	3.83	3.74	3.70	-0.04	-0.45
Gas/Diesel Oil	13.14	12.95	13.60	13.40	12.64	12.60	12.06	13.25	13.79	0.54	-0.09
Residual Fuel Oil	3.96	3.66	3.95	3.85	3.62	3.52	3.44	3.43	3.55	0.12	-0.31
Other Products	4.97	4.76	5.01	4.63	4.82	4.89	4.89	4.71	5.13	0.42	0.02
Total Products	**49.17**	**47.53**	**49.86**	**48.91**	**47.24**	**46.63**	**46.34**	**46.14**	**48.04**	**1.91**	**-1.69**

* Latest official OECD submissions (MOS)

North America

According to preliminary data, oil product demand in North America (including US Territories) plummeted by 6.9% year-on-year in November, falling for the eleventh month in a row. Demand weakness in the United States (-7.1% year-on-year) dragged down the whole region. Canada and Mexico, however, are also now clearly showing the effects of the US recession, with demand in both countries declining by 2.6% and 9.4%, respectively.





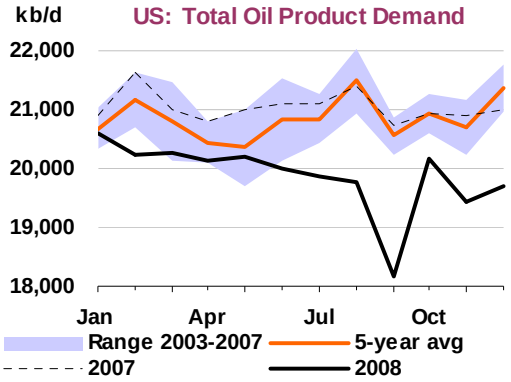
Revisions to October preliminary data, largely driven by the US, were very large, but contrary to previous months, positive (+1.5 mb/d), suggesting that earlier weekly estimates had been too bearish. Despite these revisions, however, demand in OECD North America still contracted by 2.6% year-on-year during that month. Regional oil demand is now estimated at 24.3 mb/d in 2008 (-4.7% or -1.2 mb/d on a yearly basis and 140 kb/d higher when compared with our last assessment). In 2009, demand is expected to reach 23.7 mb/d (-2.6% or -0.6 mb/d, 160 kb/d lower than previously estimated) on the back of lower GDP assumptions.

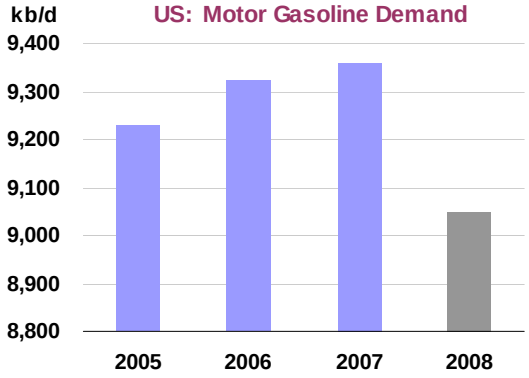
OECD North America Demand by Product
(million barrels per day)

	2007	2008	4Q07	1Q08	2Q08	3Q08	Aug 08	Sep 08	Oct 08*	Latest month vs. Sep 08	Latest month vs. Oct 07
LPG & Ethane	2.92	2.76	2.97	3.10	2.63	2.53	2.68	2.19	2.70	0.51	-0.10
Naphtha	0.41	0.35	0.41	0.36	0.37	0.34	0.30	0.31	0.31	-0.01	-0.12
Motor Gasoline	10.84	10.55	10.84	10.47	10.74	10.51	10.72	10.05	10.60	0.55	-0.23
Jet & Kerosene	1.89	1.78	1.90	1.84	1.84	1.81	1.89	1.70	1.66	-0.05	-0.25
Gas/Diesel Oil	5.24	5.01	5.24	5.29	4.96	4.77	4.71	4.84	5.31	0.48	-0.01
Residual Fuel Oil	1.25	1.14	1.18	1.14	1.22	1.07	1.06	0.93	1.06	0.12	-0.07
Other Products	2.97	2.74	2.95	2.63	2.77	2.72	2.77	2.57	3.13	0.56	0.13
Total Products	**25.53**	**24.32**	**25.49**	**24.84**	**24.52**	**23.75**	**24.14**	**22.60**	**24.76**	**2.16**	**-0.66**

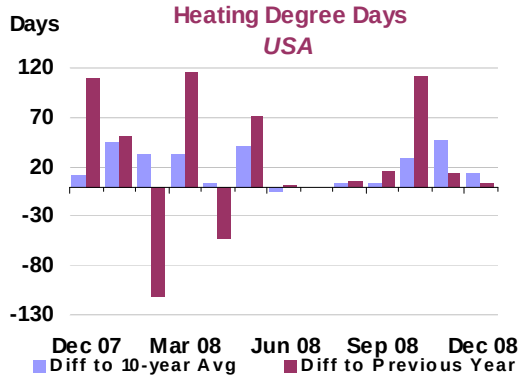
* Latest official OECD submissions (MOS)

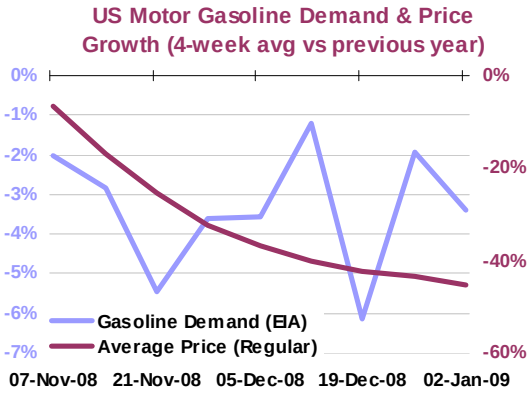
Adjusted preliminary data for the continental **United States** continue to reflect the ongoing economic recession. Inland deliveries – a proxy of oil product demand – contracted by 6.3% year-on-year in December. Virtually all product categories registered significant contractions, most notably jet fuel/kerosene (-13.0%), gasoline (-4.0%) and gasoil (-11.4%). By contrast, residual fuel oil deliveries, which had declined since December 2007 (excepting a brief interruption in July 2008), grew by 8.3% year-on-year. Given the fall in international oil prices and subdued natural gas prices due to higher production and relatively mild weather (heating-degree days in December were only slightly higher than the 10-year average and the same month of the previous year), residual fuel oil is indeed once again competitive *vis-à-vis* natural gas as a fuel of choice for power generation. Both fuels are now (mid-January) practically at par, at about $6.44/mm Btu on average.





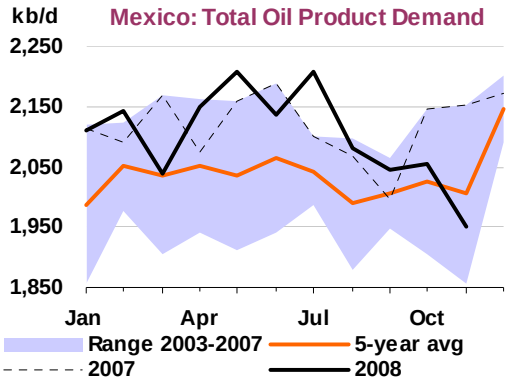
The demand picture would have been gloomier had preliminary weekly data not been corrected up in October. The revisions (across all product categories bar naphtha and jet fuel/kerosene) totalled 1.2 mb/d, implying an annual decline of -3.7%, instead of -9.6% as previously estimated. Although this positive adjustment bucked the trend of the past several months (of large downward revisions), it is premature to conclude that demand is rebounding – previous revisions had largely stemmed from the fact that gasoline and distillate volumes had been counted as 'product supplied' (a proxy of demand) rather than as exports. Indeed, the weakness in gasoline demand has if anything intensified: despite much lower gasoline prices (retail prices, at about $1.60/gallon, are about 50% lower year-on-year), weekly gasoline demand is still contracting by some 3-4% on a yearly basis. Meanwhile, new car sales continue to plummet (-35.7% year-on-year in December), hitting both domestic and foreign manufacturers.

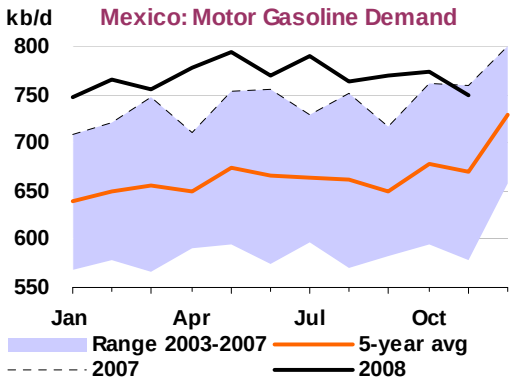




On the basis of October's revisions, preliminary November and December data, and a new GDP assumption of -1.3% for 2009, and assuming that demand destruction will bottom out this year, US oil demand is now expected to contract by 5.6% year-on-year in 2008 to 19.5 mb/d (some 140 kb/d higher than in our previous report). In 2009, demand should fall by 2.8% to 19.0 mb/d (about 140 kb/d less than previously anticipated).

Preliminary data show that the free fall of **Mexico's** oil product demand accelerated sharply in November (-9.4% year-on-year). The plunge has a structural component – the substitution of residual fuel oil (-37.2% year-on-year) by natural gas – but also reflects the economic slowdown triggered by the US recession. Indeed, the Mexican economy is set to contract by 0.1% in 2009. For the first time since July 2005, gasoline demand fell on a yearly basis (-1.4%); meanwhile, jet fuel/kerosene demand shrank for the seventh consecutive month (-19.7%), providing further evidence that air travel is weakening significantly. Total oil demand is thus now expected to fall in both 2008 (-1.0% year-on-year to 2.10 mb/d) and 2009 (-2.2% to 2.05 mb/d).

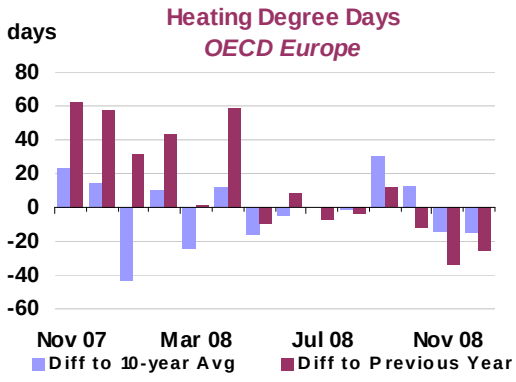




Seeking to temper the economic slowdown, in early January the Mexican government decided to freeze retail energy prices, most notably of transportation fuels, which had started to rise on a monthly basis in 2H08 amid concerns that fuel subsidies (some $20 billion in 2008) would become unsustainable. The sharp fall in international oil prices had made the monthly price increase politically untenable, with protests erupting amid several constituencies (ranging from truck drivers to fishermen), while stoking inflation as well. In addition, the fiscal stimulus plan also mandates a 10% cut in LPG prices, which should benefit poor urban households (LPG is the main cooking fuel).

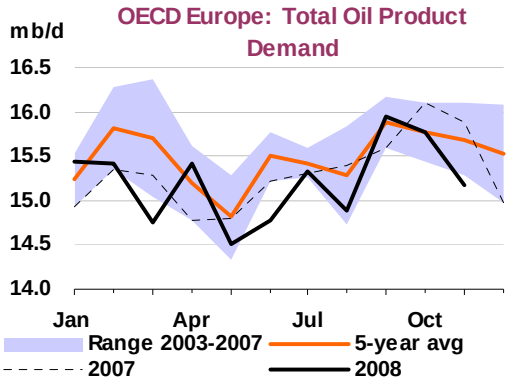
Europe

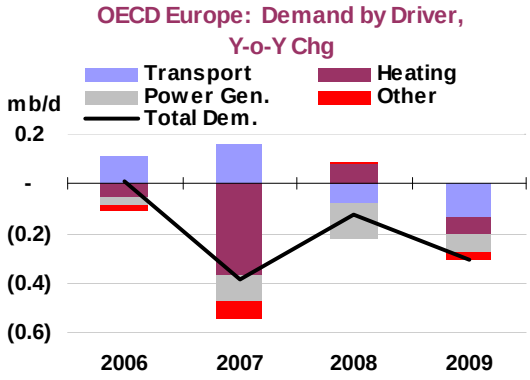
Oil product demand in Europe shrank by 4.4% year-on-year in November, according to preliminary inland data. All product categories bar heating oil registered losses, notably gasoline (-6.8%), jet fuel/kerosene (-5.4%), diesel (-4.7%) and residual fuel oil (-7.9%). Although heating oil deliveries remained positive (+1.1%), they lost momentum, partly because of mild temperatures (the number of heating-degree days in November was well below both the 10-year average and the same month of the previous year). Revisions to annual submissions for October, meanwhile, stood at -200 kb/d. However, given weaker-than-expected preliminary figures and lower economic growth expectations, forecast demand in OECD Europe has been revised to 15.2 mb/d in 2008 (-0.8% or -130 kb/d, some 60 kb/d lower than previously estimated) and to 14.9 mb/d in 2009 (-2.0% or -300 kb/d, 160 kb/d below last month's projection).



It should be noted that this forecast has not yet taken into account the potential effects of the ongoing Russian disruption to European natural gas supplies. A similar situation in early 2006 led to a spike in residual fuel oil demand in countries such as Italy. This time, however, gasoil demand may have increased, judging by an uptick in prices (residual prices, by contrast, have barely moved). Moreover, the unfolding economic contraction is arguably depressing electricity use,

although the cold spell of early January most likely led to strong demand for power-generated heating. As such, we will wait for more precise data before making further adjustments to our prognosis.



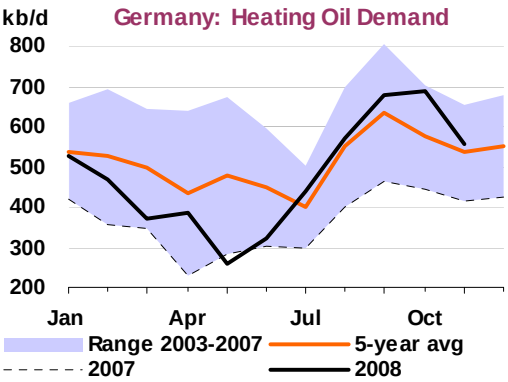


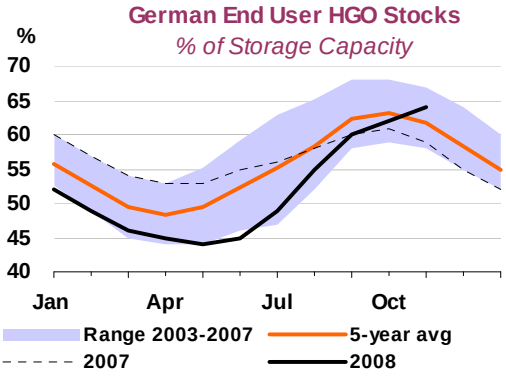
OECD Europe Demand by Product
(million barrels per day)

	2007	2008	4Q07	1Q08	2Q08	3Q08	Aug 08	Sep 08	Oct 08*	Latest month vs. Sep 08	Latest month vs. Oct 07
LPG & Ethane	0.95	0.96	0.98	1.05	0.98	0.87	0.83	0.91	0.87	-0.04	-0.05
Naphtha	1.17	1.13	1.20	1.22	1.07	1.08	1.17	1.06	1.08	0.03	-0.11
Motor Gasoline	2.50	2.37	2.43	2.29	2.44	2.45	2.40	2.46	2.36	-0.11	-0.18
Jet & Kerosene	1.31	1.31	1.30	1.27	1.30	1.41	1.39	1.40	1.34	-0.06	-0.04
Gas/Diesel Oil	6.10	6.23	6.49	6.31	5.96	6.26	5.88	6.76	6.82	0.07	0.12
Residual Fuel Oil	1.75	1.61	1.76	1.65	1.51	1.60	1.54	1.64	1.68	0.04	-0.07
Other Products	1.52	1.56	1.50	1.41	1.63	1.72	1.68	1.72	1.61	-0.11	-0.02
Total Products	**15.30**	**15.17**	**15.65**	**15.20**	**14.89**	**15.39**	**14.89**	**15.95**	**15.76**	**-0.19**	**-0.34**

* Latest official OECD submissions (MOS)

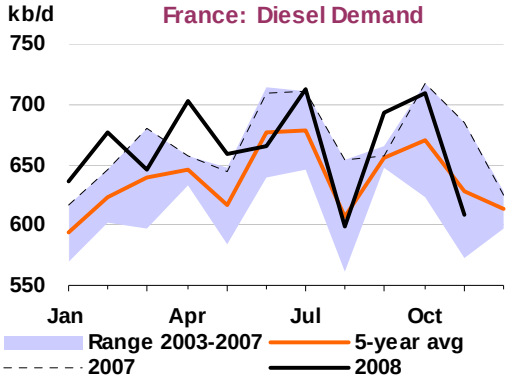
Inland deliveries in **Germany** rose by 2.3% year-on-year in November, according to preliminary estimates, given the sustained firmness of both heating oil (+33.3%) and, to a lesser extent, fuel oil deliveries (+1.5%), which offset losses in all other product categories. Heating oil consumer stocks averaged 64% of capacity by end-November, higher when compared with both the previous month (62%) and the previous year (59% in November 2007). This suggests that German households continued to take advantage of falling prices to replenish their inventories. Nonetheless, the unfolding economic recession is bound to hit oil demand: assuming heating oil demand follows refilling patterns and weather conditions in line with the historical 10-year average, overall oil demand may contract by as much as 2.0% in 2009.

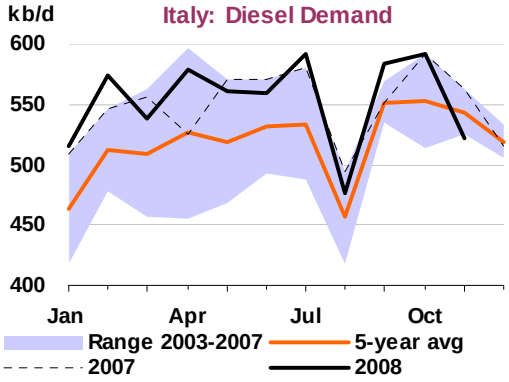




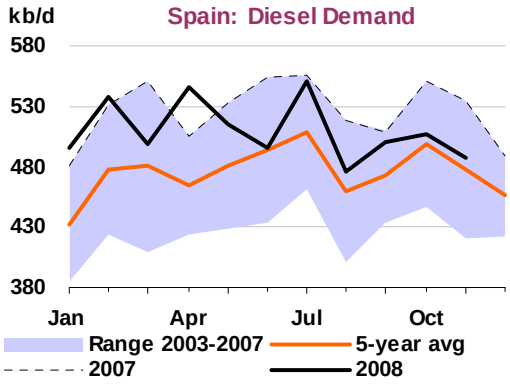
In **France**, by contrast, total oil demand plunged by 10.9% year-on-year in November. As the economic slowdown bites, key products such as diesel are bearing the brunt. Indeed, diesel deliveries fell by 11.2%, in line with the continued declined in new vehicle sales (-5.0% year-on-year in November and

-15.8% in December). Meanwhile, gasoline demand (which faces a structural decline) contracted by 16.2%, over twice as much as the January-October average (although this could be partly due to two working days less in November 2008 relative to the previous year).





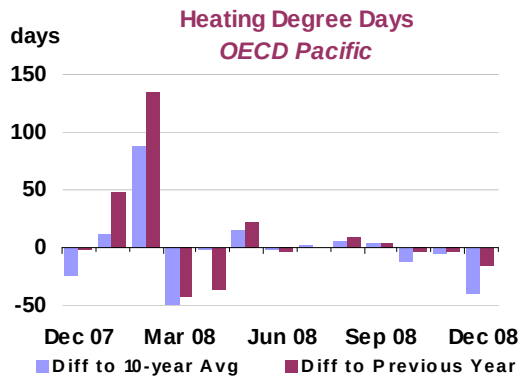
A similar situation prevails in **Italy**, where total oil product deliveries plummeted by 10.6% year-on-year in November, with diesel demand – about a third of the total – shrinking by 7.2%. In addition, jet fuel/kerosene deliveries faced yet another sharp contraction (-14.5%) as the saga involving near-bankrupt state-owned carrier Alitalia unfolded (the airline, which has cancelled many flights over the past months, has now found new partners; its situation and thus jet fuel demand could improve in the months ahead). Finally, it is worth noting that residual fuel oil demand plummeted by 18.3%, due to both higher hydro power supplies and lower electricity demand given mild weather and lower industrial activity.



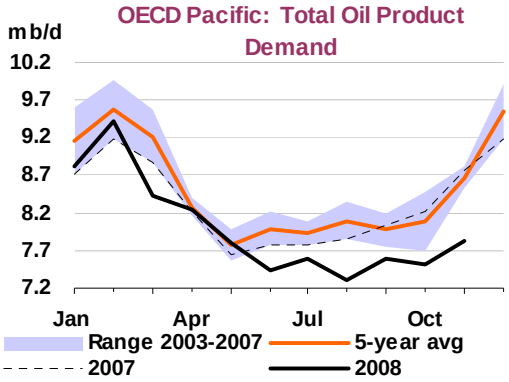
In **Spain**, whose economy is facing a severe economic recession, the demand picture mirrors that of France and Italy. Oil demand plummeted by 7.3% year-on-year in November, according to preliminary figures, with all product categories bar naphtha posting sharp losses, particularly gasoline (-7.9%), jet fuel/kerosene (-10.6%) and diesel (-8.8%). Contrary to other large European countries, however, Spain's slump in new vehicle sales has been particularly marked (-49.6% year-on-year in November).

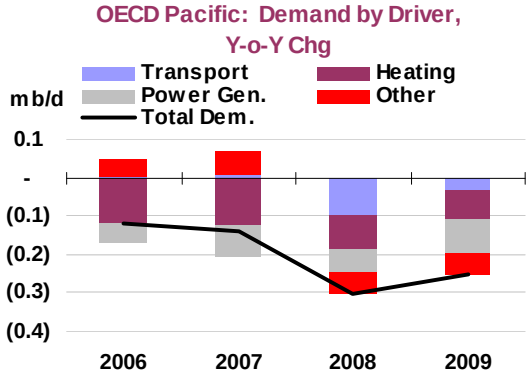
Pacific

According to preliminary data, oil product demand in the Pacific plummeted by 10.7% year-on-year in November, dragged down by persistent demand weakness in both Japan and Korea. All product categories registered losses, notably naphtha (-12.6%), jet fuel/kerosene (-8.4%), diesel (-7.0%) and heating oil (-17.0%). The shrinking deliveries of kerosene and fuel oil are arguably related to mild weather (the number of heating-degree days in November was inferior to both the 10-year average and the same month of the previous year), but the overall fall is largely related to the sharper-than-expected economic slowdown in Japan and Korea, which is sharply curbing industrial production and power consumption.



Revisions to October preliminary data totalled 60 kb/d, split roughly evenly between Japan and Korea. Coupled with the reassessment of the region's economic outlook, oil demand in the Pacific is now seen averaging 8.0 mb/d in 2008 (-3.7% on a yearly basis or -300 kb/d, 80 kb/d down versus last month's report) and 7.8 mb/d in 2009 (-3.1% or -250 kb/d, -210 kb/d versus earlier projections).





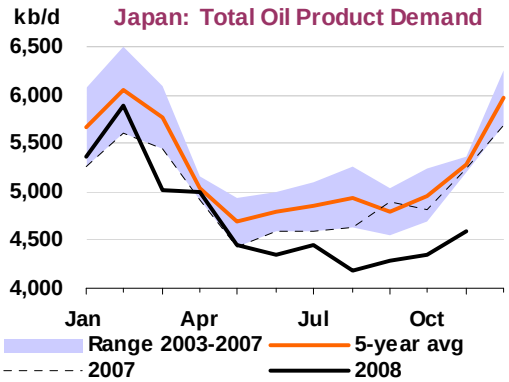
OECD Pacific Demand by Product

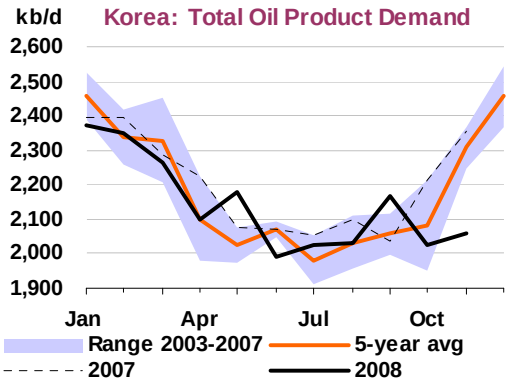
(million barrels per day)

	2007	2008	4Q07	1Q08	2Q08	3Q08	Aug 08	Sep 08	Oct 08*	Latest month vs. Sep 08	Latest month vs. Oct 07
LPG & Ethane	0.96	0.96	0.99	1.01	0.97	0.92	0.90	0.93	0.96	0.03	0.03
Naphtha	1.65	1.59	1.66	1.69	1.55	1.59	1.62	1.55	1.52	-0.03	0.00
Motor Gasoline	1.57	1.52	1.57	1.48	1.55	1.51	1.49	1.53	1.48	-0.05	-0.10
Jet & Kerosene	0.93	0.89	1.04	1.24	0.72	0.60	0.55	0.63	0.70	0.06	-0.16
Gas/Diesel Oil	1.80	1.70	1.87	1.80	1.72	1.57	1.47	1.66	1.65	-0.01	-0.20
Residual Fuel Oil	0.96	0.92	1.01	1.06	0.89	0.85	0.83	0.86	0.81	-0.04	-0.16
Other Products	0.48	0.46	0.56	0.59	0.42	0.45	0.45	0.42	0.39	-0.02	-0.08
Total Products	**8.35**	**8.04**	**8.72**	**8.87**	**7.82**	**7.50**	**7.31**	**7.58**	**7.52**	**-0.06**	**-0.69**

* Latest official OECD submissions (MOS)

Oil demand in **Japan** tumbled in November (-12.3% year-on-year), for the third consecutive month, as the economic recession compounds the country's structural oil demand decline. As such, demand for products directly associated to economic activity continues to plummet (naphtha and diesel, for example, fell by 15.1% and 10.1%, respectively). In addition, diminishing power use – as a result of reduced industrial operations – has led to lower deliveries of 'other products' (which include crude for direct burning) and residual fuel oil, which contracted by 42.5% and 2.1%, respectively. The country's largest power utility, Tokyo Electric Power Company (TEPCO), is now expecting to use 14% less crude and fuel oil over the October 2008-March 2009 period than earlier anticipated – despite the fact that its huge Kashiwazaki-Kariwa nuclear power plant is likely to remain shut. Indeed, electricity consumption from TEPCO's main industrial customers is drying up (notably from car manufacturers, which are drastically curbing production).



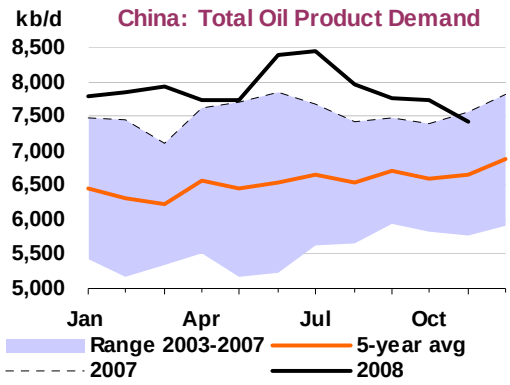


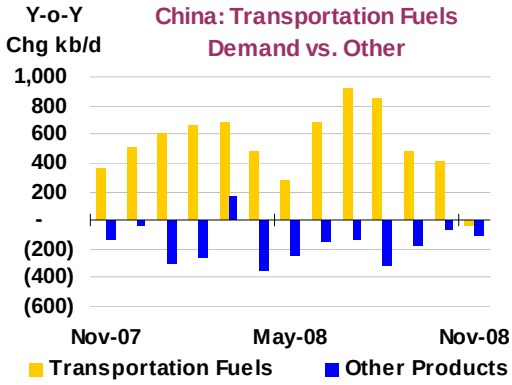
A similar situation prevails in **Korea**, where oil demand contracted by 12.6% year-on-year in November, according to preliminary data, as the economy's main engines – exports and domestic consumption – stall. Deliveries of all product categories bar gasoline thus continued to post sharp losses. Naphtha demand, which accounts for roughly 40% of the total and is the main feedstock of the petrochemical industry, dived by 10.2% year-on-year despite lower prices. Diesel deliveries, meanwhile, fell by 9.7%.

Non-OECD

China

According to preliminary November data, China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) fell by an estimated 1.9% year-on-year, for the first time since June 2005. All product categories bar gasoil posted losses, leading to a downward revision of about 450 kb/d for the month compared with our previous estimate.





Three factors may explain this abrupt fall. First, the Chinese economy is clearly losing momentum as its export markets, notably in OECD countries, dry up. The slump is more sudden than anticipated, thus prompting the sharp revision to the country's 2009 GDP outlook discussed earlier. For example, freight indicators, which had risen almost continuously over the past several years, show a dramatic slowdown. Freight-tonnes per kilometre plunged by 8.0% in November after falling by 10.0% in October, thus likely weighing on gasoil demand, which expanded by only 1.1% year-on-year – the lowest pace since May 2003. Similarly, power generation – largely driven by industrial production – fell by an unprecedented 9.6% year-on-year in November for the second month in a row, following October's -4.0%. Although this decline may be partly due to relatively mild weather, electricity output had risen almost uninterruptedly over the previous decade and a half.

Second, the fall in oil demand could also be related to some destocking, which would exaggerate the weakness of China's apparent demand (this, however, is impossible to ascertain, since Chinese stock data is virtually non-existent). Both net crude imports and refinery output fell sharply month-on-month in November (by 14.3% and 5.1%, respectively), arguably in anticipation of changes to the country's price system (see *China's Price Regime Reform: Elegant but Partial*). Moreover, even though net oil product imports jumped by 29.5% month-on-month, this resulted essentially from a 89.7% increase in net fuel oil imports (which accounted for almost 93% of the month's total). Imported residual fuel oil (generally Russian M-100, used as a feedstock by many 'teapot' refineries) became reportedly more competitive relative to domestic wholesale prices. More significantly, net gasoline exports rose by 62.2% month-on-month, underlying the new-found weakness of gasoline demand, which contracted by 0.7% year-on-year in November after rising uninterruptedly since May 2007. In the same vein, after seven consecutive months of net imports, the country became again a net exporter of jet fuel, as domestic demand plummeted (-18.5%).

Third, the smuggling of so-called 'red diesel' from Hong Kong (normally used in industry and shipping), prompted by the growing price differential between the island and mainland China as international prices retrenched, likely continued. Such contraband – anecdotally reported but by definition impossible to measure – contributes to depress our estimate of mainland distillate demand.

China's Price Regime Reform: Elegant but Partial

As anticipated in last month's report, a new oil product price regime was finally approved on 19 December by China's National Development and Reform Commission (NDRC), ostensibly to match recent developments in international oil markets. The main features of the new system include the following:

- *The immediate cut of ex-refinery and retail prices for transportation fuels*. Ex-refinery gasoline prices were reduced by 13.9% to 5,580 yuan/tonne (roughly $92/bbl), diesel prices were cut by 18.1% to 4,970 yuan/tonne ($98/bbl), and jet fuel/kerosene prices were slashed by 32.2% to 5,050 yuan/tonne. Meanwhile, gasoline and gasoil retail prices fell by roughly $21/bbl and $25/bbl, respectively.
- *The 'indirect' linkage of domestic prices to international benchmarks*. Domestic ex-refinery prices will be based on international crude oil benchmarks, to which 'average' processing costs and a 'reasonable' profit margin will be added (thus setting the 'guidance' retail price). How this will be precisely done, however, remains unclear. Unconfirmed reports suggests that if crude oil trades below $80/bbl, domestic ex-refinery prices will fluctuate freely; between $80/bbl and $130/bbl, refining margins will be curbed to minimise the impact on retail prices; above $130/bbl, the government will set retail prices.
- *The reduction of the tolerance band around guidance retail prices*. The allowed fluctuation around 'guidance' retail prices (ex-refinery prices + costs + profit margin) falls from +/-8% to +/-4%.
- *The increase of consumption taxes, to be applied from 1 January 2009 and to be absorbed by refiners*. Gasoline and diesel consumption taxes were raised by 400% to 1 yuan/litre ($23/bbl) and by 700% to 0.8 yuan ($19/bbl), respectively.
- *The abolition of road and waterway maintenance charges and tolls on second class roads*. Tolls on highways and first class roads will remain, but several constituencies (such as farmers) will be subsidised. It should be noted that the increase of fuel consumption taxes and the removal of road taxes roughly cancelled each other out.
- *The reduction of the fuel oil import tax*. The tax was slashed from 3% to 1% on 1 January 2009.

Although the new regime comes a step closer to aligning domestic prices with international benchmarks, it remains well away from more conventional, market-based mechanisms. The government has been reluctant to further reduce prices, although in mid-January it announced another – marginal – cut (-2.5% for gasoline and -3.2% for diesel, effective on 15 January). As such, a gap remains between domestic retail prices (currently at roughly US$60/bbl) and international crude prices (which hover around US$40/bbl). The price cuts will arguably ease costs for drivers, airlines and manufacturers – and help defuse social tensions over high fuel prices – but they will probably contribute less than required under the present circumstances to cushion the economic downturn.

Moreover, the country's refiners, which will absorb the increased consumption fuel taxes, will once again bear the brunt of the reform. However, China's refining sector remains financially fragile. The slide in international oil prices since the summer helped refiners to only partially recoup the losses incurred when prices skyrocketed (the price reform was allegedly delayed until December precisely for that reason). State-owned giants PetroChina and Sinopec are arguably better equipped to face the burden, but many smaller 'teapot' refineries will probably continue to operate below capacity (and in the case of the less sophisticated ones, notably in Guangdong, cease operations altogether). Indeed, the increase in fuel consumption taxes is likely to more than offset the fuel oil import tax cut. As such, the recent revival of fuel oil imports could well vanish in the months ahead.

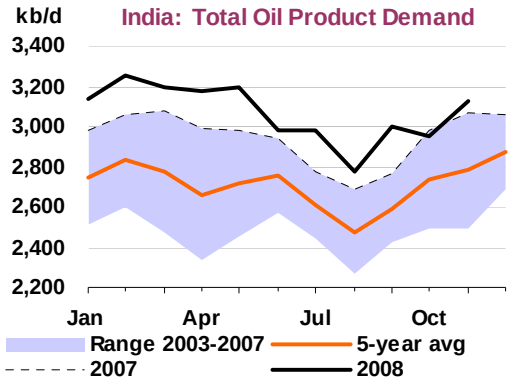
On the basis of the revisions discussed above, a lower GDP assumption and much lower expectations of naphtha, gasoline and gasoil consumption (which together account for almost two-thirds of total oil product use), Chinese oil demand is now expected to rise by only 1.1% to 7.95 mb/d in 2009 (270 kb/d less than previously anticipated), well below the 4.2% growth rate expected in 2008 (to 7.86 mb/d, almost 80 kb/d below versus our previous forecast). The 2009 year-on-year growth (+90 kb/d) would thus be the lowest since 2001. As shown in the table below, growth is expected to be marginal for most product categories bar residual fuel oil (which is seen expanding on the admittedly strong assumption of sustained competitive import prices). As such, this forecast is bound evolve as the current state of the Chinese economy becomes clearer. In addition, the effectiveness of the new price regime – in terms of its impact upon demand patterns – will be tested in the months ahead.

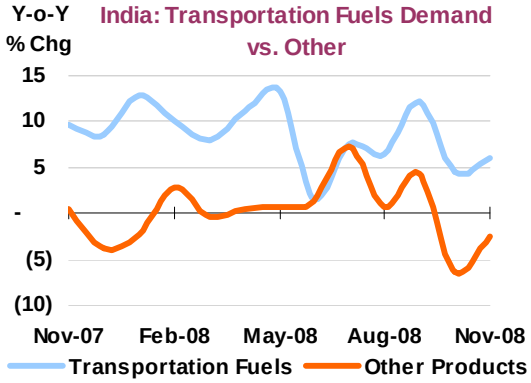
China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	669	611	615	-58	3	-8.6	0.5
Naphtha	812	794	821	-18	26	-2.2	3.3
Motor Gasoline	1,257	1,429	1,428	172	-1	13.7	-0.1
Jet & Kerosene	280	288	305	9	16	3.2	5.7
Gas/Diesel Oil	2,576	2,882	2,901	306	20	11.9	0.7
Residual Fuel Oil	744	596	638	-148	43	-19.9	7.2
Other Products	1,204	1,261	1,244	57	-17	4.7	-1.4
Total Products	**7,542**	**7,862**	**7,951**	**320**	**89**	**4.2**	**1.1**

Other Non-OECD

According to preliminary data, **India's** oil product sales – a proxy of demand – rose by 2.0% year-on-year in November, resuming the growth trend that had been briefly interrupted in October (-0.8%, after accounting for data revisions). The increase was largely driven by strong gasoline (+5.8%) and gasoil (+8.8%) demand, which are subsidised (demand for both fuels probably rose further in December following the retail price cuts). Fuel oil sales also rose markedly (+9.7%), possibly due to both higher power needs and less availability of both natural gas (LNG) and naphtha, which are mainly used by the petrochemical industry. The government, however, is seeking to provide cheaper naphtha as an alternative to more expensive LNG; in early December it waived (until 31 March 2009) the 5% naphtha import duty. The move should help utilities and other industries that are able to switch fuels (such as steel producers and, to a lesser extent, fertiliser producers).





The relative strength of India's oil demand does not mean that the country is insulated from the global economic downturn. Given the country's subsidy regime, the burden will mostly be borne by the government or, more precisely, by state-owned oil companies, which are expected to collectively lose some $21 billion in the current fiscal year ending 31 March. Assuming the Indian economy slows down

slightly – albeit less markedly than other Asian countries – oil demand, estimated at 3.1 mb/d in 2008 (+4.3% on a yearly basis and unchanged versus our last report), is expected to expand by 3.0% to 3.2 mb/d in 2009 (25 kb/d less than previously expected).

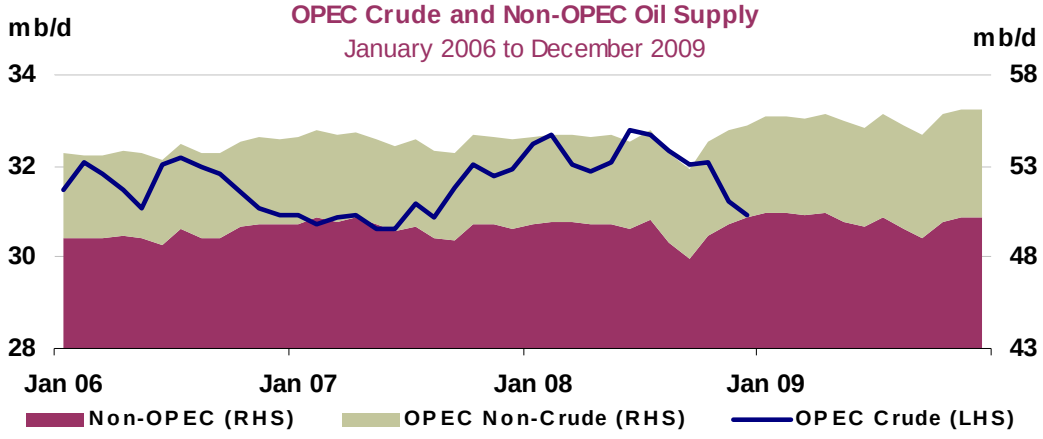
Yet the subsidies appear to be insufficient – that is, prices are still perceived to be too high by some constituencies. In early January, tens of thousands of Indian truck drivers, notably in Gujarat, went on strike demanding additional reductions in diesel retail prices. The truckers' reaction is partly related to the fact that the government had not further revised diesel prices down since the cut in early December – but had continued to slash jet fuel prices in a bid to help domestic airlines. As a result, jet fuel is now cheaper than diesel – India is possibly the only country in the world where this occurs. Still, the truckers' strike lost steam and was called off a few days later. It should be noted that, at the time of writing, the government was reportedly envisaging further price cuts to gasoline, diesel and LPG.

More significantly, some 50,000 employees from several state-owned oil companies and utilities (IOC, ONGC, BPCL, OIL and GAIL) went also on strike on 7 January, demanding higher pay. This strike was called off three days later after the government issued stern warnings to strikers to return to work or face harsh consequences, but it nonetheless severely disrupted oil refining operations and product deliveries, notably to retail outlets and airports. For example, most service stations in large cities such as Mumbai, Delhi, Bangalore and Kolkata had reportedly run out of stocks. As such, oil demand data for January are likely to register unseasonal weakness, but at this point it is difficult to estimate the strikes' impact.

SUPPLY

Summary

- **Global oil supply was unchanged in December at 86.2 mb/d**, with reduced OPEC output offset by gains in OECD North America, Brazil and China. Year-on-year, monthly average production is down around 200 kb/d , largely due to recent OPEC production curbs having taken output well below December 2007 levels.
- **Non-OPEC forecasts for 4Q08 and 1Q09 are revised down by 140 kb/d and 90 kb/d, respectively**, following several oil field-related incidents and some project slippage in Brazil, China and Russia, though this is partly offset by a higher 4Q08 number for Norway.
- **Total non-OPEC output is now forecast at 49.5 mb/d and 50.0 mb/d for 2008 and 2009**, following downward revisions of 60 kb/d and 30 kb/d, respectively. This implies a year-on-year drop of nearly 150 kb/d for 2008, the first decline since 2005. Disrupted US and Azeri supply in 2008 was compounded by the first decline in Russian output since 1996. Renewed 2009 non-OPEC growth of around 0.5 mb/d derives from the Caspian, US ethanol, offshore GOM, Brazil and OECD and non-OECD Asia. Moreover, OPEC NGLs are forecast to add a further 0.6 mb/d to total supply in 2009.
- **December OPEC crude supply** averaged 30.9 mb/d, down 330 kb/d versus November. This was 1 mb/d below levels of both a year ago and those of September 2008, and almost 2 mb/d below mid-2008 highs. Supply curbs were widespread, most notably from Saudi Arabia and Kuwait, albeit partly offset by increases from Iran, the UAE and Iraq. OPEC Ministers agreed a new collective target of 24.8 mb/d effective from January. Leaving aside for now Indonesia's OPEC membership suspension, this equates to OPEC-13 output of around 28.2 mb/d, versus a now-reduced 2009 'call' of between 29.5-30.0 mb/d.



Entire series based on OPEC Composition as of December 2007 onwards (including Angola & Ecuador)

All world oil supply figures for December discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, and Russia are supported by preliminary December supply data.

Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

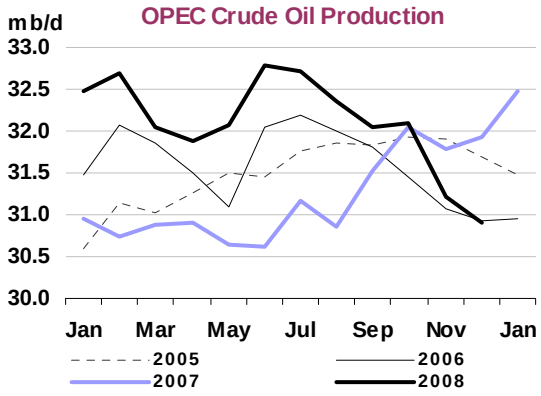
OPEC Crude

OPEC crude supply in December averaged 30.9 mb/d, down 330 kb/d versus November. The December total was 1 mb/d below both levels of a year ago and our own estimate for September 2008, the apparent reference point for recent adjustments in OPEC target. It was, however, a more fulsome 2 mb/d below the recent high point in production attained in June 2008. December curbs in supply were widespread, and volumetrically most significant from Saudi Arabia and Kuwait. However, these cuts were partly offset by increases from Iran, the UAE and Iraq, with the latter two seeing, respectively, field recovery after maintenance and higher supplies for export in December.

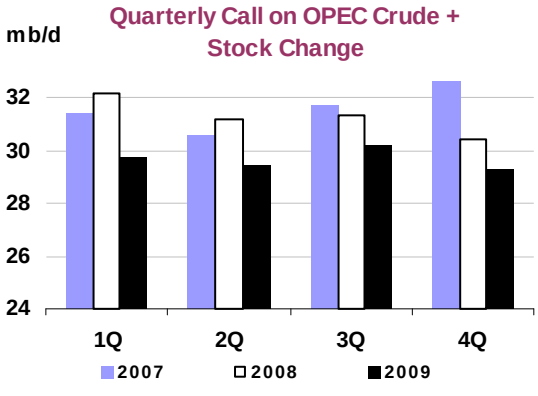
This month's installed OPEC capacity estimates remain unchanged from last month, totalling 35.8 mb/d. Nonetheless, as producers cut supply to keep pace with weakening demand, so spare capacity is inevitably freed up, potentially undermining OPEC's efforts to support prices. While notional spare capacity is approaching 5 mb/d, we think that readily available, effective spare capacity may be closer to 3.8 mb/d based on December production levels. This latter level excludes notional spare capacity held by producers who have, for some time, experienced problems boosting supply, namely Indonesia, Iraq, Nigeria and Venezuela (Indonesia's OPEC membership is suspended from January 2009, and remains in our estimates here, but will be removed from OPEC calculations in next month's report).

Regardless of the ambiguities of spare capacity, it is clear that if OPEC continues to reduce supply in early 2009, as looks likely, one side effect could be a wider margin of spare capacity, something that has tended in the past to eventually undermine OPEC attempts at production discipline. While lower prompt volumes appear to be placing a floor under prices currently, ironically the emergence of a wider capacity margin, if it begins to unravel production discipline, could dilute this support for prices. A Saudi Arabia-driven increase in OPEC installed capacity of nearly 1.0 mb/d is expected during 2009, potentially exacerbating the gap between early-year market demand and supply potential. That said, the immediate fact is that OPEC's target, if realised, lies below our underlying 'call on OPEC crude and stock change' for 2009 of 29.5-30.0 mb/d, so tighter stocks will accompany any rise in spare capacity.

We have trimmed our November estimate for **Saudi Arabia's** production from 9.05 mb/d to 8.9 mb/d, but struggle to corroborate lower third party November estimates of 8.5-8.8 mb/d with tanker tracking data. However, sharply lower supply does look more likely for December, and this is provisionally estimated at 8.45 mb/d. Term export allocations for January and February to Asian and North American destinations have also been cut sharply, with some suggestions in the market that output may have been curbed to 8.0 mb/d this month, and potentially as low as 7.7 mb/d for February. US buyers have seen the sharpest cuts for February. Already in December the Kingdom was producing within 5% of its *January* target, and concerns over global demand slowdown may already have pushed supply close to the Kingdom's 8.0 mb/d quota.



Entire series based on OPEC Composition as of December 2007 onwards (including Angola & Ecuador)



Entire series based on OPEC Composition as of December 2007 onwards (including Angola & Ecuador)

More Credible Than It First Seemed?

A flurry of cuts to OPEC production targets for 4Q08 matched frequent GDP revisions from economic forecasters. OPEC Ministers on 17 December agreed a new collective production target of 24.8 mb/d, excluding Iraq and Indonesia, and effective from 1 January. Leaving aside for now Indonesia's departure from the OPEC fold, this is equivalent to total OPEC-13 output of around 28.2 mb/d, compared with our own, now markedly lower, 2009 'call on OPEC crude and stock change' of just under 30 mb/d. However, December supply stood 1 mb/d above expected demand for next year, with forward stock cover also above normal, in excess of 56 days' supply, something that OPEC has in its sights to reduce.

The OPEC meeting in Oran, Algeria on 17 December had been widely expected to agree further cuts in supply of up to 2.0 mb/d. In the event cuts totalling 4.2 mb/d were announced, although the reference point was OPEC's *Monthly Oil Market Report* assessment of September supply, specifically 29.05 mb/d for the OPEC-11 (excluding Iraq and Indonesia). Thus, new cuts over and above those supposedly in place from 1 November were closer to 2.2 mb/d. New individual production targets were not itemised. The decision to dress up a 2.2 mb/d cut as a 4.2 mb/d cut, however, appeared to backfire, with marker crude prices falling in the meeting's aftermath (albeit high US stocks also played a role). Continued weak economic indicators and further weekly builds in US inventories have continued to weigh on prices, although some renewed market support did come from the outbreak of conflict in Gaza, colder European weather, curbed Russian gas supplies and signs that OPEC cuts themselves were beginning to bite in late December/early January.

While individual production targets remain hazy, and it is too early to gauge compliance with the latest production accord (which only came into force on 1 January), the agreement to curb by 2.2 mb/d was nonetheless a record in terms of previous announced reductions. Evidence from December suggests that key members of OPEC are beginning to curb supply by significant amounts. Our estimate of December OPEC-11 production of 27.7 mb/d was within 2% of the 1 November target, something emphasised in a mid-January statement from the OPEC Secretary General which suggested that "… there has been an almost 100% compliance with the first two cuts...". Our calculations suggest, moreover, that December output was itself within 11% of the new January target of 24.8 mb/d.

OPEC Crude Production[1]
(million barrels per day)

	OPEC est for Sep 2008 Supply	Nov 2008 Supply	Dec 2008 Supply	Sustainable Production Capacity[2]	Spare Capacity vs Dec 2008 Supply	November Target	Cut from 1 January 2009[6]	Implied January Target[6]
Algeria	1.40	1.36	1.34	1.40	0.06	1.29	-0.20	1.20
Angola[1]	1.76	1.83	1.80	2.05	0.26	1.80	-0.26	1.51
Ecuador[1]	0.50	0.50	0.49	0.50	0.01	0.49	-0.07	0.43
Iran	3.90	3.76	3.88	4.00	0.12	3.62	-0.56	3.33
Kuwait[3]	2.60	2.59	2.51	2.65	0.14	2.40	-0.38	2.22
Libya	1.72	1.71	1.72	1.80	0.08	1.62	-0.25	1.47
Nigeria[4]	1.99	1.90	1.90	2.65	0.75	2.05	-0.29	1.70
Qatar	0.85	0.82	0.81	0.90	0.09	0.79	-0.12	0.73
Saudi Arabia[3]	9.37	8.90	8.45	11.00	2.55	8.47	-1.36	8.01
UAE	2.60	2.30	2.43	2.87	0.44	2.44	-0.38	2.23
Venezuela[5]	2.35	2.35	2.35	2.60	0.25	2.34	-0.34	2.01
OPEC-11	**29.05**	**28.01**	**27.67**	**32.42**	**4.75**	**27.31**	**-4.20**	**24.85**
Indonesia		0.85	0.84	0.85	0.01			
Iraq		2.37	2.39	2.50	0.11			
Total OPEC		**31.23**	**30.90**	**35.77**	**4.87**			
(excluding Indonesia, Iraq, Nigeria, Venezuela					*3.75)*			

1 Angola joins OPEC effective 1 January 2007, Ecuador from December 2007.
2 Capacity levels can be reached within 30 days and sustained for 90 days.
3 Includes half of Neutral Zone Production.
4 Nigeria excludes some 0.5 mb/d of shut-in capacity.
5 Includes Orinoco extra-heavy oil assumed at 530 kb/d in December.
6 Cuts refer to OPEC's own estimate of September 2008 production

As usual however, there is variation in the degree of compliance among OPEC members, with Saudi Arabia and the UAE facing a requirement to cut by only a further 5-10% to attain target output (which they appear already to have done since December). Others such as Iran, Angola and Libya are facing more substantial cuts of 15-20% if target is to be attained. That said, most producers have announced further cuts in supplies for January and February. OPEC Ministers plan to meet again formally on 15 March in Vienna.

Demand uncertainty and cost issues have reportedly caused the cancellation of bids for the 75 kb/d upstream Dammam project and have forced a review also of the 900 kb/d Manifa field development. However, Saudi sources have been keen to reiterate that short-term plans for 12-12.5 mb/d capacity to be attained during 2009 remain in place. This report estimates current installed Saudi Arabian crude capacity (excluding condensates and Bahrain's 150 kb/d share of output from the Abu Safah field) at 11.0 mb/d.

The hijacking of a 2 mb cargo of Saudi crude aboard Vela's Sirius Star tanker reportedly ended on 9 January, after a near-two month standoff. The vessel was freed off the Somalia coast amid reports that a $3 million ransom had been paid. A surge in hijacking around the Horn of Africa and the Gulf of Aden has seen the formation of an international task force of vessels from 20 nations to combat piracy in the area.

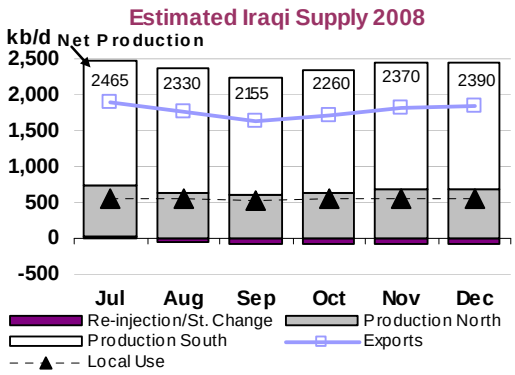
Kuwait is thought to have cut supply by some 80 kb/d in December to 2.5 mb/d. The emirate's approach to curbing supplies has initially involved the removal of 5% upside tolerance from term export liftings. Full-term volumes were offered for January in early December, again with tolerance removed, but reportedly liftings from the third week of January onwards will be curbed by a further 5%.

Angolan crude production is now estimated at 1.83 mb/d for November and 1.8 mb/d for December. While last month saw production fall into line with the country's November target, it still remained above the new implied January target of 1.51 mb/d. International operators were reportedly instructed by state company Sonangol to curb production from 1 January, although preliminary data showing revised February export schedules around 1.6 mb/d suggest Angola still has some way to go to get down to its January OPEC allocation.

In contrast, December **UAE** crude supply is estimated up by 130 kb/d from November to 2.43 mb/d, amid signs of higher tanker sailings and the expected return of the Umm Shaif and Lower Zakum fields from October/November maintenance. These indicators likely countered lower output of onshore Murban crude to push December output higher. Here too though, January and February availability looks likely to be scaled back, following December's reduction of the Emirates' OPEC quota to around 2.2 mb/d.

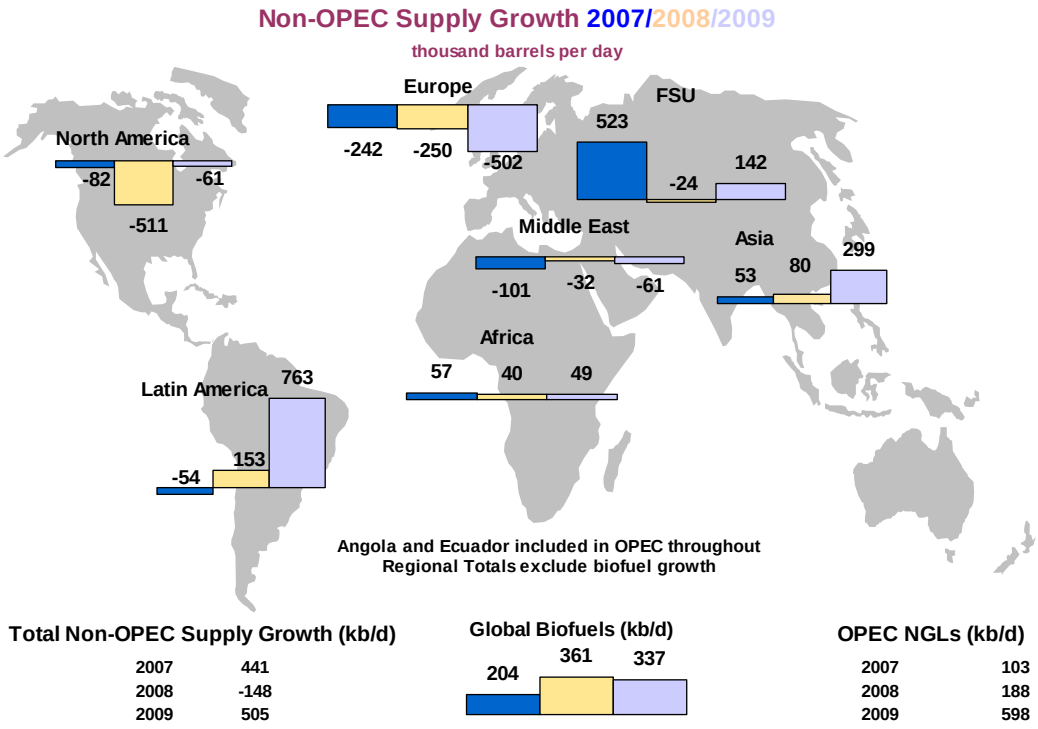
Iranian December supply is also assessed up by 120 kb/d from November at 3.88 mb/d based on preliminary indications for both exports and domestic refinery activity. This suggests Iran would need to cut supply by a sizeable 560 kb/d starting in January to match its target output level of 3.33 mb/d. Although no curbs on December export loadings were made public, Iran does appear to have been scaling back liftings on both a spot and term basis for both January and February, and has itself cited cuts in supply of around 550 kb/d that it intends to make from January.

Iraqi supply in December is estimated up by 20 kb/d compared with November, at 2.39 mb/d, comprising 1.84 mb/d of exports and 550 kb/d of local use. Our November supply estimate was revised up 40 kb/d to 2.37 mb/d, largely on the basis of higher Ceyhan exports than preliminary data had suggested. In the event, 10.1 mb of Kirkuk crude left Ceyhan by tanker in November plus around 625 kb of pipeline crude destined for Turkey's Kirikkale refinery. Tanker liftings from Ceyhan rose to 10.9 mb in December, although no crude moved to Kirikkale. Crude exports from southern ports averaged 1.48 mb/d in December compared with 1.45 mb/d in November. Around 20 kb/d is estimated to have moved cross-border to Jordan and Syria in both months.

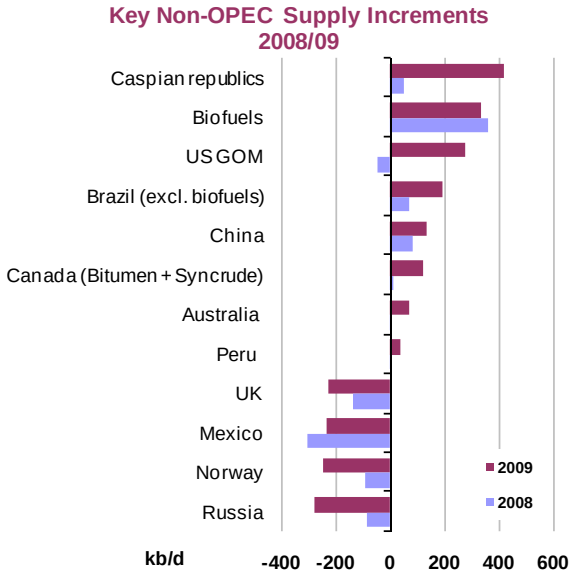


Non-OPEC Overview

Forecast total non-OPEC production for 4Q08 and 1Q09 has been revised down by 140 kb/d and 90 kb/d respectively, with unscheduled outages and project slippage recorded across most regions, both OECD and non-OECD. An historical downward revision to Sudan is carried through 2008 and into 2009. Some key start-ups in Brazil, China and Russia (Sakhalin-2 year-round export capability) have been delayed, while we have nudged down growth in Russia, New Zealand and Kazakhstan for 2009. Offsetting these changes is a substantially higher 4Q08 figure for Norway, which stems in part from higher actual data, but also from the deduction of our field reliability adjustment factor, now that the end of the year has passed without major incidents.



Total non-OPEC output is now set to come in at 49.5 mb/d and 50.0 mb/d for 2008 and 2009, following downward revisions of 62 kb/d and 34 kb/d respectively. This in turn implies a year-on-year dip of almost 150 kb/d for 2008, the first decline since 2005. Non-OPEC supply in 2009 is currently expected to grow by just over 500 kb/d on the back of large start-ups in the Caspian, US fuel ethanol, the US Gulf of Mexico and Brazil as well as both OECD and non-OECD Asia. 2008 is probably most notable as the first year in which Russian production has declined since 1996 (when it was down 130 kb/d), as economic and fiscal conditions for investment worsened, slowing the pace of new projects. Our current outlook also forecasts a further decline in Russian 2009 production of 280 kb/d.



It is still too early to form a definitive view on the extent of cuts in capital expenditure or strategic project slippage due to the combined impact of the financial crisis, a contraction in oil demand and

significantly lower oil prices. Many companies have only just started to outline their capex plans for this year and beyond.

However, anecdotally the message is fairly stark, even if the impact may be felt more squarely on future, rather than 2009, production. For example, Singapore rig builder Keppel has announced that two orders for new rigs have been cancelled as a result of the credit squeeze. We note elsewhere Saudi Arabia's slipping of two of its next generation of capacity expansion projects, and more generally, analysts at Barclays Capital now expect 2009 upstream capex worldwide to contract by 12% after several years of double-digit growth. Lower oil prices and the credit squeeze are likely to have played a greater role than a somewhat lagged reduction in project costs in driving this decrease. We will continue to track these developments in the months ahead.

Revisions to Non-OPEC Oil Supply
(million barrels per day)

	Last month's OMR				This month's OMR				Change			
	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08
North America	13.95	14.03	-0.32	0.08	13.94	14.04	-0.33	0.10	-0.01	0.01	-0.01	0.02
Europe	4.69	4.19	-0.26	-0.49	4.72	4.22	-0.24	-0.49	0.03	0.03	0.03	0.00
Pacific	0.66	0.75	0.03	0.10	0.65	0.73	0.02	0.09	-0.01	-0.02	-0.01	-0.01
Total OECD	**19.30**	**18.98**	**-0.55**	**-0.32**	**19.30**	**19.00**	**-0.54**	**-0.31**	**0.01**	**0.02**	**0.01**	**0.01**
Former USSR	12.77	12.97	0.00	0.20	12.74	12.89	-0.02	0.14	-0.02	-0.08	-0.02	-0.06
Europe	0.12	0.11	-0.01	-0.01	0.12	0.11	-0.01	-0.01	0.00	0.00	0.00	0.00
China	3.81	3.92	0.09	0.11	3.81	3.95	0.08	0.14	0.00	0.02	0.00	0.03
Other Asia	2.63	2.70	-0.03	0.07	2.64	2.71	-0.03	0.08	0.01	0.01	0.01	0.01
Latin America	4.02	4.32	0.17	0.30	4.02	4.33	0.16	0.31	-0.01	0.01	-0.01	0.02
Middle East	1.61	1.55	-0.03	-0.06	1.61	1.55	-0.03	-0.06	0.00	0.00	0.00	0.00
Africa*	2.63	2.66	0.08	0.02	2.59	2.64	0.04	0.05	-0.04	-0.01	-0.04	0.03
Total Non-OECD*	**27.60**	**28.23**	**0.26**	**0.63**	**27.53**	**28.18**	**0.19**	**0.65**	**-0.07**	**-0.05**	**-0.07**	**0.02**
Processing Gains	2.24	2.29	0.07	0.04	2.24	2.29	0.07	0.04	0.00	0.00	0.00	0.00
Other Biofuels	0.46	0.58	0.13	0.12	0.46	0.58	0.13	0.12	0.00	0.00	0.00	0.00
Total Non-OPEC*	**49.60**	**50.08**	**-0.09**	**0.48**	**49.54**	**50.04**	**-0.15**	**0.51**	**-0.06**	**-0.03**	**-0.06**	**0.03**

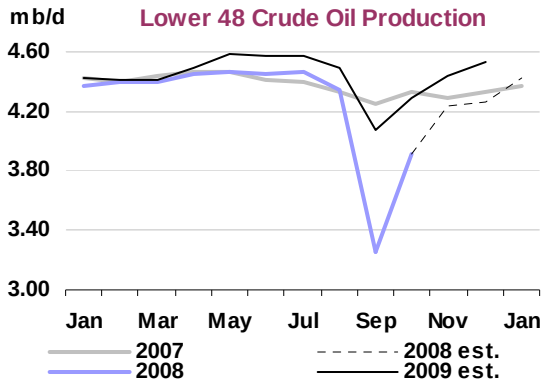
OMR = Oil Market Report
* adjusted to exclude Angola and Ecuador throughout

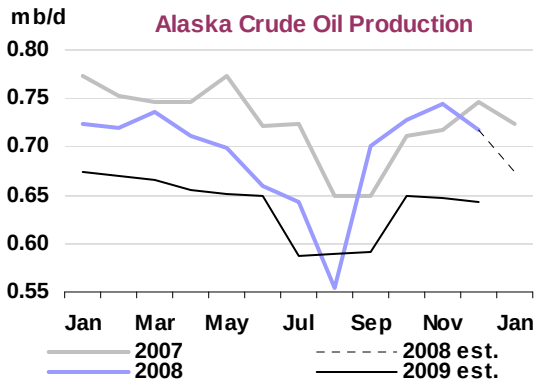
OECD

North America

US – December Alaska actual, others estimated: December supply in the US came in 70 kb/d lower than expected, based on preliminary data. A brief outage shut in the Trans-Alaska Pipeline (TAPS) at the end of December, forcing a slowing of production, but this was rapidly resolved. Despite the outage, final Alaskan December numbers actually came in around 50 kb/d higher than anticipated, but still fell by nearly 30 kb/d on the month. In the US Gulf of Mexico, we have now assumed a slightly earlier start-up of BP's huge Thunder Horse platform, which we assume to be currently running at around 100 kb/d liquids production. We have also assumed the start-up of Eni's Pegasus field in the Green Canyon area, though this is running at only 1 kb/d of its expected eventual 5 kb/d capacity. Adjustments elsewhere however partly offset the impact of these revisions, resulting in 4Q08 and 1Q09 revisions of -30 kb/d and 30 kb/d respectively, but almost no net change for the two years as a whole.

According to the US Minerals Management Service (MMS), nearly 200 kb/d of US Gulf of Mexico production was still shut-in in December due to hurricane damage. Our working assumption is that this daily volume will stay shut in until the end of March, by which time repairs to infrastructure should have been completed.

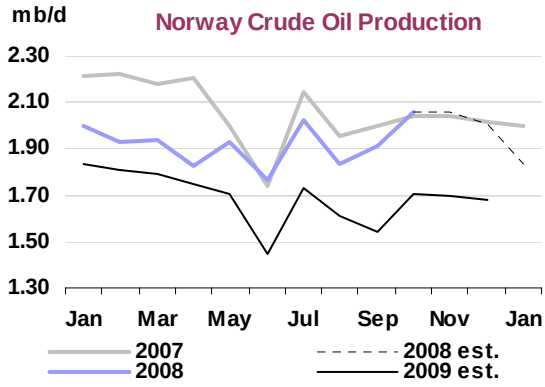


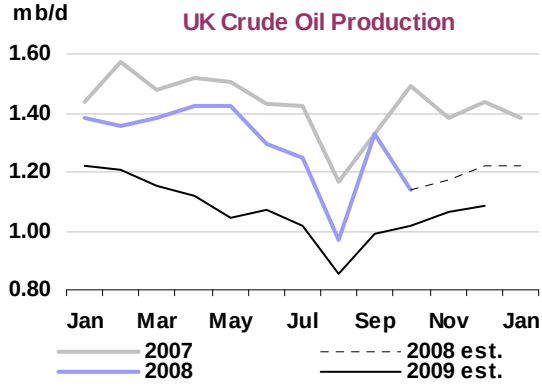


Canada – Newfoundland November actual, others October actual: Newest data for October and November brought slight downward revisions of 34 kb/d and 15 kb/d respectively, though this is marginal for yearly production. Looking forward, producer group the Canadian Association of Petroleum Producers (CAPP) has trimmed its forecast for Albertan oil sands to 1.22 mb/d for 2008 and 1.44 mb/d in 2009 – each revised down by 90 kb/d. Our corresponding numbers currently stand at 1.22 mb/d and 1.34 mb/d respectively.

North Sea

Norway – November actual: Total October Norwegian output was trimmed by 20 kb/d, while November production was raised by 170 kb/d, leading to a higher 4Q08 total figure of 2.56 mb/d. The latter adjustment however once again stems from the removal of our assumed field reliability factor, which we currently hold at -160 kb/d. Thus, the upward-revised November figure is not carried forward further than December, which also sees a higher figure (+200 kb/d). Year-on-year, we now see 2008 and 2009 each around 30 kb/d higher than in the last report at 2.47 mb/d and 2.23 mb/d respectively, thus implying a downturn next year of 240 kb/d.

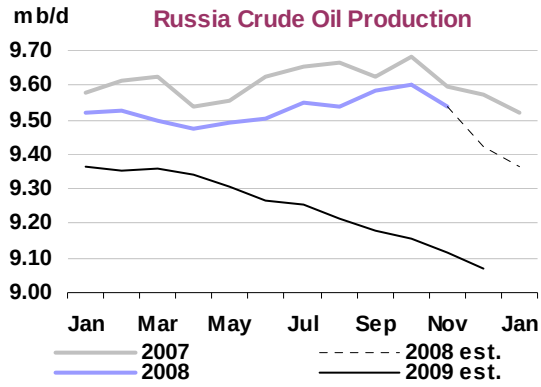


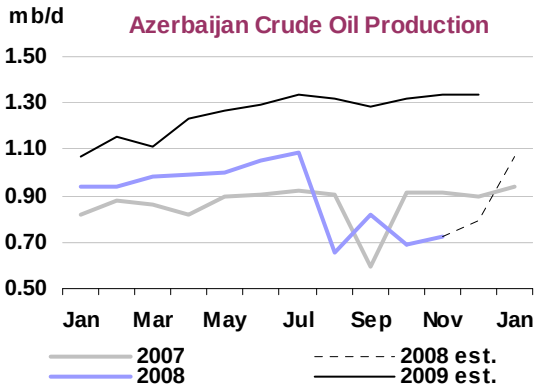


Former Soviet Union (FSU)

Russia – November actual, December provisional: Russian November and December data were revised down sharply, largely on the assumption that Sakhalin-2 year-round exports, due to start in late November, are running at far lower daily volumes than previously assumed. We have carried this forward into early 2009, after which new infrastructure should see production ramp up to a total of 150 kb/d by year end. Preliminary December figures for total Russian oil also indicate a downward revision of around 200 kb/d, some of which may be related to lower exports due to prohibitively high export duties (though this has been reformed subsequently).

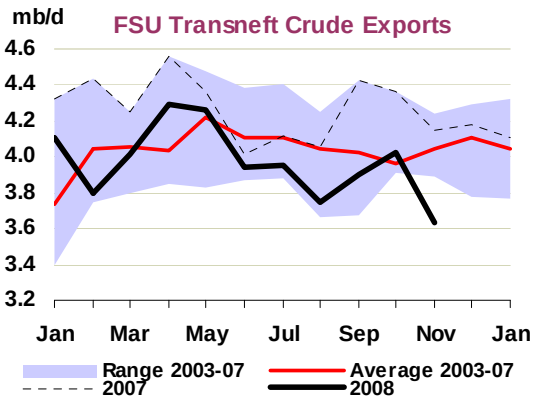
Overall, end-year figures, albeit provisional, now clearly indicate a year-on-year decline for Russian oil production, its first since 1996. We now see total Russian supply at 10 mb/d in 2008. Looking ahead, we have also nudged down 2009 production on the basis of less optimistic company forecasts as well as the slower-than-anticipated Sakhalin-2 ramp-up. Thus our 2009 total Russian supply figure now stands at 9.7 mb/d, implying a yearly fall of 280 kb/d. However, declining Russian output would appear to be due more to a punitive fiscal and regulatory regime, which is impeding investment, rather than to voluntary output curbs in support of OPEC.





Azerbaijan – October actual: Azeri production numbers for October and the rest of the year are raised due to upward-revised SOCAR output data and an assumed faster restart of the Central Azeri offshore platform. The latter is part of the ACG complex which suffered outages due to a gas leak in the autumn. Thus 4Q08 production is upped by nearly 70 kb/d, followed by an additional 20 kb/d spread over next year. With an assumed 370 kb/d increment expected in 2009, Azerbaijan is one of the key growth areas for non-OPEC production, with total output rising to 1.26 mb/d, from 0.9 mb/d in 2008.

November FSU net exports fell to 8.11 mb/d as a 110 kb/d rise in product exports was not enough to offset a 290 kb/d drop in crude oil exports to 5.64 mb/d. Prohibitively high Russian crude export duties, which lagged the fall in oil prices, were the main factor behind the decrease. In order to avoid losses, exporting companies shifted cargoes scheduled to be loaded in the second half of November to the beginning of December, which resulted in the lowest crude oil export levels from Russia in almost five years. Black Sea ports were hit hardest by this decision as exports from Novorossiysk and Pivdenne decreased by 22% and 72%, respectively from October, which is more than the seasonal dip. Shipments to Baltic ports and via the BTC, however, increased compared with October, though part of this was due to resolution of previous production problems at Azeri oilfields and maintenance on the pipeline leading to Primorsk.



Product exports rose to 2.53 mb/d in November led by a 9% increase in deliveries of gasoil, notably deliveries of 10 ppm diesel to Europe. Fuel oil and other product exports rose by 2% and 3%, respectively.

According to preliminary numbers, December FSU crude oil exports increased sharply as the Russian crude export duty was cut to $26/bbl from 1 December and cargoes originally scheduled for November finally left ports. Transneft reported a 17.8% increase in Russian crude oil exports in December. Exports of Caspian crude via the BTC pipeline also rose sharply in December, close to 800 kb/d levels seen ahead of pipeline and field outages from August onwards. The export duty has been cut further in January to

$16/bbl, though Transneft's pipeline tariffs increased. Nonetheless, January loading schedules show exports contracting by 8% as compared with December loading schedules.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2006	2007	4Q2007	1Q2008	2Q2008	3Q2008	Sep 08	Oct 08	Nov 08	Latest month vs. Oct 08	Latest month vs. Nov 07
Crude											
Black Sea	2.22	2.18	2.10	1.97	2.26	1.99	1.88	2.22	1.99	-0.23	-0.04
Baltic	1.55	1.59	1.61	1.41	1.57	1.40	1.47	1.32	1.42	0.10	-0.07
Arctic/FarEast	0.15	0.32	0.31	0.27	0.28	0.35	0.37	0.44	0.31	-0.13	0.00
BTC	0.00	0.55	0.61	0.71	0.75	0.63	0.71	0.38	0.60	0.22	-0.06
Crude Seaborne	4.07	4.63	4.62	4.35	4.86	4.38	4.43	4.36	4.31	-0.05	-0.18
Druzhba Pipeline	1.20	1.13	1.13	1.14	1.07	1.05	1.07	1.12	1.04	-0.09	-0.12
Other Routes	0.38	0.44	0.43	0.40	0.43	0.44	0.47	0.44	0.30	-0.15	-0.14
Total Crude Exports	5.64	6.20	6.18	5.89	6.36	5.86	5.97	5.93	5.64	-0.29	-0.43
Of Which: Transneft	4.22	4.27	4.23	3.97	4.17	3.87	3.90	4.02	3.63	-0.39	-0.52
Products											
Fuel oil	0.95	1.10	1.08	1.16	1.11	1.04	0.98	1.02	1.04	0.02	-0.08
Gasoil	0.95	0.95	0.96	1.06	1.02	0.79	0.74	0.83	0.90	0.07	0.03
Other Products	0.61	0.60	0.56	0.64	0.60	0.57	0.54	0.57	0.58	0.02	0.01
Total Product	2.51	2.65	2.60	2.86	2.73	2.40	2.26	2.42	2.53	0.11	-0.04
Total Exports	8.16	8.85	8.78	8.75	9.08	8.26	8.23	8.35	8.17	-0.18	-0.47
Imports	0.04	0.04	0.04	0.05	0.03	0.05	0.06	0.04	0.06	0.02	0.02
Net Exports	8.12	8.82	8.74	8.71	9.05	8.21	8.17	8.31	8.11	-0.20	-0.49

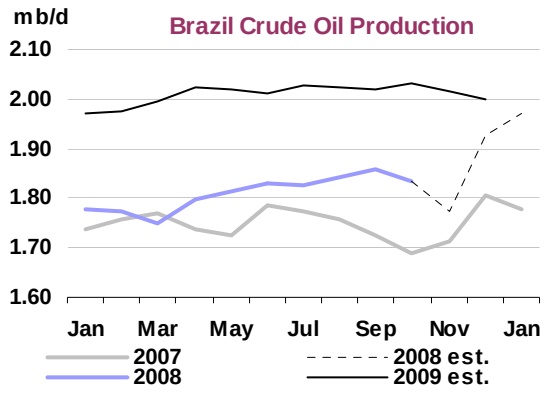
Sources: Petro-Logistics, IEA estimates

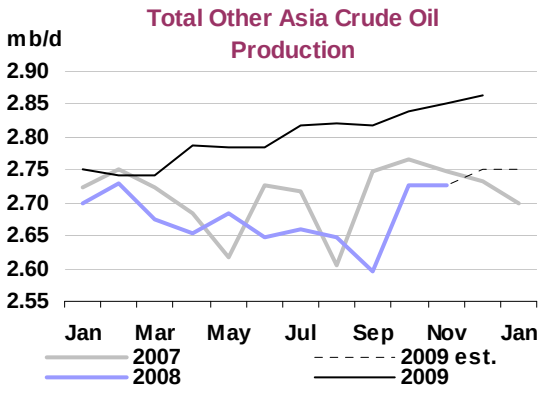
Note: Transneft data has been revised to exclude Russian CPC volumes.

For the longer term, the Caspian Pipeline Consortium's shareholders have signed an agreement on the expansion of the CPC pipeline after BP, who was opposing the scheme, agreed to sell its stake. The project should raise the capacity of the pipeline, which runs from the Tengiz oil field in Kazakhstan across Russia to Novorossiysk on the Black Sea, from around 750 kb/d to over 1.30 mb/d by 2013.

Other Non-OPEC

Brazil – October actual: Brazilian production data for October came in some 36 kb/d higher than anticipated, though on a quarterly basis this was more than offset by the later-than-anticipated start-up of Petrobras's new Marlim Leste P-53 platform offshore in the Campos Basin in early December. The platform had delayed first production several times from an original start-up estimate of 2007 and we most recently had included initial volumes from October 2008. Meanwhile, a failed valve at the Jubarte field's P-34 platform briefly halted production in early January, though news reports indicate this was not long lasting and we have not carried through the outage further than January. We now see total Brazilian oil production at 2.27 mb/d in 2008, rising by around 250 kb/d to just over 2.5 mb/d in 2009.





Non-OECD Asia: China saw the start-up of its first commercial coal-to-liquids (CTL) plant in December, but at a negligible volume and only gradually ramping up by end-2009. Shenhua's plant in Inner Mongolia has a capacity of 20 kb/d. This is one of two CTL projects to go ahead in China, after more ambitious plans for a higher number of plants was scaled down last year. Elsewhere in China, we have noted the delay in the start-up of the offshore Penglai 2 increment, which also commenced ramp-up around end-year rather than the previously assumed September. A new FPSO should add around 50 kb/d by end-2009. **Vietnam** meanwhile saw the start-up of the offshore Song Doc field in December, again delayed several times over the course of 2008. We are assuming a gradual ramp-up to maximum production of 25 kb/d by mid-2009. In the **Philippines**, the recently inaugurated Galoc field was shut-in in late December, when its FPSO was disconnected due to bad weather. It is due to come online again by end-January. Lastly, actual production figures for **India** in November came in around 20 kb/d, slightly higher than expected at 830 kb/d in November. Total non-OECD Asian production (including China) in 2008 is forecast at 6.45 mb/d, set to rise to 6.66 mb/d in 2009.

Sudan: A reassessment of Sudanese production on the basis of new statements by the Oil Ministry led us to revise down 2008 numbers by an average of 40 kb/d. Carrying this through to around mid-year implies a downward revision for 2009 of a further 15 kb/d. Ongoing violence, project slippage, a lack of investment and a partial sanctions regime would appear to be curbing previously announced expansion plans. Overall, output is now seen averaging 480 kb/d in 2008 and 500 kb/d in 2009.

OPEC NGLs

Around 30 kb/d is trimmed from estimated OPEC NGL and condensate production for the second half of 2008, spread across the UAE, Indonesia and Angola. The same countries see a collective 65 kb/d cut from forecast 2009 NGL production. These adjustments follow downward revisions made last month for Nigeria, Qatar and Saudi Arabia and reflect the likelihood of lower associated gas production and some slippage for LNG expansions. That said, OPEC gas liquids still increase from 5.0 mb/d in 2008 to nearly 5.6 mb/d in 2009 as expanding non-associated gas output and burgeoning domestic gas requirements to some extent insulate OPEC gas expansion from the more sluggish market affecting crude in 2009.

OECD STOCKS

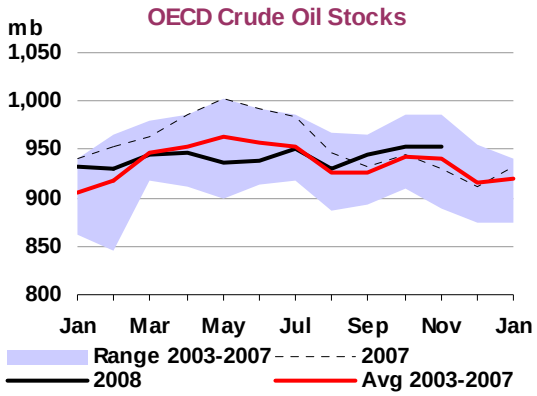
Summary

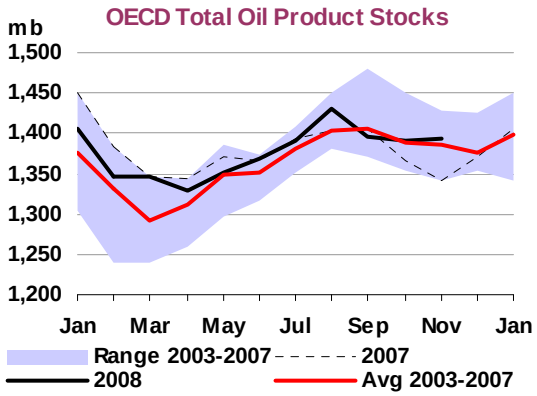
- **Total OECD industry stocks** fell slightly, by 2.0 mb in November, to 2,658 mb, as higher North American inventories were more than offset by lower stocks in Europe and the Pacific. Both crude and product stocks moved slightly higher for the OECD, while a draw in 'Other Oils' stocks (a broad category including NGLs, feedstocks and other hydrocarbons) dragged down the total.

- **Stocks in days of forward demand** were 56.4 days at the end of November, 0.4 days lower than the previous month and 4.4 days above November 2007. Forward demand cover is near or above the top of the five-year range across all three regions. On an absolute level, however, Pacific stocks continue trending in the bottom half of the five-year range following recent middle distillate draws, while European and North American stocks remain at the top end of their historical range.

- **Preliminary December data** indicate total OECD industry oil inventories fell by 8.0 mb in that month. Japanese stocks were 7.2 mb lower, mostly in products, and US stocks were slightly higher. European stocks fell 2.5 mb according to Euroilstock, led by middle distillates which fell 6.2 mb in December.

- **Floating storage** continues to increase. Industry and shipping sources report as many as 25 VLCCs hired for floating storage as of early January, representing up to 50 mb. Mid-January estimates put floating storage even higher, at 80 mb, with enquiries for more vessels continuing.





OECD Inventory Position at End-November and Revisions to Preliminary Data

Total OECD inventories fell by 2.0 mb in November, closing the month at 2,658 mb, 82.0 mb above the same month last year. A rise in total stocks in North America, where both crude and products increased, was not enough to offset inventory falls in Europe and the Pacific.

Preliminary Industry Stock Change in November 2008 and Third Quarter 2008

	November (preliminary) (million barrels)				November (preliminary) (million barrels per day)				Third Quarter 2008 (million barrels per day)			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**6.1**	**-4.3**	**-0.6**	**1.2**	**0.20**	**-0.14**	**-0.02**	**0.04**	**0.15**	**-0.01**	**-0.07**	**0.07**
Gasoline	4.1	0.7	0.1	4.9	0.14	0.02	0.00	0.16	-0.21	-0.08	-0.02	-0.30
Distillates	1.7	-0.4	-4.0	-2.8	0.06	-0.01	-0.13	-0.09	0.05	0.12	0.16	0.32
Fuel Oil	-1.3	-1.2	0.2	-2.4	-0.04	-0.04	0.01	-0.08	-0.02	-0.05	0.00	-0.07
Other Products	5.4	0.7	-2.7	3.4	0.18	0.02	-0.09	0.11	0.18	0.02	0.14	0.34
Total Products	**9.9**	**-0.3**	**-6.5**	**3.2**	**0.33**	**-0.01**	**-0.22**	**0.11**	**0.00**	**0.02**	**0.28**	**0.29**
Other Oils[1]	-2.7	-0.9	-2.8	-6.4	-0.09	-0.03	-0.09	-0.21	0.22	-0.04	0.03	0.21
Total Oil	**13.3**	**-5.5**	**-9.9**	**-2.0**	**0.44**	**-0.18**	**-0.33**	**-0.07**	**0.38**	**-0.04**	**0.23**	**0.57**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

North American crude stocks led the inventory gains and helped OECD crude levels to rise 1.2 mb in total on the month amid continued low refinery utilisation. OECD product stocks as a whole also showed an uptick of 3.2 mb, mostly due to rising US gasoline and 'Other Products' stocks. A 6.4 mb fall in the volatile 'Other Oils' category for OECD, however, pushed the total stocks change into negative territory.

November's total oil forward demand cover showed a dip to 56.4 days from October's 56.8 but the figure remained well above both the five-year range and last year's end-November reading of 52.0 days. Regionally, forward cover in November came to 54.5 days for North America, 63.7 days for Europe and 49.1 days for the Pacific, compared with levels of a year ago of 49.9, 59.6 and 45.0 days, respectively. In North America, all categories are at or above the five-year range in forward demand cover except for gasoline, which is trending along the five-year average. In Europe, only middle distillates lie slightly below the top of the five-year range. The story is similar in Asia, where middle distillate days of cover are trending along the five-year average.

Revisions versus 11 December 2008 Oil Market Report

(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Sep 08	Oct 08	Sep 08	Oct 08	Sep 08	Oct 08	Sep 08	Oct 08
Crude Oil	**2.0**	**2.0**	**-0.6**	**-17.1**	**0.6**	**-0.6**	**2.0**	**-15.7**
Gasoline	0.1	-7.0	0.3	2.0	0.0	-0.3	0.4	-5.2
Distillates	0.3	-4.6	0.9	-6.0	0.1	0.1	1.3	-10.5
Residual Fuel Oil	0.5	-0.2	1.0	2.8	0.0	0.8	1.4	3.4
Other Products	-0.6	-13.5	-0.1	4.6	0.0	0.9	-0.7	-8.0
Total Products	**0.3**	**-25.3**	**2.1**	**3.5**	**0.1**	**1.5**	**2.4**	**-20.3**
Other Oils[1]	-0.1	-5.4	0.1	3.9	0.0	0.1	0.0	-1.4
Total Oil	**2.2**	**-28.7**	**1.5**	**-9.7**	**0.7**	**1.0**	**4.5**	**-37.4**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Total OECD inventories for October were revised down by 37.4 mb since last month's report as official data for both crude and products came in lower. The main changes were in North America, where US stocks were 28.7 mb below preliminary weekly data. The US revision came mainly from product stocks, with other products and gasoline making up the bulk of the change. European stocks were also revised down (-9.7 mb) as higher product stocks failed to offset sharply lower crude oil inventories (-17.1 mb). European distillates were also lower (-6.0 mb). Pacific stocks were largely unchanged in comparison.

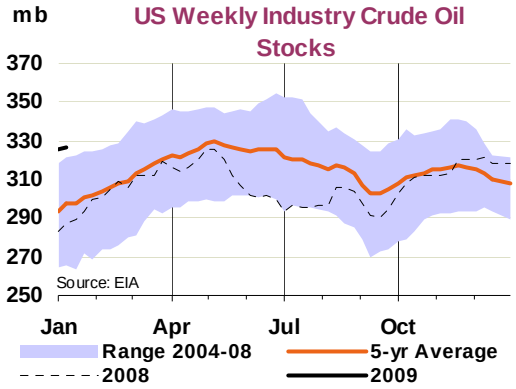
OECD Industry Stock Changes in November 2008

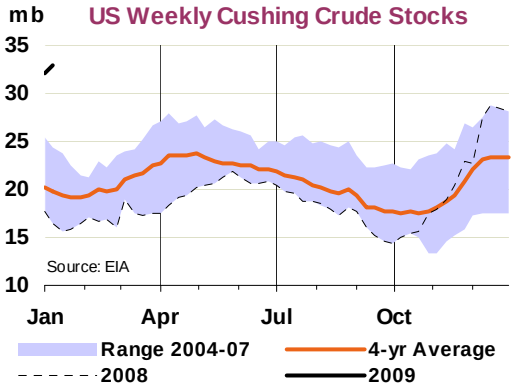
OECD North America

North American industry stocks increased by 13.3 mb in November to 1,294 mb as both US crude and product inventories moved higher. EIA weekly data show total US stocks were relatively unchanged in December, but with higher gasoline and diesel stocks offset by drops in the more volatile 'Other Oils' and unfinished products categories. North American crude stocks increased by 6.1 mb in November with an 8.7 mb gain in US crude stocks outweighing a fall in Mexican inventories. Though US refinery runs increased on the month by 100 kb/d and crude imports fell, low overall refinery utilisation rates and increased domestic production produced a stock build for the month.

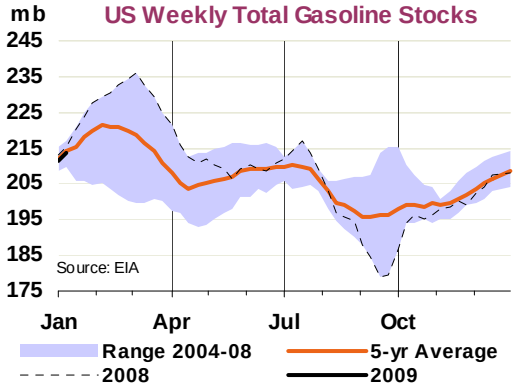
Weekly data show US crude stocks continuing to build in December, by about 3 mb, but the most dramatic story in storage has been the ascent of stocks at Cushing, Oklahoma – the delivery point for NYMEX light, sweet crude - to record highs. Data from the week ending 9 January show Cushing inventory levels at 33 mb, a gain of 10.1 mb since the end of November, helping to deepen the contango in WTI and prompting market participants increasingly to store oil for future sale. At what point might this practice bump up against storage constraints? Most industry sources put maximum Cushing storage levels between 42-47 mb. However, operational limits reportedly put effective maximum storage levels more in the 34-38 mb range, suggesting mid-continent barrels may undergo further discounts to find

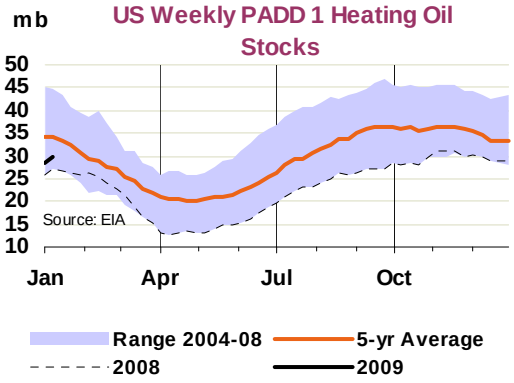
another storage home or US crude imports may wane until the impact of OPEC production cuts more fully takes hold. Moreover, the combination of storage constraints and WTI's physical contract expiry on 20 January may particularly exacerbate the near-term contango structure.





US product stocks added 10 mb in November as product demand weakness persisted. Total product inventories climbed back to less than 5 mb below the five-year average and were on par with 2007 levels. Gasoline and distillate stocks built by 4.1 mb and 1.7 mb, respectively. Weekly figures show stronger builds in December with gasoline and distillate gaining 10.5 mb and 10.7 mb, respectively. Increases in diesel stocks, however, accounted for almost all of December's distillate build. Heating oil stocks in PADD 1 and the US Northeast, the main heating oil-consuming region, still remain near the bottom of the five-year range.





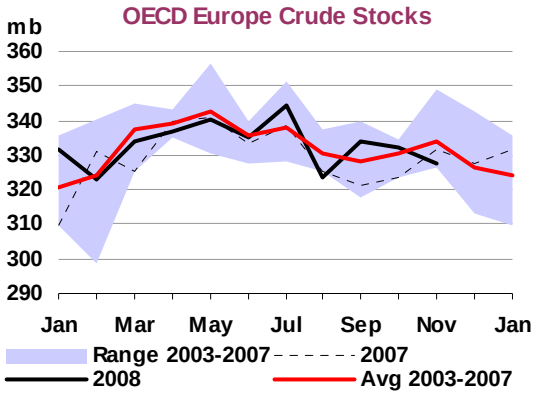
US and China To Take Advantage of Lower Oil Prices To Fill Strategic Reserves

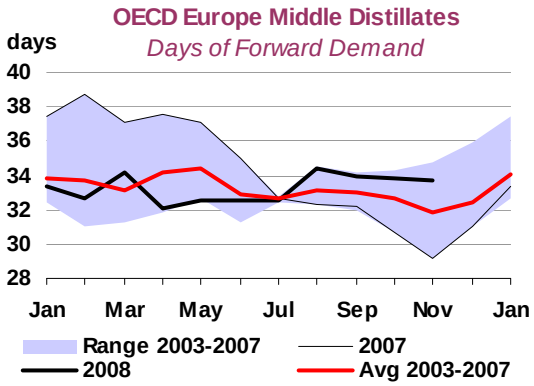
Both the US and China have recently made announcements that they will resume filling their strategic petroleum reserves (SPRs) in 2009 following the recent drop in oil prices. The US Department of Energy (DOE) said in a statement released 2 January that it intends to fill the SPR to its 727 mb capacity, indicating a 25 mb fill over 2009. Receipts from the 2005 sales of crude following Hurricanes Katrina and Rita will go to purchase 12 mb (135 kb/d) in the February-April period. Another 5.5 mb (35 kb/d) will be added in the January-May period as refiners return oil lent to them during Hurricanes Gustav and Ike in September 2008. The SPR will receive royaltyinkind (RIK) deliveries of 2.2 mb (24 kb/d), which were deferred from last year, from March to May. Finally, the DOE plans to restart a 25 kb/d RIK oil fill program in May. Work towards increasing SPR capacity to 1 bn barrels, as mandated in the Energy Policy Act of 2005 continues to proceed.

In China, the National Energy Administration head, Zhang Guobao, told state-run '*People's Daily*' at the end of December that phase 1 strategic storage construction, holding 100 mb, has been completed and phase 2, which will hold 170 mb more, is moving forward. He announced that China will take advantage of the lower prices to resume filling of the first phase tanks, though the fill rate and current fill level remain unclear.

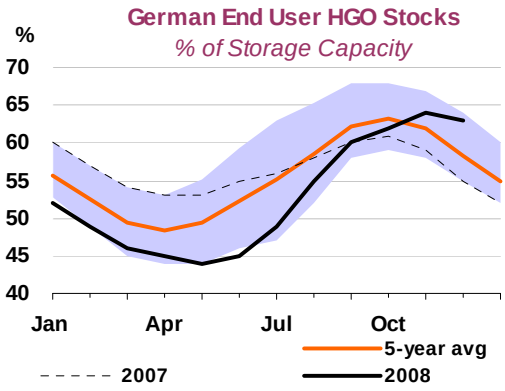
OECD Europe

European industry oil inventories fell 5.5 mb in November to 942.1 mb, 31.4 mb higher than at the same time last year. The decline was led by a 4.3 mb drop in crude oil stocks, despite higher regional supplies. Norwegian crude stocks fell by 5.8 mb in the month, in spite of North Sea production being some 150 kb/d higher than a month earlier. French crude oil stocks were 1.7 mb lower, though slightly higher German and Dutch inventories dampened the overall decline. Regional refinery throughputs were largely unchanged compared to October. Looking into December and January, crude stocks could gain a boost as Brent's premium over WTI and dwindling US mid-continent storage capacity could retain higher Atlantic Basin supplies within Europe.





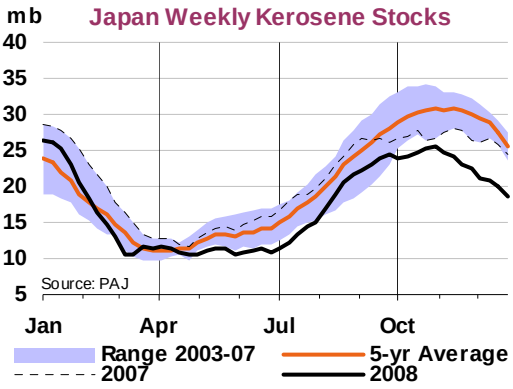
Regional product stocks were largely unchanged from a month earlier despite overall weak demand. Preliminary data for main consuming countries show inland deliveries for the region as a whole contracting by some 700 kb/d, or -4.4% from a year earlier. Only heating oil deliveries posted year-on-year gains, supported by high German purchases. For the first time since at least 1995 (when our data series began), German consumer heating oil stocks built counter seasonally in November. Mild temperatures and lower prices led households to add further volumes to tanks. At the end of November, German household tanks stood at 64% of capacity, 2% higher than the previous month and 5% higher than at the same time last year. Although household storage fell to 63% of capacity in December, the 65 kb/d decline falls short of the 225 kb/d five-year average draw for the month.

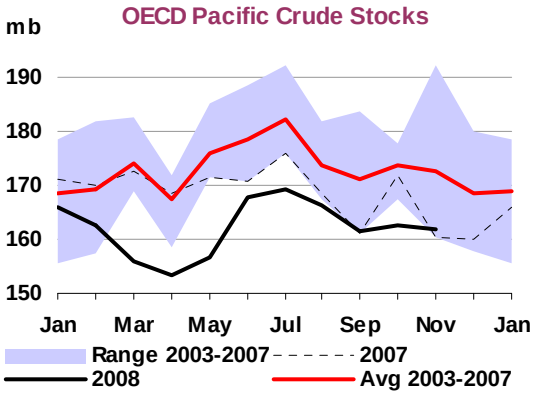


Preliminary data from Euroilstock indicate product inventories were only slightly higher (0.2 mb) in December, however masking a 6.2 mb draw in middle distillate stocks. By contrast, stocks held in independent storage in the Amsterdam, Rotterdam, Antwerp area (ARA) moved higher in December, with increases in all product categories and most notably in gasoil stocks. Gasoil stocks rose by 3.1 mb over the month to 15.97 mb and the highest level since August 2006. A steep contango in the ICE gas oil futures market has encouraged refiners to put gas oil in storage to await higher prices before selling. Heating oil stocks will likely come down sharply in January, however, as a cold snap in the first half of the month and disrupted gas supplies following the Russia-Ukraine pricing dispute likely increased European demand. Jet fuel stocks built by 0.8 mb over the month and reached 5.4 mb, their highest level ever, due to weak airline demand. Naphtha and gasoline stocks were also slightly higher while fuel oil stocks were unchanged for the month.

OECD Pacific

Total industry stocks in the Pacific declined by 9.9 mb in November given lower product and 'other oils' stocks. Japanese product stocks fell by 5.8 mb in the month, as seasonally increasing demand for heating fuels offset increased refinery production. Regional demand, although posting a massive 10.7% annual decline, was some 300 kb/d higher than a month earlier as kerosene and fuel oil used for heating picked up seasonally. Pacific middle distillate stocks consequently fell 4.0 mb on the month, with the bulk of the decline coming from Japanese kerosene. According to the Petroleum Association of Japan (PAJ), Japanese kerosene stocks continued to fall in December, shedding 3.4 mb for the month as a whole.

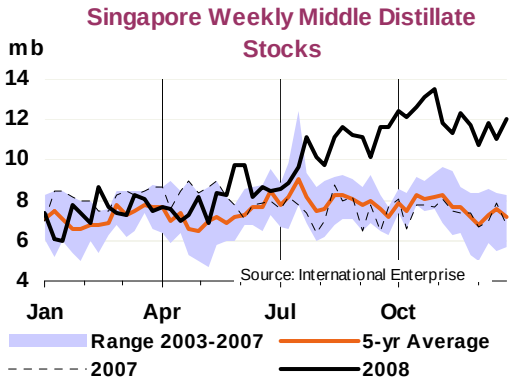


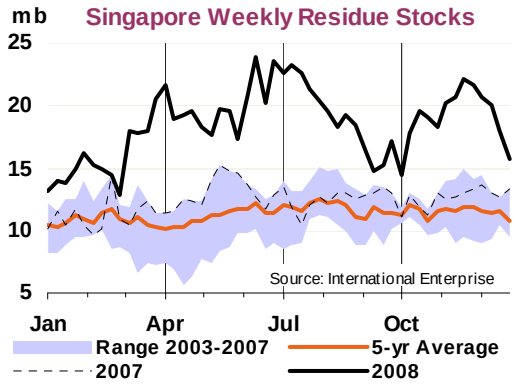


OECD Pacific crude oil stocks on the other hand changed little in November, as higher Korean inventories mostly offset a 2.7 mb decline in Japanese stocks. Japanese crude runs were 220 kb/d higher in November than a month earlier, although still sharply below levels of a year ago. Total regional crude oil stocks have moved back in line with last year's levels and into their five-year range, totalling 162 mb at end-month.

Recent Developments in Singapore Stocks

Falling residual inventories left independent stocks held in Singapore, as measured by International Enterprise, almost 10 mb lower in December. Light and middle distillates retained their healthy inventory levels and changed little on the month, whereas declining fuel oil stocks accounted for almost all of the total product change. Strong fuel oil buying by Chinese independent refiners in the first half of December helped to draw down stocks. Such refiners were looking to increase their residual fuel oil purchases ahead of 1 January tax increases.

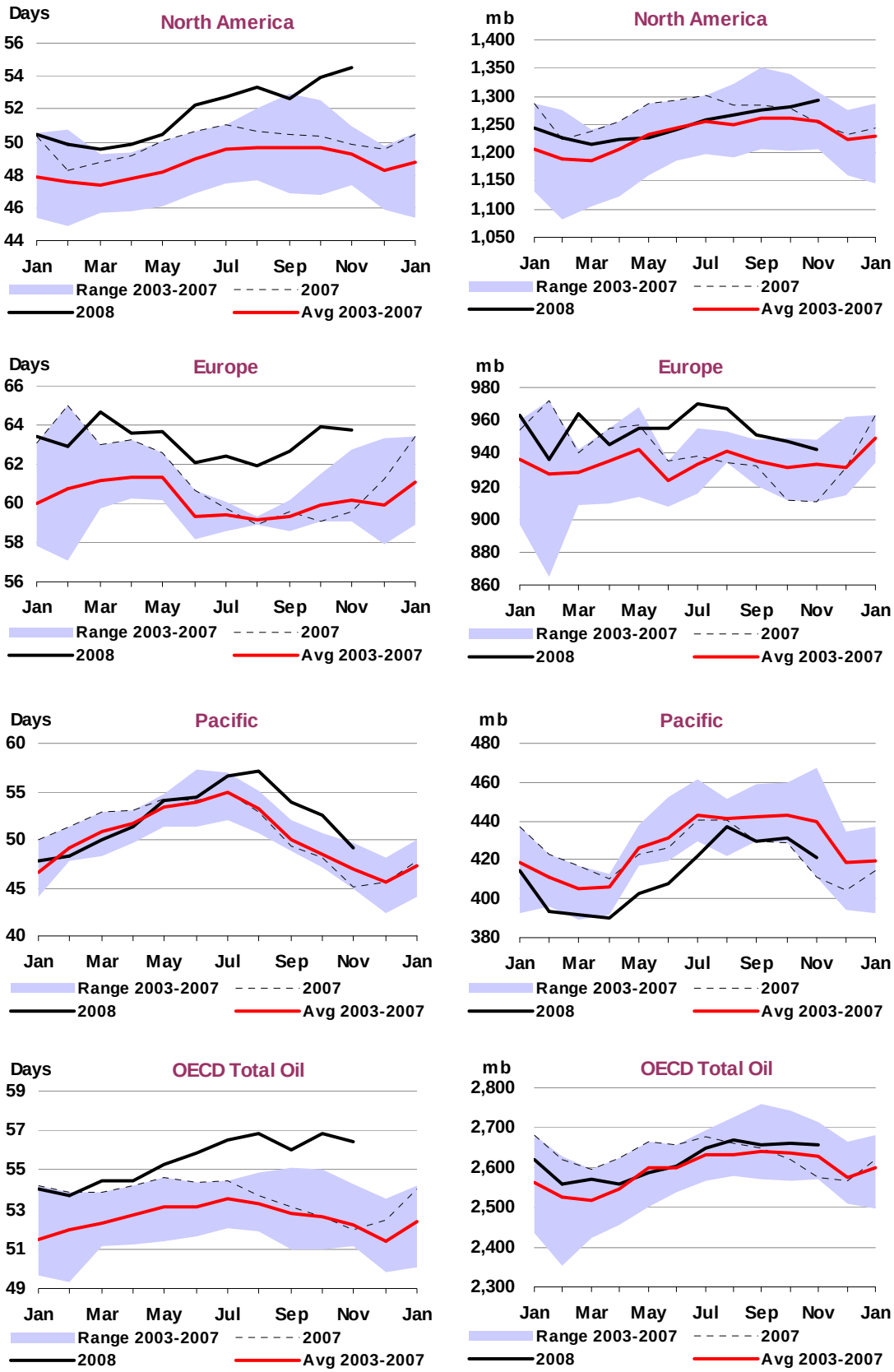




Regional OECD End-of-Month Industry Stocks

(in days of forward demand and millions barrels of total oil)

Days[1] Million Barrels



1 Days of forward demand are based on average demand over the next three months

IEA Stockholding Obligation - Days of Net Imports Feature Added to the IEA Website

A key attribute of the IEA is the collective ability of its member countries to release oil stocks into the market when normal supplies are severely disrupted. One of the main elements of the IEA's founding treaty formulated nearly 35 years ago was the establishment of a basic oil stockholding obligation. Each IEA member country is required to maintain total oil stock levels equivalent to at least 90 days of their respective net imports in the previous calendar year.

Countries may meet this obligation with a combination of crude and refined product stocks held exclusively for emergency purposes (either by governments, stock agencies or industry), and stocks held by industry for commercial or operations use. By definition, net exporting countries do not have an IEA stockholding obligation.

Each month the *OMR* includes volumetric information on stockholding in individual IEA member countries. This covers primary stock levels within the national territory of each country, including industry stocks and government-controlled stocks. However, this does not always correspond to how a country meets its IEA stockholding obligation.

For example, under a bilateral agreement some countries may count stocks held in the territory of another country in order to meet their minimum 90 day level. Thus to evaluate how a country is meeting its stockholding obligation, stocks held within its territory for the benefit of another country need to be deducted. And stocks being held for its benefit in other countries need to be added. Also, the primary stocks shown in the *OMR* do not include utility stocks, while countries can count these stocks, provided they are subject to government control, to meet the 90 day requirement. Finally, the *OMR* publishes the volumes of stocks, in barrels. The conversion into days of net imports is a complex, not always well understood, calculation that includes for example a 10% operational deduction and excludes naphtha.

In order to help readers better understand the IEA's stockholding obligation and the various stockholding systems in place to meet this requirement, **we have added information to our web site (www.iea.org/netimports.asp), with detailed information on stock levels and explanation on stockholding practices in each of the member countries.** The stock levels of each country, measured in days of net imports, will be updated monthly in conjunction with the *OMR*.

PRICES

Summary

- **Crude oil prices recovered from December lows in early January**, supported by cold weather, the Russian/Ukrainian gas crisis and fighting in the Gaza Strip. Signs that OPEC is making good on its pledge to curb global oil supplies further, as agreed at their 17 December meeting, were also becoming evident in early January. However, at the same time, weak global refinery demand and an increasing crude overhang, as shown in record Cushing stocks and floating storage, continued to lend a bearish tone.

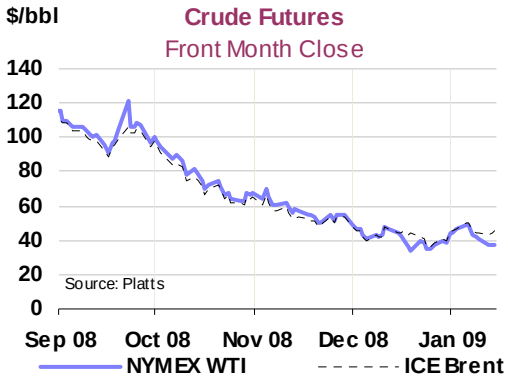
- **The US spot crude market is currently characterised by WTI's relative weakness**, distorted by record-high inland Cushing stocks, and the grade is trading at a discount to not only Dated Brent, but also to other US domestic light sweet grades such as LLS, while standing at near parity with sour Mars.

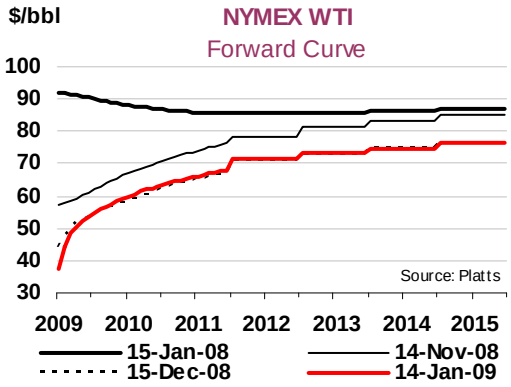
- **Refining margins were mixed in December** but remain weak overall**,** despite a slight uptick in depressed gasoline cracks. While margins fell on the US Gulf Coast, West Coast margins rose sharply on a spate of outages constraining regional supplies. December European margins fell on narrowing distillate cracks, though remain positive in most cases. Singapore margins rose as distillate cracks held up.

- **After an early-December surge in benchmark crude freight rates**, dirty rates fell throughout the month. Declining OPEC export volumes more than offset increased charters for floating storage, pressuring rates lower. Clean rates continue to suffer from falling product demand and were steady or down for all routes in December.

Overview

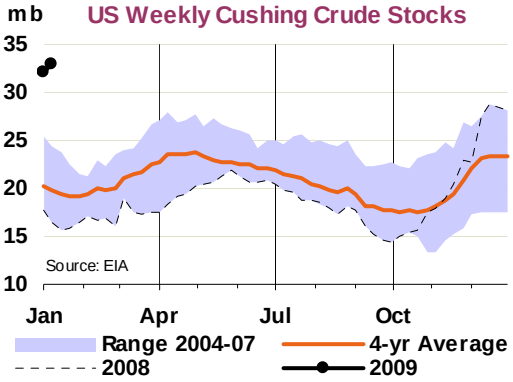
Crude futures prices continued their downward slide in December, briefly trading in the low $30s on weak fundamentals and – at that time – little indication that OPEC was making good on its intent to curb oil supplies. However, in early January, the Russian/Ukrainian gas crisis, fighting in the Gaza Strip and cold weather supported a brief return to around $50/bbl before prices started falling again. At the time of writing, WTI futures were hovering around $35/bbl, though Brent was around $45/bbl.

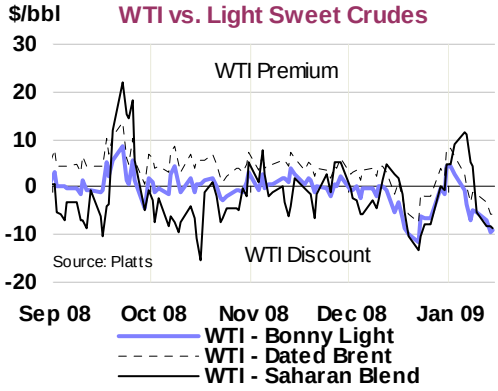




OPEC's 17 December meeting in Algeria effectively resulted in a pledge to reduce output targets by a further 2.2 mb/d, adding to previous cuts made in September and October. Markets were initially unimpressed, but the early-January rise could in part be attributed to signs that the group is increasingly tightening output – with the usual time lag until lower exports actually are felt in the market.

However, currently, all market signals indicate a large crude overhang, with stocks at WTI's delivery point in Cushing, Oklahoma, at an all-time high around 33 mb in early January. Preliminary indicators suggest a growing volume of crude held in floating storage, with estimates ranging as high as 50-80 mb. Anecdotal reports point to crude being held offshore Iran, Venezuela and also the US Gulf Coast, West Africa and the North Sea. In part, this is the result of a steady, wide contango in crude futures, with first/second month WTI currently showing a difference of around $7/bbl. Indeed, the Cushing overhang in particular is also keeping near-month WTI below Brent futures in a pattern observed frequently in recent years, making Brent for now arguably more reflective of global market sentiment.





But the crude overhang is also symptomatic of weaker refinery demand, with OECD utilisation rates below average amid increasingly frequent reports of economic run cuts in nearly all markets, including China. In addition, new capacity is coming online – notably the huge Jamnagar expansion in India as well as capacity in Vietnam and China to follow soon. In general, on the product demand side, all signals point at a further weakening and indeed, we have revised down our forecasts substantially in this report on the back of lower GDP assumptions and lower deliveries data. Negative economic data emerging especially from the US continues to jolt markets on a near-daily basis. The exception is perhaps heating fuels in Europe, which is experiencing a colder-than-average January.

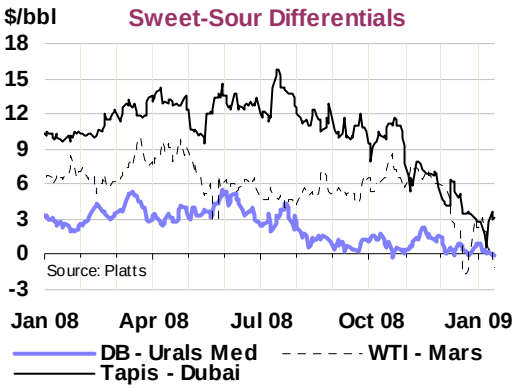
Part of the early-January price gain may also be related to the halt in Russian natural gas supplies pumped through Ukraine to Europe, related to a price dispute between the two countries. Southeastern European countries in particular quickly faced gas shortages, due to a high degree of dependency on Russian pipeline imports and low storage volumes. As a result, heating oil/gasoil crack spreads rose in early January. Countries further west were less affected, but the uncertainty supported prices. Against the background of colder temperatures, heating oil and fuel oil demand is likely to have risen, though this is not yet evident in reported data. Israel's incursion into Gaza from late December also raises the spectre of a spread of violence to the wider Middle East, boosting supply concerns.

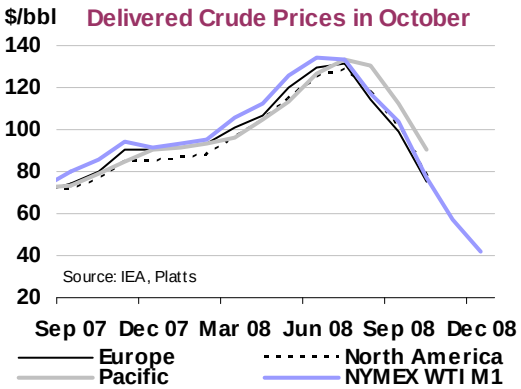
The US and, according to news reports, China are taking advantage of the low-price environment to restart building strategic crude stocks. The US Department of Energy announced that it would seek to purchase 12 mb of crude, which is in addition to 7.6 mb already secured – resulting in about 20 mb to be filled by end-May. China is reportedly also engaged in building its strategic inventory, though there is no published stocks data available to confirm this.

Spot Crude Oil Prices

Spot crude markets were pressured by the global crude overhang due to lower refinery demand. However, OPEC's gradual curb of exports is supporting sour grades. Hence, in the Asian market, Dubai was trading at a premium to Dated Brent since mid-December, also taking support from higher fuel oil. Despite lower freight rates, the unusual differential was insufficient to tempt Asian refiners into buying

more West African crudes, given lower refinery throughputs and still-weak light distillate cracks. Asian purchases of Nigerian, Angolan and other West African crudes were set to be around 830 kb/d in January, relatively steady from December, but lower than volumes seen earlier last year. Meanwhile, regional sweet marker grade Tapis was further depressed by weak naphtha, briefly falling to near parity with Dubai in early January, an unusual occurrence. However, this is part of a trend of generally narrowing sweet-sour spreads.





The US market is currently characterised by WTI's relative weakness, distorted by record-high, inland Cushing stocks (making WTI for now less reflective of global fundamental trends). Consequently, the marker grade is trading at a discount to not only Dated Brent, its fellow international benchmark, but also to other US domestic light sweet grades such as LLS, while standing at near parity with sour Mars. As a result, some traders are apparently doing deals based on alternatives to WTI. In Europe meanwhile, Urals is currently at parity to Dated Brent, supported by the prospect of lower OPEC sour crude volumes, possibly strengthening heating oil and fuel oil demand in Europe on colder temperatures in January and lower export volumes due to prohibitively high Russian export duties in the last months of 2008.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Oct	Nov	Dec	Dec-Nov Avg Change	%	Week Commencing: 15 Dec	22 Dec	29 Dec	05 Jan	12 Jan
Crudes										
Dated Brent	71.87	52.51	40.35	-12.16	-23.2	42.27	35.88	37.35	45.15	42.08
Brent (Asia) Mth1 adjusted	72.84	53.35	42.12	-11.23	-21.1	43.93	38.65	38.10	47.32	42.79
WTI (Cushing) Mth1 adjusted	76.62	57.41	41.45	-15.96	-27.8	39.73	32.34	42.51	44.53	37.70
Urals (Mediterranean)	70.51	51.79	40.02	-11.76	-22.7	41.94	36.01	36.98	44.77	42.12
Dubai Mth1 adjusted	67.42	49.84	40.53	-9.31	-18.7	42.52	38.26	38.18	47.23	43.24
Tapis (Dated)	77.56	56.70	44.95	-11.75	-20.7	46.94	41.81	41.14	48.86	46.51
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	4.75	4.90	1.10	-3.80		-2.54	-3.54	5.16	-0.63	-4.38
Urals (Mediterranean)	-1.36	-0.72	-0.32	0.40		-0.32	0.13	-0.37	-0.38	0.04
Dubai Mth1 adjusted - Dated Brent	-4.45	-2.67	0.19	2.85		0.25	2.39	0.83	2.08	1.16
Tapis (Dated)	5.69	4.20	4.60	0.41		4.67	5.94	3.78	3.71	4.43
Prompt Month Differential										
Forw ard Cash Brent Mth1-Mth2 adj.	-1.52	-2.12	-2.56	-0.44		-2.62	-2.65	-2.81	-2.71	-2.29
Forw ard WTI Cushing Mth1-Mth2 adj.	-0.17	-0.76	-3.51	-2.75		-4.85	-5.75	-3.65	-4.65	-6.53

Source: Platts

Refining Margins

Refining margins on average made small gains in December, but many key ones fell despite a slight uptick in depressed gasoline cracks, and overall remain weak. US Gulf Coast light sweet crude cracking margins all fell further and remained in negative territory, with only coking margins consistently profitable. The slight improvement in gasoline differentials was more than offset by narrowing distillate cracks. The US West Coast however saw a sharp rise in margins due to a spate of refinery outages, which kept the regional product market tight. European margins mostly fell and remain low, with Brent hydroskimming stubbornly managing to stay positive (and, notably, higher than USGC Mars coking). Again, weaker distillate crack spreads dragged down margins. Lastly, Singapore margins rose, as distillate cracks held up or only declined marginally – unlike the other regions surveyed.

Selected Refining Margins in Major Refining Centres

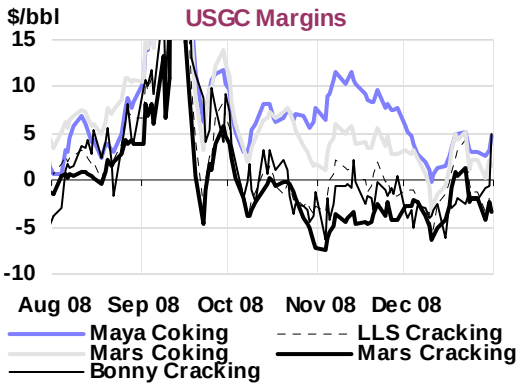
($/bbl)

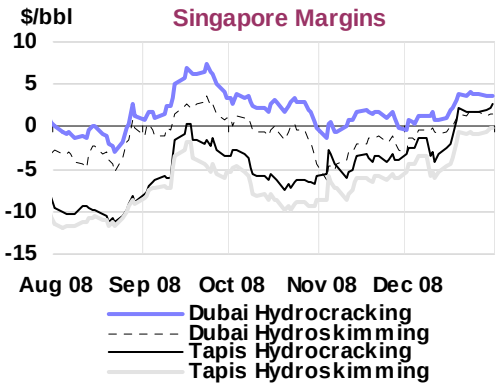
		Monthly Average			Change	Average for week ending:				
		Oct 08	Nov 08	Dec 08	Dec 08-Nov 08	03 Dec	10 Dec	17 Dec	24 Dec	31 Dec
NW Europe	Brent (Cracking)	6.17	4.58	3.14	-1.44	4.03	3.77	1.60	3.37	3.29
	Urals (Cracking)	5.25	3.64	2.60	-1.05	3.57	3.24	1.27	2.65	2.65
	Brent (Hydroskimming)	2.59	3.02	2.20	-0.81	2.59	2.64	0.60	2.67	2.57
	Urals (Hydroskimming)	-0.56	-1.42	-0.78	0.64	-0.74	-0.28	-1.81	-0.56	-0.62
Mediterranean	Es Sider (Cracking)	5.34	3.73	2.02	-1.71	2.28	1.40	0.57	3.19	3.04
	Urals (Cracking)	5.81	2.20	1.76	-0.44	1.85	2.00	0.65	2.35	2.09
	Es Sider (Hydroskimming)	1.55	2.47	1.10	-1.36	1.41	0.60	-0.39	2.18	1.98
	Urals (Hydroskimming)	-0.34	-3.46	-2.66	0.80	-3.01	-2.50	-3.54	-2.04	-2.50
US Gulf Coast	Bonny (Cracking)	-1.06	-1.19	-4.03	-2.84	-2.04	-4.75	-5.16	-4.47	-2.39
	Brent (Cracking)	-0.01	-1.47	-2.49	-1.02	-2.31	-3.75	-3.37	-2.05	-0.18
	LLS (Cracking)	-0.79	-0.06	-1.26	-1.20	-1.28	-3.12	-1.71	1.64	-1.98
	Mars (Cracking)	-1.81	-4.29	-2.68	1.61	-3.34	-3.84	-3.76	-0.32	-2.75
	Mars (Coking)	5.28	4.08	1.62	-2.46	3.00	0.46	-0.06	3.57	1.66
	Maya (Coking)	6.47	9.17	3.18	-5.99	6.19	1.95	1.93	4.26	3.34
US West Coast	ANS (Cracking)	4.81	-4.93	3.25	8.17	-6.45	-3.32	-0.09	10.16	12.05
	Kern (Cracking)	8.93	0.69	13.83	13.15	2.43	8.29	11.36	20.67	22.46
	Oman (Cracking)	4.21	-8.38	-7.16	1.22	-13.21	-11.19	-9.12	-4.17	-0.19
	Kern (Coking)	16.53	6.34	14.54	8.20	4.62	7.24	13.04	23.27	22.07
Singapore	Dubai (Hydroskimming)	-0.51	-2.76	0.23	2.99	-2.05	-0.50	-0.34	1.50	1.56
	Tapis (Hydroskimming)	-7.96	-6.61	-2.92	3.69	-5.21	-4.39	-4.82	-0.92	-0.46
	Dubai (Hydrocracking)	2.53	0.85	2.23	1.38	0.38	1.22	1.40	3.73	3.70
	Tapis (Hydrocracking)	-5.58	-4.06	-0.63	3.43	-3.22	-2.36	-2.59	1.68	2.04
China	Cabinda (Hydroskimming)	-4.19	-4.99	-2.85	2.14	-4.56	-3.31	-5.14	-0.84	-1.18
	Daqing (Hydroskimming)	-4.08	-4.23	-3.78	0.45	-2.76	-4.24	-6.02	-2.99	-2.95
	Dubai (Hydroskimming)	-0.90	-2.98	-0.21	2.77	-2.40	-1.04	-0.81	1.07	1.20
	Daqing (Hydrocracking)	-0.14	-1.78	-1.43	0.34	-1.04	-2.64	-3.53	-0.07	-0.18
	Dubai (Hydrocracking)	2.04	0.55	1.73	1.18	-0.02	0.65	0.86	3.22	3.29

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.
Sources: IEA, Purvin & Gertz Inc.

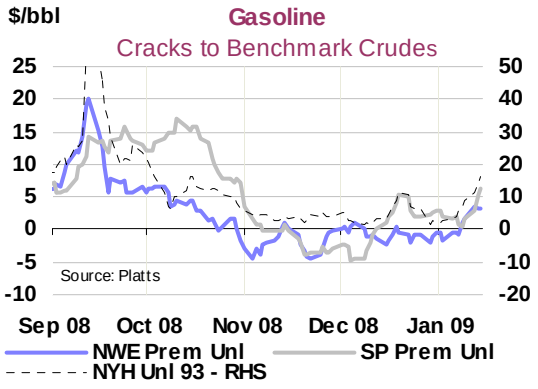
NB: In the process of our annual refining margins methodology overhaul, it is possible that some of the product price quotes will soon change due to tighter European sulphur specifications; equally, some of our fixed-cost assumptions may also be subject to change. Over the longer term, we also aim to update the product yields used, on the basis of an observed and assumed continued shift to higher distillate output.

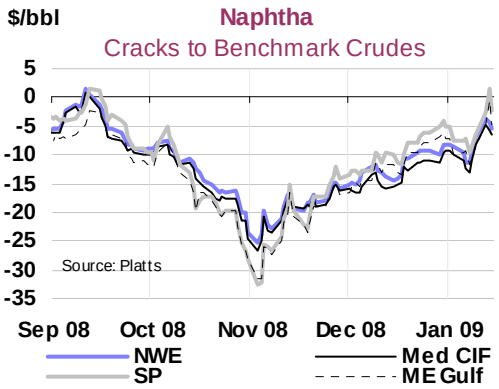




Spot Product Prices

Light distillate crack spreads improved marginally in the latter half of December and early January. Puzzlingly, and barring the fact that many refineries have minimised their gasoline yield due to recent months' unfavourable prices, markets by all accounts remain well supplied and stocks high. Recent days have seen the NYMEX RBOB/WTI differential rise to its highest since early September, though this was rather a function of depressed crude futures than signs of fundamental strength in gasoline. More impressively, naphtha discounts to crude have narrowed substantially in December and early January as fundamentals improve gradually. Due to its recent low price, India for one has reportedly stepped up domestic use of naphtha in power generation and fertiliser production, avoiding natural gas, and is hence reducing exports. In South Korea meanwhile, naphtha crackers are allegedly ramping up utilisation rates to currently around 85%, from November's lower 70-75%, though elsewhere, demand remains weak.

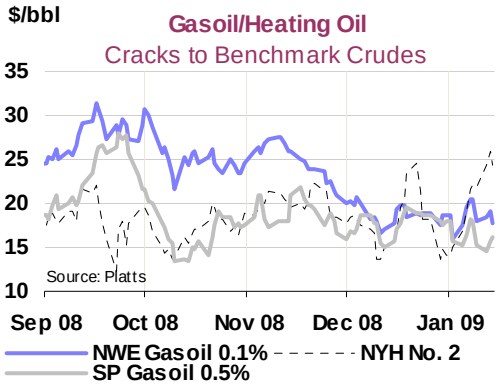


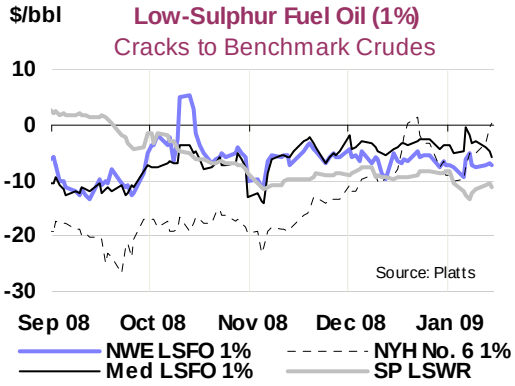


Heating oil crack spreads fell in December, but rose sharply in early January as temperatures fell below average in Europe, coupled with the cutting off of Russian gas supply due to its price disagreement with Ukraine, the main conduit for shipments to Central and Western Europe. The US Northeast has seen cold spells too, although in Northeast Asia, temperatures remain above average. Nonetheless, in Japan heating kerosene stocks are well below their five-year range, despite weak demand. On the other hand, China looks set to maintain its gasoil net-exporter status in January. Meanwhile, diesel and jet fuel crack spreads were broadly flat over the past month.

Low-sulphur fuel oil discounts to crude in Europe (and elsewhere) remained steady or widened slightly in December and January, despite the Russian gas shortfall and some potential for utilities switching to burning fuel oil. High-sulphur discounts meanwhile narrowed in early January on tightening heavy/sour crude supplies. In Singapore, fuel oil stocks fell in December, as fewer barrels arrived from the west and Chinese independent refiners increased purchases. As already flagged in this report, first-quarter fuel oil supplies will be curtailed due to a halt to Saudi and Iranian spot sales, as both countries consume more

barrels domestically. In addition, South Korea is expected to nearly halve its fuel oil exports in January to around 200,000 tonnes, for the same reason. On the other hand, Chinese buying in January is expected to be muted, as consumers reportedly stocked up ahead of a tax hike at the end of the year.





Spot Product Prices

(monthly and weekly averages, $/bbl)

	Oct	Nov	Dec	Dec-Nov Change	Dec-Nov %	Week Commencing: 15 Dec	22 Dec	29 Dec	05 Jan	12 Jan	Oct	Nov	Dec
Rotterdam, FOB Barges											**Differential to Brent**		
Premium Unleaded	74.68	50.50	39.69	-10.81	-21.4	41.33	34.67	36.09	45.35	45.61	2.81	-2.01	-0.66
Naphtha	58.27	33.56	28.22	-5.34	-15.9	29.67	26.55	28.50	35.45	37.72	-13.60	-18.94	-12.13
Jet/Kerosene	98.92	80.19	59.88	-20.31	-25.3	61.30	56.39	55.58	65.89	61.79	27.05	27.68	19.53
ULSD 10ppm	100.11	80.36	62.91	-17.45	-21.7	64.26	58.91	58.87	67.34	63.24	28.24	27.86	22.57
Gasoil 0.1%	97.12	77.38	59.17	-18.21	-23.5	61.21	54.73	55.07	64.34	60.69	25.25	24.87	18.82
LSFO 1%	68.29	46.29	33.98	-12.31	-26.6	36.00	30.45	30.11	37.94	35.11	-3.58	-6.22	-6.37
HSFO 3.5%	56.45	32.91	27.95	-4.96	-15.1	29.90	24.08	24.20	33.32	34.24	-15.42	-19.59	-12.40
Mediterranean, FOB Cargoes											**Differential to Urals**		
Prem Unl 10ppm	75.36	51.36	41.33	-10.03	-19.5	43.04	38.84	38.40	47.49	47.47	4.85	-0.43	1.31
Naphtha	56.30	31.65	26.13	-5.52	-17.4	27.50	24.47	26.53	33.85	36.61	-14.21	-20.13	-13.89
Jet Aviation fuel	95.87	78.06	59.06	-19.00	-24.3	60.20	55.80	55.54	64.93	61.35	25.37	26.28	19.04
Gasoil 0.1%	97.63	78.02	59.56	-18.45	-23.7	61.20	55.39	55.28	65.21	61.99	27.12	26.23	19.54
LSFO 1%	63.75	45.40	36.34	-9.06	-20.0	38.21	33.30	32.81	42.05	37.57	-6.76	-6.39	-3.68
HSFO 3.5%	57.24	31.01	24.46	-6.55	-21.1	26.80	21.77	21.56	32.65	33.69	-13.27	-20.78	-15.56
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	88.38	61.19	45.92	-15.28	-25.0	46.64	40.28	44.60	50.38	51.42	11.76	3.78	4.47
Unleaded	79.38	53.74	40.40	-13.34	-24.8	41.64	34.60	40.37	45.89	47.22	2.77	-3.67	-1.05
Jet/Kerosene	101.46	82.29	62.11	-20.18	-24.5	61.83	56.52	61.52	70.61	66.55	24.84	24.87	20.66
No. 2 (Heating Oil)	93.54	77.75	59.01	-18.73	-24.1	58.91	53.68	56.88	64.79	62.40	16.93	20.34	17.56
LSFO 1%	59.05	40.14	34.07	-6.07	-15.1	34.93	30.98	34.19	37.80	36.43	-17.57	-17.27	-7.38
No. 6 3%	59.00	35.44	29.42	-6.02	-17.0	31.01	27.18	29.28	33.34	35.52	-17.62	-21.97	-12.03
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	79.50	48.41	41.05	-7.36	-15.2	45.54	41.54	40.58	48.46	48.64	12.08	-1.43	0.52
Naphtha	51.12	29.09	31.00	1.91	6.6	32.42	31.37	32.82	39.37	42.75	-16.30	-20.75	-9.53
Jet/Kerosene	90.09	75.08	59.02	-16.06	-21.4	60.99	57.30	55.46	64.84	60.65	22.67	25.23	18.48
Gasoil 0.5%	83.98	68.77	58.01	-10.76	-15.6	60.32	57.09	55.46	63.82	59.30	16.56	18.92	17.47
LSWR Cracked	61.88	39.91	31.61	-8.29	-20.8	33.02	29.71	29.15	34.81	32.89	-5.54	-9.94	-8.92
HSFO 180 CST	61.69	37.47	35.15	-2.32	-6.2	37.85	34.38	32.82	39.44	38.28	-5.74	-12.37	-5.38
HSFO 380 CST 4%	61.94	36.83	34.89	-1.94	-5.3	37.73	34.04	32.47	39.51	38.41	-5.48	-13.01	-5.64

Source: Platts

End-User Product Prices in December

Retail product prices fell by 18% month-on-month, in US dollars, ex-tax, in December. Gasoline prices on average decreased by 21%, while diesel, heating oil and low-sulphur fuel oil prices were down by around 17%. In December, US consumers on average paid $1.69/gallon for gasoline ($0.45/litre), Japanese consumers paid ¥118/litre ($1.27/litre), consumers in the UK £0.89/litre ($1.32/litre), and other European consumers paid between €0.86/litre in Spain ($1.09/litre) to €1.18/litre in Italy ($1.42/litre). Retail prices in the surveyed IEA countries were 37% below December 2007 levels on average, in US dollars, ex-tax.

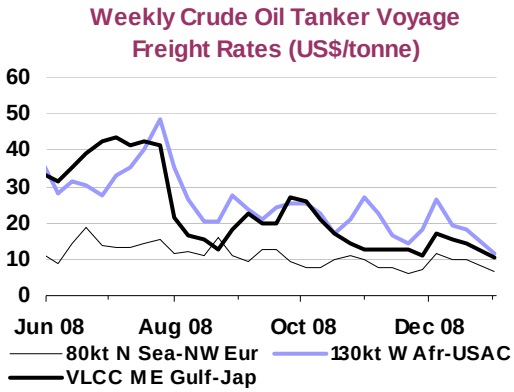
Freight

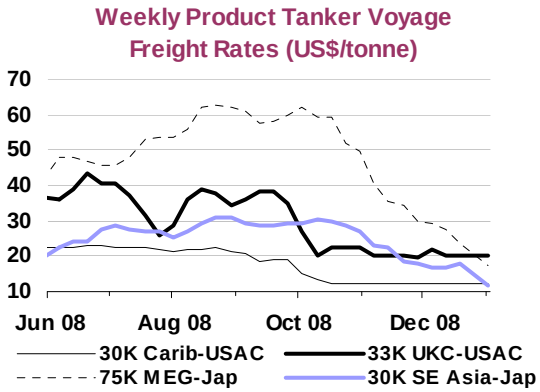
After an early-December surge in benchmark crude freight rates, dirty rates fell through the month while clean rates continued their steady descent since October. Two opposing dynamics influenced crude rates, with declining OPEC export volumes more than offsetting increased charters for floating storage. January floating storage hires to take advantage of a deepening contango in the crude forward curve may lend support to short-term rates until additional OPEC export cuts more fully take hold or the macro trading environment weakens further.

VLCC chartering costs from the Middle East Gulf to Japan were marginally lower at the end of December versus end-November. The first week of December, however, saw rates jump from just below $11/tonne to over $17/tonne before gradually falling back to near $10/tonne by month end. West Africa to US Atlantic Coast rates showed a similar pattern, jumping from $18/tonne at end-November to $26/tonne in early December before finishing the month just under $12/tonne.

The early-month strength for dirty freight rates stemmed from the chartering of VLCCs for floating storage to take advantage of the deepening contango in the benchmark crude forward curves. Industry and shipping sources report as many as 25 VLCCs hired for floating storage as of early January, representing up to 50 mb. Mid-January estimates put floating storage even higher, at 80 mb, with enquiries continuing. Disruptive weather conditions in the Mediterranean and Caribbean and a strike at France's Fos-Lavera terminal also tied up tanker supply in December, supporting Atlantic Basin rates.

An easing of rates derived from lower activity during the Christmas holiday period, improving weather conditions and the end of the French strike. In addition, OPEC sailings continued to fall in December, counteracting much of the new demand for floating storage. With some Asian refiners reporting shipment cuts from Saudi Arabia of 5-10% in January and 10-15% in February, charter demand should remain under pressure.





The clean tanker market continues to suffer from falling product demand. Middle East Gulf to Japan 75 kmt freight rates fell from $35/tonne at end-November to below $24/tonne by end-December. Transatlantic UK-US Atlantic Coast rates held steady again around $20/tonne but healthy US gasoline and distillate stocks largely stifled any arbitrage opportunities.

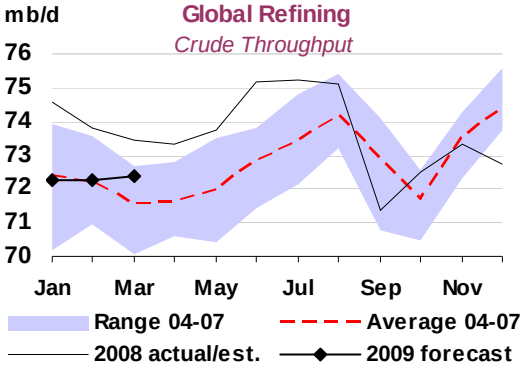
With the end of the year comes a switch from Worldscale 2008 to 2009 rates. Worldscale flat rates serve as voyage benchmarks; actual prices reflect a negotiated percentage of these rates. Worldscale rates for long-haul voyages increased 35-40% with the New Year. This rate hike includes a rise in average bunker fuel prices for the period October 2007–September 2008 to $554/tonne versus the $329/tonne used for 2008 Worldscale rates. Still, the change is not expected to significantly affect actual freight costs. Early-January quotes have generally expressed a lower percentage of Worldscale rates than end-2008.

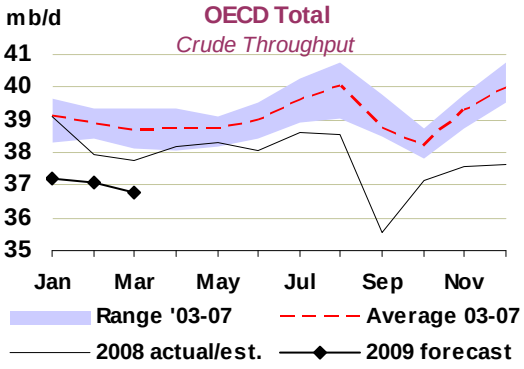
REFINING

Summary

- **Global 1Q09 crude throughput is forecast to average 72.3 mb/d**, 1.2 mb/d below last month's report, as lower demand prognoses and the continued economic strain weigh on refinery activity. The contraction in crude runs versus 1Q08 is now 1.7 mb/d, with roughly two-thirds of the decline in the OECD. Non-OECD crude runs are now forecast to see an annual decline of 0.4 mb/d, driven largely by downward revisions to Chinese and Middle Eastern crude runs, totalling around 0.6 mb/d.

- **Global 4Q08 crude throughput averaged 72.8 mb/d**, 0.2 mb/d higher than estimated in last month's report. Stronger October official data for several European countries, and higher than estimated November data for OECD Europe and the Pacific underpin much of the upward revision. However, December estimates have been reduced, following weaker than expected US weekly data and reports of further run cuts in China.





- **The refining industry has responded to the economic downturn and demand weakness** by not only reducing operating rates but also cutting capital investment plans, idling distillation and upgrading capacity, and restructuring its operations to cope with poor gasoline cracks, volatile product prices and poorly functioning debt markets.

- **OECD refinery gasoil/diesel yields** increased by 0.3 percentage points (1%) in October to a near-record level of 30.2% on strong demand and resilient crack spreads. Strong month-on-month growth in both North America and Europe of around 0.7 percentage points (2-3%), underpin this move. Equally significant shifts were witnessed in the yield of naphtha, which fell below the five-year range on record negative naphtha cracks and jet fuel/kerosene, which despite healthy cracks saw yields squeezed by stronger gasoil/diesel and gasoline yields.

Global Refinery Throughput

Global refining activity continues to undershoot levels of a year ago as weak demand and poor margins weigh on crude throughput levels. Increasingly bearish assessments of demand, most notably in Asia, and reports of increased economic run cuts have reduced forecast 1Q09 crude runs by 1.2 mb/d from last month's report. Elsewhere, US independent refiners continue to reduce utilisation, not only on overall crude processing levels, but also for upgrading capacity, most notably gasoline-focused catalytic cracking units, in light of sustained weakness in gasoline cracks on the US Gulf Coast. Similarly, the increased run cuts in Japan continue to mute the typical seasonal peak in refinery activity for the start of the year.

Preliminary data for December indicate that global crude throughput averaged 72.7 mb/d - 0.8 mb/d below last month's forecast of 73.5 mb/d. Lower-than-expected crude runs in the US, and China account for the

vast majority of the downward revision. US crude throughput was again weaker than expected, reflecting the increasing lengths that refiners are going to, in order to counter weak demand and rising product stocks. US refinery utilisation rates fell to among the lowest levels since 1992 in late December, with particularly weak activity levels reported on the US Gulf and East Coasts.

Global 4Q08 crude throughput of 72.8 mb/d is 0.2 mb/d higher than last month's estimate. Stronger October official data for a number of countries in OECD Europe and higher than estimated November data for OECD Europe and the Pacific, underpin much of the upward revision. OECD Europe and Pacific preliminary data for November were both 0.3 mb/d ahead of our forecasts, as were Latin American crude runs. Offsetting these upward revisions were lower-than-expected crude runs in the Middle East and China. Chinese refiners are reportedly working to reduce product inventories in the face of weaker than expected demand. We assume that this will continue to affect Chinese crude runs throughout December and 1Q09.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Aug 08	Sep 08	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09
OECD									
North America	17.9	15.5	17.4	17.5	*17.5*	*16.9*	*16.8*	*17.0*	*17.2*
Europe	13.8	13.5	13.3	13.2	*13.3*	*13.5*	*13.4*	*13.1*	*13.3*
Pacific	6.9	6.6	6.5	6.8	*6.8*	*6.8*	*6.9*	*6.7*	*6.3*
Total OECD	38.5	35.5	37.2	37.6	*37.6*	*37.2*	*37.1*	*36.8*	*36.9*
NON-OECD									
FSU	6.1	5.8	5.7	*6.1*	*6.1*	*6.2*	*6.2*	*6.2*	*6.2*
Europe	0.8	0.8	0.8	*0.8*	*0.7*	*0.7*	*0.8*	*0.8*	*0.8*
China	6.9	6.9	7.0	*6.6*	*6.5*	*6.4*	*6.5*	*6.5*	*6.4*
Other Asia	8.2	8.0	8.1	*7.9*	*7.7*	*7.6*	*7.8*	*8.0*	*8.0*
Latin America	5.6	5.6	5.4	*5.6*	*5.5*	*5.6*	*5.6*	*5.6*	*5.6*
Middle East	6.4	6.3	5.9	*6.2*	*6.4*	*6.2*	*6.1*	*6.2*	*6.3*
Africa	2.6	2.5	2.4	*2.4*	*2.2*	*2.3*	*2.3*	*2.3*	*2.3*
Total Non-OECD	36.6	35.9	35.3	*35.7*	*35.1*	*35.0*	*35.2*	*35.6*	*35.7*
Total	75.1	71.4	72.5	*73.3*	*72.7*	*72.2*	*72.3*	*72.4*	*72.5*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

The most significant change to our **1Q09** forecast, both numerically and conceptually, comes from the reduction of non-OECD crude runs, which are now projected to average 35.3 mb/d, 0.7 mb/d lower than last month, and a decline of 0.5 mb/d compared to 1Q08. Lower Chinese crude runs account for much of the reduction, reflecting this report's lower demand estimates and reports of continued high product stocks for gasoil, although further cuts to our Chinese forecast for crude runs are still possible. Alternatively, the now weaker demand outlook could equally lead to higher product exports, but much will depend on domestic demand strength and the implications for refiners of China's new domestic pricing regime. Nevertheless, there remains a possibility that the two state refiners will idle capacity rather than run at a loss. Elsewhere, we have reduced our forecasts for the Middle East, due to additional planned maintenance work and recent crude runs falling short of expectations.

Consequently, **1Q09 global** crude throughput is forecast to average 72.3 mb/d, 1.2 mb/d less than estimated in last month's report. Overall, there is little seasonal variation expected during the quarter, with the typical seasonal peak at year-end 2008 much more muted than in previous years. The balance of the quarter is expected to witness depressed refinery crude throughput levels, largely due to economic factors. There is little reported planned maintenance in North America, so we have relied on seasonal averages to estimate the region's crude throughput levels over the quarter. This may prove to be too aggressive an assumption, and would result in upward revisions to our forecast crude throughput during

the coming months. This month also sees a slight change in our methodology, with the switch to a rolling four-month forward forecast for throughputs. Consequently, April throughputs are included in this month's report and are expected to see a small increase compared to the average for 1Q09, as US maintenance winds down while planned work in the OECD Pacific region increases.

OECD 1Q09 crude throughput is forecast to average 37.0 mb/d, 0.5 mb/d below last month's report and 1.2 mb/d below 1Q08 levels. As already highlighted, the dominant factor determining crude throughput levels is currently economic viability, which far outweighs other considerations. Unsurprisingly, continued weak gasoline cracks appear to be affecting those refiners with a structural bias toward gasoline production, i.e. US refiners, despite recent efforts to raise distillate yields. This month's IEA margin calculations illustrate the fact that some hydroskimming refineries in Europe are earning higher margins than many cracking (and even coking) refineries on the US Gulf Coast.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

							Change from		Utilisation rate[1]	
	Jun 08	Jul 08	Aug 08	Sep 08	Oct 08	Nov 08	*Oct 08*	*Nov 07*	Nov 08	Nov 07
OECD North America										
US[2]	15.38	15.24	14.95	12.76	14.55	14.65	0.10	-0.49	83.19	86.79
Canada	1.82	1.80	1.69	1.62	1.64	1.74	0.10	0.02	86.11	85.11
Mexico	1.11	1.22	1.23	1.15	1.20	1.15	-0.05	-0.09	74.57	71.96
Total	18.31	18.26	17.87	15.53	17.39	17.54	0.15	-0.57	82.84	86.18
OECD Europe										
France	1.73	1.72	1.79	1.77	1.83	1.73	-0.11	-0.02	88.30	89.18
Germany	2.11	2.26	2.19	1.96	2.27	2.28	0.02	0.07	94.53	91.61
Italy	1.72	1.73	1.77	1.73	1.61	1.70	0.09	-0.03	72.79	74.12
Netherlands	1.07	1.04	1.03	1.05	0.81	0.82	0.02	-0.11	68.03	77.18
Spain	1.11	1.12	1.18	1.24	1.16	1.12	-0.04	0.05	88.05	83.87
UK	1.66	1.59	1.62	1.66	1.56	1.49	-0.07	-0.06	78.98	82.02
Other OECD Europe	4.06	4.12	4.21	4.04	4.03	4.09	0.06	0.01	87.24	86.98
Total	13.47	13.58	13.79	13.45	13.28	13.24	-0.03	-0.08	83.95	84.46
OECD Pacific										
Japan	3.41	3.74	3.89	3.48	3.44	3.66	0.22	-0.37	78.30	86.23
Korea	2.21	2.35	2.28	2.42	2.40	2.45	0.04	-0.14	89.40	94.40
Other OECD Pacific	0.65	0.67	0.71	0.65	0.66	0.67	0.01	-0.03	82.77	86.35
Total	6.26	6.76	6.88	6.55	6.50	6.77	0.28	-0.54	82.43	88.96
OECD Total	38.04	38.59	38.54	35.53	37.16	37.55	0.39	-1.18	83.16	86.09

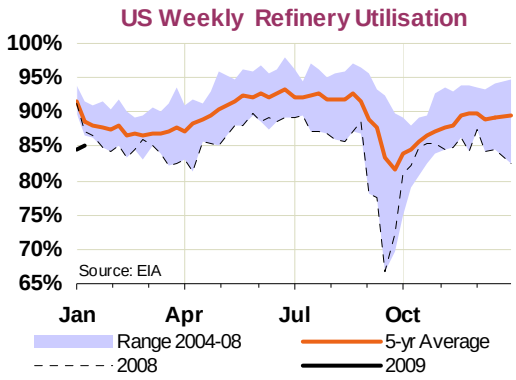
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

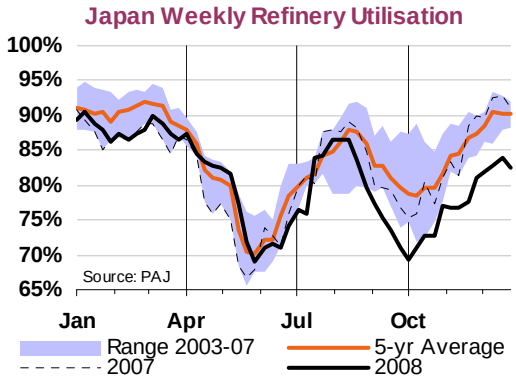
2 US50

OECD North America crude throughput continued to increase in November, as the tail end of the hurricane disruption that had dogged October crude throughput dissipated. The higher-than-estimated November average of 17.5 mb/d is entirely attributable to Mexican crude runs, which were stronger than expected, despite reports of maintenance during the month. December North American throughput is assessed at 17.5 mb/d, 0.2 mb/d below last month's report, following weaker than expected US weekly data. 1Q09 throughput is forecast to average 16.9 mb/d, 0.7 mb/d below previous year levels, reflecting the weaker demand environment and poor economics, as refiners seek to limit the rise in product inventories that is undermining margins.

OECD Pacific November crude runs were 0.3 mb/d ahead of forecast, with Korean crude intake substantially higher than our assumptions. Korean crude runs have held up well, declining by only 5% year-on-year, compared to the 9% decline in Japan, despite the impact of heavily negative naphtha cracks. Nevertheless, we retain our assumption of run cuts for the December forecast, providing the potential for another comparable upward revision next month. 1Q09 crude runs are forecast to average 6.8 mb/d, 0.5 mb/d

below 1Q08 levels, with Japan shouldering the majority of the shortfall. This level of throughput is 0.2 mb/d below last month's report, as further evidence of increasingly severe run cuts has emerged in recent weeks, driven by poor demand.





Refining Industry Responses to the Economic Downturn

The impact of the economic downturn on refiners is evolving. The refining industry has for many months sought to offset weakening demand by cutting runs where economics dictate. Recently however, there has been evidence that refiners are responding not just on an operational basis, but also strategically and financially.

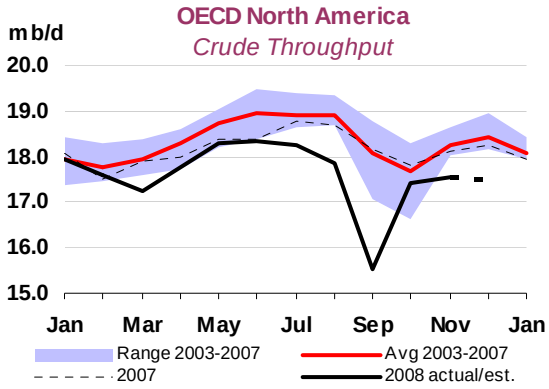
Ever-increasing levels of run cuts have been visible in recent months, particularly among independent refiners in the US and Japan. More evidence has recently emerged that refiners are not just trimming crude capacity utilisation rates, but increasingly turning their attention to upgrading units, particularly fluid catalytic cracking (FCC) units (with their relatively high gasoline yields) as a way to support overall margins and reduce their exposure to negative gasoline cracks. For example, Valero, the largest US independent refiner, has indicated that average FCC utilisation was around 75% in December, well below historical levels.

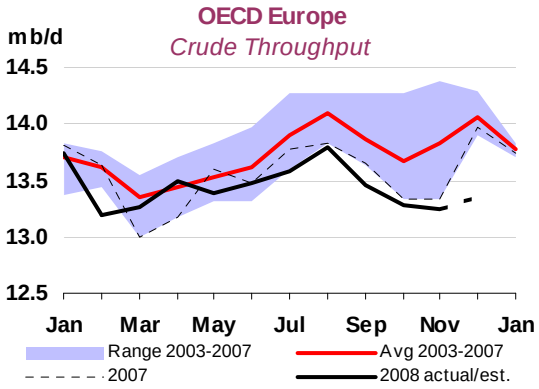
Refiners have also sought to improve their cash flows by cutting planned capital expenditure levels in light of the weaker margin environment. Typical reductions for 2009 plans are in the range of 12-20%, as the prospective returns potentially on offer must be balanced against continued problems for some refiners in accessing debt markets, and the overall level of profitability achievable under the current conditions.

So far two US refiners, Flying J and LyondellBasell, have sought protection from creditors by entering Chapter 11. This, in theory, protects the business while a restructuring of debts is agreed with creditors, but it is not yet clear that the weaker refining margin environment was directly responsible for either demise, i.e. other factors may have played a more dominant role. Nevertheless, that is not to say that more refinery operators, be they independent or integrated operations, will not succumb to such steps, given the dysfunctional debt markets. Lastly, it is worth noting that industry reports suggest that refiners may struggle to satisfactorily source crude in coming months as producers and suppliers seek better protection from refiners undergoing financial restructuring.

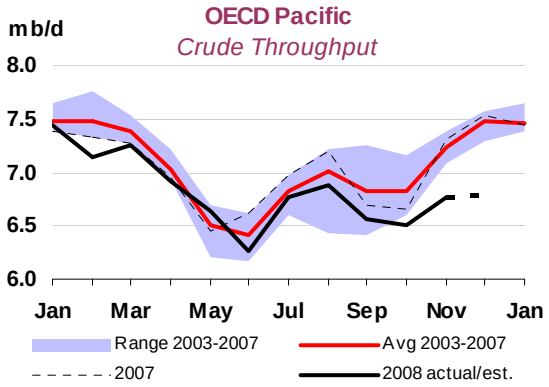
While bankruptcy may be seen as an involuntary restructuring of the business, some refiners have adopted a more aggressive path to improve their competitive position. US refiner Sunoco, which is based largely on the East Coast, has flagged its intention to close its 85 kb/d refinery in Tulsa, Oklahoma if a buyer cannot be found by the end of 2010. Similarly, Nippon Oil, the largest Japanese refiner, has agreed a merger with Nippon Mining Holdings, the sixth largest. The combined entity would initially have approximately 1.9 mb/d of capacity, although the merger envisages closing some 400 kb/d within two years. In the shorter term, Nippon Oil has accelerated plans to close is 60 kb/d Toyama refinery by the end of January, since it faces declining domestic demand and intensified international competition as China moves back towards being a net product exporter from its recent status as a net importer.

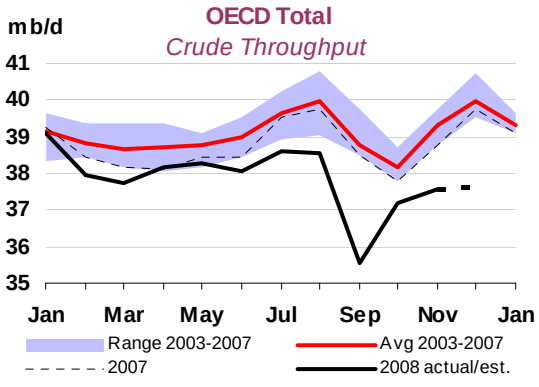
Elsewhere in the region, Australian refineries continue to be dogged by reliability issues, with Caltex's 126 kb/d Lytton refinery temporarily closed during December and Shell delaying the restart of its 85 kb/d Clyde refinery into 2009, from 2008.





OECD Europe crude throughput was broadly flat in November against October's upwardly revised estimate of 13.3 mb/d, and 0.3 mb/d ahead of expectations, according to preliminary data. The bias towards higher distillate yields in the region, and relatively weak crude markets, have supported margins and therefore throughputs, *vis-à-vis* other OECD regions. Nevertheless, there appears to be some disconnect between reported maintenance work and throughput levels, leaving the current throughputs subject to further revisions in future reports, most notably for Turkey, Greece and Italy. December crude throughput is reduced marginally from last month, following a port strike in southern France, which forced varying degrees of run cuts at refineries with a total crude distillation capacity of 0.6 mb/d. Crude supplies to refineries in Switzerland and Germany were also reported to have been affected, but the extent and validity of these reports remains to be seen in next month's preliminary data.





Forecast **1Q09 non-OECD** crude throughput is revised down heavily this month (-0.7 mb/d), in light of changes to this report's demand forecast, continued weak refinery economics and reassessed Middle Eastern crude throughput levels. Weaker crude runs are also assumed for December, following reports of heavier than anticipated run cuts in China. Partially offsetting these changes are stronger than estimated crude runs in Brazil and India during November, which leaves the 4Q08 average 0.1 mb/d lower than last month's report. India's Reliance Petroleum started-up the 580 kb/d expansion of its Jamnagar refinery at the end of December. We have assumed a moderate ramp-up to full capacity over the course of the coming months, but initial reports suggest that this may be too pessimistic, with Reliance keen to reach full operating rates quickly. However, on a regional basis Jamnagar product supplies will eventually displace supplies from other, less economically viable capacity, once the current excess crude availability is removed from the market.

Chinese crude runs fell precipitously in November, as the previously highlighted 4Q08 run cuts materialised. Consequently, crude runs of 6.6 mb/d were 0.1 mb/d below our estimate. This lower level of crude throughput appears more consistent with the evolution of Chinese demand. Further restraint on the part of Chinese state refiners is now envisaged for December and 1Q09, which is likely to weigh on future refinery activity levels. Therefore, we have reduced December and 1Q09 crude runs forecast by 0.4 mb, from last month's report, to an average of 6.5 mb/d. Significant upside to this forecast is possible, given several new refineries that could be brought on stream during the quarter. However, state oil companies appear to be slowing commissioning of planned projects and it is therefore unclear as to when these new plants will enter service.

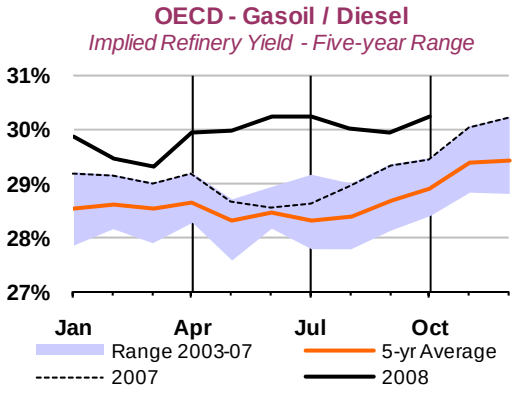
The **Middle East 1Q09** crude throughput forecast is reduced by 0.2 mb/d following a second month of lower-than-expected crude runs in November. Saudi Arabian crude throughput forecasts bear the brunt of the reduction, but also reflect higher planned maintenance forecasts for February and March. **1Q09 FSU** forecasts remain unchanged, following continued strong Russian crude runs in November, but the prospect for further increases above current levels appears dim, with some reports suggesting the spread of the global economic slowdown will be felt more heavily by Russian refineries in the coming months, which entails some downside risk to our current regional forecasts.

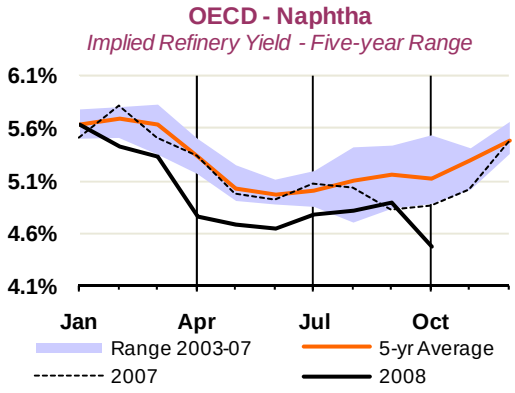
OECD Refinery Yields

We have revised our methodology this month to consider yields on a volumetric basis, instead of the weight-based yields used previously. This brings our methodology for the analysis of yields into line with the other sections of the report, which are based on volumetric measures.

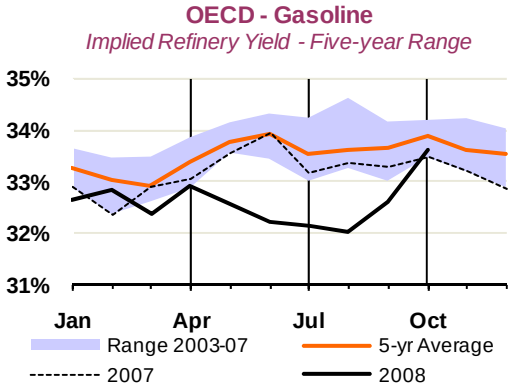
OECD refinery gasoil/diesel yields increased by 0.3 percentage points (1%) in October to a near-record level of 30.2%, on strong demand and resilient crack spreads. Both North America and Europe showed a month-on-month growth of 0.7 percentage points, from 24.7% to 25.4% and from 36.9% to 37.6%, respectively. OECD Pacific yields stayed around the previous month's level at 28.8%. Year-on-year growth remains around 0.8 percentage points, driven by percentage point gains in Europe of 1.7, 0.2 in North America and 0.5 in the Pacific.

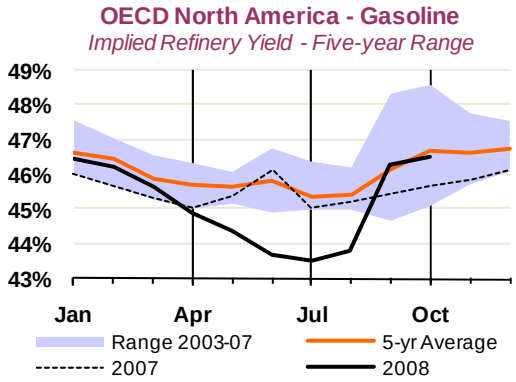
A continuous weakening of naphtha cracks appears to have resulted in yields for naphtha decreasing during October to 4.5%, well below the five-year range for the time of the year. European yields decreased by 0.7 percentage points from September to 5.5%, offsetting an increase of 0.3 in the Pacific. The weakness of naphtha cracks in November suggests that OECD refiners will continue to exert downward pressure on naphtha yields during the remainder of the year.



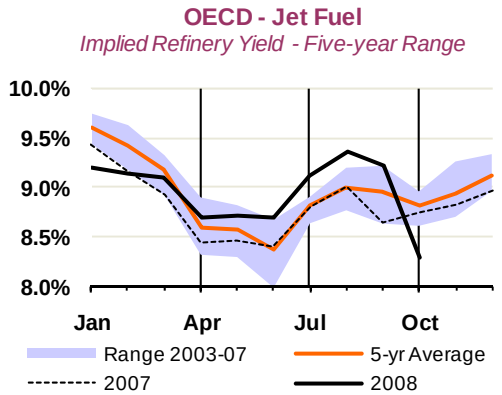


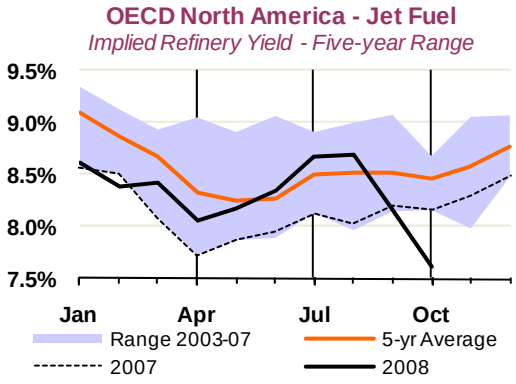
OECD refinery gasoline yields have recovered to 33.6%, near the five-year average level, supported by an increase of 2.7 percentage points in North America yields since August to 46.5% in October. The increase in North American gasoline yields reflects moves to offset the tight stock situation seen in September 2008, which exacerbated already low stocks seen in August in the US, and mirrors the uptick seen after the 2005 hurricanes. Gasoline stocks in the US are now back in the five-year range, so it is possible that a reversion to lower level yields will be seen in data for the remainder of 2008.





A striking decrease in North American jet fuel/kerosene yields since August has reduced total OECD yield from above the five-year range to below the range at 8.3% in October, a reduction of 1.1 percentage points from the August level of 9.4%. In part this move was necessary to accommodate the higher gasoline yields discussed above. However, weaker demand has also far outstripped supply disruptions in the US following September's hurricanes, and has consequently pressured jet prices, resulting in a decrease of crack spreads. European refiners similarly lowered jet fuel yields to 6.3%, in line with seasonal patterns, but the reduction of 1.3 percentage points from September level of 7.6% was far greater than the five-year average decline. The Pacific jet/kerosene yields fell counter seasonally by 1.1 percentage points from 15.5% in September to 14.4% in October. Weak heating-kerosene demand forced refiners to produce a higher percentage of jet fuel (leading to higher export volumes) relative to what the seasonal pattern would indicate ahead of the region's peak winter demand.





OECD fuel oil yields remain below the five-year range despite a monthly increase of 1.4 percentage points in European fuel oil yields from 11.2% in September to 12.6% in October. OECD Pacific fuel oil yields are now well below the five-year range as a result of significantly lower yields in Korea (12.5% in October 2008 compared to 18.5% in October 2007), thanks to the start-up of new upgrading capacity in the middle of 2008.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	25.6	25.4	25.7	25.4	25.5	25.5	25.5	24.8	24.5	23.7	24.2	24.3	23.7	23.6	23.8	23.6	23.7
Europe	15.7	15.7	15.2	14.9	15.4	15.6	15.3	15.2	14.9	15.4	15.2	15.2	14.9	14.6	15.1	14.9	14.9
Pacific	8.6	8.5	8.9	7.9	7.9	8.7	8.3	8.9	7.8	7.5	8.0	8.0	8.4	7.5	7.4	7.9	7.8
Total OECD	49.8	49.6	49.8	48.2	48.9	49.9	49.2	48.9	47.2	46.6	47.4	47.5	46.9	45.7	46.3	46.4	46.3
NON-OECD DEMAND																	
FSU	3.9	4.1	4.1	3.9	4.2	4.3	4.1	4.1	4.1	4.4	4.4	4.3	4.2	4.2	4.4	4.5	4.3
Europe	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.8
China	6.7	7.2	7.3	7.7	7.5	7.6	7.5	7.9	8.0	8.1	7.6	7.9	7.9	8.1	8.0	7.8	8.0
Other Asia	8.8	9.0	9.2	9.3	9.1	9.4	9.3	9.6	9.6	9.1	9.2	9.4	9.6	9.7	9.3	9.4	9.5
Latin America	5.1	5.3	5.4	5.6	5.7	5.7	5.6	5.7	5.9	6.0	5.8	5.8	5.8	6.0	6.1	6.0	6.0
Middle East	6.0	6.2	6.4	6.5	6.7	6.4	6.5	6.7	7.0	7.3	6.9	7.0	7.0	7.2	7.6	7.1	7.2
Africa	2.9	3.0	3.1	3.1	3.0	3.1	3.1	3.1	3.2	3.0	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Total Non-OECD	34.2	35.5	36.4	36.9	36.9	37.3	36.9	37.9	38.5	38.6	37.9	38.2	38.5	39.2	39.2	38.8	38.9
Total Demand[1]	84.0	85.1	86.2	85.1	85.7	87.2	86.0	86.9	85.7	85.3	85.3	85.8	85.4	84.9	85.5	85.3	85.3
OECD SUPPLY																	
North America	14.1	14.2	14.4	14.4	14.2	14.1	14.3	14.2	14.1	13.6	13.9	13.9	14.2	13.9	13.9	14.2	14.0
Europe	5.6	5.2	5.2	4.9	4.7	5.0	5.0	4.9	4.8	4.5	4.7	4.7	4.5	4.2	4.0	4.2	4.2
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Total OECD	20.3	20.0	20.2	19.9	19.5	19.8	19.8	19.7	19.5	18.8	19.3	19.3	19.4	18.8	18.6	19.1	19.0
NON-OECD SUPPLY																	
FSU	11.8	12.2	12.8	12.7	12.8	12.8	12.8	12.8	12.9	12.6	12.7	12.7	12.9	13.0	12.8	12.8	12.9
Europe	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.8	3.8	3.8	3.9	3.8	3.9	4.0	4.0	3.9	3.9
Other Asia	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2.7	2.6	2.7	2.7	2.7	2.7	2.7
Latin America[2]	4.3	4.4	4.4	4.4	4.3	4.2	4.3	3.9	4.0	4.1	4.1	4.0	4.3	4.3	4.3	4.3	4.3
Middle East	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5
Africa[2]	3.7	3.9	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.6
Total Non-OECD	28.0	28.8	27.9	27.8	27.7	27.7	27.8	27.6	27.6	27.4	27.6	27.5	28.2	28.3	28.1	28.1	28.2
Processing Gains[3]	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3
Other Biofuels[4]	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Total Non-OPEC[2]	50.4	51.2	50.5	50.3	49.7	50.1	50.1	49.8	49.7	48.9	49.7	49.5	50.4	50.0	49.6	50.1	50.0
Non-OPEC excl. Angola & Ecuador[2]	48.7	49.2	50.0	49.8	49.2	49.7	49.7	49.8	49.7	48.9	49.7	49.5	50.4	50.0	49.6	50.1	50.0
OPEC																	
Crude[5]	29.7	29.7	30.4	30.2	30.7	31.6	30.7	32.4	32.2	32.4	31.4	32.1					
NGLs	4.5	4.6	4.7	4.7	4.8	4.8	4.8	4.8	4.9	5.0	5.1	5.0	5.2	5.4	5.7	5.9	5.6
Total OPEC[2]	34.2	34.3	35.1	35.0	35.4	36.4	35.5	37.2	37.1	37.4	36.6	37.1					
OPEC incl. Angola & Ecuador[2]	36.0	36.3	35.6	35.5	36.0	36.8	35.9	37.2	37.1	37.4	36.6	37.1					
Total Supply[6]	84.7	85.5	85.6	85.2	85.2	86.5	85.6	87.1	86.8	86.3	86.2	86.6					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.2	-0.8	0.7	-0.1	-0.9	-0.3	0.1	0.4	0.6							
Government	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	-0.1							
Total	0.2	0.3	-0.7	0.7	0.1	-0.8	-0.2	0.1	0.4	0.5							
Floating Storage/Oil in Transit	-0.1	-0.1	0.1	0.0	-0.3	0.2	0.0	0.3	0.0	-0.3							
Miscellaneous to balance[7]	0.5	0.2	0.0	-0.5	-0.4	-0.1	-0.2	-0.2	0.7	0.8							
Total Stock Ch. & Misc	0.7	0.4	-0.6	0.1	-0.6	-0.7	-0.4	0.2	1.1	1.0	1.0	0.8					
Memo items:																	
Call on OPEC crude + Stock ch.[8]	29.1	29.3	30.9	30.1	31.2	32.3	31.1	32.2	31.2	31.4	30.4	31.3	29.7	29.4	30.2	29.3	29.7
Adjusted Call on OPEC + Stock ch.[9]	29.6	29.5	30.9	29.6	30.9	32.2	30.9	31.9	31.9	32.2	30.6	31.7	29.9	29.7	30.4	29.5	29.9
"Call" incl. Angola & Ecuador[2]	30.8	31.2	31.4	30.6	31.7	32.6	31.6	32.2	31.2	31.4	30.4	31.3	29.7	29.4	30.2	29.3	29.7
"Adjusted Call" incl. Angola & Ecuador[2]	31.4	31.5	31.4	30.1	31.4	32.5	31.4	31.9	31.9	32.2	30.6	31.7	29.9	29.7	30.4	29.5	29.9

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Ecuadorean production is reclassified within OPEC and excluded from the Non-OPEC and Latin America totals, for the period December 2007 onwards. Angolan production is classified within OPEC and excluded from the Non-OPEC and Africa totals, for the period January 2007 onwards. Secondary aggregates allow comparison with previous year totals by including Angola and Ecuador within OPEC retroactively.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Biofuels from sources outside Brazil and US.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	-	0.6	0.1	-0.2	-0.3	-	-0.1	-0.2
Europe	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.2	-0.1	-0.1	-0.3	-0.2
Pacific	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.2	-0.1	-0.1	-0.4	-0.2
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.6	-0.5	-0.2	-0.8	-0.5
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.4	-0.1	-0.1	-0.5	-0.3
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-0.1	-0.1
Latin America	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.2	-0.1
Middle East	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.6	-0.3	-0.3	-0.7	-0.5
Total Demand	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-1.3	-0.8	-0.5	-1.5	-1.0
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-0.1	-0.2	-0.1	-0.1	-	-	-	-0.1
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-	-	-	-
Non-OPEC excl. Angola & Ecuador	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-	-	-	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-							
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-0.1	-0.1
Total OPEC	-	-	-	-	-	-	-	-	-	-							
OPEC incl. Angola & Ecuador	-	-	-	-	-	-	-	-	-	-							
Total Supply	-	-	-	-	-	-	-	-	-	-0.1							
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-							
Government	-	-	-	-	-	-	-	-	-	-							
Total	-	-	-	-	-	-	-	-	-	-							
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-							
Miscellaneous to balance	-	-	-	-	-	-	-	-	-	-0.1							
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-	-0.1	-0.1							
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	0.1	0.1	-0.2	-	-1.1	-0.7	-0.5	-1.4	-0.9
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-1.1	-0.7	-0.5	-1.5	-0.9

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

Summary of Global Oil Demand

	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Demand (mb/d)																
North America	25.42	25.68	25.40	25.55	25.49	25.53	24.84	24.52	23.75	24.20	24.32	23.65	23.64	23.79	23.64	23.68
Europe	15.68	15.18	14.93	15.42	15.65	15.30	15.20	14.89	15.39	15.19	15.17	14.85	14.56	15.11	14.93	14.86
Pacific	8.48	8.91	7.87	7.89	8.72	8.35	8.87	7.82	7.50	7.98	8.04	8.42	7.53	7.36	7.86	7.79
Total OECD	49.58	49.77	48.20	48.85	49.86	49.17	48.91	47.24	46.63	47.37	47.53	46.93	45.73	46.26	46.42	46.33
FSU	4.06	4.11	3.93	4.17	4.28	4.12	4.11	4.12	4.35	4.44	4.26	4.23	4.22	4.43	4.51	4.35
Europe	0.74	0.81	0.75	0.70	0.75	0.75	0.82	0.76	0.71	0.76	0.76	0.83	0.77	0.72	0.77	0.77
China	7.21	7.33	7.73	7.52	7.59	7.54	7.85	7.95	8.06	7.58	7.86	7.89	8.09	7.99	7.82	7.95
Other Asia	9.00	9.23	9.33	9.06	9.40	9.26	9.64	9.65	9.13	9.24	9.41	9.55	9.65	9.27	9.43	9.47
Latin America	5.33	5.41	5.59	5.73	5.73	5.62	5.67	5.88	6.00	5.83	5.85	5.81	6.02	6.13	5.97	5.98
Middle East	6.22	6.40	6.50	6.73	6.44	6.52	6.71	6.96	7.32	6.86	6.96	6.96	7.23	7.60	7.13	7.23
Africa	2.96	3.09	3.08	2.99	3.12	3.07	3.15	3.18	3.04	3.16	3.13	3.19	3.22	3.09	3.20	3.18
Total Non-OECD	35.52	36.39	36.90	36.90	37.31	36.88	37.95	38.50	38.62	37.88	38.24	38.46	39.21	39.22	38.83	38.93
World	85.11	86.16	85.10	85.75	87.16	86.04	86.85	85.74	85.25	85.25	85.77	85.38	84.93	85.49	85.25	85.26
of which:																
US50	*20.69*	*20.79*	*20.63*	*20.73*	*20.58*	*20.68*	*19.99*	*19.76*	*18.91*	*19.40*	*19.51*	*18.91*	*18.96*	*19.06*	*18.93*	*18.97*
Euro4	*8.23*	*7.84*	*7.65*	*7.87*	*8.03*	*7.85*	*7.79*	*7.65*	*7.94*	*7.83*	*7.80*	*7.64*	*7.43*	*7.79*	*7.65*	*7.63*
Japan	*5.20*	*5.43*	*4.64*	*4.70*	*5.25*	*5.01*	*5.41*	*4.59*	*4.30*	*4.73*	*4.76*	*5.04*	*4.29*	*4.18*	*4.57*	*4.52*
Korea	*2.18*	*2.36*	*2.12*	*2.06*	*2.31*	*2.21*	*2.33*	*2.09*	*2.07*	*2.11*	*2.15*	*2.25*	*2.09*	*2.05*	*2.13*	*2.13*
Mexico	*2.08*	*2.12*	*2.14*	*2.06*	*2.16*	*2.12*	*2.10*	*2.16*	*2.11*	*2.02*	*2.10*	*2.05*	*2.10*	*2.06*	*1.99*	*2.05*
Canada	*2.30*	*2.38*	*2.29*	*2.40*	*2.39*	*2.37*	*2.37*	*2.25*	*2.36*	*2.40*	*2.35*	*2.29*	*2.23*	*2.32*	*2.33*	*2.29*
Brazil	*2.19*	*2.22*	*2.26*	*2.34*	*2.42*	*2.31*	*2.35*	*2.44*	*2.51*	*2.44*	*2.43*	*2.40*	*2.50*	*2.56*	*2.49*	*2.49*
India	*2.80*	*3.04*	*2.97*	*2.74*	*3.04*	*2.95*	*3.19*	*3.12*	*2.92*	*3.06*	*3.07*	*3.26*	*3.23*	*3.02*	*3.16*	*3.16*
Annual Change (% per annum)																
North America	-0.6	1.3	0.9	-0.4	-0.1	0.4	-3.3	-3.5	-7.0	-5.1	-4.7	-4.8	-3.6	0.2	-2.3	-2.6
Europe	0.1	-5.2	-2.4	-1.6	-0.6	-2.4	0.1	-0.2	-0.2	-2.9	-0.8	-2.3	-2.3	-1.8	-1.8	-2.0
Pacific	-1.4	-4.1	-0.5	-0.7	-1.0	-1.6	-0.5	-0.7	-5.0	-8.4	-3.7	-5.1	-3.8	-1.8	-1.6	-3.1
Total OECD	-0.5	-1.7	-0.4	-0.8	-0.4	-0.8	-1.7	-2.0	-4.6	-5.0	-3.3	-4.0	-3.2	-0.8	-2.0	-2.5
FSU	3.4	2.3	1.8	1.0	1.4	1.6	0.1	5.0	4.3	3.8	3.3	2.8	2.3	1.7	1.5	2.0
Europe	1.0	2.0	1.9	1.9	1.5	1.8	1.5	1.8	1.8	1.7	1.7	0.9	1.2	1.2	1.1	1.1
China	7.8	4.5	5.1	4.1	4.6	4.6	7.1	2.9	7.2	-0.1	4.2	0.6	1.8	-0.9	3.2	1.1
Other Asia	2.3	1.6	2.6	3.2	3.8	2.8	4.4	3.4	0.9	-1.7	1.7	-0.9	0.1	1.5	2.1	0.7
Latin America	4.6	4.6	5.1	5.5	5.9	5.3	4.6	5.3	4.6	1.8	4.1	2.5	2.3	2.2	2.3	2.3
Middle East	4.0	5.1	5.9	4.2	3.8	4.7	4.9	7.0	8.8	6.6	6.8	3.7	3.9	3.8	3.9	3.8
Africa	0.9	3.3	2.9	3.5	5.6	3.8	1.7	3.2	1.7	1.3	2.0	1.5	1.4	1.6	1.4	1.5
Total Non-OECD	4.0	3.5	4.0	3.6	4.1	3.8	4.3	4.3	4.7	1.5	3.7	1.3	1.8	1.6	2.5	1.8
World	1.3	0.4	1.5	1.1	1.5	1.1	0.8	0.8	-0.6	-2.2	-0.3	-1.7	-0.9	0.3	0.0	-0.6
Annual Change (mb/d)																
North America	-0.14	0.34	0.23	-0.10	-0.02	0.11	-0.84	-0.88	-1.80	-1.30	-1.20	-1.18	-0.88	0.05	-0.56	-0.64
Europe	0.01	-0.83	-0.37	-0.25	-0.10	-0.38	0.02	-0.03	-0.04	-0.45	-0.13	-0.35	-0.34	-0.28	-0.27	-0.31
Pacific	-0.12	-0.38	-0.04	-0.05	-0.09	-0.14	-0.04	-0.05	-0.39	-0.74	-0.31	-0.45	-0.29	-0.14	-0.13	-0.25
Total OECD	-0.25	-0.88	-0.17	-0.40	-0.21	-0.41	-0.87	-0.96	-2.22	-2.48	-1.64	-1.98	-1.51	-0.37	-0.95	-1.20
FSU	0.13	0.09	0.07	0.04	0.06	0.07	0.00	0.20	0.18	0.16	0.14	0.11	0.09	0.07	0.07	0.09
Europe	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
China	0.52	0.31	0.38	0.29	0.33	0.33	0.52	0.23	0.54	-0.01	0.32	0.04	0.14	-0.07	0.24	0.09
Other Asia	0.21	0.14	0.24	0.28	0.34	0.25	0.41	0.31	0.08	-0.16	0.16	-0.09	0.01	0.13	0.19	0.06
Latin America	0.23	0.24	0.27	0.30	0.32	0.28	0.25	0.30	0.27	0.10	0.23	0.14	0.13	0.13	0.14	0.14
Middle East	0.24	0.31	0.36	0.27	0.24	0.29	0.31	0.46	0.59	0.42	0.45	0.25	0.27	0.28	0.27	0.27
Africa	0.03	0.10	0.09	0.10	0.16	0.11	0.05	0.10	0.05	0.04	0.06	0.05	0.04	0.05	0.04	0.05
Total Non-OECD	1.36	1.22	1.42	1.30	1.47	1.35	1.56	1.60	1.72	0.57	1.36	0.51	0.71	0.60	0.95	0.69
World	1.11	0.34	1.24	0.90	1.26	0.94	0.69	0.64	-0.50	-1.91	-0.27	-1.47	-0.81	0.24	0.00	-0.51
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.57	0.14	-0.25	-0.27	-0.03	-0.11	-0.16
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	-0.31	-0.06	-0.16	-0.06	-0.07	-0.33	-0.16
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.33	-0.08	-0.21	-0.13	-0.13	-0.39	-0.21
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	-0.07	-0.01	-0.61	-0.46	-0.22	-0.84	-0.53
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.02	0.00	0.00	0.00	0.02	0.00
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
China	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.33	-0.08	-0.35	-0.14	-0.12	-0.48	-0.27
Other Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	-0.01	-0.01	0.00	-0.18	-0.10	-0.08	-0.10	-0.11
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.11	-0.02	-0.06	-0.06	-0.06	-0.17	-0.09
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.02	-0.04	-0.03	-0.03	0.04	-0.01
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.02	0.00
Total Non-OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.28	-0.07	-0.64	-0.33	-0.30	-0.66	-0.48
World	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	-0.35	-0.07	-1.25	-0.79	-0.52	-1.50	-1.01
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.02	-0.35	-0.07	-1.26	-0.81	-0.55	-1.15	-0.94

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2007	2008	2009	3Q08	4Q08	1Q09	2Q09	3Q09	Oct 08	Nov 08	Dec 08
OPEC											
Crude Oil											
Saudi Arabia	8.48	8.91		9.19	8.64				9.12	8.63	8.19
Iran	3.98	3.90		3.90	3.83				3.85	3.76	3.88
Iraq	2.09	2.37		2.32	2.34				2.26	2.37	2.39
UAE	2.52	2.58		2.63	2.42				2.54	2.30	2.43
Kuwait	2.16	2.31		2.33	2.30				2.36	2.31	2.24
Neutral Zone	0.56	0.57		0.58	0.54				0.56	0.55	0.53
Qatar	0.80	0.85		0.87	0.83				0.85	0.82	0.81
Angola[6]	1.66	1.85		1.83	1.82				1.83	1.83	1.80
Nigeria	2.13	1.95		1.99	1.91				1.94	1.90	1.90
Libya	1.71	1.72		1.68	1.72				1.73	1.71	1.72
Algeria	1.36	1.37		1.37	1.36				1.39	1.36	1.34
Ecuador[6]	0.04	0.50		0.50	0.49				0.50	0.50	0.49
Venezuela	2.39	2.36		2.33	2.35				2.35	2.35	2.35
Indonesia	0.84	0.85		0.86	0.84				0.85	0.85	0.84
Total Crude Oil[6]	30.71	32.10		32.38	31.41				32.11	31.22	30.90
Total NGLs[1,6]	4.77	4.96	5.56	4.99	5.14	5.24	5.45	5.67	5.14	5.14	5.14
Total OPEC[6]	35.48	37.06		37.36	36.56				37.25	36.37	36.04
OPEC incl. Angola & Ecuador[6]	35.95	37.06		37.36	36.56				37.25	36.37	36.04
NON-OPEC[2]											
OECD											
North America	14.27	13.94	14.04	13.61	13.89	14.17	13.95	13.86	13.55	13.99	14.12
United States	7.48	7.52	7.87	7.23	7.44	7.75	7.96	7.81	7.15	7.56	7.62
Mexico	3.48	3.17	2.94	3.12	3.12	3.06	2.98	2.88	3.12	3.11	3.12
Canada	3.32	3.24	3.23	3.26	3.33	3.36	3.01	3.17	3.28	3.32	3.38
Europe	4.95	4.72	4.22	4.51	4.70	4.50	4.17	4.01	4.61	4.75	4.75
UK	1.66	1.53	1.30	1.40	1.42	1.43	1.30	1.16	1.38	1.42	1.47
Norway	2.56	2.47	2.23	2.39	2.56	2.35	2.17	2.16	2.52	2.59	2.56
Others	0.73	0.72	0.70	0.71	0.72	0.72	0.70	0.69	0.70	0.74	0.72
Pacific	0.63	0.65	0.73	0.66	0.70	0.73	0.73	0.74	0.68	0.72	0.69
Australia	0.55	0.55	0.62	0.56	0.60	0.63	0.62	0.61	0.59	0.62	0.60
Others	0.08	0.10	0.12	0.09	0.10	0.10	0.11	0.12	0.09	0.10	0.10
Total OECD	19.85	19.30	19.00	18.77	19.29	19.39	18.85	18.61	18.84	19.46	19.57
NON-OECD											
Former USSR	12.77	12.74	12.89	12.64	12.66	12.95	13.01	12.81	12.65	12.65	12.67
Russia	10.08	9.99	9.71	10.02	9.99	9.83	9.77	9.68	10.08	10.01	9.88
Others	2.69	2.75	3.17	2.62	2.67	3.12	3.24	3.13	2.57	2.64	2.79
Asia	6.39	6.45	6.66	6.40	6.54	6.64	6.68	6.66	6.46	6.54	6.61
China	3.73	3.81	3.95	3.79	3.87	3.94	3.95	3.96	3.85	3.84	3.92
Malaysia	0.74	0.76	0.79	0.77	0.76	0.79	0.80	0.79	0.73	0.77	0.78
India	0.81	0.81	0.82	0.80	0.82	0.81	0.81	0.81	0.82	0.83	0.81
Others	1.11	1.07	1.11	1.04	1.08	1.10	1.12	1.11	1.06	1.09	1.10
Europe	0.13	0.12	0.11	0.12	0.12	0.12	0.11	0.11	0.12	0.12	0.12
Latin America	4.32	4.02	4.33	4.07	4.09	4.30	4.34	4.34	4.07	4.03	4.18
Brazil	2.14	2.26	2.51	2.29	2.29	2.48	2.52	2.53	2.28	2.22	2.38
Argentina	0.75	0.74	0.76	0.76	0.75	0.77	0.77	0.76	0.75	0.76	0.76
Colombia	0.54	0.58	0.60	0.60	0.59	0.60	0.60	0.60	0.59	0.60	0.59
Ecuador[6]	0.46										
Others	0.43	0.43	0.46	0.42	0.45	0.46	0.46	0.46	0.45	0.46	0.45
Middle East[3]	1.64	1.61	1.55	1.61	1.59	1.57	1.55	1.54	1.60	1.59	1.58
Oman	0.70	0.72	0.71	0.72	0.71	0.71	0.71	0.71	0.72	0.71	0.70
Syria	0.40	0.39	0.38	0.39	0.39	0.39	0.38	0.38	0.39	0.39	0.39
Yemen	0.34	0.31	0.27	0.30	0.30	0.28	0.27	0.26	0.30	0.30	0.29
Africa	2.55	2.59	2.64	2.59	2.60	2.62	2.64	2.66	2.60	2.60	2.60
Egypt	0.67	0.69	0.69	0.69	0.70	0.70	0.70	0.69	0.70	0.70	0.70
Gabon	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Others	1.65	1.67	1.71	1.67	1.66	1.68	1.70	1.72	1.67	1.66	1.66
Total Non-OECD	27.81	27.53	28.18	27.43	27.60	28.20	28.34	28.13	27.51	27.52	27.76
Processing Gains[4]	2.17	2.24	2.29	2.25	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Other Biofuels[5]	0.33	0.46	0.58	0.46	0.52	0.55	0.58	0.58	0.52	0.52	0.52
TOTAL NON-OPEC	50.15	49.54	50.04	48.91	49.69	50.42	50.04	49.60	49.16	49.79	50.13
Non-OPEC excl. Angola & Ecuador[6]	49.68	49.54	50.04	48.91	49.69	50.42	50.04	49.60	49.16	49.79	50.13
TOTAL SUPPLY	85.63	86.60		86.27	86.25				86.41	86.16	86.17

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Comprises fuel ethanol and biodiesel supply from outside Brazil and US.
6 Primary OPEC totals include contributions from Angola from January 2007 onwards and Ecuador from December 2007 onwards. Secondary aggregates allow comparison with previous year totals by including Angola and Ecuador within OPEC retroactively

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jul2008	Aug2008	Sep2008	Oct2008	Nov2008*	Nov2005	Nov2006	Nov2007	4Q2007	1Q2008	2Q2008	3Q2008
North America												
Crude	437.3	439.7	448.6	457.8	463.9	457.4	465.6	437.5	-0.29	0.35	-0.22	0.15
Motor Gasoline	233.5	220.8	217.6	222.6	226.8	234.0	232.0	234.1	0.21	0.06	-0.13	-0.21
Middle Distillate	201.3	205.5	196.4	196.8	198.5	210.7	210.5	206.5	0.02	-0.33	0.14	0.05
Residual Fuel Oil	44.1	45.9	47.7	48.3	47.0	47.2	51.8	46.5	0.04	0.00	0.02	-0.02
Total Products[3]	661.5	660.9	655.3	655.1	665.0	676.1	686.1	660.5	-0.05	-0.45	0.35	0.00
Total[4]	1257.2	1265.6	1274.6	1280.7	1294.0	1293.0	1308.6	1253.8	-0.59	-0.14	0.27	0.38
Europe												
Crude	344.2	323.6	333.7	332.1	327.8	326.7	335.4	331.9	0.07	0.07	0.01	-0.01
Motor Gasoline	105.3	109.7	100.9	100.8	101.4	109.2	108.8	105.1	0.10	0.08	-0.14	-0.08
Middle Distillate	255.7	274.4	260.2	249.4	249.0	247.4	253.6	223.2	-0.17	0.13	0.02	0.12
Residual Fuel Oil	80.1	77.9	76.2	76.5	75.3	77.2	75.3	72.2	-0.04	0.07	0.00	-0.05
Total Products[3]	551.2	573.7	547.8	542.2	542.0	534.7	542.8	504.5	-0.09	0.31	-0.12	0.02
Total[4]	970.0	967.5	951.7	947.5	942.1	936.3	948.4	910.7	-0.01	0.35	-0.09	-0.04
Pacific												
Crude	169.5	166.3	161.6	162.7	162.0	166.2	184.5	160.5	-0.01	-0.04	0.13	-0.07
Motor Gasoline	22.8	24.3	22.6	23.2	23.3	24.3	23.2	21.1	0.01	0.05	-0.03	-0.02
Middle Distillate	65.8	75.9	74.1	73.9	69.9	79.1	82.5	71.3	-0.08	-0.14	0.03	0.16
Residual Fuel Oil	22.1	23.7	22.3	20.7	20.9	23.2	21.9	19.7	-0.05	-0.01	0.03	0.00
Total Products[3]	178.0	194.9	191.9	192.4	186.0	191.6	199.1	177.6	-0.23	-0.11	0.02	0.28
Total[4]	422.4	436.9	429.5	431.3	421.4	432.1	456.1	411.0	-0.27	-0.14	0.18	0.23
Total OECD												
Crude	951.0	929.6	943.9	952.5	953.7	950.3	985.6	929.9	-0.24	0.38	-0.08	0.07
Motor Gasoline	361.7	354.7	341.1	346.6	351.5	367.5	364.0	360.3	0.32	0.19	-0.30	-0.30
Middle Distillate	522.7	555.7	530.7	520.2	517.4	537.2	546.5	500.9	-0.23	-0.34	0.19	0.32
Residual Fuel Oil	146.3	147.5	146.1	145.5	143.1	147.6	148.9	138.4	-0.04	0.05	0.05	-0.07
Total Products[3]	1390.6	1429.6	1394.9	1389.8	1393.0	1402.4	1428.1	1342.5	-0.37	-0.25	0.25	0.29
Total[4]	2649.5	2670.0	2655.8	2659.5	2657.5	2661.3	2713.1	2575.5	-0.87	0.08	0.36	0.57

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jul2008	Aug2008	Sep2008	Oct2008	Nov2008*	Nov2005	Nov2006	Nov2007	4Q2007	1Q2008	2Q2008	3Q2008
North America												
Crude	707.2	707.2	702.4	701.8	701.8	685.6	688.6	695.5	0.05	0.04	0.06	-0.04
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	180.0	178.5	179.6	184.7	184.7	167.1	174.9	182.3	0.08	0.00	-0.03	-0.02
Products	235.8	231.6	233.1	229.5	229.5	236.9	233.3	232.4	-0.09	-0.01	-0.01	-0.01
Pacific												
Crude	384.2	384.2	384.3	384.7	386.1	380.5	381.6	385.1	0.00	0.00	0.00	-0.01
Products	18.9	19.2	19.2	19.2	19.2	11.3	11.8	18.9	0.01	0.00	0.00	0.00
Total OECD												
Crude	1271.5	1270.0	1266.3	1271.2	1272.7	1233.3	1245.1	1262.9	0.12	0.04	0.02	-0.07
Products	256.7	252.8	254.2	250.7	250.7	250.2	247.1	253.3	-0.08	-0.01	-0.01	-0.01
Total[4]	1529.2	1523.8	1521.5	1522.9	1524.4	1484.5	1493.2	1517.1	0.04	0.03	0.02	-0.08

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End September 2007		End December 2007		End March 2008		End June 2008		End September 2008 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	195.9	82	195.7	83	193.8	86	193.5	82	193.9	-
Mexico	43.5	20	45.0	21	46.8	22	44.7	21	55.7	-
United States[4]	1718.5	84	1667.3	84	1655.1	84	1687.5	90	1707.3	-
Total[4]	1980.0	78	1930.1	78	1917.7	78	1947.9	82	1979.0	82
Pacific										
Australia	36.8	37	35.6	37	34.3	35	37.6	39	37.7	-
Japan	629.6	120	621.0	115	610.0	133	619.1	144	646.2	-
Korea	157.4	68	143.5	62	142.8	68	146.6	71	141.2	-
New Zealand	8.4	53	8.3	49	8.4	55	8.4	58	7.9	-
Total	832.3	95	808.3	91	795.6	102	811.6	108	833.0	104
Europe[5]										
Austria	22.1	76	22.1	81	22.7	78	22.8	77	21.5	-
Belgium	27.8	42	27.2	40	30.3	49	28.4	47	29.9	-
Czech Republic	19.5	98	20.2	101	20.4	91	20.2	89	19.1	-
Denmark	18.8	96	17.1	95	16.4	89	19.0	107	18.3	-
Finland	29.7	129	27.1	128	30.5	135	25.5	115	30.1	-
France	175.3	87	179.9	91	177.5	93	176.6	92	176.6	-
Germany	276.5	108	274.6	110	281.5	115	273.1	99	271.7	-
Greece	34.8	73	37.4	80	34.9	92	36.3	87	39.7	-
Hungary	17.1	100	15.4	100	16.7	101	16.6	100	15.5	-
Ireland	12.6	62	10.6	55	12.1	63	10.4	57	10.5	-
Italy	134.2	77	132.9	82	130.9	82	136.7	83	130.3	-
Luxembourg	0.9	15	0.7	12	0.6	10	0.7	12	0.6	-
Netherlands	122.9	121	116.6	109	126.5	126	124.5	120	117.1	-
Norway	21.8	86	26.6	138	25.4	104	23.1	119	26.5	-
Poland	50.9	92	58.2	109	57.6	108	57.4	105	58.8	-
Portugal	23.2	77	23.6	82	24.9	86	25.3	87	25.0	-
Slovak Republic	7.7	87	7.9	99	9.0	112	9.1	99	8.0	-
Spain	136.7	84	133.9	84	134.2	87	135.0	87	135.8	-
Sweden	33.6	95	34.5	100	34.2	97	34.1	94	36.6	-
Switzerland	38.1	136	35.9	144	36.5	150	37.2	141	37.8	-
Turkey	61.1	90	60.3	90	60.9	93	60.9	80	60.8	-
United Kingdom	89.7	52	89.9	52	100.5	59	99.3	61	95.1	-
Total	1355.0	86	1352.7	89	1384.4	92	1372.3	89	1365.3	90
Total OECD	4167.3	83	4091.1	84	4097.7	87	4131.8	89	4177.3	88
DAYS OF IEA Net Imports[6]	-	120	-	121	-	122	-	123	-	124

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End September 2008 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand*[2]		
3Q2005	4121	1494	2627	82	30	52
4Q2005	4072	1487	2585	80	29	51
1Q2006	4072	1487	2585	84	31	53
2Q2006	4141	1493	2648	84	30	54
3Q2006	4253	1495	2758	85	30	55
4Q2006	4165	1499	2667	84	30	54
1Q2007	4102	1507	2595	85	31	54
2Q2007	4162	1506	2655	85	31	54
3Q2007	4167	1520	2647	83	30	53
4Q2007	4091	1524	2567	84	31	53
1Q2008	4098	1527	2571	87	32	54
2Q2008	4132	1529	2603	89	33	56
3Q2008	4177	1522	2656	88	32	56

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 3Q2008 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2005	2006	2007	4Q07	1Q08	2Q08	3Q08	Aug 08	Sep 08	Oct 08	Year Earlier Oct 07	Year Earlier change
Saudi Light & Extra Light												
North America	0.46	0.60	0.73	0.78	0.75	0.73	0.71	0.60	0.74	0.47	0.50	-0.02
Europe	0.90	0.78	0.70	0.68	0.67	0.65	0.82	0.85	0.97	0.67	0.66	0.01
Pacific	1.31	1.32	1.19	1.25	1.29	1.24	1.10	1.08	1.06	1.27	1.11	0.16
Saudi Medium												
North America	0.81	0.64	0.56	0.57	0.58	0.62	0.68	0.61	0.69	0.58	0.57	0.01
Europe	0.16	0.14	0.05	0.04	0.05	0.07	0.03	0.01	0.03	0.04	0.06	-0.03
Pacific	0.26	0.35	0.34	0.38	0.43	0.36	0.40	0.38	0.34	0.35	0.33	0.02
Saudi Heavy												
North America	0.17	0.21	0.09	0.04	0.06	0.04	0.14	-	0.23	0.08	0.04	0.04
Europe	0.23	0.18	0.11	0.09	0.04	0.10	0.12	0.14	0.12	0.08	0.11	-0.03
Pacific	0.25	0.23	0.20	0.23	0.22	0.24	0.26	0.22	0.31	0.28	0.25	0.04
Iraqi Basrah Light[2]												
North America	0.60	0.52	0.50	0.45	0.74	0.60	0.57	0.59	0.47	0.56	0.37	0.19
Europe	0.23	0.32	0.30	0.24	0.20	0.19	0.23	0.24	0.28	0.22	0.27	-0.04
Pacific	0.06	0.08	0.17	0.21	0.13	0.18	0.18	0.10	0.16	0.10	0.21	-0.11
Iraqi Kirkuk												
North America	-	0.00	-	-	0.04	0.11	0.10	0.13	-	0.06	-	-
Europe	0.05	0.01	0.11	0.32	0.21	0.28	0.23	0.26	0.18	0.19	0.22	-0.03
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.26	0.27	0.21	0.24	0.23	0.21	0.20	0.21	0.23	0.26	-0.03
Pacific	0.15	0.13	0.09	0.11	0.11	0.06	0.06	0.07	0.05	0.07	0.10	-0.04
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.63	0.58	0.56	0.47	0.44	0.48	0.60	0.65	0.65	0.51	0.50	0.01
Pacific	0.62	0.56	0.64	0.73	0.65	0.49	0.67	0.74	0.66	0.65	0.62	0.03
Venezuelan Light & Medium												
North America	0.82	0.66	0.75	0.86	0.66	0.66	0.67	0.73	0.56	0.58	0.80	-0.22
Europe	0.04	0.11	0.08	0.05	0.07	0.06	0.06	0.11	0.01	0.10	0.02	0.08
Pacific	-	-	0.01	0.02	-	-	-	-	-	-	0.07	-
Venezuelan 22 API and heavier												
North America	0.72	0.72	0.67	0.68	0.60	0.59	0.67	0.67	0.63	0.64	0.71	-0.07
Europe	0.06	0.06	0.07	0.06	0.07	0.07	0.07	0.11	0.05	0.08	0.08	-0.01
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.27	1.24	1.22	1.24	1.03	1.00	0.99	1.13	0.77	1.13	1.07	0.05
Europe	0.17	0.16	0.14	0.15	0.14	0.18	0.14	0.16	0.08	0.04	0.17	-0.13
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.03	0.04	0.01	0.00	0.03	0.01	0.01	0.01	0.00	0.01	0.01	0.00
Europe	0.03	0.01	0.02	0.02	0.00	0.01	-	-	-	0.02	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.13	0.09	0.06	0.01	0.01	0.10	0.10	0.14	0.02	-	-	-
Europe	1.77	1.68	1.86	1.73	1.89	1.95	1.75	1.77	1.52	1.72	1.71	0.01
Pacific	0.00	0.00	0.00	0.01	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.90	0.79	0.85	0.82	0.85	0.77	0.52	0.66	0.43	0.66	0.83	-0.18
Europe	0.35	0.33	0.24	0.23	0.27	0.21	0.33	0.29	0.40	0.24	0.23	0.01
Pacific	0.05	0.04	0.01	0.01	-	-	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.17	0.23	0.31	0.31	0.27	0.26	0.43	0.14	0.20	0.29	-0.09
Europe	0.07	0.10	0.07	0.11	0.09	0.20	0.13	0.16	0.13	0.21	0.08	0.13
Pacific	0.01	0.00	0.01	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2005	2006	2007	4Q07	1Q08	2Q08	3Q08	Aug-08	Sep-08	Oct-08	Year Earlier Oct-07	Year Earlier % change
Crude Oil												
North America	8457	8194	8117	7968	8087	8298	7875	8351	6860	8203	7353	12%
Europe	9792	9784	9679	9835	9710	9878	9961	9801	10174	9511	9591	-1%
Pacific	6801	6815	6718	7003	7100	6457	6461	6530	6171	6129	6777	-10%
Total OECD	25050	24794	24514	24806	24897	24633	24297	24682	23205	23843	24258	-2%
LPG												
North America	18	14	27	41	27	15	38	31	43	28	35	-21%
Europe	248	264	276	291	307	246	263	256	260	171	303	-44%
Pacific	527	578	557	572	599	632	582	558	524	550	576	-4%
Total OECD	793	856	860	903	934	893	884	845	827	749	914	-18%
Naphtha												
North America	115	71	39	60	25	54	58	43	71	36	87	-58%
Europe	273	314	265	289	273	260	231	217	230	408	314	30%
Pacific	746	754	794	758	796	734	886	863	943	736	787	-6%
Total OECD	1133	1138	1098	1108	1094	1048	1174	1122	1244	1181	1187	-1%
Gasoline[3]												
North America	1034	1143	1123	1048	888	1220	1185	1084	1295	1199	1154	4%
Europe	165	160	203	181	227	187	260	287	202	178	181	-1%
Pacific	102	98	70	70	112	91	56	43	73	143	82	75%
Total OECD	1301	1401	1396	1299	1227	1498	1502	1413	1570	1521	1416	7%
Jet & Kerosene												
North America	173	161	183	143	96	78	40	30	47	56	173	-68%
Europe	375	374	370	404	360	381	399	456	364	524	448	17%
Pacific	66	71	41	43	44	39	22	12	27	34	40	-14%
Total OECD	614	606	594	590	499	498	461	498	439	614	660	-7%
Gasoil/Diesel												
North America	143	175	129	106	99	46	50	19	93	52	117	-55%
Europe	845	967	780	834	901	662	899	802	948	874	773	13%
Pacific	79	81	94	104	102	135	128	115	120	118	115	3%
Total OECD	1067	1223	1003	1045	1103	843	1078	936	1162	1044	1004	4%
Heavy Fuel Oil												
North America	527	343	323	320	328	307	244	287	176	225	272	-17%
Europe	491	476	433	399	487	391	442	432	425	428	313	37%
Pacific	85	92	92	101	125	140	143	160	133	66	128	-48%
Total OECD	1102	911	848	820	939	838	829	879	734	719	714	1%
Other Products												
North America	1027	1121	1051	934	1041	1085	1061	1011	1092	1174	917	28%
Europe	781	929	854	799	744	763	782	776	826	808	855	-6%
Pacific	248	245	254	284	290	267	318	388	273	338	243	39%
Total OECD	2056	2295	2158	2017	2076	2116	2161	2175	2191	2320	2015	15%
Total Products												
North America	3037	3028	2875	2652	2504	2804	2677	2505	2817	2770	2755	1%
Europe	3177	3484	3180	3198	3298	2891	3276	3225	3255	3391	3186	6%
Pacific	1852	1919	1902	1932	2068	2038	2136	2138	2093	1986	1970	1%
Total OECD	8066	8430	7957	7782	7871	7733	8089	7869	8165	8147	7910	3%
Total Oil												
North America	11493	11222	10992	10620	10592	11102	10552	10856	9676	10974	10645	3%
Europe	12970	13268	12859	13033	13008	12769	13237	13027	13430	12902	12777	1%
Pacific	8654	8734	8620	8935	9169	8495	8596	8668	8265	8115	8746	-7%
Total OECD	33116	33223	32471	32588	32769	32366	32386	32551	31370	31990	32168	-1%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor and OPEC Supply
Head, Oil Industry and Markets Division
David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand
Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Prices/Non-OPEC Supply
Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining
David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight
Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

Toril Bosoni (Consultant)
e-mail: toril.bosoni@iea.org

Statistics/End-User Prices/Trade
Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant
Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
* 0 - only within France

Media Enquiries

IEA Press Office
(+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

User's Guide and Glossary to the IEA *Oil Market Report*

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the statistical supplement dated 12 August 2008), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Platts prices, converted when appropriate to US$ per barrel according to the Platts specification of products (© 2009 Platts - a division of McGraw-Hill Inc.).

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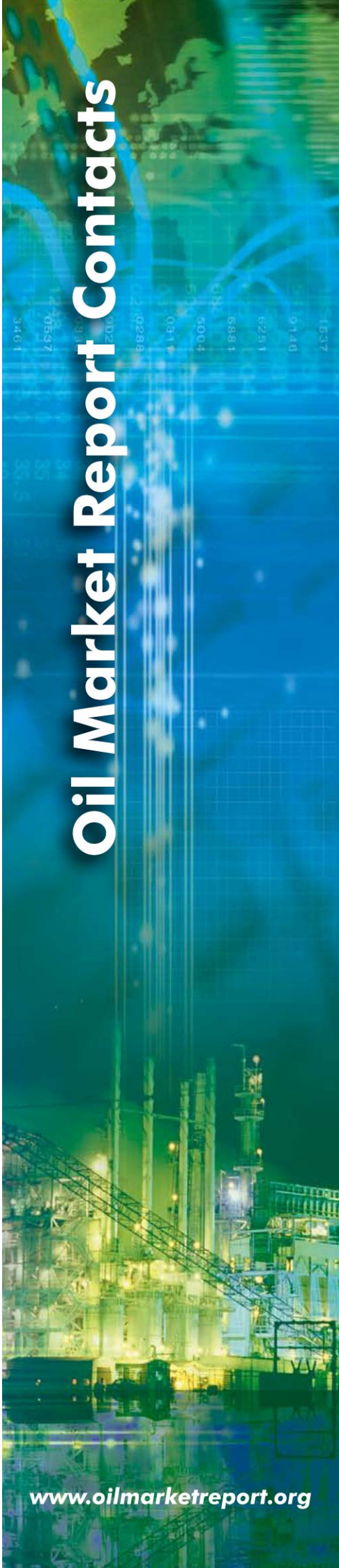

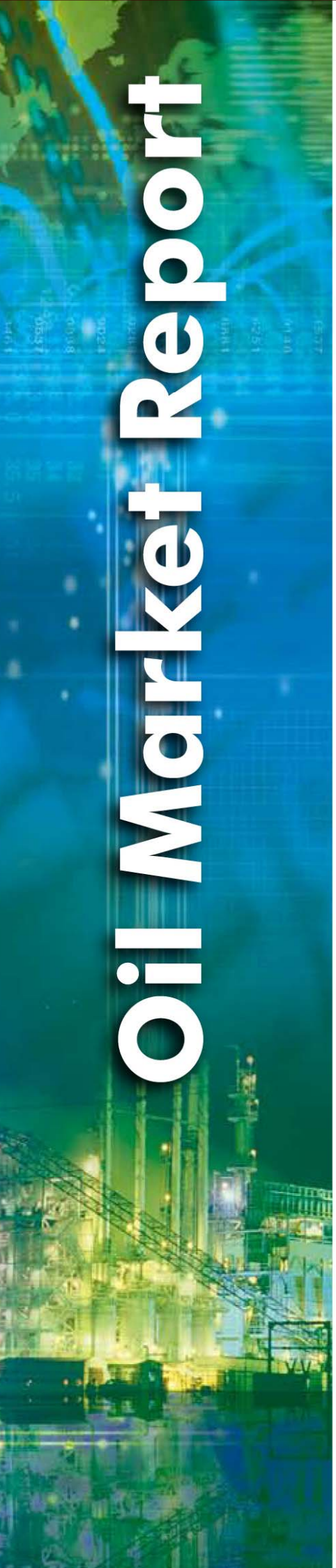

INTERNATIONAL ENERGY AGENCY

11 February 2009

HIGHLIGHTS

- **Benchmark spot crude oil prices were steady** in a $40-45/bbl range after an early-January surge. Lower OPEC output offset falling demand. Gasoline and naphtha have recovered significantly as refiners trim output to stem losses, thus improving refining margins.
- **Forecast global oil demand is revised down** by 570 kb/d to 84.7 mb/d in 2009 (-1.1% or -1.0 mb/d year-on-year) after the IMF again slashed its GDP growth prognosis to 0.5%. Our 2008 estimate remains largely unchanged at 85.7 mb/d (-0.4% or -0.4 mb/d versus 2007). Two consecutive years of demand decline have not occurred since 1982/83.
- **Global January oil supply fell by 520 kb/d** to 85.2 mb/d, largely on lower OPEC output. 2008 and 2009 non-OPEC supply is revised down by 20 kb/d and 110 kb/d respectively, resulting in 2009 growth of 0.4 mb/d to 50.9 mb/d. OPEC NGL output in 2009 is trimmed by 0.4 mb/d to 5 mb/d on lower gas output and project delays, implying +0.3 mb/d growth year-on-year.
- **OPEC crude supply in January** fell by an estimated 950 kb/d to 29 mb/d (now excluding Indonesia) as output curbs deepened. Effective OPEC spare capacity is 4.4 mb/d. The 'call on OPEC crude and stock change' for 2009 now stands at 28.8 mb/d, at least 1.7 mb/d below 2008, but potentially 1.5 mb/d above OPEC-12 output implied by the current target.
- **OECD industry stocks fell by 20.1 mb** to 2,673 mb in December, but 4Q08 still saw a counter-seasonal build of +170 kb/d on low refinery runs. Forward cover was steady at 57 days, 4.5 days higher on the year. Preliminary January data indicate a further 8 mb stockbuild, while short-term floating storage reportedly rose as high as 50-80 mb.
- **Global 1Q09 refinery crude throughput** is revised down 0.3 mb/d to 71.9 mb/d, 2.0 mb/d lower year-on-year, on the back of weaker demand, run cuts by US and Japanese refiners and heavier US maintenance. Non-OECD weakness is concentrated in China and Other Asia, whose collective throughput is 0.8 mb/d below last year.

Oil Market Report Oil Supply Data

Further to our pre-OMR announcement of 4 February 2009 and coinciding with the official suspension on 1 January 2009 of Indonesia's membership of OPEC, the IEA has made some changes to the way it categorises and aggregates OPEC and non-OPEC oil production data in the *Oil Market Report (OMR)* databases. This follows feedback from subscribers in the aftermath of earlier OPEC membership changes involving Angola and Ecuador. With effect from this report dated 11 February 2009 and associated MODS data release, Indonesian production data will be **included in non-OPEC totals for all historical periods and forecasts**, and will be correspondingly **excluded from OPEC data**.

In addition, the IEA has taken the decision to simplify its data series with the aim of removing discontinuities brought about by the periodic accession and departure of individual members from OPEC. Henceforward, primary totals for OPEC oil production will comprise only the current 12 members, namely Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the UAE and Venezuela. This will apply to all historical totals as well as to forecasts of gas liquids and non-conventional oil supplies.

At the same time, non-OPEC totals and regional sub-totals will be adjusted to exclude all current OPEC members back through the historical time series as well as for the forecast.

A one-line 'memo item' in the database labelled '*OPEC Historical Composition*' will comprise production from all OPEC members with membership in force at that point in time.

It is hoped that this change will make IEA data both easier to understand and easier to use.

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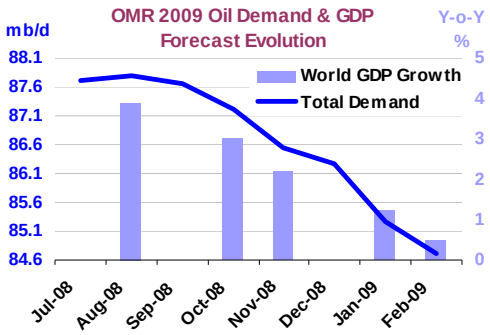
WEAKNESSES ABOUND

This month's report highlights a number of dislocations affecting both the broader global economy and the oil market. Bottlenecks, affecting physical flows of oil or constraining trade, economic activity and the flow of investment capital, tend to distort market pricing trends and increase volatility. The smooth functioning of the market requires international flows to take place, even though national, regional or international market dislocations will ultimately be resolved through the mechanism of price.

The most obvious weakness lies on the demand side. Trend oil demand growth above 1% has evaporated, firstly after the price surge, and more recently amid worsening financial and economic crisis. In retrospect, last summer's $140/bbl triggered demand destruction in the face of inelastic supply, but widespread financial and economic collapse are now the key brakes on global demand. The IMF's end-January estimate for 2009 GDP growth came in lower than anticipated, at 0.5%. We have therefore again cut forecast 2009 global demand, this time by 570 kb/d. The resultant 2008 and 2009 fall in world oil use of 1.4 mb/d is the first such decline since the early 1980s. The economy and oil demand will ultimately recover, so long as another distortion - economic protectionism – doesn't intervene.

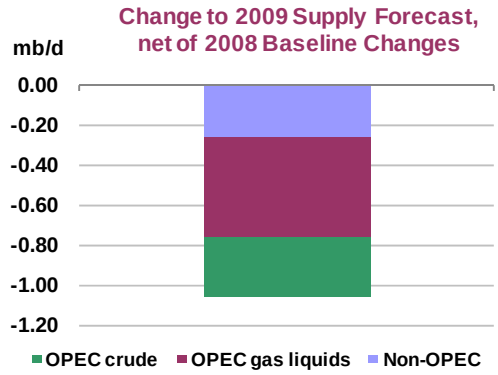


Weak demand is also having a severe impact upon international trade, leaving substantial tanker tonnage idle and rendering floating storage an economically attractive 'sink' for oil that is struggling to find a market. While current OPEC supply curbs will eventually begin to clear the onshore stock over-hang, significant volumes of 'floating' oil could dampen any upward price momentum in the short term.

Meanwhile, low US crude runs and rising inventory bumping against limited storage and mono-directional pipelines around Cushing, Oklahoma have distorted WTI prices, providing another bottleneck, both literally and in terms of arbitrage flows. Cushing is the delivery point for the NYMEX crude futures contract and logistical constraints here have recently caused exceptional discounts, both for prompt versus forward WTI, and for WTI versus other grades. The only long-term solution to this logjam will be investment in diversified pipeline capacity.

Curtailed investment will also undermine future oil supply growth. Slashing budgets and deferring projects until cost reductions materialise makes commercial sense if credit is scarce and oil prices are falling. However, it risks leaving the global supply sector stretched once demand growth re-emerges. This year's *MTOMR* will focus on medium-term implications of lower capital spending, notably project slippage. But even short-term, reduced spending is having an impact. Our 2009 capacity forecast has been curbed by a net 1 mb/d since prices began to tumble last summer. Non-OPEC contributes 0.3 mb/d of that, with a sharp reduction in Russian and Canadian spending underpinning the downgrade. Although prices would likely have to fall further before a significant slug of current output were to be shut-in, sustained $40/bbl oil will likely accelerate prevailing decline rates, and thus curb 2009 supply.

OPEC crude and NGL/condensate capacity for 2009 has been even harder-hit, revised by a net -0.7 mb/d since mid-2008. OPEC crude production policy underpins this, as associated gas and NGL supplies are also affected. Some of this year's expected increase in OPEC crude capacity may also slip – something OPEC Ministers have themselves begun to flag. Ultimately, low prices sow the seeds of their own destruction, and only clear signs of a recovering global economy will spur investment in new oil supply. The danger is that if too much investment slips now, the scale of the price response to resurgent demand could again destabilise the global economy.



DEMAND

Summary

- **Forecast global oil demand** has been revised down for 2009, following a reassessment of economic assumptions by the International Monetary Fund. Expected global GDP growth, at 0.5%, has been more than halved for a second month in a row, given the worsening outlook across all regions, particularly in Europe, the FSU and Asia. Global oil demand is now projected at 84.7 mb/d in 2009 (-1.1% or -1.0 mb/d when compared with the previous year and 570 kb/d lower versus our last report). The demand estimate for 2008 remains largely unchanged at 85.7 mb/d (-0.4% or -0.4 mb/d versus 2007 and roughly 90 kb/d lower than previously estimated). Not only will the two-year contraction in oil demand be the first since the early 1980s, but 2009's decline will also be the largest since 1982.

- **Oil demand in the OECD** for 2008 has remained virtually unchanged from last month's estimate at 47.5 mb/d (-3.4% or -1.7 mb/d versus 2007). For 2009, given lower GDP assumptions and assuming that OECD demand destruction begins to ease by mid-year, oil demand is now forecast at 46.0 mb/d (-3.2% or -1.5 mb/d on a yearly basis), some 340 kb/d lower than previously estimated. The outlook has significantly worsened in Europe and the Pacific, highlighting a lagged response to economic developments in North America.

Global Oil Demand (2007-2009)

(million barrels per day)

	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Africa	3.1	3.1	3.0	3.1	3.1	3.1	3.2	3.0	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Americas	31.1	31.0	31.3	31.2	31.1	30.5	30.4	29.7	30.0	30.2	29.5	29.6	29.8	29.7	29.7
Asia/Pacific	25.5	24.9	24.5	25.7	25.1	26.3	25.4	24.7	24.7	25.3	25.5	25.0	24.4	24.9	25.0
Europe	16.0	15.7	16.1	16.4	16.0	16.0	15.7	16.1	16.0	15.9	15.4	15.1	15.6	15.6	15.5
FSU	4.1	3.9	4.2	4.3	4.1	4.1	4.1	4.3	4.3	4.2	4.1	4.1	4.3	4.3	4.2
Middle East	6.4	6.5	6.7	6.4	6.5	6.7	7.0	7.3	6.8	7.0	7.0	7.2	7.6	7.1	7.2
World	**86.2**	**85.1**	**85.7**	**87.2**	**86.0**	**86.8**	**85.7**	**85.2**	**85.0**	**85.7**	**84.8**	**84.2**	**84.9**	**84.9**	**84.7**
Annual Chg (%)	0.4	1.5	1.1	1.5	1.1	0.8	0.7	-0.6	-2.5	-0.4	-2.4	-1.7	-0.4	-0.1	-1.1
Annual Chg (mb/d)	0.3	1.2	0.9	1.3	0.9	0.7	0.6	-0.5	-2.2	-0.4	-2.1	-1.5	-0.4	-0.1	-1.0
Changes from last OMR (mb/d)	0.00	0.00	0.00	0.01	0.00	-0.02	-0.02	-0.03	-0.29	-0.09	-0.60	-0.68	-0.64	-0.35	-0.57

- **Non-OECD oil demand** has been revised down by almost 70 kb/d to 38.2 mb/d in 2008 (+3.5% or +1.3 mb/d versus 2007) and, more markedly, by 230 kb/d to 38.7 mb/d in 2009 (+1.4% or +0.5 mb/d versus the previous year), reflecting the IMF's lower economic assumptions. The outlook for Asia and the FSU is particularly grim. Oil demand growth in China is thus expected to be less than a fifth of what was recorded in recent years, while in the rest of Asia and the FSU growth will probably be nil. Only Latin America and the Middle East, partly insulated by price subsidies and, in the case of the Middle East, a strong fiscal position, will be able to sustain relatively strong growth – but at about half the pace of previous years.

- **These changes to economic assumptions – the third since October – and concomitant revisions to our demand forecasts illustrate the extreme frailty of the global economy.** As available monetary policy tools are exhausted, efforts to prop up stricken economies have moved to the political arena, as evidenced by the announcement of multiple, competing fiscal stimulus packages. Herein lies the greatest source of uncertainty ahead: a lack of effective international policy coordination could potentially fuel protectionism and curb global trade. This would aggravate the current downturn, postpone recovery well beyond 2010 and further depress global oil demand.

Global Overview

For the third time since last October, this report has slashed the economic assumptions that underpin its oil demand forecasts. The first revision, in November, was based on the first update of the IMF's *World Economic Outlook* (originally released in October 2008). The second amendment, in January, was an attempt to foreshadow further, widely flagged forthcoming IMF changes, in the light of the sharp deterioration of the world's economy by late 2008. The third – and current – change incorporates the IMF's second update, published in end-January. The Fund now sees global GDP growth barely reaching +0.5% year-on-year in 2009 – compared with a projection of +3.0% in October.

The continued – and dramatic – revisions of the past few months underscore the extreme weakness of the global economy; the slowdown in industrial activity and consumption is the unavoidable sequel to the financial meltdown. All countries will be affected, with the OECD firmly in recession (-1.7%) and non-OECD countries posting collectively one of the lowest rates of growth of the recent past (+3.4%).

While the Fund also assumes global GDP rebounding by 3.0% in 2010, it notes that this is contingent upon the successful implementation of coordinated, expansionary fiscal and monetary policies. Any temptation by individual governments to erect protectionist barriers or to engage in competitive currency devaluations would risk curbing global trade, thus aggravating the current downturn, postponing recovery well beyond 2010 and further depressing global oil demand.

Naturally, the latest lowering of economic assumptions weighs on this month's global oil demand prognoses. As such, this month's report includes yet another significant downward revision to the 2009 global demand forecast (roughly 0.6 mb/d compared with last month's report). In line with both the changes to GDP projections and the latest preliminary data, oil demand revisions are concentrated in Europe, the FSU and Asia (our assessment last month of other areas turned out to be broadly in line with the latest IMF prognoses).

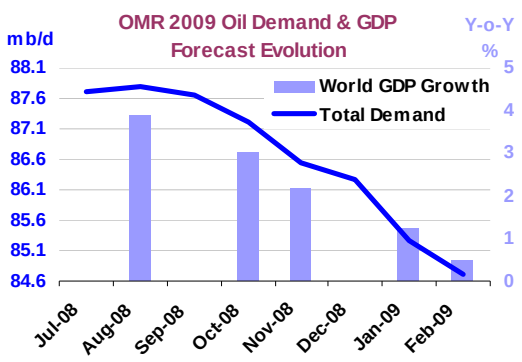
Real GDP Growth
OMR dated 11 February 2009

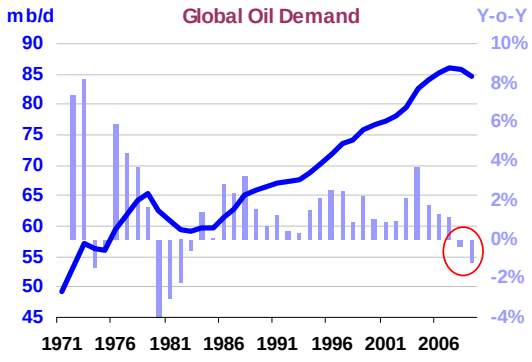
% change	2009
WORLD	**0.5**
OECD	**(1.7)**
OECD, North America	(1.5)
OECD, Europe	(2.1)
OECD, Pacific	(1.5)
Non-OECD	**3.4**
Africa	3.2
Latin America	1.7
China (excl. Hong Kong)	6.7
Other Asia	3.1
Non-OECD Europe	(0.5)
FSU	(0.4)
Middle East	3.5

Current vs. Previous
OMR dated 16 January 2009

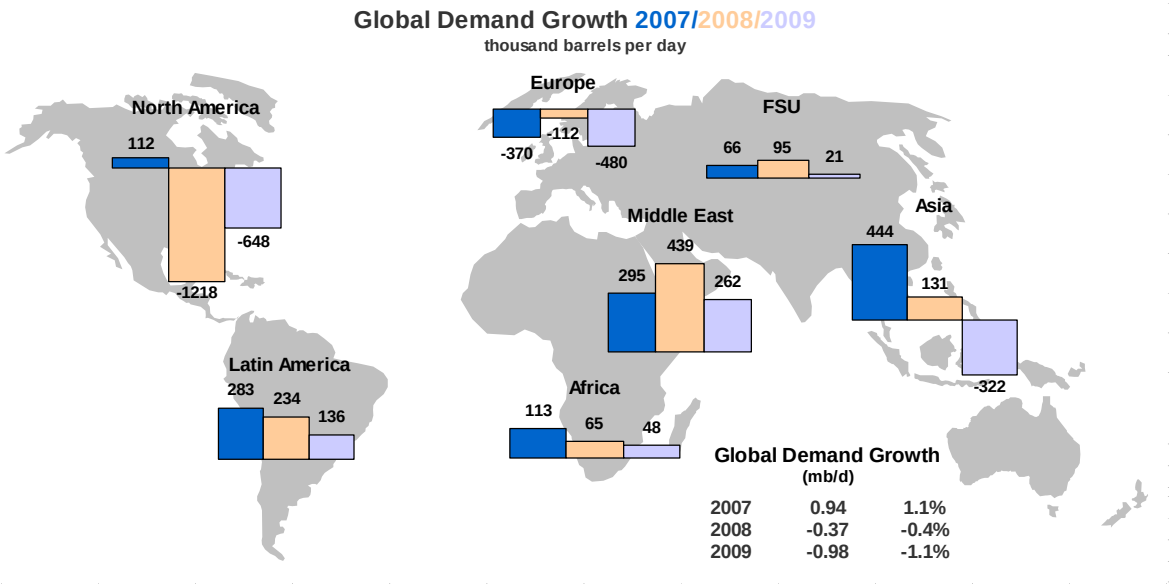
WORLD	**(0.8)**
OECD	**(0.9)**
OECD, North America	(0.4)
OECD, Europe	(1.3)
OECD, Pacific	(1.4)
Non-OECD	**(0.6)**
Africa	(0.1)
Latin America	(0.3)
China (excl. Hong Kong)	0.2
Other Asia	(0.6)
Non-OECD Europe	(3.2)
FSU	(3.3)
Middle East	(0.2)

Sources: IMF, Consensus Economics, IEA





Although the cold spell in the northern hemisphere will somewhat temper the GDP-induced downward adjustment in 1Q09, world demand is now poised to average 84.7 mb/d in 2009, down by 1.1% or 1.0 mb/d versus 2008, when demand averaged 85.7 mb/d according to the latest preliminary data (about 100 kb/d lower than previously estimated).



As noted in the previous report, two consecutive yearly contractions (demand in 2008 was also down by 0.4% or 0.4 mb/d compared with 2007) represent an unprecedented occurrence since the early 1980s. Moreover, a fall of the magnitude expected in 2009 has not been recorded since 1982, and would be almost equivalent to that of the first oil shock in the early 1970s.

OECD

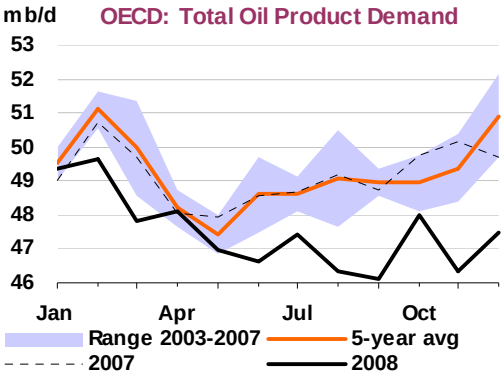
Preliminary data suggest that OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 4.5% year-on-year in December. In what is becoming a familiar pattern, all three regions recorded losses for the eighth month in a row, highlighting once again the extreme frailty of most advanced economies. In **OECD North America** (which includes US Territories), oil product demand fell by 5.4% year-on-year, with all product categories posting losses. In **OECD Europe**, distillates deliveries helped contain the fall to 0.8%. In **OECD Pacific**, demand plunged by 7.9%, despite relatively buoyant growth in gasoline and jet fuel.

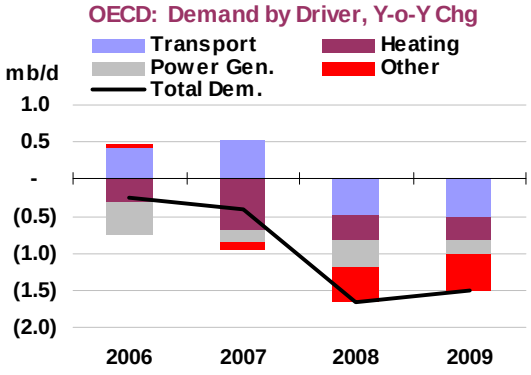
OECD Demand based on Adjusted Preliminary Submissions - December 2008
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.52**	**-3.1**	**1.68**	**-10.6**	**3.80**	**-4.6**	**0.93**	**-24.2**	**1.13**	**-0.8**	**6.11**	**-5.31**	**24.15**	**-5.4**
US50	8.90	-3.8	1.47	-11.6	3.29	-7.2	0.43	-33.6	0.68	2.1	4.69	-5.3	19.45	-6.1
Canada	0.73	-2.1	0.11	0.1	0.19	13.4	0.35	-9.0	0.15	1.0	0.75	-3.6	2.29	-2.3
Mexico	0.83	3.7	0.07	-8.6	0.28	1.6	0.12	1.6	0.21	-11.0	0.62	-8.2	2.12	-2.4
OECD Europe	**2.34**	**0.0**	**1.19**	**-3.2**	**4.05**	**1.7**	**2.43**	**10.9**	**1.60**	**-8.5**	**3.25**	**-6.7**	**14.86**	**-0.8**
Germany	0.47	4.7	0.17	-2.9	0.67	9.8	0.63	48.7	0.15	-14.8	0.39	-33.0	2.48	2.6
United Kingdom	0.39	-0.5	0.36	2.0	0.39	-2.1	0.13	-9.4	0.07	-15.1	0.33	7.6	1.67	-0.4
France	0.20	-0.4	0.15	-1.9	0.65	4.5	0.41	22.4	0.10	-18.4	0.41	4.5	1.93	5.2
Italy	0.30	-1.1	0.07	-18.6	0.53	2.8	0.14	3.0	0.22	-20.9	0.38	-6.7	1.63	-4.9
Spain	0.15	-1.3	0.11	-12.8	0.50	1.4	0.27	0.6	0.22	7.8	0.32	-6.7	1.56	-1.1
OECD Pacific	**1.65**	**4.5**	**1.27**	**3.6**	**1.22**	**-0.8**	**0.56**	**-9.4**	**0.88**	**-17.9**	**2.86**	**-17.0**	**8.45**	**-7.9**
Japan	1.06	4.1	0.89	0.3	0.59	-2.4	0.39	-12.8	0.49	-21.1	1.66	-21.7	5.07	-10.9
Korea	0.20	20.6	0.25	20.8	0.31	4.4	0.15	-0.3	0.34	-15.2	1.01	-11.1	2.27	-4.1
Australia	0.34	-0.9	0.11	-3.3	0.28	-2.0	0.02	-2.1	0.04	-3.3	0.16	2.2	0.94	-1.1
OECD Total	**14.51**	**-1.8**	**4.14**	**-4.5**	**9.08**	**-1.4**	**3.91**	**-2.9**	**3.61**	**-8.9**	**12.21**	**-8.7**	**47.46**	**-4.5**

* Including US territories

Revisions to preliminary data, albeit large, were less pronounced than in previous months, with the largest changes brought about by European data. November's demand estimates were adjusted down by 0.4 mb/d, indicating that OECD demand fell by 7.6% during that month, rather than by 6.8%. Coupled with preliminary data for December, this results in a downward revision of 90 kb/d in 4Q08.





OECD demand is thus estimated at 47.5 mb/d in 2008 (-3.4% or -1.7 mb/d versus 2007, virtually unchanged versus our last report). In 2009, following the inclusion of newer economic assumptions and assuming that OECD demand destruction will have been largely played out by mid-year, OECD demand is seen contracting by 3.2% on a yearly basis (-1.5 mb/d) to 46.0 mb/d (340 kb/d lower when compared with our previous assessment). It should be noted that the outlook has significantly worsened, mostly in Europe and the Pacific, highlighting a lagged response to economic developments in North America.

Total OECD Demand by Product
(million barrels per day)

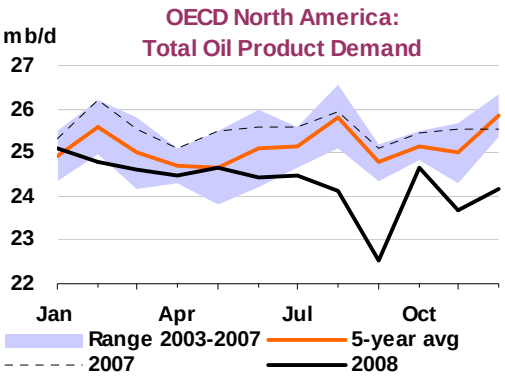
	2007	2008	4Q07	1Q08	2Q08	3Q08	Sep 08	Oct 08	Nov 08*	Latest month vs. Oct 08	Latest month vs. Nov 07
LPG & Ethane	4.82	4.67	4.93	5.16	4.58	4.31	3.98	4.50	4.50	0.00	-0.42
Naphtha	3.24	3.04	3.27	3.28	2.99	3.01	2.93	2.91	2.85	-0.07	-0.46
Motor Gasoline	14.92	14.46	14.84	14.23	14.73	14.48	14.06	14.45	14.22	-0.23	-0.59
Jet & Kerosene	4.12	3.98	4.24	4.35	3.86	3.81	3.74	3.69	3.88	0.19	-0.37
Gas/Diesel Oil	13.14	12.97	13.60	13.40	12.64	12.61	13.27	13.86	12.91	-0.95	-0.77
Residual Fuel Oil	3.97	3.64	3.96	3.85	3.62	3.52	3.42	3.58	3.51	-0.07	-0.53
Other Products	4.97	4.74	5.01	4.63	4.82	4.88	4.71	5.02	4.50	-0.52	-0.66
Total Products	**49.17**	**47.51**	**49.86**	**48.91**	**47.24**	**46.62**	**46.11**	**48.01**	**46.36**	**-1.65**	**-3.81**

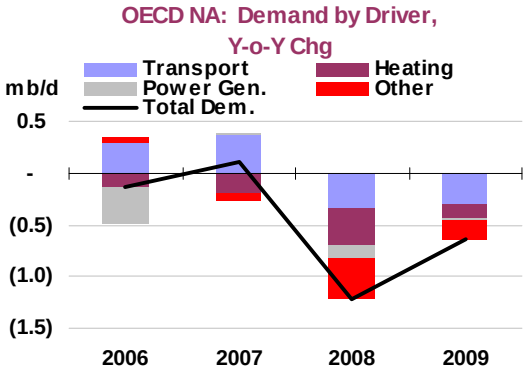
* Latest official OECD submissions (MOS)

North America

According to preliminary data, oil product demand in North America plummeted by 5.4% year-on-year in December, falling for the twelfth month in a row. Persistent demand weakness in the United States (-6.0% year-on-year) was compounded by losses in both Canada (-2.3%) and Mexico (-2.4%), as both countries followed their neighbour into recession.

Revisions to November preliminary data were relatively minor (-90 kb/d), driven essentially by the US and Canada. Still, demand in OECD North America plummeted by 7.2% year-on-year during that month. Regional oil demand averaged some 24.3 mb/d in 2008 (-4.8% or -1.2 mb/d on a yearly basis and virtually unchanged when compared with our last assessment). In 2009, demand is expected to reach 23.7 mb/d (-2.7% or -0.6 mb/d). The forecast for this year has been essentially untouched, since the newer IMF GDP assumptions are largely in line with what we had anticipated last month.





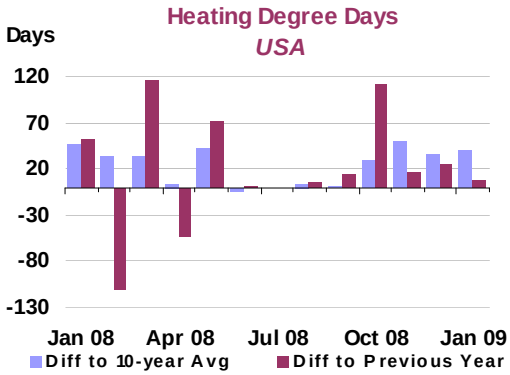
OECD North America Demand by Product

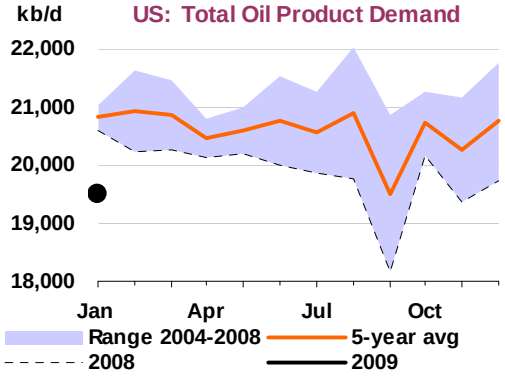
(million barrels per day)

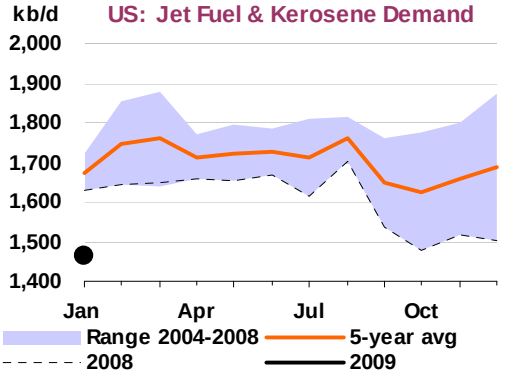
	2007	2008	4Q07	1Q08	2Q08	3Q08	Sep 08	Oct 08	Nov 08*	Latest month vs. Oct 08	Latest month vs. Nov 07
LPG & Ethane	2.92	2.75	2.97	3.10	2.63	2.52	2.14	2.67	2.70	0.03	-0.24
Naphtha	0.41	0.36	0.41	0.36	0.37	0.34	0.31	0.31	0.36	0.05	-0.06
Motor Gasoline	10.84	10.56	10.84	10.47	10.74	10.51	10.05	10.60	10.43	-0.17	-0.39
Jet & Kerosene	1.89	1.79	1.90	1.84	1.84	1.81	1.70	1.65	1.72	0.07	-0.20
Gas/Diesel Oil	5.24	5.00	5.24	5.29	4.96	4.77	4.84	5.35	4.92	-0.43	-0.26
Residual Fuel Oil	1.25	1.12	1.19	1.14	1.22	1.07	0.92	1.06	0.95	-0.11	-0.33
Other Products	2.97	2.73	2.95	2.63	2.77	2.71	2.55	3.02	2.61	-0.41	-0.36
Total Products	**25.53**	**24.31**	**25.50**	**24.84**	**24.52**	**23.73**	**22.53**	**24.66**	**23.69**	**-0.97**	**-1.84**

* Latest official OECD submissions (MOS)

Adjusted preliminary inland deliveries – a proxy of oil product demand – in the continental **United States** were predictably weak in January (-5.5% year-on-year or -1.1 mb/d). All product categories continue to post significant contractions, most notably gasoline (-3.3%), jet fuel/kerosene (-10.5%), distillates (-2.6%) and residual fuel oil (-8.6%). Moreover, markedly colder temperatures failed to provide much support (the number of heating-degree days in January was much higher than the 10-year average but only slightly higher than in the same month of the previous year). This is possibly related to the fact that natural gas prices fell further in the past month; this fuel has again become more competitive than heating oil and residual fuel oil.





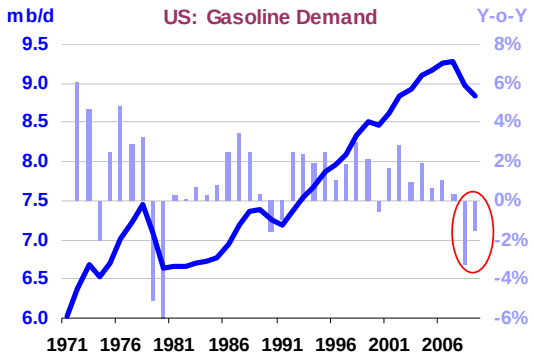


Interestingly, revisions to preliminary weekly data (-60 kb/d) in November were minimal – the lowest in over a year – implying an annual decline of 7.5%, instead of 7.2% as previously estimated. This could suggest that either US weekly estimates have improved or that our own pre-emptive adjustment is becoming more precise – the months ahead, however, will provide better insights into these alternative explanations. In the meantime, based on November's revisions, coupled with preliminary December and January data, and a slight change to our GDP assumption for 2009, US oil demand is estimated to have contracted by 5.6% year-on-year in 2008 to 19.5 mb/d. In 2009, demand is expected to fall by 2.9% to 19.0 mb/d. Both estimates are essentially unchanged versus our previous report.

As noted, the decline in oil demand was to be expected, given the extent of the US economic downturn. The country's economy contracted by 3.8% year-on-year in real terms during 4Q08, and the prospects for this year are little better, as uncertainty prevails (the fall in air traffic and hence of jet fuel/kerosene demand is one telling example among many). The IMF predicts that GDP will shrink by 1.6% on average in 2009, assuming that the much-touted fiscal stimulus package (expected to total some $800 billion) is rapidly adopted and implemented. As such, a modest rebound later in the year would help partly offset what promises to be a very difficult 1H09 (some economists, for example, foresee GDP contracting by as much as 6% in 1Q09). And even though the rebound should gain momentum in 2010 (+1.6%), according to the IMF, it will probably take two years for the economy to return to its growth trend (around 2-3%).

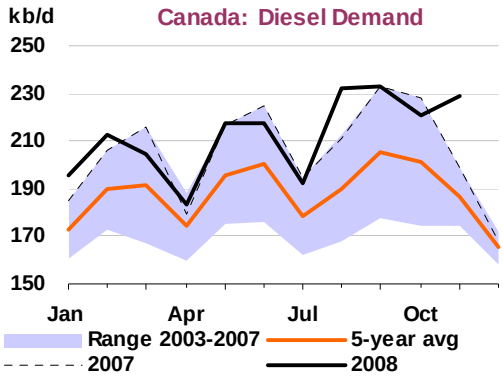
However, assuming that oil demand destruction in the US will bottom out this year is different from saying that demand will quickly rebound to pre-2006 levels (when it started to contract). Several products face structural decline, either because of competition from cheaper sources (for example, LPG/naphtha could be displaced as imports of cheaper petrochemical products from the Middle East and Asia rise) or interfuel substitution (with natural gas replacing heating oil/residual and ethanol eating into the gasoline pool). Yet the key issue is arguably the outlook for gasoline demand. This report has long argued that the income effect is far more significant than the price effect. Indeed, despite the fall in gasoline prices, vehicle sales (particularly gas-guzzling SUVs) continue to contract each month by some 30% year-on-year on average.

We have also suggested that gasoline demand may well remain subdued even if the economy improves. The reason is simply that the US vehicle fleet has much scope for efficiency improvements. Admittedly, the previous administration toughened fuel efficiency targets in 2007, but somewhat lukewarmly (from the current 27.5 to 35 mpg by 2020). More significantly, perhaps, it refused to allow California and other states to set their own, more stringent standards. However, the US Environmental Protection Agency (EPA) has been instructed by President Obama to reconsider that decision; if revoked, California and thirteen other states, which account for about 60% of the US vehicle market, could impose emissions mandates as much as 30% lower than current levels. In addition, the Department of Transportation is expected next month to also tighten further the current federal fuel efficiency targets. And unlike previous attempts to raise standards, domestic car manufacturers, which have so far staved off bankruptcy thanks to a federal emergency bailout, are ill equipped to oppose these moves; further financial aid will be contingent upon their commitment to produce much more efficient vehicles.



The oil demand picture north and south of the US is only slightly less gloomy. In **Canada**, demand is poised to contract by about 1.7% in 2009 to 2.3 mb/d as a result of US economic contagion, after falling by an estimated 1.6% in 2008. Last year's decline was relatively limited, given the resilience of diesel

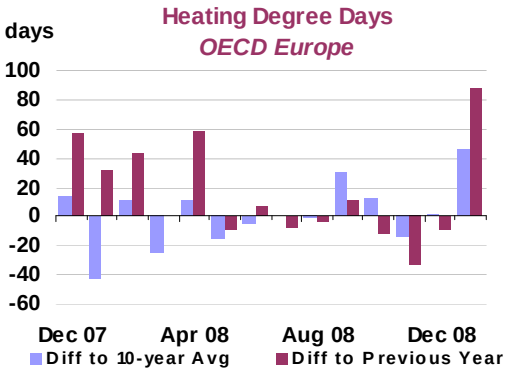
consumption, particularly in western provinces that until recently featured buoyant mining and energy industries. Alberta, Manitoba and Saskatchewan actually imposed diesel rationing measures in October, as strong demand for transportation, mining and agriculture combined with turnarounds and unscheduled outages at several refineries (notably in Alberta, with Imperial Oil, Petro-Canada and Suncor facing some problems to supply enough product). November's preliminary data (the latest available) show a spike in diesel deliveries, probably as a result of stockbuilds.



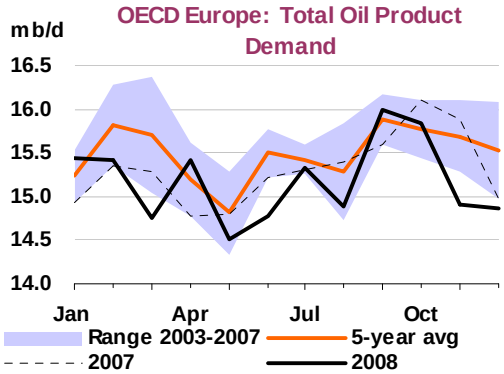
In **Mexico**, meanwhile, the 2008 demand fall was limited by a December, holiday-induced rebound in transportation fuels. As such, oil product demand shrank by only 0.7% to 2.1 mb/d. However, as the country follows its main economic partner – the US – into recession, oil demand is poised to contract further in 2009 – by as much as 2.6%, in line with the previous downturn in the early 2000s.

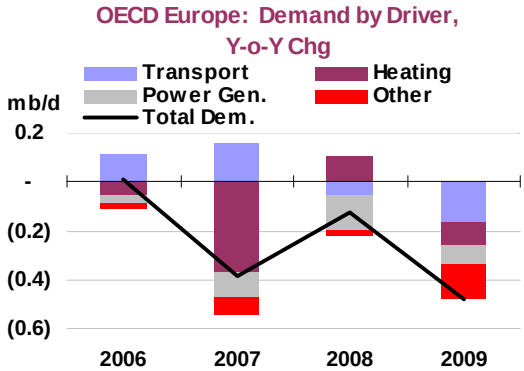
Europe

According to preliminary inland data, oil product demand in Europe fell by 0.8% year-on-year in December. Although the number of heating-degree days in December was barely above the 10-year average (and below the same month of the previous year), the anticipation of lower temperatures helped offset the effects of the continent's worsening economic outlook. Indeed, strong deliveries of heating oil (+10.9%) and to a lesser extent diesel (+1.7%) cushioned the sharp contraction in naphtha (-19.2%), jet fuel/kerosene (-3.2%) and residual fuel oil (-8.5%) demand. Furthermore, November data were revised down by 270 kb/d, mostly with respect to products that are quite sensitive to economic conditions (such as naphtha, jet fuel/kerosene and diesel).



These revisions, coupled with lower GDP prognoses by the IMF, naturally impinge upon this report's assessment of OECD Europe demand. The Fund is noticeably pessimistic about the Eurozone, given the brutal slowdown experienced by its largest countries in late 2008. Thus, although the estimate for 2008 oil demand remains broadly unchanged at 15.2 mb/d in 2008 (-0.8% or -120 kb/d versus 2007), the forecast for 2009 is some 170 kb/d down at 14.7 mb/d (-3.2% or -480 kb/d compared with the previous year). However, the outlook for this year could conceivably be revised up. Next month's preliminary





data (for January) will likely disclose whether the cold spell that struck Europe late in December and in January tempered again the fall in oil demand, and should also reveal the effects of the Russian disruption to European natural gas supplies, so far excluded from our forecast given the lack of more precise indicators.

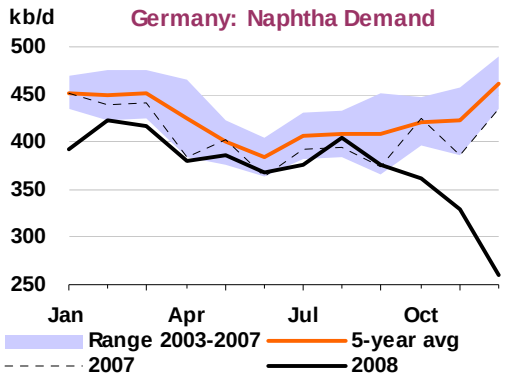
OECD Europe Demand by Product
(million barrels per day)

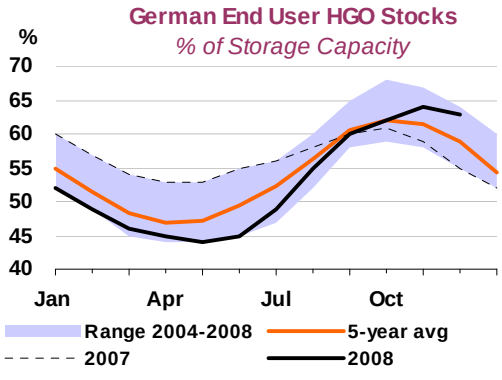
	2007	2008	4Q07	1Q08	2Q08	3Q08	Sep 08	Oct 08	Nov 08*	Latest month vs. Oct 08	Latest month vs. Nov 07
LPG & Ethane	0.95	0.96	0.98	1.05	0.98	0.87	0.91	0.87	0.90	0.03	-0.11
Naphtha	1.17	1.10	1.20	1.22	1.07	1.08	1.06	1.08	1.00	-0.08	-0.18
Motor Gasoline	2.50	2.38	2.43	2.29	2.44	2.46	2.48	2.37	2.27	-0.10	-0.16
Jet & Kerosene	1.31	1.30	1.30	1.27	1.30	1.41	1.40	1.34	1.18	-0.16	-0.10
Gas/Diesel Oil	6.10	6.27	6.49	6.31	5.96	6.26	6.77	6.86	6.28	-0.58	-0.31
Residual Fuel Oil	1.75	1.61	1.76	1.65	1.51	1.60	1.64	1.70	1.68	-0.02	-0.09
Other Products	1.52	1.56	1.50	1.41	1.63	1.72	1.74	1.61	1.60	-0.01	-0.02
Total Products	**15.30**	**15.17**	**15.65**	**15.20**	**14.89**	**15.40**	**15.99**	**15.83**	**14.90**	**-0.93**	**-0.97**

* Latest official OECD submissions (MOS)

According to preliminary estimates, inland deliveries in **Germany** rose by 2.6% year-on-year in December, as gains in demand for heating oil (+48.7% year-on-year) and road transport fuel (gasoline was up by 4.7% and diesel by 9.8%, possibly because the month had two more working days than a year earlier) contributed to offset losses in other product categories. Heating oil consumer stocks averaged 63% of capacity by end-December, slightly below the previous month (64%) but well above the previous year (55% in December 2007).

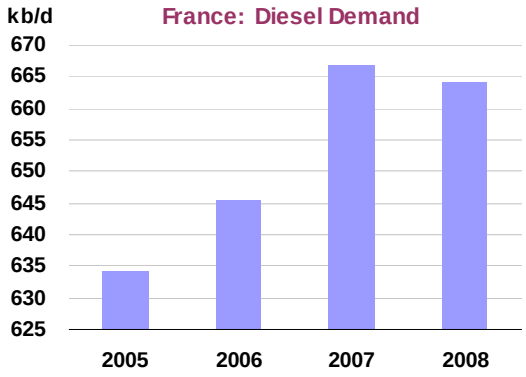
However, German heating oil refilling patterns – which are now higher than the five-year average – obscure the fact that oil demand in the industrial sector is virtually collapsing. Indeed, demand for naphtha – a key component for the production of plastics, polymers and synthetic fibres – plummeted by an astonishing 40.4% year-on-year in December, after falling by roughly 15.0% in both October and November, as both domestic demand and, more crucially, exports of manufactured goods stall. Similarly, LPG demand contracted for the fifth month in a row in December, by 22.9%, while residual fuel oil demand shrank by 14.8%, suggesting lower electricity consumption by big industrial concerns. Assuming that these trends continue, total oil demand could contract by as much as 5.2% in 2009 – over twice as much as previously expected.

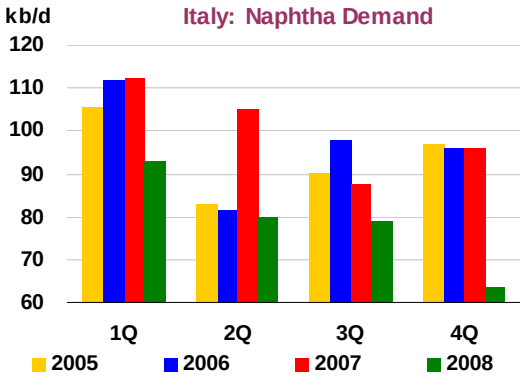




In **France**, the picture is quite similar, with distillate deliveries (heating oil, up by 22.4% year-on-year in December, and diesel, up by 4.5%) offsetting losses elsewhere. Thus, total oil demand managed to rise by 5.2% in December, partially reversing the sharp plunge observed in the previous two months. Interestingly, diesel demand declined slightly in 2008 (-0.4%), for the first time in over two decades. According to a poll, over a third of French motorists drove less and more slowly last year because of high prices, growing environmental awareness and economic concerns, opting instead for public transportation,

car sharing, bicycle riding and walking. However, whether this heralds a durable behavioural change and hence an era of falling diesel demand in France remains to be seen; arguably, a key factor keeping diesel demand subdued is the current economic downturn.

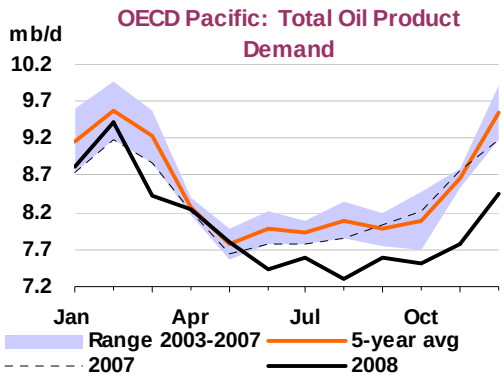


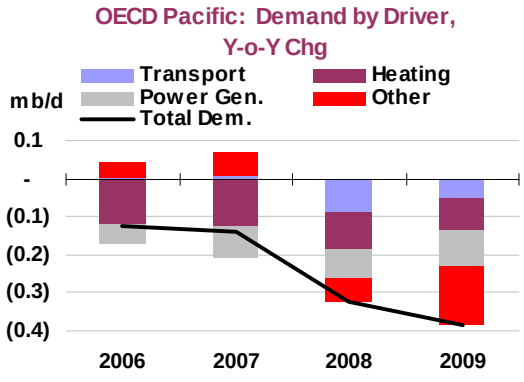


In **Italy**, total oil product deliveries sank for the third month in a row, by 4.9% year-on-year in December, as the country anchors itself in recession. Italy's economic structure is much closer to Germany's than to France's, with a relatively large industrial sector, mostly geared towards exporting. Depressed export markets have further compounded Italy's long-dated structural problems – high unit labour costs and falling productivity. The resulting, continuous fall in industrial production since last summer can be seen in naphtha deliveries, down by over a third on a yearly basis in 4Q08. The depth of the country's economic downturn portends another sharp contraction of total oil demand in 2009 – possibly as much as -4.7% versus the previous year.

Pacific

According to preliminary data, oil product demand in the Pacific plunged by 7.9% year-on-year in December. Falling consumption in both Japan and Korea, where economic activity has sharply slowed down, and mild weather (heating-degree days in December were well below the 10-year average and lower than the same month of the previous year) continued to weigh on the region's demand for the seventh month in a row. All product categories bar gasoline and jet fuel/kerosene registered losses, notably naphtha and residual fuel oil deliveries, which shrank by an astonishing 14.3% and 17.9%, respectively.



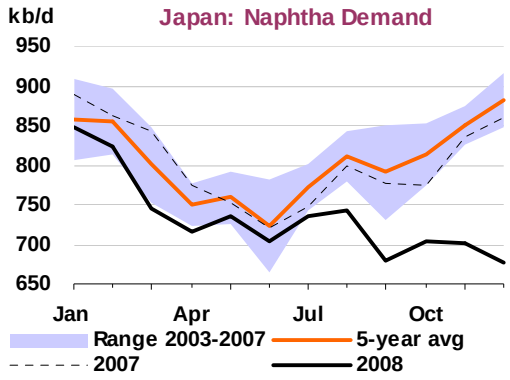


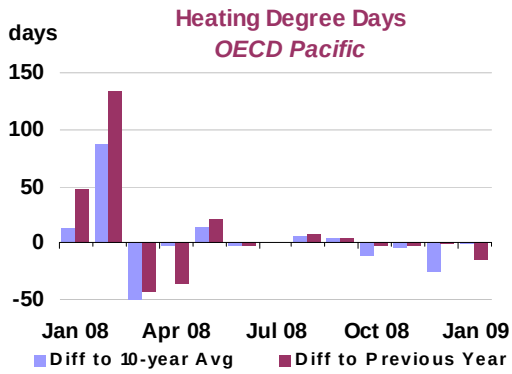
OECD Pacific Demand by Product
(million barrels per day)

	2007	2008	4Q07	1Q08	2Q08	3Q08	Sep 08	Oct 08	Nov 08*	Latest month vs. Oct 08	Latest month vs. Nov 07
LPG & Ethane	0.96	0.97	0.99	1.01	0.97	0.92	0.93	0.96	0.90	-0.06	-0.07
Naphtha	1.65	1.59	1.66	1.69	1.55	1.59	1.55	1.52	1.49	-0.04	-0.22
Motor Gasoline	1.57	1.52	1.57	1.48	1.55	1.51	1.53	1.48	1.52	0.04	-0.04
Jet & Kerosene	0.93	0.89	1.04	1.24	0.72	0.60	0.63	0.70	0.97	0.27	-0.07
Gas/Diesel Oil	1.80	1.70	1.87	1.80	1.72	1.57	1.66	1.65	1.72	0.06	-0.20
Residual Fuel Oil	0.96	0.91	1.01	1.06	0.89	0.85	0.86	0.81	0.88	0.07	-0.11
Other Products	0.48	0.45	0.56	0.59	0.42	0.45	0.42	0.39	0.29	-0.10	-0.28
Total Products	**8.35**	**8.02**	**8.72**	**8.87**	**7.82**	**7.50**	**7.58**	**7.52**	**7.77**	**0.25**	**-1.00**

* Latest official OECD submissions (MOS)

The outlook for **Japan** is particularly dismal. The country's industrial production, exports and domestic demand tumbled strikingly in December (-9.6%, -35.0% and -4.6% year-on-year, respectively). With the economic downturn compounding the country's structural decline in oil use, oil demand plummeted by double-digit figures in December (-10.9% year-on-year), for the fourth consecutive month. Naphtha deliveries, in particular, appear to be in free fall, 21.1% down on a yearly basis as many industries, ranging from electronics firms to car manufacturers, curb production. Moreover, diminishing industrial power demand and relatively mild weather have sharply curtailed deliveries of 'other products' (which include crude for direct burning) and residual fuel oil, which contracted by 51.0% and 21.1%, respectively. Overall, total Japanese demand declined by an estimated 5.3% in 2008, a contraction not seen since the mid-1970s.





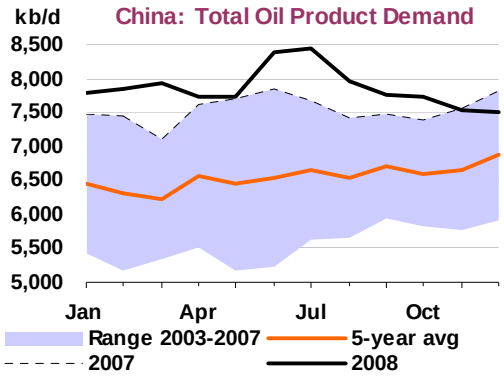
In 2009, demand could fall further if Tokyo Electric Power Company (TEPCO), the country's largest power utility, manages to restart at least one of the seven reactors of its giant Kashiwazaki-Kariwa nuclear power plant in northwest Japan. The plant was shut in mid-2007 following a major earthquake, and had been expected to remain offline until early 2010 at the earliest. In early February, however, the city of Kashiwazaki lifted an operation-suspension order on Unit 7, a 1.4 GW reactor. Should the city of Kariwa and the Niigata Prefecture follow suit, TEPCO could begin restarting tests in a few months and perhaps bring the reactor back online later this year. Our forecast of Japanese oil demand, however, assumes that Kashiwazaki-Kariwa will remain shut in for all of 2009.

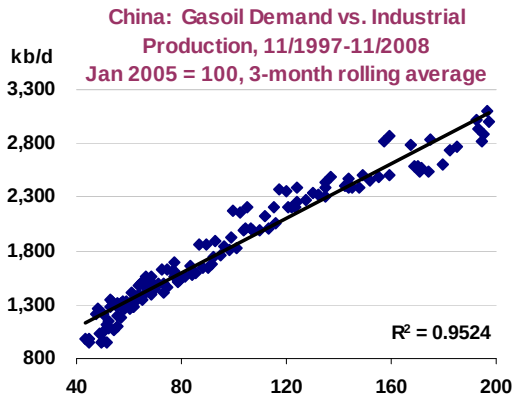
Non-OECD

China

According to preliminary data, China's apparent demand fell by an estimated 4.0% year-on-year in December, contracting for the second month in a row. Several key product categories registered losses (notably naphtha, gasoline and gasoil), providing further evidence of the country's ongoing economic slowdown. Given weakening exports (which fell by 2.8% year-on-year in December, after declining by 2.2% in November), the Chinese economy posted quarterly year-on-year growth of only 6.8% in 4Q08,

dragging down the pace of economic activity for 2008 to 9.0%, the lowest since 2001. For the year as a whole, however, China's apparent oil demand – which implicitly includes crude and products stockbuilds, arguably significant in the run up to the Olympics – posted strong growth in 2008 (4.3%), only slightly below the pace of 2007 (+4.6%).





The IMF expects GPP to expand by 6.7% in 2009 (in line with what we had anticipated), presumably under the assumption that the huge fiscal stimulus package announced last November (some 14% of GDP) as well as the ongoing monetary easing will rapidly succeed in boosting domestic demand amid falling external consumption. Bank credit and the money supply duly increased in both November and December. The effects of the fiscal stimulus, however, are less obvious (some observers contend that numerous construction and infrastructure projects have already started, but it is unclear whether these are truly new). On the one hand, the real size of the package is subject to debate; on the other, there are doubts that local governments, which will ultimately be in charge of spending, will be up to the task given the considerable amounts involved. On the external front, it remains uncertain whether the country will devalue the yuan gradually to boost exports, although the Chinese prime minister has recently insisted that exchange rate stability is paramount for an orderly global recovery. Moreover, the continued closure of thousands of coastal factories and construction sites (which has so far resulted in a wave of layoffs, with some 20 million workers, mostly coming from inland China, having reportedly lost their jobs) could potentially nurture social unrest.

Evolving economic conditions mean that China's oil demand forecast for 2009 is likely to be revised often over the next months. Based on the current GDP projection, and assuming that demand for three key products (naphtha, gasoline and gasoil, which together account for almost two-thirds of total oil product use) remain subdued, Chinese oil demand should rise by a paltry 0.7% to 7.9 mb/d (30 kb/d less than previously anticipated). In particular, gasoil use (a third of demand) is set to stagnate or even fall slightly this year if industrial production fails to pick up (the fuel is unlikely to be used for power generation, as coal-based installed capacity should catch up with demand given the economic slowdown).

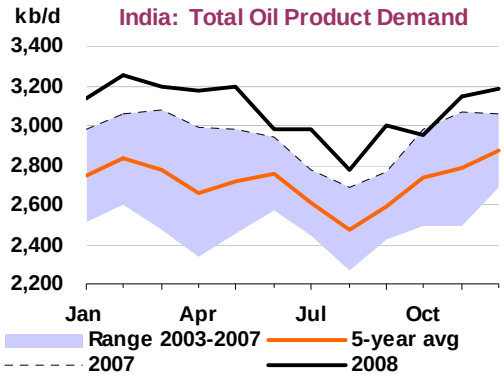
China: Demand by Product
(thousand barrels per day)

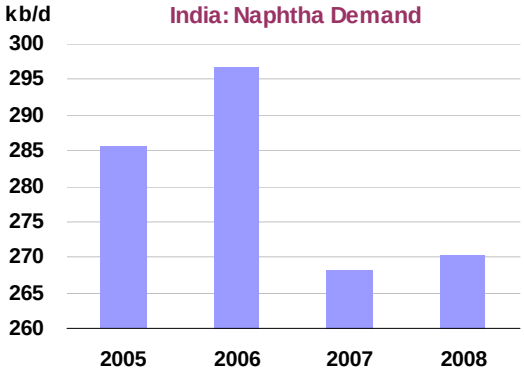
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	669	619	622	-50	4	-7.5	0.6
Naphtha	812	780	802	-32	22	-4.0	2.9
Motor Gasoline	1,257	1,442	1,448	185	5	14.7	0.4
Jet & Kerosene	280	296	312	16	16	5.8	5.4
Gas/Diesel Oil	2,576	2,863	2,833	287	-30	11.1	-1.0
Residual Fuel Oil	744	603	656	-141	53	-19.0	8.8
Other Products	1,204	1,263	1,248	59	-15	4.9	-1.2
Total Products	**7,542**	**7,865**	**7,921**	**323**	**56**	**4.3**	**0.7**

However, this prognosis arguably faces upside risks. First, the stimulus package could well exceed expectations. The government announced in mid-January that it would imminently unveil detailed plans concerning ten key industries: oil refining, petrochemicals, car manufacturing, steel, construction, shipbuilding, textiles, nonferrous metals, equipment manufacturing and electronics. This could conceivably boost oil product demand. Second, the government has hinted that it will take advantage of low oil prices to continue filling its third strategic petroleum reserve, which would further inflate apparent oil demand, given the lack of reliable inventory data.

Other Non-OECD

Preliminary data show that **India's** oil product sales – a proxy of demand – rose by 3.9% year-on-year in December, largely driven by sustained sales of gasoline (+5.7%), gasoil (+1.4%), and naphtha (+31.7%), which together account for over half of total demand. Gasoline and gasoil have benefited from successive retail price cuts (in early December and late January), ostensibly to pass on lower international oil prices to consumers. However, since both products (plus kerosene) are heavily subsidised, the cut was arguably as much related to the forthcoming general elections.





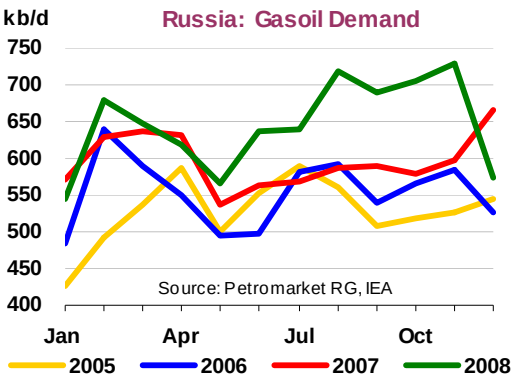
More interestingly, perhaps, is India's newfound naphtha strength. This product – mainly used as a feedstock by petrochemical and fertiliser industry and, to a lesser extent, as a fuel for power generation by steel producers – was until recently facing structural decline, being increasingly substituted by growing imports of liquefied natural gas (LNG). However, Asia's sharp economic downturn has resulted in a glut of naphtha and hence falling prices, while the rupee depreciation has made LNG much less attractive (Shell India, the largest LNG player, is reportedly struggling to sell its cargoes). Naphtha prices have dropped so much that even imported naphtha – helped by a temporary waiver of its 5% duty – can compete with LNG. As such, naphtha demand rose slightly in 2008 (+0.8% versus 2007), a trend that could prevail this year as well.

However, continued oil demand growth will ultimately depend on the health of the Indian economy, which is expected to expand by 5.1% in 2009, well below its recent performance. Although services account for two-thirds of the country's GDP, exports (notably of information and communication technology) have fallen as elsewhere in the region. Similarly, industrial production and domestic spending have slowed down. Moreover, the government can barely afford a massive fiscal stimulus, as the country has run very large budget deficits for years. Consequently, oil demand growth, estimated at +4.6% in 2008, is expected to almost halve to 2.7% in 2009.

Russia is another country that has fallen prey to the ravages of the global economic downturn. Oil product demand plummeted by 8.1% year-on-year in December, with most product categories showing steep falls. The industrial sector – encompassing industries such as construction, oil refining, petrochemicals and metals production – has been severely hit, as dwindling access to credit has compounded the fall in demand. Consequently, gasoil demand (a fifth of total oil product consumption)

plunged by 13.7% year-on-year in December, closely matching the performance of industrial production (-10.1%). Similarly, gasoline demand (a quarter of the total) contracted by 6.2%, after having grown almost uninterruptedly for the previous three years.

The outlook for 2009 is not encouraging, given that commodities – the backbone of the Russian economy – are likely to remain subdued given the global economic downturn. The IMF expects GDP to contract by 0.7% – a long way from its +5.5% forecast back in October. Since August, the Central Bank has spent some $200 billion, about 40% of the country's foreign exchange reserves, to prop up the currency. Nonetheless, the rouble has dropped by about 25% – yet the Bank has vowed to support it further. Similarly, there are diverging opinions regarding fiscal policy options. The government has announced it will recapitalise the country's banks so that they can lend to a virtually insolvent private sector, at the expense of a large budget deficit – but some senior officials have actually argued that the budget should be balanced this year. In terms of oil demand, growth is expected to fall to 0.9% in 2009, compared with 2.8% in 2008, mostly driven by LPG and residual fuel oil (and to a lesser extent, gasoline), assuming that natural gas for households and power generation will increasingly be diverted to meet the country's export commitments.



Russia: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	304	325	340	21	15	6.9	4.6
Naphtha	254	246	245	-7	-1	-2.9	-0.5
Motor Gasoline	683	724	736	41	12	6.1	1.7
Jet & Kerosene	234	249	244	14	-5	6.2	-1.9
Gas/Diesel Oil	596	645	645	49	0	8.3	0.0
Residual Fuel Oil	304	258	269	-46	11	-15.0	4.3
Other Products	475	482	476	7	-6	1.5	-1.2
Total Products	**2,849**	**2,930**	**2,957**	**81**	**27**	**2.8**	**0.9**

Source: Petromarket RG, IEA

The **Middle East** has – so far – escaped the global recession relatively unscathed. The slowdown should be relatively limited, since most regional governments – with the notable exception of Iran – amassed substantial foreign exchange reserves during the oil boom and reduced external debt. They are therefore well positioned to support their economies and boost industrial production and construction activity, despite falling oil receipts. The region's GDP is thus set to grow by about 3.5% in 2009, down from the 5.0% average registered over the past eight years but still respectable. This, combined with heavily subsidised end-user prices, is set to support oil consumption. Still, oil demand growth should almost halve to +260 kb/d in 2009, compared with an estimated +440 kb/d in 2008.

It should be noted, though, that oil demand growth in 2008 was exceptional. It was boosted by the *de facto* failure of Iran's gasoline rationing scheme (with growth back to pre-rationing levels), natural gas shortages and ensuing increase in fuel oil use (notably in Saudi Arabia, Iran and Kuwait) and a construction-driven surge in diesel consumption in most of the region's countries. As economic activity slows down, some of these factors may subside. For example, preliminary data for November show that Saudi fuel oil consumption has fallen sharply, possibly because of lower electricity needs (however, crude production cuts and hence lower availability of associated gas could again boost fuel oil demand, notably in the summer).

SUPPLY

Summary

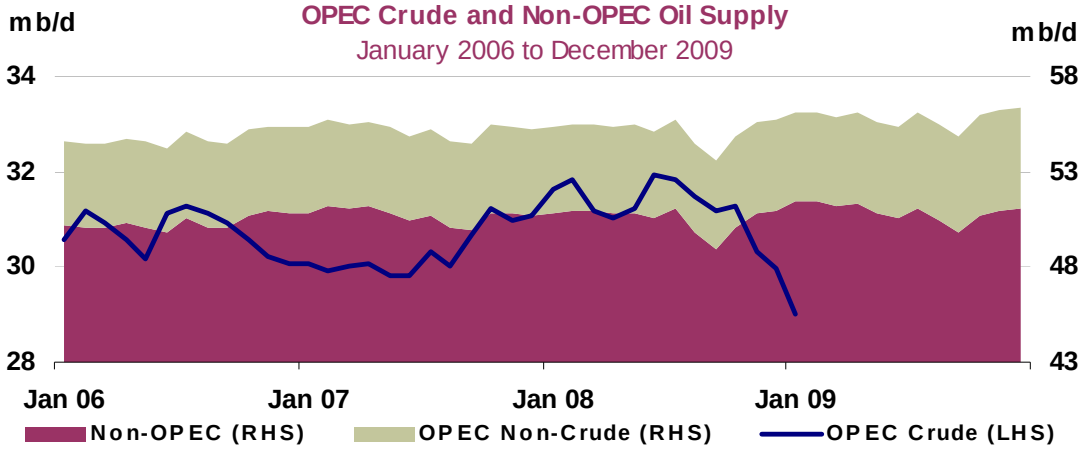
- **Global oil supply fell by 520 kb/d to 85.2 mb/d in January**, largely due to lower OPEC output, but with reduced volumes from Norway, Russia and others. Year-on-year, monthly production is down by 1.82 mb/d, reflecting weaker fundamentals after the dramatic turnaround in market conditions.

- **OPEC crude supply in January** fell by an estimated 950 kb/d to 29.0 mb/d (now excluding Indonesia, whose OPEC membership was suspended effective 1 January) as efforts were made to curb supply in line with targets agreed at the mid-December OPEC Ministers' meeting. OPEC output was last at similarly low levels in spring 2004. Lower production was widespread, voluntary or otherwise, but was concentrated in Saudi Arabia, Venezuela, UAE and Iran. However, target compliance varies, and several countries appear to be phasing cuts over January-March. Effective OPEC spare capacity now stands at 4.4 mb/d.

- **The 'call on OPEC crude and stock change'** for 2009 (after adjusting for Indonesia's departure) now stands at 28.8 mb/d, at least 1.7 mb/d below 2008. Although production from OPEC members subject to quota in January stood 1.8 mb/d above their latest target, current supply curbs, if observed, could take OPEC-12 output to around 27.3 mb/d, 1.5 mb/d below the 2009 call. This implies a substantial draw in stocks later in the year unless demand again trends weaker, or non-OPEC supplies prove stronger than expected.

- **Non-OPEC supply forecasts for 4Q08 and 1Q09 are revised downwards** by 110 kb/d and 40 kb/d respectively on lower Chinese December production and revisions to Norway, Canada, Australia, New Zealand and Malaysia. Total non-OPEC supply in 2008 and 2009 is revised downwards by 20 kb/d and 110 kb/d respectively, resulting in yearly production of 50.5 mb/d and 50.9 mb/d. Non-OPEC supply for the first time includes Indonesian supply following its suspension of OPEC membership, which adds around 1 mb/d to the total figure.

- **Estimates for OPEC NGL and condensate** supply have been reduced sharply this month on further evidence of project delays and a scaling-back of associated gas production in line with crude supply curbs. Total output now averages 4.7 mb/d in 2008 and 5.0 mb/d in 2009, respectively 0.3 mb/d and 0.6 mb/d less than our earlier forecast. Although reclassification of Indonesia accounts for 0.2 mb/d of the adjustments, sizeable reductions also accrue to Saudi Arabia, the UAE and Nigeria.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

All world oil supply figures for January discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Egypt and Russia are supported by preliminary January supply data.

Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

OPEC Supply

(Please note this month's change in categorisation, with our data and analyses now reflecting current OPEC-12 composition throughout – see inside cover.)

OPEC crude supply in January fell by an estimated 950 kb/d to 29.0 mb/d (now excluding Indonesia, whose OPEC membership was suspended effective 1 January), as efforts were made to curb supply in line with output targets agreed at OPEC's mid-December ministerial meeting. Output from the current OPEC-12 producers was last seen at levels as low as this in spring 2004. January output reductions were most pronounced from Saudi Arabia (300 kb/d), followed by Venezuela, UAE and Iran (around 100 kb/d each). Iraqi crude supply (measured as exports plus domestic crude use) remained stable at 2.4 mb/d, with lower domestic refinery runs offsetting higher Kirkuk exports from Ceyhan.

OPEC target compliance varies, with some countries' January reductions being due more to unplanned stoppages, maintenance or export rescheduling, rather than voluntary output restraint *per se*. However, several countries do appear to be progressively phasing-in cuts over the January-March period, making it likely that accurate assessment of OPEC's intentions will only really become possible around the time of the next scheduled OPEC meeting on 15 March. Indeed, comments from traditionally hawkish members such as Algeria, Iran and Venezuela support the expectation that producers will wait until March before announcing further action, in the absence of another marked downturn in prices.

OPEC Crude Production

(million barrels per day)

	Nov 2008 Supply	Dec 2008 Supply	Jan 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Jan 2009 Supply	Implied January Target	January Supply vs Target
Algeria	1.35	1.32	1.27	1.43	0.16	1.20	0.07
Angola	1.83	1.80	1.76	2.10	0.34	1.51	0.25
Ecuador	0.48	0.49	0.48	0.49	0.02	0.43	0.05
Iran	3.76	3.88	3.79	4.00	0.21	3.33	0.46
Kuwait[2]	2.59	2.52	2.46	2.65	0.19	2.22	0.24
Libya	1.71	1.72	1.65	1.77	0.12	1.47	0.18
Nigeria[3]	1.90	1.91	1.84	2.60	0.77	1.70	0.13
Qatar	0.82	0.80	0.78	0.90	0.12	0.73	0.05
Saudi Arabia[2]	8.80	8.40	8.10	10.85	2.75	8.01	0.09
UAE	2.30	2.45	2.36	2.85	0.49	2.23	0.13
Venezuela[4]	2.35	2.29	2.18	2.50	0.32	2.01	0.17
OPEC-11	**27.88**	**27.57**	**26.65**	**32.14**	**5.48**	**24.85**	**1.81**
Iraq	2.43	2.41	2.37	2.50	0.13		
Total OPEC	**30.31**	**29.98**	**29.03**	**34.64**	**5.61**		
(excluding Iraq, Nigeria, Venezuela					*4.40)*		

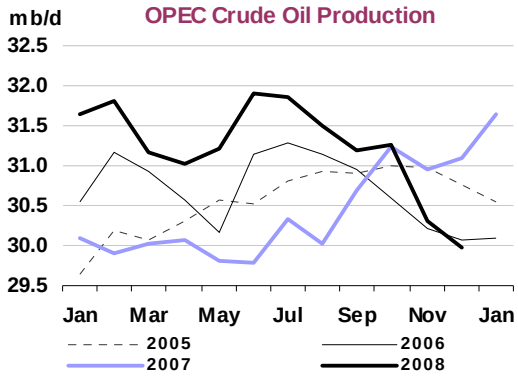
1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone Production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes Orinoco extra-heavy oil assumed at 420 kb/d in January.

Installed OPEC crude capacity is now assessed at 34.6 mb/d, compared with 35.8 mb/d last month. The removal of Indonesian capacity from OPEC calculations accounts for 850 kb/d of this change, but a net downgrade of 280 kb/d accrues from minor adjustments to Saudi Arabia, Venezuela, Nigeria, Libya, UAE and Ecuador. These are only partly offset by modest upgrades to capacity estimates for Algeria and Angola. We have pushed back assumed start-up dates for the Shaybah and Nuayyim projects in Saudi Arabia, but nonetheless expect incremental oil later in the year from these fields, plus Khursaniyah and Khurais, to take Saudi Arabia's crude capacity close to 12 mb/d by year-end 2009. While uncertainty continues to surround Venezuelan production and capacity, a spate of reports of reduced drilling levels over several months, allied to markedly lower apparent monthly output, leads us to nudge down capacity for Venezuela by 100 kb/d to 2.5 mb/d. Effective OPEC spare capacity now stands at 4.4 mb/d.

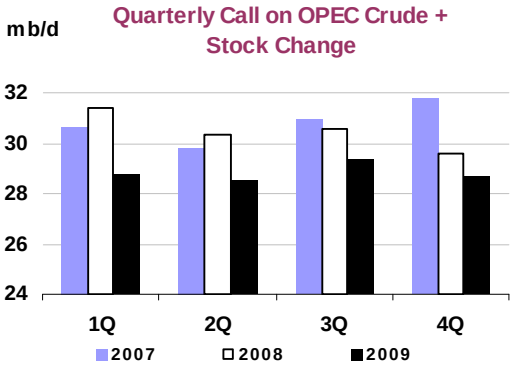
The 'call on OPEC crude and stock change' for 2009 (after adjusting for Indonesia's departure) stands at 28.8 mb/d, at least 1.7 mb/d below the level for 2008. The expected decline in the 'call' is similar to that evident in the January report, as further demand forecast reductions are matched by lower expected OPEC NGL and non-OPEC output. Although OPEC production from members subject to quota in January stood 1.8 mb/d above the 24.8 mb/d target, planned supply curbs could take OPEC-12 output down to around 27.3 mb/d, 1.5 mb/d below the 2009 call. This would imply a substantial draw in stocks later in the year, unless demand again trends much weaker or non-OPEC supply proves stronger than expected.

Export data for **Saudi Arabia**, which have been revised lower, cut our estimate of December crude supply from 8.45 mb/d to 8.4 mb/d. Early indications suggest markedly lower supply again in January, at around 8.1 mb/d, compared with the Kingdom's OPEC production target of 8.01 mb/d. There have been suggestions that output could be choked back further to around 7.7 mb/d in February, depending on prevailing price levels. However, the Kingdom may be unwilling to push output beneath a 7.5 mb/d to 8.0 mb/d range for long if this were to risk undermining domestic associated gas supply. Moreover, the Kingdom will likely want to see other OPEC producers moving closer to their respective targets before shouldering more of the burden of cutting supplies itself.

This month's report includes a substantial scaling back of expected Saudi NGL supply, partly because of the likelihood of much lower crude supplies in first-half 2009, and also on evidence that gas processing facilities, due onstream in late 2008/early 2009, have been either delayed or are operating at sharply reduced levels. NGL supply from Saudi Arabia (including ethane) is now estimated at 1.43 mb/d in 2008 and 1.44 mb/d in 2009, compared with earlier estimates showing near-200 kb/d growth for 2009.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

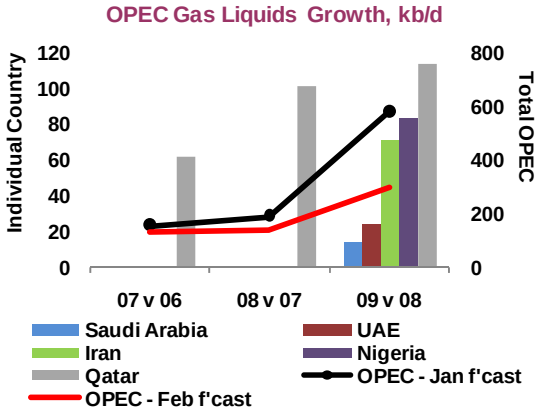
Estimated **Venezuelan** crude supply is trimmed to 2.3 mb/d for December, with a further fall to 2.2 mb/d seen for January. Several joint venture partners with conventional production were instructed to cut output in December, followed by curbs on one or more of the Orinoco heavy oil projects in January. The Petromonagas project (formerly Cerro Negro) was reportedly told to curb supply by 90 kb/d last month.

Moreover, state PDVSA also announced in early January that supplies to two US refineries operated by ExxonMobil and ConocoPhillips would be reduced by a combined 120 kb/d. Total production cuts of some 190 kb/d requested of operating companies in January, and likely being implemented in January and February, would take output close to Venezuela's apparent target of 2.01 mb/d.

Venezuela has since last autumn ceased payments to a number of contractors and service companies, asking companies to cut costs by 40%. The result has apparently been a sharp scaling back of drilling levels, which if sustained could seriously undermine production capability. Venezuela, like all producer countries, faces the prospect that lower prices and curtailed revenues will curb current and future supply, with the added pressure that state PDVSA is required to divert funds from oil sector investment to ambitious social programmes in the country. A potential vicious circle of declining prices and declining output might be expected to force some host governments to try to entice greater foreign company upstream investment. However, it remains to be seen whether the Venezuelan government would be willing to effectively reverse some of the renationalisation measures implemented over the past decade.

January crude supply from the UAE is estimated down by 90 kb/d versus December, at 2.36 mb/d. Further cuts are expected for February, when exports of Murban and Upper Zakum crude will be 15% below contract and Lower Zakum and Umm Shaif will be curbed by 10% each. The cuts result in part from gas plant maintenance affecting onshore oilfields occurring in both February and March. An accident at the 50 kb/d onshore Shah oilfield in Abu Dhabi, which killed three workers on 3 February, has reportedly had no impact on current production.

Crude oil apart, forecast gas liquids output from Abu Dhabi is also downgraded, with likely start-up of the OGD3 processing facilities, which will eventually generate some 270 kb/d of NGL and condensates, pushed back to second-half 2009, rather than the end-2008 start we had assumed in earlier forecasts. Total gas liquids supply from the UAE is now expected to average 530 kb/d in 2008 and 550 kb/d in 2009.



Estimated **Iranian** crude supply in January of 3.8 mb/d compares to 3.9 mb/d in December. As such, Iran, alongside Angola, looks to have been slow to curb supply in response to the latest OPEC agreement, with January output still 15% above target. While Iran stated in December that production cuts of 545 kb/d would begin from 1 January, it looks likely that, along with other major producers, actual supply cuts may be phased-in over two to three months. Asian customers reported that January term supplies would be cut by 10-15%, with similar curbs kept in place for February. Early tanker tracking data show export sailings in January down by around 150 kb/d, although this was likely offset in part by higher domestic crude runs, leaving supply (measured as exports plus crude runs) down by only 90 kb/d for the month.

Unlike the major downward revisions for some other key OPEC producers, Iranian NGL expansion appears to be proceeding, with gas from phases 9 and 10 of the South Pars development due to start imminently. This could ultimately yield around 100 kb/d of additional gas liquids. In total, Iranian condensate and NGL supply is seen increasing from 390 kb/d in 2008 to 460 kb/d in 2009, with contributions from both the South Pars 6-8 and South Pars 9-10 projects.

Angola, like Iran, produced around 15% above its new target in January, at an average 1.75 mb/d. The country's deputy oil minister cited current production at 1.8 mb/d earlier in the month, with an aim to gradually scale back to 1.65 mb/d by March. Confusingly, the latter number was quoted as Angola's new output target, although most analysts calculate that lying closer to 1.5 mb/d, albeit the issue is clouded by the convoluted arithmetic and lack of individual reference points of OPEC's past couple of

agreements. Angola's recent accession to the OPEC Presidency might have been expected to see it take a proactive line in production policy, but in reality the country is grappling with the need to sustain foreign upstream investment for new deepwater projects. Moreover, its gradual approach to curbing supplies may be affected by the 30 January restart of the Greater Plutonia field after a three-week operational stoppage. Incremental Plutonia volumes in February could partly offset declines elsewhere.

Nigerian crude supply in January fell an estimated 70 kb/d to 1.84 mb/d, its lowest level since May 2008. Despite both Shell and Chevron recently lifting *force majeure* on loadings, scheduled crude export levels for 1Q09 seem to have fallen to around 1.7 mb/d on average, compared with 1.9 mb/d in 4Q08. In addition, continued disruption to domestic refinery operations has pushed crude runs below 100 kb/d.

While some of the resultant lowering in Nigerian supply may be due to curbs in support of OPEC targets (1.7 mb/d in Nigeria's case), upwards of 0.5 mb/d of Nigerian output remain offline due to Niger Delta unrest and technical outages. Indeed, an early-January pipeline explosion again hit Brass River supplies, albeit only to the tune of around 12 kb/d of lost production. Further attacks on oil service vessels and personnel occurred in January, and there are threats of two separate oil sector strikes in February over employment of foreign export monitors and security for oil workers in the Delta region. This raises the prospect that supply cuts may again in coming months be due more to unplanned outages than voluntary production restraint.

With the significant scaling back of expected Middle East Gulf NGL production increases for 2009, Nigeria becomes one of the main contributors to OPEC NGL/condensate growth as supplies increase from last year's 215 kb/d to 300 kb/d in 2009. A recent NNPC announcement put likely start-up of the Total-operated offshore Akpo gas/condensate project in April, in line with our existing 2Q09 assumption, with the project likely to eventually attain liquids output of 175 kb/d.

Non-OPEC Overview

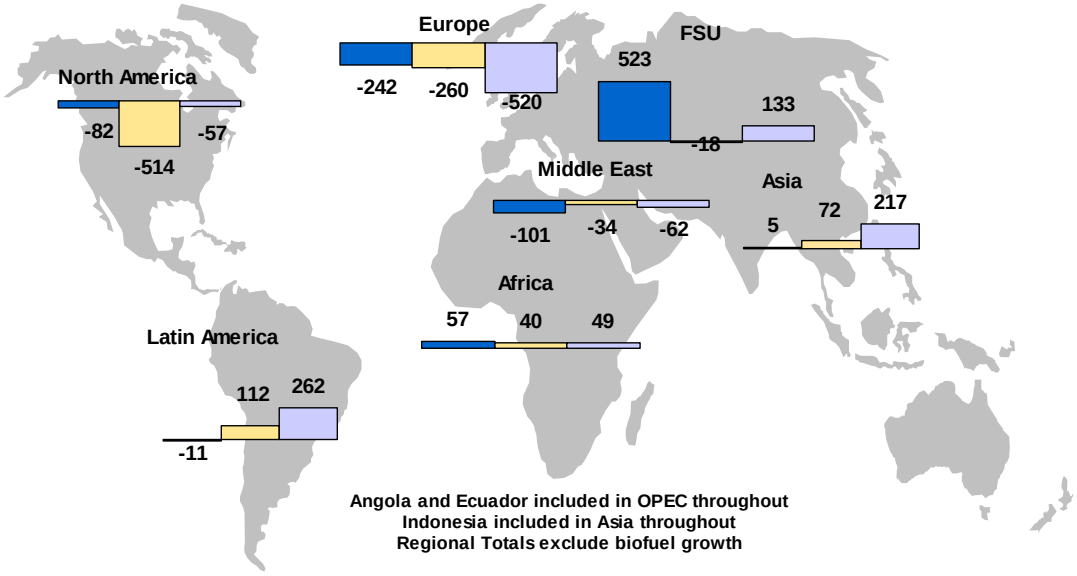
Non-OPEC supply data for 2008 and 2009 were revised downwards by 20 kb/d and 110 kb/d respectively, resulting in yearly production of 50.5 mb/d and 50.9 mb/d. This stems from downward revisions to 4Q08 and 1Q09 actual data – where available – which feed into the remainder of 2009. Volumetrically, the largest revisions were to Chinese data, but cuts were also made to Norwegian condensates and NGLs, Canada, Australia, New Zealand and Malaysia. In contrast, forecast data for Russia were nudged up slightly on higher assumed Lukoil output, though yearly Russian supply is still seen to decline. A reappraisal of Syrian data prompted a slightly higher historical and forecast number.

For the first time, this report includes Indonesia in the non-OPEC supply data following the suspension of its OPEC membership as of 1 January 2009. Non-OPEC production data, both historical and forecast, now uniformly exclude all OPEC members as of 1 January 2009. In total, non-OPEC supply growth for 2008/07 now comes in at a revised -165 kb/d. Meanwhile, 2009 non-OPEC supply is forecast to grow by +400 kb/d year-on-year, down from last month's +500 kb/d.

Preliminary full-year 2008 data for some countries – albeit liable to revision – now enables a slightly better take on 2009, prompting downward revisions to Norwegian NGLs and German crude production, for instance. But thus far it remains difficult to get more of an angle on 2009 developments amid a flurry of company announcements on spending plans in recent weeks. We maintain our position that delays are rather more likely to affect production beyond 2009 in terms of new field start-ups, though in mature producing areas, reduced drilling is likely to accelerate decline (see *Upstream Also Feeling the Squeeze*). In as much as we try to capture upstream activity on an ongoing basis, it is worth noting that the global 2009 *capacity* forecast has been scaled back by 1 mb/d since last summer (including OPEC crude capacity), reflecting not only project slippage, but companies' own declining expectations for short-term output. Non-OPEC supply accounts for 0.3 mb/d of this 'downgrade'.

Non-OPEC Supply Growth 2007/2008/2009

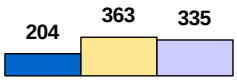
thousand barrels per day



Total Non-OPEC Supply Growth (kb/d)

2007	393
2008	-165
2009	400

Global Biofuels (kb/d)



OPEC NGLs (kb/d)

2007	72
2008	140
2009	301

Revisions to Non-OPEC Oil Supply

(million barrels per day)

	Last month's OMR				This month's OMR				Change			
	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08
North America	13.94	14.04	-0.33	0.10	13.94	14.04	-0.33	0.10	0.00	0.00	0.00	0.00
Europe	4.72	4.22	-0.24	-0.49	4.70	4.20	-0.25	-0.51	-0.01	-0.03	-0.01	-0.02
Pacific	0.65	0.73	0.02	0.09	0.65	0.72	0.02	0.07	0.00	-0.02	0.00	-0.01
Total OECD	**19.30**	**19.00**	**-0.55**	**-0.31**	**19.29**	**18.95**	**-0.56**	**-0.33**	**-0.01**	**-0.04**	**-0.01**	**-0.03**
Former USSR	12.74	12.89	-0.02	0.14	12.75	12.88	-0.02	0.13	0.01	0.00	0.01	-0.01
Europe	0.12	0.11	-0.01	-0.01	0.12	0.11	-0.01	-0.01	0.00	0.00	0.00	0.00
China	3.81	3.95	0.08	0.14	3.79	3.89	0.06	0.10	-0.02	-0.05	-0.02	-0.04
Other Asia*	3.67	3.73	-0.01	0.06	3.66	3.70	-0.01	0.04	-0.01	-0.03	-0.01	-0.02
Latin America*	4.02	4.33	0.16	0.31	4.02	4.33	0.16	0.31	0.00	0.00	0.00	0.00
Middle East	1.61	1.55	-0.03	-0.06	1.62	1.56	-0.03	-0.06	0.01	0.01	0.00	0.00
Africa*	2.59	2.64	0.04	0.05	2.59	2.64	0.04	0.05	0.00	0.00	0.00	0.00
Total Non-OECD*	**28.56**	**29.20**	**0.21**	**0.63**	**28.56**	**29.13**	**0.19**	**0.57**	**0.00**	**-0.07**	**-0.02**	**-0.06**
Processing Gains	2.24	2.29	0.07	0.04	2.24	2.29	0.07	0.04	0.00	0.00	0.00	0.00
Other Biofuels	0.46	0.58	0.13	0.12	0.46	0.58	0.13	0.12	0.00	0.00	0.00	0.00
Total Non-OPEC*	**50.57**	**51.06**	**-0.13**	**0.49**	**50.55**	**50.95**	**-0.16**	**0.40**	**-0.02**	**-0.11**	**-0.03**	**-0.09**

OMR = Oil Market Report

* adjusted to include Indonesia and exclude Angola and Ecuador throughout

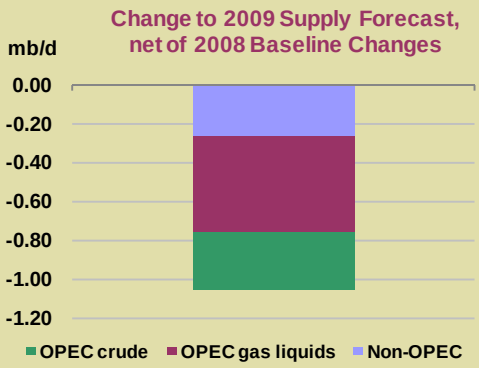
Upstream Also Feeling the Squeeze

Unlike headline-grabbing changes on the demand side, which have curbed the 2009 global forecast by 3 mb/d since last summer, the impact of lower prices and the credit squeeze on supply has been less easy to discern. Nonetheless, stripping out downward revisions to the 2008 baseline, forecast 2009 oil supply capacity has been cut by around 1 mb/d in the same period. The concern among market watchers is that the current lower price environment may curb investment and leave inadequate new capacity available when demand growth eventually recovers. That could sow the seed of a sudden reversion to much higher prices, and further intense price volatility, with all the adverse impacts on economic growth that this would imply.

46% of the net change in our own supply forecast for 2009 has derived from OPEC gas liquids and condensates, with recent OPEC crude cutbacks affecting associated gas supplies and the gas liquids normally stripped out from that gas. Indeed much of the revision for NGLs makes itself felt in adjustments applied this month, notably for Saudi Arabia and the UAE. New projects have also slipped in those two countries and in Qatar, further cutting into hitherto-expected record growth, although still leaving OPEC NGLs growing from 4.9 mb/d to 5.2 mb/d between 2008 and 2009.

28% of the downward revision for 2009 comes from OPEC crude capacity (here including ex-member Indonesia), now seen averaging 36 mb/d for the year as a whole, compared with 36.4 mb/d last summer. There may well be more slippage to come in terms of OPEC capacity with, for example, Saudi Arabia and Abu Dhabi reportedly looking to shave 10-15% off contractor costs for the longer-term Manifa and Sahil/Asab/Shah (SAS) projects respectively. Recent comments from OPEC Ministers have also tended to support the expectation that previous capacity expansion targets are now unlikely to be met on the original schedule. That said, our projections for OPEC capacity seem to have borne up relatively well (acknowledging that publicly available data on actual installed capacity are scarce). This is partly because the projections made last year already factored in project slippage and relatively aggressive decline rate assumptions for most OPEC countries.

This leaves 270 kb/d that has been cut from the 2009 non-OPEC forecast since last July, net of 2008 baseline changes. Some envisage more downward adjustments to come, with oil company spending tending to flat-line or be cut in 2009 compared with 2008. Spending surveys by Barclays Capital and IHS Herold point to a 10-15% cut in upstream capex for 2009, the first drop in several years. Much of the reduction is concentrated in North America and Russia, where spending looks to be down by 20% or more. In contrast, some NOCs, such as Pemex, CNOOC and Petrobras seem to be sustaining high levels of spending. Part of the fall in investment is cost-driven, since costs for raw materials like steel and cement have already fallen sharply. However, labour and equipment costs have stayed relatively strong. Indeed industry insiders see typically a 12-18 month lag between falling crude prices and falling overall project costs. Moreover, while the cyclical component of this decade's cost increases is likely to recede, the structural driver for higher overall costs (complex projects in hostile, technologically challenging and therefore capital intensive environments) is likely to persist. A classic example of this structural shift is the Canadian oil sands in Alberta. The list of oil sands project deferrals grows by the week, with up to 1 mb/d cut from industry forecasts of 2015 output.



However, the immediate impact of reduced 2009 spending is likely to derive less from new project deferrals this year and in 2010 (a factor for production levels in 2012 and beyond, given project lead times) and more because of reduced spending on areas like pressure maintenance, fracturing, infill drilling and enhanced oil recovery. Companies take these measures all the time to curb decline in existing, mature fields. Work by the *OMR* and *World Energy Outlook (WEO)* oil teams implies net decline for global baseline production around 5% per year. The *MTOMR* saw that as equivalent to losing 3.5 mb/d of global production capacity every year. This is managed decline, however, requiring heavy levels of spending. If spending is being curbed, even for the short term, decline could accelerate further. An additional 0.5-1% decline for baseline non-OPEC supply in 2009 would cut 300-500 kb/d of supply, effectively eclipsing current expected non-OPEC growth altogether.

Upstream Also Feeling the Squeeze (continued)

Then there is the question of likely production shut-ins if oil prices were to fall substantially lower. Although the major resource-holders in the Middle East enjoy cash production costs for baseload output substantially below $10/bbl, for much of the rest of the world, cash operating costs can lie as high as $15-20/bbl (although again, a cyclical component of these costs is now likely falling). Estimates for higher cost output such as the Canadian oil sands and US stripper well output (which both account for around 1 mb/d of present output) generally have operating costs in a $25-35/bbl range. Not much output may be shut-in because of current field economics, but further sharp falls in prices would begin to undermine even our own relatively modest expectations for 2009 non-OPEC growth. Detailed production data for the last part of 2008 and the early months of 2009 will be highly instructive in helping to gauge the immediate short-term impact of lower prices on supply. We will be examining the trends in more detail as that data becomes available in the months to come.

OECD

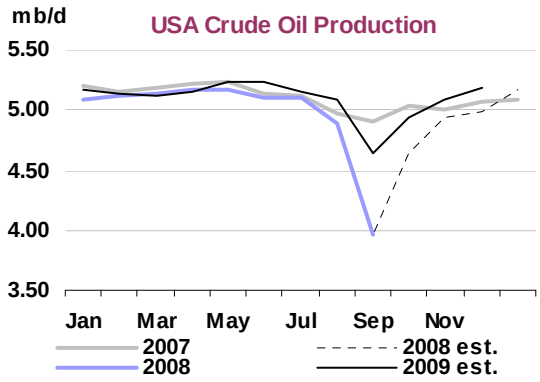
North America

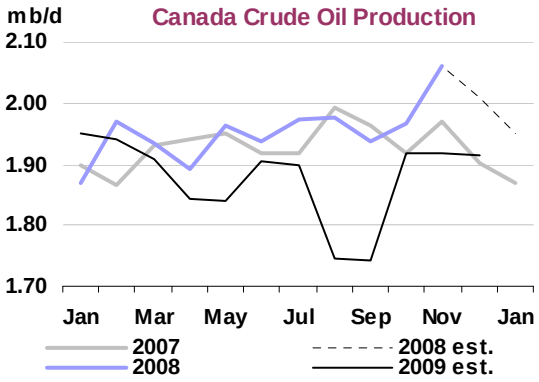
US – January Alaska actual, others estimated: January supply in the US was virtually unchanged overall compared with our forecast, though with some state-by-state divergence. Total crude output was assessed some 70 kb/d higher than expected, but was offset by lower NGL production on the basis of weaker-than-expected December and January weekly data from the EIA. Alaskan production in January was slightly higher than anticipated, despite weather-related issues affecting loadings in Valdez Bay and flows through the Trans-Alaskan Pipeline.

Going further back, September data for Texas was 90 kb/d higher than assumed, as, contrary to our assumption, Hurricane Ike had virtually no impact on onshore production. Louisiana production for September was also higher than previously assessed, with onshore production reported around 100 kb/d higher than estimated. On the other hand, September production in the Gulf of Mexico was revised downwards by 200 kb/d, with the Thunder Horse ramp-up among other things delayed by the hurricanes. This had the effect of increasing our hurricane outage figure, which in turn raised our five-year rolling average hurricane adjustment for September by 30 kb/d (to 580 kb/d). A mid-January report from the US Minerals Management Service (MMS) noted that 145 kb/d of GOM production was still shut-in post-hurricanes, around 45 kb/d lower than our previous assumption. We assume this level of outage persists through March, when pipeline repairs are expected to have been completed.

Lastly, monthly ethanol figures are still rising and outstripping assumptions, despite news reports indicating that many producers are hard-hit by the credit crisis. Until the full impact becomes more clear, we have decided not to revise our forecast (we are assuming 680 kb/d output for 1Q09), though we are in the process of an in-depth reappraisal of our capacity numbers for integration into the *Medium-Term Oil Market Report (MTOMR)* to be published mid-year.

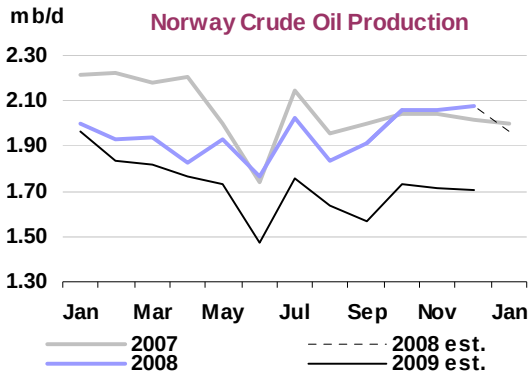
Canada – Newfoundland December actual, others November actual: December data for the offshore Terra Nova and White Rose fields both came in 20 kb/d lower than expected. Disappointing full 2008 data for the latter field prompted a downward revision of 2009 production by around 20 kb/d to around 100 kb/d. These numbers were partly offset by higher bitumen output in November and – it is assumed – December. In sum, 2009 total oil supply is unchanged at 3.23 mb/d, flat from 2008. This picture contrasts strongly with earlier expectations of strong growth and is underpinned by recent, revised forecasts by both the Canadian Association of Petroleum Producers (CAPP) and energy consultancy the Canadian Energy Research Institute (CERI), who each see a slowing of growth due to lower oil demand, the high cost of developing Canadian oil sands, far lower oil prices and the recent financial crisis.

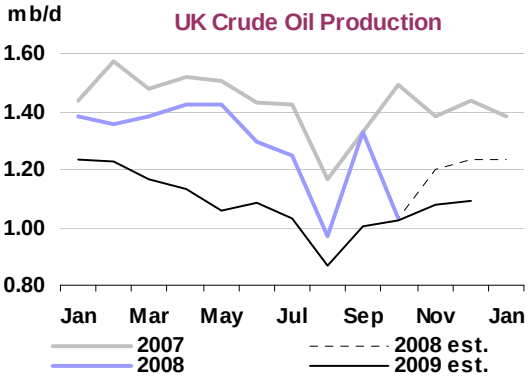




North Sea

Norway – December actual, January provisional; UK – October actual: December data for Norway were reported around 30 kb/d higher than anticipated, with higher volumes from some of the main crude streams only partly offset by lower total condensate output. January data were revised upwards by 80 kb/d based on preliminary figures from the Norwegian Petroleum Directorate (NPD), mainly due to higher Statfjord/Gullfaks output. Looking ahead, however, we revised downwards 2009 NGL production by around 20 kb/d based on weaker-than-expected 2008 output. On a net basis, total Norwegian oil supply was revised downwards by 20 kb/d for 2009 and is now forecast at 2.2 mb/d, or down 270 kb/d from 2008.





Actual October data for the **UK** came in 100 kb/d lower than forecast, apparently on higher autumn field maintenance. Around half of this revision stemmed from the West of Shetlands area, and other volumes from the Forties and Flotta streams. November and subsequent months were revised upwards slightly, including for instance an earlier-than-anticipated start-up of the Grouse field, a tie-back to the Kittiwake system. Total UK supply is now forecast to decline by 200 kb/d to 1.3 mb/d in 2009.

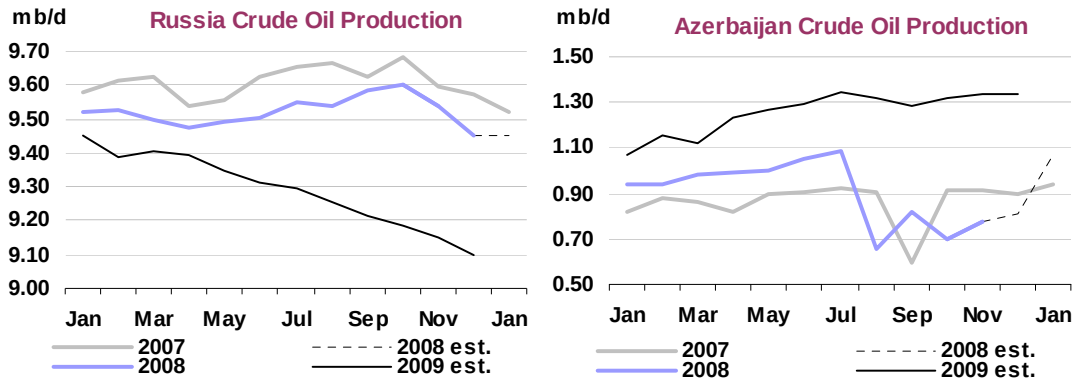
Pacific

Australia: Tropical Cyclone Dominic briefly shut in around 230 kb/d of production in the Northwest Shelf area in late January, though quickly weakened, allowing a rapid restart. Assuming a maximum three days of shut-in, January output was only nudged down by around 20 kb/d, as not all fields were reportedly affected. According to news reports, the Stybarrow, Cossack, Enfield, Vincent, Mutineer-Exeter, Griffin, Stag and Legendre fields were shut-in. **New Zealand** supply data also showed slightly lower-than-expected production for November at 50 kb/d. Total OECD Pacific supply for 2009 is thus revised downwards by 20 kb/d to 720 kb/d, but still implies 70 kb/d growth over 2008.

Former Soviet Union (FSU)

Russia – December actual, January provisional: December supply in Russia was revised upwards by 30 kb/d as smaller producers hiked production. This was likely due to the reformed export duty regime, which had previously made crude exports verge on the uneconomic and likely hit smaller crude producers harder, as they have fewer or no alternatives, unlike integrated operators who can redirect flows into their domestic refining systems. January brought an even greater upward revision of +50 kb/d. Lukoil hiked production 70 kb/d over forecast as it ramped up its new South Khylchuyskoye field in the Timan-Pechora region more rapidly than expected, again, to benefit from lower export duties but possibly also to capture higher revenues in January with the lower Mineral Extraction Tax regime for new fields, effective 1 January 2009. Tatneft also saw higher-than-forecast production of +22 kb/d, while Rosneft and Gazprom's output was revised downwards by 15 kb/d and 33 kb/d respectively. Gazprom was forced to lower liquids output in January in parallel with shut-in gas production due to the dispute with Ukraine concerning gas exports.

On a net basis, 2009 total Russian supply is revised upwards marginally, but output is still forecast to decline by 260 kb/d to 9.73 mb/d. However, a review of 2009 upstream spending shows that Russia is one of the key areas where capex will fall, possibly in excess of 20%. Given a generally unfavourable investment climate and the fact that several key companies have high debt, a further curtailment of investment may cause an even steeper-than-forecast decline in 2009 and beyond (see *Upstream Also Feeling the Squeeze*).



Azerbaijan – November actual; Kazakhstan January provisional: November Azeri production was revised upwards by 50 kb/d as ACG production gradually recovered from technical problems in September. The Central and West Azeri fields are seen restarting and ramping-up respectively in January, reaching 2009 average output of 250 kb/d and 225 kb/d. Our forecast envisages further steady recovery and strong growth in December and throughout 2009, with total production reaching 1.26 mb/d in 2009 as a whole, up by 360 kb/d from last year. Meanwhile, Kazakhstani December supply was revised down 20 kb/d. For 2009, Karachaganak condensate was revised downwards based on lower 2008 output, resulting in total 2009 production forecast around 30 kb/d lower at 265 kb/d. Nonetheless, Kazakh production is still expected to rise by 30 kb/d to 1.44 mb/d in 2009.

FSU net exports rose 10% month-on-month to 8.91 mb/d in December as both crude oil and product exports increased in more profitable export conditions created by a cut in Russian oil export duties. This cut encouraged companies to release crude oil stockpiled in November and crude oil exports rocketed by 20%, backed by the increases in shipments from major Russian ports in the Black Sea and Baltic. High Russian crude oil exports supported a 12.4% increase in total FSU crude shipments, reaching 6.28 mb/d. Flows through the BTC also rose sharply in December, as did Druzhba pipeline exports. FSU product exports rose to 2.67 mb/d in December, boosted by a 13.8% increase in gasoil exports and 50% increase in gasoline exports.

FSU Net Exports of Crude & Petroleum Products
(million barrels per day)

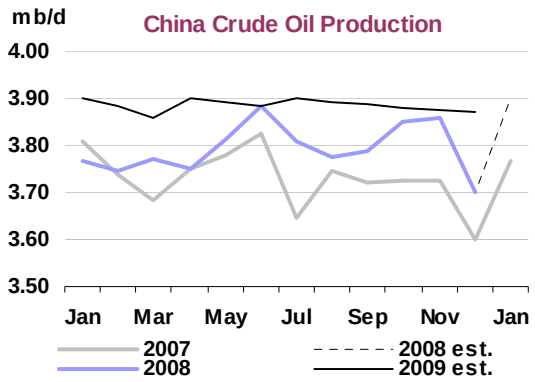
	2007	2008	1Q2008	2Q2008	3Q2008	4Q2008	Oct 08	Nov 08	Dec 08	Latest month vs. Nov 08	Latest month vs. Dec 07
Crude											
Black Sea	2.18	2.07	1.97	2.27	1.97	2.08	2.20	1.98	2.05	0.07	0.03
Baltic	1.59	1.46	1.41	1.57	1.40	1.47	1.32	1.42	1.66	0.24	0.00
Arctic/FarEast	0.32	0.28	0.27	0.27	0.29	0.30	0.35	0.25	0.30	0.06	0.02
BTC	0.55	0.67	0.71	0.75	0.64	0.57	0.39	0.61	0.70	0.09	0.06
Crude Seaborne	4.63	4.48	4.35	4.86	4.30	4.41	4.26	4.25	4.71	0.46	0.11
Druzhba Pipeline	1.13	1.09	1.14	1.07	1.05	1.12	1.12	1.04	1.19	0.16	0.07
Other Routes	0.44	0.41	0.40	0.43	0.44	0.37	0.44	0.30	0.37	0.07	-0.05
Total Crude Exports	6.20	5.98	5.89	6.36	5.79	5.90	5.83	5.58	6.28	0.69	0.13
Of Which: Transneft	4.27	3.99	3.97	4.17	3.87	3.96	4.02	3.63	4.22	0.59	0.05
Products											
Fuel oil	1.10	1.09	1.16	1.11	1.04	1.04	1.02	1.04	1.07	0.03	-0.07
Gasoil	0.95	0.95	1.06	1.02	0.79	0.92	0.83	0.90	1.03	0.12	-0.01
Other Products	0.60	0.60	0.64	0.60	0.57	0.58	0.57	0.58	0.57	-0.01	-0.01
Total Product	2.65	2.63	2.86	2.73	2.40	2.54	2.42	2.53	2.67	0.14	-0.08
Total Exports	8.85	8.62	8.75	9.08	8.19	8.44	8.25	8.11	8.95	0.84	0.05
Imports	0.04	0.04	0.05	0.03	0.05	0.03	0.04	0.02	0.04	0.02	0.01
Net Exports	8.82	8.57	8.71	9.05	8.14	8.40	8.21	8.09	8.91	0.82	0.04

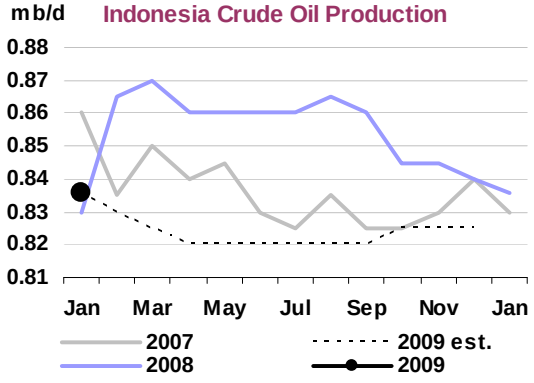
Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

Preliminary data show that January exports fell modestly, as exports from Russia regained lower, more seasonal levels. Lower loading schedules were amplified by pipeline maintenance at Primorsk in the Baltic and stormy weather in the Black Sea. Russian exports became more profitable as the crude oil export duty has been cut further from $26/bbl to $16/bbl and the rouble also lost ground against the dollar in January. However, Transneft's pipeline tariffs increased, as well as tariffs in several other CIS countries. Exports through the BTC rose in January following continued recovery of Azeri production from the Central Azeri platform after a gas leak in September. Additionally, Druzhba pipeline flows increased in January, boosted by higher deliveries to Germany and Poland.

Other Non-OPEC

China – December actual: December Chinese oil supply was revised downwards by 220 kb/d to 3.7 mb/d. Some offshore fields performed less well than anticipated, accounting for around half of the downward revision. Xinjiang production was also around 30 kb/d lower than assumed. Another 100 kb/d were trimmed from December due to the elimination of our (positive) adjustment factor. On the other hand, Daqing production picked up slightly, as did the complex of new offshore fields, the main area of growth in future Chinese oil production. We have assumed the start-up of the Penglai-2 increment from December, with a new FPSO and a gradual ramp-up thereafter. Total Chinese supply is estimated to average 3.9 mb/d in 2009, up by around 100 kb/d from 2008.





Other Asia: **Indonesia** has been included in our non-OPEC numbers for the first time following its suspension of OPEC membership effective from 1 January 2009. We forecast total Indonesian supply to dip slightly from 2008's 1.03 mb/d to 1.02 mb/d in 2009 as small gains in NGL production fail to offset the steady decline in crude output since 1996. **Malaysian** numbers for November and December 2008 were both lower than anticipated, which led us to nudge down 2009 production by around 25 kb/d to 760 kb/d. In the **Philippines**, the restart of the offshore Galoc field, which had problems after bad weather, has been delayed from January to mid-February. This cuts our 2009 Philippine forecast to 32 kb/d. In **India**, a reappraisal of NGL production based on near-complete 2008 data led us to nudge down 2009 production slightly. Meanwhile, we have assumed an earlier start-up of the Mangala field in Rajasthan, now due to start pumping in 3Q09 rather than 4Q09. This should eventually add 50 kb/d by early 2010. Total 'Other Asia' production, including Indonesia, is forecast to grow only marginally in 2009 to 3.7 mb/d, leaving China and OECD Pacific as the key regional engines of growth.

OECD STOCKS

Summary

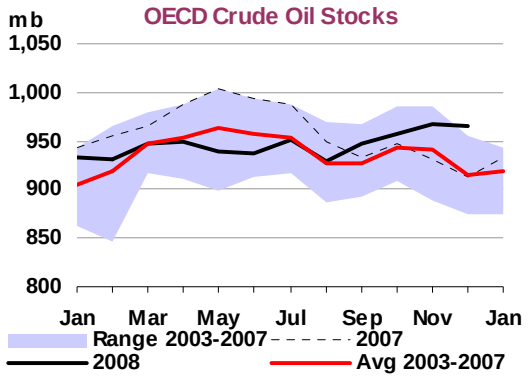
- **OECD industry stocks fell by 20.1 mb,** or 650 kb/d, in December to 2,673 mb, as a 17.7 mb decline in the Pacific and a small decrease in Europe more than offset slightly higher inventories in North America. North American gasoline and distillates had the largest increases. Yet European and Pacific distillate declines and other North American product draws washed out the gains.

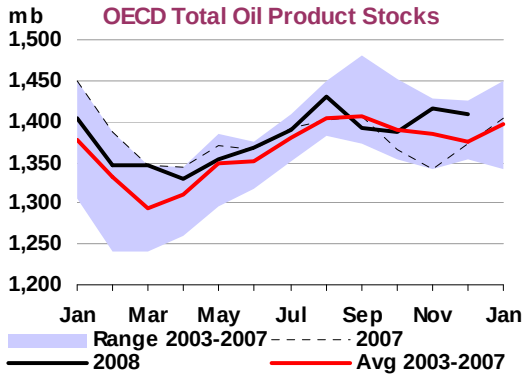
- **Despite the December fall, 4Q08 OECD inventories built counter-seasonally by 170 kb/d**. The build contrasts with a 730 kb/d five-year average draw and stems from low refinery runs and weak demand. 4Q08 OECD crude stocks built 200 kb/d versus a 130 kb/d five-year average draw. Only the Pacific saw a 4Q08 stock draw, due to falling distillates.

- **Stocks in days of forward demand were 57.0 days at end-December**, 0.2 days lower than an upwardly revised November number but 4.5 days above levels of a year ago. Of all major product categories, only Pacific distillates are below their five-year average in days of forward cover, reflecting continued tightness in Japanese kerosene stocks.

- **Preliminary January data indicate total OECD industry oil inventories** built by 8.1 mb last month. Japanese stocks fell by 16.9 mb, mostly in products, but US stocks rose by 27.2 mb on the back of a 22.5 mb crude build. Euroilstock reporting showed European stocks falling by 2.2 mb.

- **Floating storage reached higher levels, offset by reduced trade flows that curbed oil in transit.** Though estimates vary widely, industry and shipping sources put end-January short-term floating storage at unseasonably high levels of 50-80 mb. Recent reporting indicates some selling of cargoes. 4Q08 data show floating storage increased by 260 kb/d. Yet, slowing trade flows reduced oil in transit by an offsetting 220 kb/d, leaving our Table 1 floating storage/oil in transit estimate largely unchanged for the quarter.





OECD Inventory Position at End-December and Revisions to Preliminary Data

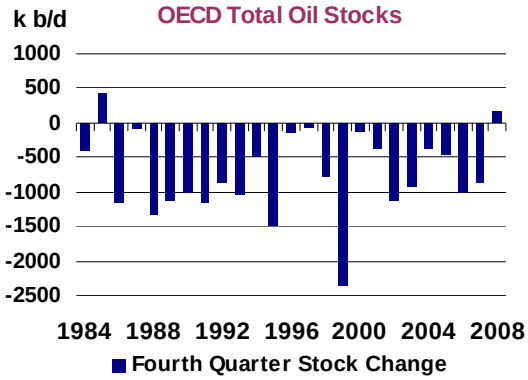
Total OECD inventories fell by 20.1 mb in December, closing the month at 2,673 mb. Declines in Pacific and European inventories drove the change while North American inventories increased marginally. Draws in Europe and Pacific distillates reduced the effect of builds in North American gasoline and distillate. A draw in 'Other Oils' stocks (a broad category including NGLs, feedstocks and other hydrocarbons) in North America and the Pacific represented over 50% of the OECD total oil fall. Year-on-year comparisons show total inventories 104 mb higher than in December 2007, down from a 117 mb year-on-year surplus in November.

Preliminary Industry Stock Change in December 2008 and Fourth Quarter 2008

	December (preliminary) *(million barrels)*				December (preliminary) *(million barrels per day)*				Fourth Quarter 2008 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**2.5**	**-1.3**	**-1.5**	**-0.3**	**0.08**	**-0.04**	**-0.05**	**-0.01**	**0.24**	**-0.06**	**0.03**	**0.20**
Gasoline	11.2	0.7	-1.9	10.0	0.36	0.02	-0.06	0.32	0.28	0.10	-0.01	0.38
Distillates	8.1	-4.5	-6.7	-3.1	0.26	-0.15	-0.22	-0.10	0.18	-0.02	-0.13	0.03
Fuel Oil	-3.5	3.7	-0.6	-0.4	-0.11	0.12	-0.02	-0.01	-0.05	0.03	-0.02	-0.04
Other Products	-10.2	-0.8	-3.0	-14.0	-0.33	-0.02	-0.10	-0.45	-0.17	0.04	-0.05	-0.18
Total Products	**5.6**	**-0.9**	**-12.2**	**-7.5**	**0.18**	**-0.03**	**-0.39**	**-0.24**	**0.24**	**0.15**	**-0.21**	**0.19**
Other Oils[1]	-7.4	-0.9	-4.0	-12.3	-0.24	-0.03	-0.13	-0.40	-0.17	0.02	-0.07	-0.22
Total Oil	**0.6**	**-3.1**	**-17.7**	**-20.1**	**0.02**	**-0.10**	**-0.57**	**-0.65**	**0.31**	**0.11**	**-0.25**	**0.17**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Despite the decline in December inventories, 4Q08 stocks for the OECD posted a 170 kb/d counter-seasonal build, contrasting five and 10-year average fourth quarter draws of 730 kb/d and 840 kb/d, respectively. Subject to revisions, this would represent the first 4Q OECD inventory build since 1985.



December's total oil forward demand cover remained at five-year highs, at 57.0 days. An upward revised November number of 57.2 days indicates that demand cover fell slightly in December from the previous month. Still, it stands 4.5 days above the December 2007 reading of 52.5 days. In North America and Europe all categories are trending near or above five-year highs, except for residual fuel oil in the former and distillate in the latter, which are both only in the upper half of the five-year range. In the Pacific both distillate and fuel oil are near five-year average levels.

Revisions versus 16 January 2009 Oil Market Report

(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Oct 08	Nov 08	Oct 08	Nov 08	Oct 08	Nov 08	Oct 08	Nov 08
Crude Oil	**5.6**	**7.8**	**0.0**	**1.3**	**-0.1**	**3.8**	**5.5**	**12.9**
Gasoline	2.3	5.7	-3.4	5.3	0.4	0.7	-0.7	11.7
Distillates	-0.1	6.5	0.1	13.4	0.3	-0.8	0.3	19.1
Residual Fuel Oil	-0.3	-0.4	-0.3	-0.3	0.0	-0.1	-0.7	-0.9
Other Products	-0.2	-4.4	-0.1	-1.4	0.0	-0.7	-0.3	-6.5
Total Products	**1.7**	**7.3**	**-3.8**	**17.0**	**0.7**	**-0.9**	**-1.4**	**23.4**
Other Oils[1]	0.4	-1.9	-0.4	0.7	0.0	0.1	0.0	-1.1
Total Oil	**7.7**	**13.3**	**-4.2**	**19.0**	**0.6**	**3.0**	**4.1**	**35.2**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

November revisions boosted OECD inventories by 35.2 mb and overturned the small draw highlighted in last month's report. Upward revisions to crude in Canada and Japan and increases in gasoline and distillate in the US and Germany contributed most strongly to the changes.

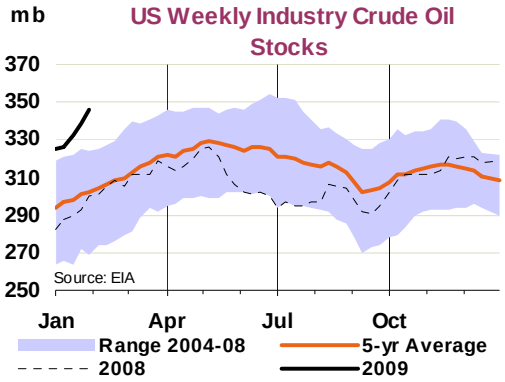
OECD Industry Stock Changes in December 2008

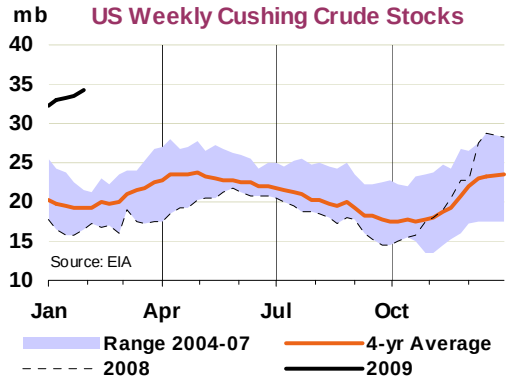
OECD North America

While North American inventories remained virtually unchanged at 1,308 mb in December, gasoline and distillate stocks in the US saw notable gains of 10.4 mb and 8.6 mb, respectively. Increases in these product categories propelled both up above five-year average levels and reflected weak transport demand, warmer-than-normal December temperatures in the US Northeast and higher refinery yields, implied by weekly data, as gasoline cracks began to climb out of negative territory. US refinery runs fell

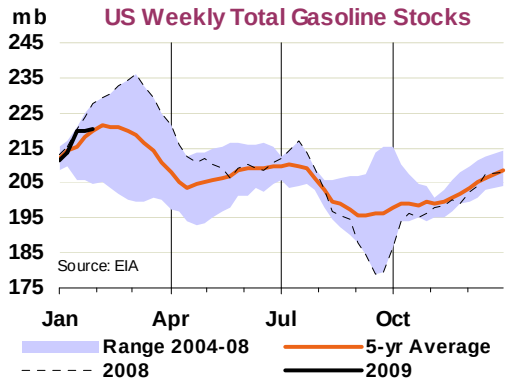
100 kb/d on the month and crude production rose, supporting a US crude inventory build of 3.9 mb in the face of falling imports. Draws in NGL, feedstock, fuel oil and other product stocks, however, provided offsets to the gains above.

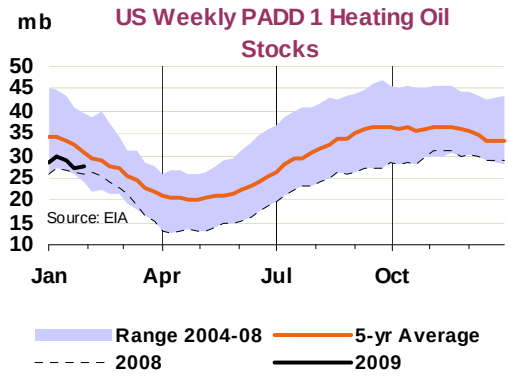
January weekly data point to builds in crude and principal products, with crude stocks at Cushing, Oklahoma – the delivery point for NYMEX light, sweet crude – pushing operational limits (see *WTI Benchmark: Past Imperfect, Future Tense)*. Crude stocks rose by 22.5 mb in the US as a whole and 3.3 mb in Cushing in January to 346 mb and 34.3 mb, respectively. With Cushing stocks nearing capacity and scant evidence of a tighter crude market, a February repeat performance of WTI's dramatic contango widening ahead of physical expiry could recur. Cushing stocks could remain swollen if imports remain healthy, refinery utilisation remains low and particularly if 20-25 mb of floating storage begins to discharge from the US Gulf of Mexico. While the US government's resumed filling of its Strategic Petroleum Reserve – January fills were 2 mb and 1.9 mb are planned for February – and OPEC supply cuts may ultimately change the stocks situation, these factors seem unlikely to dramatically reduce the Cushing over-hang in the immediate short-term.





Weekly data show January builds in US product stocks of 4.7 mb, with gasoline and distillate rising by 9.7 mb and 5.3 mb, respectively. Total product inventories continued to trend above the five-year average. Gasoline stocks, however, look slightly tighter, at around their five-year average on both an absolute and demand cover basis, possibly providing some support to February refining margins. In addition, the distillate stockbuild comprised a 7.1 mb increase in diesel stocks while heating oil fell by 1.8 mb on the month. Sharply colder January weather in the US Northeast relative to December has left heating oil stocks there and on the US East Coast as a whole at or below five-year averages.

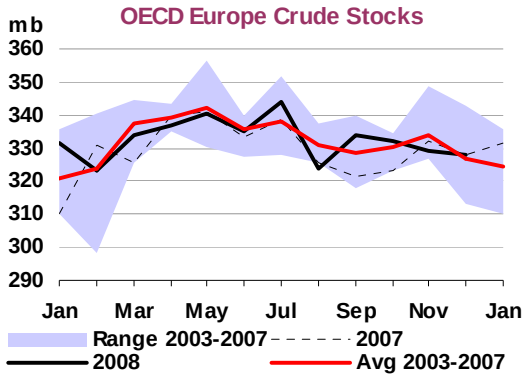


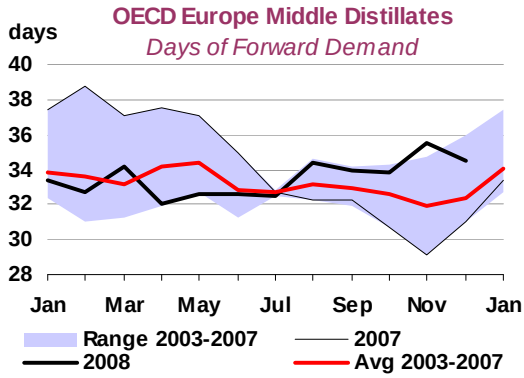


OECD Europe

European industry oil inventories declined by 3.1 mb in December to 958 mb, but stand 26.5 mb higher than 2007. The decline stemmed from a drop in middle distillate inventories, particularly in Germany, where they fell by 3.0 mb on the month. Colder weather contributed to a 7.7% rise in heating oil demand in December, and German consumers continued to maintain tertiary stocks at healthy levels. Both factors contributed to a draw in primary stocks. France and the UK contributed smaller draws in distillate stocks.

A rise of 70 kb/d in regional refinery throughputs aided a crude stock draw of 1.3 mb, though runs remain at historically low levels. Crude inventories drew most heavily in the Netherlands, by 6.7 mb, but built by smaller amounts in both Germany and France. Looking to January, Brent futures almost $4 premium to WTI may have attracted more Atlantic Basin cargoes, helping to boost crude stocks. However, Brent's still strong contango, combined with falling freight rates, has made floating storage in the North Sea attractive, with estimates of around 15 mb sitting offshore as of early February (see *Floating Storage: Stranded at Sea or Smooth Sail to Shore?*).





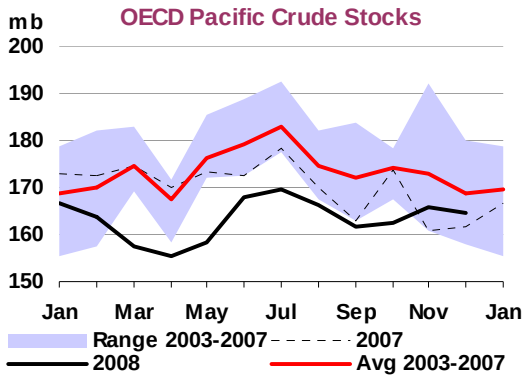
Regional product inventories overall declined by 0.9 mb in December. Builds in fuel oil and gasoline of 3.7 mb and 0.7 mb, respectively, dampened the larger distillate draw. Revisions to European product stocks in November included an increase in distillate stocks of 13.4 mb and a smaller increase in gasoline levels of 5.3 mb. The relatively healthy position of European distillate stocks in 4Q08 compared with previous quarters likely contributed to some of the softening in gasoil cracks since mid-November.

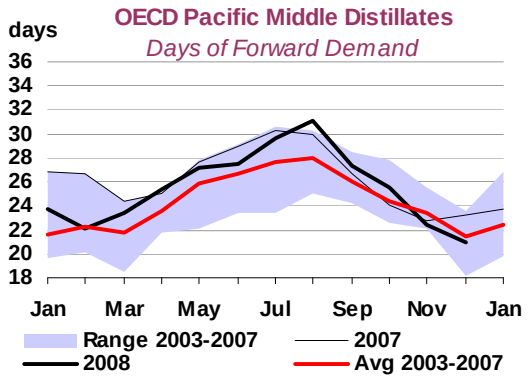
Preliminary data from Euroilstock indicate European inventories fell by 2.2 mb in January, with product stocks declining by 6.4 mb, but crude stocks rising by 4.2 mb. The product draws were roughly evenly distributed across middle distillates, fuel oil and naphtha. January temperatures in Europe far colder than 10-year norms likely played a contributing factor in the product draws. By contrast, Northwest European stocks held in independent storage in January indicate middle distillate builds well above five-year averages. Some of this strength may reflect higher storage capacity there relative to previous years, but contango in ICE gasoil and the continued arrival of distillate supplies from the US and Asia likely played a role in buoying storage levels. With storage constraints looming, recent reporting indicates some market participants have found it economic to store jet-fuel on offshore vessels.

OECD Pacific

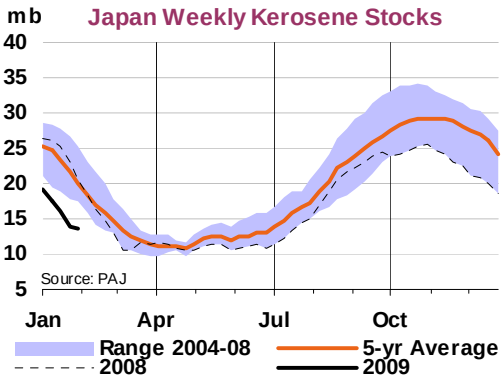
Pacific industry stocks declined by 17.7 mb in December to 407 mb. Draws in Japanese middle distillates led the way, falling by 5.7 mb. Although refinery activity picked up by 220 kb/d in Japan, colder weather and increased demand for heating fuels aided in the draw. Crude oil inventories fell by 1.5 mb in the Pacific as a whole, but rose in Japan by 0.8 mb while falling in Korea by 2.2 mb. A downward movement

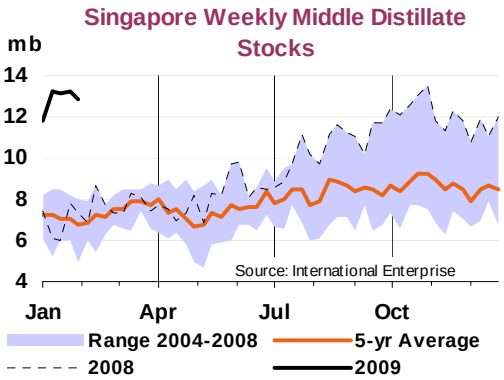
in gasoline stocks in both Japan and Korea has left them trending along the bottom of the five-year range, though they remain near five-year highs in days of forward demand.





Japanese weekly data from the Petroleum Association of Japan (PAJ) for January indicate continued falls in kerosene and gasoline stocks, as both trend below the five-year range, and lower crude stocks versus end-December. Higher January refinery activity pushed onshore crude stocks down by 4.8 mb. Yet, throughputs and product output remain low. Kerosene stocks as of end-January stood almost 7 mb below levels of a year ago after declining 5.3 mb during the month.





Recent Developments in Singapore Stocks

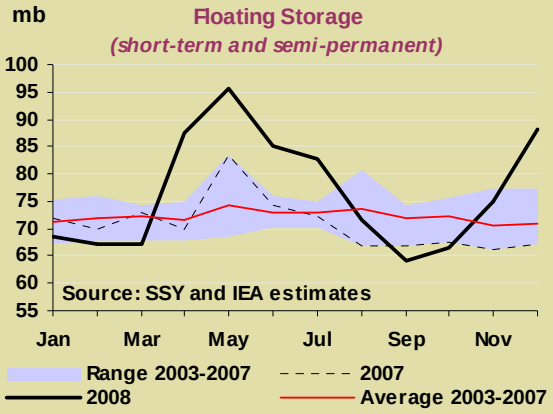
January Singapore weekly stocks increased by 7.5 mb with all product categories rising. Light and middle distillates increased strongly in the first half of the month before levelling off at or above their five-year range. Weak jet-kerosene and gasoil demand from China buoyed stocks and shipments are also moving to Europe to take advantage of higher prices there. Indonesia's intention to export gasoil for the first time further underscores the health of regional distillate stocks. Fuel oil stocks reversed their December draws to build above the five-year range as Chinese buying waned. Yet stocks may tighten in February with reduced Middle East output and buying from South Korea for winter power needs.

Floating Storage: Stranded at Sea or Smooth Sail to Shore?

Alongside dramatic crude builds in Cushing, the most prominent storage issue so far in 2009 has been the large glut of crude oil that has built up on offshore tankers, primarily in the US Gulf of Mexico and the North Sea. Market participants have opted to store oil offshore as onshore tanks have filled to take advantage of deep contango, where future barrels sell for more than prompt barrels, in both paper and physical crude markets. Falling freight rates further enhanced the economics of storing oil at sea.

The *OMR* captures quarterly changes to floating storage and oil in transit in our Table 1, *World Oil Supply and Demand Balance*, but on an aggregated basis. Our floating estimate reflects both short-term and semi-permanent storage (some semi-permanent storage, in Libya for example, has been in place for almost two decades). In 4Q08, floating storage increased by 260 kb/d, with much of it concentrated in December, for reasons noted above. However, a fall in oil trade following lower economic activity and OPEC production cuts reduced oil in transit by 220 kb/d, leaving only a net 40 kb/d gain in 'Floating Storage/Oil in Transit' for the quarter as a whole.

End-January estimates (50-80 mb) of floating storage vary widely. Yet, some reporting fails to denote the short-term nature of these figures and does not compare them against the background amount of oil normally stored on water, which includes semi-permanent storage. Available data suggest floating storage has averaged about 70 mb in the past five years, with most of this as semi-permanent in nature. After adding current semi-permanent storage (about 60 mb) to the 50-80 mb range, one then sees floating storage at the unseasonably high levels suggested by current market dynamics. The bottom end of that range (implying total floating storage of 110 mb) would still exceed that of May 2008, when Iran offshore crude storage increased as much as an estimated 30 mb.



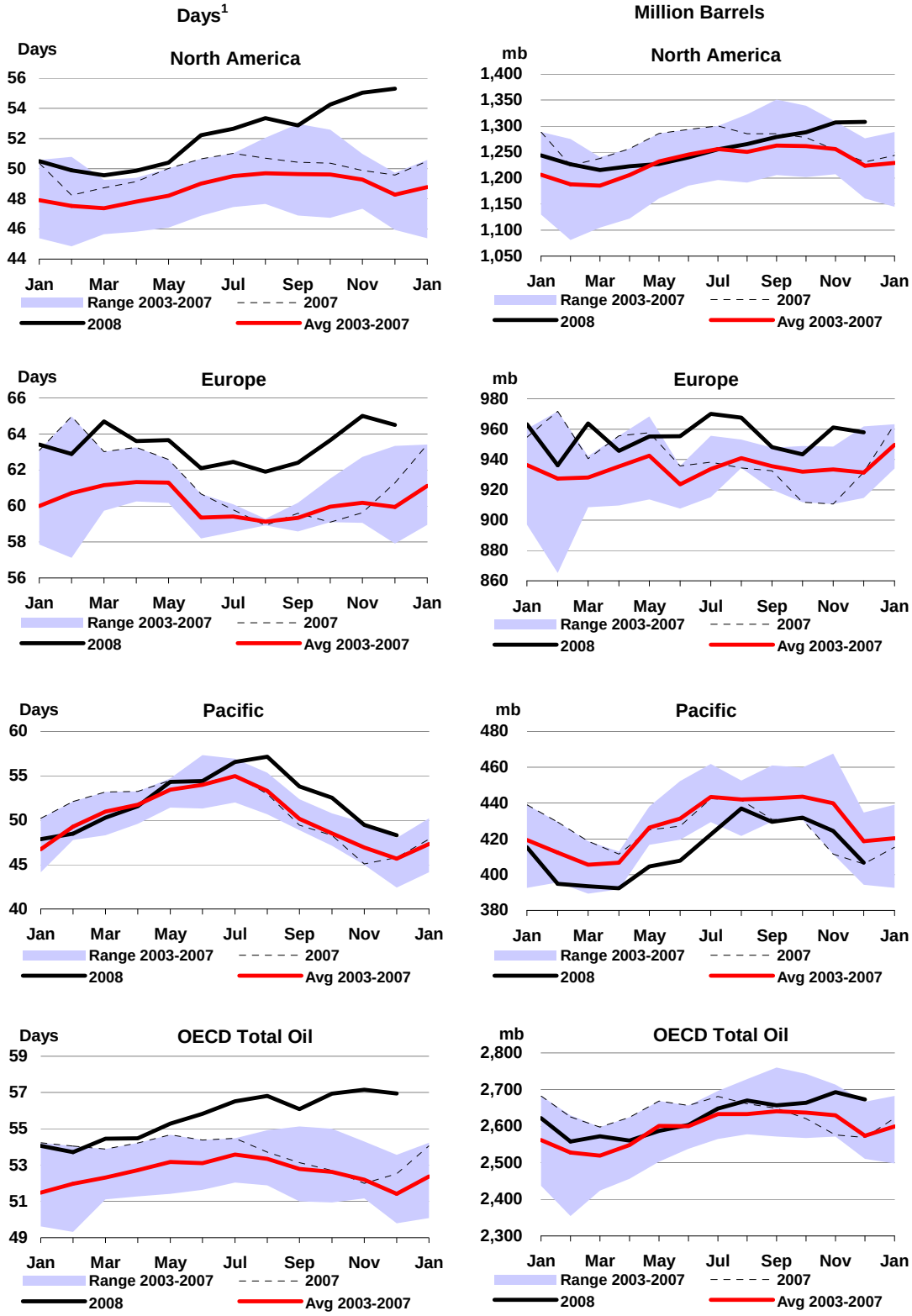
Methodological differences in counting vessels also cloud the picture. Some estimates count only those ships currently used for storage. Other figures also include vessels that have storage options attached to their charter, but are not currently employed as floating storage.

Moreover, recent reporting has indicated the selling of some storage cargoes. It remains unclear to what degree owners are sending barrels onshore or merely transferring offshore charters to other parties. During the last two weeks of January, large crude builds of 4.2 mb and 4.6 mb, respectively, along the US Gulf Coast may have signalled some discharge underway. Yet, taking conservative estimates, it appears 40-50 mb of short-term storage remains offshore as of early February, with about 15 mb in the North Sea, 20-25 mb in the US Gulf vicinity and smaller amounts in the Mediterranean and West Africa. Reporting also indicates Iran started storing 2 mb of excess gasoil off its coast two months ago.

How might the floating storage scenario play out? Rising freight rates or increased refinery demand for crude in the US or Europe could incentivise moving oil onshore. Yet, freight rates are still falling due to OPEC supply cuts and refinery activity in the US looks likely to stagnate until 2Q09. A forecast February increase in European runs may soak up some of the North Sea cargoes. US Strategic Petroleum Reserve filling could also take in some of the Gulf Coast barrels. Yet, February and March fills will amount to 1.9 mb and 6.7 mb, respectively, less than the amount of floating storage in the Gulf. More than likely, as oil moves onshore to take advantage of any selling opportunities, OECD stocks will swell and depress prompt markets, creating incentives for more floating storage and injecting volatility into any drawdown. This circular pattern will likely persist until the effects of OPEC production cuts or rising demand tighten prompt markets, allowing OECD onshore inventories to begin drawing on a more sustained basis. Either way, floating storage should keep a ceiling over near-term prices. While barrels should eventually make their way ashore, the sail back to more normal floating storage levels looks anything but smooth for some time yet.

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and millions barrels of total oil)



1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **After an early-January surge, benchmark spot crude oil prices seem to have stabilised**, for now, in a $40-45/bbl range as further evidence emerges that OPEC is making good on its pledges to reduce the global crude overhang. US crude markets continue to be distorted by high inland Cushing stocks, leaving futures markets in steep contango and sustaining WTI discounts to other crudes.

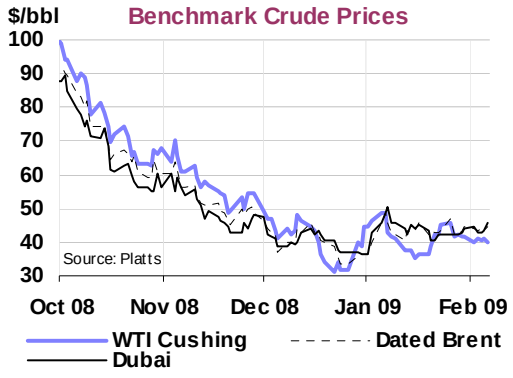
- **Light distillate cracks improved significantly over the course of January**, recovering from negative or near-negative levels to around parity for naphtha and to as much as $10/bbl in Europe, $15/bbl in Singapore and even more in New York Harbor for gasoline. High-sulphur fuel oil discounts also narrowed due to increased demand on colder weather and a tightening of alternative sources of supplies, while distillate cracks moved lower amid weak demand.

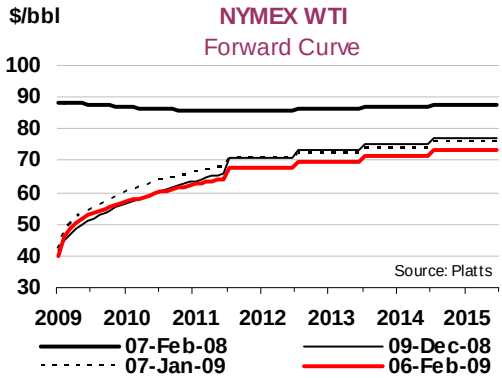
- **Refining margins improved in all regions in January** as product price gains easily offset smaller increases to crude oil. The largest improvements occurred in the US West Coast, but significant gains were recorded on the Gulf Coast and in Europe as gasoline cracks improved materially. Singapore margins were supported by higher petrochemical and power demand.

- **Crude freight rates fell to five-year lows at end month,** after staging a mild recovery in the first half of January, as the effect of OPEC export cuts overtook increased demand for floating storage. Clean rates, on the other hand, while decreasing in the first half of the month, held firm or increased towards end-January on the back of increased gasoil shipments from Asia to Europe.

Overview

After an early-January surge in crude oil prices, supported by increasing evidence of tighter OPEC supplies, record cold weather in Europe and the US Northeast, the Russian/Ukraine gas disruption and violence in the Gaza Strip, prices subsequently fell and stabilised in a $40-45/bbl range. The decline from the early-month highs of around $50/bbl followed from further stock increases, continued weak crude and product demand, more depressing economic news, a resumption of gas flows to Europe on 20 January and a negotiated ceasefire in the Gaza Strip





Further evidence emerged during the past month that OPEC has indeed made good on its commitment to reduce crude supplies and that further cuts might take place during the February and March period. Preliminary assessments show a 950 kb/d reduction in supply in January compared with a month earlier, leaving total OPEC-12 crude production at just over 29 mb/d. Although cuts were seen across the board, the largest reductions came from Saudi Arabia, which is assessed producing within 100 kb/d of its

current quota of 8 mb/d. Indications from Saudi officials suggest a further 300 kb/d cut in February to 7.7 mb/d. Adding to voluntary cuts in production, OPEC January supplies were further reduced due to unplanned outages at Angola's Greater Plutonio field and lower Nigerian volumes as Shell declared force majeure on Bonny Light exports, following attacks to vessels near the export terminal.

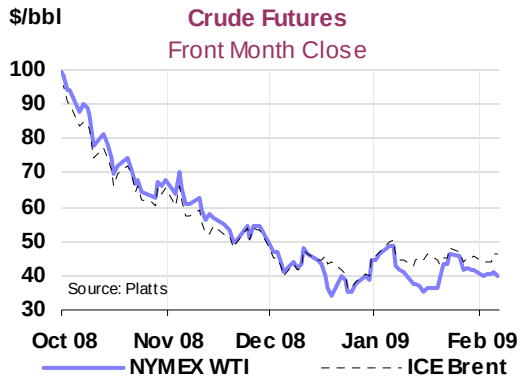
Additional downward pressure on oil prices came from more depressing economic news, including record low US consumer confidence, plummeting industrial output, massive job losses and an even gloomier outlook for economic activity for this year and next year. The IMF released on 28 January a second update to its October *World Economic Outlook,* revising global 2009 GDP growth down to only +0.5% compared with a projection of 2.2% in November and 3.0% in October. OECD countries are now seen firmly in recession (-1.7%) while the non-OECD posts one of the lowest growth rates in recent history at +3.4%. China, whose GDP forecast for 2009 was revised down from 8.5% to 6.7% in the latest IMF update, also published very weak 4Q08 GDP and apparent oil demand figures. 4Q08 GDP growth is reported at just under 7% annually, dragging down the pace of economic activity for the year to 9% and the lowest rate since 2001. Oil demand estimates for the end of 2008 were equally negative, with apparent oil demand in 4Q08 merely 0.1% higher than a year earlier at 7.6 mb/d.

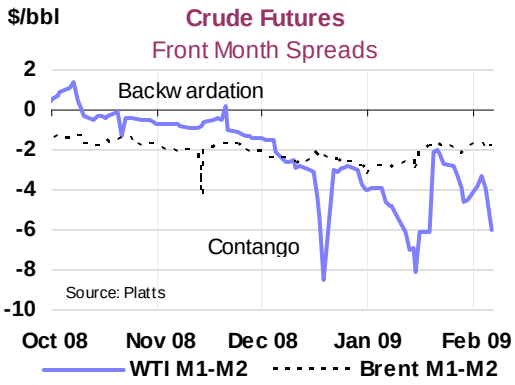
As OPEC's efforts to reduce the global crude supply overhang have for now seemingly halted the slide in crude prices, steps taken by refiners worldwide to deal with the current product demand slowdown have shored up refined product prices and refinery margins. Global refinery crude throughputs are estimated at 71.7 mb/d in January, 0.9 mb/d lower than a month earlier and 2.9 mb/d below on a yearly basis. A steep recovery was seen in naphtha and gasoline cracks in January, and HSFO gained support from increased demand due to cold weather and a tightening of alternative fuel sources.

Cold weather in Europe and the US Northeast in January was compounded by a complete halt of Russian gas supplies to many European customers for more than two weeks following a gas-pricing dispute between Russia and the Ukraine. On 19 January, the countries involved reached an agreement regarding gas prices leading to resumed gas exports to Ukraine and Europe.

Futures

The NYMEX WTI front-month contract spread widened further in January, reaching another near-record high of $8.14/bbl on 15 January before narrowing sharply with the expiry of the February contract. The contango remained in place, however, widening again to $6/bbl in early February, driven by weak prompt demand and distorted by storage limitations at Cushing, the delivery point for the NYMEX contract (see *WTI Benchmark: Past Imperfect, Future Tense*). The price spread of the Brent ICE front months on the other hand remained stable at around $2/bbl throughout the month, leaving the WTI-Brent discount in place and mirroring WTI swings, briefly touching $10/bbl in mid-January.





WTI Benchmark: Past Imperfect, Future Tense

US West Texas Intermediate (WTI) crude traded on the New York Mercantile Exchange has reigned for decades as the most important pricing benchmark in global oil markets despite its tangible logistical flaws. Inherent operational problems related to the WTI contract delivery point in landlocked Cushing, Oklahoma have periodically triggered a disconnect with international crude oil prices, prompting industry participants to question the viability of WTI as a suitable benchmark for global oil markets. Past discontent with WTI has been quelled when market dynamics eventually correct the largely localised pricing aberrations.

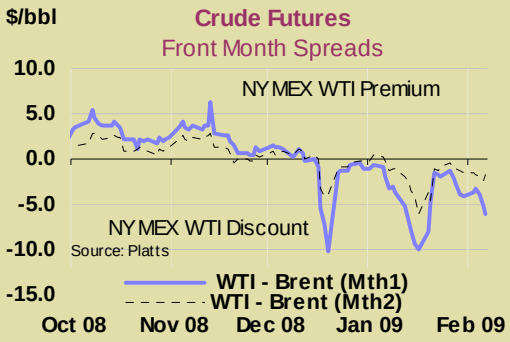
WTI gained international stature after the New York Mercantile Exchange (Nymex) selected the crude as the basis for its light, sweet crude oil contract in 1983. WTI is not one specific grade but made up of a blend of domestic crudes that share similar qualities. Production of WTI averaged about 1.3 mb/d when the contract was launched but volumes are down more than 75% since then, to around 300 kb/d currently.

Nymex selected land-locked Cushing, Oklahoma as the physical delivery point for the contract because of its massive pipeline network and distribution infrastructure. This existing infrastructure for processing, transporting and storing oil has metamorphosed into the largest crude oil pipeline gathering facility and transportation hub in North America.

Uneasy Lies the Crown

The unprecedented collapse in the WTI pricing structure over the past six weeks has, once again, called into question the relevance of WTI as a global price benchmark. Sharply lower oil demand, rising Canadian crude oil flows into the region and swelling crude inventories at storage tanks in Cushing have collectively exerted enormous downward pressure on prompt month WTI prices and turned upside down traditional pricing relationships with domestic and foreign crudes. Volatile WTI is sending mixed and misleading price signals not only to the market but to economic forecasters, government officials and policy makers.

Prompt WTI has been trading at steep discounts relative to forward trades, lower-value domestic grades as well as to its traditional Atlantic basin competitor, North Sea Brent. The WTI-Brent price spread, typically positive to the tune of between $1.50/bbl and $2.50bbl, overturned in early December. At peak, Brent traded at a $10.06/bbl premium to WTI on 15 January. Moreover, WTI's pricing anomalies have upended the crude's value as a basis for setting physical spot and contract prices for other domestic grades and also an estimated 5 mb/d in crude imports.



WTI's woes have been compounded by the contango in oil markets, where prompt prices trade at a discount to forward values. Refiners and traders, among others with ready credit, have seized the opportunity to buy relatively cheaper prompt barrels, store the oil at both onshore storage facilities and offshore in floating tankers, and then turnaround and sell at the higher forward prices. The WTI price discount between prompt and forward prices ballooned ahead of expiry to a high of $8.49/bbl in December and $8.14/bbl in January.

Crude oil stocks at Cushing have been steadily rising since October and were reportedly nearing operational capacity by end-January, at 34.3 mb. Since almost all pipelines flow one way into Cushing, there is no outlet to move crude south to the key Gulf Coast refining centre when storage gets backed up. By contrast, floating storage offers the seller flexibility to move the crude to the market with the best return (see *Floating Storage: Stranded at Sea or Smooth Sail to Shore?*).

Unlocking the Bottleneck

Storage capacity at Cushing is estimated at 45 mb, but only about 80%, or roughly 36 mb, is operational capacity. A steady increase in Nymex hedging activity in the past decade, by Wall Street hedge funds, traders end-users such as airlines, created additional demand for storage. A further 750 kb of storage is planned to come on line this year.

WTI Benchmark: Past Imperfect, Future Tense (continued)

Dubbed 'the pipeline crossroads of the world,' Cushing is made up of a complex web of underground pipelines and hundreds of storage tanks that cover more than nine square miles (23km^2). The pipelines carry crude up from the Gulf of Mexico in the south and down from Canada in the north, and intersect with a vast network that links to refineries across the country.

The influx of Western Canadian crude to Cushing since 2006 has created further bottlenecks. US imports of Canadian crude increased from an average 1.6 mb/d in 2005 to just over 2 mb/d by end-2008, up 350 kb/d. Canada sends 99% of its crude exports to the US. Before the recent downturn, Canada had some 1.4 mb/d of new production project start-ups planned between 2009 and 2013. To meet this increased demand for export routes to the US, Canadian producers have more than $5 billion in potential pipeline projects on the drawing board to increase outlets to the Midcontinent refining hubs, including Cushing.

While the new pipelines would ease the capacity crunch from rising Canadian supply, an outlet to move crude oil from land-locked Cushing to the Gulf Coast has also been touted as a critical step in alleviating logistical constraints strangling WTI. Reversing the flow of the existing 350 kb/d Seaway pipeline to flow from north to south has been studied for years but so far little interest has been shown by the owners to take the project forward.

USA Oil Infrastructure – Cushing, Oklahoma



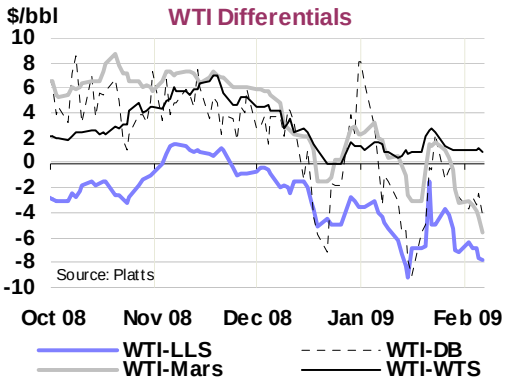
Source: *Oil Supply Security*, 2007, IEA.

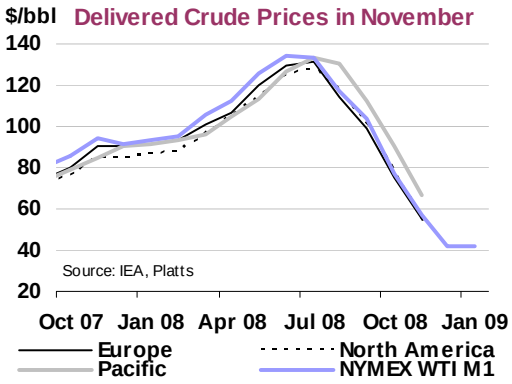
Short of opening a physical link to the US Gulf Coast, Nymex could alleviate existing problems with WTI by designating a second delivery point along the US Gulf Coast and increasing the number of crudes that can be delivered under the contract. Nymex already allows sellers to deliver Brent and Norwegian Oseberg at small fixed discounts to the settlement price, while Nigerian grades Bonny Light and Qua Iboe, and Colombia's Cusiana can be fixed at a small premium.

The recently distorted price structure for WTI has raised doubts among many market participants about the future of the bellwether crude. In the near term, record stock levels at Cushing, anaemic oil demand and plans by refiners to sharply cut throughput rates in February and March could keep downward pressure on WTI prices. Further deterioration in the fragile WTI pricing mechanism would only serve to reinforce the view that the crude has become an irrevocably broken benchmark. Others argue that, though imperfect, WTI's reputation as a global price benchmark remains intact. Structural changes to expand the existing pipeline infrastructure, including a line to the US Gulf Coast, may also make for a more perfect union between WTI and Cushing by the end of the decade.

Spot Crude Oil Prices

Bench spot crude prices were slightly higher on average in January, rebounding from end-December lows as OPEC production cuts started to filter through to the market, balancing globally weak refinery demand. As predominantly sour crudes have been taken off the market, sweet-sour differentials have mostly narrowed further, although Tapis to Dubai spreads recovered from recent lows on healthier naphtha prices. About 40% of Australian production was shut-in briefly in January due to damage caused by cyclones Dominic, further supporting equivalent light-sweet Tapis.





West African discounts to benchmark North Sea Dated narrowed over the course of January as both Angolan and Nigerian supplies tightened. Shut-in capacity at the medium sweet Greater Plutonio field in Angola and force majeure on Bonny exports after attacks on vessels near the export terminal supported regional grades. Urals, meanwhile, was supported in Northwest Europe following tighter schedules at the Baltic port of Primorsk and as OPEC cuts reduced the arrival of competing Saudi and Iranian crudes.

The US market continues to be distorted by WTI weakness, as record high stocks at Cushing and limited tank availability depress near-term prices (See '*WTI Benchmark: Past Imperfect, Future Tense*'). WTI's discount to Brent and other domestic light sweet grades such as LLS widened further over the course of the month, touching a record low of $9/bbl mid-month before strengthening slightly. As elsewhere, lower availability of OPEC heavy crudes (Venezuelan exports to the US have reportedly been reduced by at least 120 kb/d) has pushed up medium/sour differentials significantly and even to a premium at times for grades like Mars and Poseidon.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Nov	Dec	Jan	Jan-Dec Avg Change	%	Week Commencing: 05 Jan	12 Jan	19 Jan	26 Jan	02 Feb
Crudes										
Dated Brent	52.51	40.35	43.59	3.24	8.0	45.15	43.16	42.90	43.87	43.79
Brent (Asia) Mth1 adjusted	53.35	42.12	44.44	2.33	5.5	47.32	44.15	42.84	43.08	45.04
WTI (Cushing) Mth1 adjusted	57.41	41.45	41.75	0.30	0.7	44.53	36.92	42.20	42.53	40.52
Urals (Mediterranean)	51.79	40.02	43.09	3.06	7.6	44.77	43.29	42.01	42.99	42.78
Dubai Mth1 adjusted	49.84	40.53	44.12	3.59	8.9	47.23	44.20	41.81	43.08	43.89
Tapis (Dated)	56.70	44.95	47.40	2.45	5.4	48.86	47.28	46.14	47.84	47.38
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	4.90	1.10	-1.84	-2.94		-0.63	-6.24	-0.69	-1.34	-3.28
Urals (Mediterranean)	-0.72	-0.32	-0.51	-0.18		-0.38	0.13	-0.88	-0.88	-1.01
Dubai Mth1 adjusted - Dated Brent	-2.67	0.19	0.53	0.35		2.08	1.04	-1.09	-0.78	0.10
Tapis (Dated)	4.20	4.60	3.81	-0.80		3.71	4.12	3.24	3.97	3.59
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-2.12	-2.56	-2.15	0.41		-2.71	-2.25	-1.79	-1.70	-1.55
Forward WTI Cushing Mth1-Mth2 adj.	-0.76	-3.51	-4.30	-0.79		-4.65	-6.83	-1.44	-3.81	-4.32

Source: Platts

Refining Margins

Refinery margins improved for all regions in January as higher gasoline, naphtha and fuel oil cracks more than offset lower distillate differentials. The largest gains came in US West Coast Kern margins, which continued their steep increases seen since November, as extremely low refinery operations at the end of 2008 and the beginning of 2009 tightened product markets. US Gulf Coast coking margins equally improved significantly over the month of January, moving into positive territory as gasoline cracks recovered. High gasoline-yielding light crudes saw the largest gains, while distillate-rich grades saw smaller increases but from a higher starting point.

European refinery margins mostly improved. Urals margins in the Mediterranean in particular saw strong gains, following increased product demand from the Middle East and as regional refinery maintenance and outages tightened product markets further. Singapore margins also moved higher following strong gains in gasoline, naphtha and to a lesser extent HSFO prices. Increased petrochemical activity supported light product price gains, while the HSFO discount to benchmark crudes reached its narrowest level in three years following a tightening of alternative sources of supply in line with reduced regional crude production.

Selected Refining Margins in Major Refining Centres

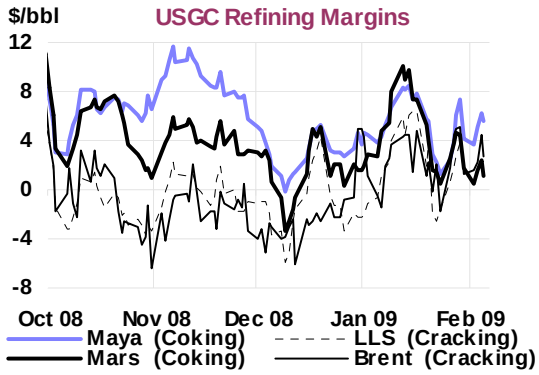
($/bbl)

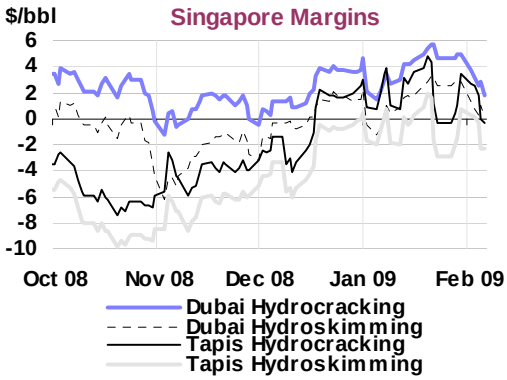
		Monthly Average			Change	Average for week ending:				
		Nov 08	Dec 08	Jan 09	Jan 09-Dec 08	09 Jan	16 Jan	23 Jan	30 Jan	06 Feb
NW Europe	Brent (Cracking)	4.94	3.57	4.37	0.80	4.44	4.72	3.34	5.47	4.92
	Urals (Cracking)	3.99	3.00	3.73	0.74	3.10	3.83	3.07	5.28	4.52
	Brent (Hydroskimming)	3.52	2.80	2.39	-0.42	3.33	2.34	1.09	2.87	1.90
	Urals (Hydroskimming)	-1.08	-0.37	0.21	0.58	-0.48	0.24	-0.43	1.85	0.64
Mediterranean	Es Sider (Cracking)	3.73	2.02	3.81	1.79	3.97	3.67	2.87	5.47	4.09
	Urals (Cracking)	2.20	1.76	3.91	2.16	3.12	4.03	3.60	5.99	4.28
	Es Sider (Hydroskimming)	2.47	1.10	1.48	0.38	2.54	0.94	0.28	2.31	1.06
	Urals (Hydroskimming)	-3.46	-2.66	-0.11	2.55	-1.14	-0.04	-0.24	2.08	0.43
US Gulf Coast	Bonny (Cracking)	-1.21	-4.05	0.88	4.93	-0.30	2.10	0.72	0.17	0.22
	Brent (Cracking)	-1.48	-2.51	2.53	5.04	0.71	3.68	2.01	2.89	2.46
	LLS (Cracking)	-0.08	-1.28	1.87	3.15	0.66	5.40	1.53	1.52	1.48
	Mars (Cracking)	-4.31	-2.70	1.74	4.44	-0.34	5.77	1.88	1.69	0.14
	Mars (Coking)	4.06	1.60	4.73	3.13	4.23	8.81	3.91	3.18	1.48
	Maya (Coking)	9.14	3.15	5.31	2.16	4.81	7.82	4.84	4.22	4.99
US West Coast	ANS (Cracking)	-4.95	3.22	8.09	4.87	6.83	8.52	8.19	8.59	7.03
	Kern (Cracking)	0.66	13.81	18.15	4.35	16.12	22.15	19.19	13.10	17.32
	Oman (Cracking)	-8.40	-7.18	-4.82	2.36	-6.90	-6.33	-4.12	-4.48	-2.31
	Kern (Coking)	6.30	14.50	24.37	9.87	22.72	26.29	25.22	22.84	29.75
Singapore	Dubai (Hydroskimming)	-2.77	0.22	1.68	1.46	-0.04	1.51	2.85	2.70	0.70
	Tapis (Hydroskimming)	-6.62	-2.92	-0.75	2.17	-0.78	-0.48	-0.02	-1.75	-0.94
	Dubai (Hydrocracking)	0.83	2.21	4.07	1.86	2.51	4.02	5.29	4.76	2.82
	Tapis (Hydrocracking)	-4.07	-0.64	2.10	2.74	2.23	2.60	2.78	0.88	1.31
China	Cabinda (Hydroskimming)	-5.00	-2.86	-0.45	2.41	-0.38	-0.31	-0.06	-1.58	-0.65
	Daqing (Hydroskimming)	-4.24	-3.79	-1.44	2.35	-1.51	-2.85	-0.29	-1.14	-2.39
	Dubai (Hydroskimming)	-2.99	-0.22	1.75	1.97	0.09	1.58	2.88	2.72	0.72
	Daqing (Hydrocracking)	-1.79	-1.44	3.16	4.61	2.34	1.87	4.92	4.09	2.85
	Dubai (Hydrocracking)	0.54	1.72	4.14	2.42	2.66	4.11	5.31	4.76	2.89

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.
Sources: IEA, Purvin & Gertz Inc.

NB: In the process of our annual refining margins methodology overhaul, some of the product price quotes will soon change due to tighter European sulphur specifications; equally, some of our fixed-cost assumptions may also be altered. Over the longer term, we also aim to update the product yields used, on the basis of an observed and assumed continued shift to higher distillate output.

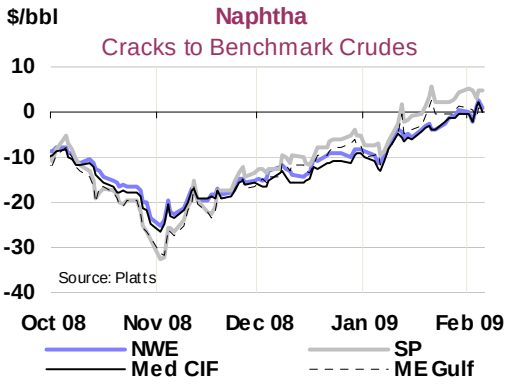


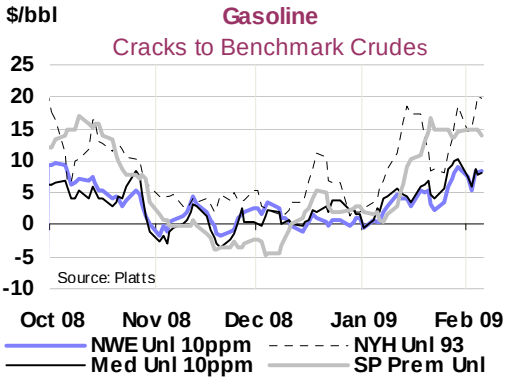


Spot Product Prices

Spot product prices rose for all categories and in all regions in January. Divergent trends, however, were seen in product crack spreads, with significant gains recorded for light and heavy products while middle distillates saw their profit margin mostly deteriorate over the course of the month.

Naphtha recorded the strongest gains in January and early February, and rose by more than $10/bbl from a month earlier in both Europe and Singapore. Since their low point in early November, naphtha cracks have seen a remarkable recovery from a $20-30/bbl discount to benchmark crudes to parity or even positive territory by the end of January. Lower global refinery runs, increased petrochemical and power demand in Asia and the Middle East seem to have tightened markets and shored up prices lately. Lower availability of competing gas liquids, in association with reduced Middle Eastern crude production and project slippages likely also contributed to the recovery. Ethylene production has recently picked up in Asia, and Korean naphtha crackers were reportedly running at 95% in January, compared with only 75% in November. Increased demand for naphtha also came from India, where lower domestic prices made it attractive for power generation.





More remarkably, perhaps, **gasoline** cracks also saw significant improvements in January, rebounding from negative or near-zero levels in early December to as much as $20/bbl in New York, $15/bbl in Singapore and close to $10/bbl in Europe. Although the gasoline cracks in New York Harbor are exaggerated by weak WTI, spot Super Unleaded gasoline has gained more than $20/bbl since their low-point at the end of December. But gasoline demand remains weak globally and particularly in the US, and prospects are not strong for a further marked improvement in the near term, despite lower retail

prices. Lower refinery utilisation and yields favouring more profitable middle distillates have tightened gasoline supply relative to crude and other products. US gasoline stocks were at 220 mb at the end of January, 10 mb below 2008 and close to their five-year average. The most recent weekly data from the EIA show an improvement in product supplied (a proxy for demand) in that week, with total gasoline supplied returning to historical averages.

Middle distillate cracks, on the other hand, were lower in general in January as spot prices only moved marginally higher, failing to match benchmark crude price increases. The exception was the US Northeast, where cold weather supporting New York Harbor heating oil was compounded by a weak and distorted WTI. Singapore gasoil differentials fell by more than $3/bbl as regional demand continued to plummet. Chinese gasoil exports surged to about 50 kb/d in December, the highest level seen since August 2005, amid continually shrinking domestic demand and reportedly brimming storage.

Spot Product Prices

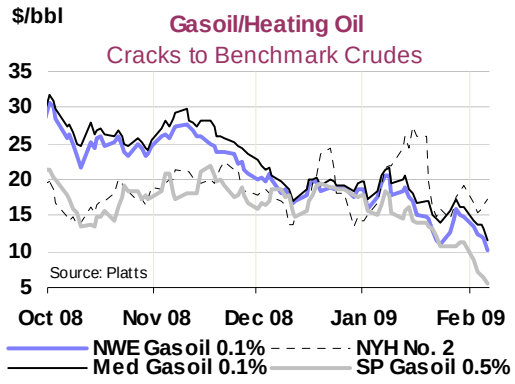
(monthly and weekly averages, $/bbl)

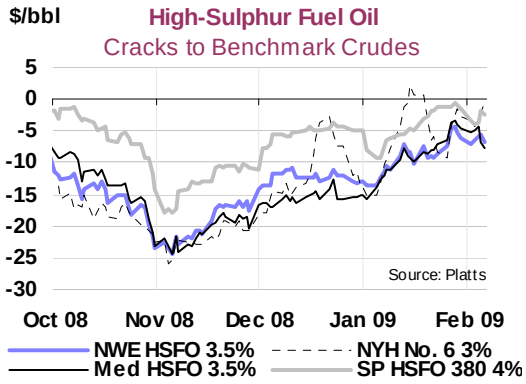
	Nov	Dec	Jan	Jan-Dec		Week Commencing:					Nov	Dec	Jan
				Change	%	05 Jan	12 Jan	19 Jan	26 Jan	02 Feb			
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	53.27	41.40	47.43	6.03	14.6	46.43	47.17	47.10	50.60	51.38	0.76	1.05	3.84
Naphtha	33.56	28.22	38.68	10.46	37.1	35.45	38.35	39.53	42.87	44.39	-18.94	-12.13	-4.91
Jet/Kerosene	80.19	59.88	60.68	0.80	1.3	65.89	61.37	56.78	59.40	56.07	27.68	19.53	17.09
ULSD 10ppm	80.36	62.91	62.36	-0.56	-0.9	67.34	62.69	58.53	61.33	58.62	27.86	22.57	18.77
Gasoil 0.1%	77.38	59.17	59.63	0.46	0.8	64.34	60.58	55.86	58.45	55.80	24.87	18.82	16.04
LSFO 1%	46.29	33.98	36.45	2.47	7.3	37.94	35.51	34.78	38.36	36.50	-6.22	-6.37	-7.14
HSFO 3.5%	32.91	27.95	34.71	6.76	24.2	33.32	34.57	34.23	38.39	37.40	-19.59	-12.40	-8.88
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	51.36	41.33	48.24	6.90	16.7	47.49	48.01	47.60	51.69	50.37	-0.43	1.31	5.15
Naphtha	31.65	26.13	37.48	11.34	43.4	33.85	37.30	38.53	41.86	43.57	-20.13	-13.89	-5.61
Jet Aviation fuel	78.06	59.06	59.79	0.73	1.2	64.93	60.70	55.63	58.49	54.99	26.28	19.04	16.70
ULSD 10ppm	80.23	63.11	63.08	-0.03	-0.1	67.35	63.97	59.68	62.08	58.70	28.44	23.09	19.99
Gasoil 0.1%	78.02	59.56	60.91	1.35	2.3	65.21	61.89	57.88	59.57	56.57	26.23	19.54	17.83
LSFO 1%	45.40	36.34	38.83	2.49	6.8	42.05	37.25	37.13	39.81	38.87	-6.39	-3.68	-4.26
HSFO 3.5%	31.01	24.46	34.35	9.89	40.4	32.65	34.23	34.06	38.59	37.02	-20.78	-15.56	-8.73
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	61.19	45.92	52.67	6.75	14.7	50.38	52.39	52.79	55.90	58.11	3.78	4.47	10.92
Unleaded	53.74	40.40	48.32	7.93	19.6	45.89	48.32	48.87	51.10	52.42	-3.67	-1.05	6.57
Jet/Kerosene	82.29	62.11	64.66	2.55	4.1	70.61	65.93	60.36	60.49	57.36	24.87	20.66	22.90
No. 2 (Heating Oil)	77.75	59.01	61.59	2.58	4.4	64.79	62.49	58.94	59.67	56.82	20.34	17.56	19.84
LSFO 1%	40.14	34.07	37.48	3.41	10.0	37.80	37.20	37.16	37.92	37.60	-17.27	-7.38	-4.28
No. 6 3%	35.44	29.42	35.85	6.42	21.8	33.34	36.27	36.26	38.54	37.79	-21.97	-12.03	-5.91
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	48.41	41.05	52.23	11.17	27.2	48.46	50.98	55.86	56.97	58.50	-1.43	0.52	8.10
Naphtha	29.09	31.00	42.58	11.57	37.3	39.37	43.05	44.35	46.51	48.44	-20.75	-9.53	-1.55
Jet/Kerosene	75.08	59.02	60.15	1.14	1.9	64.84	60.74	56.59	58.07	56.16	25.23	18.48	16.03
Gasoil 0.5%	68.77	58.01	58.36	0.35	0.6	63.82	59.18	54.52	54.16	50.81	18.92	17.47	14.23
LSWR Cracked	39.91	31.61	34.13	2.52	8.0	34.81	33.12	34.22	35.10	36.67	-9.94	-8.92	-9.99
HSFO 180 CST	37.47	35.15	39.46	4.30	12.2	39.44	38.90	39.49	41.73	40.44	-12.37	-5.38	-4.67
HSFO 380 CST 4%	36.83	34.89	39.60	4.70	13.5	39.51	39.08	39.64	42.03	40.81	-13.01	-5.64	-4.53

Source: Platts * CIF

The Asian product supply picture is set to change further over the coming months. Most notably, the start-up of India's 580 kb/d Jamnagar export refinery expansion will substantially improve product availabilities in the region. India is expected to export 25 medium range cargoes of gasoil a month, displacing mostly Japanese and Korean volumes. Vietnam, another large regional importer, will start operations at its first refinery at the end of February. The 140 kb/d Dung Quat refinery will further increase regional supplies by lowering import requirements from Vietnam. In addition, Indonesia, which normally imports between 150-200 kb/d of gasoil, is also planning to export 1.6 mb of gasoil in February as domestic stocks have swelled due to weak demand. This is the first time ever that state-owned Pertamina has received permission from the government to export gasoil.

Cold weather and the Russia/Ukraine gas dispute failed to support European markets on a sustained basis as supplies were plentiful as illustrated by brimming storage. The contango in gasoil and jet fuel has left industry stocks full and supplies were even kept waiting to unload in tankers at ports, according to industry sources, pulling cracks lower.





Fuel oil differentials narrowed sharply in all markets in January, and Asian HSFO discounts reached their slimmest level in three years. HSFO prices were supported by increased demand from power generation due to cold weather and reduced availability of gas from Russia and of NGLs and associated gas in the Middle East. An export ban for HSFO by the Belarusian government also provided support. Belarus, which normally exports around 40-60 kb/d of fuel oil, has been stockpiling the product for domestic use as Russian gas prices increased from 1 January. Demand from the Middle East is also likely to have increased as alternative gas and NGL supplies have been shut-in due to project delays and a scaling-back of associated gas production in line with crude supply curbs.

End-User Product Prices in January

In January, retail product prices on average fell 8.2% from the previous month, in US dollars, ex-tax. End-user prices for heating oil during the peak winter demand period were down 7.4% month on month, with prices in the UK down the steepest at 13.4% while Germany posted the smallest decline at 5.2%. Weaker industrial consumption was behind the 11.6% decline in ender-user prices for low sulphur fuel oil for the European countries surveyed by the IEA. By product, retail prices for diesel posted the second largest month-on-month decline, off 9.4% in January. Gasoline prices in January on average fell 4.4% month on month and are down 46.5% from levels of a year ago.

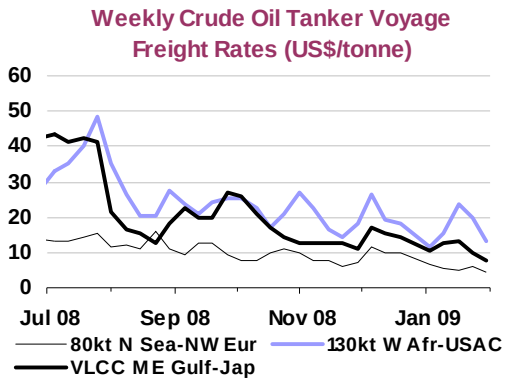
Freight

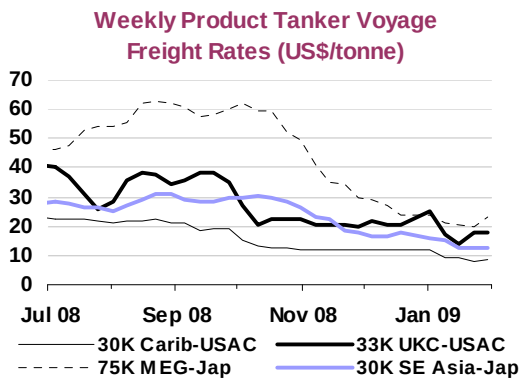
Crude freight rates staged a mild recovery in the first half of January, but by the end of the month had fallen back to five-year historical lows. Early February dirty rates have thus far shown little indication of recovery. Clean rates, on the other hand, while decreasing in the first half of the month, held firm or increased towards the end-January. Early February product freight rates continued to consolidate those gains. Crude freight activity continues to vary according to the opposing dynamics of continued OPEC export cuts versus increased demand for floating storage. Clean rates, while still at low levels, have seen recent increases partially on the back of increased gasoil shipments from Asia to Europe.

Increased demand for floating storage (see *Floating Storage: Stranded at Sea or Smooth Sail to Shore?*) in early January helped boost VIC chartering costs from the Middle East Gulf to Japan from $10.50/tonne at end-December to over $13/tonne by mid-January. West Africa to US Atlantic Coast rates staged a bigger rally, from $12/tonne at end-December to over $23/tonne by mid-January, before falling back to $13.50/tonne at month's end.

Both physical and psychological factors relating to floating storage may have driven rates up. Confusion over actual short-term floating storage levels in early January may have fuelled increased perceptions of tanker tightness, beyond physical availability. Estimates of short-term floating storage continue to vary widely (50-80 mb as of early February), clouding analysis of freight fundamentals. Still, decreased loadings by Middle East Gulf producers through January and announcements of lower February loadings have outweighed floating storage as a bearish factor on rates in the short term.

Weakening product demand kept clean tanker rates lower in January, but rates firmed in the second half of the month as gasoil arbitrage opportunities from Asia to Europe opened and product trade picked up across most regions. Middle East Gulf to Japan 75 kit freight rates fell from $24/tonne at end-December to below $20/tonne by mid-month before rising again to just below $23/tonne at end-January. Transatlantic UK-US Atlantic Coast rates fell below $16/tonne at mid-month before recovering somewhat to over $19/tonne at end-January.





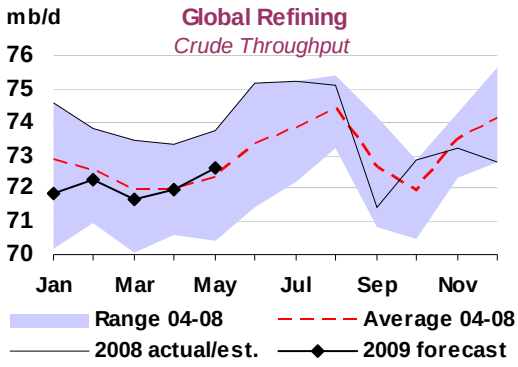
Piracy continues to play havoc with tankers in the vicinity of the Gulf of Aden and Somali coast. On 29 January, Somali pirates hijacked a German LPG tanker with capacity of about 40 kb. Somali pirates continue to hold hostage at least eight ships including another carrying 24 kt of oil products. Foreign navies from the US, EU, China, India, Malaysia and Russia have all stepped up efforts to thwart potential attacks, with as many as 20 warships patrolling the area.

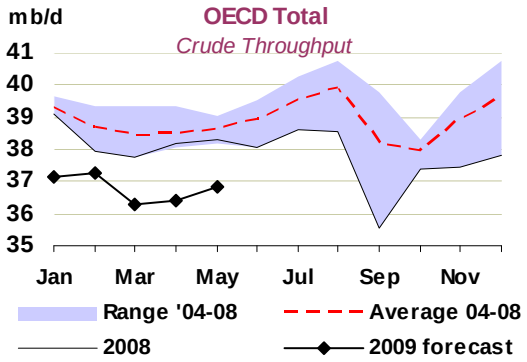
REFINING

Summary

- **Global 1Q09 crude throughput is forecast to average 71.9 mb/d**, 0.3 mb/d below last month's report. Ongoing downward revisions to demand, run cuts by independent refineries in the US and Japan, and heavier-than-estimated US refinery maintenance underpin much of the reduction to our forecast. 1Q09 throughput is 2.0 mb/d lower than a year earlier, with the majority of the decline occurring in the OECD. Weakness in non-OECD crude runs is concentrated in China and Other Asia, with annual declines of 0.4 mb/d for each region.

- **Reported crude runs for December were broadly in line with expectations.** Crude runs were weaker than forecast in Russia and China, but these were offset by higher-than-expected runs in the OECD. Provisional weekly data for January indicate that US refinery activity was marginally ahead of forecast at 14.3 mb/d. Conversely, Japanese January activity levels lagged behind expectations with refineries continuing to rely heavily on product imports to meet demand.





- **Refiners continue to respond vigorously to the effects of demand weakness** in an attempt to re-establish some degree of pricing power. Run cuts remain widespread throughout much of the OECD and are increasingly prevalent in some non-OECD regions. However, upside risks to our throughput forecast remain, if regional pockets of product market tightness re-emerge. Notably, the downward revision to OPEC NGLs in this report materially reduces the prospect of heavily over-supplied naphtha markets in the coming quarters, although they do not completely remove the overhang highlighted in the *MTOMR Refining and Product Supply Outlook – December 2008 Supplement.*

- **OECD gasoil/diesel yields** increased in November to a new record level of 30.8% on the back of strong crack spreads, with month-on-month growth driven by North America and Europe. Naphtha yields continued their downward trend, driven by weaker naphtha cracks, which reached -$32.67/bbl in Singapore during November. Gasoline yields rebounded to near the five-year average, even though crack spreads deteriorated, as refineries blended more naphtha into gasoline. Jet fuel/kerosene yields improved to near the five-year range, encouraged by the persistence of healthy crack spreads.

Global Refinery Throughput

Fourth-quarter weakness in global crude throughputs continued into January as refiners struggled to adjust to weak demand and high product stocks. Middle distillate cracks, long the mainstay of refinery margins, came under increasing pressure during the course of January, raising the prospect of further economic run cuts if the recent rebound in naphtha and gasoline margins is not sustained. The year-on-year decline in January crude is now estimated at 2.7 mb/d, as US refiners registered some of the lowest utilisation levels since 1992 and Japanese refinery utilisation levels similarly well below seasonal norms.

Refiners face one of the toughest macroeconomic environments seen since the late 1990s. Nevertheless, refiners have sought to maintain and protect a modicum of pricing power through run cuts, effectively transferring the financial pain onto upstream producers. It is only by reducing product stocks that refiners can hope to re-exert some degree of pricing power. Current contango indicates that there is further work to be done by refineries to achieve this objective, in the face of weakening gasoil demand in Asia, and gasoline demand in the US. Nevertheless, the extent to which refiners in the US, Europe and Japan have restrained output continues to surprise, given the apparent incentive to run incremental light sweet barrels of crude.

Estimated December global crude throughput of 72.8 mb/d is 0.1 mb/d above last month's report. OECD data were broadly in line with expectations, with the exception of Korea and the UK. As highlighted last month, Korean refiners again failed to implement economic run cuts to the degree we had assumed, possibly reflecting their improved competitive position, following an expansion of upgrading capacity. Similarly, UK crude runs increased more than expected, despite the reports of run cuts at several locations. Non-OECD runs were lower than expected, following the large drop reported in crude throughput in Russia, China and the UAE. These shortfalls were only partially offset by higher runs in Ecuador and Indonesia.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Sep 08	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09
OECD									
North America	15.6	17.5	17.5	17.5	*17.1*	*17.0*	*16.5*	*17.1*	*17.4*
Europe	13.5	13.4	13.2	13.3	*13.2*	*13.4*	*13.2*	*13.1*	*13.3*
Pacific	6.6	6.5	6.8	7.0	*6.8*	*6.9*	*6.6*	*6.3*	*6.1*
Total OECD	35.6	37.4	37.5	37.8	*37.1*	*37.3*	*36.3*	*36.4*	*36.8*
NON-OECD									
FSU	5.8	5.7	*6.2*	*5.8*	*5.9*	*6.0*	*6.0*	*6.0*	*6.0*
Europe	0.8	0.8	*0.8*	*0.7*	*0.6*	*0.7*	*0.8*	*0.8*	*0.8*
China	6.9	7.0	*6.6*	*6.4*	*6.4*	*6.4*	*6.4*	*6.4*	*6.4*
Other Asia	8.0	8.3	*7.9*	*8.0*	*7.8*	*7.9*	*8.0*	*8.1*	*8.1*
Latin America	5.6	5.4	*5.7*	*5.6*	*5.6*	*5.6*	*5.6*	*5.6*	*5.6*
Middle East	6.3	5.9	*6.2*	*6.3*	*6.2*	*6.1*	*6.2*	*6.3*	*6.4*
Africa	2.5	2.4	*2.4*	*2.2*	*2.3*	*2.3*	*2.3*	*2.3*	*2.4*
Total Non-OECD	35.9	35.5	*35.7*	*34.9*	*34.7*	*35.0*	*35.4*	*35.5*	*35.7*
Total	71.4	72.8	73.2	*72.8*	*71.9*	*72.3*	*71.7*	*71.9*	*72.6*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

1Q09 global crude throughput of 71.9 mb/d is some 0.3 mb/d below last month's report. Weaker forecasts for Russian crude runs and heavier US maintenance assumptions, most notably for March, account for much of the downward shift in expectations. Upside potential for refiners to exceed our current crude throughput estimates is significant, but we think it will require healthier levels of demand to emerge. That said, the rebound in gasoline and naphtha cracks from the dismal fourth quarter levels offers a glimmer of hope, as lower OPEC NGL volumes are assumed to have tightened light distillate markets in recent weeks. January global crude runs are estimated to have averaged 71.9 mb/d, according to preliminary data, 0.3 mb/d below last month's report, with now weaker estimates for Russia, Iraq and Bulgaria contributing to the decline. Elsewhere, US crude runs of 14.3 mb/d were marginally ahead of our estimates.

Forecasts include both the planned ramp-up in Reliance's 580 kb/d Jamnagar refinery expansion, plus the start-up of Vietnam's first refinery at Dung Quat in February. Conversely, our forecasts continue to exclude 0.4 mb/d of new Chinese crude distillation capacity that has been widely reported as coming on line in early 2009 due to uncertainty as to when Chinese state oil companies will actually start commissioning following weak demand and reports of brimming product stocks.

Nevertheless, the two Asian refineries will add 0.7 mb/d of new distillation capacity and generate a significant shift in regional and global trade flows. Vietnam will increasingly reduce the need for product imports, as it slowly brings the 140 kb/d refinery fully on line, while the start-up of exports from Reliance's 580 kb/d Jamnagar refinery will add supplies of diesel, jet fuel and gasoline to global markets. Furthermore, the move by Indonesia's state oil company, Pertamina to start exporting gasoil in the face of demand falling by as much as 40% year-on-year, will only add to the abrupt structural shifts occurring in Asian gasoil markets. This raises the potential for higher export volumes from the region to both the US and Europe, at a time when refiners there already face challenging demand trends.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

							Change from		Utilisation rate[1]	
	Jul 08	Aug 08	Sep 08	Oct 08	Nov 08	Dec 08	Nov 08	Dec 07	Dec 08	Dec 07
OECD North America										
US[2]	15.24	14.95	12.76	14.55	14.60	14.51	-0.10	-0.68	82.39	87.14
Canada	1.80	1.69	1.66	1.74	1.72	1.75	0.03	-0.08	86.70	90.75
Mexico	1.22	1.23	1.15	1.20	1.15	1.28	0.13	0.05	83.04	71.96
Total	18.26	17.87	15.57	17.49	17.47	17.54	0.06	-0.72	82.85	86.96
OECD Europe										
France	1.72	1.79	1.77	1.83	1.73	1.66	-0.07	-0.07	84.80	88.45
Germany	2.26	2.19	1.96	2.27	2.29	2.21	-0.08	-0.10	91.37	95.50
Italy	1.73	1.77	1.73	1.71	1.74	1.80	0.06	-0.15	77.01	83.36
Netherlands	1.04	1.03	1.05	0.81	0.86	0.96	0.10	-0.12	78.83	88.87
Spain	1.12	1.18	1.24	1.16	1.12	1.24	0.12	0.10	97.43	89.50
UK	1.59	1.62	1.66	1.56	1.50	1.58	0.07	0.06	83.51	80.30
Other OECD Europe	4.12	4.21	4.04	4.03	4.01	3.88	-0.13	-0.37	82.66	90.47
Total	13.58	13.79	13.45	13.38	13.25	13.32	0.07	-0.65	84.42	88.52
OECD Pacific										
Japan	3.74	3.89	3.48	3.44	3.64	3.87	0.22	-0.40	82.70	91.20
Korea	2.35	2.28	2.42	2.40	2.45	2.44	-0.01	-0.13	89.16	93.79
Other OECD Pacific	0.67	0.71	0.65	0.66	0.67	0.68	0.01	-0.03	84.01	87.28
Total	6.76	6.88	6.55	6.50	6.76	6.99	0.23	-0.55	84.98	91.67
OECD Total	38.59	38.54	35.57	37.36	37.47	37.84	0.37	-1.92	83.79	88.37

1 Expressed as a percentage, based on crude throughput and current operable refining capacity

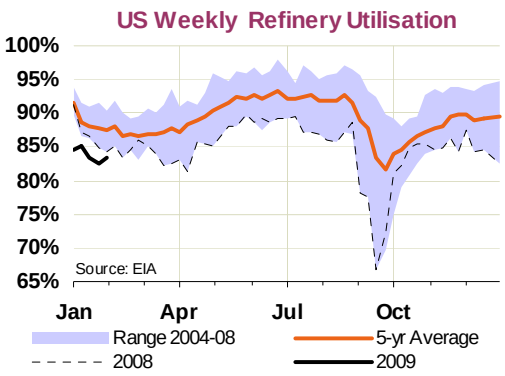
2 US50

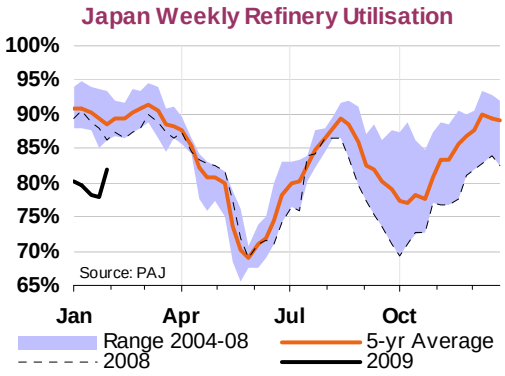
Global crude throughput during 1Q09 is 2.0 mb/d lower than a year earlier, with the majority of the decline in the OECD. Weakness in non-OECD crude runs is concentrated in China and other Asia with annual declines of 0.4 mb/d seen for both. April forecast crude runs are reduced by 0.6 mb/d from last month's report, to 71.9 mb/d. This reflects the downward adjustment to demand forecasts and the more cautious view now taken over Russian crude runs. Initial assessments of May crude throughput levels foresee crude runs continuing to increase seasonally to 72.6 mb/d, as higher North American and European runs offset the start of seasonal maintenance in the OECD Pacific.

OECD Refinery Throughput

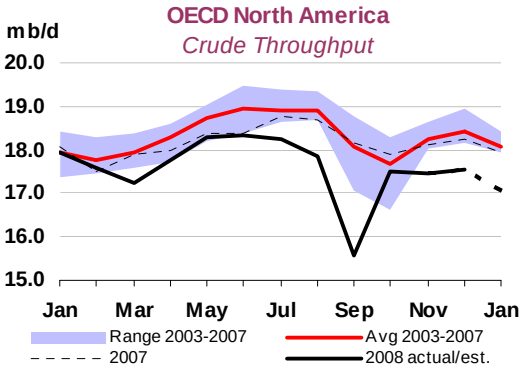
December 2008 OECD crude throughput averaged 37.8 mb/d, 0.2 mb/d ahead of last month's report, but 1.9 mb/d below a year earlier. Korean refineries were 0.1 mb/d ahead of forecast, as the previously highlighted assumption of economic run cuts were again too heavy. Elsewhere, higher than expected crude runs in the UK and Mexico offset slightly weaker than expected runs in other OECD countries. Refinery utilisation rates hovered around the 80% mark in the US, Japan and several European countries, reflecting the impact of weak demand and high product inventories.

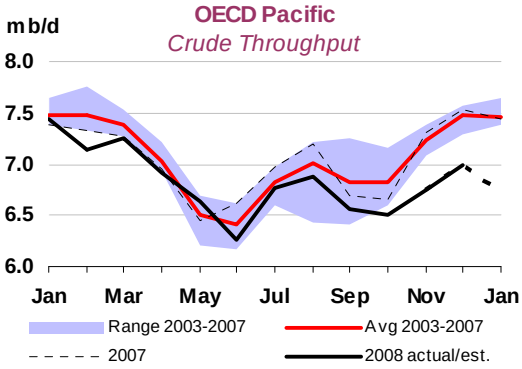
OECD North America crude throughput eked out a small monthly gain in December, despite lower US throughputs, as Mexican runs increased, following the completion of maintenance work at Pemex's Tula refinery in November. US refinery utilisation fell to one of the lowest levels seen since the early 1990s in December, (excluding the hurricane-depressed levels of September 2005 and 2008) and stayed at or close to these levels for much of January. Despite this low level of throughput, January North American crude throughput of 17.1 mb/d based on weekly US and Canadian data, is 0.2 mb/d above last month's assessment. However, following a review of US maintenance plans, the seasonal peak now appears more likely to occur in March. Consequently, we have revised up February crude runs to 17.0 mb/d, but cut March's forecast to 16.5 mb/d, which is barely 1.0 mb/d above the hurricane-affected level of September 2008. 1Q09 throughput is forecast to average 16.9 mb/d, 0.7 mb/d below last year's level.



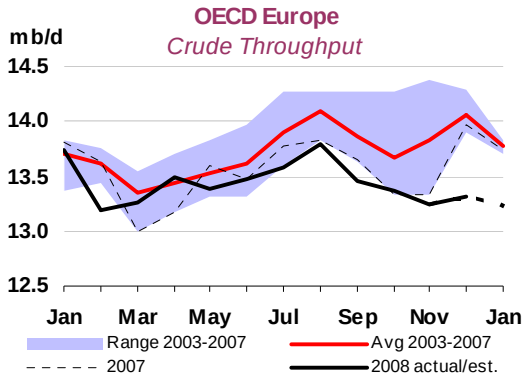


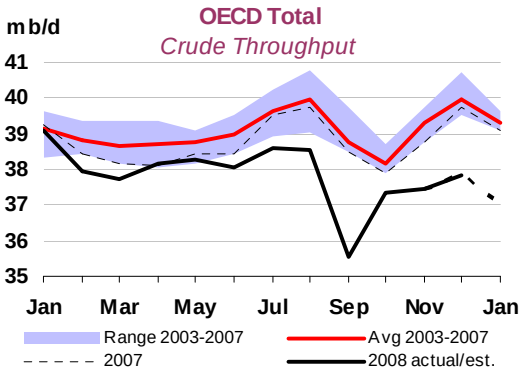
It now seems certain that US throughput will be spared the disruption of a strike by refinery workers, following a successful conclusion to negotiations between Union of Steel Workers representatives and refinery operators. However, as highlighted last month, Big West's 80 kb/d Flying J refinery in Bakersfield which filed for Chapter 11 protection in December has failed to secure a consistent crude supply and the refinery remains closed, awaiting resolution of the issue. Some refinery operators foresee further refinery closures in the longer-term, with a sustainable number of US refineries approaching 100-125, compared with the near 150 active today. Fourth-quarter results from refinery operators have again highlighted the need for refineries to minimise the cash drain on their businesses, with Valero announcing further reductions to planned 2009 capex, to just $2.7 bln, following the deferral of several planned projects by 12-24 months. Similarly, Marathon has slowed down its upgrading project at their Detroit refinery in order to reduce capex. More generally, it appears increasingly obvious that, where possible, refiners are renegotiating contracts to reduce project costs to ensure future returns are acceptable. However this potentially adds 6-12 months to completion times, and is likely to have significant implications for the product supply forecasts in the next *MTOMR*.





OECD Pacific December crude runs were 0.2 mb/d ahead of forecast, with Korean crude intake 0.1 mb/d ahead of our forecast. The benefit of recent upgrading investment by Korean refineries is evident in the increased processing of cheaper, heavy/sour, Middle East crude, and less demand for expensive light-sweet West African grades. This, in part, will have contributed to the more robust crude throughputs reported by Korean refineries, despite weak naphtha cracks. Elsewhere, Japanese and Australian crude runs were slightly higher than our assumptions. Japanese refiners continue to limit throughputs, preferring instead to boost imports of kerosene to meet the seasonal uptick in demand associated with recent colder weather. 1Q09 Pacific crude runs are marginally reduced this month, following slightly weaker than expected January runs, based on preliminary weekly data. The extension of the regional forecast through May sees the start of maintenance, initially in Japan, starting to weigh on crude runs.





OECD Europe crude throughput inched up in December, thanks to increases in Italy, the Netherlands, Spain and the UK. However, crude runs failed to produce the seasonal bounce typical for December, which is normally associated with the lack of maintenance scheduled for that month. We believe this reflects the weak demand for products, rising product inventories and financial market constraints. French crude runs were marginally weaker during December as the impact of the strike at the port of Marseilles reduced some refineries' operating rates. Furthermore, the unscheduled shutdown of GALP's 200 kb/d Sines refinery, in Portugal has lowered European 1Q09 estimates by a further 0.1 mb/d.

Future throughput levels will partly depend on how distillate cracks develop, with market reports pointing to growing stocks of gasoil and jet fuel, some of which are kept in floating storage. With continued heavy Europe-bound sailings reported from Asia and the US, the prospect for further imports will reduce the likelihood of a rebound in crude runs. Only the ongoing cold weather appears to be supporting distillate demand. Further signs of industry restructuring have emerged, with Petroplus announcing it will either sell or close its 117 kb/d Teesside hydroskimming refinery, which is among the least sophisticated in Europe. The plant exclusively runs light sweet Ekofisk crude due to its location, and sells its naphtha output to nearby petrochemical plants. Given the weakness in naphtha cracks, the fourth quarter was presumably a particularly painful financial environment to operate in, despite the plant only running at 30% utilisation, thus prompting management to consider rationalising the company's portfolio.

Non-OECD Refinery Throughput

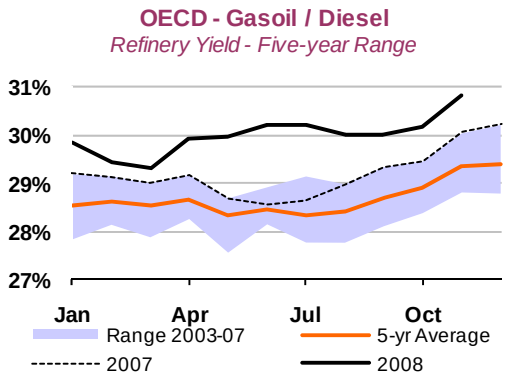
Forecast **1Q09 non-OECD** crude throughput is again revised down this month (-0.2 mb/d), following the weaker demand forecast in this month's report. Much of the reduction is linked to lower Russian crude throughputs, which are now forecast to average 4.8 mb/d, following weak December throughputs and tax changes, which have reduced the incentive to maximise crude runs.

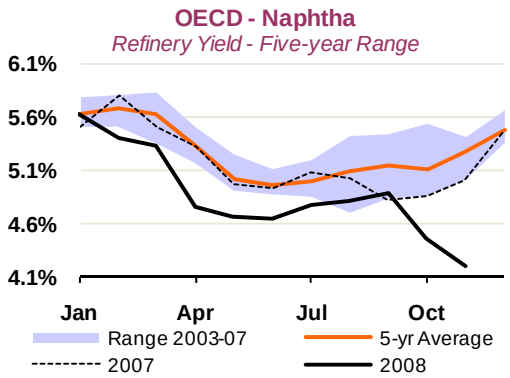
Chinese crude runs fell for a second month in December to 6.4 mb/d, as capacity shut-ins and weak demand hampered crude throughput. 1Q09 crude runs are assessed this month at 6.4 mb/d, nearly 0.1 mb/d below last month's report and down 0.4 mb/d when compared with a year earlier. Future crude throughput will depend on domestic demand and the timing of new capacity additions. Sinopec is reported to be preparing the 160 kb/d Fujian expansion for commissioning in 2Q09, while the 200 kb/d Tianjin expansion has slipped from the third to the fourth quarter. Similarly, CNOOC's 200 kb/d Huizhou refinery is expected to be commissioned in the coming months, having originally been forecast for start-up in late 2008, but little progress has been reported recently. Consequently, we remain cautious on Chinese crude throughput levels in April and May, which offer the potential for upward revisions to current forecasts, pending further confirmation of project timings.

Other Asia forecasts are revised up this month with the ongoing build-up in crude throughput at Reliance Petroleum's 580 kb/d expansion of its Jamnagar refinery. Indian December crude runs were 0.2 mb/d above our estimates and we have pushed this increase through the balance of the forecast. Further upward revisions are possible if the full commissioning of the upgrading capacity and the switch to heavy sour crude, from the current diet of light sweet grades, is more rapid than assumed. However, for now, we retain a cautious build-up in volumes within our forecasts. Furthermore, the start-up of Vietnam's first refinery, the 140 kb/d Dung Quat facility, is scheduled for late February. It is assumed it will build up slowly to full utilisation, with crude runs of 30 kb/d in March, rising to 70 kb/d by May and full capacity by year-end.

OECD Refinery Yields

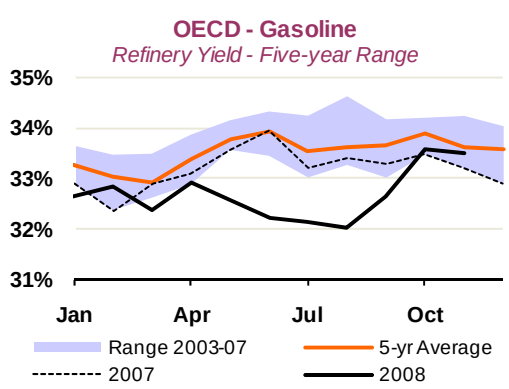
OECD refinery gasoil/diesel yields reached a new record level in November of 30.8%, from 30.2% in October, due to strong crack spreads. Increases in North America and Europe offset a decline in the Pacific, where refiners moved to raise jet fuel/kerosene yields in line with seasonal trends. Record North American gasoil/diesel yields nonetheless remain the lowest within the OECD at 26.6%, due to the historical refinery bias towards gasoline production. European gasoil/diesel yields also increased to a new record of 38.1%. Year-on-year growth in percentage points remains around 0.8, driven by gains of 1.1 in Europe, 1.0 in North America and a decrease of 0.2 in the Pacific. Seasonal trends would suggest that yields likely increased again in December, but thereafter a weakening of gasoil/diesel cracks relative to other grades may exert downward pressure.

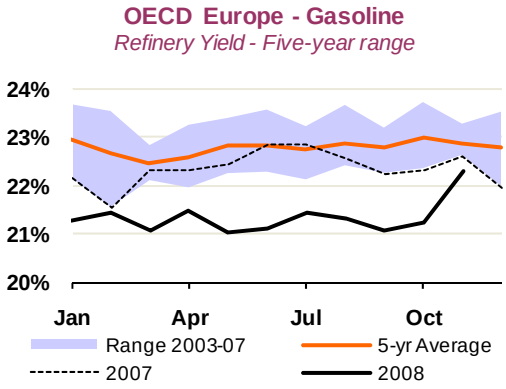




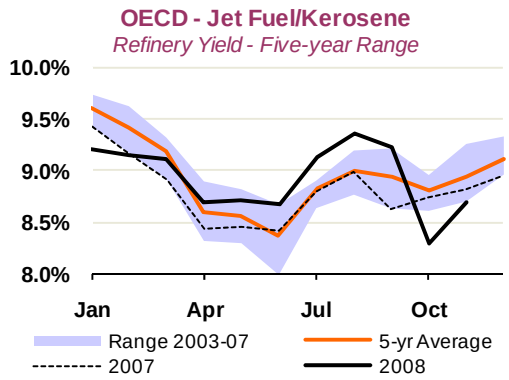
Naphtha yields continued their downward trend as cracks deteriorated to a low of -$32.67/bbl during early November in Singapore. November naphtha yields decreased to 4.2%, well below the five-year range, driven by a collapse in Pacific naphtha yields to the bottom of their five–year range at 10.2%. Production likely remained subdued in December on high inventories, but the recovery in crack spreads, reaching positive territory by the end of January, and increased utilisation of ethylene crackers in Asia, offers the prospect of a rebound in naphtha yields in early 2009.

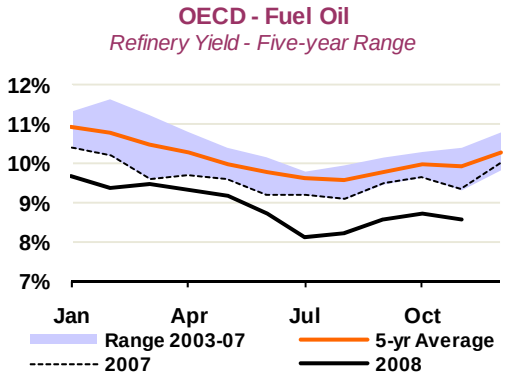
OECD gasoline yields remained near the five-year average level of 33.5%, albeit with some regional divergence. Europe's yield of 22.3% was the highest in 12 months, as refineries sought to maximise naphtha blending into the gasoline pool, given the near $20/bbl differential in cracks. Similar trends are discernable for both North America and the Pacific, but the move towards higher jet fuel/kerosene yields outweighed the impact in both regions. It is worth noting that gasoline cracks in November were near zero for the USGC, Mediterranean and Northwest Europe and negative for Singapore, this last region showing a heavy month-on-month decrease of $13.3/bbl to -$1.4/bbl. Furthermore, the different regional pattern of yield changes highlights the underlying bias for each region towards a specific product, e.g. gasoline in North America, diesel in Europe and naphtha/kerosene in the Pacific.





The striking decrease in OECD jet fuel/kerosene yields in October discussed in last month's report reversed in November, with higher yields in all OECD regions. Although still low compared with the five-year range, yields increased most significantly in North America and the Pacific, as highlighted above. Despite weakening demand, the persistence of positive crack spreads reflects the tightness of middle distillate markets relative to light distillates and fuel oil, and the longer-term bias in demand growth towards diesel and jet fuel. However, rising stocks, most notably in Northwest Europe, will start to undermine crack spreads, unless demand growth re-emerges, exerting downward pressure on yields in early 2009.





OECD fuel oil yields remain below their five-year range at 8.6%, as refiners, notably in the Pacific, continue to benefit from recently commissioned upgrading capacity. However, upgrading spreads have narrowed dramatically in recent months and the rebound in profitability of hydroskimming margins in Northwest Europe and Asia offers the potential for increased fuel oil yields during December and January. Furthermore, fuel oil yields tend to increase seasonally in December, which could further be supported by this improvement in price spreads, particularly for high-sulphur fuel oil.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	25.6	25.4	25.7	25.4	25.5	25.5	25.5	24.8	24.5	23.7	24.2	24.3	23.7	23.5	23.7	23.7	23.7
Europe	15.7	15.7	15.2	14.9	15.4	15.6	15.3	15.2	14.9	15.4	15.2	15.2	14.6	14.4	14.9	14.9	14.7
Pacific	8.6	8.5	8.9	7.9	7.9	8.7	8.3	8.9	7.8	7.5	7.9	8.0	8.3	7.4	7.2	7.7	7.6
Total OECD	49.8	49.6	49.8	48.2	48.9	49.9	49.2	48.9	47.2	46.6	47.3	47.5	46.6	45.3	45.8	46.3	46.0
NON-OECD DEMAND																	
FSU	3.9	4.1	4.1	3.9	4.2	4.3	4.1	4.1	4.1	4.3	4.3	4.2	4.1	4.1	4.3	4.3	4.2
Europe	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.8
China	6.7	7.2	7.3	7.7	7.5	7.6	7.5	7.9	8.0	8.1	7.6	7.9	7.8	8.0	8.0	7.9	7.9
Other Asia	8.8	9.0	9.2	9.3	9.1	9.4	9.3	9.6	9.6	9.1	9.2	9.4	9.4	9.6	9.2	9.4	9.4
Latin America	5.1	5.3	5.4	5.6	5.7	5.7	5.6	5.7	5.9	6.0	5.8	5.9	5.8	6.0	6.1	6.0	6.0
Middle East	6.0	6.2	6.4	6.5	6.7	6.4	6.5	6.7	7.0	7.3	6.8	7.0	7.0	7.2	7.6	7.1	7.2
Africa	2.9	3.0	3.1	3.1	3.0	3.1	3.1	3.1	3.2	3.0	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Total Non-OECD	34.2	35.5	36.4	36.9	36.9	37.3	36.9	37.9	38.5	38.6	37.7	38.2	38.2	39.0	39.0	38.7	38.7
Total Demand[1]	84.0	85.1	86.2	85.1	85.7	87.2	86.0	86.8	85.7	85.2	85.0	85.7	84.8	84.2	84.9	84.9	84.7
OECD SUPPLY																	
North America	14.1	14.2	14.4	14.4	14.2	14.1	14.3	14.2	14.1	13.6	13.9	13.9	14.2	14.0	13.8	14.2	14.0
Europe	5.6	5.2	5.2	4.9	4.7	5.0	5.0	4.9	4.8	4.5	4.7	4.7	4.5	4.1	4.0	4.2	4.2
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Total OECD	20.3	20.0	20.2	19.9	19.5	19.8	19.8	19.7	19.5	18.8	19.2	19.3	19.4	18.8	18.5	19.1	19.0
NON-OECD SUPPLY																	
FSU	11.8	12.2	12.8	12.7	12.8	12.8	12.8	12.8	12.9	12.6	12.7	12.8	12.9	13.0	12.8	12.8	12.9
Europe	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9
Other Asia[2]	3.8	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Latin America[2]	3.7	3.8	3.9	3.9	3.8	3.9	3.9	3.9	4.0	4.1	4.1	4.0	4.3	4.3	4.3	4.3	4.3
Middle East	1.8	1.8	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6
Africa[2]	2.4	2.5	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.6
Total Non-OECD	27.3	27.9	28.5	28.4	28.2	28.4	28.4	28.6	28.6	28.5	28.6	28.6	29.1	29.3	29.1	29.0	29.1
Processing Gains[3]	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3
Other Biofuels[4]	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Total Non-OPEC[2]	49.8	50.3	51.0	50.8	50.3	50.8	50.7	50.9	50.7	50.0	50.6	50.5	51.4	50.9	50.5	51.0	50.9
Non-OPEC: Historical Composition[2]	50.4	51.2	50.5	50.3	49.8	50.1	50.2	49.9	49.7	48.9	49.6	49.5	51.4	50.9	50.5	51.0	50.9
OPEC																	
Crude[5]	30.6	30.7	30.0	29.9	30.3	31.1	30.3	31.5	31.4	31.5	30.5	31.2					
NGLs	4.3	4.4	4.5	4.5	4.5	4.6	4.5	4.6	4.6	4.7	4.8	4.7	4.7	4.8	5.1	5.3	5.0
Total OPEC[2]	34.9	35.2	34.5	34.4	34.9	35.7	34.9	36.1	36.0	36.2	35.3	35.9					
OPEC: Historical Composition[2]	34.2	34.3	35.0	34.9	35.4	36.4	35.4	37.1	37.0	37.2	36.3	36.9					
Total Supply[6]	84.7	85.5	85.5	85.2	85.1	86.4	85.6	87.0	86.7	86.2	85.9	86.4					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.2	-0.8	0.7	-0.1	-0.9	-0.3	0.1	0.3	0.6	0.2	0.3					
Government	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	-0.1	0.0	0.0					
Total	0.2	0.3	-0.7	0.6	0.1	-0.8	-0.2	0.1	0.4	0.5	0.2	0.3					
Floating Storage/Oil in Transit	-0.1	-0.1	0.1	0.0	-0.3	0.2	0.0	0.3	0.0	-0.3	0.0	0.0					
Miscellaneous to balance[7]	0.5	0.2	-0.1	-0.6	-0.4	-0.1	-0.3	-0.3	0.7	0.7	0.7	0.5					
Total Stock Ch. & Misc	0.7	0.4	-0.6	0.1	-0.6	-0.7	-0.5	0.2	1.0	0.9	0.9	0.8					
Memo items:																	
Call on OPEC crude + Stock ch.[8]	29.9	30.3	30.6	29.8	31.0	31.8	30.8	31.4	30.4	30.6	29.6	30.5	28.7	28.5	29.3	28.6	28.8
Adjusted Call on OPEC + Stock ch.[9]	30.4	30.5	30.6	29.2	30.5	31.7	30.5	31.1	31.0	31.3	30.3	30.9	28.8	28.6	29.4	28.7	28.9

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Biofuels from sources outside Brazil and US.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

Changes from last month's Table 1 with regional aggregates recalculated to allow comparison.
(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.1	-0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-0.2	-0.2	-	-0.2
Pacific	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.2	-0.2	-0.2	-0.2
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.3	-0.5	-0.4	-0.2	-0.3
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.2	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-	-0.1
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.3	-0.2	-0.2	-0.2	-0.2
Total Demand	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.6	-0.7	-0.6	-0.3	-0.6
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-0.1	-0.1	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-0.1	-0.1	-0.1
Non-OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-0.1	-0.1	-0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-0.1	-					
NGLs	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.4	-0.5	-0.4	-0.4	-0.4
Total OPEC	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1					
OPEC: historical composition	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1					
Total Supply	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.2					
STOCK CHANGES AND MISCELLANEOUS REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-							
Government	-	-	-	-	-	-	-	-	-	-							
Total	-	-	-	-	-	-	-	-	-	-							
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-							
Miscellaneous to balance	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-	-0.1							
Total Stock Ch. & Misc	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1					
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	-0.2	-0.1	-0.1	0.2	-
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	-	0.5	0.1	-0.3	-0.2	-0.2	-	-0.2

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

Summary of Global Oil Demand

	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Demand (mb/d)																
North America	25.42	25.68	25.40	25.55	25.50	25.53	24.84	24.52	23.73	24.17	24.31	23.73	23.55	23.70	23.67	23.66
Europe	15.68	15.18	14.93	15.42	15.65	15.30	15.20	14.89	15.40	15.20	15.17	14.60	14.36	14.93	14.88	14.70
Pacific	8.48	8.91	7.87	7.89	8.72	8.35	8.87	7.82	7.50	7.91	8.02	8.29	7.37	7.20	7.69	7.64
Total OECD	49.58	49.77	48.20	48.85	49.86	49.17	48.91	47.24	46.62	47.28	47.51	46.63	45.28	45.83	46.25	46.00
FSU	4.06	4.11	3.93	4.17	4.28	4.12	4.11	4.12	4.35	4.29	4.22	4.14	4.14	4.33	4.35	4.24
Europe	0.74	0.81	0.75	0.70	0.75	0.75	0.82	0.76	0.71	0.76	0.76	0.81	0.76	0.71	0.76	0.76
China	7.21	7.33	7.73	7.52	7.59	7.54	7.85	7.95	8.06	7.59	7.86	7.79	8.05	7.99	7.86	7.92
Other Asia	9.00	9.23	9.33	9.06	9.40	9.26	9.63	9.63	9.12	9.18	9.39	9.44	9.57	9.19	9.39	9.39
Latin America	5.33	5.41	5.59	5.73	5.73	5.62	5.67	5.89	6.00	5.84	5.85	5.81	6.02	6.13	5.98	5.99
Middle East	6.22	6.40	6.50	6.73	6.44	6.52	6.71	6.96	7.32	6.83	6.96	6.96	7.22	7.59	7.10	7.22
Africa	2.96	3.09	3.08	2.99	3.12	3.07	3.15	3.18	3.04	3.18	3.14	3.20	3.22	3.09	3.23	3.18
Total Non-OECD	35.52	36.39	36.90	36.90	37.31	36.88	37.93	38.48	38.60	37.68	38.17	38.15	38.97	39.02	38.65	38.70
World	85.11	86.16	85.10	85.75	87.17	86.05	86.83	85.72	85.22	84.96	85.68	84.78	84.25	84.85	84.90	84.70
of which:																
US50	*20.69*	*20.79*	*20.63*	*20.73*	*20.58*	*20.68*	*19.99*	*19.76*	*18.91*	*19.39*	*19.51*	*18.96*	*18.88*	*18.98*	*18.98*	*18.95*
Euro4	*8.23*	*7.84*	*7.65*	*7.87*	*8.03*	*7.85*	*7.79*	*7.65*	*7.94*	*7.93*	*7.83*	*7.49*	*7.30*	*7.68*	*7.68*	*7.54*
Japan	*5.20*	*5.43*	*4.64*	*4.70*	*5.25*	*5.01*	*5.41*	*4.59*	*4.30*	*4.66*	*4.74*	*4.93*	*4.18*	*4.08*	*4.47*	*4.41*
Korea	*2.18*	*2.36*	*2.12*	*2.06*	*2.31*	*2.21*	*2.33*	*2.09*	*2.07*	*2.12*	*2.15*	*2.24*	*2.05*	*2.00*	*2.08*	*2.09*
Mexico	*2.08*	*2.12*	*2.14*	*2.06*	*2.16*	*2.12*	*2.10*	*2.16*	*2.11*	*2.04*	*2.10*	*2.07*	*2.09*	*2.05*	*1.99*	*2.05*
Canada	*2.30*	*2.38*	*2.29*	*2.40*	*2.39*	*2.37*	*2.37*	*2.25*	*2.34*	*2.36*	*2.33*	*2.32*	*2.22*	*2.31*	*2.32*	*2.29*
Brazil	*2.19*	*2.22*	*2.26*	*2.34*	*2.42*	*2.31*	*2.35*	*2.44*	*2.51*	*2.44*	*2.43*	*2.41*	*2.51*	*2.57*	*2.50*	*2.50*
India	*2.80*	*3.04*	*2.97*	*2.74*	*3.04*	*2.95*	*3.19*	*3.12*	*2.92*	*3.09*	*3.08*	*3.24*	*3.22*	*3.01*	*3.19*	*3.16*
Annual Change (% per annum)																
North America	-0.6	1.3	0.9	-0.4	-0.1	0.4	-3.3	-3.5	-7.1	-5.2	-4.8	-4.4	-4.0	-0.1	-2.1	-2.7
Europe	0.1	-5.2	-2.4	-1.6	-0.6	-2.4	0.1	-0.2	-0.1	-2.9	-0.8	-3.9	-3.6	-3.0	-2.1	-3.2
Pacific	-1.4	-4.1	-0.5	-0.6	-1.0	-1.6	-0.5	-0.7	-5.0	-9.2	-3.9	-6.5	-5.7	-3.9	-2.8	-4.8
Total OECD	-0.5	-1.7	-0.4	-0.8	-0.4	-0.8	-1.7	-2.0	-4.6	-5.2	-3.4	-4.6	-4.2	-1.7	-2.2	-3.2
FSU	3.4	2.3	1.8	1.0	1.4	1.6	0.0	4.9	4.2	0.4	2.3	0.7	0.4	-0.5	1.3	0.5
Europe	1.0	2.0	1.9	1.9	1.5	1.8	1.1	1.4	1.4	1.3	1.3	-0.4	-0.1	-0.1	-0.1	-0.2
China	7.8	4.5	5.1	4.1	4.6	4.6	7.1	2.9	7.2	0.1	4.3	-0.8	1.2	-1.0	3.5	0.7
Other Asia	2.3	1.6	2.6	3.2	3.8	2.8	4.3	3.2	0.7	-2.4	1.4	-2.0	-0.7	0.8	2.3	0.1
Latin America	4.6	4.6	5.1	5.5	5.9	5.3	4.7	5.4	4.7	2.0	4.2	2.5	2.3	2.2	2.3	2.3
Middle East	4.0	5.1	5.9	4.2	3.8	4.7	4.9	7.0	8.8	6.1	6.7	3.7	3.8	3.7	3.9	3.8
Africa	0.9	3.3	2.9	3.5	5.6	3.8	1.7	3.2	1.7	1.9	2.1	1.7	1.3	1.5	1.5	1.5
Total Non-OECD	4.0	3.5	4.0	3.6	4.1	3.8	4.2	4.3	4.6	1.0	3.5	0.6	1.3	1.1	2.6	1.4
World	1.3	0.4	1.5	1.1	1.5	1.1	0.8	0.7	-0.6	-2.5	-0.4	-2.4	-1.7	-0.4	-0.1	-1.1
Annual Change (mb/d)																
North America	-0.14	0.34	0.23	-0.10	-0.01	0.11	-0.84	-0.88	-1.82	-1.33	-1.22	-1.10	-0.98	-0.03	-0.50	-0.65
Europe	0.01	-0.83	-0.37	-0.25	-0.10	-0.38	0.02	-0.03	-0.02	-0.45	-0.12	-0.59	-0.54	-0.47	-0.32	-0.48
Pacific	-0.12	-0.38	-0.04	-0.05	-0.08	-0.14	-0.04	-0.05	-0.39	-0.80	-0.32	-0.58	-0.45	-0.29	-0.22	-0.39
Total OECD	-0.26	-0.87	-0.17	-0.40	-0.20	-0.41	-0.87	-0.96	-2.23	-2.58	-1.66	-2.27	-1.96	-0.79	-1.03	-1.51
FSU	0.13	0.09	0.07	0.04	0.06	0.07	0.00	0.19	0.17	0.02	0.10	0.03	0.02	-0.02	0.05	0.02
Europe	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
China	0.52	0.31	0.38	0.29	0.33	0.33	0.52	0.23	0.54	0.00	0.32	-0.06	0.10	-0.08	0.26	0.06
Other Asia	0.21	0.14	0.24	0.28	0.35	0.25	0.40	0.30	0.06	-0.23	0.13	-0.19	-0.06	0.07	0.21	0.01
Latin America	0.23	0.24	0.27	0.30	0.32	0.28	0.25	0.30	0.27	0.11	0.23	0.14	0.14	0.13	0.13	0.14
Middle East	0.24	0.31	0.36	0.27	0.24	0.29	0.31	0.46	0.59	0.39	0.44	0.25	0.26	0.27	0.26	0.26
Africa	0.03	0.10	0.09	0.10	0.16	0.11	0.05	0.10	0.05	0.06	0.07	0.05	0.04	0.05	0.05	0.05
Total Non-OECD	1.36	1.22	1.42	1.30	1.47	1.35	1.54	1.58	1.71	0.37	1.30	0.22	0.49	0.42	0.98	0.53
World	1.11	0.34	1.24	0.90	1.27	0.94	0.67	0.62	-0.53	-2.21	-0.37	-2.05	-1.47	-0.37	-0.06	-0.98
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	-0.02	-0.03	-0.01	0.08	-0.09	-0.09	0.04	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	-0.25	-0.20	-0.18	-0.05	-0.17
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.07	-0.02	-0.13	-0.16	-0.16	-0.16	-0.15
Total OECD	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	-0.01	-0.09	-0.02	-0.29	-0.45	-0.43	-0.17	-0.34
FSU	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01	-0.15	-0.04	-0.09	-0.08	-0.10	-0.16	-0.11
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01
China	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.10	-0.05	-0.01	0.04	-0.03
Other Asia	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.06	-0.03	-0.11	-0.09	-0.08	-0.04	-0.08
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.01	0.00	-0.01	-0.01	-0.03	-0.01
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.01
Total Non-OECD	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.02	-0.02	-0.20	-0.07	-0.31	-0.23	-0.21	-0.18	-0.23
World	0.00	0.00	0.00	0.00	0.01	0.00	-0.02	-0.02	-0.03	-0.29	-0.09	-0.60	-0.68	-0.64	-0.35	-0.57
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	0.00	0.00	0.01	0.00	-0.02	-0.02	-0.03	-0.30	-0.09	-0.58	-0.66	-0.61	-0.06	-0.48

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2007	2008	2009	3Q08	4Q08	1Q09	2Q09	3Q09	Nov 08	Dec 08	Jan 09
OPEC											
Crude Oil											
Saudi Arabia	8.48	8.90		9.19	8.59				8.53	8.12	7.82
Iran	3.98	3.90		3.90	3.83				3.76	3.88	3.79
Iraq	2.09	2.38		2.32	2.36				2.43	2.41	2.37
UAE	2.52	2.59		2.63	2.43				2.30	2.45	2.36
Kuwait	2.16	2.31		2.33	2.30				2.31	2.24	2.18
Neutral Zone	0.56	0.57		0.58	0.56				0.55	0.56	0.56
Qatar	0.80	0.85		0.87	0.82				0.82	0.80	0.78
Angola	1.66	1.85		1.83	1.82				1.83	1.80	1.76
Nigeria	2.13	1.95		1.99	1.92				1.90	1.91	1.84
Libya	1.71	1.72		1.68	1.72				1.71	1.72	1.65
Algeria	1.36	1.37		1.37	1.35				1.35	1.32	1.27
Ecuador	0.50	0.50		0.50	0.49				0.48	0.49	0.48
Venezuela	2.39	2.35		2.33	2.33				2.35	2.29	2.18
Total Crude Oil[6]	30.34	31.24		31.52	30.52				30.31	29.98	29.03
Total NGLs[1,6]	4.52	4.66	4.96	4.69	4.78	4.68	4.80	5.06	4.79	4.78	4.68
Total OPEC[6]	34.86	35.89		36.21	35.30				35.10	34.75	33.71
OPEC: Historical Composition[6]	35.41	36.92		37.24	36.33				36.12	35.77	33.71
NON-OPEC[2]											
OECD											
North America	14.27	13.94	14.04	13.60	13.88	14.21	13.95	13.84	13.96	14.11	14.18
United States	7.48	7.53	7.88	7.23	7.47	7.79	7.96	7.79	7.54	7.63	7.74
Mexico	3.48	3.17	2.93	3.12	3.12	3.05	2.97	2.87	3.11	3.13	3.08
Canada	3.32	3.23	3.23	3.26	3.30	3.37	3.02	3.18	3.31	3.35	3.36
Europe	4.95	4.70	4.20	4.51	4.66	4.50	4.13	3.97	4.73	4.78	4.62
UK	1.66	1.52	1.31	1.40	1.40	1.45	1.31	1.18	1.44	1.48	1.48
Norway	2.56	2.47	2.21	2.39	2.57	2.35	2.14	2.12	2.59	2.59	2.45
Others	0.73	0.71	0.68	0.71	0.69	0.69	0.68	0.67	0.70	0.72	0.69
Pacific	0.63	0.65	0.72	0.66	0.69	0.71	0.71	0.72	0.69	0.69	0.72
Australia	0.55	0.55	0.61	0.56	0.60	0.62	0.61	0.61	0.61	0.59	0.63
Others	0.08	0.10	0.11	0.09	0.09	0.09	0.10	0.12	0.09	0.09	0.09
Total OECD	19.85	19.29	18.95	18.77	19.22	19.42	18.79	18.53	19.38	19.57	19.52
NON-OECD											
Former USSR	12.77	12.75	12.88	12.64	12.68	12.95	13.02	12.81	12.70	12.69	12.91
Russia	10.08	9.99	9.73	10.02	10.00	9.86	9.80	9.70	10.01	9.91	9.89
Others	2.69	2.76	3.15	2.62	2.68	3.08	3.22	3.11	2.69	2.78	3.02
Asia	7.40	7.45	7.60	7.43	7.47	7.58	7.61	7.61	7.55	7.37	7.59
China	3.73	3.79	3.89	3.79	3.80	3.89	3.90	3.90	3.86	3.70	3.90
Malaysia	0.74	0.76	0.76	0.77	0.74	0.76	0.77	0.76	0.76	0.74	0.77
India	0.81	0.81	0.81	0.80	0.82	0.81	0.81	0.81	0.83	0.81	0.81
Indonesia	1.01	1.03	1.02	1.03	1.02	1.01	1.01	1.02	1.03	1.02	1.02
Others	1.11	1.07	1.11	1.04	1.08	1.11	1.12	1.11	1.08	1.10	1.09
Europe	0.13	0.12	0.11	0.12	0.12	0.12	0.11	0.11	0.12	0.12	0.12
Latin America	3.85	4.02	4.33	4.07	4.09	4.30	4.34	4.34	4.03	4.18	4.29
Brazil	2.14	2.26	2.51	2.29	2.29	2.48	2.52	2.53	2.22	2.38	2.47
Argentina	0.75	0.74	0.76	0.76	0.75	0.77	0.76	0.76	0.75	0.75	0.77
Colombia	0.54	0.58	0.60	0.60	0.59	0.60	0.60	0.60	0.60	0.59	0.60
Others	0.43	0.43	0.46	0.42	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Middle East[3]	1.66	1.62	1.56	1.62	1.60	1.58	1.57	1.56	1.60	1.59	1.59
Oman	0.70	0.72	0.71	0.72	0.71	0.71	0.71	0.71	0.71	0.70	0.71
Syria	0.42	0.41	0.39	0.41	0.41	0.40	0.40	0.39	0.41	0.41	0.40
Yemen	0.34	0.31	0.27	0.30	0.30	0.28	0.27	0.26	0.30	0.29	0.29
Africa	2.55	2.59	2.64	2.59	2.60	2.62	2.64	2.66	2.60	2.60	2.61
Egypt	0.67	0.69	0.69	0.69	0.70	0.70	0.70	0.69	0.70	0.70	0.70
Gabon	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Others	1.65	1.67	1.71	1.67	1.66	1.68	1.70	1.72	1.66	1.66	1.67
Total Non-OECD	28.37	28.56	29.13	28.48	28.57	29.14	29.28	29.08	28.59	28.56	29.11
Processing Gains[4]	2.17	2.24	2.29	2.25	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Other Biofuels[5]	0.33	0.46	0.58	0.46	0.52	0.55	0.58	0.58	0.52	0.52	0.55
TOTAL NON-OPEC[6]	50.71	50.55	50.95	49.95	50.60	51.40	50.94	50.48	50.78	50.94	51.46
Non-OPEC: Historical Composition[6]	50.16	49.52	50.95	48.92	49.58	51.40	50.94	50.48	49.75	49.92	51.46
TOTAL SUPPLY	85.57	86.44		86.16	85.91				85.88	85.69	85.17

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Comprises fuel ethanol and biodiesel supply from outside Brazil and US.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Aug2008	Sep2008	Oct2008	Nov2008	Dec2008*	Dec2005	Dec2006	Dec2007	1Q2008	2Q2008	3Q2008	4Q2008
North America												
Crude	439.8	452.4	463.3	471.6	474.1	457.0	439.1	422.9	0.35	-0.22	0.19	0.24
Motor Gasoline	220.8	217.5	224.9	232.5	243.7	236.1	239.2	247.2	0.06	-0.13	-0.21	0.28
Middle Distillate	205.5	196.3	196.7	205.0	213.1	213.0	217.2	208.8	-0.33	0.14	0.05	0.18
Residual Fuel Oil	45.9	47.6	47.9	46.5	43.1	44.6	50.3	48.1	0.00	0.02	-0.02	-0.05
Total Products[3]	660.9	655.5	656.8	672.4	678.0	658.9	691.4	667.8	-0.45	0.35	0.00	0.24
Total[4]	1265.6	1279.0	1288.3	1307.3	1307.9	1257.2	1276.7	1231.2	-0.14	0.27	0.42	0.31
Europe												
Crude	323.6	333.7	332.1	329.1	327.8	327.9	342.6	327.9	0.07	0.01	-0.01	-0.06
Motor Gasoline	109.7	97.9	97.4	106.7	107.5	112.4	110.8	113.1	0.08	-0.14	-0.11	0.10
Middle Distillate	274.4	260.2	249.5	262.4	257.9	246.2	265.3	235.5	0.13	0.02	0.12	-0.02
Residual Fuel Oil	77.9	75.6	76.2	74.9	78.6	73.2	73.1	74.2	0.07	0.00	-0.05	0.03
Total Products[3]	573.7	544.3	538.5	559.0	558.1	533.6	551.6	529.2	0.31	-0.12	-0.02	0.15
Total[4]	967.5	948.2	943.4	961.0	957.9	933.6	961.7	931.5	0.35	-0.09	-0.08	0.11
Pacific												
Crude	166.3	161.6	162.6	165.9	164.4	158.0	172.8	161.5	-0.04	0.11	-0.07	0.03
Motor Gasoline	24.3	22.6	23.6	24.0	22.1	22.5	22.2	22.3	0.05	-0.03	-0.02	-0.01
Middle Distillate	75.9	74.1	74.2	69.1	62.4	61.1	73.5	70.5	-0.14	0.02	0.16	-0.13
Residual Fuel Oil	23.7	22.3	20.7	20.7	20.1	20.5	22.6	21.4	-0.01	0.03	0.00	-0.02
Total Products[3]	194.9	191.9	193.1	185.0	172.8	167.6	183.5	174.9	-0.11	0.01	0.28	-0.21
Total[4]	436.9	429.5	431.9	424.4	406.7	394.4	427.8	406.0	-0.14	0.16	0.24	-0.25
Total OECD												
Crude	929.6	947.8	958.0	966.6	966.3	942.8	954.4	912.3	0.38	-0.10	0.11	0.20
Motor Gasoline	354.7	338.1	345.9	363.2	373.3	371.0	372.2	382.6	0.19	-0.30	-0.34	0.38
Middle Distillate	555.7	530.6	520.4	536.5	533.3	520.3	555.9	514.8	-0.34	0.19	0.33	0.03
Residual Fuel Oil	147.5	145.5	144.8	142.2	141.8	138.3	146.1	143.6	0.05	0.05	-0.07	-0.04
Total Products[3]	1429.6	1391.6	1388.3	1416.4	1408.9	1360.0	1426.4	1371.8	-0.25	0.24	0.26	0.19
Total[4]	2670.1	2656.8	2663.6	2692.7	2672.6	2585.1	2666.3	2568.7	0.08	0.34	0.58	0.17

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Aug2008	Sep2008	Oct2008	Nov2008	Dec2008*	Dec2005	Dec2006	Dec2007	1Q2008	2Q2008	3Q2008	4Q2008
North America												
Crude	707.2	702.4	701.8	701.8	701.8	684.5	688.6	696.9	0.04	0.06	-0.04	-0.01
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	178.5	179.6	184.7	186.4	186.4	166.9	175.0	184.6	0.00	-0.03	-0.02	0.07
Products	231.6	233.1	229.5	226.7	226.7	239.0	235.6	235.6	-0.01	-0.01	-0.01	-0.07
Pacific												
Crude	384.2	384.3	384.7	386.2	387.2	381.6	384.5	385.1	0.00	0.00	-0.01	0.03
Products	19.2	19.2	19.2	19.2	19.2	11.5	11.8	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1270.0	1266.3	1271.2	1274.4	1275.4	1233.0	1248.1	1266.6	0.04	0.02	-0.07	0.10
Products	252.8	254.2	250.6	247.9	247.9	252.5	249.4	256.5	-0.01	-0.01	-0.01	-0.07
Total[4]	1523.8	1521.5	1522.9	1523.2	1524.2	1486.5	1498.5	1524.1	0.03	0.02	-0.08	0.03

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End December 2007		End March 2008		End June 2008		End September 2008		End December 2008 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	195.7	83	193.8	86	193.5	83	198.3	-	-	-
Mexico	45.0	21	46.8	22	44.7	21	55.7	-	-	-
United States[4]	1667.3	84	1655.1	84	1687.5	90	1707.3	-	-	-
Total[4]	1930.1	78	1917.7	78	1947.9	82	1983.5	82	2011.7	85
Pacific										
Australia	37.3	39	36.1	37	37.4	38	37.7	-	-	-
Japan	621.0	115	610.0	133	619.1	144	646.2	-	-	-
Korea	143.5	62	142.8	68	146.6	71	141.2	-	-	-
New Zealand	8.3	49	8.4	55	8.4	58	7.9	-	-	-
Total	810.0	91	797.4	102	811.4	108	833.0	105	813.1	98
Europe[5]										
Austria	22.1	81	22.7	78	22.8	77	21.5	-	-	-
Belgium	27.2	40	30.3	49	28.4	47	29.1	-	-	-
Czech Republic	20.2	101	20.4	91	20.2	89	19.1	-	-	-
Denmark	17.1	95	16.4	89	19.0	107	18.3	-	-	-
Finland	27.1	128	30.5	135	25.5	113	30.1	-	-	-
France	179.9	91	177.5	93	176.6	92	176.6	-	-	-
Germany	274.6	110	281.5	115	273.1	99	271.7	-	-	-
Greece	37.4	80	34.9	92	36.3	87	39.2	-	-	-
Hungary	15.4	100	16.7	101	16.6	100	15.5	-	-	-
Ireland	10.6	55	12.1	63	10.4	57	10.5	-	-	-
Italy	132.9	82	130.9	82	136.7	83	130.3	-	-	-
Luxembourg	0.7	12	0.6	10	0.7	12	0.6	-	-	-
Netherlands	116.6	109	126.5	126	124.5	120	115.0	-	-	-
Norway	26.6	138	25.4	104	23.1	119	26.5	-	-	-
Poland	58.2	109	57.6	108	57.4	103	58.8	-	-	-
Portugal	23.6	82	24.9	86	25.3	87	25.0	-	-	-
Slovak Republic	7.9	99	9.0	112	9.1	99	8.0	-	-	-
Spain	133.9	84	134.2	87	135.0	87	135.8	-	-	-
Sweden	34.5	100	34.2	97	34.1	94	36.6	-	-	-
Switzerland	35.9	144	36.5	150	37.2	141	37.8	-	-	-
Turkey	60.3	90	60.9	93	60.9	80	60.8	-	-	-
United Kingdom	89.9	52	100.5	59	99.3	61	95.1	-	-	-
Total	1352.7	89	1384.4	92	1372.3	89	1361.9	90	1372.0	94
Total OECD	4092.8	84	4099.4	87	4131.6	89	4178.3	88	4196.8	90
DAYS OF IEA Net Imports[6]	-	122	-	122	-	123	-	124	-	-

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End September 2008 and December 2008 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
4Q2005	4072	1487	2585	80	29	51
1Q2006	4072	1487	2585	84	31	53
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	54
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	84	30	53
4Q2007	4093	1524	2569	84	31	53
1Q2008	4099	1527	2573	87	32	54
2Q2008	4132	1529	2603	89	33	56
3Q2008	4178	1522	2657	88	32	56
4Q2008	4197	1524	2673	90	33	57

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 3Q2008 and 4Q2008 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2005	2006	2007	4Q07	1Q08	2Q08	3Q08	Sep 08	Oct 08	Nov 08	Year Earlier Nov 07	Year Earlier change
Saudi Light & Extra Light												
North America	0.46	0.60	0.73	0.78	0.75	0.73	0.71	0.74	0.47	0.62	0.92	-0.30
Europe	0.90	0.78	0.70	0.68	0.67	0.65	0.82	0.97	0.78	0.67	0.67	0.01
Pacific	1.31	1.32	1.19	1.25	1.29	1.24	1.10	1.06	1.27	1.17	1.33	-0.16
Saudi Medium												
North America	0.81	0.64	0.56	0.57	0.58	0.62	0.68	0.69	0.58	0.78	0.59	0.19
Europe	0.16	0.14	0.05	0.04	0.05	0.07	0.03	0.03	0.04	0.06	0.02	0.04
Pacific	0.26	0.35	0.34	0.38	0.43	0.36	0.40	0.34	0.37	0.40	0.34	0.06
Saudi Heavy												
North America	0.17	0.21	0.09	0.04	0.06	0.04	0.14	0.23	0.08	0.05	0.04	0.01
Europe	0.23	0.18	0.11	0.09	0.04	0.10	0.12	0.12	0.09	0.06	0.06	0.00
Pacific	0.25	0.23	0.20	0.23	0.22	0.24	0.26	0.31	0.28	0.21	0.22	-0.01
Iraqi Basrah Light[2]												
North America	0.60	0.52	0.50	0.45	0.74	0.60	0.57	0.47	0.56	0.59	0.57	0.02
Europe	0.23	0.32	0.30	0.24	0.20	0.19	0.23	0.28	0.29	0.18	0.19	0.00
Pacific	0.06	0.08	0.17	0.21	0.13	0.18	0.18	0.16	0.10	0.09	0.15	-0.06
Iraqi Kirkuk												
North America	-	0.00	-	-	0.04	0.11	0.10	-	0.06	0.03	-	-
Europe	0.05	0.01	0.11	0.32	0.21	0.28	0.23	0.18	0.19	0.20	0.38	-0.19
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.26	0.27	0.21	0.24	0.23	0.21	0.21	0.23	0.23	0.18	0.06
Pacific	0.15	0.13	0.09	0.11	0.11	0.06	0.06	0.05	0.07	0.05	0.13	-0.08
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.63	0.58	0.56	0.47	0.44	0.48	0.60	0.65	0.56	0.44	0.47	-0.03
Pacific	0.62	0.56	0.64	0.73	0.65	0.49	0.67	0.66	0.65	0.62	0.78	-0.15
Venezuelan Light & Medium												
North America	0.82	0.66	0.75	0.86	0.66	0.66	0.67	0.56	0.58	0.45	1.09	-0.64
Europe	0.04	0.11	0.08	0.05	0.07	0.06	0.06	0.01	0.10	0.02	0.05	-0.02
Pacific	-	-	0.01	0.02	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.72	0.67	0.68	0.60	0.59	0.67	0.63	0.65	0.70	0.59	0.11
Europe	0.06	0.06	0.07	0.06	0.07	0.07	0.07	0.05	0.08	0.09	0.06	0.02
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.27	1.24	1.22	1.24	1.03	1.00	0.99	0.77	1.14	1.09	1.90	-0.81
Europe	0.17	0.16	0.14	0.15	0.14	0.18	0.14	0.08	0.04	0.16	0.12	0.05
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.03	0.04	0.01	0.00	0.03	0.01	0.01	0.00	0.01	0.01	0.00	0.00
Europe	0.03	0.01	0.02	0.02	0.00	0.01	-	-	0.02	-	0.05	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.13	0.09	0.06	0.01	0.01	0.10	0.10	0.02	-	-	-	-
Europe	1.77	1.68	1.86	1.73	1.89	1.95	1.75	1.52	1.84	1.44	1.67	-0.22
Pacific	0.00	0.00	0.00	0.01	-	-	-	-	-	-	0.02	-
Nigerian Light[4]												
North America	0.90	0.79	0.85	0.82	0.85	0.77	0.52	0.43	0.66	0.62	0.81	-0.19
Europe	0.35	0.33	0.24	0.23	0.27	0.21	0.33	0.40	0.27	0.41	0.27	0.15
Pacific	0.05	0.04	0.01	0.01	-	-	-	-	-	-	0.03	-
Nigerian Medium												
North America	0.17	0.17	0.23	0.31	0.31	0.27	0.26	0.14	0.21	0.24	0.35	-0.11
Europe	0.07	0.10	0.07	0.11	0.09	0.20	0.13	0.13	0.21	0.11	0.10	0.01
Pacific	0.01	0.00	0.01	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2005	2006	2007	4Q07	1Q08	2Q08	3Q08	Sep-08	Oct-08	Nov-08	Year Earlier Nov-07	Year Earlier % change
Crude Oil												
North America	8457	8194	8117	7969	8087	8298	7895	6919	8150	7883	7518	5%
Europe	9792	9784	9679	9835	9710	9878	9961	10174	9677	9262	9580	-3%
Pacific	6801	6816	6718	7003	7098	6457	6462	6171	6127	6473	6736	-4%
Total OECD	25050	24794	24514	24807	24895	24633	24317	23264	23953	23618	24228	-3%
LPG												
North America	18	14	27	41	27	15	38	43	28	44	50	-12%
Europe	248	264	276	291	307	246	263	260	184	202	275	-27%
Pacific	527	578	557	572	599	632	582	524	550	574	493	16%
Total OECD	793	856	860	903	933	893	884	827	762	820	819	0%
Naphtha												
North America	115	71	39	60	25	54	58	71	36	118	75	57%
Europe	273	314	265	289	273	260	231	230	352	215	256	-16%
Pacific	746	754	794	758	796	734	886	943	736	621	785	-21%
Total OECD	1133	1138	1098	1108	1094	1048	1174	1244	1125	954	1116	-15%
Gasoline[3]												
North America	1034	1143	1122	1043	888	1220	1184	1292	1198	933	1087	-14%
Europe	165	160	203	181	227	187	260	202	171	202	224	-10%
Pacific	102	96	73	69	110	91	56	73	141	55	61	-8%
Total OECD	1301	1399	1398	1293	1225	1498	1501	1567	1511	1191	1372	-13%
Jet & Kerosene												
North America	173	161	183	143	96	78	40	47	56	19	152	-88%
Europe	375	374	370	404	360	381	399	364	511	429	366	17%
Pacific	66	69	43	43	44	39	22	27	34	18	32	-44%
Total OECD	614	603	595	589	499	498	461	439	601	465	550	-15%
Gasoil/Diesel												
North America	143	175	129	106	99	46	50	93	52	65	89	-27%
Europe	845	967	780	834	901	662	899	948	878	1160	751	55%
Pacific	79	77	91	103	100	133	128	120	114	125	112	12%
Total OECD	1067	1219	1000	1044	1100	841	1078	1162	1045	1351	952	42%
Heavy Fuel Oil												
North America	527	343	323	320	328	307	246	181	225	259	384	-33%
Europe	491	476	433	399	487	391	442	425	431	475	425	12%
Pacific	85	91	95	101	124	140	143	133	68	121	81	49%
Total OECD	1102	910	851	820	939	838	831	739	724	854	889	-4%
Other Products												
North America	1027	1121	1051	934	1041	1085	1061	1092	1172	1120	971	15%
Europe	781	929	854	799	744	763	782	826	883	689	876	-21%
Pacific	248	243	254	282	290	267	318	273	338	262	266	-1%
Total OECD	2056	2294	2158	2015	2076	2116	2161	2191	2393	2071	2113	-2%
Total Products												
North America	3037	3028	2874	2646	2504	2804	2677	2818	2767	2558	2808	-9%
Europe	3177	3484	3180	3198	3298	2891	3276	3255	3411	3372	3173	6%
Pacific	1852	1908	1906	1928	2064	2035	2136	2093	1983	1777	1830	-3%
Total OECD	8066	8420	7960	7772	7867	7731	8089	8167	8161	7707	7811	-1%
Total Oil												
North America	11493	11222	10991	10615	10592	11102	10572	9737	10917	10441	10720	-3%
Europe	12970	13268	12859	13033	13008	12769	13237	13430	13087	12634	12753	-1%
Pacific	8654	8724	8623	8931	9162	8492	8597	8265	8110	8250	8566	-4%
Total OECD	33116	33214	32473	32579	32762	32364	32406	31431	32114	31324	32039	-2%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor and OPEC Supply
Head, Oil Industry and Markets Division
David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand
Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply
Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining
David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight
Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

Prices
Toril Bosoni (Consultant)
e-mail: toril.bosoni@iea.org
Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Statistics/Trade
Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant
Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
6* 0 - only within France

Media Enquiries

IEA Press Office
(+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

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For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the statistical supplement dated 12 August 2008), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Platts prices, converted when appropriate to US$ per barrel according to the Platts specification of products (© 2009 Platts - a division of McGraw-Hill Inc.).

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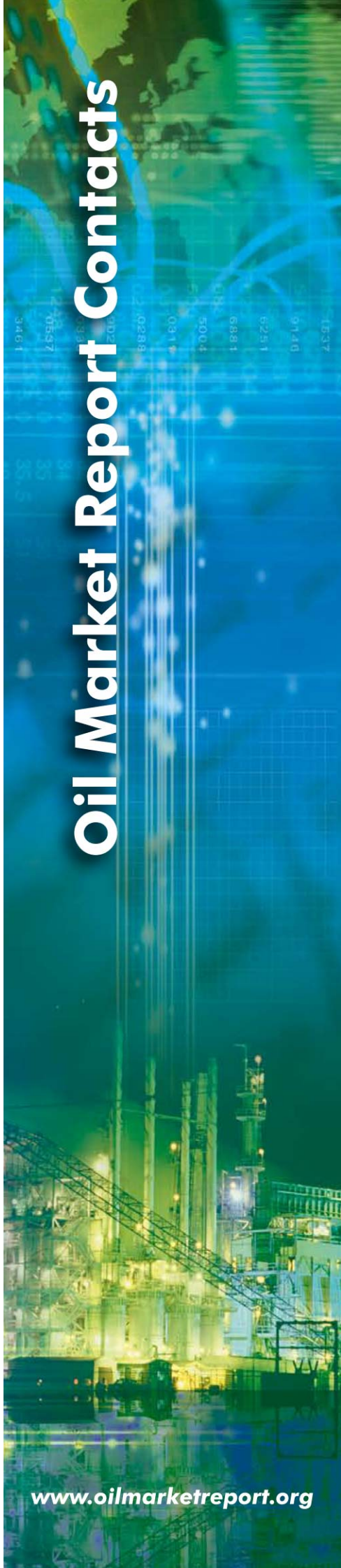

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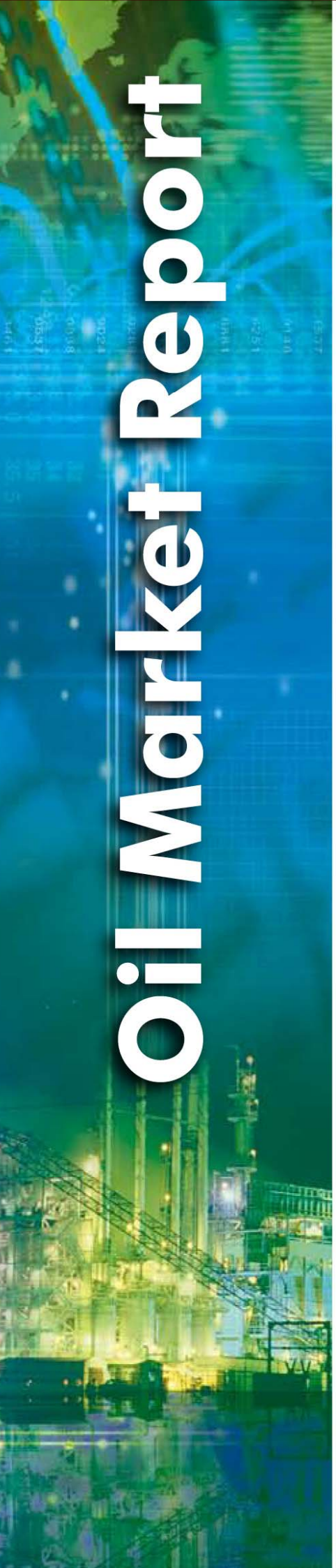

INTERNATIONAL ENERGY AGENCY

13 March 2009

HIGHLIGHTS

- **Crude oil prices posted steady gains in early March** on mounting evidence of increased OPEC compliance with targeted output cuts. Benchmark crudes scaled to two-month highs, trading in a $41-45/bbl range, with WTI back above Brent for the first time since late 2008.

- **Global oil supply in February is estimated at 83.9 mb/d**, down 1.0 mb/d month-on-month and 3.4 mb/d year-on-year. OPEC crude supply, at 28.0 mb/d, was down 1.1 mb/d from January. Full compliance with agreed cuts – above the current 80% – would take OPEC output 1.6 mb/d below the 2009 'call', implying a potential draw in OECD stocks.

- **Non-OPEC supply growth for 2009 is revised down by 380 kb/d to zero**, following a reappraisal of ongoing problems at Azerbaijan's ACG fields. Non-OPEC supply for 2008 is kept steady at 50.6 mb/d, as fourth-quarter upward revisions to UK North Sea production were offset by weaker non-OECD output. OPEC NGLs, however, should add 0.3 mb/d in 2009.

- **Forecast global oil demand for 2009 is revised down slightly to 84.4 mb/d**, -1.5% or -1.2 mb/d year-on-year, on a reassessment of demand prospects in the FSU, Asia and OECD North America. The oil demand estimate for 2008 remains unchanged at 85.7 mb/d (-0.4% or -0.4 mb/d versus 2007).

- **OECD industry stocks rose by 9.0 mb in January to 2,712 mb**, with European and Pacific product draws partially offsetting North American crude builds. An upward revision to December inventories plus increasing January stocks pushed end-January forward demand cover to 58.7 days, 4.6 days higher than a year ago.

- **Global crude runs are expected to remain weak through 1Q09**, but completion of maintenance at refineries in the Atlantic Basin and start-up of new Asian capacity offer the prospect of higher runs during 2Q09. OECD throughput in January collapsed by 2.1 mb/d on a yearly basis, with capacity utilisation at its lowest since 1995.

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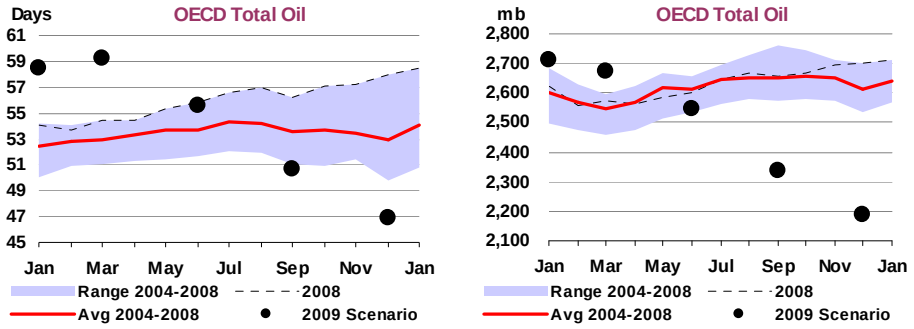
STRIKING A BALANCE

We have consistently cautioned against a one-eyed view of the market that focuses solely on demand-side weakness. True, the demand collapse has been staggering, based on the whirlwind nature of the slump in the global economy. Naturally, slowing economic activity leads to less energy and oil demand, but the obvious flip-side to this is that lower prices also lead to a supply response. Normal supply-side impacts are being intensified by a credit squeeze, affecting not only investment in new productive capacity, but also operational spending among more cash-strapped companies. Technical problems on the supply-side are also an ever-present.

While our 2009 demand estimates this month are trimmed by an average 0.3 mb/d, there is an offsetting 0.4 mb/d cut for non-OPEC supply, albeit this time largely technically-driven. For demand, weakness is evident in the US, with December numbers coming in around 200 kb/d below earlier estimates. This, plus downgrades for fuel oil and LPG amid very low competing natural gas prices, leads to a 140 kb/d reduction in expected US 2009 demand. We have also cut 130 kb/d from Russian 2009 demand amid signs that economic slow-down there is gathering pace. As demand estimates have weakened, OECD forward stock-cover has increased, reaching 58.7 days in January. Meanwhile, the bulk of this month's supply adjustment comes from Azerbaijan. Unofficial estimates now leave 2009 Azeri output flat in a 900-950 kb/d range, compared with widespread expectations of 1.2 mb/d back in December. Problems after recent gas leaks at the offshore Azeri-Chirag-Guneshli complex underpin the lower forecast.

This month's supply-side revisions nullify previously expected 2009 non-OPEC supply growth altogether, leaving the total flat at last year's 50.6 mb/d, down from 50.7 mb/d in 2007. Combined supply and demand side changes leave the *call on OPEC crude and stock change* for 2009 at 28.9 mb/d, 0.1 mb/d above last month's level, but still 1.5 mb/d below the 2008 average. Faced with a declining call amid collapsing demand and brimming stockpiles, it is not surprising that OPEC has opted for production restraint. And the organisation has indeed cut supplies significantly, removing 3.3 mb/d from the market between September and February. That is near-80% compliance with planned 4.2 mb/d reductions, and further trimming of actual output is likely during March and April. Also, Nigeria and Iraq may face further non-voluntary cuts if recent production and export disruptions persist.

Potential Trend of OECD Stocks: Scenario - OPEC at Current Target April Onwards



OPEC Ministers meet on 15 March in Vienna to consider production policy. Public statements have ebbed and flowed between improving compliance and new cuts upwards of 1.0 mb/d. This report does not predict OPEC decisions, nor do we forecast OPEC forward supply levels. But a scenario of OPEC attaining current target by April and holding output flat through 2009 would quickly tighten OECD stocks (see above), even in the face of our forecast global demand decline of 1.2 mb/d. A more severe demand scenario, involving a drop of 2 mb/d in 2009, would still see inventory cover fall within seasonal norms by 3Q09. Ultimately, prices should always find a level that balances the market, and for the longer term this will partly reflect supply costs and the need for investment. But arguably, in the short term, an easing of the burden for oil importing countries of anything up to $1.2 trillion, depending on 2009's average price, could give the fragile global economy some much-needed breathing space. The last thing the world's industrial base needs at present is to be thrown further off balance by a sudden surge in fuel input costs.

DEMAND

Summary

- **Forecast global oil demand** for 2009 has been revised down slightly, given the reassessment of demand prospects in the FSU, Asia and OECD North America. Global oil demand is now projected at 84.4 mb/d in 2009 (-1.5% or -1.2 mb/d when compared with the previous year and 270 kb/d lower versus our last report). The demand estimate for 2008 remains unchanged at 85.7 mb/d (-0.4% or -0.4 mb/d versus 2007).

- **Forecast OECD oil demand** for 2009 has been adjusted down following 4Q08 and 1Q09 revisions in North America, notably in the US, which have been largely carried forward through 2009. Oil demand is expected to average 45.9 mb/d (-3.4% or -1.6 mb/d from 2008), some 80 kb/d lower than previously estimated. The demand appraisal for 2008 remains unchanged at 47.5 mb/d (-3.4% or -1.7 mb/d versus 2007).

Global Oil Demand (2007-2009)

(million barrels per day)

	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Africa	3.1	3.1	3.0	3.1	3.1	3.1	3.2	3.0	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Americas	31.1	31.0	31.3	31.2	31.2	30.5	30.4	29.7	30.0	30.2	29.5	29.5	29.6	29.4	29.5
Asia/Pacific	25.5	24.9	24.5	25.7	25.1	26.4	25.4	24.7	24.7	25.3	25.5	25.0	24.3	25.0	24.9
Europe	16.0	15.7	16.1	16.4	16.0	16.0	15.7	16.1	16.1	16.0	15.5	15.1	15.7	15.7	15.5
FSU	4.1	3.9	4.2	4.3	4.1	4.1	4.1	4.4	4.3	4.2	3.9	4.0	4.2	4.2	4.1
Middle East	6.4	6.5	6.7	6.4	6.5	6.7	7.0	7.3	6.7	6.9	6.9	7.2	7.6	7.0	7.2
World	**86.2**	**85.1**	**85.7**	**87.2**	**86.0**	**86.8**	**85.7**	**85.2**	**84.9**	**85.7**	**84.5**	**84.0**	**84.6**	**84.6**	**84.4**
Annual Chg (%)	0.4	1.5	1.1	1.5	1.1	0.8	0.7	-0.6	-2.6	-0.4	-2.8	-2.0	-0.7	-0.3	-1.5
Annual Chg (mb/d)	0.3	1.2	0.9	1.3	0.9	0.7	0.6	-0.5	-2.3	-0.4	-2.4	-1.7	-0.6	-0.3	-1.2
Changes from last OMR (mb/d)	0.00	0.00	0.00	-0.01	0.00	0.01	0.01	0.01	-0.06	-0.01	-0.33	-0.24	-0.25	-0.27	-0.27

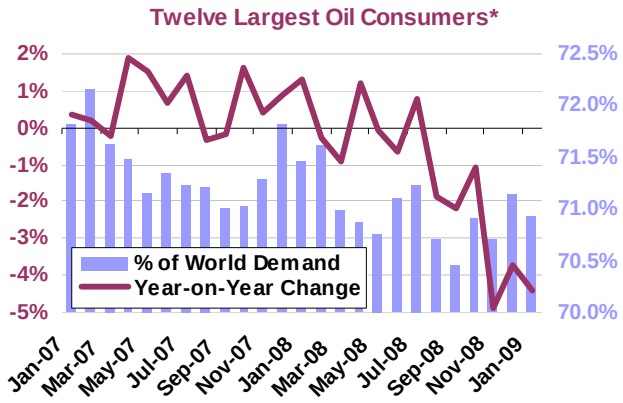
- **Forecast non-OECD oil demand** for 2009 has been revised down by roughly 190 kb/d to 38.5 mb/d (+0.9% or +0.4 mb/d versus the previous year) following the reappraisal of the demand outlook in the FSU (Russia) and Asia (Chinese Taipei). Russia, whose economy appears to be deteriorating more quickly than previously expected, accounts for the bulk of this revision. Demand in 2008, by contrast, remains largely untouched at 38.2 mb/d (+3.5% or +1.3 mb/d versus 2007).

- **The aggregated oil use of the world's 12 largest consumers, which collectively account for roughly 70% of global demand, has fallen continuously since mid-2008.** The eventual resumption of global demand growth will largely depend upon stronger economic performance among these top consumers. Although the latest news is not encouraging, the IMF's forthcoming *World Economic Outlook*, to be published in late April, should be a guide to whether the recent flurry of fiscal and monetary policy initiatives by governments and central banks of the world's leading economies will help engineer a gradual recovery by late 2009, and whether such recovery will be sustained.

Global Overview

The aggregated oil use of the world's 12 largest consumers (defined as those consuming at least 1.5 mb/d), which collectively account for roughly 59 mb/d or 71% of global demand, has continuously diminished since mid-2008. Although such decline is partly related to structural reasons, the eventual resumption of global demand growth will largely depend upon much stronger economic performance than is currently the case among most of these top consumers – the United States, the five largest European economies (France, Germany, Italy, Spain and the United Kingdom), China, Japan, India, Russia, Brazil, Saudi Arabia, Canada, Korea, Mexico and Iran.

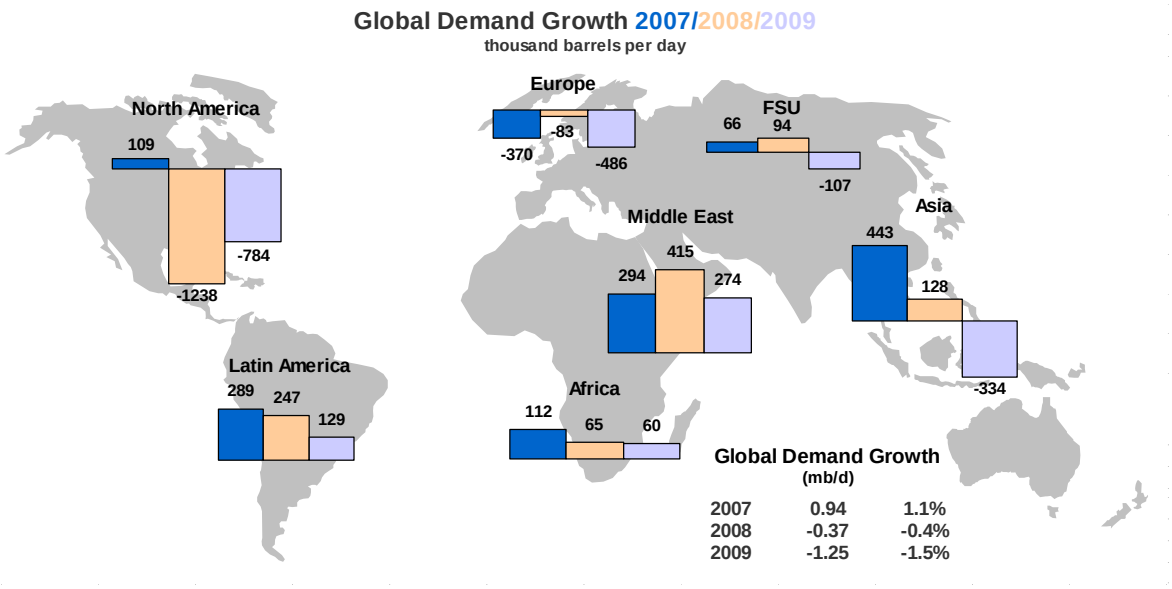
However, the latest news is not encouraging, particularly in the OECD. US economic activity fell in 4Q08 by 6.2% year-on-year, almost twice as much as the preliminary estimate (-3.8%). The contraction would have been worse but for increased government spending, since private consumption and investment and, perhaps more crucially, exports posted sharp declines. Naturally, the effects of US woes are spreading to its neighbours, with GDP in both Canada and Mexico also contracting. Europe's main economies now appear certain to experience a sharp recession this year; in December manufacturing output contracted by 12-14% in France, Germany, Italy and the UK. The Pacific is looking even grimmer, with Japan and Korea facing collapsing domestic consumption, investment, industrial activity and exports (notably to China, whose own shipments to the United States, Europe and the rest of the world have stalled). Economic activity in Japan and Korea shrank respectively by 12.7% and 3.4% year-on-year in 4Q08; for Japan, which has also seen the yen appreciate sharply, this was the worst performance since 1974. To cap it all, worries over the solvency of the banking sector are increasing in both the US and Europe, given their exposure to yet un-quantified risks and shrinking capital reserves.



*** Total Oil Demand > 1.5 mb/d**

Outside of the OECD, the economic outlook is less dismal as most of the main emerging economies are still likely to experience some growth. A notable exception, though, is Russia, which has been battered by the global turmoil. The ultimately unsuccessful attempts to support the rouble have been costly in terms of foreign exchange reserves (down by almost 40% since August), while the country's economic slowdown has intensified in the past two months. Industrial production plummeted by 10.1% year-on-year in December, and the country's economy is likely to slide into recession this year, after almost a decade of buoyant expansion. Elsewhere, GDP growth, albeit positive, is set to slow down to a greater or lesser degree. Although China's economic growth in 2009 is expected to reach an enviable 6.7%, this would be about a half to a third lower than in recent years, with tens of millions of workers having lost their jobs over the past few months. Other emerging economies such as Brazil and Saudi Arabia are expected to see GDP growth halve when compared with recent years. By contrast, India's economy, albeit also slowing, has been so far remarkably resilient to the global economic slowdown. Although the country's exports have fallen (-16% year-on-year in 4Q08), these consist mostly of services, rather than goods – hence a much more limited impact upon industrial production (-2.0% in December). In addition, arguably loose fiscal and monetary policies help cushion the downturn (but may possibly stoke future inflation).

The IMF's forthcoming *World Economic Outlook*, to be published in late April, will arguably demonstrate whether the recent flurry of fiscal initiatives in the US, Europe and Asia and loosening monetary conditions in the world's largest economies will help engineer a gradual recovery by late 2009, and whether such recovery will be sustained. Several IMF officials have hinted that another sharp cut to global GDP prognoses is likely, but given the lack of more precise figures we have kept our GDP assumptions unchanged versus last month. Nonetheless, we have slightly adjusted down our 2009 global oil demand forecast to 84.4 mb/d (270 kb/d lower than previously expected), given a reassessment of demand prospects in the FSU (Russia), Asia (Chinese Taipei) and OECD North America (US). By contrast, our 2008 appraisal remains unchanged at 85.7 mb/d. In terms of growth, this means that global oil demand contracted by 0.4% year-on year or 0.4 mb/d in 2008, and that it will further decline in 2009 by 1.5% or 1.2 mb/d versus 2008.



OECD

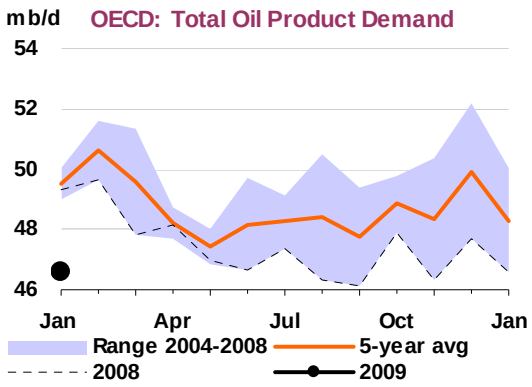
Preliminary data show that OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 5.5% year-on-year in January. All three regions recorded losses for the ninth month in a row, with most advanced economies firmly in recession. In **OECD North America** (which includes US Territories), oil product demand fell by 5.2% year-on-year, with all product categories posting losses. In **OECD Europe**, despite strong heating oil deliveries due largely to cold weather conditions, total demand shrank by 5.1%. In **OECD Pacific**, demand plunged by 7.2%, despite a strong rebound in gasoline and jet fuel/kerosene deliveries.

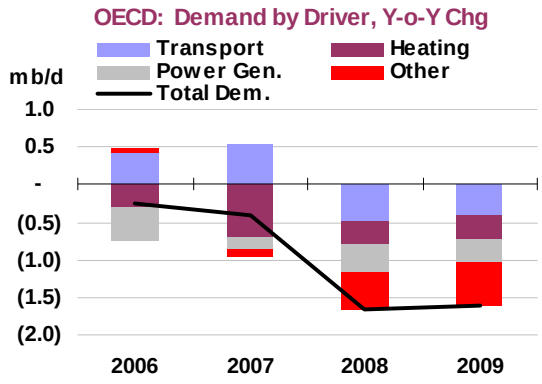
OECD Demand based on Adjusted Preliminary Submissions - January 2009
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.09**	**-2.6**	**1.64**	**-10.3**	**4.03**	**-0.5**	**1.18**	**-5.2**	**1.10**	**-10.1**	**5.73**	**-10.09**	**23.76**	**-5.2**
US50	8.57	-3.1	1.42	-10.9	3.51	-0.6	0.64	-7.9	0.65	-7.7	4.37	-11.0	19.15	-5.5
Canada	0.69	-1.5	0.11	-6.1	0.21	7.6	0.39	-0.7	0.12	-21.5	0.72	-8.2	2.25	-4.4
Mexico	0.75	1.0	0.07	-12.3	0.26	-5.9	0.11	-5.9	0.23	-14.0	0.58	-6.6	2.01	-4.9
OECD Europe	**2.07**	**-7.9**	**1.18**	**-5.9**	**3.84**	**-6.7**	**2.58**	**7.9**	**1.69**	**-1.6**	**3.30**	**-11.1**	**14.66**	**-5.1**
Germany	0.41	-8.2	0.17	-7.5	0.56	-3.7	0.66	25.6	0.16	-13.3	0.39	-33.6	2.35	-6.3
United Kingdom	0.33	-10.9	0.36	-0.3	0.41	-0.1	0.13	-3.2	0.08	-0.8	0.34	0.2	1.65	-2.7
France	0.17	-9.1	0.14	-7.1	0.60	-5.2	0.56	20.2	0.18	70.1	0.50	-0.7	2.16	5.1
Italy	0.25	-7.2	0.07	-16.3	0.47	-8.1	0.12	2.6	0.23	-10.5	0.35	-12.2	1.48	-9.0
Spain	0.13	-8.3	0.09	-22.5	0.43	-13.2	0.27	-5.5	0.22	5.3	0.37	-4.2	1.49	-7.6
OECD Pacific	**1.46**	**1.8**	**1.34**	**1.5**	**1.05**	**-4.8**	**0.51**	**-11.5**	**0.94**	**-17.5**	**2.87**	**-11.1**	**8.18**	**-7.2**
Japan	0.92	0.8	0.95	4.1	0.51	-1.9	0.38	-12.4	0.48	-25.4	1.52	-21.0	4.78	-11.0
Korea	0.17	4.2	0.25	-8.7	0.21	-17.3	0.11	-10.3	0.41	-7.5	1.17	3.7	2.31	-2.7
Australia	0.32	3.4	0.11	1.9	0.28	-0.7	0.02	-2.4	0.04	-4.5	0.16	2.6	0.93	1.3
OECD Total	**13.63**	**-3.0**	**4.16**	**-5.5**	**8.92**	**-3.8**	**4.26**	**1.4**	**3.73**	**-8.6**	**11.90**	**-10.6**	**46.61**	**-5.5**

* Including US territories

Revisions to preliminary figures were on aggregate positive, with the largest changes corresponding to European data. December's OECD demand estimates were adjusted up by 240 kb/d, indicating that demand fell by 4.0% during that month, rather than by 4.5% as previously estimated. Coupled with adjustments to October (-100 kb/d) and November (-40 kb/d) figures, 4Q08 demand has been revised up by 35 kb/d. As such, OECD demand averaged 47.5 mb/d in 2008 (-3.4% or -1.7 mb/d versus 2007, barely changed versus our last report). In 2009, following the inclusion of preliminary data for January and the reappraisal of prospects in North America, OECD demand is expected to contract by 3.4% on a yearly basis (-1.6 mb/d) to 45.9 mb/d (80 kb/d lower when compared with our previous assessment).





Total OECD Demand by Product

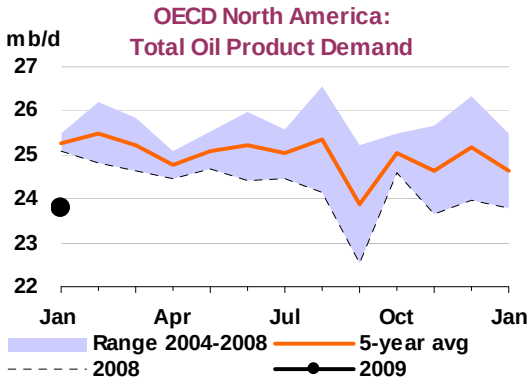
(million barrels per day)

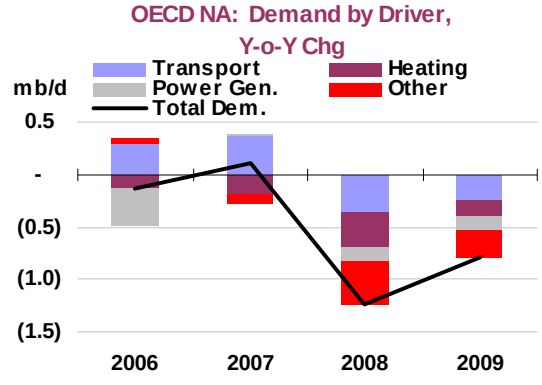
	2007	2008	1Q08	2Q08	3Q08	4Q08	Oct 08	Nov 08	Dec 08*	Latest month vs. Nov 08	Latest month vs. Dec 07
LPG & Ethane	4.82	4.66	5.16	4.58	4.31	4.59	4.45	4.46	4.87	0.40	-0.36
Naphtha	3.24	3.03	3.28	2.99	3.01	2.84	2.91	2.85	2.76	-0.08	-0.61
Motor Gasoline	14.92	14.46	14.23	14.73	14.48	14.38	14.44	14.20	14.51	0.31	-0.27
Jet & Kerosene	4.12	3.99	4.35	3.86	3.81	3.91	3.69	3.83	4.21	0.38	-0.12
Gas/Diesel Oil	13.14	13.00	13.40	12.64	12.61	13.35	13.85	12.93	13.25	0.33	0.03
Residual Fuel Oil	3.96	3.65	3.85	3.62	3.52	3.62	3.56	3.54	3.74	0.20	-0.22
Other Products	4.97	4.74	4.63	4.82	4.88	4.62	5.01	4.51	4.35	-0.16	-0.43
Total Products	**49.17**	**47.52**	**48.91**	**47.24**	**46.62**	**47.32**	**47.91**	**46.31**	**47.70**	**1.39**	**-1.97**

* Latest official OECD submissions (MOS)

North America

According to preliminary data, oil product demand in North America (including US Territories) plummeted by 5.2% year-on-year in January, a decline for the thirteenth month in a row. Persistent demand weakness in the United States (-5.4% year-on-year) was compounded by losses in both Canada, for the sixth consecutive month (-4.4%), and Mexico, for the fourth month in a row (-4.9%).





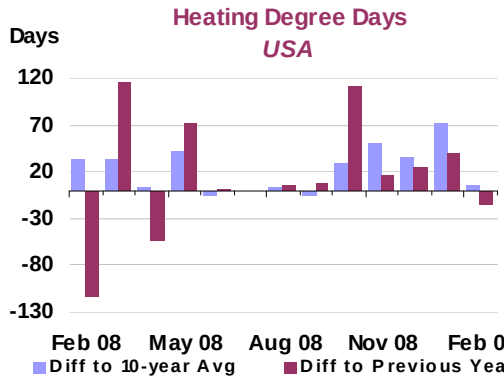
Revisions to December preliminary data (-170 kb/d) were essentially driven by the US. Demand in OECD North America was thus weaker than anticipated, plummeting by 6.0% year-on-year in that month, instead of 5.4%. Regional oil demand averaged 24.3 mb/d in 2008 (-4.8% or -1.2 mb/d on a yearly basis, some 20 kb/d lower than our last assessment). In 2009, demand is expected to reach 23.5 mb/d (-3.2% or -0.8 mb/d versus 2008), about 160 kb/d lower than previously anticipated on the back of a reappraisal of the US demand outlook following the release of preliminary weekly data.

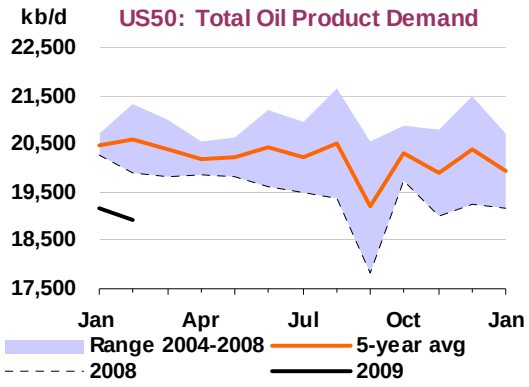
OECD North America Demand by Product
(million barrels per day)

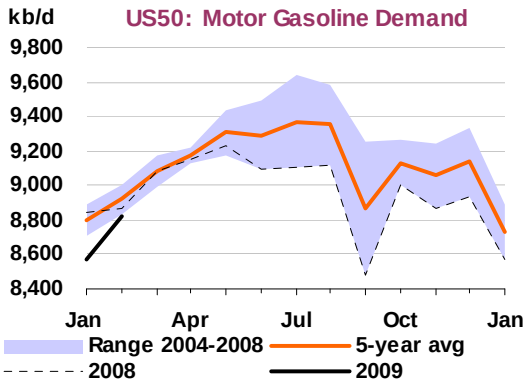
	2007	2008	1Q08	2Q08	3Q08	4Q08	Oct 08	Nov 08	Dec 08*	Latest month vs. Nov 08	Latest month vs. Dec 07
LPG & Ethane	2.92	2.74	3.10	2.63	2.52	2.70	2.63	2.66	2.81	0.14	-0.36
Naphtha	0.41	0.35	0.36	0.37	0.34	0.32	0.31	0.36	0.30	-0.06	-0.10
Motor Gasoline	10.84	10.56	10.47	10.74	10.51	10.53	10.60	10.41	10.55	0.14	-0.31
Jet & Kerosene	1.89	1.79	1.84	1.84	1.81	1.66	1.65	1.67	1.66	-0.02	-0.22
Gas/Diesel Oil	5.24	5.01	5.29	4.96	4.77	5.04	5.34	4.94	4.82	-0.13	-0.39
Residual Fuel Oil	1.25	1.13	1.14	1.22	1.07	1.07	1.05	0.98	1.18	0.20	0.05
Other Products	2.97	2.72	2.63	2.77	2.71	2.76	3.00	2.61	2.66	0.05	-0.22
Total Products	**25.53**	**24.29**	**24.84**	**24.52**	**23.73**	**24.08**	**24.59**	**23.65**	**23.98**	**0.33**	**-1.54**

* Latest official OECD submissions (MOS)

Adjusted preliminary inland deliveries – a proxy of oil product demand – in the continental **United States** declined by 4.9% year-on-year in February, with all product categories posting significant contractions, most notably naphtha (-20.1%), jet fuel/kerosene (-15.6%), distillates (-4.5%) and residual fuel oil (-18.2%). The dismal state of the economy continues to weigh on oil demand, while relatively mild weather (after a very cold January), amid falling natural gas prices, further tempered power and heating needs – and ultimately heating oil and residual fuel oil demand. Indeed, although the number of heating-degree days in February was slightly higher than the 10-year average, it was much lower than in the same month of the previous year. City-gate gas prices in the East Coast (New York City), meanwhile, have fallen to about $5.8/mmbtu, compared with about $8.6/mmbtu for heating oil and $5.8-7.0/mmbtu for high- and low-sulphur residual. The fall in gas prices results from a combination of higher supply and collapsing demand, notably among car manufacturers and chemical companies – but also in the household sector as, according to some reports, strained consumers look to reduce expenditures and housing foreclosures rise.



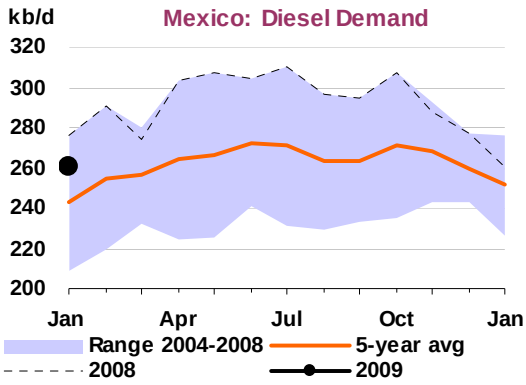




The only source of optimism, if any, is the fact that gasoline demand declined by *only* 0.5% year-on-year in February, its lowest fall since May 2008. It should be noted that this calculation is based on EIA's *unadjusted* weekly data. Comparing current, unadjusted weekly figures with *adjusted* year-ago data is misleading, since it tends to overestimate demand growth, because weekly figures are usually revised down sharply. Yet, somewhat counter-intuitively (given worsening economic circumstances), many commentators have rushed to declare that US demand increased for the first time in months, when it actually kept on contracting.

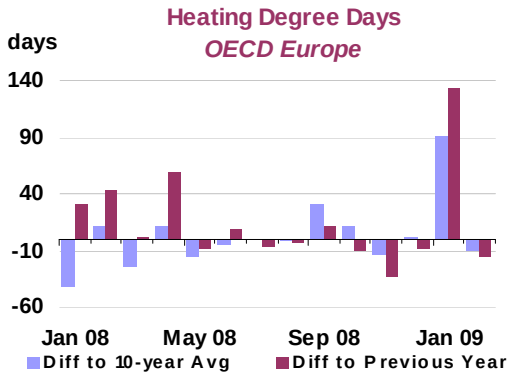
Our revisions to preliminary weekly data (-200 kb/d) in December were relatively limited relative to total US demand, suggesting that our pre-emptive adjustment has been relatively successful in anticipating a large chunk of the EIA's weekly-to-monthly revisions (-770 kb for the month). The adjusted data show that December's year-on-year annual decline reached 7.1%, a full percentage point more than previously estimated. As such, US oil demand is estimated to have contracted by 5.7% or 1.2 mb/d year-on-year in 2008 to 19.5 mb/d, about 20 kb/d lower than previously anticipated. Looking ahead, based on December's revisions and preliminary January and February data – which point to poor prospects with regards to naphtha, jet fuel/kerosene and residual fuel oil – oil demand is expected to fall by 3.5% or 690 kb/d in 2009 to 18.8 mb/d, about 140 kb/d lower when compared with our previous report.

In **Mexico**, preliminary data indicate that oil demand fell sharply in January (-4.9% year-on-year), providing further evidence of the ongoing economic slowdown. Diesel deliveries, in particular, plummeted by 5.9%. This fall may possibly intensify in February, not only due to worsening economic conditions, but also because of a truckers' and bus drivers' strike that erupted in mid-February, affecting 18 of the country's 32 states. Some 500,000 drivers suspended activities for one day in protest against high diesel prices, absent from January's stimulus package (which froze gasoline prices and reduced both electricity and LPG prices). Unless the government cuts diesel prices from $0.53/litre to $0.41/litre as requested, the transportation unions have vowed to escalate their protests.



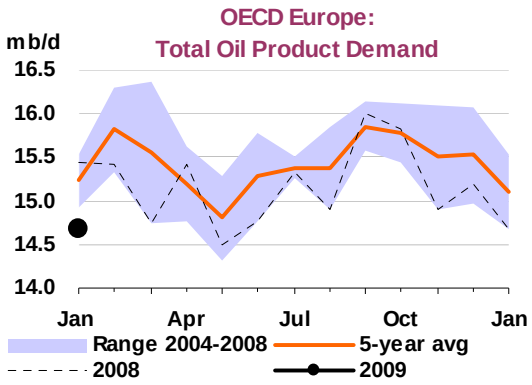
Europe

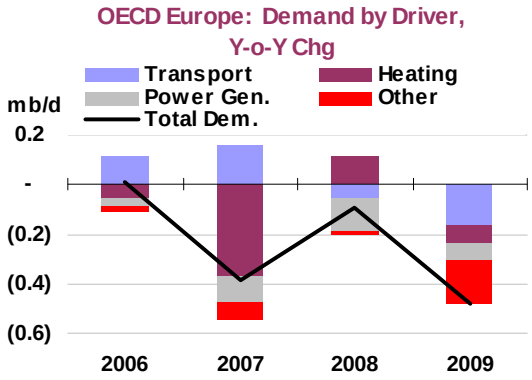
According to preliminary inland data, oil product demand in Europe fell by 5.1% year-on-year in January, following two months of marked decline. The continent experienced in January one of the most severe cold snaps in decades (the number of heating-degree days was significantly higher than both the 10-year average and the same month of the previous year), which boosted heating oil (+7.9% year-on-year), a product that accounts for almost a fifth of European demand during the winter months. This failed, however, to offset sharp declines elsewhere, notably in naphtha (-19.6%), jet fuel/kerosene (-5.9%) and diesel (-6.7%).



More interestingly, the effects on oil demand of January's Russian disruption to European natural gas supplies appear to have been relatively limited, at least as far as the largest countries are concerned. Smaller and highly gas-dependent countries were less fortunate; for example, fuel oil demand in Slovakia surged by an astonishing 825% year-on-year in January, while the Czech Republic registered a 43.8% spike in fuel oil, followed by Poland with +20.3%. Although preliminary data may be revised next month, the relatively limited volumes involved (heating oil and residual consumption in these three countries add up to only 110 kb/d, which is less than demand in, say, Switzerland) explain why the effects of the gas disruption were negligible on a continental scale.

Meanwhile, December data were revised up by 340 kb/d, mostly with respect to products driven by weather conditions (such as heating oil and residual fuel oil). As such, 4Q08 demand was adjusted up by 110 kb/d, bringing our estimate for 2008 oil demand to 15.2 mb/d (-0.6% or -90 kb/d versus 2007). In 2009, oil demand in OECD Europe is expected to average 14.7 mb/d (-3.2% or -480 kb/d compared with the previous year). Both appraisals are virtually unchanged (25 kb/d higher on average than previously anticipated).





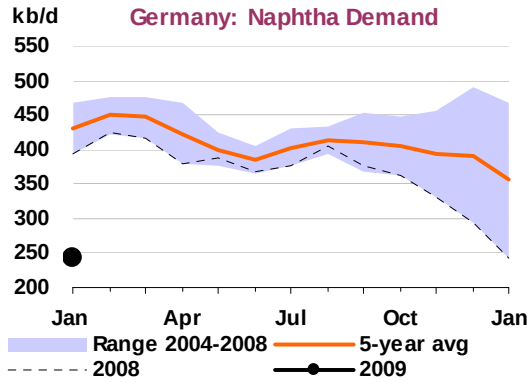
OECD Europe Demand by Product

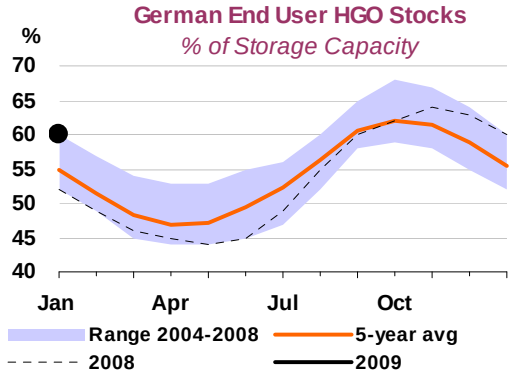
(million barrels per day)

	2007	2008	1Q08	2Q08	3Q08	4Q08	Oct 08	Nov 08	Dec 08*	Latest month vs. Nov 08	Latest month vs. Dec 07
LPG & Ethane	0.95	0.96	1.05	0.98	0.87	0.93	0.86	0.90	1.03	0.13	0.03
Naphtha	1.17	1.10	1.22	1.07	1.08	1.02	1.09	1.00	0.97	-0.03	-0.25
Motor Gasoline	2.50	2.37	2.29	2.44	2.46	2.31	2.37	2.27	2.30	0.03	-0.04
Jet & Kerosene	1.31	1.31	1.27	1.30	1.41	1.26	1.35	1.18	1.26	0.08	0.03
Gas/Diesel Oil	6.10	6.28	6.31	5.96	6.26	6.59	6.86	6.28	6.62	0.34	0.45
Residual Fuel Oil	1.75	1.61	1.65	1.51	1.60	1.69	1.70	1.68	1.68	0.01	-0.07
Other Products	1.52	1.57	1.41	1.63	1.72	1.52	1.61	1.60	1.34	-0.26	0.08
Total Products	**15.30**	**15.20**	**15.20**	**14.89**	**15.40**	**15.31**	**15.83**	**14.91**	**15.19**	**0.28**	**0.22**

* Latest official OECD submissions (MOS)

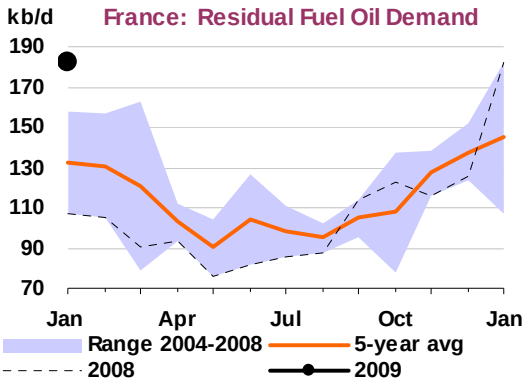
According to preliminary estimates, inland deliveries in **Germany** tumbled by 6.3% year-on-year in January, as a rise in heating oil demand (+25.6% year-on-year) driven by extremely cold temperatures failed to offset losses in all other product categories. Heating oil consumer stocks, at 60% of capacity by end-January, were well above the previous year (52% in January 2008) and only slightly below the previous month (63%). By contrast, oil demand in the industrial sector reached new lows amid collapsing exports (machine-tool shipments plunged by 47.0% year-on-year). LPG and naphtha demand – mostly used in the production of plastics and petrochemicals – plummeted by 27.0% and 37.9% year-on-year, respectively. Naphtha's free fall has been particularly dramatic: demand has plunged from 400 kb/d last August to 240 kb/d in January – a period where consumption is normally mostly flat. Similarly, residual fuel oil demand was noticeably weak (-13.3%) in the face of lower industrial electricity needs (according to RWE, the second-largest German utility, industrial power demand could fall as much as 10% in 2009).

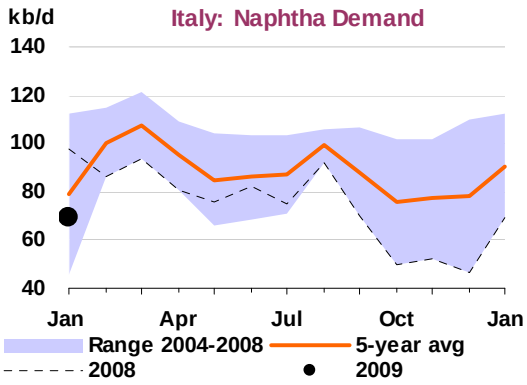




In **France**, by contrast, demand surged by +5.1% year-on-year in January, mostly pulled up by strong deliveries of heating oil (+20.2%) and residual fuel oil (+70.1%), which outweighed losses elsewhere. The surge of both fuels was directly related to the weather, as cold temperatures led to higher heating and power needs. Moreover, as heating in France is increasingly electric, power demand surged. Utilities

reportedly used 137% more fuel oil to meet the peak load in January; nevertheless, on average, nuclear power accounts for 76% of total electricity output, while thermal sources (which include natural gas and fuel oil) represent only 13%. Yet the steady and strong growth in 'domestic' power demand (which includes households, small business, the public sector and services) has largely offset falling industrial electricity demand (car manufacturing, chemical and steel industries), which has been severely curtailed by the economic slowdown (-17.9% year-on-year in December).

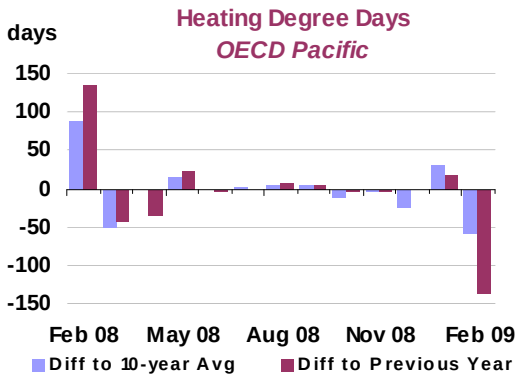




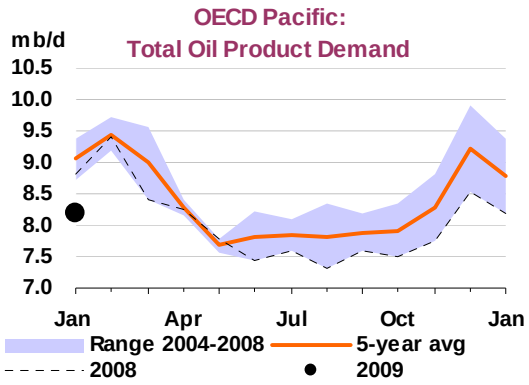
In **Italy**, total oil product deliveries shrank for the fourth month in a row, by 9.0% year-on-year in January, as the country slides into a deep economic recession. As in Germany, falling industrial production has resulted in lesser oil and energy use, be it products such as naphtha (-29.5% year-on-year in January, after three consecutive months of 50% annual decline) or electricity (-10.0%). In fact, despite the cold weather, residual fuel oil deliveries, which as in France serve to meet peak power demand, actually fell – by contrast to the spike recorded in the previous episode of Russian gas disruption in early 2006. Nonetheless, it should be noted that the country has made significant progress in diversifying its natural gas supplies; during the latest crisis, it increased imports from North Africa and Northern Europe.

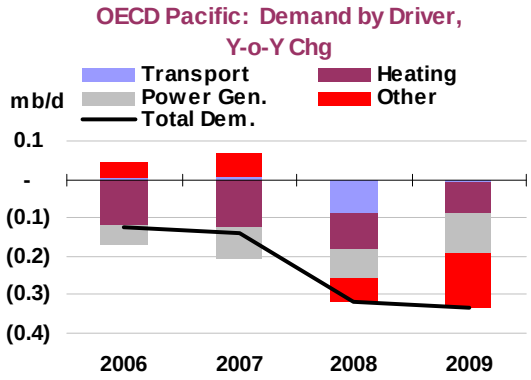
Pacific

According to preliminary data, oil product demand in the Pacific dived for the eighth month in a row in January (-7.2% year-on-year). Since mid-2008, economic activity has continuously slowed down in both Japan and Korea – the global economic downturn has indeed hit export-oriented countries particularly hard. January's contraction would have been steeper in the absence of cold weather (heating-degree days were noticeably higher than both the 10-year average and the same month of the previous year). Jet fuel/kerosene demand grew by 1.5% (kerosene is normally used for heating in the region). In addition, gasoline demand was relatively buoyant (+1.8%), arguably reflecting the sharp fall in domestic retail prices. By contrast, naphtha, residual fuel oil and 'other products' deliveries continued to decline (-8.6%, -17.5% and -49.9%, respectively).



Upward revisions to December preliminary data were relatively minor (+80 kb/d), mostly from Australia and to a lesser extent Japan. Therefore, the region's oil demand appraisal for 2008 has remained largely unchanged at 8.0 mb/d in 2008 (-3.8% on a yearly basis or -320 kb/d over 2007). The 2009 demand forecast, meanwhile, has been revised up slightly (+60 kb/d) to 7.7 mb/d in 2009 (-4.2% or -330 kb/d versus the previous year), in order to reflect slightly higher-than-expected demand for naphtha in Korea and gasoline in Japan.





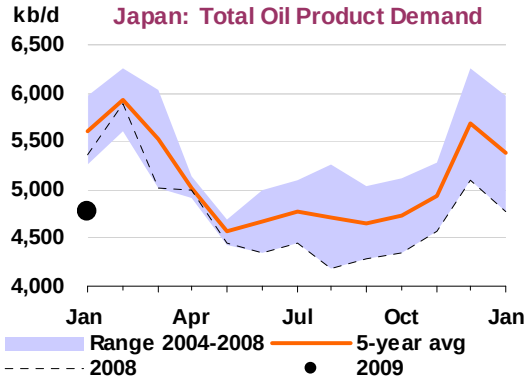
OECD Pacific Demand by Product

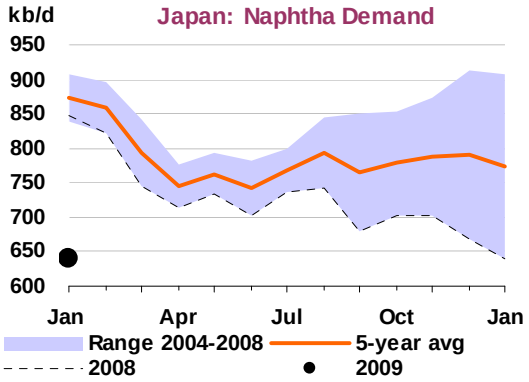
(million barrels per day)

	2007	2008	1Q08	2Q08	3Q08	4Q08	Oct 08	Nov 08	Dec 08*	Latest month vs. Nov 08	Latest month vs. Dec 07
LPG & Ethane	0.96	0.96	1.01	0.97	0.92	0.96	0.96	0.90	1.03	0.13	-0.03
Naphtha	1.65	1.59	1.69	1.55	1.59	1.50	1.52	1.49	1.50	0.01	-0.26
Motor Gasoline	1.57	1.52	1.48	1.55	1.51	1.55	1.46	1.52	1.66	0.15	0.08
Jet & Kerosene	0.93	0.89	1.24	0.72	0.60	0.99	0.69	0.97	1.29	0.32	0.07
Gas/Diesel Oil	1.80	1.70	1.80	1.72	1.57	1.72	1.65	1.71	1.82	0.11	-0.03
Residual Fuel Oil	0.96	0.91	1.06	0.89	0.85	0.86	0.81	0.88	0.88	-0.01	-0.20
Other Products	0.48	0.45	0.59	0.42	0.45	0.35	0.39	0.29	0.35	0.06	-0.28
Total Products	**8.35**	**8.03**	**8.87**	**7.82**	**7.50**	**7.93**	**7.50**	**7.75**	**8.52**	**0.77**	**-0.65**

* Latest official OECD submissions (MOS)

In **Japan** – the world's third largest oil consumer – oil demand is in free fall, as the country falls prey to an unprecedented recession, which further compounds its structural decline in oil use. Demand has contracted by 11.1% year-on-year on average in every month since August 2008. Naphtha, the quintessential industrial feedstock, continues to sink (-24.5% year-on-year in January) in tandem with industrial production (-20.0%). Moreover, as in other advanced economies, the economic downturn has also curbed power needs (-6.4% year-on-year in January, the largest monthly drop in almost four years), with deliveries of residual fuel oil and 'other products' (which include crude for direct burning) contracting by 25.4% and 45.2%, respectively. In addition to falling electricity demand, nuclear power utilisation reached a five-month high of 67.2% of installed capacity, further weighing on oil use.





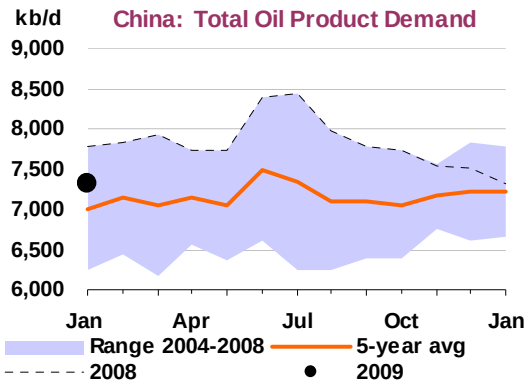
Meanwhile, the potential restart of one of the seven reactors of TEPCO's giant Kashiwazaki-Kariwa nuclear power plant – which would further slash oil use for electricity generation – could again be delayed. As noted in our last report, national and local authorities were cautiously considering allowing the company to resume operations at the plant, which had been shut in mid-2007 following a major earthquake, as early as late 2009. In early March, however, a fire erupted in an underground cooling pump cabin. Although quickly contained, it was the eighth blaze since the shut-in, prompting Japan's

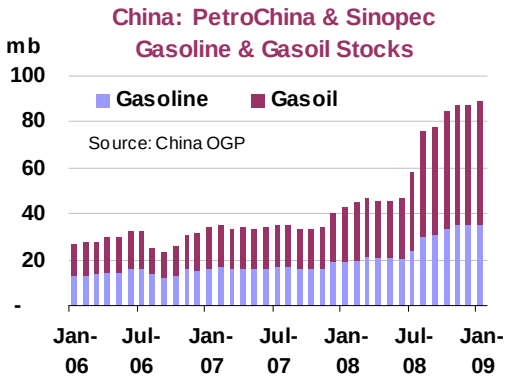
Nuclear and Industrial Safety Agency (NISA) to order a review of safety procedures – a pre-condition to obtain initial approval from both the Niigata Prefecture and the village of Kariwa (the city of Kashiwazaki has already lifted its operation-suspension order). At the time of writing, the three local governments, supported by a group of experts, were due to decide whether the restart of the Unit 7 1.4 GW reactor could proceed or not.

Non-OECD

China

According to preliminary data, China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) fell in January (-5.7% year-on-year), for the third consecutive month since June 2005. This would seem to confirm that the country is in the midst of a marked economic slowdown. However, two important observations must be made. First, this estimate is based on our own assumption of refinery runs for the month (6.3 mb/d), since at the time of writing no official data on refinery activity had been released due to the Lunar New Year holiday (trade data, by contrast, had been published). Second, last year's holiday occurred in February; as such, year-on-year growth rates in both January and February 2009 will be distorted. Meanwhile, December's oil demand estimate was minimally revised to 7.5 mb/d (-10 kb/d versus our previous report).





Nevertheless, we have slightly revised down our oil demand forecast for 2009. The March issue of *China Oil, Gas & Petrochemicals* published updated figures on gasoline and gasoil stocks held by PetroChina and Sinopec up to January 2009, which reached a three-year high of 89 mb (based on data series back to January 2006). The increase of gasoil stocks is particularly noteworthy, suggesting that demand is feebler than previously thought. Moreover, revised December data indicate that gasoil demand was indeed weaker, together with naphtha, but that demand for 'other products' was much stronger. Overall, Chinese oil demand is now expected to grow by 0.6% to 7.9 mb/d (10 kb/d less than previously anticipated). However, this forecast is prone to change once refinery data for January and February are released and, more importantly, when the IMF publishes its latest GDP assumption for China in late April.

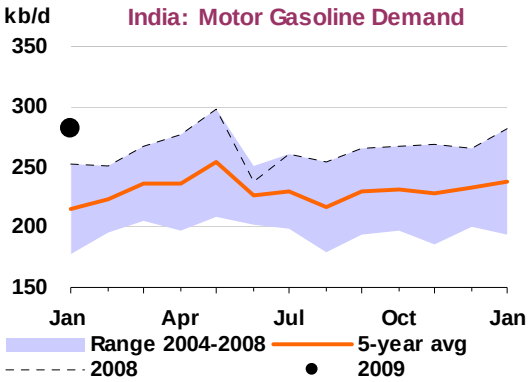
China: Demand by Product
(thousand barrels per day)

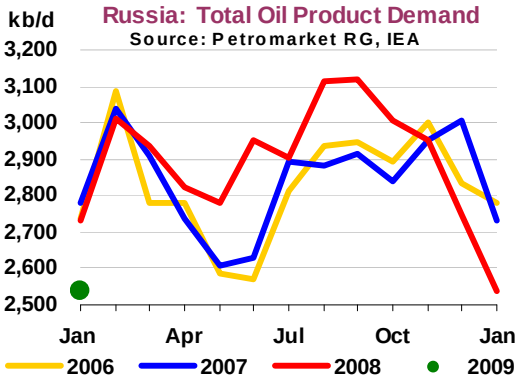
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	669	617	623	-52	6	-7.7	0.9
Naphtha	812	775	783	-37	9	-4.6	1.1
Motor Gasoline	1,257	1,451	1,441	194	-10	15.4	-0.7
Jet & Kerosene	280	295	306	15	11	5.5	3.8
Gas/Diesel Oil	2,576	2,845	2,757	268	-88	10.4	-3.1
Residual Fuel Oil	744	607	651	-137	44	-18.4	7.2
Other Products	1,204	1,274	1,351	70	76	5.8	6.0
Total Products	**7,542**	**7,864**	**7,911**	**322**	**48**	**4.3**	**0.6**

Other Non-OECD

Preliminary data show that **India's** oil product sales – a proxy of demand – rose by 2.2% year-on-year in January, led by gasoline (+11.5%), naphtha (+8.6%), residual fuel oil (+3.8%) and gasoil (+2.1%), which together account for two-thirds of total demand. This contrasts favourably with the country's neighbours, and indicates that – so far – the economy is holding its ground, despite having also slowed down (car sales, for example, rose by 10% month-on-month in January).

India's retail pricing policies continue to be influenced by political imperatives. In early February, the government had finally decided to deregulate the price of gasoline, gasoil, LPG and kerosene, given the slump in international oil prices. A month later, however, it actually chose to defer the move, ahead of India's forthcoming general election next May. Under current international prices, the liberalisation of domestic oil product prices would arguably result in another retail price fall (prices have already been twice cut by decree by about 20% since December) – but if international prices were to rise ahead of the polls, so would domestic prices. However, if the current Congress Party-led government coalition is re-elected, the liberalisation may well occur. That would be a paradox – the same coalition re-imposed price controls when it gained power for the first time in 2004.





Given the worsening economic outlook for **Russia**, coupled with dismal oil demand readings for January, we have sharply revised down our oil demand prognosis for 2009. Total oil product demand contracted by 7.2% year-on-year in January, according to preliminary data, with all product categories bar gasoline posting sharp losses. In particular, LPG, gasoil, naphtha and residual fuel oil – barometers of industrial production and power demand – shrank by 21.2%, 7.3%, 5.1% and 4.0% year-on-year, respectively. Meanwhile, a product associated with both consumer confidence and air freight – jet fuel/kerosene – fell by 10.4%.

Russia: Demand by Product

(thousand barrels per day)

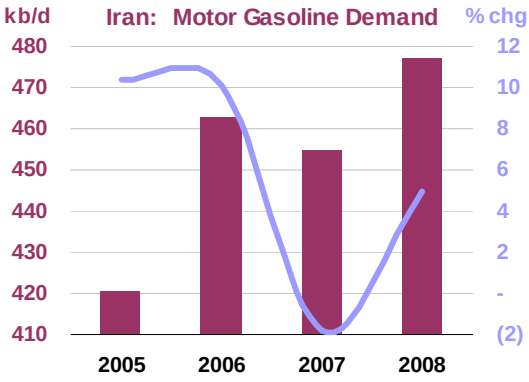
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	304	324	290	20	-34	6.4	-10.4
Naphtha	254	246	244	-7	-3	-2.9	-1.1
Motor Gasoline	683	724	735	41	11	6.1	1.5
Jet & Kerosene	234	249	234	15	-15	6.2	-6.0
Gas/Diesel Oil	596	640	582	44	-57	7.4	-9.0
Residual Fuel Oil	304	259	267	-44	7	-14.6	2.9
Other Products	475	480	472	5	-8	1.1	-1.7
Total Products	**2,849**	**2,922**	**2,824**	**73**	**-98**	**2.6**	**-3.3**

Source: Petromarket RG, IEA

The only bright spot concerns gasoline demand, which rose by 3.6% – but only partially offsetting December's 6.2% fall. As such, oil demand is now expected to contract by 3.3% in 2009 to 2.8 mb/d

(130 kb/d lower compared with our last report). We still see demand for gasoline and residual fuel oil growing – the former is the main transportation fuel, while the latter should gain as domestic natural gas is diverted to meet Russian export commitments – but we expect demand for all other product categories to contract.

Iran is again abuzz with rumours regarding yet another scheme to tame gasoline demand, having seen it surge by 5.0% year-on-year in 2008, after a brief dip in 2007 following the introduction of a gasoline-rationing scheme. That scheme, however, failed to achieve its three main objectives: to curb gasoline consumption (including waste and the smuggling out of Iran), reduce the government's subsidy burden (since the administered retail price is very low) and lessen the country's vulnerability to imports in the context of geopolitical tensions. Indeed, even though the pace of gasoline demand growth is about half that recorded in the early 2000s, it remains high (and could conceivably accelerate); meanwhile, demand has surpassed by far pre-rationing levels.



The gasoline import bill, expected to reach some $6 billion this year – amid falling crude export revenues – has brought the vexing issue of runaway gasoline demand back to the fore. The government is reportedly mulling three options to reduce the subsidy cost, one of which could be adopted imminently, ahead of the new fiscal year starting on 20 March:

1) Doubling the subsidised price (currently $0.10/litre);
2) Generalising the above-quota price (currently $0.40/litre) to the whole market;
3) Allowing the domestic price to fluctuate by setting it at 90% of the FOB import price.

The first option would be a rough mid-point between the current subsidised price and the above-quota price. The second would in effect come closer to liberalising the gasoline market, since the above-quota price was closely reflective of the rate prevailing in the black market when the rationing scheme was introduced. The third option would entail an (almost) fully blown liberalisation and most likely a sharp price increase. The government, torn between the political need to curb Iran's already high inflation rate and the urgency to improve its fiscal position if its ambitious spending plans are to be realised ahead of the forthcoming presidential elections, faces indeed a difficult choice.

SUPPLY

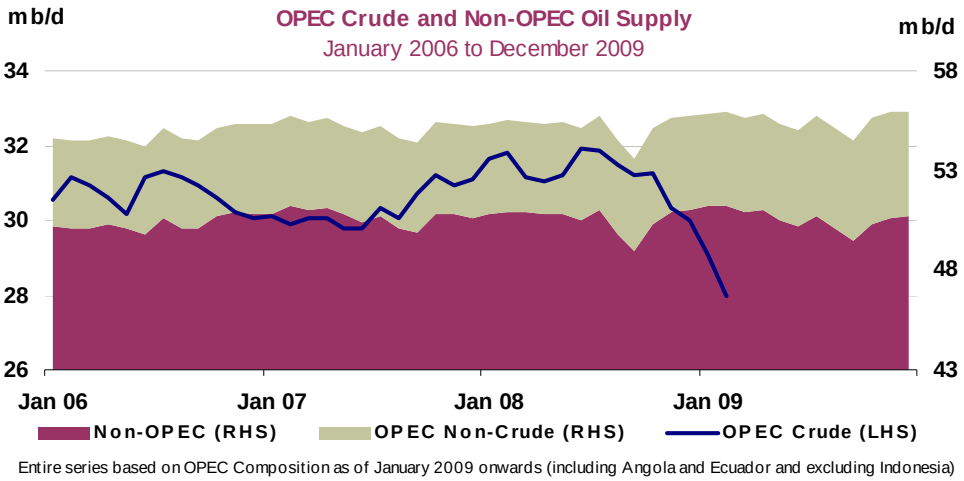
Summary

- **Global oil supply fell 1 mb/d in February to 83.9 mb/d** as OPEC members curbed output further in their aim to compensate for lower demand. Global production was down 3.4 mb/d year-on-year.

- **Total non-OPEC supply for 2009 is revised down by a sharp 360 kb/d**, largely on a reassessment of Azeri output, which is now expected to stay flat due to ongoing problems at the offshore ACG complex. This eliminates previously-forecast 2009 growth. In contrast, 2008 non-OPEC supply is kept steady at 50.6 mb/d, despite a 4Q08 upward revision of 130 kb/d on higher UK North Sea production. October data for the US show that the impact of Hurricanes Gustav and Ike on federal offshore output was probably greater than originally thought, though this is largely offset by upward revisions elsewhere.

- **OPEC crude supply in February fell to an estimated 28.0 mb/d, down 1.1 mb/d** from January levels. A concerted effort by some members to rein in production in line with lower output targets and, to a lesser extent, operational disruptions in other countries, led to OPEC's near 80% compliance rate in February. The latest decline in production has predictably translated into an increase in OPEC's effective spare production capacity to 5.2 mb/d.

- **The call on OPEC crude and stock change stands at 28.9 mb/d for 2009**, around 1.5 mb/d below 2008, after counteracting supply and demand changes. However, current OPEC targets, if observed, would take theoretical OPEC output over 1.5 mb/d below that level, implying a tightening market even without further cuts in the target at the 15 March meeting.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola and Ecuador and excluding Indonesia)

All world oil supply figures for February discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Egypt and Russia are supported by preliminary February supply data.

Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

OPEC Crude

OPEC crude supply in February fell to an estimated 28.0 mb/d, down 1.1 mb/d from January levels. A concerted effort by some members to rein in production in line with lower output targets and, to a lesser extent, operational disruptions in other countries, led to near 80% compliance rate in February with the cumulative 4.2 mb/d target cuts agreed since last September. Although OPEC never detailed individual country allocations, statements by officials have confirmed the new targets were based on the September production levels as published in the *OPEC Monthly Oil Market Report.* February's strong performance compares with a compliance rate of 60% in January, its historical average.

OPEC Crude Production

(million barrels per day)

	Dec 2008 Supply	Jan 2009 Supply	Feb 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Feb 2009 Supply	Implied January Target	February Supply vs Target	Percent Compliance
Algeria	1.32	1.27	1.25	1.43	0.18	1.20	0.05	77%
Angola	1.80	1.76	1.65	2.10	0.45	1.52	0.13	46%
Ecuador	0.49	0.50	0.48	0.50	0.02	0.43	0.05	31%
Iran	3.88	3.79	3.65	4.00	0.35	3.34	0.31	44%
Kuwait[2]	2.52	2.46	2.30	2.65	0.35	2.22	0.08	79%
Libya	1.72	1.65	1.58	1.77	0.19	1.47	0.11	56%
Nigeria[3]	1.91	1.84	1.78	2.50	0.73	1.67	0.10	68%
Qatar	0.80	0.78	0.75	0.90	0.15	0.73	0.02	84%
Saudi Arabia[2]	8.40	8.10	7.95	10.85	2.90	8.05	(0.10)	108%
UAE	2.45	2.36	2.25	2.85	0.60	2.22	0.03	93%
Venezuela[4]	2.29	2.18	2.10	2.50	0.40	1.99	0.11	69%
OPEC-11	**27.57**	**26.68**	**25.73**	**32.05**	**6.31**	**24.85**	**0.89**	**79%**
Iraq	2.41	2.37	2.26	2.50	0.24			
Total OPEC	**29.98**	**29.05**	**27.99**	**34.55**	**6.55**			
(excluding Iraq, Nigeria, Venezuela					*5.19)*			

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes Orinoco extra-heavy oil assumed at 420 kb/d in February.

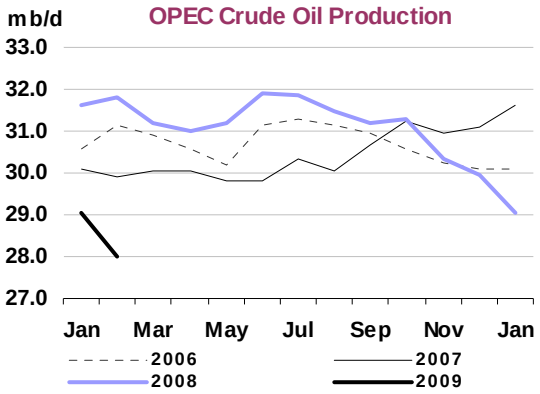
OPEC's 11 members with output targets, which excludes Iraq, produced 25.73 mb/d in February, down 944 kb/d month on month but still about 890 kb/d over the group's 1 January 2009 target of 24.85 mb/d.

While the global economic malaise has served to concentrate the minds of some member countries on strong quota discipline in a bid to shore up oil prices, compliance by a few members has been uneven at best. At one end of the spectrum, Saudi Arabia has delivered almost half the group's collective 3.3 mb/d production cuts since September and this past month may have produced below its nominal target. By contrast, Iran, Venezuela and Angola have collectively only reduced output by around 600 kb/d, or half the pledged 1.17 mb/d. Combined, they account for 63% of current overproduction versus target.

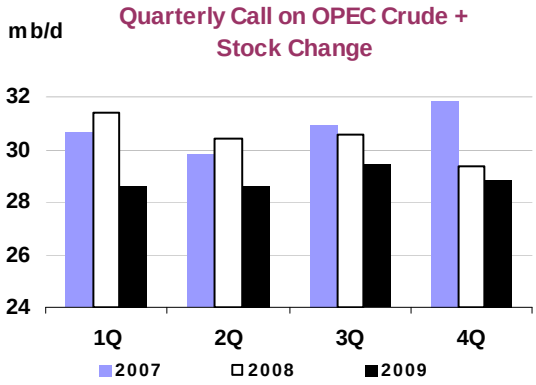
Disparity in compliance will vie with discussion of further cuts in target levels when ministers meet on 15 March in Vienna to assess the market impact of their latest target implemented from 1 January. Saudi Arabia is reportedly said to want the conference to focus on stricter compliance rather than debate new official reductions in production levels. OPEC has announced cuts in production targets three times since its September 2008 meeting, for a total reduction of 4.2 mb/d.

By contrast, **Venezuela** has been publicly calling for further production cuts at the mid-March meeting, arguing that global oil stocks were still too high. Venezuelan output was down in February by 80 kb/d, to 2.1 mb/d. The lower levels partly reflect reduced rig operations due to a dispute over contract terms with oil service companies as well as cutbacks at the Orinoco fields.

Unusually, **Iran** has been silent about the need for further cuts, perhaps mindful of its own compliance level with current output targets. Indeed, Iranian Oil Minister, Gholamhossein Nozari, appears prepared to shift emphasis at the forthcoming meeting by proposing that, rather than discuss production targets, the group should focus on "a mechanism to repair prices."



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

While the worsening economic crisis will clearly weigh heavy on ministers in Vienna, preliminary indications show improved adherence by some members. Voluntary cuts by others for March and April should put the group within striking distance of its current target level in the short term. It is always difficult to predict OPEC's actions ahead of the formal meeting, and this time not least because the full impact of the current target levels may not become apparent until April at earliest.

The latest decline in production has predictably translated into an increase in OPEC's effective spare production capacity to 5.2 mb/d. While the *de facto* rise in spare capacity may be causing concerns in the near term given the backdrop of weaker demand, even more worrisome is the prospect of financial constraints leading to delays or cancellations of new projects or expansion plans of existing fields is setting the stage for an equally sharp future contraction in surplus capacity.

Iraqi production (measured as exports plus domestic use) was down in February by 110 kb/d, to 2.26 mb/d, with supplies lower from both the northern and southern regions of the country. Total exports last month were assessed at 1.82 mb/d compared with 1.9 mb/d in January. Iraqi exports by the northern Ceyhan terminal were disrupted for about a week, reportedly due to a payment dispute between Baghdad and Turkish officials, while weather-related delays interfered with southern shipments. Domestic crude used at refineries and for power use declined by about 20 kb/d in February, with intermittent power outages affecting pipeline flows to the country's largest refinery, Baiji, sharply reducing operations there at times during the month.

Saudi Arabia's willingness to shoulder additional cuts in production may be tempered by a lack of compliance by other key members. The Kingdom reduced production in February by a further 150 kb/d, to 7.95 mb/d, which is 100 kb/d below its current target. However, rumours circulating in the market in early-February that Saudi Aramco planned to reduce output by an additional 300 kb/d failed to materialise, but not before leading many to speculate that a formal cut in quotas would be announced at the March gathering. There may also be a resistance to implement a further cut in production because of the corresponding reduction in associated gas output, which is needed for domestic use at power plants and for use in petrochemical manufacturing.

Indeed, it appears that state-owned Saudi Aramco plans to maintain current levels of production based on reports that customer nominations for all regions would remain largely unchanged for April. Asian customers, which buy about half of all Saudi crude exports, had expected another cut in supplies for the

month. In the US, though Aramco kept nominations unchanged, according to customers an increase in price formulas may temper purchases.

February production by **Iran**, OPEC's second largest producer, declined by 140 kb/d to 3.65 mb/d, but output was still 310 kb/d above the country's 3.34 mb/d target. The lower output level partly reflected a disruption in production at the offshore Abuzar field due to a gas leak. Production at Abuzar fell by 40 kb/d, to around 100 kb/d.

Crude oil production in **Kuwait** was assessed at 2.3 mb/d for February, down 160 kb/d from the previous month. Kuwaiti compliance is now at 79% and output may even go below the target level next month as previously unplanned oil field maintenance work is implemented. Kuwait said it was scheduling field maintenance work, affecting about 100 kb/d this month, given current market conditions.

The **UAE** reduced production by 110 kb/d from January levels in February, to 2.25 mb/d. Target adherence is now pegged at 93% and expectations are that the Emirates will near full compliance in March due to field maintenance work and cutbacks in customer nominations. Maintenance work at gas plants at offshore fields in February is expected to continue this month. April term contract allocations for Asian buyers of Murban, Lower Zakum and Umm Shaif crudes were cut by a deeper 15% compared with a 10% decline in March while heavy sour grade Upper Zakum was cut by 17% versus 15% in March.

Crude oil production in **Nigeria** declined by 60 kb/d, to 1.78 mb/d, as a result of heightened security concerns in the volatile Niger Delta region. Royal Dutch Shell was forced to shut-in 90 kb/d of Bonny Light crude for several weeks in February. Production was slowly restored in early March, with volumes reaching 200 kb/d by 5 March 2009. However, a fresh wave of militant attacks on the Escravos pipeline at end-February, which also moves Forcados crude to the export terminal, forced the shut-in of an estimated 70 kb/d. Shell declared *force majeure* for March and April exports. The latest attack follows the end of a cease-fire announced last month by Nigeria's main militant group, the Movement for the Emancipation of the Niger Delta.

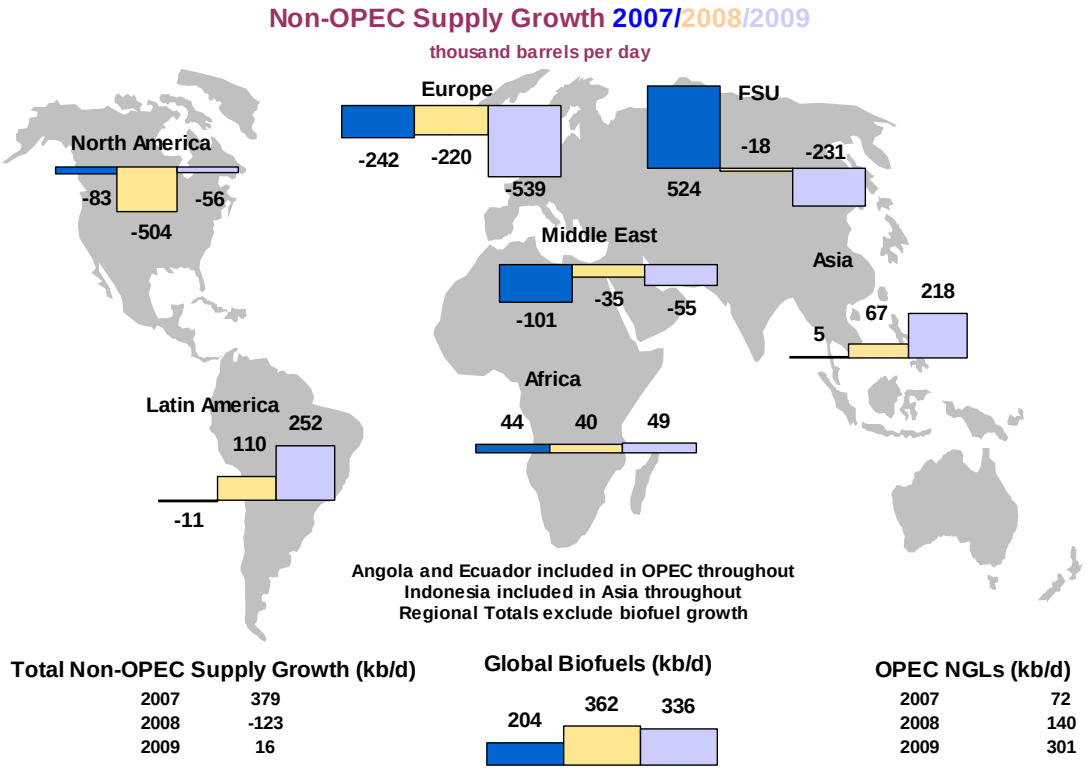
Partially offsetting chronic supply disruptions at Nigeria's onshore and shallow water production fields, the Total-operated Akpo deepwater offshore oilfield began production in early March ahead of schedule. The field produces predominately condensate, which is outside of OPEC target guidelines, and is expected to ramp up to around 175 kb/d by 4Q09 and reach peak production of 225 kb/d in 2010.

Angola's crude oil output edged lower in February, to 1.65 mb/d from 1.76 mb/d, despite the return of Greater Plutonia output after a three-week shutdown in January due to operation problems. Angola's production is still 130 kb/d above the country's widely reported target of 1.52 mb/d, though it appears Angola officials are disputing the validity of the oft-quoted output target. Angolan officials have said that it is their understanding the first round of quota cutbacks in September did not apply to them since they were already producing below quota. In this light, they see only the last two reductions as applicable, so the country's output target should be a higher 1.65 mb/d.

Non-OPEC Overview

Non-OPEC supply for 2009 is revised down by a sharp 360 kb/d to 50.6 mb/d, eliminating all previously expected growth. This is largely due to a reassessment of Azeri crude output, which is now deemed to remain flat at 2008 levels in 2009, as volumes shut-in due to gas leaks in September last year look likely to take far longer to return than previously anticipated. Crucially, this assumed 'normalisation' in Azeri supply, on the back of already-rising production, had formed the backbone of our forecast 2009 growth.

Indeed, were it not for global biofuels growth and a slight pick-up in processing gains, total non-OPEC supply would decline by 360 kb/d year-on-year. However, this does not, in itself, imply a permanent



plateauing of crude output, as we now assume that the key Azeri fields will resume growth towards the end of 2009 and during 2010. But given the current environment of both falling oil demand and constrained credit, more instances of project slippage are likely as investment is curbed.

In contrast, 4Q08 non-OPEC supply is revised up by 130 kb/d on higher output in OECD countries, which is only partly offset by lower non-OECD production. Within the former, oil supply in the UK North Sea, the US and Canada is revised higher, raising our total non-OPEC supply in 2008 slightly to 50.6 mb/d. Regarding the non-OECD, 4Q08 output is revised down in Egypt, Argentina, Syria and, to a lesser extent, in Turkmenistan, Kazakhstan and Vietnam.

Revisions to Non-OPEC Oil Supply
(million barrels per day)

	Last month's OMR				This month's OMR				Change			
	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08
North America	13.93	14.04	-0.33	0.10	13.94	14.05	-0.32	0.10	0.01	0.01	0.01	0.00
Europe	4.70	4.20	-0.25	-0.51	4.75	4.22	-0.21	-0.53	0.04	0.02	0.04	-0.02
Pacific	0.65	0.72	0.02	0.07	0.64	0.72	0.02	0.07	0.00	0.00	0.00	0.00
Total OECD	**19.29**	**18.95**	**-0.56**	**-0.33**	**19.33**	**18.98**	**-0.51**	**-0.35**	**0.05**	**0.03**	**0.05**	**-0.02**
Former USSR	12.75	12.88	-0.02	0.13	12.75	12.52	-0.02	-0.23	0.00	-0.36	0.00	-0.36
Europe	0.12	0.11	-0.01	-0.01	0.12	0.11	-0.01	-0.01	0.00	0.00	0.00	0.00
China	3.79	3.89	0.06	0.10	3.79	3.90	0.06	0.11	0.00	0.01	0.00	0.01
Other Asia*	3.66	3.70	-0.01	0.04	3.66	3.70	-0.02	0.04	0.00	-0.01	0.00	0.00
Latin America*	4.02	4.33	0.16	0.31	4.02	4.32	0.16	0.31	0.00	-0.01	0.00	-0.01
Middle East	1.62	1.56	-0.03	-0.06	1.62	1.57	-0.03	-0.06	0.00	0.01	0.00	0.01
Africa*	2.59	2.64	0.04	0.05	2.57	2.62	0.04	0.05	-0.02	-0.02	0.00	0.00
Total Non-OECD*	**28.56**	**29.13**	**0.19**	**0.57**	**28.54**	**28.74**	**0.18**	**0.20**	**-0.02**	**-0.39**	**-0.01**	**-0.37**
Processing Gains	2.24	2.29	0.07	0.04	2.24	2.29	0.07	0.04	0.00	0.00	0.00	0.00
Other Biofuels	0.46	0.58	0.13	0.12	0.46	0.58	0.13	0.12	0.00	0.00	0.00	0.00
Total Non-OPEC*	**50.55**	**50.95**	**-0.16**	**0.40**	**50.57**	**50.58**	**-0.12**	**0.02**	**0.02**	**-0.36**	**0.04**	**-0.38**

OMR = Oil Market Report
* adjusted to include Indonesia and exclude Angola and Ecuador throughout

OECD

North America

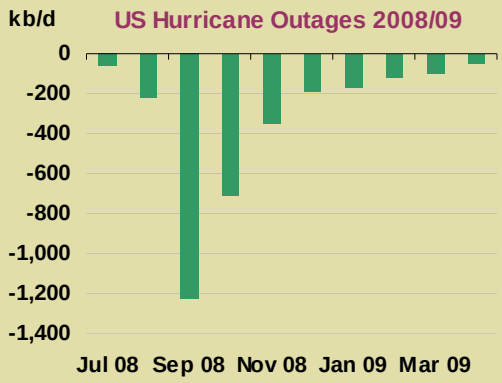
US – Alaska February actual, others estimated: February oil supply in the US was revised up by 100 kb/d to 7.9 mb/d on higher Alaskan and Gulf of Mexico output. This also implies a rise versus January of 250 kb/d, approximately evenly split between crude and NGLs. In mid-February, the Minerals Management Service (MMS) published a 'Final Update' on the aftermath of Hurricane Ike, indicating around 120 kb/d still shut-in but implying that volumes would have recovered fully by end-March. We have cautiously factored in shut-in volumes of 100 kb/d in March and a remaining 50 kb/d in April. Meanwhile, on a month-by-month basis, weekly aggregated EIA data suggest ongoing steady recovery.

October actual data show a sharp upward revision for Louisiana onshore and North Dakota, the former presumably having been hit less than anticipated by Hurricane Ike. On the other hand, October data for the US Gulf of Mexico federal offshore were revised down by 200 kb/d, indicating that MMS assessments here had underestimated volumes shut-in by hurricanes (see *US Gulf Oil Production Hit Harder Than Thought by Hurricanes Gustav and Ike*).

In Alaska, a small leak at the Prudhoe Bay complex was reported by BP in mid-February, though this is reported to only be 1-2 kb/d. Meanwhile, Eni reported a delay to the start-up of its Nikaitchuk field (peak production capacity of 60 kb/d) of around 6-12 months, pushing it from late-2009 into the latter half of 2010, apparently due to the lower oil price environment.

US Gulf Oil Production Hit Harder Than Thought by Hurricanes Gustav and Ike

A full set of actual October production data for the US appears to indicate that outages to US Gulf of Mexico offshore production last year were higher than preliminary *Minerals Management Service* (MMS) data suggested. The MMS, in daily and later bi-weekly and monthly updates, listed estimated total shut-in volume for the region, which this report factored into its breakdown of US production. We habitually revise outage levels retrospectively as final state-specific production data become available.



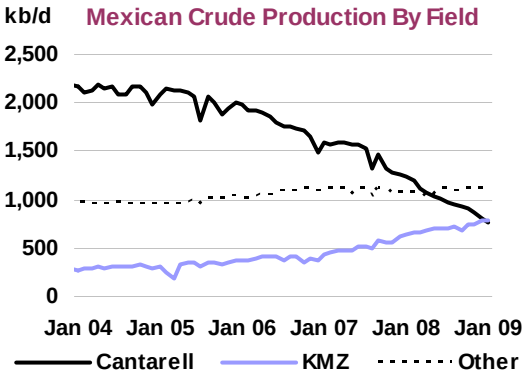
Specifically, October production data for the Gulf of Mexico, as reported by the EIA, came in 200 kb/d lower than we had previously assumed. In part, this is masked by collective upward revisions of the same magnitude elsewhere, notably in Louisiana onshore (+44 kb/d), North Dakota (+16 kb/d) and the removal of our own field reliability factor (+103 kb/d). The latter is based upon historical average technical field outages and taken out once actual data are available.

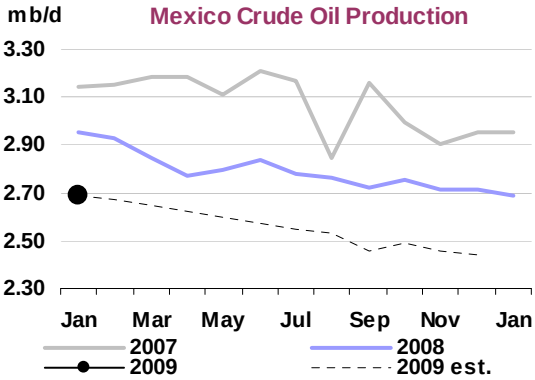
While October's lower GoM output may derive either from higher physical shut-ins or underperformance at fields still producing, either way a downward adjustment to total GoM supply is warranted. On the basis of our assumptions listed above, our recalculated five-year average hurricane outage assumption has been nudged up to an average -250 kb/d for 2H09 and following years, peaking in September at almost -600 kb/d.

Meanwhile, the latest ethanol production data for December 2008 showed the first month-on-month dip since June last year – albeit only by 10 kb/d – to 650 kb/d. Previously, ethanol output had shown a consistent and steady rise, increasing by 100 kb/d in 2007 year-on-year and by a further 180 kb/d last year. It remains to be seen to what extent ethanol (and other liquid biofuels) production is hit by the double challenge of lower oil prices and the wider financial crisis, with several producers in the US indicating plant closures and even some bankruptcies. On the other hand, the *Energy Independence and Security Act (EISA)* of December 2007 mandates specific volumes to be blended into the US gasoline pool,

underpinned by subsidies, a policy which appears (so far) unlikely to be changed by the new Obama administration. Lower natural gas prices also provide some offsetting economic benefit for ethanol output. We will revisit biofuels output prospects in the forthcoming *Medium-Term Oil Market Report* (*MTOMR*), due to be published mid-2009.

Canada – Newfoundland January actual, others December actual: Canadian oil production was nudged down 30 kb/d in January on lower conventional crude output. December total supply was left unchanged, as upward revisions to Saskatchewan production (+40 kb/d) and bitumen (+15 kb/d) were offset by both lower Albertan crude (-35 kb/d) and reduced syncrude output (-20 kb/d). The latter appears to be due to lower production at the Suncor project, which suffered a fire in late November and possibly curbed December volumes.





Mexico – January actual: January data for Mexico came in slightly lower than forecast and continued its downward trend. At 3.06 mb/d, output is at its lowest since November 1995. Notably, combined Ku-Maloob-Zaap (KMZ) production for the first time ever overtook output from the giant Cantarell field, long the mainstay of Mexican oil production. Concerning the latter, Pemex officials noted in February that the Cantarell complex would end the year producing around 700 kb/d, down from January's 770 kb/d, implying a drop of nearly 14% year-on-year, despite efforts to maintain output levels. This report currently assumes an even greater decline to around 600 kb/d in 2009 on average.

North Sea

UK – November actual: UK actual data for November came in 130 kb/d higher than anticipated. October historical data were also revised up by 260 kb/d, not least because of a previous inadvertent retention of our assumed field reliability factor, which is normally removed once actual output data are available. In sum, 4Q08 was nudged up by 170 kb/d, or +45 kb/d in 2008 as a whole. December should also see the delayed start-up of Fiddich, part of the *Eastern Trough Area Project* (ETAP) stream and of Grouse, a tie-back to the Kittiwake field, both at sub-5 kb/d volumes. On the basis of weaker-than-anticipated performance in 2008, we have also decided to trim Buzzard production for 2009 by -5 kb/d. Total 2009 production is revised up by 25 kb/d to 1.34 mb/d, nonetheless a decline of 225 kb/d year-on-year.

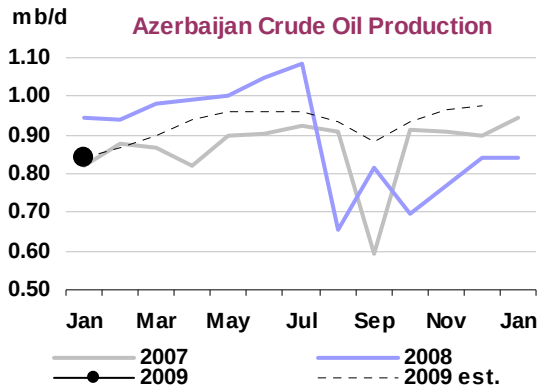
Pacific

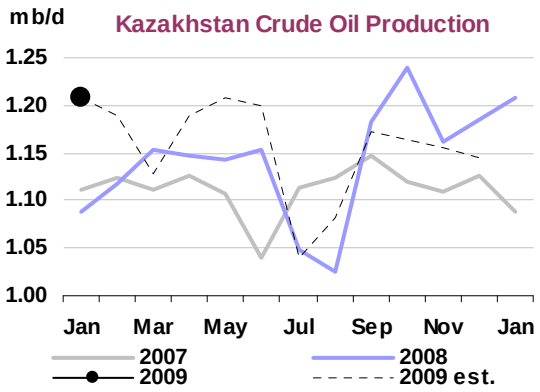
Australia, New Zealand – December actual: While overall December data for **Australia** came in slightly lower than forecast, it appears that we overestimated the impact of that month's Cyclone Billy on Carnarvon Basin crude streams. This was however offset by lower NGL and crude output elsewhere, bringing down total 4Q08 production by around 10 kb/d from previous forecasts. February saw further storms hit Australia's Northwest, leading us to trim output by around 20 kb/d in aggregate. In **New Zealand**, operator OMV started up its Maari oilfield offshore North Island in late February, with first volumes expected to be exported from April. In total, we expect OECD Pacific oil supply to grow by 70 kb/d in 2009, to 720 kb/d.

Former Soviet Union (FSU)

Russia – January actual, February provisional: Russian oil production for January was revised up by 100 kb/d on the receipt of final monthly data. Apparently, preliminary January data had failed to include production-sharing agreements, which include the two large Sakhalin projects, both of which were seen producing higher volumes than December. Prospects for the Sakhalin 1 venture have been cast in doubt, however, after operator ExxonMobil suspended work on the satellite Odoptu and Arkutun-Dagi fields due to a budget overrun argument with the Russian administration. This implies that projected start-ups in 2012 and 2013 respectively could be delayed. However, work on the associated Chaivo field apparently continues. Preliminary February Russian data meanwhile were also raised by 70 kb/d, as higher-than-anticipated output by Lukoil and, to a lesser degree, Tatneft, more than offset lower Rosneft production. Lukoil is apparently further ramping up output at its new South Khylchuyskoye field. In 2009, Russian crude production is forecast to average 9.3 mb/d, a drop of 230 kb/d year-on-year.

Azerbaijan – January actual: Azeri reported production for January came in sharply lower than expected (-230 kb/d), indicating that recovery at the offshore Azeri-Chirag-Guneshli (ACG) complex in the Caspian Sea is not proceeding as expected. Gas leaks and power problems had affected the production complex since last September and the most-affected Central Azeri platform reportedly restarted production in late December. But these lower January actual figures, coupled with pessimistic semi-official government statements in mid-February indicating no growth in 2009, have led us to postpone recovery at ACG until late in the year, prompting a total downward revision for 2009 of -330 kb/d. In contrast to our previously-assumed normalisation of ACG production, this delay now effectively cuts any growth in non-OPEC supply in 2009.





Other FSU: Lower-than-forecast January data for **Kazakhstan** have led us to nudge down both historical and forward data. In late February, the CPC pipeline was briefly shut in, but reportedly this did not affect exports, as volumes were sold out of storage, but we have cautiously assumed marginally lower February output. Reports also indicate some maintenance on the Tengiz field in March and April, which led us to curb output slightly. In sum, these changes leave 2008 virtually unchanged, but shave nearly 20 kb/d off 2009 output. Similarly, new data for **Turkmenistan** for October and November bring downward revisions of around -10 kb/d for 4Q08 and throughout 2009. **Ukrainian** production in 2009 is also nudged down marginally. Overall, we now foresee total FSU production falling by 230 kb/d in 2009, to 12.5 mb/d.

FSU net exports hit 9.20 mb/d in January, up by 3.3% from December 2008. Both crude and product exports continued to increase despite higher shipping fees, as Russian oil export taxes were cut further and the rouble weakened against the dollar. The Russian crude oil export duty was cut from $192/t ($26.2/bbl) in December to $119/t ($16.2/bbl) in January. Export taxes on light and heavy products were set at $92.6/t and $49.9/t, respectively, almost 35% lower than in December 2008.

FSU crude oil exports rose to 6.42 mb/d, supported by higher Black Sea, Arctic and Far East shipments. Despite stormy January weather, Black Sea deliveries rose by 11% on higher loadings in Novorossiysk and Pivdenne, which offset a 10% drop in Baltic deliveries due to maintenance at the pipeline leading to Primorsk, and a 7% fall in BTC shipments. Exports through the Druzhba pipeline were 1.20 mb/d as deliveries to Germany rose by 20% after Lukoil reassigned its export allocation to TNK-BP and despite low volumes to Poland due to a dispute.

FSU Net Exports of Crude & Petroleum Products
(million barrels per day)

	2007	2008	1Q2008	2Q2008	3Q2008	4Q2008	Nov 08	Dec 08	Jan 09	Latest month vs. Dec 08	Latest month vs. Jan 08
Crude											
Black Sea	2.18	2.05	1.97	2.24	1.97	2.04	1.96	2.07	2.31	0.24	0.32
Baltic	1.59	1.46	1.41	1.57	1.40	1.47	1.42	1.66	1.49	-0.17	-0.06
Arctic/FarEast	0.32	0.28	0.27	0.26	0.29	0.30	0.24	0.30	0.38	0.08	0.14
BTC	0.55	0.67	0.71	0.75	0.64	0.57	0.61	0.70	0.66	-0.05	0.03
Crude Seaborne	**4.63**	**4.46**	**4.35**	**4.82**	**4.30**	**4.37**	**4.23**	**4.73**	**4.84**	**0.11**	**0.43**
Druzhba Pipeline	1.13	1.09	1.14	1.07	1.05	1.12	1.04	1.19	1.20	0.00	0.04
Other Routes	0.44	0.41	0.40	0.42	0.44	0.37	0.30	0.37	0.39	0.02	-0.04
Total Crude Exports	**6.20**	**5.96**	**5.89**	**6.30**	**5.79**	**5.86**	**5.56**	**6.29**	**6.42**	**0.13**	**0.43**
Of Which: Transneft	4.27	3.99	3.97	4.17	3.87	3.96	3.63	4.22	4.17	-0.05	0.07
Products											
Fuel oil	1.10	1.09	1.16	1.13	1.04	1.04	1.04	1.07	0.94	-0.13	-0.11
Gasoil	0.95	0.94	1.06	1.01	0.79	0.92	0.90	1.03	1.17	0.14	0.16
Other Products	0.60	0.59	0.64	0.60	0.55	0.56	0.57	0.56	0.70	0.14	0.12
Total Product	**2.65**	**2.63**	**2.86**	**2.74**	**2.38**	**2.52**	**2.51**	**2.66**	**2.81**	**0.16**	**0.17**
Total Exports	**8.85**	**8.59**	**8.75**	**9.05**	**8.17**	**8.39**	**8.08**	**8.95**	**9.23**	**0.28**	**0.60**
Imports	0.04	0.04	0.05	0.03	0.05	0.03	0.02	0.04	0.03	-0.01	-0.01
Net Exports	**8.82**	**8.55**	**8.71**	**9.01**	**8.12**	**8.35**	**8.05**	**8.91**	**9.20**	**0.29**	**0.61**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

Weaker Russian demand and stronger European consumption due to the gas row between Ukraine and Russia boosted product exports in January. FSU product exports rose by 3.2% from December, supported by a 14% increase in gasoil exports, as well as a rise in exports of gasoline and naphtha. Despite higher Russian fuel oil exports to the Mediterranean and the Black Sea, total FSU fuel oil exports dropped by 11%. The main driver was a decrease in shipments from Belarus and Ukraine as both governments banned fuel oil exports in order to keep their domestic market well supplied in the view of gas disruptions.

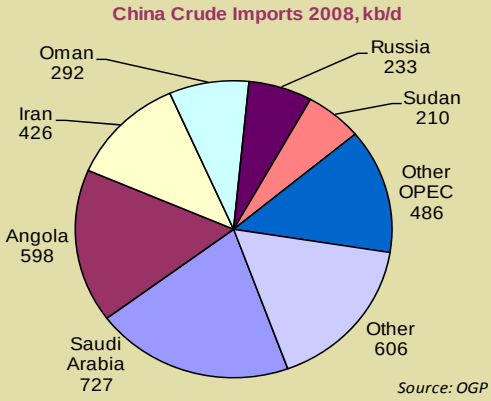
According to preliminary data and loading schedules, crude oil exports in February and March should remain around January levels. Russian crude export duties decreased further to $100.9/t ($13.8/bbl) in February but rose to $115.3/t ($15.7/bbl) in March following a stabilisation of oil prices on world markets. Baltic shipments are expected to regain seasonal levels after pipeline maintenance. Meanwhile the BTC should reportedly pump higher volumes. The offsetting decrease is expected from even lower February deliveries to Poland via the Druzhba pipeline and lower Black Sea loadings affected by CPC and Novorossiysk pipeline closures. The CPC pipeline was shut down at the end of February for two days following an oil leak. Russia was forced to suspend loadings at Novorossiysk due to a leak and a fire on a pipeline leading to the port at the beginning of March. Crude flows resumed five days later after the repairs on the damaged pipeline were completed.

For the longer term, the Russian government is seeking to diversify its oil exports. Besides a $25bn loan agreement with China (see *China Investing in Supply Through the Down-Cycle*), Russia resumed talks with Croatia about the reversal of the Druzhba - Adria pipeline, which would enable the export of Russian crude oil from Omisalj on the Adriatic. Currently a pipeline pumps the crude from Omisalj to several refineries in Croatia, Serbia and Hungary, however, the reversal of this section and a connection to the Druzhba would allow direct pipeline access of Russian crude to the Mediterranean, bypassing the congested Bosporus.

China Investing in Supply Through the Down-Cycle

Reports abound of both private sector companies and NOCs curbing spending in the face of lower oil prices, crumbling demand and the credit crunch. However, Chinese companies and government agencies are bucking this trend to secure supplies for when demand begins to recover. A number of deals announced in recent months by Chinese entities show a determination to ensure supplies for the future, to take advantage of lower prices and easier access terms, and potentially also to diversify sizeable government foreign exchange reserves, estimated at around $2 trillion. This is despite many outside forecasters seeing Chinese GDP growth slowing to sub-7% levels in 2009, the lowest in nearly 20 years, and oil demand growth potentially stagnating.

Plans to increase strategic crude oil storage levels are well documented, even if fill rates have been shrouded in secrecy. The past month saw suggestions that strategic oil purchases would be stepped up using government foreign exchange reserves as a way of diversifying risk away from US treasury bonds while also taking advantage of low prices. This is part of a target of attaining at least 88 mb in strategic reserves by 2010 at four existing sites - Zhenhai, Aoshan, Qingdao and Dalian. Subsequent unverifiable press reports cited China Shipping Company suggesting that these sites were already full and that further capacity could be built by buying oil tankers for offshore floating storage. Phase two of China's onshore strategic storage plan aims to have a total of 280 mb of capacity in place by 2011.



Chinese companies' direct equity participation in foreign upstream activity is also well known, with China holding stakes in overseas projects producing over 2 mboe/d, albeit the majority of this oil is sold on the international market. A parallel approach of loans-for-oil was also illustrated with the signing of deals in February whereby China Development Bank (CDB) will make loans to Russian and Brazilian companies in return for access to future crude oil deliveries. In the Russian case, state-sponsored producer Rosneft and pipeline company Transneft signed a deal with CNPC for crude supplies of 300 kb/d to begin from January 2011. A combined $25 billion loan will be used partly by Transneft to build a 300 kb/d spur to China from the East Siberia Pacific Ocean (ESPO) pipeline, with the spur due to be completed by 2010. Rosneft will reportedly use its share of the loan to help develop reserves in its East Siberian Vankor field which would feed into ESPO.

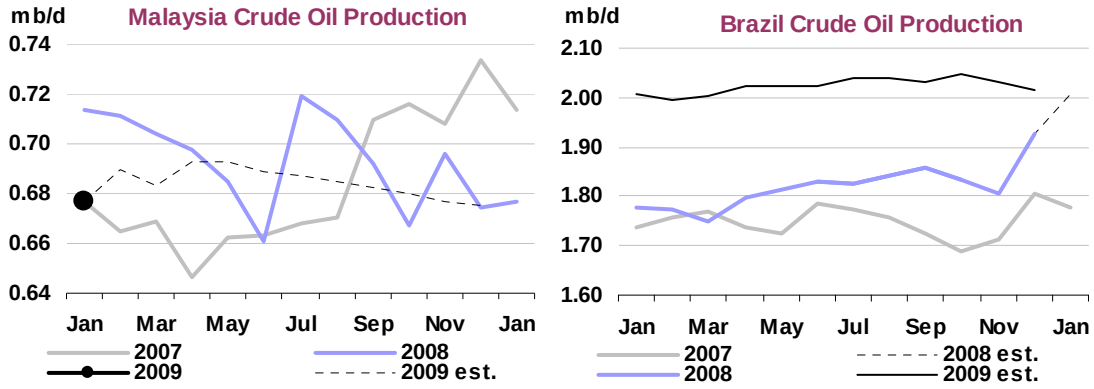
Meanwhile, Brazil's state producer Petrobras will supply China with 100-160 kb/d of crude in return for $10 billion of loans from CDB which will be targeted at developing Santos Basin subsalt oil reserves. Sinopec will get 60-100 kb/d and PetroChina 40-60 kb/d, although delivery dates were not specified.

On a more tentative basis, Chinese diplomatic activity in February involved Venezuela, where there are plans to boost 2008's 130 kb/d of exports to China to potentially 1 mb/d by end-2012, and Saudi Arabia, although the latter involves Chinese company participation in infrastructure development rather than upstream oil or gas deals per se. While moves that could secure extra oil from the MEG region (which provides 50% of China's imports currently) make sense for both parties, there may be some doubts about Venezuela's ability to increase deliveries to this degree on an economic basis, given current problems sustaining upstream investment in that country.

Meanwhile Africa remains a key oil sector focus for China. Angola was China's second largest 2008 crude supplier after Saudi Arabia at nearly 600 kb/d of imports. There have been reports that Chinese companies are examining further acquisitions of independent producing companies with significant upstream growth potential in Africa, including Tullow Oil, which holds resource-rich acreage in Uganda and Ghana.

Other Non-OPEC

Other Asia: Higher February actual production from **Indonesia** prompted us to nudge up our 2009 crude output total by 20 kb/d to 840 kb/d. **Malaysian** January data were lower than expected, which is carried forward, causing a downward revision to total 2009 output of -15 kb/d to 750 kb/d. In the **Philippines**, we have once again slipped the restart of the Galoc field to end-February, resulting in a small downward revision. Other minor adjustments were made to **Vietnam**, **Thailand** and **Myanmar**, but are broadly offset by higher assumed Indonesian crude production. As such, our forecast overall remains steady, projecting non-China Asian output to rise 40 kb/d in 2009, to 3.7 mb/d.



Latin America: December production data for **Argentina** were revised down by 55 kb/d, which is partly carried forward, resulting in slightly lower 2009 output of 730 kb/d. For **Brazil**, official December data were unavailable at the time of writing, but preliminary data from Petrobras prompted a hike to crude production for January and beyond, on the assumption that the P-51 and P-53 platforms on the new Marlim Sul and Marlim Leste fields respectively were ramping up output faster than expected. Brazilian crude output in 2009 now averages 2.06 mb/d, one of the few major sources of incremental non-OPEC supply now expected for 2009.

Middle East/Africa: A reappraisal of **Omani** production caused an upward revision of around 20 kb/d to *Petroleum Development Oman* (PDO) condensate in 2H08 and for 2009. This was offset by a downward revision to **Syrian** output of around -15 kb/d upon receipt of full-year 2008 data. Newly reported yearly data for **Egyptian** oil production 2006-2008 caused a downward revision to production of -20 kb/d.

OECD STOCKS

Summary

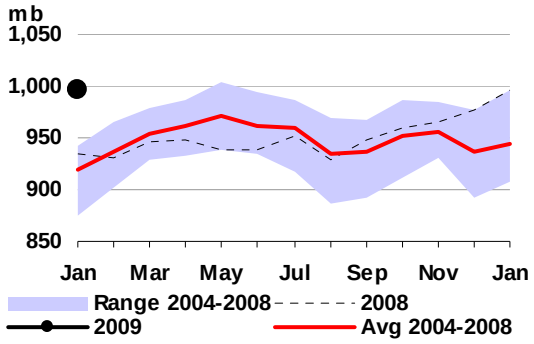
- **OECD industry stocks** rose by 9.0 mb in January, to 2,712 mb, as Europe and Pacific product draws only partially offset rises in North America crude. North America crude stocks jumped 19.9 mb as storage filled to take advantage of the wide contango in the WTI futures curve. Europe and Pacific distillate and other product draws brought total stocks lower in those regions.

- **OECD stocks in days of forward demand reached 58.7 days at end-January** spurred by an upward revision to December baseline stocks plus increasing January inventories. While North America and European demand cover remain above five-year highs, Pacific readings are within the five-year range.

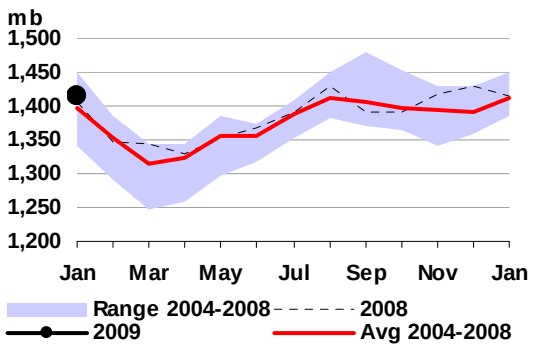
- **Preliminary February data indicate OECD industry oil inventories** fell by 2.0 mb, led by declines in US gasoline stocks. US inventories fell 5.5 mb as crude rose 4.5 mb and products declined 10.0 mb. Japanese stocks rose 4.9 mb, with both crude and products posting small gains. According to Euroilstock, EU-16 inventories fell 1.4 mb, led by crude, which declined 1.2 mb.

- **February short-term crude floating storage levels stabilised in the 50-55 mb range** as new charters balanced out cargoes discharged into the spot market. As of early March, floating storage remained close to that range. However, recent narrowing of the WTI and Brent crude futures curves has made the practice less economically attractive and reports indicate the selling of more cargoes.

OECD Crude Oil Stocks



OECD Total Oil Product Stocks



OECD Inventory Position at End-January and Revisions to Preliminary Data

Total OECD inventories rose counter-seasonally by 9.0 mb in January, closing the month at 2,712 mb. While Europe and the Pacific saw stock draws in line with seasonal norms, North American inventory levels jumped 24.5 mb on the back of larger than normal rises in crude and gasoline and a counter-seasonal build in distillates.

Preliminary Industry Stock Change in January 2009 and Fourth Quarter 2008

	January (preliminary) *(million barrels)*				January (preliminary) *(million barrels per day)*				Fourth Quarter 2008 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**19.9**	**-0.2**	**0.1**	**19.8**	**0.64**	**-0.01**	**0.00**	**0.64**	**0.21**	**0.10**	**0.01**	**0.32**
Gasoline	9.4	1.5	1.7	12.6	0.30	0.05	0.06	0.41	0.27	0.12	-0.02	0.37
Distillates	7.6	-4.8	-1.3	1.5	0.25	-0.15	-0.04	0.05	0.22	0.14	-0.10	0.26
Fuel Oil	-0.4	-2.4	0.4	-2.4	-0.01	-0.08	0.01	-0.08	-0.04	0.04	-0.02	-0.02
Other Products	-17.1	-0.7	-7.8	-25.6	-0.55	-0.02	-0.25	-0.83	-0.17	0.02	-0.05	-0.20
Total Products	**-0.5**	**-6.4**	**-6.9**	**-13.8**	**-0.02**	**-0.21**	**-0.22**	**-0.45**	**0.28**	**0.32**	**-0.19**	**0.42**
Other Oils[1]	5.1	-0.9	-1.3	3.0	0.16	-0.03	-0.04	0.10	-0.21	0.05	-0.07	-0.23
Total Oil	**24.5**	**-7.5**	**-8.0**	**9.0**	**0.79**	**-0.24**	**-0.26**	**0.29**	**0.28**	**0.46**	**-0.24**	**0.50**

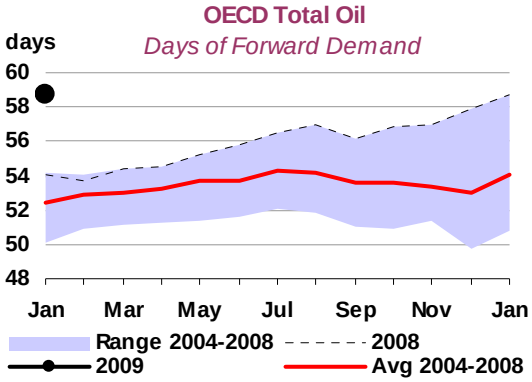
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

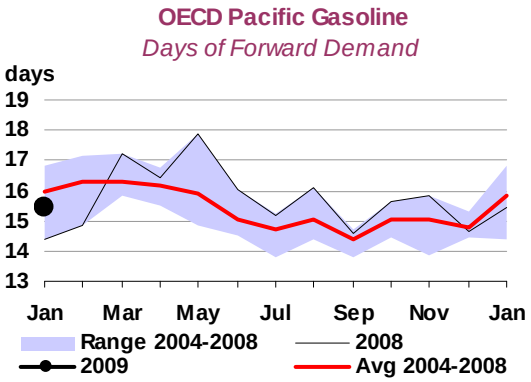
Revisions versus 11 February 2009 Oil Market Report
(million barrels)

	North America		Europe		Pacific		OECD	
	Nov 08	Dec 08	Nov 08	Dec 08	Nov 08	Dec 08	Nov 08	Dec 08
Crude Oil	**-0.6**	**-2.4**	**-0.3**	**15.0**	**-0.2**	**-2.1**	**-1.1**	**10.5**
Gasoline	-0.2	-1.0	-1.0	1.2	0.0	-1.2	-1.2	-1.0
Distillates	0.5	3.2	2.6	15.1	0.4	2.9	3.5	21.2
Residual Fuel Oil	0.6	1.0	0.0	1.1	0.0	-0.1	0.5	2.0
Other Products	-0.2	0.3	0.0	-1.8	-0.1	0.3	-0.4	-1.2
Total Products	**0.7**	**3.5**	**1.5**	**15.5**	**0.3**	**2.0**	**2.5**	**21.0**
Other Oils[1]	0.0	-4.2	-0.3	2.2	0.0	0.4	-0.3	-1.6
Total Oil	**0.0**	**-3.1**	**0.9**	**32.8**	**0.1**	**0.3**	**1.0**	**30.0**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

An upward revision to December total OECD inventories of 30.2 mb boosted baseline stock levels. Official data for crude and distillates, particularly in Europe where both categories rose about 15 mb, drove the gains. In crude, the Netherlands and Sweden provided the biggest European increases and on the distillate side inventories in the Netherlands, Germany and Denmark showed upward moves. Distillate stocks in both North America and the Pacific saw upward revisions near 3 mb each, but downward revisions to crude oil in both regions partially offset the gains. Due to the changes, the 4Q08 OECD total stock build was revised to 500 kb/d from 170 kb/d in last month's report. Europe and North America inventories built by 460 kb/d and 280 kb/d, respectively. The Pacific region still maintains a stock draw of 240 kb/d.





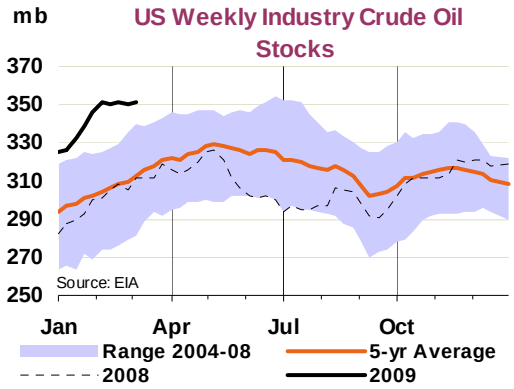
These revisions, combined with rising January inventory levels, increased OECD total oil forward demand cover to 58.7 days at the end of January. A revised December forward demand figure stood at 57.9 days. January days of demand cover increased to 6.3 days above the five-year average with readings in North America and Europe well above the five-year range. Of all major categories, only Pacific gasoline and distillate stocks remain at or below their five-year averages.

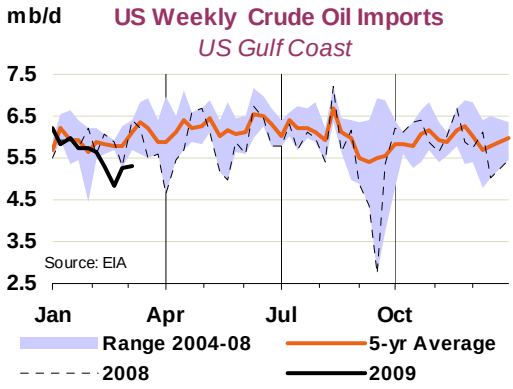
OECD Industry Stock Changes in January 2009

OECD North America

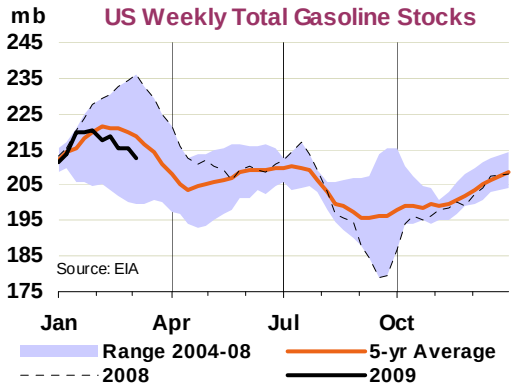
North American industry stocks jumped 24.5 mb in January, led by US crude stocks, which rose by 23.0 mb. Low refinery utilisation and a deepening contango in the WTI futures curve prompted steep US crude stock builds, particularly in areas linked to Cushing, Oklahoma, the delivery point for the Nymex Light, Sweet Crude contract. Crude stocks in Mexico, by contrast, fell by 3.1 mb on the month on lower crude production and higher refinery runs. Sizeable gasoline and distillate inventory builds of 8.5 mb and 7.3 mb in the US and smaller builds in Mexico reflected a weakening demand picture.

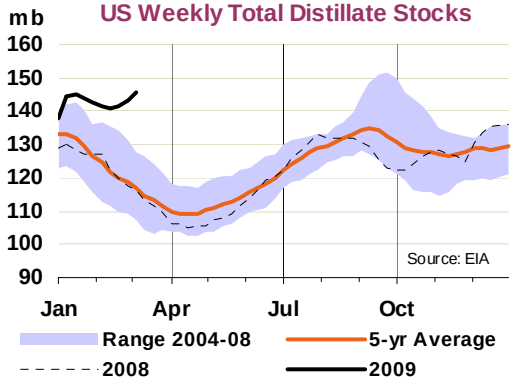
February weekly US data point to tempered crude stock builds and tighter gasoline inventories. Crude stocks levelled off in mid-February and ended the month 4.5 mb higher than end-January levels. Inventory levels at Cushing, Oklahoma reached an all time high of 34.9 mb in early February, but generally declined through the rest of the month. As of early March, they stood at 33.6 mb.





The slowing of dramatic US crude builds which had taken place since early-January reflects changes in storage economics and tightening crude balances in the US Midcontinent and Gulf Coast. A narrowing of time-spreads in the WTI futures curve reduced financial incentives to store oil, together with a month-on-month contraction of imports into the US Gulf Coast of around 550 kb/d – partly reflecting tighter OPEC supplies – and an end-month surge in PADD 3 refinery throughputs. These factors, along with an increase in the US Strategic Petroleum Reserve fill rate from 70 kb/d in February to 215 kb/d this month, should continue to pressure commercial crude stock levels in March. Still, with a sizeable amount of floating storage sitting in the US Gulf, the onshore draw down could prove uneven.



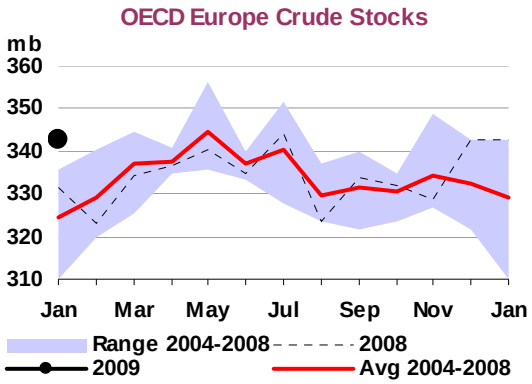


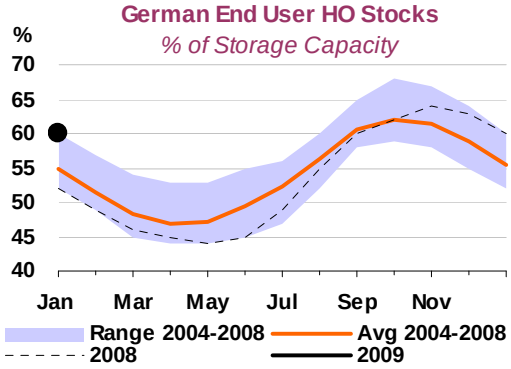
According to weekly data, US product stocks fell by 10.0 mb in February, led by gasoline, which tightened by almost 5 mb at a time of year when stocks normally still build. By contrast, distillate stocks, which usually draw in February, rose by 0.7 mb. The divergence in movement between diesel (+3.0 mb) and heating oil stocks (-2.2 mb) reflected the tug of war between slower economic growth and seasonal cold weather patters, with the former trumping the latter in terms of influencing distillate balances.

OECD Europe

European inventories declined by 7.5 mb in January in a broad-based move that saw all major categories fall except for gasoline. Despite the contango in the ICE Brent futures curve as well as a growing amount of floating storage in the North Sea (implying decreased onshore storage availability), European crude stocks fell slightly on the month, possibly reflecting the impact of reduced imports from the Middle East. This constituted a downward revision from Euroilstock data reported last month showing a 4.2 mb January crude build. As in the US Gulf, significant, though diminishing, stocks of crude in floating storage remain in the North Sea, with some reports placing it currently at just below 10 mb.

European distillate stocks showed the largest movement within products categories, falling by 4.8 mb on the month. January weather, far colder than the 10-year average, likely contributed to the fall. German middle distillate draws of 2.3 mb, in particular, drove the change. Falling German consumer heating oil stocks reinforced this movement; fill levels declined from 63% at end-December to 60% at end-January.

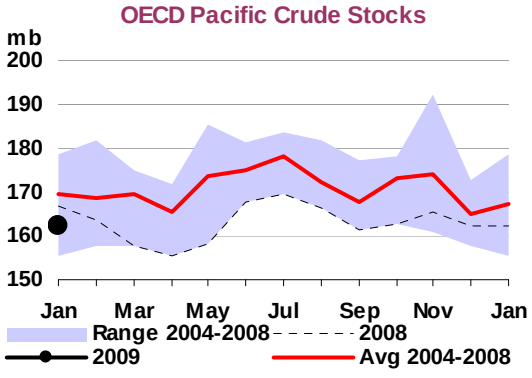


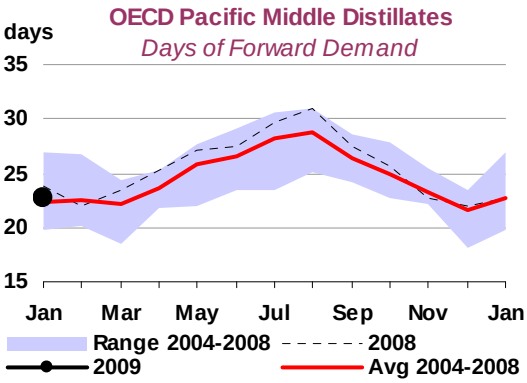


Preliminary data from Euroilstock indicate EU-16 inventories fell 1.4 mb in February. Crude stocks decreased by 1.2 mb on higher refinery utilisation. Product stocks fell slightly by 0.2 mb led by declines in naphtha and fuel oil. Yet middle distillate stocks posted a 1.6 mb rise. Northwest European product stocks held in independent storage generally declined in February after posting three consecutive months of gains. Gasoil and jet/kerosene stocks began retracing from their lofty heights above the five-year range, though early March readings indicate a spike back upwards in both categories. Gasoline and fuel oil stocks continued their declines while naphtha stocks reached five-year lows.

OECD Pacific

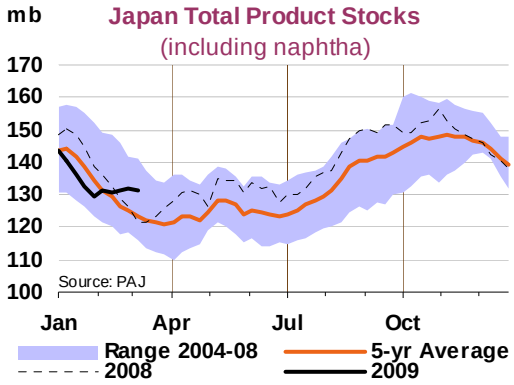
Pacific industry stocks fell 8.0 mb in January, led by crude and distillate declines in Japan. Japanese crude stocks fell 6.0 mb and distillates declined 5.8 mb as kerosene stocks continued to draw. By contrast, crude and distillate stocks in South Korea rose on the month by 6.1 mb and 4.6 mb, respectively. A January surge in crude imports, up 24% month-on-month, ahead of a 1% rise in February import tariffs, may have partially driven the stock change. They may do so again in February ahead of another 1% tariff rise in March. OECD Pacific crude stocks continue to trend below the five-year average, but on a forward cover basis they remain at five-year highs. Middle distillate days of forward cover remain in line with the five-year average despite being near the bottom of the five-year range on an absolute basis.

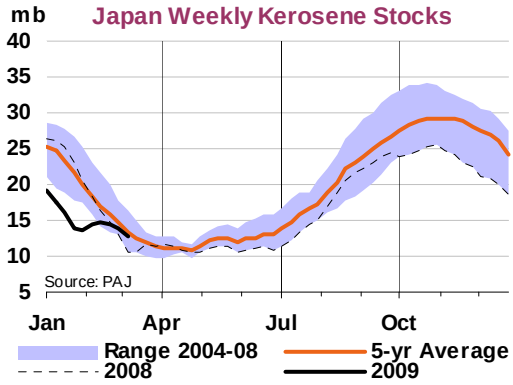




Weekly data for February from the Petroleum Association of Japan (PAJ) indicate higher onshore crude stocks and a small counter-seasonal build in kerosene stocks. A jump in February refinery utilisation and weaker demand helped product stocks to build by 2.6 mb in February, a time of year when they normally draw. All product categories increased except for gasoil/diesel, which fell by 1.1 mb. Though both

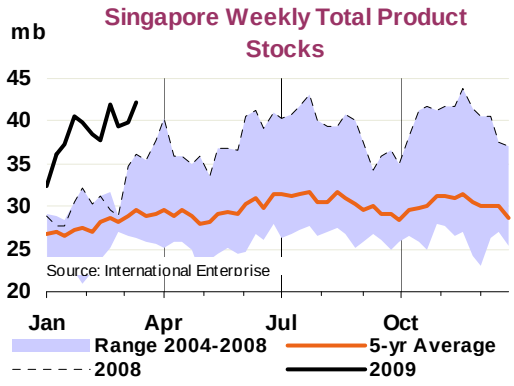
gasoline and kerosene stocks remain below their five-year averages, February saw a narrowing as both stock categories returned to within their five-year ranges.

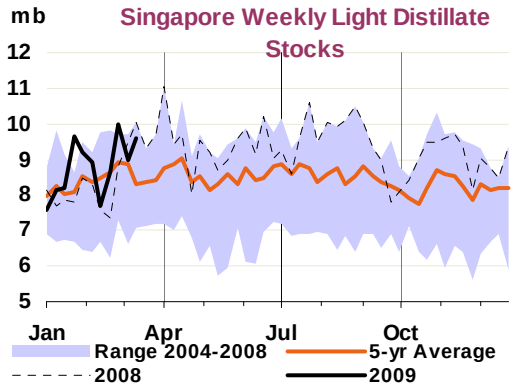




Recent Developments in Singapore Stocks

Singapore stocks drew slightly, by 0.2 mb, from end-January to end-February with March fundamentals pointing to tighter light distillate and residue inventories versus weak middle distillates. Light distillate stocks rose slightly on the month, but their position remains only in line with the five-year average. Furthermore, early March naphtha fundamentals tightened from increased petrochemical feedstock demand from South Korea, the reported restart of a Chinese Taipei cracker and a Singapore condensate splitter outage. Middle distillate stocks retracted slightly, by 1.4 mb on the month. Yet, regional gasoil demand has shown little sign of strengthening, arbitrage economics to Europe have weakened and inventories remain flush. Fuel oil stocks rose slightly on the month. Although demand remains weak, decreased fuel oil volumes from the Middle East point to a likely contraction in March stocks.

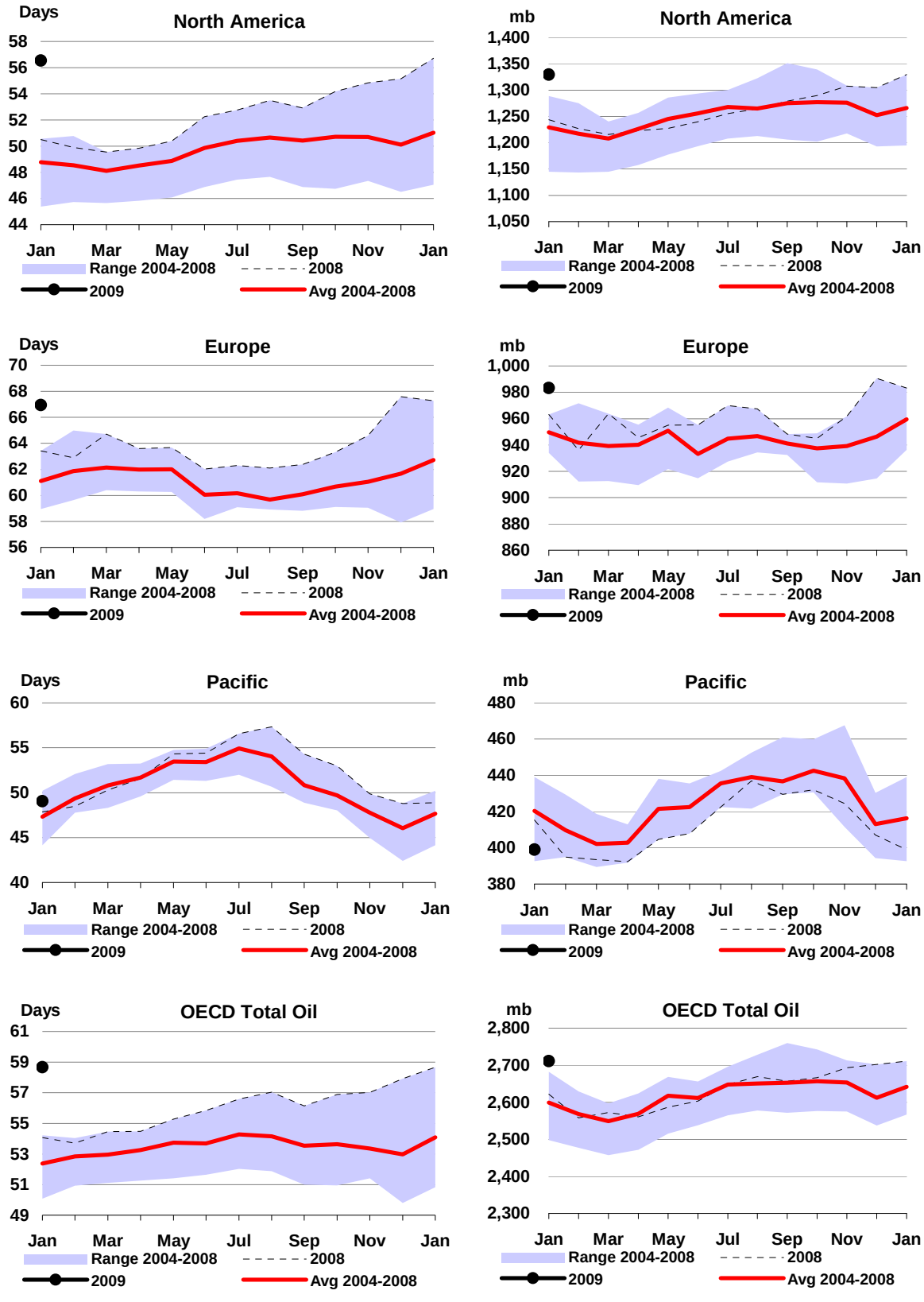




Regional OECD End-of-Month Industry Stocks

(in days of forward demand and millions barrels of total oil)

Days[1] **Million Barrels**

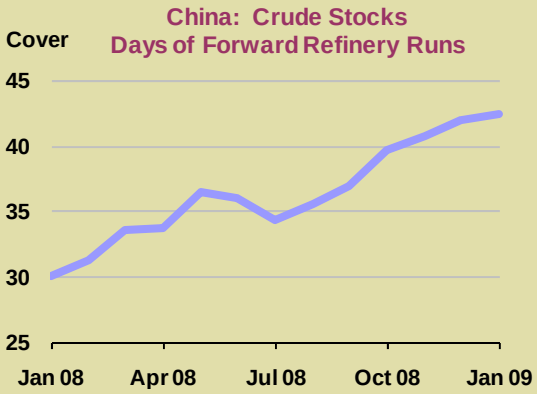


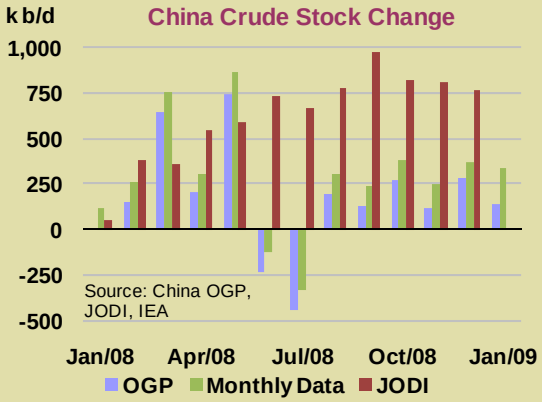
1 Days of forward demand are based on average demand over the next three months

China's Inventory Picture – More Colour But Still Hazy

In its early March issue of *China Oil, Gas & Petrochemicals* (OGP), state news agency Xinhua released China's first ever set of monthly domestic crude inventories covering 2008 and January 2009. The data showed that China's crude stockpiles built by around 65 mb, or 180 kb/d in 2008. At end-January 2009, data show inventories at about 270 mb. At forecast throughput rates, this level constitutes about 42.4 days of forward refinery demand and 78 days of China's net crude imports in 2008. Adding reported gasoil and gasoline stocks held by Sinopec and CNPC (about 90 mb total), would bring total inventories to 360 mb, equivalent to 90 days of net total oil imports in 2008.

The *OGP* data provide another measure for benchmarking Chinese crude stock changes, supplementing *Joint Oil Data Initiative (JODI)* reporting and implied calculations made from *OGP* data on crude production, refinery runs and net imports. A comparison of the three sources shows *OGP* reported levels and implied data consistent in terms of direction and magnitude, with the latter seemingly overstating crude builds and understating draws. This may stem from unaccounted refinery runs by smaller, independent refineries in the implied calculations. The *JODI* data, however, sometimes differ considerably from the other two sources. Of course, with only one year of *OGP* data available it is difficult to discern concrete differences.





Yet, the stock levels reported by OGP seem to corroborate reported underlying fundamental trends in 2008. Significant crude and product stock building took place both in the run-up to the Olympics and in the lower crude price environment in the wake of the global financial crisis. Gasoil and gasoline stocks held by CNPC and Sinopec built by 150 kb/d from January-August, helping to tighten distillate markets in particular, as Chinese authorities sought to avoid product shortages during the Olympics. While crude stocks built by 440 kb/d from February-May, dramatically higher import prices for crude during the summer resulted in refineries drawing down stocks rather than purchasing on the spot market. After prices collapsed, crude stockpiling resumed as refineries ratcheted down their processing and the Chinese government likely found it more cost effective to boost strategic stock building.

Despite the additional colour these Chinese monthly data provide, questions remain over their accuracy and completeness. First, the line between industry and government-held stocks in China remains blurry; neither the latest data nor previous government pronouncements have adequately distinguished between the two. In late December, the head of China's National Energy Administration, Zhang Guobao, acknowledged the completion of phase 1 strategic storage construction (four facilities holding 100 mb). Earlier this week, China Shipping (Group) Co President, Li Shaode, said that those strategic reserves had reached the 100 mb mark, but the government has never officially disclosed fill levels. It is unknown if OGP's reported levels would include the alleged 100 mb or not. Moreover, it is unclear if the reported stocks count inventories held by state-owned majors only or include other players. The lack of data on other products also clouds the picture, suggesting total oil stock levels possibly much higher than those reported.

PRICES

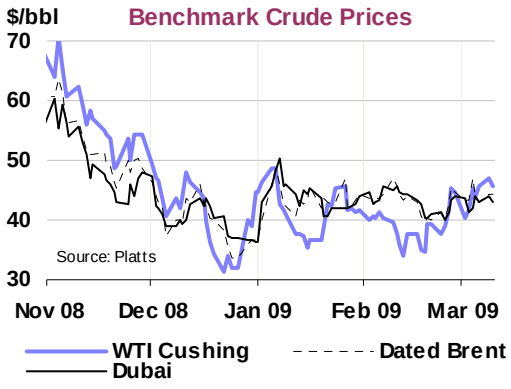
Summary

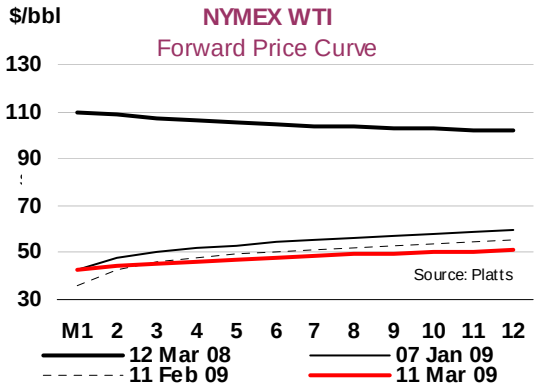
- **Crude oil markets in February edged lower month-on-month but by early March moved to a higher trading range** on evidence of increased OPEC production restraint, with the cutback in heavier sour grades having the greatest impact. OPEC ministers are meeting on 15 March in Vienna to assess the impact of new production targets that went into effect at the start of the year on global supplies.
- **Benchmark crudes scaled two-month highs in early March**, with futures prices for WTI trading above Brent for the first time in more than three months. Futures prices for both WTI and North Sea Brent were last trading in a $41-$45 range. However, relatively high global oil stocks, especially in the US, continue to exert downward pressure on markets.
- **The worsening global economic outlook continues to wreak havoc on refined product markets**. Asian distillate markets have been especially hard hit by the downturn, with even China reverting to being a net exporter in recent months. One exception is the apparent, albeit tenuous, recovery in gasoline demand in the key US market.
- **Refining margins fell across the board in February**, as a sharp fall in distillate crack spreads outweighed rising light distillate and most fuel oil differentials. Margins fell most on the US Gulf Coast, with a further dip in early March dragging cracking margins into negative territory.
- **February crude freight rates continued to languish** at five-year historical lows as reduced export flows from OPEC producers and a deterioration in oil trade were only partially offset by continued high short-term floating storage levels.

Overview

Crude oil markets in February edged lower month-on-month but by early March moved to a higher trading range on evidence of increased OPEC production restraint, supply disruptions in Nigeria and the FSU and an apparent, albeit tenuous, recovery in gasoline demand in the key US market.

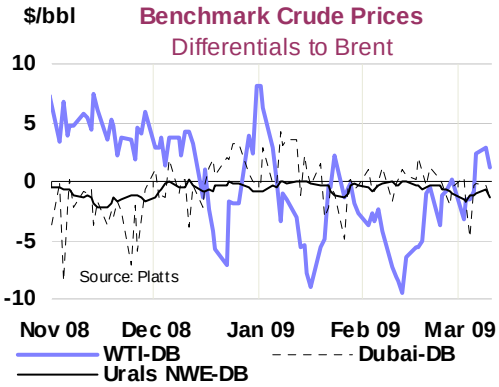
Benchmark crudes scaled two-month highs by early March, with futures prices for both WTI and North Sea Brent trading in a $41-45/bbl range. Futures prices for WTI rose $10/bbl off mid-February lows in early March but then eased again under the weight of yet more bad economic news.

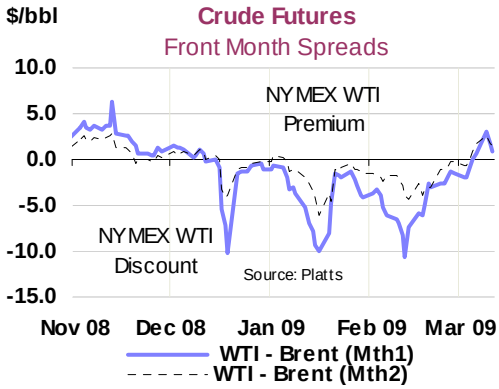




WTI traded above Brent in early March for the first time in more than three months. The WTI-Brent futures price differential averaged about $3/bbl over the past month but slowly narrowed in the second half of February as WTI appreciated, likely due to an unexpected dip in Cushing stocks and a subtle shift in gasoline demand sentiment. Differentials finally turned about face on 6 March, with WTI trading at a 67 cent/bbl premium over Brent and then widening to $2.94 the following day before easing again. The

WTI-Brent reversal may be fleeting as storage tanks at the Nymex contract delivery point at landlocked Cushing, Oklahoma were filling up again as traders took advantage of the widening WTI futures curve. Crude oil stocks at Cushing were last estimated at 33.6 mb versus an operating capacity of 36 mb.



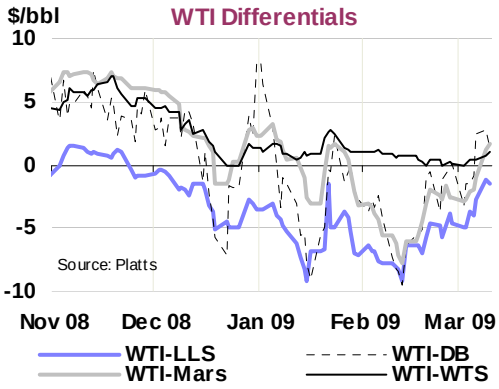


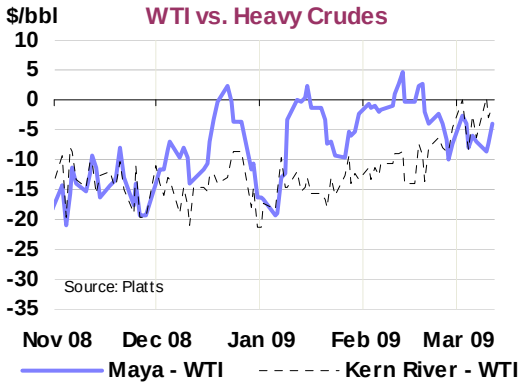
Oil markets took a respite from the relentless stream of worsening economic news, as traders shifted their attention to OPEC's 15 March Ministerial meeting in Vienna. OPEC crude supply for the 11 members with targets in February was down 944 kb/d to an estimated 28.0 mb/d, with the compliance rate a significant 80% but output is still 880 kb/d above January's 24.85 mb/d target. Indeed, the disparity in compliance will vie with discussion of further cuts in target levels when ministers meet on 15 March in Vienna to assess the market.

While traders took note of OPEC's healthy compliance of just under 80% for February production levels, a steady stream of gloomy economic data sparked fears of further downgrades to demand forecasts for 2009 and 2010. Latest *OMR* projections show global oil demand declining by 1.5% or 1.2 mb/d for 2009, given worsening economic developments in the FSU, Asia, and OECD North America.

Spot Crude Oil Prices

Spot crude prices posted mixed results in February as weaker demand and an extensive refinery turnaround schedule pressured prices lower, while reduced OPEC supplies of heavier sour grades boosted demand for replacement barrels. Refineries are expected to operate at reduced levels through the end of the first quarter although demand for sour crudes is on the rise.





Spot crude prices moved to the upside again in early March aided and abetted by supply disruptions for some key grades. A fresh wave of militant attacks in Nigeria took an estimated 70 kb/d of Forcados crude off the market, with operator Shell declaring *force majeure* for March and April liftings. A fire and resulting leak along a key crude oil pipeline running to the Black Sea ports forced the shut-in of the 1 mb/d link to Novorssiysk to Tuapse for a week but repair work is now complete.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Dec	Jan	Feb	Feb-Jan Avg Change	%	Week Commencing: 09 Feb	16 Feb	23 Feb	02 Mar	09 Mar
Crudes										
Dated Brent	40.35	43.59	43.07	-0.52	-1.2	44.89	40.76	42.84	44.22	44.35
Brent (Asia) Mth1 adjusted	42.12	44.44	43.57	-0.87	-2.0	45.36	41.43	42.45	44.53	44.63
WTI (Cushing) Mth1 adjusted	41.45	41.75	39.16	-2.59	-6.2	36.92	37.10	41.69	43.27	46.39
Urals (Mediterranean)	40.02	43.09	42.31	-0.77	-1.8	44.44	39.89	42.15	43.48	43.97
Dubai Mth1 adjusted	40.53	44.12	43.09	-1.03	-2.3	44.85	41.54	42.08	42.90	43.47
Tapis (Dated)	44.95	47.40	47.66	0.26	0.6	49.51	46.62	47.13	47.89	48.25
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	1.10	-1.84	-3.91	-2.07		-7.97	-3.66	-1.15	-0.95	2.04
Urals (Mediterranean)	-0.32	-0.51	-0.76	-0.25		-0.45	-0.87	-0.70	-0.73	-0.38
Dubai Mth1 adjusted - Dated Brent	0.19	0.53	0.02	-0.51		-0.04	0.79	-0.76	-1.31	-0.88
Tapis (Dated)	4.60	3.81	4.59	0.78		4.62	5.86	4.29	3.67	3.90
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-2.56	-2.15	-1.02	1.13		-1.21	-0.68	-0.65	-1.04	-0.91
Forward WTI Cushing Mth1-Mth2 adj	-3.51	-4.30	-3.57	0.73		-6.33	-1.95	-1.37	-2.13	-1.13

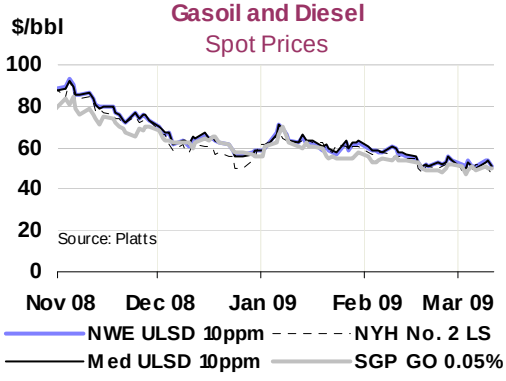
Source: Platts

OPEC's steep cutback of its heavier, sour grades has had the unintended consequence of boosting demand for replacement crudes. In addition, Saudi Arabia and Iran increased prices for most of the grades, making alternatives economically attractive. Asian refiners have markedly increased purchases of Russian Urals as well as Nigerian crudes. Indeed, Russian volumes to Asia are expected to continue to rise in coming years.

Spot Product Prices

Crack spreads for almost all products narrowed in February and early March on weak fundamentals, despite refineries cutting throughputs. The recovery in gasoline cracks seen in January and first-half February appears to have petered out amidst indications that the pace of US demand decline may be ebbing. In addition, US gasoline stocks are now below their five-year average (based on weekly EIA data), which stands in considerable contrast to other products.





But weaker gasoline, in combination with further declines in distillate cracks, is crushing refining margins. In a pronouced reversal of fortune, Asian gas oil/diesel markets saw margins drop to five year lows on limited demand. In all regions distillate stocks are high after refiners had boosted yields. But the heating season will soon be over (in the northern hemisphere) while diesel consumption has taken a hit due to the economic slump. Weaker demand for diesel in transportation use, gas oil for manufacturing and industrial use, and falling jet fuel demand have combined to knock the wind out of the middle distillate market.

In contrast to weak distillate demand, a surge of buying interest emerged for high-sulphur fuel oil in the US Gulf Coast refining region. Lower exports of OPEC heavier sour crudes have made competing grades dearer and also translated into stronger demand for the grade as straight-run fuel.

Spot Product Prices

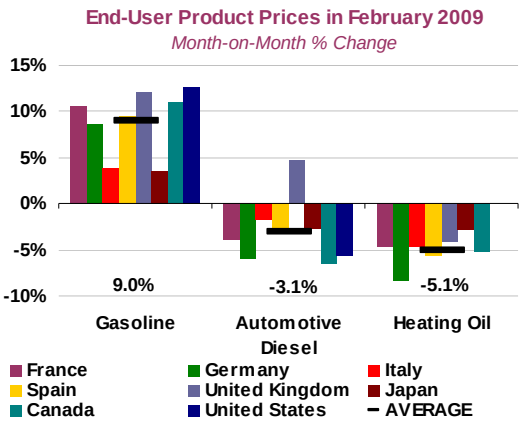
(monthly and weekly averages, $/bbl)

	Dec	Jan	Feb	Feb-Jan		Week Commencing:					Dec	Jan	Feb
				Change	%	09 Feb	16 Feb	23 Feb	02 Mar	09 Mar			
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	41.40	47.43	50.69	3.27	6.9	54.50	47.40	49.49	51.05	50.87	1.05	3.84	7.62
Naphtha	28.22	38.68	43.72	5.04	13.0	46.21	41.98	42.29	42.74	42.50	-12.13	-4.91	0.65
Jet/Kerosene	59.88	60.68	53.62	-7.06	-11.6	55.75	51.13	51.54	50.27	53.10	19.53	17.09	10.55
ULSD 10ppm	62.91	62.36	55.57	-6.78	-10.9	58.02	52.09	53.57	51.72	53.80	22.57	18.77	12.50
Gasoil 0.1%	59.17	59.63	52.53	-7.09	-11.9	55.59	48.85	49.89	48.24	50.93	18.82	16.04	9.46
LSFO 1%	33.98	36.45	35.99	-0.46	-1.3	38.03	34.41	35.02	33.80	36.28	-6.37	-7.14	-7.08
HSFO 3.5%	27.95	34.71	36.21	1.50	4.3	38.27	34.56	34.61	34.63	36.48	-12.40	-8.88	-6.86
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	41.33	48.24	49.45	1.22	2.5	53.29	46.28	47.87	48.97	49.75	1.31	5.15	7.14
Naphtha	26.13	37.48	42.87	5.40	14.4	45.47	41.12	41.33	41.60	41.46	-13.89	-5.61	0.56
Jet Aviation fuel	59.06	59.79	52.84	-6.95	-11.6	55.27	50.27	50.82	48.59	50.32	19.04	16.70	10.52
ULSD 10ppm	63.11	63.08	55.78	-7.30	-11.6	58.53	52.56	53.34	50.80	53.52	23.09	19.99	13.47
Gasoil 0.1%	59.56	60.91	53.09	-7.82	-12.8	56.44	49.70	49.65	48.07	50.25	19.54	17.83	10.78
LSFO 1%	36.34	38.83	38.82	-0.01	0.0	41.03	37.08	38.29	36.97	38.61	-3.68	-4.26	-3.49
HSFO 3.5%	24.46	34.35	35.14	0.79	2.3	37.21	32.06	34.28	33.44	35.24	-15.56	-8.73	-7.17
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	45.92	52.67	57.19	4.51	8.6	59.83	53.39	56.65	58.73	57.33	4.47	10.92	18.03
Unleaded	40.40	48.32	51.21	2.89	6.0	54.12	47.51	50.05	52.34	51.11	-1.05	6.57	12.05
Jet/Kerosene	62.11	64.66	54.79	-9.87	-15.3	56.13	51.43	53.57	50.79	51.54	20.66	22.90	15.63
No. 2 (Heating Oil)	59.01	61.59	53.68	-7.91	-12.8	55.43	49.76	51.93	49.72	49.96	17.56	19.84	14.52
LSFO 1%	34.07	37.48	37.22	-0.25	-0.7	37.76	35.26	37.88	36.08	36.35	-7.38	-4.28	-1.94
No. 6 3%	29.42	35.85	37.48	1.63	4.6	37.66	35.85	38.29	36.05	36.45	-12.03	-5.91	-1.68
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	41.05	52.23	57.97	5.74	11.0	61.35	57.85	54.17	51.29	50.64	0.52	8.10	14.88
Naphtha	31.00	42.58	46.84	4.26	10.0	48.20	46.22	44.49	43.98	43.46	-9.53	-1.55	3.75
Jet/Kerosene	59.02	60.15	52.85	-7.30	-12.1	54.34	50.84	50.05	48.41	48.85	18.48	16.03	9.76
Gasoil 0.5%	58.01	58.36	49.10	-9.26	-15.9	50.50	47.61	47.48	46.77	47.98	17.47	14.23	6.01
LSWR Cracked	31.61	34.13	36.05	1.91	5.6	37.31	34.53	35.67	35.63	35.35	-8.92	-9.99	-7.05
HSFO 180 CST	35.15	39.46	39.63	0.17	0.4	41.44	38.97	37.66	36.00	37.17	-5.38	-4.67	-3.46
HSFO 380 CST 4%	34.89	39.60	40.29	0.69	1.7	42.47	39.64	38.22	36.72	38.12	-5.64	-4.53	-2.80

Source: Platts * CIF

End-User Product Prices in February

Retail gasoline prices on average rose by 9% month-on-month, in US dollars, ex-tax. The US and UK posted the largest increases, of 12.6% and 12% respectively, while Japan saw smaller gains of 3.5%. In February, consumers in the US on average paid $1.92/gallon ($0.508/litre) for gasoline, in the UK £0.896/litre ($1.291/litre), and in Japan ¥109/litre ($1.175/litre). In Europe, prices ranged from a low of €0.896/litre ($1.149/litre) in Spain to a high of €1.170/litre ($1.499/litre) in Germany. The rise in gasoline prices was offset by 3.1% and 5.1% decreases in diesel and heating oil prices, respectively, both in US dollars, ex-tax. Retail prices in the surveyed IEA countries were on average 40% below February 2008 levels, in US dollars, ex-tax.



Refining Margins

Refining margins fell across the board in February, as a sharp fall in distillate crack spreads outweighed rising light distillate and most fuel oil differentials. Margins fell most on the US Gulf Coast, with a further dip in early March dragging cracking margins into negative territory. Unlike in other areas, low-sulphur fuel oil discounts to crude widened here, adding to refining margin weakness. Meanwhile, trends in US West Coast margins were mixed but remain largely positive in overall terms.

Selected Refining Margins in Major Refining Centres

($/bbl)

		Monthly Average			Change	Average for week ending:				
		Dec 08	Jan 09	Feb 09	Feb 09-Jan 09	06 Feb	13 Feb	20 Feb	27 Feb	06 Mar
NW Europe	Brent (Cracking)	3.61	3.28	2.74	-0.53	3.95	3.77	2.17	1.09	-0.82
	Urals (Cracking)	3.39	3.76	3.20	-0.55	4.44	3.77	2.79	1.81	0.51
	Brent (Hydroskimming)	2.58	2.27	1.07	-1.19	2.21	1.80	0.77	-0.48	-2.80
	Urals (Hydroskimming)	-0.28	0.37	-0.50	-0.86	0.64	-0.38	-0.50	-1.75	-3.35
Mediterranean	Es Sider (Cracking)	2.60	3.07	1.72	-1.35	3.01	2.50	1.40	-0.04	-2.39
	Urals (Cracking)	2.47	3.26	2.04	-1.23	3.42	2.76	1.70	0.27	-2.15
	Es Sider (Hydroskimming)	1.60	0.91	-0.53	-1.44	0.34	-0.15	-0.40	-1.91	-4.72
	Urals (Hydroskimming)	-2.12	-0.78	-1.74	-0.96	-0.43	-1.56	-1.93	-3.05	-5.84
US Gulf Coast	Bonny (Cracking)	-4.02	0.14	-2.22	-2.36	-0.84	-2.54	-2.66	-2.83	-4.11
	Brent (Cracking)	-3.39	1.08	-0.05	-1.13	1.24	-0.10	-0.57	-0.78	-3.05
	LLS (Cracking)	-1.07	2.05	1.00	-1.05	1.19	3.42	0.30	-0.92	-1.72
	Mars (Cracking)	-1.18	3.15	0.70	-2.45	1.41	2.27	-0.07	-0.82	-2.66
	Mars (Coking)	2.58	5.49	1.15	-4.34	2.10	2.79	0.23	-0.50	-1.33
	Maya (Coking)	6.20	6.52	4.13	-2.39	4.63	6.06	3.48	2.34	2.52
US West Coast	ANS (Cracking)	2.52	7.06	3.46	-3.59	5.75	5.99	2.69	-0.57	-2.54
	Kern (Cracking)	12.38	16.93	14.00	-2.93	16.03	18.60	14.38	6.98	4.62
	Oman (Cracking)	-1.20	2.10	2.78	0.68	5.13	4.26	0.61	1.13	0.30
	Kern (Coking)	16.60	25.32	25.62	0.29	30.06	33.38	22.65	16.38	11.91
Singapore	Dubai (Hydroskimming)	0.25	0.58	-0.75	-1.34	-0.08	-0.72	-0.30	-1.92	-3.69
	Tapis (Hydroskimming)	-2.97	-1.06	-3.00	-1.94	-1.21	-3.21	-3.13	-4.47	-6.44
	Dubai (Hydrocracking)	2.39	3.00	1.16	-1.84	2.08	1.21	1.54	-0.20	-2.27
	Tapis (Hydrocracking)	-0.68	1.81	-0.99	-2.80	1.05	-1.08	-1.08	-2.86	-5.29
China	Cabinda (Hydroskimming)	-2.87	-3.21	-3.51	-0.30	-3.21	-3.51	-2.05	-5.28	-7.91
	Daqing (Hydroskimming)	-3.81	-1.79	-3.16	-1.37	-2.68	-3.43	-3.15	-3.37	-4.54
	Dubai (Hydroskimming)	-0.15	0.04	-1.17	-1.21	-0.48	-1.14	-0.76	-2.30	-4.07
	Daqing (Hydrocracking)	-1.32	2.71	1.72	-0.99	2.46	1.83	1.97	0.62	-1.46
	Dubai (Hydrocracking)	1.98	2.47	0.81	-1.66	1.73	0.87	1.19	-0.53	-2.60

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.

Sources: IEA, Purvin & Gertz Inc.

Singapore margins largely declined in February, again on sharp losses in diesel and jet/kerosene crack spreads. Asia is suffering perhaps more than other regions from a weak distillate market, with China reverting to being a net exporter in recent months. Despite gains in gasoline cracks in February (month-on-month), trend-wise, gasoline spreads fell throughout the month and in early March, ultimately pressuring margins. Thus, in February and early March, all calculated margins turned negative. In Europe, trends were similar, with previously positive margins mostly turning negative in early March on distillate weakness. Only Urals cracking margins in Northwest Europe remain modestly positive.

Refining Margins Annual Update

In collaboration with Purvin & Gertz Inc., we have completed the annual update of our refining margin calculations. For all models, there have been changes to operating costs, related to financial cost changes and the impact of this on fixed cost components. These levels have been applied retroactively starting in 2005. Additionally, we have updated the Worldscale (WS) freight rate indexes for 2009. Given sulphur prices rose strongly in early 2008, the models have been updated to reflect this. However, global economic conditions have reversed this trend and sulphur prices are assessed to be much lower in 2009.

For the North West Europe (NWE) and Mediterranean models, small yield changes have been made in order to reflect product quality changes in these regions. Updated input prices, such as 10 ppm ultra-low-sulphur gasoline, 10 ppm ultra-low-sulphur diesel and 0.1% sulphur gasoil are also now incorporated. For NWE, Brent yield vectors have been replaced with those of Forties in order to take into account the increased role of lower-quality Forties in setting the price of the Brent-Forties-Oseberg-Ekofisk (BFOE) benchmark. The Brent price is used as before, but the yield vectors reflect the Forties quality available in the market.

Regarding the US Gulf Coast (USGC) models, we have also based our imported sweet margin indicator on the Forties crude oil assay instead on Brent, starting from 2007. Yields have being reoptimised to capture various market and operating changes. They now reflect an increasing output of distillates, as opposed to yields maximising gasoline production. Yields now account for current product market specifications – particularly ultra-low-sulphur diesel requirements, and are back dated to 2007. Initial attempts have been made to segregate refinery grade propylene in order to reflect its attractive economics. Taking into consideration the increased average plant size, fixed cost components have been reduced (reducing fixed cost per barrel somewhat), but countered by the overall costs related to the financial cost changes (insurance, maintenance, etc.).

Changes to US West Coast (USWC) models are similar but less pronounced. There have been some changes in the blending stocks for fuel oil in the FCC margin calculations, due to expansion of hydrotreating capacity for diesel manufacture. In the process of this annual update, we identified some corrupted Worldscale quotations in our database which had significantly reduced the calculation (-$3.78/bbl on average for 4Q08) of USWC Oman cracking margins since October 2008. This problem has been fixed and now our Oman assessments incorporate these corrections.

The Asian yields have not been modified in this update, but as already mentioned, costs in this region have been affected by changes in financial costs.

The impact on margins varies and is illustrated in the table opposite.

Impact of Yields and Other Changes on 2008 Margins ($/bbl)

	Updated vs. Previous
NW Europe	
Brent (Cracking)	-0.12
Urals (Cracking)	0.51
Brent (Hydroskimming)	-0.18
Urals (Hydroskimming)	0.20
Mediterranean	
Es Sider (Cracking)	0.44
Urals (Cracking)	0.53
Es Sider (Hydroskimming)	0.52
Urals (Hydroskimming)	0.57
US Gulf Coast	
Bonny (Cracking)	-0.20
Brent (Cracking)	-1.71
LLS (Cracking)	-0.22
Mars (Cracking)	1.71
Mars (Coking)	0.63
Maya (Coking)	2.00
US West Coast	
ANS (Cracking)	-0.94
Kern (Cracking)	-1.56
Oman (Cracking)	0.86
Kern (Coking)	2.55
Singapore	
Dubai (Hydroskimming)	-0.02
Tapis (Hydroskimming)	-0.07
Dubai (Hydrocracking)	0.08
Tapis (Hydrocracking)	-0.11
China	
Cabinda (Hydroskimming)	-0.02
Daqing (Hydroskimming)	-0.02
Dubai (Hydroskimming)	0.06
Daqing (Hydrocracking)	0.12
Dubai (Hydrocracking)	0.25

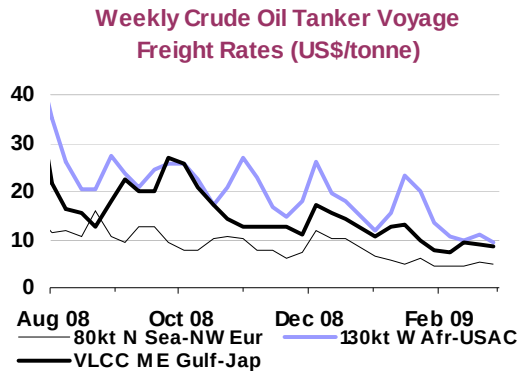
Freight

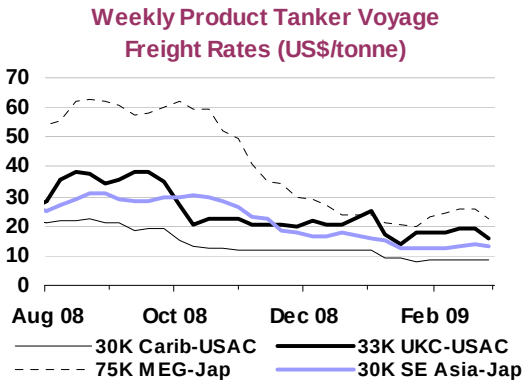
February crude freight rates continued to languish at five-year historical lows as reduced export flows from OPEC producers and a deterioration in oil trade were only partially offset by persistently high short-term floating storage levels.

Middle East Gulf to Japan and West Africa to US Atlantic Coast rates staged a mild recovery in the first half of February before falling by month end. Expectations of further OPEC export reductions as the producer group complies with agreed production cuts continues to generate bearish sentiment. Moreover, a narrowing of the contango in WTI and Brent futures curves has tempered expectations for increased floating storage. As of early March, VLCC rates showed little sign of recovery, though Suezmax demand in West Africa, the Mediterranean and North Sea supported rates for those vessels. Early March transatlantic trade to satisfy US refinery demand for fuel oil has also provided some rate support.

After an upward swing in the first half of February, clean rates have softened through early March. The early February upswing derived from gasoil arbitrage opportunities from Asia to Europe (particularly from South Korea) and an open naphtha arbitrage window from Europe to Asia to satisfy South Korean cracker demand.

However, by early March, both trade windows had effectively closed as European gasoil demand no longer supported differentials and outages at South Korean and Chinese Taipei crackers undermined Asian naphtha demand. As a result, clean rates withdrew at the end of February to levels at or below end-January readings. Still, early March transatlantic gasoline trade has provided some counteracting support to rates.



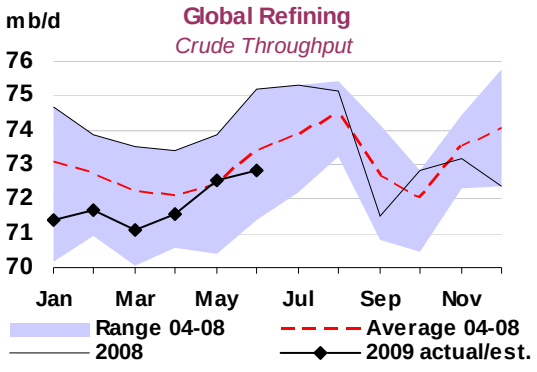


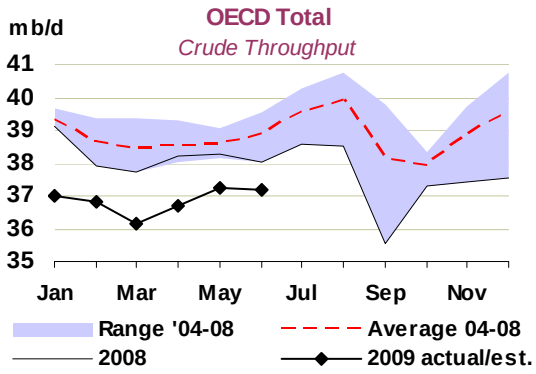
REFINING

Summary

- **Global crude runs are expected to remain weak through the end of 1Q09,** but completion of maintenance at refineries in the Atlantic Basin and start-up of new capacity in the Middle East, China and Other Asia offer the prospect of higher runs over the course of 2Q09. 1Q09 crude throughput is now seen averaging 71.4 mb/d, 0.6 mb/d below last month's report and 2.7 mb/d below a year ago.

- **Preliminary January data indicate that crude runs were weaker than expected** in OECD Europe, India, and Russia. Conversely, crude runs were stronger than estimated in Canada, Mexico and Japan. Weekly data point to continued strength in Japanese and potentially US runs, although much of the US recovery depends on the recent rally in gasoline cracks sustaining refinery profitability, now that diesel cracks have collapsed.





- **Crude throughput forecasts have been rolled out to June, with 2Q09 crude runs now forecast at 72.3 mb/d, an annual decline of 1.8 mb/d.** Nearly two-thirds of the annual decline is in the OECD, although by June an increasing proportion derives from the growing year-on-year deficit in Chinese crude throughputs. There is the potential for Chinese crude runs to exceed our current forecasts, given the capacity increases possible in coming months. However, the continued high domestic distillate stocks and weakening demand growth suggest that runs may well be constrained, unless export incentives improve, allowing Chinese refiners to move surplus middle distillate supplies into an already sluggish Asian market.

- **December 2008 OECD refinery yields increased for gasoline, jet fuel/kerosene and gasoil/diesel,** at the expense of naphtha and 'other products'. OECD gasoline yields approached their highest level since 2003, driven by the continuing surge in North American yields, which rebounded 1.4 percentage points to the upper part of the five-year range at 47.4%. Jet fuel/kerosene yields fell in the region, as the continued focus on diesel output pressured yields.

Global Overview

Global crude throughput continues to struggle in the face of weak demand and the collapse of middle distillate cracks from recent healthy levels. Official December data for OECD countries now peg crude throughput at 37.5 mb/d, an annual decline of some 2.1 mb/d. Furthermore, the non-OECD growth trend moved negative in December, swinging to -1.2 mb/d, from +18 kb/d in November. Consequently, global crude runs are now estimated at 72.3 mb/d for December, -3.4 mb/d year-on-year. The year-on-year deficit continued into January, with crude runs now assessed at 71.4 mb/d, some 3.3 mb/d below January 2008.

Our forecast for 1Q09 and 2Q09 remains finely balanced between the impact of increased capacity in India, China and the Middle East and continued weak demand in the OECD and elsewhere. In the short run, with excess crude available from storage, there is the possibility for refinery runs to exceed demand, if price discounts incentivise incremental crude runs. However, rising stocks and collapsing cracks for middle distillates suggest that this cannot continue unchecked indefinitely. Tighter crude markets, as a result of OPEC removing further additional supplies in coming months, will ultimately limit refiners' ability to increase runs, potentially stoking a recovery in margins at some point in the future.

Furthermore, the collapse in diesel cracks in the US, Europe and Asia suggests that another drop in refinery runs may be needed to clear excess inventories. Middle distillate cracks have long been the crutch on which refiners relied for making a profit from refining crude. The relative bias towards or away from middle distillates has dictated, to some extent, the level of refining activity in a particular region. The US, with its heavy bias towards gasoline production, has seen greater declines in operating levels, despite efforts by refiners to increase diesel yields substantially over recent quarters. Conversely, the higher diesel and jet fuel/kerosene yields in Europe and the OECD Pacific have lent some strength to runs there. Arguably, the same is true of Chinese crude runs, which have only recently started to come under pressure.

The end of heavy US maintenance offers the potential for runs to rebound much more strongly than assumed in our North American forecasts. Preliminary weekly data suggest that in recent weeks US gasoline stocks have fallen short of the seasonal build and demand contraction is easing year-on-year, as the lower price starts to have an impact. US refineries certainly have the potential to meet any seasonal rebound in demand, associated with the start of the driving season late in the second quarter. However, such is the level of offline US capacity for economic reasons, collectively they run the risk of collapsing the gasoline crack if all were to restart simultaneously.

Global Refinery Throughput

January global crude throughput is estimated at 71.4 mb/d, 0.5 mb/d below last month's report. Provisional data suggest that OECD crude runs were weaker than expected, notably in Europe, where French crude runs declined to their lowest level in nearly 15 years. Conversely, Canadian and Mexican crude runs were ahead of expectations. Elsewhere, data indicate that Russian and Indian crude runs were weaker than expected, the latter despite the start-up in late December of the Jamnagar refinery expansion. Lastly, we have incorporated monthly *JODI* data for Papua New Guinea and provisional 2007 annual data for several non-OECD countries, notably Belarus and Serbia into our forecasts. These changes raise global crude throughput by just under 0.1 mb/d on an underlying basis.

Estimated **1Q09 global** crude throughput of 71.4 mb/d is 0.6 mb/d below last month's report. Weaker demand estimates and January provisional data, contribute to the lower forecast. The poorer outlook for middle distillate cracks and higher maintenance estimates both weigh on European crude runs. 1Q09 global crude throughput is now estimated to be 2.7 mb/d less than a year earlier, with January 2009 crude runs some 3.3 mb/d lower than a year ago. The OECD accounts for 60% of the 1Q09 drop in crude runs, compared with 90% in 4Q08.

This month's forecast extends to June, with crude runs seen increasing seasonally in the Atlantic Basin, assuming a typical driving season in the US, and a seasonal dip in the Pacific as maintenance reaches a peak there. Elsewhere, runs are forecast to increase in China, with crude runs rising following the start-up of Sinopec's Fujian refinery expansion. Only minimal volume contributions are included from this project and the reportedly imminent start of CNOOC's Huizhou refinery, given our concerns that demand weakness may yet limit Chinese capacity utilisation rates. The completion of maintenance in Latin America, the Middle East and Africa also boost June crude throughput. Consequently, the forecast for 2Q09 is that crude runs will average 72.3 mb/d. In common with our 1Q09 forecast, year-on-year growth remains heavily negative, at 1.8 mb/d, with the OECD accounting for around 60% of the decline.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09
OECD									
North America	17.4	17.4	17.3	17.4	*17.0*	*16.9*	*17.1*	*17.3*	*17.2*
Europe	13.4	13.2	13.2	12.8	*12.8*	*12.4*	*13.1*	*13.5*	*13.8*
Pacific	6.5	6.8	7.0	6.9	*7.0*	*6.9*	*6.5*	*6.4*	*6.2*
Total OECD	37.3	37.4	37.5	37.0	*36.8*	*36.1*	*36.7*	*37.2*	*37.2*
NON-OECD									
FSU	5.9	6.3	*5.9*	*5.9*	*6.0*	*6.1*	*6.1*	*6.1*	*6.1*
Europe	0.7	0.7	*0.7*	*0.5*	*0.6*	*0.8*	*0.8*	*0.8*	*0.8*
China	7.0	6.6	*6.4*	*6.3*	*6.4*	*6.5*	*6.4*	*6.5*	*6.5*
Other Asia	8.2	7.9	*7.8*	*7.7*	*7.9*	*8.0*	*7.9*	*7.9*	*7.9*
Latin America	5.4	5.6	*5.5*	*5.5*	*5.4*	*5.1*	*5.1*	*5.3*	*5.5*
Middle East	5.9	6.2	*6.1*	*6.3*	*6.1*	*6.2*	*6.4*	*6.5*	*6.4*
Africa	2.4	2.4	*2.4*	*2.2*	*2.3*	*2.3*	*2.2*	*2.3*	*2.4*
Total Non-OECD	35.5	35.7	*34.8*	*34.4*	*34.9*	*34.9*	*34.9*	*35.3*	*35.6*
Total	72.8	73.2	72.3	*71.4*	*71.7*	*71.1*	*71.6*	*72.5*	*72.8*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

OECD Refinery Throughput

Provisional data indicate that **January 2009** OECD crude throughput was 37.0 mb/d, just 0.1 mb/d below the estimate in last month's report. Regionally, North American throughputs were 0.3 mb/d stronger than estimated, perhaps reflecting the impact of stronger gasoline cracks, whereas European crude runs were 0.5 mb/d below our previous estimate.

Year-on-year, OECD throughput has collapsed by 2.1 mb/d, led by European refining activity, which, at 12.8 mb/d, was at its lowest level since 2002. In addition to a 1.0 mb/d drop in Europe, both North America and the Pacific saw annual declines in the region of 0.5-0.6 mb/d. Average January capacity utilisation fell to its lowest level since 1995 (the start of the current monthly data series) with the exception of the September 2008 hurricane-affected level. Official December submissions were also weaker than last month's provisional OECD estimates by 0.3 mb/d, almost wholly due to downward revisions to US and Canadian throughputs.

Forecast **OECD 1Q09** throughput has been reduced by 0.3 mb/d this month. Lower European crude runs are carried forward, following January's weaker number, on the back of heavier maintenance and heavier economic run cuts. Conversely, North American estimates have increased, notably for the US. A collapse in gasoline cracks may well undermine this upward revision, but for now, it appears that we overly penalised US refineries in last month's report. Pacific crude runs are similarly revised up as Japanese and Korean refiners have started to exceed expectations, although here again renewed weakness in naphtha and jet fuel cracks could undermine the recovery, at least in Japan.

OECD North America crude throughput increased again in January, albeit against a downward revised December level. Despite weekly data showing a run-up in US crude throughput to its highest level since the beginning of the year, we expect runs to drop back over the course of March, before the end of maintenance allows runs to rise again over the course of the second quarter. 1Q09 crude throughput is now forecast to average 17.1 mb/d, rising to an average of 17.2 mb/d in 2Q09.

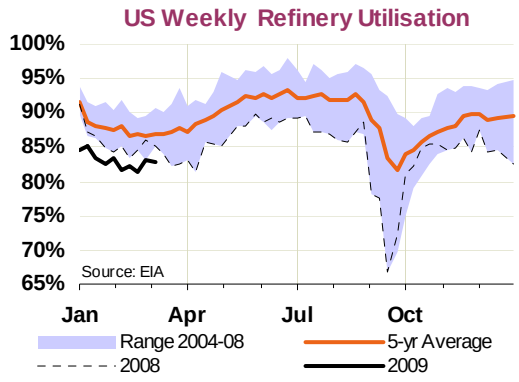
Refinery Crude Throughput and Utilisation in OECD Countries

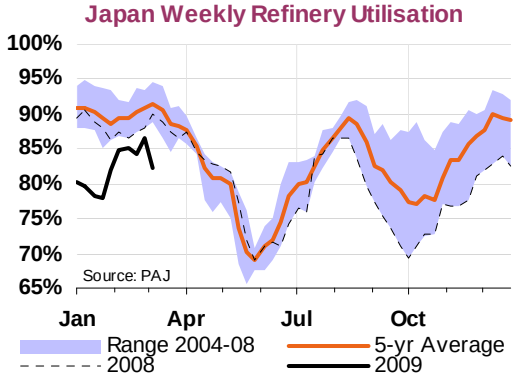
(million barrels per day)

	Aug 08	Sep 08	Oct 08	Nov 08	Dec 08	Jan 09	Change from Dec 08	Change from Jan 08	Utilisation rate[1] Jan 09	Utilisation rate[1] Jan 08
OECD North America										
US[2]	14.95	12.76	14.55	14.60	14.35	14.30	-0.05	-0.50	81.19	84.88
Canada	1.69	1.66	1.69	1.69	1.65	1.78	0.12	-0.11	88.12	93.39
Mexico	1.23	1.15	1.20	1.15	1.28	1.29	0.01	0.04	83.53	71.96
Total	17.87	15.57	17.44	17.44	17.29	17.36	0.08	-0.57	82.02	85.42
OECD Europe										
France	1.79	1.77	1.83	1.73	1.66	1.43	-0.23	-0.35	72.99	90.83
Germany	2.19	1.96	2.27	2.29	2.19	2.07	-0.12	-0.19	85.62	93.33
Italy	1.77	1.73	1.71	1.74	1.80	1.69	-0.11	-0.19	72.13	80.08
Netherlands	1.03	1.05	0.81	0.86	1.00	1.03	0.03	0.03	84.98	82.17
Spain	1.18	1.24	1.16	1.12	1.24	1.21	-0.03	0.01	95.27	94.25
UK	1.62	1.66	1.56	1.50	1.59	1.54	-0.05	0.05	81.42	78.61
Other OECD Europe	4.21	4.04	4.03	4.01	3.78	3.81	0.03	-0.34	81.17	88.38
Total	13.79	13.45	13.38	13.25	13.25	12.77	-0.47	-0.96	80.96	87.04
OECD Pacific										
Japan	3.89	3.48	3.44	3.64	3.86	3.72	-0.14	-0.41	79.53	88.36
Korea	2.28	2.42	2.40	2.45	2.44	2.50	0.06	-0.03	91.38	92.55
Other OECD Pacific	0.71	0.65	0.66	0.67	0.70	0.67	-0.03	-0.09	83.48	94.94
Total	6.88	6.55	6.50	6.76	7.00	6.89	-0.11	-0.54	83.86	90.40
OECD Total	38.54	35.57	37.31	37.44	37.54	37.03	-0.51	-2.07	81.98	86.90

1 Expressed as a percentage, based on crude throughput and current operable refining capacity
2 US50

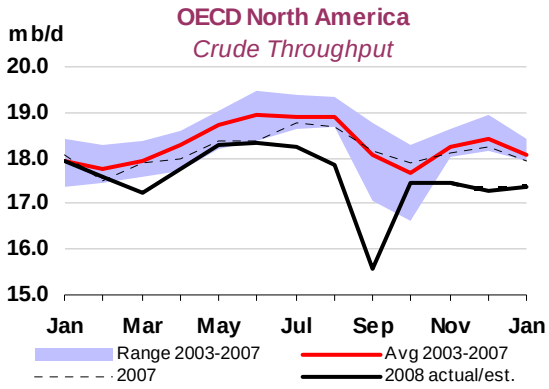
However, crude runs may well understate the true level of refinery activity and product supply in the coming months, as tighter heavy sour crude markets, as a result of OPEC production cuts, incentivise refiners to increase processing of atmospheric residue, notably Russian M100. The economics of creating heavy sour crudes, from blending heavy sweet and medium sour crudes with residue appears increasingly attractive to some US full conversion refineries.

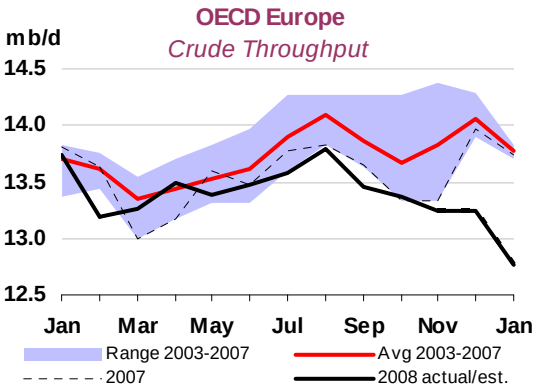




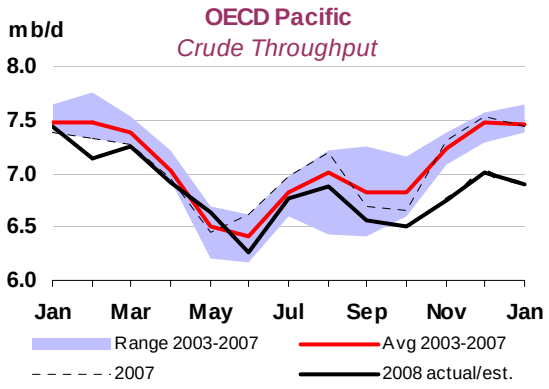
OECD Pacific January crude runs were 0.1 mb/d ahead of forecast, with Japanese and Australian crude intake slightly ahead of our estimates. Japanese crude throughput continued to run ahead of our forecast in February and into early March, leading us to revise up 1Q09 forecasts for the region by 0.1 mb/d. Furthermore, the start of maintenance in Japan suggests the peak in the Japanese runs is imminent and that runs will soon start to decline, albeit less rapidly than previously assumed. Consequently, we have adopted a more positive view on OECD Pacific runs in 2Q09, although crude runs remain 0.2 mb/d below levels of a year ago.

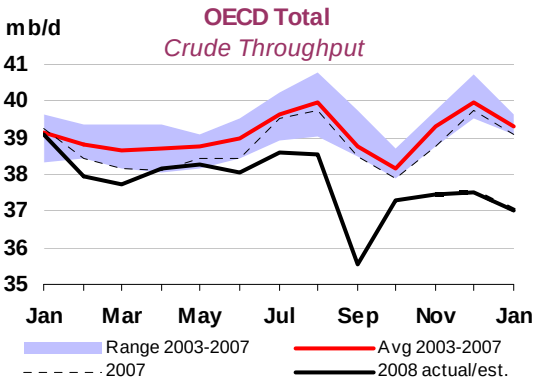
Industry restructuring efforts have stalled in recent weeks, with the previously announced merger of Nippon Oil and Nippon Mining delayed by SEC filing requirements until 2Q 2010. Similarly, the creation of a joint venture between Nippon Oil and CNPC to operate the 115 kb/d Osaka refinery, which is currently operated by a subsidiary of Nippon Oil, has slipped until the second half of 2009, pending clarification of the JV's structure.





OECD Europe crude throughput fell heavily in January to its lowest level since May 2002, led by the collapse in French crude runs. French crude throughput, at 1.4 mb/d, is the lowest since 1995 (the start of the current monthly series of data), but there were also material declines in German and Italian crude runs during the month. We have adopted a more downbeat view on European crude runs, with 1Q09 average throughput cut by 0.6 mb/d. This reflects the heavier maintenance now foreseen in the region, weak regional demand and rising gasoil stocks as we approach the end of the winter heating season. Europe's structural bias towards gasoil/diesel (with yields hitting a record 39.2% in December) suggests they are more structurally exposed to the recent collapse in gasoil cracks. Nevertheless, we assume that the structural shortage of diesel in Europe will support regional runs at the expense of the marginal refiners that export diesel/gasoil to Europe from Asia, the Middle East and the US. Consequently, we forecast that 2Q09 throughput will average 13.5 mb/d, almost flat with 2Q08's level, although the risks to the forecast lie clearly to the downside.





Non-OECD Refinery Throughput

Forecast **1Q09 non-OECD** crude throughput is revised down this month by 0.3 mb/d, following announcements of additional maintenance in Latin America and Asia, as well as the impact of weaker demand estimates. Year-on-year growth slips to -1.0 mb/d during the quarter, compared with -0.2 mb/d in 4Q08, with China and Other Asia each accounting for a decline of 0.4 mb/d. The **2Q09** trend is similarly negative, albeit the 0.7 mb/d fall is cushioned by new capacity additions in India and China.

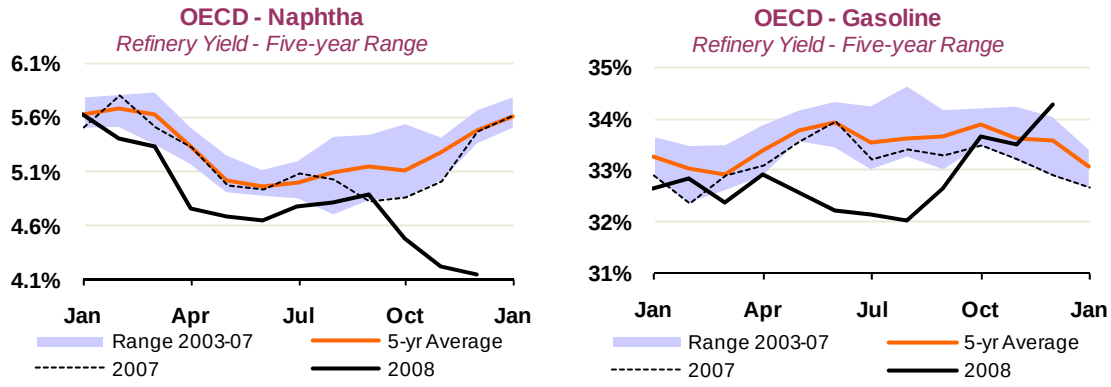
Chinese estimated 1Q09 crude throughput is broadly unchanged, in the absence of monthly data from China's National Bureau of Statistics at the time of writing, due to the Chinese Lunar New Year Holiday. However, January crude runs are lowered by 0.1 mb/d, in line with demand revisions, and results of utilisation surveys of the larger refineries, to 6.3 mb/d, but some unconfirmed reports suggest runs may have fallen as low as 5.8 mb/d during the month. Current Chinese throughput forecasts potentially understate crude runs during the first and second quarters, based on the new refinery additions that may start during the coming months. However, against this optimistic outlook must be weighed reports of persistently high stock levels of gasoline and diesel that suggest refiners are currently limited in their ability to move additional supplies inland, due to weak demand. Higher exports have been suggested as a solution, although the economic rational for such a move remains an unresolved question. Lastly, some refiners have been instructed to switch away from their long-standing focus on maximising diesel/gasoil yields in favour of gasoline in the coming months.

Forecast 1Q09 and 2Q09 crude throughput reflects the balance between the numerous reports of imminent start-up at CNOOC's 240 kb/d Huizhou refinery and Sinopec's Fujian expansion and the apparent lack of demand for existing production. Consequently, 2Q09 average throughput of 6.5 mb/d is only 0.1 mb/d above 1Q09.

Other Asia forecasts are lowered this month following reports of renewed run cuts from some refiners, the collapse in the gasoil crack to its lowest level in five years and the drop in Singapore hydrocracking margins in early March to amongst the lowest levels since the late 1990s. Provisional data for January suggest that Indian crude throughputs fell by nearly 3% year-on-year to 3.1 mb/d, despite the start-up of the Jamnagar expansion, largely due to lower runs at the original Jamnagar site. Despite this new capacity, and the start of crude processing at Vietnam's Dung Quat refinery in February, year-on-year throughput is seen falling by 0.4 mb/d during the first half of 2009. There remains the potential for much higher declines if regional refiners cut runs further in the face of deteriorating economics, driven by further weakness in the gasoil crack.

OECD Refinery Yields

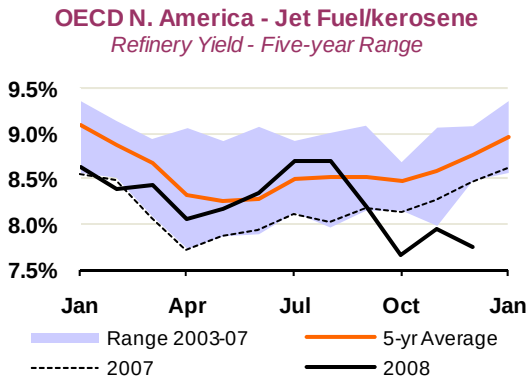
In December 2008, OECD refiners increased the yield of gasoline, jet fuel/kerosene and gasoil/diesel, at the expense of naphtha and 'other products' yields. Some of the changes appear counter-intuitive, suggesting a distortion from low throughput levels on yields may have been a contributory factor. Notably, OECD gasoline yields approached five-year highs, despite crack values hovering around zero during the month, while naphtha yields declined again, despite some recovery in crack spreads, albeit remaining negative.

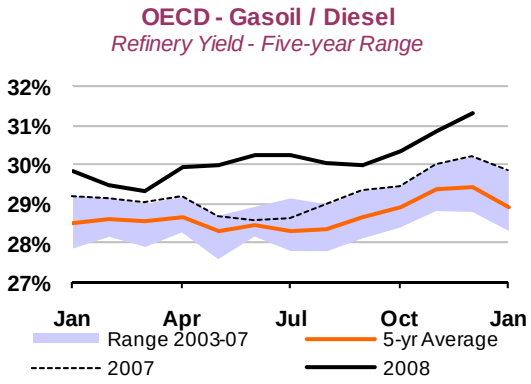


Naphtha yields reached a record-low level of 4.1 percentage points, which represents a year-on-year decrease of 24%. Both North American and European yields decreased counter-seasonally, whereas OECD Pacific yields increased according to seasonal patterns but remained low, just above the lower end

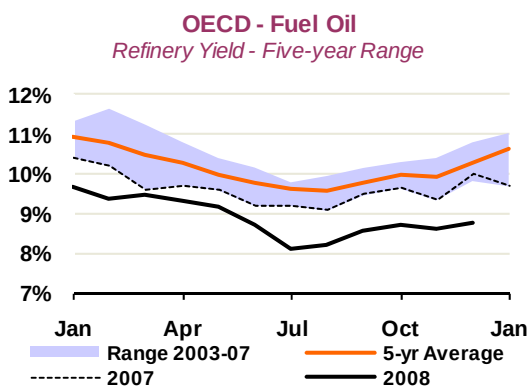
of the five-year range. The striking decrease of naphtha yields highlights, on the one hand, weak economic returns to produce naphtha as a feedstock for petrochemicals and, on the other hand, a better return as a gasoline feedstock. The yield for 'other products' remains below the five-year range and could similarly be related to the incentive to maximise gasoline production over petrochemical feedstock production since this category includes some aromatic and olefins products which can be incorporated into the gasoline pool.

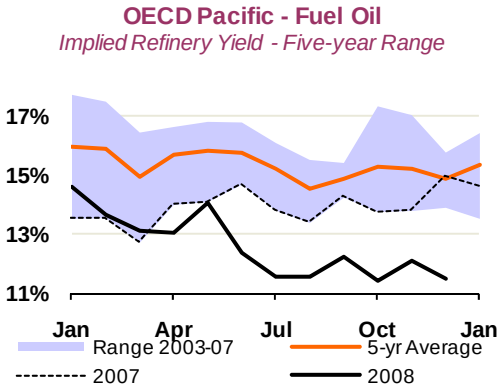
OECD gasoline yields reached their highest level since 2003, driven by the continuing surge in North American yields, which rebounded 1.4 percentage points to the upper part of the five-year range at 47.4%.





Even though gasoil/diesel cracks weakened, yields remained above the five-year range, reaching a new record level of 31.3%, supported by a strong seasonal increase in Europe and a counter-seasonal increase in the Pacific. European yields reached 39.2%, representing a year-on-year increase of 4% and an increase of 7% over December's five-year average. Both gasoline and gasoil/diesel yields in North America increased in December, squeezing jet fuel/kerosene yields, cracks of which have been weakening since November 2008.





OECD fuel oil yields stayed low at 8.8%, probably due to improved production economics for the more complex refineries and the relative strength of middle distillates and gasoline markets, (both factors should keep fuel oil yields subdued throughout 2009 at below or close to the lower end of the five-year range). In the Pacific, fuel-oil yields seem to have stabilised around 12% since July 2008, which, in contrast to a five-year average yield of 15.3%, suggests a yield transfer of 3.3 percentage points to lighter products from the recently commissioned upgrading capacity in this region.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	25.6	25.4	25.7	25.4	25.5	25.5	25.5	24.8	24.5	23.7	24.1	24.3	23.7	23.4	23.5	23.4	23.5
Europe	15.7	15.7	15.2	14.9	15.4	15.6	15.3	15.2	14.9	15.4	15.3	15.2	14.7	14.3	15.0	14.9	14.7
Pacific	8.6	8.5	8.9	7.9	7.9	8.7	8.3	8.9	7.8	7.5	7.9	8.0	8.3	7.4	7.3	7.8	7.7
Total OECD	49.8	49.6	49.8	48.2	48.9	49.9	49.2	48.9	47.2	46.6	47.3	47.5	46.7	45.2	45.7	46.1	45.9
NON-OECD DEMAND																	
FSU	3.9	4.1	4.1	3.9	4.2	4.3	4.1	4.1	4.1	4.4	4.3	4.2	3.9	4.0	4.2	4.2	4.1
Europe	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.8
China	6.7	7.2	7.3	7.7	7.5	7.6	7.5	7.9	8.0	8.1	7.6	7.9	7.7	8.0	8.0	7.9	7.9
Other Asia	8.8	9.0	9.2	9.3	9.1	9.4	9.3	9.6	9.6	9.1	9.1	9.4	9.4	9.5	9.1	9.3	9.3
Latin America	5.1	5.3	5.4	5.6	5.7	5.7	5.6	5.7	5.9	6.0	5.9	5.9	5.8	6.0	6.1	6.0	6.0
Middle East	6.0	6.2	6.4	6.5	6.7	6.4	6.5	6.7	7.0	7.3	6.7	6.9	6.9	7.2	7.6	7.0	7.2
Africa	2.9	3.0	3.1	3.1	3.0	3.1	3.1	3.1	3.2	3.0	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Total Non-OECD	34.2	35.5	36.4	36.9	36.9	37.3	36.9	37.9	38.5	38.6	37.6	38.2	37.8	38.8	38.9	38.5	38.5
Total Demand[1]	84.0	85.1	86.2	85.1	85.7	87.2	86.0	86.8	85.7	85.2	84.9	85.7	84.5	84.0	84.6	84.6	84.4
OECD SUPPLY																	
North America	14.1	14.2	14.4	14.4	14.2	14.1	14.3	14.2	14.1	13.6	13.9	13.9	14.2	14.0	13.8	14.1	14.0
Europe	5.6	5.2	5.2	4.9	4.7	5.0	5.0	4.9	4.8	4.5	4.8	4.7	4.5	4.1	4.0	4.2	4.2
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Total OECD	20.3	20.0	20.2	19.9	19.5	19.8	19.8	19.7	19.5	18.8	19.4	19.3	19.4	18.8	18.6	19.1	19.0
NON-OECD SUPPLY																	
FSU	11.8	12.2	12.8	12.7	12.8	12.8	12.8	12.8	12.9	12.6	12.7	12.8	12.7	12.7	12.4	12.3	12.5
Europe	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9
Other Asia[2]	3.8	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Latin America[2]	3.7	3.8	3.9	3.9	3.8	3.9	3.9	3.9	4.0	4.1	4.1	4.0	4.3	4.3	4.3	4.3	4.3
Middle East	1.8	1.8	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6
Africa[2]	2.4	2.5	2.5	2.5	2.5	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Total Non-OECD	27.3	27.9	28.4	28.3	28.2	28.4	28.4	28.6	28.6	28.5	28.5	28.5	28.9	28.9	28.6	28.6	28.7
Processing Gains[3]	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3
Other Biofuels[4]	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Total Non-OPEC[2]	49.8	50.3	51.0	50.8	50.2	50.8	50.7	50.9	50.7	49.9	50.7	50.6	51.1	50.6	50.1	50.5	50.6
Non-OPEC: Historical Composition[2]	50.4	51.2	50.5	50.3	49.7	50.1	50.1	49.8	49.7	48.9	49.7	49.5	51.1	50.6	50.1	50.5	50.6
OPEC																	
Crude[5]	30.6	30.7	30.0	29.9	30.3	31.1	30.3	31.5	31.4	31.5	30.5	31.2					
NGLs	4.3	4.4	4.5	4.5	4.5	4.6	4.5	4.6	4.6	4.7	4.8	4.7	4.7	4.8	5.1	5.3	5.0
Total OPEC[2]	34.9	35.2	34.5	34.4	34.9	35.7	34.9	36.1	36.0	36.2	35.3	35.9					
OPEC: Historical Composition[2]	34.2	34.3	35.0	34.9	35.4	36.4	35.4	37.1	37.0	37.2	36.3	36.9					
Total Supply[6]	84.7	85.5	85.5	85.1	85.1	86.4	85.5	87.0	86.7	86.1	86.0	86.5					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.2	-0.8	0.7	-0.1	-0.9	-0.3	0.1	0.3	0.6	0.5	0.4					
Government	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	-0.1	0.0	0.0					
Total	0.2	0.3	-0.7	0.6	0.1	-0.8	-0.2	0.1	0.4	0.5	0.5	0.4					
Floating Storage/Oil in Transit	-0.1	-0.1	0.1	0.0	-0.3	0.2	0.0	0.3	0.0	-0.3	0.0	0.0					
Miscellaneous to balance[7]	0.5	0.2	-0.1	-0.6	-0.4	-0.1	-0.3	-0.3	0.6	0.7	0.6	0.4					
Total Stock Ch. & Misc	0.7	0.4	-0.7	0.0	-0.6	-0.7	-0.5	0.1	1.0	0.9	1.1	0.8					
Memo items:																	
Call on OPEC crude + Stock ch.[8]	29.9	30.3	30.7	29.8	31.0	31.8	30.8	31.4	30.4	30.6	29.4	30.4	28.6	28.6	29.5	28.8	28.9
Adjusted Call on OPEC + Stock ch.[9]	30.4	30.5	30.6	29.2	30.5	31.7	30.5	31.1	31.0	31.3	29.9	30.8	28.7	28.6	29.5	28.8	28.9

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Biofuels from sources outside Brazil and US.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.2	-0.3	-0.2
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	0.1	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1
Latin America	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.4	-0.1	-0.1	-0.1	-0.2
Total Demand	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.3	-0.2	-0.3	-0.3	-0.3
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-0.3	-0.4	-0.4	-0.4
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-0.4	-0.4	-0.4	-0.4
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.3	-0.3	-0.4	-0.4	-0.4
Non-OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.3	-0.3	-0.4	-0.4	-0.4
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-					
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-					
OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	-	-					
Total Supply	-	-	-	-	-	-	-	-	-	-	0.1	-					
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	0.3	0.1					
Government	-	-	-	-	-	-	-	-	-	-	-	-					
Total	-	-	-	-	-	-	-	-	-	-	0.3	0.1					
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-	-	-					
Miscellaneous to balance	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1					
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-	-	-	0.2	-					
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	-	-	-0.2	-	-0.1	0.1	0.1	0.2	0.1
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.1	0.1	0.1	0.1	0.1

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

Summary of Global Oil Demand

	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Demand (mb/d)																
North America	25.42	25.68	25.40	25.55	25.49	25.53	24.84	24.52	23.73	24.08	24.29	23.66	23.44	23.51	23.42	23.51
Europe	15.68	15.18	14.93	15.42	15.65	15.30	15.20	14.89	15.40	15.31	15.20	14.66	14.32	14.96	14.93	14.72
Pacific	8.48	8.91	7.87	7.89	8.72	8.35	8.87	7.82	7.50	7.93	8.03	8.34	7.42	7.26	7.76	7.69
Total OECD	49.58	49.77	48.20	48.85	49.85	49.17	48.91	47.24	46.62	47.32	47.52	46.66	45.17	45.73	46.11	45.92
FSU	4.06	4.11	3.93	4.18	4.28	4.12	4.11	4.12	4.35	4.28	4.22	3.94	4.05	4.23	4.21	4.11
Europe	0.74	0.81	0.75	0.70	0.75	0.75	0.82	0.76	0.71	0.76	0.76	0.81	0.76	0.71	0.76	0.76
China	7.21	7.33	7.73	7.52	7.59	7.54	7.85	7.95	8.06	7.59	7.86	7.73	8.03	7.96	7.92	7.91
Other Asia	9.00	9.23	9.33	9.06	9.40	9.26	9.64	9.64	9.12	9.14	9.38	9.39	9.50	9.13	9.31	9.33
Latin America	5.33	5.42	5.59	5.74	5.73	5.62	5.67	5.90	6.02	5.89	5.87	5.81	6.02	6.14	6.02	6.00
Middle East	6.22	6.40	6.50	6.72	6.43	6.51	6.71	6.95	7.31	6.74	6.93	6.90	7.24	7.61	7.05	7.20
Africa	2.96	3.09	3.08	2.99	3.12	3.07	3.15	3.18	3.04	3.18	3.13	3.21	3.23	3.10	3.24	3.19
Total Non-OECD	35.52	36.39	36.90	36.90	37.31	36.88	37.94	38.50	38.61	37.58	38.15	37.80	38.83	38.87	38.53	38.51
World	85.10	86.16	85.10	85.75	87.16	86.05	86.84	85.73	85.23	84.90	85.67	84.45	84.01	84.60	84.64	84.42
of which:																
US50	*20.69*	*20.79*	*20.63*	*20.73*	*20.58*	*20.68*	*19.99*	*19.76*	*18.91*	*19.32*	*19.50*	*18.92*	*18.79*	*18.80*	*18.73*	*18.81*
Euro4	*8.23*	*7.84*	*7.65*	*7.87*	*8.03*	*7.85*	*7.79*	*7.65*	*7.94*	*8.01*	*7.85*	*7.55*	*7.31*	*7.71*	*7.70*	*7.57*
Japan	*5.20*	*5.43*	*4.64*	*4.70*	*5.25*	*5.01*	*5.41*	*4.59*	*4.30*	*4.67*	*4.74*	*4.94*	*4.20*	*4.10*	*4.48*	*4.43*
Korea	*2.18*	*2.36*	*2.12*	*2.06*	*2.31*	*2.21*	*2.33*	*2.09*	*2.07*	*2.12*	*2.15*	*2.27*	*2.08*	*2.04*	*2.12*	*2.13*
Mexico	*2.08*	*2.12*	*2.14*	*2.06*	*2.16*	*2.12*	*2.10*	*2.16*	*2.11*	*2.04*	*2.10*	*2.03*	*2.06*	*2.04*	*2.02*	*2.04*
Canada	*2.30*	*2.38*	*2.29*	*2.40*	*2.38*	*2.36*	*2.37*	*2.25*	*2.34*	*2.34*	*2.32*	*2.31*	*2.23*	*2.31*	*2.29*	*2.29*
Brazil	*2.19*	*2.23*	*2.27*	*2.35*	*2.42*	*2.32*	*2.35*	*2.45*	*2.52*	*2.49*	*2.45*	*2.41*	*2.50*	*2.57*	*2.55*	*2.51*
India	*2.80*	*3.04*	*2.97*	*2.74*	*3.04*	*2.95*	*3.19*	*3.12*	*2.92*	*3.09*	*3.08*	*3.24*	*3.21*	*3.00*	*3.16*	*3.15*
Annual Change (% per annum)																
North America	-0.6	1.3	0.9	-0.4	-0.1	0.4	-3.3	-3.5	-7.1	-5.5	-4.8	-4.7	-4.4	-0.9	-2.7	-3.2
Europe	0.1	-5.2	-2.4	-1.6	-0.6	-2.4	0.1	-0.2	-0.1	-2.1	-0.6	-3.6	-3.9	-2.9	-2.5	-3.2
Pacific	-1.4	-4.1	-0.5	-0.6	-1.0	-1.6	-0.5	-0.7	-5.0	-9.1	-3.8	-5.9	-5.1	-3.1	-2.2	-4.2
Total OECD	-0.5	-1.7	-0.4	-0.8	-0.4	-0.8	-1.7	-2.0	-4.6	-5.1	-3.4	-4.6	-4.4	-1.9	-2.6	-3.4
FSU	3.4	2.3	1.8	1.0	1.4	1.6	-0.1	5.0	4.3	0.1	2.3	-4.1	-1.8	-2.8	-1.6	-2.5
Europe	1.0	2.0	1.9	1.9	1.5	1.8	1.1	1.4	1.4	1.4	1.3	-0.4	-0.1	-0.1	-0.1	-0.2
China	7.8	4.5	5.1	4.1	4.6	4.6	7.1	2.9	7.2	0.0	4.3	-1.5	1.0	-1.3	4.4	0.6
Other Asia	2.4	1.5	2.6	3.2	3.8	2.8	4.4	3.3	0.7	-2.8	1.4	-2.5	-1.4	0.1	1.9	-0.5
Latin America	4.6	4.7	5.2	5.6	6.0	5.4	4.7	5.4	4.8	2.8	4.4	2.4	2.1	2.0	2.3	2.2
Middle East	3.9	5.1	5.8	4.2	3.8	4.7	4.9	7.0	8.8	4.7	6.4	2.9	4.1	4.1	4.6	4.0
Africa	0.9	3.3	2.8	3.5	5.6	3.8	1.7	3.2	1.7	1.9	2.1	2.0	1.7	1.9	2.1	1.9
Total Non-OECD	4.0	3.5	4.0	3.7	4.1	3.8	4.3	4.3	4.6	0.7	3.5	-0.4	0.9	0.7	2.5	0.9
World	1.3	0.4	1.5	1.1	1.5	1.1	0.8	0.7	-0.6	-2.6	-0.4	-2.8	-2.0	-0.7	-0.3	-1.5
Annual Change (mb/d)																
North America	-0.14	0.34	0.23	-0.10	-0.02	0.11	-0.84	-0.88	-1.82	-1.41	-1.24	-1.18	-1.09	-0.22	-0.66	-0.78
Europe	0.01	-0.83	-0.37	-0.25	-0.10	-0.38	0.02	-0.03	-0.02	-0.33	-0.09	-0.54	-0.58	-0.44	-0.38	-0.48
Pacific	-0.12	-0.38	-0.04	-0.05	-0.08	-0.14	-0.04	-0.05	-0.39	-0.79	-0.32	-0.53	-0.40	-0.23	-0.17	-0.33
Total OECD	-0.26	-0.87	-0.17	-0.40	-0.21	-0.41	-0.87	-0.96	-2.23	-2.53	-1.65	-2.25	-2.06	-0.89	-1.21	-1.60
FSU	0.13	0.09	0.07	0.04	0.06	0.07	0.00	0.20	0.18	0.00	0.09	-0.17	-0.07	-0.12	-0.07	-0.11
Europe	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
China	0.52	0.31	0.38	0.29	0.33	0.33	0.52	0.23	0.54	0.00	0.32	-0.12	0.08	-0.11	0.33	0.05
Other Asia	0.21	0.14	0.24	0.28	0.35	0.25	0.41	0.31	0.06	-0.27	0.13	-0.24	-0.14	0.01	0.18	-0.05
Latin America	0.23	0.25	0.28	0.31	0.33	0.29	0.25	0.30	0.28	0.16	0.25	0.13	0.13	0.12	0.13	0.13
Middle East	0.23	0.31	0.36	0.27	0.23	0.29	0.31	0.45	0.59	0.30	0.42	0.19	0.29	0.30	0.31	0.27
Africa	0.03	0.10	0.08	0.10	0.17	0.11	0.05	0.10	0.05	0.06	0.07	0.06	0.05	0.06	0.07	0.06
Total Non-OECD	1.36	1.22	1.42	1.30	1.47	1.36	1.55	1.59	1.71	0.27	1.28	-0.14	0.33	0.26	0.95	0.35
World	1.10	0.34	1.24	0.91	1.26	0.94	0.68	0.63	-0.52	-2.26	-0.37	-2.39	-1.73	-0.63	-0.26	-1.25
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	-0.09	-0.02	-0.08	-0.11	-0.19	-0.25	-0.16
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.03	0.05	-0.04	0.03	0.05	0.02
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.05	0.05	0.06	0.06	0.06
Total OECD	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.04	0.01	0.03	-0.10	-0.10	-0.14	-0.08
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	-0.01	0.00	-0.20	-0.09	-0.09	-0.14	-0.13
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
China	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.06	-0.02	-0.03	0.07	-0.01
Other Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.04	-0.01	-0.05	-0.06	-0.06	-0.08	-0.06
Latin America	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.02	0.00	0.00	0.00	0.05	0.01
Middle East	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.10	-0.03	-0.06	0.02	0.02	-0.05	-0.02
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.01
Total Non-OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	-0.10	-0.02	-0.35	-0.14	-0.15	-0.13	-0.19
World	0.00	0.00	0.00	0.00	-0.01	0.00	0.01	0.01	0.01	-0.06	-0.01	-0.33	-0.24	-0.25	-0.27	-0.27
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01	-0.05	-0.01	-0.34	-0.26	-0.26	-0.21	-0.27

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2007	2008	2009	3Q08	4Q08	1Q09	2Q09	3Q09	Dec 08	Jan 09	Feb 09
OPEC											
Crude Oil											
Saudi Arabia	8.48	8.90		9.19	8.59				8.12	7.82	7.68
Iran	3.98	3.90		3.90	3.83				3.88	3.79	3.65
Iraq	2.09	2.38		2.32	2.36				2.41	2.37	2.26
UAE	2.52	2.59		2.63	2.43				2.45	2.36	2.25
Kuwait	2.16	2.31		2.33	2.30				2.24	2.18	2.03
Neutral Zone	0.56	0.57		0.58	0.56				0.56	0.56	0.54
Qatar	0.80	0.85		0.87	0.82				0.80	0.78	0.75
Angola	1.66	1.85		1.83	1.82				1.80	1.76	1.65
Nigeria	2.13	1.95		1.99	1.92				1.91	1.84	1.78
Libya	1.71	1.72		1.68	1.72				1.72	1.65	1.58
Algeria	1.36	1.37		1.37	1.35				1.32	1.27	1.25
Ecuador	0.50	0.50		0.50	0.49				0.49	0.50	0.48
Venezuela	2.39	2.35		2.33	2.33				2.29	2.18	2.10
Total Crude Oil[6]	30.34	31.24		31.52	30.52				29.98	29.05	27.99
Total NGLs[1,6]	4.52	4.66	4.96	4.69	4.78	4.68	4.80	5.06	4.78	4.68	4.68
Total OPEC[6]	34.86	35.89		36.21	35.30				34.75	33.74	32.68
OPEC: Historical Composition[6]	35.41	36.92		37.24	36.33				35.77	33.74	32.68
NON-OPEC[2]											
OECD											
North America	14.27	13.94	14.05	13.60	13.91	14.23	13.99	13.85	14.20	14.08	14.36
United States	7.47	7.54	7.89	7.23	7.51	7.82	7.99	7.79	7.76	7.68	7.93
Mexico	3.48	3.17	2.93	3.12	3.10	3.05	2.98	2.88	3.09	3.06	3.06
Canada	3.32	3.24	3.23	3.26	3.30	3.35	3.02	3.17	3.36	3.34	3.38
Europe	4.95	4.75	4.22	4.51	4.82	4.51	4.14	4.01	4.87	4.64	4.50
UK	1.66	1.56	1.34	1.41	1.57	1.48	1.34	1.20	1.60	1.50	1.50
Norway	2.56	2.47	2.22	2.39	2.57	2.35	2.14	2.15	2.59	2.45	2.31
Others	0.73	0.71	0.66	0.71	0.68	0.68	0.67	0.65	0.69	0.68	0.68
Pacific	0.63	0.64	0.72	0.66	0.67	0.70	0.71	0.72	0.66	0.71	0.68
Australia	0.55	0.55	0.61	0.56	0.59	0.62	0.61	0.61	0.58	0.63	0.60
Others	0.08	0.10	0.10	0.09	0.08	0.08	0.10	0.11	0.08	0.08	0.08
Total OECD	19.85	19.33	18.98	18.77	19.40	19.44	18.84	18.58	19.73	19.43	19.54
NON-OECD											
Former USSR	12.77	12.75	12.52	12.65	12.67	12.69	12.68	12.38	12.69	12.75	12.70
Russia	10.08	9.99	9.73	10.02	10.00	9.92	9.80	9.68	9.91	9.99	9.91
Others	2.69	2.76	2.79	2.63	2.67	2.77	2.89	2.71	2.78	2.77	2.79
Asia	7.40	7.45	7.60	7.43	7.46	7.56	7.60	7.62	7.34	7.56	7.58
China	3.73	3.79	3.90	3.79	3.80	3.89	3.90	3.91	3.70	3.91	3.89
Malaysia	0.74	0.76	0.75	0.77	0.74	0.75	0.76	0.75	0.74	0.74	0.76
India	0.81	0.81	0.81	0.80	0.82	0.80	0.80	0.81	0.81	0.80	0.80
Indonesia	1.01	1.03	1.04	1.03	1.02	1.02	1.03	1.04	1.02	1.01	1.02
Others	1.11	1.07	1.10	1.04	1.07	1.10	1.10	1.11	1.07	1.09	1.10
Europe	0.13	0.12	0.11	0.12	0.12	0.12	0.11	0.11	0.12	0.12	0.12
Latin America	3.85	4.02	4.32	4.07	4.09	4.30	4.32	4.33	4.13	4.32	4.30
Brazil	2.14	2.27	2.53	2.29	2.30	2.50	2.53	2.54	2.38	2.51	2.50
Argentina	0.75	0.74	0.73	0.76	0.73	0.74	0.74	0.73	0.70	0.75	0.74
Colombia	0.54	0.58	0.60	0.60	0.59	0.60	0.60	0.60	0.59	0.60	0.60
Others	0.43	0.43	0.46	0.42	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Middle East[3]	1.66	1.62	1.57	1.62	1.60	1.59	1.57	1.56	1.59	1.59	1.59
Oman	0.70	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.72	0.73	0.73
Syria	0.42	0.40	0.38	0.40	0.39	0.39	0.38	0.38	0.39	0.39	0.39
Yemen	0.34	0.31	0.27	0.30	0.30	0.28	0.27	0.26	0.29	0.29	0.28
Africa	2.53	2.57	2.62	2.57	2.58	2.60	2.62	2.64	2.58	2.59	2.60
Egypt	0.65	0.67	0.67	0.67	0.68	0.68	0.68	0.67	0.68	0.68	0.68
Gabon	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Others	1.65	1.67	1.71	1.67	1.66	1.68	1.70	1.72	1.66	1.67	1.68
Total Non-OECD	28.35	28.54	28.74	28.47	28.52	28.85	28.90	28.65	28.45	28.92	28.88
Processing Gains[4]	2.17	2.24	2.29	2.25	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Other Biofuels[5]	0.33	0.46	0.58	0.46	0.52	0.55	0.58	0.58	0.52	0.55	0.55
TOTAL NON-OPEC[6]	50.69	50.57	50.58	49.94	50.73	51.13	50.60	50.09	50.99	51.19	51.26
Non-OPEC: Historical Composition[6]	50.14	49.54	50.58	48.91	49.71	51.13	50.60	50.09	49.97	51.19	51.26
TOTAL SUPPLY	85.55	86.46		86.15	86.04				85.75	84.93	83.93

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Comprises fuel ethanol and biodiesel supply from outside Brazil and US.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Sep2008	Oct2008	Nov2008	Dec2008	Jan2009*	Jan2006	Jan2007	Jan2008	1Q2008	2Q2008	3Q2008	4Q2008
North America												
Crude	452.4	464.3	471.0	471.7	491.6	449.2	459.7	435.6	0.35	-0.22	0.19	0.21
Motor Gasoline	217.5	224.9	232.3	242.7	252.1	253.0	255.9	261.8	0.06	-0.13	-0.21	0.27
Middle Distillate	196.3	196.8	205.5	216.3	223.9	221.9	210.6	206.2	-0.33	0.14	0.05	0.22
Residual Fuel Oil	47.6	47.9	47.1	44.1	43.8	49.3	50.9	47.6	0.00	0.02	-0.02	-0.04
Total Products[3]	655.5	657.2	673.0	681.5	681.0	686.0	687.6	669.8	-0.45	0.35	0.00	0.28
Total[4]	1279.0	1289.7	1307.3	1304.8	1329.3	1274.2	1288.6	1243.6	-0.14	0.27	0.42	0.28
Europe												
Crude	333.7	332.1	328.8	342.8	342.6	335.7	309.9	331.6	0.07	0.01	-0.01	0.10
Motor Gasoline	97.9	97.3	105.7	108.6	110.1	118.8	116.1	120.7	0.08	-0.14	-0.11	0.12
Middle Distillate	260.2	251.2	265.0	273.0	268.2	256.1	270.7	251.5	0.13	0.02	0.12	0.14
Residual Fuel Oil	75.6	76.0	74.9	79.7	77.3	74.2	80.4	78.2	0.07	0.00	-0.05	0.04
Total Products[3]	544.3	539.9	560.5	573.6	567.2	550.0	571.1	560.4	0.31	-0.12	-0.02	0.32
Total[4]	948.2	945.0	961.9	990.7	983.3	960.1	954.5	963.3	0.35	-0.09	-0.08	0.46
Pacific												
Crude	161.6	162.7	165.7	162.3	162.4	155.6	172.9	166.9	-0.04	0.11	-0.07	0.01
Motor Gasoline	22.6	23.8	24.0	21.0	22.7	24.9	26.4	22.8	0.05	-0.03	-0.02	-0.02
Middle Distillate	74.1	74.1	69.5	65.3	64.0	62.6	81.3	69.3	-0.14	0.02	0.16	-0.10
Residual Fuel Oil	22.3	20.7	20.7	20.0	20.4	21.3	21.7	20.0	-0.01	0.03	0.00	-0.02
Total Products[3]	191.9	193.2	185.4	174.8	167.9	169.3	192.0	174.6	-0.11	0.01	0.28	-0.19
Total[4]	429.5	432.1	424.5	407.0	399.0	392.7	439.0	415.3	-0.14	0.16	0.24	-0.24
Total OECD												
Crude	947.8	959.1	965.5	976.7	996.6	940.6	942.5	934.0	0.38	-0.10	0.11	0.32
Motor Gasoline	338.1	346.0	362.0	372.3	384.9	396.7	398.4	405.4	0.19	-0.30	-0.34	0.37
Middle Distillate	530.6	522.1	540.0	554.6	556.1	540.6	562.6	527.0	-0.34	0.19	0.33	0.26
Residual Fuel Oil	145.5	144.6	142.7	143.8	141.5	144.8	153.0	145.8	0.05	0.05	-0.07	-0.02
Total Products[3]	1391.6	1390.3	1418.8	1429.9	1416.1	1405.3	1450.6	1404.8	-0.25	0.24	0.26	0.42
Total[4]	2656.8	2666.8	2693.7	2702.5	2711.5	2627.0	2682.2	2622.2	0.08	0.34	0.58	0.50

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Sep2008	Oct2008	Nov2008	Dec2008	Jan2009*	Jan2006	Jan2007	Jan2008	1Q2008	2Q2008	3Q2008	4Q2008
North America												
Crude	702.4	701.8	701.8	701.8	703.6	683.5	688.6	698.4	0.04	0.06	-0.04	-0.01
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	179.6	184.7	186.4	186.1	186.1	169.5	174.4	184.2	0.00	-0.03	-0.02	0.07
Products	233.1	229.5	226.7	228.6	228.6	235.9	235.9	234.6	-0.01	-0.01	-0.01	-0.05
Pacific												
Crude	384.3	384.7	386.2	387.2	389.2	380.0	384.6	385.1	0.00	0.00	-0.01	0.03
Products	19.2	19.2	19.2	19.2	19.2	11.6	16.4	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1266.3	1271.2	1274.4	1275.1	1278.9	1233.0	1247.6	1267.6	0.04	0.02	-0.07	0.10
Products	254.2	250.6	247.9	249.8	249.8	249.5	254.3	255.5	-0.01	-0.01	-0.01	-0.05
Total[4]	1521.5	1522.9	1523.2	1525.9	1529.7	1483.4	1502.9	1524.8	0.03	0.02	-0.08	0.05

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End December 2007		End March 2008		End June 2008		End September 2008		End December 2008 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	195.7	83	193.8	86	193.5	83	198.3	85	199.0	-
Mexico	45.0	21	46.8	22	44.7	21	55.7	27	50.3	-
United States[4]	1667.3	84	1655.1	84	1687.5	90	1707.3	89	1737.2	-
Total[4]	1930.1	78	1917.7	78	1947.9	82	1983.5	83	2008.6	85
Pacific										
Australia	37.3	39	36.1	37	37.4	38	37.7	38	40.5	-
Japan	621.0	115	610.0	133	619.1	144	646.2	138	629.6	-
Korea	143.5	62	142.8	68	146.6	71	141.2	67	134.9	-
New Zealand	8.3	49	8.4	55	8.4	58	7.9	53	8.5	-
Total	810.0	91	797.4	102	811.4	108	833.0	105	813.4	98
Europe[5]										
Austria	22.1	81	22.7	78	22.8	77	21.5	76	23.1	-
Belgium	27.2	40	30.3	49	28.4	47	29.1	47	30.6	-
Czech Republic	20.2	101	20.4	91	20.2	89	19.1	98	21.4	-
Denmark	17.1	95	16.4	89	19.0	107	18.3	101	22.9	-
Finland	27.1	128	30.5	135	25.5	113	30.1	135	30.7	-
France	179.9	91	177.5	93	176.6	92	176.6	88	179.2	-
Germany	274.6	110	281.5	115	273.1	99	271.7	102	277.0	-
Greece	37.4	80	34.9	92	36.3	87	39.2	83	40.0	-
Hungary	15.4	100	16.7	101	16.6	100	15.5	93	15.0	-
Ireland	10.6	55	12.1	63	10.4	57	10.5	52	11.3	-
Italy	132.9	82	130.9	82	136.7	83	130.3	80	127.9	-
Luxembourg	0.7	12	0.6	10	0.7	12	0.6	10	0.7	-
Netherlands	116.6	109	126.5	126	124.5	120	115.0	118	132.0	-
Norway	26.6	138	25.4	104	23.1	119	26.5	130	29.9	-
Poland	58.2	109	57.6	108	57.4	103	58.8	106	58.1	-
Portugal	23.6	82	24.9	86	25.3	87	25.0	93	24.7	-
Slovak Republic	7.9	99	9.0	112	9.1	99	8.0	94	8.8	-
Spain	133.9	84	134.2	87	135.0	87	135.8	88	137.6	-
Sweden	34.5	100	34.2	97	34.1	94	36.6	102	39.1	-
Switzerland	35.9	144	36.5	150	37.2	141	37.8	134	36.3	-
Turkey	60.3	90	60.9	93	60.9	80	60.8	98	60.9	-
United Kingdom	89.9	52	100.5	59	99.3	61	95.1	55	99.2	-
Total	1352.7	89	1384.4	92	1372.3	89	1361.9	89	1406.4	96
Total OECD	4092.8	84	4099.4	87	4131.6	89	4178.3	88	4228.4	91
DAYS OF IEA Net Imports[6]	-	122	-	122	-	123	-	124	-	131

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End December 2008 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
4Q2005	4072	1487	2585	80	29	51
1Q2006	4072	1487	2585	84	31	53
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	54
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	84	30	53
4Q2007	4093	1524	2569	84	31	53
1Q2008	4099	1527	2573	87	32	54
2Q2008	4132	1529	2603	89	33	56
3Q2008	4178	1522	2657	88	32	56
4Q2008	4228	1526	2703	91	33	58

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 4Q2008 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	1Q08	2Q08	3Q08	4Q08	Oct 08	Nov 08	Dec 08	Year Earlier Dec 07	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.75	0.73	0.71	0.63	0.47	0.62	0.79	0.91	-0.12
Europe	0.78	0.70	0.70	0.67	0.65	0.82	0.65	0.78	0.67	0.49	0.71	-0.22
Pacific	1.32	1.19	1.22	1.29	1.24	1.10	1.24	1.27	1.17	1.29	1.32	-0.02
Saudi Medium												
North America	0.64	0.56	0.64	0.58	0.62	0.68	0.66	0.58	0.78	0.64	0.56	0.09
Europe	0.14	0.05	0.05	0.05	0.07	0.03	0.05	0.04	0.06	0.05	0.04	0.01
Pacific	0.35	0.34	0.39	0.43	0.36	0.40	0.38	0.37	0.40	0.37	0.47	-0.10
Saudi Heavy												
North America	0.21	0.09	0.07	0.06	0.04	0.14	0.05	0.08	0.05	0.03	0.04	0.00
Europe	0.18	0.11	0.09	0.04	0.10	0.12	0.09	0.09	0.06	0.12	0.11	0.01
Pacific	0.23	0.20	0.24	0.22	0.24	0.26	0.25	0.28	0.21	0.25	0.21	0.04
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.74	0.60	0.57	0.51	0.52	0.58	0.43	0.40	0.03
Europe	0.32	0.30	0.21	0.20	0.19	0.23	0.22	0.29	0.18	0.17	0.28	-0.10
Pacific	0.08	0.17	0.15	0.13	0.18	0.18	0.11	0.10	0.09	0.15	0.26	-0.11
Iraqi Kirkuk												
North America	0.00	-	0.08	0.04	0.11	0.10	0.06	0.06	0.03	0.07	-	-
Europe	0.01	0.11	0.23	0.21	0.28	0.23	0.19	0.19	0.20	0.18	0.35	-0.17
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.24	0.23	0.21	0.24	0.23	0.23	0.26	0.20	0.06
Pacific	0.13	0.09	0.08	0.11	0.06	0.06	0.07	0.07	0.05	0.09	0.10	-0.01
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.44	0.48	0.60	0.43	0.56	0.44	0.30	0.43	-0.14
Pacific	0.56	0.64	0.61	0.65	0.49	0.67	0.64	0.65	0.62	0.64	0.80	-0.15
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.66	0.66	0.67	0.50	0.58	0.55	0.37	0.69	-0.32
Europe	0.11	0.08	0.06	0.07	0.06	0.06	0.07	0.10	0.02	0.08	0.10	-0.03
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.60	0.59	0.67	0.74	0.65	0.71	0.86	0.75	0.12
Europe	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.09	0.07	0.04	0.03
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	1.03	1.00	0.99	1.04	1.14	1.09	0.90	0.76	0.13
Europe	0.16	0.14	0.14	0.14	0.18	0.14	0.12	0.04	0.16	0.15	0.15	0.00
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.03	0.01	0.01	0.00	0.01	0.01	-	-	-
Europe	0.01	0.02	0.01	0.00	0.01	-	0.02	0.02	-	0.03	0.00	0.03
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.01	0.10	0.10	-	-	-	-	0.02	-
Europe	1.68	1.86	1.81	1.89	1.95	1.75	1.67	1.84	1.44	1.71	1.80	-0.09
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.85	0.77	0.52	0.60	0.66	0.62	0.51	0.81	-0.30
Europe	0.33	0.24	0.29	0.27	0.21	0.33	0.34	0.27	0.41	0.35	0.19	0.16
Pacific	0.04	0.01	-	-	-	-	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.31	0.27	0.26	0.22	0.21	0.24	0.21	0.30	-0.09
Europe	0.10	0.07	0.14	0.09	0.20	0.13	0.15	0.21	0.11	0.13	0.14	-0.01
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	1Q08	2Q08	3Q08	4Q08	Oct-08	Nov-08	Dec-08	Year Earlier Dec-07	% change
Crude Oil												
North America	8194	8118	8034	8087	8298	7895	7860	8171	7883	7526	7647	-2%
Europe	9784	9679	9759	9710	9878	9961	9488	9677	9262	9520	10325	-8%
Pacific	6816	6718	6603	7098	6457	6462	6400	6127	6476	6600	7490	-12%
Total OECD	24794	24514	24396	24895	24633	24317	23749	23975	23620	23646	25916	-9%
LPG												
North America	14	27	29	27	15	38	34	28	44	31	37	-15%
Europe	264	276	264	307	246	263	239	241	202	272	293	-7%
Pacific	578	557	589	599	632	582	542	550	574	504	643	-22%
Total OECD	856	860	881	933	893	884	815	819	820	807	974	-17%
Naphtha												
North America	71	39	55	25	54	58	82	36	118	92	20	362%
Europe	314	265	258	273	260	231	270	352	215	242	297	-19%
Pacific	754	794	776	796	734	886	689	736	621	706	705	0%
Total OECD	1138	1098	1089	1094	1048	1174	1040	1124	954	1040	1022	2%
Gasoline[3]												
North America	1143	1122	1082	888	1220	1184	1034	1198	922	978	905	8%
Europe	160	203	218	227	187	260	196	172	202	215	140	53%
Pacific	96	73	91	110	91	56	106	141	56	118	66	80%
Total OECD	1399	1398	1390	1225	1498	1501	1336	1512	1181	1311	1110	18%
Jet & Kerosene												
North America	161	183	63	96	78	40	40	56	16	48	103	-54%
Europe	374	370	401	360	381	399	462	514	429	443	397	11%
Pacific	69	43	34	44	39	22	33	34	18	47	57	-18%
Total OECD	603	595	498	499	498	461	536	604	463	537	558	-4%
Gasoil/Diesel												
North America	175	128	72	99	46	50	95	52	75	156	113	38%
Europe	967	780	871	901	662	899	1019	880	1141	1039	977	6%
Pacific	77	91	119	100	133	128	117	114	120	117	83	42%
Total OECD	1219	999	1063	1100	841	1078	1230	1046	1335	1312	1172	12%
Heavy Fuel Oil												
North America	343	323	286	328	307	246	266	225	260	312	306	2%
Europe	476	433	445	487	391	442	458	431	477	466	460	1%
Pacific	91	95	125	124	140	143	93	68	121	91	93	-2%
Total OECD	910	851	856	939	838	831	817	724	857	870	859	1%
Other Products												
North America	1121	1051	1076	1041	1085	1061	1117	1170	1119	1061	914	16%
Europe	929	854	760	744	763	782	752	880	689	686	670	2%
Pacific	243	254	300	290	267	318	322	338	262	363	342	6%
Total OECD	2294	2158	2136	2076	2116	2161	2190	2388	2070	2109	1925	10%
Total Products												
North America	3028	2873	2663	2504	2804	2677	2667	2765	2553	2677	2397	12%
Europe	3484	3180	3216	3298	2891	3276	3396	3470	3354	3363	3234	4%
Pacific	1908	1906	2034	2064	2035	2136	1902	1983	1772	1947	1988	-2%
Total OECD	8420	7958	7913	7867	7731	8089	7965	8218	7679	7987	7619	5%
Total Oil												
North America	11222	10990	10697	10592	11102	10572	10527	10937	10436	10204	10498	-3%
Europe	13268	12859	12975	13008	12769	13237	12884	13147	12616	12882	13559	-5%
Pacific	8724	8623	8637	9162	8492	8597	8302	8110	8248	8547	9478	-10%
Total OECD	33214	32472	32310	32762	32364	32406	31713	32193	31300	31633	33536	-6%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor
Head, Oil Industry and Markets Division
David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand
Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply
Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining
David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight
Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices
Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Statistics/Trade
Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant
Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*

* 0 - only within France

Media Enquiries

IEA Press Office
(+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

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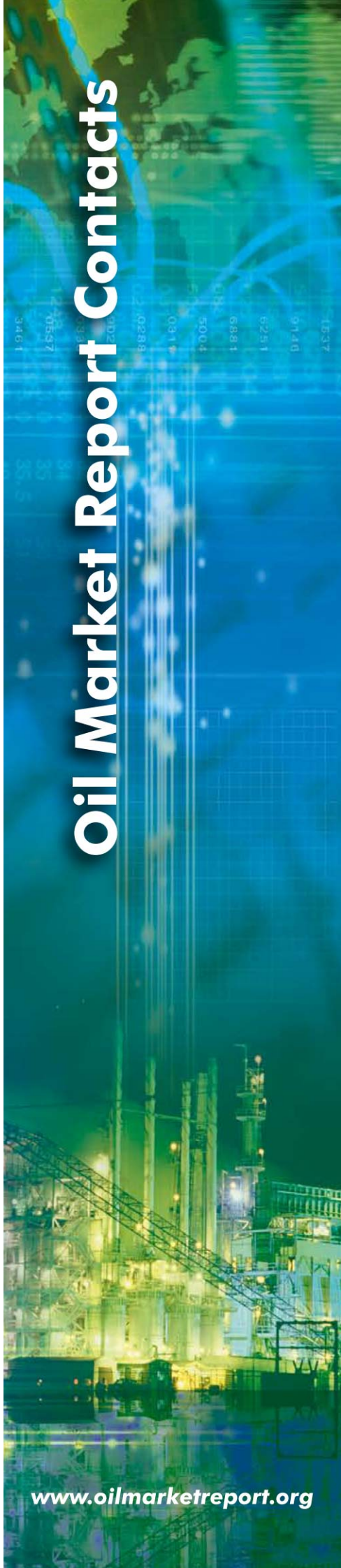

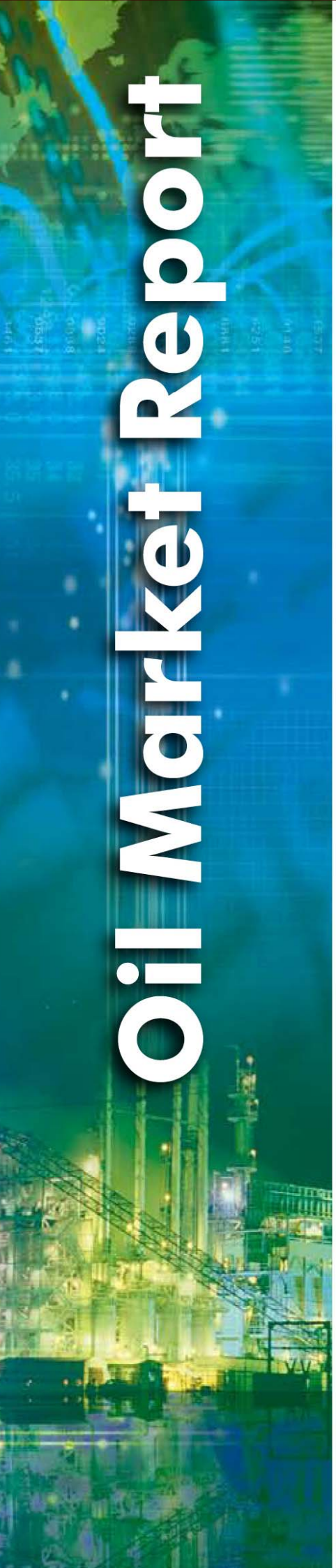

INTERNATIONAL ENERGY AGENCY

10 April 2009

HIGHLIGHTS

- **Benchmark crude prices exceeded $50/bbl for the first time** in four months as more bullish sentiment entered financial markets in late March/early April. Prices recently have tracked expectations for the global economy, seeking signs of demand recovery. However, pervasively weak market fundamentals could limit further gains for now.

- **Forecast 2009 global oil demand** is revised down by 1.0 mb/d after a reassessment of GDP assumptions and much lower-than-expected 1Q09 demand data. Global demand is now forecast at 83.4 mb/d, 2.4 mb/d below 2008. The pace of contraction is close to early 1980s levels, with a growing consensus that economic and oil demand recovery will be deferred to 2010.

- **Global oil supply fell by 400 kb/d in March, to 83.4 mb/d.** Non-OPEC supply fell by 170 kb/d, with a 220 kb/d dip in the OECD partly offset by higher non-OECD output. 2009 non-OPEC output is revised down by 320 kb/d, largely due to lower biofuels output, and weaker 1Q09 crude production in Asia. Non-OPEC output now falls from 50.6 mb/d in 2008 to 50.3 mb/d in 2009.

- **OPEC crude supply in March** averaged 27.8 mb/d, down 235 kb/d versus February. OPEC-11 output stands 720 kb/d above a 24.9 mb/d target that was retained at OPEC's 15 March meeting. Supplies stand at five-year lows, amid exceptionally weak demand, with Ministers meeting again on 28 May. Effective spare capacity is around 5.5 mb/d. The call on OPEC crude and stock change is 28.2 mb/d for 2009, 2.6 mb/d below 2008 levels.

- **OECD industry stocks rose by 7.5 mb in February to 2,743 mb**, 7.2% above a year ago. Lower North American products only partially offset a rise in Pacific crude stocks. An upward revision to January inventories, plus increasing February stocks and weaker forward demand, pushed end-February stock cover to 61.6 days, 7.9 days above a year ago.

- **Lower global crude runs** are expected to persist through 2Q09 and into 3Q09. Demand revisions, weak middle distillate cracks and reports of bulging product inventories in several markets, suggest a further painful period of weak margins as refiners adjust operating rates to the 2.8% decline in demand now expected for this year.

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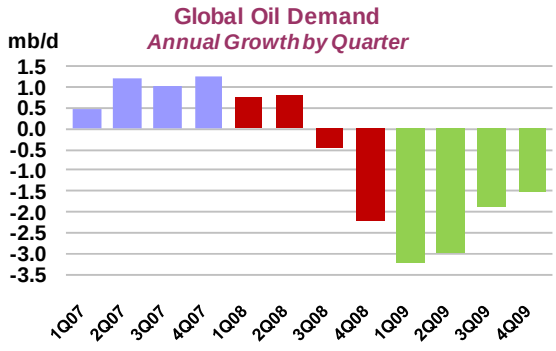
SEARCHING FOR THE LOW WATER MARK

Record-high prices, followed by economic downturn, helped to severely curb last year's demand total. By last month, a progressive 3.3 percentage point downgrade in expected GDP growth had also driven a cumulative 3.3 mb/d cut in our 2009 demand forecast. Still-lower global GDP expectations this month (growth is reduced from +0.5% to -1.4%) further depress the 2009 forecast. An additional 1.0 mb/d is cut from projected demand, leaving the 2009 total at 83.4 mb/d, its lowest since 2004. Demand now falls by 2.4 mb/d in 2009, double last month's figure, albeit an upward-revised 2008 non-OECD baseline exaggerates the trend.

Nor are the 2009 adjustments solely conjecture. Early indications for 1Q09 suggest much lower demand in both the OECD and non-OECD than we had expected. Compared with a total 2009 demand adjustment of -1.0 mb/d, 1Q demand is revised lower by 0.7 mb/d, with middle distillates suffering, despite spells of colder northern hemisphere weather. Lower prices may have aided an apparent rebound in February US weekly gasoline demand data, but this could prove a false dawn if traditional downward revisions in monthly data again materialise. Elsewhere, industrial activity indicators remain universally weak, leaving analysts struggling to identify an economic low water mark.



Since it remains impossible to judge the likely time horizon for a turn in the economic tide, demand prognoses remain equally hazy. But oil market symptoms of the economic malaise abound. In the short term, producers are scrambling to curb prompt supply to staunch a build-up in inventories, with OECD forward cover now at a giddy 61.6 days for February, the highest since 1993 (even if absolute stock levels arguably now provide a more balanced view of the state of the market). OPEC output has been cut below 28 mb/d, its lowest level since just after the 2003 war in Iraq. Floating storage levels have risen again, while tentative indicators of key Chinese inventories suggest these remain well above levels of a year ago. We have also slashed forecast refinery crude throughputs for the period into July. Extended maintenance and run cuts amid weak margins could keep global runs 3 mb/d or so below (admittedly high) 2008 levels in months to come. OECD activity flat-lines at best, despite the assumed re-emergence of a US gasoline season this year.

There has been much comment in recent months about the industry storing up problems for the future by curbing investment. Relentless downward revisions to demand muffle some of the cries about an imminent 'supply crunch', but long project lead times will only be stretched further by today's market weakness. OPEC's recent Vienna Seminar, the IFP Paris Oil Summit and other industry gatherings have been striking for the unanimity of view between producers, consumers and other market players. All envisage oil supply levels in the next five years seriously constrained by today's lower prices and lower investment. While talk of setting a 'fair' price level has sensibly receded, it is likely that, in future, prices will again rise as demand growth returns, markets tighten and higher cost resources need to be tapped. What's more, evidence continues to surface that supply-side impacts from the recession lag those for demand. Upstream spending levels for 2009 now look to be slipping by nearer 20% than 10%. Non-OPEC project cancellations and slippage out of the 2009-2010 start-up horizon alone stand at 1 mb/d or more (something we capture in our forecasts). Finally, this month we also make a preliminary attempt to illustrate how cuts in spending at selected existing fields could reduce short-term non-OPEC supplies by at least a further 360 kb/d (not yet rolled into the main forecast). The tide may still be going out for both the economy and the oil market, but it will inevitably turn again at some point.

DEMAND

Summary

- **Forecast global oil demand** has been revised down for 2009 following another reassessment of global economic assumptions, after a flurry of downward adjustments by both public and private forecasters, and much lower than expected 1Q09 data (-0.7 mb/d versus last report's estimate). Global GDP is now expected to contract by 1.4% in 2009, entailing a -1.0 mb/d revision to global oil demand, which is projected at 83.4 mb/d (-2.8% or -2.4 mb/d when compared with the previous year). The demand estimate for 2008, by contrast, has been revised up by +160 kb/d to 85.8 mb/d (-0.3% or -0.3 mb/d versus 2007) following an upward adjustment to the non-OECD baseline. The pace of oil demand contraction is approaching rates last seen in the early 1980s, but a repeat of the four-year consecutive fall seems unlikely at this point, although an emerging consensus sees economic, and hence oil demand, recovery likely deferred to 2010.

- **Forecast oil demand in the OECD** has been adjusted down for 2009 on the basis of much lower economic assumptions. OECD countries are set to face an unusually severe recession, with overall GDP contracting by 3.9%. Consequently, oil demand is now forecast at 45.2 mb/d (-4.9% or -2.4 mb/d on a yearly basis), some 760 kb/d lower than previously estimated. By contrast, this month's estimate for 2008 oil demand remains virtually unchanged at 47.5 mb/d (-3.4% or -1.7 mb/d versus 2007).

Global Oil Demand (2007-2009)

(million barrels per day)

	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Africa	3.1	3.0	3.0	3.1	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.2	3.2
Americas	31.1	31.0	31.3	31.3	31.2	30.5	30.5	29.8	30.0	30.2	29.3	29.1	29.3	29.0	29.2
Asia/Pacific	25.6	24.9	24.5	25.7	25.2	26.4	25.4	24.7	24.8	25.3	25.0	24.4	23.9	24.5	24.5
Europe	15.9	15.7	16.2	16.4	16.0	16.0	15.6	16.1	16.1	15.9	15.5	14.9	15.5	15.5	15.3
FSU	4.2	3.9	4.1	4.2	4.1	4.2	4.1	4.3	4.2	4.2	4.0	4.0	4.2	4.1	4.1
Middle East	6.3	6.5	6.8	6.5	6.5	6.6	7.0	7.5	6.8	7.0	6.7	7.2	7.7	7.1	7.2
World	**86.2**	**85.0**	**85.9**	**87.3**	**86.1**	**87.0**	**85.8**	**85.5**	**85.0**	**85.8**	**83.8**	**82.8**	**83.6**	**83.5**	**83.4**
Annual Chg (%)	0.6	1.5	1.2	1.5	1.2	0.9	0.9	-0.5	-2.5	-0.3	-3.7	-3.5	-2.2	-1.8	-2.8
Annual Chg (mb/d)	0.5	1.2	1.0	1.3	1.0	0.8	0.8	-0.4	-2.2	-0.3	-3.2	-3.0	-1.9	-1.5	-2.4
Changes from last OMR (mb/d)	0.04	-0.06	0.18	0.10	0.06	0.12	0.10	0.26	0.14	0.16	-0.70	-1.17	-1.00	-1.10	-0.99

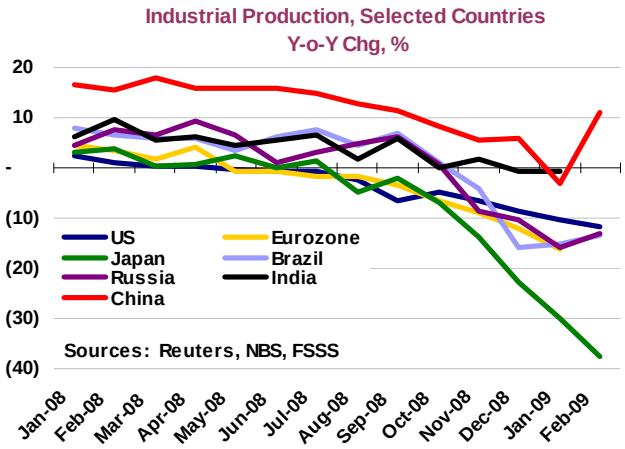
- **Forecast non-OECD oil demand** has similarly been revised down for 2009, since economic growth in emerging economies is now expected to halve to +1.9%. Oil demand is foreseen to average 38.3 mb/d in 2009 (-0.1% or roughly flat versus the previous year and almost 230 kb/d lower than previously expected). Although small, this will be the first contraction in non-OECD demand since 1994. Meanwhile, the oil demand estimate for 2008 has been lifted by 170 kb/d, largely due to an upward revision to historical data.

- **The adjustment in the non-OECD baseline owes largely to a significant improvement in the *JODI* database with regards to monthly demand data.** Monthly data from for 14 additional countries, deemed reliable after having been closely monitored over the past two years, have now been included. As such, this report now tracks almost 90% of global oil demand on a monthly basis.

Global Overview

Over the past few days, global stock and commodity markets have been frantically looking for evidence of an imminent economic recovery, with indices and prices rising somewhat from their dismal lows of early 2009. The G20 meeting further boosted sentiment, as world leaders jointly pledged to support growth. However, aside from the substantial increase of the IMF's balance sheet, which should arguably help it address looming balance-of-payment crises more effectively, most other G20 commitments were a restatement of existing fiscal and monetary measures. Meanwhile, rising unemployment, falling industrial

production, shrinking trade and, more generally, the imbalances in global aggregate demand remain – so much so that major public and private forecasters recently embarked on yet another round of sharp downward revisions to GDP prognoses. Industrial production in key economies, for example, continues to plunge (China's growth uptick in February was distorted by the Lunar New Year holiday).



Consequently, for the fourth time since last October, we have slashed the economic assumptions that underpin our oil demand forecasts. However, given the very broad range of views with regards to the short- and medium-term outlook, we have attempted to chart a middle course by using specialised sources per region (i.e., OECD for advanced economies, Asian Development Bank for Asian countries, etc.) and generalist sources for others (for example, the World Bank for Russia). Admittedly, such a diversity of sources is not ideal, but is an attempt to capture the most reliable and recent estimates. Indeed, the IMF is due to release a comprehensive update of its *World Economic Outlook* by late April and we may then try to restore a modicum of homogeneity to our GDP assumptions.

We now assume that global GDP will actually *contract* by 1.4%, rather than expanding modestly as we had been expecting in the February and March reports. OECD countries should face an unusually severe recession (-3.9%), while non-OECD countries are expected to slow down significantly (+1.9%), with several sub-regions even facing falling output. Naturally, these changes, coupled with much weaker-than-expected 1Q09 data, entail a large downward revision to our 2009 global demand forecast (almost 1.0 mb/d compared with our previous report, of which 0.8 mb/d in the OECD and 0.2 mb/d in non-OECD countries). World demand is now expected to average 83.4 mb/d, down by 2.8% or 2.4 mb/d versus 2008, when demand totalled 85.8 mb/d (about 160 kb/d higher than previously estimated, largely on the back of an upward revision of 170 kb/d to the non-OECD baseline).

This forecast implicitly discards a recovery in both global economic growth and oil demand from 2H09, as we had earlier assumed. Oil demand in 3Q09 should rise versus 2Q09 in line with the US driving season, contrary to 2008, when it petered out on the back of high prices and the impending economic slowdown. However, oil demand in 4Q09 should be little changed versus 3Q09 – instead of the rebound normally seen in the fourth quarter. Consumption in the OECD should remain subdued, as weak economic activity counteracts the normal seasoning rise, while demand in non-OECD countries should decline as their economies slow. As such, oil demand is set to shrink at a pace last seen in the early 1980s – but a repeat of the four-year consecutive fall seems, at this point, unlikely. Indeed, most economists now see a sustained recovery materialising in 2010 at best, although we may witness occasional outbursts of growth over the next quarters as companies across different industries and countries rebuild depleted inventories – as long, however, as demand sustains such a restocking.

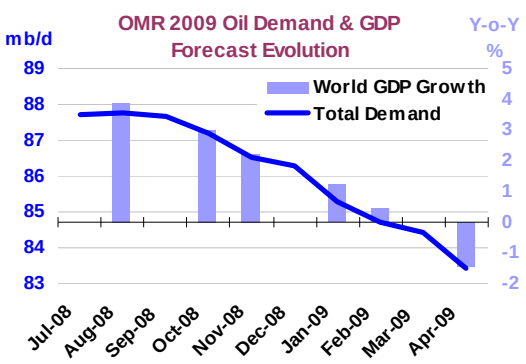
Real GDP Growth
OMR dated 10 April 2009

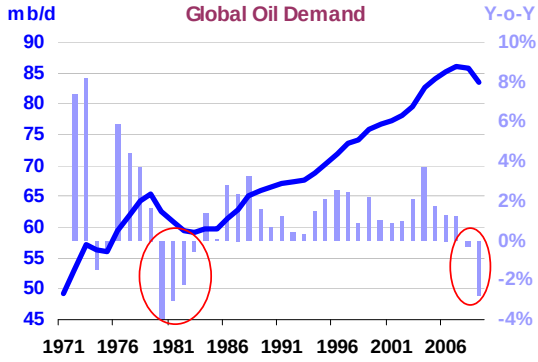
% change	2009
WORLD	**(1.4)**
OECD	**(3.9)**
OECD, North America	(3.8)
OECD, Europe	(3.3)
OECD, Pacific	(5.6)
Non-OECD	**1.9**
Africa	1.9
Latin America	(0.6)
China (excl. Hong Kong)	6.3
Other Asia	1.5
Non-OECD Europe	(0.9)
FSU	(3.6)
Middle East	1.8

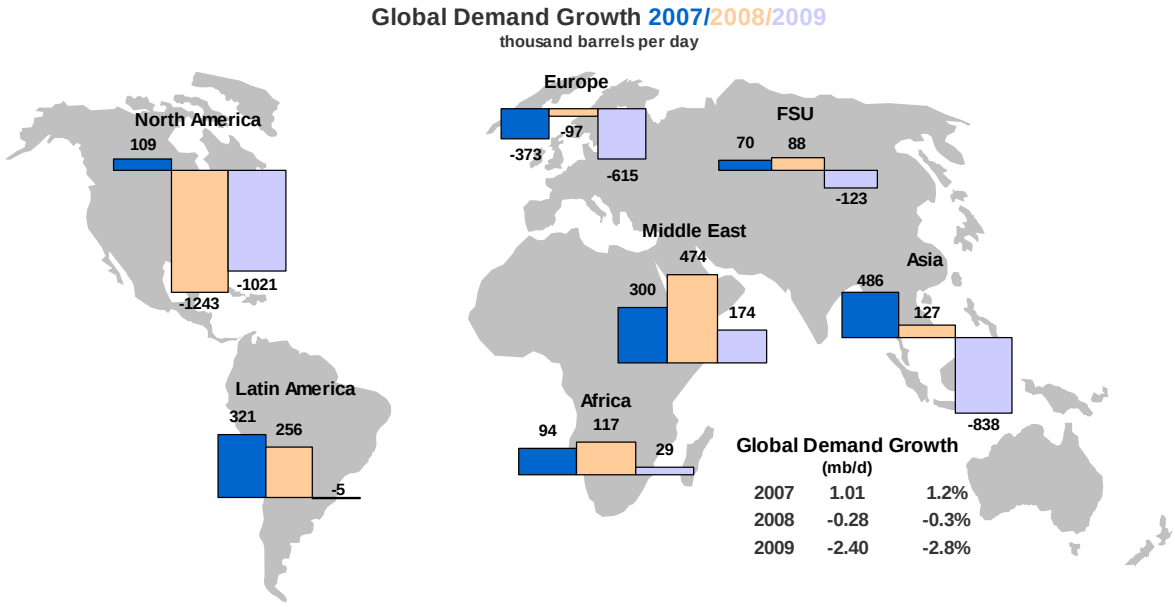
Current vs. Previous
OMR dated 11 February 2009

WORLD	**(1.9)**
OECD	**(2.2)**
OECD, North America	(2.3)
OECD, Europe	(1.2)
OECD, Pacific	(4.1)
Non-OECD	**(1.5)**
Africa	(1.3)
Latin America	(2.3)
China (excl. Hong Kong)	(0.4)
Other Asia	(1.6)
Non-OECD Europe	(0.3)
FSU	(3.2)
Middle East	(1.7)

Sources: IMF, OECD, WB, ADB, IDB, EIU, Consensus Economics, IEA







OECD

Preliminary data show that OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 5.4% year-on-year in February, with all three regions recording losses for the tenth month in a row. In **OECD North America** (which includes US Territories), oil product demand fell by 4.5% year-on-year, with all product categories posting losses. In **OECD Europe**, despite strong heating oil deliveries, total demand shrank by 2.3%. **In OECD Pacific**, demand plunged by an astonishing 13.0% as the economic recession deepened.

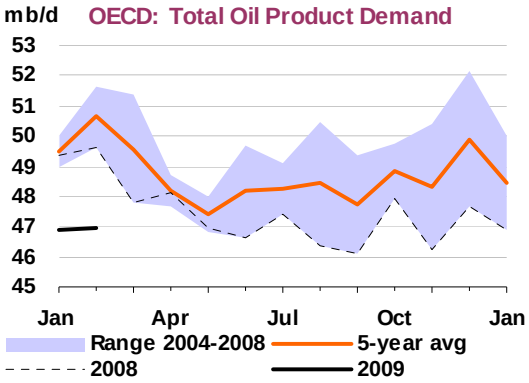
Overall revisions to January's preliminary figures were positive, as both North America and Europe reported slightly higher-than-anticipated demand for both gasoline and heating oil (demand in the Pacific, by contrast, was largely unchanged). January's OECD demand estimates were thus adjusted up by 210 kb/d, indicating that demand fell by 5.0% during that month, rather than by 5.5% as previously estimated. However, the 1Q09 demand estimate has been cut by 370 kb/d given very weak preliminary data for February (and March, in the case of the US). Overall, following the inclusion of preliminary data and the reappraisal of the economic outlook in advanced economies, OECD demand is now expected to contract by 4.9% on a yearly basis In 2009 (-2.4 mb/d) to 45.2 mb/d (760 kb/d below our previous assessment).

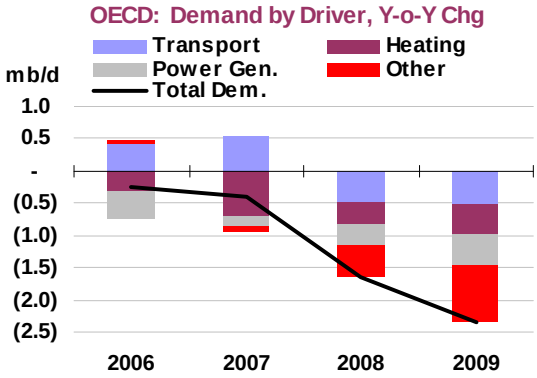
OECD Demand based on Adjusted Preliminary Submissions - February 2009

(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.40**	**-0.1**	**1.59**	**-14.2**	**3.83**	**-4.0**	**1.33**	**-4.6**	**0.89**	**-17.1**	**5.65**	**-7.05**	**23.69**	**-4.5**
US50	8.86	-0.1	1.35	-15.8	3.29	-4.2	0.77	-5.3	0.48	-16.4	4.19	-9.1	18.94	-4.9
Canada	0.71	0.0	0.14	0.1	0.22	1.6	0.41	-3.1	0.15	-4.8	0.80	0.9	2.42	-0.4
Mexico	0.77	0.1	0.07	-15.0	0.27	-6.5	0.12	-6.5	0.18	-32.0	0.60	-2.9	2.00	-6.6
OECD Europe	**2.22**	**-4.5**	**1.17**	**-7.0**	**4.12**	**-5.1**	**2.45**	**11.7**	**1.76**	**7.8**	**3.34**	**-8.7**	**15.07**	**-2.3**
Germany	0.46	0.0	0.16	-10.2	0.63	4.2	0.66	41.1	0.20	9.4	0.48	-21.1	2.58	3.5
United Kingdom	0.37	-8.1	0.35	-0.7	0.43	-6.4	0.14	-2.3	0.06	-11.7	0.33	-12.3	1.68	-6.7
France	0.18	-9.3	0.14	-4.6	0.66	-3.0	0.44	15.5	0.16	50.6	0.50	5.4	2.08	4.6
Italy	0.27	-6.0	0.07	-8.6	0.53	-6.8	0.12	7.5	0.29	26.5	0.36	-9.9	1.64	-2.0
Spain	0.14	-7.0	0.09	-16.2	0.48	-9.8	0.24	-10.2	0.21	-1.6	0.32	-7.3	1.49	-8.5
OECD Pacific	**1.51**	**-3.1**	**1.15**	**-18.9**	**1.18**	**-5.1**	**0.52**	**-19.7**	**0.91**	**-13.3**	**2.93**	**-16.6**	**8.19**	**-13.0**
Japan	0.93	-4.0	0.80	-23.3	0.54	-12.4	0.38	-26.1	0.42	-27.4	1.47	-31.8	4.55	-22.7
Korea	0.17	1.6	0.22	-10.6	0.27	5.4	0.12	4.5	0.43	6.5	1.27	9.6	2.48	5.7
Australia	0.35	-0.7	0.11	1.6	0.31	-0.1	0.02	-2.2	0.05	-8.4	0.16	-2.5	0.99	-1.0
OECD Total	**14.12**	**-1.1**	**3.92**	**-13.7**	**9.13**	**-4.6**	**4.30**	**1.5**	**3.56**	**-5.2**	**11.91**	**-10.0**	**46.95**	**-5.4**

* Including US territories





Total OECD Demand by Product

(million barrels per day)

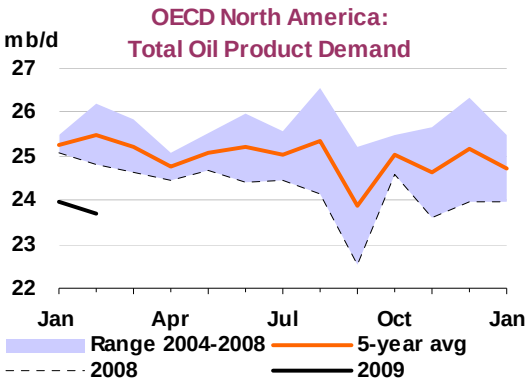
	2007	2008	1Q08	2Q08	3Q08	4Q08	Nov 08	Dec 08	Jan 09*	Latest month vs. Dec 08	Latest month vs. Jan 08
LPG & Ethane	4.82	4.65	5.16	4.58	4.31	4.57	4.42	4.82	5.05	0.22	-0.18
Naphtha	3.24	3.03	3.28	2.99	3.01	2.84	2.85	2.76	2.80	0.04	-0.54
Motor Gasoline	14.92	14.46	14.23	14.73	14.48	14.39	14.21	14.51	13.82	-0.69	-0.23
Jet & Kerosene	4.12	3.99	4.35	3.86	3.81	3.91	3.83	4.21	4.17	-0.04	-0.24
Gas/Diesel Oil	13.14	13.00	13.40	12.64	12.61	13.34	12.93	13.23	13.11	-0.12	-0.36
Residual Fuel Oil	3.96	3.65	3.85	3.62	3.52	3.62	3.53	3.77	3.88	0.12	-0.20
Other Products	4.97	4.74	4.63	4.82	4.88	4.62	4.50	4.35	4.04	-0.32	-0.71
Total Products	**49.17**	**47.51**	**48.91**	**47.24**	**46.62**	**47.28**	**46.26**	**47.65**	**46.87**	**-0.78**	**-2.46**

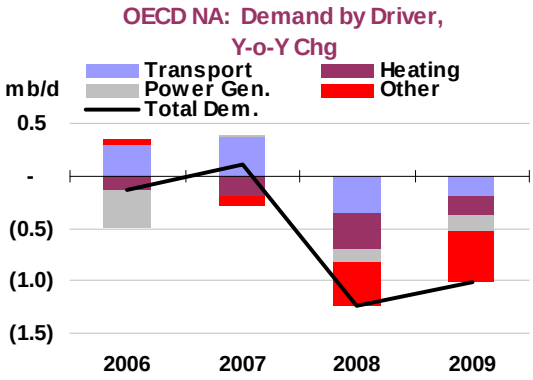
* Latest official OECD submissions (MOS)

North America

According to preliminary data, oil product demand in North America (including US Territories) fell by 4.5% year-on-year in February, the fourteenth monthly contraction in a row. Oil demand in the United States (-4.8% year-on-year in February) has contracted uninterruptedly since August 2007, Canada's (-0.4%) since August 2008 and Mexico's (-6.6%) since October 2008.

Revisions to January preliminary data (+210 kb/d) were driven by the US and Canada (Mexico was unchanged). Demand in OECD North America was thus slightly stronger than anticipated in that month, falling by 4.4% year-on-year, instead of 5.2%. Overall, demand is expected to reach 23.3 mb/d in 2009 (-4.2% or -1.0 mb/d versus 2008 and about 240 kb/d lower than previously anticipated), largely as a result of more pessimistic economic assumptions and the continued weakness of preliminary weekly data on US oil demand.





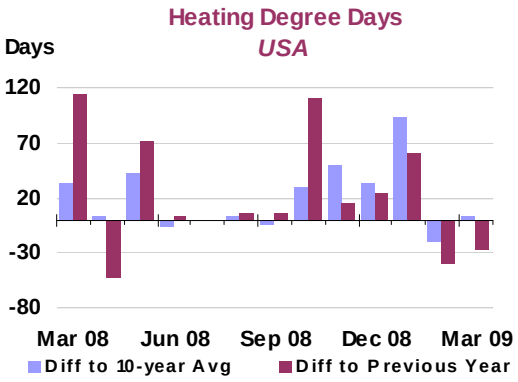
OECD North America Demand by Product

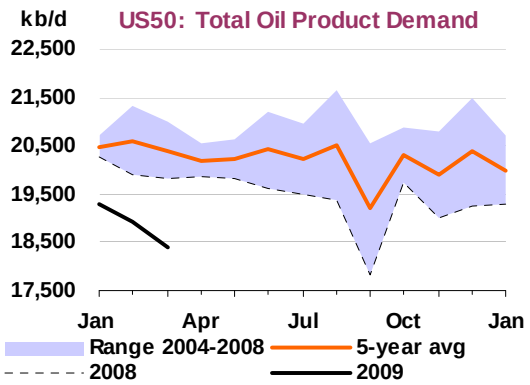
(million barrels per day)

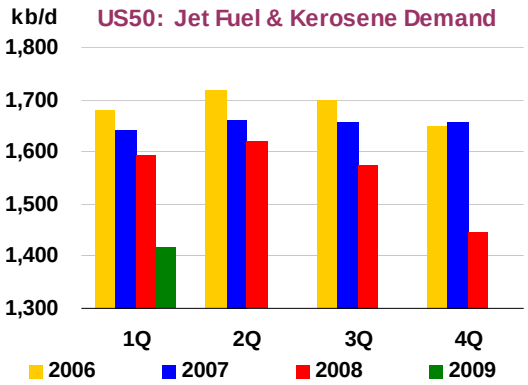
	2007	2008	1Q08	2Q08	3Q08	4Q08	Nov 08	Dec 08	Jan 09*	Latest month vs. Dec 08	Latest month vs. Jan 08
LPG & Ethane	2.92	2.73	3.10	2.63	2.52	2.68	2.62	2.78	3.04	0.25	-0.14
Naphtha	0.41	0.35	0.36	0.37	0.34	0.32	0.36	0.30	0.28	-0.02	-0.10
Motor Gasoline	10.84	10.56	10.47	10.74	10.51	10.53	10.42	10.55	10.25	-0.30	-0.12
Jet & Kerosene	1.89	1.79	1.84	1.84	1.81	1.66	1.67	1.66	1.66	0.00	-0.16
Gas/Diesel Oil	5.24	5.01	5.29	4.96	4.77	5.03	4.94	4.80	5.14	0.34	-0.15
Residual Fuel Oil	1.25	1.13	1.14	1.22	1.07	1.08	0.97	1.21	1.21	0.00	-0.02
Other Products	2.97	2.72	2.63	2.77	2.71	2.76	2.61	2.66	2.40	-0.26	-0.41
Total Products	**25.53**	**24.28**	**24.84**	**24.52**	**23.73**	**24.06**	**23.60**	**23.97**	**23.98**	**0.01**	**-1.10**

* Latest official OECD submissions (MOS)

Adjusted preliminary inland deliveries – a proxy of oil product demand – in the continental **United States** declined by 7.0% year-on-year in March, with most product categories posting large contractions. The country's shattered economy weighed again on oil demand (GDP is expected to have contracted by at least 6% year-on-year in 1Q09). Furthermore, continued mild weather softened power and heating needs (the number of heating-degree days in March was barely higher than the 10-year average and much lower than in the same month of the previous year). Not coincidentally, East Coast city-gate gas prices have reached new lows ($4.2/mmbtu), and about $3.6/mmbtu for utilities on the Gulf Coast.

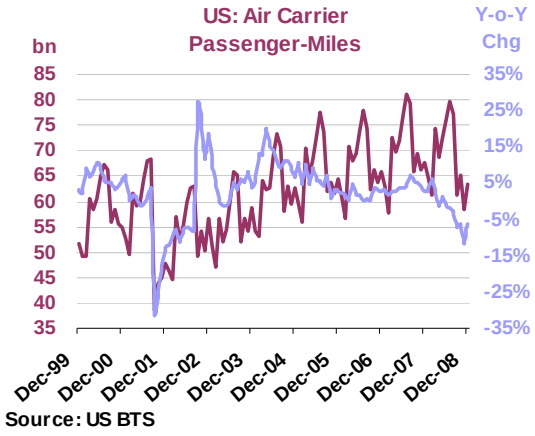


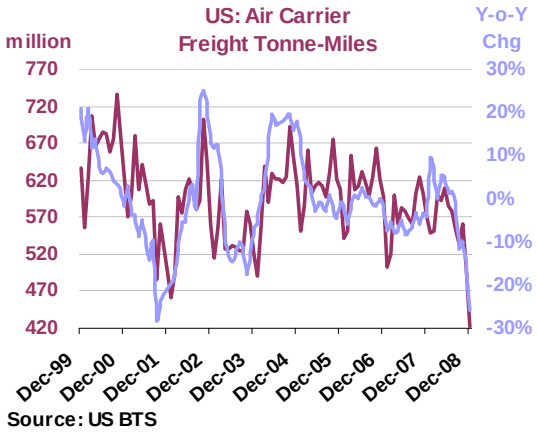




Our revisions to preliminary US weekly data (+120 kb/d) in January were again relatively marginal; so far, our pre-emptive adjustment has worked relatively well, compared with the EIA's weekly-to-monthly revisions (-450 kb for the month). The adjusted data show that January's year-on-year annual decline reached 4.9% – slightly less than previously estimated (-5.5%) but scarcely heralding a recovery. In fact, based on January's revisions and preliminary February and March data, in addition to a lower GDP assumption (-4.0%), oil demand in 2009 is expected to contract by 4.5% or 880 kb/d to 18.6 mb/d, about 200 kb/d lower when compared with our previous report.

The fall in jet fuel/kerosene demand, down by 11.1% year-on-year in 1Q09, has been particularly striking. According to the latest available data from the US Bureau of Transportation Statistics, both the number of passengers and cargo tonnage began to shrink in early 2008, largely offsetting airlines' efficiency efforts (notably filling planes at greater capacity). Interestingly, the so-called 'passenger-miles' indicator has not yet reached the lows seen after September 2001; by contrast, the fall in freight (measured by 'freight tonne-miles') has been steeper. Anecdotal evidence suggests that these indicators have probably worsened during 1Q09, given the deepening recession.





The US government appears determined to enhance the fuel efficiency of the country's vehicle fleet. Firstly, in late March the Department of Transportation announced the corporate average fuel economy target to be applied to 2011 model cars and light trucks. The new standard (27.3 miles per gallon, equivalent to roughly 12 km/litre) is expected to raise the average fuel efficiency of new vehicles by some 2 mpg from 2010. The move is consistent with the Energy Independence and Security Act of 2007, which mandated a goal of 35 mpg by 2020 but allowed the government to set a standard for each year up to a maximum deemed feasible. Secondly, the President rejected the restructuring plans submitted by GM and Chrysler – a condition for a $22 billion bailout (in addition of the $17 billion that the ailing automakers have already received). The companies must quickly devise new plans that prioritise smaller, fuel-efficient vehicles – or risk bankruptcy. Finally, several members of Congress are working on a bill that would promote the replacement of old, less fuel-efficient cars in favour of cleaner vehicles via consumer tax credits. This would mirror similar legislation in Europe, which has succeeded in boosting car sales since February in Germany, and to a lesser extent, France.

Europe

According to preliminary inland data, oil product demand in Europe shrank by 2.3% year-on-year in February. The cold weather boosted both heating oil (+11.7% year-on-year) and residual fuel oil demand (+7.8%); although February was less chilly than January, the number of heating-degree days was higher than both the 10-year average and the same month of the previous year. However, that was not enough to offset losses elsewhere, notably in naphtha (-15.1%), jet fuel/kerosene (-7.0%) and diesel (-5.1%), which reflect worsening economic conditions among Europe's largest economies.

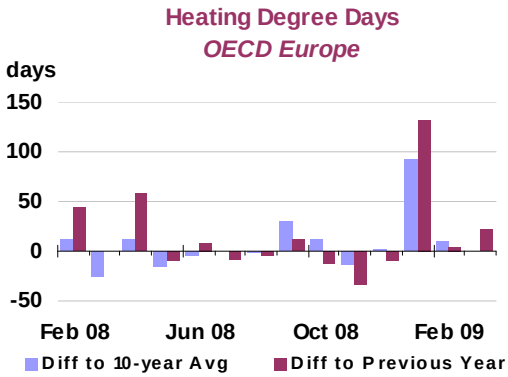
Regarding revisions, January data inched up by 50 kb/d, mostly for gasoline, jet fuel/kerosene and residual fuel oil. Owing to the adjustment to our economic assumptions, oil demand in OECD Europe is now expected to average 14.6 mb/d in 2009, -4.0% or -610 kb/d compared with the previous year and 130 kb/d lower than previously anticipated.

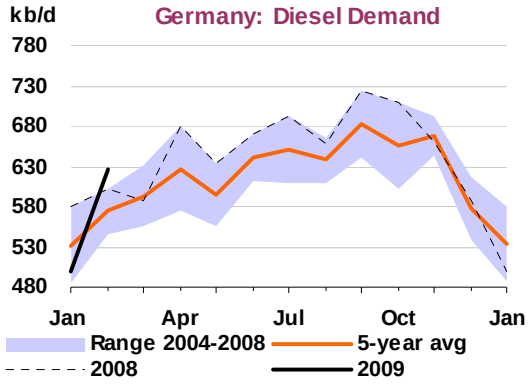
OECD Europe Demand by Product
(million barrels per day)

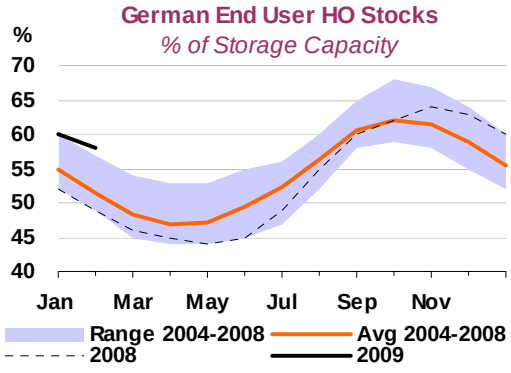
	2007	2008	1Q08	2Q08	3Q08	4Q08	Nov 08	Dec 08	Jan 09*	Latest month vs. Dec 08	Latest month vs. Jan 08
LPG & Ethane	0.95	0.96	1.05	0.98	0.87	0.93	0.90	1.01	1.01	0.00	-0.07
Naphtha	1.17	1.10	1.22	1.07	1.08	1.02	1.00	0.96	0.96	0.00	-0.24
Motor Gasoline	2.50	2.37	2.29	2.44	2.46	2.31	2.27	2.30	2.11	-0.19	-0.14
Jet & Kerosene	1.31	1.31	1.27	1.30	1.41	1.26	1.18	1.26	1.21	-0.05	-0.05
Gas/Diesel Oil	6.10	6.28	6.31	5.96	6.26	6.59	6.28	6.61	6.40	-0.22	-0.10
Residual Fuel Oil	1.75	1.61	1.65	1.51	1.60	1.69	1.68	1.68	1.73	0.05	0.01
Other Products	1.52	1.57	1.41	1.63	1.72	1.51	1.60	1.34	1.30	-0.04	-0.13
Total Products	**15.30**	**15.20**	**15.20**	**14.89**	**15.40**	**15.30**	**14.91**	**15.17**	**14.71**	**-0.45**	**-0.73**

* Latest official OECD submissions (MOS)

At first glance, demand in **Germany** would appear to be holding its ground. According to preliminary estimates, inland deliveries increased by 3.5% year-on-year in February. The rise, however, was essentially driven by cold temperatures, which boosted heating oil demand (a quarter of the country's oil demand) by 41.1% year-on-year and residual fuel oil by 9.4%. Heating oil consumer stocks, at 58% of capacity by end-February, were well above the previous year (49% in February 2009) and slightly lower than in the previous month (60%). By contrast, the continuous plunge of export-oriented industries, as foreign demand for German manufacturing goods dries up, continued to decimate LPG and naphtha demand (-15.7% and -22.0% year-on-year, respectively).

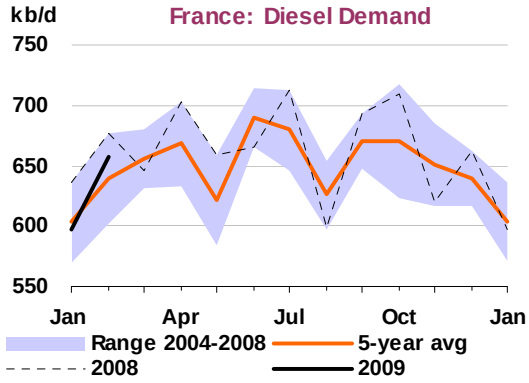






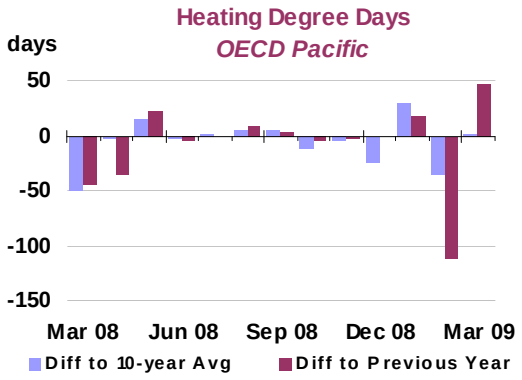
Interestingly, German gasoline demand was flat versus levels of a year ago and diesel demand rose by +4.2% – impressive under prevailing economic conditions. This could be related to lower fuel prices and to a government programme that was introduced in early 2009 – consumers who scrap cars at least nine years old benefit from a €2,500 credit when purchasing a new or nearly new vehicle. Car sales (mostly of small vehicles) duly jumped by 21% year-on-year in February and 20% in March. Road fuels sales may thus exhibit an otherwise unexpected resilience over the next months if German car owners opt to drive more (despite having purchased more efficient vehicles).

In **France**, the demand picture was similar to that of Germany. Deliveries rose by +4.6% year-on-year in February on the back of strong demand for heating oil (+15.5%) and residual fuel oil (+50.6%) amid cold temperatures, thus largely offsetting losses elsewhere. Interestingly, even though France has also introduced a fiscal scrapping incentive (a €1,000 credit for trading a car ten years old or greater, for one emitting less than 160 g/km of CO_2), both gasoline and diesel demand continued to decline in February (-9.3% and -3.0%, respectively), while car sales actually fell by 13% and rebounded only modestly in March (8%). This could be due to the fact that the French credit is 60% lower than the German one. The domestic industry argues that, in addition, consumer behaviour is changing – a poll carried out in January found that only 18% of French motorists would drive more if pump prices fell substantially. Although the fact that retail prices are currently hovering at around €1/litre would lend credence to this hypothesis, the evolution of demand in the next few months may allow to draw firmer conclusions.

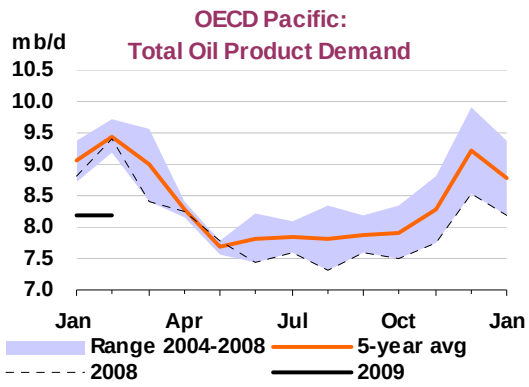


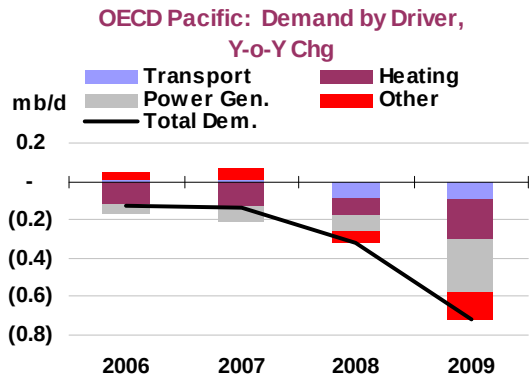
Pacific

According to preliminary data, oil product demand in the Pacific sank for the eighth month in a row in February (-13.0% year-on-year). This astonishing collapse was due to Japan (-22.7%), where demand has contracted uninterruptedly since mid-2008 as its export-oriented economy is increasingly battered by the global recession. The revival of Korean demand (+5.7%) was thus largely insufficient to offset Japan's decline. February's contraction was further compounded by relatively mild weather, which depressed demand for heating. Heating-degree days were sharply lower than both the 10-year average and the same month of the previous year (though, notably, temperatures fell sharply in March).



Upward revisions to January preliminary data, mostly from Japan and New Zealand, were negligible overall (+7.0 kb/d). Looking ahead, however, the sharp worsening of Japan's economic assumptions has had a profound impact on forecast 2009 demand, which has been revised down by 380 kb/d to 7.3 mb/d (-8.9% or -720 kb/d versus the previous year).





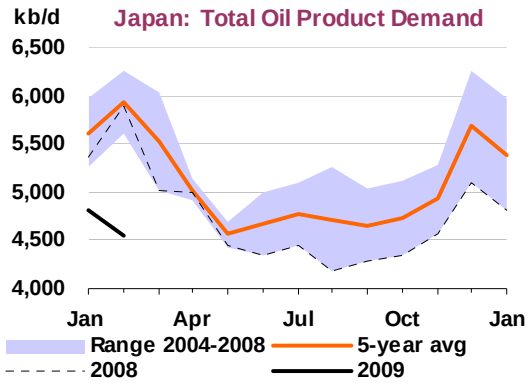
OECD Pacific Demand by Product
(million barrels per day)

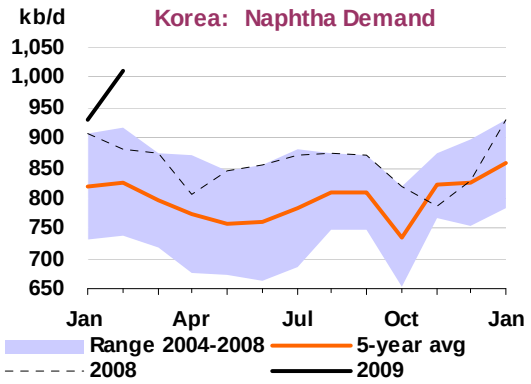
	2007	2008	1Q08	2Q08	3Q08	4Q08	Nov 08	Dec 08	Jan 09*	Latest month vs. Dec 08	Latest month vs. Jan 08
LPG & Ethane	0.96	0.96	1.01	0.97	0.92	0.96	0.90	1.03	1.00	-0.03	0.03
Naphtha	1.65	1.59	1.69	1.55	1.59	1.50	1.49	1.50	1.56	0.07	-0.19
Motor Gasoline	1.57	1.52	1.48	1.55	1.51	1.55	1.52	1.66	1.46	-0.20	0.02
Jet & Kerosene	0.93	0.89	1.24	0.72	0.60	0.99	0.97	1.29	1.30	0.01	-0.02
Gas/Diesel Oil	1.80	1.70	1.80	1.72	1.57	1.72	1.71	1.82	1.58	-0.24	-0.11
Residual Fuel Oil	0.96	0.91	1.06	0.89	0.85	0.86	0.88	0.88	0.95	0.07	-0.19
Other Products	0.48	0.45	0.59	0.42	0.45	0.35	0.29	0.35	0.33	-0.02	-0.18
Total Products	**8.35**	**8.03**	**8.87**	**7.82**	**7.50**	**7.93**	**7.75**	**8.52**	**8.18**	**-0.34**	**-0.63**

* Latest official OECD submissions (MOS)

In **Japan**, oil demand continues to reach new record lows with every passing month. As noted, deliveries plummeted by 22.7% year-on-year in February, according to preliminary data. More worrisome, the pace of decline seems to have accelerated sharply (in fact, it doubled compared with January), suggesting that the effects of the country's unprecedented recession have by now largely overtaken structural decline trends. Japan's export-oriented industry has virtually come to a standstill, surpassing even the slowdown seen in Germany. It has dragged down with it domestic demand for industrial fuels, such as naphtha (-19% year-on-year) or gasoil (-18.6%), as well as electricity consumption, thus weighing on demand for residual fuel oil (-27.4%) and crude for direct burning (included in 'other products', down by 65.9%).

Admittedly, the fall in power consumption was also related to unusually warm temperatures, which also contributed to curb jet fuel/kerosene demand by 23.3% (kerosene is mostly used for heating in Japan and Korea). Nevertheless, even discounting the weather effect, it remains to be seen whether the quite optimistic forecasts of Japanese utilities with regards to oil use for power generation over the current fiscal year (which ends in March 2010) will materialise. The industry expects to move away from the more expensive natural gas (LNG) to oil, and as such boost consumption by 10.5% year-on-year, despite the fall in electricity demand (and potentially higher nuclear utilisation rates).





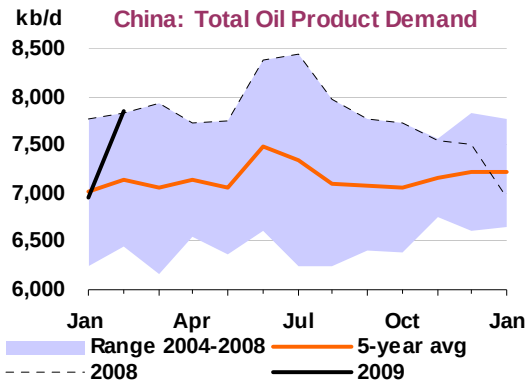
By contrast, **Korean** demand surprisingly rebounded in February (+5.7%), according to preliminary data. This rise was driven essentially by a spike in naphtha (+14.7%), which accounts for roughly 40% of total demand. Residual fuel oil also rose (+6.5%) as utilities moved away from expensive LNG, as well as middle distillates (+5.1%). The increase in naphtha demand, attributed by KNOC officials to 'bullish' prices of petrochemical products, is somewhat puzzling. Although naphtha cracks rebounded somewhat from previous lows, they still have a long way to go to justify higher petrochemical runs. The answer to this riddle is perhaps strategic – Korean petrochemical operators may be seeking to consolidate a competitive advantage now that their main Asian rivals (China, Taipei and Japan) are in the doldrums. However, this advantage could well be rapidly eroded by cheaper producers in the Middle East, albeit the latter are arguably facing limited feedstock availability at present.

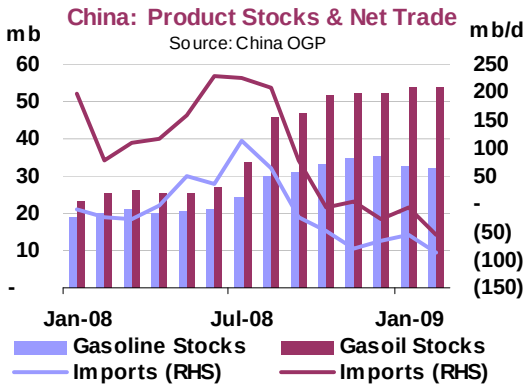
Non-OECD

China

According to preliminary data, China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) rose by a paltry 0.3% year-on-year in February. Meanwhile, demand in January contracted by 10.4%, twice as much as previously expected. However, the year-on-year comparison is somewhat misleading, since it tends to be distorted by the Lunar New Year holiday, which can fall in either month depending on the year. In fact, over the past few years the government has opted to withhold key data for January, bundling them into the February statistics. As such, the annual comparison of the two-month period is more revealing: demand fell by 6.9%, thus providing fresh evidence of the country's discernible economic slowdown amid the shuttering of export-oriented manufacturing plants.

Data on gasoline and gasoil stocks held by PetroChina and Sinopec, as well as trade figures, appear to confirm the trend. Although gasoline stocks slightly diminished in both January and February, gasoil stocks continued to rise slightly, suggesting that industrial activity remains subdued. By the same token, net imports of both products began to fall in mid-2008 as stocks built – in fact, China has now become a net exporter of both gasoline and gasoil.





Overall, given these weak demand data and a slight downward adjustment to China's 2009 GDP growth assumption, oil demand is now expected to decrease by 0.8% to 7.8 mb/d (110 kb/d less than previously anticipated). However, this forecast has some upside risks. On the one hand, the spring ploughing season, which began in March, will have an impact on gasoil demand, but that effect is impossible to ascertain as this depends on weather conditions and other factors. For example, an ongoing drought since late January in some areas has reportedly boosted gasoil demand, as pumps are needed to tap groundwater. On the other hand, the fiscal stimulus might boost demand earlier than expected – although most large projects are earmarked for 4Q09-1Q10, while some analysts argue that private consumption is falling markedly. A revival of the construction industry, for example, could see a surge in gasoil use. In addition, it is unclear to what extent factories and mills across the country resumed operations in March after the holiday season.

Meanwhile, in late March the government raised the official ceiling on domestic retail prices of gasoline and diesel by 4.6% and 3.2%, respectively. This was the second adjustment after January's price cut, suggesting that the government is serious about applying its new pricing mechanism, whereby domestic product prices follow international price movements. The increase may prompt wholesalers and resellers to replenish their stocks, which in turn could help reduce excess inventories held by refiners. However, the price hike could also dampen demand further.

China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	669	617	624	-52	6	-7.7	1.0
Naphtha	812	775	785	-37	11	-4.6	1.4
Motor Gasoline	1,257	1,451	1,447	194	-4	15.4	-0.2
Jet & Kerosene	280	295	306	15	11	5.5	3.7
Gas/Diesel Oil	2,576	2,845	2,684	268	-161	10.4	-5.7
Residual Fuel Oil	744	607	655	-137	48	-18.4	7.9
Other Products	1,204	1,274	1,302	70	28	5.8	2.2
Total Products	**7,542**	**7,864**	**7,803**	**322**	**-61**	**4.3**	**-0.8**

Subsidies: Difficult Fiscal Choices Ahead?

The fall in oil prices and production cuts are obliging some OPEC producers to reconsider whether to reform their administered domestic price regimes. In early March, **Nigeria's** government declared its intent to deregulate its downstream sector, removing end-user price subsidies and selling the four state-owned refineries. Although liberalising prices would entail sharp increases for consumers, the government would save some $4.4 billion per year and reduce its widening fiscal deficit – in addition to stimulating a likely inflow of private investment into the industry, which has been neglected for decades. However, the announcement was predictably met by considerable opposition from political parties and labour unions, which control lucrative distribution networks and import contracts. The government is currently negotiating with the country's two oil workers' unions (Pengassan and Nupeng), which have threatened a general strike, but has vowed to carry out its deregulation project.

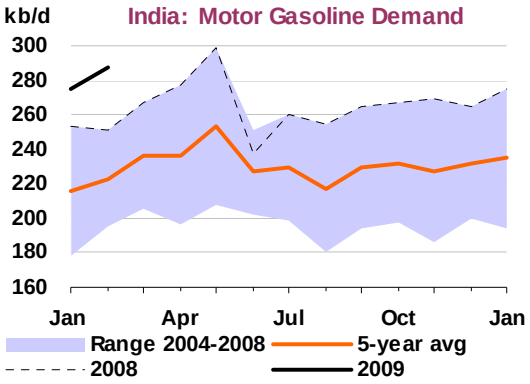
On the other side of the Atlantic, the **Venezuelan** government hinted in mid-March that the domestic gasoline price (currently around $0.04/litre) might eventually be adjusted for the first time since 1996, on the grounds of 'social justice' – that is, making drivers of luxury vehicles pay more. However, this issue is sensitive, probably more than in Nigeria, given the precedent of deadly riots in 1989 following a price rise. Moreover, the current administration has trumpeted the low gasoline price as a key source of political legitimacy – even though a litre of mineral water in Venezuela is currently about 52 times more expensive than a litre of gasoline. State-owned PDVSA is estimated to spend as much as $8 billion per year in subsidies, while the low price has fostered smuggling to neighbouring countries, notably Brazil. In the end, however, the government opted to keep the retail price unchanged, which has encouraged runaway demand growth. Instead, it cut its 2009 budget by almost 7%, on the assumption that oil prices will average $40/bbl and that domestic oil production will reach 3.2 mb/d. However, since independent sources – including this report – put Venezuelan oil production at only 2.1 mb/d, the reform of the subsidy regime could well resurface in the next few months.

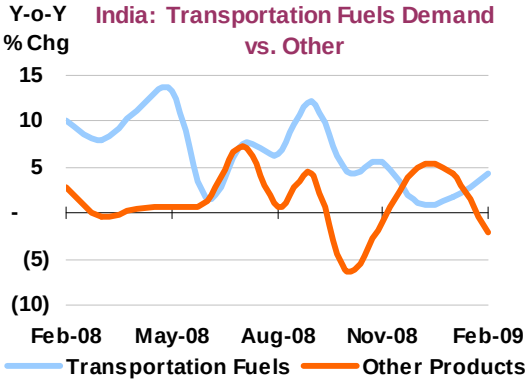
Other Non-OECD

According to preliminary data, India's oil product sales – a proxy of demand – rose by 1.2% year-on-year in February, led by gasoline (+14.6%), naphtha (+10.3%) and gasoil (+4.4%), which together account over half of total demand (by contrast, LPG, jet fuel/kerosene and residual fuel oil registered losses). Thus far, the country continues to show an extraordinary resilience to the global slowdown, especially when compared with its Asian neighbours. Nevertheless, the economy is slowing, and oil demand is expected to grow by only 1.7% on an annual basis to 3.1 mb/d in 2009 – about a third of the pace recorded in the previous two years. However, the government is looking at ways of supporting faltering industrial activity. A possibility being explored is to abolish the import duty on naphtha, set by the 2008-09 budget at 5%. The Department of Petrochemicals argues that the duty has eroded the competitiveness of Indian polymer producers, and that reducing it to zero would go a long way in stimulating demand.

Meanwhile, the outlook for gasoline demand looks promising, as consumer appetite for new cars appears to remain strong. The launch in late March of Tata Motors' Nano, a low-cost, no-frills car, should contribute to making transportation relatively affordable for large swathes of prospective Indian

drivers. Indeed, the most basic version of the Nano (about $2,000 apiece) is sold at about half the price of what used to be the cheapest Indian car (the Maruti 800). Nevertheless, some observers question whether Tata will be able to sustain such a low price given the car's relatively high manufacturing costs.





India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	371	389	392	18	2	5.0	0.6
Naphtha	268	269	277	1	8	0.2	2.9
Motor Gasoline	245	264	291	19	27	7.8	10.3
Jet & Kerosene	300	301	292	1	-9	0.4	-3.1
Gas/Diesel Oil	970	1,068	1,088	98	20	10.1	1.9
Residual Fuel Oil	363	359	351	-5	-8	-1.3	-2.2
Other Products	429	428	440	0	12	0.0	2.7
Total Products	**2,946**	**3,078**	**3,130**	**132**	**52**	**4.5**	**1.7**

Data Transparency: Gradually Improving

The quest for more and better oil data has been a constant preoccupation for market participants. This has become increasingly more relevant given the marked increase in the share of non-OECD countries relative to global oil demand. The *Joint Oil Data Initiative (JODI)* – originally launched in mid-2000 by several organisations, including the IEA – has greatly contributed to fill the gap. Indeed, the *JODI* database has gradually become an indispensable reference. Over the past two years, in particular, the coverage, timeliness and quality of available data have greatly improved. More countries are now participating, while the number of statisticians trained by the International Energy Forum Secretariat (which manages the database) is steadily rising.

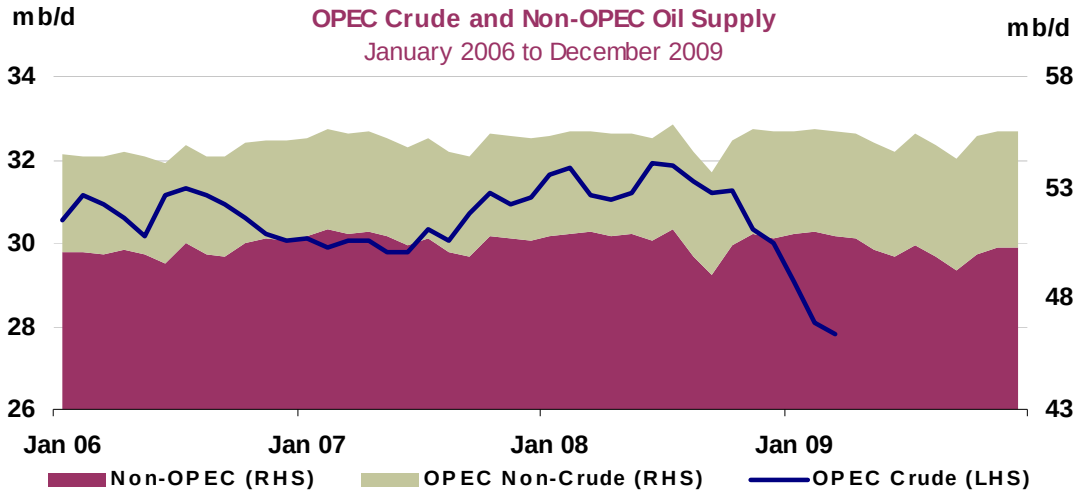
As from this month, given these tangible improvements, this report includes monthly data for 14 additional countries (Algeria, Libya, Nigeria, Hong Kong, Philippines, Estonia, Chile, Colombia, Peru, Kuwait, Qatar, Yemen, Bulgaria and Romania). Data for these countries were deemed reliable after having been monitored over the past two years, comparing both absolute levels and growth trends with other sources, notably government data and the IEA's annual *Energy Statistics of Non-OECD Countries*. As such, this report now tracks almost 90% of global demand on a monthly basis (from 30 OECD and 29 non-OECD countries).

Nonetheless, important gaps remain. A handful of large oil consumers still do not provide any demand data at all (such as Singapore) or detailed figures (Indonesia, for example, only releases total demand data). Still others publish data that are clearly inconsistent with economic trends (gasoline demand in Venezuela, for example, allegedly declined in both 2007 and 2008, despite strong economic growth and generous subsidies). However, if the recent trends are any guidance, improved oil-data transparency is becoming a less-elusive goal.

SUPPLY

Summary

- **Global oil supply fell by 400 kb/d in March , to 83.4 mb/d,** with the decline split equally among OPEC and non-OPEC producers. However, global oil supply is down a sharp 3.4 mb/d compared with levels of a year ago in response to the downturn in oil demand.
- **Non-OPEC supply declined by 170 kb/d in March**, with a 220 kb/d dip in the OECD partly offset by slightly higher non-OECD output. While 2008 production is assumed more or less unchanged since last month's forecast, 2009 output has been revised down by 320 kb/d, implying a year-on-year decline from 50.6 mb/d in 2008 to 50.3 mb/d in 2009. Around 220 kb/d of the revision is due to downward-adjusted biofuels production. Regarding crude production, lower-than-forecast Chinese, Indian, Vietnamese and Australian 1Q09 production data dragged down the forecast.
- **OPEC crude supply in March averaged 27.8 mb/d, down 235 kb/d** from the previous month. Cuts were centred among Libya, Iran and Kuwait. OPEC supplies are now hovering at their lowest level in more than five years as member countries curtail production in response to exceptionally weak global oil demand. Effective spare capacity now stands at 5.5 mb/d.
- **The call on OPEC crude and stock change now stands at 28.2 mb/d for 2009,** down 0.7 kb/d from last month and 2.6 mb/d below 2008 levels. Revisions centre primarily on substantial downward revisions to OECD demand data for 2009.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola and Ecuador and excluding Indonesia)

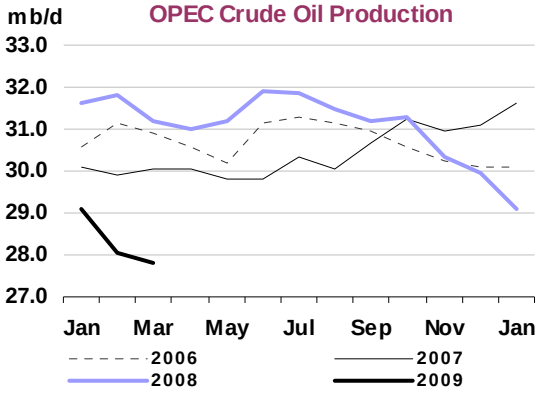
Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

All world oil supply figures for March discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska and Russia are supported by preliminary March supply data.

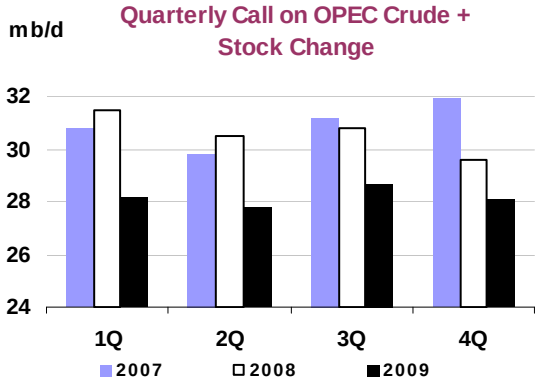
OPEC Crude

OPEC crude supply in March averaged 27.84 mb/d, down 235 kb/d from the previous month. Libya, Iran and Kuwait contributed 160 kb/d to the March reduction. OPEC supplies are now hovering at their lowest level in five years as member countries curtail production in response to exceptionally weak global oil demand. OPEC has reduced official output targets three times since its September 2008 meeting, equal to a total planned reduction of 4.2 mb/d.

Production from the 11 members with output targets, which excludes Iraq, was assessed at 25.57 mb/d in March. That is down 245 kb/d month-on-month, but about 720 kb/d above the group's 24.85 mb/d target. OPEC's compliance rate with the latest target that went into effect in January rose to 83% in March. This compares with 77% in February. Effective spare capacity stands at 5.5 mb/d.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

OPEC has managed to remove an unprecedented 3.36 mb/d from the market since last September, IEA data show. OPEC ministers opted to rollover the existing 24.85 mb/d production target at their 15 March meeting in Vienna, with concern that another reduction in production levels might further undermine the fragile global economy topping the agenda.

Disparity in compliance with production targets was reportedly a contentious issue at the meeting and continued overproduction by some members may cause friction when OPEC ministers gather again on 28 May to review market conditions. Iran, Angola, Venezuela and Nigeria are currently producing a collective 668 kb/d over their target levels. The extent to which countries are observing targets is still a major issue, especially for countries who have substantially reduced supplies in line with targets.

Saudi Arabia held output steady in March at 7.95 mb/d, about 100 kb/d below its target level. OPEC's largest producer accounts for about 45% of the total cut in OPEC supplies since last September at 1.5 mb/d. Aramco told customers that it was holding steady its 10% cut below contractual volumes for April. Saudi Arabia's production capacity has been increased by 150 kb/d, to 11 mb/d in line with higher production volumes from the 500 kb/d Khursaniyah project. After a delayed start-up last August at an initial rate of 150 kb/d, Aramco is in the final stages of bringing the last 150 kb/d on stream this month.

Production from **Iran** was lower by 50 kb/d, at 3.65 mb/d in March, compared with an upwardly revised 3.7 mb/d the previous month. Iranian output is now running 315 kb/d above the country's 3.34 mb/d target. Iran has now reduced output levels by around 250 kb/d, equal to a 44% compliance rate. Iranian customers were told they would continue to receive full contract volumes in April, the same as March.

Crude oil production in **Kuwait** fell by 50 kb/d, to 2.25 mb/d in March. Kuwaiti output is largely in line with the country's output target. The state oil company used the weaker market climate to do unscheduled field maintenance work.

UAE output was nearly unchanged on the month at 2.25 mb/d. Compliance is now pegged at near 95% due to further cutbacks in customer nominations. Adnoc's term allocations for Murban, Umm Shaif and Lower Zakum were unchanged in May at 15% below contract volumes while cuts in supplies of medium heavy Upper Zakum were eased, with volumes down by a smaller 10% compared with April's stronger 17% cut.

Oil production in **Qatar** was slightly lower in March, down 10 kb/d to 740 kb/d last month. After implementing a 15% cut in supplies to its Asian customers in March, Qatar removed lifting restrictions for April. However, the state oil company notified Asian customers that supplies of its medium sour Qatar Marine crude would be reduced 4% in May

Iraqi oil supplies were up slightly on the month, with production assessed at 2.27 mb/d. Total exports last month averaged 1.82 mb/d compared with 1.8 mb/d in February. Exports from both the northern pipeline to Turkey's Ceyhan terminal and the southern Basrah route were disrupted last month due to weather-related delays. Exports from Basrah averaged 1.39 mb/d in March compared with 1.35 mb/d the previous month. Crude run at refineries and for power use averaged about 455 kb/d in March.

OPEC Crude Production

(million barrels per day)

	Jan 2009 Supply	Feb 2009 Supply	Mar 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Mar 2009 Supply	Implied January Target	March Supply vs Target	Percent Compliance
Algeria	1.27	1.25	1.22	1.43	0.21	1.20	0.02	92%
Angola	1.76	1.65	1.65	2.10	0.44	1.52	0.13	45%
Ecuador	0.50	0.48	0.46	0.50	0.04	0.43	0.03	61%
Iran	3.79	3.70	3.65	4.00	0.35	3.34	0.31	44%
Kuwait[2]	2.46	2.30	2.25	2.65	0.40	2.22	0.03	93%
Libya	1.65	1.58	1.52	1.77	0.25	1.47	0.05	80%
Nigeria[3]	1.86	1.80	1.78	2.50	0.72	1.67	0.11	66%
Qatar	0.78	0.75	0.74	0.90	0.16	0.73	0.01	93%
Saudi Arabia[2]	8.10	7.95	7.95	11.00	3.05	8.05	(0.10)	108%
UAE	2.36	2.25	2.25	2.85	0.61	2.22	0.02	94%
Venezuela[4]	2.18	2.10	2.10	2.40	0.30	1.99	0.11	69%
OPEC-11	**26.70**	**25.81**	**25.57**	**32.10**	**6.53**	**24.85**	**0.72**	**83%**
Iraq	2.37	2.26	2.27	2.50	0.23			
Total OPEC	**29.07**	**28.07**	**27.84**	**34.60**	**6.76**			
(excluding Iraq, Nigeria, Venezuela					*5.51)*			

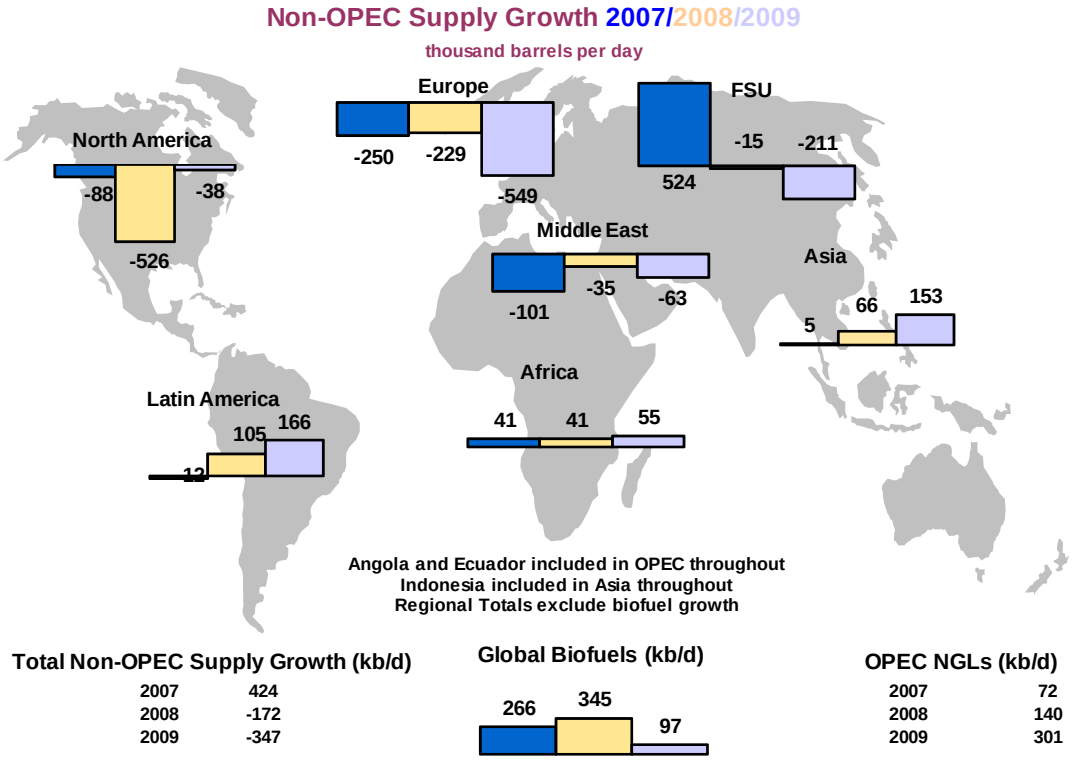
1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes Orinoco extra-heavy oil assumed at 420 kb/d in March.
5 Compliance rate calculated from baseline September production in OPEC's MOMR.

Crude oil production **Nigeria** fell 20 kb/d in March, to 1.78 mb/d. The lower output is due to yet another attack by militants on a pipeline, this time affecting Chevron's Escravos. The attack forced the shut-in of around 11.5 kb/d on 16 March. Despite the small decline in output last month, there is no shortage of Nigerian crude in the market. Traders have been taking advantage of the contango in the market and storing a large quantity of crude on floating tankers over the past three months. In March a number traders sold their cargoes into the market

Angolan crude oil production was unchanged in March at 1.65 mb/d. Angola, whose minister is the current OPEC president, is producing 133 kb/d above its target, equating to 45% of the required cut. Angola may be reluctant to impose further output restrictions on operating companies, especially since it has already lowered output by around 175 kb/d since last September.

Non-OPEC Overview

While 2008 production has been kept more or less flat, downward revisions to 2009 non-OPEC supply amount to around 320 kb/d, implying a year-on-year decline from 50.6 mb/d in 2008 to 50.3 mb/d in 2009. Of the 320 kb/d revision, 220 kb/d stem from an in-depth reappraisal of biofuels output. Biofuels have so far been hit probably harder by the economic downturn and lower oil prices than non-OPEC



crude oil output and the economics of non-subsidised production look questionable in many areas (see *Biofuels Production Growth to Slow in 2009*). This sizeable revision to the biofuels forecast for 2009 masks the fact that US fuel ethanol production was revised down by around 115 kb/d, but offset by a similar upgrade for Brazilian ethanol. In other words, net of offsetting US and Brazilian changes, the downward revision was in other areas – largely in OECD Europe, but also in China and other Asian countries.

Revisions to Non-OPEC Oil Supply
(million barrels per day)

	Last month's OMR				This month's OMR				Change			
	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08
North America	13.94	14.05	-0.32	0.11	13.92	13.93	-0.35	0.01	-0.02	-0.12	-0.03	-0.10
Europe	4.75	4.22	-0.21	-0.53	4.80	4.26	-0.22	-0.54	0.05	0.04	-0.01	-0.01
Pacific	0.64	0.72	0.02	0.07	0.64	0.70	0.02	0.05	0.00	-0.02	0.00	-0.02
Total OECD	**19.33**	**18.98**	**-0.51**	**-0.35**	**19.36**	**18.88**	**-0.55**	**-0.48**	**0.03**	**-0.10**	**-0.04**	**-0.13**
Former USSR	12.75	12.52	-0.02	-0.23	12.76	12.54	-0.01	-0.21	0.00	0.02	0.00	0.02
Europe	0.12	0.11	-0.01	-0.01	0.12	0.11	-0.01	-0.01	0.00	0.00	0.00	0.00
China	3.79	3.90	0.06	0.11	3.79	3.87	0.06	0.08	0.00	-0.03	0.00	-0.03
Other Asia*	3.66	3.70	-0.02	0.04	3.66	3.68	-0.02	0.02	0.00	-0.02	0.00	-0.02
Latin America*	4.02	4.32	0.16	0.31	4.12	4.34	0.19	0.22	0.10	0.02	0.03	-0.08
Middle East	1.62	1.57	-0.03	-0.06	1.62	1.56	-0.03	-0.06	0.00	-0.01	0.00	-0.01
Africa*	2.57	2.62	0.04	0.05	2.57	2.63	0.04	0.05	0.00	0.00	0.00	0.01
Total Non-OECD*	**28.54**	**28.74**	**0.18**	**0.20**	**28.64**	**28.73**	**0.22**	**0.10**	**0.10**	**-0.01**	**0.03**	**-0.11**
Processing Gains	2.24	2.29	0.07	0.04	2.24	2.29	0.07	0.04	0.00	0.00	0.00	0.00
Other Biofuels	0.46	0.58	0.13	0.12	0.37	0.36	0.09	-0.01	-0.09	-0.22	-0.04	-0.13
Total Non-OPEC*	**50.57**	**50.58**	**-0.12**	**0.02**	**50.61**	**50.26**	**-0.17**	**-0.35**	**0.04**	**-0.32**	**-0.05**	**-0.36**

OMR = Oil Market Report

* adjusted to include Indonesia and exclude Angola and Ecuador throughout

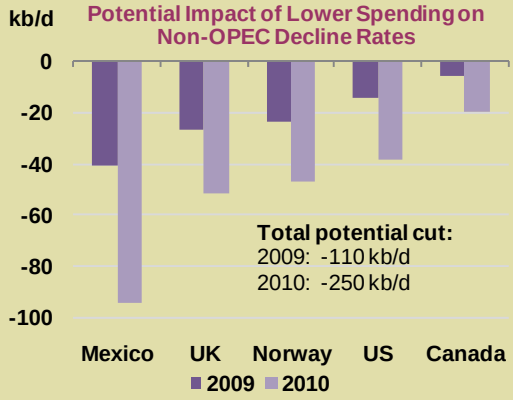
Spending Cuts May Worsen Decline

The global economic/financial crisis, weaker demand for oil and lower oil prices have dented the prospects for non-OPEC supply. Our forecasts already capture project deferrals and cancellations, which for 2009 and 2010 are estimated to account for a gross 1 mb/d (although some of this will enter production later on).

Analysts' spending surveys now envisage upstream spending to be down significantly in 2009, by around 15-20%. Most agree that while many majors and large NOCs will keep spending stable on the whole, independents and smaller oil companies will slash it most. Also of significance is the consensus that spending will be hit hardest in North America, the UK, Norway and Russia. But the precise effect is not yet evident in monthly reported production data. Project slippage, which we do monitor, is only part of the likely impact. Another feature is likely to be lower production from mature oilfields where drilling or pressure maintenance activity is curtailed.

In order to model what the potential impact could be, we have developed the following scenario. According to calculations published in the July 2008 *Medium-Term Oil Market Report (MTOMR)*, the average (1999-07) *observed* decline rate in mature non-OPEC fields was 7.7%. The IEA's November 2008 *World Energy Outlook (WEO)*, on the other hand, estimated that the *natural* decline rate (i.e. without offsetting investment) in post-peak non-OPEC fields is around 11%. For illustration in this scenario we have modelled the effect of 2009's lower spending, nudging up decline rates by around 20% to average 9.4%.

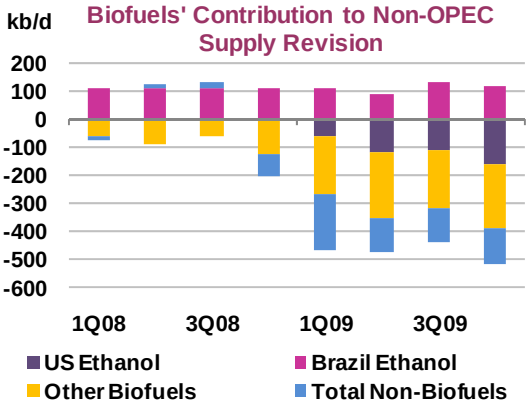
We have applied this steeper decline rate scenario proportionally to all declining fields in selected mature basins, where we assume the impact of lower spending will be felt first and hardest. This includes the US onshore (including Alaska), Canada (including bitumen, though here we apply a lower *growth* rate, rather than 'decline' *per se*), the UK, Norway and Mexico (albeit spending is slated to rise). Together, these maturing fields total up to almost 10 mb/d. We already hold a quite pessimistic outlook on Russian production, so for the purpose of this scenario have not applied the steeper decline rate there. Other countries may be prone to a similar effect from lower spending, which means the total impact could be higher. Potentially offsetting that, however, is the fact that not all of the mature fields in the countries we have looked at will necessarily be adversely affected to the same degree.

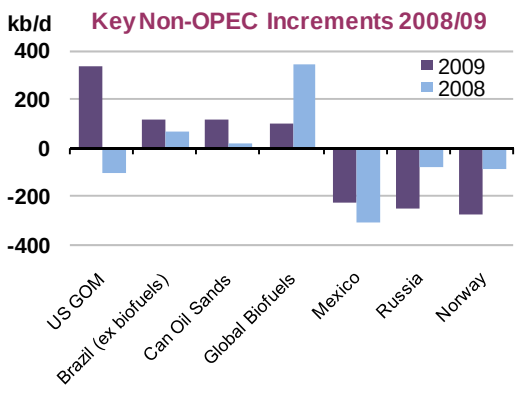


The net effect of this hike in decline rates would be to reduce production by 360 kb/d in total by end-2010, of which 110 kb/d occurs in 2009 and 250 kb/d in 2010, with the effect being compounded thereafter. The impact is felt least strongly in Canada, as current oil sands output is forecast to remain relatively constant and relatively flat production is assumed at the large East Coast offshore fields. On the other hand, in Mexico, where we track a relatively small number of sizeable fields, that are anyway mostly in steep decline, the effect is greater, with a combined 2009/10 potential downward revision of 135 kb/d.

Until more early-2009 production data become available, this lower output scenario is not incorporated as the baseline output forecast. The topic will be revisited in greater depth in this summer's *MTOMR*, which will both fine-tune the analysis and extend it beyond 2010. But the implication is clear – further downward adjustments to the non-OPEC forecast could arise in light of weaker spending levels.

Regarding crude production, lower-than-forecast Chinese, Indian, Vietnamese and Australian 1Q09 production data dragged down the non-OPEC forecast for the quarter and the year. This was only partly offset by higher Latin American and European output, both of which were, however, related to biofuels revisions. Meanwhile, Russian production picked up again slightly in March, bringing up the yearly number slightly, while reported and preliminary Azeri data for January and February respectively appeared to confirm our recent assumption that the country's production will remain largely flat year-on-year.



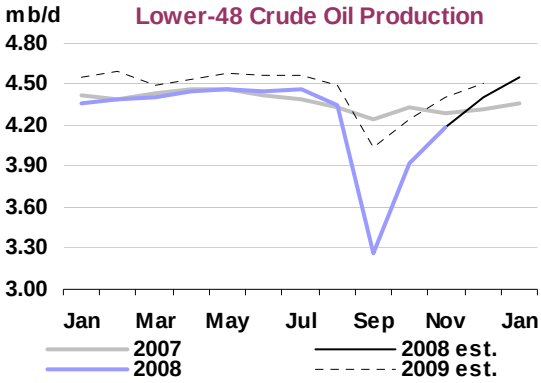


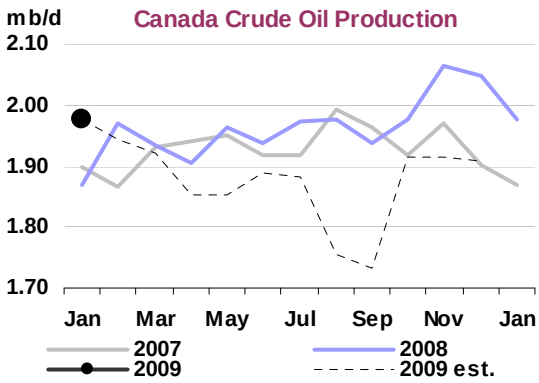
In sum, 2008 total non-OPEC production remains more or less unchanged at 50.6 mb/d, but is set to fall to 50.3 mb/d in 2009. Moreover, anticipated lower capital expenditure this year might well lead to substantial further downward revisions, as we review in a scenario, though not yet in our base case forecast (see *Spending Cuts May Worsen Decline*).

OECD

North America

US – Alaska March actual, others estimated: March oil production in the US was largely unchanged compared with forecast, but fell by around 100 kb/d from February. Higher-than-forecast Alaskan and Texan production was largely offset by lower crude output elsewhere and sharply lower fuel ethanol. In Alaska, it appears that we had overestimated typical winter outages. At the time of writing in early April, activity at the Mount Redoubt volcano near Anchorage had forced preventive shut-ins at the Cook Inlet field southwest of Anchorage, after suspended tanker loading operations at a terminal caused storage to fill up. Most likely, only small volumes will be shut-in, but the duration of problems is not yet clear.





In the US Lower-48, reported November data brought sizeable upward revisions to the forecast. On the other hand, this was broadly offset by downward revisions to Gulf of Mexico production in the same period. Once again, we have attributed this to an underestimation of hurricane-related shut-ins, but also to a slower-than-anticipated ramp-up of production from the large Thunder Horse platform. Other developments include the start-up of BHP Billiton's Shenzi project in late March, with peak capacity of 100 kb/d. The Clipper field's start-up on the other hand was delayed, from April to an assumed October of this year. Overall, US crude output is expected to grow to 5.1 mb/d in 2009, from last year's 4.95 mb/d.

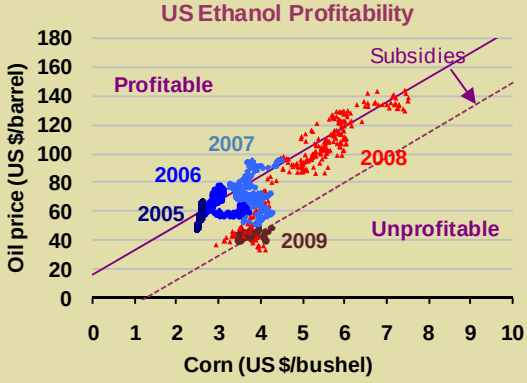
Biofuels Production Growth to Slow in 2009

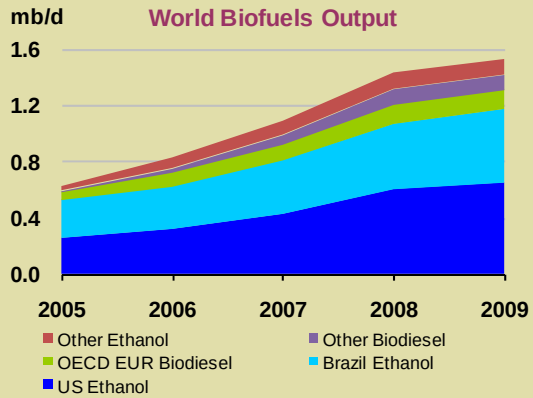
After several years of rapid increases, world biofuels production growth should dramatically slow in 2009. Lower oil prices, credit constraints, increasingly divergent government support and downward revisions to transport fuel demand have all conspired to undermine production economics and the industry's viability. Stronger growth should resume in the medium term, with the potential for oil markets to retighten and rising government mandates among the largest producing countries. Our 2009 *MTOMR* will feature a more detailed production forecast through to 2014.

In the meantime, we have revised down expected 2009 production growth by 220 kb/d, which leaves global biofuels growth at 95 kb/d (6.6%) year-on-year versus estimated growth of 345 kb/d (31.5%) for 2008. Much of this revision comes from the OECD, as US and European production economics have soured, and the media has reported idled plants and bankruptcies. While those features apply also to non-OECD countries to an extent, higher-than-expected 2008 production from Brazil and expectations of continued growth there should leave Latin America production prospects relatively stable.

In the US, 15-20% of about 800 kb/d total ethanol capacity has been shut-in or idled, and remaining capacity is likely operating below potential. Ethanol crush spreads have continued to fall and the industry's profitability has weakened. Stronger-than-expected 2008 growth and a 100 kb/d increase in 2009's blending mandate to 685 kb/d (10.5 bn gal or 39.7 bn litres) should support a production floor.

Yet, the US may just meet or undershoot the 2009 Renewable Fuel Standard (RFS) rather than exceed it– with imports or renewable credits carried from 2008 making up the difference. 2008 production averaged 600 kb/d and January ethanol data from the EIA shows production at 630 kb/d, but this is down almost 40 kb/d from November. Blending economics have since improved though, with rising gasoline prices and falling Brazilian supply prices. While gasoline blended with ethanol dropped to near 55% of the conventional pool in January, the latest weekly readings put it at 70%, on par with September 2008 levels. The degree to which a US summer driving season emerges remains a key variable for blending economics going forward.





In Europe, biodiesel production should stagnate, despite a recent decision by the European Union to impose duties on imported biodiesel from the US for an initial six-month period. Weak government support and overcapacity in the region's largest producer, Germany, should reduce its production this year. Exemptions on excise taxes for biodiesel were reduced in January, yet 2009 quotas remain uncertain as a mandatory 5.25% biofuels blending target in fossil fuels awaits approval. Other countries, such as France, Italy, Spain and the UK, have increasing targets for 2009 and should see production continue to grow, albeit weakly. The introduction of import duties on US biodiesel would also likely aid European output. In 2008, about 25 kb/d arrived from the US. Yet, imports from lower-cost producers in Latin America and Asia will more likely replace those volumes rather than domestic production.

Expectations for biofuels growth from Latin America continue, with regional production forecast to increase in 2009 by almost 60 kb/d versus 85 kb/d in 2008. Most of this growth comes from Brazilian ethanol, which averaged about 460 kb/d last year. Yet, the industry there faces increased economic hurdles that have curtailed its expansion. Sugarcane industry association Unica announced in March that only 15-20 of an initially expected 35 new mills may come online in 2009. Additionally, the group noted an increasing amount of the cane crop this year might go to sugar rather than ethanol production as producers look to capture higher margins.

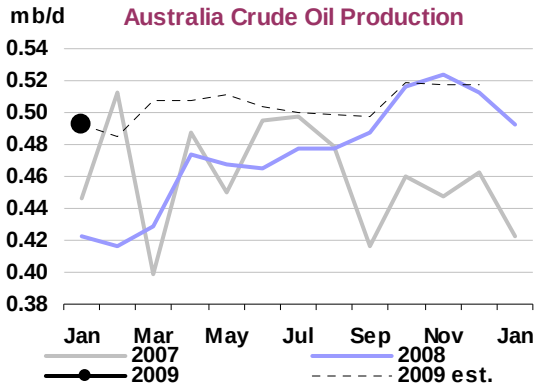
Canada – January actual: Canadian production in January was in line with forecasts, albeit Newfoundland offshore field data was not available at the time of writing. Syncrude and bitumen production were assessed lower than forecast, but offset by slightly higher Saskatchewan crude output and national NGL production. Suncor mining and upgrading operations were reported lower than forecast, perhaps still suffering from a fire in late November last year. Albertan bitumen production fell by around 50 kb/d from December to 650 kb/d, though no problems were reported. Our current 2009 forecast sees total Canadian production dipping slightly, from last year's 3.23 mb/d to 3.21 mb/d, as growing oil sands production fails to offset weaker crude output.

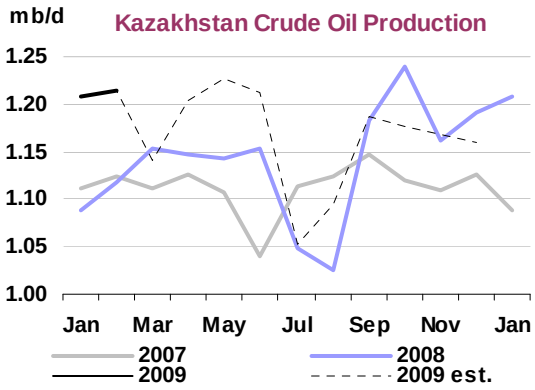
North Sea

Norway – January actual; UK December actual, January provisional: Latest actual data showed only small revisions to Norwegian and UK production data. In the **UK**, the January forecast was revised up by nearly 100 kb/d in order to match preliminary data, with other, smaller revisions, lifting the total 2009 forecast by 40 kb/d. In **Norway**, revisions to the Haltenbanken stream and others dragged down the 2009 forecast by around 25 kb/d. Total Norwegian oil supply is now forecast to fall from 2.46 mb/d in 2008 to 2.19 mb/d in 2009.

Pacific

Australia – January actual: Australian oil production in January was revised down by 70 kb/d on lower NGL and Carnarvon Basin crude production. In the latter, slower ramp-up at the Woodside-operated Angel field is assumed to be a cause, as well as slightly slower recovery following Cyclone Billy, which hit in December and caused brief regional shut-ins. Looking ahead, 3Q09 will see both a three-month partial shut-in at the Woollybutt FPSO, for a workover and the start-up of the Van Gogh field, initially at an assumed 5 kb/d and rising to 20 kb/d from the beginning of 2010.





Former Soviet Union (FSU)

Russia – February actual, March provisional: Russian oil production for both February and March was revised up by 70 kb/d and 150 kb/d respectively. In February, production data for Novatek and Sakhalin 2 were higher than expected. The latter's output in particular is picking up gradually after the start to year-round production from last December. More recently, additional volumes from the Piltun Astokhskoye platform have been added to the complex, boosting output. In March, higher-than-expected output was likely due to faster-than-anticipated ramp-up at Lukoil's new Uzhno-Khylchuyuskoye field and TNK-BP's expansion of the Uvat complex. Looking ahead, this report now assumes that Rosneft's large Vankor field in Eastern Siberia will start producing small initial volumes in mid-2009. In early April, the Russian government approved spending plans for the ExxonMobil-led Sakhalin 1 project for 2009 after repeated delays, which should unfreeze later development stages.

Overall, March production figures indicate an increase from February and a return to November volumes of just over 10 mb/d. But our forecast nonetheless anticipates a gradual decline for the rest of the year. Year-on-year, we forecast a fall from 10 mb/d total oil production in 2008 to 9.75 mb/d in 2009, or a dip of -2.5%.

Other FSU: Azerbaijan January actual, February preliminary; Kazakhstan February actual: January reported and February preliminary data for **Azerbaijan** confirm our assumption that shut-ins at the Azeri-Chirag-Guneshli (ACG) complex in the Caspian Sea are continuing and that therefore, despite a gradual ramp-up on prospective recovery towards the end of the year, total 2009 production, at just over 900 kb/d, will remain flat over 2008. Gas leaks in September 2008 had forced large shut-ins of parts of the offshore complex and full recovery is apparently taking longer than expected. In **Kazakhstan**, February data confirmed our forecast that around 25 kb/d were shut-in at the Tengiz field during that month due to a brief shutdown of the CPC pipeline. However, slight revisions to the ramp-up timing of the Karachaganak expansion due from mid-year have lifted our yearly total Kazakhstan figure by 23 kb/d. In **Turkmenistan** and **Uzbekistan**, reappraised 2008 production data prompted a combined downward revision for 2009 of 20 kb/d. In sum, total FSU oil production is forecast to fall from 12.75 mb/d in 2008 to 12.55 mb/d in 2009, almost wholly due to expected lower Russian output.

FSU net oil exports in February on average rose by 3.1% to 9.55 mb/d, supported by a rise in crude oil flows on all routes except Druzhba pipeline deliveries. Baltic shipments increased by 5.4% after a dip in volumes in January due to pipeline maintenance. Black Sea exports posted an increase despite a closure of the CPC pipeline for two days at the end of February following an oil leak. BTC volumes also rose sharply in February, but they are still below the 1 mb/d capacity of the pipeline. Ongoing commercial disputes between Russian producing companies and intermediary trading companies stood behind a decrease in Druzhba flows. Pipeline deliveries to Poland dropped by 7% due to a dispute between Tatneft and KD Petrotrade, an intermediary trading company in Poland. Flows to Germany were 3.5% below January levels; however TNK-BP continued to export higher volumes using Lukoil's allocations.

FSU Net Exports of Crude & Petroleum Products
(million barrels per day)

	2007	2008	1Q2008	2Q2008	3Q2008	4Q2008	Dec 08	Jan 09	Feb 09	Latest month vs. Jan 09	Latest month vs. Feb 08
Crude											
Black Sea	2.18	2.05	1.97	2.24	1.97	2.04	2.07	2.31	2.34	0.03	0.51
Baltic	1.59	1.46	1.41	1.57	1.40	1.47	1.66	1.49	1.57	0.08	0.29
Arctic/FarEast	0.32	0.30	0.27	0.26	0.29	0.37	0.38	0.45	0.46	0.02	0.17
BTC	0.55	0.67	0.71	0.75	0.64	0.57	0.70	0.66	0.82	0.16	-0.01
Crude Seaborne	**4.63**	**4.48**	**4.35**	**4.82**	**4.30**	**4.45**	**4.81**	**4.90**	**5.19**	**0.29**	**0.96**
Druzhba Pipeline	1.13	1.09	1.14	1.07	1.05	1.12	1.19	1.20	1.16	-0.03	0.06
Other Routes	0.44	0.41	0.40	0.42	0.44	0.37	0.37	0.39	0.40	0.01	-0.02
Total Crude Exports	**6.20**	**5.98**	**5.89**	**6.30**	**5.79**	**5.94**	**6.38**	**6.48**	**6.75**	**0.27**	**1.00**
Of Which: Transneft	4.27	3.99	3.97	4.17	3.87	3.96	4.22	4.17	4.24	0.07	0.45
Products											
Fuel oil	1.10	1.09	1.16	1.13	1.04	1.04	1.07	0.94	0.90	-0.04	-0.36
Gasoil	0.95	0.94	1.06	1.01	0.79	0.92	1.03	1.17	1.16	-0.01	0.06
Other Products	0.60	0.59	0.64	0.60	0.55	0.56	0.56	0.70	0.76	0.06	0.09
Total Product	**2.65**	**2.63**	**2.86**	**2.74**	**2.38**	**2.52**	**2.66**	**2.81**	**2.83**	**0.01**	**-0.21**
Total Exports	**8.85**	**8.61**	**8.75**	**9.05**	**8.17**	**8.46**	**9.03**	**9.30**	**9.58**	**0.28**	**0.80**
Imports	0.04	0.04	0.05	0.03	0.05	0.03	0.04	0.03	0.03	0.00	-0.01
Net Exports	**8.82**	**8.56**	**8.71**	**9.01**	**8.12**	**8.42**	**8.99**	**9.26**	**9.55**	**0.29**	**0.80**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

Product exports from FSU countries rose slightly to 2.83 mb/d in February as an increase in shipments of other products offset lower exports of fuel oil and gasoil. Fuel oil volumes continued their decrease as the restrictions on exports imposed by governments of Belarus and Ukraine remained in place. However, Ukraine reportedly lifted its ban on fuel oil sales abroad from 18 February so fuel oil exports in

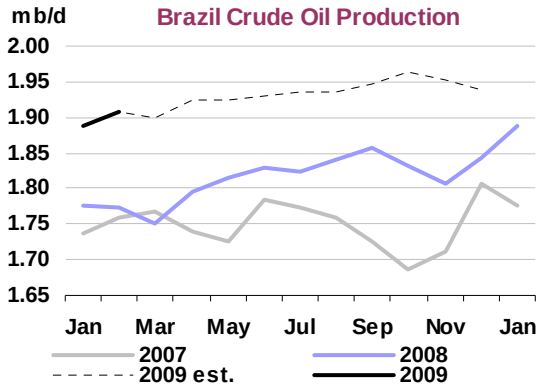
March are expected to rise. Russian product exports may be affected in March and April by planned maintenance at several Russian refineries.

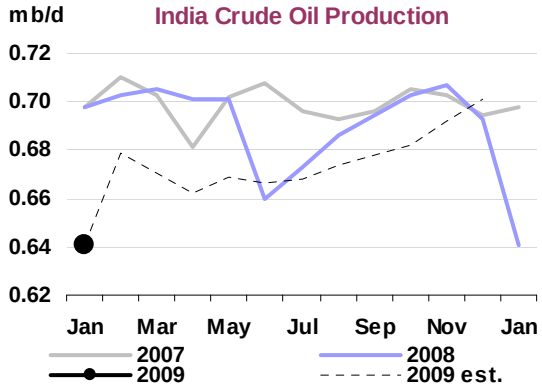
According to preliminary data and loading schedules, crude oil exports in March should remain around February levels, although crude oil shipments from Black Sea ports were affected by stormy weather and a five-day closure of a pipeline leading to Novorossiysk after a leak and a fire at the beginning of March. Nonetheless, BTC flows reportedly increased further in March as well as flows through the Druzhba pipeline. Russian loading schedules for April are set to be higher than in March, though shipments through Novorossiysk should be affected by planned maintenance of the pipeline leading to the port. The rise in Russian loading schedules coincides with a fall in Russian crude export duties, which were set to $110.0/mt ($15/bbl) in April from $115.3/mt ($15.7/bbl) in March. Product export duties fell from $90/mt in March to $86.4/mt in April for light products and from $48.5/mt to $46.5/mt, respectively, for heavy products.

Russian pipeline operator Transneft announced that the first stage of the 600 kb/d East Siberia-Pacific Ocean (ESPO) pipeline will be completed in several weeks. This link will connect Taishet in East Siberia with Skovorodino in Russia's Far East, from where a leg will connect to Chinese oil infrastructure just across the border. Crude oil is expected to start flowing through the pipeline towards the end of 2009 and will be transported onwards to Russia's Pacific Coast by rail until the second stage is completed in late 2010.

Other Non-OPEC

Brazil – February actual: On a net basis, reported February data for Brazil only added 20 kb/d, but this hides substantial revisions to fuel ethanol and crude production. Ethanol production was revised up by just over 100 kb/d to 470 kb/d for 2008 and carried forward into 2009 as a higher baseline. But this was largely offset by an average monthly crude downward revision of 125 kb/d for December through March. Partly, this is due to revisions to reported data, but our January forecast had overestimated output on the basis of overoptimistic preliminary data. End-February saw the start-up of Petrobras's Jabuti field in the deepwater Campos Basin. Initial estimated volumes of 10 kb/d in March are expected to quickly ramp-up to 60 kb/d by end-year and to reach capacity of 100 kb/d in 2010. Start-up of the Pinauna field has been brought forward to September in our forecast. Meanwhile, a strike by Petrobras workers in March caused only the most minor of outages, according to Petrobras. Brazilian total oil production is due to rise from 2.37 mb/d in 2008 to 2.54 mb/d in 2009.





China – January and February actual: January and February China data (publication of which was delayed by the Lunar New Year holiday) were 200 kb/d and 150 kb/d lower than estimated, with a string of basins showing lower-than-estimated output. Production in Xinjiang, Tarim, Jilin and Turpan-Hami came in lower than expected, while the 'offshore' category confirmed what appears to be an unreported outage or maintenance from December. According to reported data, the 'offshore' production category

showed a dip of 130 kb/d in December and is only gradually picking up. February data was similarly lower, though indicated recovery in the 'offshore'. As regards new fields, the Bozhong 28-2S platform started offshore production in March and is forecast to reach capacity of nearly 25 kb/d later in the year. The Penglai-2 increment with a new FPSO is also assumed to be raising output and is set to rise from an assumed current 45 kb/d (February) to 75 kb/d by the end of the year (and to 150 kb/d by end-2010). Total Chinese oil production is pegged to rise from 3.8 mb/d in 2008 to 3.9 mb/d in 2009.

Other Asia: January data for **India**, also published with a delay, prompted a downward revision of 50 kb/d, with lower output spread over most fields and reasons unclear. On the border of **Malaysia** and **Vietnam**, the shared PM-3 CAA increment started up, which will eventually add 45 kboe/d of oil and gas, expected by 2010. Meanwhile, January data for **Thailand** was around 15 kb/d higher than expected. In sum, total Other Asia oil production will rise slightly from 3.66 mb/d in 2008 to 3.68 mb/d in 2009.

OECD STOCKS

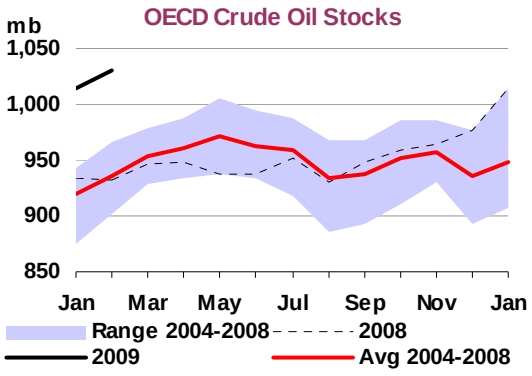
Summary

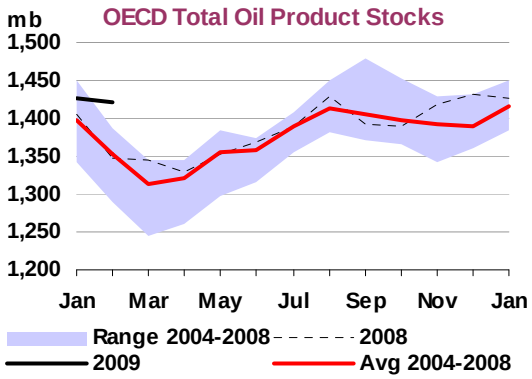
- **OECD industry stocks** rose by 7.5 mb in February, to 2,743 mb, as a fall in North American gasoline and other product inventories only partially offset a rise in Pacific crude stocks. European stocks changed little as rising distillates offset draws in crude and gasoline. Falling gasoline stocks in the Pacific only partially offset jumps in crude and distillate inventories in that region.

- **OECD stocks in days of forward demand reached 61.6 days**, their highest level since August 1993. An upward revision to January baseline stocks, combined with increasing February stocks and downward demand revisions, boosted the reading. All three regions now stand above five-year highs.

- **Preliminary March data indicate total OECD industry oil inventories** rose by 15.2 mb, led by gains in US crude stocks. US inventories rose 16.6 mb as crude and products increased by 9.8 mb and 6.8 mb, respectively. Japanese stocks fell 7.2 mb, as crude declined by 3.6 mb and products fell 3.6 mb. According to Euroilstock, EU-16 inventories increased 5.7 mb, led by crude, which rose 3.0 mb.

- **Short-term crude floating storage continues to provide an inventory buffer**, as late March levels increased to 70-75 mb. Low freight rates and a recent increase in the crude forward curve contango supported the higher levels, even though earlier storage may have fallen as much as 50% from February through mid-March as forward curve time spreads tightened.





OECD Inventory Position at End-February and Revisions to Preliminary Data

Total OECD inventories rose by 7.5 mb in February, closing the month at 2,743 mb. Stocks stood 185 mb (7.2%) higher year-on-year and were 175 mb (6.8%) higher than the five-year average. North America and Europe saw seasonal stockdraws, though both had counter-seasonal distillate builds. Pacific stocks jumped 16.8 mb with larger than normal crude builds and a counter-seasonal products build.

Preliminary Industry Stock Change in February 2009 and Fourth Quarter 2008

	February (preliminary) *(million barrels)*				February (preliminary) *(million barrels per day)*				Fourth Quarter 2008 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**2.6**	**-1.8**	**13.8**	**14.6**	**0.09**	**-0.06**	**0.49**	**0.52**	**0.21**	**0.10**	**0.01**	**0.32**
Gasoline	-5.3	-1.1	1.8	-4.6	-0.19	-0.04	0.06	-0.16	0.27	0.12	-0.02	0.37
Distillates	2.7	3.0	-1.3	4.4	0.10	0.11	-0.05	0.16	0.22	0.14	-0.10	0.26
Fuel Oil	2.5	-0.9	1.2	2.9	0.09	-0.03	0.04	0.10	-0.04	0.05	-0.02	-0.01
Other Products	-9.7	0.3	0.5	-8.8	-0.35	0.01	0.02	-0.32	-0.16	0.02	-0.05	-0.19
Total Products	**-9.7**	**1.4**	**2.3**	**-6.1**	**-0.35**	**0.05**	**0.08**	**-0.22**	**0.29**	**0.32**	**-0.20**	**0.42**
Other Oils[1]	-0.8	-0.9	0.7	-1.0	-0.03	-0.03	0.02	-0.04	-0.21	0.05	-0.07	-0.23
Total Oil	**-8.0**	**-1.3**	**16.8**	**7.5**	**-0.28**	**-0.05**	**0.60**	**0.27**	**0.30**	**0.47**	**-0.25**	**0.51**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

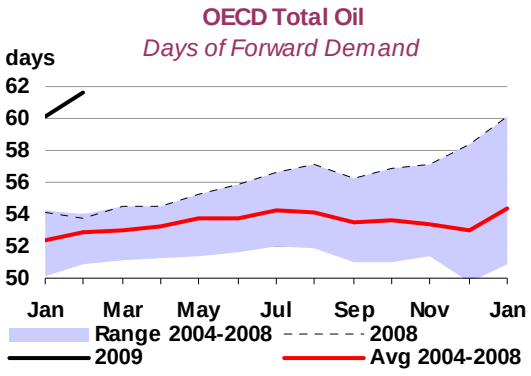
Revisions versus 13 March 2009 Oil Market Report

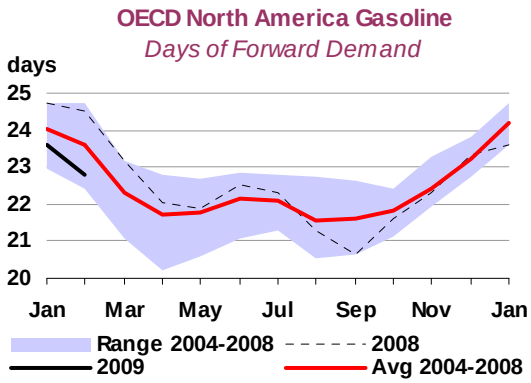
(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Dec 08	Jan 09	Dec 08	Jan 09	Dec 08	Jan 09	Dec 08	Jan 09
Crude Oil	**0.0**	**8.1**	**0.0**	**1.2**	**0.4**	**9.1**	**0.3**	**18.5**
Gasoline	0.1	-3.6	0.0	2.6	-0.4	-0.3	-0.3	-1.4
Distillates	0.5	-6.0	0.1	7.4	-0.5	0.5	0.2	1.9
Residual Fuel Oil	0.1	-1.0	0.3	3.6	0.0	0.3	0.3	2.9
Other Products	0.6	10.3	-0.1	-3.0	-0.1	0.2	0.5	7.5
Total Products	**1.2**	**-0.3**	**0.3**	**10.6**	**-0.9**	**0.6**	**0.6**	**11.0**
Other Oils[1]	0.3	-6.2	0.1	0.9	0.0	-0.3	0.4	-5.5
Total Oil	**1.6**	**1.7**	**0.4**	**12.8**	**-0.6**	**9.4**	**1.4**	**24.0**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

An upward revision to January total OECD inventories of 24.0 mb boosted baseline stock levels. Higher official data for North America and Pacific pushed OECD crude stocks higher by 18.5 mb. The largest gain stemmed from Japan, where data showed January crude inventories 8.0 mb higher. The US and Canada experienced upward crude revisions of 5.7 mb and 2.5 mb, respectively. Total European stocks witnessed an upward revision of 12.8 mb for January as data showed higher regional distillate, gasoline and residual fuel oil storage levels.





These revisions, combined with rising February inventory levels and lower forward demand estimates, pushed OECD total oil forward demand cover to 61.6 days at the end of February. Days of demand cover for end-January increased to 60.2 days. The February reading stands 8.7 days above the five-year average and 7.9 days above last year. Days of forward cover for almost all major categories within the OECD regions stood at or above the five-year range. Gasoline stocks remained the exception. For North America and the OECD as a whole, gasoline days of forward cover trended below the five-year average, while in Europe and the Pacific they remained only within the top half of the five-year range.

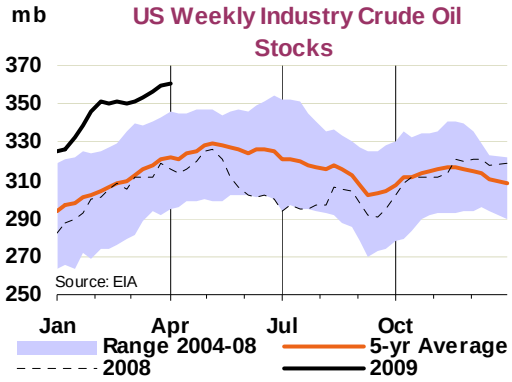
OECD Industry Stock Changes in February 2009

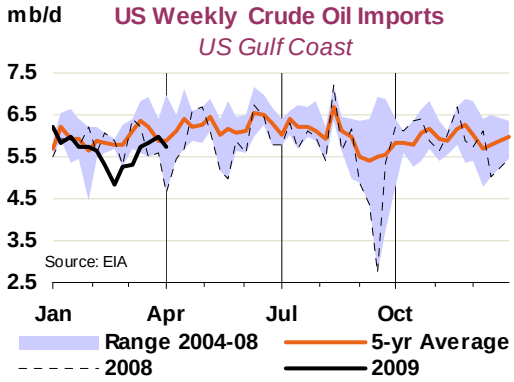
OECD North America

North American industry stocks fell 8.0 mb in February as US gasoline and Mexican products draws outweighed gains in US crude and distillate. A 4.8 mb draw kept US gasoline stocks trending below their five-year average. Though US crude inventories kept building above the five-year range, February builds were less than January, as levels increased only 3.4 mb. Falling crude imports, according to February weekly data, and narrowing WTI time spreads in the second half of February likely tempered the builds.

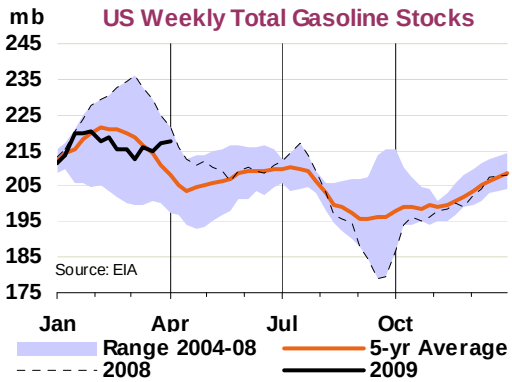
March weekly US data point to larger month-on-month crude builds as imports rebounded to near five-year average levels and refinery utilisation has stagnated. March crude imports into the US averaged 250 kb/d more than February, but the US Gulf Coast showed a gain of over 450 kb/d. Some of this increase may stem from discharges of floating storage, which likely occurred with a narrowing in WTI's

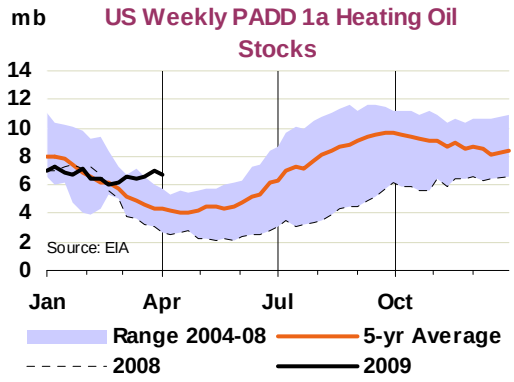
contango from mid-February through mid-March. Still, a significant amount of floating storage remains in the Gulf, representing up to half of the global total. In contrast to the US total, March data showed Cushing, Oklahoma inventories continuing to draw. As of early April, they stood at 30.0 mb.





According to weekly data, US product stocks also rose in March, increasing by 6.8 mb. Gasoline and distillate both showed small stock builds. Within distillate, heating oil built by 1.0 mb at a time of year of typical draws and diesel drew 2.1 mb, but the latter's still healthy stock position continued to reflect underlying demand weakness. Heating oil stocks in the US East Coast and Northeast – the primary regions for domestic heating oil use – appear to have emerged from the winter season above the five-year average and at levels far more robust than the same period last year.

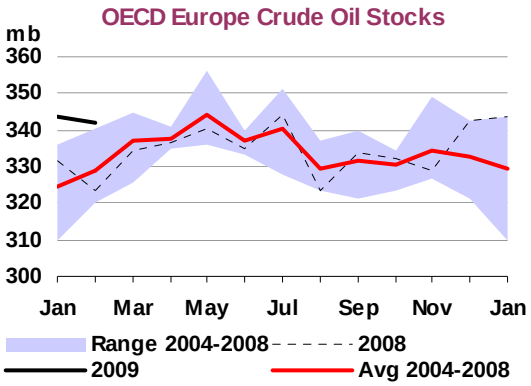


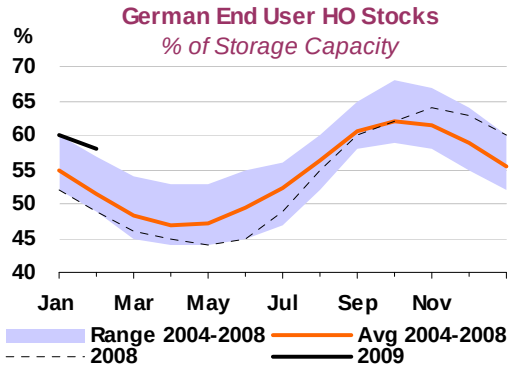


OECD Europe

European inventories changed little in February, declining by only 1.3 mb. Most categories, including crude (-1.8 mb) and gasoline (-1.1 mb) registered small draws. European total products, however, posted a net gain on the month of 1.4 mb. Distillate stocks drove this change as they rose 3.0 mb, led by Germany, which saw its stock levels rise by 2.3 mb. German heating oil demand fell by almost 15 kb/d (2.1%) in February versus the previous month and demand indications point to further falls in March. While primary stocks increased, German consumers drew down their stocks by two percentage points. Yet, consumer stock levels, at 58% of capacity, remained well above the five-year average.

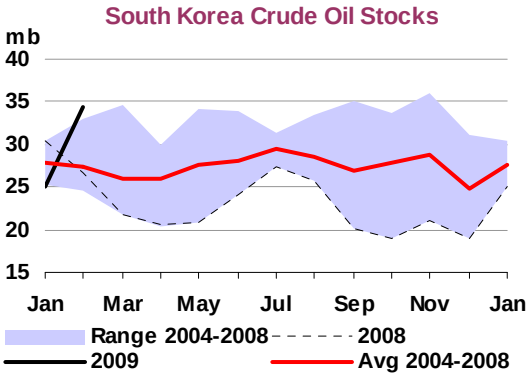
Preliminary data from Euroilstock indicate EU-16 inventories rose 5.7 mb in March as crude and products gained 3.0 mb and 2.8 mb, respectively. All product categories rose except gasoline, which declined by 0.4 mb. Northwest European product stocks held in independent storage generally declined in March. All major categories posted declines or remained unchanged, led by distillate and gasoline. Levels in the former remained well above the five-year range while gasoline stocks trended below the five-year average. Yet, an early-April rebound in both categories moved stocks back to near early March levels.

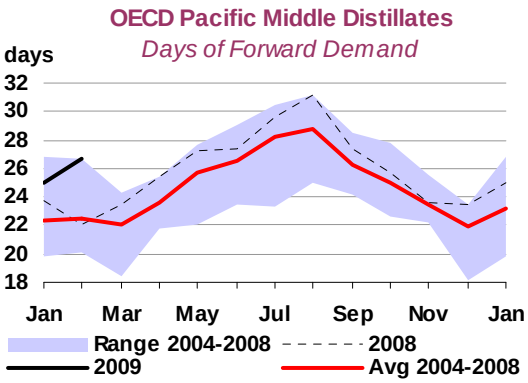




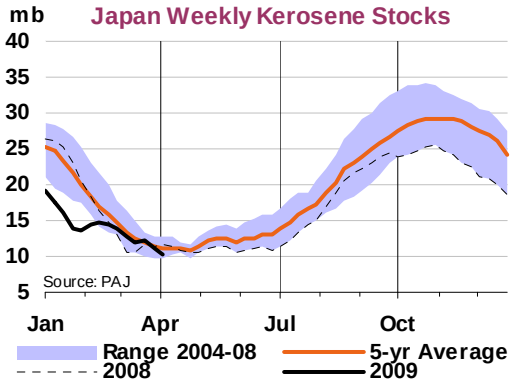
OECD Pacific

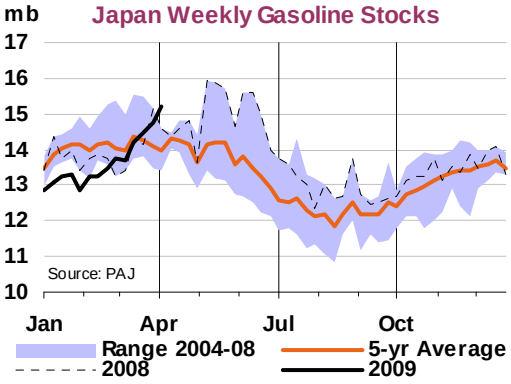
Pacific industry stocks jumped by 16.8 mb in February, buoyed by crude builds. Japanese crude inventories increased by 4.4 mb, and Korean crude rose 9.4 mb. High imports ahead of increased March crude import tariffs and falling February refinery runs likely drove the Korean stock change. Although February imports declined 11% relative to January, they stood 14% above levels of a year ago. Pacific product stocks posted a small gain of 2.3 mb with gasoline rising 1.8 mb and distillate falling 1.3 mb. Yet, distillate stocks increased in days of forward cover, as readings moved to the top of the five-year range.





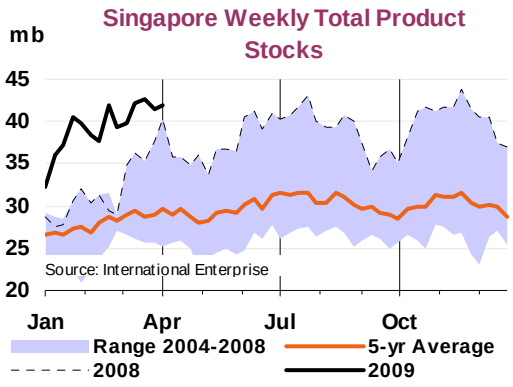
March weekly data from the Petroleum Association of Japan (PAJ) indicate a fall in total industry stocks of 7.2 mb for the month with onshore crude declining by 3.6 mb and products slipping by 3.6 mb. Most categories either fell or changed little and product stocks overall suffered, as refinery utilisation fell steadily through the month. Kerosene inventories fell by 3.0 mb, but trended along the five-year average. Gasoline remained the exception as it rose 1.2 mb to the top of its five-year range.

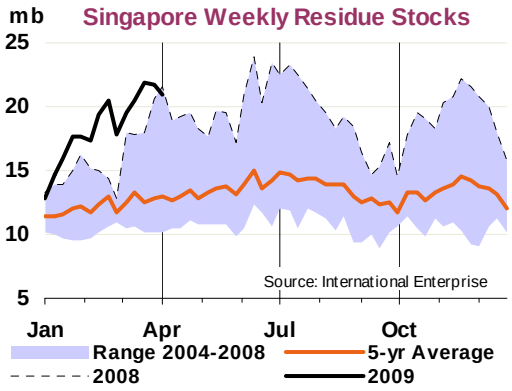




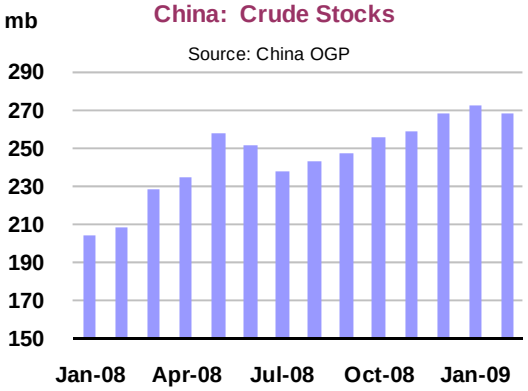
Recent Developments in Singapore and China Stocks

Singapore stocks built by 2.5 mb in March as an increase in middle distillates of 0.6 mb offset a decrease in light distillate stocks of 0.5 mb. Residual fuel oil inventories built by 2.5 mb as regional demand for bunkers and fuel oil used in power generation remained weak. The last two weeks in March, however, saw some retracement in fuel oil stocks, as they declined from a 2009 high of 21.9 mb





Last month's report featured an update on China's inventories (see *China's Inventory Picture –More Colour But Still Hazy*, page 33 of report dated 13 March 2009) based on new crude stock data from *China Oil, Gas & Petrochemicals* (OGP). So long as this data remains available, we will feature it as another indicator of overall inventories, but with the caveats we noted last month related to completeness and accuracy. The latest OGP data show China February crude stocks fell by 4.4 mb to 268 mb as net imports fell and refinery intake increased. Gasoline and gasoil inventories held by Sinopec and CNPC both fell slightly. Gasoline stocks declined by 0.9 mb to 31.9 mb and gasoil stocks nudged down by 0.1 mb to 53.7 mb. In the past two months, product category declines have totalled 0.8 mb and 1.0 mb, respectively, although stocks remain well above last year's levels.

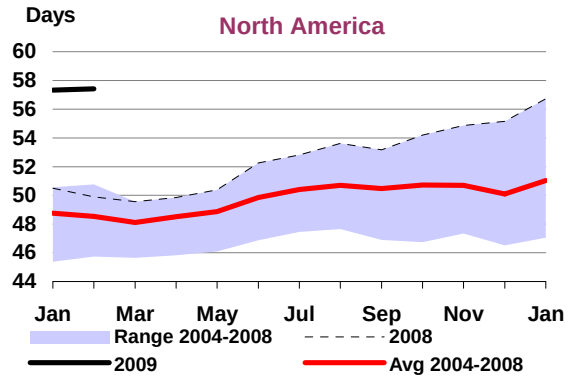


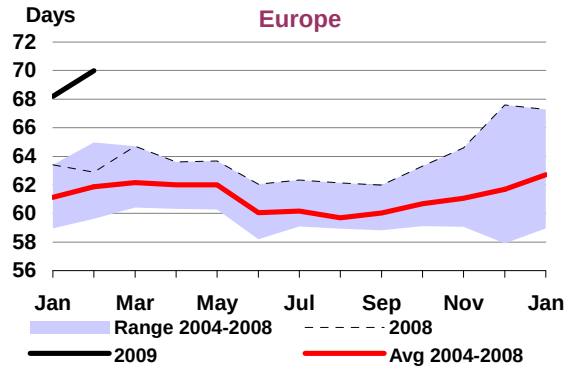


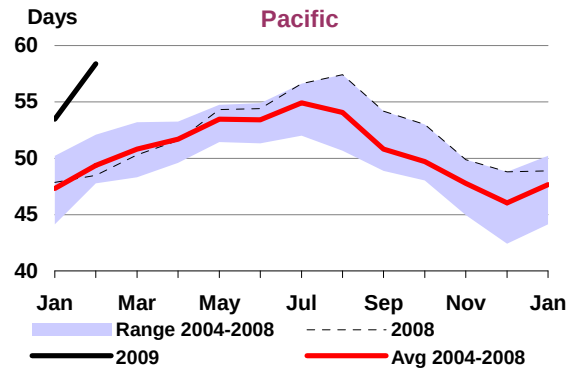
Regional OECD End-of-Month Industry Stocks

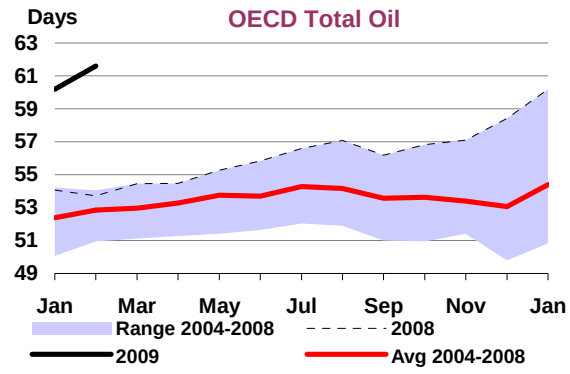
(in days of forward demand and millions barrels of total oil)

Days[1]

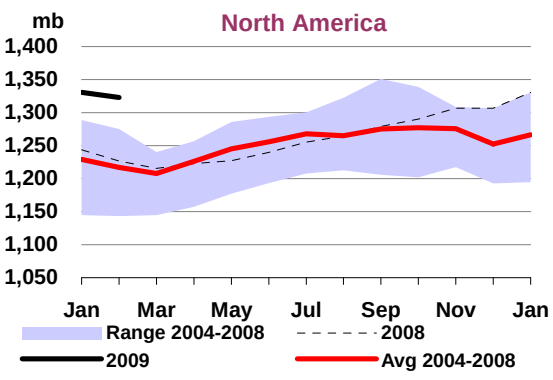


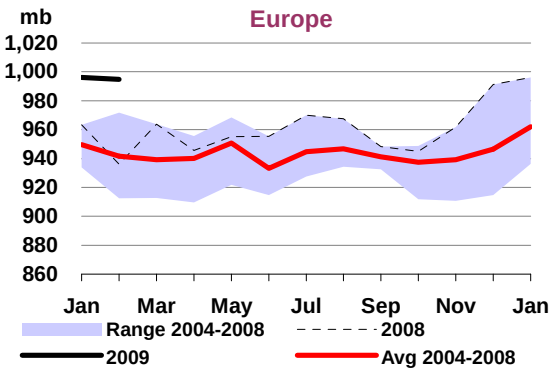


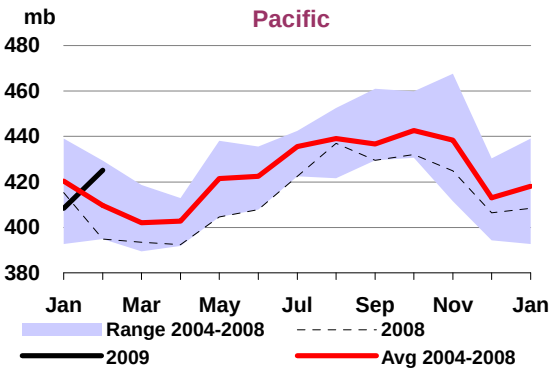


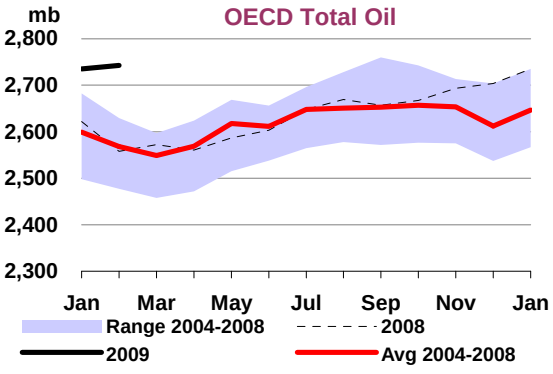


Million Barrels









1 Days of forward demand are based on average demand over the next three months

PRICES

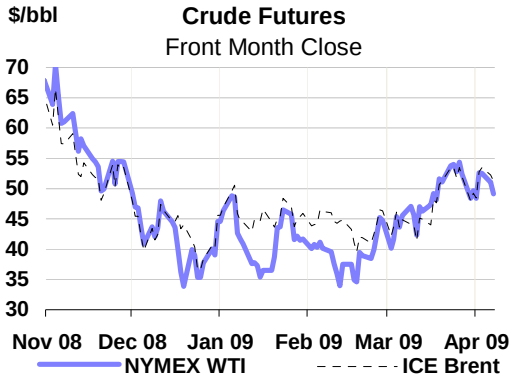
Summary

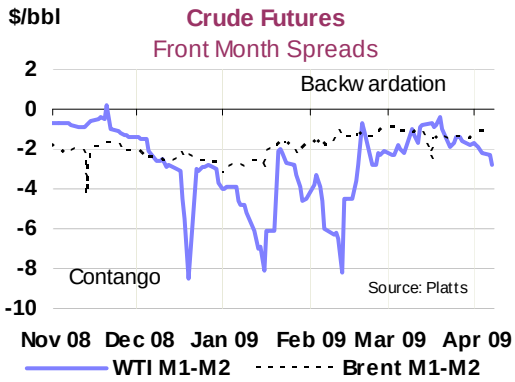
- **Benchmark crude oil prices exceeded $50/bbl for the first time** in four months as a markedly more bullish sentiment swept through global financial markets in late March and early April. Oil prices have been consistently tracking financial markets as traders intensify their focus on the global economy in search of signs of a potential recovery in oil demand. However, pervasive weak supply and demand fundamentals cast a long shadow and could limit any further gains for now.
- **Oil markets were also supported by lower OPEC production levels** and the group's decision to rollover existing output targets. However, OPEC cuts have yet to dent stubbornly high oil stocks and the full impact of the reduced volumes may take some time to translate into a significant stockdraw.
- **Refined product markets trailed the upswing in crude prices** and refinery margins were universally weaker in March across the three main refining centres surveyed. Much of the weakness stemmed from a compression of middle distillate cracks in all regions, continuing the trend of recent months.
- **March dirty freight rates continued to languish at five-year lows** as OPEC production cuts and a decrease in oil trade continued to outweigh demand for floating storage. Clean tanker rates for major routes steadily declined through the month on oversupply and weak demand.

Overview

Benchmark crude oil prices crossed the $50/bbl threshold for the first time in four months as a markedly more bullish sentiment swept through global financial markets in late March and early April, notably following the G20 summit in London. Futures prices hit a high of $54.34 for WTI and $53.50 for Brent but eased back again in early April.

A further cut in OPEC supplies in March also supported firmer prices. OPEC output for the 11 members bound by targets fell by 235 kb/d, to 25.6 mb/d. The producer group's decision to rollover existing targets levels at its 15 March meeting in Vienna meeting rather than open up the contentious debate about further target cuts helped to stabilise markets.



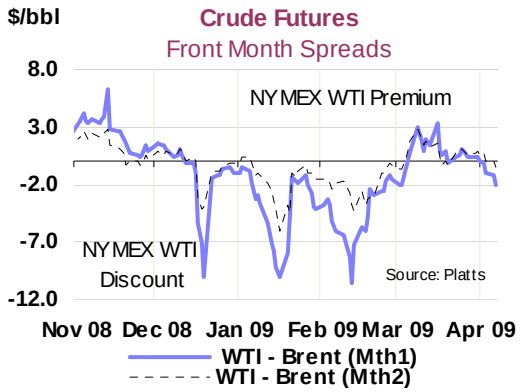


Pervasive weak oil supply and demand fundamentals cast a long shadow but oil prices in early April were last trading in a higher $48-53/bbl range. Oil prices have largely moved in lock-step with financial and equity markets in recent months as traders focus on global economic developments for any sign of a potential recovery in oil demand. The latest price rally over the $50/bbl mark was triggered by a convergence of bullish stimulus plans announced by governments and international financial institutions. In the span of a few weeks, China unveiled plans to substantially increase lending in a bid to support credit markets and economic activity, the US Federal Reserve put forward proposals to buy up toxic

government debt and mortgage bonds, the G20 announced a $1.1 trillion spending package, the European Central Bank unexpectedly cut rates (albeit less than expected) and Japan announced it would inject a further $100 bn into its economy. Expectations heightened that the ailing global economy would soon turn the corner and led to a more than $10/bbl surge in prices from the beginning of March.

However, with few solid indicators that the stimulus packages are showing visible results so far and scant data showing oil fundmentals are improving, prospects for a sustained rally in oil prices in the near term remains elusive. Indeed, this report's revised projections show 2009 demand down by 2.4 mb/d, to 83.4 mb/d, compared with the 1.2 mb/d decline forecast last month, largely due to the weaker economic prognosis and much lower-than-expected 1Q09 data.

The bullish market sentiment in recent weeks appears to have temporarily masked persistent underlying weak price signals in both crude and refined product markets. OPEC production cuts have yet to dent stubbornly high oil stock levels, now estimated at a 16-year high of 61.6 days of forward cover. Arguably, the less dramatic metric of absolute stock levels in mb may be a more accurate gauge of the market in present circumstances. Lower OPEC output to date has basically matched the decline in global oil demand, with the full impact of reduced production volumes not expected to translate into a significant stock drawdown for some time to come. However, until then, prices are likely to ebb and flow, with global economic and financial markets developments being two driving forces among many influencing oil price direction.



The recent headline-driven price rally in WTI futures markets helped briefly restore the traditional price relationship between WTI and Brent futures in March. The WTI contango narrowed to an average of $1.44/bbl in March compared with $3.90/bbl in February. Since mid-December, WTI had traded at a discount to Brent instead of the more normal premium due to persistent depressed prompt prices for the US benchmark. Traders capitalised on the price weakness for prompt WTI relative to forward markets by storing barrels at tank farms around Cushing, Oklahoma, the physical delivery point for the NYMEX light sweet crude contract, and then selling it at a later date at higher forward prices.

Moreover, the relatively steeper contango formation for WTI compared with Brent opened arbitrage opportunities for North Sea crude and other grades to move to the US market, which ultimately created a mini-armada of floating storage offshore the Gulf Coast. The heady combination of high stocks levels both onshore at Cushing and on tankers created a vicious cycle of chronic weak prompt prices for WTI. The market's exploitation of this price anomaly undermined WTI's credibility and raised doubts about its future as a global benchmark.

The $8.80/bbl surge in futures prices for WTI in March far outpaced the $3.54/bbl rise in benchmark Brent over the month and in the process triggered, albeit tenuous, a reversal of fortune for the beleaguered US benchmark. Firmer gasoline demand and fallings stocks at Cushing lent some support to higher WTI levels but the exaggerated increase relative to other crudes largely reflects an upswing in financial markets and WTI's tendency to follow headlines higher or lower. By contrast, the substantial surplus of crudes in storage and on offer in the market, such as Nigerian grades, kept a lid on upward price movements for the more grounded North Sea marker. As a result, WTI regained its pole position over Brent, posting an average 64 cents/bbl premium in March compared with a discount of $4.62/bbl the previous month and $3.78/bbl in January. However, with the contango widening again to over $2/bbl in early April, WTI is once again trading at a discount to Brent.

Spot Crude Oil Prices

Spot crude oil markets edged steadily higher in March, with month-on-month increases ranging from a low $1.56/bbl for Nigerian Forcados to a stronger increase of $5.35 for Iranian Heavy crude. The substantial cutback in heavy and medium sour crudes by OPEC members helped narrow differentials between light and heavy grades. In a departure from the recent norm, much-coveted gasoline-rich Nigerian crudes were exceptionally weak, with ample supplies on offer from storage and an unusually high level of cargoes unsold from the April sales program. Nigeria raised prices ahead of the driving season but the relatively steep increases, given weak demand and plentiful supplies, prompted buyers to seek alternative grades. Surplus Nigerian barrels also depressed prices for similar grades such as Algerian crudes.

The heavier-than-usual refinery maintenace season, coupled with economic run cuts, sharply curtailed crude demand. In the US, record crude inventory levels at 16-year highs and floating storage tempered gains early in the month. Relatively cheaper prices for African crudes prompted China to pick-up a number of cargoes for storage. Angolan grades were particularly sought after.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Jan	Feb	Mar	Mar-Feb Avg Change	%	Week Commencing: 09 Mar	16 Mar	23 Mar	30 Mar	06 Apr
Crudes										
Dated Brent	43.59	43.07	46.54	3.47	8.1	43.89	46.52	51.17	48.59	50.91
Brent (Asia) Mth1 adjusted	44.44	43.57	46.54	2.97	6.8	44.14	45.84	51.07	49.19	53.28
WTI (Cushing) Mth1 adjusted	41.75	39.16	48.00	8.84	22.6	45.68	49.50	53.12	50.32	50.09
Urals (Mediterranean)	43.09	42.31	45.64	3.33	7.9	43.24	45.25	50.06	47.71	49.68
Dubai Mth1 adjusted	44.12	43.09	45.59	2.50	5.8	43.09	45.46	50.16	48.30	52.20
Tapis (Dated)	47.40	47.66	50.15	2.49	5.2	47.88	50.24	54.26	50.54	53.57
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	-1.84	-3.91	1.45	5.36		1.79	2.98	1.95	1.73	-0.82
Urals (Mediterranean)	-0.51	-0.76	-0.90	-0.14		-0.66	-1.27	-1.11	-0.88	-1.23
Dubai Mth1 adjusted - Dated Brent	0.53	0.02	-0.96	-0.98		-0.81	-1.06	-1.01	-0.29	1.29
Tapis (Dated)	3.81	4.59	3.60	-0.99		3.99	3.72	3.09	1.95	2.66
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-2.15	-1.02	-1.20	-0.18		-1.01	-1.33	-1.39	-1.12	-1.07
Forward WTI Cushing Mth1-Mth2 adj	-4.30	-3.57	-1.28	2.29		-1.13	-0.72	-0.95	-1.87	-2.54

Source: Platts

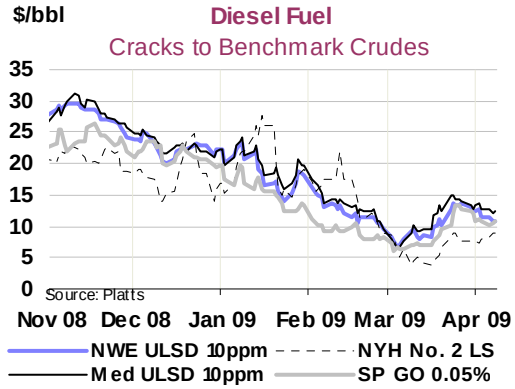
In response to weaker demand Saudi Aramco cut the May price for its flagship Arab Light to all regions for the first time in five months. US buyers saw the biggest drop, with the differentials for Arab Light cut by $4.15/bbl, to WTI minus $2.25. In Europe, Arab Light was down $1.60/bbl, to Brent minus $4.05. Prices for the Far East were down only 10 cents/bbl, to the Oman/Dubai plus 80 cents/bbl. Prices for Arab Heavy were also lowered in line with weaker fuel oil cracks. Other Mideast producers, such as Kuwait and Iran, followed the Saudis lead, possibly signalling general expectations of weaker markets in the weeks ahead.

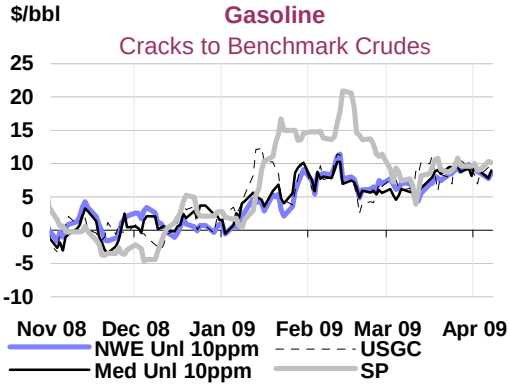
Spot Product Prices

Refined product markets lagged the uptick in crude oil prices but both US and European spot prices moved higher over the month on anticipation that gasoline demand would pick up ahead of the driving season in spring and summer. Gasoline crack spreads to benchmark crudes edged up to around $10/bbl from under $5/bbl at the beginning of the month. US gasoline trade was boosted by the switch from winter grade production to more expensive summer-grade gasoline. European refiners were a key beneficiary of stronger US gasoline trade, with at least 15 cargoes moving trans-Atlantic.

By contrast, Asian gasoline markets were under pressure from weak demand, high stocks and an influx of supplies from Chinese refiners. Contrary to run cutbacks almost everywhere else, Chinese refiners have

not significantly curtailed their operations as yet since they are guaranteed a profit under the new pricing system that went into affect at end-2008 and revised again in late March. As a result, Chinese exports of gasoline continue to rise and risk saturating neighbouring markets. The start-up of Reliance's Jamnagar refinery expansion is also expected to boost gasoline exports to the region in the months ahead.





Distillate started off the month as the weak link in the product chain but quickly moved higher in Europe and the US in response to the cutback in refinery output rates. A sharp slowdown in economic activity, especially in northeast of China, pressured crack spreads in some markets to their lowest levels in five years. The onset of the peak spring agricultural period in China has also failed to boost demand.

Spot Product Prices

(monthly and weekly averages, $/bbl)

	Jan	Feb	Mar	Mar-Feb Change	Mar-Feb %	Week Commencing: 09 Mar	16 Mar	23 Mar	30 Mar	06 Apr	Jan	Feb	Mar
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	47.43	50.69	53.90	3.20	6.3	49.34	53.99	59.96	57.84	59.06	3.84	7.62	7.35
Naphtha	38.68	43.72	43.79	0.07	0.2	40.83	43.70	47.74	45.52	49.20	-4.91	0.65	-2.76
Jet/Kerosene	60.68	53.62	55.05	1.43	2.7	51.80	54.27	62.34	59.77	60.92	17.09	10.55	8.50
ULSD 10ppm	62.36	55.57	56.70	1.13	2.0	52.68	56.45	64.54	61.05	62.01	18.77	12.50	10.16
Gasoil 0.1%	59.63	52.53	53.40	0.86	1.6	49.60	53.08	61.31	57.38	58.36	16.04	9.46	6.85
LSFO 1%	36.45	35.99	36.61	0.62	1.7	35.30	36.23	40.28	40.63	46.05	-7.14	-7.08	-9.94
HSFO 3.5%	34.71	36.21	36.99	0.78	2.2	35.79	36.69	40.20	40.00	42.24	-8.88	-6.86	-9.55
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	48.24	49.45	53.02	3.57	7.2	49.00	53.63	59.40	56.63	58.07	5.15	7.14	7.37
Naphtha	37.48	42.87	43.01	0.14	0.3	39.78	42.99	47.37	45.19	49.02	-5.61	0.56	-2.64
Jet Aviation fuel	59.79	52.84	53.50	0.66	1.3	49.07	53.16	61.58	57.92	58.93	16.70	10.52	7.86
ULSD 10ppm	63.08	55.78	56.61	0.82	1.5	52.62	57.10	64.52	60.89	62.05	19.99	13.47	10.96
Gasoil 0.1%	60.91	53.09	53.55	0.46	0.9	49.21	53.39	61.84	58.48	59.55	17.83	10.78	7.91
LSFO 1%	38.83	38.82	39.57	0.75	1.9	38.23	39.78	42.78	41.65	45.78	-4.26	-3.49	-6.08
HSFO 3.5%	34.35	35.14	36.45	1.31	3.7	35.04	36.68	39.91	39.48	42.05	-8.73	-7.17	-9.20
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	52.67	57.19	59.45	2.26	4.0	57.18	59.78	62.66	58.88	60.39	10.92	18.03	11.45
Unleaded	48.32	51.21	54.00	2.79	5.4	51.23	54.80	57.73	54.36	56.64	6.57	12.05	6.00
Jet/Kerosene	64.66	54.79	55.86	1.07	1.9	51.27	56.42	63.84	59.97	60.68	22.90	15.63	7.86
No. 2 (Heating Oil)	61.59	53.68	53.69	0.01	0.0	49.50	53.48	61.00	57.53	58.08	19.84	14.52	5.70
LSFO 1%	37.48	37.22	37.99	0.76	2.0	35.72	38.00	41.67	41.28	44.80	-4.28	-1.94	-10.01
No. 6 3%	35.85	37.48	37.67	0.19	0.5	35.80	37.66	40.83	40.18	41.88	-5.91	-1.68	-10.33
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	52.23	57.97	54.20	-3.77	-6.5	49.50	55.16	59.70	57.75	62.44	8.10	14.88	8.61
Naphtha	42.58	46.84	46.53	-0.31	-0.7	43.54	46.56	50.88	49.64	52.22	-1.55	3.75	0.94
Jet/Kerosene	60.15	52.85	53.34	0.49	0.9	48.81	52.40	61.72	58.44	61.37	16.03	9.76	7.75
Gasoil 0.5%	58.36	49.10	52.10	3.00	6.1	47.61	51.63	60.32	57.39	60.05	14.23	6.01	6.51
LSWR Cracked	34.13	36.05	35.59	-0.46	-1.3	34.64	35.05	37.16	36.13	39.50	-9.99	-7.05	-10.00
HSFO 180 CST	39.46	39.63	37.86	-1.77	-4.5	36.53	37.40	40.63	41.03	45.64	-4.67	-3.46	-7.72
HSFO 380 CST 4%	39.60	40.29	38.55	-1.74	-4.3	37.39	38.12	41.15	41.87	46.55	-4.53	-2.80	-7.04

Source: Platts * CIF

However, surplus gas oil and diesel supplies from Asia and the US are finding a home in Europe as run cuts there have increased demand for some products. European distillate markets were also supported by German consumers restocking heating oil supplies after the winter season.

The sharp downturn in economic activity and reduce power use at utilities continues to undermine fuel oil markets. Crack spreads for both high-sulphur and low-sulphur fuel against benchmark crudes in all regions were running between minus $5/bbl to minus $10/bbl.

Refining Margins

Refinery margins were universally weaker in March across the three main refining centres surveyed. Much of the weakness stemmed from a compression of middle distillate cracks in all regions, continuing the trend of recent months. Bulging inventories and the build-up of floating storage of jet fuel and gasoil in Northwest Europe depressed prompt cracks. Gasoline cracks were stronger on the US Gulf Coast, stable in Europe and significantly weaker in Singapore and on the US West Coast.

Selected Refining Margins in Major Refining Centres

($/bbl)

		Monthly Average			Change	Average for week ending:				
		Jan 09	Feb 09	Mar 09	Mar 09-Feb 09	27 Feb	06 Mar	13 Mar	20 Mar	27 Mar
NW Europe	Brent (Cracking)	3.61	3.03	0.51	-2.52	1.36	-0.46	-0.39	0.41	1.80
	Urals (Cracking)	3.63	3.08	1.49	-1.59	1.69	0.40	0.74	1.67	2.57
	Brent (Hydroskimming)	2.26	1.06	-1.72	-2.78	-0.49	-2.64	-2.12	-1.77	-0.91
	Urals (Hydroskimming)	0.36	-0.51	-2.28	-1.77	-1.77	-3.22	-2.32	-2.13	-1.89
Mediterranean	Es Sider (Cracking)	3.05	1.70	-0.43	-2.13	-0.06	-2.33	-1.36	0.28	1.19
	Urals (Cracking)	3.25	2.01	-0.33	-2.34	0.25	-2.08	-1.15	0.30	1.13
	Es Sider (Hydroskimming)	0.90	-0.55	-3.18	-2.63	-1.93	-4.68	-3.54	-2.52	-2.35
	Urals (Hydroskimming)	-0.79	-1.76	-4.32	-2.56	-3.06	-5.71	-4.45	-3.72	-3.75
US Gulf Coast	Bonny (Cracking)	0.14	-2.22	-2.59	-0.37	-2.83	-4.17	-4.55	-2.45	-0.05
	Brent (Cracking)	1.08	-0.05	-2.06	-2.01	-0.78	-3.02	-3.33	-2.17	-0.41
	LLS (Cracking)	2.05	1.00	-1.69	-2.68	-0.92	-2.24	-2.78	-2.52	0.12
	Mars (Cracking)	3.15	0.70	-1.43	-2.12	-0.82	-3.25	-1.75	-0.72	-0.47
	Mars (Coking)	5.49	1.10	0.35	-0.76	-0.70	-2.03	-0.41	0.99	2.27
	Maya (Coking)	6.52	4.02	1.92	-2.11	1.92	1.73	0.61	1.13	3.73
US West Coast	ANS (Cracking)	7.06	3.46	-2.15	-5.61	-0.57	-3.39	-3.87	-2.79	0.06
	Kern (Cracking)	16.93	14.00	-0.92	-14.92	6.98	3.10	-1.94	-1.51	-2.23
	Oman (Cracking)	2.10	2.78	-1.20	-3.98	1.13	-0.53	-2.13	-1.23	-0.54
	Kern (Coking)	25.32	25.58	8.75	-16.83	16.23	10.12	4.68	9.22	10.73
Singapore	Dubai (Hydroskimming)	0.58	-0.75	-3.48	-2.72	-1.92	-4.06	-3.86	-3.67	-2.92
	Tapis (Hydroskimming)	-1.06	-3.00	-5.54	-2.54	-4.47	-6.40	-6.68	-5.84	-4.14
	Dubai (Hydrocracking)	3.00	1.16	-1.50	-2.65	-0.20	-2.55	-2.59	-1.56	-0.04
	Tapis (Hydrocracking)	1.81	-0.99	-3.68	-2.68	-2.86	-5.21	-5.39	-3.90	-1.40
China	Cabinda (Hydroskimming)	-3.21	-3.51	-7.42	-3.90	-5.28	-7.72	-7.98	-7.55	-7.08
	Daqing (Hydroskimming)	-1.79	-3.16	-7.01	-3.85	-3.37	-5.02	-6.16	-7.60	-9.02
	Dubai (Hydroskimming)	0.04	-1.17	-3.79	-2.62	-2.30	-4.42	-4.18	-3.98	-3.20
	Daqing (Hydrocracking)	2.71	1.72	-3.20	-4.93	0.62	-1.95	-3.22	-3.57	-4.18
	Dubai (Hydrocracking)	2.47	0.81	-1.78	-2.59	-0.53	-2.87	-2.89	-1.84	-0.29

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

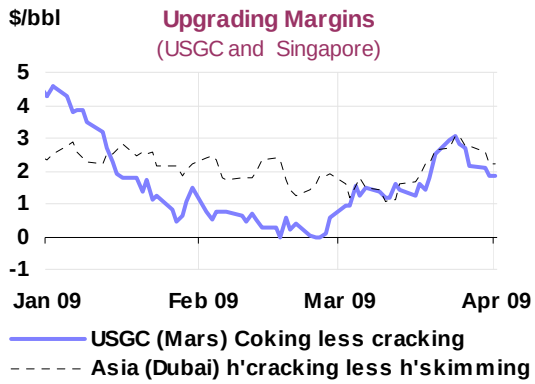
*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.

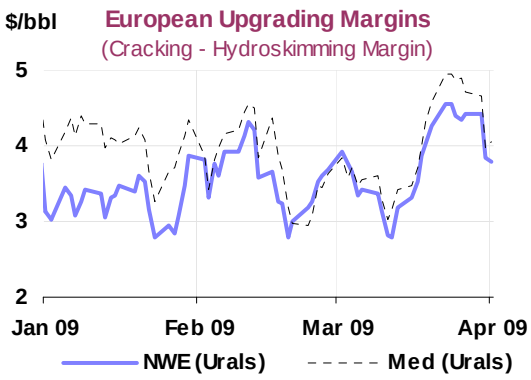
Sources: IEA, Purvin & Gertz Inc.

Late March saw a partial recovery in refining margins as renewed crude price weakness outpaced the decline in product prices. However, at the time of writing, products were surrendering gains relative to marker crude grades as anaemic demand again undermines pricing power in the product markets.

Kern margins on the US West Coast posted the heaviest declines on the month, for both coking and cracking configurations. The primary driver of this move was the collapse in Kern's extremely heavy

discount versus ANS and WTI, from a low of -$20/bbl in mid-February to a small premium by the end of March. By early April, the discount had stabilised at around -$5/bbl versus ANS, in line with its 12-month average discount in percentage terms.





Hydroskimming margins generally underperformed cracking margins as weaker cracks spreads for naphtha and fuel oil (which are assumed to have higher yields in hydroskimming refineries) weakened in Europe and Asia. Consequently, upgrading margins generally improved during the course of March, with the exception of the US West Coast, where cracking refinery configuration's higher exposure to fuel oil narrowed the upgrading spread when running Kern River crude.

End-User Product Prices in March

In March, retail product prices in surveyed IEA member countries on average decreased by 5.2%, in US dollars, ex-tax. Gasoline prices in the US, Canada and Italy continued to increase month-on-month, but the higher levels were offset by much steeper declines in petrol prices in other European countries. In March, consumers in the US on average paid $1.96/gallon ($0.512/litre) for gasoline, in Japan ¥112/litre ($1.138/litre) and in Europe prices ranged from a low of €0.907/litre ($1.143/litre) in Spain to a high of €1.165/litre ($1.468/litre) in Germany. Low-sulphur fuel oil prices decreased by 1.9%, diesel prices by 8.3% and heating oil end-user prices by 9.8% month-on-month, in US dollars, ex-tax. Retail prices were 48.5% below levels of a year ago.

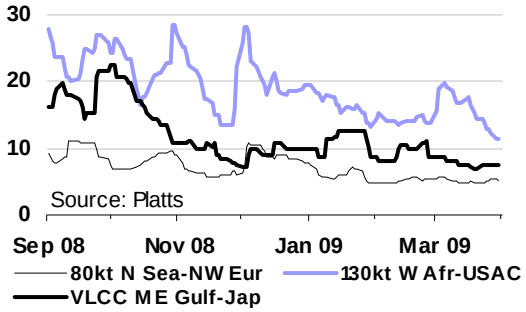
Freight

March dirty freight rates continued to languish at five-year lows as OPEC production cuts and a decrease in oil trade continued to outweigh healthy demand for floating storage. Note, our freight rates now reflect daily pricing as opposed to weekly rates, as featured in previous reports.

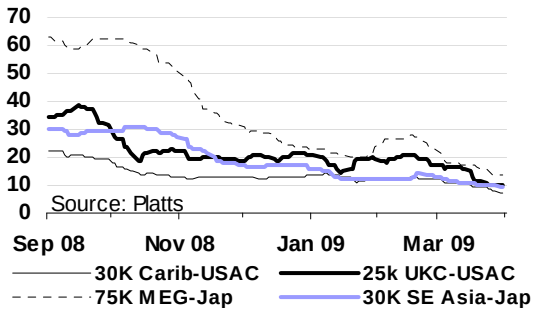
Middle East Gulf to Japan VLCC rates continued to edge downwards during March. Chartering costs fell to around $7.50/tonne by month-end from near $11/tonne in late February. North Sea Aframax rates displayed a similar pattern, finishing March below $5/tonne. However, West Africa to US Atlantic Coast Suezmax rates showed greater life, as rates rose from almost $14/tonne in late February to almost $20/tonne in early March. Attractive pricing early in the month made West African grades, particularly Angolan, well sought after. Yet the boost was short-lived as rates on the Africa-USGC route fell to almost $11/tonne by end-March, weighed down by reduced demand for gasoline-rich Nigerian crude supplies.

Clean tanker rates also continued to languish as major routes steadily declined throughout the month. Europe to US Atlantic Coast rates saw brief support around $16-17/tonne in the beginning of March with open trans-Atlantic gasoline arbitrage. However, rates dropped to almost $10/tonne by end-month as increases in US gasoline stocks and stronger refinery production closed the window.

Daily Crude Oil Tanker Voyage Freight Rates (US$/tonne)



Daily Product Tanker Voyage Freight Rates (US$/tonne)



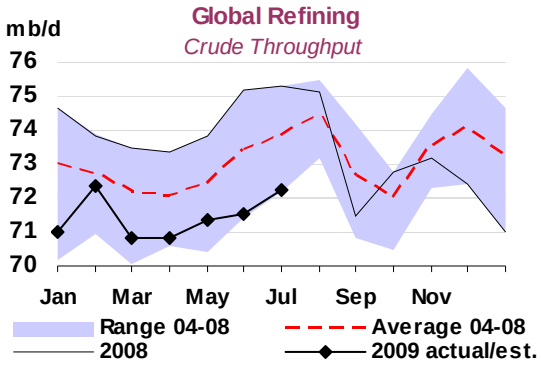
Middle East Gulf to Japan clean rates also saw support evaporate in late February to early March. After beginning the month over $21/tonne, rates fell to just above $13/tonne by end-March. Oversupply and weak demand continue to undermine most East-West product trade. Naphtha, however, remains an exception. High run rates at Japanese and South Korean petrochemical plants in April are providing support to naphtha trade and an outlet for European volumes, in particular, at a time when OECD Pacific refineries are undergoing increased maintenance.

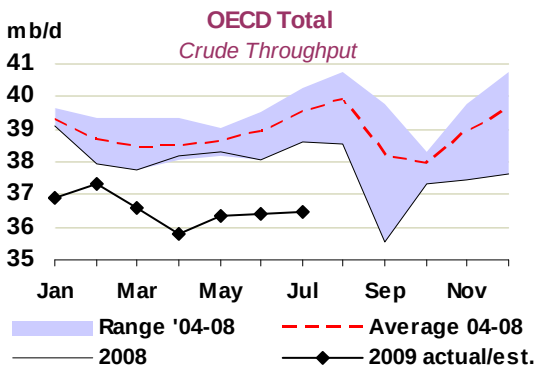
REFINING

Summary

- **Weakness in global crude runs should continue throughout 2Q09 and into 3Q09.** Downward revisions to demand, weakness in middle distillate cracks and reports of bulging product inventories in several markets suggest a further painful period of weak margins as refiners adjust operating rates to the 2.8% decline in demand now expected this year.

- **The 2Q09 crude throughput forecast of 71.2 mb/d, is reduced by 1.1 mb/d from last month's report,** despite an upward revision to Chinese runs, the following start-up of CNOOC's 240 kb/d Huizhou refinery in March. Throughputs for the quarter reflect an annual decline of 2.9 mb/d, of which 2.0 mb/d in OECD regions. Lower OECD imports will also be necessary to balance the lower demand forecasts. This could translate into non-OECD export refiners bearing a greater share of the lower crude runs.





- **1Q09 global runs are unchanged versus last month's report.** However, much stronger-than-expected European and Chinese runs in February mask much weaker-than-expected January data for China and the Middle East and lower estimates for March for Iran, Russia and Other Asia. A continuation of OECD crude runs ahead of forecast would suggest that OECD refiners are coping better with the economic crisis and consequently non-OECD export refiners will face a more severe downturn in crude runs in the months to come.

- **OECD refinery yields have evolved significantly in the last year**. These changes have been accompanied by shifts in trading patterns, as refiners seek to adjust production to declining domestic demand. Notably, gasoline and gasoil/diesel yields remain above their respective five-year ranges, while fuel oil and naphtha yields continue to lag beneath their respective five-year ranges.

Global Overview

The backdrop of weaker demand forecasts, notably in the OECD, again reduces our forecast for global crude throughput in the coming months. Despite the leaden skies under which much of the world sits economically these days, February data has proved surprisingly strong, suggesting either demand is not as weak as reported, or that the resulting build in product inventories will be the precursor of additional margin weakness in the months to come.

Intuitively, this month's forecasts appear extremely weak *vis-à-vis* recent historical ranges. At this present juncture, uncertainties abound and there undoubtedly remains a risk that refinery activity levels could exceed these forecast levels if the decline in demand were to be offset by lower NGL production, particularly where it is integrated into the petrochemical supply chain. However, such low-cost

production appears unlikely to shoulder the burden of reduced activity, given its competitive advantage and the requirement for gas production, the primary driver of NGL supply, to be maintained. Lastly, we assume that refineries provide the incremental, or swing, source of supply for petrochemical feedstock.

Weakness in crude throughput is not limited solely to OECD regions. Asia Pacific (including OECD Pacific, China and Other Asia) saw crude runs an annual decline of 1 mb/d in 1Q09. Asia Pacific crude runs are forecast to post a year-on-year decline of 0.9 mb/d in 2Q09, despite our higher forecast for Chinese runs over the quarter. Nevertheless, OECD crude runs are forecast to bear the lion's share of the annual decline in 2Q09 crude runs, down by 2.0 mb/d, and remain similarly depressed in July.

Our more aggressive forecast for Chinese crude runs over the course of **2Q09** is based on February's significantly higher rates, and the assumption that CNOOC's newly commissioned 240 kb/d Huizhou refinery will ramp up production progressively over the coming quarters. In addition, the more attractive pricing environment for state refiners, following government price reform in late 2008, may also support activity levels. However, higher runs will necessitate higher exports if demand does not start to recover in short order, pushing China towards more of a merchant refiner role and adding further pressure to product cracks and benchmark refining margins, as other refiners will need to scale back runs to contain product inventories.

Furthermore, the continued weakness in middle distillate cracks could undermine activity levels in Asia, but also potentially Europe, while the more gasoline-biased US refining industry may benefit from the rebound in gasoline cracks. Nevertheless, US margins are anticipated to remain under pressure from excess Atlantic Basin gasoline supply potential. To the extent that Iran's recent weakness in refinery throughput may continue into the future, an increasing amount of gasoline will need to be imported. This potentially offers an additional source of demand to European supply, albeit against increasingly stiff competition from Asia.

Global Refinery Throughput

Estimated **1Q09** global crude throughput of 71.4 mb/d is broadly unchanged from last month's report. Weaker official January data for the OECD, Iran and China all contribute to the 0.45 mb/d reduction in runs to 71.0 mb/d for the month.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09
OECD									
North America	17.5	17.4	17.3	17.1	17.0	16.7	17.1	17.1	17.2
Europe	13.2	13.2	12.7	13.1	12.9	12.8	13.1	13.2	13.2
Pacific	6.8	7.0	6.9	7.1	6.7	6.3	6.2	6.1	6.1
Total OECD	37.5	37.6	36.9	37.3	*36.6*	*35.8*	*36.3*	*36.4*	*36.5*
NON-OECD									
FSU	6.3	5.9	5.9	6.0	5.8	6.1	6.0	5.8	6.0
Europe	0.7	0.7	0.6	0.7	0.8	0.8	0.8	0.8	0.8
China	6.6	6.4	6.1	6.7	6.8	6.7	6.7	6.8	6.8
Other Asia	7.9	7.8	7.9	7.9	7.8	7.9	7.8	7.8	8.0
Latin America	5.6	5.5	5.4	5.4	5.0	5.1	5.2	5.4	5.5
Middle East	6.2	6.1	6.1	6.1	5.8	6.1	6.3	6.2	6.2
Africa	2.4	2.4	2.2	2.2	2.2	2.3	2.3	2.3	2.4
Total Non-OECD	35.7	34.8	*34.1*	*35.0*	*34.2*	*35.0*	*35.0*	*35.2*	*35.7*
Total	73.2	72.4	71.0	*72.3*	*70.8*	*70.8*	*71.4*	*71.6*	*72.2*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

The March throughput estimate is also cut by 0.3 mb/d, despite the substantial reduction in non-OECD runs, being partially offset by higher OECD European and Chinese estimates. Offsetting both these reductions is the substantially stronger February data, particularly for the OECD and China.

Global crude throughput is forecast at 71.2 mb/d for **2Q09,** some 1.1 mb/d lower than last month's report, reflecting the now-lower demand estimates. Throughputs for the quarter result in an annual decline of 2.9 mb/d, of which 2.0 mb/d is in OECD regions. Were OECD crude runs to be significantly ahead of our current forecast, it may suggest that OECD refiners are coping better with the downturn in demand than we have assumed. However, this would imply that non-OECD crude throughput estimates for 2Q09 are still likely too high and that export refineries in the non-OECD will need to shoulder a higher proportion of future run cuts. There appear only two likely scenarios for this to occur. Either refiners voluntarily cut runs to support margins or, perhaps more likely, substantially weaker margins drive crude runs lower. Lower OECD product imports would contribute to drive margins lower. Currently, non-OECD runs are 35.1 mb/d, some 0.2 mb/d down on last month's report.

OECD Refinery Throughput

Provisional February data indicate that OECD crude throughput averaged 37.3 mb/d, some 0.5 mb/d above last month's estimate. Regionally, European throughputs were 0.3 mb/d stronger than estimated, while North American runs were 0.2 mb/d stronger. Despite this rebound in crude throughput, runs are 0.6 mb/d lower year-on-year, with the US, Portugal and Japan accounting for much of the decline. The smaller year-on-year contraction in crude runs is somewhat flattered by the weak February 2008 baseline.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

							Change from		Utilisation rate[1]	
	Sep 08	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	*Jan 09*	*Feb 08*	Feb 09	Feb 08
OECD North America										
US[2]	12.76	14.55	14.60	14.35	14.11	14.14	0.02	-0.49	80.28	83.88
Canada	1.66	1.69	1.71	1.74	1.88	1.74	-0.14	-0.05	86.05	88.30
Mexico	1.15	1.20	1.15	1.28	1.29	1.26	-0.03	0.08	81.73	71.96
Total	15.57	17.44	17.46	17.37	17.28	17.13	-0.15	-0.46	80.93	83.77
OECD Europe										
France	1.77	1.83	1.73	1.66	1.44	1.64	0.19	0.01	83.59	82.83
Germany	1.96	2.27	2.29	2.19	2.07	2.14	0.06	-0.07	88.42	91.22
Italy	1.73	1.71	1.74	1.80	1.63	1.73	0.10	-0.04	74.23	76.08
Netherlands	1.05	0.81	0.86	1.00	1.00	1.03	0.03	0.02	85.11	83.60
Spain	1.24	1.16	1.12	1.24	1.21	1.17	-0.04	0.03	92.11	89.86
UK	1.66	1.56	1.50	1.59	1.55	1.53	-0.02	0.14	81.16	73.95
Other OECD Europe	4.04	4.03	4.01	3.78	3.79	3.83	0.04	-0.20	81.66	85.93
Total	13.45	13.38	13.25	13.25	12.70	13.07	0.38	-0.11	82.88	83.60
OECD Pacific										
Japan	3.48	3.44	3.64	3.86	3.71	4.00	0.28	-0.15	85.47	88.68
Korea	2.42	2.40	2.45	2.44	2.50	2.43	-0.07	0.06	88.87	86.56
Other OECD Pacific	0.65	0.66	0.67	0.70	0.69	0.67	-0.02	0.04	83.03	78.01
Total	6.55	6.50	6.76	7.00	6.90	7.10	0.19	-0.05	86.36	86.93
OECD Total	35.57	37.31	37.46	37.62	36.88	37.31	0.42	-0.62	82.60	84.29

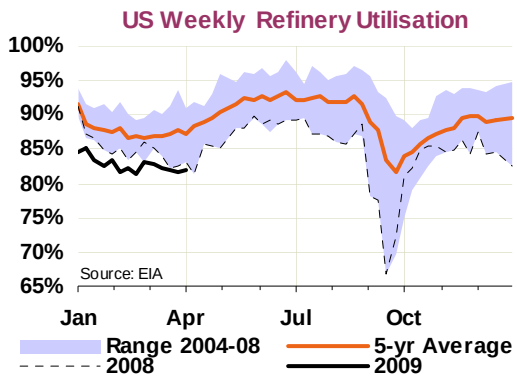
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

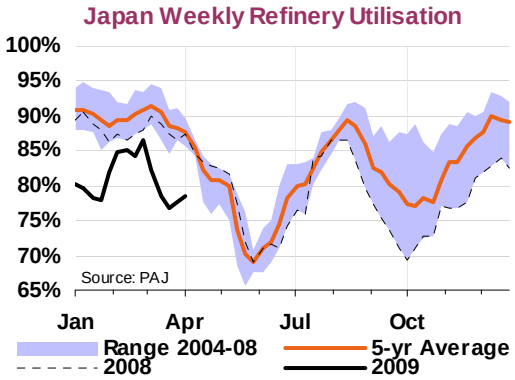
2 US50

OECD crude runs reached their weakest February level since 1995, when they averaged just 36.5 mb/d. However, it should be pointed out that the current OECD utilisation rate of 82.6% is substantially lower than 89.3% reported then, due to lower installed capacity at the time. Weakness was most pronounced in the US, with 80% utilisation.

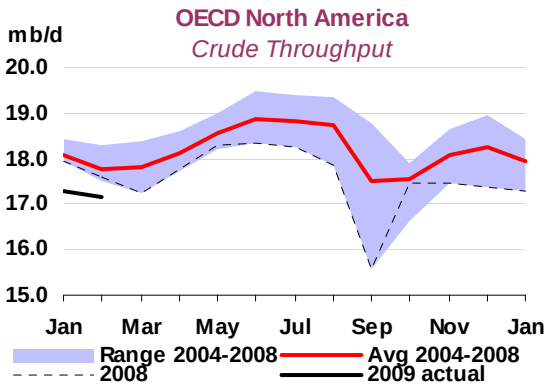
OECD 1Q09 throughput now averages 36.9 mb/d, some 0.3 mb/d higher than in last month's report. The higher February European data and March estimate underpin much of the revision. However, crude runs remain 1.3 mb/d below 1Q08 levels, driven by the exceptionally weak January level, when crude runs were 2.2 mb/d lower year-on-year.

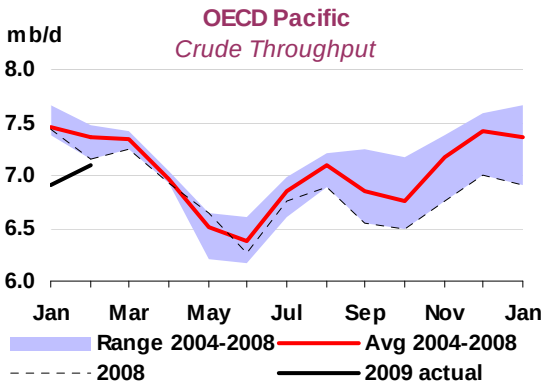
The March estimate of 36.6 mb/d, suggests crude runs will fall month-on-month in all three regions, by a total of 0.7 mb/d. **2Q09** throughput is estimated at 36.2 mb/d, an annual decline of exactly 2.0 mb/d, with North American refineries accounting for nearly 60% of the decline and European and the Pacific a further 20% each. Current OECD forecast for March and 2Q09 throughputs suggest activity levels will be the lowest since 1995.



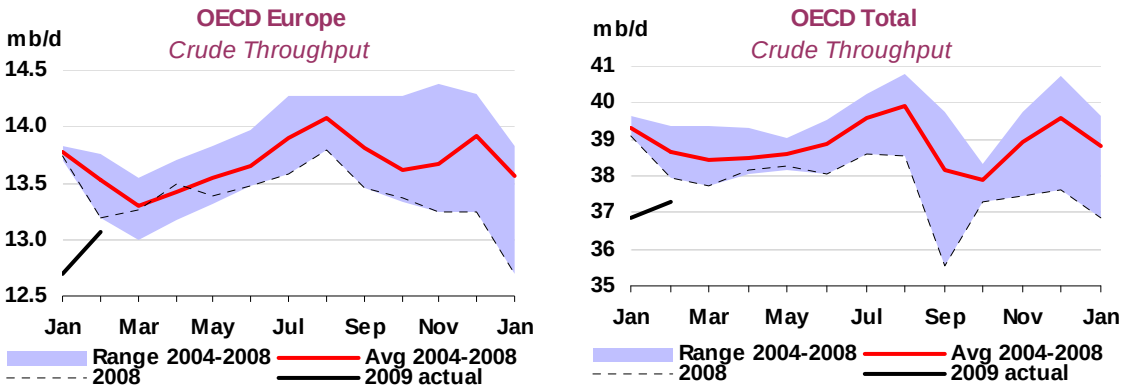


OECD North America crude throughput eased back in February, with Canadian crude runs falling the most. This trend continued into March according to weekly data, and we expect April to see an extension of this trend. May crude runs should pick up, notably in the US, where, despite the slowdown in demand, the seasonal strengthening in gasoline demand should elicit higher runs. **2Q09** forecasts have been cut by 0.2 mb/d this month, reflecting the lower demand estimates and the factors mentioned above which are likely to limit refinery activity levels.





OECD Pacific February crude runs were 0.1 mb/d ahead of forecast, with only Korea reporting slightly weaker-than-expected crude runs. Recent reports indicate that Korean refineries are likely to reduce runs over 2Q09, due to deteriorating economics and despite strong February data. Japanese crude runs weakened over the course of March and are forecast to weaken further in the months ahead as maintenance reaches a June peak. Thereafter, runs would start to recover. However, the lower demand forecasts now incorporated into our estimates suggest any rebound will be minimal before 4Q09.



OECD Europe crude throughput rebounded in February as stronger-than-forecast UK and Turkish refinery runs lifted the regional total. Nonetheless, crude runs were 0.1 mb/d down year-on-year. French and Italian activity recovered after the low levels seen in January, but elsewhere crude runs were broadly flat. March and April runs are expected to remain weak, as maintenance and economic run cuts weigh on throughput levels. Thereafter a recovery back towards just above 13 mb/d is now expected. Higher run rates than these are certainly possible, but we suspect that lower runs elsewhere are necessary for this to become a reality.

Non-OECD Refinery Throughput

Forecast **2Q09** non-OECD crude throughput is revised downward this month by 0.2 mb/d, despite Chinese throughput estimates being 0.3 mb/d higher and year-on-year growth is now pegged at -0.9 mb/d. Similarly, 1Q09 estimates are reduced by 0.3 mb/d following weaker estimates for Ukraine, Iran, Taiwan and the Philippines.

Forecast **Chinese 2Q09** crude throughput is 0.3 mb/d higher than last month, at 6.7 mb/d, following the start up of CNOOC's 240 kb/d Huizhou refinery in March, and stronger-than-expected February crude runs. Sinopec's announcement of a 9% increase in planned crude throughput for 2009, in combination with the scrapping of VAT on exports, could result in Chinese state refiners shifting their focus more towards merchant refining rather than purely meeting domestic demand requirements. In combination with the recently reported drive to raise gasoline yields, Recent trade data suggest that Chinese refiners are raising gasoline exports and potentially diesel exports as a way to reduce high stock levels.

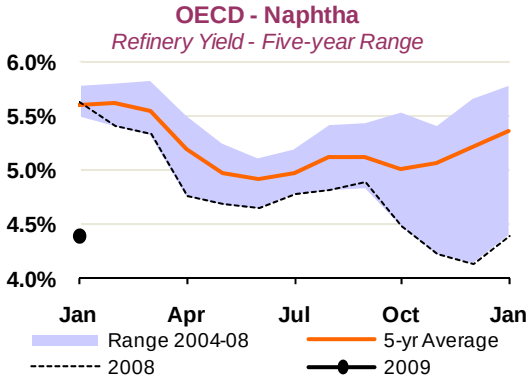
Other Asia forecasts are again lower, as merchant refiners in Taiwan, Thailand, and Singapore are assumed to trim runs on the back of demand weakness and poor margins. Regional **2Q09** crude runs are now forecast to decline by 0.4 mb/d year-on-year. **Indian** data for February was in line with forecast at almost 3.4 mb/d, although the contribution from Reliance's refineries was weaker than forecast at just 660 kb/d. This implies that either the newly opened 580 kb/d Jamnagar expansion is still running at minimal levels, that the existing plant underwent maintenance, or possibly that the newly opened capacity is not yet within the reporting structures for Indian data collection.

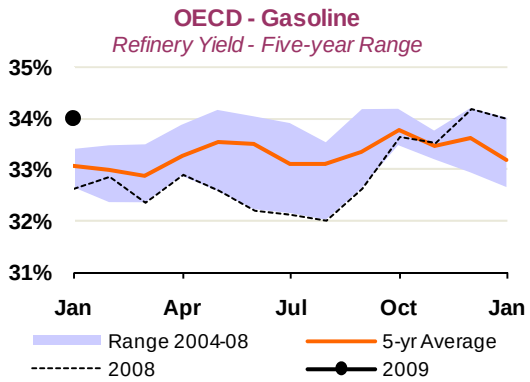
Heavier maintenance and lower demand are now expected to weigh on **Russian** crude throughput, with March and April seeing particularly heavy turnaround activity. Thereafter, the weaker state of domestic demand will likely weigh slightly on crude throughput, although higher exports are the likely corollary to weaker Russian domestic demand. Consequently, the **FSU 2Q09** forecasts has been reduced by 0.2 mb/d from last month's report. **Middle East** forecasts have been trimmed due to lower Iranian throughputs in recent months. Despite rising gasoline imports the country's refineries appear to be struggling to keep runs much above 1.5 mb/d, and well below our previous Iranian forecast of 1.7 mb/d. We have therefore cut our forecast to around 1.5 mb/d, depending on planned maintenance levels.

OECD Refinery Yields

Refinery yields have evolved significantly in the last year. This evolution has been accompanied by shifts in trading patterns. This month, in addition to considering purely refinery yield changes, we also illustrate some of the year-on-year shifts in output and trading that have accompanied the yield changes. It should be noted that our trade figures include intra-regional trade; thus, for example, an increase in exports from a particular region does not necessarily imply an increase in imports in some other region; rather, it may be due to a higher level of trade among countries in the same region.

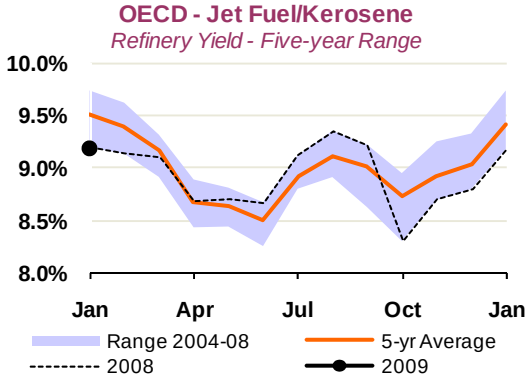
OECD gasoline yields, although still well above the five-year range decreased slightly to 34.0%, having reached 34.2% last December, which was their highest level since 2003. Yields in North America and the Pacific decreased seasonally in spite of an improvement in crack spreads. In Europe, yields increased counter-seasonally supported by stronger crack spreads, a 16% increase in net exports, and a need to replenish regional stocks that fell below the five-year range.

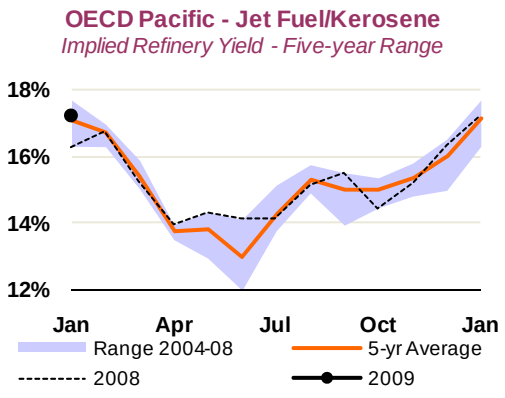




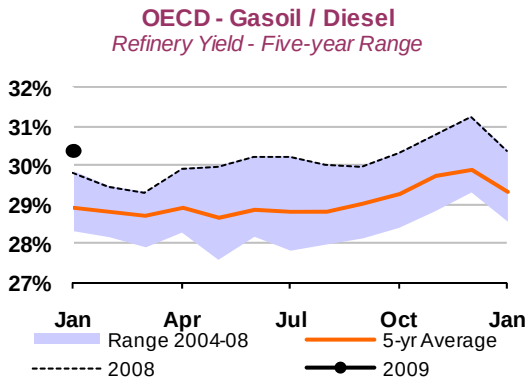
Naphtha yields, after having reached a level of 4.1% in December 2008 (their lowest since 1995), rebounded to 4.4% in January. Crack spreads supported the month-on-month increase, although on a year-on-year basis, yields remain well below the 2008 level. In absolute terms, production, domestic demand as well as net imports decreased by 25% in the OECD, confirming the striking contraction of demand. In contrast, naphtha imports in North America increased by 56%, turning this region to a net importer.

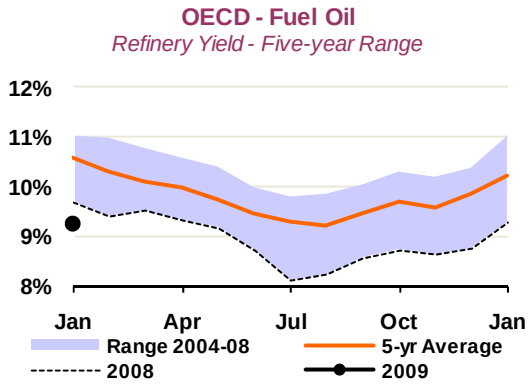
In spite of lower crack spreads, January jet fuel/kerosene yields increased to 9.2% from 8.8%, in accordance with seasonal patterns. However, yields remain at the lower end of their five-year range and in combination with the year-on-year decline in crude runs, total OECD production was 3.9% below January 2008. Yields increased most significantly in the Pacific from 16.3% to 17.2%, to above the five-year average, in part driven by an increase in net exports of 32%. In Europe, net imports increased by 31%, while in North America net imports decreased by 37%.





After reaching a record high level of 31.3% in December 2008, OECD gasoil/diesel yields decreased seasonally in January to 30.4%, remaining however above the five-year range. All three regions showed seasonal decreases underpinned by decreasing crack spreads. Year-on-year, OECD countries decreased their net import position by 47% from a low base whereas production decreased only 2%. Trade, on the other hand, has expanded year-on-year, with North American gasoil/diesel net exports being twice as high as in January 2008 and the Pacific net exports increasing 38%, whereas in Europe net imports increased 20%.





Even though January fuel oil yields increased to 9.3% from December's level of 8.7%, they remain below the five-year range. All OECD regions increased yields seasonally, with the Pacific rising 1.2 percentage points to 12.7%. Total OECD fuel oil production decreased by 8% year-on-year in January, the Pacific declined by 17.5% and the European region by 8.9%, whereas in North America fuel oil production rose by 4.5%. OECD fuel oil net exports increased by 123%, as North America became a net exporter compared with its more usual net importer status. The Pacific became a net importer, but the overall scale of the change in trade was low compared with other OECD regions.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	25.6	25.4	25.7	25.4	25.5	25.5	25.5	24.8	24.5	23.7	24.1	24.3	23.6	23.2	23.2	23.1	23.3
Europe	15.7	15.7	15.2	14.9	15.4	15.6	15.3	15.2	14.9	15.4	15.3	15.2	14.7	14.1	14.8	14.7	14.6
Pacific	8.6	8.5	8.9	7.9	7.9	8.7	8.3	8.9	7.8	7.5	7.9	8.0	8.0	7.1	6.9	7.4	7.3
Total OECD	49.8	49.6	49.8	48.2	48.9	49.9	49.2	48.9	47.2	46.6	47.3	47.5	46.3	44.3	44.9	45.2	45.2
NON-OECD DEMAND																	
FSU	3.9	4.1	4.2	3.9	4.1	4.2	4.1	4.2	4.1	4.3	4.2	4.2	4.0	4.0	4.2	4.1	4.1
Europe	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8	0.7	0.7	0.8	0.7	0.8	0.7	0.7	0.8	0.7
China	6.7	7.2	7.3	7.7	7.5	7.6	7.5	7.9	8.0	8.1	7.6	7.9	7.6	7.9	7.9	7.8	7.8
Other Asia	8.8	9.0	9.3	9.3	9.1	9.4	9.3	9.7	9.6	9.2	9.2	9.4	9.5	9.5	9.2	9.3	9.4
Latin America	5.1	5.3	5.4	5.6	5.8	5.8	5.7	5.7	6.0	6.0	5.9	5.9	5.7	5.9	6.1	6.0	5.9
Middle East	6.0	6.2	6.3	6.5	6.8	6.5	6.5	6.6	7.0	7.5	6.8	7.0	6.7	7.2	7.7	7.1	7.2
Africa	2.9	3.0	3.1	3.0	3.0	3.1	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.2	3.2
Total Non-OECD	34.2	35.5	36.4	36.8	37.1	37.4	36.9	38.1	38.6	38.9	37.8	38.3	37.5	38.5	38.7	38.4	38.3
Total Demand[1]	84.0	85.1	86.2	85.0	85.9	87.3	86.1	87.0	85.8	85.5	85.0	85.8	83.8	82.8	83.6	83.5	83.4
OECD SUPPLY																	
North America	14.1	14.2	14.4	14.4	14.2	14.1	14.3	14.2	14.1	13.6	13.8	13.9	14.3	13.8	13.7	13.9	13.9
Europe	5.6	5.3	5.3	5.0	4.8	5.1	5.0	4.9	4.8	4.6	4.9	4.8	4.6	4.2	4.0	4.2	4.3
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7
Total OECD	20.4	20.1	20.2	20.0	19.6	19.8	19.9	19.7	19.5	18.8	19.4	19.4	19.5	18.7	18.5	18.9	18.9
NON-OECD SUPPLY																	
FSU	11.8	12.2	12.8	12.7	12.8	12.8	12.8	12.8	12.9	12.6	12.7	12.8	12.8	12.7	12.4	12.3	12.5
Europe	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9
Other Asia[2]	3.8	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.7	3.7	3.6	3.7	3.7	3.7	3.7
Latin America[2]	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.3	4.4	4.4	4.3
Middle East	1.8	1.8	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6
Africa[2]	2.4	2.5	2.5	2.5	2.5	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Total Non-OECD	27.3	27.9	28.5	28.4	28.3	28.5	28.4	28.7	28.7	28.6	28.6	28.6	28.8	28.9	28.7	28.6	28.7
Processing Gains[3]	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3
Other Biofuels[4]	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4
Total Non-OPEC[2]	49.8	50.4	51.1	50.8	50.3	50.8	50.8	50.9	50.8	50.0	50.7	50.6	50.9	50.2	49.8	50.1	50.3
Non-OPEC: Historical Composition[2]	50.4	51.2	50.6	50.3	49.8	50.1	50.2	49.9	49.8	49.0	49.6	49.6	50.9	50.2	49.8	50.1	50.3
OPEC																	
Crude[5]	30.6	30.7	30.0	29.9	30.3	31.1	30.3	31.5	31.4	31.5	30.5	31.2	28.3				
NGLs	4.3	4.4	4.5	4.5	4.5	4.6	4.5	4.6	4.6	4.7	4.8	4.7	4.7	4.8	5.1	5.3	5.0
Total OPEC[2]	34.9	35.2	34.5	34.4	34.9	35.7	34.9	36.1	36.0	36.2	35.3	35.9	33.0				
OPEC: Historical Composition[2]	34.2	34.3	35.0	34.9	35.4	36.4	35.4	37.1	37.0	37.2	36.3	36.9	33.0				
Total Supply[6]	84.7	85.5	85.6	85.2	85.2	86.5	85.6	87.0	86.8	86.2	86.0	86.5	83.9				
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.2	-0.8	0.7	-0.1	-0.9	-0.3	0.1	0.3	0.6	0.5	0.4					
Government	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	-0.1	0.0	0.0					
Total	0.2	0.3	-0.7	0.6	0.1	-0.8	-0.2	0.1	0.4	0.5	0.6	0.4					
Floating Storage/Oil in Transit	-0.1	-0.1	0.1	0.0	-0.3	0.2	0.0	0.3	0.0	-0.3	0.0	0.0					
Miscellaneous to balance[7]	0.5	0.2	-0.1	-0.5	-0.5	-0.1	-0.3	-0.4	0.6	0.6	0.3	0.3					
Total Stock Ch. & Misc	0.7	0.4	-0.6	0.2	-0.7	-0.8	-0.5	0.1	0.9	0.8	0.9	0.7	0.2				
Memo items:																	
Call on OPEC crude + Stock ch.[8]	29.9	30.3	30.6	29.7	31.1	31.8	30.8	31.5	30.4	30.8	29.6	30.6	28.2	27.8	28.8	28.1	28.2
Adjusted Call on OPEC + Stock ch.[9]	30.4	30.5	30.6	29.2	30.5	31.7	30.5	31.1	31.0	31.3	29.9	30.8	28.2	27.8	28.7	28.1	28.2

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Biofuels from sources outside Brazil and US.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.3	-0.3	-0.3	-0.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.2	-0.2	-0.2	-0.1
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-0.4	-0.4	-0.4	-0.4
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-0.9	-0.9	-0.9	-0.8
NON-OECD DEMAND																	
FSU	-	-	0.1	-	-	-0.1	-	0.1	-	-0.1	-0.1	-	0.1	-	-0.1	-0.1	-
Europe	-	-	-0.1	-	0.1	-	-	-	-	-	-	-	-0.1	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	0.1	-	0.1	-	-	0.1	-	-	0.1	-	0.1	-	-	-	-
Latin America	-	-	-	-	-	0.1	-	-	0.1	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Middle East	-	-	-0.1	-	-	0.1	-	-0.1	0.1	0.1	0.1	0.1	-0.2	-	0.1	-	-
Africa	-	-	-	-0.1	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.2	-0.3	-0.3	-0.1	-0.2	-0.2
Total Demand	-	-	-	-0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.1	0.2	-0.7	-1.2	-1.0	-1.1	-1.0
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.2	-0.1	-0.2	-0.1
Europe	-	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	0.1	0.1	-	0.1	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	0.1	-	-	0.1	-0.1	-0.1	-0.2	-0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.1	-	-	-	-
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Total Non-OPEC	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.1	-	-0.2	-0.4	-0.3	-0.4	-0.3
Non-OPEC: historical composition	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.1	-	-0.2	-0.4	-0.3	-0.4	-0.3
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-					
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-					
OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	-	-					
Total Supply	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.1	-					
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-					
Government	-	-	-	-	-	-	-	-	-	-	-	-					
Total	-	-	-	-	-	-	-	-	-	-	-	-					
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-	-	-					
Miscellaneous to balance	-	-	0.1	0.1	-0.1	-	-	-0.1	-	-0.2	-0.2	-0.1					
Total Stock Ch. & Misc	-	-	0.1	0.1	-0.1	-	-	-0.1	-	-0.2	-0.2	-0.1					
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-0.1	-0.1	0.1	-	-	0.1	-	0.2	0.2	0.1	-0.5	-0.8	-0.7	-0.7	-0.7
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-0.8	-0.8	-0.8	-0.7

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

Summary of Global Oil Demand

	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Demand (mb/d)																
North America	25.42	25.68	25.40	25.55	25.49	25.53	24.84	24.52	23.73	24.06	24.28	23.60	23.15	23.22	23.08	23.26
Europe	15.68	15.18	14.93	15.42	15.65	15.30	15.20	14.89	15.40	15.30	15.20	14.73	14.12	14.75	14.74	14.59
Pacific	8.48	8.91	7.87	7.89	8.72	8.35	8.87	7.82	7.50	7.93	8.03	7.96	7.05	6.88	7.36	7.31
Total OECD	49.58	49.77	48.20	48.85	49.85	49.17	48.91	47.24	46.62	47.28	47.51	46.29	44.32	44.86	45.18	45.16
FSU	4.06	4.23	3.91	4.13	4.22	4.13	4.23	4.11	4.30	4.22	4.22	4.04	4.02	4.16	4.14	4.09
Europe	0.74	0.74	0.73	0.76	0.76	0.75	0.77	0.75	0.72	0.75	0.75	0.76	0.74	0.74	0.75	0.75
China	7.21	7.33	7.73	7.52	7.59	7.54	7.85	7.95	8.06	7.59	7.86	7.58	7.93	7.86	7.85	7.80
Other Asia	9.00	9.32	9.34	9.13	9.41	9.30	9.69	9.61	9.15	9.24	9.42	9.50	9.47	9.16	9.33	9.36
Latin America	5.33	5.42	5.63	5.78	5.79	5.66	5.71	5.96	6.04	5.92	5.91	5.67	5.94	6.05	5.96	5.91
Middle East	6.22	6.31	6.50	6.77	6.50	6.52	6.62	7.03	7.46	6.85	6.99	6.70	7.22	7.66	7.08	7.17
Africa	2.96	3.08	3.01	3.00	3.12	3.05	3.18	3.18	3.13	3.19	3.17	3.22	3.21	3.11	3.25	3.20
Total Non-OECD	35.52	36.43	36.84	37.08	37.41	36.94	38.06	38.60	38.87	37.76	38.32	37.46	38.52	38.75	38.36	38.27
World	85.10	86.20	85.04	85.93	87.26	86.11	86.97	85.84	85.50	85.04	85.83	83.75	82.84	83.60	83.54	83.43
of which:																
US50	*20.69*	*20.79*	*20.63*	*20.73*	*20.58*	*20.68*	*19.99*	*19.76*	*18.91*	*19.32*	*19.50*	*18.87*	*18.57*	*18.57*	*18.45*	*18.61*
Euro4	*8.23*	*7.84*	*7.65*	*7.87*	*8.03*	*7.85*	*7.79*	*7.65*	*7.94*	*8.00*	*7.84*	*7.69*	*7.19*	*7.60*	*7.59*	*7.52*
Japan	*5.20*	*5.43*	*4.64*	*4.70*	*5.25*	*5.01*	*5.41*	*4.59*	*4.30*	*4.67*	*4.74*	*4.52*	*3.86*	*3.74*	*4.11*	*4.05*
Korea	*2.18*	*2.36*	*2.12*	*2.06*	*2.31*	*2.21*	*2.33*	*2.09*	*2.07*	*2.12*	*2.15*	*2.33*	*2.07*	*2.03*	*2.11*	*2.13*
Mexico	*2.08*	*2.12*	*2.14*	*2.06*	*2.16*	*2.12*	*2.10*	*2.16*	*2.11*	*2.04*	*2.10*	*2.00*	*2.03*	*2.00*	*1.98*	*2.00*
Canada	*2.30*	*2.38*	*2.29*	*2.40*	*2.38*	*2.36*	*2.37*	*2.25*	*2.34*	*2.31*	*2.32*	*2.34*	*2.21*	*2.29*	*2.27*	*2.28*
Brazil	*2.19*	*2.23*	*2.27*	*2.35*	*2.42*	*2.32*	*2.35*	*2.45*	*2.52*	*2.49*	*2.45*	*2.37*	*2.49*	*2.56*	*2.55*	*2.49*
India	*2.80*	*3.04*	*2.97*	*2.74*	*3.04*	*2.95*	*3.19*	*3.12*	*2.92*	*3.09*	*3.08*	*3.24*	*3.18*	*2.97*	*3.13*	*3.13*
Annual Change (% per annum)																
North America	-0.6	1.3	0.9	-0.4	-0.1	0.4	-3.3	-3.5	-7.1	-5.6	-4.9	-5.0	-5.6	-2.1	-4.1	-4.2
Europe	0.1	-5.2	-2.4	-1.6	-0.6	-2.4	0.1	-0.2	-0.1	-2.2	-0.6	-3.1	-5.2	-4.2	-3.6	-4.0
Pacific	-1.4	-4.1	-0.5	-0.6	-1.0	-1.6	-0.5	-0.7	-5.0	-9.1	-3.8	-10.3	-9.8	-8.2	-7.2	-8.9
Total OECD	-0.5	-1.7	-0.4	-0.8	-0.4	-0.8	-1.7	-2.0	-4.6	-5.2	-3.4	-5.3	-6.2	-3.8	-4.4	-4.9
FSU	3.4	5.3	1.5	0.1	0.1	1.7	-0.1	5.0	4.0	-0.1	2.1	-4.5	-2.2	-3.2	-1.8	-2.9
Europe	1.0	2.8	0.1	3.9	-0.8	1.5	3.5	3.0	-4.2	-1.8	0.0	-2.0	-1.3	1.6	0.4	-0.3
China	7.8	4.5	5.1	4.1	4.6	4.6	7.1	2.9	7.2	0.0	4.3	-3.5	-0.3	-2.6	3.4	-0.8
Other Asia	2.4	2.5	2.9	4.1	3.7	3.3	4.0	3.0	0.3	-1.8	1.3	-2.0	-1.5	0.1	1.0	-0.6
Latin America	4.6	4.8	5.9	6.5	6.9	6.0	5.5	5.9	4.6	2.3	4.5	-0.7	-0.5	0.1	0.6	-0.1
Middle East	3.9	4.2	5.5	4.3	5.3	4.8	5.1	8.3	10.3	5.3	7.3	1.1	2.7	2.7	3.4	2.5
Africa	0.9	3.3	1.9	3.6	3.9	3.2	3.3	5.6	4.2	2.2	3.8	1.1	1.0	-0.4	1.9	0.9
Total Non-OECD	4.0	3.9	4.0	4.0	4.1	4.0	4.5	4.8	4.8	0.9	3.7	-1.6	-0.2	-0.3	1.6	-0.1
World	1.3	0.6	1.5	1.2	1.5	1.2	0.9	0.9	-0.5	-2.5	-0.3	-3.7	-3.5	-2.2	-1.8	-2.8
Annual Change (mb/d)																
North America	-0.14	0.34	0.23	-0.10	-0.02	0.11	-0.84	-0.88	-1.82	-1.43	-1.24	-1.23	-1.37	-0.51	-0.98	-1.02
Europe	0.01	-0.83	-0.37	-0.25	-0.10	-0.38	0.02	-0.03	-0.02	-0.35	-0.10	-0.47	-0.78	-0.65	-0.56	-0.61
Pacific	-0.12	-0.38	-0.04	-0.05	-0.08	-0.14	-0.04	-0.05	-0.39	-0.79	-0.32	-0.91	-0.77	-0.61	-0.57	-0.72
Total OECD	-0.26	-0.87	-0.17	-0.40	-0.21	-0.41	-0.87	-0.96	-2.23	-2.57	-1.66	-2.61	-2.92	-1.76	-2.10	-2.35
FSU	0.13	0.21	0.06	0.00	0.00	0.07	0.00	0.20	0.17	-0.01	0.09	-0.19	-0.09	-0.14	-0.07	-0.12
Europe	0.01	0.02	0.00	0.03	-0.01	0.01	0.03	0.02	-0.03	-0.01	0.00	-0.02	-0.01	0.01	0.00	0.00
China	0.52	0.31	0.38	0.29	0.33	0.33	0.52	0.23	0.54	0.00	0.32	-0.27	-0.02	-0.21	0.25	-0.06
Other Asia	0.21	0.23	0.26	0.36	0.34	0.30	0.37	0.28	0.03	-0.17	0.12	-0.19	-0.15	0.01	0.09	-0.06
Latin America	0.23	0.25	0.31	0.35	0.37	0.32	0.30	0.33	0.27	0.13	0.26	-0.04	-0.03	0.01	0.04	-0.01
Middle East	0.23	0.25	0.34	0.28	0.33	0.30	0.32	0.54	0.70	0.35	0.47	0.07	0.19	0.20	0.23	0.17
Africa	0.03	0.10	0.06	0.11	0.12	0.09	0.10	0.17	0.13	0.07	0.12	0.04	0.03	-0.01	0.06	0.03
Total Non-OECD	1.36	1.37	1.40	1.42	1.48	1.42	1.63	1.76	1.80	0.35	1.38	-0.60	-0.08	-0.13	0.60	-0.05
World	1.11	0.50	1.23	1.02	1.27	1.01	0.76	0.80	-0.43	-2.22	-0.28	-3.21	-3.00	-1.89	-1.50	-2.40
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	-0.05	-0.28	-0.29	-0.34	-0.24
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	0.07	-0.20	-0.21	-0.19	-0.13
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.38	-0.37	-0.38	-0.40	-0.38
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	-0.01	-0.37	-0.85	-0.87	-0.93	-0.76
FSU	0.00	0.12	-0.01	-0.04	-0.05	0.00	0.12	-0.01	-0.05	-0.06	0.00	0.10	-0.03	-0.07	-0.07	-0.02
Europe	0.00	-0.06	-0.02	0.06	0.01	0.00	-0.05	-0.01	0.02	-0.01	-0.01	-0.06	-0.02	0.03	-0.01	-0.01
China	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15	-0.10	-0.10	-0.08	-0.11
Other Asia	0.00	0.09	0.01	0.07	0.01	0.04	0.05	-0.02	0.04	0.10	0.04	0.11	-0.04	0.03	0.02	0.03
Latin America	0.00	0.00	0.04	0.04	0.06	0.03	0.04	0.07	0.03	0.03	0.04	-0.14	-0.09	-0.08	-0.06	-0.09
Middle East	0.00	-0.09	0.00	0.05	0.07	0.01	-0.08	0.08	0.15	0.11	0.07	-0.21	-0.02	0.05	0.03	-0.03
Africa	0.00	-0.01	-0.07	0.01	0.00	-0.02	0.04	0.00	0.09	0.01	0.03	0.01	-0.02	0.02	0.00	0.00
Total Non-OECD	0.00	0.04	-0.06	0.18	0.10	0.06	0.12	0.10	0.26	0.18	0.17	-0.34	-0.31	-0.12	-0.17	-0.23
World	0.00	0.04	-0.06	0.18	0.10	0.06	0.12	0.10	0.26	0.14	0.16	-0.70	-1.17	-1.00	-1.10	-0.99
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.15	-0.02	0.11	0.00	0.06	0.08	0.17	0.08	0.05	0.10	-0.82	-1.27	-1.26	-1.24	-1.15

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2007	2008	2009	4Q08	1Q09	2Q09	3Q09	4Q09	Jan 09	Feb 09	Mar 09
OPEC											
Crude Oil											
Saudi Arabia	8.48	8.90		8.59	7.73				7.82	7.68	7.68
Iran	3.98	3.90		3.83	3.71				3.79	3.70	3.65
Iraq	2.09	2.38		2.36	2.30				2.37	2.26	2.27
UAE	2.52	2.59		2.43	2.29				2.36	2.25	2.25
Kuwait	2.16	2.31		2.30	2.07				2.18	2.03	1.98
Neutral Zone	0.56	0.57		0.56	0.55				0.56	0.54	0.54
Qatar	0.80	0.85		0.82	0.76				0.78	0.75	0.74
Angola	1.66	1.85		1.82	1.69				1.76	1.65	1.65
Nigeria	2.13	1.95		1.92	1.81				1.86	1.80	1.78
Libya	1.71	1.72		1.72	1.58				1.65	1.58	1.52
Algeria	1.36	1.37		1.35	1.25				1.27	1.25	1.22
Ecuador	0.50	0.50		0.49	0.48				0.50	0.48	0.46
Venezuela	2.39	2.35		2.33	2.13				2.18	2.10	2.10
Total Crude Oil[6]	30.34	31.24		30.52	28.33				29.07	28.07	27.84
Total NGLs[1,6]	4.52	4.66	4.96	4.78	4.68	4.80	5.06	5.29	4.68	4.68	4.68
Total OPEC[6]	34.86	35.89		35.30	33.02				33.76	32.75	32.52
OPEC: Historical Composition[6]	35.41	36.92		36.33	33.02				33.76	32.75	32.52
NON-OPEC[2]											
OECD											
North America	14.27	13.92	13.93	13.81	14.27	13.83	13.71	13.91	14.16	14.41	14.25
United States	7.48	7.53	7.78	7.45	7.86	7.85	7.66	7.74	7.77	7.96	7.85
Mexico	3.48	3.17	2.94	3.10	3.05	2.98	2.89	2.84	3.06	3.06	3.03
Canada	3.32	3.23	3.21	3.26	3.36	3.00	3.16	3.32	3.33	3.39	3.36
Europe	5.01	4.80	4.26	4.87	4.57	4.17	4.04	4.25	4.75	4.52	4.43
UK	1.66	1.56	1.38	1.57	1.53	1.38	1.25	1.36	1.60	1.52	1.47
Norway	2.56	2.46	2.19	2.56	2.34	2.10	2.11	2.22	2.48	2.28	2.26
Others	0.79	0.77	0.69	0.75	0.70	0.69	0.68	0.67	0.67	0.72	0.71
Pacific	0.63	0.64	0.70	0.67	0.66	0.69	0.70	0.73	0.64	0.66	0.68
Australia	0.55	0.55	0.59	0.59	0.58	0.60	0.59	0.61	0.56	0.58	0.60
Others	0.08	0.10	0.10	0.08	0.08	0.10	0.11	0.12	0.09	0.08	0.09
Total OECD	19.91	19.36	18.88	19.36	19.50	18.70	18.45	18.89	19.55	19.59	19.37
NON-OECD											
Former USSR	12.77	12.76	12.54	12.69	12.76	12.71	12.39	12.32	12.77	12.76	12.77
Russia	10.08	10.00	9.75	10.02	9.99	9.83	9.67	9.50	9.99	9.98	10.01
Others	2.69	2.76	2.80	2.67	2.77	2.88	2.72	2.82	2.78	2.78	2.76
Asia	7.40	7.45	7.55	7.46	7.40	7.57	7.61	7.61	7.31	7.41	7.47
China	3.73	3.79	3.87	3.80	3.75	3.90	3.92	3.91	3.70	3.74	3.81
Malaysia	0.74	0.76	0.75	0.74	0.75	0.76	0.75	0.74	0.74	0.76	0.75
India	0.81	0.81	0.78	0.82	0.77	0.77	0.78	0.80	0.75	0.78	0.77
Indonesia	1.01	1.03	1.04	1.02	1.02	1.03	1.04	1.04	1.01	1.02	1.02
Others	1.11	1.07	1.12	1.07	1.11	1.11	1.12	1.12	1.11	1.11	1.11
Europe	0.13	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.12	0.12	0.12
Latin America	3.93	4.12	4.34	4.17	4.31	4.32	4.37	4.37	4.29	4.32	4.31
Brazil	2.22	2.37	2.54	2.38	2.50	2.51	2.57	2.57	2.50	2.51	2.51
Argentina	0.75	0.74	0.74	0.74	0.75	0.75	0.74	0.74	0.74	0.75	0.75
Colombia	0.54	0.58	0.60	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Others	0.43	0.43	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Middle East[3]	1.66	1.62	1.56	1.60	1.58	1.57	1.55	1.54	1.59	1.58	1.58
Oman	0.70	0.73	0.72	0.73	0.72	0.72	0.72	0.72	0.73	0.72	0.72
Syria	0.42	0.40	0.38	0.39	0.39	0.38	0.38	0.37	0.39	0.39	0.39
Yemen	0.34	0.31	0.27	0.30	0.28	0.27	0.26	0.26	0.29	0.28	0.28
Africa	2.53	2.57	2.63	2.58	2.59	2.61	2.65	2.65	2.58	2.60	2.60
Egypt	0.65	0.67	0.67	0.68	0.68	0.68	0.67	0.67	0.68	0.68	0.68
Gabon	0.23	0.23	0.25	0.24	0.24	0.24	0.25	0.26	0.24	0.24	0.24
Others	1.65	1.67	1.71	1.66	1.68	1.70	1.72	1.72	1.67	1.68	1.69
Total Non-OECD	28.42	28.64	28.73	28.62	28.76	28.90	28.69	28.60	28.66	28.78	28.84
Processing Gains[4]	2.17	2.24	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Other Biofuels[5]	0.28	0.37	0.36	0.40	0.35	0.35	0.37	0.38	0.35	0.35	0.35
TOTAL NON-OPEC[6]	50.78	50.61	50.26	50.67	50.89	50.23	49.80	50.15	50.84	51.00	50.83
Non-OPEC: Historical Composition[6]	50.23	49.58	50.26	49.64	50.89	50.23	49.80	50.15	50.84	51.00	50.83
TOTAL SUPPLY	85.64	86.50		85.97	83.91				84.60	83.75	83.35

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Comprises fuel ethanol and biodiesel supply from outside Brazil and US.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Oct2008	Nov2008	Dec2008	Jan2009	Feb2009*	Feb2006	Feb2007	Feb2008	1Q2008	2Q2008	3Q2008	4Q2008
North America												
Crude	464.2	469.3	471.7	499.7	502.3	468.3	451.8	444.6	0.35	-0.22	0.19	0.21
Motor Gasoline	224.9	232.3	242.7	248.5	243.2	254.3	242.9	263.1	0.07	-0.13	-0.21	0.27
Middle Distillate	197.1	205.5	216.8	217.9	220.6	213.9	191.5	189.3	-0.32	0.14	0.06	0.22
Residual Fuel Oil	47.9	47.1	44.2	42.8	45.3	50.5	44.4	47.0	0.00	0.02	-0.02	-0.04
Total Products[3]	657.5	673.5	682.8	680.8	671.0	671.1	637.6	645.6	-0.43	0.35	0.01	0.29
Total[4]	1290.1	1306.4	1306.3	1331.0	1323.0	1274.9	1224.1	1226.9	-0.12	0.27	0.43	0.30
Europe												
Crude	332.1	328.8	342.8	343.8	342.0	340.4	331.0	323.2	0.07	0.01	-0.01	0.10
Motor Gasoline	97.3	105.7	108.6	112.7	111.6	119.7	114.5	121.6	0.08	-0.14	-0.11	0.12
Middle Distillate	251.2	265.0	273.1	275.6	278.6	249.8	274.5	237.5	0.13	0.02	0.12	0.14
Residual Fuel Oil	76.0	74.9	80.0	80.9	80.0	70.9	73.6	76.3	0.07	0.00	-0.05	0.05
Total Products[3]	539.9	560.5	573.9	577.8	579.2	541.8	566.6	541.8	0.31	-0.12	-0.02	0.32
Total[4]	945.0	961.9	991.2	996.1	994.8	958.9	971.8	936.2	0.35	-0.09	-0.08	0.47
Pacific												
Crude	162.7	166.0	162.6	171.5	185.3	157.6	172.3	163.8	-0.04	0.11	-0.07	0.01
Motor Gasoline	23.8	24.0	20.6	22.4	24.2	24.9	26.0	23.1	0.05	-0.03	-0.02	-0.02
Middle Distillate	74.1	69.5	64.8	64.5	63.2	63.7	72.8	58.1	-0.14	0.02	0.16	-0.10
Residual Fuel Oil	20.7	20.7	20.0	20.7	21.9	21.0	22.5	19.2	-0.01	0.03	0.00	-0.02
Total Products[3]	193.2	185.4	173.9	168.5	170.8	171.8	182.2	159.5	-0.11	0.01	0.28	-0.20
Total[4]	432.1	424.9	406.4	408.4	425.2	395.6	429.4	394.9	-0.14	0.16	0.24	-0.25
Total OECD												
Crude	959.0	964.1	977.1	1015.0	1029.6	966.2	955.1	931.7	0.38	-0.10	0.11	0.32
Motor Gasoline	346.0	362.0	372.0	383.5	379.0	398.9	383.4	407.8	0.20	-0.30	-0.34	0.37
Middle Distillate	522.4	540.0	554.7	558.0	562.4	527.4	538.8	484.8	-0.33	0.19	0.33	0.26
Residual Fuel Oil	144.6	142.7	144.2	144.4	147.3	142.3	140.5	142.5	0.06	0.05	-0.07	-0.01
Total Products[3]	1390.7	1419.3	1430.5	1427.1	1421.0	1384.6	1386.4	1346.9	-0.23	0.24	0.26	0.42
Total[4]	2667.1	2693.2	2703.9	2735.5	2743.0	2629.3	2625.3	2558.0	0.09	0.34	0.58	0.51

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Oct2008	Nov2008	Dec2008	Jan2009	Feb2009*	Feb2006	Feb2007	Feb2008	1Q2008	2Q2008	3Q2008	4Q2008
North America												
Crude	701.8	701.8	701.8	703.8	705.3	684.8	688.6	698.8	0.04	0.06	-0.04	-0.01
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	184.7	186.4	186.1	185.7	185.7	170.2	173.7	184.9	0.00	-0.03	-0.02	0.07
Products	229.5	226.7	228.6	232.9	232.9	235.2	237.6	235.4	-0.01	-0.01	-0.01	-0.05
Pacific												
Crude	384.7	386.2	387.2	389.2	389.2	380.0	385.8	385.0	0.00	0.00	-0.01	0.03
Products	19.2	19.2	19.2	19.2	19.2	11.3	16.4	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1271.2	1274.4	1275.1	1278.7	1280.2	1234.9	1248.1	1268.7	0.04	0.02	-0.07	0.10
Products	250.6	247.9	249.8	254.0	254.0	248.5	256.0	256.3	-0.01	-0.01	-0.01	-0.05
Total[4]	1522.9	1523.2	1525.9	1533.7	1535.2	1484.5	1505.1	1526.0	0.03	0.02	-0.08	0.05

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End December 2007		End March 2008		End June 2008		End September 2008		End December 2008 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	194.3	82	193.8	86	193.5	83	198.4	86	200.6	-
Mexico	45.0	21	46.8	22	44.7	21	55.7	27	50.3	-
United States[4]	1667.3	84	1655.1	84	1687.5	90	1707.3	89	1737.2	-
Total[4]	1928.7	78	1917.7	78	1947.9	82	1983.5	83	2010.2	85
Pacific										
Australia	37.3	39	36.1	37	37.4	38	37.7	38	40.4	-
Japan	621.0	115	610.0	133	619.1	144	646.2	138	629.6	-
Korea	143.5	62	142.8	68	146.6	71	141.2	67	134.9	-
New Zealand	8.3	49	8.4	55	8.4	58	7.9	53	7.9	-
Total	810.0	91	797.4	102	811.4	108	833.0	105	812.9	102
Europe[5]										
Austria	22.1	81	22.7	78	22.8	77	21.5	77	23.2	-
Belgium	27.2	40	30.3	49	28.4	47	29.1	47	32.4	-
Czech Republic	20.2	101	20.4	91	20.2	89	19.1	98	21.4	-
Denmark	17.1	95	16.4	89	19.0	107	18.3	101	22.9	-
Finland	27.1	128	30.5	135	25.5	113	30.1	135	30.7	-
France	179.9	91	177.5	93	176.6	92	176.6	88	179.2	-
Germany	274.6	110	281.5	115	273.1	99	271.7	102	277.0	-
Greece	37.4	80	34.9	92	36.3	87	39.2	83	40.0	-
Hungary	15.4	100	16.7	101	16.6	100	15.5	93	15.0	-
Ireland	10.6	55	12.1	63	10.4	57	10.5	52	11.4	-
Italy	132.9	82	130.9	82	136.7	83	130.3	80	127.9	-
Luxembourg	0.7	12	0.6	10	0.7	12	0.6	10	0.7	-
Netherlands	116.6	109	126.5	126	124.5	120	115.0	118	131.3	-
Norway	26.6	138	25.4	104	23.1	119	26.5	130	29.9	-
Poland	58.2	109	57.6	108	57.4	103	58.8	106	58.1	-
Portugal	23.6	82	24.9	86	25.3	87	25.0	93	24.7	-
Slovak Republic	7.9	99	9.0	112	9.1	99	8.0	94	8.8	-
Spain	133.9	84	134.2	87	135.0	87	135.8	88	137.6	-
Sweden	34.5	100	34.2	97	34.1	94	36.6	104	38.7	-
Switzerland	35.9	144	36.5	150	37.2	141	37.8	134	36.3	-
Turkey	60.3	90	60.9	93	60.9	80	60.8	98	60.9	-
United Kingdom	89.9	52	100.5	59	99.3	61	95.1	55	98.8	-
Total	1352.7	89	1384.4	92	1372.3	89	1361.9	89	1406.8	95
Total OECD	4091.4	84	4099.4	87	4131.6	89	4178.3	88	4229.8	91
DAYS OF IEA Net Imports[6]	-	122	-	122	-	123	-	124	-	131

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End December 2008 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
4Q2005	4072	1487	2585	80	29	51
1Q2006	4072	1487	2585	84	31	53
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	54
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	84	30	53
4Q2007	4091	1524	2567	84	31	53
1Q2008	4099	1527	2573	87	32	54
2Q2008	4132	1529	2603	89	33	56
3Q2008	4178	1522	2657	88	32	56
4Q2008	4230	1526	2704	91	33	58

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 4Q2008 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	1Q08	2Q08	3Q08	4Q08	Nov 08	Dec 08	Jan 09	Year Earlier Jan 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.75	0.73	0.71	0.63	0.62	0.79	0.60	0.79	-0.19
Europe	0.78	0.70	0.70	0.67	0.65	0.81	0.66	0.67	0.49	0.49	0.70	-0.21
Pacific	1.32	1.19	1.22	1.29	1.24	1.10	1.24	1.17	1.29	1.27	1.30	-0.03
Saudi Medium												
North America	0.64	0.56	0.64	0.58	0.62	0.68	0.66	0.78	0.64	0.58	0.53	0.05
Europe	0.14	0.05	0.05	0.05	0.07	0.03	0.05	0.06	0.05	0.03	0.06	-0.03
Pacific	0.35	0.34	0.39	0.43	0.36	0.40	0.38	0.40	0.37	0.42	0.35	0.07
Saudi Heavy												
North America	0.21	0.09	0.07	0.06	0.04	0.14	0.05	0.05	0.03	0.04	0.10	-0.07
Europe	0.18	0.11	0.09	0.04	0.10	0.12	0.09	0.06	0.12	0.04	0.05	0.00
Pacific	0.23	0.20	0.24	0.22	0.24	0.26	0.25	0.21	0.25	0.28	0.25	0.03
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.74	0.60	0.57	0.51	0.57	0.43	0.47	0.52	-0.05
Europe	0.32	0.30	0.21	0.20	0.19	0.23	0.21	0.16	0.17	0.14	0.17	-0.03
Pacific	0.08	0.17	0.15	0.13	0.18	0.18	0.11	0.09	0.15	0.21	0.14	0.07
Iraqi Kirkuk												
North America	0.00	-	0.08	0.04	0.11	0.10	0.06	0.03	0.07	0.09	-	-
Europe	0.01	0.11	0.23	0.21	0.28	0.24	0.19	0.20	0.18	0.26	0.26	-0.01
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.24	0.23	0.21	0.24	0.23	0.26	0.14	0.24	-0.10
Pacific	0.13	0.09	0.08	0.11	0.06	0.06	0.07	0.05	0.09	0.13	0.14	0.00
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.44	0.48	0.60	0.43	0.44	0.30	0.42	0.48	-0.06
Pacific	0.56	0.64	0.61	0.65	0.49	0.67	0.64	0.62	0.64	0.65	0.77	-0.12
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.66	0.66	0.67	0.50	0.55	0.37	0.52	0.78	-0.26
Europe	0.11	0.08	0.06	0.07	0.06	0.06	0.07	0.02	0.08	0.07	0.06	0.01
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.60	0.59	0.67	0.74	0.71	0.86	0.98	0.59	0.39
Europe	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.09	0.07	0.08	0.06	0.02
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	1.03	1.00	0.99	1.04	1.09	0.90	1.12	1.03	0.09
Europe	0.16	0.14	0.14	0.14	0.18	0.14	0.12	0.16	0.15	0.06	0.13	-0.07
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.03	0.01	0.01	0.00	0.01	-	0.01	0.01	0.01
Europe	0.01	0.02	0.01	0.00	0.01	-	0.02	-	0.03	0.03	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.01	0.10	0.10	-	-	-	-	0.02	-
Europe	1.68	1.86	1.81	1.89	1.95	1.74	1.67	1.44	1.71	1.72	2.07	-0.35
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.85	0.77	0.52	0.60	0.62	0.51	0.38	0.76	-0.39
Europe	0.33	0.24	0.29	0.27	0.21	0.33	0.34	0.41	0.35	0.31	0.41	-0.10
Pacific	0.04	0.01	-	-	-	-	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.31	0.27	0.26	0.22	0.24	0.21	0.03	0.37	-0.34
Europe	0.10	0.07	0.14	0.09	0.20	0.13	0.14	0.11	0.13	0.21	0.04	0.17
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	1Q08	2Q08	3Q08	4Q08	Nov-08	Dec-08	Jan-09	Year Earlier Jan-08	Year Earlier % change
Crude Oil												
North America	8194	8119	8038	8087	8298	7895	7875	7883	7549	8131	7946	2%
Europe	9784	9679	9774	9710	9878	9977	9530	9262	9655	9177	10128	-9%
Pacific	6816	6718	6604	7098	6457	6462	6405	6476	6614	6822	7283	-6%
Total OECD	24794	24516	24416	24895	24633	24333	23809	23620	23818	24130	25753	-6%
LPG												
North America	14	27	29	27	15	38	34	44	31	45	37	21%
Europe	264	276	264	307	246	263	239	202	273	247	349	-29%
Pacific	578	557	589	599	632	582	542	574	504	467	613	-24%
Total OECD	856	860	881	933	893	884	816	820	808	758	999	-24%
Naphtha												
North America	71	39	55	25	54	58	82	118	92	86	22	286%
Europe	314	265	258	273	260	231	270	215	242	221	277	-20%
Pacific	754	794	776	796	734	886	689	621	706	593	812	-27%
Total OECD	1138	1098	1089	1094	1048	1174	1040	954	1040	900	1112	-19%
Gasoline[3]												
North America	1143	1121	1083	888	1220	1184	1038	926	988	984	873	13%
Europe	160	203	218	227	187	260	196	202	214	303	127	138%
Pacific	96	73	91	110	91	56	106	56	117	102	95	8%
Total OECD	1399	1398	1391	1225	1498	1501	1340	1185	1319	1389	1095	27%
Jet & Kerosene												
North America	161	183	63	96	78	40	39	16	45	100	139	-28%
Europe	374	370	402	360	381	399	466	429	453	444	345	29%
Pacific	69	43	34	44	39	22	33	18	47	64	42	52%
Total OECD	603	595	499	499	498	461	538	463	545	608	527	15%
Gasoil/Diesel												
North America	175	129	72	99	46	50	94	75	154	131	142	-8%
Europe	967	780	870	901	662	899	1016	1141	1032	1190	956	24%
Pacific	77	91	119	100	133	128	117	120	116	77	82	-6%
Total OECD	1219	1000	1062	1100	841	1078	1227	1335	1302	1398	1180	18%
Heavy Fuel Oil												
North America	343	323	286	328	307	246	266	260	312	374	423	-12%
Europe	476	433	445	487	391	442	459	477	469	438	475	-8%
Pacific	91	95	125	124	140	143	93	121	92	104	135	-23%
Total OECD	910	851	856	939	838	831	818	857	873	916	1033	-11%
Other Products												
North America	1121	1051	1076	1041	1085	1061	1117	1119	1061	963	1185	-19%
Europe	929	854	759	744	763	782	746	689	667	766	709	8%
Pacific	243	254	300	290	267	318	322	262	363	308	352	-12%
Total OECD	2294	2158	2134	2076	2116	2161	2184	2070	2090	2037	2246	-9%
Total Products												
North America	3028	2873	2664	2504	2804	2677	2669	2558	2683	2682	2822	-5%
Europe	3484	3180	3215	3298	2891	3276	3392	3354	3350	3608	3238	11%
Pacific	1908	1906	2034	2064	2035	2136	1902	1772	1946	1716	2131	-19%
Total OECD	8420	7959	7913	7867	7731	8089	7963	7684	7978	8007	8191	-2%
Total Oil												
North America	11222	10993	10702	10592	11102	10572	10544	10441	10231	10813	11164	-3%
Europe	13268	12859	12989	13008	12769	13254	12921	12616	13005	12785	13366	-4%
Pacific	8724	8623	8638	9162	8492	8597	8306	8248	8559	8538	9414	-9%
Total OECD	33214	32475	32329	32762	32364	32423	31772	31304	31796	32137	33944	-5%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor — David Fyfe
Head, Oil Industry and Markets Division — (+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand — Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply — Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining — David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight — Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices — Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Statistics/Trade — Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant — Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
6* 0 - only within France

Media Enquiries

IEA Press Office — (+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

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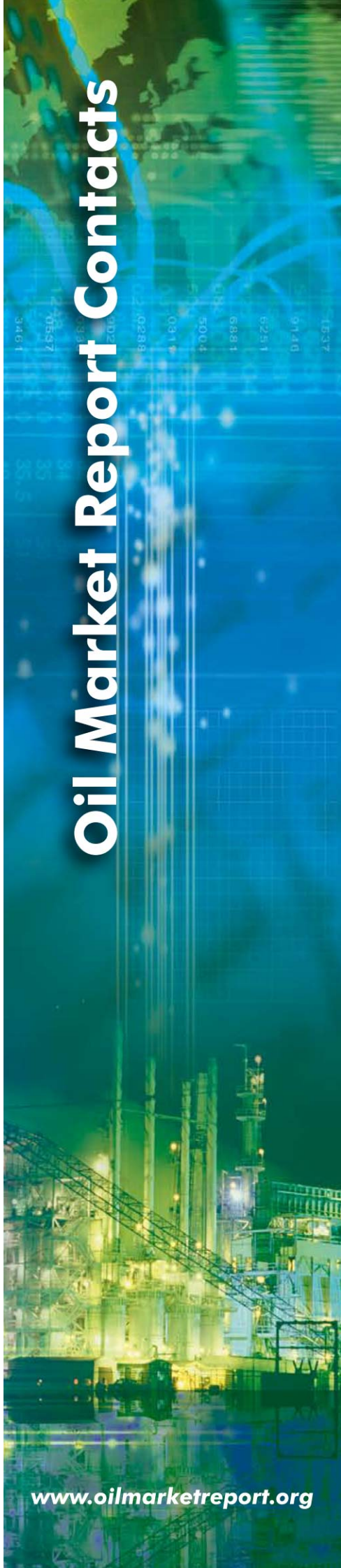

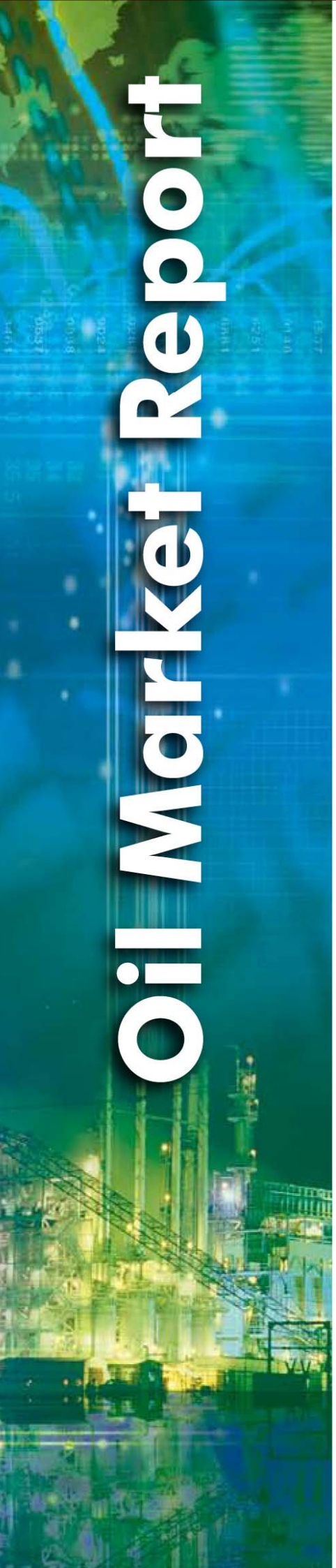

INTERNATIONAL ENERGY AGENCY

14 May 2009

HIGHLIGHTS

- **Oil prices strengthened to six-month highs**, with benchmark crudes reaching $58-60/bbl by early May. Oil futures have moved higher in tandem with stronger global financial markets. Yet, new bullish macroeconomic sentiment has not yet produced signs of oil demand recovery and oil market fundamentals remain weak.
- **Forecast 2009 global oil demand** is revised down 0.2 mb/d on weaker-than-expected preliminary data and non-OECD country baseline changes. Global oil demand is projected at 83.2 mb/d, 2.6 mb/d (3.0%) below 2008. Continued oil demand weakness is premised on strong economic recovery later this year remaining elusive.
- **Global oil supply averaged 83.6 mb/d in April**, up 230 kb/d versus. March on higher OPEC output. Total 2009 non-OPEC supply is revised up 50 kb/d, after stable North Sea production and higher-than-expected Russian production in recent months. Total non-OPEC supply falls from 50.6 mb/d in 2008 to 50.3 mb/d in 2009, offset by a similar rise in OPEC NGL production.
- **OPEC crude production in April broke a seven-month downtrend**, with output up 270 kb/d, to 28.2 mb/d. OPEC-11 output rose 230 kb/d, to 25.8 mb/d, 950 kb/d over OPEC's 24.845 mb/d target, reducing compliance to 78% versus March's 83%. OPEC ministers meet again on 28 May in Vienna.
- **OECD industry stocks rose by 15.4 mb in March to 2,745 mb**, 6.7% above a year ago. Lower Pacific crude and distillates only partially offset higher North American and European crude stocks. Rising inventories and weaker forward demand pushed end-March stock cover to 62.4 days, 8.0 days above a year ago.
- **Global crude runs remain depressed** compared with the five-year historical range. Despite higher China and North America estimates, global runs should trend lower than previous forecasts due to weaker demand. We see 2Q09 crude throughputs at 71.1 mb/d, 3.1 mb/d lower than 2Q08 and 0.2 mb/d below last month's estimate.

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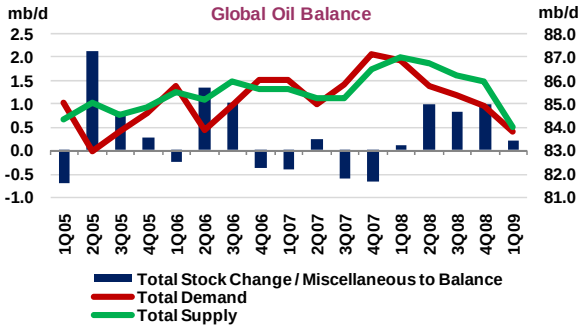
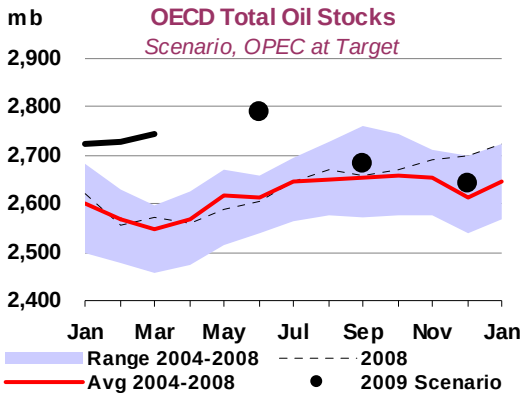
Global oil demand for 2009 is now estimated at 83.2 mb/d, 2.6 mb/d lower than in 2008, and the sharpest single year's fall since 1981. While this looks a dramatic year-on-year change, preliminary data for early 2009 suggest little upside for now in our demand assessment, even if broader market sentiment has become more optimistic. A downward revision of 0.1 mb/d for the 2008 baseline this month follows the incorporation of further JODI monthly data and annual data for non-OECD countries. The composite global GDP estimate constructed last month came in close to the latest IMF numbers, so our GDP assumption remains close to the previous estimate at 1.4% contraction for 2009. Preliminary data also show 2Q09 demand below expectations, notably in China, the US and Russia. Despite tapering this downgrade through 2H09 (most analysts expected early 2009 data to look bad), we have nonetheless trimmed 2009 demand by 0.2 mb/d. Is there a danger of going too far, especially as markets have latched onto something positive in the past month in moving prices above $55/bbl? Could demand be stronger than we envisage?



Unfortunately, dissection of the 1Q09 global balance offers little scope for an imminent demand upgrade. Superficially, the global supply/demand picture saw better balance in 1Q09, after three consecutive quarters when supply ran ahead of demand. However, there was also a counter-seasonal OECD stockbuild and a net shift of 0.5 mb/d of oil into transit and floating storage. So the 'balance' highlighted graphically above is misleading. With preliminary supply and demand both around 83.8-84.0 mb/d for the quarter, and a combined 1.2 mb/d build in OECD stocks and oil afloat, there is an offsetting 'miscellaneous' element in our balance which stands at an unprecedented -0.9 mb/d for 1Q09. It pays to take note of this frequently overlooked item for guidance on supply, demand or stock levels. A negative 'miscellaneous to balance' suggests non-OECD stockdraw, understated supply, overstated demand or a combination of all three. Widespread stockdraw amid market contango seems unlikely. OPEC supply could have been higher than estimated, but that would imply output compliance below the 80% market consensus. The miscellaneous item will likely diminish as final 1Q09 data emerge, allocated between supply, demand and inventories. But the scale of this negative item suggests early 2009 demand could be weaker, not stronger, than shown here.

Our projections point to a 'call on OPEC crude and stock change' oscillating around 28 mb/d in the second half of 2009. OPEC ministers meet again in Vienna on 28 May to review market developments and production policy. Our data suggest OPEC members have enacted nearly 80% of the production curbs announced since last autumn. Performance versus targets has varied, and market reports abound suggesting disquiet among core OPEC members over the degree of compliance by Iran and Angola in particular. Nonetheless, 80% compliance and total cutbacks of 3.2 mb/d since last September represent an impressive degree of cohesion compared with historical experience. Recent market chatter however suggests that fraying compliance, and the fact that prices are now 50% higher than February lows, could argue against a further official cut in target on 28 May. We remain both unwilling and unable to forecast what OPEC will decide. However, under a simplified scenario (ignoring substantial current floating storage volumes, for example) in which OPEC attains and then sustains output at its current target, stocks could still move slowly lower by the end of the year in absolute terms, even if the potential distortion of declining demand could keep forward cover stubbornly high.



DEMAND

Summary

- **Forecast global oil demand for 2009 has been revised down slightly** following weaker-than-expected preliminary data in various regions and minor baseline changes to non-OECD demand. Global oil demand is projected at 83.2 mb/d (-3.0% or -2.6 mb/d when compared with 2008). The demand estimate for last year, meanwhile, is down by 0.1 mb/d at 85.8 mb/d (-0.3% or -0.2 mb/d versus 2007). This report incorporates the latest GDP assumptions from the IMF's *World Economic Outlook*, published in late April. The projections are broadly in line with what we had anticipated and factored in last month, with global economic growth foreseen to contract by almost 1.4% in 2009.

- **Forecast oil demand in the OECD has been adjusted down marginally** for 2009 to 45.1 mb/d (-5.1% or -2.4 mb/d on a yearly basis). An upward revision of some 160 kb/d in 1Q09 has been largely offset by a downward adjustment in 2Q09, resulting from very weak preliminary data for the US in April and to a lesser extent in Europe, which has been partially carried forward. By contrast, the oil demand estimate for 2008 remains virtually unchanged at 47.5 mb/d (-3.4% or -1.7 mb/d versus 2007).

Global Oil Demand (2007-2009)

(million barrels per day)

	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Africa	3.0	3.0	3.0	3.1	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.0	3.2	3.1
Americas	31.1	31.0	31.3	31.3	31.2	30.5	30.5	29.8	30.0	30.2	29.2	28.8	29.2	29.0	29.1
Asia/Pacific	25.7	25.2	24.7	25.9	25.4	26.6	25.6	24.9	25.0	25.5	25.4	24.6	24.0	24.6	24.7
Europe	15.9	15.6	16.1	16.3	16.0	15.9	15.5	16.0	15.9	15.8	15.4	14.7	15.3	15.3	15.2
FSU	4.1	3.9	4.1	4.2	4.1	4.2	4.1	4.3	4.2	4.2	3.9	3.9	4.1	4.0	4.0
Middle East	6.3	6.4	6.6	6.3	6.4	6.6	7.0	7.4	6.8	7.0	6.7	7.3	7.7	7.1	7.2
World	**86.0**	**85.0**	**85.8**	**87.2**	**86.0**	**86.9**	**85.8**	**85.4**	**85.0**	**85.8**	**83.8**	**82.3**	**83.4**	**83.3**	**83.2**
Annual Chg (%)	0.3	1.4	1.0	1.3	1.0	1.0	0.9	-0.5	-2.5	-0.3	-3.6	-4.0	-2.4	-1.9	-3.0
Annual Chg (mb/d)	0.3	1.1	0.9	1.1	0.9	0.9	0.8	-0.4	-2.2	-0.2	-3.1	-3.4	-2.1	-1.7	-2.6
Changes from last OMR (mb/d)	-0.16	-0.02	-0.11	-0.09	-0.09	-0.05	-0.06	-0.08	-0.08	-0.07	0.06	-0.50	-0.25	-0.23	-0.23

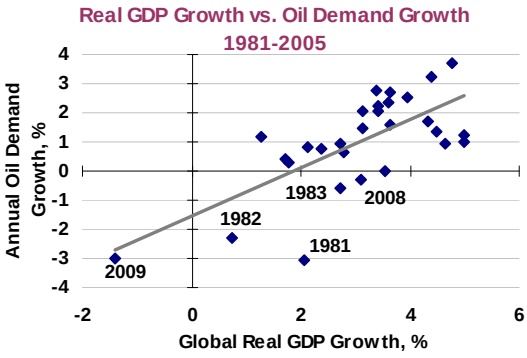
- **Forecast non-OECD oil demand has been revised down slightly for both 2008 and 2009** as annual data for 2007 for around 70 countries spread across all regions was incorporated. Preliminary data in several large countries such as China and Russia continue to exhibit sustained weakness. Oil demand is foreseen to average 38.1 mb/d this year (-0.4% or roughly -140 kb/d versus the previous year), which would be the first contraction since 1994. The estimate for 2008, meanwhile, now stands at 38.3 mb/d (+3.8% or +1.4 mb/d versus 2007).

- **The 2009 oil demand forecast is consistent with recent patterns of economic activity, on the assumption that the global economy will markedly recover in 2010 at the earliest.** However, a string of 'green shoots' in a few countries has led to expectations that strong global economic growth will actually resume late this year, if not before. If so, this oil demand forecast could indeed prove to be too pessimistic. Yet it remains to be seen whether the recent outbursts of economy activity simply reflect the rebuilding of depleted inventories across several industries. As far as oil demand is concerned, the weakness of the latest available data suggest that such a quick recovery remains so far elusive.

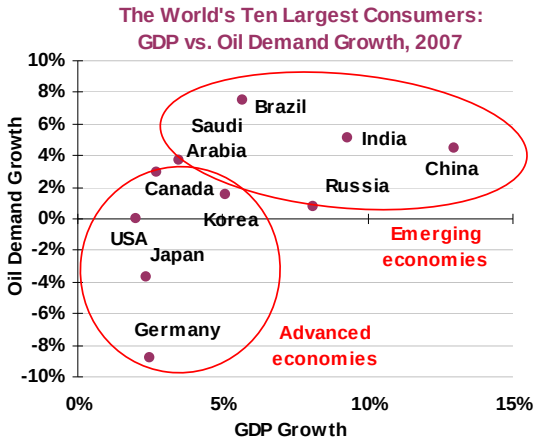
Global Overview

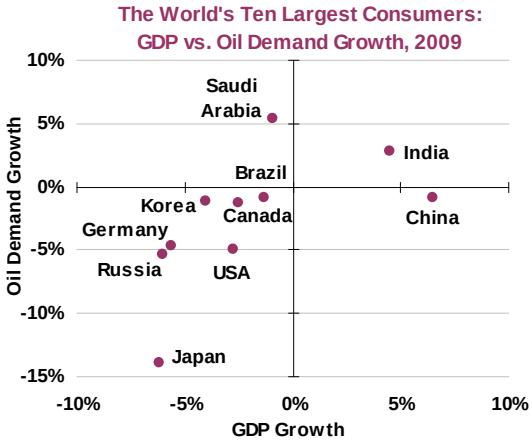
Last month's sharp downward revision to our 2009 global oil demand forecast was dubbed by some observers as 'methodologically inconsistent' and therefore excessive. Yet the, admittedly imperfect, correlation between oil demand and GDP growth, as highlighted in the graph overleaf, suggests that the prognosis is actually in line with the unprecedented economic recession that has extended throughout the world.

The correlation's more obvious outliers correspond to the early 1980s, when advanced economies – then largely driving oil demand growth – were much more dependent on oil. Since then, however, the oil market has changed vastly, becoming more price inelastic and more sensitive to economic activity, as can be seen in the graph. On the one hand, demand in the OECD became more geared towards transportation fuels, while efficiency improvements reduced oil intensity in most sectors. On the other hand, demand in several large non-OECD countries picked up as income per capita gradually reached the threshold where energy demand takes off.



The comparison between the oil demand picture that prevailed in 2007 (rather than in 2008, which was an atypical year because a sharp price surge coincided with the start of a deep economic downturn) with what is expected in 2009 highlights the damage brought about by the current global recession. Seven of the 10 largest oil-consuming countries posted positive demand growth in 2007, notably emerging countries (excepting Russia, where a relatively mild winter weighed on fuel oil demand). In the OECD, only Japan, Germany and the US featured flat or negative growth – the first facing a pronounced structural oil demand decline and the latter two largely as a result of a very mild winter, with depressed heating oil and fuel oil use.

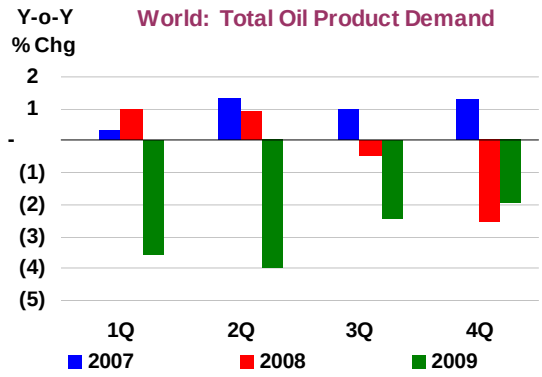




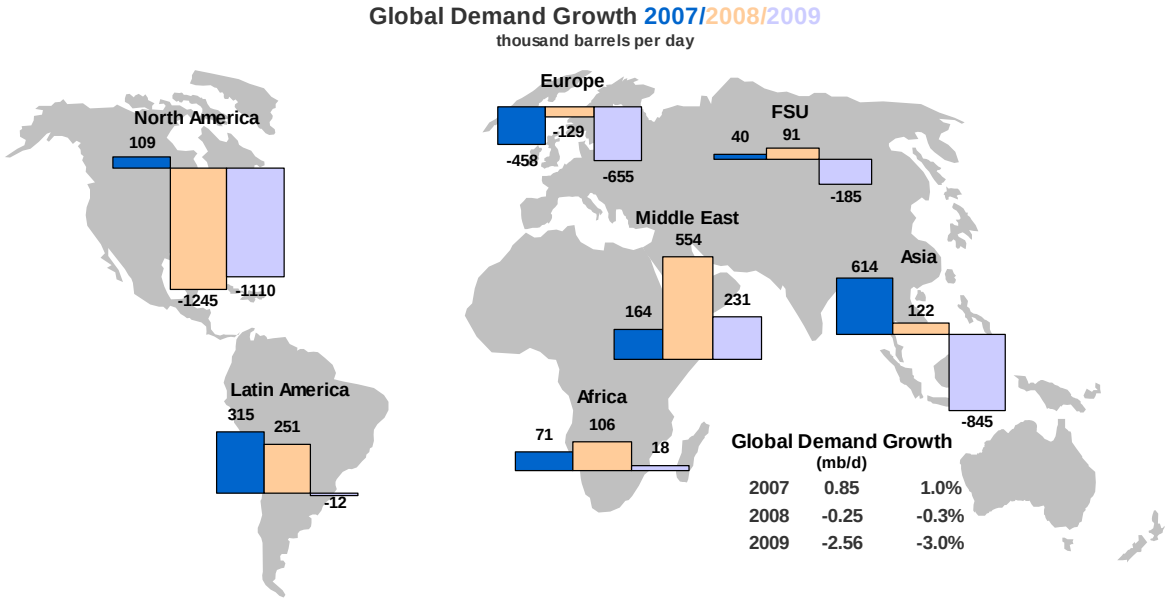
By contrast, in 2009 eight of these 10 countries are likely to register a marked fall in oil demand as their economies slow down or contract. This could be particularly dramatic in OECD countries, *despite* an unusually cold winter in most of the Northern Hemisphere. In China, which has witnessed a sharp deceleration in manufacturing as export markets dry up, oil demand will fall slightly or at best remain flat, although economic growth will firmly remain in positive territory. Only in India and Saudi Arabia is demand poised to grow; the former has so far managed to weather the worst effects of the economic storm, while in the latter oil demand is supported by very low end-user prices, sustained electricity needs and an expanding petrochemical sector.

This prognosis could obviously change if the global economy were to rebound strongly towards the end of the year. A closer examination of our outlook and those of other forecasters shows that the main differences are concentrated in the second half of the year, particularly in 4Q09. Whereas we predict an annual contraction in oil demand of 1.9% in that quarter, based on the assessment by both the IMF and the OECD that economic recovery will be likely deferred to early 2010, other forecasters see a much lower fall or even a rebound. This school of thought assumes that the global economy will feature a pronounced 'V-shaped' bounce much earlier than we have assumed, and cites as evidence a recent

string of so-called 'green shoots' in several key countries – a slight rebound in industrial production in Japan, Germany and China and, in the US, stronger-than-expected consumer demand despite dismal 1Q09 GDP figures, a rebound in house sales and a slower pace of jobs destruction, to name just a few.



These 'green shoots', which are certainly welcome, may be interpreted as proof that the global recession has bottomed out, with significant fiscal and monetary loosening in key economies working their way up. However, these recent bursts of economy activity could also simply reflect the rebuilding of depleted inventories across several industries, making it arguably premature to predict an imminent and strong economic rebound – not least because the elimination of spare capacity, the deleveraging of the private sector in several highly indebted countries and the rebalancing of global demand are still at an early stage. As such, the recovery could conceivably be more 'L-shaped' (i.e., shallow), as the IMF and others posit. The debate will undoubtedly continue – yet, as far as oil is concerned, the latest available data indicate that the 'demand green shoots', if any, continue to be buried under the thick ice of the current economic winter.



OECD

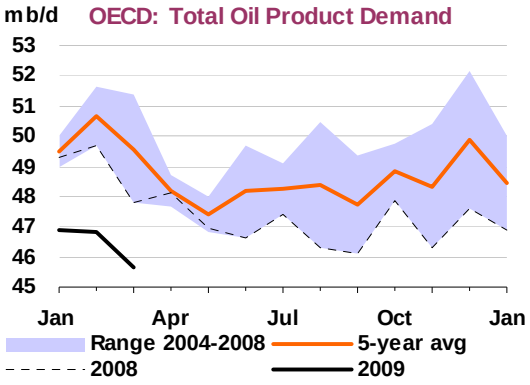
Preliminary data show that OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 4.5% year-on-year in March, with all three regions recording losses for the eleventh month in a row. In **OECD North America** (which includes US Territories), oil product demand fell by 5.9% year-on-year, with all product categories again posting losses. In **OECD Europe**, strong counter-seasonal heating oil deliveries failed to offset declines in other product categories, with total demand shrinking by 0.3%. In **OECD Pacific**, demand contracted by an astonishing 7.6%, despite a marked rebound in gasoline deliveries.

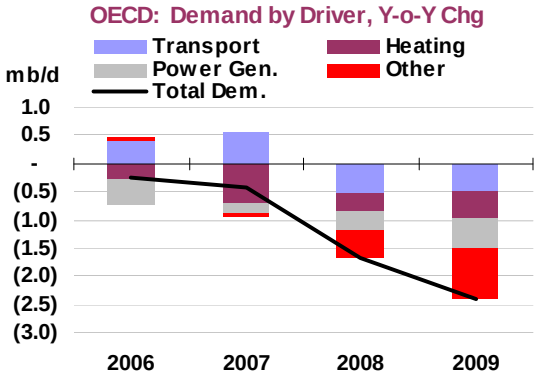
OECD Demand based on Adjusted Preliminary Submissions - March 2009
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.59**	**-0.4**	**1.75**	**-5.4**	**3.84**	**-2.7**	**0.93**	**-26.5**	**1.07**	**-4.2**	**5.00**	**-14.22**	**23.17**	**-5.9**
US50	9.00	-0.9	1.50	-5.8	3.28	-3.3	0.42	-43.8	0.59	1.4	3.63	-17.5	18.43	-7.0
Canada	0.70	1.1	0.12	3.2	0.21	2.5	0.35	-2.2	0.17	-0.3	0.71	-7.9	2.26	-2.3
Mexico	0.79	4.5	0.07	-15.4	0.27	-0.5	0.12	2.2	0.19	-23.3	0.57	0.4	2.01	-1.5
OECD Europe	**2.22**	**-3.1**	**1.19**	**-6.8**	**4.12**	**0.5**	**2.25**	**24.8**	**1.57**	**-1.8**	**3.35**	**-8.8**	**14.70**	**-0.3**
Germany	0.46	-2.3	0.18	-4.1	0.60	6.1	0.69	81.9	0.18	1.6	0.53	-15.1	2.63	9.8
United Kingdom	0.38	8.4	0.34	-0.9	0.43	4.0	0.13	-2.6	0.06	-11.2	0.35	-5.0	1.69	0.8
France	0.18	-10.0	0.14	-5.6	0.67	3.1	0.39	21.0	0.12	30.3	0.44	-7.7	1.93	2.7
Italy	0.26	-8.0	0.07	-14.9	0.53	-0.9	0.10	11.2	0.20	-7.7	0.34	-7.8	1.50	-4.7
Spain	0.14	-5.7	0.10	-15.5	0.48	-3.4	0.22	-1.1	0.21	-0.6	0.36	0.4	1.52	-2.9
OECD Pacific	**1.54**	**6.3**	**1.01**	**0.9**	**1.21**	**-1.6**	**0.52**	**-13.2**	**0.83**	**-16.1**	**2.67**	**-15.2**	**7.78**	**-7.6**
Japan	0.98	10.2	0.73	5.8	0.59	0.3	0.36	-16.1	0.43	-23.0	1.37	-26.3	4.47	-11.0
Korea	0.17	3.7	0.15	-17.9	0.26	-7.1	0.13	-6.4	0.36	-7.9	1.12	1.5	2.20	-3.1
Australia	0.32	-0.1	0.11	0.9	0.30	-0.3	0.02	-1.0	0.04	-0.8	0.16	-2.6	0.95	-0.5
OECD Total	**14.34**	**-0.1**	**3.95**	**-4.3**	**9.17**	**-1.1**	**3.69**	**0.9**	**3.48**	**-6.3**	**11.03**	**-12.9**	**45.65**	**-4.5**

* Including US territories

Overall revisions to February's preliminary figures were positive, with the three regions submitting much higher-than-anticipated demand, notably for naphtha, gasoline, jet/kerosene and heating oil. February's OECD demand estimates were thus adjusted down by 100 kb/d, indicating that demand fell by 5.8% during that month, rather than by 5.4% as previously estimated. Moreover, preliminary data for April were noticeably weaker than anticipated, entailing a 350 kb/d downward revision for 2Q09 demand, partially carried forward in 3Q09 and 4Q09. Overall, 2009 OECD demand is now expected to contract by 5.1% on a yearly basis (-2.4 mb/d) to 45.1 mb/d (80 kb/d below last month's assessment).





Total OECD Demand by Product
(million barrels per day)

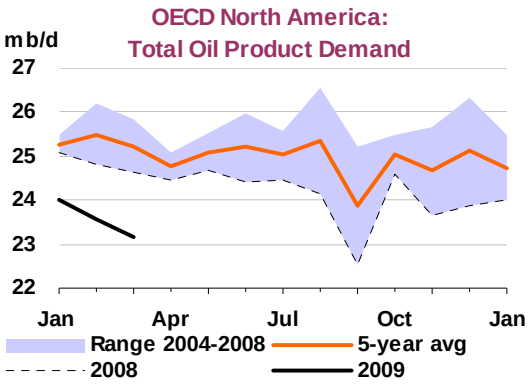
	2007	2008	1Q08	2Q08	3Q08	4Q08	Dec 08	Jan 09	Feb 09*	Latest month vs. Jan 09	Latest month vs. Feb 08
LPG & Ethane	4.82	4.66	5.17	4.59	4.31	4.56	4.75	5.03	4.84	-0.19	-0.50
Naphtha	3.24	3.04	3.30	3.00	3.02	2.84	2.77	2.80	3.05	0.25	-0.35
Motor Gasoline	14.92	14.46	14.23	14.73	14.48	14.39	14.52	13.83	14.13	0.30	-0.16
Jet & Kerosene	4.12	3.99	4.36	3.87	3.82	3.91	4.21	4.17	4.02	-0.15	-0.52
Gas/Diesel Oil	13.14	12.98	13.39	12.62	12.57	13.34	13.22	13.11	13.19	0.09	-0.61
Residual Fuel Oil	3.96	3.65	3.85	3.62	3.52	3.62	3.76	3.92	3.53	-0.39	-0.23
Other Products	4.97	4.74	4.63	4.83	4.88	4.61	4.34	4.04	4.09	0.05	-0.49
Total Products	**49.17**	**47.50**	**48.92**	**47.24**	**46.59**	**47.27**	**47.57**	**46.89**	**46.85**	**-0.04**	**-2.86**

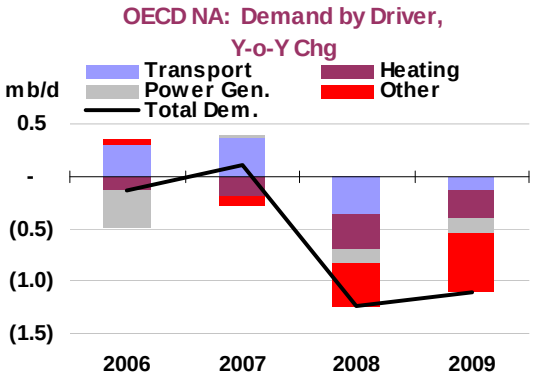
* Latest official OECD submissions (MOS)

North America

According to preliminary data, oil product demand in North America (including US Territories) decreased by 5.9% year-on-year in March, the fifteenth monthly contraction in a row. Oil demand in the United States, which has contracted uninterruptedly over the past year and a half, was particularly pronounced

(-6.8% year-on-year in March), while Canada's (-2.3%) and Mexico's (-1.5%) fared only marginally better. Meanwhile, two-thirds of February's revisions to preliminary data (-150 kb/d) were attributable to the US, and the rest to Canada. Demand in OECD North America was thus weaker than anticipated in that month, falling by 5.1% year-on-year, instead of 4.5%. Regional total demand is now expected to reach 23.2 mb/d in 2009 (-4.6% or -1.1 mb/d versus 2008 and about 90 kb/d lower than previously anticipated), given the continued weakness of preliminary weekly data on US oil demand.





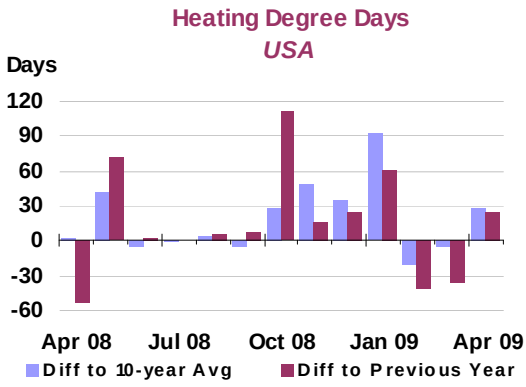
OECD North America Demand by Product

(million barrels per day)

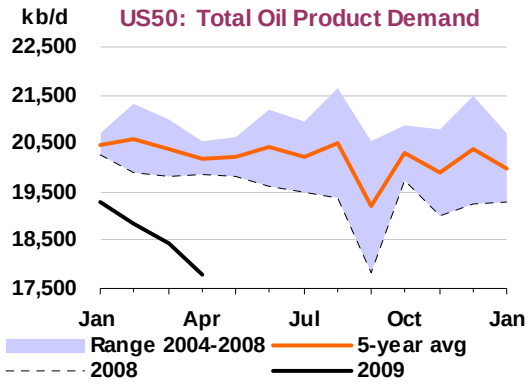
	2007	2008	1Q08	2Q08	3Q08	4Q08	Dec 08	Jan 09	Feb 09*	Latest month vs. Jan 09	Latest month vs. Feb 08
LPG & Ethane	2.92	2.73	3.10	2.63	2.52	2.68	2.71	3.01	2.88	-0.14	-0.31
Naphtha	0.41	0.35	0.36	0.37	0.34	0.32	0.30	0.28	0.27	-0.01	-0.10
Motor Gasoline	10.84	10.56	10.47	10.74	10.51	10.53	10.56	10.25	10.39	0.14	-0.01
Jet & Kerosene	1.89	1.79	1.84	1.84	1.81	1.66	1.66	1.67	1.65	-0.01	-0.21
Gas/Diesel Oil	5.24	5.01	5.29	4.96	4.77	5.03	4.80	5.14	4.97	-0.17	-0.41
Residual Fuel Oil	1.25	1.13	1.14	1.22	1.07	1.08	1.20	1.24	0.95	-0.29	-0.13
Other Products	2.97	2.72	2.63	2.77	2.71	2.76	2.65	2.40	2.43	0.03	-0.09
Total Products	**25.53**	**24.28**	**24.84**	**24.52**	**23.73**	**24.05**	**23.88**	**24.00**	**23.54**	**-0.46**	**-1.26**

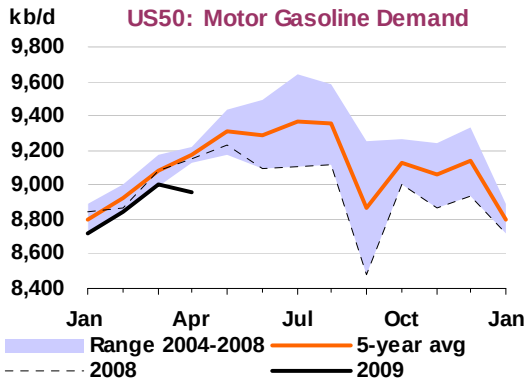
* Latest official OECD submissions (MOS)

Adjusted preliminary inland deliveries – a proxy of oil product demand – in the continental **United States** plummeted by 10.4% year-on-year in April, with all product categories posting losses, reflecting the burden of the economic recession – GDP contracted by 6.1% year-on-year in 1Q09, almost as much as in 4Q08 (-6.3%). It is worth noting that colder temperatures (the number of heating-degree days in April was much higher than both the 10-year average and the same month of the previous year) should have arguably provided a modicum of support to heating and electricity needs, yet demand for heating oil and fuel oil receded markedly. More telling, perhaps, is the fact that gasoline demand fell by 2.0% (the highest rate of decline since December 2008), thus casting a shadow on its allegedly strong recovery, which many observers were confidently predicting last month.



Our pre-emptive adjustment to preliminary weekly data continues to perform relatively well. Compared with the EIA's weekly-to-monthly revisions (-810 kb/d for February), we adjusted our demand figures by only -110 kb/d for that month. The data now show that February's year-on-year annual decline reached 5.4%, slightly more than previously estimated (-4.9%). Based on February's revisions and preliminary March and April data, oil demand in 2009 is expected to contract by 5.1% or 1.0 mb/d to 18.5 mb/d, about 110 kb/d lower when compared with last month's report.





It is important to note that this forecast assumes a resumption of the driving season – which petered out last year as very high gasoline prices coincided with the dawn of the financial crisis. In other words, being the first OECD country to fall into recession, the US could emerge out of it more rapidly than its peers, probably by the end of the year. However, as argued earlier, GDP growth is likely to be modest for several quarters, as the economy's imbalances will take some time to be resolved. In that context, some doubts have arisen as to whether the financial system's woes are being decisively addressed, notably after questions were raised regarding the stringency of the recent round of so-called 'stress' tests, which were aimed at determining the optimal equity that banking institutions should have.

A Relentless Efficiency Drive?

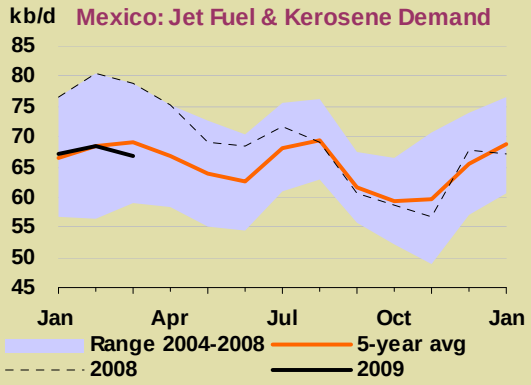
Following the recent flurry of policy initiatives by the federal government with regards to fuel efficiency (such as the tightening of CAFE standards in late March and the insistence over the past few weeks that the ailing GM and Chrysler prioritise the production of smaller vehicles to benefit from government aid), the state of California adopted in late April a rule to regulate emissions from *oil products* – as opposed to those from vehicles themselves. California's new standard – a first worldwide – mandates refineries and suppliers to reduce the 'carbon intensity' of transportation fuels sold in the state by 10% by 2020, a rate poised to increase afterwards. The targets may be met either directly – by reducing the carbon content of produced fuels – or indirectly – by buying and reselling cleaner fuels or purchasing offsetting carbon credits. The ultimate goal is to replace 20% of the state's fossil fuels with cleaner energy sources, such as electricity, hydrogen, natural gas and biofuels.

More strikingly, perhaps, the chairman of Ford Motor Company – the only US car manufacturer that has not sought the government's financial assistance – has publicly called for a massive increase in gasoline taxes (so that retail prices increase by as much as 70% over current levels) in order to usher in a new generation of fuel-efficient vehicles, arguing that the recent fall in domestic retail prices may entice consumers to turn once again to gas-guzzling SUVs and light trucks. Such a statement – presented as an alternative to the carbon cap-and-trade system that has been proposed by the Obama administration – marks an unprecedented break with the rest of the industry and with the long-held view that raising gasoline taxes in the US is politically impossible.

Taken together, all these moves suggest that the goal of enhancing the fuel efficiency of the US vehicle fleet is indeed gaining momentum. In the medium- to long-term, this will arguably have profound effects upon transportation fuels demand. The growth in gasoline demand (including biofuels), in particular, is unlikely to emulate the recent past. Demand will probably be marginal or flat in the years ahead (and negative if biofuels are excluded from the pool) – and if so, pose considerable challenges to refiners.

Dealing With Pandemics

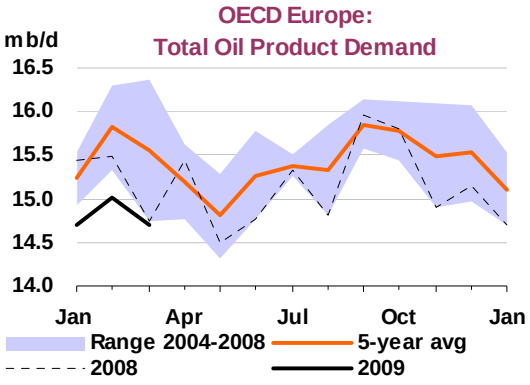
The outbreak of the A/H1N1 flu virus in Mexico in late April has raised concerns about an impending pandemic, with the World Health Organisation on high alert, the Mexican government partially shutting down public and private sector activities in early May, and some countries such as China quarantining inbound flights from Mexico. Even though the global death toll remains relatively minor (compared with regular, seasonal influenza), there are worries that economic activity and global oil demand may be significantly affected if punitive travel bans concerning Mexico or even North America at large were to be adopted. However, aside from the fact that, in a globalised economy, travel bans after the event are often counterproductive, estimating the likely impact of this flu on air travel and ultimately on jet fuel demand is difficult.

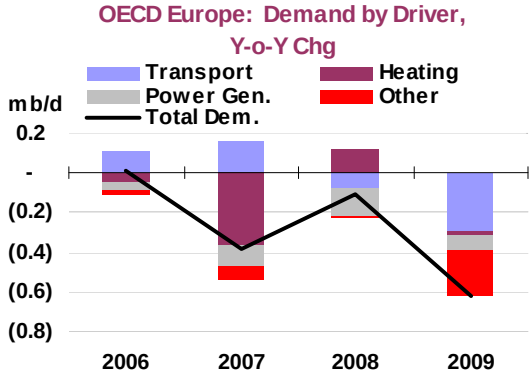


Previous episodes of sharply falling jet fuel demand are not strictly comparable, and hence provide at best only a rough yardstick. Atlantic Basin jet fuel demand in 4Q01 fell by 13.0% year-on-year (around 410 kb/d) to 2.8 mb/d, after the September 2001 terrorist attacks, and demand did not fully recover until 4Q02. The SARS epidemic in 2003, which may prove to have been more severe than the current outbreak, saw jet fuel demand in China plummet by 18.9% (40kb/d) in 2Q03, but then rebound by 10.6% in 3Q03, while overall demand in OECD Pacific fell by 8.2% year-on-year in 2H03 (180 kb/d) but rebounded in early 2004. As far as Mexico is concerned, jet fuel demand has been falling significantly since mid-2008 as a result of the unfolding economic recession. It is therefore open to question whether the flu impact will be little more than a ripple in an already weakened environment. As such, our Mexican demand forecast does not account for flu effects; we may alter it once better data become available.

Europe

According to preliminary inland data, oil product demand in Europe shrank by a relatively modest 0.3% year-on-year in March. Somewhat colder temperatures continued to support heating oil (+24.8% year-on-year), as the number of heating-degree days in February was higher than the 10-year average but similar to the same month of the previous year. Sluggish performance among Europe's largest economies weighed once again on the demand for LPG (-8.5%), naphtha (-14.0%) and jet/kerosene (-6.8%), although diesel recorded a modest bounce (+0.5%).





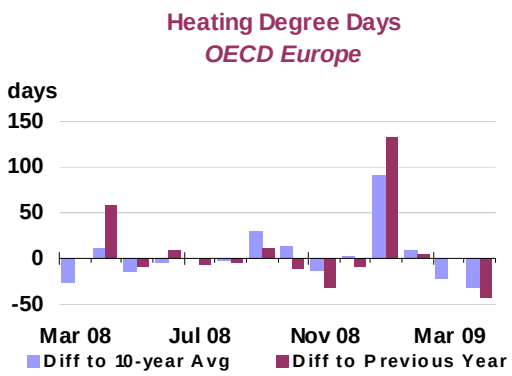
February's data, meanwhile, were adjusted down by 60 kb/d, given lower-than-expected figures for diesel and residual fuel oil. Oil demand in OECD Europe is seen averaging 14.6 mb/d in 2009, -4.1% or -620 kb/d compared with the previous year and 20 kb/d lower than previously anticipated.

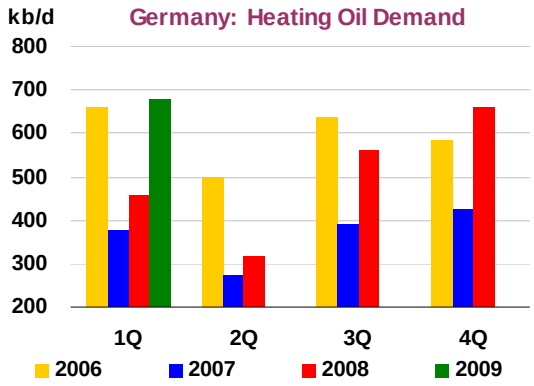
OECD Europe Demand by Product
(million barrels per day)

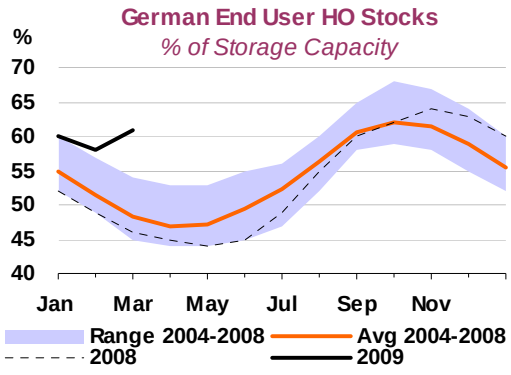
	2007	2008	1Q08	2Q08	3Q08	4Q08	Dec 08	Jan 09	Feb 09*	Latest month vs. Jan 09	Latest month vs. Feb 08
LPG & Ethane	0.95	0.96	1.06	0.99	0.87	0.93	1.01	1.01	0.97	-0.04	-0.10
Naphtha	1.17	1.10	1.24	1.07	1.08	1.01	0.97	0.96	1.11	0.16	-0.21
Motor Gasoline	2.50	2.37	2.29	2.44	2.46	2.31	2.30	2.11	2.23	0.11	-0.10
Jet & Kerosene	1.31	1.31	1.27	1.30	1.41	1.26	1.26	1.21	1.21	0.00	-0.06
Gas/Diesel Oil	6.10	6.26	6.30	5.94	6.23	6.58	6.60	6.38	6.53	0.15	0.00
Residual Fuel Oil	1.75	1.61	1.65	1.51	1.60	1.68	1.68	1.72	1.64	-0.08	0.01
Other Products	1.52	1.57	1.41	1.64	1.72	1.51	1.33	1.30	1.32	0.02	-0.02
Total Products	**15.30**	**15.19**	**15.22**	**14.89**	**15.37**	**15.28**	**15.15**	**14.69**	**15.01**	**0.32**	**-0.48**

* Latest official OECD submissions (MOS)

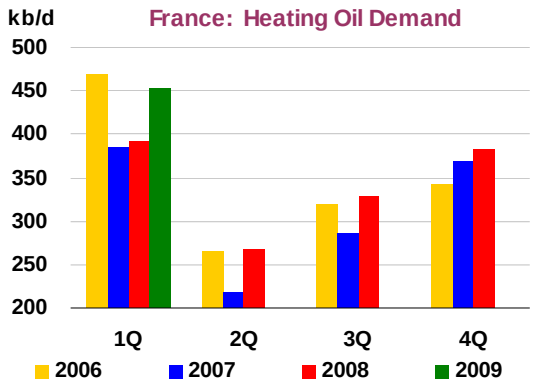
According to preliminary estimates, inland deliveries in **Germany** surged by 9.8% year-on-year in March. As in previous months, the rise was primarily driven by heating oil demand (about 26% of the country's oil demand), which increased outstandingly and counter-seasonally by 81.9% year-on-year on the back of cold weather. Heating oil consumer stocks, at 61% of capacity by end-March, were sharply above the levels recorded in the same month of the previous year (46%) and higher than in February (58%). This highlights the significant influence that weather conditions can have upon German – and European – oil demand. Indeed, German heating oil demand in 1Q09 was 48.1% higher than in 1Q08, when mild temperatures and rising prices contributed to cap deliveries. It also conceals the fact that demand for other product categories continues to fall, largely as a consequence of the recession. In that respect, the decline in demand for industrial fuels such as LPG and naphtha (-10.2% and -14.8% year-on-year, respectively) shows little sign of abating. Only diesel demand (+6.1%) appears to be rebounding, but it remains to be seen whether this figure is an outlier related to the Easter holidays (which occurred in March this year) or the beginning of an ascending trend (the strong growth in diesel demand reported last month actually turned out to be a contraction following data revisions).

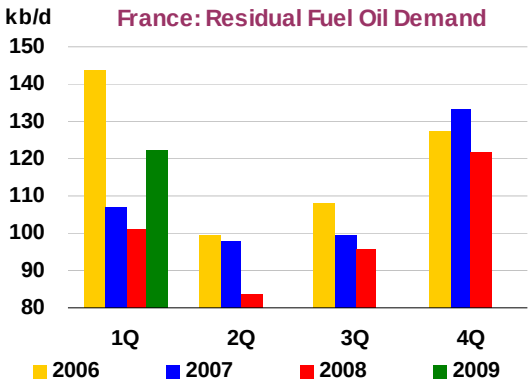






The demand picture in **France** tends to mirror developments in Germany, with deliveries rising by +2.7% year-on-year in March as a result of strong demand for heating oil (+21.0%) and residual fuel oil (+30.3%), which more than offset losses in other product categories such as naphtha (-20%). As in Germany, this year's much colder weather and lower prices led to a surge of French heating oil demand in 1Q09 of 15.5% year-on-year. Unlike Germany, though, France is becoming more dependent upon fuel oil for peak electricity generation (power is increasingly being used for heating), despite its sizeable nuclear industry and numerous gas-fired power plants. The rise in electricity consumption was closely matched by fuel oil demand, which increased by 21.2% year-on-year in 1Q09.

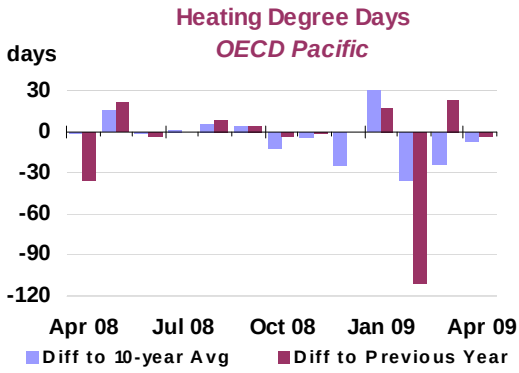


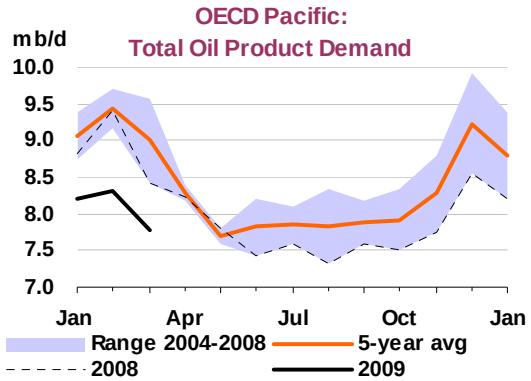


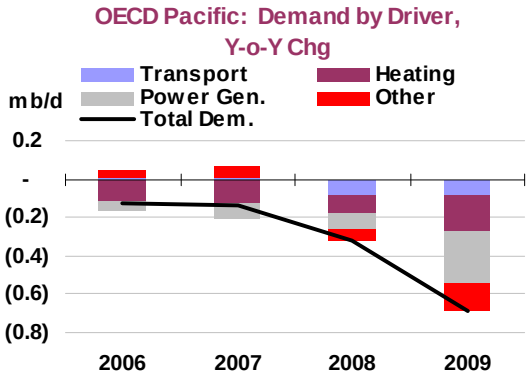
Since early April, French motorists are in principle able to fill their tanks with E10 gasoline, a blend of unleaded 95-octane gasoline and 10% ethanol. Well ahead of EU directives (which mandate the introduction of such a fuel in all member countries by 2015), France hopes to reduce CO_2 emissions by 1 million tonnes in 2010. However, given that only some 10% of the country's service stations are currently equipped to sell the new fuel, that the price difference between E10 and conventional gasoline is minimal (about 2 cents) and that only vehicles produced from 2000 (approximately 60% of the total fleet) can safely take the new fuel, the domestic downstream industry remains sceptical as to whether the new fuel's penetration will be achieved as quickly as intended. The industry argues that in order to meet the government's biofuels goal (7% of total gasoline demand), E10 would need to account for 80% of total gasoline sales in 2009 and for 100% in 2010 – a tall order indeed. Yet retailers will face stiff penalties if the goal is not fulfilled.

Pacific

According to preliminary data, oil product demand in the Pacific dropped for the ninth month in a row in March (-7.6% year-on-year) – less than the collapse of the previous month but nonetheless significant. Once again, demand was being dragged down by Japan, whose export-oriented economy continues to be pounded by the global recession. Korean demand also contracted markedly, offsetting its brief February rebound. Even the relatively cold weather failed to provide support to the region's demand; heating-degree days were sharply lower in March compared with the 10-year average, although temperatures were slightly higher than the same month of the previous year.







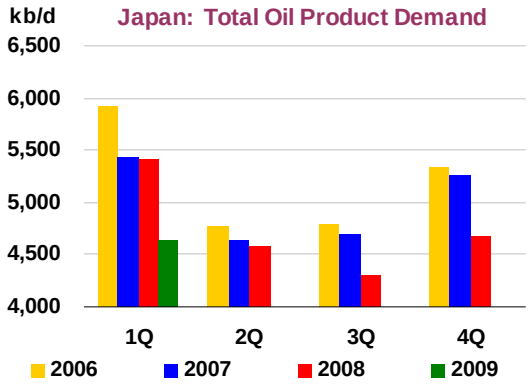
Nonetheless, February's preliminary data were revised up (+100 kb/d), as Japanese figures were somewhat stronger than previously expected. Still, demand is set to contract sharply in 2009 to 7.3 mb/d (-8.6% or -690 kb/d versus the previous year and +30 kb/d higher than last month's report).

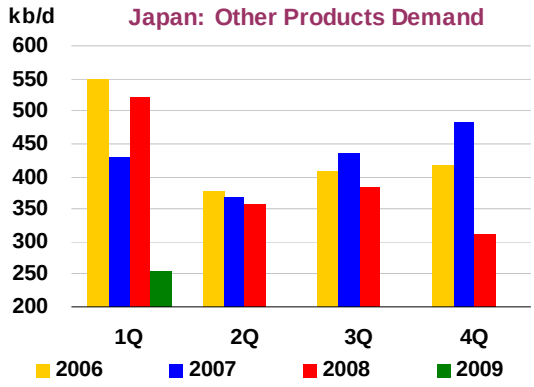
OECD Pacific Demand by Product
(million barrels per day)

	2007	2008	1Q08	2Q08	3Q08	4Q08	Dec 08	Jan 09	Feb 09*	Latest month vs. Jan 09	Latest month vs. Feb 08
LPG & Ethane	0.96	0.96	1.01	0.97	0.92	0.96	1.03	1.00	0.99	-0.01	-0.09
Naphtha	1.65	1.59	1.69	1.55	1.59	1.50	1.50	1.56	1.66	0.10	-0.04
Motor Gasoline	1.57	1.52	1.48	1.55	1.51	1.55	1.66	1.47	1.51	0.04	-0.04
Jet & Kerosene	0.93	0.89	1.24	0.72	0.60	0.99	1.29	1.30	1.17	-0.13	-0.26
Gas/Diesel Oil	1.80	1.71	1.80	1.72	1.57	1.73	1.82	1.58	1.69	0.11	-0.20
Residual Fuel Oil	0.96	0.91	1.06	0.89	0.85	0.86	0.88	0.95	0.93	-0.02	-0.11
Other Products	0.48	0.45	0.59	0.42	0.45	0.35	0.36	0.33	0.34	0.01	-0.38
Total Products	**8.35**	**8.03**	**8.87**	**7.82**	**7.50**	**7.93**	**8.54**	**8.19**	**8.30**	**0.11**	**-1.12**

* Latest official OECD submissions (MOS)

In **Japan**, the pace of the recession-driven oil demand contraction appears to have receded somewhat. According to preliminary data, deliveries plummeted by 'only' 11.0% year-on-year in March, almost half as much as in February (-20.6%) but slightly higher than in January (-10.5%). Once again, demand for industrial fuels such as LPG (-10.1%), naphtha (-14.4% year-on-year) or gasoil (-6.7%) fell sharply. Similarly, lower electricity needs weighed on demand for residual fuel oil (-23.0%) and direct-burning crude (included in 'other products', down by 64.9%). By contrast, demand for jet/kerosene (which is mostly used for heating) rose by 5.8% (compared with -21.2% in February) given March's colder weather.





Following the release of last month's report, some critics argued that our forecast misconstrued the effects of February's warm weather upon Japanese oil demand, alleging that we wrongly carried forward that month's weak readings for some product categories, presumably those used for electricity generation (residual fuel oil and direct-burning crude). However, our prognosis is based on normal weather conditions (defined as the 10-year average of prevailing temperatures). As such, our March revision to residual fuel oil demand was negligible (+9 kb/d). By contrast, the adjustment to 'other products' demand was actually *downwards* (-122 kb/d), which suggests that the unusually warm temperatures recorded in February were less significant than those observers contend. In other words, the country's economic recession is seemingly accounting for the bulk of the fall in electricity consumption.

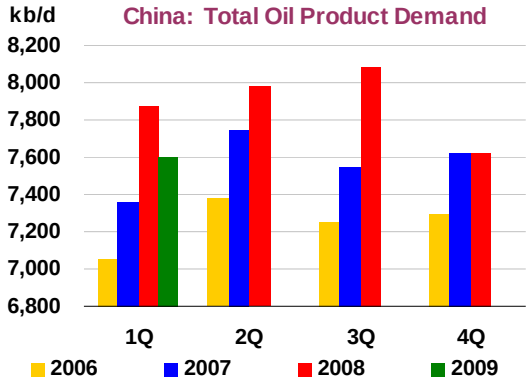
In addition, as we have widely flagged in previous reports, our forecast attempts to integrate the potential effects of greater power generation from nuclear sources, which will likely impinge upon oil-fired electricity production. In early May, Tokyo Electric Power Co. (TEPCO) finally won approval to restart one of the seven reactors of its giant 8.2-GW Kashiwazaki-Kariwa nuclear plant – the world's biggest – which had been shut down nearly two years ago following an earthquake. The restarting trials of the 1.4-GW unit are imminent, according to several reports, and commercial operations could resume in less than two months, assuming that the No. 7 generator passes a final government inspection.

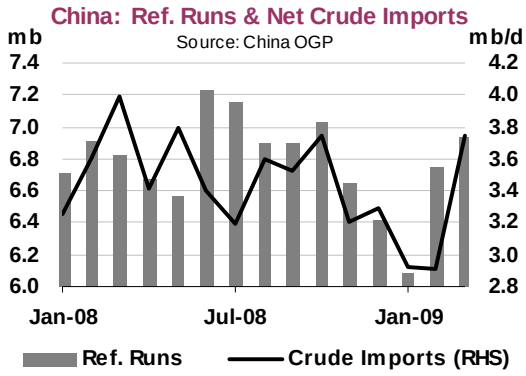
Moreover, a second 1.4-GW reactor (No. 6) could also be brought back on line by the end of this year (or perhaps even this summer, according to some reports). The operation of both reactors at full capacity could reduce TEPCO's oil demand by as much as 70 kb/d, even though LNG is likely to be more severely affected.

Non-OECD

China

According to preliminary data, China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) fell by 0.3% year-on-year in March. This estimate appears to confirm the country's economic slowdown; in fact, 1Q09 demand was down by 3.5% year-on-year, with two key industrial products, naphtha and gasoil, contracting by 6.3% and 12.5%, respectively. Meanwhile, the pace of growth of gasoline demand, which rose by 14.7% in 2008, slowed down sharply to 2.5% in 1Q09.





Moreover, higher refinery output (+14.3% month-on-month in March) and falling gasoline and gasoil stocks held by PetroChina and Sinopec (-21.6% and -15.8% month-on-month, respectively) appear to have essentially fed exports rather than respond to significantly higher domestic demand, although some stock volumes from the state-owned firms were reportedly purchased by independent retailers. The country remains a net exporter of both gasoline and gasoil, and the 29% month-on-month surge in net crude imports has mostly gone to higher refinery runs (+2.8% month-on-month) and crude stocks (+2.7% month-on-month). Given this subdued picture, forecast oil demand remains virtually unchanged at 7.8 mb/d or -0.9% versus 2008. It should be noted that this estimate incorporates a +25 kb/d revision to the 2007 baseline data, and assumes that GDP will expand by only 6.5% as predicted by the IMF, despite a relatively strong economic performance in 1Q09, according to official statistics. Indeed, much uncertainty continues to surround China's GDP measurement.

China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	740	688	720	-52	32	-7.0	4.7
Naphtha	799	762	784	-37	22	-4.7	3.0
Motor Gasoline	1,314	1,507	1,516	194	8	14.7	0.6
Jet & Kerosene	274	289	303	15	13	5.6	4.7
Gas/Diesel Oil	2,557	2,825	2,634	268	-192	10.5	-6.8
Residual Fuel Oil	737	600	620	-137	20	-18.6	3.4
Other Products	1,147	1,217	1,240	70	23	6.1	1.9
Total Products	**7,567**	**7,889**	**7,817**	**322**	**-72**	**4.3**	**-0.9**

Another Chinese Riddle: How Reliable Are GDP Figures?

In mid-April, the Chinese government reported that real GDP increased by 6.1% year-on-year in 1Q09. This figure was immediately taken up by the market as a tangible proof that the country is about to emerge from its downturn, and prompted numerous forecasters to upgrade their 2009 outlook of the Chinese economy. The current consensus view is that the government's fiscal boost, its plans to develop a social security net for rural households and the Central Bank's much looser monetary policy are not only having earlier-than-anticipated effects but also virtually guarantee that the Chinese economy may expand by as much as 8% this year and be back at double-digit growth figures in 2010.

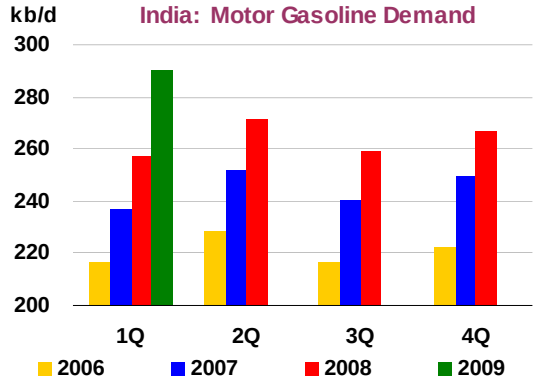
Oddly enough, 1Q09 reported GDP growth does not tally with oil demand data (nor with electricity demand, which was also inordinately weak). Oil demand contracted by 3.5% year-on-year, as noted earlier. Admittedly, pinpointing China's oil demand with accuracy is an exercise fraught with difficulties, given the lack of data and the underlying assumptions analysts must make regarding stocks and refinery output from independent producers. Still, one would have expected stronger, positive oil demand growth commensurate with the reported economic resilience, unless income elasticities had drastically changed.

Another possibility is simply that real GDP data are not accurate, and therefore should not be taken at face value. This is the view advocated by Lombard Street Research (LSR), a respected London-based economic consultancy. It argues that 6.1% real GDP growth in 1Q09 is inconsistent with a decline in trade volumes of about 20% over the same period, as it would have required domestic demand to expand by some 9% in real terms. Using official 1Q09 nominal annual growth rates for GDP and consumption, and consumer and fixed investment price indices as deflators for consumer spending and investment, respectively, LSR reckons that domestic demand expanded at most by 2% year-on-year in real terms. If so, China's terms of trade should have deteriorated sharply in order to achieve the decline in the GDP deflator implied by official data – yet the country recorded a significant improvement in its terms of trade. LSR concludes that 1Q09 real GDP growth was actually probably slightly negative or nil at best – a very large difference *vis-à-vis* official statistics – and adds that 4Q08 real growth was also likely negative or flat, if examining nominal data. If so, the last two quarters would effectively signal, from a Chinese perspective, a recession of a rare magnitude.

This analysis, which ultimately suggests that the country's falling exports have significantly weakened domestic demand and hence GDP growth, is of course one set of opinions among many. However, its conclusions regarding China's real 1Q09 GDP growth seem more consistent with oil demand estimates, and would imply that overall 2009 GDP growth could indeed match our current assumptions, despite the boost that fiscal and monetary policies will arguably provide in the quarters ahead.

Other Non-OECD

According to preliminary data, **India's** oil product sales – a proxy of demand – increased by 3.8% year-on-year in March, boosted by strong gasoline (+12.8%) and gasoil (+8.8%) sales, which together account for almost 45% of total oil demand. It would appear that the country has so far succeeded in shrugging off the damaging effects of the global recession, even though economic activity has slowed. Given such remarkable resilience (gasoline demand, for example, surged by 13.1% year-on-year in 1Q09), we have slightly revised up our Indian forecast for 2009. Oil demand is now poised to grow to 3.2 mb/d (+2.8% year-on-year or +90 kb/d, some 30 kb/d higher than previously anticipated). Although this is roughly half the pace of the previous two years, India is set to post the highest oil demand growth rate among the world's 10 largest consumers.



As margins in India's subsidised fuel market turned positive in late 2008 following the sharp fall in international oil prices, domestic retailing again became an attractive option for private refiners. In 4Q08, Essar Oil reopened most of its 1,250 retail stations, which were closed in 2007 as the relentless rise in oil prices, coupled with domestic end-user price caps, rendered retail operations unprofitable. It may now be followed by Reliance Industries Limited (RIL), which is reportedly considering whether to reopen the 1,432 retail stations it shut down in 2008, either in partnership with private or state-owned companies or on its own. This reversal also reflects the fact that key export markets in the US and Europe – RIL's main product outlets – have sharply shrunk on the back of the global economic slump. In anticipation of this move, the company applied for a change in the status of one of its two refineries at Jamnagar (the 660 kb/d J-1 plant). The refinery will no longer be an 'Export Oriented Unit' (EOU) but rather a 'normal' refinery able to sell its products in the domestic market (and as such will now be obliged to pay import duty and other levies on crude, which are waived in the case of EOUs).

India: Demand by Product

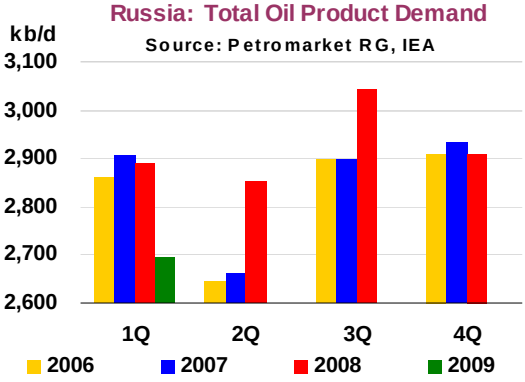
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	371	389	392	18	3	5.0	0.7
Naphtha	268	269	278	1	9	0.2	3.3
Motor Gasoline	245	264	294	19	30	7.8	11.5
Jet & Kerosene	300	301	295	1	-6	0.4	-2.0
Gas/Diesel Oil	970	1,068	1,105	98	37	10.1	3.5
Residual Fuel Oil	363	359	357	-5	-2	-1.2	-0.5
Other Products	429	428	444	0	15	-0.1	3.6
Total Products	**2,946**	**3,078**	**3,165**	**132**	**87**	**4.5**	**2.8**

Oil product demand in **Russia** reached new lows in March, when it contracted by 8.5% year-on-year, thus bringing the 1Q09 annual fall to 6.8%. The country has been severely hit by the global recession and the fall in commodity prices, and demand for industrial feedstocks has plummeted. LPG demand, for example, plunged by 20.2% year-on-year in 1Q09, while naphtha consumption shrank by 8.6%. Considering that the Russian economy is set to contract by 6.0% in 2009, total oil demand is foreseen to fall by 5.3% to 2.8 mb/d, some 30 kb/d less than previously expected.

Russia: Total Oil Product Demand

Source: Petromarket RG, IEA



The recession has also seemingly altered seasonal demand patterns. Both gasoline and gasoil demand normally begin to rise steadily in March, the former as the driving season unfolds and the latter with the start of the agricultural season. This year, however, demand for both products is sharply down – gasoline fell by 2.7% year-on-year in March and gasoil by 5.0%. The flip side is that the market tightening observed in previous years – as the surge in demand coincides with the spring refinery maintenance season – will probably be averted.

Russia: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	304	324	284	20	-40	6.4	-12.4
Naphtha	254	246	236	-7	-10	-2.9	-4.2
Motor Gasoline	683	724	730	42	5	6.1	0.8
Jet & Kerosene	234	249	214	15	-35	6.2	-14.0
Gas/Diesel Oil	596	640	583	44	-57	7.4	-8.8
Residual Fuel Oil	304	261	252	-43	-9	-14.1	-3.5
Other Products	475	480	470	6	-10	1.2	-2.0
Total Products	**2,849**	**2,924**	**2,768**	**75**	**-156**	**2.6**	**-5.3**

Source: Petromarket RG, IEA

SUPPLY

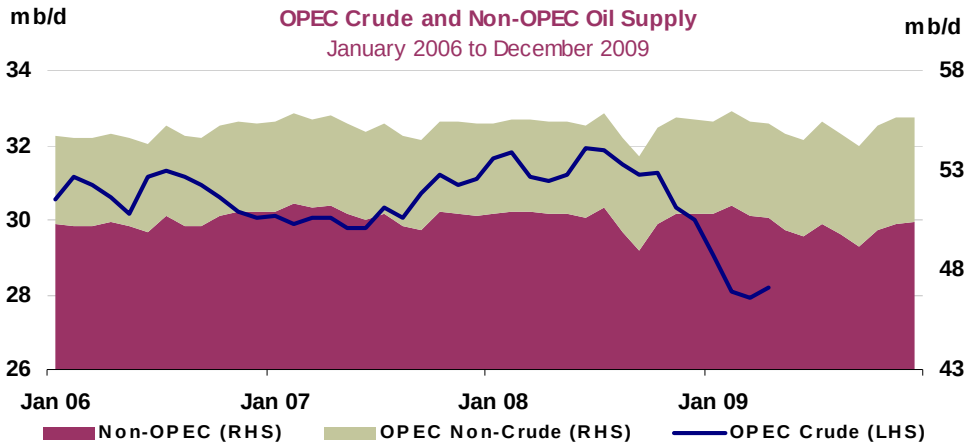
Summary

- **Global oil supply averaged 83.6 mb/d in April**, an increase of 230 kb/d versus March, as higher OPEC supply more than offset a dip in non-OPEC output. World oil production in April is down 2.8 mb/d compared with year ago levels, largely due to a cutback in OPEC supplies.

- **OPEC crude oil production in April broke its seven-month downtrend,** with output up 270 kb/d, to 28.2 mb/d. Production by the eleven members with output targets rose 230 kb/d, to 25.8 mb/d, some 950 kb/d over OPEC's 24.845 mb/d target level. Higher output in April reduced OPEC's compliance rate to 78% compared with 83% in March. Iran accounted for about 40% of the overproduction last month, with smaller contributions from Angola, Qatar, Algeria, Ecuador and Venezuela.

- **April's weaker compliance rate risks fuelling further discontent with the overproducers** among member countries more closely adhering to their production targets and reducing their interest in responding to calls to lower their own output further. OPEC ministers next meet on 28 May to review the market outlook as well as the group's compliance with existing output targets.

- **Total non-OPEC supply for 2009 is revised up by 50 kb/d**, on the basis of relatively stable North Sea production and higher-than-expected preliminary April production data for Russia. These were to some extent offset by lower Chinese, Indonesian and Thai output figures and a broader historical downward adjustment for some African countries on the basis of new annual and monthly data. Total non-OPEC supply is forecast to fall from 50.6 mb/d in 2008 to 50.3 mb/d in 2009. However, OPEC NGL supply is projected to increase 300 kb/d this year to 5.0 mb/d.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola and Ecuador and excluding Indonesia)

Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

All world oil supply figures for April discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Indonesia and Russia are supported by preliminary April supply data.

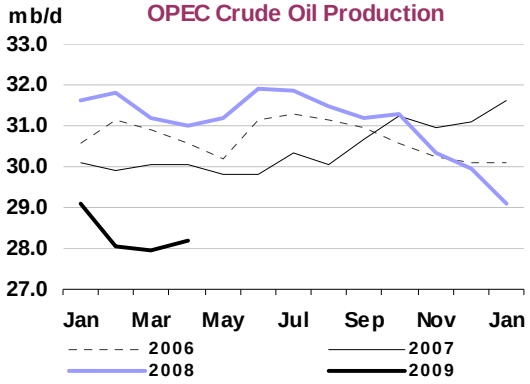
OPEC Crude

OPEC crude oil production in April broke its seven-month downtrend as compliance with output targets continued fraying at the edges. Total OPEC output rose 270 kb/d, to 28.2 mb/d, with Iran accounting for about 40% of the higher volumes last month. An increase in Iraqi production of about 40 kb/d also contributed to the group's overall total.

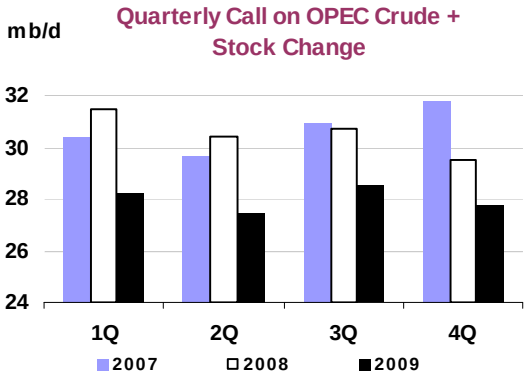
Production by the eleven members with output targets, which excludes Iraq, rose 230 kb/d, to 25.8 mb/d. This is approximately 950 kb/d over OPEC's 24.845 mb/d target level. Higher output in April reduced OPEC's compliance rate to 78% compared with baseline production levels published by the OPEC Secretariat last September. In March, OPEC's compliance with target levels averaged 83%. In addition to higher supply last month by Iran, smaller output increases were posted by Angola, Qatar, Algeria, Ecuador and Venezuela.

OPEC ministers will meet in Vienna on 28 May to review the market outlook and current compliance with targets levels that went into effect 1 January. April's weaker compliance is likely to fuel further discontent with the overproducers among member countries more closely adhering to their production targets. The deliberations could be made even more difficult by Angola, which has reportedly sent a letter to the OPEC Secretariat seeking a special exemption from the group's current output targets.

Angola is petitioning to have its current output target suspended on the grounds that the country is still suffering from the impact of its 30-year civil war and that reducing production to a lower target will exacerbate an already intense financial crisis. Angolan officials see similarities between their situation and that of war-torn Iraq, which is currently exempt from targets, as well as Kuwait who was exempt from targets following the 1990 invasion by Iraq.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

Angola produced 1.69 mb/d in April, 173 kb/d over its 1.52 mb/d target. The country joined the producer group on 1 January 2007 at a time when demand for OPEC crude was strong and capacity tight. It has struggled with accepting a formal quota almost from the beginning and even managed to negotiate an initial quota (1.9 mb/d) which was higher than its then existing 1.7 mb/d output capacity to accommodate increases in production capacity levels previous scheduled to come online. Angola's sustainable output capacity now stands at 2.1 mb/d, or about 580 kb/d above its current target level. Angola already appears to be ramping up output further even before the country's delegation meets with OPEC officials at the end of the month. The country's preliminary export schedules show shipments are forecast to surge to 1.82 mb/d in June.

Uneven compliance by a few members and Angola's plea for an exemption threaten to chip away at OPEC's otherwise strong resolve to rein in oversupply. Overall, the group has reduced production by

3.25 mb/d in comparison with the 4.2 mb/d in collective cuts agreed since last September. The thorny issue of compliance and Angola's special request might limit the group's ability to implement any further reductions in official production targets at the Vienna meeting.

For Saudi Arabia, which now accounts for almost 45% of the combined cutback in production, the continued lack of compliance by some members may be particularly hard to bear as the Kingdom ramps up production capacity towards its planned 12.5 mb/d goal. Saudi Aramco is on course for start-up of the 1.2 mb/d Khurais development, the 100 kb/d Nuayyim field and the 250 kb/d Shaybah expansion from end-June onwards. As a result, Saudi Arabia's discontent with overproducers may grow in tandem with its swelling idle capacity.

Fellow Gulf producers Kuwait and the UAE have largely followed Saudi Arabia's lead in reining in output to target levels in recent months. Kuwaiti production is assessed unchanged in April at 2.25 mb/d, or just about 30 kb/d over its assigned output level of 2.22 mb/d.

UAE production is also unchanged over the month at 2.25 mb/d, around 20 kb/d over target levels. However, production may fall below the Emirates' production target level in June based on latest allocations. Adnoc announced a further cutback in term allocations to 18% below contract volumes for June from 15% for Murban, Umm Shaif and Lower Zakum and 10% for Upper Zakum in May.

OPEC Crude Production

(million barrels per day)

	Feb 2009 Supply	Mar 2009 Supply	Apr 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Apr 2009 Supply	Implied January Target	April Supply vs Target	Percent Compliance
Algeria	1.25	1.22	1.25	1.43	0.18	1.20	0.05	77%
Angola	1.65	1.65	1.69	2.10	0.41	1.52	0.17	29%
Ecuador	0.48	0.46	0.48	0.50	0.02	0.43	0.05	31%
Iran	3.70	3.65	3.75	4.00	0.25	3.34	0.41	26%
Kuwait[2]	2.30	2.25	2.25	2.65	0.40	2.22	0.03	93%
Libya	1.58	1.52	1.52	1.77	0.25	1.47	0.05	80%
Nigeria[3]	1.80	1.78	1.76	2.50	0.74	1.67	0.09	73%
Qatar	0.75	0.74	0.78	0.90	0.12	0.73	0.05	60%
Saudi Arabia[2]	7.95	7.95	7.95	11.00	3.05	8.05	(0.10)	110%
UAE	2.25	2.25	2.25	2.85	0.61	2.22	0.02	94%
Venezuela[4]	2.10	2.10	2.12	2.40	0.28	1.99	0.13	63%
OPEC-11	**25.81**	**25.57**	**25.79**	**32.10**	**6.30**	**24.85**	**0.95**	**78%**
Iraq	2.26	2.38	2.42	2.50	0.09			
Total OPEC	**28.07**	**27.94**	**28.21**	**34.60**	**6.39**			
(excluding Iraq, Nigeria, Venezuela					*5.28)*			

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes Orinoco extra-heavy oil assumed at 360 kb/d in April.
5 Compliance rate calculated from baseline September production in OPEC's MOMR.

By contrast, crude oil production in Qatar increased to 780 kb/d in April compared with 740 kb/d in March. Brisk demand for Qatari grades was likely behind the decision to raise output last month. However, the April increase appears to be an exception based on latest, more stringent term allocations.

Iraq, currently the only member country exempt from quotas, posted a 40 kb/d increase in April, to 2.42 mb/d. March output was assessed higher by 100 kb/d, to 2.37 mb/d based on latest data for domestic use at the country's refineries and for direct burn at power plants. Iraqi exports of crude oil in April were estimated up by 40 kb/d, at 1.86 mb/d last month, with slightly higher shipments of Basrah crude from the southern ports offsetting marginally lower volumes of Kirkuk crude from the north.

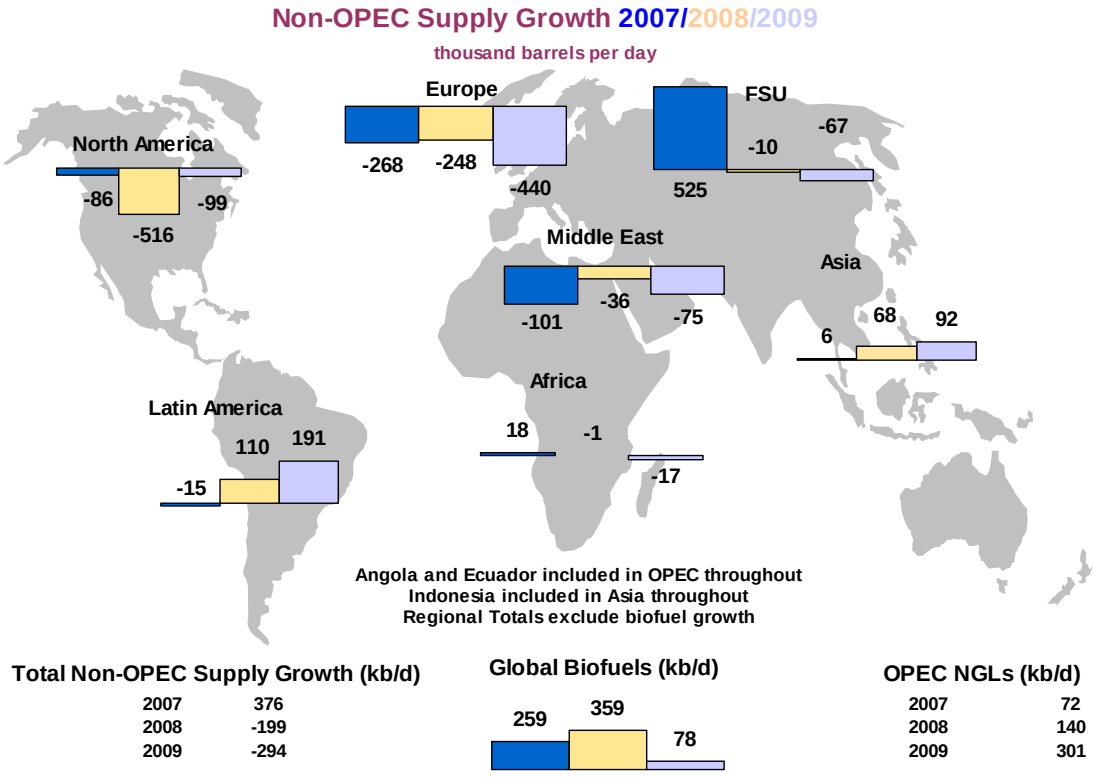
After years of politically charged debate about control over production from the Kurdish region, Baghdad and the Kurdistan Regional Government have reportedly reached an agreement that will allow oil exports from the Kurdish-controlled Tawke and Taq-Taq fields to flow through the Kirkuk-Ceyhan oil pipeline. Together the fields could be exporting an additional 200 kb/d to 250 kb/d from Iraq by the end of the year or in early 2010.

Nigerian April output was down 20 kb/d, to 1.76 mb/d, as Shell has maintained its *force majeure* for Bonny Light and Forcados exports for April. The clause was extended through May though the manifold damaged in an attack has been repaired and volumes of Bonny Light are being gradually restored.

Slightly higher April production correspondingly reduced OPEC's effective spare production capacity, to 5.28 mb/d versus 5.51 mb/d in March.

Non-OPEC Overview

Total non-OPEC supply for 2009 is revised up by 50 kb/d on higher-than-forecast North Sea output in February and an (assumed temporary) bounce-back of Russian production in April. These were partly offset by lower Chinese, Indonesian and Thai volumes and a downward revision for Africa following a reappraisal of historical annual data. Currently, total non-OPEC supply is forecast to dip from 50.6 mb/d in 2008 to 50.3 mb/d in 2009, as steady decline from mature assets in the OECD and elsewhere outweighs new field start-ups and growth in biofuels and oil sands.



A preliminary look at early 2009 production data in key mature areas shows this to be holding up. This does not invalidate the accelerated decline rate scenario presented in last month's report (*Spending Cuts May Worsen Decline*), but persuades us to retain it outside the base forecast for now. February data for the UK and Norway suggest a combined 450 kb/d upward revision for the month, while Russian production in April was reported 200 kb/d higher than anticipated.

The Russian data in particular led several observers to foresee a recovery and renewed robust growth in Russian oil production, compared with this report's current forecast of gradual decline (-1.4% in 2009/08 for total oil production). However, these are only preliminary data, which are often subject to revision and a closer look shows that the higher-than-expected production comes largely from Lukoil, TNK-BP and Rosneft, which all have large new fields ramping up. Lower crude export duties may have contributed to the surge, as well as the rouble's depreciation, which works to exporters' advantage. Lastly, higher production was also reported for Bashneft, which has recently changed ownership, leading some to speculate on the potential impact of new management structures or technologies deployed. However, this report maintains, until sustained evidence to the contrary materialises, that field maturity, lower capex and an unfavourable fiscal and investment environment will keep Russian crude output on its recent trajectory of decline.

Revisions to Non-OPEC Oil Supply
(million barrels per day)

	Last month's OMR				This month's OMR				Change			
	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08
North America	13.92	13.93	-0.35	0.01	13.93	13.89	-0.34	-0.04	0.01	-0.04	0.01	-0.05
Europe	4.80	4.26	-0.22	-0.54	4.78	4.35	-0.24	-0.43	-0.02	0.09	-0.02	0.11
Pacific	0.64	0.70	0.02	0.05	0.65	0.67	0.02	0.03	0.00	-0.02	0.00	-0.03
Total OECD	**19.36**	**18.88**	**-0.55**	**-0.48**	**19.35**	**18.91**	**-0.56**	**-0.44**	**-0.01**	**0.03**	**-0.01**	**0.03**
Former USSR	12.76	12.54	-0.01	-0.21	12.76	12.69	-0.01	-0.07	0.00	0.15	0.00	0.14
Europe	0.12	0.11	-0.01	-0.01	0.12	0.11	-0.01	-0.01	0.00	0.00	0.00	0.00
China	3.79	3.87	0.06	0.08	3.79	3.84	0.06	0.05	0.00	-0.03	0.00	-0.03
Other Asia*	3.66	3.68	-0.02	0.02	3.66	3.67	-0.02	0.02	0.00	-0.01	0.00	-0.01
Latin America*	4.12	4.34	0.19	0.22	4.12	4.37	0.19	0.25	0.01	0.03	0.01	0.03
Middle East	1.62	1.56	-0.03	-0.06	1.62	1.55	-0.04	-0.07	0.00	-0.01	0.00	-0.01
Africa*	2.57	2.63	0.04	0.05	2.55	2.53	0.00	-0.02	-0.02	-0.09	-0.04	-0.07
Total Non-OECD*	**28.64**	**28.73**	**0.22**	**0.10**	**28.63**	**28.77**	**0.18**	**0.15**	**-0.01**	**0.04**	**-0.03**	**0.05**
Processing Gains	2.24	2.29	0.07	0.04	2.24	2.29	0.07	0.04	0.00	0.00	0.00	0.00
Other Biofuels	0.37	0.36	0.09	-0.01	0.38	0.35	0.10	-0.04	0.01	-0.02	0.01	-0.03
Total Non-OPEC*	**50.61**	**50.26**	**-0.17**	**-0.35**	**50.60**	**50.31**	**-0.20**	**-0.29**	**0.00**	**0.05**	**-0.03**	**0.06**

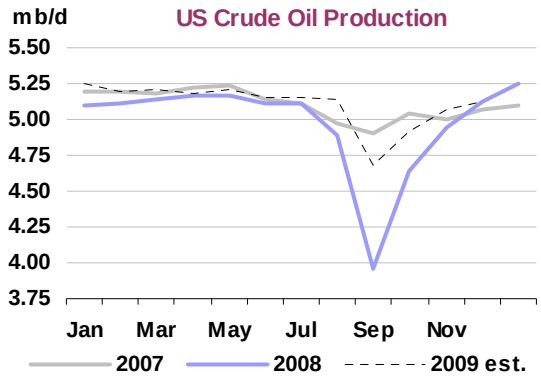
OMR = Oil Market Report
* adjusted to include Indonesia and exclude Angola and Ecuador throughout

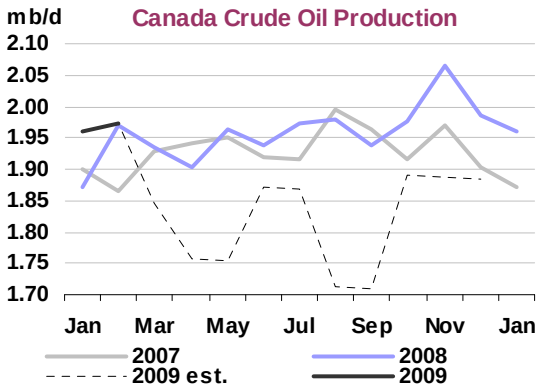
Higher-than-foreseen North Sea production in February in contrast was rather more due to an absence of technical outages. This report includes a *field reliability* adjustment factor to account for technical accidents and equipment outages for mature assets, as outlined at the beginning of this section. For Norway and the UK, these account for around 160 kb/d each for forecast months, which, when removed on receipt of actual data, makes up for over two-thirds of the upward revision. This is a different picture than unforeseen strength in otherwise-declining fields, let alone strong ramp-ups of new assets.

OECD

North America

US – April Alaska actual, others estimated: US oil production has nearly recovered to pre-hurricane levels, though February production data brought a downward revision to the month of around -140 kb/d. However, Alaskan production in April, while not revised much compared with our forecast, fell by 80 kb/d due to the onset of maintenance and several outages. Prudhoe Bay production alone fell by 60 kb/d in April, to 300 kb/d. Cook Inlet production remains shut-in for the foreseeable future due to ongoing activity at Volcano Redoubt. Output at Niakuk was also halted for two days in late April, marginally cutting levels. Announcements of summer maintenance programmes have prompted a 60 kb/d downward revision for June.





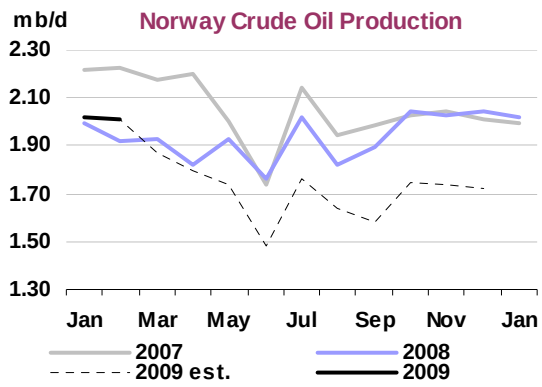
In the Gulf of Mexico (GoM), Chevron's offshore Tahiti field started production in early May, slightly earlier than expected, though still delayed from initial plans to commence output last year. The deepest producing field in the Gulf of Mexico to date, Tahiti should achieve output capacity of 125 kb/d in the course of 2010. Elsewhere, BP started up production at its Dorado and King South projects, both tie-backs to the Marlin platform, which will eventually collectively contribute capacity of 40-50 kb/d. Meanwhile, the US Department of Interior's Minerals Management Service (MMS) in early May released a study forecasting that GoM offshore oil production could reach 1.6-1.9 mb/d in the next 10 years, albeit revised down by 300 kb/d from last year's report. We estimate that total US crude production will rise from 2008's 4.95 mb/d to 5.10 mb/d in 2009, partly reflecting lesser hurricane-related disruption in 2009.

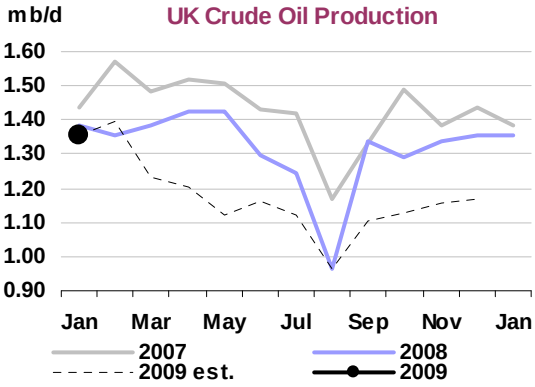
Canada – Newfoundland March actual, others February actual: Reported data brought a small net downward revision to the 2009 production forecast. Bitumen output was consistently lower than anticipated during December-February, which was carried forward for the rest of 2009. Revised December data brought, as suspected, a hefty 100 kb/d upward revision to ethane and a 40 kb/d upward revision to propane output, both counted in NGL production. The April NGL number has also been adjusted downward by 13 kb/d of which 5 kb/d are due to problems at ExxonMobil's Sable gas liquids project in Northeast Canada. Sable is also expected to undergo 20 days of maintenance in August, assumed to cut output by around 15 kb/d. Year-on-year, despite growing production from oil sands (which are nonetheless taking a hit in terms of deferred investment due to the global recession), declining mature conventional crude output is set to reduce total Canadian oil production from 3.24 mb/d in 2008 to 3.20 mb/d in 2009.

North Sea

Norway – February actual, March provisional: February data for Norway resulted in a hefty 320 kb/d upward revision for total production. Partly, as outlined above, this was due to the removal of the field reliability factor (-160 kb/d), which is included in our forecast until actual data are received. Another 110 kb/d result from higher-than-expected condensate production, which rose around 80 kb/d over January. Output was higher at the Kristin and Kvitebjorn fields, the latter recovering after six months of shut-ins.

Elsewhere, even though this report had previously included some assumed production at the Alvheim and Vilje fields, both part of the Sleipner-Frigg system, the Norwegian Petroleum Directorate (NPD) has only recently started reporting production data, which came in slightly higher than anticipated. In the same Sleipner-Frigg stream, the Rev field, tied back to the Varg complex, also started in January. Reports of a planned shutdown of Snoehvit prompted a slight downward revision for gas liquids in April and May (-5 kb/d each), while recently announced April maintenance at Statfjord B was already factored into our generic maintenance forecast for Statfjord-Gullfaks. The Valhall field was shut for most of April due to technical issues. Lastly, shortly before going to press, it was reported that a 40 kb/d pipeline feeding into the Ekofisk stream had been shut-in due to a leak, though until further details become available this has not been factored into the forecast. Total Norwegian oil production is anticipated to decline from 2.46 mb/d in 2008 to 2.25 mb/d in 2009.





UK – January actual: UK production data for February also brought a 120 kb/d upward revision to the forecast, though this was largely due to the elimination of the field reliability factor. In the UK North Sea, the West Don satellite started production and is set to reach capacity of 25 kb/d later in the year. Southwest Don, another satellite, should be added from June, with another 10 kb/d. Four weeks of maintenance at Buzzard were announced for 3Q09, prompting a widening of 25 kb/d to the previously forecast -110 kb/d dip on overall Forties maintenance assumed for August. Total UK oil supply is forecast to drop from 1.56 mb/d in 2008 to 1.41 mb/d in 2009.

Other OECD Europe: Greater visibility in biofuels data allows us to segregate this from reported 'non-conventional' oil monthly data for the Czech Republic, Poland, Portugal and Slovakia. Our estimates for France and the Netherlands have also been upgraded to more fully account for monthly biofuels data.

Pacific

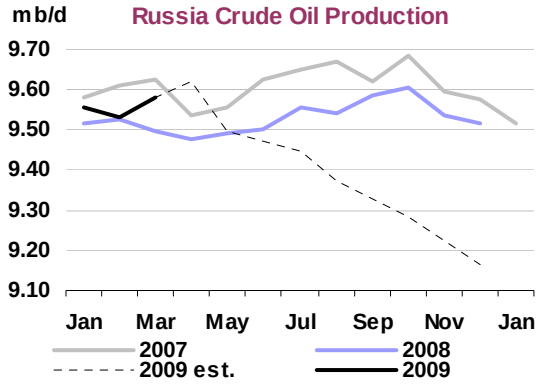
Australia – February actual: Australian reported data for February showed a total downward revision of 13 kb/d. This stemmed largely from a clearer picture of production in the Carnarvon Basin, which suffered outages due to cyclones that proved slightly heavier than expected. Total NGL production was also revised 25 kb/d lower in February, which was carried forward on consistently lower-than-expected output. Looking ahead, start-up of the new Van Gogh field is now assumed delayed until November, following the fire on its FPSO vessel in dry-dock in Singapore. Previously, the 60 kb/d field was assumed to start production in August. The Vincent field was also affected by a fire in mid-April and is currently expected to restart production at end-June, trimming April output by 15 kb/d and May and June by 40 kb/d each. Maintenance work on the Mutineer-Exeter field was announced for 2Q09.

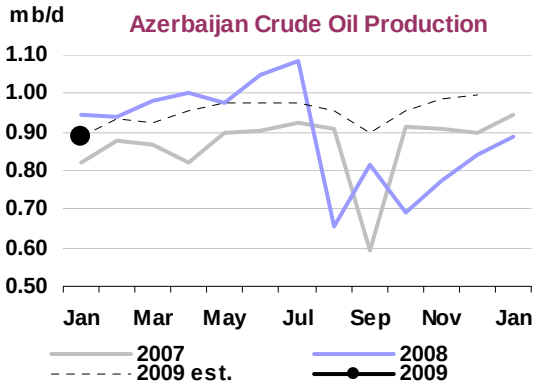
Former Soviet Union (FSU)

Russia – March actual, April provisional: While revisions to previous months were negligible, Russian production data for April came in 200 kb/d higher than anticipated by this report. At 9.62 mb/d, Russian crude output was thus around 50 kb/d higher for the second consecutive month leading some to diagnose a recovery in output volumes and renewed growth. But companies' individual performance is strikingly diverse. Higher-than-expected output came largely from Lukoil, TNK-BP and Rosneft, all three of which have recently brought onstream large new fields or where production is ramping-up. Production at Bashneft also was reported higher than forecast, which some put down to its new owner, Sistema, implementing changes leading to a boost in output. Lower crude export duties compared with last year, when the system of calculation was changed, and rouble depreciation may have also helped to hike output.

This report, however, maintains its position that Russian crude production is more than likely to continue its declining trend later this year. Mature assets, high levels of debt, as well as a still-unfavourable investment environment, are expected to constrain opportunities for growth. Gas liquids production is

also expected to fall further, as Gazprom is forced to shut-in natural gas production on significantly lower domestic and international demand. Total Russian output is forecast to dip from 10 mb/d in 2008 to 9.86 mb/d this year.





Azerbaijan – January actual, February preliminary; Kazakhstan – March actual: Both January actual and February preliminary data showed slightly higher-than-expected crude output in **Azerbaijan**. Indications are that production at the troubled ACG complex in the Caspian is recovering slightly more rapidly, but February data are aggregated, so this trend has not been carried through the forecast for 2009, until more detail become available. March crude production in **Kazakhstan** was 30 kb/d higher than anticipated, as we had overestimated the impact of maintenance on the Tengiz field. In **Uzbekistan**, reported January data prompted a trimming of crude but a slight upward revision to NGL production.

FSU Net Exports of Crude & Petroleum Products
(million barrels per day)

	2007	2008	2Q2008	3Q2008	4Q2008	1Q2009	Jan 09	Feb 09	Mar 09	Latest month vs. Feb 09	Latest month vs. Mar 08
Crude											
Black Sea	2.18	2.05	2.24	1.97	2.04	2.30	2.31	2.34	2.26	-0.07	0.18
Baltic	1.59	1.46	1.57	1.40	1.47	1.57	1.49	1.57	1.66	0.08	0.29
Arctic/FarEast	0.32	0.30	0.26	0.29	0.37	0.46	0.45	0.46	0.47	0.01	0.20
BTC	0.55	0.67	0.75	0.64	0.57	0.74	0.66	0.82	0.74	-0.08	0.04
Crude Seaborne	**4.63**	**4.48**	**4.82**	**4.30**	**4.45**	**5.07**	**4.90**	**5.19**	**5.13**	**-0.06**	**0.71**
Druzhba Pipeline	1.13	1.08	1.05	1.03	1.09	1.14	1.17	1.14	1.10	-0.04	-0.05
Other Routes	0.44	0.42	0.44	0.46	0.40	0.40	0.41	0.42	0.36	-0.06	0.00
Total Crude Exports	**6.20**	**5.98**	**6.30**	**5.79**	**5.94**	**6.61**	**6.48**	**6.75**	**6.60**	**-0.15**	**0.67**
Of Which: Transneft	4.27	3.99	4.17	3.87	3.96	4.22	4.17	4.24	4.25	0.01	0.24
Products											
Fuel oil	1.10	1.09	1.13	1.04	1.04	0.96	0.94	0.90	1.02	0.12	-0.17
Gasoil	0.95	0.94	1.01	0.79	0.92	1.10	1.17	1.16	0.97	-0.20	-0.09
Other Products	0.60	0.59	0.60	0.55	0.56	0.73	0.70	0.76	0.73	-0.03	0.05
Total Product	**2.65**	**2.63**	**2.74**	**2.38**	**2.52**	**2.78**	**2.81**	**2.83**	**2.71**	**-0.12**	**-0.21**
Total Exports	**8.85**	**8.61**	**9.05**	**8.17**	**8.46**	**9.39**	**9.30**	**9.58**	**9.31**	**-0.27**	**0.46**
Imports	0.04	0.04	0.03	0.05	0.03	0.04	0.04	0.05	0.03	-0.01	-0.03
Net Exports	**8.82**	**8.57**	**9.01**	**8.12**	**8.43**	**9.35**	**9.25**	**9.53**	**9.28**	**-0.25**	**0.49**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

In March, **FSU net exports** decreased by 2.7% to 9.28 mb/d on both lower crude oil and product volumes. Crude oil exports stood at 6.60 mb/d in March, down by 2.2% month-on-month as Druzhba flows to Germany and Slovakia fell by 4.5% and 17.0%, respectively, while deliveries to Poland were below average again following a dispute on trading terms. Moreover, shipments from the Black Sea port of Novorossiysk were interrupted due to an accident on the pipeline carrying crude oil to the port, while flows also remained limited in April by planned pipeline maintenance. A decrease in March crude oil exports is partly attributable to a 14% rise in the Russian crude oil export duty to $15.7/bbl. In April, the

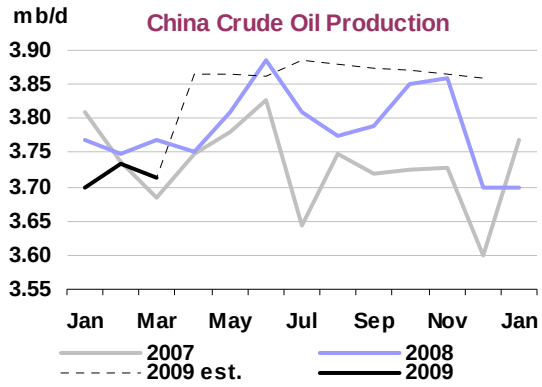
duty slightly decreased to $15.0/bbl and preliminary export data showed a modest rise back to February levels supported by an increase in Baltic shipments. However, Russian companies may again have an incentive to send more crude to domestic refiners in May as the crude oil export duty surged by 25% to $18.8/bbl, based on the rise in Urals prices during the monitoring period from 15 March to 14 April.

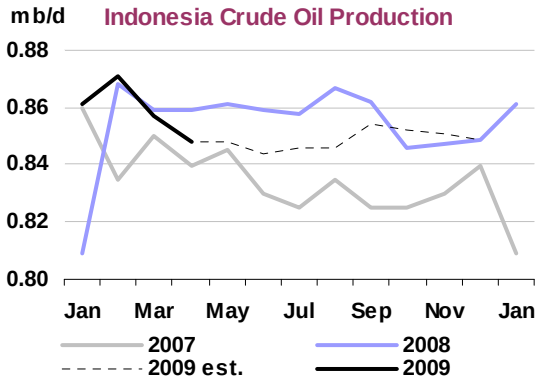
Product exports fell 4.1% month-on-month in March, led by lower gasoline and gasoil exports from Russia as the refinery maintenance season started. The drop was partially offset by a 13% increase in fuel oil exports following a withdrawal of export bans in Belarus and Ukraine imposed during the January gas row. However, this fuel oil export surge did not last long, as preliminary April data show lower exports across all product categories.

Elsewhere, shareholders detailed further the Caspian Pipeline Consortium (CPC) pipeline expansion process. The pipeline will be expanded in three stages, covering construction and modernisation of pumping stations, construction of three storage tanks and a new 130 km pipeline near Atyrau. The expansion work should last from 2010 to 2013. Meanwhile, according to Transneft, the first 600 kb/d stage of the East Siberia-Pacific Ocean (ESPO) pipeline is near completion. The company has reportedly only a few kilometres left to weld and work on the offshoot from Skovorodino to the Chinese border has already started.

Other Non-OPEC

China – March actual: March production data for China were revised down by 90 kb/d, spread across a multitude of fields. However, a disconcertingly low data point for offshore production (implying a dip of 350 kb/d) is excluded from our estimate until confirmation is received. Similarly, there were no news reports of intensive offshore maintenance or any incidents. Currently, total Chinese oil production is forecast to rise from 3.79 mb/d in 2008 to 3.84 mb/d in 2009.

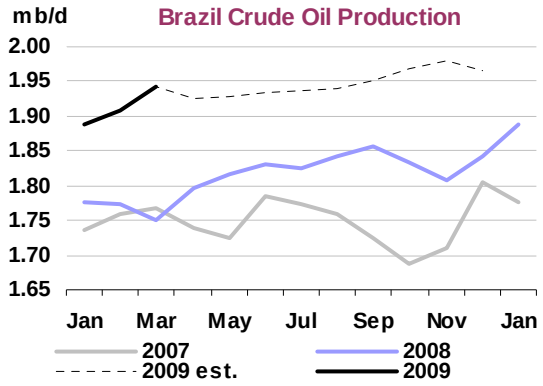


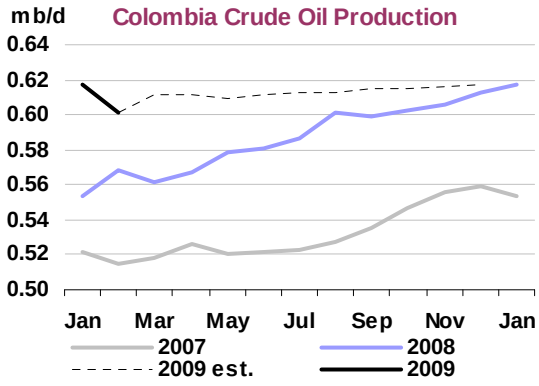


Various Asia-Pacific: Overall revisions to 'Other Asia' (excluding China) production due to newly reported data were relatively minor. In **Indonesia**, the recently started Cepu field was reduced to a trickle in mid-March due to issues with export infrastructure. In **India**, Reliance slowed output at its offshore MA-1 field in the Krishna Godavari basin in order to link up new facilities aiming at boosting production. In **Malaysia**, the PM-3 CAA increment (part of the 'Northern Fields'), which is shared with Vietnam, started up and will eventually reach its 20 kb/d capacity. And in the **Philippines**, the offshore Galoc field halted production, as an approaching typhoon forced the decoupling of its FPSO for safety reasons. Meanwhile, preliminary annual data for 2006 and 2007 prompted some historical revisions to baseline in **Vietnam**. Total Other Asia production is forecast to remain flat at around 3.67 mb/d in 2009.

Brazil – March actual: Reported March production data for Brazil were revised up slightly. Initial volumes from the much-trumpeted pre-salt deepwater Tupi find are expected for early May, albeit as a pilot project. They should hit around 30 kb/d in early 2010 and gradually ramp-up to around 100 kb/d

thereafter (subsequent volumes are expected to be much higher later in the decade). Nonetheless, Tupi's start-up has symbolic value, as it and other pre-salt finds have proven to be the largest new discoveries in years, making the basin as a whole probably the most promising new non-OPEC frontier area for the foreseeable future.





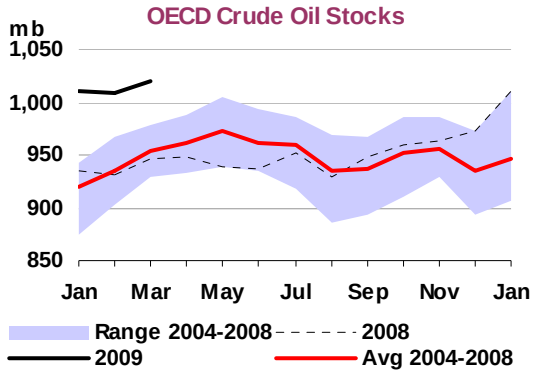
Various other Latin America: For **Colombia**, a combination of higher January/February reported production and revised 2006 annual data prompted a small upward revision to the baseline and around a 20 kb/d hike to output forecast for 2009. February production in **Argentina** was broadly in line with forecast, slowly recovering from an unexplained dip in December and January. On the basis of expected growth in Colombia and Brazil (fuel ethanol and crude), total Latin American oil production is expected to rise from 4.12 mb/d in 2008 to 4.37 mb/d in 2009, the strongest growth of any non-OPEC region.

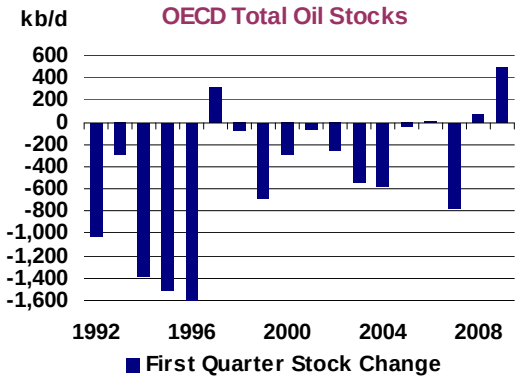
Various Africa: A reappraisal of oil production in **Egypt** prompted an historical upward revision for 2006 and 2007 but a downward revision of around 15 kb/d in 2008 and around 40 kb/d for 2009. Similar work on **Equatorial Guinea** and **Sudan**, reviewing preliminary annual data for 2006 and other sources, brought about downward revisions of around 40 kb/d and 20 kb/d for 2009 respectively. In sum total African production for 2009 has been revised down by 90 kb/d, but is expected to remain steady versus 2008 at around 2.53 mb/d in 2009.

OECD STOCKS

Summary

- **OECD industry stocks rose by 15.4 mb in March** to 2,745 mb, as falling Pacific crude inventories only partially offset increases in North America and Europe crude stocks. Overall product stocks rose slightly, with increases in gasoline and other products outweighing falling distillate stocks.
- **In 1Q09, OECD industry stocks rose counter-seasonally by 500 kb/d** as crude stocks increased 540 kb/d. Product stocks increased marginally during a time of year when they typically draw heavily.
- **OECD stocks in days of forward demand reached 62.4 days at end-March** as inventories rose and three-month forward demand fell. Only gasoline stocks in days cover show readings within the five-year range with OECD readings in the top half. All other categories are above the five-year range.
- **Preliminary April data indicate total OECD industry oil inventories rose by 23.2 mb,** led by gains in US crude stocks. US total stocks increased 33.0 mb as crude rose 14.8 mb. Japanese stocks fell 1.2 mb. Euroilstock data show EU-16 inventories fell 8.6 mb, with both crude and products drawing.
- **Short-term floating storage continued to expand,** as crude levels increased from 85 mb at end-March to just over 100 mb at end-April. Combined with the reported presence of around 25 mb of product (mostly middle distillates) waterborne inventories, total short-term floating storage (most of which is offshore OECD regions) potentially adds two to three days to OECD total forward demand cover.





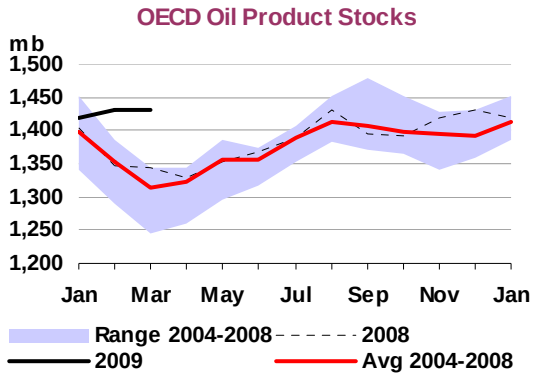
OECD Inventory Position at End-March and Revisions to Preliminary Data

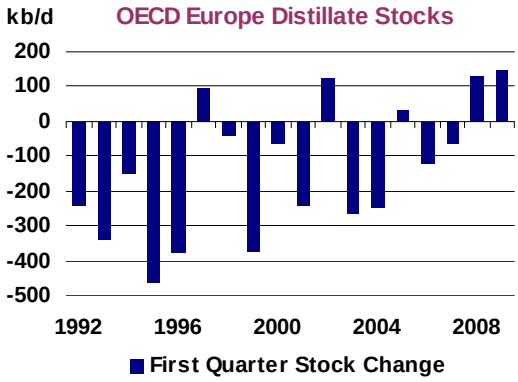
Total OECD inventories rose by 15.4 mb in March to close at 2,745 mb. A downward revision of end-February inventories by 13.2 mb puts the end-March stock level only slightly higher than the unrevised end-February level from last month's report. Stocks stood 173 mb (6.7%) higher year-on-year and 196 mb (7.7%) higher than the five-year average. North American and European crude built seasonally while Pacific crude drew counter-seasonally. North American gasoline, Pacific gasoline and European distillates all built slightly under abnormally low refinery runs and during a month of typical draws.

Preliminary Industry Stock Change in March 2009 and First Quarter 2009

	March (preliminary) *(million barrels)*				March (preliminary) *(million barrels per day)*				First Quarter 2009 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**9.8**	**7.3**	**-5.1**	**12.1**	**0.32**	**0.24**	**-0.16**	**0.39**	**0.40**	**0.05**	**0.09**	**0.54**
Gasoline	2.3	-1.3	1.3	2.3	0.08	-0.04	0.04	0.08	0.07	-0.05	0.06	0.08
Distillates	-4.9	1.9	-6.7	-9.7	-0.16	0.06	-0.22	-0.31	-0.01	0.15	-0.09	0.05
Fuel Oil	-0.6	0.6	-1.5	-1.5	-0.02	0.02	-0.05	-0.05	0.02	-0.02	0.00	0.00
Other Products	6.7	-0.5	3.3	9.5	0.22	-0.02	0.11	0.31	-0.05	-0.04	-0.05	-0.13
Total Products	**3.5**	**0.7**	**-3.6**	**0.6**	**0.11**	**0.02**	**-0.12**	**0.02**	**0.04**	**0.04**	**-0.08**	**0.01**
Other Oils[1]	3.1	-0.9	0.4	2.6	0.10	-0.03	0.01	0.08	-0.01	-0.03	-0.01	-0.05
Total Oil	**16.5**	**7.2**	**-8.3**	**15.4**	**0.53**	**0.23**	**-0.27**	**0.50**	**0.43**	**0.07**	**0.00**	**0.50**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.





1Q09 OECD industry stocks rose counter-seasonally by 500 kb/d, in comparison to five and 10-year average draws of 260 kb/d and 320 kb/d, respectively. Crude dominated the stock change, rising 540 kb/d, but this was only 120 kb/d higher than the five-year average change. A small increase in product stocks stood sharply out of line with five and 10-year average draws of 670 kb/d and 730 kb/d, respectively. Within products, European distillates gained the most, rising 150 kb/d versus a five-year average draw of 50 kb/d. OECD distillates rose 50 kb/d versus a five-year average draw of 500 kb/d and Pacific distillates drew only 90 kb/d versus a five-year average draw of 160 kb/d.

Revisions versus 10 April 2009 Oil Market Report

(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Jan 09	Feb 09	Jan 09	Feb 09	Jan 09	Feb 09	Jan 09	Feb 09
Crude Oil	**-4.8**	**-9.3**	**0.6**	**-1.9**	**-0.4**	**-9.8**	**-4.5**	**-21.0**
Gasoline	-0.5	3.9	-3.3	-5.3	-0.1	0.3	-3.9	-1.1
Distillates	-0.9	0.0	-2.1	4.2	0.0	0.1	-3.1	4.3
Residual Fuel Oil	-0.1	1.7	-0.4	-0.7	0.0	-0.3	-0.5	0.7
Other Products	-0.4	6.8	0.1	0.4	0.1	-0.4	-0.2	6.8
Total Products	**-2.0**	**12.3**	**-5.6**	**-1.4**	**0.0**	**-0.3**	**-7.6**	**10.7**
Other Oils[1]	-0.1	-2.1	0.4	-0.8	0.1	0.0	0.4	-2.9
Total Oil	**-6.8**	**1.0**	**-4.7**	**-4.1**	**-0.3**	**-10.1**	**-11.8**	**-13.2**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

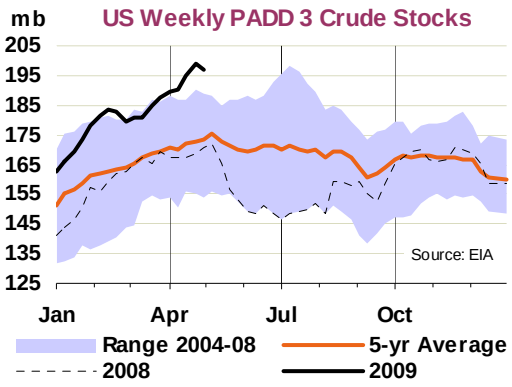
February OECD inventories were revised down 13.2 mb, and January levels were revised 11.8 mb lower. Of note, Canadian crude were revised down 8.0 mb in February and 4.8 mb in January. February data showed Japanese and Australian crude levels 7.2 mb and 2.1 mb lower, respectively. European distillates were 4.2 mb higher for February with Belgium and the Netherlands up 2.3 mb and 2.7 mb, respectively.

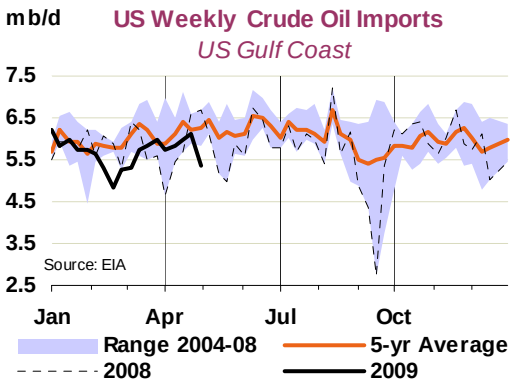
Analysis of Recent OECD Industry Stock Changes

OECD North America

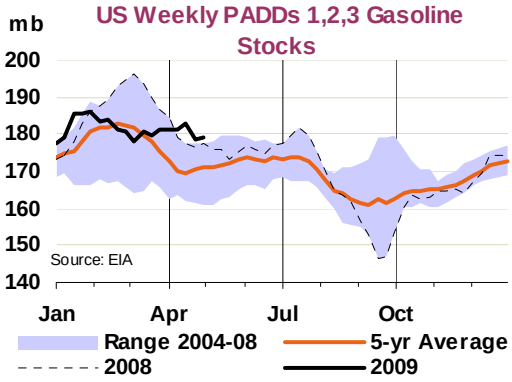
North American industry stocks rose 16.5 mb in March, led by US crude, which rose 9.8 mb to 377 mb. In addition, filling of the US Strategic Petroleum Reserve (SPR) increased government crude holdings by 7.2 mb. US total product stocks rose slightly, but with disparate movement among categories. Gasoline stocks rose on the month by 2.6 mb, yet distillate inventories decreased by 4.6 mb. Mexican inventories displayed little movement as crude stocks remained unchanged and products increased by 0.2 mb.

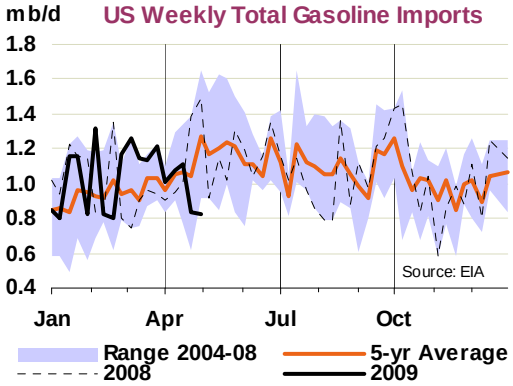
April US weekly data point to even larger builds across the crude and products complex. Crude industry stocks rose by 14.8 mb while government SPR holdings increased by 6.1 mb. Product stocks jumped 18.2 mb with a 3.9 mb build in distillate. However, over half the products build stemmed from the volatile 'Other Oils' category.





Of the estimated 100 mb global, short-term, crude floating storage, over 40% lies in the US Gulf of Mexico. Moreover, given a recent strengthening in WTI cash prices versus Dated Brent, spot cargoes parked offshore West Africa may ultimately end up in the Gulf. SPR filling will fall to 2.9 mb in May and 1.0 mb in June. Though US refinery throughputs should increase in May versus April and PADD 3 imports have recently retracted, burgeoning onshore and offshore crude storage levels continue to suggest weaker fundamentals than indicated by recent upward price moves in WTI.

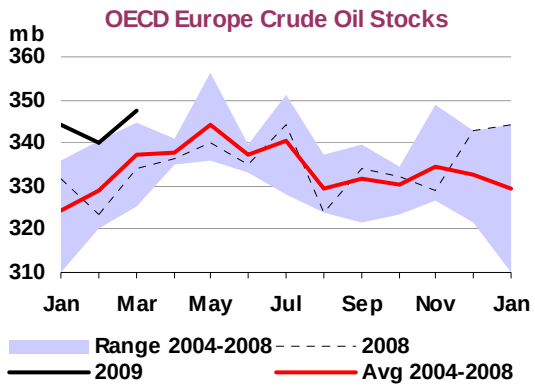


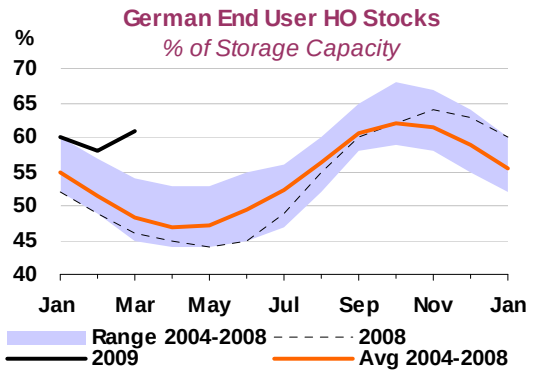


A drawdown in US gasoline stocks, stronger gasoline margins and increased refinery demand for crude concurrent with the US summer driving season would seemingly offer a route to thinning the crude stock overhang. However, buoyant US product stocks and overall weak refinery margins continue to staunch this possibility in the near term. While US gasoline demand should seasonally increase this summer, the upside to refinery runs remains limited and the crude stock impact may be weak. In the absence of a destructive hurricane, imports from Asia and Europe and a strong gasoline stocks position at the driving season start may limit gasoline's ability to materially tighten a sloppy crude market.

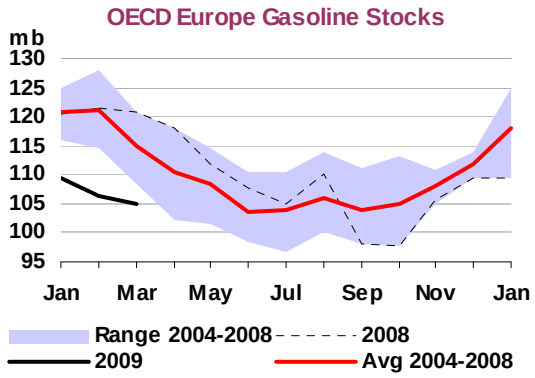
OECD Europe

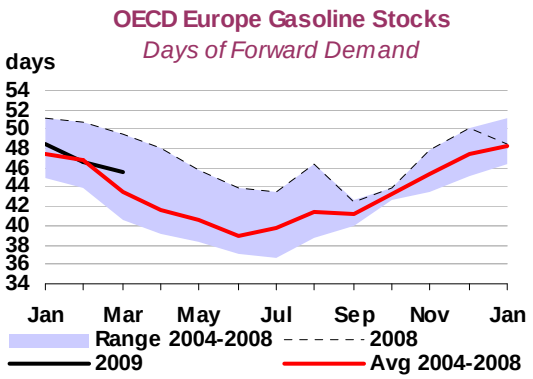
European inventories increased by 7.2 mb in March, almost wholly due to a 7.3 mb increase in crude inventories. Most of the increase in crude stocks came from France and the Netherlands, where inventories rose by 3.7 mb and 2.2 mb, respectively. Product inventories changed little on the month, increasing 0.7 mb, as a 1.9 mb rise in distillate stocks was offset by a gasoline and other products stock decrease. The largest distillate stock gain was registered in France where levels edged up 1.2 mb. Though primary German middle distillate stocks did not change in March, consumer heating oil fill levels rose counter-seasonally by 3% and by an additional 1% in April, providing an abnormally high cushion as heating oil demand goes into a seasonal trough.





Indeed, European product stocks remain robust as a distillate surplus continues to build. Continued steep contango in the ICE Gasoil futures curve has pushed some storage tanks to near capacity in Northwest Europe, where independent storage levels for gasoil and kerosene remained well above five-year highs, and has created a one- to two-week backlog of vessels waiting to discharge diesel cargoes in Rotterdam. Gasoil and jet/kerosene floating storage off Europe continues to grow as product freight rates languish. Early May estimates range from 10-15 mb of gasoil floating storage versus 2-4 mb of jet/kerosene. Gasoline stocks offer the only indication of tightness as absolute levels remain below the five-year range and days cover have trended just above the five-year average. Still, despite a seasonal rise in Europe gasoline demand expected this summer, pull from US and Middle East export markets will likely be a key determining factor for the stocks trajectory in the next few months.



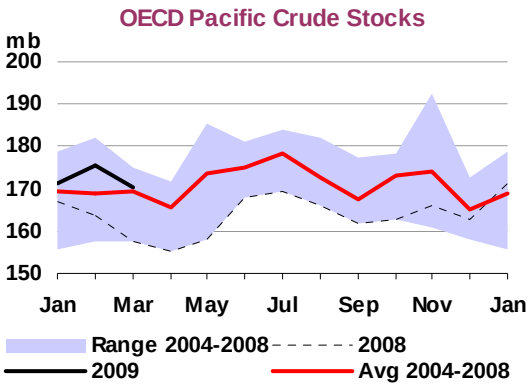


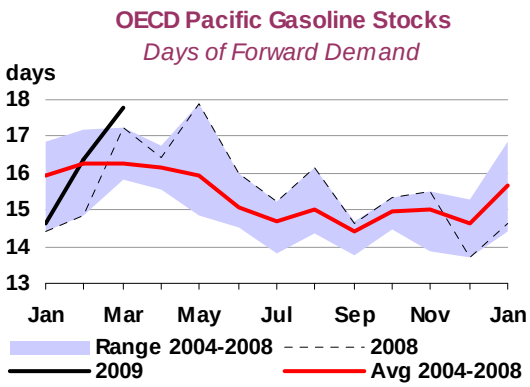
Preliminary data from Euroilstock indicate EU-16 inventories fell 8.6 mb in April, with crude and products falling by 4.1 mb and 4.5 mb, respectively. All product categories posted draws except for naphtha, which rose by 0.4 mb. European gasoline stocks decreased 2.3 mb while middle distillates fell 0.8 mb.

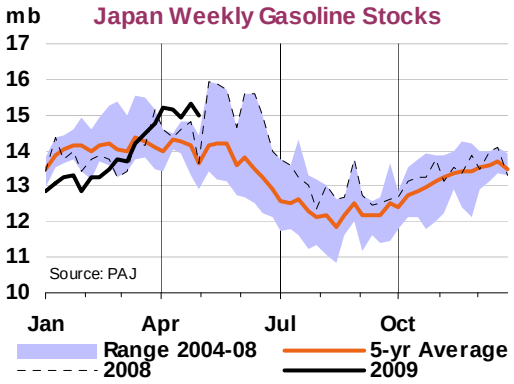
OECD Pacific

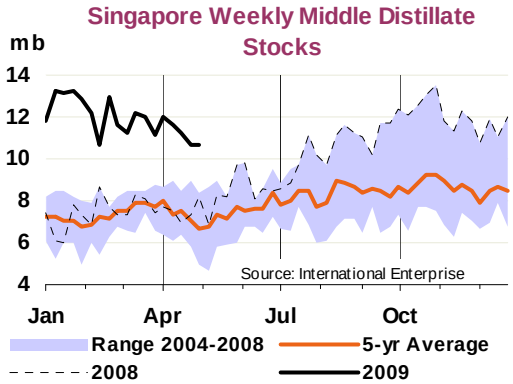
Pacific industry stocks showed the only March regional fall, decreasing by 8.3 mb. Crude inventory falls of 3.8 mb and 2.7 mb in Japan and Korea, respectively, drove the change. Regional crude levels remained well above the five-year range in forward cover, but only just above the five-year average in absolute levels. Japan and Korea distillate stocks declined 3.3 mb and 1.8 mb, respectively. Regional stocks remain above five-year highs in days cover and at five-year average absolute levels. Of the three regions, only the OECD Pacific rests above the five-year range in gasoline forward stock cover.

Weekly data from the Petroleum Association of Japan (PAJ) point to an April commercial stock decline of 1.2 mb, with crude rising 0.9 mb and products declining 2.1 mb. Within the products category naphtha stocks showed the largest movement, falling by 1.3 mb, while gasoline stocks rose slightly to just above five-year highs. Kerosene stocks changed little and remain near the five-year average.





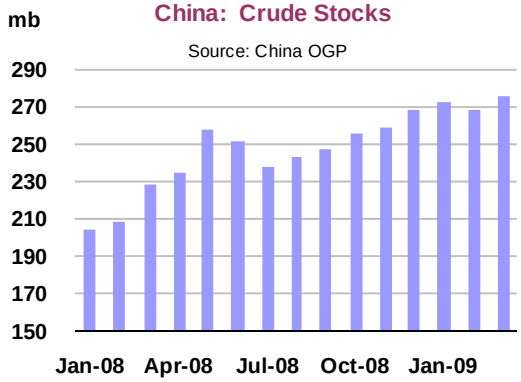




Recent Developments in Singapore and China Stocks

Singapore product stocks posted a small decline on the month, falling by 1.6 mb. Middle distillate and fuel oil stocks both fell slightly, though inventories of the latter rose sharply in the last week of April, and thus minimised losses on the month. Light distillate inventories rose slightly on the month.

China crude stocks reported by OGP rose 7.3 mb in March as crude net imports jumped over 800 kb/d. Preliminary reporting suggests April imports rose 90 kb/d higher. Product destocking continued as CNPC and Sinopec reported gasoline and gasoil inventories falling 6.9 mb and 8.5 mb, respectively. Rising product exports, particularly gasoil, helped drive the change. This marked the third consecutive month of draws, but inventories remained 50% above 2008 levels. With respect to longer-term storage issues, China reportedly intends to establish a strategic product reserve of up to 10 million tonnes by 2011.

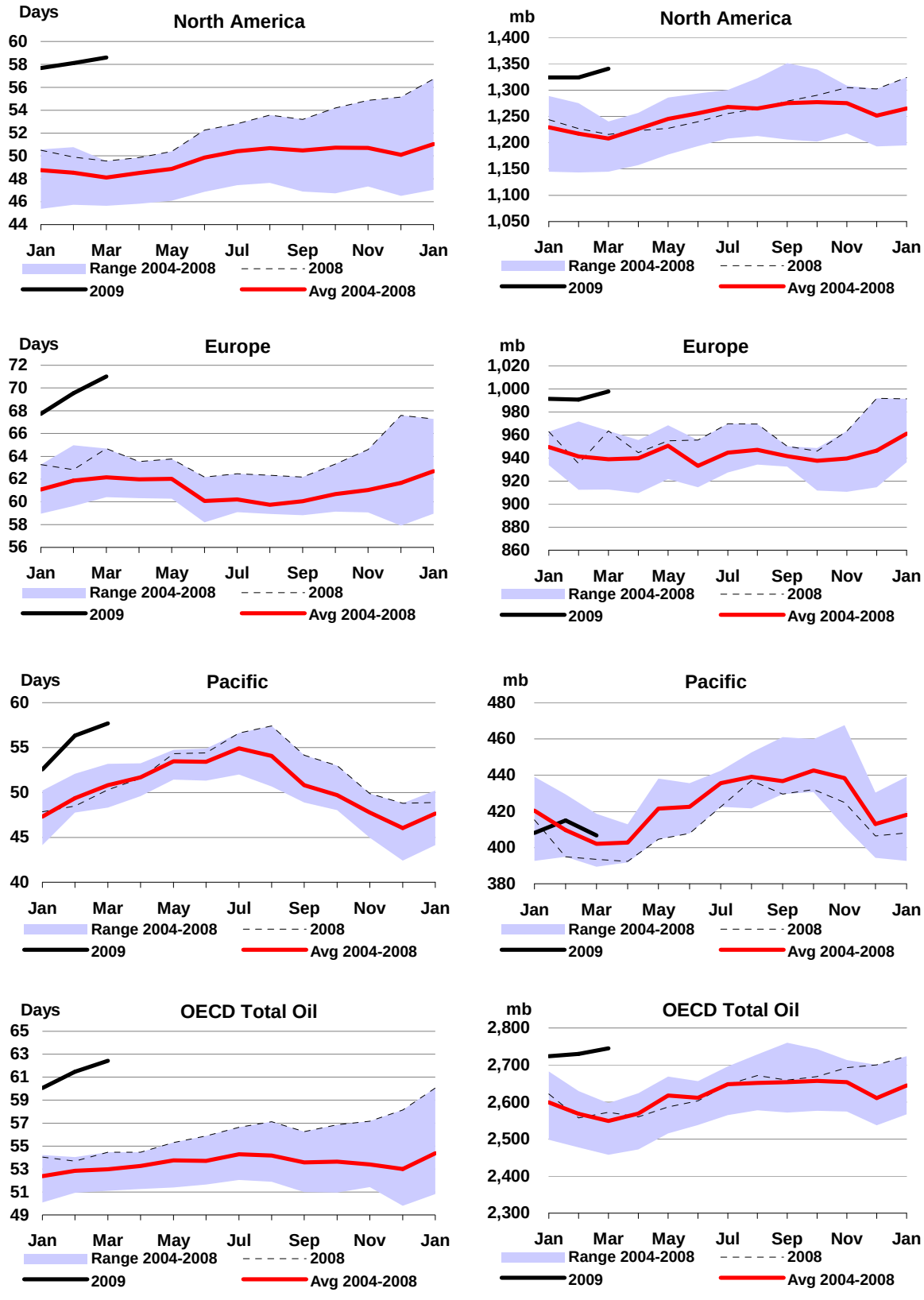




Regional OECD End-of-Month Industry Stocks

(in days of forward demand and millions barrels of total oil)

Days[1] **Million Barrels**



1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

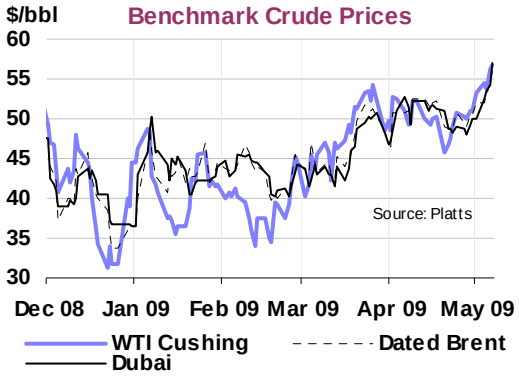
- **Oil markets continue to defy gravity, with benchmark crudes trading at six-month highs by early May.** After hitting a low of around $34/bbl in mid-February, futures prices for WTI and North Sea Brent traded in a solidly higher range of $48-$54/bbl in April and reached lofty $58-$60/bbl levels by early May.

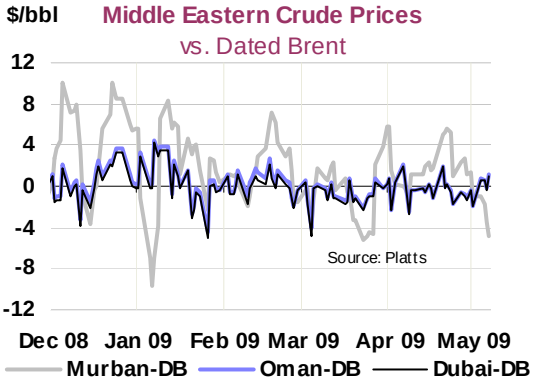
- **Oil futures continue to move higher in tandem with relatively stronger global financial and equity markets.** The link between a decelerating economic downturn and a recovery in oil demand appears increasingly more distant given current overwhelmingly weak market fundamentals.

- **OECD oil stocks continued to build in April while oil in floating storage rose to more than 100 mb. OPEC crude oil production reversed its six-month down trend,** with supplies edging slightly higher in April, with ministers scheduled to review the market again on 28 May in Vienna. However, several OPEC producers appear to be reining in output again this month based on customer allocations and preliminary tanker movements.

- **The peak summer gasoline driving season remains one key pillar of market support** on the horizon. Expectations of a stronger summer driving season in the coming months are already fueling higher spot prices and improved cracking margins in the US, Europe and Asia. Despite the early optimism, latest data show US oil demand in April at the lowest level in a decade.

- **Refining margins in most major markets improved in April** as increases in product prices outpaced the rise in crude oil prices. However, margins were still negative in the key Asia-Pacific region and, by early May, margins deteriorated in all regions as product prices weakened and optimism about the economy strengthened crude oil prices.





Market Overview

Oil markets continue to scale new heights in April, with benchmark crudes trading at six-month highs by early May. After hitting a low of around $34/bbl in February, futures prices for WTI and North Sea Brent traded in a solidly higher range of $48-54/bbl in April and reached a lofty $58-$60/bbl levels by early May.

Oil futures moved higher in tandem with stronger global financial and equity markets, which for the time being appear to amplify any good global economic developments while muting the negative. Positive statements by politicians, government regulators charged with overseeing stimulus packages, and central bankers, appears to be achieivng the desired effect on global financial markets. While

proponents of economic 'green shoots' have plenty of detractors, optimism that the economic downturn is at least bottoming out appear to be gaining traction in the market.

The myopic focus on daily developments in financial markets for oil price direction and signs of a demand recovery, however, is causing concern in some quarters that traders may be just whistling past the graveyard. The link between a decelerating economic downturn and a recovery in oil demand appears to remain tenuous, given current overwhelmingly weak supply and demand fundamentals.

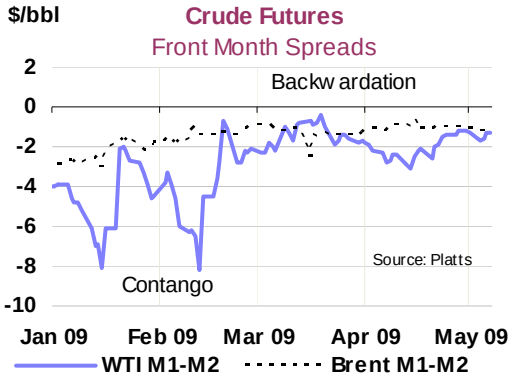
Latest estimates show global oil demand declining 2.6 mb/d in 2009 with a marked recovery not expected until 2010. Crude oil inventories in the key US market are currently flirting near 20-year highs while OECD industry stocks àre now estimated at an unprecendented 62.4 days forward cover.

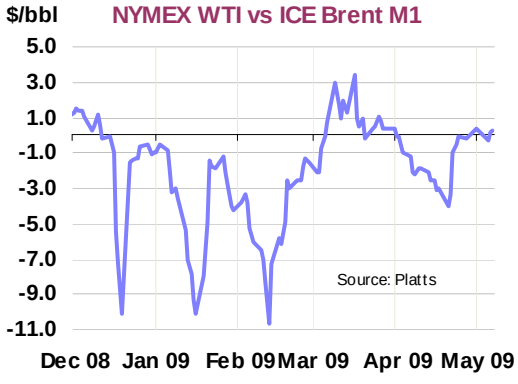
OPEC crude oil production reversed a six-month down trend, with supplies edging slightly higher in April. Total OPEC output rose 270 kb/d, to 28.21 mb/d as target compliance declined to 78% in April compared with 83% the previous month. However, some OPEC producers appear to be reining in output further this month based on customer allocations and preliminary tanker movements.

The rise in prices over the past two months has proved to be a double-edged sword for OPEC. The lure of higher prices may have encouraged some members to ignore their targets in a bid to maximize revenues at the expense of more compliant members. Indeed, relatively strong spot crude prices, especially for heavier sour grades, may be providing a windfall for overproducers. Iran accounted for about half the April increase, while Nigeria, Angola and Venezuela continued to exceed their output targets. OPEC ministers next meet on 28 May to review the market and compliance with current targets.

The peak summer gasoline driving season remains one key pillar of market support on the horizon. Expectations of a stronger summer driving season over last year's weak showing have already fuelled a jump in spot prices and improved cracking margins in the US, Europe and Asia. Despite the early optimism, latest preliminary data for April show US gasoline demand at very weak levels.

The market is also hoping a recovery in gasoline demand will go some way towards reducing the massive crude oil inventory overhang in the US market. Crude stocks in the US are at near 20-year highs. In addition, about 50% of the 100 mb in floating storage is projected to be destined for the US Gulf Coast.

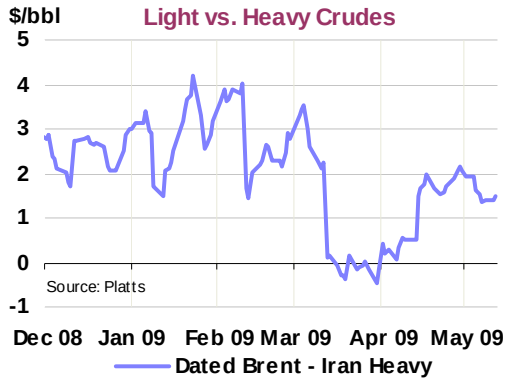


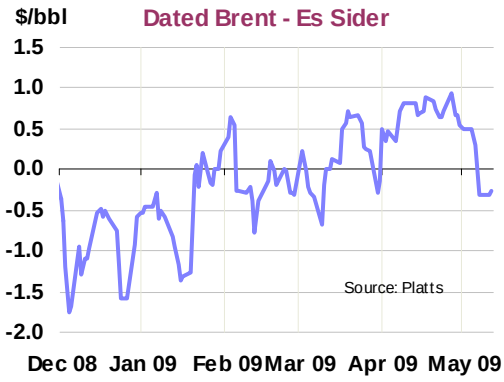


As expected, the high levels of stocks continue to put pressure on prompt prices. The front month contango for WTI widened to a little over $2/bbl in April versus $1.44/bbl in March, as ample inventories added downward pressure on prices. By contrast, the contango in the Brent market narrowed slightly to $1.04/bbl in April versus $1.30/bbl the previous month. By early May, WTI was trading at a premium over Brent again but rising stock levels threaten to reverse WTI's recent gains.

Spot Crude Oil Prices

OPEC's output cutback of heavier sour crudes and stepped-up buying as refiners came out of turnaround boosted spot crude oil prices nearly across the board in April. Spot prices for Middle East and Mediterranean crudes posted the sharpest increases last month, as reduced OPEC term contract supplies forced buyers onto the spot market.





Saudi Arabia appears set to tighten supplies further based on latest increases in term contract prices for Asia-Pacific customers. In response, Asian buyers have been buying up spot barrels of similar crudes from Oman, Iran and Qatar. Increased demand for heavier grades pushed spot prices up for Iran Heavy by an average $3.45/bbl in April, to just over $49/bbl. Spot prices for lighter Mideast crudes, such as Abu Dhabi's Murban crude, rose by a relatively steep $5.40/bbl on the month, to $52.54/bbl, despite weaker demand for gas oil-rich crudes. Abu Dhabi looks set to reduce crude sales next month based on Adnoc's decision to cut term allocations to 18% below contract volumes for June from 15% for Murban, Umm Shaif and Lower Zakum and 10% for Upper Zakum in May.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Feb	Mar	Apr	Apr-Mar Avg Change	%	Week Commencing: 13 Apr	20 Apr	27 Apr	04 May	11 May
Crudes										
Dated Brent	43.07	46.54	50.34	3.79	8.1	51.81	49.18	50.26	54.90	56.27
Brent (Asia) Mth1 adjusted	43.57	46.54	50.91	4.36	9.4	52.44	49.74	49.53	55.10	57.20
WTI (Cushing) Mth1 adjusted	39.16	48.00	49.82	1.83	3.8	49.80	47.97	51.06	55.99	58.67
Urals (Mediterranean)	42.31	45.64	48.95	3.30	7.2	50.36	47.71	48.83	54.09	55.74
Dubai Mth1 adjusted	43.09	45.59	50.10	4.51	9.9	51.56	49.13	49.05	54.82	57.14
Tapis (Dated)	47.66	50.15	52.59	2.44	4.9	53.84	52.39	52.58	57.29	60.39
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	-3.91	1.45	-0.51	-1.96		-2.00	-1.21	0.81	1.09	2.40
Urals (Mediterranean)	-0.76	-0.90	-1.39	-0.49		-1.45	-1.47	-1.43	-0.81	-0.54
Dubai Mth1 adjusted - Dated Brent	0.02	-0.96	-0.24	0.72		-0.25	-0.05	-1.21	-0.08	0.86
Tapis (Dated)	4.59	3.60	2.25	-1.35		2.03	3.22	2.33	2.40	4.12
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-1.02	-1.20	-0.84	0.36		-0.91	-0.85	-0.75	-1.12	-0.95
Forward WTI Cushing Mth1-Mth2 adj	-3.57	-1.28	-1.96	-0.68		-2.58	-1.45	-1.26	-1.40	-0.88

Source: Platts

In Asia, reduced refinery throughput rates for maintenance over the April-May period have tempered spot purchases but China continues to cast about for relatively cheap African cargoes, with spot purchases of Angola and Nigeria crude reportedly on the rise.

Refining Margins

Refinery margins in most key global markets improved nearly across the board in April as increases in product prices outpaced the rise in crude oil prices. On average, margins (on a full-cost basis) improved by $1.51/bbl. Profits on Maya coking in the USGC were the exception, with margins off $1.40/bbl, to 94 cents/bbl in April.

Selected Refining Margins in Major Refining Centres

($/bbl)

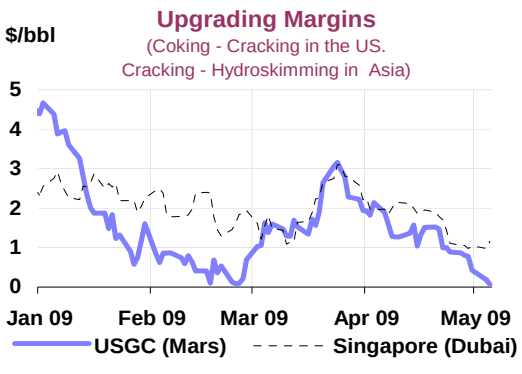
		Monthly Average			Change	Average for week ending:				
		Feb 09	Mar 09	Apr 09	Apr 09-Mar 09	03 Apr	10 Apr	17 Apr	24 Apr	01 May
NW Europe	Brent (Cracking)	3.39	0.83	1.25	0.42	2.22	0.79	1.35	1.74	0.66
	Urals (Cracking)	3.43	1.80	2.16	0.35	3.13	1.99	2.41	2.34	1.21
	Brent (Hydroskimming)	1.75	-1.06	-0.76	0.29	0.07	-1.08	-0.80	-0.35	-1.26
	Urals (Hydroskimming)	-0.08	-1.88	-1.65	0.23	-0.79	-1.74	-1.54	-1.54	-2.45
Mediterranean	Es Sider (Cracking)	3.13	1.03	2.14	1.11	2.39	1.71	2.25	2.75	1.57
	Urals (Cracking)	3.44	1.12	2.38	1.26	2.56	1.76	2.63	3.00	1.83
	Es Sider (Hydroskimming)	0.37	-2.25	-1.37	0.88	-1.31	-1.62	-1.51	-0.78	-1.68
	Urals (Hydroskimming)	-0.85	-3.39	-2.28	1.11	-2.24	-2.87	-2.09	-1.75	-2.63
US Gulf Coast	Bonny (Cracking)	-1.97	-2.35	-0.23	2.12	0.08	-0.52	-0.36	-0.03	-0.23
	Brent (Cracking)	0.19	-1.83	-1.20	0.63	-0.31	-1.47	-1.63	-1.06	-0.96
	LLS (Cracking)	1.26	-1.43	0.42	1.85	-0.06	-0.46	0.24	2.21	0.09
	Mars (Cracking)	0.96	-1.18	1.37	2.54	-0.30	0.68	1.92	3.06	0.90
	Mars (Coking)	1.48	0.71	2.67	1.96	1.71	2.14	3.29	4.23	1.55
	Maya (Coking)	4.47	2.34	0.94	-1.40	2.14	1.08	1.26	1.19	-0.46
US West Coast	ANS (Cracking)	4.12	-1.49	3.48	4.98	1.88	1.59	2.62	6.35	3.93
	Kern (Cracking)	14.66	-0.27	4.47	4.74	-0.48	1.40	2.37	8.76	8.08
	Oman (Cracking)	3.45	-0.54	-0.45	0.09	-0.53	-2.72	-2.34	1.28	2.29
	Kern (Coking)	26.56	9.73	14.41	4.68	12.06	14.10	14.58	15.51	14.50
Singapore	Dubai (Hydroskimming)	-0.72	-3.44	-2.04	1.40	-2.18	-2.42	-1.68	-1.59	-2.38
	Tapis (Hydroskimming)	-2.97	-5.51	-3.42	2.09	-2.46	-2.72	-2.78	-3.93	-5.55
	Dubai (Hydrocracking)	1.21	-1.44	-0.31	1.13	0.01	-0.40	0.28	0.00	-1.35
	Tapis (Hydrocracking)	-0.94	-3.62	-1.12	2.51	0.01	-0.22	-0.29	-1.69	-3.74
China	Cabinda (Hydroskimming)	-3.49	-7.39	-6.16	1.23	-6.09	-6.27	-5.65	-5.67	-7.43
	Daqing (Hydroskimming)	-3.14	-6.99	-6.52	0.47	-6.85	-6.82	-6.43	-6.43	-6.47
	Dubai (Hydroskimming)	-1.14	-3.76	-2.21	1.54	-2.46	-2.60	-1.81	-1.77	-2.51
	Daqing (Hydrocracking)	1.76	-3.17	-1.89	1.28	-2.25	-1.89	-1.39	-1.73	-2.75
	Dubai (Hydrocracking)	0.87	-1.72	-0.41	1.31	-0.21	-0.51	0.22	-0.10	-1.40

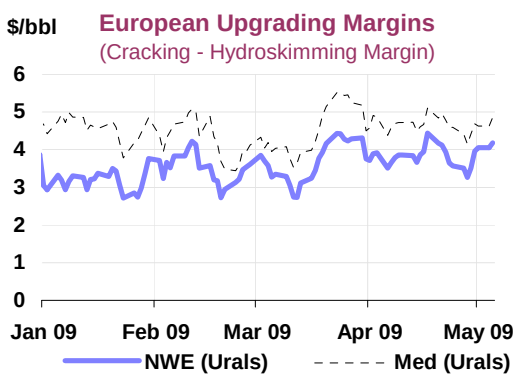
For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.
Sources: IEA, Purvin & Gertz Inc.

Despite the month-on-month improvement, margins in Asia-Pacific as well as hydroskimming economics in Europe and the Mediterranean remained in negative territory. The lowest margins on average were in NW Europe where they averaged $0.25/bbl, while the USWC reached the highest margins at $5.48/bbl on average.

However, by end-April and early May, margins deteriorated in all regions as product prices weakened and optimism about the economy strengthened crude oil prices. Only two benchmarks, Brent cracking in the US Gulf Coast and Oman cracking in the US West Coast, improved at this time as higher gasoline and fuel oil crack spreads offset weaker middle distillates to crude price differentials.



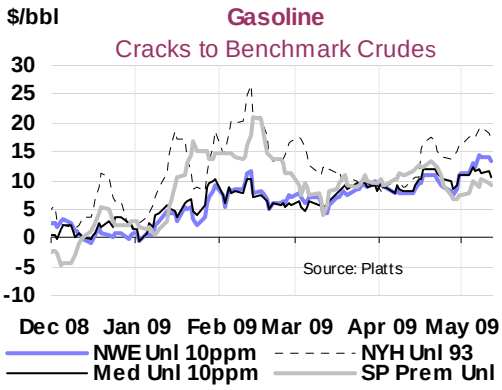


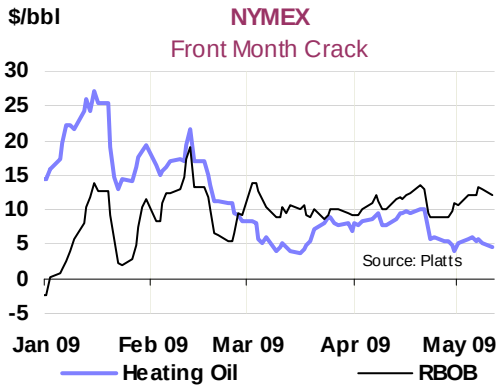
In the USGC, upgrading margins in April declined 31% mainly because of weaker diesel prices and stronger residual fuel oil prices, favouring cracking to coking configurations. In Asia, hydroskimming refinery economics strengthened relative to cracking as gasoline and middle distillates prices deteriorated and residual fuel oil prices increased. In NW Europe, cracking margins strengthened 3% relative to hydroskimming as gasoline price increases outweighed increases in residual fuel.

Spot Product Prices

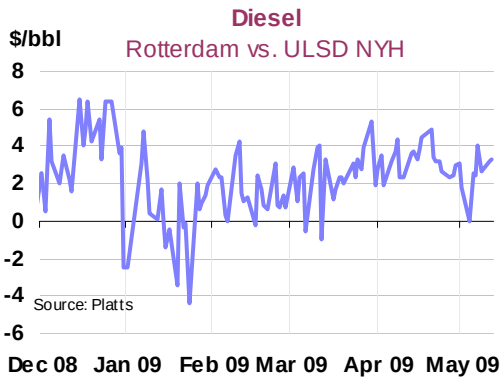
Spot prices rose across the product barrel in all the major regions in April in tandem with stronger crude oil markets. The forthcoming peak summer driving season in the US is currently also supporting higher gasoline spot prices and crack spreads in Europe and Asia. At the other end of the barrel, the substantial cutback in OPEC heavy crude oil production has also translated into tighter supplies of fuel oil, with prices in Europe, Singapore and the US up on average by 15% to 20% in April. Relatively stronger European spot prices for ultra-low-sulphur diesel, combined with cheaper freight rates, also encouraged US and Asian refiners to send their surplus barrels to the region.

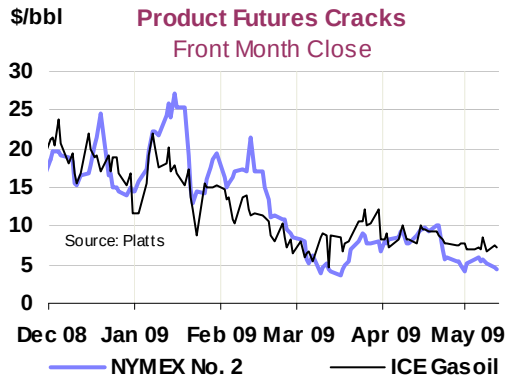
The economic optimism that continues to prop up crude oil markets and expectations for a stronger US gasoline demand season, especially relative to last year's weak preformance, are behind the current robust market. US gasoline stocks are slightly above levels of a year ago but still within the five-year range. Our latest forecast shows US gasoline demand rising in the coming months based on the assumption that the US will have a normal driving season but preliminary data for April show a worrying 2.0% decline in demand.





Expectations for a stronger gasoline season are behind the rise in crack spreads and increased trans-Atlantic trade from European refiners. Spot gasoline prices in Asia, near seven-month highs in line with stronger futures markets, are also supported by increased arbitrage opportunities to the even stronger US West Coast.





In Europe, demand for products remains weak and is reflected in extended run cuts and refinery maintenance schedules. However, spot gasoline prices have firmed due to increased buying interest from the US and, recently, West Africa. Nigeria, a major importer of gasoline given chronic operational problems at the country's four refineries, has increased purchases of gasoline on global markets in recent weeks due to scheduled refinery down time and following the suspension of import subsidies to local private companies. The Warri refinery, which operates at anywhere from 20% to 70% of its 120 kb/d name-plate capacity, was down for three weeks while repairs were made to its fluid catalytic cracking unit, but operations reportedly resumed 5 May. The 110 kb/d Kaduna refinery is closed for maintenance and expected back in operation sometime in May or June.

Spot Product Prices

(monthly and weekly averages, $/bbl)

	Feb	Mar	Apr	Apr-Mar		Week Commencing:					Feb	Mar	Apr
				Change	%	13 Apr	20 Apr	27 Apr	04 May	11 May			
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	50.69	53.90	59.46	5.56	10.3	61.41	59.24	59.43	68.19	69.85	7.62	7.35	9.12
Naphtha	43.72	43.79	46.81	3.02	6.9	48.15	45.74	45.43	49.68	50.47	0.65	-2.76	-3.53
Jet/Kerosene	53.62	55.05	59.94	4.89	8.9	62.11	58.56	58.03	62.70	64.40	10.55	8.50	9.60
ULSD 10ppm	55.57	56.70	60.72	4.01	7.1	62.61	59.53	58.55	64.44	65.87	12.50	10.16	10.38
Gasoil 0.1%	52.53	53.40	57.65	4.25	8.0	59.82	56.25	56.34	61.89	62.68	9.46	6.85	7.31
LSFO 1%	35.99	36.61	44.02	7.41	20.2	44.85	43.28	44.16	48.77	49.88	-7.08	-9.94	-6.32
HSFO 3.5%	36.21	36.99	42.01	5.02	13.6	43.32	41.24	42.68	48.73	50.51	-6.86	-9.55	-8.32
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	49.45	53.02	58.74	5.72	10.8	60.63	58.86	58.66	65.74	66.68	7.14	7.37	9.79
Naphtha	42.87	43.01	46.60	3.59	8.4	48.00	45.52	45.18	49.39	49.94	0.56	-2.64	-2.35
Jet Aviation fuel	52.84	53.50	58.52	5.02	9.4	60.63	57.52	57.29	61.89	63.09	10.52	7.86	9.58
ULSD 10ppm	55.78	56.61	60.73	4.12	7.3	62.66	59.22	58.85	64.09	65.47	13.47	10.96	11.78
Gasoil 0.1%	53.09	53.55	58.54	4.99	9.3	60.88	57.14	56.68	61.90	63.07	10.78	7.91	9.60
LSFO 1%	38.82	39.57	44.65	5.08	12.8	45.64	44.35	45.61	51.16	52.57	-3.49	-6.08	-4.30
HSFO 3.5%	35.14	36.45	42.21	5.76	15.8	44.42	41.61	42.65	48.63	50.39	-7.17	-9.20	-6.74
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	57.19	59.45	62.37	2.92	4.9	62.49	63.53	65.92	74.17	76.35	18.03	11.45	12.54
Unleaded	51.21	54.00	57.25	3.25	6.0	58.59	57.63	58.05	66.61	69.37	12.05	6.00	7.43
Jet/Kerosene	54.79	55.86	58.98	3.12	5.6	60.59	56.86	56.77	61.60	63.69	15.63	7.86	9.15
No. 2 (Heating Oil)	53.68	53.69	56.99	3.30	6.1	58.02	55.69	55.38	60.04	61.64	14.52	5.70	7.17
LSFO 1%	37.22	37.99	44.60	6.61	17.4	45.58	43.42	46.17	50.39	51.68	-1.94	-10.01	-5.23
No. 6 3%	37.48	37.67	42.10	4.43	11.8	42.89	41.14	43.71	50.47	52.08	-1.68	-10.33	-7.73
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	57.97	54.20	60.46	6.27	11.6	63.74	60.72	56.10	64.05	66.44	14.88	8.61	10.36
Naphtha	46.84	46.53	49.35	2.82	6.1	50.69	48.47	46.51	51.17	51.07	3.75	0.94	-0.75
Jet/Kerosene	52.85	53.34	59.10	5.76	10.8	61.09	57.76	57.10	61.90	63.79	9.76	7.75	9.00
Gasoil 0.5%	49.10	52.10	58.09	6.00	11.5	60.13	56.80	56.14	62.05	64.31	6.01	6.51	7.99
LSWR Cracked	36.05	35.59	38.26	2.67	7.5	39.41	37.92	37.98	43.37	44.98	-7.05	-10.00	-11.84
HSFO 180 CST	39.63	37.86	44.66	6.80	18.0	46.22	44.79	44.47	50.79	52.41	-3.46	-7.72	-5.44
HSFO 380 CST 4%	40.29	38.55	45.49	6.94	18.0	46.94	45.56	45.37	51.80	53.73	-2.80	-7.04	-4.61

Source: Platts * CIF

Spot gas oil/diesel prices in both Rotterdan and the Meditteranean increased throughout April and early May despite weaker demand and higher run rates as refiners came out of turnaround. The sharper decline in US heating oil prices on Nymex and a robust ICE gas oil contract encouraged transatlantic trade. European traders took advantage of the arbitrage and imported ultra-low-sulphur diesel from the US despite the already hefty stockpiles of the fuel in the region, at both onshore tanks and in floating storage.

Spot product prices in the Asia/Pacific region strengthened in response to tighter regional supplies stemming from the sharp cutback in refinery output levels in April and increased exports of surplus product over the past few months. Despite the month-on-month jump in spot product prices, refining margins remain negative for the region. Asian product markets are also under pressure from the start-up of several new refineries. Start-up of the new 160 kb/d crude distillation unit at the Fujian Refining and Petrochemical (FRPC) complex in Quanzhou, China is slated for late May.

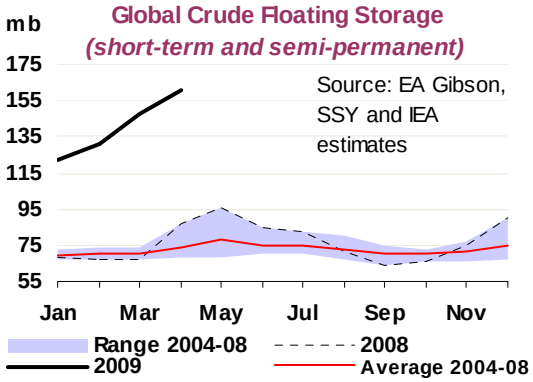
End-User Product Prices in April

Retail product prices rose in April across all product categories bar Japanese diesel and heating oil. The product prices on average increased by 10.6%, in US dollars, ex-tax, in surveyed IEA member countries. Gasoline prices rose on average by 11.2% with the biggest month-on-month gains seen in Germany, Spain and France. Consumers in the US on average paid $2.05/gallon ($0.541/litre) for gasoline, in Japan ¥113.9/litre ($1.152/litre) and in Europe, prices ranged from a low of €0.948/litre ($1.252/litre) in Spain to a high of €1.225/litre ($1.617/litre) in Germany. Low-sulphur fuel oil prices increased by 11.0%, diesel prices by 9.7% and heating oil end-user prices by 10.5% month-on-month, in US dollars, ex-tax. Retail prices were 44.9% below a levels of a year ago.

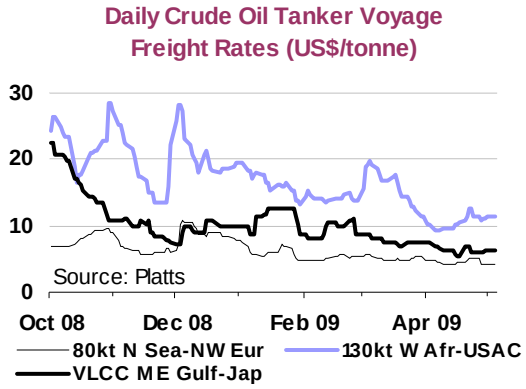
Freight

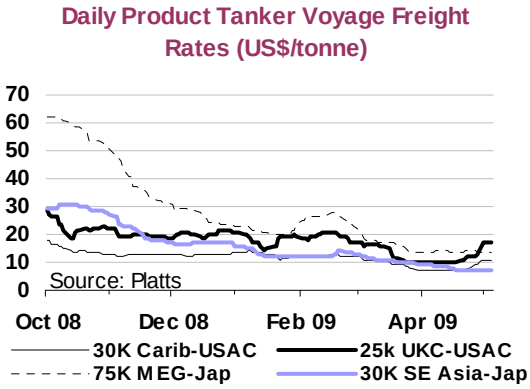
April dirty freight rates remained weak, with over 100 mb of short-term crude in floating storage providing the only significant support. Only West Africa to US Atlantic Coast Suezmax rates seemed to display any signs of life, edging up slightly from the beginning to the end of the month as floating storage tightened spot tonnage availability and strong Chinese demand for Angolan crudes continued. End-April rates on the route stood at just over $11/tonne. Middle East Gulf to Japan VLCC rates continued to fall, declining from around $7.50/tonne to just over $6.00/tonne at the end of April.

VLCC earnings remained above breakeven operating costs for most ship owners and routes. However, the absence of significant additional Middle East export volumes continues to weigh down on rates despite the presence of a large amount of crude in floating storage. Additional falls in earnings may force tanker owners to lay up vessels, which may act as a balancing force for rates.



Though clean rates flat-lined through most of the month, they did display some increases towards the end of April. The Europe to US transatlantic route displayed the most strength as rates rose from $10/tonne at the beginning of April to over $15/tonne at month-end as gasoline trade increased. An increasing amount of middle distillates tied up in floating storage in the North Sea also provided some support to rates. Despite the uptick in rates, product tanker earnings have, in some cases, fallen to the point where owners can barely cover operating costs. Laying up of ships may prove to be the best near-term option for some ship owners if earnings remain below break even.





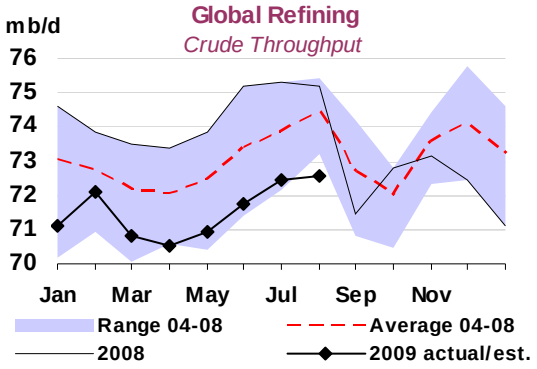
Still, new tanker builds inject yet another bearish element into an already unbalanced freight market. Long building lead times combined with a surfeit of orders placed in the 2006-2008 timeframe have resulted in continued increases in freight tonnage coming to market, even in an environment of difficult credit conditions and low freight rates and with a small number of order cancellations. In 1Q09, the VLCC and Suezmax fleets grew by 3% and 2.5%, respectively, in vessel count. The Aframax/Long Range Two fleet increased by 4.5% and the Long Range One and Medium Range fleet grew by 2.5%.

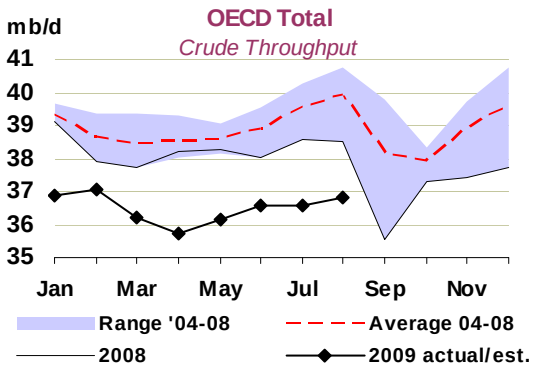
REFINING

Summary

- **Global crude runs remain depressed compared with the five-year historical range.** Despite increased Chinese and North American estimates, 2Q09 global crude runs are actually lower than our previous forecasts, due to the weaker demand environment. Therefore, the necessary consequence of these changes is lower crude runs elsewhere, notably in Other Asia and OECD Pacific and Europe.

- **The 2Q09 crude throughput forecast of 71.1 mb/d, is 3.1 mb/d lower than 2Q08** and 0.2 mb/d below last month's report. This reduction masks higher forecast Chinese crude runs following reports that CNOOC's 240 kb/d Huizhou refinery will run at 70% utilisation, well ahead of our estimates. Furthermore, Indian official data appear not to include crude processed at the Jamnagar refinery expansion, which is currently commissioning and we have raised our Indian forecasts accordingly.





- **OECD crude runs are assessed at 36.2 mb/d in 2Q09, an annual decline of 2.0 mb/d,** while non-OECD crude throughput is now expected to shrink by 1.1 mb/d year-on-year to 34.9 mb/d. This month sees a switch in emphasis, with higher North American runs at the expense of lower European runs. Stronger gasoline and weaker middle distillate cracks, plus the lack of the seasonal stockdraw for middle distillate in 1Q09, provide the rationale for this move.

- **February 2009 OECD refinery yields increased only for naphtha and 'other products',** which nevertheless remained below their five-year ranges. Yields for all other products decreased, in line with seasonal patterns. Only gasoil/diesel yields remained above the five-year range while gasoline yields dropped, largely the result of a 6.5% decline in Europe, but nonetheless stayed above the five-year average. Jet fuel and fuel oil yields continued to lag the respective five-year ranges.

Global Overview

Global forecast crude runs are again lower this month. However, perhaps the more important change to our estimates lies in the different regional outlooks now incorporated. Current forecasts assume that weaker distillate and stronger gasoline cracks are likely to drive a divergence in crude throughput levels between Europe and North America. Similarly, higher middle distillate stocks, compared with more normal gasoline inventories, could also support such a move. This would appear to favour US refineries, although how sustainable such a move is remains questionable. Furthermore, despite higher Indian and Chinese forecasts, we expect weaker runs elsewhere in Asia as increased exports from both these countries weigh on regional refining margins.

Overall, the weaker non-OECD numbers reflect our assumption that global crude runs will remain depressed in coming months compared with seasonal norms. However, it remains feasible that current high crude stock levels could result in refinery throughput exceeding our estimates in the short run. Yet, as highlighted last month, this would require heavy discounting of prompt crude supplies to tempt refiners to process additional barrels. This could lead to higher product stocks and ultimately weaker margins, barring a recovery in demand.

Chinese forecasts are again raised following reports that CNOOC's newly commissioned 240 kb/d Huizhou refinery is running at 70% utilisation during May, well ahead of our previous expectations. Furthermore, reports of the 160 kb/d expansion of Sinopec/Saudi Aramco/ExxonMobil joint venture Fujian refinery being commissioned also feed into higher June and July estimates. However, as flagged last month, higher crude runs will result in higher Chinese exports, with additional pressure on regional benchmark refinery margins and, we assume, lower runs elsewhere in Asia as a consequence.

Recent trade data for February would tend to indicate that the rise in North American diesel exports to Europe is pressuring European crude runs, just as sustained European gasoline exports to the US impinged on crude runs there in recent quarters. The likely consequence of such moves is weaker European activity levels as small-scale, unsophisticated European refineries cut crude runs in the coming months.

Global Refinery Throughput

Estimated **2Q09** global crude throughput of 71.1 mb/d is 0.2 mb/d lower than last month's report, following the weaker demand estimates contained in this month's report. Reported **1Q09** runs are broadly unchanged this month, despite weaker-than-expected data for OECD Europe in March and downward revisions to provisional February data. Offsetting these lower runs are higher than expected March data for Chinese, Russian and Brazilian throughputs.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Aug 09
OECD									
North America	17.4	17.3	17.2	17.1	*17.1*	*17.3*	*17.3*	*17.3*	*17.3*
Europe	13.3	12.7	12.7	12.3	*12.5*	*12.7*	*13.2*	*13.2*	*13.3*
Pacific	7.0	6.9	7.2	6.8	*6.1*	*6.1*	*6.1*	*6.1*	*6.2*
Total OECD	37.7	36.9	37.0	36.2	*35.7*	*36.2*	*36.6*	*36.6*	*36.8*
NON-OECD									
FSU	5.9	5.9	*6.0*	*5.9*	*6.0*	*6.0*	*5.8*	*6.0*	*6.1*
Europe	0.7	0.6	*0.7*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*
China	6.4	6.1	*6.7*	*6.9*	*6.8*	*6.7*	*7.0*	*7.1*	*7.1*
Other Asia	7.8	7.8	*8.0*	*7.9*	*7.8*	*7.6*	*7.6*	*7.8*	*7.8*
Latin America	5.5	5.4	*5.3*	*5.3*	*5.1*	*5.1*	*5.4*	*5.5*	*5.3*
Middle East	6.1	6.1	*6.0*	*5.7*	*6.1*	*6.2*	*6.2*	*6.2*	*6.2*
Africa	2.4	2.4	*2.3*	*2.2*	*2.3*	*2.3*	*2.3*	*2.4*	*2.4*
Total Non-OECD	34.8	34.2	*35.0*	*34.6*	*34.8*	*34.8*	*35.2*	*35.9*	*35.8*
Total	72.5	71.1	72.1	*70.8*	*70.5*	*70.9*	*71.7*	*72.4*	*72.6*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

Forecast global crude throughput of 71.1 mb/d for **2Q09** implies a year-on-year contraction in crude runs of 3.1 mb/d, with around two-thirds of this decline anticipated in the OECD regions. The lower overall total masks a shift to higher North American and Chinese crude runs and lower OECD Europe and Pacific crude throughputs. Within Asia, lower runs elsewhere within the region offset higher forecast runs in

India, following the incorporation of crude runs for the 580 kb/d Jamnagar expansion. July global estimates increase by 0.2 mb/d to 72.4 mb/d on higher North American runs. The extension of the forecast period to August sees runs rise further to 72.6 mb/d, which represent a year-on-year drop of 2.6 mb/d.

OECD Refinery Throughput

Forecast **2Q09** OECD runs are marginally weaker this month, following this report's lower demand estimates. Within this minor downgrade (around 20 kb/d) we have made larger intra-regional adjustments to our forecasts. We have reweighted regional runs in favour of US refiners and away from European refiners. Contributory factors to this change include the recent strength in gasoline cracks and continued weakness in middle distillate cracks, plus the rising surplus in middle distillate inventories and relative tightness in gasoline inventories.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

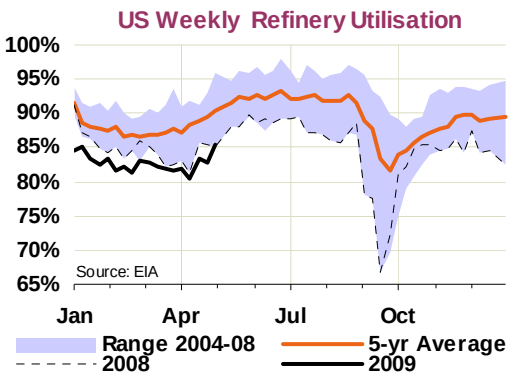
							Change from		Utilisation rate[1]	
	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	*Feb 09*	*Mar 08*	Mar 09	Mar 08
OECD North America										
US[2]	14.55	14.60	14.35	14.11	14.12	14.17	0.06	-0.19	80.48	82.36
Canada	1.69	1.71	1.81	1.88	1.79	1.74	-0.05	0.10	86.36	81.57
Mexico	1.20	1.15	1.28	1.29	1.26	1.22	-0.04	-0.01	79.43	71.96
Total	17.44	17.46	17.44	17.27	17.16	17.14	-0.03	-0.10	80.96	82.13
OECD Europe										
France	1.83	1.73	1.66	1.44	1.64	1.45	-0.19	-0.02	73.98	75.13
Germany	2.27	2.29	2.20	2.07	2.13	2.15	0.01	-0.20	88.76	97.19
Italy	1.71	1.74	1.80	1.63	1.52	1.61	0.09	-0.20	68.89	77.58
Netherlands	0.81	0.86	1.00	1.00	1.03	0.97	-0.06	-0.06	79.98	84.65
Spain	1.16	1.12	1.24	1.21	1.21	1.03	-0.18	-0.08	81.01	87.21
UK	1.56	1.50	1.59	1.55	1.54	1.48	-0.07	-0.03	78.20	79.92
Other OECD Europe	4.03	3.99	3.78	3.79	3.66	3.62	-0.03	-0.36	77.24	84.89
Total	13.38	13.22	13.26	12.70	12.73	12.30	-0.43	-0.96	77.99	84.06
OECD Pacific										
Japan	3.44	3.64	3.86	3.71	4.03	3.72	-0.31	-0.46	79.53	89.33
Korea	2.40	2.45	2.44	2.50	2.43	2.42	-0.01	0.02	88.64	87.85
Other OECD Pacific	0.66	0.67	0.70	0.69	0.70	0.63	-0.07	-0.04	78.14	82.96
Total	6.50	6.76	7.00	6.90	7.15	6.78	-0.38	-0.48	82.42	88.21
OECD Total	37.31	37.44	37.71	36.88	37.05	36.22	-0.83	-1.54	80.19	83.92

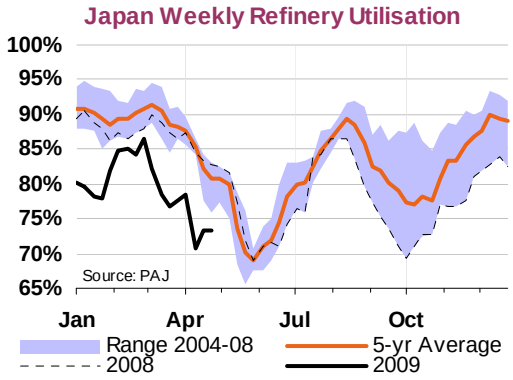
1 Expressed as a percentage, based on crude throughput and current operable refining capacity
2 US50

Provisional March data indicate that OECD crude throughput averaged 36.2 mb/d, some 0.4 mb/d less than last month's estimate, and 0.8 mb/d lower month-on-month. This represents the lowest March level since 1995, the start of the current monthly data series, as significantly weaker than expected European throughputs were responsible for the majority of the decline. Furthermore, February data were also revised down, with Europe once again the main contributor. Partially offsetting these reductions North American runs were 0.2 mb/d stronger than previously estimated. Runs were some 1.5 mb/d below March 2008's level with declines in the Pacific and Europe accounting for much for the total. North American runs were just 0.1 mb/d down against the same period last year, reflecting the weak level of activity for the region during early 2008.

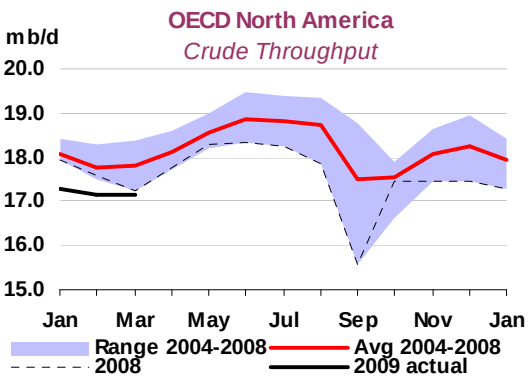
Weekly data indicate that US crude runs in April were stronger than forecast in last month's report, continuing the run of better than expected activity levels. Nevertheless, declining intra-regional movements of gasoline, notably from PADD 3 to PADD 1, continue to suggest that US refineries will struggle to move aggregate crude runs much above 15.0 mb/d on a sustained basis, without an appreciable decline in gasoline

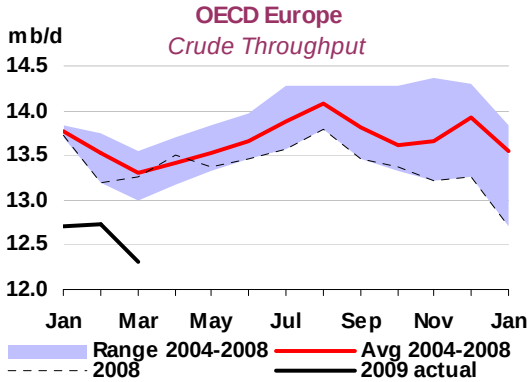
import volumes. This remains possible if European crude runs prove to be weaker than now anticipated; this once again highlights the competitive pressure that East Coast refineries face, given the region is a focal point for arbitrage opportunities in the Atlantic Basin gasoline market.





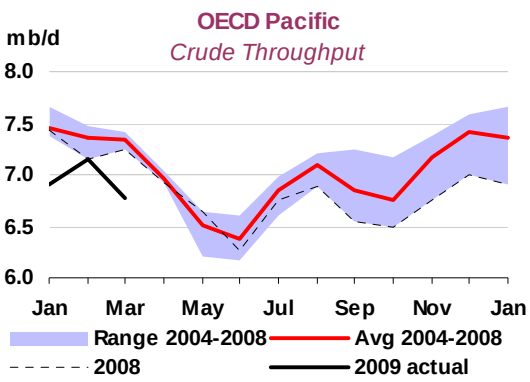
OECD North America crude throughput was broadly flat in March, compared with February and the year-on-year contraction narrowed to just 0.1 mb/d, its lowest level since June 2008. The subsequent pick up in crude runs over the course of 2Q09 is expected to be more modest than last year, although, as noted elsewhere, weaker runs in key exporting regions may lead to higher than forecast crude runs if US gasoline imports can continue to be contained. **2Q09** forecasts increase by 0.3 mb/d this month, reflecting the more positive outlook for gasoline cracks, relative to middle distillates and our expectation of lower European crude throughputs over the quarter.

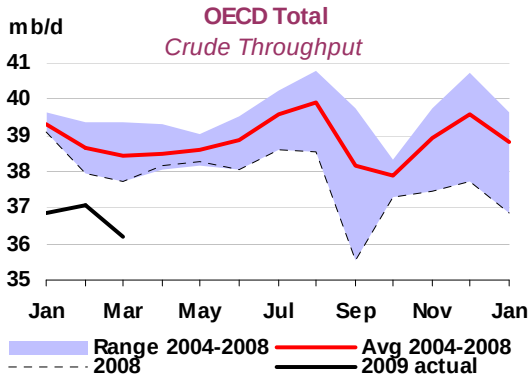




OECD Europe March crude throughput fell heavily, to just 12.3 mb/d, the lowest March level since the current monthly time series began in January 1995 and the second lowest level for any month thereafter. Official data from Italy and the UK account for much of the 0.3 mb/d downward revision to February provisional estimates. March provisional estimates reveal once again very weak French throughput levels. The prospects for continued weakness have increased, with several French refineries likely to see reduced utilisation in the coming months due to a combination of economic run cuts and maintenance. Weaker Spanish crude runs in March are explained by the maintenance at several refineries and the closure of Repsol's 110 kb/d Cartagena hydroskimming refinery in April on economic grounds is likely to keep the country's runs depressed during the early part of 2Q09.

More generally, we have taken a more cautious approach on the outlook for European crude runs with rising distillate inventories and weaker middle distillate cracks. This, we expect, is likely to prove more of a burden to European than US refineries. Recent trade data point to rising imports of diesel from North America displacing European diesel production, suggesting lower European runs in coming months.





OECD Pacific March crude runs were broadly in line with our estimates and continue to show a heavy decline against levels of a year ago. At just 6.8 mb/d, March throughputs are nearly 7% below the bottom-end of the five-year range and 8% below the five-year average. Much of the regional decline is accounted for by low Japanese throughputs as refineries that previously sought to export surplus product to other regional importers face a squeeze from new capacity additions, not only in China, but also Vietnam. 2Q09 Pacific estimates are reduced to reflect a stronger Chinese forecast and the ongoing fallout that weaker regional margins are likely to have on small-scale refiners in Japan.

Non-OECD Refinery Throughput

Forecast **2Q09** non-OECD crude throughput is revised downward this month by 0.2 mb/d to 34.9 mb/d, despite higher Chinese crude throughput estimates. Much of the reduction is due to the weaker demand forecasts now contained in this report, and implications for refinery margins and prospective activity levels. Furthermore, higher than anticipated maintenance in Russia in April, and Indonesia in April and May, also contribute to the lower estimate. Notwithstanding these adjustments, weak demand and the poor margin environment are responsible for most of the reduction to regional throughput estimates. Typically, these revisions are less than 50 kb/d, but Other Asia is a notable exception, despite higher Indian forecasts.

Chinese March crude throughput exceeded expectations by 0.2 mb/d, the second consecutive month where forecasts have proved too pessimistic. Consequently, forecast **2Q09** crude throughput of 6.9 mb/d, is 0.1 mb/d higher than last month, a quarter-on-quarter increase of 0.3 mb/d, but broadly unchanged compared with 2Q08. The higher forecast crude runs should result in higher gasoline and gasoil exports over the course of 2Q09, and in combination with rising exports from India, add further pressure to regional product cracks. July's forecast increases by a more substantial 0.3 mb/d, as reports indicate that the 160 kb/d distillation capacity at the Sinopec/Saudi Aramco/ExxonMobil Fujian refinery is currently undergoing commissioning. This follows on from the start-up of CNOOC's 240 kb/d Huizhou refinery in March, which is now reported to be preparing to supply product during May.

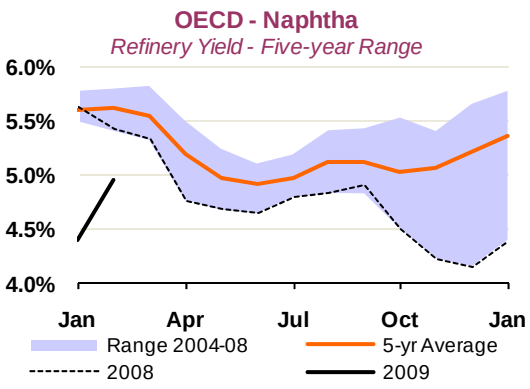
The weaker demand forecast is expected to lower runs in **Other Asia**, with smaller, export-oriented refineries in Taiwan, Thailand and possibly the Philippines baring the brunt of the reductions. For now, Singapore may buck this regional trend, with crude runs forecast to stay above 0.9 mb/d due to the comparatively large scale of refineries (on average around 430 kb/d) and high degree of integration with petrochemical units present. There undoubtedly remains a possibility that further weakness in Asian gasoil cracks or petrochemical margins may prompt further run cuts at some of the refineries in Singapore.

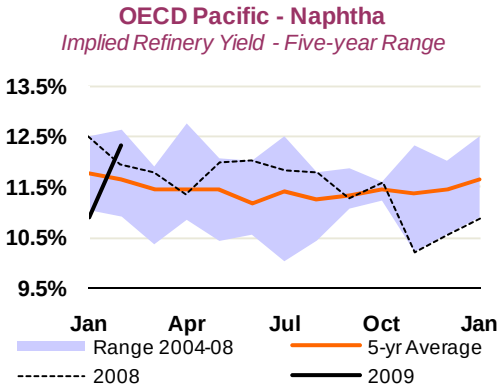
Indian data for March were in line with forecast for the second month running, at 3.3 mb/d, but it appears increasingly evident that aggregate Indian data do not include processing volumes from the new train at Reliance's Jamnagar refinery. We have therefore raised out 1Q09 estimate marginally and increased Indian estimates by around 0.2 mb/d for 2Q09, as the first 290 kb/d crude unit is brought up to full utilisation.

OECD Refinery Yields

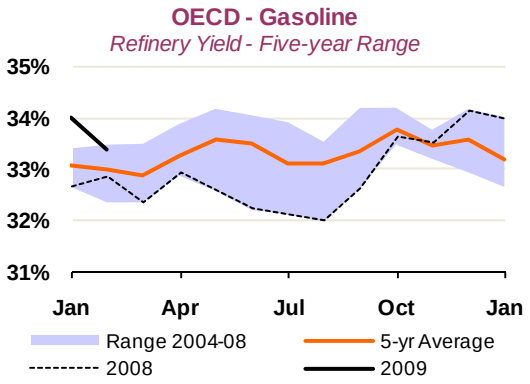
In February, OECD yields generally followed seasonal patterns, with only yields for naphtha and 'other products' increasing. However products remained well below their historical yield levels.

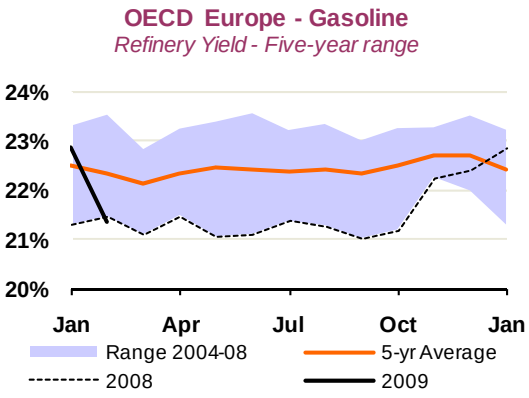
OECD **naphtha yields** increased from 4.4% to 5.0%, supported by positive crack spreads which had strengthened since last November. All OECD regions recorded higher yields, with the Pacific showing the highest increment from 10.9% to 12.3%. However, year-on-year, OECD naphtha gross output contracted by 9% and net imports decreased by 13%, signaling a lack of demand. It is notable that the OECD as a whole is a net importer of naphtha and that most of the imports go to the Pacific (79% in 2008). A table comparing year-on-year gross production and net exports is shown at the end of this section.



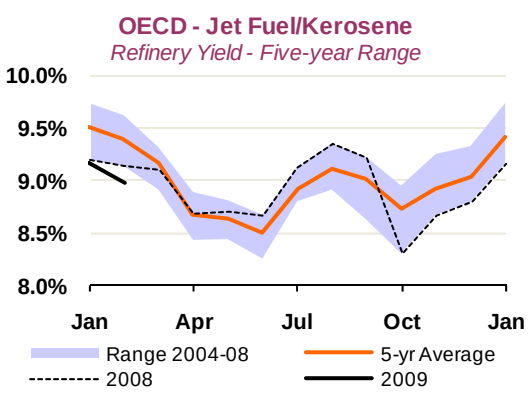


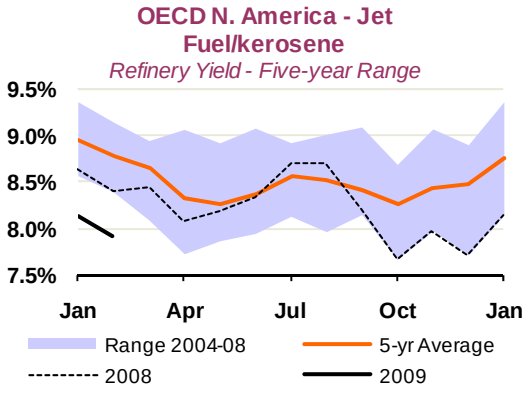
In spite of a wider price differential of gasoline to crude oil, OECD **gasoline yields** fell back into the upper part of the historical range. In Europe, yields decreased strikingly by 6.5% on a monthly basis, while in the Pacific and North America they remained stable, above the historical range in the first region and slightly above the five-year average in the second. Year-on-year, North America increased its net imports by 18.4% and its gross output by 1.5%, albeit this trend does not yet seem to be backed up by resurgent demand.



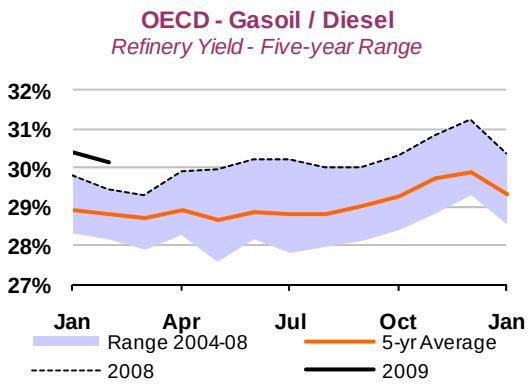


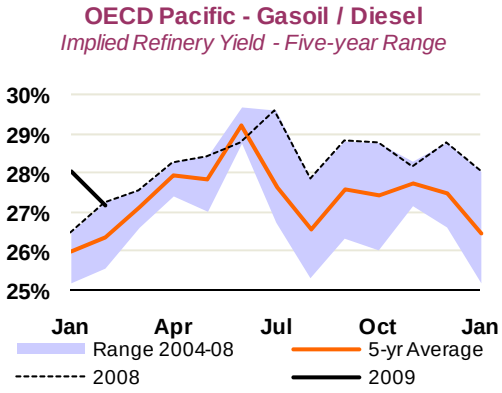
OECD **jet/kerosene yields** decreased seasonally, reaching levels below the five-year range. Crack spreads did not provide support as they continued drifting down in February. Yields in North America remained particularly weak at 7.9%, which represents a decrease of 9.9% versus the five-year average of 8.8%. In Europe, yields behaved in line with historical trends, while in the Pacific they moved to the top of the range. This pattern is consistent with historical changes in demand. Year-on-year, apparent demand (gross output plus imports less exports) in North America contracted by 5% while it increased 5% in Europe (which contrasts with a decrease of 3.1% in inland deliveries for Europe, presumably due to stock changes) and 12% in the Pacific.



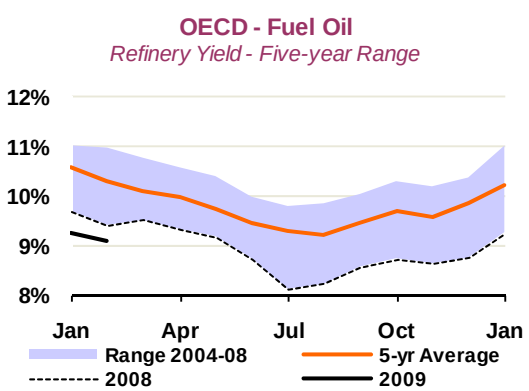


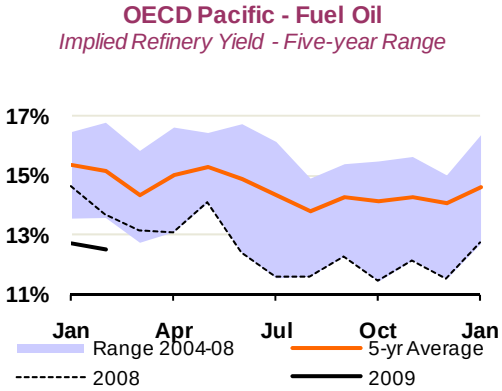
Gasoil/diesel yields decreased seasonally but remained above the five-year range; crack spreads continued deteriorating in February. All three regions recorded falls, with North America and Europe decreasing slightly while the Pacific slumped down to last year's levels. On a yearly basis, OECD production increased by 1.7% in February, although total OECD gasoil/diesel domestic demand increased 5.6%, meaning that OECD countries are increasing their supply from non-OECD countries. Last year OECD countries as a whole showed a net import position only twice, in January and November. This year, both January and February revealed a net import position for OECD countries. In February, European countries increased their net imports by 150%, while North America and the Pacific strengthened their net export position by 28% and 59%, respectively.





OECD **fuel oil yields** continued trending below their five-year-range, something which started in May 2006. All OECD regions are now below their five-year range. OECD countries as a whole are net exporters and even though production decreased 8.1% in January and 4.1% in February on a yearly basis, the net export position in these two months strengthened on average by 18.0%, albeit from a low base.





Total OECD Refinery Gross Output
(thousand barrels per day)

	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09
North America	357	280	9,575	9,717	1,737	1,648	5,108	5,361	1,085	1,081	3,333	3,167	21,196	21,254
Europe	1,089	923	3,277	3,167	967	933	5,654	5,617	1,968	1,889	2,236	2,068	15,191	14,598
Pacific	914	950	1,488	1,594	1,286	1,316	2,090	2,095	1,051	965	893	879	7,722	7,798
Total	**2,361**	**2,153**	**14,340**	**14,478**	**3,989**	**3,897**	**12,853**	**13,073**	**4,104**	**3,935**	**6,462**	**6,114**	**44,109**	**43,651**

Total OECD Net Exports of Petroleum Products
(thousand barrels per day)

	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09	Feb 08	Feb 09
North America	-5	27	-862	-1,020	-66	-64	282	360	92	136	440	256	-117	-304
Europe	-304	-200	972	944	-252	-347	-508	-1,270	117	112	-217	-222	-192	-983
Pacific	-778	-773	-38	-59	150	44	328	522	12	-20	-609	-514	-934	-801
Total	**-1,087**	**-946**	**72**	**-135**	**-167**	**-367**	**103**	**-388**	**221**	**228**	**-385**	**-480**	**-1,243**	**-2,089**

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	25.6	25.4	25.7	25.4	25.5	25.5	25.5	24.8	24.5	23.7	24.0	24.3	23.6	22.9	23.2	23.1	23.2
Europe	15.7	15.7	15.2	14.9	15.4	15.6	15.3	15.2	14.9	15.4	15.3	15.2	14.8	14.1	14.7	14.7	14.6
Pacific	8.6	8.5	8.9	7.9	7.9	8.7	8.3	8.9	7.8	7.5	7.9	8.0	8.1	7.1	6.9	7.4	7.3
Total OECD	49.8	49.6	49.8	48.2	48.9	49.9	49.2	48.9	47.2	46.6	47.3	47.5	46.5	44.0	44.8	45.1	45.1
NON-OECD DEMAND																	
FSU	3.9	4.0	4.1	3.9	4.1	4.2	4.1	4.2	4.1	4.3	4.2	4.2	3.9	3.9	4.1	4.0	4.0
Europe	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6
China	6.7	7.2	7.4	7.8	7.5	7.6	7.6	7.9	8.0	8.1	7.6	7.9	7.6	8.0	7.9	7.8	7.8
Other Asia	8.8	9.0	9.5	9.5	9.3	9.6	9.5	9.8	9.8	9.3	9.4	9.6	9.7	9.6	9.3	9.4	9.5
Latin America	5.1	5.3	5.4	5.6	5.8	5.8	5.6	5.7	6.0	6.0	5.9	5.9	5.7	5.9	6.0	5.9	5.9
Middle East	6.0	6.2	6.3	6.4	6.6	6.3	6.4	6.6	7.0	7.4	6.8	7.0	6.7	7.3	7.7	7.1	7.2
Africa	2.9	2.9	3.0	3.0	3.0	3.1	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.0	3.2	3.1
Total Non-OECD	34.3	35.6	36.3	36.8	37.0	37.3	36.8	38.0	38.5	38.8	37.7	38.3	37.4	38.4	38.6	38.2	38.1
Total Demand[1]	84.1	85.2	86.0	85.0	85.8	87.2	86.0	86.9	85.8	85.4	85.0	85.8	83.8	82.3	83.4	83.3	83.2
OECD SUPPLY																	
North America	14.1	14.2	14.4	14.4	14.2	14.1	14.3	14.2	14.1	13.6	13.9	13.9	14.2	13.7	13.7	13.9	13.9
Europe	5.7	5.3	5.3	5.0	4.8	5.1	5.0	4.9	4.8	4.6	4.8	4.8	4.8	4.2	4.1	4.3	4.3
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7
Total OECD	20.4	20.1	20.2	20.0	19.6	19.8	19.9	19.7	19.5	18.8	19.4	19.4	19.6	18.6	18.5	19.0	18.9
NON-OECD SUPPLY																	
FSU	11.8	12.2	12.8	12.7	12.8	12.8	12.8	12.8	12.9	12.7	12.7	12.8	12.8	12.9	12.6	12.5	12.7
Europe	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.9	3.9	3.9	3.8
Other Asia[2]	3.8	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Latin America[2]	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.3	4.4	4.4	4.4
Middle East	1.8	1.8	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5
Africa[2]	2.4	2.5	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	27.4	28.0	28.6	28.4	28.3	28.5	28.4	28.7	28.7	28.6	28.6	28.6	28.8	29.0	28.7	28.6	28.8
Processing Gains[3]	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3
Other Biofuels[4]	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3
Total Non-OPEC[2]	49.8	50.4	51.2	50.9	50.4	50.8	50.8	50.9	50.8	50.0	50.7	50.6	51.0	50.2	49.8	50.3	50.3
Non-OPEC: Historical Composition[2]	50.5	51.3	50.6	50.4	49.9	50.2	50.3	49.9	49.8	49.0	49.6	49.6	51.0	50.2	49.8	50.3	50.3
OPEC																	
Crude[5]	30.6	30.7	30.0	29.9	30.3	31.1	30.3	31.5	31.4	31.5	30.5	31.2	28.4				
NGLs	4.3	4.4	4.5	4.5	4.5	4.6	4.5	4.6	4.6	4.7	4.8	4.7	4.7	4.8	5.1	5.3	5.0
Total OPEC[2]	34.9	35.2	34.5	34.4	34.9	35.7	34.9	36.1	36.0	36.2	35.3	35.9	33.1				
OPEC: Historical Composition[2]	34.2	34.3	35.0	34.9	35.4	36.4	35.4	37.1	37.0	37.2	36.3	36.9	33.1				
Total Supply[6]	84.7	85.6	85.6	85.3	85.2	86.5	85.7	87.0	86.8	86.2	86.0	86.5	84.0				
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.2	-0.8	0.7	-0.1	-0.9	-0.3	0.1	0.3	0.6	0.5	0.4	0.5				
Government	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	0.2				
Total	0.2	0.3	-0.7	0.6	0.1	-0.9	-0.2	0.1	0.4	0.5	0.5	0.4	0.7				
Floating Storage/Oil in Transit	-0.1	-0.1	0.1	0.0	-0.3	0.2	0.0	0.3	0.0	-0.3	0.1	0.0	0.5				
Miscellaneous to balance[7]	0.5	0.3	0.1	-0.4	-0.4	0.0	-0.2	-0.4	0.6	0.6	0.4	0.3	-0.9				
Total Stock Ch. & Misc	0.6	0.4	-0.4	0.2	-0.6	-0.7	-0.4	0.1	1.0	0.8	1.0	0.7	0.2				
Memo items:																	
Call on OPEC crude + Stock ch.[8]	29.9	30.3	30.4	29.6	30.9	31.8	30.7	31.4	30.4	30.7	29.5	30.5	28.2	27.4	28.5	27.8	27.9
Adjusted Call on OPEC + Stock ch.[9]	30.4	30.5	30.6	29.2	30.5	31.7	30.5	31.1	31.0	31.3	30.0	30.8	27.2	27.3	28.4	27.7	27.7

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Biofuels from sources outside Brazil and US.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.1	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-0.3	-0.1	-0.1	-0.1
NON-OECD DEMAND																	
FSU	-	-	-0.1	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Europe	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-0.1	-0.2	-0.2	-0.1	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Total Non-OECD	0.1	0.1	-0.2	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.1
Total Demand	0.1	0.1	-0.2	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	-0.5	-0.2	-0.2	-0.2
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	0.1	0.1	0.1
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.1	-	0.1	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.2	0.2	0.2	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	0.1	-	-	-	-	-	-	-	-	-	-	0.1	-0.1	0.1	0.1	-
Non-OPEC: historical composition	-	0.1	-	-	-	-	-	-	-	-	-	-	0.1	-0.1	0.1	0.1	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-				
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-				
OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	-	-	-				
Total Supply	-	0.1	-	-	-	-	-	-	-	-	-	-	0.1				
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-0.1	-					
Government	-	-	-	-	-	-	-	-	-	-	-	-					
Total	-	-	-	-	-	-	-	-	-	-	-0.1	-					
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-	-	-					
Miscellaneous to balance	-0.1	-	0.2	0.1	0.1	0.1	0.1	-	-	0.1	0.1	0.1					
Total Stock Ch. & Misc	-0.1	-	0.2	0.1	0.1	0.1	0.1	-	-	0.1	0.1	0.1	-				
Memo items:																	
Call on OPEC crude + Stock ch.	0.1	-	-0.2	-0.1	-0.1	-0.1	-0.1	-	-	-0.1	-0.1	-0.1	-	-0.4	-0.3	-0.4	-0.3
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	-	-	-	-1.0	-0.5	-0.3	-0.4	-0.5

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

Summary of Global Oil Demand

	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Demand (mb/d)																
North America	25.42	25.68	25.40	25.55	25.49	25.53	24.84	24.52	23.73	24.05	24.28	23.57	22.87	23.19	23.05	23.17
Europe	15.68	15.18	14.93	15.42	15.65	15.30	15.22	14.89	15.37	15.28	15.19	14.80	14.05	14.71	14.71	14.57
Pacific	8.48	8.91	7.87	7.89	8.72	8.35	8.87	7.82	7.50	7.93	8.03	8.08	7.05	6.88	7.35	7.34
Total OECD	49.58	49.77	48.20	48.85	49.85	49.17	48.92	47.24	46.59	47.27	47.50	46.45	43.97	44.79	45.12	45.08
FSU	4.04	4.09	3.88	4.13	4.22	4.08	4.18	4.07	4.26	4.18	4.17	3.94	3.90	4.06	4.04	3.99
Europe	0.75	0.67	0.66	0.69	0.70	0.68	0.67	0.65	0.63	0.66	0.65	0.63	0.62	0.61	0.63	0.62
China	7.25	7.35	7.75	7.54	7.62	7.57	7.88	7.98	8.09	7.62	7.89	7.60	7.96	7.85	7.85	7.82
Other Asia	9.04	9.46	9.53	9.28	9.59	9.47	9.85	9.77	9.31	9.40	9.58	9.71	9.58	9.27	9.45	9.50
Latin America	5.33	5.40	5.62	5.77	5.78	5.64	5.70	5.95	6.03	5.90	5.90	5.66	5.91	6.02	5.95	5.88
Middle East	6.24	6.26	6.42	6.60	6.33	6.40	6.59	7.00	7.43	6.82	6.96	6.68	7.26	7.70	7.11	7.19
Africa	2.94	3.04	2.96	2.95	3.07	3.01	3.13	3.12	3.07	3.12	3.11	3.15	3.14	3.05	3.18	3.13
Total Non-OECD	35.58	36.27	36.82	36.97	37.32	36.85	37.99	38.54	38.82	37.70	38.26	37.36	38.37	38.57	38.19	38.13
World	85.16	86.04	85.02	85.82	87.17	86.01	86.91	85.78	85.41	84.96	85.76	83.82	82.34	83.36	83.31	83.21
of which:																
US50	*20.69*	*20.79*	*20.63*	*20.73*	*20.58*	*20.68*	*19.99*	*19.76*	*18.91*	*19.32*	*19.50*	*18.84*	*18.26*	*18.52*	*18.40*	*18.50*
Euro4	*8.23*	*7.84*	*7.65*	*7.87*	*8.03*	*7.85*	*7.80*	*7.65*	*7.91*	*7.99*	*7.84*	*7.77*	*7.17*	*7.58*	*7.58*	*7.52*
Japan	*5.20*	*5.43*	*4.64*	*4.70*	*5.25*	*5.01*	*5.41*	*4.59*	*4.30*	*4.67*	*4.74*	*4.65*	*3.86*	*3.74*	*4.11*	*4.09*
Korea	*2.18*	*2.36*	*2.12*	*2.06*	*2.31*	*2.21*	*2.33*	*2.09*	*2.07*	*2.12*	*2.15*	*2.32*	*2.06*	*2.02*	*2.10*	*2.13*
Mexico	*2.08*	*2.12*	*2.14*	*2.06*	*2.16*	*2.12*	*2.10*	*2.16*	*2.11*	*2.04*	*2.10*	*2.01*	*2.04*	*2.01*	*2.00*	*2.01*
Canada	*2.30*	*2.38*	*2.29*	*2.40*	*2.38*	*2.36*	*2.37*	*2.25*	*2.34*	*2.31*	*2.32*	*2.34*	*2.22*	*2.31*	*2.28*	*2.29*
Brazil	*2.19*	*2.27*	*2.31*	*2.39*	*2.46*	*2.35*	*2.37*	*2.46*	*2.53*	*2.51*	*2.47*	*2.33*	*2.45*	*2.51*	*2.49*	*2.45*
India	*2.80*	*3.04*	*2.97*	*2.74*	*3.04*	*2.95*	*3.19*	*3.12*	*2.92*	*3.09*	*3.08*	*3.32*	*3.20*	*2.99*	*3.15*	*3.16*
Annual Change (% per annum)																
North America	-0.6	1.3	0.9	-0.4	-0.1	0.4	-3.3	-3.5	-7.1	-5.6	-4.9	-5.1	-6.7	-2.2	-4.1	-4.6
Europe	0.1	-5.2	-2.4	-1.6	-0.6	-2.4	0.2	-0.2	-0.3	-2.3	-0.7	-2.8	-5.7	-4.3	-3.7	-4.1
Pacific	-1.4	-4.1	-0.5	-0.6	-1.0	-1.6	-0.5	-0.7	-5.0	-9.0	-3.8	-8.9	-9.8	-8.2	-7.3	-8.6
Total OECD	-0.5	-1.7	-0.4	-0.8	-0.4	-0.8	-1.7	-2.0	-4.6	-5.2	-3.4	-5.1	-6.9	-3.9	-4.5	-5.1
FSU	2.9	2.2	1.0	0.4	0.5	1.0	2.3	4.8	3.0	-1.0	2.2	-5.8	-3.9	-4.6	-3.4	-4.4
Europe	1.3	-9.8	-11.3	-6.7	-11.4	-9.8	0.2	-0.6	-8.3	-5.9	-3.7	-5.4	-5.8	-3.4	-4.7	-4.8
China	8.3	4.3	5.0	4.0	4.5	4.4	7.1	2.9	7.2	0.0	4.3	-3.5	-0.2	-2.9	3.0	-0.9
Other Asia	2.2	3.6	4.6	5.5	5.3	4.8	4.1	2.6	0.3	-2.0	1.2	-1.5	-2.0	-0.5	0.5	-0.9
Latin America	4.2	4.6	5.8	6.4	6.7	5.9	5.4	5.9	4.6	2.1	4.5	-0.7	-0.7	-0.1	0.7	-0.2
Middle East	3.9	3.1	3.9	1.4	2.2	2.6	5.2	9.1	12.5	7.6	8.7	1.4	3.7	3.7	4.3	3.3
Africa	-0.3	2.6	1.1	2.9	3.1	2.4	3.1	5.4	4.0	1.6	3.5	0.8	0.5	-0.8	1.8	0.6
Total Non-OECD	3.8	3.3	3.7	3.5	3.7	3.6	4.7	4.7	5.0	1.0	3.8	-1.6	-0.4	-0.7	1.3	-0.4
World	1.3	0.3	1.4	1.0	1.3	1.0	1.0	0.9	-0.5	-2.5	-0.3	-3.6	-4.0	-2.4	-1.9	-3.0
Annual Change (mb/d)																
North America	-0.14	0.34	0.23	-0.10	-0.02	0.11	-0.84	-0.88	-1.82	-1.44	-1.25	-1.26	-1.65	-0.53	-0.99	-1.11
Europe	0.01	-0.83	-0.37	-0.25	-0.10	-0.38	0.04	-0.03	-0.05	-0.36	-0.10	-0.42	-0.84	-0.65	-0.57	-0.62
Pacific	-0.12	-0.38	-0.04	-0.05	-0.08	-0.14	-0.04	-0.05	-0.39	-0.78	-0.32	-0.79	-0.77	-0.61	-0.58	-0.69
Total OECD	-0.26	-0.87	-0.17	-0.40	-0.21	-0.41	-0.85	-0.96	-2.26	-2.59	-1.67	-2.47	-3.26	-1.80	-2.15	-2.42
FSU	0.11	0.09	0.04	0.02	0.02	0.04	0.09	0.19	0.12	-0.04	0.09	-0.24	-0.16	-0.19	-0.14	-0.19
Europe	0.01	-0.07	-0.08	-0.05	-0.09	-0.07	0.00	0.00	-0.06	-0.04	-0.03	-0.04	-0.04	-0.02	-0.03	-0.03
China	0.55	0.31	0.37	0.29	0.32	0.32	0.52	0.23	0.54	0.00	0.32	-0.27	-0.01	-0.23	0.23	-0.07
Other Asia	0.20	0.33	0.42	0.48	0.49	0.43	0.39	0.24	0.03	-0.19	0.12	-0.14	-0.19	-0.05	0.05	-0.08
Latin America	0.22	0.24	0.31	0.35	0.36	0.31	0.29	0.33	0.26	0.12	0.25	-0.04	-0.04	-0.01	0.04	-0.01
Middle East	0.23	0.19	0.24	0.09	0.14	0.16	0.32	0.58	0.83	0.48	0.55	0.09	0.26	0.27	0.29	0.23
Africa	-0.01	0.08	0.03	0.08	0.09	0.07	0.09	0.16	0.12	0.05	0.11	0.02	0.02	-0.02	0.05	0.02
Total Non-OECD	1.31	1.16	1.32	1.26	1.33	1.27	1.72	1.72	1.85	0.38	1.42	-0.63	-0.17	-0.25	0.49	-0.14
World	1.06	0.28	1.15	0.86	1.12	0.85	0.87	0.76	-0.41	-2.20	-0.25	-3.10	-3.44	-2.06	-1.65	-2.56
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	-0.03	-0.28	-0.03	-0.03	-0.09
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	-0.03	-0.01	-0.01	0.06	-0.06	-0.04	-0.03	-0.02
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.13	0.00	0.00	0.00	0.03
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	-0.03	-0.02	-0.01	0.16	-0.35	-0.07	-0.06	-0.08
FSU	-0.02	-0.14	-0.04	0.00	0.00	-0.05	-0.05	-0.04	-0.04	-0.04	-0.04	-0.10	-0.11	-0.10	-0.10	-0.11
Europe	0.02	-0.08	-0.07	-0.06	-0.07	-0.07	-0.10	-0.09	-0.09	-0.10	-0.10	-0.12	-0.12	-0.12	-0.13	-0.12
China	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.00	0.01
Other Asia	0.03	0.14	0.19	0.16	0.18	0.17	0.16	0.16	0.16	0.16	0.16	0.21	0.12	0.11	0.12	0.14
Latin America	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.03	-0.03	-0.01	-0.02
Middle East	0.02	-0.04	-0.08	-0.17	-0.17	-0.12	-0.04	-0.04	-0.03	-0.03	-0.04	-0.02	0.04	0.04	0.03	0.02
Africa	-0.02	-0.05	-0.04	-0.04	-0.05	-0.05	-0.05	-0.05	-0.05	-0.06	-0.06	-0.07	-0.07	-0.07	-0.07	-0.07
Total Non-OECD	0.06	-0.16	-0.02	-0.11	-0.09	-0.09	-0.07	-0.06	-0.05	-0.06	-0.06	-0.10	-0.15	-0.18	-0.17	-0.15
World	0.06	-0.16	-0.02	-0.11	-0.09	-0.09	-0.05	-0.06	-0.08	-0.08	-0.07	0.06	-0.50	-0.25	-0.23	-0.23
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	-0.05	-0.22	-0.08	-0.16	-0.15	-0.15	0.11	-0.04	0.02	0.01	0.03	0.11	-0.44	-0.16	-0.15	-0.16

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2007	2008	2009	4Q08	1Q09	2Q09	3Q09	4Q09	Feb 09	Mar 09	Apr 09
OPEC											
Crude Oil											
Saudi Arabia	8.48	8.90		8.59	7.73				7.68	7.68	7.68
Iran	3.98	3.90		3.83	3.71				3.70	3.65	3.75
Iraq	2.09	2.38		2.36	2.34				2.26	2.38	2.42
UAE	2.52	2.59		2.43	2.29				2.25	2.25	2.25
Kuwait	2.16	2.31		2.30	2.07				2.03	1.98	1.98
Neutral Zone	0.56	0.57		0.56	0.55				0.54	0.54	0.54
Qatar	0.80	0.85		0.82	0.76				0.75	0.74	0.78
Angola	1.66	1.85		1.82	1.69				1.65	1.65	1.69
Nigeria	2.13	1.95		1.92	1.81				1.80	1.78	1.76
Libya	1.71	1.72		1.72	1.58				1.58	1.52	1.52
Algeria	1.36	1.37		1.35	1.25				1.25	1.22	1.25
Ecuador	0.50	0.50		0.49	0.48				0.48	0.46	0.48
Venezuela	2.39	2.35		2.33	2.13				2.10	2.10	2.12
Total Crude Oil[6]	30.34	31.24		30.52	28.37				28.07	27.94	28.21
Total NGLs[1,6]	4.52	4.66	4.96	4.78	4.68	4.80	5.06	5.29	4.68	4.68	4.80
Total OPEC[6]	34.86	35.89		35.30	33.05				32.75	32.62	33.00
OPEC: Historical Composition[6]	35.41	36.92		36.33	33.05				32.75	32.62	33.00
NON-OPEC[2]											
OECD											
North America	14.27	13.93	13.88	13.85	14.18	13.74	13.69	13.93	14.27	14.15	13.95
United States	7.48	7.53	7.75	7.45	7.81	7.80	7.67	7.73	7.82	7.83	7.80
Mexico	3.48	3.16	2.94	3.09	3.04	2.98	2.89	2.85	3.03	3.03	3.00
Canada	3.32	3.24	3.19	3.31	3.33	2.97	3.12	3.35	3.42	3.29	3.15
Europe	5.01	4.78	4.35	4.84	4.75	4.21	4.10	4.33	4.93	4.56	4.38
UK	1.66	1.56	1.41	1.57	1.57	1.38	1.27	1.40	1.64	1.47	1.43
Norway	2.56	2.46	2.25	2.54	2.49	2.13	2.13	2.25	2.60	2.36	2.26
Others	0.79	0.75	0.69	0.72	0.70	0.70	0.69	0.68	0.69	0.72	0.70
Pacific	0.63	0.65	0.67	0.68	0.65	0.65	0.68	0.71	0.65	0.66	0.66
Australia	0.55	0.55	0.56	0.60	0.57	0.55	0.57	0.58	0.56	0.57	0.57
Others	0.08	0.10	0.11	0.08	0.09	0.10	0.12	0.13	0.09	0.09	0.10
Total OECD	19.91	19.35	18.90	19.37	19.59	18.60	18.47	18.97	19.85	19.36	18.99
NON-OECD											
Former USSR	12.77	12.76	12.69	12.70	12.82	12.89	12.57	12.50	12.84	12.84	12.96
Russia	10.08	10.00	9.86	10.02	10.00	9.97	9.82	9.65	9.98	10.02	10.07
Others	2.69	2.76	2.84	2.68	2.82	2.92	2.75	2.85	2.86	2.82	2.89
Asia	7.40	7.45	7.52	7.47	7.38	7.52	7.58	7.58	7.42	7.39	7.52
China	3.73	3.79	3.84	3.80	3.72	3.87	3.89	3.89	3.74	3.72	3.87
Malaysia	0.74	0.76	0.74	0.74	0.74	0.75	0.74	0.73	0.74	0.74	0.75
India	0.81	0.81	0.78	0.82	0.77	0.77	0.78	0.80	0.79	0.78	0.75
Indonesia	1.01	1.03	1.04	1.03	1.05	1.03	1.05	1.05	1.05	1.04	1.03
Others	1.11	1.07	1.11	1.07	1.10	1.10	1.11	1.11	1.08	1.11	1.11
Europe	0.13	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.12	0.12	0.11
Latin America	3.93	4.12	4.37	4.19	4.34	4.34	4.40	4.41	4.33	4.37	4.34
Brazil	2.22	2.37	2.55	2.38	2.52	2.51	2.57	2.59	2.51	2.55	2.51
Argentina	0.75	0.74	0.75	0.74	0.75	0.75	0.75	0.74	0.76	0.75	0.75
Colombia	0.54	0.59	0.62	0.61	0.61	0.62	0.62	0.62	0.60	0.62	0.62
Others	0.43	0.43	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Middle East[3]	1.66	1.62	1.55	1.60	1.58	1.56	1.54	1.52	1.58	1.57	1.56
Oman	0.70	0.73	0.72	0.73	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Syria	0.42	0.40	0.37	0.39	0.38	0.37	0.36	0.36	0.38	0.38	0.38
Yemen	0.34	0.31	0.27	0.30	0.28	0.27	0.26	0.26	0.28	0.28	0.28
Africa	2.55	2.55	2.53	2.53	2.53	2.53	2.55	2.53	2.53	2.53	2.53
Egypt	0.66	0.65	0.63	0.65	0.65	0.64	0.63	0.62	0.65	0.64	0.64
Gabon	0.23	0.23	0.25	0.24	0.24	0.24	0.25	0.26	0.24	0.24	0.24
Others	1.66	1.67	1.66	1.64	1.65	1.66	1.67	1.65	1.65	1.65	1.66
Total Non-OECD	28.45	28.63	28.77	28.61	28.77	28.95	28.73	28.65	28.81	28.81	29.02
Processing Gains[4]	2.17	2.24	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Other Biofuels[5]	0.28	0.38	0.35	0.41	0.33	0.33	0.36	0.37	0.33	0.32	0.33
TOTAL NON-OPEC[6]	50.80	50.60	50.31	50.67	50.96	50.17	49.85	50.27	51.27	50.79	50.64
Non-OPEC: Historical Composition[6]	50.25	49.58	50.31	49.64	50.96	50.17	49.85	50.27	51.27	50.79	50.64
TOTAL SUPPLY	85.66	86.50		85.97	84.02				84.03	83.41	83.64

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Comprises fuel ethanol and biodiesel supply from outside Brazil and US.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Nov2008	Dec2008	Jan2009	Feb2009	Mar2009*	Mar2006	Mar2007	Mar2008	2Q2008	3Q2008	4Q2008	1Q2009
North America												
Crude	468.7	467.0	494.9	493.0	502.8	463.7	464.7	454.5	-0.22	0.19	0.16	0.40
Motor Gasoline	232.3	242.7	248.0	247.0	249.4	241.4	230.3	249.2	-0.13	-0.21	0.27	0.07
Middle Distillate	205.5	216.8	217.0	220.6	215.7	195.1	191.0	178.6	0.14	0.06	0.22	-0.01
Residual Fuel Oil	47.1	44.2	42.7	47.0	46.4	49.7	47.8	47.3	0.02	-0.02	-0.04	0.02
Total Products[3]	673.5	683.3	678.8	683.3	686.9	635.3	632.5	623.1	0.35	0.01	0.30	0.04
Total[4]	1304.7	1302.1	1324.2	1324.0	1340.5	1240.2	1237.7	1215.4	0.27	0.43	0.25	0.43
Europe												
Crude	329.0	342.8	344.4	340.1	347.5	344.7	325.4	334.2	0.01	-0.01	0.10	0.05
Motor Gasoline	105.7	109.4	109.4	106.3	105.1	110.3	108.4	120.7	-0.14	-0.10	0.12	-0.05
Middle Distillate	266.4	271.2	273.5	282.8	284.7	235.2	259.7	247.6	0.03	0.13	0.10	0.15
Residual Fuel Oil	74.9	81.9	80.5	79.4	79.9	69.3	71.4	80.5	0.00	-0.05	0.07	-0.02
Total Products[3]	561.7	574.6	572.2	577.8	578.5	516.2	541.5	557.3	-0.12	-0.01	0.31	0.04
Total[4]	963.3	991.8	991.4	990.7	997.9	936.7	940.6	963.5	-0.09	-0.06	0.45	0.07
Pacific												
Crude	166.0	162.6	171.2	175.5	170.4	170.7	174.4	157.7	0.11	-0.07	0.01	0.09
Motor Gasoline	24.0	20.6	22.3	24.5	25.8	24.5	24.5	26.7	-0.03	-0.02	-0.02	0.06
Middle Distillate	69.5	64.8	64.5	63.3	56.6	60.6	61.0	57.3	0.02	0.16	-0.10	-0.09
Residual Fuel Oil	20.7	20.0	20.7	21.6	20.1	19.2	22.1	20.1	0.03	0.00	-0.02	0.00
Total Products[3]	185.4	173.9	168.5	170.5	166.9	168.3	171.3	164.8	0.01	0.28	-0.20	-0.08
Total[4]	424.9	406.5	408.1	415.1	406.8	408.5	418.7	393.4	0.16	0.24	-0.25	0.00
Total OECD												
Crude	963.8	972.4	1010.5	1008.6	1020.7	979.1	964.6	946.4	-0.10	0.11	0.27	0.54
Motor Gasoline	362.0	372.7	379.7	377.9	380.2	376.2	363.2	396.5	-0.30	-0.33	0.38	0.08
Middle Distillate	541.4	552.8	555.0	566.7	557.0	490.9	511.7	483.6	0.19	0.34	0.22	0.05
Residual Fuel Oil	142.7	146.2	143.9	147.9	146.5	138.2	141.3	147.8	0.05	-0.07	0.01	0.00
Total Products[3]	1420.5	1431.8	1419.4	1431.6	1432.3	1319.8	1345.3	1345.2	0.25	0.28	0.41	0.01
Total[4]	2692.9	2700.4	2723.7	2729.7	2745.1	2585.3	2597.0	2572.3	0.34	0.60	0.45	0.50

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Nov2008	Dec2008	Jan2009	Feb2009	Mar2009*	Mar2006	Mar2007	Mar2008	2Q2008	3Q2008	4Q2008	1Q2009
North America												
Crude	701.8	701.8	703.8	705.5	712.8	686.1	688.6	700.4	0.06	-0.04	-0.01	0.12
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	186.5	186.1	185.7	187.1	187.1	170.2	174.3	185.0	-0.03	-0.02	0.07	0.01
Products	226.8	228.6	232.9	232.7	232.7	236.0	239.9	234.6	0.00	-0.01	-0.05	0.05
Pacific												
Crude	386.2	387.2	389.2	389.2	389.2	380.4	385.1	385.0	0.00	-0.01	0.03	0.02
Products	19.2	19.2	19.2	19.2	19.2	11.4	16.4	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1274.5	1275.1	1278.7	1281.8	1289.0	1236.7	1248.0	1270.4	0.02	-0.07	0.10	0.15
Products	248.0	249.8	254.0	253.9	253.9	249.4	258.3	255.5	0.00	-0.01	-0.05	0.05
Total[4]	1523.5	1525.9	1533.7	1536.7	1543.9	1487.1	1507.2	1526.9	0.02	-0.08	0.05	0.20

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End March 2008		End June 2008		End September 2008		End December 2008		End March 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	193.8	86	193.5	83	198.4	86	196.4	-	-	-
Mexico	46.8	22	44.7	21	55.7	27	50.3	-	-	-
United States[4]	1655.1	84	1687.5	90	1707.3	89	1737.2	-	-	-
Total[4]	1917.7	78	1947.9	82	1983.5	83	2005.9	85	2055.2	90
Pacific										
Australia	36.1	37	37.4	38	37.7	38	40.5	-	-	-
Japan	610.0	133	619.1	144	646.2	138	629.6	-	-	-
Korea	142.8	68	146.6	71	141.2	67	134.9	-	-	-
New Zealand	8.4	55	8.4	58	7.9	53	7.9	-	-	-
Total	797.4	102	811.4	108	833.0	105	812.9	101	815.1	116
Europe[5]										
Austria	22.7	78	22.8	77	21.5	79	23.2	-	-	-
Belgium	30.3	49	28.4	47	29.1	47	32.4	-	-	-
Czech Republic	20.4	91	20.2	89	19.1	98	21.4	-	-	-
Denmark	16.4	89	19.0	107	18.3	101	22.9	-	-	-
Finland	30.5	135	25.5	113	30.1	135	30.7	-	-	-
France	177.5	93	176.6	92	176.6	88	179.2	-	-	-
Germany	281.2	115	273.3	101	273.7	103	277.4	-	-	-
Greece	34.9	92	36.3	87	39.2	83	40.0	-	-	-
Hungary	16.7	101	16.6	100	15.5	93	15.0	-	-	-
Ireland	12.1	63	10.4	57	10.5	52	11.4	-	-	-
Italy	130.9	82	136.7	83	130.3	80	127.9	-	-	-
Luxembourg	0.6	10	0.7	12	0.6	10	0.8	-	-	-
Netherlands	126.5	126	124.5	120	115.0	118	131.4	-	-	-
Norway	25.4	104	23.1	119	26.5	130	29.9	-	-	-
Poland	57.6	108	57.4	103	58.8	106	58.1	-	-	-
Portugal	24.9	86	25.3	87	25.0	93	24.7	-	-	-
Slovak Republic	9.0	112	9.1	99	8.0	94	8.8	-	-	-
Spain	134.2	87	135.0	87	135.8	88	137.6	-	-	-
Sweden	34.2	97	34.1	94	36.6	104	38.7	-	-	-
Switzerland	36.5	150	37.2	141	37.8	134	36.3	-	-	-
Turkey	60.9	93	60.9	80	60.8	98	60.9	-	-	-
United Kingdom	100.5	59	99.3	61	95.1	55	98.8	-	-	-
Total	1384.1	92	1372.5	89	1363.8	89	1407.5	95	1418.6	101
Total OECD	4099.2	87	4131.8	89	4180.3	88	4226.3	91	4289.0	98
DAYS OF IEA Net Imports[6]	-	122	-	123	-	124	-	131	-	-

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End December 2008 and March 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
1Q2006	4072	1487	2585	84	31	53
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	54
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	84	30	53
4Q2007	4091	1524	2567	84	31	52
1Q2008	4099	1527	2572	87	32	54
2Q2008	4132	1529	2603	89	33	56
3Q2008	4180	1522	2659	88	32	56
4Q2008	4226	1526	2700	91	33	58
1Q2009	4289	1544	2745	98	35	62

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 4Q2008 and 1Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	1Q08	2Q08	3Q08	4Q08	Dec 08	Jan 09	Feb 09	Year Earlier Feb 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.75	0.73	0.71	0.63	0.79	0.60	0.71	0.78	-0.08
Europe	0.78	0.70	0.70	0.67	0.65	0.81	0.66	0.49	0.49	0.58	0.55	0.03
Pacific	1.32	1.19	1.22	1.29	1.24	1.10	1.24	1.29	1.27	1.51	1.30	0.22
Saudi Medium												
North America	0.64	0.56	0.64	0.58	0.62	0.68	0.66	0.64	0.58	0.30	0.58	-0.28
Europe	0.14	0.05	0.05	0.05	0.07	0.03	0.05	0.05	0.03	0.04	0.06	-0.02
Pacific	0.35	0.34	0.39	0.43	0.36	0.40	0.38	0.37	0.42	0.34	0.43	-0.08
Saudi Heavy												
North America	0.21	0.09	0.07	0.06	0.04	0.14	0.05	0.03	0.04	0.04	0.04	0.00
Europe	0.18	0.11	0.09	0.04	0.10	0.12	0.09	0.12	0.04	0.00	0.02	-0.02
Pacific	0.23	0.20	0.24	0.22	0.24	0.26	0.25	0.25	0.28	0.22	0.21	0.00
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.74	0.60	0.57	0.51	0.43	0.47	0.31	0.90	-0.59
Europe	0.32	0.30	0.21	0.20	0.19	0.23	0.21	0.17	0.14	0.08	0.17	-0.09
Pacific	0.08	0.17	0.15	0.13	0.18	0.18	0.11	0.15	0.21	0.31	0.19	0.12
Iraqi Kirkuk												
North America	0.00	-	0.08	0.04	0.11	0.10	0.06	0.07	0.09	0.09	-	-
Europe	0.01	0.11	0.23	0.21	0.28	0.24	0.19	0.18	0.26	0.24	0.18	0.06
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.24	0.23	0.21	0.24	0.26	0.14	0.09	0.25	-0.16
Pacific	0.13	0.09	0.08	0.11	0.06	0.06	0.07	0.09	0.13	0.09	0.10	-0.01
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.44	0.48	0.60	0.43	0.30	0.42	0.33	0.35	-0.02
Pacific	0.56	0.64	0.61	0.65	0.49	0.67	0.64	0.64	0.65	0.74	0.60	0.14
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.66	0.66	0.67	0.50	0.37	0.52	0.38	0.71	-0.34
Europe	0.11	0.08	0.06	0.07	0.06	0.06	0.07	0.08	0.07	0.10	0.04	0.06
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.60	0.59	0.67	0.74	0.86	0.98	0.60	0.63	-0.03
Europe	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.08	0.06	0.06	0.00
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	1.03	1.00	0.99	1.04	0.90	1.12	1.02	1.02	0.00
Europe	0.16	0.14	0.14	0.14	0.18	0.14	0.12	0.15	0.06	0.13	0.19	-0.06
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.03	0.01	0.01	0.00	-	0.01	0.01	0.07	-0.06
Europe	0.01	0.02	0.01	0.00	0.01	-	0.02	0.03	0.03	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.01	0.10	0.10	-	-	-	0.10	-	-
Europe	1.68	1.86	1.81	1.89	1.95	1.74	1.67	1.71	1.72	1.59	1.89	-0.30
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.85	0.77	0.52	0.60	0.51	0.38	0.42	0.91	-0.49
Europe	0.33	0.24	0.29	0.27	0.21	0.33	0.34	0.35	0.31	0.23	0.16	0.08
Pacific	0.04	0.01	-	-	-	-	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.31	0.27	0.26	0.22	0.21	0.03	0.09	0.23	-0.14
Europe	0.10	0.07	0.14	0.09	0.20	0.13	0.14	0.13	0.21	0.07	0.05	0.02
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	1Q08	2Q08	3Q08	4Q08	Dec-08	Jan-09	Feb-09	Year Earlier Feb-08	% change
Crude Oil												
North America	8194	8119	8041	8087	8298	7895	7886	7583	8123	7246	7747	-6%
Europe	9784	9679	9772	9710	9878	9977	9524	9655	9225	8999	9276	-3%
Pacific	6816	6718	6604	7098	6457	6462	6404	6612	6822	6879	7014	-2%
Total OECD	24794	24516	24417	24895	24633	24333	23814	23850	24170	23124	24356	-5%
LPG												
North America	14	27	29	27	15	38	34	31	45	15	31	-53%
Europe	264	276	264	307	246	263	239	273	249	227	324	-30%
Pacific	578	557	589	599	632	582	542	504	467	524	592	-12%
Total OECD	856	860	881	933	893	884	816	808	761	765	946	-19%
Naphtha												
North America	71	39	55	25	54	58	82	92	86	13	40	-68%
Europe	314	265	259	274	260	231	270	242	224	264	270	-2%
Pacific	754	794	776	796	734	886	689	706	593	774	769	1%
Total OECD	1138	1098	1090	1095	1048	1174	1040	1040	903	1051	1078	-3%
Gasoline[3]												
North America	1143	1121	1083	888	1220	1184	1038	988	984	960	898	7%
Europe	160	203	218	227	187	260	196	214	303	299	248	20%
Pacific	96	73	91	110	91	56	106	117	102	132	114	15%
Total OECD	1399	1398	1391	1225	1498	1501	1340	1319	1389	1391	1260	10%
Jet & Kerosene												
North America	161	183	63	96	78	40	39	45	90	80	79	2%
Europe	374	370	402	360	381	400	468	454	456	378	319	18%
Pacific	69	43	34	44	39	22	33	47	64	130	46	180%
Total OECD	603	595	500	499	498	461	540	546	610	588	445	32%
Gasoil/Diesel												
North America	175	129	72	99	46	50	95	156	130	117	96	22%
Europe	967	780	870	901	662	900	1014	1031	1192	1444	816	77%
Pacific	77	91	119	100	133	128	117	116	77	124	128	-3%
Total OECD	1219	1000	1062	1100	840	1078	1226	1304	1399	1684	1040	62%
Heavy Fuel Oil												
North America	343	323	286	328	307	246	266	312	371	270	303	-11%
Europe	476	433	445	487	391	443	459	469	439	517	472	10%
Pacific	91	95	125	124	140	143	93	92	104	165	141	17%
Total OECD	910	851	856	939	838	831	818	873	914	951	915	4%
Other Products												
North America	1121	1051	1076	1041	1085	1061	1117	1061	963	886	1029	-14%
Europe	929	854	763	747	771	786	750	667	747	790	674	17%
Pacific	243	254	300	290	267	318	322	363	308	241	252	-4%
Total OECD	2294	2158	2139	2079	2123	2165	2188	2090	2018	1917	1955	-2%
Total Products												
North America	3028	2873	2664	2504	2804	2677	2670	2685	2669	2341	2475	-5%
Europe	3484	3180	3220	3302	2898	3282	3395	3349	3609	3918	3122	25%
Pacific	1908	1906	2034	2064	2035	2136	1902	1946	1716	2088	2042	2%
Total OECD	8420	7959	7918	7871	7738	8095	7967	7980	7994	8346	7639	9%
Total Oil												
North America	11222	10993	10705	10592	11102	10572	10557	10268	10793	9587	10542	-9%
Europe	13268	12859	12992	13012	12776	13259	12919	13005	12834	12917	12398	4%
Pacific	8724	8623	8638	9162	8492	8597	8306	8557	8538	8967	9056	-1%
Total OECD	33214	32475	32335	32766	32371	32428	31781	31830	32165	31470	31995	-2%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor — David Fyfe
Head, Oil Industry and Markets Division — (+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand — Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply — Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining — David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight — Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices — Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Statistics/Trade — Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant — Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
6* 0 - only within France

Media Enquiries

IEA Press Office — (+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

User's Guide and Glossary to the IEA *Oil Market Report*

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR) and Annual Statistical Supplement* (current issue of the statistical supplement dated 12 August 2008), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Platts prices, converted when appropriate to US$ per barrel according to the Platts specification of products (© 2009 Platts - a division of McGraw-Hill Inc.).

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Next Issue: 11 June 2009

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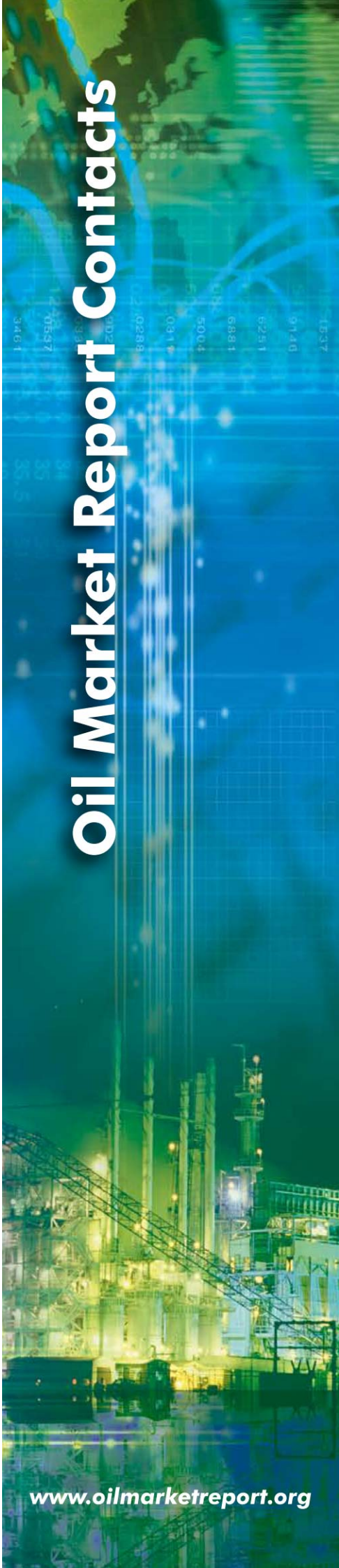

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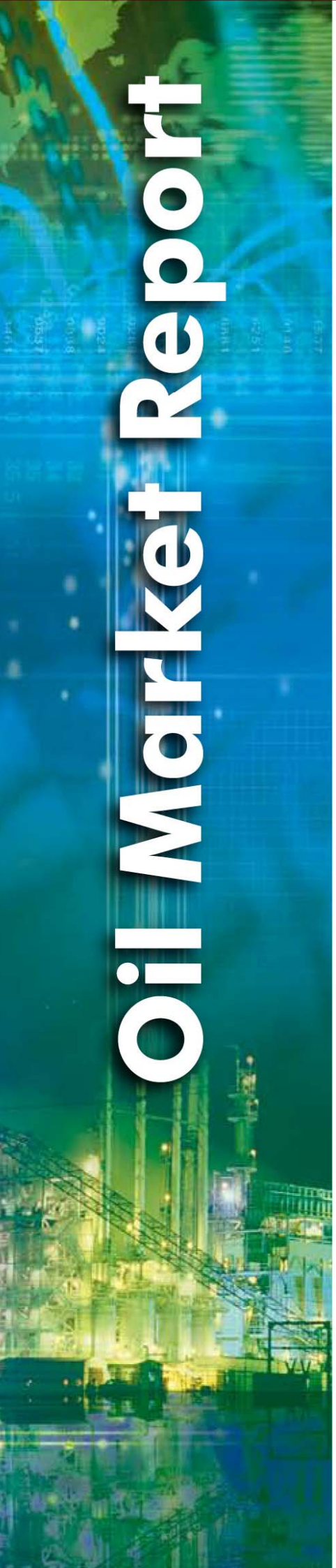

INTERNATIONAL ENERGY AGENCY

11 June 2009

HIGHLIGHTS

- **Crude futures were up $10 in May, averaging $60/bbl** and reached $10/bbl higher by early June. The bull-run appears largely driven by perceived global economic recovery, with prices also recently underpinned by rising refinery throughput. OPEC's late-May decision to maintain current production targets added further support to markets.
- **Forecast global oil demand is adjusted up 120 kb/d for 2009** following stronger-than-expected 1Q09 OECD data. Global oil demand is projected at 83.3 mb/d, -2.9% or -2.5 mb/d compared with 2008. These revisions do not necessarily imply economic recovery, but may reflect a slowing in previously sharp decline.
- **2009 non-OPEC supply is revised up 170 kb/d** on stronger growth at new Russian fields, more robust North Sea production and higher crude output in Colombia. Year-on-year, it is now expected to decline 100 kb/d to 50.5 mb/d. Global May oil supply edged down 210 kb/d from April to 83.7 mb/d. A non-OPEC decline of 370 kb/d, entirely in OECD countries, outstripped higher OPEC output.
- **OPEC crude oil production in May again increased**, by 160 kb/d to 28.4 mb/d. OPEC-11 output rose 110 kb/d, to 26.0 mb/d, about 1.1 mb/d over the group's 24.85 mb/d target. OPEC opted to hold output targets steady at its 28 May meeting in Vienna. The call on OPEC crude and stock change is cut 0.2 mb/d to 27.7 mb/d for 2009.
- **Forecast global 2Q09 crude runs are raised 0.2 mb/d to 71.3 mb/d**, as a result of higher April preliminary data in OECD countries, reports of high crude runs in China and marginally stronger global demand. But 3Q09 crude runs are forecast at 72.8 mb/d, representing an annual decline of 1.2 mb/d.
- **OECD industry stocks rose by 10.4 mb in April** to 2,753 mb, 7.5% above a year ago. Higher North American inventory outweighed lower stocks in both Europe and the Pacific. Yet, end-April forward demand cover fell slightly to 62.0 days with rising seasonal demand, albeit still 7.5 days above a year ago.

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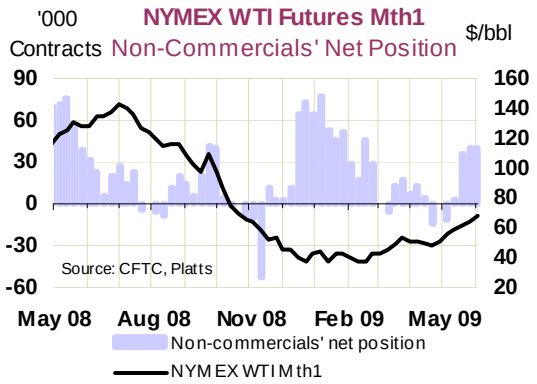
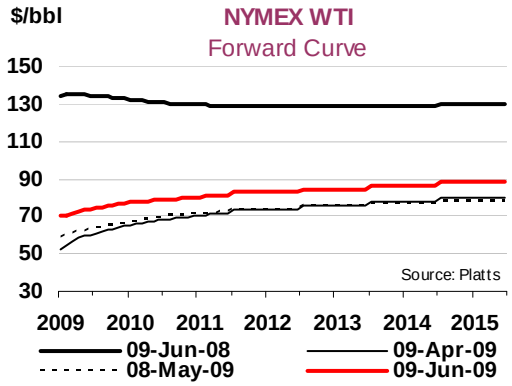
BACK TO THE FUTURES

Both the *OMR* and *MTOMR* have long argued that market fundamentals remain the key driver of crude prices. A 20%-plus rise in prices during May and into early June looks difficult to justify from fundamental factors alone, even though refinery throughputs are trending higher, while OPEC curbs remain in place and gasoline markets begin to tighten. But saying that fundamentals are the *key* driver is different from inferring they are the *only* driver. Prospects for equity markets and the global economy, backed up by exchange rate fluctuations, expectations about future oil market tightness and, by inference, a shift of money into or out of futures markets can all influence short-term prices, as we have noted before. Indeed, it is tempting to conclude that the shift in NYMEX WTI non-commercial positions from a net 11,000 short in early May to 40,000 net long a month later is sufficient explanation for the surge in prices. The problem is that the relationship falls apart over longer periods, and also that total open interest on the NYMEX has been range-bound this year at well below spring 2008 highs. So if an '*it's only fundamentals*' argument strains credibility, so too does the idea of a single '*speculative*' smoking gun underpinning higher prices, although recent regulatory moves to improve financial market oversight are welcome.





Other analysts have argued that prevailing market contango and the use of commodities as a hedge against the spectre of resurgent inflation and a weakening dollar will perpetuate the incentive to build inventory, squeeze the prompt market and risk a difficult-to-break vicious circle of upwardly spiralling prices. The ongoing stockbuild element of this thesis is supported by anecdotal reports that China was buying more crude for strategic storage during April and May. But a recently narrowing contango, and latest OECD stock changes give more mixed messages. A 10 mb OECD stockbuild in April was below seasonal norms, and forward cover eased to (an admittedly still-high) 62 days. Preliminary OECD end-May data also came in higher, partly offset by reports of a 30 mb fall in crude floating storage. OECD inventory and floating storage combined are abnormally high, but existing OPEC target output still holds the potential to tighten inventory (albeit only by late 2009 or early 2010), something OPEC Ministers tacitly acknowledged on 28 May in Vienna. If that coincides with a further strengthening in prompt demand, the price curve could look rather different in a year's time.

While rapid price swings can prove destabilising, higher prompt prices, if symptomatic of a gradually recovering global economy, in themselves may be no bad thing. If they coincide with cyclically weaker costs (which now seems the case), higher prices could also prompt a recovery in upstream investment. Notwithstanding a now-lower cost base, a recent IEA report prepared for the G8 Energy Ministers Meeting highlights the risks for longer-term supply growth if upstream spending curbs are sustained. But moves to try to identify and artificially maintain a new 'ideal' price look fraught with hazard. Not only are marginal supply costs themselves a moving target, but there is a risk in selecting an arbitrary and inflexible consensus price level that this itself could undermine the global economic rebound everyone wishes to see. Free markets may be getting a bad press just now, but over time they are the most efficient way to rebalance supply and demand, however well-meaning the urge towards greater market management might be.

DEMAND

Summary

- **Forecast global oil demand has been adjusted up slightly for 2009** following stronger-than-expected early-year OECD demand. Global oil demand is projected at 83.3 mb/d, -2.9% or -2.5 mb/d when compared with 2008, and 120 kb/d higher when compared with last month's report. These revisions do not necessarily imply the beginnings of a global economic recovery, and may only signal the bottoming out of the recession. The demand estimate for 2008, meanwhile, remains broadly unchanged at 85.8 mb/d (-0.3% or -0.2 mb/d versus 2007).

- **Forecast oil demand in the OECD has been adjusted up marginally for 2009** to 45.2 mb/d (-4.9% or -2.3 mb/d on a yearly basis and 120 kb/d higher than previously anticipated). These revisions resulted mostly from higher-than-anticipated demand for petrochemical feedstocks. However, the rebound of petrochemical activity, which reached historical lows in early 2009, is possibly due to restocking. By contrast, demand for transportation fuels remains very weak, suggesting that other economic sectors (notably services) are still constrained. As such, revisions have not been carried forward until more solid evidence emerges. The oil demand estimate for 2008, by contrast, remains largely unchanged at 47.5 mb/d (-3.3% or -1.6 mb/d versus 2007).

Global Oil Demand (2007-2009)

(million barrels per day)

	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Africa	3.0	3.0	3.0	3.1	3.0	3.1	3.1	3.1	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Americas	31.1	31.0	31.3	31.3	31.2	30.5	30.5	29.8	30.0	30.2	29.5	28.9	29.2	29.0	29.1
Asia/Pacific	25.7	25.2	24.7	25.9	25.4	26.6	25.6	24.9	25.0	25.5	25.5	24.7	24.0	24.6	24.7
Europe	15.9	15.6	16.1	16.3	16.0	15.9	15.6	16.0	15.9	15.9	15.5	14.7	15.3	15.3	15.2
FSU	4.1	3.9	4.1	4.2	4.1	4.2	4.1	4.3	4.2	4.2	3.9	3.8	4.1	4.0	4.0
Middle East	6.3	6.4	6.6	6.3	6.4	6.6	7.0	7.4	6.8	7.0	6.6	7.2	7.7	7.1	7.1
World	**86.0**	**85.0**	**85.8**	**87.2**	**86.0**	**87.0**	**85.8**	**85.4**	**85.0**	**85.8**	**84.1**	**82.6**	**83.3**	**83.3**	**83.3**
Annual Chg (%)	0.3	1.4	1.0	1.3	1.0	1.1	1.0	-0.5	-2.5	-0.3	-3.3	-3.8	-2.5	-2.0	-2.9
Annual Chg (mb/d)	0.3	1.1	0.9	1.1	0.9	0.9	0.8	-0.4	-2.2	-0.2	-2.8	-3.2	-2.1	-1.7	-2.5
Changes from last OMR (mb/d)	0.00	0.00	0.00	0.00	0.00	0.06	0.05	0.00	0.03	0.03	0.31	0.24	-0.05	0.00	0.12

- **Forecast non-OECD oil demand remains essentially unchanged for both 2008 and 2009.** Although 1Q09 revisions and preliminary data for April indicate that demand was slightly higher than expected in Africa and Asia, it also showed somewhat lower-than-expected growth in the Middle East. The forecast for 2009 remains at 38.1 mb/d (-0.3% or -130 kb/d versus the previous year), while the estimate for 2008 is untouched at 38.3 mb/d (+3.8% or +1.4 mb/d versus 2007).

- **The recent flurry of fuel efficiency policies in the US will arguably contribute to tame gasoline demand, curb emissions and reduce the country's dependence upon foreign oil.** It is unclear, however, whether these policies will also succeed in helping domestic car manufacturers to compete successfully against foreign producers, unless retail gasoline prices remain low. From an economic perspective, raising gasoline taxes would complement fuel standards, but this would be politically unpalatable in a recession.

OECD

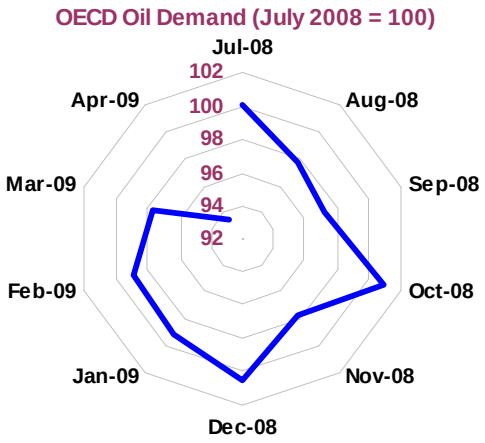
Preliminary data show that OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 8.1% year-on-year in April, with all three regions recording losses for the twelfth month in a row. In **OECD Pacific**, demand plunged by 9.9%, despite a marked rebound in naphtha deliveries. In **OECD North America** (which includes US Territories), oil product demand fell by 8.4% year-on-year, with all product categories posting losses. In **OECD Europe**, the support provided by strong heating oil deliveries largely dissipated and compounded the seasonal weakness of Easter holidays (which this year fell in April); as such, total demand shrank by 6.8%.

OECD Demand based on Adjusted Preliminary Submissions - April 2009
(million barrels per day)

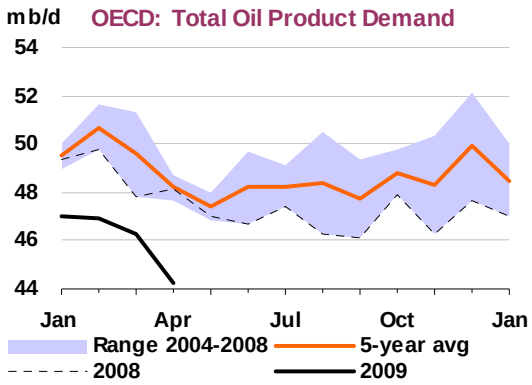
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.54**	**-1.4**	**1.70**	**-7.1**	**3.41**	**-15.8**	**1.05**	**-1.5**	**0.84**	**-28.7**	**4.88**	**-13.64**	**22.42**	**-8.4**
US50	9.01	-1.5	1.49	-8.1	2.91	-17.4	0.62	4.6	0.44	-35.3	3.55	-17.0	18.02	-9.2
Canada	0.70	-0.7	0.11	9.6	0.19	2.1	0.29	-9.6	0.13	-0.1	0.72	-3.9	2.14	-2.3
Mexico	0.77	-0.9	0.07	-10.8	0.27	-10.3	0.12	-10.3	0.19	-34.1	0.56	-3.0	1.97	-8.2
OECD Europe	**2.39**	**-2.0**	**1.24**	**-4.3**	**4.19**	**-7.2**	**1.78**	**-1.5**	**1.46**	**-8.0**	**3.36**	**-12.0**	**14.43**	**-6.8**
Germany	0.49	3.2	0.19	-1.0	0.63	-5.1	0.43	11.6	0.18	12.2	0.51	-19.1	2.43	-3.1
United Kingdom	0.38	-6.1	0.36	-1.0	0.41	-8.4	0.15	-2.3	0.06	-11.5	0.35	-9.1	1.71	-6.2
France	0.22	0.7	0.15	-6.0	0.70	-1.1	0.29	-9.4	0.07	-22.5	0.44	-14.2	1.87	-7.0
Italy	0.29	-4.4	0.08	-6.3	0.54	-6.6	0.07	-9.5	0.18	-16.7	0.33	-19.0	1.48	-10.7
Spain	0.15	-1.9	0.11	-17.1	0.49	-10.7	0.20	-3.4	0.20	-6.8	0.37	-2.7	1.51	-7.1
OECD Pacific	**1.51**	**-13.6**	**0.75**	**-7.4**	**1.19**	**-9.2**	**0.43**	**-15.8**	**0.73**	**-21.0**	**2.81**	**-4.3**	**7.42**	**-9.9**
Japan	0.96	-19.9	0.47	-9.8	0.53	-16.5	0.30	-18.3	0.33	-41.1	1.48	-13.8	4.07	-18.6
Korea	0.18	0.0	0.15	-2.3	0.28	-6.1	0.11	-11.0	0.35	10.8	1.16	11.6	2.22	5.7
Australia	0.33	-0.1	0.10	-4.7	0.33	0.4	0.02	-1.0	0.04	-0.1	0.16	-4.4	0.98	-1.2
OECD Total	**14.45**	**-2.9**	**3.69**	**-6.2**	**8.78**	**-11.0**	**3.26**	**-3.6**	**3.03**	**-17.8**	**11.06**	**-10.9**	**44.27**	**-8.1**

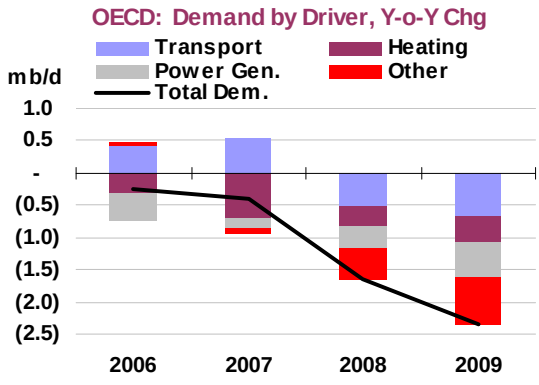
* Including US territories

The upward revisions to March's preliminary data were relatively large, with higher-than-anticipated demand for LPG, naphtha, heating oil and 'other products', which offset weaker deliveries of gasoline, jet fuel/kerosene and diesel. March's OECD demand estimates thus turned out to be 650 kb/d higher, indicating that demand fell by 3.2% during that month, rather than by 4.5%. Preliminary data for April were also stronger than anticipated, mostly owing again to sustained LPG and naphtha demand on the back of a rebound in petrochemical activity, which had reached historical lows.



These adjustments do not necessarily reflect the beginning of a global economic recovery, signalling at best what could be the bottoming out of the recession, possibly related to industrial inventory rebuilds. As noted, demand for transportation fuels remains subdued, which suggests that other economic sectors (notably services) are still constrained. Indeed, oil demand in the OECD since July 2008 has largely followed a downward spiral. As such, these revisions have not been carried forward until more solid evidence of sustained demand emerges. Moreover, preliminary May data for the US (based on weekly figures) were actually slightly *weaker* than expected. Overall, 2009 OECD demand has been adjusted up by 120 kb/d, entailing a contraction of 4.9% or -2.3 mb/d versus 2008, to 45.2 mb/d.

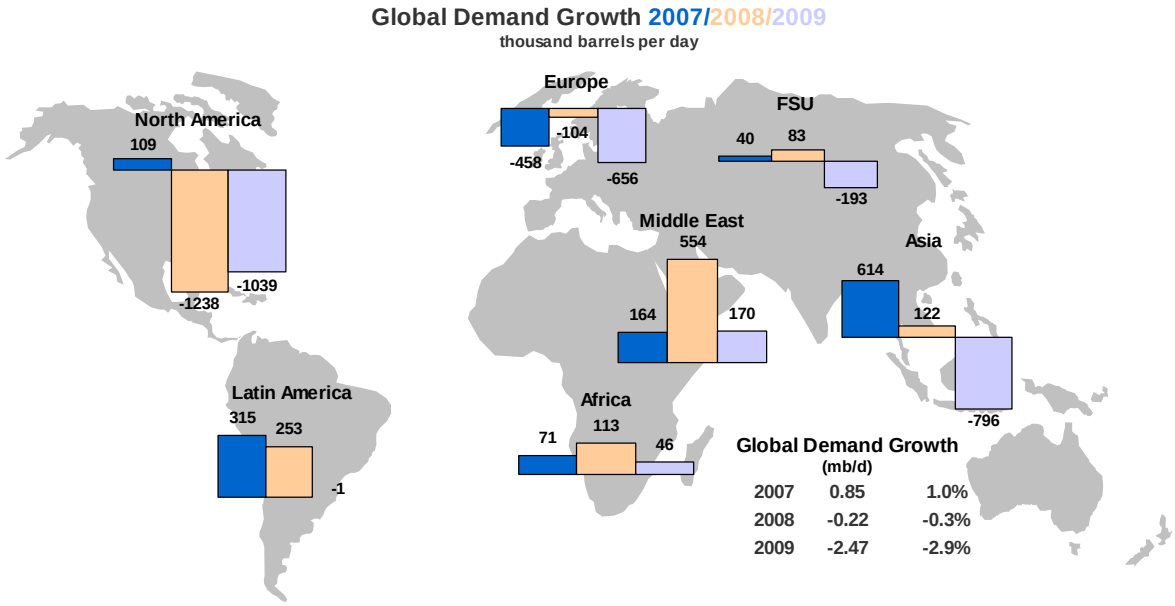




Total OECD Demand by Product
(million barrels per day)

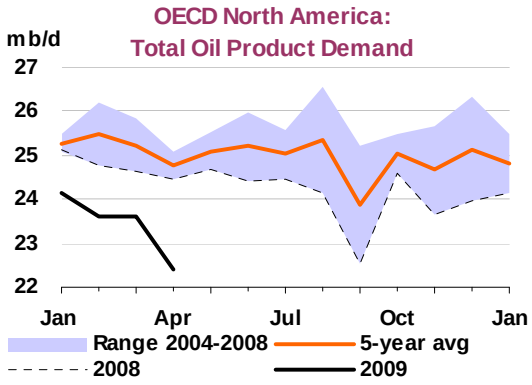
	2008	2009	2Q08	3Q08	4Q08	1Q09	Jan 09	Feb 09	Mar 09*	Latest month vs. Feb 09	Latest month vs. Mar 08
LPG & Ethane	4.67	4.42	4.59	4.31	4.59	4.97	5.17	4.97	4.77	-0.20	-0.17
Naphtha	3.04	2.75	3.00	3.02	2.84	2.93	2.80	3.01	2.99	-0.02	-0.18
Motor Gasoline	14.46	14.42	14.73	14.48	14.39	14.05	13.83	14.10	14.23	0.13	-0.13
Jet & Kerosene	3.99	3.72	3.87	3.82	3.91	4.01	4.17	4.02	3.85	-0.17	-0.28
Gas/Diesel Oil	12.97	12.33	12.61	12.57	13.34	13.05	13.10	13.18	12.88	-0.29	-0.05
Residual Fuel Oil	3.66	3.28	3.64	3.53	3.61	3.64	3.90	3.52	3.48	-0.04	-0.23
Other Products	4.75	4.29	4.85	4.88	4.61	4.07	4.02	4.09	4.09	0.00	-0.48
Total Products	**47.53**	**45.20**	**47.29**	**46.59**	**47.29**	**46.73**	**47.01**	**46.90**	**46.30**	**-0.59**	**-1.52**

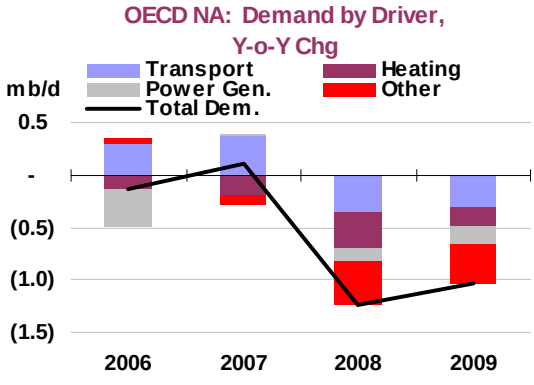
* Latest official OECD submissions (MOS)



North America

According to preliminary data, oil product demand in North America (including US Territories) plummeted by 8.4% year-on-year in April, the sixteenth monthly contraction in a row. The oil demand decline in both the United States and Mexico was particularly pronounced (-9.0% and -8.2% year-on-year, respectively), with Canada faring slightly better (-2.3%).





Three-quarters of March's upward revisions to preliminary data (+430 kb/d) were attributable to the US. Regional demand fell less than expected during that month (-4.2% rather than -5.9%). Regional demand for LPG, naphtha and 'other products' was much stronger than expected, possibly as industrial firms

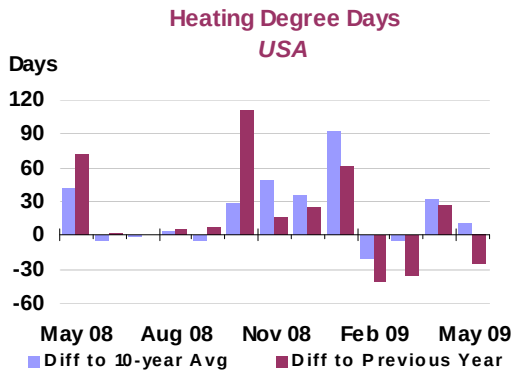
moved to rebuild depleted inventories, but demand for transportation fuels, notably gasoline, was much weaker than anticipated. Total demand is now expected to reach 23.3 mb/d in 2009 (-4.3% or -1.0 mb/d versus 2008 and about 80 kb/d higher compared with last month's report).

OECD North America Demand by Product
(million barrels per day)

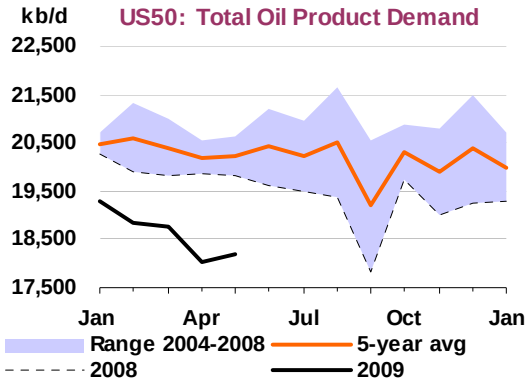
	2008	2009	2Q08	3Q08	4Q08	1Q09	Jan 09	Feb 09	Mar 09*	Latest month vs. Feb 09	Latest month vs. Mar 08
LPG & Ethane	2.74	2.62	2.63	2.52	2.70	3.03	3.16	3.01	2.91	-0.10	-0.02
Naphtha	0.35	0.26	0.37	0.34	0.32	0.28	0.28	0.26	0.30	0.04	-0.04
Motor Gasoline	10.56	10.65	10.74	10.51	10.53	10.35	10.25	10.38	10.43	0.05	-0.20
Jet & Kerosene	1.79	1.66	1.84	1.81	1.66	1.68	1.67	1.65	1.71	0.06	-0.14
Gas/Diesel Oil	5.01	4.61	4.96	4.77	5.03	4.95	5.14	4.96	4.74	-0.22	-0.46
Residual Fuel Oil	1.12	0.96	1.22	1.07	1.08	1.11	1.23	0.95	1.14	0.20	0.02
Other Products	2.72	2.50	2.77	2.71	2.76	2.40	2.39	2.43	2.38	-0.05	-0.18
Total Products	**24.29**	**23.25**	**24.52**	**23.73**	**24.07**	**23.79**	**24.12**	**23.63**	**23.60**	**-0.02**	**-1.03**

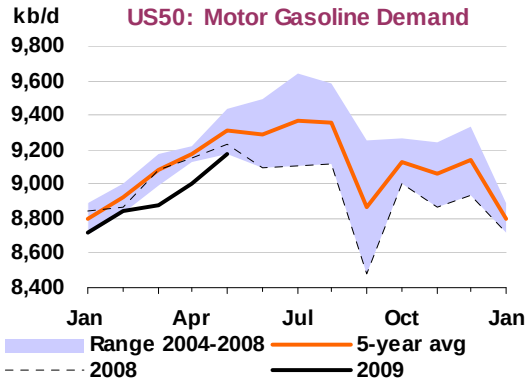
* Latest official OECD submissions (MOS)

Adjusted preliminary inland deliveries – a proxy of oil product demand – in the continental **United States** plunged by 8.1% year-on-year in May. Despite predictions by some analysts that the economic recession is virtually over, all product categories bar heating oil posted sharp losses, scarcely indicative of an imminent recovery. Heating oil demand was arguably supported by relatively cool temperatures (the number of heating-degree days in May was higher than the 10-year average, yet lower than in the same month of the previous year). The poor readings for fuel oil consumption could suggest that electricity needs remain subdued and that natural gas continues to make inroads in power generation.



It is worth noting that demand for transportation fuels remains significantly subdued. Jet fuel/kerosene demand languishes at 12.9% below last year's levels, while diesel demand is down by 15.8% year-on-year. Gasoline demand is still contracting (-0.6% year-on-year), albeit less sharply than in previous months, most likely because of the Memorial Day weekend, traditionally seen as the kickoff for the driving season. The trend indeed suggests that this year, contrary to 2008, will likely feature a driving season; therefore, gasoline demand should post positive growth from June onwards – for the first time since September 2007. However, as much as we expect strong growth this summer – relative to very weak gasoline deliveries last year – the long-term increase in US gasoline demand is likely to slow down markedly when compared with recent years, as new legislation regarding efficiency and emissions is put into place (see *US Fuel Efficiency Initiatives: A Primer*).





For the first time in more than a year, our pre-emptive adjustment to preliminary weekly data (+320 kb/d for March) slightly exceeded the EIA's weekly-to-monthly revisions (+190 kb/d). The data now indicate that March's year-on-year annual decline was 5.3%, less than previously estimated (-7.0%). Based on March's revisions and preliminary April and May data, US oil demand in 2009 is expected to contract by 4.8% or 950 kb/d to 18.6 mb/d, about 50 kb/d higher than expected in our previous report.

US Fuel Efficiency Initiatives: A Primer

Until recently, the US had been less pro-active than other OECD countries concerning fuel efficiency improvements in the transportation sector. Following the oil price shock of the 1970s, the US government introduced the Corporate Average Fuel Economy (CAFE) standards in order to reduce the fleet's fuel intensity, but this policy was relaxed in the early 1980s. As such, fuel intensity in the US has largely stagnated since the early 1990s. The efficiency gap has become quite large: on average, the vehicle fleet in the US is currently about a third less efficient than in Europe and the Pacific.

In 2003, the US government revived the efficiency effort, seeking to reduce the fuel intensity of 'light-trucks' (SUVs, vans, and pickups, among others). The National Highway Traffic Safety Administration (NHTSA) set new light-truck CAFE standards that aimed to improve efficiency by roughly 10% by 2007 – the largest increase since the mid-1980s. Three years later, the NHTSA mandated a further 10% improvement by 2011. However, models from 2008 to 2010 were exempted, thus remaining subject to the 2003 legislation. More significantly, the passenger-car CAFE standards were left largely untouched, given that the NHTSA lacked the formal authority to reform them. This changed in 2007 with the Energy Independence and Security Act, which mandated an average goal of 35.5 mpg (about 15 km/litre), to be reached gradually from 2011 to 2020 (thus more than doubling current average fuel efficiency).

The Obama administration has gone much further and quicker. First, it moved last May the 35.5-mpg goal four years ahead to 2016. Second, it has not only allowed states to set their own standards – an attribution that the previous administration had fiercely denied – but has also followed California's example in regulating CO_2 emissions from vehicles, which must now fall by almost a third by 2015. Third, it has cornered domestic car manufacturers – which opposed fuel efficiency improvements during most of the past two decades – by making contingent federal bailout funds upon their firm commitment to produce much more efficient vehicles. Fourth, it has put in place a $7,500 subsidy for buyers of electric vehicles (EVs). Finally, the administration is considering whether to introduce a carbon cap-and-trade system and fiscal rebates for the purchase of more efficient vehicles (other than electric ones), but the details of these initiatives remain to be unveiled.

Taken together, these policies will arguably contribute to improve the fleet's overall efficiency and help meet three of the government's stated objectives, namely to tame gasoline demand, curb emissions and reduce the country's dependence upon foreign oil. (US gasoline demand trends will be covered in detail in our forthcoming *Medium-Term Oil Market Report*.) It is unclear, however, whether these policies will succeed in achieving a fourth goal prompting domestic car manufacturers to produce more efficient vehicles and helping them compete successfully against foreign manufacturers.

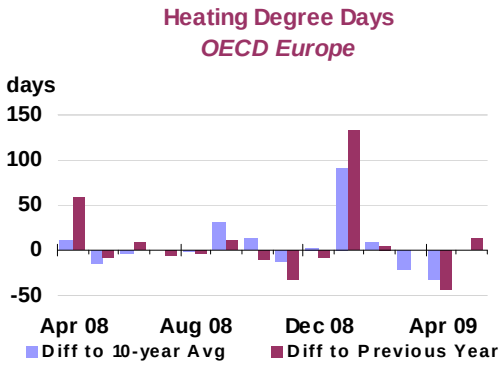
The new targets will probably require introducing hybrid technologies, notably in the case of light trucks, and possibly even diesel engines (although that fuel has never been popular in the US). Yet in the field of technological improvements, foreign manufacturers have a clear advantage – unless protectionist trade policies were to be put in place to prevent imports of more efficient vehicles, as happened in the early 1990s. If gasoline prices were to remain low, however, domestic manufacturers would stand a better chance. Indeed, despite setting more stringent, *average* fuel mileage standards, the new CAFE rules continue to favour light trucks over passenger cars. The former must raise fuel efficiency to only 30 mpg, while the latter must achieve 39 mpg, from 23 mpg and 27.5 mpg today, respectively. Thus, under a low-price environment, domestic manufacturers would arguably focus on selling more profitable SUVs – for which efficiency improvements would be less challenging given the lower standards – while building just a few small cars to fulfil the mandated average mileage. This would entail a repeat of the trend observed in the late 1990s and early 2000s, when annual sales of light trucks eventually rose to over half of total vehicle sales, thus contributing to the stagnation of the fleet's overall efficiency – hardly a genuine improvement.

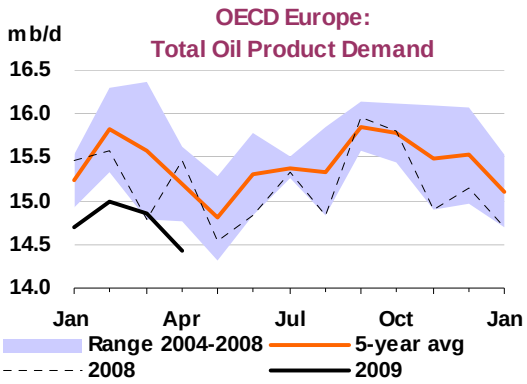
US Fuel Efficiency Initiatives: A Primer (continued)

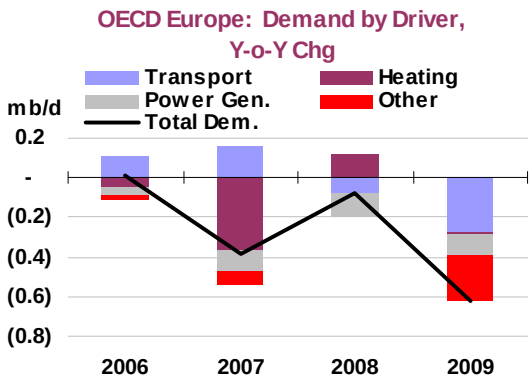
For these reasons some stakeholders – most notably the CEO of Sunoco, a large independent refiner, and the chairman of Ford, the only US car manufacturer that has not gone bankrupt or effectively been nationalised, as well as several environmental groups – have advocated a steep increase in gasoline taxes. From an economic perspective, raising taxes, by targeting *demand* (as high retail prices would discourage motorists to switch away from light trucks and encourage producers to focus on building leaner vehicles), would complement the *supply-side* approach of the CAFE standards. Retail gasoline prices would need to be high enough to prompt a turnover of the fleet, even if more efficient vehicles are more expensive (the government estimates they will cost about $1,300 more than conventional models); otherwise, drivers would be tempted to keep their older models on the road for longer. It remains to be seen, however, whether hiking the federal gasoline tax significantly above its current level – $0.18/gallon – would be politically palatable in a recession. The administration has seemingly concluded that, at this juncture, Congress would likely oppose such a move.

Europe

According to preliminary inland data, oil product demand in Europe plunged by 6.8% year-on-year in April. Somewhat warmer temperatures (the number of heating-degree days in April was lower than both the 10-year average and the same month of the previous year) tamed heating oil deliveries, which fell by 1.5% year-on-year, in sharp contrast to previous months. Moreover, as far as key products are concerned, there are no clear signs that would support the contention that the recession in Europe is bottoming out: demand for LPG fell by 10.1%, naphtha by 15.7%, jet fuel/kerosene by 4.3%, residual fuel oil by 8.0% and diesel by 7.2% (in the case of the latter product, the decline was much larger than is traditionally the case at Easter).







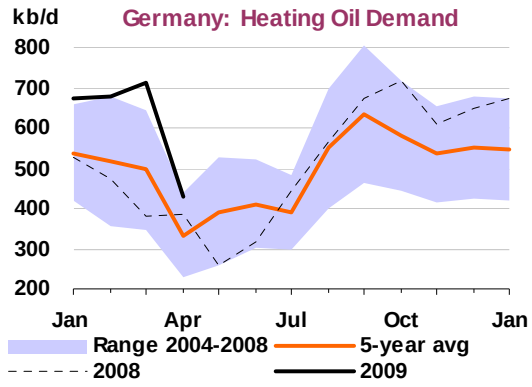
OECD Europe Demand by Product
(million barrels per day)

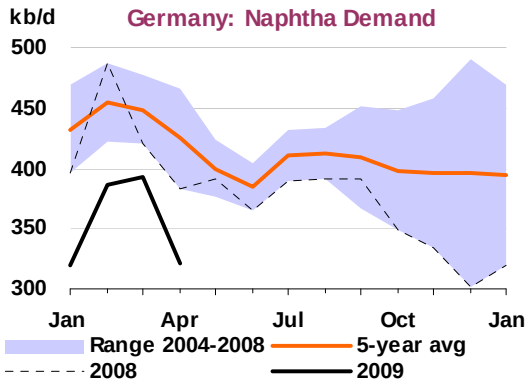
	2008	2009	2Q08	3Q08	4Q08	1Q09	Jan 09	Feb 09	Mar 09*	Latest month vs. Feb 09	Latest month vs. Mar 08
LPG & Ethane	0.96	0.90	0.99	0.87	0.93	0.98	1.01	0.97	0.94	-0.03	-0.08
Naphtha	1.10	0.99	1.07	1.08	1.01	1.07	0.96	1.11	1.14	0.03	-0.07
Motor Gasoline	2.37	2.27	2.44	2.46	2.31	2.20	2.11	2.23	2.28	0.05	-0.01
Jet & Kerosene	1.31	1.27	1.30	1.41	1.26	1.19	1.21	1.21	1.17	-0.03	-0.11
Gas/Diesel Oil	6.26	6.14	5.94	6.23	6.58	6.44	6.38	6.53	6.42	-0.11	0.52
Residual Fuel Oil	1.63	1.53	1.54	1.60	1.68	1.61	1.72	1.64	1.47	-0.17	-0.13
Other Products	1.58	1.49	1.66	1.72	1.51	1.35	1.30	1.32	1.42	0.10	-0.06
Total Products	**15.22**	**14.59**	**14.94**	**15.37**	**15.28**	**14.84**	**14.69**	**15.00**	**14.85**	**-0.16**	**0.06**

* Latest official OECD submissions (MOS)

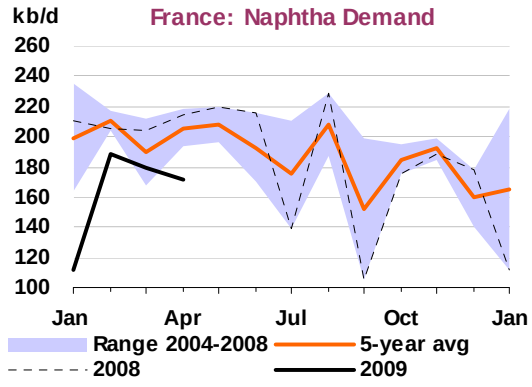
Regarding revisions, March's data were adjusted up by 140 kb/d, given higher-than-expected figures for gasoline and diesel. European demand thus expanded modestly that month (+0.4%), rather than contracting by 0.3%. Oil demand in OECD Europe is now expected to average 14.6 mb/d in 2009, -4.1% or -620 kb/d compared with the previous year and 25 kb/d higher than previously anticipated.

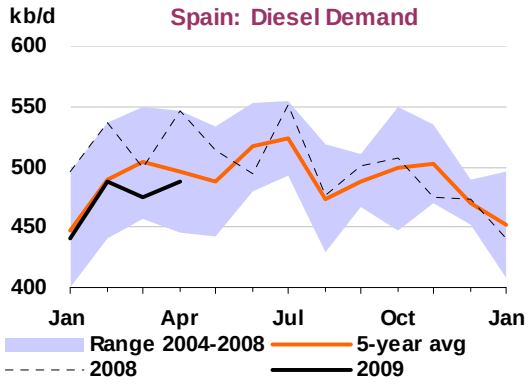
According to preliminary estimates, inland deliveries in **Germany** fell by 3.1% year-on-year in April, as much lower growth in heating oil deliveries (+11.6% year-on-year versus an astonishing +88.1% in March) failed to offset losses elsewhere, notably in naphtha (-16.4%). Heating oil demand is now following a more seasonal pattern, but consumer stocks, at 62% of capacity by end-April, were sharply above the levels recorded in the same month of the previous year (45%) and higher than in March (61%). As such, heating oil deliveries will be presumably much lower than a year earlier over the next few months. Naphtha demand is also in line with seasonal trends, but remains well below both last year's levels and the five-year average, thus casting doubt on Germany's industrial rebound.





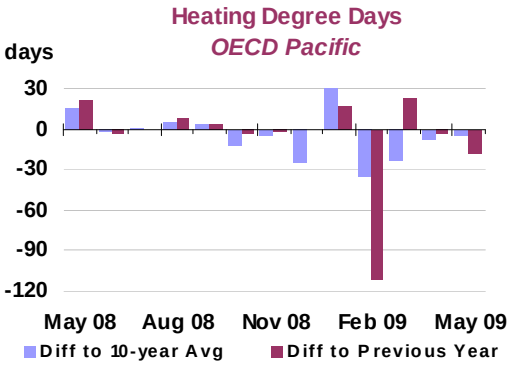
In **France**, oil product deliveries plummeted by 7.0% year-on-year in April, according to preliminary data. As in Germany, the support provided by heating oil has vanished, with demand contracting by 9.4%, thus compounding the still marked contractions in naphtha (-20%) and LPG (-19.4%), driven by the economic recession. The effects of the recession can also be seen in **Italy** (total demand down by 10.7% in April) and **Spain** (-7.1%). The fall in Italy was admittedly compounded by very weak fuel oil deliveries (-16.7%), arguably due to unusually high hydropower generation. Meanwhile, the sharp contraction in Spanish diesel demand (-10.7%) is particularly noteworthy, highlighting the dire state of the country's economy – diesel demand has contracted year-on-year by about 8% on average every month since the autumn of 2008.

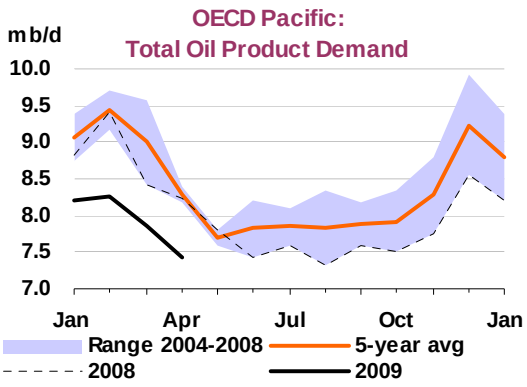


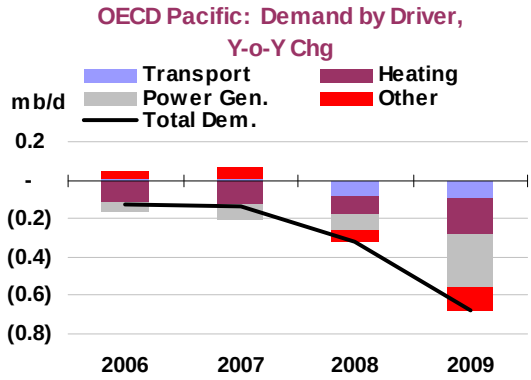


Pacific

According to preliminary data, oil product demand in the Pacific plunged for the tenth month in a row in April (-9.9% year-on-year) – more than in the previous month. Although Korean demand grew strongly on a rebound of petrochemical activity, this was not enough to offset a sharp decline in Japan, whose export-oriented economy shows little signs of recovering. Moreover, warmer weather further undermined the region's demand (heating-degree days were much lower in April when compared with both the 10-year average and the same month of the previous year).







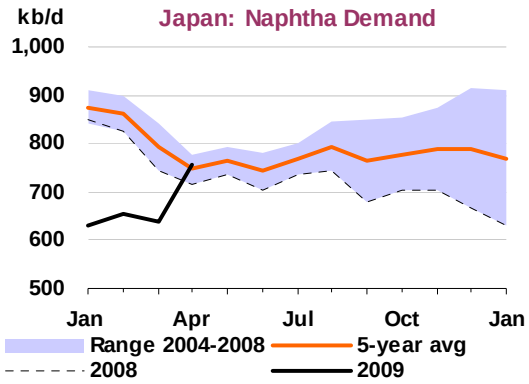
March's preliminary data were revised up slightly (+70 kb/d), as Japanese figures were again somewhat stronger than previously anticipated. Still, regional demand is expected to contract sharply in 2009 to 7.4 mb/d (-8.4% or -670 kb/d versus the previous year and about 15 kb/d higher than last month's report).

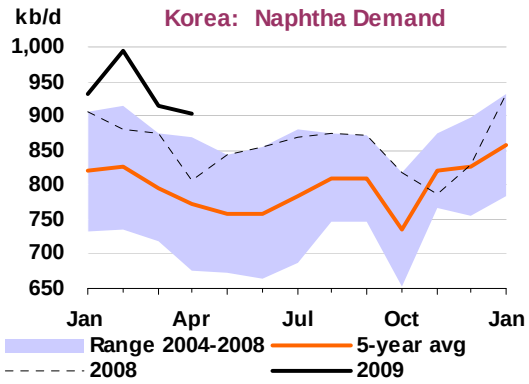
OECD Pacific Demand by Product
(million barrels per day)

	2008	2009	2Q08	3Q08	4Q08	1Q09	Jan 09	Feb 09	Mar 09*	Latest month vs. Feb 09	Latest month vs. Mar 08
LPG & Ethane	0.96	0.91	0.97	0.92	0.96	0.97	1.00	0.99	0.91	-0.08	-0.07
Naphtha	1.59	1.50	1.55	1.59	1.50	1.59	1.56	1.65	1.55	-0.09	-0.07
Motor Gasoline	1.52	1.50	1.55	1.51	1.55	1.50	1.47	1.50	1.53	0.03	0.08
Jet & Kerosene	0.89	0.79	0.72	0.60	0.99	1.14	1.30	1.17	0.97	-0.19	-0.03
Gas/Diesel Oil	1.71	1.58	1.72	1.57	1.73	1.67	1.58	1.69	1.72	0.03	-0.11
Residual Fuel Oil	0.91	0.79	0.89	0.85	0.86	0.92	0.95	0.93	0.87	-0.07	-0.12
Other Products	0.45	0.30	0.42	0.45	0.35	0.32	0.33	0.34	0.30	-0.05	-0.25
Total Products	**8.03**	**7.36**	**7.82**	**7.50**	**7.93**	**8.10**	**8.19**	**8.27**	**7.85**	**-0.42**	**-0.56**

* Latest official OECD submissions (MOS)

The surprising news regarding **Japanese** oil demand is not that it plummeted by 18.6% year-on-year in April – almost as much as in February (-20.6%), which had so far been the worst month on record – but that it did not contract even more. All products registered sharp losses, bar one: naphtha. Indeed, according to preliminary data, naphtha demand rebounded strongly in April (+5.7%) – the first month of positive growth since September 2007. Pending revisions, this is may be related to the restocking of petrochemical products, as the industry had virtually come to a standstill over the previous months, and possibly renewed exports to China. As such, it is unlikely that the rebound will last, unless export-driven industrial activity picks up significantly – this 'green shoot' could well prove to be short-lived. Moreover, Japan is now increasingly challenged by Korea, which is poised to become the region's main naphtha-based petrochemical producer: naphtha demand in the latter is now almost 20% higher than in the former.



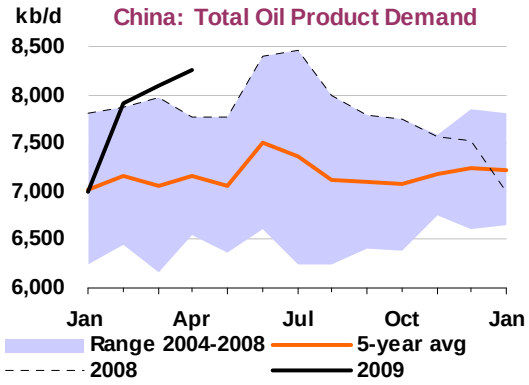


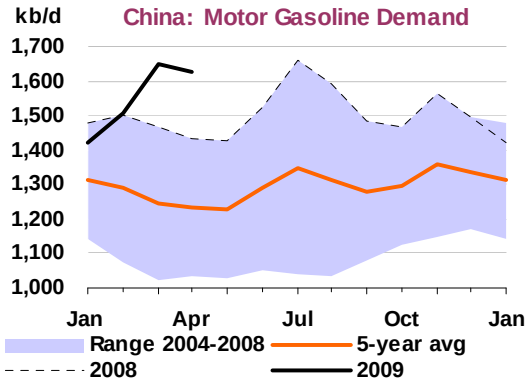
In **Korea**, demand growth in April (+5.7%) was essentially driven by strong naphtha deliveries (+12.2%). Even though the country has undoubtedly suffered the effects of the global economic slowdown, its petrochemical industry continues to perform startlingly well. Contrary to other OECD countries, which saw naphtha consumption collapse in 1Q09, Korean naphtha demand has posted positive growth rates since January.

Non-OECD

China

According to preliminary data, China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) surged by 6.5% year-on-year in April, mostly on the back of strong deliveries of LPG (+26.6%), naphtha (+14.1%), 'other products' (+16.1%) and gasoline (+13.8%). Overall, these data would point to a partial industrial revival, notably in petrochemical production – as in neighbouring Japan and Korea – and also reflect the jump in vehicle sales (+22% quarter-on-quarter in 1Q09). In the case of gasoline, though, part of the surge in demand could be related to stockpiling ahead of an expected retail price rise in April (which probably continued in May, as the price increase was actually delayed until early June). Indeed, month-on-month refinery output growth slowed down a bit in April (+3.0%). Meanwhile, the fall in gasoline and gasoil stocks held by PetroChina and Sinopec (-12.0% and -13.7% month-on-month, respectively) was likely related to a sharp rise in net exports of both products (+162.9% and +94.6% month-on-month, respectively). As such, actual domestic demand could well remain subdued; interestingly, diesel demand fell by 5.6% year-on-year in April.





This rebound suggests that government spending is finally bearing fruit. Growth is indeed likely to pick up in the forthcoming months given the sharp increase in government spending and the rise in inventories. However, the pace and sustainability of future economic growth will also depend on net exports and private domestic demand. Should both remain subdued if global imbalances take longer to

be addressed, China could well find itself facing excess capacity, inventory draws, a rise in non-performing loans and even deflation. The central bank shares these concerns, cautioning that the recovery remains fragile and advocates boosting exports – which have fallen drastically because of the global recession. Given these uncertainties, forecast oil demand for 2009 has been only marginally lifted to 7.9 mb/d or -0.4% versus 2008, some 40 kb/d higher than previously expected.

China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	740	688	731	-52	43	-7.0	6.3
Naphtha	799	762	796	-37	34	-4.7	4.4
Motor Gasoline	1,314	1,507	1,527	194	20	14.7	1.3
Jet & Kerosene	274	289	302	15	13	5.6	4.5
Gas/Diesel Oil	2,557	2,825	2,623	268	-203	10.5	-7.2
Residual Fuel Oil	737	600	614	-137	15	-18.6	2.4
Other Products	1,147	1,217	1,267	70	49	6.1	4.0
Total Products	**7,567**	**7,889**	**7,860**	**322**	**-29**	**4.3**	**-0.4**

A Price Saga

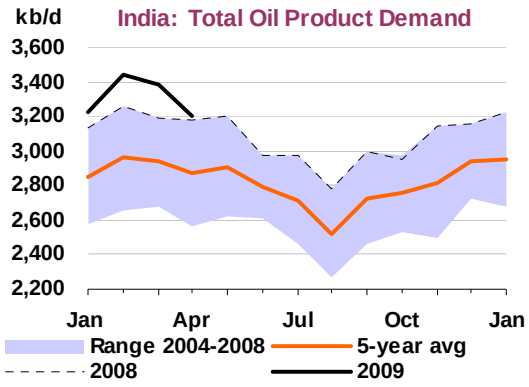
China's fuel pricing mechanism, introduced in early 2009 and intended to follow market trends, recently faced some implementation delays. In principle, the new scheme set ex-refinery prices as the sum of the weighted average of a specific crude basket (including Brent, Dubai and Cinta), transportation costs, refining costs, a 'reasonable' refining margin, and taxes (consumption tax and VAT). Although the formula remains short on details regarding its specific components, local observers and industry players were expecting an increase of gasoline and gasoil prices of some 9% by late April or early May at the latest, given the recent evolution of international crude benchmarks. Prices for both products were previously raised in late March by about 3% and 5%, respectively. In early May, however, the National Development and Reform Commission (NDRC) unveiled instead a few new particulars on how prices would be adjusted in future. Fuel prices would change if global crude prices were to fluctuate by more than 4% for 22 consecutive working days. Refiners would enjoy 'normal' profits at crude oil prices below $80/bbl, but 'narrower' margins above that level. Fuel prices would not rise further if crude oil prices were to exceed $130/bbl, and fiscal tools would ensure adequate supplies.

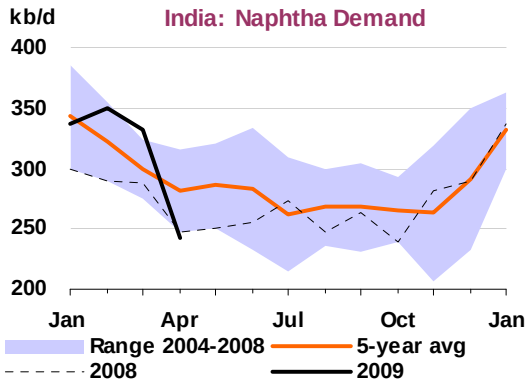
Yet refiners (including both state-owned PetroChina and Sinopec, as well as smaller independents) reportedly increased wholesale prices to the allowed ceiling following the NDRC announcement, presumably anticipating a retail price rise. According to Platts calculations, the 22-day moving average of the crude basket had already risen by more than 4% by 1 May for four consecutive working days. Suppliers, meanwhile, began stockpiling products. In late May, the state-owned companies announced they would cap deliveries to fuel outlets in an attempt to curb hoarding – yet most outlets had arguably built up stocks already. Sinopec then declared that prices would rise by end-May – that is, after 22 consecutive working days of fluctuation. Although on 28 May the NDRC announced that domestic oil product prices would not be adjusted 'in the near future', on 1 June it increased gasoline and gasoil prices by roughly 6%.

The episode has highlighted persistent uncertainty over the precise workings of the new price mechanism. It is still unclear, for example, what constitutes a 'normal' refining margin, or whether Cinta will be dropped from the crude basket, and if so, which crude would replace it. Meanwhile, disclosing specific fluctuation ranges and timeframes has been seen by some observers as potentially encouraging stockpiling in anticipation of price changes, which could eventually cause shortages. The government has been understandably eager to support an incipient economic recovery – during the peak of the agricultural planting season – by keeping fuel prices low, even though this effectively deferred the enforcement of the new mechanism and with it the enhanced predictability for market participants. Higher prices, in particular, would arguably prompt Chinese motorists to purchase more efficient vehicles. The recent price increase effectively gives precedence to market stability, although priorities may change if international crude prices keep on rising.

Other Non-OECD

According to preliminary data, **India's** oil product sales – a proxy of demand – rose by only 0.9% year-on-year in April. This slower expansion, when compared with previous months, is due to a relatively high base in the previous year, notably for transportation fuels. In April 2008, rumours of an imminent fuel price increase boosted total demand, which grew by 6.1% year-on-year on the back of very string gasoline and diesel sales (+14.0% and +12.9%, respectively). This year, demand for both fuels increased by 'only' +8.5% and +4.9%, respectively, despite intense campaigning ahead of the general elections. Moreover, naphtha demand fell (-1.9%) following several months of double-digit growth, suggesting that this product – used essentially to produce fertilisers – has become less competitive *vis-à-vis* natural gas (LNG). Overall, despite a clear slowdown in industrial activity (+2.3% in March, the lowest pace in over a decade), India is probably the only big emerging country that has managed to largely 'decouple' from the worst effects of the global recession, largely due to its domestic-oriented growth model and lack of severe external imbalances. Forecast oil demand for 2009 thus remains largely unchanged at 3.2 mb/d (+2.4% year-on-year or +75 kb/d, some 10 kb/d lower than previously anticipated).





The re-election in May of a Congress-party majority could herald significant changes to India's administered price regime. The new government coalition will not be encumbered by its former Communist allies; as such, the government may now be finally able to push for deregulation. The Ministry of Petroleum has reportedly prepared a draft cabinet note outlining the removal of price controls on gasoline, diesel, kerosene and LPG if international crude oil trades below $75/bbl. As long as that threshold were not exceeded, fuel retailers would be free to set retail prices every three months, based on the quarterly average of crude prices. Above $75/bbl, the losses incurred by retailers would be shared between the treasury and upstream oil companies. The poor – the main users of kerosene and cooking gas – would receive direct subsidies for both products via smart cards or coupons. Although the government is expected to take a decision by late July, some observers remain sceptical, noting that some influential Congress party members believe that price controls contributed to the electoral victory, that Congress' new main allies (Trinamool Congress and Dravida Munnetra Kazhagam) will likely oppose market-based prices, and that Congress' own reform record has been inconsistent.

India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2007	2008	2009	2008	2009	2008	2009
LPG & Ethane	371	389	394	18	4	5.0	1.1
Naphtha	268	269	279	1	11	0.2	3.9
Motor Gasoline	245	264	293	19	29	7.8	11.2
Jet & Kerosene	300	301	296	1	-6	0.4	-1.9
Gas/Diesel Oil	970	1,068	1,108	98	40	10.1	3.7
Residual Fuel Oil	363	359	358	-5	-1	-1.3	-0.4
Other Products	429	428	426	-1	-2	-0.2	-0.5
Total Products	**2,946**	**3,078**	**3,153**	**132**	**75**	**4.5**	**2.4**

SUPPLY

Summary

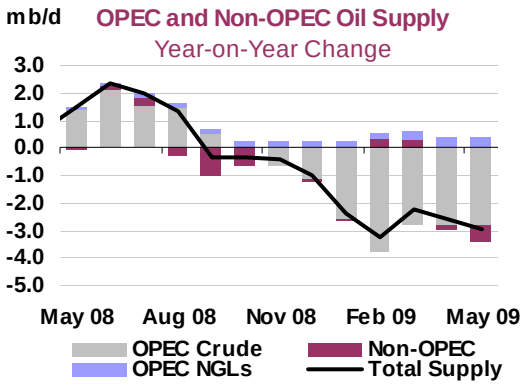
- **Global oil supply edged lower in May to 83.7 mb/d, down by 220 kb/d from April levels.** A decline of 370 kb/d in non-OPEC supplies, mostly in OECD countries, outstripped higher OPEC crude production of 160 kb/d. Global oil supplies are now down a steep 3.2 mb/d below levels of a year ago in the wake of sharply lower oil demand.

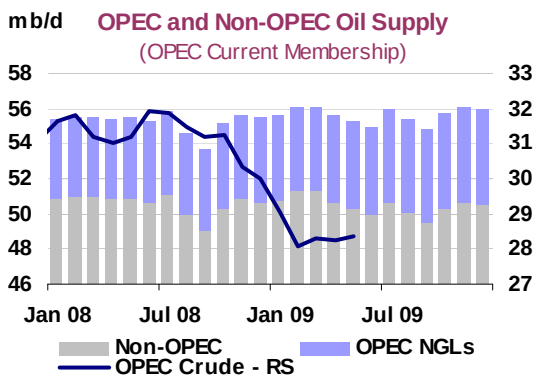
- **Non-OPEC supply is revised up by 170 kb/d for 2009** on higher-than-expected growth from new Russian fields, more robust, albeit declining, North Sea production and stronger crude output in Colombia. Year-on-year, non-OPEC supply is now expected to decline by a lesser 100 kb/d, from 50.6 mb/d in 2008 to 50.5 mb/d in 2009.

- **OPEC crude oil production in May rose for the second month running, up 160 kb/d, to 28.4 mb/d.** Production by the 11 members with output targets, which excludes Iraq, rose 110 kb/d, to 26.0 mb/d, with output about 1.1 mb/d over the group's 24.85 mb/d goal. Iran and Angola accounted for about 55% of above-target output. As a result, OPEC's compliance rate with output targets slipped to 74% last month compared with 76% in April. OPEC ministers opted to hold output targets steady at their 28 May meeting in Vienna and will next meet on 9 September to review the market outlook.

- **OPEC NGLs were revised up by 200 kb/d for 2009**, largely due to a reappraisal of Iranian and Nigerian output levels. OPEC NGLs are forecast to average 5.2 mb/d in 2009 compared with 4.7 mb/d in 2008.

- **The call on OPEC crude and stock change stands at 27.7 mb/d for 2009.** After a sharply reduced call of just 27.3 mb/d for the seasonally weak 2Q demand period, the call on OPEC crude and stocks rises to 27.9 mb/d in 3Q before slipping again to 27.4 mb/d by the 4Q of the year.





Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

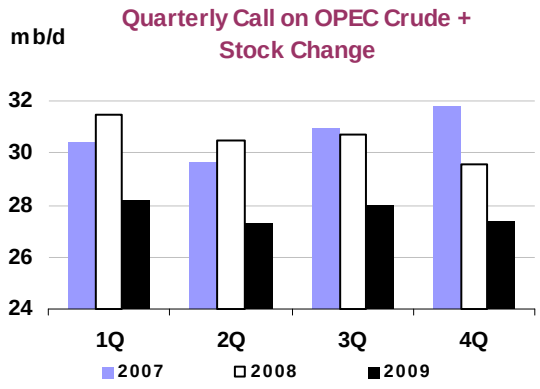
All world oil supply figures for May discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska and Russia are supported by preliminary May supply data.

OPEC Crude

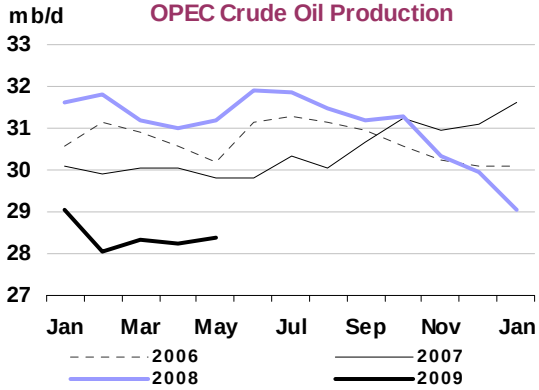
OPEC crude oil production rose marginally again in May, with output target compliance weakening against a backdrop of sharply higher oil prices. OPEC crude output rose to 28.4 mb/d, up a modest 160 kb/d over April levels. Angola, Iraq, Saudi Arabia and Nigeria all posted month-on-month increases.

Production by the 11 members with output targets, which excludes Iraq, rose 110 kb/d, to 26.0 mb/d. That is about 1.1 mb/d over the group's 24.85 mb/d target level. Iran and Angola accounted for about 55% of above-target output. Higher production levels last month reduced OPEC's compliance rate to 74% compared with 76% in April. The OPEC-11 have reduced output by a total 3.1 mb/d of the pledged 4.2 mb/d reduction in production agreed since September 2008.

OPEC opted to hold output targets steady at an unexpectedly their brief meeting in Vienna on 28 May. Discussions reportedly focussed on continued overproduction by some members like Iran and Angola but a united front was presented in the end to sustain the group's hard-won reputation for strong compliance with targets. Angola's bid to have its output target temporarily suspended and Venezuelan complaints about quota allocations were not addressed in the final communiqué. OPEC's next meeting to review the market outlook is scheduled for 9 September.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

The continued strength in crude oil prices also appears to have convinced OPEC members that a nascent recovery in the global economy is underway and with it, stronger demand for the group's crude supplies. Previous gatherings were tempered by a pessimistic outlook for crude oil demand but, mirroring financial markets, Ministers apparently struck a more optimistic tone at the end-May meeting when talking about a global economic recovery. Indeed, several stated that $70-75/bbl would be a 'fair price,' sending a strong signal to the market about future price expectations. OPEC's upbeat assessment of a recovery in the global economy could also be aimed at quelling any critcism over the higher price ambitions that some fear could potentially derail a ecovery given the fragile market.

Saudi Arabia's crude oil production is estimated at 8.05 mb/d in May, up 50 kb/d from a revised 8.0 mb/d for April. March output was revised up by a sharper 400 kb/d, to 8.35 mb/d, based on production data submitted to JODI. The revised, higher JODI production levels for March and April run counter to statements by Saudi officials that the country was producing below target in recent months.

Assessing Saudi crude oil production has been increasingly complicated by the varying percentage cuts in customer crude allocations among the major regions as well as by conflicting statements about actual production levels from government officials and high-level executives.

Complicating the issue further is the rather surprising lack of data on start-up at new fields given Aramco's high-profile, massive capacity expansion programme underway. Saudi Aramco is reportedly on

target for start-up of the 1.2 mb/d Khurais development from end-June. The 100 kb/d Nuayyim field and the 250 kb/d Shaybah expansion have reportedly commenced. Combined, the new production will raise Saudi Arabia's nameplate capacity to 12.5 mb/d.

That said, despite various statements by Aramco officials about the start-up at the AFK fields, first in the spring of 2008 that was then later changed to that September, it emerged more than six months later that output was running at less than half the planned capacity due to technical problems with a gas-processing unit. The 500 kb/d project was most recently reported to be shut-in altogether due to lack of demand for the crude.

Details about the start-up of production totalling a staggering 1.55 mb/d this year have been equally vague. Obviously, the lack of demand for extra crude has forced Saudi Aramco to revise its production strategy but whether the company brings the new streams on line in a staggered fashion or opts to start operations at the new fields and then shut-in production at older fields for maintenance work or more extensive rehabilitation is unclear.

These conflicting reports over new field start-ups currently make assessing Saudi supplies to the market increasingly difficult. As a result, in addition to following tanker data, Saudi data provided to JODI appears to be the most reliable source of information for now.

OPEC Crude Production

(million barrels per day)

	Mar 2009 Supply	Apr 2009 Supply	May 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs May 2009 Supply	Implied January Target	May Supply vs Target	Percent Compliance
Algeria	1.22	1.25	1.25	1.43	0.18	1.20	0.05	77%
Angola	1.64	1.67	1.74	2.10	0.36	1.52	0.22	11%
Ecuador	0.46	0.48	0.48	0.50	0.02	0.43	0.05	31%
Iran	3.65	3.75	3.72	4.00	0.28	3.34	0.38	32%
Kuwait[2]	2.25	2.25	2.25	2.65	0.40	2.22	0.03	93%
Libya	1.52	1.52	1.54	1.77	0.23	1.47	0.07	72%
Nigeria[3]	1.78	1.78	1.80	2.50	0.70	1.67	0.13	60%
Qatar	0.74	0.78	0.76	0.90	0.14	0.73	0.03	76%
Saudi Arabia[2]	8.35	8.00	8.05	11.00	2.95	8.05	(0.00)	100%
UAE	2.25	2.25	2.25	2.85	0.60	2.22	0.03	93%
Venezuela[4]	2.10	2.12	2.12	2.40	0.28	1.99	0.13	63%
OPEC-11	**25.95**	**25.85**	**25.96**	**32.10**	**6.14**	**24.85**	**1.11**	**74%**
Iraq	2.38	2.37	2.43	2.50	0.08			
Total OPEC	**28.33**	**28.22**	**28.38**	**34.60**	**6.21**			
(excluding Iraq, Nigeria, Venezuela					*5.16)*			

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 380 kb/d in May.
5 Compliance rate calculated from baseline September production in OPEC's MOMR.

I**ranian** supplies edged slightly lower in May to 3.72 mb/d, compared with 3.75 mb/d in April. However, with a compliance rate of just 32%, Iranian output accounts for around 35% of the above-target output at 384 kb/d. Iran's plans to offset declining production at the country's older fields moved a step forward with the formal launch of the enhanced oil recovery project at the onshore Aghajari oil field. After years of delays, the gas reinjection project aims to increase output by 100 kb/d, to 300 kb/d, but that target may be overly ambitious given technical issues and the field's age.

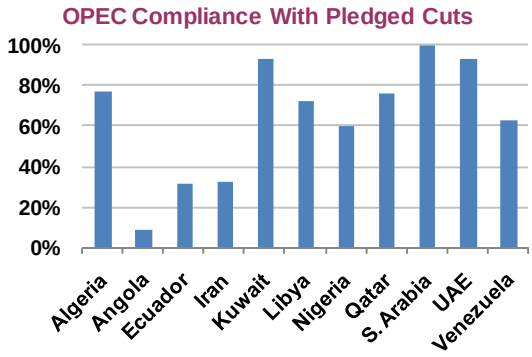
The gas for reinjection is being piped from the offshore South Pars 6, 7 and 8, which were brought online in late 2008 and slated to gradually ramp up this year. This project has also suffered delays, from a lack of equipment to challenging corrosive issues.

Iraqi production (measured as exports plus domestic use) rose by 55 kb/d, to 2.43 mb/d in May. Domestic crude used at refineries and for power use was estimated at 550 kb/d last month. Higher supplies from the northern part of the country offset a decline in the main southern producing region.

Total crude oil exports were assessed at 1.88 mb/d last month compared with 1.82 mb/d in April. Iraqi shipments of Basrah crude from the southern export terminals were down about 60 kb/d, to 1.35 mb/d in May. Kirkuk exports via the northern Ceyhan terminal on the Mediterranean increased by 112 kb/d, to 512 kb/d in May. A further 10 kb/d was exported to Syria.

These figures do not include new production that came on stream 1 June from Iraqi Kurdistan. Baghdad has given the green light for production from the Tawke and Taq Taq fields to be blended in with Kirkuk crude for export via the Ceyhan pipeline. Combined output for the two fields could potentially reach 100 kb/d in the second half of the year. An agreement between Kurdistan and Baghdad was reached whereby state SOMO would market the crude. However, a number of difficult issues that have yet to be resolved could derail export plans. SOMO will reportedly deposit payments from the crude exports into a federal account but the contentious issue over revenue splitting remains. Moreover, Oil Minister Shahristani is threatening to withhold payments altogether for the companies producing the crudes since he considers the contracts signed with the Kurdistan government to be illegal.

Crude oil production in **Nigeria** posted a 20 kb/d rise in May, to 1.8 mb/d, despite worsening violence in the conflict-torn Niger Delta region. A major offensive launched in mid-May by the country's security forces were countered by equally forceful attacks by militant groups. Chevron shut in 100 kb/d of Escravos crude production on 25 May for a week after bomb attacks disrupted five flow stations. Militants also forced ENI to declare *force majeure* on 50 kb/d of Brass River exports for five days from 20 May. Shell extended its *force majeure* for June exports of Forcados and Bonny crude following damage from attacks in March and April, respectively, but supplies slowly increased in May. Increased output at offshore fields is estimated to have offset the loss of Brass River and Escravos output.



Angolan production increased by 60 kb/d to reach 1.74 mb/d in May and output looks set to move above 1.8 mb/d in June according to export schedules. Angola has largely ignored its 1.52 mb/d OPEC output target, with compliance a mere 11% last month. Angola's bid to have its output target suspended was taken off the table for discussion at the group's latest meeting as the group endeavoured to downplay any internal disputes while markets remain fragile.

Crude oil production in **Venezuelan,** including extra heavy Orinoco output, was pegged at 2.12 mb/d in May, unchanged from the previous month. Venezuelan officials have recently launched a campaign to argue that production is markedly higher than assessments by secondary sources, including the *OMR*. Officials have recently released some (unaudited) data on the country's crude oil exports to support their argument.

The new data on Venezuelan supply are welcome, even if much of it remains unverified and so far is of limited time coverage. As with all new sources of information, the data need to be thoroughly checked against all other sources over a credible timeframe. Should we decide, after a detailed investigation, that any changes to our own data series and assessment methodology are warranted, then this will be addressed in a future OMR; until such time, we retain our existing estimates.

Meanwhile, the Venezuelan government's latest moves to nationalise oil service companies operating in the country are expected to have a detrimental impact on output levels in the near term. The disruption to ongoing field work coupled with an acute financial shortfall may limit the state oil company's resources to manage the takeover.

OPEC NGLs

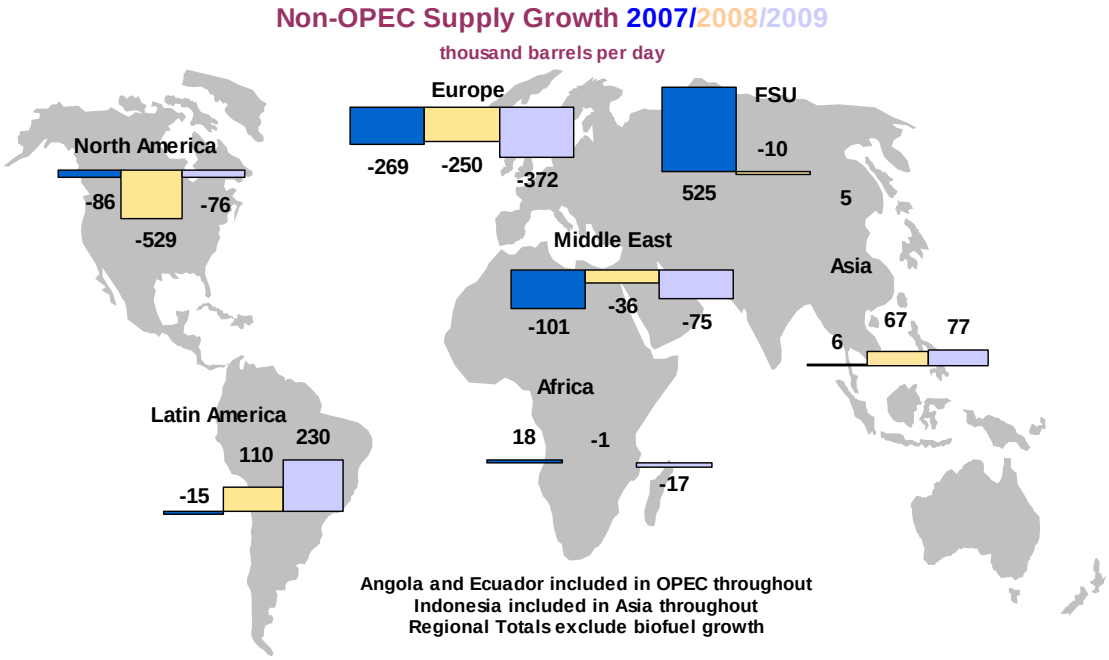
OPEC NGLs were revised up by 200 kb/d for 2009, largely due to a reappraisal of Iranian and Nigerian output levels. OPEC NGLs are forecast to average 5.2 mb/d in 2009 compared with 4.7 mb/d in 2008. In 2009, South Pars 6-10 will account for around 250 kb/d of the total 500 kb/d increase in OPEC NGLs. Condensate from Nigeria's new Akpo field provides a further 175 kb/d.

Condensate and LPG output at South Pars 6, 7 and 8 was expected to reach 152 kb/d in 2009, but technical problems with the pipeline will restrict volumes to a maximum capacity of about 130 kb/d for the next few years. Condensate output from the fields is expected to gradually ramp up to 100 kb/d in first half 2009 with the remaining 30 kb/d brought online in the third quarter. An additional 50 kb/d in NGLs from the fields is also forecast for 2009.

South Pars 9 was brought online earlier than expected this year, with condensate output of 40 kb/d. A further 40 kb/d from Phase 10 is expected by the fourth quarter. In addition to condensate, output from Phase 9-10 includes another 30 kb/d of NGL.

Non-OPEC Overview

Non-OPEC supply prospects are revised up modestly for 2009, now assessed around 170 kb/d higher than in last month's report on stronger-than-expected Russian production in April and May and more robust March North Sea production in the absence of reported outages. We have also revised up 2009 Colombian production on the basis of higher reported output in recent months. In sum, total non-OPEC supply is now expected to decline by a lesser 100 kb/d, from 50.6 mb/d in 2008 to 50.5 mb/d in 2009.



Despite relatively buoyant 1Q09 data however, 2Q09 indicators again point towards renewed year-on-year decline in non-OPEC production. As such, concerns over lower 2009 spending and its impact on project timeliness and mature field decline persist. That said, Russian data now imply less underlying weakness and has, coming on top of two consecutive similar upward revisions, narrowed our presumed year-on-year decline figure to only 80 kb/d for 2009. However, growth once again appears to stem from increased output at a handful of new fields, as detailed in last month's report, which in itself does not undermine assumed steady (or even accelerated) decline at some mature assets.

Revisions to Non-OPEC Oil Supply
(million barrels per day)

	Last month's OMR				This month's OMR				Change			
	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08
North America	13.93	13.89	-0.34	-0.04	13.92	13.90	-0.35	-0.02	-0.01	0.01	-0.01	0.02
Europe	4.78	4.35	-0.24	-0.43	4.77	4.41	-0.24	-0.36	0.00	0.06	0.00	0.07
Pacific	0.65	0.67	0.02	0.03	0.65	0.67	0.02	0.03	0.00	0.00	0.00	0.00
Total OECD	**19.35**	**18.91**	**-0.56**	**-0.44**	**19.34**	**18.98**	**-0.57**	**-0.36**	**-0.02**	**0.07**	**-0.02**	**0.09**
Former USSR	12.76	12.69	-0.01	-0.07	12.76	12.76	-0.01	0.00	0.00	0.07	0.00	0.07
Europe	0.12	0.11	-0.01	-0.01	0.12	0.11	-0.01	-0.01	0.00	0.00	0.00	0.00
China	3.79	3.84	0.06	0.05	3.79	3.85	0.06	0.06	0.00	0.01	0.00	0.01
Other Asia*	3.66	3.67	-0.02	0.02	3.66	3.65	-0.02	0.00	0.00	-0.02	0.00	-0.02
Latin America*	4.12	4.37	0.19	0.25	4.12	4.41	0.19	0.29	0.00	0.04	0.00	0.04
Middle East	1.62	1.55	-0.04	-0.07	1.62	1.55	-0.04	-0.07	0.00	0.00	0.00	0.00
Africa*	2.55	2.53	0.00	-0.02	2.55	2.53	0.00	-0.02	0.00	0.00	0.00	0.00
Total Non-OECD*	**28.63**	**28.77**	**0.18**	**0.15**	**28.63**	**28.87**	**0.18**	**0.24**	**0.00**	**0.09**	**0.00**	**0.09**
Processing Gains	2.24	2.29	0.07	0.04	2.24	2.29	0.07	0.04	0.00	0.00	0.00	0.00
Other Biofuels	0.38	0.35	0.10	-0.04	0.38	0.35	0.10	-0.04	0.00	0.00	0.00	0.00
Total Non-OPEC*	**50.60**	**50.31**	**-0.20**	**-0.29**	**50.59**	**50.48**	**-0.22**	**-0.11**	**-0.02**	**0.17**	**-0.02**	**0.18**

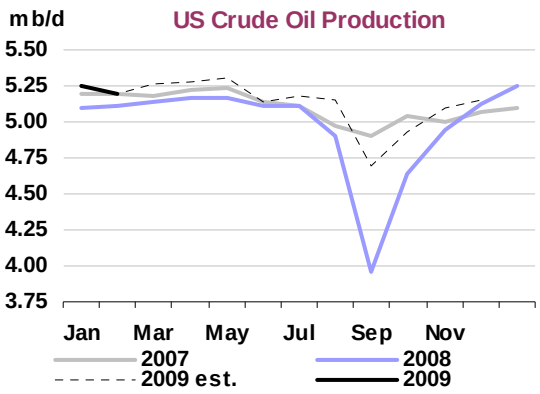
OMR = Oil Market Report
* adjusted to include Indonesia and exclude Angola and Ecuador throughout

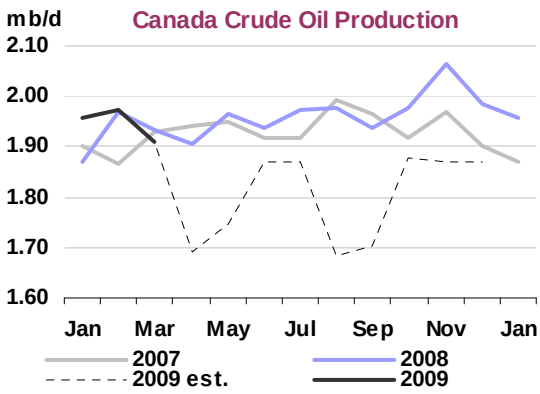
As regards the main source of the upward revision, the North Sea, the adjustment here rather stems from a stable, disruption-free production profile, after we adjust our *field reliability* factor for Norway and the UK in recent months. Elsewhere, despite a small upward revision, Mexican production keeps sliding, with a month-on-month dip in Cantarell's output of over 40 kb/d in April. Canadian production was also revised down by around 40 kb/d for 2009.

OECD

North America

US – Alaska May actual, others estimated: Alaskan oil production in May was revised up by 60 kb/d, as assumed Prudhoe Bay maintenance in May has been delayed to June. March data for total US production brought crude and NGL upward revisions of around 50 kb/d each. Meanwhile, the US Minerals Management Service (MMS) reported mid-May that contrary to expectations, around 5% or 70 kb/d of Gulf of Mexico crude output was still shut-in as a result of last year's Hurricanes Gustav and Ike. The shut-ins, which result largely from unfinished pipeline repairs, are expected to last until at least





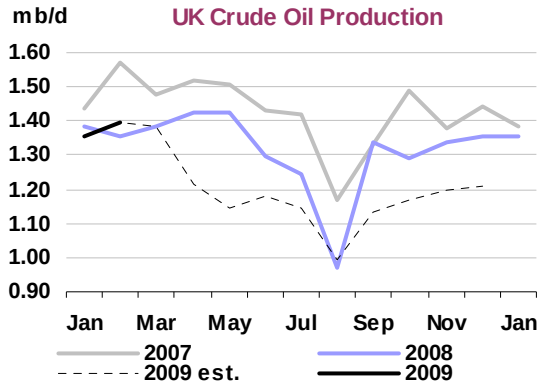
late June. This has prompted us to extend assumed outages into 2Q09. Lastly, growth evident in weekly US data prompted a slight upward revision for April and May production. Currently, total US crude output is forecast to rise 180 kb/d to 5.14 mb/d in 2009, largely based on new US GoM supply.

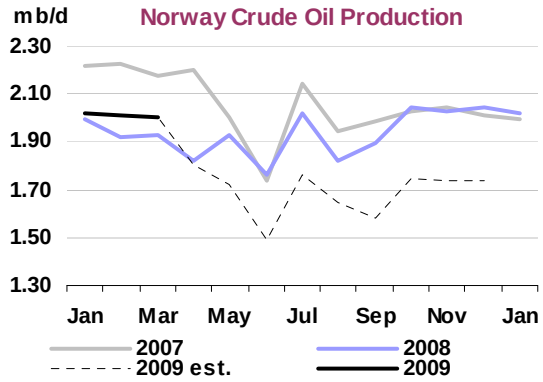
Canada – Newfoundland April actual, others March actual: March and April 2009 total Canadian output were revised down by 30 kb/d and 60 kb/d respectively. Reappraised NGL data saw downward revisions of around 40 kb/d in 1Q08, added to lower-than-expected syncrude (-60 kb/d) output in March. In April, Newfoundland crude output was around 50 kb/d lower than expected. Total Canadian oil production is expected to decline by 70 kb/d to 3.15 mb/d in 2009.

Meanwhile, Imperial made headlines when it gave the go-ahead to its long-delayed Kearl oil sands project. As recent IEA research outlined, large and cost-intensive oil sands projects have borne the brunt of upstream delays as a result of the global recession, financial crisis and lower oil prices. Therefore, Imperial's sanctioning of Phase 1 at Kearl, a 100 kb/d mining project due to start-up in 2012, partly redresses a hitherto negative balance for oil sands. Elsewhere, Syncrude reported an explosion at its plant on 1 June, but apparently this had no impact on production.

North Sea

Norway – March actual, April provisional: As in last month's report, the elimination of the field reliability factor for March production in Norway shows up as the largest 'revision', but is in fact the result of uninterrupted output. Moreover, revised March data prompted upward adjustments to total condensate, NGL and crude production, with total revisions totalling just over 200 kb/d. North Sea maintenance season is starting, and various adjustments were made to assumed timing and duration. A condensate leak at the Kollsnes gas processing plant cut NGL supply, trimming May and June output by an assumed 25 kb/d and 15 kb/d respectively. Lastly, first production for the new Alve field, grouped into the Haltenbanken area in our field-by-field data, was reported in May. Total Norwegian oil production is expected to decline by 200 kb/d to 2.27 mb/d in 2009.





UK – February actual: UK data for March were also revised up by 150 kb/d on outage-free production, while April and May saw small upward adjustments. Two new fields started production. The Ettrick field saw first data reported for February. It should ultimately reach production capacity of 30 kb/d towards the end of the year. The Jacky field started production in May, but is tied back to Beatrice and is not reported separately. It should ultimately add around 10 kb/d. Total UK oil production is forecast to fall by 125 kb/d to 1.44 mb/d in 2009.

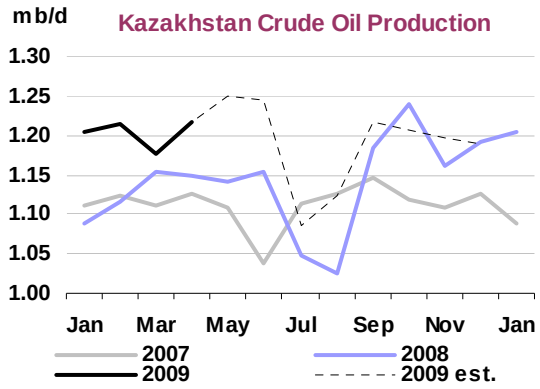
Pacific

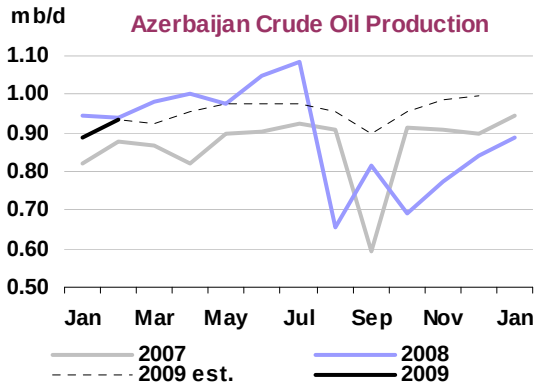
Australia – March actual: March production data for Australia were little changed, with a total downward revision of 20 kb/d. The start-up of the Van Gogh field was once again delayed, with repairs to its Floating Production, Storage and Offloading (FPSO) vessel to take longer than anticipated. First oil is now expected early next year. Total Australian oil production is forecast to remain flat at around 560 kb/d in 2009, compared with earlier expectations of growth.

Former Soviet Union (FSU)

Russia – April actual, May provisional: As for the past two *OMRs*, monthly Russian crude production data were revised up on stronger-than-anticipated output from producers with large, new fields onstream. March production was adjusted up by 20 kb/d on higher output by the PSAs and small companies, while preliminary April data prompted an upward revision of 130 kb/d. This stemmed mostly from higher-than-expected production at TNK-BP (+45 kb/d), Rosneft (+35 kb/d), Lukoil and Gazpromneft (each +20 kb/d) and Surgutneftegaz (+15 kb/d). The first three are in the process of ramping up output at new fields. Indeed, it was reported that output at Lukoil's Uzhno-Khylchuyuskoye field has now reached its capacity of 150 kb/d. TNK-BP is reportedly also boosting output at its older Kamennoye field in Western Siberia. On the other hand, the surprising production hike at Bashneft in April, while confirmed by the newest data, was not repeated in May, with output dipping again to average levels around 235 kb/d.

Other FSU: April oil production in **Kazakhstan** was revised up marginally, as the Tengiz field returned slightly more rapidly from a workover in March, when production was down. Our current forecast indicates total oil production will increase by 60 kb/d to 1.47 mb/d in 2009. No new (March) data were available for **Azerbaijan** at the time of writing, but recent statements by the Energy Minister and operator BP support our view that repairs at the ACG complex will be protracted, essentially only recovering by the end of the year, thus constraining 2009 year-on-year growth. Total oil output is expected to rise by 55 kb/d to 960 kb/d in 2009, again below earlier expectations which envisaged 1.25 mb/d being attained this year.





April FSU net oil exports on average rose by 1.1% to 9.38 mb/d. Crude oil exports stood at 6.64 mb/d, up by 0.6% as lower pipeline deliveries were more than offset by an increase in shipments from Baltic and Black Sea ports. A drop in volumes pumped through the BTC and CPC pipelines of 2.8% and 2.6%, respectively, were the results of March maintenance at Kazakhstan's Tengiz field and redirection of exports by rail. Druzhba flows were again below average on lower deliveries to Germany and Hungary – the latter due to refinery maintenance – but were partially offset by a 4.8% rise in exports to Poland. May Druzhba volumes are expected to rise due to higher flows to Germany following the resolution of a pricing dispute. Product exports reached April seasonal average levels as fuel oil exports resumed

following the removal of an export ban in Belarus and Ukraine in February and with Russia supplying higher volumes during the refinery maintenance season.

According to preliminary May data, FSU oil exports increased despite a 25% hike in Russian oil export duties, as well as reduced loading schedules and a rebound in domestic demand. Product exports reportedly increased, supported by higher Russian gasoline exports, while crude oil exports remained virtually flat month-on-month. June loading schedules show an overall drop in crude oil exports as lower shipments are expected in the Black Sea port of Novorossiysk, reportedly due to pipeline maintenance.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2007	2008	2Q2008	3Q2008	4Q2008	1Q2009	Feb 09	Mar 09	Apr 09	Latest month vs. Mar 09	Latest month vs. Apr 08
Crude											
Black Sea	2.18	2.05	2.24	1.97	2.04	2.30	2.34	2.26	2.34	0.07	0.01
Baltic	1.59	1.46	1.57	1.40	1.47	1.57	1.57	1.66	1.69	0.03	0.13
Arctic/FarEast	0.32	0.30	0.26	0.29	0.37	0.46	0.46	0.47	0.46	-0.02	0.20
BTC	0.55	0.67	0.75	0.64	0.57	0.74	0.82	0.74	0.72	-0.02	0.10
Crude Seaborne	**4.63**	**4.48**	**4.82**	**4.30**	**4.45**	**5.07**	**5.19**	**5.13**	**5.20**	**0.07**	**0.45**
Druzhba Pipeline	1.13	1.08	1.05	1.03	1.09	1.14	1.14	1.10	1.08	-0.02	-0.02
Other Routes	0.44	0.42	0.44	0.46	0.40	0.40	0.42	0.36	0.36	-0.01	-0.08
Total Crude Exports	**6.20**	**5.98**	**6.30**	**5.79**	**5.94**	**6.61**	**6.75**	**6.60**	**6.64**	**0.04**	**0.35**
Of Which: Transneft	4.27	3.99	4.17	3.87	3.96	4.22	4.24	4.25	4.37	0.12	0.08
Products											
Fuel oil	1.10	1.09	1.13	1.04	1.04	0.96	0.90	1.02	1.13	0.11	-0.03
Gasoil	0.95	0.94	1.01	0.79	0.92	1.10	1.16	0.97	0.89	-0.07	-0.16
Other Products	0.60	0.59	0.60	0.55	0.56	0.73	0.76	0.73	0.76	0.03	0.21
Total Product	**2.65**	**2.63**	**2.74**	**2.38**	**2.52**	**2.78**	**2.83**	**2.71**	**2.78**	**0.06**	**0.01**
Total Exports	**8.85**	**8.61**	**9.05**	**8.17**	**8.46**	**9.39**	**9.58**	**9.31**	**9.42**	**0.11**	**0.36**
Imports	0.04	0.04	0.03	0.05	0.03	0.04	0.05	0.03	0.04	0.01	0.00
Net Exports	**8.82**	**8.57**	**9.01**	**8.12**	**8.43**	**9.35**	**9.53**	**9.28**	**9.38**	**0.10**	**0.36**

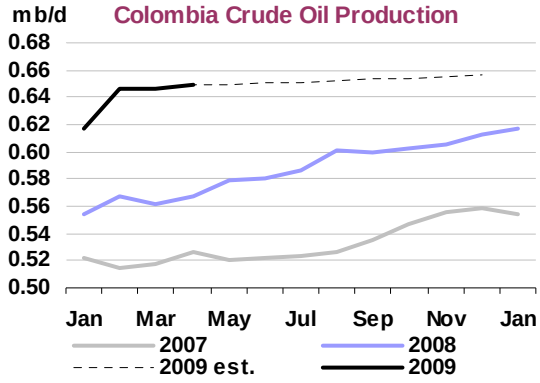
Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

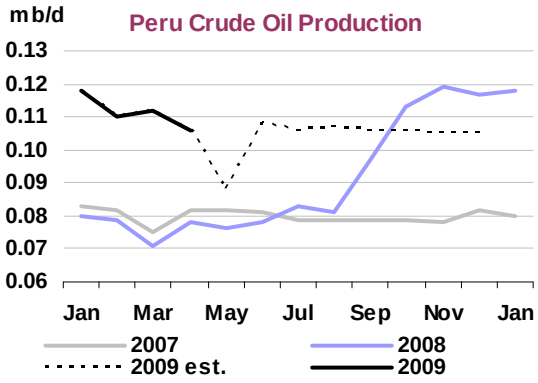
Elsewhere, the third stage of the Kazakh-Chinese oil pipeline is near completion, with filling of the Kenkiyak-Kumkol section with crude scheduled to begin in September and to last four months. CPC shareholders recently postponed the final pipeline expansion decision to 2010 following a delay in some 'technical procedures'. The expansion of the line is now scheduled in three stages and the pipeline's capacity should reach 1.4 mb/d by mid-2014; however, the date could slip if the final investment decision is reached later than mid-2010.

Other Non-OPEC

China – April actual: Revised March data confirmed our suspicion from last month's report that the reported figure for offshore production was too low. However, April data brought a downward revision of 80 kb/d for the month, stemming from revisions across the board. As mentioned in the 13 March 2009 *OMR* (*China Investing in Supply Through the Down-Cycle*), Chinese crude imports from Brazil are expected to rise after the two countries signed a loan-for-oil deal. Beijing will give a $10 bn loan to Brazil's Petrobras, which is seeking funds to develop its capital-intensive and technologically challenging, but resource-rich deepwater sub-salt fields in coming years. Petrobras in turn is set to increase crude exports sent to China to 150 kb/d in 2009 and to 200 kb/d for the subsequent nine years. 2008 Brazilian crude exports to China were around 60 kb/d. Total Chinese oil production is forecast to rise by 55 kb/d to 3.85 mb/d in 2009.

Various Other Asia: Adjustments to Other Asia lead to a downward revision of 20 kb/d for 2009 production. In **Indonesia**, lower reported April and May production, as well as a reappraisal of new fields led to a downward revision of around 25 kb/d for 2009. The largest new project, Cepu on Java, is still facing significant problems with export infrastructure, and is assumed to be effectively shut-in until mid-year. In **India**, March production data were slightly higher than expected, split between crude and NGLs. In **Thailand**, crude output in January, which had looked suspiciously high, was revised down 20 kb/d. Lastly, in the **Philippines**, the troubled new Galoc field was reported back onstream in mid-May, after another interruption due to a typhoon. Total oil production in Other Asia is expected to stay flat at 3.65 mb/d in 2009.



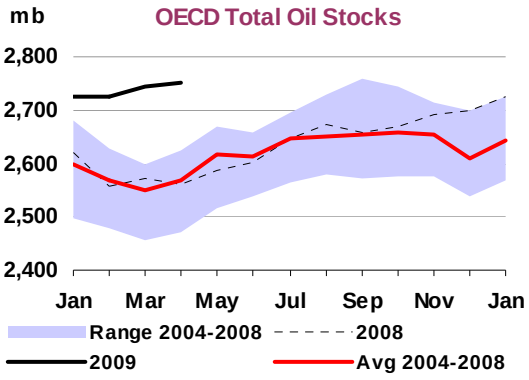


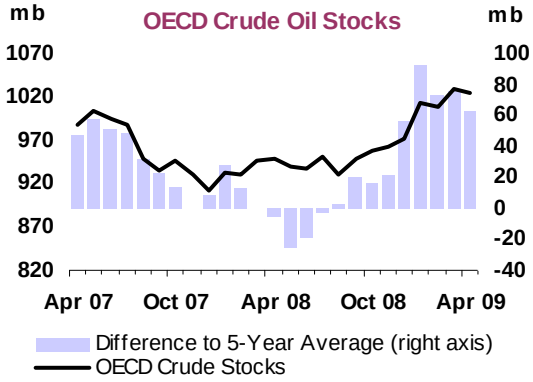
Various Latin America: Receipt of new data for **Colombia** prompted an upward adjustment of 35 kb/d for 2009. Fiscal incentives have supported a flurry of activity and we had already been forecasting steady output growth in the years to come. Our current forecast now sees 2009 production growing by 60 kb/d to 650 kb/d. In **Peru**, protests by indigenous inhabitants and then a flare-up in violence from mid-May forced the shut-in of some Amazonian production. Initially, only very small volumes were affected, but a halt to shipments through an export pipeline run by Petroperu caused some idling of wells. We have assumed a shortfall of around 20 kb/d for May and, depending on the situation, this could be extended into June or beyond. Lastly, **Brazil** oil production data in April were around 20 kb/d lower than expected at 2.53 mb/d (including fuel ethanol). Our forecast for total Latin American oil production shows growth of nearly 300 kb/d to 4.41 mb/d in 2009, largely on stronger output from Brazil, but with contributions from Colombia, Peru and Argentina.

OECD STOCKS

Summary

- **OECD industry stocks rose by 10.4 mb in April**, to 2,753 mb, as a crude stock decline only partially offset a products increase. Inventory movements differed starkly between regions as North American stocks rose 35.3 mb on higher crude, distillate and other product inventories while European stocks dropped 18.3 mb on lower crude and gasoline. Pacific stocks drew 6.5 mb on lower crude.
- **OECD stocks in days of forward demand fell slightly to 62.0 days** at end-April with rising seasonal forward demand outweighing higher inventories. On a days cover basis, gasoline stocks are closest to normality with OECD and North American stocks in the top half of the five-year range and Europe stocks trending along the five-year average. All other major categories are above the five-year range.
- **Preliminary May data indicate total OECD industry oil inventories rose by 30.5 mb,** led by US product stocks. US stocks rose 15.9 mb as products increased by 26.4 mb. Japanese stocks rose 7.6 mb as products rose 7.3 mb. Euroilstock data show EU-16 stocks rose 7.0 mb as crude increased 6.5 mb.
- **Short-term crude floating storage levels fell in May to 80-85 mb by month-end** from 110-115 mb at end-April. Narrowing contango in the crude futures curve made storage economics less favourable, precipitating the first sustained fall in short-term floating storage levels since they started building rapidly in 4Q08. Yet, total short-term floating storage remains high and products floating storage – mostly middle distillates – grew to over 30 mb with persistent contango in ICE gasoil futures. Most distillate floating storage is off Europe with smaller volumes off West Africa and Singapore.





OECD Inventory Position at End-April and Revisions to Preliminary Data

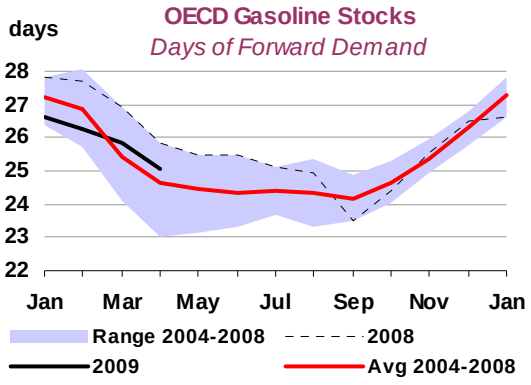
Total OECD inventories rose by 10.4 mb in April, to 2,753 mb. The change was less than the 19.9 mb five-year average build for April, and the year-on-year comparison for crude narrowed as April crude stocks stood 75.4 mb (8.0%) above levels of a year ago compared with 82.3 mb (8.7%) last month. April product stocks, meanwhile, stood 105.7 mb (8.0%) above levels of a year ago versus 75.3 mb (5.6%) for March.

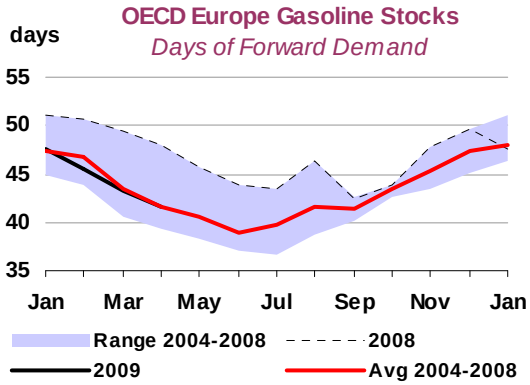
Preliminary Industry Stock Change in April 2009 and First Quarter 2009

	April (preliminary)								First Quarter 2009			
	(million barrels)				*(million barrels per day)*				*(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**14.2**	**-15.5**	**-3.4**	**-4.7**	**0.47**	**-0.52**	**-0.11**	**-0.16**	**0.42**	**0.14**	**0.07**	**0.63**
Gasoline	-4.0	-4.2	0.5	-7.7	-0.13	-0.14	0.02	-0.26	0.06	-0.09	0.06	0.03
Distillates	6.6	2.2	2.1	11.0	0.22	0.07	0.07	0.37	0.00	0.09	-0.09	0.00
Fuel Oil	0.3	-2.3	0.9	-1.1	0.01	-0.08	0.03	-0.04	0.04	-0.03	0.00	0.00
Other Products	16.7	0.6	-6.3	11.1	0.56	0.02	-0.21	0.37	-0.08	-0.04	-0.04	-0.16
Total Products	**19.7**	**-3.6**	**-2.7**	**13.3**	**0.66**	**-0.12**	**-0.09**	**0.44**	**0.01**	**-0.08**	**-0.07**	**-0.13**
Other Oils[1]	1.4	0.7	-0.4	1.7	0.05	0.02	-0.01	0.06	0.04	-0.05	-0.01	-0.01
Total Oil	**35.3**	**-18.3**	**-6.5**	**10.4**	**1.18**	**-0.61**	**-0.22**	**0.35**	**0.47**	**0.02**	**0.00**	**0.49**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

An 11.0 mb build in distillates and an 11.1 mb build in the 'other products' category contributed most strongly to the products build. Yet, this category, which includes a wide range of products - naphtha, liquefied petroleum gases, petroleum coke, spirits, lubricants, bitumen, among others – is subject to a high degree of revisions, suggesting perhaps a more tenuous products build than at first glance.





Still, at 192.9 mb (7.5%) above levels of a year ago and at 62.0 days of forward cover (7.5 days above a year ago), total OECD inventories remain abnormally high. On a days cover basis, only gasoline continues to show more normal – i.e. within the five-year range – readings than other major categories. Total OECD and North America gasoline cover is trending in the top half of the five-year range while Europe cover remains only at the five-year average.

Revisions versus 14 May 2009 Oil Market Report
(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Feb 09	Mar 09	Feb 09	Mar 09	Feb 09	Mar 09	Feb 09	Mar 09
Crude Oil	**-0.8**	**1.3**	**0.1**	**7.8**	**0.0**	**-1.2**	**-0.7**	**7.9**
Gasoline	0.3	-1.0	-0.3	-4.1	0.4	0.6	0.4	-4.5
Distillates	0.1	1.1	-0.8	-5.2	0.0	0.2	-0.7	-3.9
Residual Fuel Oil	0.0	1.0	-0.1	-1.1	0.0	0.1	-0.1	0.0
Other Products	-1.1	-3.3	-1.3	-0.4	0.0	0.3	-2.4	-3.4
Total Products	**-0.7**	**-2.2**	**-2.5**	**-10.7**	**0.4**	**1.2**	**-2.8**	**-11.8**
Other Oils[1]	0.5	2.9	0.1	-1.7	0.0	0.0	0.6	1.2
Total Oil	**-1.0**	**1.9**	**-2.3**	**-4.6**	**0.4**	**-0.1**	**-3.0**	**-2.8**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

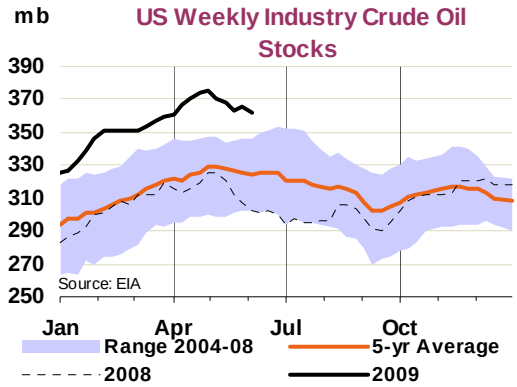
Total OECD inventories for March were revised down slightly by 2.8 mb since last month's report, as lower product inventories in Europe outweighed higher crude stocks there. Total products were revised lower by 11.8 mb led by reductions in gasoline and distillate for both the Netherlands and Italy. Crude oil was revised 7.9 mb higher in March, led by higher Netherlands, Italy and Germany data.

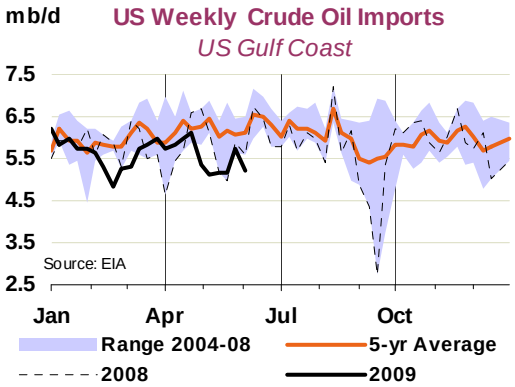
Analysis of Recent OECD Industry Stock Changes

OECD North America

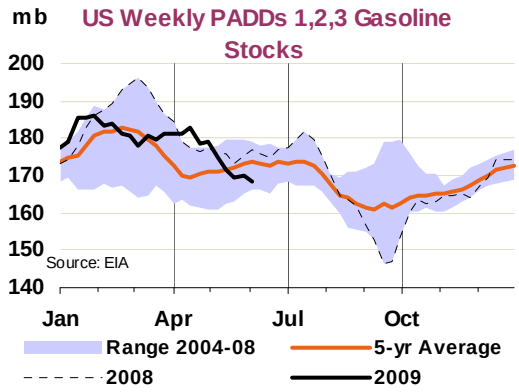
North American industry stocks rose by 35.3 mb in April, led by US crude inventories, which rose by 14.7 mb to 392 mb. Filling of the US Strategic Petroleum Reserve (SPR) increased government crude holdings by 6.3 mb. US product stocks jumped by 17.6 mb, but most of this occurred in the 'Other Products' category, which as described above, includes a wide array of oil products and is prone to large revisions. US gasoline stocks fell by 4.8 mb, only partially offsetting a 6.2 mb rise in distillate stocks. Mexican product stocks rose by 2.0 mb on higher gasoline and distillate inventories and Mexican crude stocks dipped by 0.5 mb.

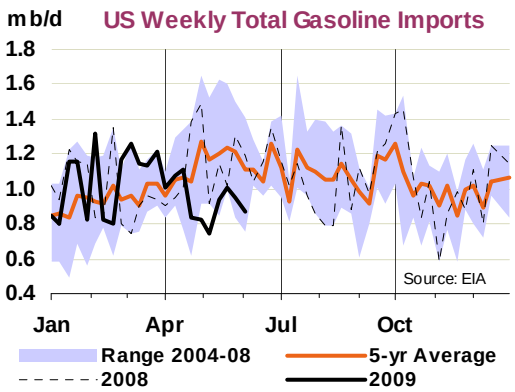
May US preliminary data show a 15.9 mb build and the highest weekly industry stocks reading since August 1998. The build was mostly due to products as crude industry stocks fell by 10.4 mb, marking the first US monthly crude stock decline since July 2008. Over the past five years, crude stocks have on average declined from April to May by 2.4 mb and draws typically continue through the summer as refinery runs increase. Yet, predicting a continued US crude stock decline remains problematic with over 30 mb of floating storage near the US Gulf of Mexico as of end-May. A recent uptick in US Gulf Coast imports and other anecdotal evidence suggest increased discharge of floating volumes as storage economics have deteriorated. However, given the large volumes to be absorbed, a sustained onshore movement of floating storage may stymie, in the near term, any seasonal crude inventory draw as runs pick up. SPR filling may absorb some volumes but they will be small. Government stockpiling should fall from 2.9 mb in May to 1.0 mb in June and then to zero until September.





In products, US inventories jumped by 26.4 mb with a 3.8 mb build in distillate and a 9.7 mb gasoline draw. The underlying nature of the products build, though, makes the headline number tenuous. The 'Other Oil' category, which includes a wide range of oils as defined by the US Energy Information Administration (EIA), accounted for 18.3 mb of the monthly build. Principal product stocks (gasoline, distillate, jet/kerosene, residual fuel oil), by contrast, fell by 1.1 mb on the month.

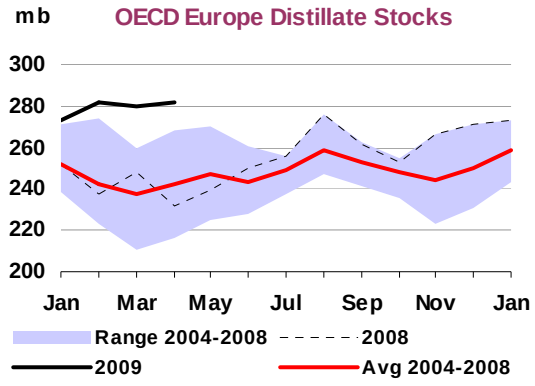


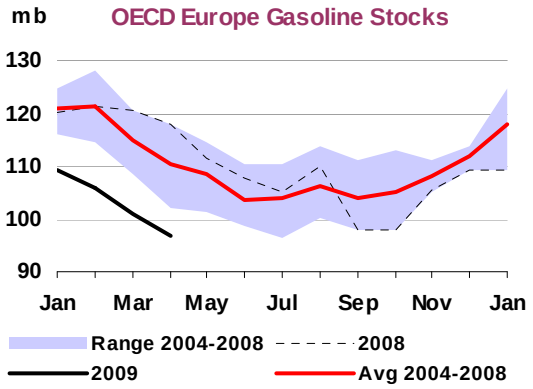


OECD Europe

European inventories fell by 18.3 mb in April, mostly due to a 15.5 mb decrease in crude inventories. Product inventories also fell, by 3.6 mb, as gasoline dipped 4.2 mb on the month. Distillate stocks rose by 2.2 mb, increasing the region's healthy distillate buffer. High levels of heating oil stocks held by German consumers continued to reinforce this buoyancy in distillate stocks as end-April readings showed a counter-seasonal rise in fill levels to 62.0% of consumer capacity. Moreover, a glut of gasoil and kerosene (about three-quarters of global products floating storage) continues to be stored in vessels off Northwest Europe and in the Mediterranean.

Gasoline stocks, by contrast, stand well below the five-year average on an absolute basis but are trending along the five-year range on a days cover basis. While an increase in refinery runs going into the summer combined with persistently weak demand may help bolster European gasoline stocks, a pick-up in gasoline trade (with most recent flows heading to West Africa) spurred by higher Atlantic Basin margins could keep inventory levels lean.

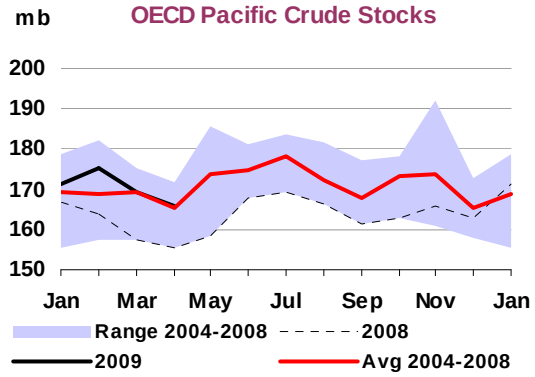


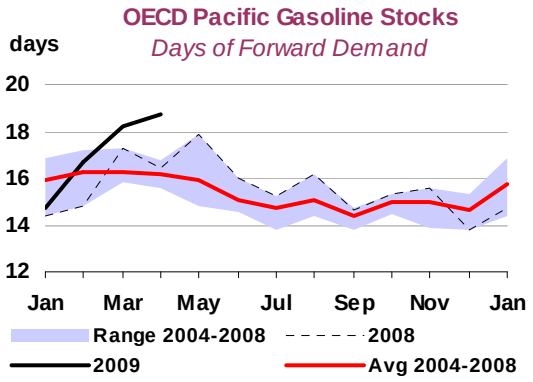


May preliminary data show product stocks held in NW Europe independent storage rising on the month, with gasoil and jet/kerosene continuing to push higher above the five-year range. Early June readings showed a slight dip in gasoil stocks after six straight weeks of rises. Gasoline stocks showed the opposite pattern, however, declining throughout the month by about 25% with an uptick in early June. Preliminary data from Euroilstock indicate EU-16 inventories rose 7.0 mb, but mostly due to a 6.5 mb rise in crude stocks. On the products side, gasoline and fuel oil gained 0.9 mb and 1.5 mb, respectively, though middle distillates registered a 1.1 mb decline.

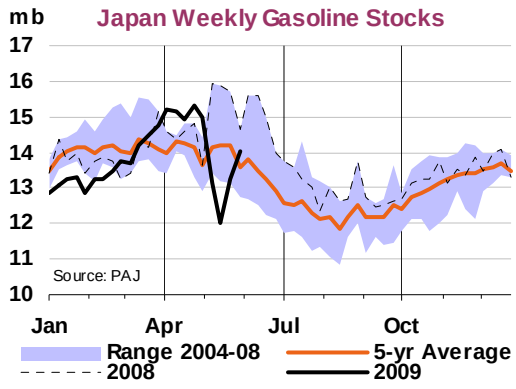
OECD Pacific

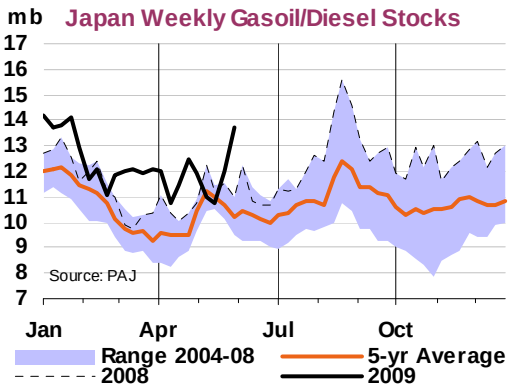
Pacific industry stocks drew by 6.5 mb in April, led by crude, which declined by 3.4 mb. Product stocks dropped by 2.7 mb, but most of this fall was due to a 6.3 mb decline in the other products category. Distillates posted a 2.1 mb increase and gasoline edged up 0.5 mb.





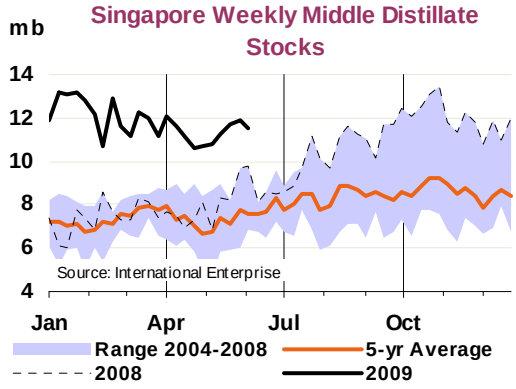
Japanese weekly data from the Petroleum Association of Japan (PAJ) point to a commercial stockbuild of 7.6 mb for May with crude remaining relatively unchanged and products increasing 7.3 mb. Though gasoline stocks ended the month 1.0 mb lower, they displayed a lot of volatility – as of mid-month they were down as much as 3 mb from early month readings, likely due to local 'Golden Week' holidays and reduced highway tariffs for motorists. Gasoil stocks looked increasingly healthy as they increased 1.6 mb on the month and stand well above the five-year range.

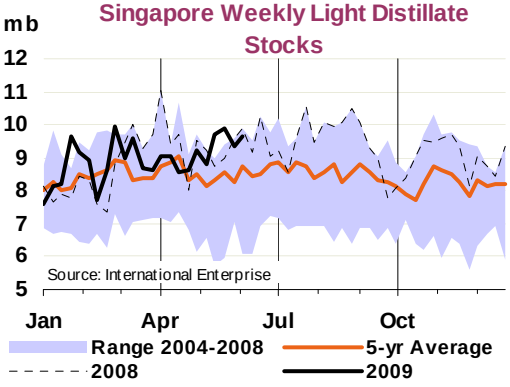




Recent Developments in Singapore and China Stocks

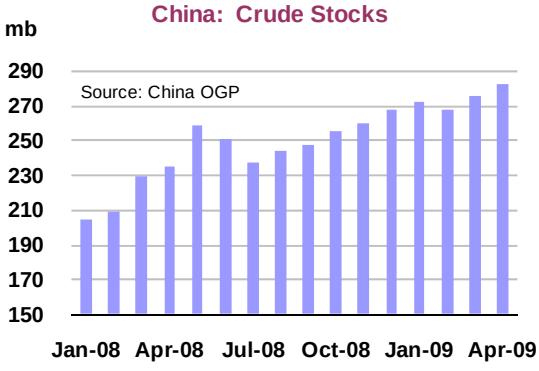
Singapore product stocks posted a 0.7 mb decline on the month, led by a 2.0 mb fall in fuel oil stocks. Middle distillates grew by 1.0 mb as arbitrage opportunities to Europe remained scant. Light distillates rose by 0.4 mb as Indonesian gasoline buying slowed, prompting some Asian cargoes to head to the US.

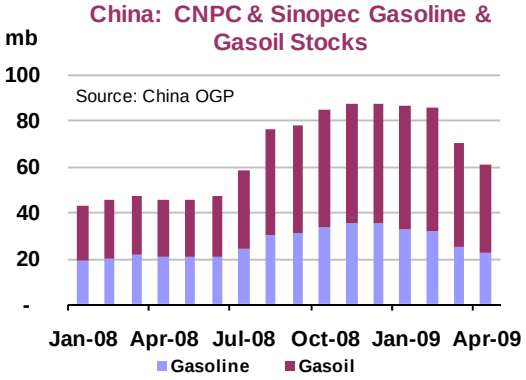




China crude oil stocks reported by China OGP rose by 7.3 mb in April as net imports rose 220 kb/d and new build refineries – such as Huizhou – looked to augment crude stockpiles. Anecdotal reports also pointed to strategic stock filling, though hard numbers remain elusive.

Evidence of product destocking continued as Sinopec and CNPC reported gasoline and gasoil inventories falling 3.0 mb and 6.2 mb, respectively. This was the fourth consecutive month of draws. At 61.0 mb, those inventories stood 34% above levels of a year ago. Some destocking likely continued in May as wholesalers increased their purchases ahead of an anticipated retail product price rise and exports likely remained elevated. Yet, a June 10 Reuters story suggested that product stocks held by the two firms may have risen by 2.1% in May, with an increase in gasoline stocks outweighing a fall in gasoil.

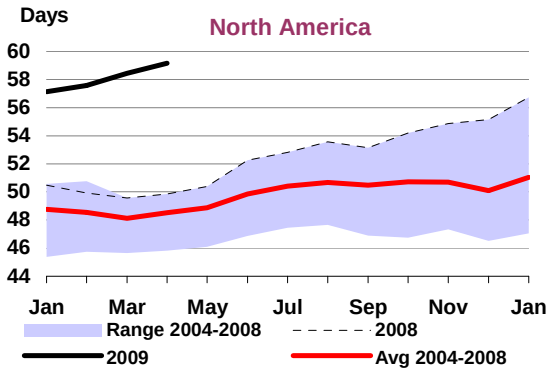


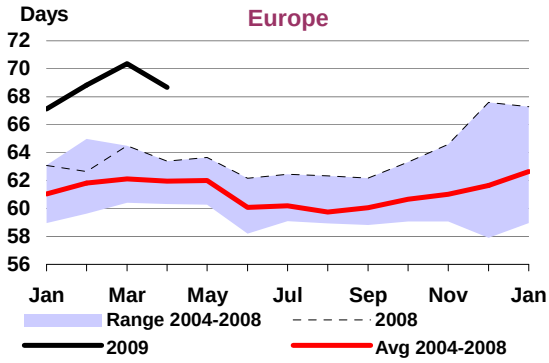


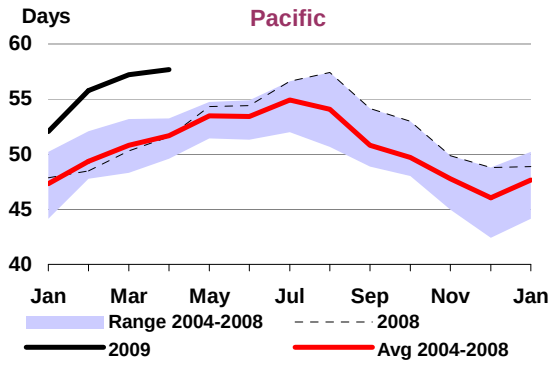
Regional OECD End-of-Month Industry Stocks

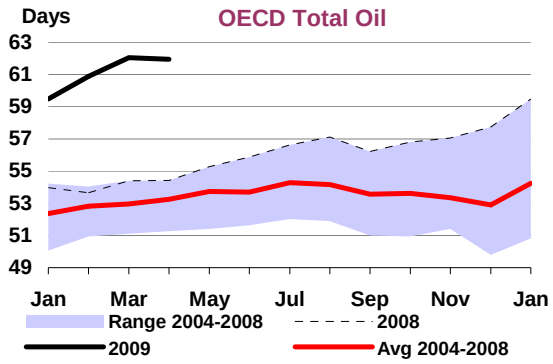
(in days of forward demand and millions barrels of total oil)

Days[1]

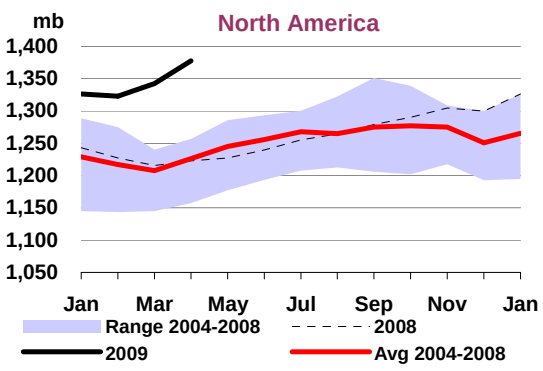


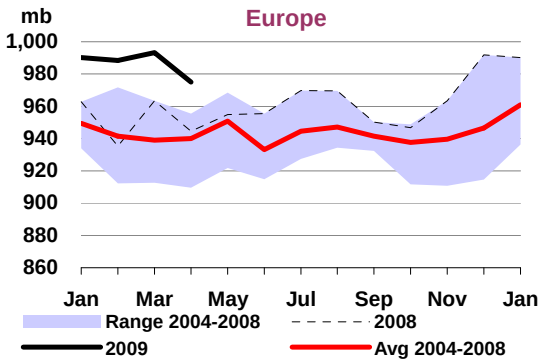


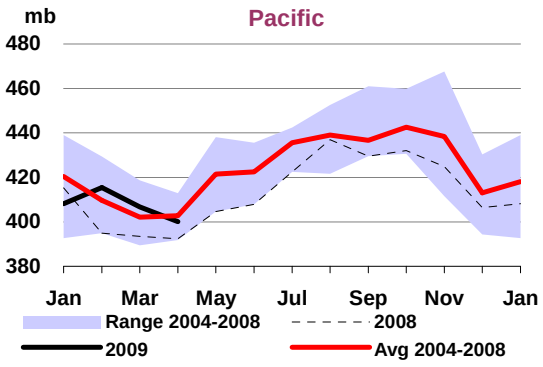


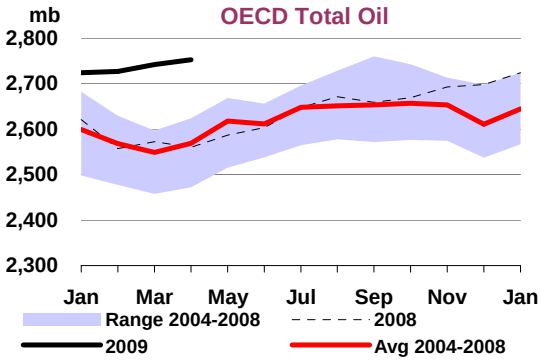


Million Barrels









1 Days of forward demand are based on average demand over the next three months

PRICES

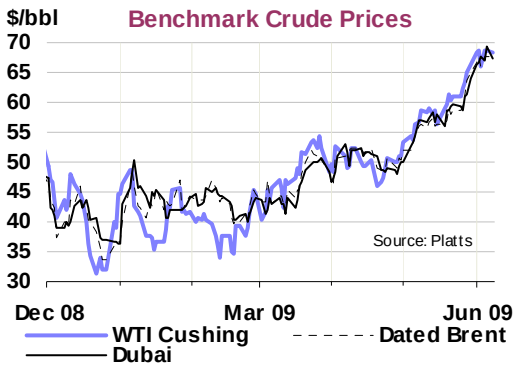
Summary

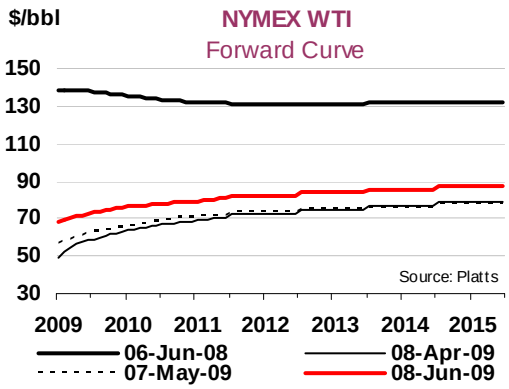
- **Oil prices have gone from strength to strength in recent months, with benchmark crudes trading at seven-month highs by early June.** Futures prices for benchmark crudes in May gained almost $10/bbl over the April levels, with WTI averaging $59.21/bbl and Brent at $58.29/bbl. By early June, prices had gained a further $10/bbl. Prices for both benchmark crudes were last trading around $70/bbl.

- While the bull run in prices since mid-February was largely driven by market sentiment that a recovery in the global economic outlook was nearing, **the latest surge in crude oil markets was partly fuelled by signs of slightly stronger fundamental factors.** Increased demand for crude by refiners as they came out of spring turnarounds, the onset of the summer gasoline season and a substantial drawdown in floating oil stocks helped boost prices. OPEC's decision in late May to maintain current production targets added further support to markets.

- **Increased financial flows** from non-commercial investors looking to hedge against the weaker dollar and inflation, coupled with expectations for even stronger oil prices in the longer term, likely provided further upward price momentum.

- **Refined product markets largely followed crude oil markets higher, aided and abetted by stronger gasoline crack spreads in key regional markets.** Demand for middle distillates, however, remained weak and gas oil stocks continued to build offshore in Europe, the Middle East and other regions. Fuel oil saw some unexpected strength from still significantly lower refining runs as well as reduced supplies from OPEC of heavier, sour crudes. Refining margins were mixed in May, with hydroskimming operations largely in negative territory.





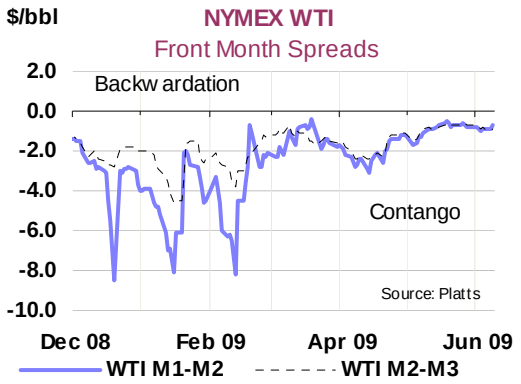
Market Overview

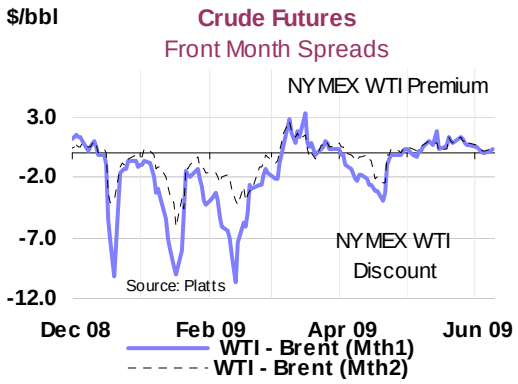
Crude oil prices on futures exchanges were trading at seven-month highs by early June, propelled by continued market optimism for a rebound in the economy, increased financial flows from investors and tentative signs of a pick-up in supply and demand fundamentals. Crude futures prices in May gained almost $10/bbl over April levels, with WTI averaging $59.21/bbl and Brent at $58.29/bbl for the month. By early June, prices had gained a further $10/bbl, with both benchmarks last trading around $70/bbl.

While the rise in oil prices since mid-February has largely just tracked the upward momentum in financial markets, the latest surge in crude oil markets was partly fuelled by a long-awaited emergence of improving fundamentals. Crude prices were lifted by stronger demand as refiners, especially in the US, completed spring turnarounds and reportedly brisk buying by China ahead of a planned increase in June refining throughput rates, and potentially to augment its strategic stockpile, may have added further support.

OPEC's decision in late May to maintain current production targets lent additional support to markets. Equally important, a call by some ministers in Vienna for a 'fair price' of $70-$75/bbl was interpreted by some as a strong signal to market participants about future price expectations. The group's delicate dance to avert a contentious debate about overproduction by some members, and discussion of realigning individual output targets by others, also served to reassure the market that the producer group was likely to maintain the cohesive front put forward since 4Q 08 when output cuts totaling some 4.2 mb/d were agreed.

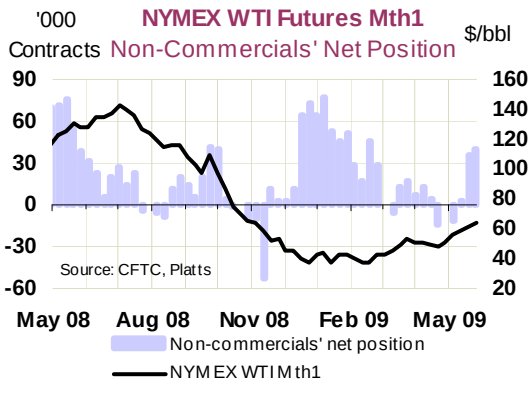
That said, OPEC production edged higher again in May, up by 160 kb/d to 28.4 mb/d. As a result, compliance with targets was down to 74% versus 76% the previous month. However, the month-on-month leakage is small and, overall, OPEC's lower output levels are probably having a bigger impact on markets now as refiners come back into the market after lengthy turnaround schedules, especially in the US and China, than when compliance was better but demand from refiners was at seasonal lows.





The contango for WTI narrowed over the month, averaging just 91 cents/bbl in May compared with $1.91/bbl in April. The narrower contango, combined with stronger refiner demand, prompted a number of traders holding crude in floating storage to sell-off their stocks. However, OECD industry stocks are still equivalent to a high 62 days forward cover. Crude stored on tankers is estimated at 80-85 mb and floating storage of refined products, especially gas oil off Europe and gasoline in the Middle East, continues to build. Refined product stocks held offshore were estimated at over 30 mb by the end of May.

Futures prices were also boosted by an injection of increased financial flows from investors looking to hedge against the weaker dollar and the spectre of resurgent inflation. Non-commercial contract positions on the NYMEX moved from net short of 11,285 in early May to a net long of 40,122 by early June.

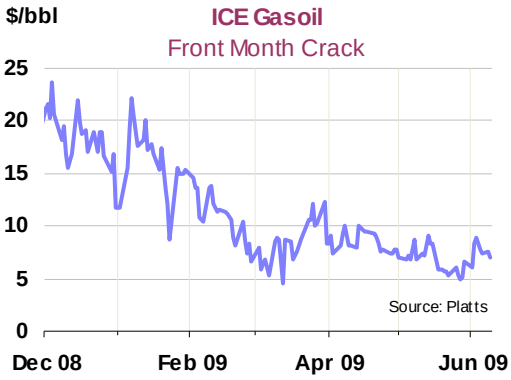


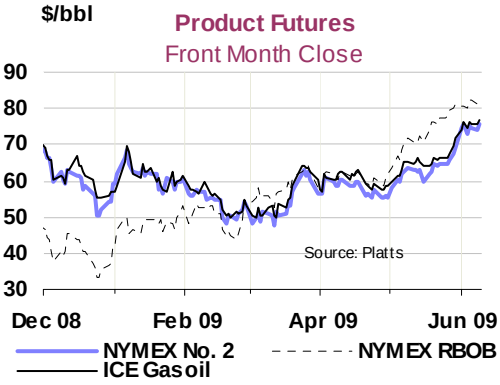
Increased net long positions also reflect renewed perceptions that oil markets would strengthen in the medium term. The 12-month forward price curve on NYMEX has increased to $75.84/bbl on 5 June from $66.49/bbl on 8 May and $53.23/bbl on 6 March.

However, it is worth noting that open interest on NYMEX has remained largely rangebound though year to date, at levels well below 2008 highs.

Expectations for a normal gasoline summer demand season this year over last year's dismal showing, however, remain the major fundmental prop under both crude and refined product markets. While cracking margins in major markets are robust, underlying demand data have yet to reflect the more

buoyant outlook. In the US, the rise in gasoline prices reflects traders' hopes but if the gasoline season fails to launch soon, prices could spiral lower next month.



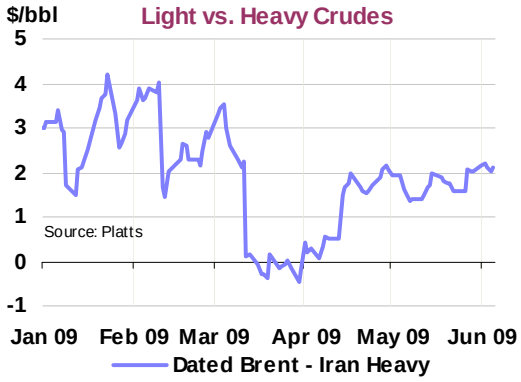


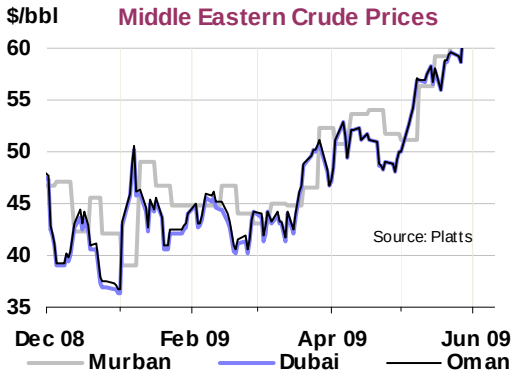
Prospects for a sustained rally in oil prices in the near term crucially hinge on market expectations for a stronger gasoline season translating into solid actual demand data as well as continued OPEC compliance with output targets.

Spot Crude Oil Prices

Crude oil prices firmed across all major regions in May, with prices for benchmark grades up on average by $7-$10/bbl over April levels. Increased demand from refiners coming out of seasonal refinery maintenance turnaround, especially in the US and China, helped strengthen markets throughout the month. By contrast, European refiners continued to run plants at lower levels, muting demand for spot barrels in the region.

Indeed, China has been a major prop under spot crude oil markets in recent months. Chinese refiners are slated to increase refinery throughput rates in June to the highest level in a year. Meanwhile, the government reportedly continued its buying binge to fill the country's strategic crude oil storage tanks. China has been a major buyer of West African grades and also Urals crude on the spot market in recent months. However, with the country's existing storage tanks are reportedly approaching capacity, spot prices may come under pressure.





Continued production restraint by OPEC also led to tighter price differentials between light sweet and heavier sour grades, distorting crude trading patterns. In Asia, Saudi Arabia maintained cuts of 15% to 17% in contract allocations for July, while Abu Dhabi's state oil company, Adnoc, tightened sales volumes slightly for heavy, sour Upper Zakum contracts while leaving contract volumes for lighter Murban, Umm Shaif and Lower Zakum crude allocation cutbacks unchanged from June levels.

In response, prices for heavier Dubai crude moved above lighter North Sea Brent while cheaper freight rates led to higher imports of African crudes and increased buying of Urals crude. Spot prices for Iranian heavy rose $6.70/bbl to $55.76/bbl. Gas oil rich-crudes lag the upswing given poor demand for middle distillates. Prices for Abu Dhabi's distillate-rich Murban rose by a lesser $5.26/bbl in May.

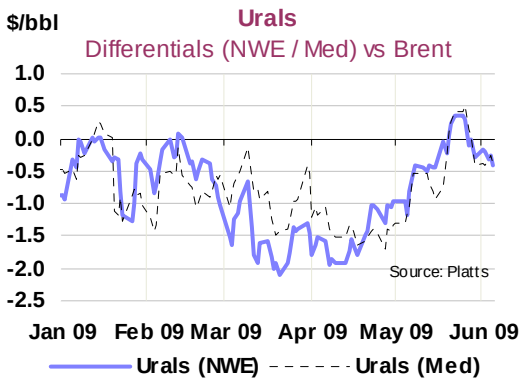
Spot Crude Oil Prices and Differentials

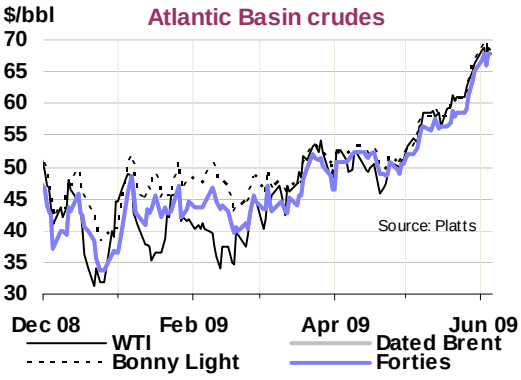
(monthly and weekly averages, $/bbl)

	Mar	Apr	May	May-Apr Avg Change	%	Week Commencing: 11 May	18 May	25 May	01 Jun	08 Jun
Crudes										
Dated Brent	46.54	50.34	57.48	7.14	14.2	56.52	57.76	62.30	67.21	67.52
Brent (Asia) Mth1 adjusted	46.54	50.91	57.92	7.01	13.8	57.39	58.18	61.00	67.95	67.11
WTI (Cushing) Mth1 adjusted	48.00	49.82	59.12	9.29	18.7	58.07	60.32	64.33	68.09	68.42
Urals (Mediterranean)	45.64	48.95	57.07	8.12	16.6	55.82	57.73	62.37	66.86	67.13
Dubai Mth1 adjusted	45.59	50.10	57.85	7.75	15.5	57.38	58.41	60.80	67.42	67.25
Tapis (Dated)	50.15	52.59	60.16	7.57	14.4	60.01	60.09	63.23	69.65	69.45
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	1.45	-0.51	1.64	2.15		1.55	2.55	2.03	0.88	0.91
Urals (Mediterranean)	-0.90	-1.39	-0.42	0.97		-0.70	-0.03	0.08	-0.35	-0.39
Dubai Mth1 adjusted - Dated Brent	-0.96	-0.24	0.37	0.61		0.87	0.65	-1.49	0.21	-0.27
Tapis (Dated)	3.60	2.25	2.68	0.42		3.49	2.33	0.93	2.44	1.94
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-1.20	-0.84	-0.86	-0.02		-0.79	-0.78	-0.65	-0.80	-0.73
Forward WTI Cushing Mth1-Mth2 adj.	-1.28	-1.96	-0.91	1.05		-0.84	-0.57	-0.73	-0.87	-0.93

Source: Platts

The US market showed a similar tightening of light/heavy crude price differentials. Spot prices for medium sour crudes like Mars and heavier Alaskan North Slope were up by between 20% to 24% last month, while lighter crudes such as WTI and Lousiana Light Sweet (LLS) were up a smaller 12% to 15%. Nonetheless, demand for gasoline rich crudes improved, with cargoes of lighter Nigerian and Algerian grades floating off the key US Gulf Coast refining center sold in recent weeks.



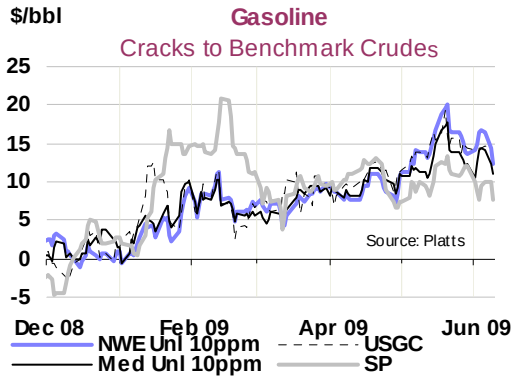


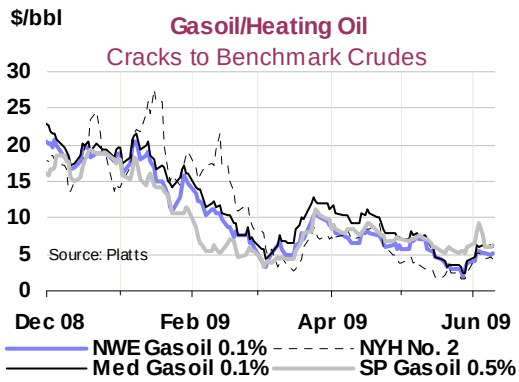
Notably, US imports of Saudi crude oil have fallen to their lowest level in 21 years at just under 950 kb/d in March. Reduced sales of Saudi crudes to the US have led to increased spot purchases of alternative grades. Stronger spot prices in the US relative to other markets, coupled with cheaper freight rates, have pulled a wider arrary of crudes into the region, including medium sour Russian Urals.

Spot Product Prices

Spot product prices tracked crude oil markets, with stronger gasoline crack spreads in key markets also supporting higher levels. Demand for middle distillates, and therefore prices, remain weak in all regions however due to ample stocks both onshore and in floating stoarge offshore in Europe and the Middle East. Fuel oil saw some unexpected strength from reduced refining runs as well as reduced supplies from OPEC of residual-rich heavier, sour crudes.

US spot gasoline prices jumped more than 25%, or by $16.33/bbl to an average $78.70/bbl in May, as the summer driving season got underway. So far, however, demand data have been disappointing and, despite the sharp cutback in refinery throughput rates, gasoline stocks remain near five-year averages. Despite lukewarm stock and demand levels, more bullish market sentiment saw gasoline crack spreads to benchmark crudes edge up to around $13/bbl in May from about $10/bbl in April.



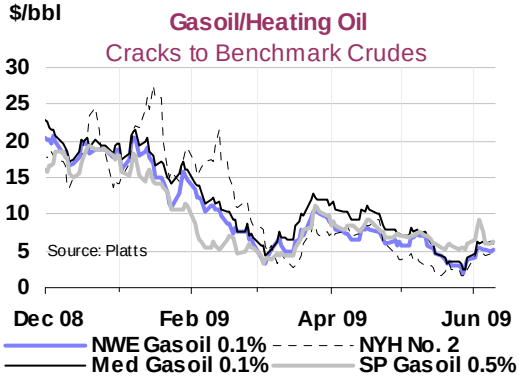


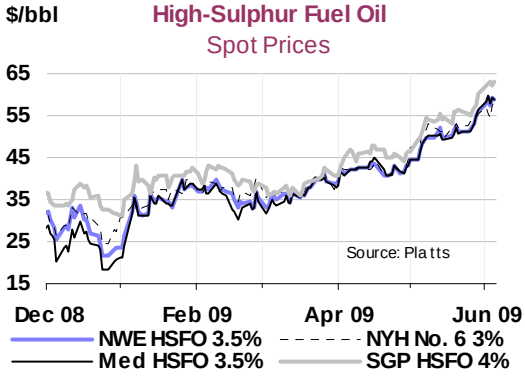
European spot gasoline prices surged 20% in May thanks to strong export demand from Nigeria and the Middle East, and to a lesser extent the US. Brisk transatlantic trade to the US, however, slowed markedly in early June as the jump in European spot gasoline prices narrowed the arbitrage. Premium unleaded rose $13.17/bbl to $72.63/bbl in Rotterdam and was up by $11.45/bbl, to $70.18/bbl in the Mediterranean.

Asian gasoline markets have also been supported by stronger export demand, to African and the US West Coast markets. Spot prices for unleaded gasoline on the US West Coast rose from an average $61.95/bbl in April to $84.85/bbl by early June.

Distillate markets are the weak link in all three major refining centers, though prices posted modest gains month on month in tandem with stronger crude markets. Spot jet fuel prices are up around 7%-8% in May compared with more robust increases of over 20% for gasoline and low-sulphur fuel oil. The sharp downturn in economic activity has hit jet fuel demand particularly, with ample stocks adding further downward pressure.

Spot prices for gas oil/heating oil also lagged the increases in crude and gasoline markets. In Europe, ample gas oil stocks both onshore and in floating storage offshore tempered price increases, with differentials to benchmark Brent in Northwest Europe narrowing over the month, to $4.82/bbl in May from $7.31/bbl in April.





Spot Product Prices

(monthly and weekly averages, $/bbl)

	Mar	Apr	May	May-Apr Change	May-Apr %	Week Commencing: 11 May	18 May	25 May	01 Jun	08 Jun	Mar	Apr	May
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	53.90	59.46	72.63	13.17	22.2	71.17	76.05	76.97	82.97	81.68	7.35	9.12	15.15
Naphtha	43.79	46.81	52.55	5.74	12.3	50.82	52.84	58.45	61.05	60.17	-2.76	-3.53	-4.94
Jet/Kerosene	55.05	59.94	64.54	4.60	7.7	64.22	64.38	68.55	76.23	77.03	8.50	9.60	7.06
ULSD 10ppm	56.70	60.72	65.14	4.42	7.3	64.99	64.40	68.26	75.20	75.72	10.16	10.38	7.66
Gasoil 0.1%	53.40	57.65	62.30	4.66	8.1	62.15	61.38	65.17	72.27	73.28	6.85	7.31	4.82
LSFO 1%	36.61	44.02	50.59	6.57	14.9	49.99	51.36	53.66	59.68	60.01	-9.94	-6.32	-6.89
HSFO 3.5%	36.99	42.01	50.78	8.77	20.9	50.54	51.47	53.81	58.43	58.84	-9.55	-8.32	-6.70
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	53.02	58.74	70.18	11.45	19.5	68.06	73.69	75.06	80.08	79.45	7.37	9.79	13.12
Naphtha	43.01	46.60	51.89	5.29	11.3	50.15	51.85	57.76	60.81	60.07	-2.64	-2.35	-5.18
Jet Aviation fuel	53.50	58.52	63.42	4.90	8.4	62.61	63.15	67.62	74.82	75.27	7.86	9.58	6.36
ULSD 10ppm	56.61	60.73	64.95	4.22	7.0	64.83	64.34	67.95	75.09	75.82	10.96	11.78	7.88
Gasoil 0.1%	53.55	58.54	62.47	3.93	6.7	62.32	61.66	65.36	72.75	73.69	7.91	9.60	5.41
LSFO 1%	39.57	44.65	53.20	8.55	19.2	52.31	53.92	56.73	61.13	61.28	-6.08	-4.30	-3.87
HSFO 3.5%	36.45	42.21	50.52	8.32	19.7	50.00	50.98	53.97	58.79	58.96	-9.20	-6.74	-6.54
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	59.45	62.37	78.70	16.33	26.2	76.85	81.49	85.57	87.27	87.66	11.45	12.54	19.58
Unleaded	54.00	57.25	71.11	13.86	24.2	69.48	73.77	78.13	79.25	80.31	6.00	7.43	12.00
Jet/Kerosene	55.86	58.98	63.68	4.70	8.0	62.80	64.47	67.75	75.31	76.16	7.86	9.15	4.56
No. 2 (Heating Oil)	53.69	56.99	61.98	4.99	8.8	60.81	62.69	66.25	72.81	73.69	5.70	7.17	2.86
LSFO 1%	37.99	44.60	52.34	7.74	17.4	51.15	52.54	56.81	60.14	61.10	-10.01	-5.23	-6.77
No. 6 3%	37.67	42.10	51.77	9.67	23.0	51.34	52.35	54.33	56.59	58.83	-10.33	-7.73	-7.35
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	54.20	60.46	68.50	8.03	13.3	67.14	70.54	72.26	76.57	77.12	8.61	10.36	10.64
Naphtha	46.53	49.35	54.01	4.66	9.4	51.85	54.03	59.00	64.35	61.49	0.94	-0.75	-3.84
Jet/Kerosene	53.34	59.10	64.07	4.98	8.4	63.69	64.30	66.41	73.63	73.97	7.75	9.00	6.22
Gasoil 0.5%	52.10	58.09	64.06	5.97	10.3	63.95	64.04	66.22	74.98	74.46	6.51	7.99	6.21
LSWR Cracked	35.59	38.26	47.72	9.46	24.7	47.06	49.45	51.00	56.21	56.65	-10.00	-11.84	-10.13
HSFO 180 CST	37.86	44.66	53.38	8.72	19.5	52.91	54.19	55.63	61.19	60.92	-7.72	-5.44	-4.47
HSFO 380 CST 4%	38.55	45.49	54.61	9.12	20.0	54.23	55.51	56.91	62.57	62.23	-7.04	-4.61	-3.24

Source: Platts * CIF

Fuel oil prices strenthened in response to lower refinery throughput rates and reduced supplies from OPEC of heavier, sour feedstocks. In Europe and Asia, fuel oil prices were boosted by relatively uncompetitive natural gas prices in May. Spot fuel oil prices rose about 20% in major markets but gains were tappering off by early June as natural gas prices realigned.

Refining Margins

Refinery margins experienced mixed fortunes in May against a backdrop of price increases for all crude oil benchmarks and refined products. Margins increased for some benchmarks and decreased for others, depending on the relative price increases, product yields and refinery configuration.

Hydroskimming configurations suffered in relation to more complex units in Europe, but fared better in Asia. Refining margins for simple configuration remained not only negative but worsened on a monthly basis. Throughout the month refinery margins largely decreased, with NW Europe and Mediterranean margins posting the largest declines.

Cracking margins increased in the US Gulf Coast (USGC) as gasoline crack-spreads provided stronger support than those in Europe, where only the Brent margin improved. Middle distillates proved to be a drag on margins as cracks deteriorated in all regions.

Upgrading margins in the USGC (coking versus cracking) initially fell back as higher middle distillate yields for coking configurations lagged the impact of stronger fuel oil prices on cracking margins.

Selected Refining Margins in Major Refining Centres

($/bbl)

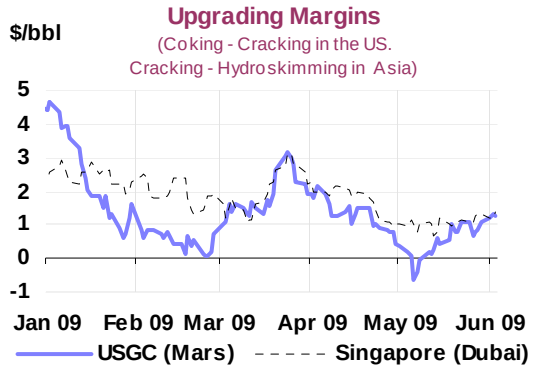
		Monthly Average			Change	Average for week ending:				
		Mar 09	Apr 09	May 09	May 09-Apr 09	08 May	15 May	22 May	29 May	05 Jun
NW Europe	Brent (Cracking)	0.83	1.25	1.94	0.69	2.06	2.14	2.67	1.05	1.56
	Urals (Cracking)	1.80	2.15	1.45	-0.70	2.14	1.85	1.69	0.12	0.84
	Brent (Hydroskimming)	-1.06	-0.77	-0.97	-0.21	-0.42	-0.71	-0.76	-2.00	-1.68
	Urals (Hydroskimming)	-1.88	-1.65	-3.31	-1.66	-2.14	-2.72	-3.64	-4.88	-4.47
Mediterranean	Es Sider (Cracking)	1.03	2.14	1.33	-0.81	1.74	1.47	1.87	0.18	0.72
	Urals (Cracking)	1.12	2.38	1.61	-0.77	2.11	1.89	2.01	0.38	1.09
	Es Sider (Hydroskimming)	-2.25	-1.37	-2.91	-1.54	-1.92	-2.60	-2.96	-4.41	-4.04
	Urals (Hydroskimming)	-3.39	-2.28	-3.84	-1.56	-2.74	-3.26	-4.09	-5.49	-4.88
US Gulf Coast	Bonny (Cracking)	-2.35	-0.23	1.15	1.38	1.36	0.75	2.19	0.50	0.65
	Brent (Cracking)	-1.83	-1.20	1.27	2.47	1.12	0.72	2.61	0.99	0.48
	LLS (Cracking)	-1.43	0.42	1.38	0.96	1.25	1.60	2.07	0.85	1.62
	Mars (Cracking)	-1.18	1.37	1.39	0.02	2.30	1.66	1.42	0.21	0.81
	Mars (Coking)	0.71	2.67	1.85	-0.82	2.13	1.98	2.26	1.09	2.06
	Maya (Coking)	2.34	0.94	-0.54	-1.48	-1.70	-0.82	0.75	-0.18	2.60
US West Coast	ANS (Cracking)	-1.49	3.48	2.95	-0.53	1.34	3.73	4.35	2.74	1.76
	Kern (Cracking)	-0.27	4.47	9.08	4.61	8.18	10.21	10.36	7.68	8.06
	Oman (Cracking)	-0.54	-0.45	3.19	3.64	1.38	3.14	4.57	3.80	2.29
	Kern (Coking)	9.73	14.41	16.14	1.74	15.24	13.95	17.70	17.70	17.08
Singapore	Dubai (Hydroskimming)	-3.44	-2.04	-3.02	-0.98	-2.49	-3.04	-3.10	-3.56	-3.56
	Tapis (Hydroskimming)	-5.51	-3.42	-4.83	-1.41	-4.82	-5.41	-4.02	-4.89	-5.02
	Dubai (Hydrocracking)	-1.44	-0.31	-1.97	-1.66	-1.49	-2.10	-2.06	-2.34	-2.29
	Tapis (Hydrocracking)	-3.62	-1.12	-3.22	-2.11	-2.95	-3.85	-2.63	-3.35	-3.29
China	Cabinda (Hydroskimming)	-7.39	-6.16	-6.90	-0.74	-6.72	-6.22	-6.08	-8.24	-7.38
	Daqing (Hydroskimming)	-6.99	-6.52	-5.91	0.61	-6.66	-5.98	-5.00	-5.86	-5.72
	Dubai (Hydroskimming)	-3.76	-2.21	-3.14	-0.92	-2.60	-3.11	-3.23	-3.73	-3.76
	Daqing (Hydrocracking)	-3.17	-1.89	-2.08	-0.19	-2.63	-2.31	-1.27	-1.97	-2.05
	Dubai (Hydrocracking)	-1.72	-0.41	-2.01	-1.60	-1.50	-2.08	-2.11	-2.44	-2.42

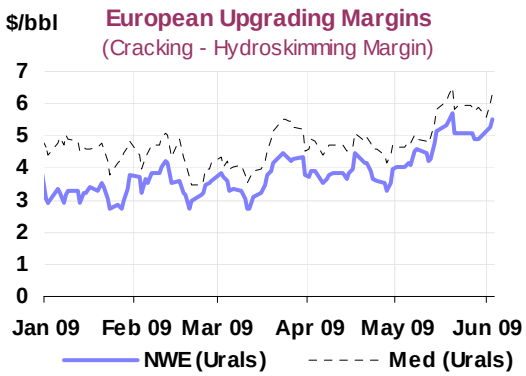
For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.

Sources: IEA, Purvin & Gertz Inc.

In Europe, upgrading margins (cracking versus hydroskimming) improved as higher gasoline prices outweighed the more modest gains seen for residual fuel oil.





In Singapore, all benchmarks margins deteriorated. Upgrading margins (hydrocracking versus hydroskimming) worsened, as higher yields of light products for hydrocracking configurations failed to compensate for the price increases in high sulphur fuel oil.

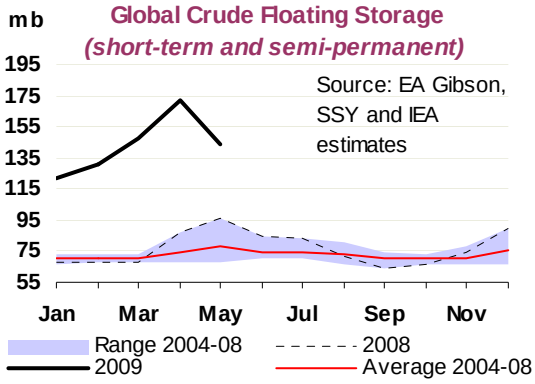
End-User Product Prices in May

Retail product prices on average rose by 8.0% in May, in US dollars, ex-tax, in IEA member countries. Biggest increases were seen for gasoline and low-sulphur fuel oil, when prices rose on average by 12.4% and 12.7%, respectively. Both diesel and heating oil posted smaller gains in May, up by 4.1% and by 2.7%, respectively. Consumers in the US on average paid $2.27/gallon ($0.599/litre) for gasoline, in Japan ¥117.0/litre ($1.212/litre) and in the UK £0.97/litre ($1.500/litre). Across Europe, prices ranged from a low of €0.977/litre ($1.335/litre) in Spain to a high of €1.263/litre ($1.725/litre) in Germany. End-user product prices were 44.9% below May 2008 levels.

Freight

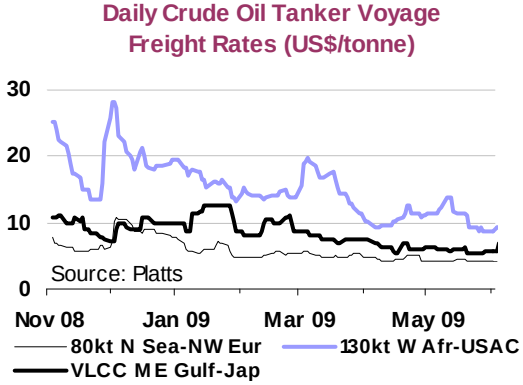
May dirty freight rates stayed relatively flat on the month as increased output from the Middle East was balanced by the discharge of about 30 mb of crude from floating storage over the course of the month. The fall in crude floating storage was the first sustained downturn since short-term levels began ramping up in December. Yet, as of early June, approximately 80-85 mb of short-term crude floating storage remained globally and some new-build VLCCs were being enlisted into floating product storage duties.

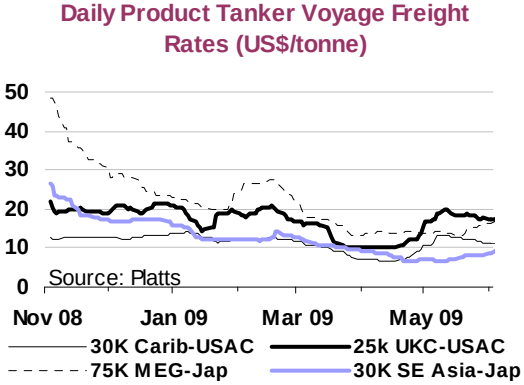
West Africa to US Atlantic Coast Suezmax rates showed the most signs of life as they rebounded briefly in mid-May, moving from $11/tonne at the beginning of the month to almost $14/tonne. These rates remained higher than other routes on strong buying of West African crudes by Chinese and Indian refiners and higher US gasoline margins, which increased demand for gasoline-rich Nigerian crudes. Still, a significant uptick in violence in the Niger Delta in the second half of the month took additional Nigerian production volumes offline, which decreased export availability and caused freight rates to retrace.



Although VLCC rates on the Middle East Gulf to Japan route remained steady at around $6/tonne, a 30% rise in bunker fuel prices during the month ate into spot daily earnings and pushed ship owners to the break-even point. VLCC earnings also fell to the point where they were less than those for medium-range product tankers.

Clean rates increased somewhat throughout the month, supported by short-term products floating storage levels and increased Atlantic Basin gasoline trade. Middle East Gulf to Japan Aframax rates rose from around $14/tonne at the end of April to over $16/tonne by end-May. Northwest Europe to US Atlantic Coast medium-range (MR) rates rose from $17/tonne at the beginning of May to over $20/tonne at one point mid-month, before settling back at $18/tonne at month-end.





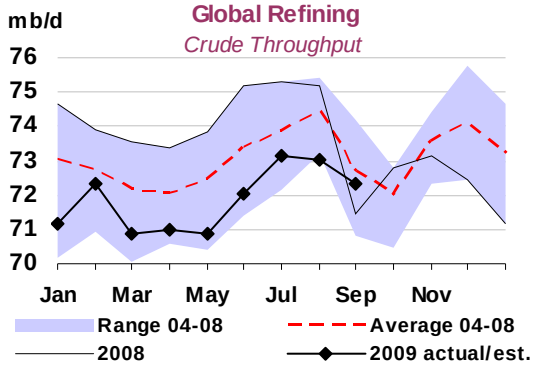
The resumption of gasoline imports by Nigeria propelled Atlantic basin rates higher. Industry sources assert that Nigeria could import 230 kb/d of gasoline from mid-May through end-June following a month-long suspension of imports by domestic fuel marketers. More generally, an increase of products floating storage – concentrated mostly off Europe but also off West Africa and Singapore – to upwards of 30 mb (with some reports indicating as much as 40 mb) acted as a bullish factor for product vessel demand, if not for products markets themselves.

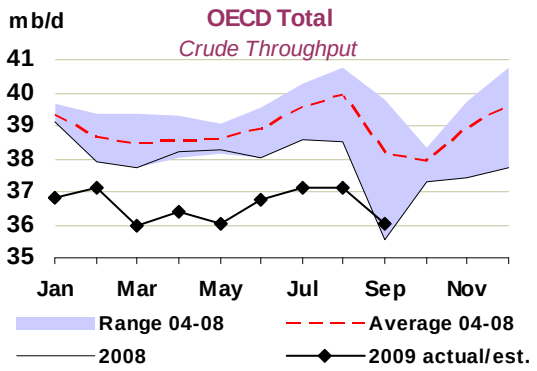
REFINING

Summary

- **Global crude runs remain depressed compared with the five-year historical range,** but we have raised our forecast for 2Q09 by 0.2 mb/d to 71.3 mb/d. This is a result of higher April preliminary data in OECD countries, reports of near-record-high crude runs in China and slightly higher outlooks for global demand. However, this forecast remains 2.9 mb/d lower than for 2Q08, with 63% of the reduction in OECD countries.

- **The crude throughput forecast has been rolled out to September, with 3Q09 crude runs forecast at 72.8 mb/d, an annual decline of 1.2 mb/d,** of which 70% is in OECD countries. However, runs in 3Q09 are expected to be 1.5 mb/d higher than 2Q09. This forecast incorporates a downward adjustment of 1.2 mb/d in North America for September in order to account for recent seasonal patterns, including lower runs due to hurricanes.





- **OECD crude runs are assessed at 36.4 mb/d in 2Q09, an annual decline of 1.8 mb/d.** Last's month shift to higher North American runs compared with European is retained, as distillate cracks continued to deteriorate and gasoline cracks strengthened in the US. Furthermore, middle distillate stocks kept increasing in Europe while latest US weekly data recorded a fall of 9.3 mb in gasoline stock levels. Despite stronger prospects for crude runs in China, non-OECD crude throughput is expected to remain at a subdued 34.9 mb/d, as reported last month, as lower crude runs are expected elsewhere in non-OECD countries.

- **March 2009 OECD gasoline refinery yields rebounded to 34.3%, the highest level since August 2003.** Year-on-year, North America saw a 5% increase in refinery gross output and a 21% increase in net imports, driven by the US. OECD gasoil/diesel yields remain above historical levels. European gasoil/diesel refinery gross output decreased 2% year-on-year but there was a 47% increase in net imports. North America and the Pacific's net export position increased 90% and 21%, respectively.

Global Refinery Overview

Global forecast crude runs are raised this month, taking into consideration higher April preliminary data for OECD countries, reports of near-record-high crude runs in China, and slightly higher prospects for global demand. We retain last month's shift in favour of US refinery throughputs over European ones as distillate cracks continued to deteriorate and gasoline cracks increased further, particularly in the US. In Europe, higher April preliminary data for Spain, the UK and Belgium proved last month's estimate of 0.2 mb/d short of reality; while crude runs in North America increased by 0.3 mb/d.

Global **1Q09** runs are reviewed higher by 0.1 mb/d. Runs in non-OECD countries were higher than expected (mainly in Indonesia, Thailand, Venezuela and Bolivia) while runs in OECD regions turned out lower, mainly in the US, Canada, Turkey and Japan. 1Q09 crude runs are now 2.6 mb/d lower than 1Q08, with 65% of the decline in OECD countries.

Estimated **2Q09** global crude throughput of 71.3 mb/d is 0.2 mb/d higher than in last month's report. This is mainly the result of higher April preliminary OECD crude runs of 0.6 mb/d and a decrease of 0.2 mb/d in the non-OECD, implying a year-on-year contraction of 2.9 mb/d, with 63% of the decline in OECD countries. In spite of higher Chinese runs, reports of lower runs elsewhere in non-OECD countries, mainly the FSU, keep the April comparison negative.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09
OECD									
North America	17.2	17.2	17.0	*17.4*	*17.3*	*17.5*	*17.6*	*17.6*	*16.5*
Europe	12.7	12.7	12.3	*12.7*	*12.7*	*13.2*	*13.3*	*13.2*	*13.4*
Pacific	6.9	7.2	6.7	*6.3*	*6.1*	*6.1*	*6.3*	*6.3*	*6.2*
Total OECD	36.8	37.1	36.0	*36.4*	*36.0*	*36.7*	*37.1*	*37.1*	*36.0*
NON-OECD									
FSU	5.9	*6.0*	5.8	*5.7*	*6.0*	*5.8*	*6.0*	*6.1*	*6.1*
Europe	0.6	*0.7*	0.7	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*
China	6.1	*6.7*	6.9	*7.2*	*6.9*	*7.2*	*7.2*	*7.3*	*7.3*
Other Asia	8.0	*8.2*	8.1	*7.8*	*7.6*	*7.6*	*7.8*	*7.8*	*7.9*
Latin America	5.4	*5.5*	5.5	*5.0*	*5.0*	*5.4*	*5.5*	*5.3*	*5.5*
Middle East	6.1	*6.0*	5.6	*6.0*	*6.2*	*6.2*	*6.2*	*6.2*	*6.3*
Africa	2.4	*2.2*	2.2	*2.2*	*2.3*	*2.3*	*2.4*	*2.4*	*2.4*
Total Non-OECD	34.4	*35.2*	34.9	*34.6*	*34.8*	*35.3*	*36.0*	*35.9*	*36.3*
Total	71.2	72.3	70.9	*71.0*	*70.9*	*72.0*	*73.1*	*73.0*	*72.4*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

We have rolled over our forecast to include September. A global crude throughput of 72.8 mb/d is expected for **3Q09**, representing a year-on-year contraction of 1.2 mb/d, with 70% of the decline in OECD regions. Crude runs in 3Q09 are expected to be 1.5 mb/d higher than 2Q09, with 75% of the increase in non-OECD countries. This forecast incorporates a September downward adjustment of 1.2 mb/d in North America, equivalent to the monthly five-year-average decline in crude runs, in order to account for seasonal patterns, which includes lower runs due to hurricanes. Runs in September 2008 recorded a monthly fall of 2.3 mb/d as hurricane activity forced refiners to shut down or reduce crude runs.

July crude runs of 73.1 mb/d are expected, representing an increase of 0.7 mb/d from last month's forecast, mainly in OECD regions, as only expectations of higher China crude runs have been incorporated for non-OECD countries. Similarly, **August** crude runs are raised by 0.4 mb/d to 73.0 mb/d, with most of the increases in OECD North America and the Pacific. **September** global crude throughput sees crude runs dropping by almost 0.7 mb/d, as we have incorporated the above mentioned seasonal downward adjustment. September non-OECD crude runs are expected to show a monthly increase of 0.4 mb/d as a result of lower maintenance activity in Other Asia, Latin America and the Middle East.

OECD Refinery Throughput

March crude runs were revised down 0.2 mb/d, with North America accounting for 62% of the decrease, as data for the US and Canada turned out to be lower than preliminary estimates. Data for Europe and the Pacific were also lower than estimated.

Provisional April data show OECD crude throughput rose to 36.4 mb/d, or 0.6 mb/d more than last month estimate and 0.4 mb/d higher month-on-month. North America represented about 45% of the increase while OECD Europe accounted for 25%. Furthermore, US gasoline cracks strengthened relative to European ones and draws in gasoline stocks and build-ups of distillate stocks in both regions also support the shift.

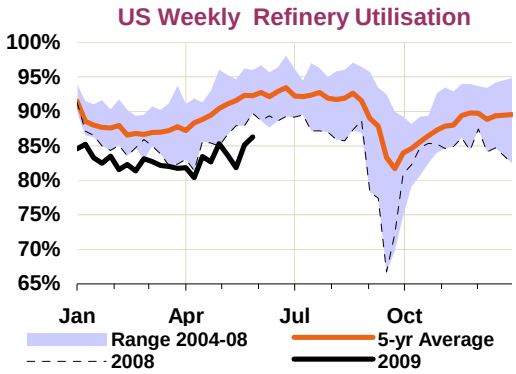
Refinery Crude Throughput and Utilisation in OECD Countries

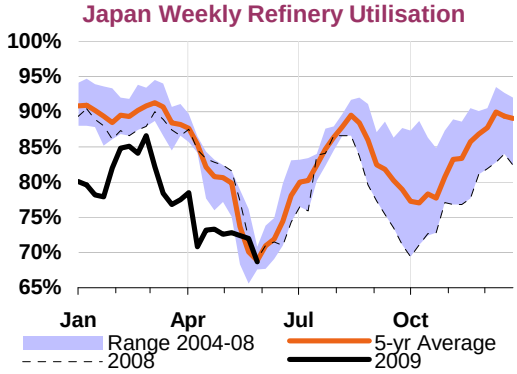
(million barrels per day)

	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	Change from Mar 09	Change from Apr 08	Utilisation rate[1] Apr 09	Utilisation rate[1] Apr 08
OECD North America										
US[2]	14.60	14.35	14.11	14.12	14.09	14.39	0.30	-0.41	81.72	84.14
Canada	1.71	1.81	1.82	1.85	1.68	1.75	0.07	0.04	86.50	84.76
Mexico	1.15	1.28	1.29	1.26	1.22	1.24	0.02	-0.02	80.42	71.96
Total	17.46	17.44	17.21	17.22	16.99	17.37	0.38	-0.40	82.08	84.04
OECD Europe										
France	1.73	1.66	1.44	1.64	1.45	1.51	0.06	-0.19	76.90	86.83
Germany	2.29	2.20	2.07	2.13	2.15	2.21	0.06	0.01	91.39	90.80
Italy	1.74	1.80	1.63	1.52	1.61	1.69	0.08	-0.01	72.43	72.74
Netherlands	0.86	1.00	1.00	1.03	0.96	1.04	0.08	-0.01	85.79	86.34
Spain	1.12	1.24	1.21	1.21	1.03	1.17	0.14	-0.04	91.98	94.97
UK	1.50	1.59	1.55	1.54	1.49	1.35	-0.15	-0.25	71.28	84.44
Other OECD Europe	3.99	3.78	3.79	3.66	3.56	3.69	0.12	-0.36	78.62	86.36
Total	13.22	13.26	12.70	12.73	12.25	12.65	0.40	-0.84	80.20	85.54
OECD Pacific										
Japan	3.64	3.86	3.71	4.03	3.68	3.35	-0.34	-0.62	71.55	84.78
Korea	2.45	2.44	2.50	2.43	2.42	2.33	-0.10	0.05	85.05	83.24
Other OECD Pacific	0.67	0.70	0.69	0.70	0.63	0.67	0.04	-0.01	83.19	83.90
Total	6.76	7.00	6.90	7.15	6.74	6.34	-0.39	-0.57	77.18	84.18
OECD Total	37.44	37.71	36.82	37.11	35.99	36.37	0.38	-1.81	80.53	84.59

1 Expressed as a percentage, based on crude throughput and current operable refining capacity
2 US50

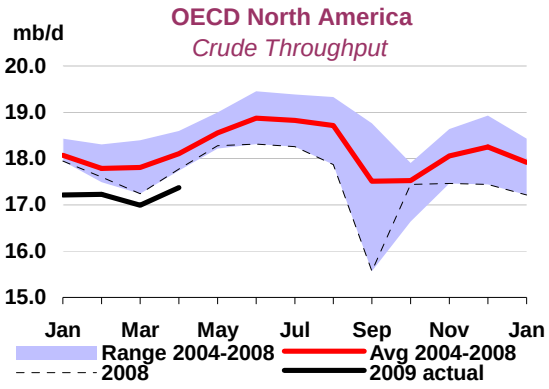
OECD 2Q09 crude throughput is forecast to average 36.4 mb/d, 0.2 mb/d above last month's report but 1.8 mb/d below 2Q08. The quarterly increase in forecast runs is mainly driven by higher than expected preliminary data for all three OECD regions in April. Higher runs for Canada, Spain, the UK, Belgium, Korea and Australia constitute most of the increase while crude runs in Turkey, France and Japan were lower than expected.

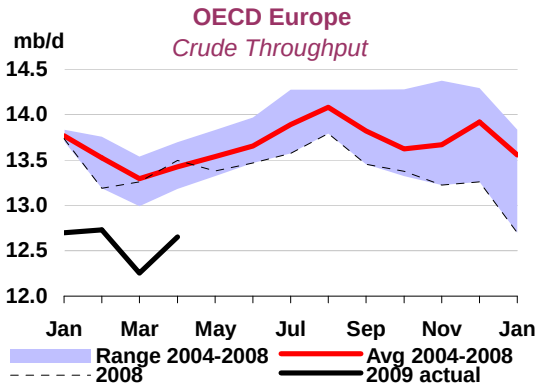




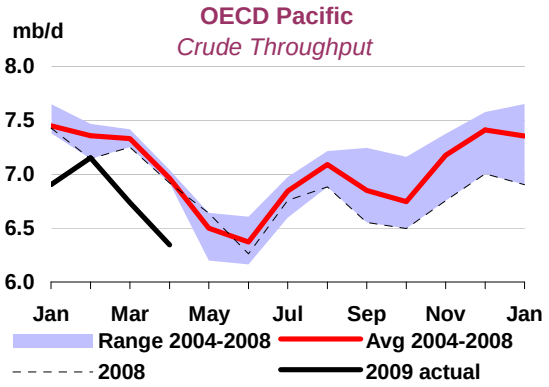
3Q09 OECD crude throughput is forecast at 36.8 mb/d, representing a quarterly increase of 0.4 mb/d but a year-on-year decrease of 0.8 mb/d. Most of the year-on-year decrease is expected in the Pacific and European regions.

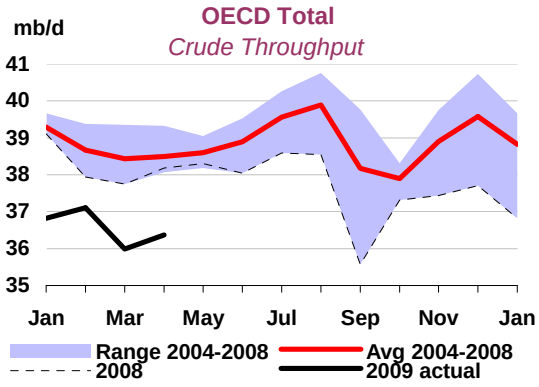
OECD North America April crude throughput increased by 0.4 mb/d on a monthly basis in accordance with seasonal patterns. Most of the increase came from the US, where imminent driving season elicited higher runs. US weekly data for May confirm the upward trend, which is expected to continue until August, along with less-visible maintenance activity. For September, we have incorporated a seasonal downward adjustment of 1.2 mb/d for the region, equivalent to the five-year-average monthly decline from August, driven largely by outages caused by hurricane activity.





OECD Europe April crude throughput rebounded 0.4 mb/d to 12.7 mb/d compared with March. Only the UK showed lower monthly throughputs. Considering distillates stocks have kept rising and middle distillates crack spreads have narrowed, there is a risk of lower European crude runs for the coming months.

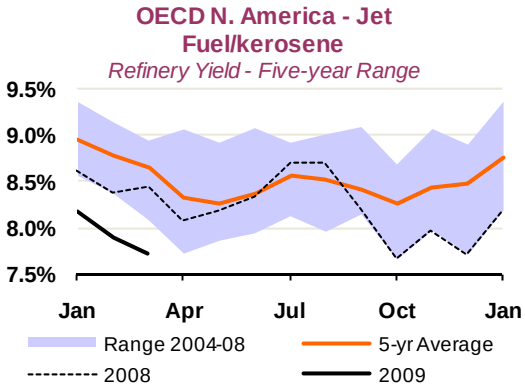




OECD Pacific crude throughput fell by 0.4 mb/d to 6.3 mb/d in April, 0.2 mb/d less of a drop than estimated last month, as preliminary crude runs for Korea and Australia were higher than expected. However, Japanese crude runs turned out to be lower. Strong maintenance activity in May and June, coupled with increased competition for export markets, should further depress crude runs in this region.

Non-OECD Refinery Throughput

Forecast 2Q09 non-OECD crude throughput of 34.9 mb/d is unchanged, higher-than-expected crude runs in China offset lower-than-expected crude runs elsewhere in non-OECD countries.

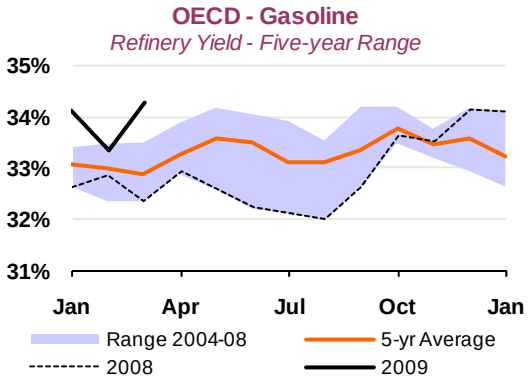


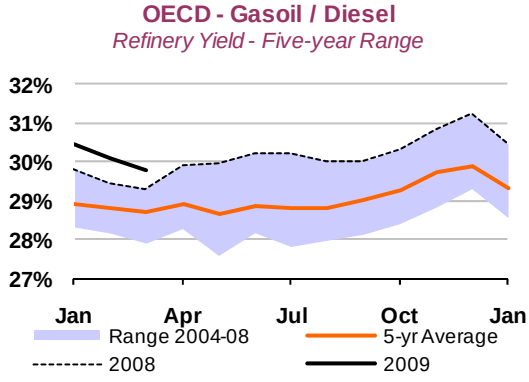
Chinese April crude throughput is reported at 7.2 mb/d, exceeding again our expectations for the third consecutive month, this time by 0.3 mb/d. Higher domestic fuel demand, reduced net imports and lower inventories are seen as contributing factors. Tax incentives, which allow for both imports of crude and exports of products free of the 17% value-added tax, seem to have incentivised exports in recent months. Therefore, we have increased our 3Q09 forecast for China to 7.2 mb/d. Chinese fuel exports will likely continue to pressure prices in the region.

Indian crude runs have been decreased slightly as additional maintenance activity is scheduled. **FSU** crude runs meanwhile were 0.2 mb/d lower than expected in April as maintenance at some major Russian refineries, and reported weak domestic demand, depressed crude runs. 3Q09 non-OECD crude throughput is forecast at 36.1 mb/d, representing a quarterly increase of 1.2 mb/d but a year-on-year decrease of 0.4 mb/d.

OECD Refinery Yields

OECD March gasoline yields rebounded to 34.3%, the highest level since August 2003. Stronger crack spreads, particularly for North America, supported this change. North America and the Pacific led the monthly change with increases of 1.1 and 1.0 percentage points, respectively. The yield in North America is the highest since December 2003, signalling again the strength of gasoline markets in this region relative to middle distillates. North America in March saw a 5% increase in refinery gross output and a 21% increase in net imports.





OECD gasoil/diesel yields decreased slightly in accordance with seasonal patterns and weaker crack spreads. North America yields fell by 1.4 percentage points, outweighing increases in Europe and the Pacific. However, in absolute terms, production decreased in Europe and net exports increased in North America. As far as data are available up to March 2009, Europe has favoured imports over production of gasoil/diesel. Year-on-year, Europe's gasoil/diesel net import position increased 47% while refinery gross output decreased 2%. Interestingly, North America and the Pacific's net export position increased 90% and 21% respectively.

OECD jet fuel/kerosene yields fell sharply by 0.6 percentage points to 8.4%; this fall represents twice the five-year average seasonal decrease. All three OECD regions recorded decreases, with the Pacific falling 2.3 percentage points to 14.8%. Falling crack spreads in all regions undermined yields. OECD jet fuel/kerosene yields have been depressed below the five-year range since October 2008, requiring imports from non-OECD countries. Year-on-year net imports of jet fuel/kerosene recorded an increase of 31% in the OECD as refinery gross output decreased 11%. In particular, European gross output fell 18%, necessitating a 32% increase of net imports.

OECD Trading Patterns

Overall refinery gross output and product trade among OECD regions have changed significantly as a response to changes in product demand generated by the new economic environment and the aim of refiners to retain some degree of profitability in their businesses.

Total OECD Refinery Gross Output
(thousand barrels per day)

	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09
North America	347	305	9,439	9,909	1,744	1,609	5,050	5,046	1,154	1,065	3,520	3,450	21,253	21,383
Europe	1,062	970	3,232	3,087	1,049	864	5,641	5,522	1,980	1,614	2,276	2,178	15,239	14,235
Pacific	928	856	1,526	1,601	1,201	1,088	2,173	2,134	1,035	839	916	870	7,779	7,388
Total	**2,336**	**2,131**	**14,198**	**14,597**	**3,993**	**3,561**	**12,863**	**12,702**	**4,169**	**3,517**	**6,712**	**6,498**	**44,271**	**43,006**

As a whole, the OECD is a net importer of products. Year-on-year, total product net imports increased by 20% in March 2009, while refinery gross output shows a 3% decrease, implying a net contraction in OECD apparent domestic demand. Each region has responded differently to the new demand patterns and economic environment. In Europe, apparent domestic demand contracted with refiners decreasing refinery gross output by 7%; compensating for this, product net imports increased 92%. In North America, apparent demand remained at the same level as in March last year and refinery gross output increased by 1%, however net imports declined by 9%. Finally, the OECD Pacific region seems the most affected, with a 5% decrease in refinery gross output and a 13% decrease in net-imports, suggesting a sharp decline in apparent demand.

Total OECD Net Exports of Petroleum Products
(thousand barrels per day)

	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09	Mar 08	Mar 09
North America	7	11	-908	-1,102	-49	-47	263	499	138	118	139	149	-409	-371
Europe	-220	-186	1,004	882	-338	-447	-657	-968	-57	-68	-308	-320	-576	-1,107
Pacific	-820	-879	-43	-59	164	202	390	472	0	-27	-592	-496	-901	-787
Total	**-1,033**	**-1,054**	**53**	**-278**	**-223**	**-292**	**-4**	**3**	**81**	**23**	**-761**	**-667**	**-1,887**	**-2,265**

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	25.6	25.4	25.7	25.4	25.5	25.5	25.5	24.8	24.5	23.7	24.1	24.3	23.8	23.0	23.2	23.1	23.3
Europe	15.7	15.7	15.2	14.9	15.4	15.6	15.3	15.3	14.9	15.4	15.3	15.2	14.8	14.1	14.7	14.7	14.6
Pacific	8.6	8.5	8.9	7.9	7.9	8.7	8.3	8.9	7.8	7.5	7.9	8.0	8.1	7.1	6.9	7.4	7.4
Total OECD	49.8	49.6	49.8	48.2	48.9	49.9	49.2	49.0	47.3	46.6	47.3	47.5	46.7	44.2	44.8	45.1	45.2
NON-OECD DEMAND																	
FSU	3.9	4.0	4.1	3.9	4.1	4.2	4.1	4.2	4.1	4.3	4.2	4.2	3.9	3.8	4.1	4.0	4.0
Europe	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6
China	6.7	7.2	7.4	7.8	7.5	7.6	7.6	7.9	8.0	8.1	7.6	7.9	7.7	8.1	7.9	7.8	7.9
Other Asia	8.8	9.0	9.5	9.5	9.3	9.6	9.5	9.8	9.8	9.3	9.4	9.6	9.7	9.5	9.3	9.4	9.5
Latin America	5.1	5.3	5.4	5.6	5.8	5.8	5.6	5.7	6.0	6.0	5.9	5.9	5.7	5.9	6.0	5.9	5.9
Middle East	6.0	6.2	6.3	6.4	6.6	6.3	6.4	6.6	7.0	7.4	6.8	7.0	6.6	7.2	7.7	7.1	7.1
Africa	2.9	2.9	3.0	3.0	3.0	3.1	3.0	3.1	3.1	3.1	3.2	3.1	3.2	3.2	3.1	3.2	3.2
Total Non-OECD	34.3	35.6	36.3	36.8	37.0	37.3	36.8	38.0	38.5	38.8	37.7	38.3	37.4	38.4	38.5	38.2	38.1
Total Demand[1]	84.1	85.2	86.0	85.0	85.8	87.2	86.0	87.0	85.8	85.4	85.0	85.8	84.1	82.6	83.3	83.3	83.3
OECD SUPPLY																	
North America	14.1	14.2	14.4	14.4	14.2	14.1	14.3	14.2	14.1	13.6	13.8	13.9	14.2	13.8	13.7	13.9	13.9
Europe	5.7	5.3	5.3	5.0	4.8	5.1	5.0	4.9	4.8	4.6	4.8	4.8	4.9	4.2	4.1	4.4	4.4
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7
Total OECD	20.4	20.1	20.2	20.0	19.6	19.8	19.9	19.7	19.5	18.8	19.3	19.3	19.7	18.6	18.6	19.0	19.0
NON-OECD SUPPLY																	
FSU	11.8	12.2	12.8	12.7	12.8	12.8	12.8	12.8	12.9	12.7	12.7	12.8	12.8	13.0	12.7	12.6	12.8
Europe	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.6	3.7	3.7	3.8	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.9	3.9	3.9	3.8
Other Asia[2]	3.8	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.7	3.7	3.6	3.6	3.7	3.7	3.7
Latin America[2]	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.4	4.4	4.4	4.5	4.4
Middle East	1.8	1.8	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5
Africa[2]	2.4	2.5	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	27.4	28.0	28.6	28.4	28.3	28.5	28.4	28.7	28.7	28.6	28.6	28.6	28.8	29.0	28.9	28.8	28.9
Processing Gains[3]	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3
Other Biofuels[4]	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3
Total Non-OPEC[2]	49.8	50.4	51.2	50.9	50.4	50.8	50.8	50.9	50.8	50.0	50.6	50.6	51.1	50.3	50.1	50.5	50.5
Non-OPEC: Historical Composition[2]	50.5	51.3	50.6	50.4	49.9	50.2	50.3	49.9	49.8	49.0	49.6	49.6	51.1	50.3	50.1	50.5	50.5
OPEC																	
Crude[5]	30.6	30.7	30.0	29.9	30.3	31.1	30.3	31.5	31.4	31.5	30.5	31.2	28.5				
NGLs	4.3	4.4	4.5	4.5	4.5	4.6	4.5	4.6	4.6	4.7	4.8	4.7	4.8	5.0	5.3	5.5	5.2
Total OPEC[2]	34.9	35.2	34.5	34.4	34.9	35.7	34.9	36.1	36.0	36.2	35.3	35.9	33.3				
OPEC: Historical Composition[2]	34.2	34.3	35.0	34.9	35.4	36.4	35.4	37.1	37.0	37.2	36.4	36.9	33.3				
Total Supply[6]	84.7	85.6	85.6	85.3	85.2	86.5	85.7	87.0	86.8	86.2	85.9	86.5	84.4				
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.2	-0.8	0.7	-0.1	-0.9	-0.3	0.1	0.3	0.6	0.4	0.4	0.5				
Government	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	0.2				
Total	0.2	0.3	-0.7	0.6	0.1	-0.9	-0.2	0.1	0.4	0.5	0.5	0.4	0.7				
Floating Storage/Oil in Transit	-0.1	-0.1	0.1	0.0	-0.3	0.2	0.0	0.3	0.0	-0.3	0.1	0.0	0.5				
Miscellaneous to balance[7]	0.5	0.3	0.1	-0.4	-0.4	0.0	-0.2	-0.4	0.6	0.6	0.4	0.3	-0.9				
Total Stock Ch. & Misc	0.6	0.4	-0.4	0.2	-0.6	-0.7	-0.4	0.1	0.9	0.8	0.9	0.7	0.3				
Memo items:																	
Call on OPEC crude + Stock ch.[8]	29.9	30.3	30.4	29.6	30.9	31.8	30.7	31.5	30.4	30.7	29.6	30.5	28.2	27.3	27.9	27.4	27.7
Adjusted Call on OPEC + Stock ch.[9]	30.4	30.5	30.6	29.2	30.5	31.7	30.5	31.1	31.0	31.3	30.0	30.8	27.3	27.2	27.9	27.3	27.4

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Biofuels from sources outside Brazil and US.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2005	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-	0.1
Europe	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-
Total OECD	-	-	-	-	-	-	-	0.1	0.1	-	-	-	0.3	0.2	-	-	0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-0.1
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Demand	-	-	-	-	-	-	-	0.1	-	-	-	-	0.3	0.2	-0.1	-	0.1
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	0.1	0.1
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	-	0.1	-	0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	0.1	0.2	0.2	0.2
Non-OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	0.1	0.2	0.2	0.2
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	0.1				
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.2	0.2	0.2	0.2
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	0.3				
OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	-	-	0.3				
Total Supply	-	-	-	-	-	-	-	-	-	-	-	-	0.4				
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-				
Government	-	-	-	-	-	-	-	-	-	-	-	-	-				
Total	-	-	-	-	-	-	-	-	-	-	-	-	-				
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-	-	-	-				
Miscellaneous to balance	-	-	-	-	-	-	-	-0.1	-	-	-	-	0.1				
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-	0.1				
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	0.1	-	-	0.1	-	-	-0.1	-0.5	-0.4	-0.2
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.1	-0.5	-0.4	-0.2

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

Summary of Global Oil Demand

	2006	1Q07	2Q07	3Q07	4Q07	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
Demand (mb/d)																
North America	25.42	25.68	25.40	25.55	25.49	25.53	24.84	24.52	23.73	24.07	24.29	23.79	22.97	23.19	23.06	23.25
Europe	15.68	15.18	14.93	15.42	15.65	15.30	15.27	14.94	15.37	15.28	15.22	14.84	14.11	14.71	14.71	14.59
Pacific	8.48	8.91	7.87	7.89	8.72	8.35	8.87	7.82	7.50	7.93	8.03	8.10	7.11	6.88	7.35	7.36
Total OECD	49.58	49.77	48.20	48.85	49.85	49.17	48.98	47.29	46.59	47.29	47.53	46.73	44.19	44.77	45.12	45.20
FSU	4.04	4.09	3.88	4.13	4.22	4.08	4.19	4.06	4.25	4.15	4.16	3.94	3.85	4.06	4.04	3.97
Europe	0.75	0.67	0.66	0.69	0.70	0.68	0.67	0.65	0.63	0.66	0.65	0.63	0.62	0.61	0.63	0.62
China	7.25	7.35	7.75	7.54	7.62	7.57	7.88	7.98	8.09	7.62	7.89	7.65	8.08	7.85	7.85	7.86
Other Asia	9.04	9.46	9.53	9.28	9.59	9.47	9.85	9.77	9.31	9.40	9.58	9.73	9.54	9.25	9.43	9.49
Latin America	5.33	5.40	5.62	5.77	5.78	5.64	5.70	5.95	6.03	5.91	5.90	5.71	5.90	6.02	5.95	5.90
Middle East	6.24	6.26	6.42	6.60	6.33	6.40	6.59	7.00	7.43	6.82	6.96	6.56	7.22	7.65	7.07	7.13
Africa	2.94	3.04	2.96	2.95	3.07	3.01	3.13	3.12	3.07	3.15	3.12	3.17	3.18	3.09	3.23	3.17
Total Non-OECD	35.58	36.27	36.82	36.97	37.32	36.85	37.99	38.54	38.82	37.71	38.26	37.40	38.39	38.53	38.19	38.13
World	85.16	86.04	85.02	85.82	87.17	86.01	86.97	85.83	85.41	84.99	85.80	84.13	82.58	83.31	83.31	83.33
of which:																
US50	*20.69*	*20.79*	*20.63*	*20.73*	*20.58*	*20.68*	*19.99*	*19.76*	*18.91*	*19.32*	*19.50*	*18.95*	*18.37*	*18.50*	*18.39*	*18.55*
Euro4	*8.23*	*7.84*	*7.65*	*7.87*	*8.03*	*7.85*	*7.85*	*7.70*	*7.91*	*7.99*	*7.87*	*7.83*	*7.25*	*7.58*	*7.58*	*7.56*
Japan	*5.20*	*5.43*	*4.64*	*4.70*	*5.25*	*5.01*	*5.41*	*4.59*	*4.30*	*4.67*	*4.74*	*4.68*	*3.86*	*3.74*	*4.11*	*4.09*
Korea	*2.18*	*2.36*	*2.12*	*2.06*	*2.31*	*2.21*	*2.33*	*2.09*	*2.07*	*2.12*	*2.15*	*2.32*	*2.12*	*2.02*	*2.10*	*2.14*
Mexico	*2.08*	*2.12*	*2.14*	*2.06*	*2.16*	*2.12*	*2.10*	*2.16*	*2.11*	*2.04*	*2.10*	*2.02*	*2.03*	*2.01*	*2.00*	*2.02*
Canada	*2.30*	*2.38*	*2.29*	*2.40*	*2.38*	*2.36*	*2.37*	*2.25*	*2.34*	*2.33*	*2.32*	*2.42*	*2.22*	*2.32*	*2.29*	*2.31*
Brazil	*2.19*	*2.27*	*2.31*	*2.39*	*2.46*	*2.35*	*2.37*	*2.46*	*2.53*	*2.51*	*2.47*	*2.38*	*2.45*	*2.51*	*2.50*	*2.46*
India	*2.80*	*3.04*	*2.97*	*2.74*	*3.04*	*2.95*	*3.19*	*3.12*	*2.92*	*3.09*	*3.08*	*3.35*	*3.16*	*2.97*	*3.13*	*3.15*
Annual Change (% per annum)																
North America	-0.6	1.3	0.9	-0.4	-0.1	0.4	-3.2	-3.5	-7.1	-5.6	-4.8	-4.2	-6.3	-2.3	-4.2	-4.3
Europe	0.1	-5.2	-2.4	-1.6	-0.6	-2.4	0.6	0.1	-0.3	-2.3	-0.5	-2.8	-5.6	-4.3	-3.8	-4.1
Pacific	-1.4	-4.1	-0.5	-0.6	-1.0	-1.6	-0.5	-0.7	-5.0	-9.0	-3.8	-8.7	-9.1	-8.3	-7.3	-8.4
Total OECD	-0.5	-1.7	-0.4	-0.8	-0.4	-0.8	-1.6	-1.9	-4.6	-5.1	-3.3	-4.6	-6.5	-3.9	-4.6	-4.9
FSU	2.9	2.2	1.0	0.4	0.5	1.0	2.3	4.7	2.9	-1.6	2.0	-6.0	-5.2	-4.6	-2.8	-4.6
Europe	1.3	-9.8	-11.3	-6.7	-11.4	-9.8	0.2	-0.6	-8.3	-5.9	-3.7	-5.5	-5.8	-3.5	-4.7	-4.9
China	8.3	4.3	5.0	4.0	4.5	4.4	7.1	2.9	7.2	0.0	4.3	-2.8	1.4	-2.9	3.0	-0.4
Other Asia	2.2	3.6	4.6	5.5	5.3	4.8	4.1	2.6	0.3	-2.0	1.2	-1.2	-2.4	-0.6	0.3	-1.0
Latin America	4.2	4.6	5.8	6.4	6.7	5.9	5.4	5.9	4.6	2.3	4.5	0.3	-0.8	-0.1	0.6	0.0
Middle East	3.9	3.1	3.9	1.4	2.2	2.6	5.2	9.1	12.5	7.6	8.7	-0.4	3.1	3.0	3.7	2.4
Africa	-0.3	2.6	1.1	2.9	3.1	2.4	3.1	5.4	4.0	2.5	3.7	1.2	1.8	0.4	2.5	1.5
Total Non-OECD	3.8	3.3	3.7	3.5	3.7	3.6	4.7	4.7	5.0	1.1	3.8	-1.6	-0.4	-0.7	1.3	-0.3
World	1.3	0.3	1.4	1.0	1.3	1.0	1.1	1.0	-0.5	-2.5	-0.3	-3.3	-3.8	-2.5	-2.0	-2.9
Annual Change (mb/d)																
North America	-0.14	0.34	0.23	-0.10	-0.02	0.11	-0.83	-0.88	-1.82	-1.42	-1.24	-1.06	-1.55	-0.54	-1.01	-1.04
Europe	0.01	-0.83	-0.37	-0.25	-0.10	-0.38	0.08	0.02	-0.05	-0.37	-0.08	-0.43	-0.83	-0.66	-0.57	-0.62
Pacific	-0.12	-0.38	-0.04	-0.05	-0.08	-0.14	-0.04	-0.05	-0.39	-0.78	-0.32	-0.77	-0.71	-0.62	-0.58	-0.67
Total OECD	-0.26	-0.87	-0.17	-0.40	-0.21	-0.41	-0.79	-0.91	-2.26	-2.57	-1.63	-2.25	-3.10	-1.82	-2.16	-2.34
FSU	0.11	0.09	0.04	0.02	0.02	0.04	0.10	0.18	0.12	-0.07	0.08	-0.25	-0.21	-0.20	-0.12	-0.19
Europe	0.01	-0.07	-0.08	-0.05	-0.09	-0.07	0.00	0.00	-0.06	-0.04	-0.03	-0.04	-0.04	-0.02	-0.03	-0.03
China	0.55	0.31	0.37	0.29	0.32	0.32	0.52	0.23	0.54	0.00	0.32	-0.22	0.11	-0.23	0.23	-0.03
Other Asia	0.20	0.33	0.42	0.48	0.49	0.43	0.39	0.24	0.03	-0.19	0.12	-0.11	-0.23	-0.06	0.03	-0.09
Latin America	0.22	0.24	0.31	0.35	0.36	0.31	0.29	0.33	0.26	0.13	0.25	0.02	-0.05	-0.01	0.04	0.00
Middle East	0.23	0.19	0.24	0.09	0.14	0.16	0.32	0.58	0.83	0.48	0.55	-0.02	0.22	0.22	0.25	0.17
Africa	-0.01	0.08	0.03	0.08	0.09	0.07	0.09	0.16	0.12	0.08	0.11	0.04	0.05	0.01	0.08	0.05
Total Non-OECD	1.31	1.16	1.32	1.26	1.33	1.27	1.72	1.72	1.85	0.39	1.42	-0.59	-0.15	-0.28	0.48	-0.13
World	1.06	0.28	1.15	0.86	1.12	0.85	0.93	0.81	-0.41	-2.17	-0.22	-2.84	-3.24	-2.11	-1.68	-2.47
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.22	0.10	-0.01	0.01	0.08
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.03	0.05	0.06	0.00	-0.01	0.02
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.00	0.00	0.02
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.05	0.00	0.02	0.03	0.28	0.22	-0.02	0.00	0.12
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.01	0.00	-0.06	-0.01	0.00	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
China	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.12	0.00	0.00	0.04
Other Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	-0.04	-0.01	-0.01	-0.01
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.06	0.00	0.00	0.00	0.01
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.11	-0.04	-0.05	-0.04	-0.06
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.01	0.04	0.04	0.05	0.04
Total Non-OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.02	-0.03	0.00	0.00
World	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.05	0.00	0.03	0.03	0.31	0.24	-0.05	0.00	0.12
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.05	0.00	0.03	0.03	0.25	0.19	-0.05	-0.03	0.09

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2007	2008	2009	4Q08	1Q09	2Q09	3Q09	4Q09	Mar 09	Apr 09	May 09
OPEC											
Crude Oil											
Saudi Arabia	8.48	8.90		8.59	7.87				8.08	7.73	7.78
Iran	3.98	3.90		3.83	3.71				3.65	3.75	3.72
Iraq	2.09	2.38		2.36	2.34				2.38	2.37	2.43
UAE	2.52	2.59		2.43	2.29				2.25	2.25	2.25
Kuwait	2.16	2.31		2.30	2.07				1.98	1.98	1.98
Neutral Zone	0.56	0.57		0.56	0.55				0.54	0.54	0.54
Qatar	0.80	0.85		0.82	0.76				0.74	0.78	0.76
Angola	1.66	1.85		1.82	1.67				1.64	1.67	1.74
Nigeria	2.13	1.95		1.92	1.81				1.78	1.78	1.80
Libya	1.71	1.72		1.72	1.58				1.52	1.52	1.54
Algeria	1.36	1.37		1.35	1.25				1.22	1.25	1.25
Ecuador	0.50	0.50		0.49	0.48				0.46	0.48	0.48
Venezuela	2.39	2.35		2.33	2.13				2.10	2.12	2.12
Total Crude Oil[6]	30.34	31.24		30.52	28.49				28.33	28.22	28.38
Total NGLs[1,6]	4.52	4.66	5.15	4.81	4.83	4.99	5.30	5.49	4.83	4.99	4.99
Total OPEC[6]	34.86	35.90		35.33	33.32				33.15	33.20	33.37
OPEC: Historical Composition[6]	35.41	36.93		36.35	33.32				33.15	33.20	33.37
NON-OPEC[2]											
OECD											
North America	14.27	13.92	13.89	13.80	14.18	13.77	13.72	13.91	14.22	14.00	13.71
United States	7.48	7.53	7.79	7.45	7.85	7.85	7.70	7.75	7.94	7.89	7.92
Mexico	3.48	3.16	2.96	3.09	3.04	3.00	2.92	2.87	3.03	3.02	3.00
Canada	3.32	3.22	3.15	3.26	3.30	2.92	3.11	3.29	3.26	3.09	2.79
Europe	5.01	4.77	4.41	4.83	4.89	4.23	4.15	4.39	4.95	4.40	4.23
UK	1.66	1.56	1.44	1.57	1.62	1.40	1.30	1.44	1.62	1.44	1.36
Norway	2.56	2.46	2.27	2.54	2.56	2.11	2.14	2.25	2.58	2.26	2.15
Others	0.79	0.75	0.71	0.71	0.71	0.71	0.71	0.70	0.75	0.71	0.72
Pacific	0.63	0.65	0.67	0.68	0.65	0.65	0.69	0.71	0.65	0.66	0.64
Australia	0.55	0.55	0.56	0.60	0.56	0.54	0.57	0.58	0.55	0.57	0.54
Others	0.08	0.10	0.11	0.08	0.09	0.10	0.12	0.13	0.10	0.10	0.10
Total OECD	19.91	19.34	18.98	19.30	19.72	18.64	18.56	19.01	19.82	19.07	18.58
NON-OECD											
Former USSR	12.77	12.76	12.76	12.70	12.82	12.97	12.67	12.60	12.84	12.99	13.01
Russia	10.08	10.00	9.92	10.02	10.00	10.04	9.90	9.73	10.02	10.09	10.07
Others	2.69	2.76	2.85	2.68	2.82	2.93	2.77	2.87	2.82	2.90	2.95
Asia	7.40	7.45	7.50	7.46	7.37	7.48	7.57	7.58	7.41	7.41	7.53
China	3.73	3.79	3.85	3.80	3.73	3.85	3.91	3.90	3.74	3.79	3.89
Malaysia	0.74	0.76	0.74	0.74	0.74	0.75	0.74	0.73	0.74	0.75	0.75
India	0.81	0.81	0.79	0.82	0.78	0.78	0.79	0.81	0.81	0.76	0.79
Indonesia	1.01	1.03	1.02	1.02	1.02	1.01	1.02	1.02	1.01	1.00	1.01
Others	1.11	1.07	1.10	1.07	1.09	1.10	1.11	1.11	1.11	1.10	1.10
Europe	0.13	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.12	0.11	0.11
Latin America	3.93	4.12	4.41	4.19	4.37	4.38	4.44	4.45	4.40	4.39	4.36
Brazil	2.22	2.37	2.55	2.38	2.52	2.52	2.58	2.59	2.55	2.52	2.51
Argentina	0.75	0.74	0.75	0.74	0.75	0.76	0.75	0.75	0.75	0.76	0.76
Colombia	0.54	0.59	0.65	0.61	0.64	0.65	0.66	0.66	0.65	0.65	0.65
Others	0.43	0.43	0.45	0.46	0.46	0.45	0.45	0.46	0.46	0.45	0.44
Middle East[3]	1.66	1.62	1.55	1.60	1.58	1.56	1.54	1.52	1.57	1.56	1.56
Oman	0.70	0.73	0.72	0.73	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Syria	0.42	0.40	0.37	0.39	0.38	0.37	0.36	0.36	0.38	0.38	0.37
Yemen	0.34	0.31	0.27	0.30	0.28	0.27	0.26	0.26	0.28	0.28	0.27
Africa	2.55	2.55	2.53	2.53	2.53	2.53	2.55	2.53	2.53	2.53	2.53
Egypt	0.66	0.65	0.63	0.65	0.65	0.64	0.63	0.62	0.64	0.64	0.64
Gabon	0.23	0.23	0.25	0.24	0.24	0.24	0.25	0.26	0.24	0.24	0.24
Others	1.66	1.67	1.66	1.64	1.65	1.66	1.67	1.65	1.65	1.66	1.66
Total Non-OECD	28.45	28.63	28.87	28.60	28.77	29.04	28.88	28.79	28.87	29.00	29.11
Processing Gains[4]	2.17	2.24	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Other Biofuels[5]	0.28	0.38	0.35	0.41	0.33	0.33	0.36	0.37	0.32	0.33	0.33
TOTAL NON-OPEC[6]	50.80	50.59	50.48	50.60	51.10	50.30	50.08	50.45	51.30	50.68	50.31
Non-OPEC: Historical Composition[6]	50.25	49.56	50.48	49.58	51.10	50.30	50.08	50.45	51.30	50.68	50.31
TOTAL SUPPLY	85.66	86.49		85.93	84.42				84.45	83.89	83.67

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Comprises fuel ethanol and biodiesel supply from outside Brazil and US.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Dec2008	Jan2009	Feb2009	Mar2009	Apr2009*	Apr2006	Apr2007	Apr2008	2Q2008	3Q2008	4Q2008	1Q2009
North America												
Crude	466.3	496.8	492.2	504.2	518.4	476.2	477.5	456.6	-0.22	0.19	0.15	0.42
Motor Gasoline	242.7	248.0	247.4	248.3	244.3	236.9	224.9	237.2	-0.13	-0.21	0.27	0.06
Middle Distillate	217.1	217.0	220.7	216.8	223.4	191.4	193.7	177.0	0.14	0.06	0.22	0.00
Residual Fuel Oil	44.2	42.7	47.0	47.4	47.7	48.5	46.7	47.8	0.02	-0.02	-0.04	0.04
Total Products[3]	683.6	678.4	682.6	684.6	704.3	636.2	634.1	624.1	0.35	0.01	0.30	0.01
Total[4]	1299.9	1326.2	1323.0	1342.4	1377.7	1255.6	1256.6	1222.7	0.27	0.43	0.23	0.47
Europe												
Crude	342.8	344.4	340.2	355.2	339.8	334.9	339.8	336.5	0.01	-0.01	0.10	0.14
Motor Gasoline	109.4	109.4	106.0	101.0	96.9	104.6	102.3	117.9	-0.14	-0.11	0.12	-0.09
Middle Distillate	271.2	273.5	282.0	279.5	281.6	253.3	268.3	231.8	0.02	0.13	0.10	0.09
Residual Fuel Oil	81.9	80.5	79.2	78.9	76.6	74.9	70.7	82.2	0.00	-0.05	0.07	-0.03
Total Products[3]	574.6	571.0	575.3	567.8	564.2	534.3	542.3	538.4	-0.12	0.00	0.31	-0.08
Total[4]	991.8	990.2	988.4	993.3	974.9	944.9	955.6	944.7	-0.09	-0.06	0.45	0.02
Pacific												
Crude	162.6	171.2	175.5	169.2	165.8	171.1	170.1	155.4	0.11	-0.07	0.01	0.07
Motor Gasoline	20.6	22.3	24.9	26.4	26.9	24.9	24.2	24.1	-0.03	-0.02	-0.02	0.06
Middle Distillate	64.8	64.5	63.4	56.8	59.0	57.9	59.5	58.5	0.02	0.16	-0.10	-0.09
Residual Fuel Oil	20.0	20.7	21.6	20.2	21.1	22.4	22.3	21.8	0.03	0.00	-0.02	0.00
Total Products[3]	173.9	168.5	170.9	168.0	165.3	170.5	167.7	165.5	0.01	0.28	-0.20	-0.06
Total[4]	406.5	408.1	415.5	406.7	400.2	412.9	411.6	392.4	0.16	0.24	-0.25	0.00
Total OECD												
Crude	971.8	1012.4	1008.0	1028.6	1023.9	982.2	987.5	948.5	-0.10	0.11	0.26	0.63
Motor Gasoline	372.8	379.7	378.3	375.7	368.0	366.4	351.4	379.2	-0.30	-0.33	0.38	0.03
Middle Distillate	553.1	555.0	566.0	553.0	564.0	502.5	521.4	467.2	0.19	0.34	0.22	0.00
Residual Fuel Oil	146.2	143.8	147.8	146.5	145.4	145.8	139.7	151.8	0.05	-0.07	0.01	0.00
Total Products[3]	1432.1	1417.8	1428.8	1420.5	1433.8	1341.0	1344.2	1328.1	0.25	0.28	0.42	-0.13
Total[4]	2698.2	2724.5	2726.8	2742.3	2752.7	2613.4	2623.7	2559.8	0.34	0.60	0.43	0.49

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Dec2008	Jan2009	Feb2009	Mar2009	Apr2009*	Apr2006	Apr2007	Apr2008	2Q2008	3Q2008	4Q2008	1Q2009
North America												
Crude	701.8	703.8	705.5	712.8	719.1	687.9	689.4	701.5	0.06	-0.04	-0.01	0.12
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	186.1	185.7	187.1	188.1	188.1	171.0	174.7	181.4	-0.03	-0.02	0.07	0.02
Products	228.6	232.9	232.4	234.2	234.2	233.4	241.0	235.6	0.00	-0.01	-0.05	0.06
Pacific												
Crude	387.2	389.2	389.2	389.2	389.1	380.5	385.1	385.0	0.00	-0.01	0.03	0.02
Products	19.2	19.2	19.2	19.2	19.2	11.4	16.4	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1275.1	1278.7	1281.8	1290.0	1296.3	1239.4	1249.1	1267.9	0.02	-0.07	0.10	0.17
Products	249.8	254.0	253.6	255.4	255.4	246.8	259.4	256.5	0.00	-0.01	-0.05	0.06
Total[4]	1525.9	1533.7	1536.3	1547.0	1553.2	1487.2	1509.5	1525.4	0.02	-0.08	0.05	0.23

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End March 2008		End June 2008		End September 2008		End December 2008		End March 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	193.8	86	193.5	83	198.4	85	194.1	80	192.6	-
Mexico	46.8	22	44.7	21	55.7	27	50.3	25	45.5	-
United States[4]	1655.1	84	1687.5	90	1707.3	89	1737.2	92	1797.0	-
Total[4]	1917.7	78	1947.9	82	1983.5	83	2003.7	85	2057.2	90
Pacific										
Australia	36.1	37	37.4	38	37.7	38	40.5	43	39.9	-
Japan	610.0	133	619.1	144	646.2	138	629.6	134	611.3	-
Korea	142.8	68	146.6	71	141.2	67	134.9	58	155.2	-
New Zealand	8.4	55	8.4	58	7.9	53	7.9	51	8.7	-
Total	797.4	102	811.4	108	833.0	105	812.9	100	815.1	115
Europe[5]										
Austria	22.7	78	22.8	77	21.5	79	23.2	88	22.5	-
Belgium	30.3	49	28.4	47	29.1	47	32.4	53	35.7	-
Czech Republic	20.4	91	20.2	89	19.1	98	21.4	115	22.7	-
Denmark	16.4	89	19.0	107	18.3	101	22.9	131	25.0	-
Finland	30.5	135	25.5	113	30.1	135	30.7	144	33.5	-
France	177.5	93	176.6	92	176.6	88	179.2	90	182.2	-
Germany	281.2	115	273.2	101	273.7	103	277.4	107	277.7	-
Greece	34.9	92	36.3	87	39.2	83	40.0	83	36.7	-
Hungary	16.7	101	16.6	100	15.5	93	15.0	99	15.7	-
Ireland	12.1	63	10.4	57	10.5	52	11.4	61	11.5	-
Italy	130.9	79	136.7	82	130.3	80	127.9	82	131.0	-
Luxembourg	0.6	10	0.7	12	0.6	10	0.8	14	0.7	-
Netherlands	126.5	126	124.5	120	115.0	118	131.4	130	129.8	-
Norway	25.4	104	23.1	119	26.5	130	29.9	146	24.0	-
Poland	57.6	108	57.4	103	58.8	106	58.1	119	58.9	-
Portugal	24.9	86	25.3	87	25.0	93	24.7	94	25.0	-
Slovak Republic	9.0	112	9.1	99	8.0	94	8.8	122	9.8	-
Spain	134.2	87	135.0	87	135.8	88	137.6	90	137.8	-
Sweden	34.2	97	34.1	94	36.6	104	38.7	117	40.7	-
Switzerland	36.5	150	37.2	141	37.8	134	36.3	127	36.8	-
Turkey	60.9	93	60.9	80	60.8	98	60.9	111	59.2	-
United Kingdom	100.5	59	99.3	61	95.1	55	98.8	58	100.2	-
Total	1384.1	92	1372.4	89	1363.8	89	1407.5	94	1417.1	100
Total OECD	4099.2	87	4131.7	89	4180.3	88	4224.1	90	4289.3	97
DAYS OF IEA Net Imports[6]	-	122	-	123	-	124	-	131	-	134

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End March 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
1Q2006	4072	1487	2585	84	31	53
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	54
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	84	30	53
4Q2007	4091	1524	2567	84	31	52
1Q2008	4099	1527	2572	87	32	54
2Q2008	4132	1529	2603	89	33	56
3Q2008	4180	1522	2659	88	32	56
4Q2008	4224	1526	2698	90	33	58
1Q2009	4289	1547	2742	97	35	62

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 1Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	2Q08	3Q08	4Q08	1Q09	Jan 09	Feb 09	Mar 09	Year Earlier Mar 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.73	0.71	0.63	0.58	0.58	0.71	0.46	0.68	-0.22
Europe	0.78	0.70	0.70	0.65	0.81	0.66	0.57	0.49	0.58	0.63	0.75	-0.12
Pacific	1.32	1.19	1.22	1.24	1.10	1.24	1.40	1.27	1.51	1.41	1.28	0.14
Saudi Medium												
North America	0.64	0.56	0.64	0.62	0.68	0.66	0.42	0.58	0.30	0.38	0.62	-0.24
Europe	0.14	0.05	0.05	0.07	0.03	0.05	0.03	0.03	0.04	0.02	0.04	-0.02
Pacific	0.35	0.34	0.39	0.36	0.40	0.38	0.34	0.42	0.34	0.25	0.52	-0.28
Saudi Heavy												
North America	0.21	0.09	0.07	0.04	0.14	0.05	0.04	0.04	0.04	0.04	0.03	0.00
Europe	0.18	0.11	0.09	0.10	0.12	0.09	0.03	0.04	0.00	0.03	0.05	-0.02
Pacific	0.23	0.20	0.24	0.24	0.26	0.25	0.22	0.28	0.22	0.16	0.19	-0.03
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.60	0.57	0.51	0.44	0.47	0.31	0.52	0.81	-0.29
Europe	0.32	0.30	0.21	0.19	0.23	0.21	0.13	0.14	0.08	0.17	0.26	-0.10
Pacific	0.08	0.17	0.15	0.18	0.18	0.11	0.26	0.21	0.31	0.27	0.06	0.21
Iraqi Kirkuk												
North America	0.00	-	0.08	0.11	0.10	0.06	0.07	0.09	0.09	0.02	0.13	-0.11
Europe	0.01	0.11	0.23	0.28	0.24	0.19	0.26	0.26	0.24	0.28	0.19	0.09
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.23	0.21	0.24	0.15	0.14	0.09	0.23	0.24	-0.02
Pacific	0.13	0.09	0.08	0.06	0.06	0.07	0.11	0.13	0.09	0.10	0.11	-0.01
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.48	0.60	0.43	0.33	0.42	0.33	0.25	0.49	-0.24
Pacific	0.56	0.64	0.61	0.49	0.67	0.64	0.65	0.65	0.74	0.57	0.59	-0.02
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.66	0.67	0.50	0.51	0.52	0.39	0.60	0.49	0.12
Europe	0.11	0.08	0.06	0.06	0.06	0.07	0.07	0.07	0.10	0.06	0.10	-0.05
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.59	0.67	0.74	0.74	0.98	0.60	0.62	0.60	0.02
Europe	0.06	0.07	0.07	0.07	0.07	0.08	0.07	0.08	0.06	0.06	0.08	-0.02
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	1.00	0.99	1.04	1.06	1.12	1.02	1.03	1.05	-0.02
Europe	0.16	0.14	0.14	0.18	0.14	0.12	0.08	0.06	0.13	0.05	0.12	-0.06
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.00
Europe	0.01	0.02	0.01	0.01	-	0.02	0.01	0.03	-	-	0.00	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.10	0.10	-	0.09	-	0.10	0.18	-	-
Europe	1.68	1.86	1.81	1.95	1.74	1.67	1.58	1.72	1.59	1.42	1.70	-0.28
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.77	0.52	0.60	0.47	0.38	0.42	0.60	0.87	-0.28
Europe	0.33	0.24	0.29	0.21	0.33	0.34	0.25	0.31	0.23	0.20	0.24	-0.04
Pacific	0.04	0.01	-	-	-	-	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.27	0.26	0.22	0.14	0.03	0.09	0.29	0.33	-0.04
Europe	0.10	0.07	0.14	0.20	0.13	0.14	0.12	0.21	0.07	0.08	0.18	-0.10
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	2Q08	3Q08	4Q08	1Q09	Jan-09	Feb-09	Mar-09	Year Earlier Mar-08	Year Earlier % change
Crude Oil												
North America	8194	8119	8043	8298	7895	7886	7730	8122	7237	7783	7498	4%
Europe	9784	9679	9772	9878	9977	9524	8992	9225	9051	8705	9698	-10%
Pacific	6816	6718	6604	6457	6462	6404	6560	6822	6885	6005	6992	-14%
Total OECD	24794	24516	24419	24633	24333	23814	23282	24168	23173	22493	24541	-8%
LPG												
North America	14	27	29	15	38	34	28	45	15	22	13	64%
Europe	264	276	264	246	263	239	251	249	227	276	250	10%
Pacific	578	557	589	632	582	542	504	467	524	525	592	-11%
Total OECD	856	860	881	893	884	816	783	761	765	823	856	-4%
Naphtha												
North America	71	39	55	54	58	82	40	86	13	18	15	17%
Europe	314	265	259	260	231	270	321	224	271	465	274	69%
Pacific	754	794	776	734	886	689	746	593	774	873	805	8%
Total OECD	1138	1098	1090	1048	1174	1040	1107	903	1057	1355	1095	24%
Gasoline[3]												
North America	1143	1121	1083	1220	1184	1038	995	984	967	1031	895	15%
Europe	160	203	218	187	260	196	238	303	299	119	306	-61%
Pacific	96	73	91	91	56	106	121	102	129	132	122	8%
Total OECD	1399	1398	1391	1498	1501	1340	1354	1389	1395	1283	1324	-3%
Jet & Kerosene												
North America	161	183	63	78	40	39	80	90	77	72	68	5%
Europe	374	370	402	381	400	468	440	456	378	479	412	16%
Pacific	69	43	34	39	22	33	79	64	130	49	42	15%
Total OECD	603	595	500	498	461	540	599	610	585	599	522	15%
Gasoil/Diesel												
North America	175	129	72	46	50	94	105	130	114	72	60	20%
Europe	967	780	870	662	900	1014	1236	1192	1360	1166	926	26%
Pacific	77	91	119	133	128	117	82	77	108	62	91	-32%
Total OECD	1219	1000	1061	840	1078	1225	1422	1399	1582	1300	1076	21%
Heavy Fuel Oil												
North America	343	323	286	307	246	266	326	371	270	332	255	30%
Europe	476	433	445	391	443	459	474	439	515	471	512	-8%
Pacific	91	95	125	140	143	93	144	104	165	166	99	68%
Total OECD	910	851	856	838	831	818	944	914	950	969	866	12%
Other Products												
North America	1121	1051	1076	1085	1061	1117	937	963	887	958	908	5%
Europe	929	854	763	771	786	750	732	747	790	664	847	-22%
Pacific	243	254	300	267	318	322	279	308	241	284	265	7%
Total OECD	2294	2158	2139	2123	2165	2188	1948	2018	1917	1906	2020	-6%
Total Products												
North America	3028	2873	2663	2804	2677	2669	2511	2669	2342	2505	2215	13%
Europe	3484	3180	3220	2898	3282	3395	3692	3609	3840	3640	3527	3%
Pacific	1908	1906	2034	2035	2136	1902	1955	1716	2070	2090	2017	4%
Total OECD	8420	7959	7918	7738	8095	7966	8157	7994	8251	8235	7759	6%
Total Oil												
North America	11222	10993	10706	11102	10572	10555	10240	10791	9579	10288	10067	2%
Europe	13268	12859	12992	12776	13259	12919	12683	12834	12891	12346	13225	-7%
Pacific	8724	8623	8638	8492	8597	8306	8515	8538	8955	8095	9009	-10%
Total OECD	33214	32475	32337	32371	32428	31780	31439	32163	31424	30729	32301	-5%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor
Head, Oil Industry and Markets Division
David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand
Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply
Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining
David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight
Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices
Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Statistics/Trade
Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant
Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
6* 0 - only within France

Media Enquiries

IEA Press Office
(+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

User's Guide and Glossary to the IEA *Oil Market Report*

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR) and Annual Statistical Supplement* (current issue of the statistical supplement dated 12 August 2008), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Platts prices, converted when appropriate to US$ per barrel according to the Platts specification of products (© 2009 Platts - a division of McGraw-Hill Inc.).

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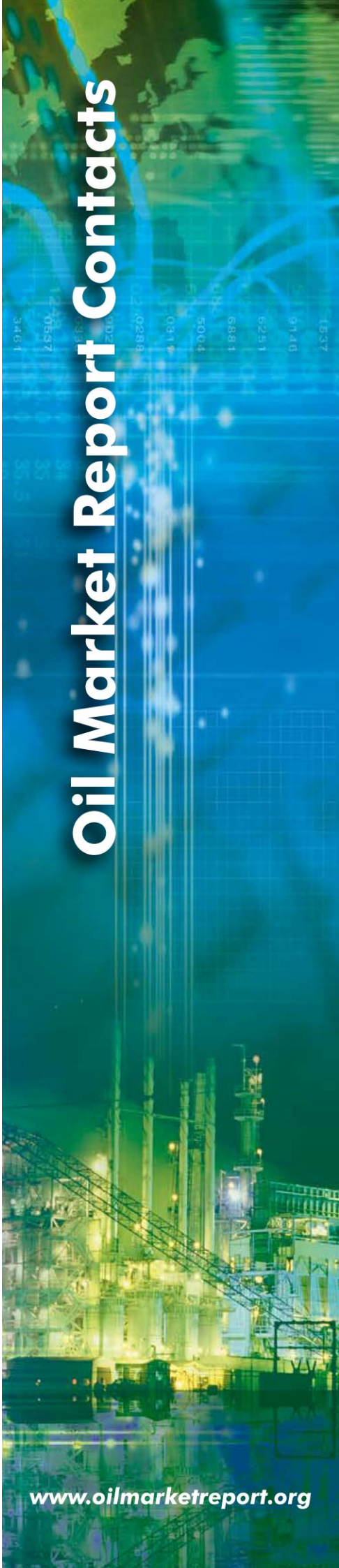

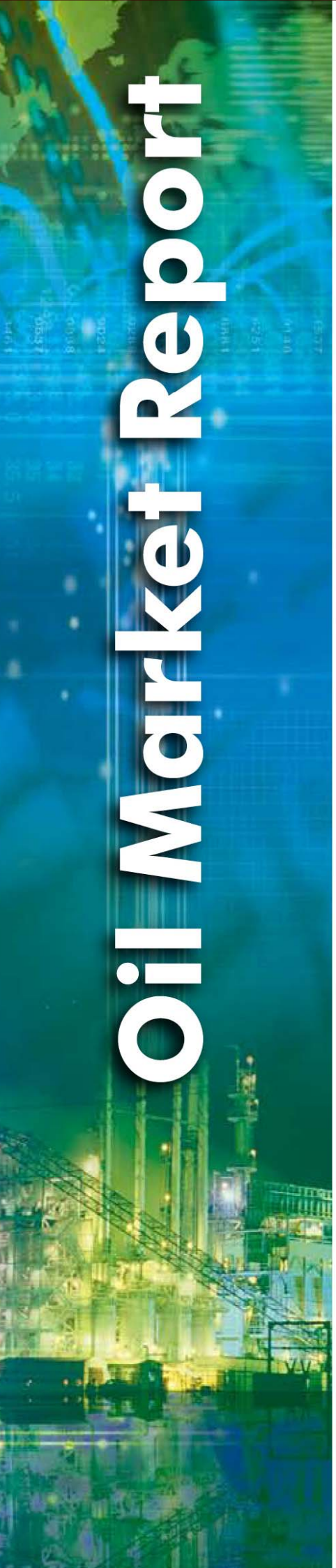

INTERNATIONAL ENERGY AGENCY

10 July 2009

HIGHLIGHTS

- **By early July, benchmark crude prices reached eight-week lows around $60/bbl,** as the four-month rally in oil prices stalled. Growing concerns about the path of economic recovery, persistently high oil stocks and current weak demand undermined prices.
- **Global oil demand in 2010 is expected to rebound by +1.7% or +1.4 mb/d** year-on-year to 85.2 mb/d, largely led by non-OECD countries. The outlook for global oil demand in 2009 remains effectively unchanged (-2.9% or -2.5 mb/d versus 2008), given much weaker-than-anticipated preliminary data in the OECD and despite a large upward baseline adjustment for non-OECD countries.
- **Non-OPEC supply for 2009** is revised up by 330 kb/d, largely due to stronger-than-expected Russian output, and is now expected to grow by 190 kb/d to 50.8 mb/d. Our 2010 forecast sees supply rising by a further 410 kb/d to 51.2 mb/d, with growth centred on Azerbaijan, Brazil, global biofuels, the US Gulf of Mexico and Canadian oil sands. OPEC NGL supply is also expected to increase sharply next year.
- **Despite a wave of supply disruptions in Nigeria,** June OPEC crude oil supply rose by 75 kb/d to 28.7 mb/d, its second successive monthly increase. Output by OPEC-11 averaged 26.2 mb/d, suggesting compliance of about 68% with announced cuts. The call on OPEC crude and stock change is suppressed through 2H09 and much of 2010.
- **OECD industry stocks rose seasonally by 27.8 mb in May to 2,768 mb,** 7.0% above last year's level. All three regions posted gains, though the bulk of the increases came in North American 'other products', European crude and Pacific distillates. End-May forward demand cover rose to 62.5 days, 7.2 days higher than a year ago.
- **Global 3Q09 crude runs are revised down by 0.5 mb/d to 72.3 mb/d,** following a deterioration in refining margins. European refining activity is particularly hard-hit, with weaker middle distillate cracks and rising stocks both expected to weigh heavily on the region.

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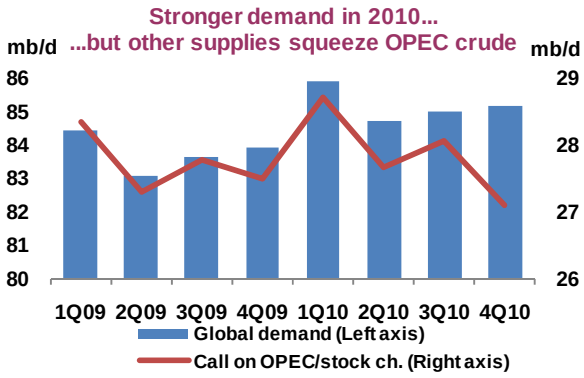
NEW DECADE, SAME UNCERTAINTIES

The July *Oil Market Report* (*OMR)* traditionally sees the first quarterly look at market fundamentals for the forthcoming year – in this case 2010. Baseline non-OECD revisions this month result in higher absolute 2009 demand. But global 2009 demand contraction remains around 2.5 mb/d, premised on a GDP decline of 1.4%. The underlying call on OPEC crude/stock change for the rest of 2009 rises from a 2Q low of 27.3 mb/d but remains 2-3 mb/d below equivalent 2008 levels. An assumed rebound in GDP growth next year to +1.8% (the IMF's just-released, and more optimistic, outlook is discussed in this report, but came too late to be captured in our projections) sees global oil demand growth resume, driven by non-OECD countries, plus a modest rebound in OECD winter fuel and transportation requirements. But a likely surge in OPEC gas liquids supply, and limited non-OPEC growth, could cap the call on OPEC crude for much of 2010.

Of course, estimates of supply, demand and inventory levels for 2009 will evolve further, so any view today on likely fundamentals 12-18 months hence is tentative, to say the least. The late arrival (or continued absence) of a 2009 gasoline season, the fate of an emerging gasoil glut, OPEC compliance, the global economy, investment and new capacity start-ups for the rest of this year are all up for grabs, and will shift the starting point for subsequent analyses of 2010.



In an attempt to reflect prevailing economic uncertainty, the 2009 Edition of the *Medium-Term Oil Market Report* (*MTOMR)* last month highlighted two potential demand scenarios, based on a 2010 GDP growth 'envelope' of 1-2%. While we avoid a scenario approach in the *OMR*, nonetheless 2010 demand in the weaker outlook could be around 300 kb/d lower than the current projection of 85.2 mb/d. Focusing purely on demand, however, risks overlooking supply impacts. A weaker economic prognosis for 2010 implies more anaemic demand and cash flow expectations, and could further erode upstream capex, knocking 300-400 kb/d off non-OPEC supply from the levels shown here. This would eclipse already-modest 2010 non-OPEC growth altogether, although rising local gas requirements and committed LNG expansions could sustain OPEC NGL growth. Given these offsetting risks, 2010 could see current, more comfortable, levels of spare OPEC capacity persist. That at least takes one potential source of oil price volatility out of the equation, even if others remain.

Several themes developed in the *MTOMR* released on 29 June have been given added colour in recent weeks, but if anything these developments only highlight the uncertainty swirling around the oil market for 2009, 2010 and beyond. Our demand projections in *MTOMR* stress the importance of middle distillate growth, and although this is likely to remain the case over time, the prompt distillate market is looking very sluggish. End-May OECD inventories stand some 80 mb above the five-year average, and substantial volumes of middle distillate remain in floating storage. Refinery throughput forecasts for 3Q09 have been cut as a result. Arguably, middle distillates constitute a better barometer of the economic and industrial climate than gasoline, so the current sustained weakness only reinforces concerns about the timing and strength of much-heralded economic 'green shoots'.

The fall in crude prices in recent days towards $60/bbl reflects some of these more bearish physical market indicators. Nonetheless, arguments rumble on over the role of speculative financial flows in driving oil and commodity price changes. Proposals from the CFTC to provide more detail on trades by swap dealers and hedge funds in their weekly reports could add welcome extra visibility. More extensive plans for the CFTC to enforce position limits are less consensual, with some commentators concerned about the impact on market liquidity, and that over-zealous curbs could worsen price volatility rather than staunch it. Legitimate worries persist among G8 member governments and others that price volatility could stifle economic growth before it takes root. But earlier, and in our view misguided, proposals to select and 'manage' an 'acceptable' price range do not appear to have gathered widespread traction, at least for now.

DEMAND

Summary

- **Global oil demand in 2010** is expected to bounce back by +1.7% or +1.4 mb/d year-on-year to 85.2 mb/d. This strong rebound is led by non-OECD countries, but the OECD should also post a modest recovery. This prognosis is based on IMF economic assumptions (*World Economic Outlook*, April 2009), which see global economic growth reaching +1.8% in 2010, compared with -1.4% in 2009 (given time constraints, this report did not integrate the last IMF partial update, which was released at the time of writing). Meanwhile, the outlook for global oil demand in 2009, which now includes a large 2007 baseline adjustment for non-OECD countries, remains largely unchanged in terms of growth (-2.9% or -2.5 mb/d when compared with 2008), given much weaker-than-anticipated preliminary data in the OECD.

- **Forecast OECD oil demand in 2010** is projected at 45.2 mb/d (+0.2% or +100 kb/d over 2009) as most economies are expected to gradually emerge from their deepest slump in over half a century, with GDP expanding by +0.1% in 2010, compared with -3.7% in 2009. Nevertheless, the engine of growth will arguably be North America, as the recovery in Europe and the Pacific is likely to be slow. The estimate of oil demand growth in 2009 has been slightly revised down compared with the previous report (-5.1% versus -4.9%), owing to emerging evidence that a strong gasoline season in the US could fail to materialise for the second year in a row. It should be noted that this report includes revised 2008 demand figures for all countries, but the adjustments were negligible overall (-10 kb/d).

Global Oil Demand (2008-2010)

(million barrels per day)

	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Africa	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.4	3.3	3.2	3.4	3.3
Americas	30.5	30.4	29.6	29.9	30.1	29.2	28.6	28.8	28.8	28.9	29.5	29.2	29.2	29.1	29.3
Asia/Pacific	26.7	25.7	25.0	25.1	25.6	25.7	25.3	24.4	25.0	25.1	26.2	25.7	24.8	25.5	25.5
Europe	16.1	15.7	16.1	16.1	16.0	15.6	14.9	15.5	15.5	15.4	15.6	14.9	15.4	15.5	15.3
FSU	4.3	4.1	4.3	4.1	4.2	4.0	3.9	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Middle East	6.7	7.1	7.6	6.9	7.1	6.7	7.3	7.8	7.2	7.2	7.0	7.6	8.1	7.5	7.6
World	**87.5**	**86.3**	**85.8**	**85.3**	**86.2**	**84.4**	**83.1**	**83.6**	**83.9**	**83.8**	**85.9**	**84.7**	**85.0**	**85.2**	**85.2**
Annual Chg (%)	1.2	0.9	-0.6	-2.7	-0.3	-3.5	-3.7	-2.6	-1.7	-2.9	1.7	1.9	1.6	1.5	1.7
Annual Chg (mb/d)	1.0	0.8	-0.5	-2.4	-0.3	-3.0	-3.2	-2.2	-1.4	-2.5	1.4	1.6	1.4	1.3	1.4
Changes from last OMR (mb/d)	0.50	0.44	0.42	0.35	0.43	0.31	0.50	0.29	0.59	0.43					

- **Forecast non-OECD oil demand in 2010** is estimated at 40.0 mb/d (+3.5% or +1.3 mb/d year-on-year), close to levels seen in previous years and following zero growth in 2009. China, the Middle East and to a lesser extent Latin America will play a prominent role with regards to this demand rebound. Collectively, GDP activity in emerging countries is set to rise by +4.1% in 2010, over twice as much as in 2009 (+1.7%). The outlook for 2009 growth, meanwhile, has been slightly adjusted up (from -0.3% to -0.1%) on the back of stronger-than-expected preliminary data in several Asian countries (notably China, India, Malaysia and Chinese Taipei). The baseline, however, has been sharply revised up (by roughly +500 kb/d) following the inclusion of finalised 2007 data for all remaining non-OECD countries. Interestingly, this revision indicates that non-OECD oil demand growth in 2007 was much stronger than estimated (+4.4% versus +3.6%), helping to explain the strong oil price rise during that year.

Global Overview

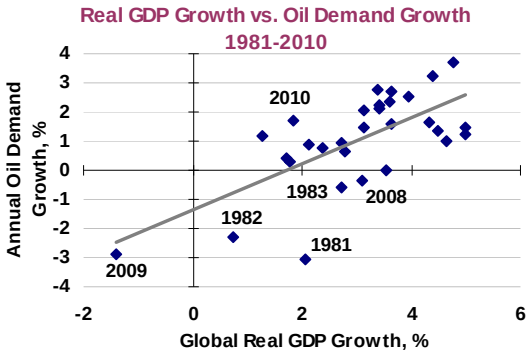
This month features our annual forecast rollout, with a detailed look at the 2010 prognosis. The exercise is intrinsically perilous, given the great uncertainty regarding the pace and strength of the global economic recovery. As we noted in our recently released *MTOMR*, there is a vigorous debate as to whether the rebound might be strong and sustained, or whether it might be weak and protracted. In the last two months, many observers have confidently announced the bottoming out of the recession and a strong

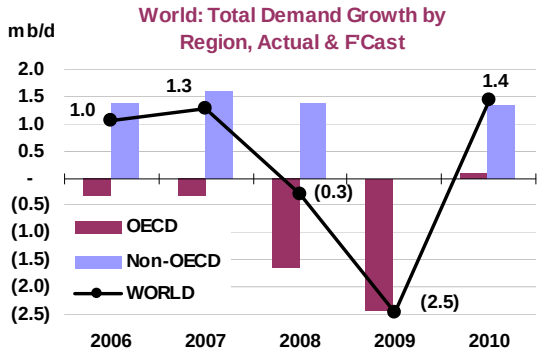
recovery in 2H09. However, over the past two weeks the mood has suddenly changed, as many leading economic and energy indicators continue to show very weak readings, suggesting that the 'green shoots' have been largely driven by a rebuild in industrial inventories rather than by strong end-user demand.

This would vindicate our bearish view that global oil product demand is likely to contract sharply in 2009 (-2.9% or -2.5 mb/d year-on-year, unchanged versus our last report), despite the massive stimulus provided by loosened fiscal and monetary policies worldwide. Furthermore, the most recent developments (notably the dwindling prospects for the driving season in the US and the continuing poor state of the distillate market) arguably indicate that oil product destocking had a much lesser effect upon weak demand readings that some had anticipated. Destocking is probably largely over by now, yet demand data in key countries (predominantly the US) have if anything worsened in the past few weeks.

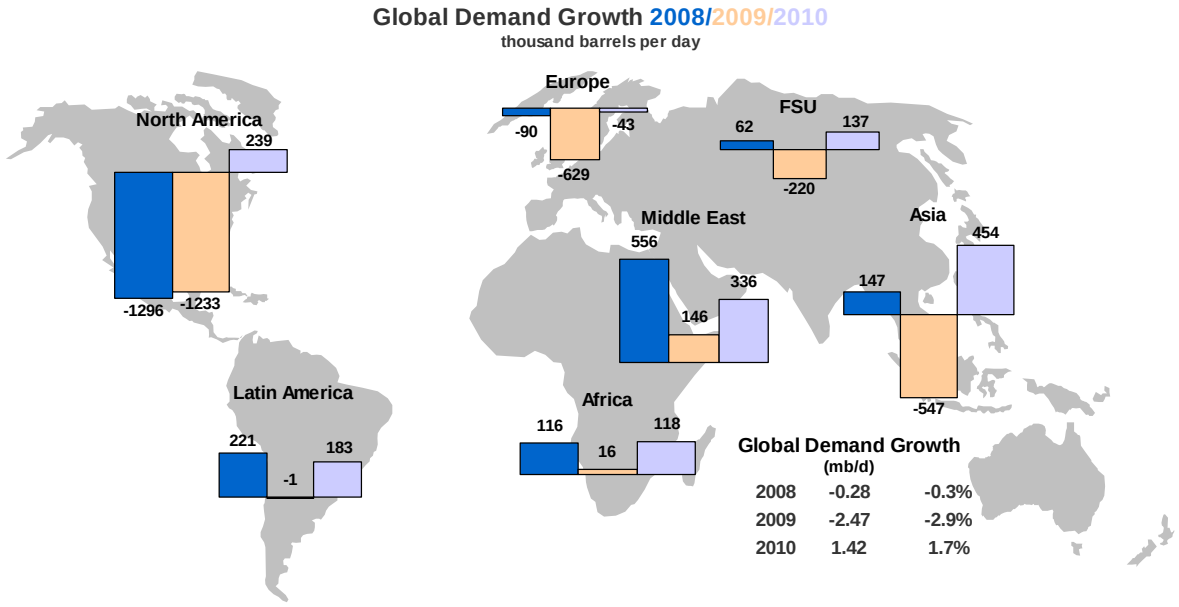
We thus remain sceptical regarding the much-trumpeted, strong 2H09 demand rebound, even if China exceeds expectations. Indeed, as much as 2H09 demand is set to improve, the importance of China regarding global oil demand growth, albeit significant, should not be overplayed, at least at this juncture. This outlook includes large baseline revisions for non-OECD countries (+500 kb/d in 2007, carried through to 2008 and 2009). By contrast, the OECD baseline changes for 2008 were minimal (-10 kb/d).

In 2010, by contrast, the picture could be dramatically different. As a starting point, this report uses IMF economic assumptions (*World Economic Outlook*, April 2009), which posit that global economic growth will reach +1.8% in 2010, compared with -1.4% in 2009 – that is, a swing of over three percentage points. Under this scenario, oil demand is expected to rebound by +1.7% or +1.4 mb/d year-on-year to 85.2 mb/d – but still way below 2008 levels. Unsurprisingly, this strong rebound is poised to be led by non-OECD countries, where demand should expand by +3.5% or +1.3 mb/d, close to levels seen in previous years and following zero growth in 2009. China, the Middle East and to a lesser extent Latin America will play a prominent role. The OECD, meanwhile, should also post a modest recovery (+0.2% or +100 kb/d) as most of its economies gradually emerge from their deepest slump in over half a century, with North America being arguably the engine of growth.





Is this forecast overly optimistic? At first glance it looks like an outlier, but the 2010 'overshooting' stems in part from a rebound after the sharp fall expected in 2009, and is predicated on the basis that global financial and trade imbalances gradually improve and fuel economic activity, notably in emerging countries. The forecast also assumes normal winter conditions and the prevalence of administered price regimes, notably the Middle East. However, should economic growth turn out to be more subdued (in line with the 'lower GDP' scenario presented in the *MTOMR*), this 2010 demand forecast would indeed fail to materialise. Yet economic observers are, if anything, revising up their assumptions for next year. For example, the OECD recently inched up its prognosis for the area; the World Bank boosted its forecasts for China, Russia and India (but lowered those for the OECD); the IMF has marginally improved its outlook for next year; and several investment banks are issuing exuberant prognoses.



The World Economy: Bouncing Higher?

On 8 July, the IMF released a partial update of its global economic prognoses, but unfortunately too late to be included in this report. We will integrate these new projections, alongside those from other sources, such as the OECD, the World Bank and Consensus Economics, into our next report.

The Fund's revisions to the April edition of its *World Economic Outlook* were relatively minor. The global economy is still seen contracting by roughly 1.4% in 2009, marginally less than the earlier appraisal, but is now expected to grow by a more substantial +2.5% in 2010, instead of +1.8% as previously assumed. More interestingly perhaps, this change stems effectively from the OECD, given its weight relative to the world economy. Advanced economies should now expand by +0.6% in 2010, rather than simply stall, while emerging and developing economies should also grow slightly faster (+4.7% versus +4.1%).

Given that the IMF's revisions are mostly concentrated in OECD countries – where oil demand is mature, thus limiting the scope for growth – our 2010 oil demand forecast may remain broadly unchanged. Yet greater adjustments could occur in the autumn, since a full IMF update is due in late September. By then it will arguably become clearer whether the global economy is on track to a sustained recovery – or not.

OECD

According to preliminary data, OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 7.4% year-on-year in May, with all three regions recording losses for the thirteenth month in a row. In **OECD Pacific**, demand plunged by 11.2%, despite a rise in gasoline deliveries. In **OECD North America** (which includes US Territories), oil product demand fell by 8.1% year-on-year, with all product categories posting losses. In **OECD Europe**, demand shrank by 4.3%, despite being somewhat supported by rebounding heating oil deliveries.

Higher-than-anticipated demand for LPG, naphtha, residual fuel oil and 'other products' resulted in net upward revisions to April preliminary data (+480 kb/d), offsetting weaker deliveries of gasoline, jet fuel/kerosene and diesel. Although these relatively large positive revisions – for the second month in a row – could be interpreted as a change in trend (that is, the bottoming out of oil demand fall), this would be misleading. Indeed, demand is still contracting sharply: April's OECD demand plummeted by 7.1% during that month, marginally less than previously estimated (-8.1%). In fact, OECD demand has fallen uninterruptedly since December 2008.

OECD Demand based on Adjusted Preliminary Submissions - May 2009

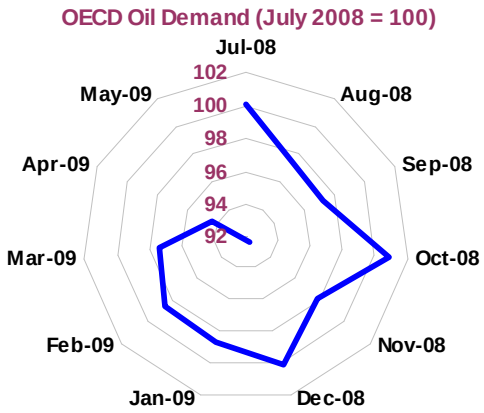
(million barrels per day)

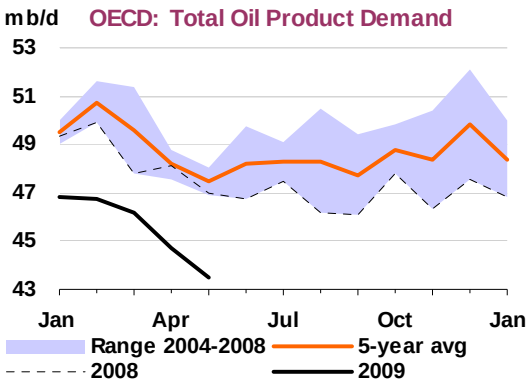
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.64**	**-1.7**	**1.58**	**-12.0**	**3.73**	**-8.6**	**0.68**	**-23.6**	**0.91**	**-25.6**	**5.01**	**-12.40**	**22.55**	**-8.1**
US50	9.14	-1.2	1.39	-13.2	3.18	-10.4	0.26	-32.4	0.45	-32.5	3.69	-15.0	18.11	-8.5
Canada	0.72	-2.0	0.11	12.6	0.22	2.7	0.28	-8.0	0.13	-3.8	0.67	-4.3	2.14	-2.6
Mexico	0.71	-7.6	0.05	-27.5	0.28	-12.1	0.12	-12.1	0.23	-27.5	0.60	-4.2	1.99	-11.0
OECD Europe	**2.34**	**-4.1**	**1.22**	**-2.3**	**4.18**	**-3.6**	**1.48**	**4.1**	**1.41**	**-6.8**	**3.35**	**-8.0**	**13.98**	**-4.3**
Germany	0.48	-1.9	0.20	-1.8	0.64	0.7	0.35	45.0	0.17	13.5	0.54	-9.6	2.39	2.8
United Kingdom	0.38	-4.3	0.30	6.7	0.43	-1.0	0.12	-6.6	0.08	0.1	0.30	-5.6	1.60	-1.7
France	0.20	-8.6	0.14	-7.1	0.63	-4.7	0.23	-6.1	0.05	-31.5	0.46	-11.2	1.72	-8.5
Italy	0.26	-4.5	0.08	-12.6	0.54	-4.1	0.09	6.0	0.19	-21.0	0.33	-14.2	1.49	-9.0
Spain	0.14	-5.9	0.11	-14.7	0.46	-10.3	0.17	-3.1	0.20	-6.2	0.32	-7.9	1.40	-8.3
OECD Pacific	**1.52**	**2.1**	**0.57**	**-20.2**	**1.20**	**-5.1**	**0.35**	**-22.8**	**0.68**	**-23.5**	**2.64**	**-12.8**	**6.96**	**-11.2**
Japan	0.95	2.2	0.32	-26.4	0.51	-10.7	0.24	-25.2	0.34	-35.0	1.31	-23.1	3.68	-18.1
Korea	0.19	9.7	0.13	-16.8	0.29	-0.7	0.10	-17.0	0.30	-7.1	1.15	0.8	2.16	-2.0
Australia	0.32	-1.6	0.10	-3.9	0.34	-0.1	0.00	54.1	0.03	-2.5	0.17	-2.3	0.96	-1.4
OECD Total	**14.49**	**-1.7**	**3.38**	**-10.3**	**9.11**	**-5.9**	**2.51**	**-9.2**	**2.99**	**-17.2**	**11.00**	**-11.2**	**43.48**	**-7.4**

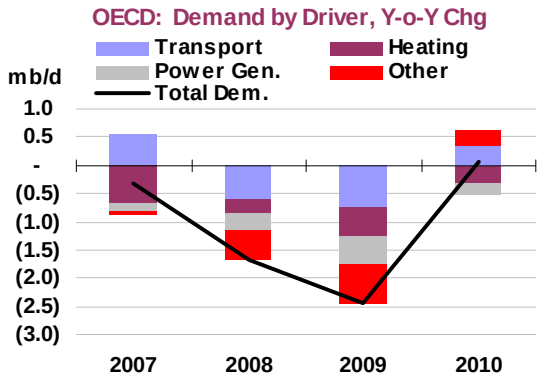
* Including US territories

It should be noted that our demand estimates now include the revisions for 2008. Overall, these were negligible (-10 kb/d), with Europe and the Pacific offsetting North America. On a regional basis, however, there were more substantial: -110 kb/d in North America, +60 kb/d in Europe and +40 kb/d in the Pacific.

All together, the estimate of OECD oil demand growth in 2009 has been slightly revised down compared with the previous report (-5.1% versus -4.9%), owing to emerging evidence that a strong gasoline season in the US could fail to materialise for the second year in a row. In 2010, as noted earlier, OECD demand is expected to increase by +0.2% or +100 kb/d to 45.2 mb/d.







Total OECD Demand by Product
(million barrels per day)

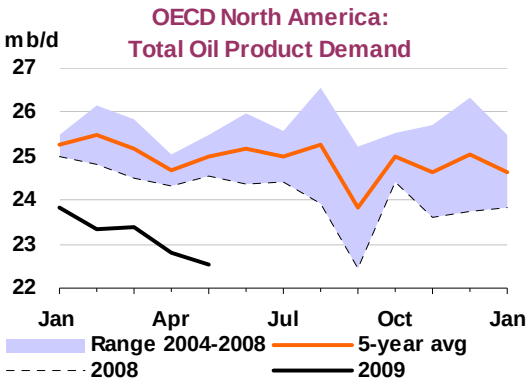
	2008	2009	2Q08	3Q08	4Q08	1Q09	Feb 09	Mar 09	Apr 09*	Latest month vs. Mar 09	Latest month vs. Apr 08
LPG & Ethane	4.65	4.37	4.57	4.28	4.55	4.81	4.81	4.66	4.51	-0.16	-0.19
Naphtha	3.08	2.88	3.04	3.06	2.88	2.97	3.06	3.03	2.90	-0.13	-0.17
Motor Gasoline	14.41	14.29	14.68	14.45	14.36	14.00	14.05	14.18	14.37	0.19	-0.43
Jet & Kerosene	3.97	3.70	3.85	3.80	3.89	4.00	4.01	3.84	3.68	-0.16	-0.24
Gas/Diesel Oil	13.01	12.27	12.65	12.60	13.37	13.07	13.21	12.89	11.86	-1.03	-1.42
Residual Fuel Oil	3.64	3.31	3.63	3.50	3.59	3.61	3.49	3.45	3.23	-0.21	-0.47
Other Products	4.76	4.26	4.85	4.88	4.61	4.09	4.11	4.11	4.20	0.09	-0.47
Total Products	**47.52**	**45.08**	**47.28**	**46.57**	**47.25**	**46.56**	**46.73**	**46.16**	**44.75**	**-1.41**	**-3.41**

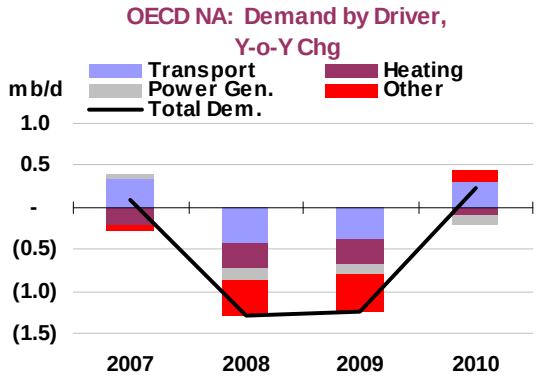
* Latest official OECD submissions (MOS)

North America

Preliminary data show that oil product demand in North America (including US Territories) fell by 8.1% year-on-year in May, the seventeenth monthly contraction in a row. Once again, the decline in both Mexico and the United States was particularly pronounced (-11.0% and -8.4% year-on-year, respectively), while Canada posted a 2.6% contraction.

April's revisions to preliminary data (+390 kb/d) were essentially due to the US. Yet the upward adjustments were concentrated in LPG, naphtha, residual fuel oil and 'other products', which are notoriously volatile. By contrast, gasoline and middle distillates were sharply revised down. Even after accounting for these revisions, moreover, regional demand remains very weak, falling by 6.3% during that month (rather than -8.4%). Taken together the revisions (2008 and April 2009), preliminary data (May) and much weaker-than-expected weekly US estimates (June), the outlook for total demand in 2009 has been lowered by 300 kb/d to 22.9 mb/d (-5.1% or -1.2 mb/d versus 2008). In 2010, by contrast, oil demand should grow by 1.0% (+240 kb/d), assuming that economic prospects improve, price levels do not diverge markedly from the prevailing futures strip and normal seasonal demand trends prevail.





OECD North America Demand by Product
(million barrels per day)

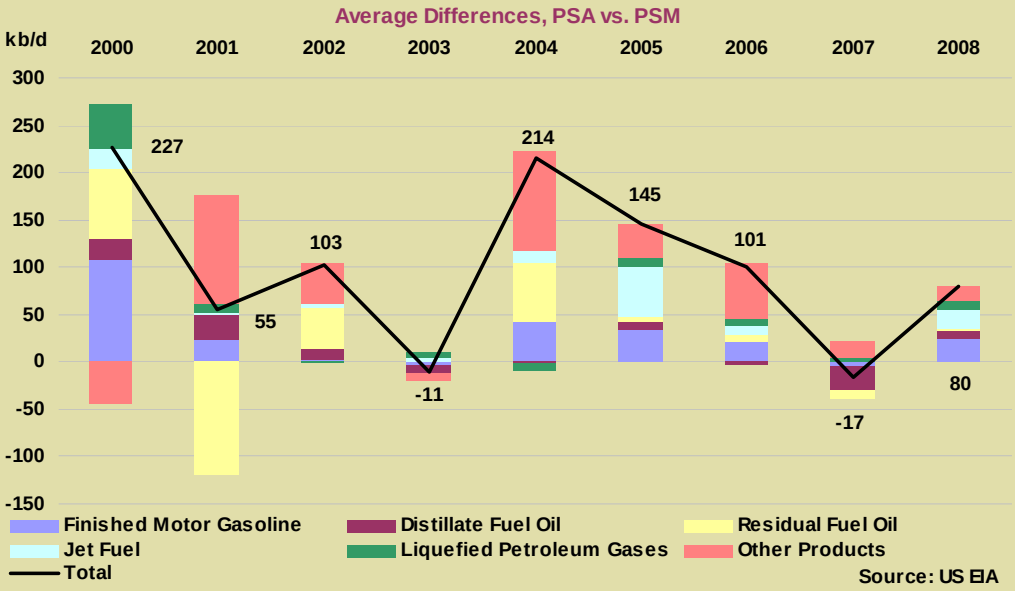
	2008	2009	2Q08	3Q08	4Q08	1Q09	Feb 09	Mar 09	Apr 09*	Latest month vs. Mar 09	Latest month vs. Apr 08
LPG & Ethane	2.72	2.56	2.62	2.48	2.66	2.87	2.84	2.80	2.64	-0.17	0.00
Naphtha	0.36	0.28	0.38	0.36	0.33	0.29	0.27	0.31	0.30	0.00	-0.10
Motor Gasoline	10.52	10.50	10.69	10.49	10.50	10.30	10.33	10.37	10.45	0.08	-0.16
Jet & Kerosene	1.77	1.64	1.82	1.79	1.64	1.66	1.64	1.69	1.64	-0.05	-0.18
Gas/Diesel Oil	5.01	4.54	4.96	4.77	5.03	4.94	4.95	4.72	4.35	-0.38	-0.76
Residual Fuel Oil	1.10	0.99	1.21	1.05	1.06	1.08	0.92	1.11	1.07	-0.03	-0.12
Other Products	2.69	2.44	2.73	2.67	2.71	2.38	2.41	2.36	2.35	-0.01	-0.22
Total Products	**24.18**	**22.94**	**24.41**	**23.60**	**23.93**	**23.52**	**23.35**	**23.37**	**22.80**	**-0.56**	**-1.53**

* Latest official OECD submissions (MOS)

Preliminary weekly data in the continental United States indicate that inland deliveries – a proxy of oil product demand – plunged by 8.1% year-on-year in June. All product categories bar residual fuel oil posted sharp losses, casting further doubts on the country's much-trumpeted economic recovery. The weakness in diesel demand (-13.4%) is particularly stark, as it is strongly correlated to economic activity.

US 2008 Demand Revisions

In July, the US Energy Information Administration (EIA) provided finalised US50 demand data for 2008. The new figures entailed an upward revision of 80 kb/d. (The latest preliminary monthly demand is derived from weekly data from the *Weekly Petroleum Status Report*, which are revised two months later in the *Petroleum Supply Monthly* and then finally adjusted in the *Petroleum Supply Annual*, usually in mid-year). This annual adjustment was in line with the trend observed in recent years, when demand was typically – and often significantly – revised up (the only exceptions being 2003 and 2007).

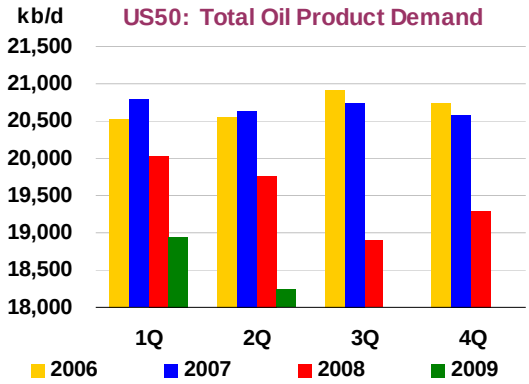


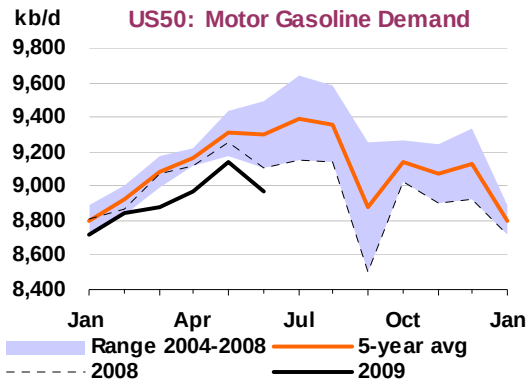
Usually the revisions pertain to gasoline, middle distillates (jet fuel and gasoil) and 'other products'. Excluding the anomalous revisions of 2003 and 2007, the 2008 adjustment is the lowest on record, suggesting that monthly data collection has improved, notably regarding the somewhat nebulous 'other products' category. As such, our pre-emptive adjustment for 2008 – as this report attempts to anticipate annual changes based on the monthly average revisions of previous years – turned out to be almost exactly in line (a difference of only 2 kb/d). For 2009, we are also factoring in an annual correction of 80 kb/d.

Yet perhaps the most important market development is the growing evidence that, for a second year in a row, the driving season in the US – which normally boosts gasoline demand during the summer – is petering out. Indeed, rather than rising as expected, gasoline demand actually fell by an estimated 1.5% year-on-year in June, bucking the trend of what had seemed to be an auspicious Memorial Day weekend (which traditionally signals the start of the driving season). At the time of writing, data for the first week of July, which normally register the seasonal peak for gasoline demand around the Independence Day holiday, was not yet available. Nonetheless, auto industry associations such as the AAA were expecting a marked drop in vehicle-miles travelled.

US motorists are not only feeling the pinch from the deep recession, but also the effects of the recent rebound in retail gasoline prices. In other words, the sensitivity of US drivers to retail price fluctuations depends largely on their income prospects. As noted in the recently released *MTOMR*, gasoline prices passed $3.00/gallon in late 2007 just as the economic slowdown began showing signs of an abrupt

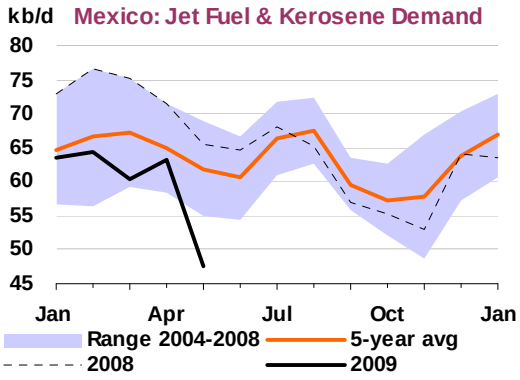
recession in the making. Consequently, gasoline demand first gradually stalled and then started falling as prices rose further to almost $4.00/gallon. This phenomenon appears to be recurring this year – but the price threshold that triggers a demand contraction appears to be now much lower (around $2.40/gallon).





Looking forward, we expect US oil demand to rise by 1.0% to 18.6 mb/d in 2010 after plummeting by 5.4% in 2009. This outlook assumes that the economy will recover from its current contraction (GDP growth, although nil, would be better than the -2.8% expected in 2009).

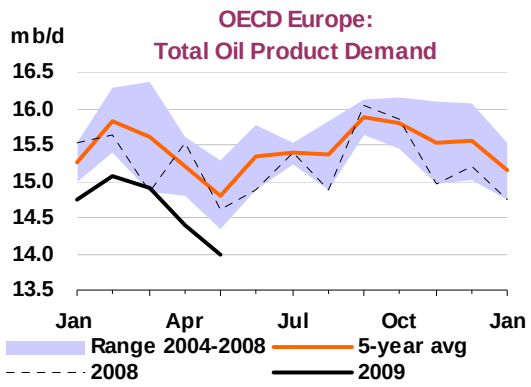
Preliminary May data for **Mexico** illustrate the disruptive effects of the A/H1N1 virus, which erupted in late April. The country has indeed withstood the brunt of the slowdown in air traffic in North America. US carriers, in particular, trimmed flights to and from Mexico as passenger bookings plunged. American, Continental, United, US Airways and Delta all reduced their daily return flights by 26-60%. Consequently, jet fuel/kerosene demand plummeted by 27.5% year-on-year. Overall, total oil demand is poised to contract by 5.0% this year. In 2010, it should rise by 0.4% to 2.0 mb/d as the economy emerges from recession, in tandem with the US.

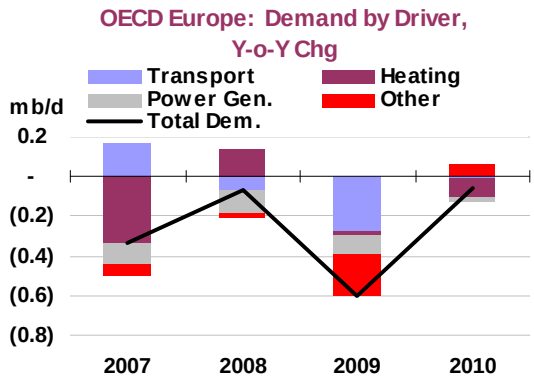


Europe

According to preliminary inland data, oil product demand in Europe fell by 4.3% year-on-year in May. A resumption of strong heating oil deliveries, which rose by 4.1% year-on-year, helped partially offset sharp losses in other product categories, such as naphtha (-12.0%) or diesel (-3.6%) – scarcely growth rates that would reveal a bottoming out of the recession in Europe. April's revisions, meanwhile, were negative (-30 kb/d), suggesting that the demand outlook may have worsened again that month (March's adjustments, by contrast, had been positive). European demand actually plummeted by 7.3% in April, half-a-percentage point more than previously estimated.

However, since the 2008 baseline changes were greater than the preliminary data revisions, this year's demand outlook in OECD Europe has somewhat improved. Oil demand is now expected to contract by -3.9% or -600 kb/d to 14.7 mb/d in 2009, slightly less than previously anticipated. In 2010, European demand should fall by only 0.4% or -60 kb/d, more in line with its expected structural decline, assuming that economic activity falls by only 0.2% (versus -4.0% in 2009). However, the differences among the largest five countries will be significant: only France, whose own recession has been relatively mild compared with its neighbours, is expected to post positive oil demand growth (+0.3%). By contrast, Germany, Italy, Spain and the United Kingdom will all register a continued oil demand fall, commensurate with a less favourable economic outlook.



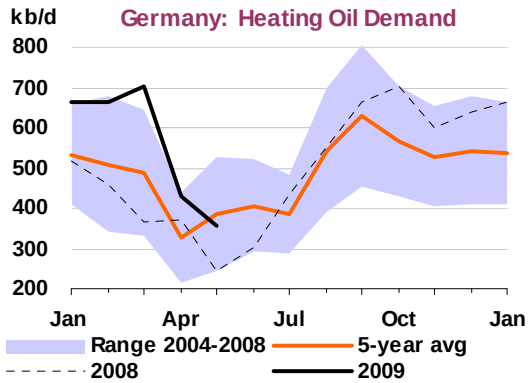


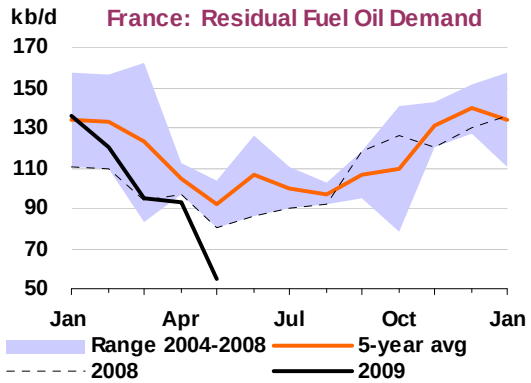
OECD Europe Demand by Product
(million barrels per day)

	2008	2009	2Q08	3Q08	4Q08	1Q09	Feb 09	Mar 09	Apr 09*	Latest month vs. Mar 09	Latest month vs. Apr 08
LPG & Ethane	1.03	0.96	1.05	0.94	0.99	1.04	1.04	1.01	1.01	0.01	-0.12
Naphtha	1.08	0.98	1.05	1.06	0.99	1.04	1.08	1.11	0.87	-0.24	-0.21
Motor Gasoline	2.36	2.27	2.42	2.44	2.30	2.19	2.21	2.26	2.41	0.14	-0.02
Jet & Kerosene	1.31	1.27	1.30	1.40	1.26	1.19	1.20	1.17	1.28	0.11	-0.01
Gas/Diesel Oil	6.32	6.17	5.99	6.28	6.64	6.49	6.59	6.47	5.94	-0.52	-0.43
Residual Fuel Oil	1.62	1.54	1.54	1.60	1.68	1.61	1.64	1.47	1.39	-0.08	-0.20
Other Products	1.57	1.49	1.65	1.71	1.49	1.33	1.30	1.40	1.49	0.09	-0.14
Total Products	**15.28**	**14.68**	**15.01**	**15.43**	**15.34**	**14.90**	**15.07**	**14.90**	**14.40**	**-0.50**	**-1.14**

* Latest official OECD submissions (MOS)

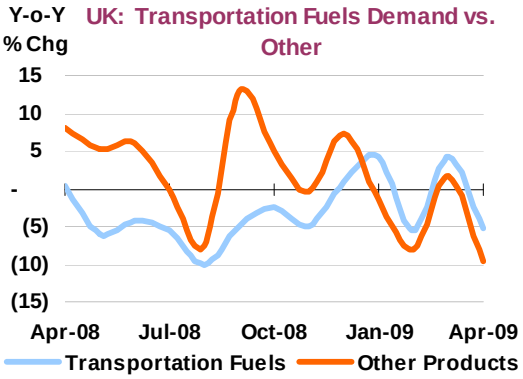
Once again, **German** heating oil deliveries (+45.0% year-on-year in May) helped limit the fall in demand for industrial oil products and transportation fuels, both in the country and in also the rest of the continent. In fact, according to preliminary estimates, total inland deliveries actually rose by 2.8% year-on-year. It is unlikely, though, that this strong pattern of buoyant heating oil sales will persist over the next few months. Not only prices have risen, but consumer stocks, at 63% of capacity by end-May (sharply above the 44% filling registered in the same month of the previous year), are quickly approaching their historical maximum (around 75% of capacity).





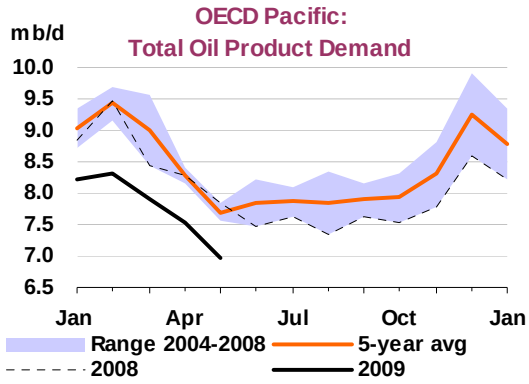
In **France**, oil product deliveries plummeted by 8.5% year-on-year in May, according to preliminary data. As in Germany, naphtha and LPG continue trending down (-20.0% and -15.5%, respectively), suggesting that the economy is not out of the woods yet. More worrisome, diesel demand contracted sharply (-4.7%). This could be related to the fact that May had several long weekends, though higher prices may also have played a role.

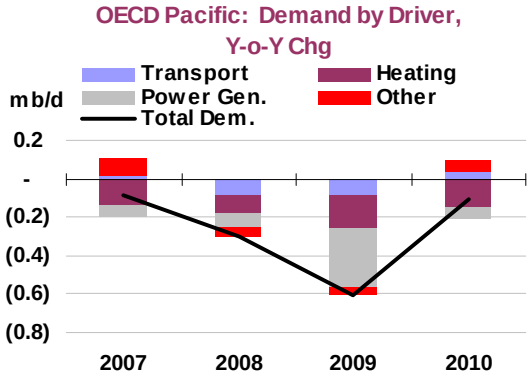
In the **United Kingdom**, total oil demand shrank by 6.7% in April (the last available data point), with all product categories posting losses. However, the data may show a moderate demand rebound in transportation fuels or at least a less abrupt fall in June. Indeed, the country became the last among the largest European nations to adopt a car-scrapping scheme, whereby drivers with vehicles at least ten years old are entitled to a £2,000 trade-in premium when purchasing a new car. The scheme was launched in late May; preliminary data suggest that car sales rose in June.



Pacific

Oil product demand in the Pacific sank for the eleventh month in a row in May (-11.2% year-on-year), according to preliminary data. Only gasoline demand (+2.1%) showed some signs of life, but largely because it had been very weak in the same period of the previous year. As elsewhere in the OECD, the region's largest economy – Japan – shows little signs of recovering, and is dragging down overall demand. April's revisions, although positive (+130 kb/d), provided little comfort: demand still plummeted by 8.9% that month.



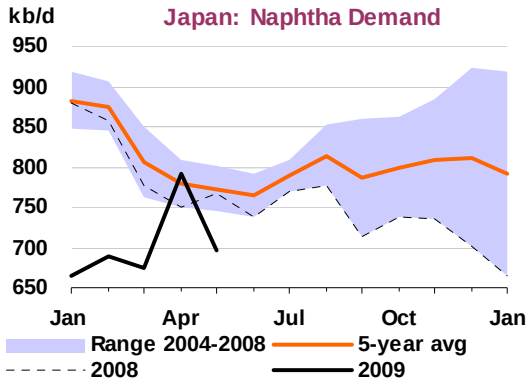


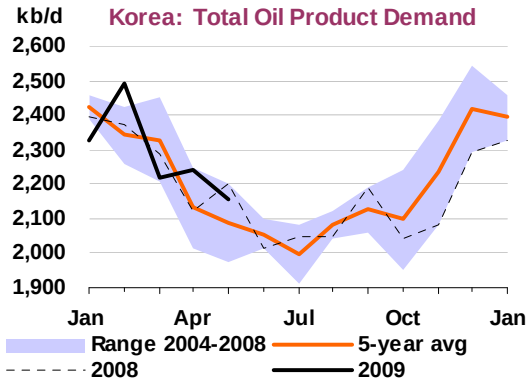
Together with the 2008 baseline revisions, these adjustments have slightly tempered the oil demand contraction expected in 2009. OECD Pacific demand should fall by 7.5% (instead of -8.4%) to 7.5 mb/d, -610 kb/d below the previous year. In 2010, the fall should be less pronounced (-1.4%), assuming that the region's economy expands by 0.7% (versus -5.1% in 2009).

Japanese oil demand plunged by 18.1% year-on-year in May – more than in April (-16.1%) and almost as much as in February (-20.4%), the worst month on record so far. As we argued last month, April's rebound in naphtha demand (+5.6%), which had somewhat cushioned the fall in overall oil demand, was unlikely to be sustained unless export markets showed greater dynamism, but this has not been the case: naphtha deliveries fell by 9.4% in May. Only gasoline demand posted gains (+2.2%), largely given the weakness registered in the same period of the previous year, when taxing issues had distorted seasonal demand patterns. In sum, it is far from clear whether Japan's economy has hit a bottom. Nevertheless, on the assumption that GDP grows by +0.5% in 2010 (versus -6.2% in 2009), oil demand should contract by only 3.0% (compared with -12.4% in 2009).

In **Korea**, demand contracted by 2.0% in May, dragged down by middle distillates (jet fuel/kerosene and gasoil), even though naphtha deliveries remained strong (+4.2%). Contrary to Japan, the country's prospects are brighter (GDP is set to rise by +1.5% in 2010, compared with -4.0% in 2009). However, oil

demand is likely to remain flat for the second year in a row, as strong growth in naphtha deliveries to the petrochemical industry is offset by structural declines in heating kerosene and residual fuel oil, which will continue to be substituted by natural gas (LNG).





OECD Pacific Demand by Product
(million barrels per day)

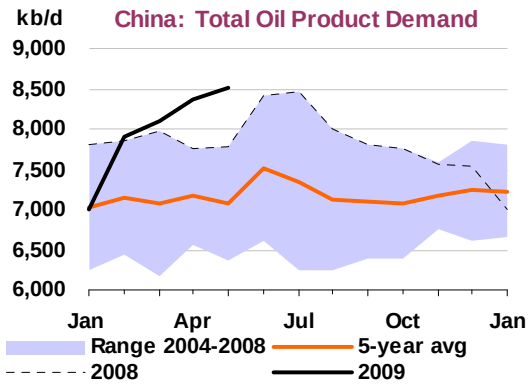
	2008	2009	2Q08	3Q08	4Q08	1Q09	Feb 09	Mar 09	Apr 09*	Latest month vs. Mar 09	Latest month vs. Apr 08
LPG & Ethane	0.90	0.85	0.90	0.86	0.90	0.90	0.92	0.85	0.85	0.00	-0.08
Naphtha	1.64	1.62	1.61	1.65	1.56	1.64	1.71	1.61	1.72	0.11	0.14
Motor Gasoline	1.54	1.52	1.56	1.52	1.56	1.51	1.51	1.54	1.51	-0.03	-0.25
Jet & Kerosene	0.89	0.79	0.73	0.60	0.99	1.15	1.17	0.97	0.76	-0.22	-0.05
Gas/Diesel Oil	1.68	1.56	1.70	1.55	1.70	1.64	1.67	1.70	1.57	-0.13	-0.23
Residual Fuel Oil	0.91	0.79	0.89	0.85	0.86	0.92	0.93	0.87	0.77	-0.10	-0.15
Other Products	0.50	0.33	0.48	0.50	0.40	0.38	0.40	0.35	0.37	0.02	-0.11
Total Products	**8.07**	**7.46**	**7.86**	**7.54**	**7.97**	**8.14**	**8.31**	**7.90**	**7.55**	**-0.35**	**-0.73**

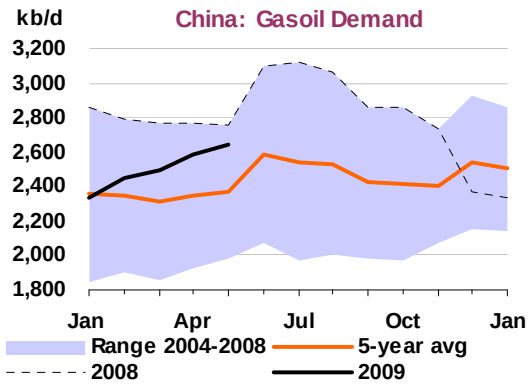
* Latest official OECD submissions (MOS)

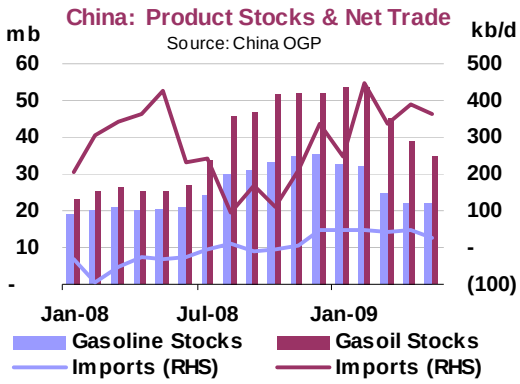
Non-OECD

China

According to preliminary data, China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) jumped by 9.5% year-on-year in May, with all product categories bar gasoil and residual fuel oil posting strong gains. This is the second month in a row that Chinese apparent demand surged. As much as this oil demand rebound may suggest an ongoing economic revival (notably in the petrochemical industry), rising air travel and buoyant vehicle sales, it was also undoubtedly related to hoarding (so-called 'social storing') ahead of expected retail price increases.







As we noted last month, the price rise that took place in early June had been expected in late April, but the government hesitated, probably seeking to support the incipient economic recovery by keeping fuel prices low. As such, suppliers had roughly two months – April and May – to build oil product stockpiles, which would be released with a significant profit once the price hike was implemented. The scarcity of reliable stock data makes it difficult to estimate the underlying demand trend, as opposed to 'apparent' demand. However, a significant portion of refinery output (+2.5% month-on-month in May) arguably fed private suppliers' stocks, for which no statistics are available. Meanwhile, the fall in gasoline and gasoil stocks held by PetroChina and Sinopec was again most likely related to strong exports. Possibly attempting to prevent another round of hoarding – since international oil prices continued to rise through June – and to restore the credibility of the new price mechanism, in late June the government announced another, unexpected increase to domestic gasoline and diesel prices (by roughly 9% and 10%, respectively).

These stocking trends beg the question as to whether actual domestic demand is less buoyant than it appears. Gasoil is a case in point. Although apparent gasoil demand has risen since December, its relative weakness compared with the same period of the previous year (-3.9% in May) is at odds with the much-trumpeted recovery of the export-oriented industrial sector (gasoil is both used in industrial applications and to run the trucks that move manufacturing goods). Arguably, as long as export markets remain depressed, this sector will face difficult times, despite the massive fiscal stimulus. Furthermore, the recent price increases could also influence the behaviour of Chinese motorists. Dearer fuel is unlikely to prompt a sharp slowdown in gasoline demand, as in the US, given that the vehicle market is still mostly geared towards the most affluent consumers, who can afford moderate price increases. Nonetheless, it could well affect purchasing patterns – sales of smaller, more efficient cars could become more of a norm.

Looking ahead, assuming that the recovery of the Chinese economy is sustained (with GDP growing by +7.5% in 2010 versus 6.5% in 2009, as previously expected by the IMF), Chinese oil demand could rise by +4.2% year-on-year or +330 kb/d to 8.3 mb/d. This would be in line with the patterns observed in recent years (excluding of course 2009, when growth is expected to be +90 kb/d or +1.1% versus 2008, some 120 kb/d higher than previously expected). Yet much will depend on the evolution of the price regime, the consolidation of the domestic downstream industry and, above all, on whether private domestic demand strengthens enough in order to compensate for weak exports and complement government spending. A former senior Central Bank economist has indeed recently suggested that the recovery could be 'W-shaped': economic growth could falter once the current fiscal and monetary stimuli wear off, before regaining momentum.

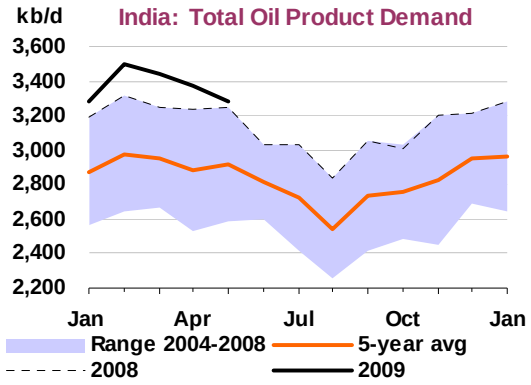
China: Demand by Product
(thousand barrels per day)

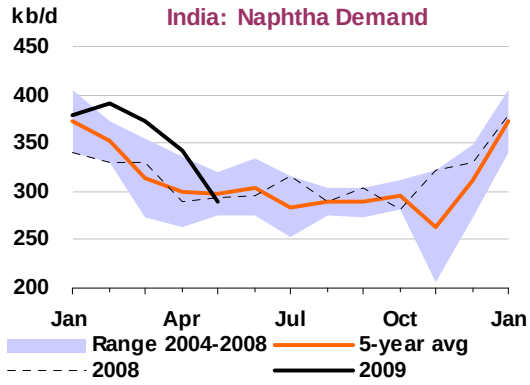
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	653	734	766	81	32	12.5	4.3
Naphtha	768	809	846	41	37	5.3	4.6
Motor Gasoline	1,493	1,572	1,684	79	113	5.3	7.2
Jet & Kerosene	292	309	327	17	18	5.8	5.9
Gas/Diesel Oil	2,837	2,624	2,759	-213	135	-7.5	5.1
Residual Fuel Oil	603	606	631	3	25	0.4	4.1
Other Products	1,246	1,328	1,301	82	-27	6.6	-2.0
Total Products	**7,892**	**7,982**	**8,315**	**89**	**333**	**1.1**	**4.2**

Other Non-OECD

According to preliminary data, **India's** oil product sales – a proxy of demand – rose by 0.9% year-on-year in May. This relatively low reading is due to the previous year's high base, notably for transportation fuels, and to a sharp fall in naphtha demand, which has been displaced by domestic natural gas. In April, indeed, Reliance Industries began pumping gas from its deepwater block in the Krishna Godavari basin, off India's eastern coast. The gas is sold mainly to the fertiliser, steel and power industries, which are large naphtha users. By the same token, imports of liquefied natural gas (LNG) have also declined (-1.4% year-on-year in May). Nonetheless, preliminary oil demand estimates are usually revised up, sometimes sharply as in last month (April's year-on-year growth turned out to be +4.0%, rather than +0.9%). This could happen again for May figures; arguably, reporting may have been somewhat disturbed by the country's general elections that took place over both months.

As noted in our last report, the re-election in May of a Congress party majority had been widely seen as auguring the gradual deregulation of India's administered price regime. The new government has seemingly lived up to these expectations: invoking the rising international oil prices, in early July it increased domestic retail prices for gasoline and gasoil by roughly 9%, but kept prices for cooking kerosene and LPG unchanged, ostensibly in order to cushion the country's poor. The move will provide much needed fiscal relief given the high subsidy burden – the fiscal deficit stands at 6.2% of GDP – but could also fuel inflation and eventually trigger an economic slowdown if monetary policy were to be tightened. Looking ahead, the government plans to set up an 'expert group' to advise on a 'viable and sustainable system of pricing petroleum products', which suggests that India may be looking to establish a price mechanism akin to China's, whereby domestic prices follow more closely the evolution of international benchmarks.





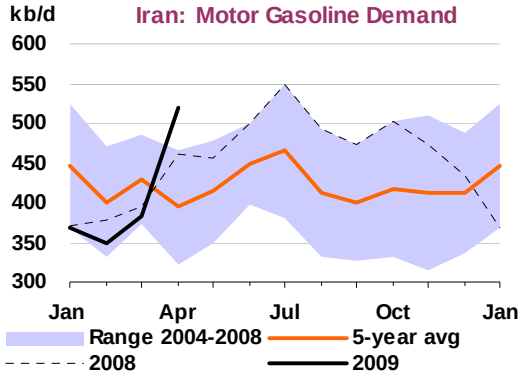
Following 2007 baseline adjustments and revisions to recent data, forecast oil demand growth for 2009 has been inched up to +3.0% year-on-year or +90 kb/d (versus +2.4%). Next year, demand is expected to rise by 3.4% to 3.3 mb/d, as GDP growth accelerates from +4.5% in 2009 to +5.6% in 2010.

India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	405	413	435	8	22	1.9	5.3
Naphtha	310	322	299	12	-23	3.8	-7.1
Motor Gasoline	265	292	323	27	31	10.3	10.7
Jet & Kerosene	298	293	302	-6	9	-1.9	3.2
Gas/Diesel Oil	1,077	1,119	1,175	42	55	3.9	4.9
Residual Fuel Oil	394	403	410	9	7	2.2	1.8
Other Products	382	384	392	2	8	0.5	2.1
Total Products	**3,133**	**3,226**	**3,337**	**94**	**111**	**3.0**	**3.4**

In **Iran**, the government has decided to abolish gasoline subsidies for private vehicles, according to an official news channel (although subsidies will be maintained in the case of commercial vehicles and fishing boats). Currently, the country features a two-tier system, whereby drivers are entitled to 80 litres of gasoline per month at the equivalent of $0.10/litre. Beyond that threshold, motorists can purchase unlimited volumes at $0.40/litre. Compared with international benchmarks, retail gasoline prices in Iran are among the lowest in the world.



Whether this decision is related to June's controversial election – as a means to legitimise the administration of President Ahmadinejad, who has promised to hand out cash instead to selected constituencies – is unclear. In any case, the removal of subsidies would probably provide welcome relief to the government's budget (albeit temporary if handouts were implemented), and help curb expensive – and vulnerable – imports. It could also help renew Iran's vehicle fleet, which is generally old and quite inefficient. Domestic gasoline demand, which had been relatively subdued in 1Q09, surged by 12.7% year-on-year in April. Nevertheless, the government will have to tread carefully, as removing subsidies would stoke up the already high inflation rate and reignite social tensions in particularly delicate political circumstances.

Iran: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	92	90	99	-2	9	-2.4	9.7
Naphtha	42	44	51	2	7	5.0	15.9
Motor Gasoline	457	464	479	7	15	1.5	3.3
Jet & Kerosene	154	145	153	-8	8	-5.4	5.3
Gas/Diesel Oil	622	576	594	-46	18	-7.4	3.2
Residual Fuel Oil	410	401	420	-9	19	-2.1	4.8
Other Products	85	128	130	43	2	51.1	1.8
Total Products	**1,861**	**1,848**	**1,926**	**-13**	**79**	**-0.7**	**4.3**

Oil demand is poised to contract slightly this year (-0.7% versus 2008), mostly as a result of the introduction of a gasoil rationing plan since early 2009, which mimics the inconclusive gasoline scheme, and given the economic slowdown prompted by lower oil prices (relative to 2008) and production cuts. In 2010, by contrast, demand should rise by +4.3% to 1.9 mb/d, assuming that the gasoil rationing scheme only tames demand temporarily (as happened in the case of gasoline) and that the government boosts spending significantly to strengthen its political position.

SUPPLY

Summary

- **Global oil supplies posted a modest rise in June of 70 kb/d, to 84.2 mb/d** in line with slightly higher OPEC output and unchanged non-OPEC production. The 'call on OPEC crude and stock change' is curbed by 200 kb/d for 2H09, to 27.7 mb/d. Demand-side adjustments are behind the lower level.

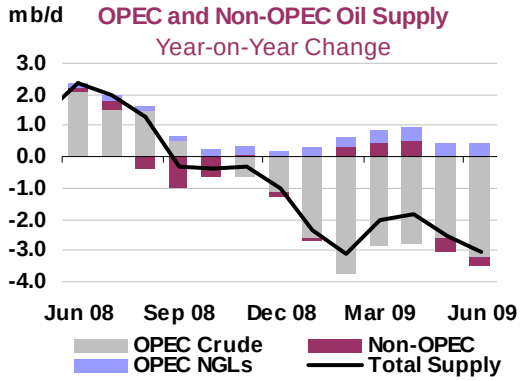
- **OPEC crude oil supply in June rose for the second successive month** despite a wave of supply disruptions in Nigeria. Production was assessed at 28.7 mb/d, up 75 kb/d over May levels. Output by the 11 members with production targets averaged 26.2 mb/d, equivalent to a compliance rate with output cuts of about 68%.

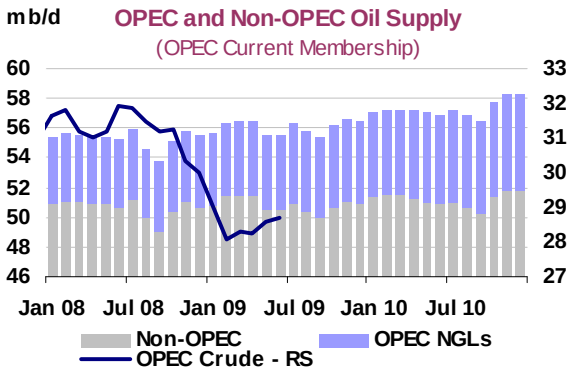
- **In Nigeria, escalating attacks by militant groups have forced the shut-in** of around 300 kb/d in recent weeks. In total, nearly one million b/d of output in the volatile Niger Delta region is currently offline.

- **Non-OPEC supply estimates for 2009** are revised up by 330 kb/d on the basis of consistently stronger-than-expected Russian output in the first half of the year, recovery at Azerbaijan's ACG fields, relatively robust US and North Sea production and some historical revisions on the basis of consolidated, annual data. Non-OPEC supply is now expected to grow by 190 kb/d in 2009 to 50.8 mb/d, compared with a previously-assumed 100 kb/d contraction.

- **The roll-out of 2010 non-OPEC forecasts** sees supply rising by a further 410 kb/d to 51.2 mb/d next year, with strong growth in Azerbaijan, Brazil, global biofuels, the US Gulf of Mexico and Canadian oil sands. The UK, Norway and Mexico will see steadily declining output.

- **New OPEC NGL and condensate projects will add 2.0 mb/d to capacity** over the 2009-10 period. Middle East producers Saudi Arabia, Qatar, Iran and the UAE will provide 90% of the increase while Nigeria accounts for the remaining 10%.





Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

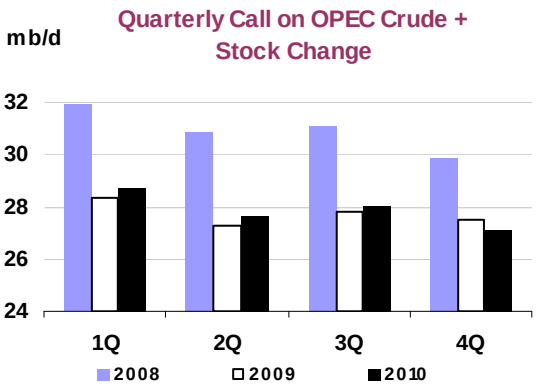
All world oil supply figures for June discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Indonesia and Russia are supported by preliminary June supply data.

The non-OPEC supply overview and OPEC NGL section this month focuses on the roll out of our forecast to 2010, with discussion of key changes in production. However, to avoid duplication, several of the themes underpinning this analysis are elaborated upon in the MTOMR 2009 Edition*, released on 29 June 2009. Readers should consult the* MTOMR *for more detailed discussion of factors affecting supply in 2010 and beyond.*

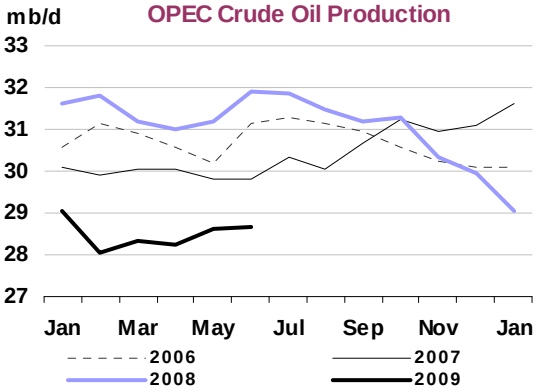
OPEC Crude Oil Supply

OPEC crude oil supply in June was estimated 75 kb/d higher than May levels, at 28.7 mb/d. The near doubling of oil prices over the past four months appears to have weakened the resolve of some members to adhere closely to output target cuts. Iran, Angola and Qatar all posted small increases month on month. By contrast, Nigeria suffered further production outages throughout the month as the security situation in the Niger Delta deteriorated further.

Output by the 11 members with production targets, which excludes Iraq, rose by 60 kb/d, to 26.2 mb/d. OPEC-11 production is now about 1.34 mb/d above the 24.845 mb/d output target.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

The slightly higher output levels in June reduce the group's compliance rate to around 68% compared with 69% in May. Compliance rates are based on volume cuts announced for individual countries against OPEC estimates of September 2008 output levels. OPEC did not assign individual country output targets in the last three rounds of cutbacks but instead published output reduction volumes for each member. The OPEC Secretariat briefly published country-by-country production targets on its website last September but removed them due to strong objections by some members over their assigned output levels.

The cumulative 4.2 mb/d output reduction target reflects agreements reached at three different meetings last year. In September 2008 OPEC announced members would rein in 500 kb/d of overproduction, then that it would trim a further 1.5 mb/d from allocated targets implemented on 1 November, and finally at their December meeting in Algeria cut an additional 2.2 mb/d effective 1 January 2009.

The lack of clarity and agreement over formal individual country allocations this past year has led to differing interpretations by some of their target levels, which likely weakens the group's ability to pressure overproducers for better compliance rates. Overall the group had reduced production by June by 2.9 mb/d compared with the 4.2 mb/d in collective cuts agreed since last September. OPEC's next ministerial meeting is on 9 September in Vienna to review the market outlook and production levels.

OPEC's effective spare capacity is now estimated at 5.2 mb/d, largely unchanged in May. Saudi Arabia is on course to ramp up capacity by a gross 1.55 mb/d this year following the start-up of the Khurais, Shaybah and Nuayyim fields in June. Combined, the new fields will raise Saudi Arabia's installed

production capacity to 12.5 mb/d, although reports suggest maintenance at older fields and slow ramp up due to weak demand this year could constrain actual capacity at slightly lower levels.

Saudi Arabia's crude oil production was assessed at 8.2 mb/d last month, unchanged from upwardly revised May levels. Saudi Arabia's output in May was revised up by 200 kb/d based on data submitted to JODI. Shipping data indicate export volumes in June were similar to May levels. After scaling back output below the country's implied target of 8.05 mb/d early in 2009, production levels in three of the last four months were higher. Even with output above the target level, Saudi Arabia still accounts for almost 45% of the combined cutback in production volumes.

Political turmoil in **Iran** following the country's national election injected an element of volatility into markets due to security concerns over the major Middle East Gulf supply route. However, oil production and exports were unaffected given that most of the civil unrest was in urban areas, away from oil installations. Indeed, Iranian output in June increased by 80 kb/d, to 3.8 mb/d. June production levels were around 465 kb/d above the country's implied output target of 3.34 mb/d.

OPEC Crude Production

(million barrels per day)

	Apr 2009 Supply	May 2009 Supply	Jun 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs June 2009 Supply	OPEC Target Cuts	Percent Compliance with Volume Cuts
Algeria	1.25	1.25	1.25	1.40	0.15	0.200	60%
Angola	1.67	1.75	1.80	2.10	0.30	0.244	0%
Ecuador	0.48	0.48	0.48	0.50	0.02	0.067	27%
Iran	3.75	3.72	3.80	4.00	0.20	0.562	2%
Kuwait[2]	2.25	2.25	2.24	2.65	0.41	0.374	99%
Libya	1.52	1.54	1.54	1.77	0.23	0.252	63%
Nigeria[3]	1.78	1.80	1.72	2.55	0.83	0.319	82%
Qatar	0.78	0.76	0.78	0.90	0.12	0.122	66%
Saudi Arabia[2]	8.00	8.20	8.20	11.40	3.20	1.318	95%
UAE	2.25	2.25	2.25	2.85	0.60	0.379	106%
Venezuela[4]	2.12	2.12	2.12	2.40	0.28	0.364	69%
OPEC-11	**25.85**	**26.12**	**26.18**	**32.52**	**6.34**	**4.201**	**68%**
Iraq	2.37	2.49	2.50	2.60	0.10		
Total OPEC	**28.22**	**28.61**	**28.68**	**35.12**	**6.44**		
(excluding Iraq, Nigeria, Venezuela					*5.23)*		

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 380 kb/d in June.

UAE output is unchanged over the month at 2.25 mb/d. The Emirates' production is down 400 kb/d since September, which is slightly more than the targeted 379 kb/d cut called for. Abu Dhabi notified customers in Asia that crude allocations for July would be maintained at June levels of 18% below contractual volumes for all crudes but a steeper cut of 19% will be in effect for August.

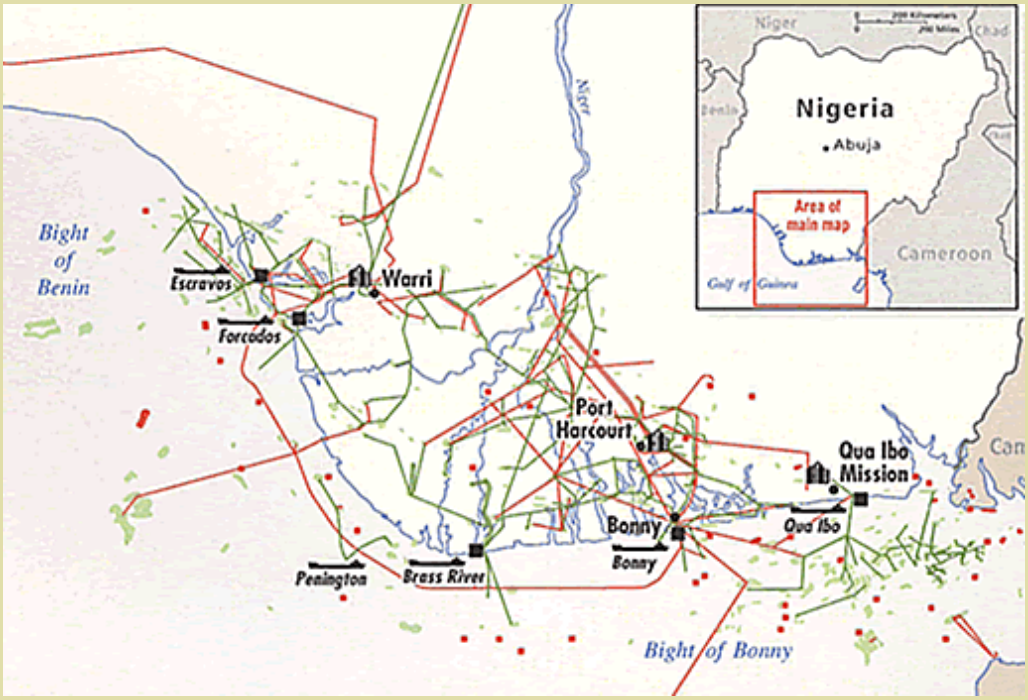
Crude oil production in **Qatar** was assessed at 780 kb/d in June compared with 760 kb/d for May. Qatar cut customers allocations of its medium-heavy Marine crude by 4% in May but restored full allocations in June. Output is expected to decline again in July following a steep cut of 14% in allocations of Marine crude for Asian customers. Unconfirmed reports said output was down due to unspecified production problems. To make up for the sharper than expected decline in July, Qatar told customers that they would receive full contract volumes in August.

Nigerian Crude Oil Production Crippled by Increased Militant Attacks

Escalating militant attacks in the volatile Niger Delta region over the past 6-8 weeks have forced the shut in of around 300 kb/d, with total operating output constrained by nearly one mb/d of onshore production currently. The *OMR* estimates an additional 500-600 kb/d has been shut in on a quasi-permanent basis due to militant attacks on the country's oil infrastructure, most of which has been offline since the Movement for the Emancipation of the Niger Delta (MEND) launched one of its first major wave of attacks at end-2005 and then again in February 2006. State-owned NNPC reported on 25 June that 1.4 mb/d of crude oil production was offline.

The upsurge in violence in recent months appears to be in retaliation to the government's latest two-tiered approach to quell militant activity. In May, the military launched a new offensive against warlords in the key Port Harcourt region and at the same time offered a new amnesty program calling for militants to abandon their fight in exchange for cash payments. The government also offered to release from prison a prominent leader of MEND. But MEND rejected the government's offer and has correspondingly increased the level of attacks on the country's oil infrastructure. There are more than 600 oil and gas fields in the Niger Delta region and adjacent shallow water areas, with the bulk of the fields producing at an average rate of around10 kb/d and approximately 6000 km of pipelines which link production to flow stations and export terminals. This massive web of infrastructure in remote locations makes it relatively easy for militants to carry out attacks at will and extremely difficult for the military to protect. The major supply disruptions include the following:

- Shell, the country's largest foreign operator, reported that production by its joint venture SPDC (NNPC 55%, Shell 30%, Total 10% and Agip 5%) of Forcados and Bonny crude streams has been cut to just 140 kb/d, about half of what the group was producing earlier this year and down from an average 850 kb/d produced in 2008. Shell has enacted *force majeure* on Bonny Light and Forcados shipments since last March. SPDC production capacity is estimated at 1 mb/d. SPDC's operations include the Bonny and Forcados export terminals, 90 oil fields, 73 flow stations and 8 gas plants.
- ENI reported 24 kb/d of Brass River crude was offline due to pipeline sabotage on 8 July. This follows the shut in of around 33 kb/d of Brass River crude production due to an attack on a pipeline linking output to the Brass River export terminal. ENI declared *force majeure* on Brass River exports on 23 June.
- Chevron reported on 25 May that militant attacks forced the shut in of 100 kb/d of Escravos production, or about a third of the company's production in the country. Chevron reported that most of the pipelines that move production from offshore operations to onshore have been sabotaged.



Iraqi production increased to 2.5 mb/d in June, up 15 kb/d over May. Production estimates (measured as exports plus domestic use) for May were revised up by 40 kb/d, to 2.49 mb/d based on higher domestic use of crude. Domestic crude run at refineries and for power use was pegged at around 580 kb/d for both May and June.

Iraqi exports were up around 20 kb/d, to 1.93 mb/d compared with 1.91 mb/d in May. Exports from the south averaged 1.42 mb/d last month compared with 1.39 mb/d in May. Iraqi exports from the north to Turkish Ceyhan terminal on the Mediterranean Sea were down a slight 10 kb/d, to 500 kb/d in June. Iraq exported about 10 kb/d to Jordan last month.

Angola's crude oil output rose to the highest level in six months, up by 50 kb/d, to 1.8 mb/d. Production is now almost 285 kb/d above the country's widely reported target of 1.52 mb/d. Angola has been singled out for consistently ignoring its output allocation. Angolan officials previously have said they believe country's output target should be a higher 1.65 mb/d.

OPEC NGLs

OPEC NGL and condensate projects slated for start-up over the 2009-10 period will add 2.0 mb/d to capacity when output levels reach peak. Despite the current weak market outlook, the long-lead time expansion projects are moving forward. Almost all the projects currently slated to come online over the next 18 months have been plagued by delays related to construction, engineering and other technical complications. A shortage of skilled labour has also slowed the project timelines. Middle East producers Saudi Arabia, Qatar, Iran and the UAE will provide 90% of the increase while Nigeria accounts for the remaining 10%.

The critical need to boost natural gas output for reinjection at aging oil fields is a key focus for many of the projects. In the Middle East, a shortage of gas supplies needed to meet rapidly rising domestic demand from the power sector, at desalination plants and for industrial use has also ensured that expansion plans stay the course.

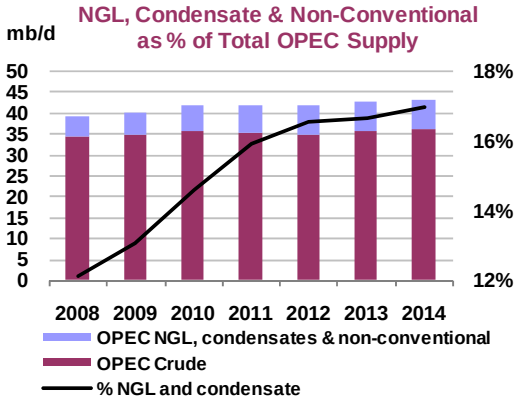
OPEC UPSTREAM NGL & CONDENSATE PROJECT START-UPS

Country	Project	Peak Capacity (kb/d)	Start Year
Iran	Pars 6-8 Condensate	80	2009
Iran	Pars 6-8 NGL	50	2009
Iran	Pars 9-10 Condensate	80	2009
Iran	Pars 9-10 NGL	34	2009
Nigeria	Akpo	175	2009
Qatar	RasGas Train 6 NGL	45	2009
Qatar	Qatargas 2 Train 4	160	2009
Qatar	Qatargas 2 Train 5	160	2010
Qatar	Qatargas Trains 6 Condensate	140	2010
Qatar	Al Khaleej Gas-Phase Two (AKG-2)	40	2009
Saudi Arabia	Khursaniyah Condensate	80	2009
Saudi Arabia	Khursaniyah NGL	210	2009
Saudi Arabia	Hawiyah	300	2009
Saudi Arabia	Khurais Condensate	70	2009
UAE	Habshan OGD 3 Gas Plant Expansior	270	2009
UAE	Asab 2 NGL	71	2010

Saudi Arabia's capacity increases account for 34% of the growth over the 2009-10 period, with peak capacity additions totalling 660 kb/d. The non-associated Hawiyah NGL Recovery Project will provide about half of the growth, with peak capacity of 300 kb/d reached around 2011. The project's start-up

was delayed from 2008 to 2009. The Khursaniyah gas processing facility has also been overwhelmed with delays and installed capacity of 290 kb/d NGL production is not expected to be operational now until end-2009. An additional 70 kb/d of condensate capacity is linked to the massive 1.2 mb/d Khurais oil field development, which formally launched in June, 2009. It is unclear, however, when the new capacity will be fully brought online given Saudi Aramco's challenge of adjusting its surplus crude operating capacity in the current weak demand environment.

After overcoming considerable construction and technical delays, **Qatar** is on track to ramp up gas liquids by a further 545 kb/d by end 2010 with six projects at the prized North Field. Major capacity increments are expected from Qatargas Trains 4, 5 and 6 with a combined capacity of 460 kb/d. Start-up of the Al Khaleej Gas Phase 2 Project (AKG-2), which is being developed as part of the Ras Laffan LNG expansion project, will contribute 40 kb/d to condensate production capacity. AKG-2 is being developed to supply natural gas to domestic markets while associated condensate and natural gas liquids is for export.



Iran plans to increase its condensate and NGL capacity by about 245 kb/d over the 2009-10 period. Iran's massive South Pars project has suffered delays and costly overruns but completion of Phases 6-10 is expected to provide the lion's share of the growth in capacity. The gradual start-up of capacity at South Pars 6, 7 and 8 is key to the country's enhanced oil recovery project at the onshore Aghajari field. The gas reinjection project is designed to boost output levels by about 100 kb/d but technical issues, the field's age, and challenging corrosive issues with the pipeline, may limit the recovery rate.

Other projects in Iran, such as the Anaran development, are on hold for now. StatoilHydro pulled out of the project earlier this year, in part due to the costly overruns the company suffered during the development of Phases 6-8.

The **UAE** plans to add around 340 kb/d of installed capacity by end 2010, with start-up of the delayed 270 kb/d Habshan OGD3 processing facilities slated for later this year.

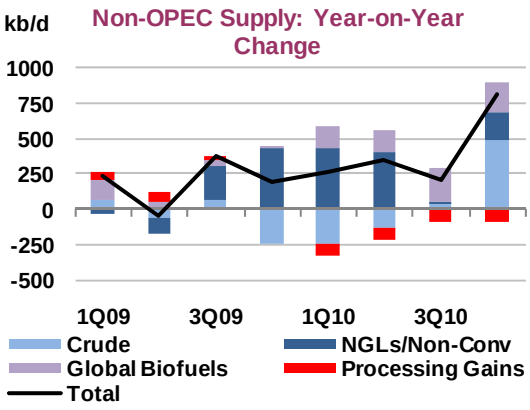
Nigeria's start-up of the Total-operated Akpo gas/condensate project will increase Nigeria's installed capacity by a further 175 kb/d. The Akpo development came online ahead of schedule, in April 2009. Nigeria's gas liquids capacity will also be augmented this year as production from the Agbami and EA fields, brought online in the second half of 2008, ramp up to peak levels, to 50 kb/d and 40 kb/d, respectively.

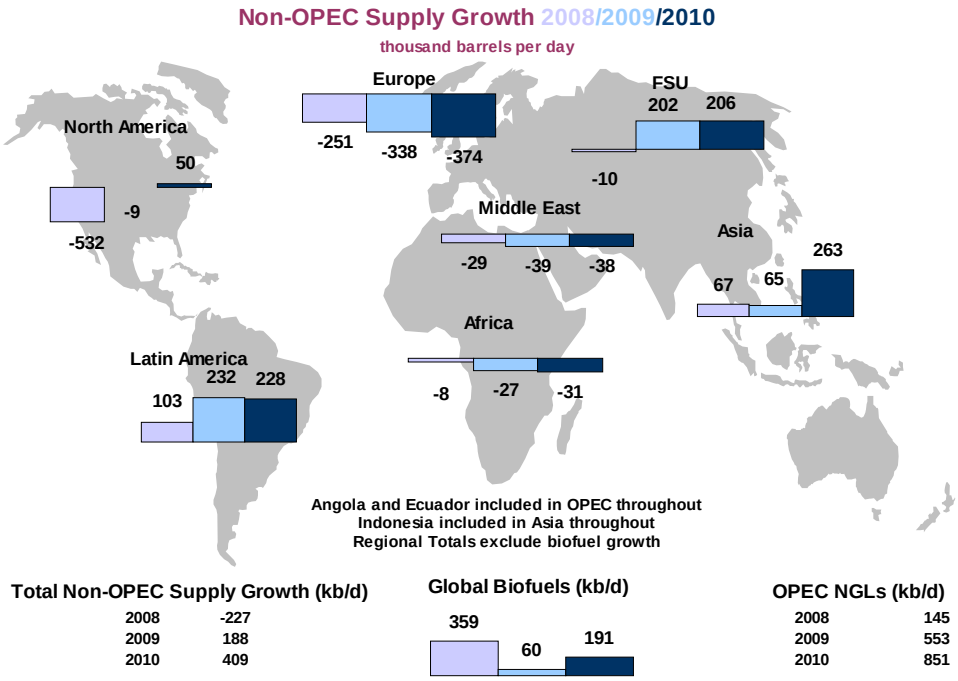
The 2010 Outlook for Non-OPEC Supply

Overview

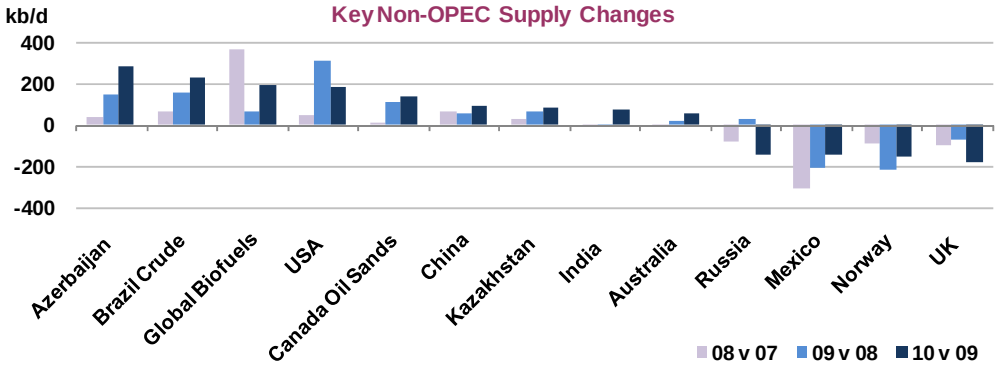
Non-OPEC supply in 2010 is forecast to grow by 410 kb/d to 51.2 mb/d, led by increases in the Caspian region, Brazil (both crude and fuel ethanol), the US, China, India and Australia. This magnitude of year-on-year growth would bring 2010 approximately in line with 2006 and 2007, the last two relatively hurricane damage-free years. Total non-OPEC supply declined in 2008 and growth is assumed to be less pronounced in 2009 (indeed, until recent upward revisions, we had assumed a year-on-year decline in 2009). As is true for the 2009-2014 period highlighted in the 2009 Edition of the *MTOMR*, net 2010 growth almost exclusively stems from higher NGL and non-conventional output (together +260 kb/d) and global biofuels (+190 kb/d). Crude output meanwhile shows a more meagre increment (+50 kb/d) and refinery processing gains decline (-90 kb/d), in part as incremental condensate and NGL supplies back out crude throughputs.

The weak non-OPEC profile is a reflection of trends discussed previously in this report, including chronic project slippage and cost inflation. Indeed, many of the upstream projects expected to start up in 2010 were originally scheduled to commence earlier and have thus slipped into 2010 and beyond. In addition, the main impact of the financial crisis and economic recession on oil supply has been to halve oil prices and curb upstream investment. Beyond unplanned project slippage, we have therefore seen conscious delays or even cancellations, with for example many Canadian oil sands projects such as Algar, Carmon Creek 1, Athabasca 2 and Firebag 3 put on hold.





However, at the time of writing, oil prices continued to hover around $60/bbl, compared with a low of around $35/bbl reached in February 2009, and against a background of ongoing vigorous debate over the timing and pace of economic recovery. While stronger-than-expected actual 1H09 production data subtly change the baseline supply picture from the one painted in the June 2009 *MTOMR*, it remains the case that non-OPEC supply growth, and conventional crude in particular, faces the prospect of stretched lead times and still slower growth in the medium term.



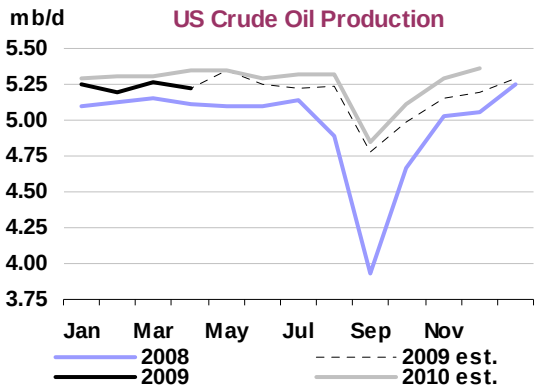
Revisions to Non-OPEC Oil Supply
(million barrels per day)

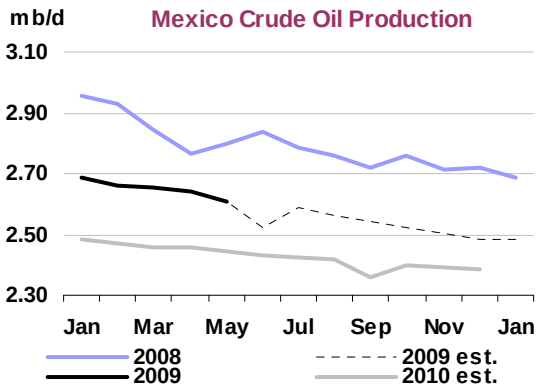
	Last month's OMR				This month's OMR				Change			
	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08	2008	2009	08 v 07	09 v 08
North America	13.92	13.90	-0.35	-0.02	13.91	13.96	-0.36	0.05	-0.01	0.06	-0.01	0.07
Europe	4.77	4.41	-0.24	-0.36	4.77	4.44	-0.24	-0.33	0.00	0.03	0.00	0.03
Pacific	0.65	0.67	0.02	0.03	0.65	0.68	0.02	0.03	0.00	0.00	0.00	0.00
Total OECD	**19.34**	**18.98**	**-0.57**	**-0.36**	**19.33**	**19.07**	**-0.58**	**-0.25**	**-0.01**	**0.09**	**-0.01**	**0.10**
Former USSR	12.76	12.76	-0.01	0.00	12.76	12.96	-0.01	0.20	0.00	0.20	0.00	0.20
Europe	0.12	0.11	-0.01	-0.01	0.14	0.13	-0.01	-0.01	0.02	0.02	0.00	0.00
China	3.79	3.85	0.06	0.06	3.79	3.84	0.06	0.05	0.00	0.00	0.00	0.00
Other Asia*	3.66	3.65	-0.02	0.00	3.67	3.66	-0.02	-0.01	0.01	0.00	0.00	-0.01
Latin America*	4.12	4.41	0.19	0.29	4.13	4.40	0.18	0.27	0.01	-0.01	-0.01	-0.01
Middle East	1.62	1.55	-0.04	-0.07	1.65	1.61	-0.03	-0.04	0.03	0.06	0.01	0.04
Africa*	2.55	2.53	0.00	-0.02	2.53	2.50	-0.01	-0.03	-0.02	-0.03	-0.01	-0.01
Total Non-OECD*	**28.63**	**28.87**	**0.18**	**0.24**	**28.67**	**29.11**	**0.17**	**0.44**	**0.04**	**0.24**	**-0.01**	**0.20**
Processing Gains	2.24	2.29	0.07	0.04	2.24	2.29	0.07	0.04	0.00	0.00	0.00	0.00
Other Biofuels	0.38	0.35	0.10	-0.04	0.38	0.35	0.10	-0.04	0.00	0.00	0.00	0.00
Total Non-OPEC*	**50.59**	**50.48**	**-0.22**	**-0.11**	**50.62**	**50.82**	**-0.23**	**0.19**	**0.03**	**0.33**	**-0.02**	**0.30**

OMR = Oil Market Report
* adjusted to include Indonesia and exclude Angola and Ecuador throughout

OECD

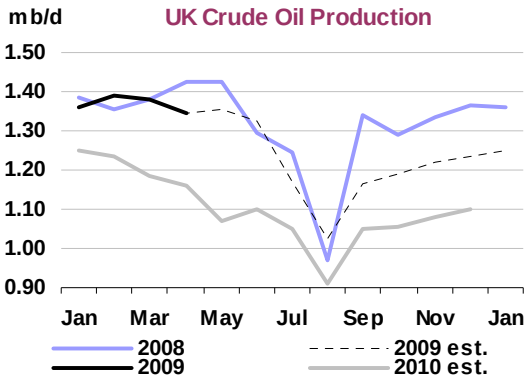
OECD oil supply is forecast to decline in 2010, albeit at a slower pace than in 2008 and 2009, now contracting by 170 kb/d to 18.9 mb/d. Assuming a five-year average hurricane impact, **total North American supply** is set to grow by 125 kb/d in 2010, in strong contrast to 2008's hurricane-affected decline of 360 kb/d, and modest expected growth of 50 kb/d in 2009. The US is expected to see a total increase of 180 kb/d as new fields in the Gulf of Mexico come on stream or ramp up production. These include first oil from Chinook/Cascade, Droshky and Thunder Hawk, as well as increased output at Great White, Marlin, Perdido, Shenzi, Tahiti, and the full ramp-up at Thunder Horse, amongst others. NGL and biofuels output will also increase in 2010. In contrast, oil production in Alaska, California, Texas and other Lower-48 will see continued decline.

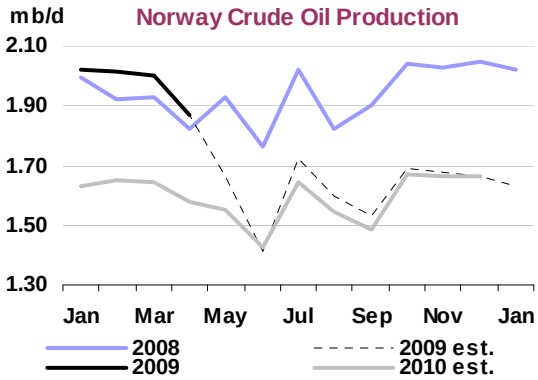




In **Canada**, total oil sands production, including both in-situ output and production from mining operations, should prove one of the larger contributors to overall non-OPEC supply growth, growing by 140 kb/d in 2010. This should help to offset decline in conventional crude, with total Canadian supply increasing by 90 kb/d, an improvement from overall declines in 2008 and 2009. Total 2010 oil output is expected to reach 3.27 mb/d. Oil supply in **Mexico** will contract by 150 kb/d to 2.81 mb/d in 2010, as a sharp decline at key mature fields, notably Cantarell, fails to be offset by attempts to increase output at Ku-Maloob-Zaap (KMZ), now Mexico's largest producing field, and a gradual rise at the onshore Chicontepec complex.

OECD Europe production is forecast to decline by a sharp 360 kb/d to 4.08 mb/d in 2010, its steepest contraction since 2006, though on a similar trend. Oil production in the **UK** is forecast to fall by 180 kb/d to 1.32 mb/d in 2010. Despite some new field start-ups in 2009 and 2010 such as Brodgar & Callanish, Chestnut, Curlew, the Don satellites, Emerald, Ettrick, Grant, Grouse, Maria and Perth, steady decline in the mature basin appears unavoidable. **Norway** is a similar story, with total output set to fall by 160 kb/d to 2.08 mb/d in 2010. While decline rates in general are not quite so steep, the list of new start-ups is shorter, including Tyrihans, Vilje/Klegg and Yme. Other OECD Europe is forecast to see small contractions across the board, with total production falling 30 kb/d to 680 kb/d.

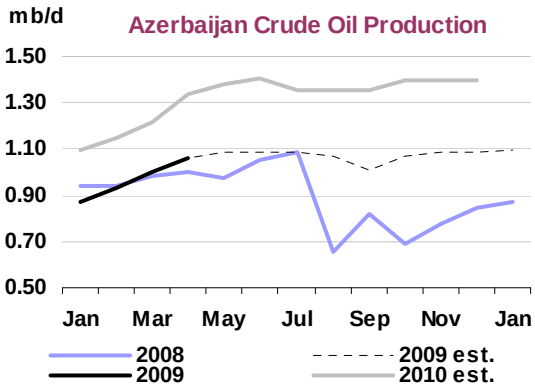


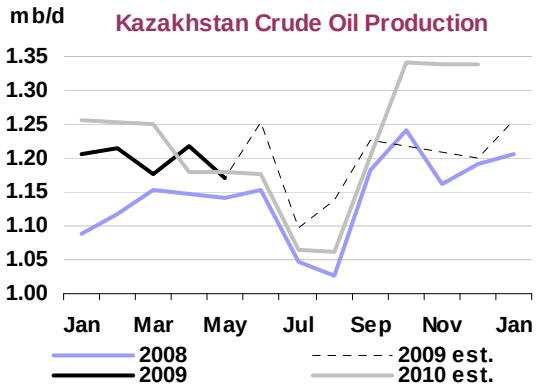


Oil production in the **OECD Pacific** should rise by 70 kb/d to 740 kb/d in 2010. **Australia** is set to see a sizeable increase of 50 kb/d, with ramp-up at Angel and Puffin increments, and start-ups at Pyrenees and Van Gogh offsetting decline elsewhere. NGL output is also expected to increase in line with increased gas production. Total 2010 oil supply should reach 620 kb/d, its highest since 2002. **New Zealand** will also see output increase, by 20 kb/d to 90 kb/d, as the Maari and Kupe fields ramp up and add new crude and condensate production respectively.

Non-OECD

Non-OECD countries, in contrast to the OECD, will see total oil supply rise by 600 kb/d to 29.7 mb/d. Regionally, most growth stems from Latin America, largely due to higher Brazilian crude and fuel ethanol production, but individually, Azerbaijan is set to see the highest increase in oil production. FSU production should rise by 210 kb/d, while output in China and Other Asia will grow by around 100 kb/d each. Africa and the Middle East in contrast will see production dip by 30-40 kb/d.





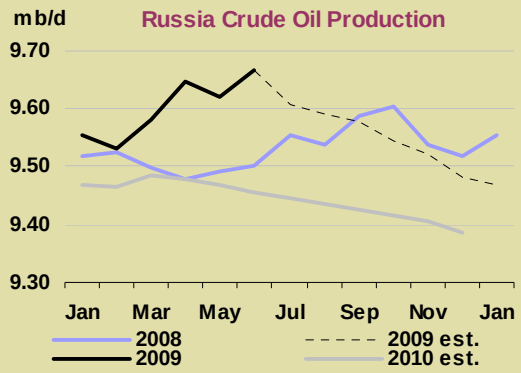
Total **FSU** supply is forecast to rise by 210 kb/d to 13.2 mb/d in 2010, with increases in Azerbaijan and Kazakhstan of 280 kb/d and 75 kb/d respectively offsetting a decline of around 150 kb/d in Russia. For a discussion of Russia's production outlook, see below. **Azerbaijan**, which was hit by problems at its offshore Azeri-Chirag-Guneshli (ACG) fields in late 2008, is expected to see a return to full output and

more in 2009 and then another 300 kb/d increment at ACG in 2010, offsetting small declines from mature onshore areas. Total production is seen at 1.33 mb/d in 2010, thus showing the largest single-country increase in 2010. Oil production in **Kazakhstan** is set to increase by 75 kb/d in 2010, reaching 1.55 mb/d, with steady increases at the large Tengiz and Karachaganak complexes.

Russia: Strong 1H2009 Performance Prompts Upward Adjustment

Six consecutive months of higher-than-expected production from Russia have prompted us to revise up our forecast for the rest of this year and 2010 by 110 kb/d and 260 kb/d respectively. Widespread pessimism surrounded prospects for Russian supply at the turn of the year and early signs of higher output data were seen as potentially temporary due to new field start-ups and other factors. But half a year's worth of data paints a picture of rather more robust production for the whole of 2009.

Some of the factors earlier envisaged as restraining Russian oil production have changed. The fiscal environment has relaxed slightly, with lower and more frequently calculated export duties, but also tax breaks for some new fields and other incentives perhaps in the offing. The pick-up in oil prices from February has clearly helped, as has the weaker rouble, encouraging exports and strengthening the impact of cost reductions. Most importantly, new fields, including Lukoil's Yuzhno-Khylchuyuskoye, TNK-BP's Uvat expansion and increments at Sakhalin 1 and 2, have undoubtedly contributed to the higher production levels reported so far this year, having built up more rapidly than originally expected. Indeed, with the exception of Yuzhno-Khylchuyuskoye, which has reportedly already nearly reached its capacity of 150 kb/d, the other fields may yet contribute even more growth. Significantly, Rosneft's imminent start-up of its huge Vankor project should add more crude in the second half of the year. As a result, we have boosted the production forecast for these companies, but remain more downbeat on some others.



The result is that Russia is now expected to see a small increase in output in 2009 of around 30 kb/d to 10.03 mb/d, compared with a decline of 80 kb/d we had assumed in the last report. Trend-wise however, we still foresee a dip towards the end of the year as the winter stoppages kick in and the above-mentioned new fields reach capacity (excepting Vankor, expected to reach peak capacity around 2015). For 2010 we also remain more cautious, anticipating a decline of 150 kb/d to 9.88 mb/d, though this also represents a less sharp contraction from a higher base.

Russian oil production trends will remain difficult to predict. There is huge uncertainty about the likely direction of oil prices as well as much-discussed changes to the fiscal and legal environment in Russia. It is possible that attitudes towards foreign investors are changing, though this also remains far from certain (see *On Russia and the IOCs*). Some more large upstream projects are mooted besides Vankor, notably other fields in Eastern Siberia to fill the Eastern Siberia-Pacific Ocean (ESPO) pipeline. More generally, Russia still has much potential to hike output; beyond greenfield start-ups, increased drilling, the application of new technology, enhanced oil recovery (EOR) and satellite developments could all serve to boost production. Importantly, export infrastructure, once considered an obstacle to further growth, should no longer be an issue, if all planned pipeline expansions come on stream as planned (a *detailed discussion of various FSU export pipeline projects is included in the 2009 Edition of the MTOMR*).

In other words, our cautious stance notwithstanding, there is arguably more potential upside to Russian oil production than in many other countries currently experiencing a plateauing of output. Given Russia's current position as the largest oil producer in the world, but also taking into account all the uncertainties listed above, there is arguably also more downside risk to Russia's oil production profile than in many other producers.

Total **non-OECD Asia** including China is expected to see oil supply increase by around 200 kb/d to 7.7 mb/d in 2010. Around half of this growth stems from **China**, where production will rise to 3.94 mb/d on steady increases from newer offshore production, notably a doubling of output at the Penglai complex to 120 kb/d. Coal-to-liquids (CTL) output will also increase by around 40 kb/d, while production at older, mature fields such as Daqing, Shengli and Liaohe will dip. Another source of growth in Asia is **India**, where the imminent start-up at a group of fields in Rajasthan, including Mangala, Bhagyam and Aishwariya (the latter two albeit only contribute towards the end of 2010) will boost output by 90 kb/d in 2010. This offsets decline elsewhere and contributes to a 70 kb/d rise in 2010 to 870 kb/d total output. **Indonesia** should also see total oil production rise by around 50 kb/d to 1.07 mb/d in 2010, with increments at the Cepu, Bukit Tua, North Belut and Chevron's steam flood project at North Duri. Lastly, the inclusion of consolidated, annual data for **Pakistan** has lifted its baseline output by around 15 kb/d.

Oil supply in **Latin America** is forecast to rise 280 kb/d to 4.69 mb/d in 2010, almost wholly due to increases in crude and fuel ethanol production in **Brazil**. There, crude output is set to grow by 225 kb/d to 2.2 mb/d, while ethanol production should increase by 55 kb/d (and NGLs by 5 kb/d). Higher output will stem from ramp-up at several recent offshore platform additions, including Frade, Jubarte, Marlim Leste and Marlim Sul 2, Parque das Conchas and the Tupi pilot, the first pre-salt development. Total Brazilian total liquids supply will reach 2.81 mb/d in 2010, thus remaining one of the most promising areas of increasing non-OPEC production. Most other countries in Latin America are expected to show little change in 2010, but inclusion of annual data for NGLs in **Argentina** and total oil supply in **Cuba** see baseline revisions of around +20 kb/d and -5 kb/d respectively.

In **Africa**, total oil supply will see a decline of around 30 kb/d to 2.47 mb/d in 2010. **Sudan**, **Mauritania** and **Gabon** will increase production by 20 kb/d, 15 kb/d and 10 kb/d respectively, not quite offsetting declines in **Equatorial Guinea** (-35 kb/d), **Egypt** (-30 kb/d) and **Chad** (-10 kb/d). Revisions to historical data include downward adjustments to **Ivory Coast** and **Gabon** of around 30 kb/d and 20 kb/d respectively, while baseline production in **Tunisia** was raised by around 15 kb/d.

Lastly, total oil production in the **non-OPEC Middle East** will dip by 40 kb/d to 1.57 mb/d in 2010. This is almost wholly due to a 35 kb/d decline in output in **Syria**, where production will slide to 335 kb/d in 2010. While oil supply from **Oman** is not expected to change significantly in 2010, we have now adjusted output there to match data from the Joint Oil Data Initiative (JODI), which causes an upward adjustment of around 25 kb/d for 2007 and 2008 and a baseline rise of around 60 kb/d for 2009 and 2010.

FSU Exports

FSU net exports rose for a third consecutive month to an all-time high of 9.64 mb/d in May, supported by increases in both crude and product exports. Higher BTC and Druzhba pipeline volumes were partly offset by lower Baltic shipments and CPC deliveries, the first affected by Primorsk pipeline maintenance and the latter by work on the Tengiz field in Kazakhstan, the main source of crude for the CPC pipeline. Druzhba volumes were up by 3.1% as Russian oil companies resumed flows to Germany and Poland after earlier trading disputes. Product exports increased by 4.9%, backed by higher fuel oil, gasoil and gasoline exports following the end of the refinery maintenance season in Russia.

Oil exports in June and July should approach seasonal levels as an export volume drop is expected on all routes due to lower loading schedules, planned maintenance on Russian pipelines during the summer and an increase in Russian oil export duties. In July, the crude oil export duty will stand at $212.6/mt ($29/bbl), up almost 40% from $152/mt ($20.7/bbl) in June. The export duty for light and heavy oil products is $155.5/mt and $83.8/mt, up from $115.2/mt and $62.2/mt, respectively.

On Russia and the IOCs

Recent weeks have seen some signs of what might be a thawing in the attitude towards International Oil Companies' (IOCs) gaining upstream access in Russia. On 24 June, Total announced that it had signed an agreement for a 49% stake in exploring and developing Novatek's Termokarstovoye gas field in West Siberia. In itself this is a modestly sized project; however the partnership with Novatek could be valuable, with Total eyeing the prospect of cooperation on an LNG project for the massive South Tambey gas field. A few days later, on 27 June, Prime Minister Putin offered Shell the possibility of the operatorship for Sakhalin 3 and Sakhalin 4. Both IOCs are apparently also seen as potential candidates for the huge Yamal LNG project, and Total is hoping for an enhanced role in the later phases of the giant Shtokman offshore gas development, where phase 1 is due for its final investment decision in 2010.

Should all that happen, it would mark a new leaf in the saga of Russia and the IOCs. For several years Russia tightened its grip on national resources by putting pressure on IOC partners, while tempering the appetites of others with a generally hostile investment climate. A recent row between ExxonMobil and the Russian government concerning the Sakhalin 1 project's budget for 2008 and 2009 delayed the start-up of the Odoptu and Arkutun-Daginskoy fields with a combined 300 kb/d crude capacity by at least a year, before an agreement was reached in April this year. This led to fears that the Russian government's aim was ultimately to take on a larger share of the PSA, or even squeeze out Exxon – somewhat similar to Sakhalin 2, where Shell and Japan's Mitsui and Mitsubishi were forced to relinquish parts of their share and Shell's operatorship in favour of Gazprom in late 2006. That same year Total looked as if it might lose its production license on the third Russian PSA, the Kharyaga field, and in 2008 BP saw the edging out of its appointed CEO in its joint venture with TNK, and even expropriation worries over its ownership share in TNK-BP.

Resource nationalism tends to coincide with tighter markets and higher prices, while a downswing in the cycle can encourage more open access and receptive investment policies, particularly among countries struggling to sustain overall production. Russia has been hit harder than most by the economic recession and lower oil prices, and a lack of investment has caused project slippage and more rapid decline from mature fields. In times when loans are difficult to obtain, foreign direct investment might seem more attractive. IOCs are keen to get access to Russia's much-prized reserves and in return offer to help the resource giant realise more of its production potential. Russia could benefit from IOC expertise in helping to stem mature field decline, develop LNG and other complex vertically integrated projects.

Russian companies have also recently shown an increased appetite for overseas deals. A few days before Total closed the Novatek deal it had secured a 45% ownership share for Lukoil in the French major's Vlissingen refinery in the Netherlands. Furthermore both Total and Shell have made tentative offers to Russian companies to join them in various African projects. The IOCs and Russia in theory have a lot to offer each other, but it remains to see if recent developments really do herald a change in attitude. IOCs in any case will probably still factor in substantial country risk when evaluating investments in Russia.

IOC	Selected Upstream Assets
ExxonMobil	Operates and holds a 30% share in Sakhalin I (PSA), partners with Rosneft affiliates (20%) and Japanese and Indian interests.
Shell	Holds a 27.5% share in Sakhalin II (PSA), operated by Gazprom-controlled Sakhalin Energy.
Total	Operates and holds a 50% share in the Kharyaga field (PSA), where Nenets Oil holds 10%. Holds a 25% share in the phase I development of the Shtokman gas field, where Gazprom holds a 51% share. Holds a 49% share in the Termokarstovoye field development project with Novatek.
ConocoPhillips	Holds a 30% share of the Yuzhno Khylchoyo (YK) field through a JV with Lukoil. Holds a 20% share in Lukoil, the largest privately owned Russian oil major.
BP	Holds a 50% share in TNK-BP, a vertically integrated oil and gas company.
StatoilHydro	Holds a 40% ownership share in the Kharyaga field and a 24% ownership share in the phase I development of the Shtokman gas field.

FSU Net Exports of Crude & Petroleum Products
(million barrels per day)

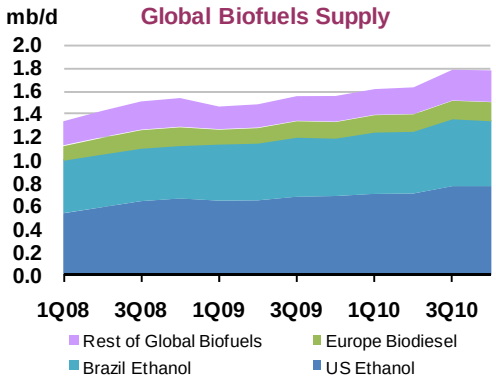
	2007	2008	2Q2008	3Q2008	4Q2008	1Q2009	Mar 09	Apr 09	May 09	Latest month vs. Apr 09	Latest month vs. May 08
Crude											
Black Sea	2.18	2.05	2.24	1.97	2.04	2.30	2.26	2.34	2.28	-0.05	0.09
Baltic	1.59	1.46	1.57	1.40	1.47	1.57	1.66	1.69	1.63	-0.06	0.00
Arctic/FarEast	0.32	0.30	0.26	0.29	0.37	0.46	0.47	0.46	0.44	-0.02	0.17
BTC	0.55	0.67	0.75	0.64	0.57	0.74	0.74	0.72	0.88	0.17	-0.05
Crude Seaborne	**4.63**	**4.48**	**4.82**	**4.30**	**4.45**	**5.07**	**5.13**	**5.20**	**5.24**	**0.04**	**0.20**
Druzhba Pipeline	1.13	1.08	1.05	1.03	1.09	1.14	1.10	1.08	1.12	0.03	0.01
Other Routes	0.44	0.42	0.44	0.46	0.40	0.40	0.36	0.36	0.41	0.06	-0.05
Total Crude Exports	**6.20**	**5.98**	**6.30**	**5.79**	**5.94**	**6.61**	**6.60**	**6.64**	**6.77**	**0.13**	**0.16**
Of Which: Transneft	4.27	3.99	4.17	3.87	3.96	4.22	4.25	4.37	4.35	-0.02	0.07
Products											
Fuel oil	1.10	1.09	1.13	1.04	1.04	0.96	1.02	1.13	1.15	0.02	0.14
Gasoil	0.95	0.94	1.01	0.79	0.92	1.10	0.97	0.89	0.92	0.02	-0.04
Other Products	0.60	0.59	0.60	0.55	0.56	0.73	0.73	0.76	0.85	0.09	0.23
Total Product	**2.65**	**2.63**	**2.74**	**2.38**	**2.52**	**2.78**	**2.71**	**2.78**	**2.91**	**0.14**	**0.33**
Total Exports	**8.85**	**8.61**	**9.05**	**8.17**	**8.46**	**9.39**	**9.31**	**9.42**	**9.68**	**0.26**	**0.49**
Imports	0.04	0.04	0.03	0.05	0.03	0.04	0.03	0.04	0.04	0.00	0.02
Net Exports	**8.82**	**8.57**	**9.01**	**8.12**	**8.43**	**9.35**	**9.28**	**9.38**	**9.64**	**0.26**	**0.47**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

Elsewhere, construction work on the Baltic Pipeline System 2 (BPS-2), from Unecha, a junction on the Druzhba pipeline near the Belarusian border, to the Russian Baltic port of Ust-Luga, started in June. Transneft will issue bonds worth Rbs135 bn (US$ 4.3 bn) to cover the construction of the line, which will have an initial capacity of 600 kb/d. Pipeline capacity will be later boosted to 1 mb/d and, if Transneft and Surgutneftegaz agree on financing, a spur to the latter's Kirishi refinery should also be built. (*A detailed discussion of various FSU export pipeline projects is included in the 2009 Edition of the MTOMR.*)

Other Sources of Supply Growth – Biofuels

After a 2009 in which annual growth slows to only 60 kb/d, global biofuels production in 2010 should increase by 190 kb/d. Almost 40% of this growth stems from US ethanol, which we see expanding by 75 kb/d to 730 kb/d. Despite near-term hardships and poor margins faced by operators, industry restructuring continues and some plants are being restarted – e.g. Valero is running six of the seven ethanol plants it acquired from bankrupt VeraSun and plans to start the seventh one in July. The US Renewable Fuels Standard, which requires the blending of 780 kb/d of conventional ethanol in 2010, provides a production floor and improving margins may emerge with next year's US summer driving season.



Brazilian ethanol accounts for 30% of 2010 growth as it is expected to rise 55 kb/d, predicated on continued capacity expansion. Yet, persistently high sugar prices, which induce switching away from ethanol production, and slower capacity expansion have led us to temper 2009's expected growth to 40 kb/d from a previous 60 kb/d. After a difficult 2009, European biodiesel production should rise 20 kb/d in 2010 as blending targets continue to increase. Still, we doubt whether domestic production alone can help the EU meet its target of 5.75% renewable fuels in the transport pool for next year.

OECD STOCKS

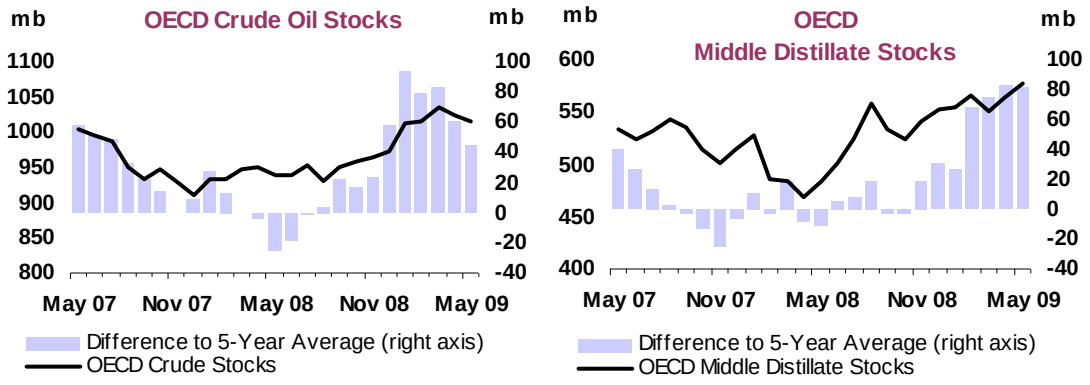
Summary

- **OECD industry stocks rose seasonally by 27.8 mb in May** to 2,768 mb, as a decline in crude and gasoline stocks only partially offset an increase in distillates and 'other products'. All three regions posted inventory gains, though the bulk of the increases came in North American 'other products', European crude and Pacific distillates.

- **OECD stocks in days of forward demand increased to 62.5 days** at the end of May from 62.3 days at the end of April, with rising stocks and downward OECD demand baseline revisions outweighing a seasonal increase in demand. On a days cover basis, gasoline stocks remain closest to normality with total OECD, North American and European inventories trending at or just above the five-year average.

- **Preliminary June data indicate total OECD industry oil inventories rose counter-seasonally by 12.2 mb,** led by gains in US product stocks. US total stocks rose 9.9 mb and principal products gained 14.6 mb as gasoline and distillate increased by 9.6 mb and 7.2 mb, respectively. Japanese stocks fell 5.5 mb as product draws of 9.8 mb outweighed a crude build of 4.3 mb. Euroilstock data show EU-16 inventories rose 7.8 mb with products and crude increasing by 6.7 mb and 1.2 mb, respectively.

- **Short-term crude floating storage levels continued to fall steadily** to around 60 mb by end-June from 85 mb at end-May. Yet, products short-term floating storage – mostly middle distillates off Europe - increased to almost 50 mb at the end of the month from 30 mb the previous month, with some reports indicating levels as high as 60 mb during mid-June.



OECD Inventory Position at End-May and Revisions to Preliminary Data

Total OECD commercial inventories rose seasonally by 27.8 mb in May to reach 2,768 mb. Over the past five years, the May total oil inventory build has normally been the largest of the year, averaging over 48 mb, with crude and middle distillates typically posting monthly gains. However, this year's stock change

Preliminary Industry Stock Change in May 2009 and First Quarter 2009

	May (preliminary) *(million barrels)*				May (preliminary) *(million barrels per day)*				First Quarter 2009 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**-8.5**	**8.2**	**-5.4**	**-5.7**	**-0.27**	**0.26**	**-0.18**	**-0.19**	**0.49**	**0.14**	**0.08**	**0.71**
Gasoline	-11.0	-0.4	-0.8	-12.2	-0.35	-0.01	-0.03	-0.39	0.06	-0.08	0.06	0.05
Distillates	4.6	2.3	6.2	13.1	0.15	0.08	0.20	0.42	0.00	0.07	-0.09	-0.02
Fuel Oil	3.5	2.0	-0.5	5.0	0.11	0.06	-0.02	0.16	0.03	-0.09	0.00	-0.06
Other Products	24.8	-0.5	0.2	24.4	0.80	-0.02	0.01	0.79	-0.08	-0.04	-0.04	-0.16
Total Products	**21.9**	**3.4**	**5.0**	**30.3**	**0.71**	**0.11**	**0.16**	**0.98**	**0.02**	**-0.15**	**-0.07**	**-0.20**
Other Oils[1]	2.6	-1.1	1.9	3.3	0.08	-0.04	0.06	0.11	0.03	-0.04	-0.01	-0.02
Total Oil	**16.0**	**10.4**	**1.4**	**27.8**	**0.52**	**0.33**	**0.05**	**0.90**	**0.53**	**-0.05**	**0.01**	**0.50**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

is marked by larger than normal draws in crude as North American refineries increased their intake to take advantage of rising gasoline cracks. These draws occurred despite the shedding of 30 mb of short-term crude floating storage globally during the month as contango in the crude futures curve narrowed.

As a result, the gap between OECD crude stocks and the five-year average continued to narrow to, an albeit still lofty, surplus of 44 mb, down from over 60 mb in April. By contrast, the middle distillate surplus to the five-year average remained over 80 mb with a short-term floating storage position that grew during the month. Preliminary June data suggest a continuation of these trends. Meanwhile, gasoline stocks, whose deficit to the five-year average grew in May to 14 mb, may have stabilised in June with preliminary data pointing to a counter-seasonal rise of 14.6 mb.

Still, May's stock change is dominated by a 24.8 mb build in the 'other products' category in the US. As noted previously, this category includes a wide range of products – naphtha, liquefied petroleum gases, petroleum coke, white spirits, lubricants, bitumen, and others – subject to a high degree of revisions, which may ultimately result in a more modest May products build than the provisional headline number indicates. Over the past twelve months, the US 'other products' category has experienced monthly revisions ranging from an upward adjustment of 10.9 mb in September 2008 to a downward move of 13.3 mb in October 2008.

Revisions versus 11 June 2009 Oil Market Report

(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Mar 09	Apr 09	Mar 09	Apr 09	Mar 09	Apr 09	Mar 09	Apr 09
Crude Oil	**6.3**	**-4.4**	**0.2**	**1.7**	**0.8**	**0.9**	**7.3**	**-1.7**
Gasoline	0.2	-1.0	1.0	2.7	0.0	0.8	1.3	2.5
Distillates	0.2	-1.0	-2.2	0.8	0.0	-0.2	-1.9	-0.4
Residual Fuel Oil	-0.1	-3.7	-5.3	-0.4	0.0	0.2	-5.4	-3.9
Other Products	0.2	-9.7	0.0	-0.3	0.0	0.2	0.2	-9.8
Total Products	**0.5**	**-15.4**	**-6.4**	**2.8**	**0.0**	**1.0**	**-5.9**	**-11.6**
Other Oils[1]	-1.3	0.7	0.6	0.0	0.0	0.3	-0.7	0.9
Total Oil	**5.5**	**-19.1**	**-5.7**	**4.5**	**0.8**	**2.2**	**0.6**	**-12.4**

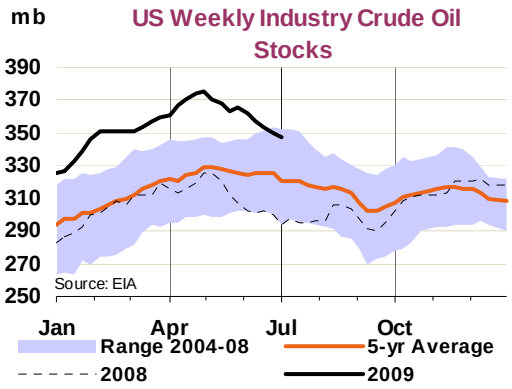
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

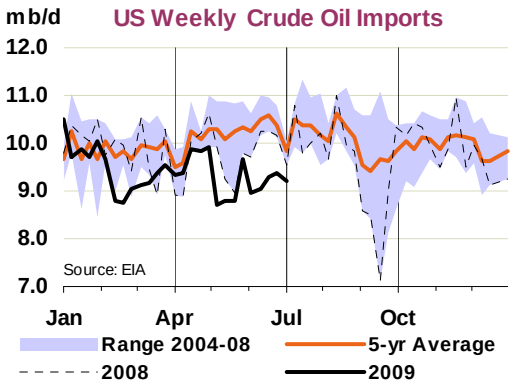
Indeed, 'other products' stocks in April experienced the largest revision of any category as US levels were revised down by 10.4 mb. By comparison, total OECD industry stocks were revised down by 12.4 mb for the month. North America contributed most strongly to the April revisions. In addition to the change in 'other products', US crude was revised down by 10.3 mb and Canadian crude was revised up by 5.3 mb.

Analysis of Recent OECD Industry Stock Changes

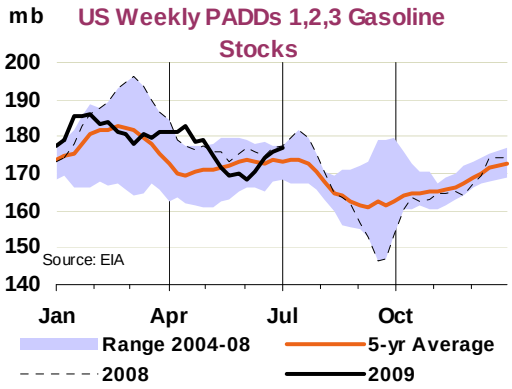
OECD North America

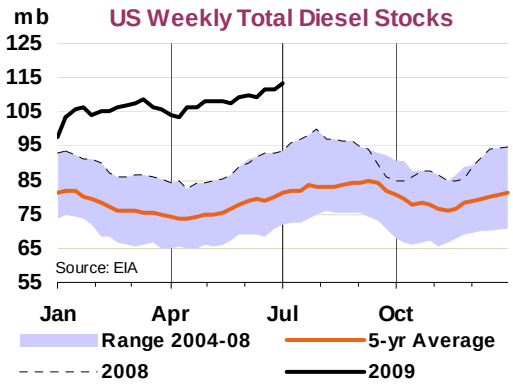
North American industry stocks rose by 16 mb in May as a large gain in US 'other products' stocks (+24.8 mb) outweighed draws in crude and gasoline. An examination of US weekly data underpinning the May stock change shows that 25% of the 'other products' rise can be accounted for by increases in propane stocks. The remainder, however, falls under the US Energy Information Administration's (EIA) 'other oils' moniker. EIA *estimates* these levels (they are not reported in weekly surveys), which include an opaque range of naphthas, NGLs, light/middle distillates and residuals. US monthly crude stocks decreased for the first time since July 2008, by 11.2 mb, as imports fell and refinery runs increased to take advantage of higher gasoline margins. Filling of the US Strategic Petroleum Reserve (SPR) increased government crude holdings by 2.9 mb. Mexican industry stocks rose 1.5 mb as crude increased 2.7 mb, more than offsetting a gasoline fall of 1.1 mb.





June preliminary weekly EIA data point to a 9.9 mb build and the highest US total industry stocks since September 1990. US industry crude stocks fell by 16.2 mb, as refinery runs continued to increase and imports remained low. Despite evidence of some short-term crude floating storage discharge, US crude stocks drew down faster than the five-year average change. Government crude holding increased by a further 2.3 mb, but the SPR filling rate is now expected to stay at zero until September.





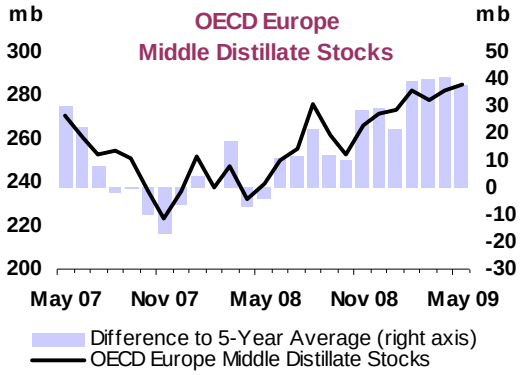
Product stocks jumped 26.1 mb in June with gasoline showing a counter-seasonal gain of 9.6 mb and distillate increasing by 7.2 mb. Higher refinery output of gasoline as well as somewhat healthier imports helped gasoline stocks return to above five-year average levels by month-end. US diesel stocks continue to be buoyed by consistently low distillate demand readings. Principal product stocks (gasoline, distillate, jet/kerosene, residual fuel oil) accounted for just over half of the products build, though, as they rose 14.6 mb. More volatile categories such as propane (+9.8 mb) and 'other oils' (+3.8 mb) continued to constitute a significant portion of the monthly change.

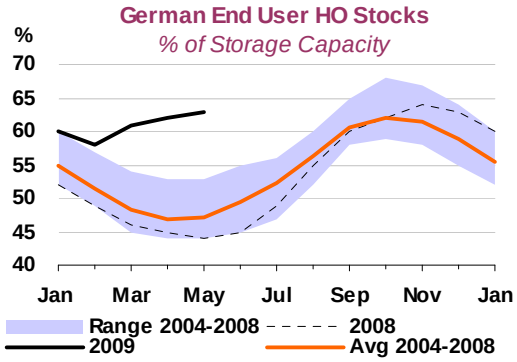
OECD Europe

European inventories rose by 10.4 mb in May, mostly due to an 8.2 mb increase in crude inventories. Product inventories rose by 3.4 mb as distillate increased 2.3 mb, residual fuel rose 2.0 mb and gasoline fell slightly. The region's healthy distillate buffer continued to grow as primary stocks increased in parallel with German consumer heating oil stocks. End-May readings showed that capacity fill levels increased from 62% at end-April to 63% (a 2.0 mb build). This puts German consumer heating oil stocks fill levels almost twenty percentage points above May 2008 levels and already higher than the five-year average reading for October, the beginning of the heating season. In addition, a sizeable amount of distillate floating storage remains offshore.

European gasoline stocks continued to trend well below the five-year average on an absolute basis in May, but have increased above the five-year average on a days of forward cover basis. Atlantic Basin arbitrage opportunities provided a destination for European gasoline supplies in the early part of June, but weakening US gasoline margins in the later part of the month caused this outlet to contract. The

balance between more limited export opportunities to the Middle East and domestic refinery problems in Nigeria, another export destination, may influence the gasoline stock position ahead.

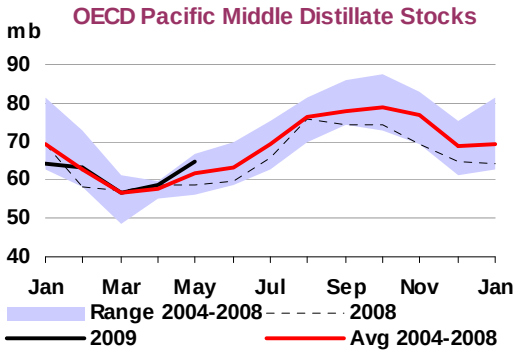


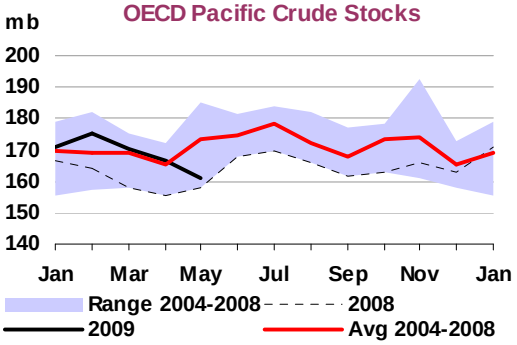


Indeed, June preliminary data showed gasoline stocks held in NW Europe independent storage rising on the month back to five-year average levels. Overall product stocks fell slightly on the month, with gasoil and residual fuel oil posting declines. Preliminary data from Euroilstock indicate EU-16 inventories also posted a gasoline increase, with levels rising by 5.1 mb in June. Overall products rose by 6.7 mb and distillate stocks grew by 2.7 mb while EU-16 crude stocks edged up by 1.2 mb.

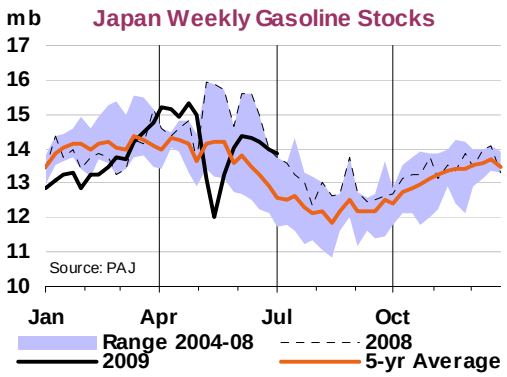
OECD Pacific

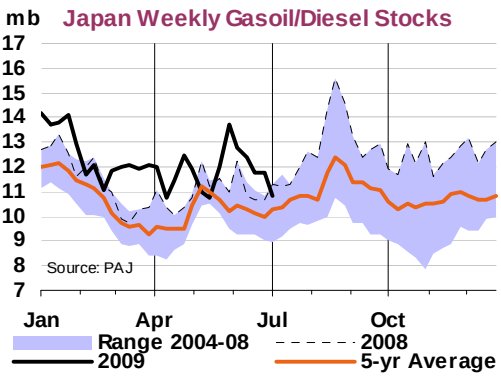
Pacific industry stocks increased by 1.4 mb in May, as a rise in products more than offset a decline in crude. Product stocks rose 5.0 mb on the back of a 6.2 mb rise in distillates. Gasoline and residual fuel oil both posted small decreases of 0.8 mb and 0.5 mb, respectively. Crude declined by 5.4 mb.





Japanese weekly data from the Petroleum Association of Japan point to a commercial stock draw of 5.5 mb for June with crude rising by 4.3 mb and products falling by 9.8 mb as refinery runs remained at historically low levels. Gasoil and naphtha stocks fell by 2.4 mb and 2.1 mb, respectively. Gasoline changed little and kerosene built by 1.2 mb.

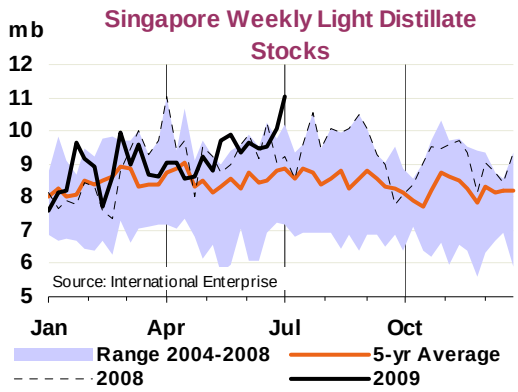


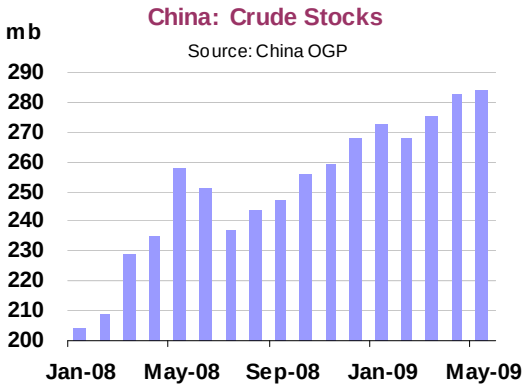


Most major product categories stand at or above the five-year average. Naphtha stocks, the exception, are running at three-year lows on an absolute basis, but look healthier than last year's readings on a days cover basis. Despite overall weak refinery utilisation, onshore crude stocks continue to trend in the bottom half of the five-year range.

Recent Developments in Singapore and China Stocks

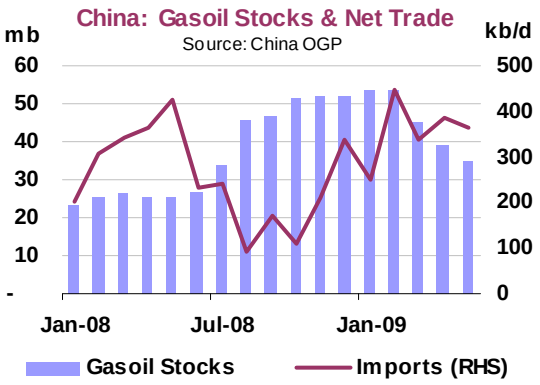
Singapore product stocks expanded in June by almost 4 mb to reach new five-year highs as all product categories increased. Light distillate stocks rose by 1.4 mb and middle distillate stocks increased by 1.6 mb. Residual fuel oil inventories rose by 0.9 mb.

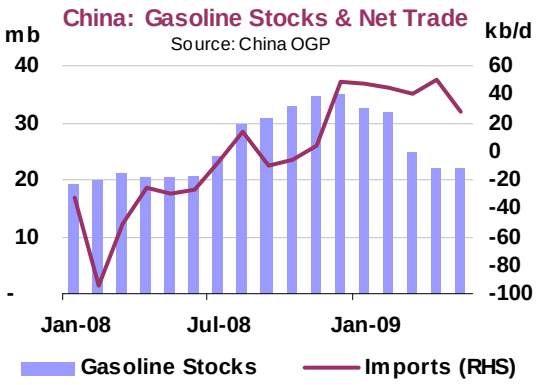




China crude oil stocks reported by China *Oil Gas and Petrochemicals (OGP)* increased by 1.1 mb (35 kb/d) in May as an increase in crude net imports to their highest level since March 2008 offset higher monthly refinery runs. At 284 mb, end-May crude stocks stood 25.7 mb (10.0%) above levels of a year ago.

Evidence of product destocking continued as Sinopec and Petrochina reported their gasoil inventories decreasing by 4.0 mb, despite still strong net imports, and gasoline stocks staying level on the month. Yet, an anticipated rise in retail product prices at the end of May likely contributed to 'social storing', the practice of stockpiling by wholesalers and retailers as described by *OGP*. May marked the fifth consecutive month of measurable product draws. At 57.0 mb, combined gasoline and gasoil inventories stood 11.3 mb (24.7%) above levels of a year ago.

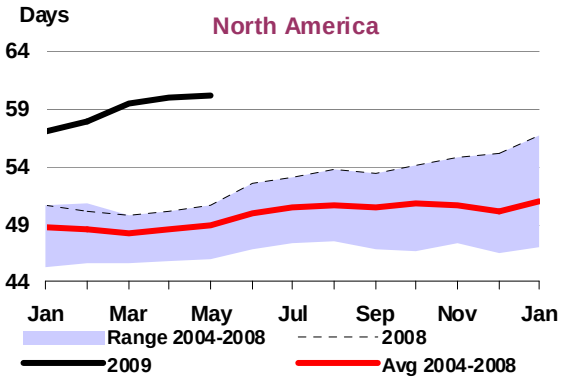


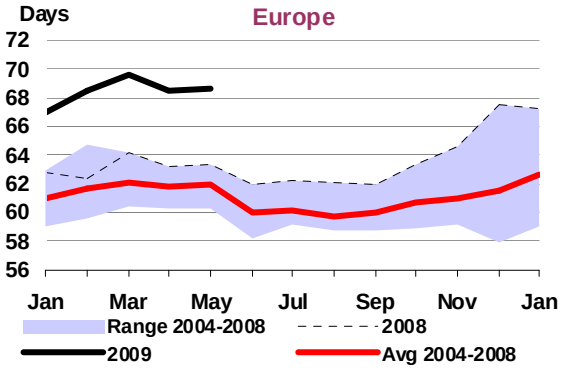


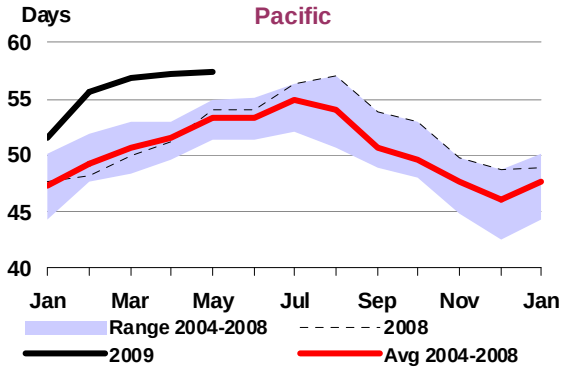
Regional OECD End-of-Month Industry Stocks

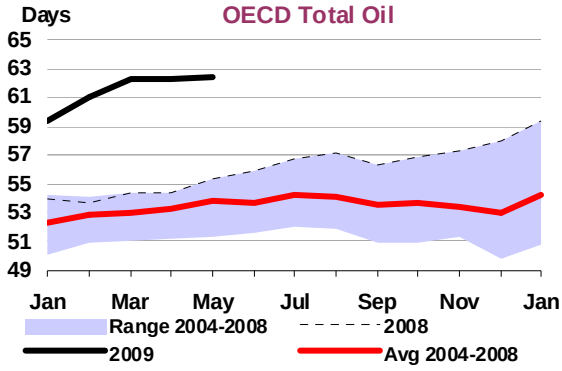
(in days of forward demand and millions barrels of total oil)

Days[1]

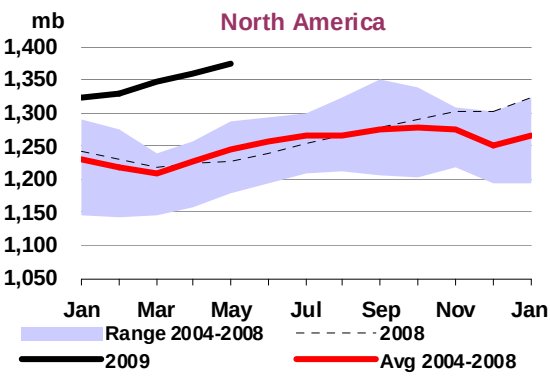


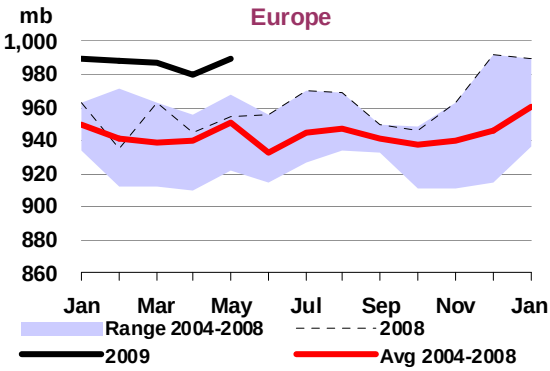


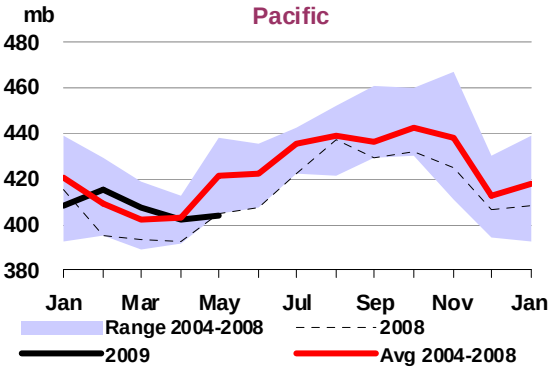


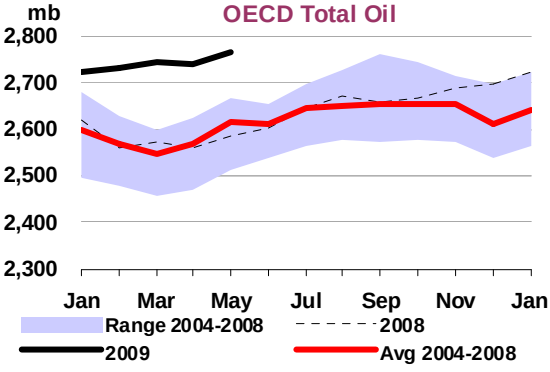


Million Barrels







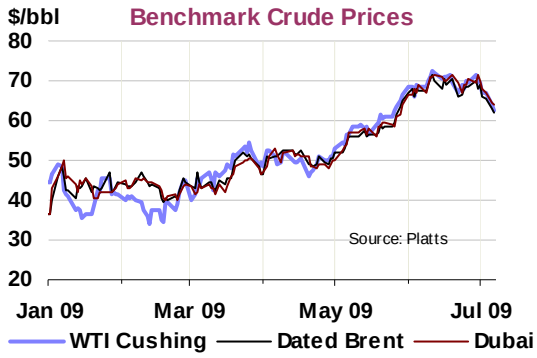


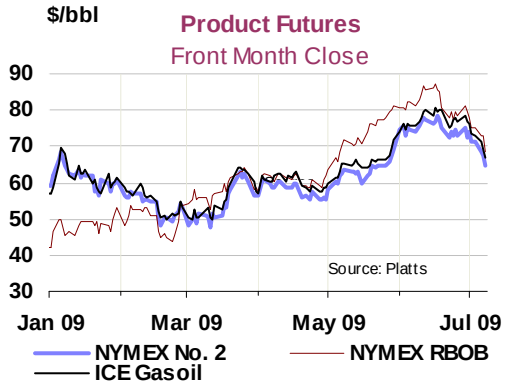
1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **The four-month rally in oil prices stalled in mid-June.** Economic optimism consistently overshadowed anaemic oil supply and demand fundamentals in the first half of the year. The upward price path, however, reversed course by mid-June as expectations for a recovery in the global economy receded further into the future and hopes for a more normal peak gasoline season faded.
- Supply and demand data only partially explain price moves this year as oil futures have also tracked the upward momentum in equity markets and a weakening dollar. Prices for WTI and Brent rose on average by almost $11/bbl last month, to $69.70/bbl and $69.27/bbl, respectively. However, **growing concerns about the path of economic recovery forced traders to focus on the persistently high oil stocks and collapsing demand** and, by early July, benchmark crude prices plunged to eight-week lows, last trading in a range of $60-62/bbl.
- **The deep recession in the US has undermined the beginning of the much-anticipated summer gasoline season.** Moreover, the sharp downturn in global economic activity is having the greatest impact on distillate use, with industrial and transport demand hard-hit in all the major consuming regions. With the gasoline season disappointing so far, swelling stocks of distillates have cast a cloud over the market outlook for 3Q09. A marked increase in refinery throughput rates to maximise gasoline output for the summer made a dent in the global crude inventory surplus, but also translated into a corresponding build in stocks of refined products.
- **Refinery margins steadily eroded after mid-month as product price were outpaced by double-digit increases in crude oil prices.** Higher throughput rates by US, Asian and European refiners largely translated into growing stockpiles of refined products, especially middle distillates, depressing refining margins across all the regions.





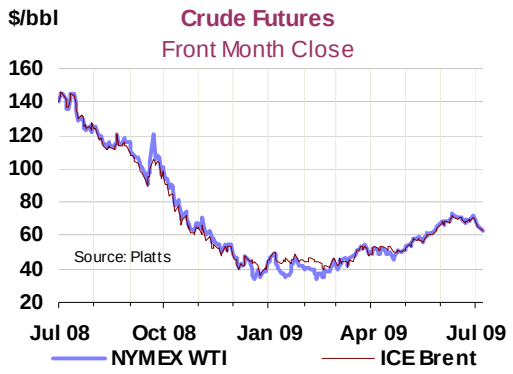
Overview

Prices for benchmark crudes scaled eight-month highs by mid-June, with WTI trading over $72.50/bbl, fueled largely by robust gasoline markets. But the upward price path slowed markedly as June progressed and reversed course by mid-month as hopes for a more normal peak gasoline season faded and the realisation that a recovery in the global economy remained elusive.

Futures prices for WTI and North Sea Brent rose on average by almost $11/bbl last month, to $69.70/bbl and $69.27/bbl, respectively. A sharp increase in gasoline crack spreads ahead of the peak summer driving season in North America and increased demand for spot crude as refiners came out of turnaround supported prices early in June. A flurry of new forecasts by some investment banks raising their price outlooks for this year and 2010 also appears to have helped fuel the rally.

A year ago, futures prices for WTI reached a milestone when they closed at $145.29/bbl on 3 July. After sliding almost 75% to a low of $34/bbl in February, prices more than doubled to over $72/bbl in mid-June. Unlike last July's runaway escalation in prices, the realty of a more persistent global economic downturn appears to have put the brakes on this year's otherwise at times perplexing rise in prices.

By July, prices were some $10/bbl lower than average June levels as the deep recession in the US undermined the beginning much-anticipated summer gasoline season and economic optimism gave way to a cloud of pessimism.



Heightened political tensions in Iran and an escalation in militant attacks on Nigeria's oil infrastructure initially tempered the downturn. Yet a steady rise in OPEC crude supplies and increased spare OPEC production capacity then dampened supply worries over Iran and Nigeria and added further downward pressure on prices. Crude oil production by OPEC members rose for the third month in June, up 75 kb/d to 28.68 mb/d. Indeed, the latest concerns over Nigerian and Iranian oil supplies may have had the unintended consequence of focusing traders' attention on substantial increases in OPEC production capacity planned for this year and next (*see OPEC Supply*).

However, supply concerns were overshadowed by growing worries over the pace and depth of a recovery in global economic markets. The bullish market sentiment in financial markets turned decidedly weaker as a steady stream of worse-than-expected economic data and talk of 'green shoots' being overdone intensified. Despite more positive reports from international organisations such as the IMF and OECD for an economic recovery, when the US government issued an exceptionally negative labour report this acted to deflate some otherwise positive expectations. The World Bank's downward revision for GDP growth in a number of developed countries also struck a chord.

Prompt Month Oil Futures Prices

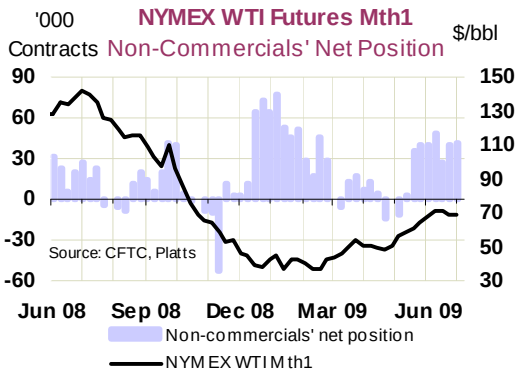
(monthly and weekly averages, $/bbl)

	Apr	May	Jun	Jun-May		Week Commencing:				
				Avg Change	%	08 Jun	15 Jun	22 Jun	29 Jun	06 Jul
NYMEX										
Light Sweet Crude Oil	49.95	59.21	69.70	10.48	15.0	70.83	70.61	68.85	69.36	63.49
RBOB	60.60	72.92	82.10	9.18	11.2	84.22	84.93	78.69	78.57	72.94
No.2 Heating Oil	57.78	63.12	75.10	11.98	15.9	76.43	76.67	73.43	73.17	67.77
No.2 Heating Oil ($/mmbtu)	9.92	10.84	12.89	2.06	15.9	13.12	13.16	12.61	12.56	11.63
Henry Hub Natural Gas ($/mmbtu)	3.56	3.93	3.94	0.00	0.1	3.79	4.14	3.87	3.80	3.46
ICE										
Brent	51.39	58.59	69.27	10.69	15.4	70.20	70.16	68.56	68.27	63.64
Gasoil	59.92	65.27	77.45	12.18	15.7	77.90	79.85	76.58	75.51	70.15
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-1.44	0.63	0.42	-0.20		0.63	0.45	0.28	1.09	-0.15
NYMEX No.2 Heating Oil - WTI	7.83	3.91	5.40	1.49		5.60	6.06	4.58	3.82	4.28
NYMEX RBOB - WTI	10.65	13.70	12.41	-1.30		13.39	14.32	9.84	9.21	9.45
NYMEX 3-2-1 Crack (RBOB)	9.71	10.44	10.07	-0.37		10.79	11.57	8.09	7.42	7.73
NYMEX No.2 - Natural Gas ($/mmbtu)	6.36	6.90	8.96	2.05		9.33	9.02	8.73	8.76	8.18
ICE Gasoil - ICE Brent	8.53	6.69	8.18	1.50		7.70	9.70	8.01	7.24	6.51

Source: Platts

Non-commercial players have increasingly linked their portfolios to oil markets as a hedge against fears of mounting inflationary pressures and the weaker dollar this year. Latest CFTC data show non-commercial investors hold long-positions equivalent to 600 mb in June, up around 30% since the start of the year.

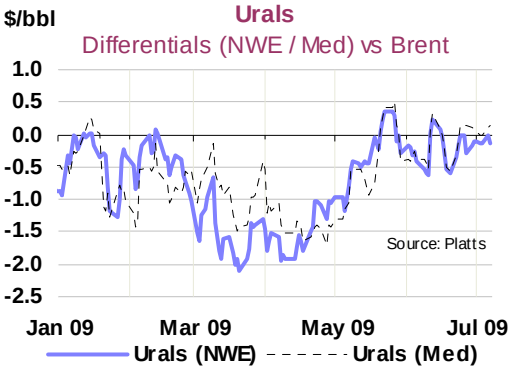
Investment funds were initially betting that an economic recovery would take hold by the second half of the year. While some analysts see this adding upward momentum to oil prices in recent months, the correlation between price shifts and non-commercial net positions remains tenuous at best. Some analysts argue even a bleaker economic outlook holds a silver lining since oil-linked indices are also a tool to hedge against inflation and a weaker dollar. But that argument may be moot as concern about inflationary pressures and a relatively stronger dollar may prompt investment funds to reduce their positions in oil markets.

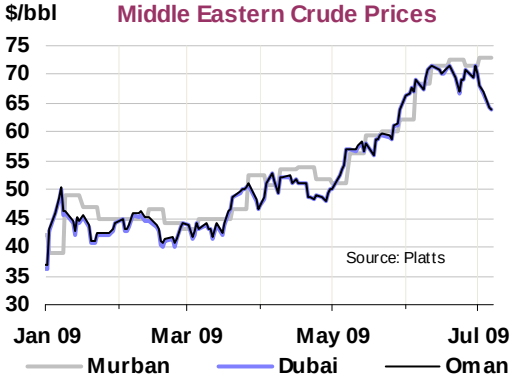


Spot Crude Oil Prices

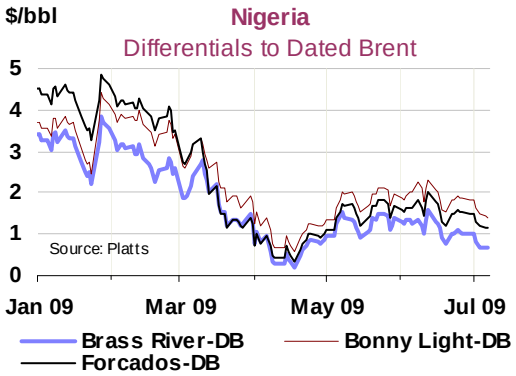
Spot crude oil markets moved higher earlier in the month on brisk buying by refiners ahead of the gasoline season. Both light and heavy crudes posted month-on-month increases of around $9-$12/bbl. US and Asian refiners made a dent in the huge crude inventory overhanging the market by cranking up refinery runs but the higher throughput rates largely translated into higher stock levels of refined products. Despite the crude drawdown, oil stocks remain at stubbornly high levels. OECD oil inventories were estimated at 62.5 days of forward cover as of end-May. Short-term floating storage of both crude oil and refined products are estimated at more than 110 mb by end-June.

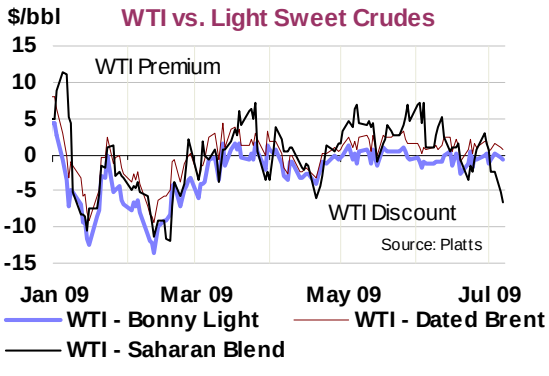
By mid-month crude markets tracked the downturn in gasoline markets as refiners scaled back runs amid weakening refining margins. Prices for sour crudes, including Dubai, Mars Blend in the US and Russian Urals, maintained their relative strength, supported by lower OPEC output of similar sour grades.



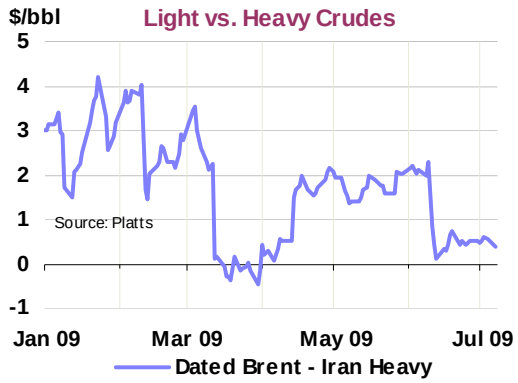


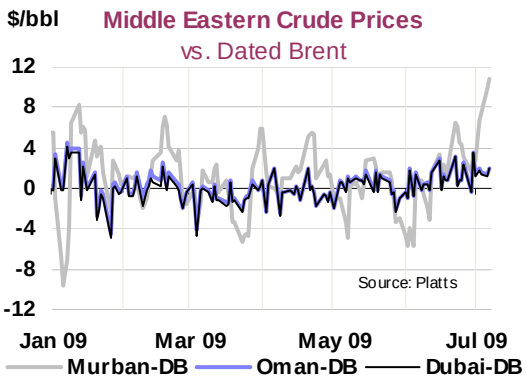
Spot prices for Urals in both Northwest Europe and the Mediterranean were higher due to reduced export volumes in June and indications are July shipments will also be down. Lower exports reflect a sharp 40% increase in Russian oil export duties in July *(see FSU Exports).*





OPEC's cutback of heavy and medium sour crudes has supported spot prices for similar grades in recent months. The shifting market sentiment saw the light versus heavy differentials narrowing by mid-June. Despite the rise in refinery runs in June, demand for heavy crude oil was lower due to reduced runs of coking units. The spot price differential for Brent and Iranian Heavy plummeted to just around $0.50/bbl by early July from over $2/bbl in June and a peak of over $5/bbl back in January.





Spot crude prices in Asia were relatively stronger than US and European markets, in part because refiners there have borne the brunt of OPEC supply cutbacks. Prices were also supported by incremental Chinese buying for the country's stockpiles as well as increased refinery runs. Increased Chinese crude demand was partly offset by reduced purchases by Japanese and Korean refiners who are awash in crudesupplies.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Apr	May	Jun	Jun-May Avg Change	%	Week Commencing: 08 Jun	15 Jun	22 Jun	29 Jun	06 Jul
Crudes										
Dated Brent	50.34	57.48	68.55	11.07	19.3	69.64	69.68	67.52	67.64	62.56
Brent (Asia) Mth1 adjusted	50.91	57.92	69.09	11.18	19.3	70.00	69.98	68.14	68.86	63.87
WTI (Cushing) Mth1 adjusted	49.82	59.12	69.68	10.57	17.9	70.92	70.68	68.60	69.47	63.38
Urals (Mediterranean)	48.95	57.07	68.38	11.31	19.8	69.44	69.44	67.52	67.69	62.70
Dubai Mth1 adjusted	50.10	57.85	69.41	11.56	20.0	70.03	70.77	69.00	69.14	64.15
Tapis (Dated)	52.59	60.16	72.40	12.24	20.4	72.55	73.15	73.19	73.59	68.00
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	-0.51	1.64	1.13	-0.50		1.28	1.00	1.08	1.82	0.82
Urals (Mediterranean)	-1.39	-0.42	-0.17	0.24		-0.20	-0.24	0.00	0.04	0.13
Dubai Mth1 adjusted - Dated Brent	-0.24	0.37	0.86	0.49		0.39	1.08	1.48	1.50	1.59
Tapis (Dated)	2.25	2.68	3.85	1.17		2.91	3.47	5.67	5.95	5.44
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-0.84	-0.86	-0.73	0.13		-0.63	-0.85	-0.70	-0.64	-0.46
Forward WTI Cushing Mth1-Mth2 adj.	-1.96	-0.91	-0.72	0.19		-0.76	-0.61	-0.59	-0.95	-0.93

Source: Platts

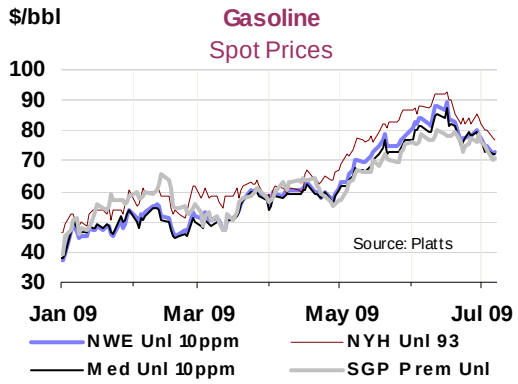
Militant attacks on Nigeria's oil infrastructure in June and early July initially alarmed markets, but the impact was muted by bloated crude inventories both onshore and offshore. Escalating attacks by the Movement for the Emancipation of the Niger Delta (MEND) over the past six weeks have forced Chevron, Shell and ENI to shut in a further 275 kb/d. Total Nigerian production shut-in is estimated at more than one mb/d. Despite the loss of supplies, spot prices for Nigerian crudes eased as refiners shyed away from gasoline-rich crudes.

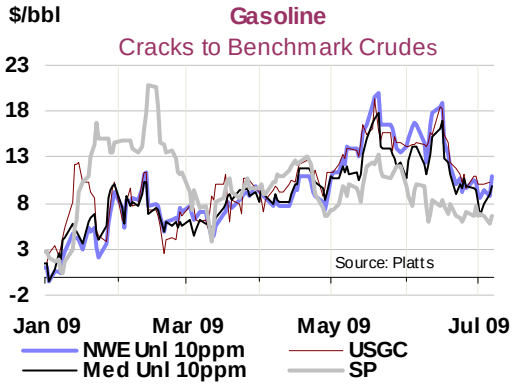
Spot Product Prices

Spot prices for refined products rose on hopes of a stronger summer driving season in the US this year triggering a sharp rise in gasoline crack spreads and raised expectations for an overall improvement in demand fundamentals. Overly ambitious refiners ended up flooding the market with unwanted gasoline supplies in all major regions. Equally important, in the process refiners glutted the market with distillate fuels, especially in Europe.

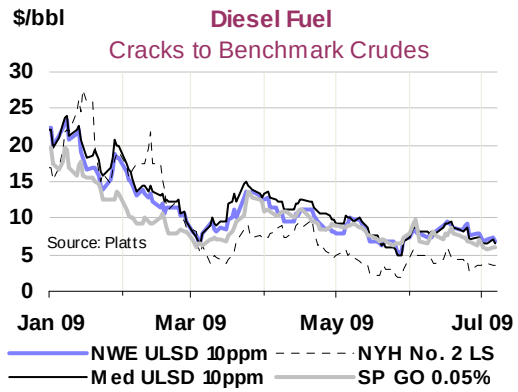
With US retail gasoline prices averaging over $2.50/bbl ahead of the key 4 July holiday, battered consumers defied expectations, with demand for transportation fuels weaker than expected. Spot gasoline prices in New York Harbour fell from a high of $86.23/bbl on 16 June to $70.85/bbl by 7 July. Preliminary June data show US demand down 1.5% from last year's already exceptionally weak levels.

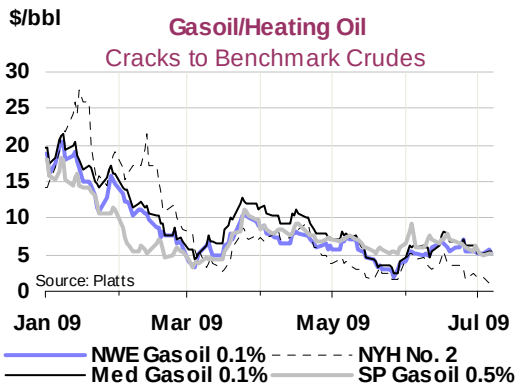
The US gasoline market provided central support for the products complex on a global basis in May and June so the impact of the falloff has had far-reaching repercussions for Europe and Asia. Mirroring the downturn in European gasoline demand, off 4.1% in June, spot prices in Northwest Europe slid from a high of $88.14/bbl on 16 June to $70.30/bbl on 7 July. Spot prices for gasoline in Singapore were down a relatively more modest $9/bbl, from a 16 June level of $78.53/bbl to $70.63/bbl by 7 July.





The downturn in economic activity is having the greatest impact on distillate demand, with industrial and transport demand for diesel particularly hard-hit. Jet fuel and gas oil demand have not done much better, especially in the US and Europe. Gas oil stocks in OECD Europe are above the 5-year average. The steady flow of middle distillates from the US to Europe and Latin America have also ended up in stocks, some of this offshore.





Lacklustre industrial and transport demand coupled with higher refinery throughput rates in June led to a glut of middle distillates, with stocks at both the secondary and tertiary level ballooning. Much of the near 50 mb of products in floating storage is reportedly sitting offshore Europe. The steep distillate contango and cheap tanker rates encouraged traders to lease onshore tanks or floating storage to

stockpile excess fuel in expectations of better demand in the 2H09. With storage levels brimming, fears are growing that Europe's record inventories of distillates could trigger another sharp downward correction in oil prices in coming months.

Middle East refiners provided pivotal support to distillate markets in recent months as they sought to augment supplies ahead of their peak summer cooling period and while refinery operations were curtailed for seasonal turnaround. That incremental buying has now disappeared, with stocks reportedly more than ample and refineries are coming back on line.

Spot Product Prices

(monthly and weekly averages, $/bbl)

	Apr	May	Jun	Jun-May Change	Jun-May %	Week Commencing: 08 Jun	15 Jun	22 Jun	29 Jun	06 Jul	Apr	May	Jun
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	59.46	72.63	82.29	9.66	13.3	84.74	85.16	77.47	77.20	72.46	9.12	15.15	13.74
Naphtha	46.81	52.55	62.70	10.15	19.3	62.64	64.26	62.23	63.57	61.76	-3.53	-4.94	-5.85
Jet/Kerosene	59.94	64.54	78.07	13.53	21.0	79.21	79.80	76.96	75.87	70.24	9.60	7.06	9.52
ULSD 10ppm	60.72	65.14	76.84	11.70	18.0	77.37	78.73	76.07	75.05	69.72	10.38	7.66	8.29
Gasoil 0.1%	57.65	62.30	74.22	11.92	19.1	74.84	76.05	73.67	72.90	68.12	7.31	4.82	5.67
LSFO 1%	44.02	50.59	59.76	9.17	18.1	60.57	60.02	58.57	60.39	57.26	-6.32	-6.89	-8.79
HSFO 3.5%	42.01	50.78	58.68	7.89	15.5	59.25	58.51	57.95	59.71	56.89	-8.32	-6.70	-9.87
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	58.74	70.18	80.56	10.38	14.8	82.23	83.36	77.37	76.01	72.17	9.79	13.12	12.18
Naphtha	46.60	51.89	62.55	10.66	20.6	62.60	64.20	61.97	63.46	61.65	-2.35	-5.18	-5.83
Jet Aviation fuel	58.52	63.42	76.55	13.13	20.7	77.15	78.65	75.69	74.78	69.73	9.58	6.36	8.17
ULSD 10ppm	60.73	64.95	76.65	11.71	18.0	77.45	78.49	75.69	74.60	69.50	11.78	7.88	8.27
Gasoil 0.1%	58.54	62.47	74.66	12.19	19.5	74.96	76.72	74.03	73.13	67.84	9.60	5.41	6.28
LSFO 1%	44.65	53.20	60.95	7.75	14.6	61.76	61.36	59.38	60.76	57.61	-4.30	-3.87	-7.43
HSFO 3.5%	42.21	50.52	59.00	8.48	16.8	59.52	59.29	57.97	59.43	56.65	-6.74	-6.54	-9.38
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	62.37	78.70	87.34	8.64	11.0	89.92	90.05	83.10	82.96	77.32	12.54	19.58	17.66
Unleaded	57.25	71.11	80.17	9.06	12.7	82.54	83.17	76.24	77.24	71.33	7.43	12.00	10.49
Jet/Kerosene	58.98	63.68	77.04	13.36	21.0	77.54	78.64	76.42	76.18	69.81	9.15	4.56	7.36
No. 2 (Heating Oil)	56.99	61.98	73.45	11.46	18.5	74.67	74.88	71.55	71.57	64.69	7.17	2.86	3.76
LSFO 1%	44.60	52.34	60.47	8.12	15.5	61.54	59.14	60.16	62.68	0.00	-5.23	-6.77	-9.22
No. 6 3%	42.10	51.77	58.89	7.12	13.8	59.86	58.11	59.62	62.33	0.00	-7.73	-7.35	-10.80
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	60.46	68.50	77.15	8.65	12.6	77.81	78.50	75.52	76.02	70.40	10.36	10.64	7.74
Naphtha	49.35	54.01	65.86	11.85	21.9	64.30	67.79	66.02	67.49	64.07	-0.75	-3.84	-3.55
Jet/Kerosene	59.10	64.07	76.45	12.37	19.3	76.72	78.72	76.49	75.33	70.39	9.00	6.22	7.04
Gasoil 0.5%	58.09	64.06	76.31	12.24	19.1	76.87	77.94	75.44	74.66	69.26	7.99	6.21	6.90
LSWR Cracked	38.26	47.72	57.97	10.25	21.5	57.50	58.65	58.51	61.98	60.13	-11.84	-10.13	-11.44
HSFO 180 CST	44.66	53.38	61.81	8.43	15.8	61.68	61.93	61.78	63.34	59.59	-5.44	-4.47	-7.60
HSFO 380 CST 4%	45.49	54.61	63.16	8.54	15.6	63.05	63.38	63.02	64.67	60.99	-4.61	-3.24	-6.25

Source: Platts * CIF

Refining Margins

In June, refinery margins mostly decreased as product price gains could not compensate for the two-digit crude oil price increases. Exceptions to this were coking margins for which high distillate yields coupled with distillate product price increases were enough to outweigh crude oil price rises. The other exceptions were China's Daqing hydrocracking and hydroskimming margins as a relatively low crude price increase allowed for a margin improvement. Cracking margins worsened across the board as the increase in residual fuel oil prices this month could not compensate for lower distillates yields when compared with coking configurations.

As in last month's report, simple refining configurations were the worst affected. Hydroskimming margins now dive deeper between -$2.20/bbl for Brent in NW Europe and -$8.15/bbl for Cabinda crude in China, with Mediterranean margins at -$5.48/bbl on average. Most probably, this lack of profitability will weigh on refinery crude runs and bring some pressure on crude oil prices as product demand remains constrained.

Selected Refining Margins in Major Refining Centres

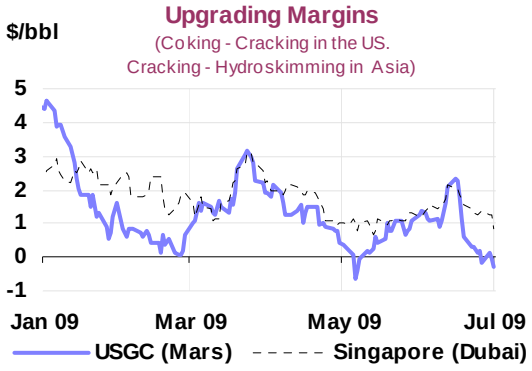
($/bbl)

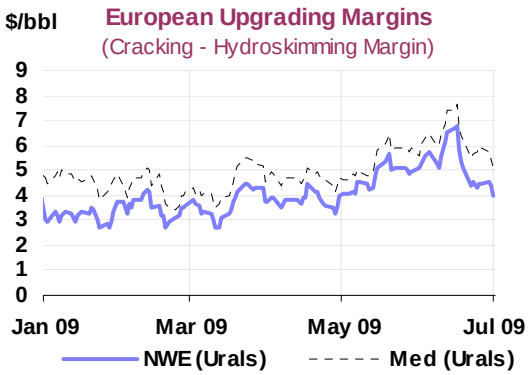
		Monthly Average			Change	Average for week ending:				
		Apr 09	May 09	Jun 09	Jun 09-May 09	03 Jun	10 Jun	17 Jun	24 Jun	01 Jul
NW Europe	Brent (Cracking)	1.25	1.94	0.95	-0.98	1.14	1.07	2.19	0.14	-0.24
	Urals (Cracking)	2.15	1.45	0.41	-1.04	0.42	0.63	1.08	-0.02	-0.55
	Brent (Hydroskimming)	-0.77	-0.97	-2.20	-1.23	-1.99	-2.27	-1.77	-2.51	-2.68
	Urals (Hydroskimming)	-1.65	-3.31	-4.90	-1.60	-4.72	-4.86	-5.30	-4.76	-4.94
Mediterranean	Es Sider (Cracking)	2.14	1.33	-0.34	-1.66	0.39	0.43	0.40	-1.49	-1.55
	Urals (Cracking)	2.38	1.61	0.63	-0.97	0.74	0.79	1.20	0.31	-0.32
	Es Sider (Hydroskimming)	-1.37	-2.92	-5.34	-2.42	-4.32	-4.51	-5.44	-6.13	-6.09
	Urals (Hydroskimming)	-2.28	-3.85	-5.63	-1.78	-5.17	-5.48	-6.00	-5.58	-5.95
US Gulf Coast	Bonny (Cracking)	-0.25	1.14	-0.37	-1.51	0.26	0.57	1.13	-1.89	-2.56
	Brent (Cracking)	-1.21	1.26	-0.63	-1.88	0.30	0.49	0.99	-2.71	-2.49
	LLS (Cracking)	0.40	1.37	0.76	-0.61	1.14	1.52	1.93	-0.08	-1.29
	Mars (Cracking)	1.35	1.38	1.29	-0.08	0.43	1.16	1.62	1.98	0.48
	Mars (Coking)	2.66	1.84	2.29	0.45	1.60	2.22	3.64	2.47	0.43
	Maya (Coking)	0.25	-1.54	0.65	2.19	0.36	1.21	2.72	-0.66	-1.77
US West Coast	ANS (Cracking)	3.46	2.93	0.15	-2.78	1.74	1.45	-0.40	-1.26	-0.37
	Kern (Cracking)	4.45	9.05	6.83	-2.22	7.50	8.48	4.55	5.35	8.63
	Oman (Cracking)	-0.47	3.17	-0.63	-3.80	2.64	1.51	-1.12	-3.16	-1.81
	Kern (Coking)	14.38	16.11	16.36	0.25	17.61	19.28	17.88	13.59	13.35
Singapore	Dubai (Hydroskimming)	-2.05	-3.02	-5.08	-2.06	-3.53	-5.13	-5.79	-4.99	-5.26
	Tapis (Hydroskimming)	-3.42	-4.83	-6.47	-1.64	-5.00	-6.24	-6.19	-6.45	-8.20
	Dubai (Hydrocracking)	-0.32	-1.98	-3.56	-1.58	-2.24	-3.65	-3.84	-3.53	-4.05
	Tapis (Hydrocracking)	-1.12	-3.23	-4.71	-1.48	-3.29	-4.43	-4.11	-4.78	-6.81
China	Cabinda (Hydroskimming)	-6.16	-6.90	-8.15	-1.25	-8.09	-8.47	-8.90	-7.84	-7.63
	Daqing (Hydroskimming)	-6.52	-5.91	-5.11	0.79	-5.79	-5.70	-5.72	-4.25	-3.92
	Dubai (Hydroskimming)	-2.22	-3.15	-5.44	-2.30	-3.72	-5.40	-6.18	-5.42	-5.74
	Daqing (Hydrocracking)	-1.89	-2.09	-1.33	0.76	-1.94	-1.79	-1.49	-0.65	-0.63
	Dubai (Hydrocracking)	-0.42	-2.02	-3.85	-1.83	-2.36	-3.85	-4.15	-3.89	-4.45

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.
Sources: IEA, Purvin & Gertz Inc.

In the US Gulf Coast, upgrading margins decreased during the second half of the month. Comparing coking to cracking configurations, coking provide higher distillate yields at the expense of residual fuel oil yields, so comparatively speaking, a decrease in distilate prices will have a greater impact on coking than on cracking configurations. In June, gasoline prices fell during the second half of the month thus affecting coking configurations harder. Besides this, residual fuel oil prices increased, which favours cracking relative to coking. In Europe, upgrading margins decreased in the second half of the month as well, as gasoline prices fell, affecting cracking margins more than hydroskimming margins.





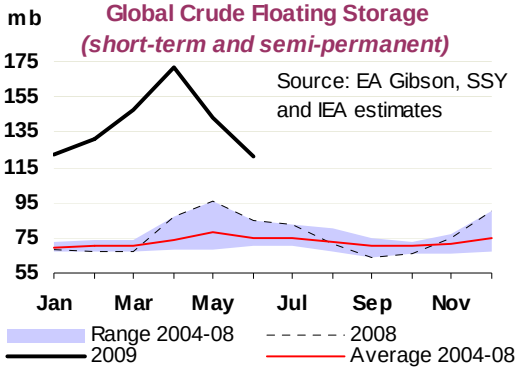
Note: This month, Maya refinery margins have been updated retroactively from June 2006 as Purvin & Gertz Inc. has updated this crude assay and the associated refinery operating costs as well. The new yields will be shown at www.oilmarketreport.org.

End-User Product Prices in June

End-user product prices on average increased by 12.9% in June, in US dollars, ex-tax. The surveyed IEA member countries saw a 15.5% hike in gasoline prices, month-on-month, with the highest increases of around 19% in the USA and Germany. Consumers in the US on average paid $2.63/gallon ($0.694/litre) for gasoline, in Japan ¥121.0/litre ($1.244/litre), in the UK £1.01/litre ($1.651/litre) and in Europe, prices ranged from a low of €1.035/litre ($1.457/litre) in Spain to a high of €1.336/litre ($1.881/litre) in Germany. Both diesel and heating oil prices on average rose by 10% and low-sulphur fuel oil price increased by 16.1%, in US dollars, ex-tax. End-user product prices were 43.0% below June 2008 levels.

Freight

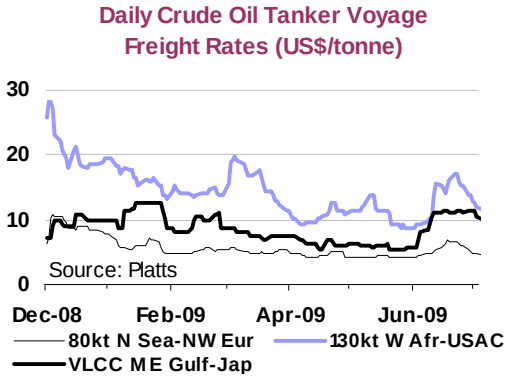
In June, dirty freight rates improved with a tightening tanker supply-demand balance, even as short-term floating storage decreased by about 25 mb. Decreases in early-July rates have eroded some of the gains. Still, a significant portion of the dirty tanker fleet continues to store crude, and a few VLCCs have been chartered to store products. As of early-July, almost 30 VLCCs were being used for short-term floating storage.

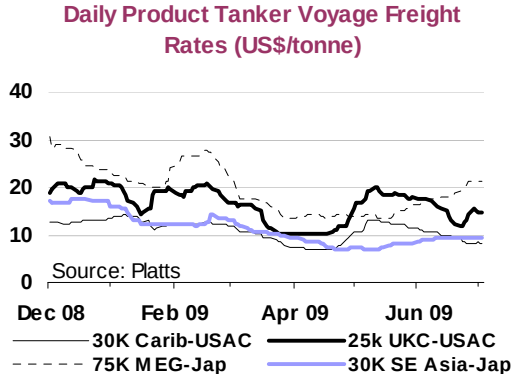


Middle East Gulf to Japan VLCC rates rose from their 2009 lows of around $5.50/mt at the end of May to over $11/mt at the end of June. This doubling of rates significantly improved spot daily earnings for ship owners in the face of rising bunker fuel prices. The increase reflected several factors, including greater enquiries for Middle East liftings, higher demand for bunker fuel in Asia, healthier East-West fuel oil trade and tightening vessel supply. Still, rates in the second half of the month into early July failed to sustain the upward momentum seen in the first half of the month given continued overall market weakness. Early-July rates have fallen back to under $10/mt.

West Africa to US Atlantic Coast rates showed similar early-month buoyancy, rising from around $8.50/mt at end-May to over $17/mt in the second half of June. Gains on this route proved more ephemeral though, as early July rates retracted to back under $12/mt as militant attacks in Nigeria curbed exports.

Clean rates displayed more of a mixed pattern, with routes to Asia showing more upward momentum than transatlantic trade. Increased products short-term floating storage provided overall support, as levels rose from 30 mb at end-May to almost 50 mb by end-June. Middle East Gulf to Japan Aframax rates rose from around $16/mt at end-May to over $21/mt by end-June. Early-July rates have retracted slightly, to just over $20/mt. Despite an end-month uptick, Northwest Europe to US Atlantic Coast medium-range (MR) rates generally declined in June. They fell from over $17/mt at the end of May to around $15/mt at end-June as transatlantic gasoline trade waned and the Middle East tempered its demand for European gasoline cargoes. Early-July rates stood at just over $15/mt.



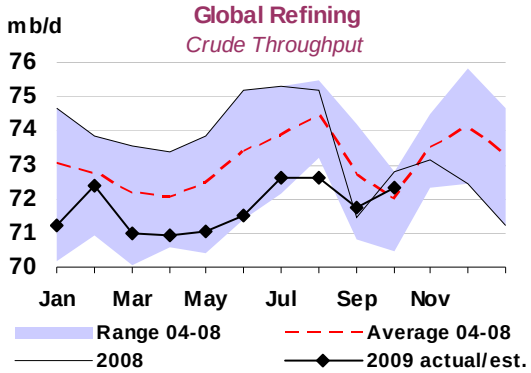


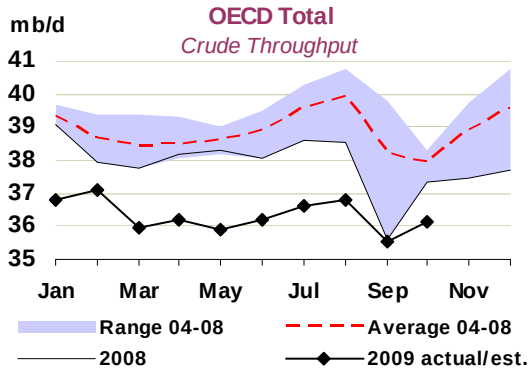
REFINING

Summary

- **Global 3Q09 crude runs are revised down by 0.5 mb/d to just 72.3 mb/d,** following a deterioration in refining margins for most regions surveyed. The outlook for European refining activity is particularly uncertain, with weaker middle distillate cracks and rising stocks both expected to weigh heavily on the region. Global crude run projections remain depressed compared with the five-year historical range, and some 1.7 mb/d below the 3Q08 level. 2Q09 estimates are 0.1 mb/d lower than last month, as weaker OECD Europe May crude runs and weak margins reduce June estimates by 0.4 mb/d in total.

- **A lower global 3Q09 projection masks upwardly revised Chinese forecasts,** as again stronger than expected crude runs, this time for May, are carried through much of the outlook. Chinese crude throughput has risen by 1.3 mb/d from the low point in January. However, despite the start-up of several new refineries, substantially higher runs may fail to materialise if weaker crude prices reverse the recent incentives to stockpile inland supplies ahead of increases to administered product prices.





- **OECD crude runs are assessed at 36.3 mb/d in 3Q09, an annual decline of 1.3 mb/d.** This comparison is flattered by the inclusion of last September's extremely weak US crude throughput, following the hurricane-related shutdowns. Non-OECD 3Q09 crude runs are broadly unchanged from last month, as higher Chinese projections offset weaker African estimates.

- **Despite weak 2009 demand and refinery throughput, OECD gross output of gasoil/diesel and gasoline remains above five-year average levels,** but other products are subdued. April OECD gasoline yields decreased slightly, with North America dropping one percentage point. Although gasoil yields decreased slightly, gross output actually increased marginally, due to both higher crude runs and yields in Europe and a smaller increase in North American gross output.

Global Refinery Overview

Lower global crude runs estimates for **3Q09** and, to a lesser extent for **2Q09**, follow weaker preliminary data for OECD regions and the ongoing deterioration in refining margins. The collapse in margins across all regions has continued into early July, suggesting little respite is likely in the coming weeks. Although prompt product prices in Europe may be under pressure as offshore storage is brought onshore, the decline in margins in all regions suggests that the refining industry remains caught between a tightening crude oil market and weakening product markets. It seems likely that the only way refiners can recapture pricing power is to cut runs further. Consequently, this report contains markedly lower throughput projections for Europe, but the probability of further reductions elsewhere cannot be dismissed until the refining industry's profitability is restored to levels seen previously.

Weaker preliminary June data for Japan and the downward revisions to Europe cut estimated global crude throughput for the month by 0.4 mb/d to 71.6 mb/d. Overall **2Q09** throughput is 0.1 mb/d lower at 71.2 mb/d, as stronger-than-forecast May Chinese crude runs offset weaker-than-expected runs in Russia, Nigeria and Turkey. April data are broadly unchanged on aggregate, despite weaker Canadian estimates, as upward revisions to Brazilian and Indonesian crude throughputs estimates counteract the Canadian downgrade.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
OECD									
North America	17.2	17.0	17.2	17.4	17.7	17.6	17.6	16.5	17.4
Europe	12.7	12.3	12.7	12.4	12.7	13.0	12.9	12.9	12.7
Pacific	7.2	6.7	6.3	6.0	5.9	6.1	6.3	6.2	6.0
Total OECD	37.1	36.0	36.2	*35.8*	*36.2*	*36.6*	*36.8*	*35.5*	*36.2*
NON-OECD									
FSU	6.0	5.8	5.7	5.9	5.8	6.0	6.1	6.1	6.1
Europe	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
China	6.7	6.9	7.2	7.3	7.4	7.4	7.4	7.4	7.4
Other Asia	8.2	8.2	8.1	7.7	7.7	7.7	7.8	7.8	7.8
Latin America	5.5	5.5	5.1	5.0	5.4	5.5	5.3	5.5	5.5
Middle East	6.0	5.6	5.8	6.2	6.0	6.2	6.2	6.3	6.2
Africa	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3
Total Non-OECD	35.3	*35.0*	34.8	*35.1*	*35.3*	*35.9*	*35.9*	*36.2*	*36.2*
Total	72.4	71.0	71.0	*71.0*	*71.6*	*72.5*	*72.6*	*71.8*	*72.3*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

The now-lower forecast for **3Q09** implies crude runs will post a 1.7 mb/d year-on-year decline, with 1.3 mb/d, roughly 75%, of the decline in OECD regions. Quarter-on-quarter growth is trimmed to 1.1 mb/d. As already noted, the muted driving season in the US and brimming middle distillate stocks in the Atlantic Basin, Singapore and Japan suggest that further reductions to our forecast are possible.

We have rolled over our forecast to include October, with global crude throughput now projected to recover to 72.3 mb/d from the hurricane-affected September forecast of 71.8 mb/d. This recovery is despite higher maintenance assumptions in Europe and the OECD Pacific weighing on runs. Year-on-year growth drops to -0.5 mb/d, from +0.3 mb/d in September, as the 2008 baseline continues to be distorted by the impact of 2008's hurricanes on US refining activity, albeit to a lesser degree than in September.

OECD Refinery Throughput

Official data for April OECD crude runs were 0.2 mb/d lower than last month's preliminary estimates, largely due to weaker Canadian crude throughputs. Elsewhere, slightly weaker-than-expected crude throughput in the Netherlands, Norway and Japan was matched by upward revisions to Mexico, Australia, Austria and the UK.

Increased voluntary run cuts underpin much of May's lower crude throughput, based on the provisional data and a lack of visible maintenance. OECD crude throughput averaged 35.8 mb/d, down 0.4 mb/d on the month and -2.5 mb/d versus May 2008. Annual declines of around 0.9 mb/d in North America and Europe are in addition to the OECD Pacific's 0.6 mb/d annual decline. OECD Pacific crude runs averaged below 6.0 mb/d for the first time since June 2002, and for only the second time since 1996, reflecting the impact of declining demand, heavy seasonal maintenance in Japan, and deteriorating margins.

Refinery Crude Throughput and Utilisation in OECD Countries

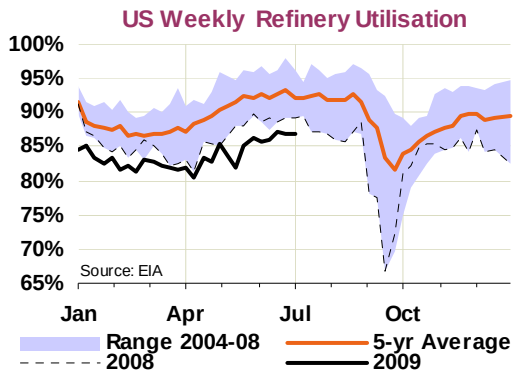
(million barrels per day)

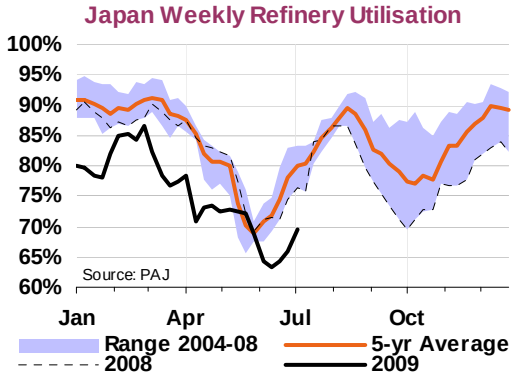
							Change from		Utilisation rate[1]	
	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Apr 09	May 08	May 09	May 08
OECD North America										
US[2]	14.35	14.11	14.12	14.09	14.35	14.52	0.17	-0.77	82.47	86.94
Canada	1.81	1.82	1.83	1.68	1.54	1.63	0.10	-0.07	81.00	84.69
Mexico	1.28	1.29	1.26	1.22	1.30	1.23	-0.07	-0.05	80.14	71.96
Total	17.44	17.21	17.20	17.00	17.19	17.39	0.20	-0.89	82.16	86.45
OECD Europe										
France	1.66	1.44	1.64	1.45	1.51	1.66	0.15	-0.01	84.58	85.10
Germany	2.20	2.07	2.13	2.15	2.21	2.05	-0.16	-0.03	84.95	86.25
Italy	1.80	1.63	1.52	1.61	1.68	1.66	-0.01	0.03	71.11	69.94
Netherlands	1.00	1.00	1.03	0.96	1.02	1.00	-0.02	-0.10	82.24	90.41
Spain	1.24	1.21	1.21	1.03	1.17	1.01	-0.16	-0.17	79.48	92.60
UK	1.59	1.55	1.54	1.49	1.36	1.35	-0.01	-0.21	71.38	82.66
Other OECD Europe	3.78	3.79	3.66	3.56	3.75	3.71	-0.04	-0.45	79.08	88.68
Total	13.26	12.70	12.73	12.25	12.68	12.44	-0.25	-0.94	78.83	84.82
OECD Pacific										
Japan	3.86	3.71	4.03	3.68	3.31	3.24	-0.06	-0.31	69.36	76.03
Korea	2.44	2.50	2.43	2.42	2.33	2.08	-0.25	-0.37	76.08	89.56
Other OECD Pacific	0.70	0.69	0.70	0.63	0.69	0.67	-0.02	0.04	83.50	78.54
Total	7.00	6.90	7.15	6.74	6.33	6.00	-0.33	-0.64	72.99	80.78
OECD Total	37.71	36.82	37.09	35.99	36.21	35.83	-0.38	-2.47	79.33	84.84

1 Expressed as a percentage, based on crude throughput and current operable refining capacity
2 US50

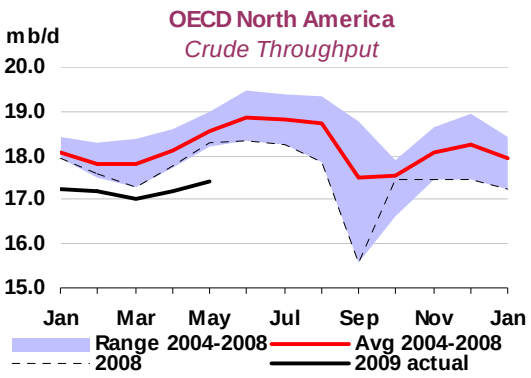
OECD **2Q09** crude throughput is now seen averaging 36.1 mb/d, 0.3 mb/d below last month's report and 2.1 mb/d below 2Q08. Lower Canadian April data and European May data, in combination with the downwardly revised European and Pacific estimates for June, account for the change. Conversely, US June throughputs were marginally ahead of our estimates, reflecting stronger gasoline cracks in the early part of the month and a pick-up in Midwest refinery activity to its highest level since last December.

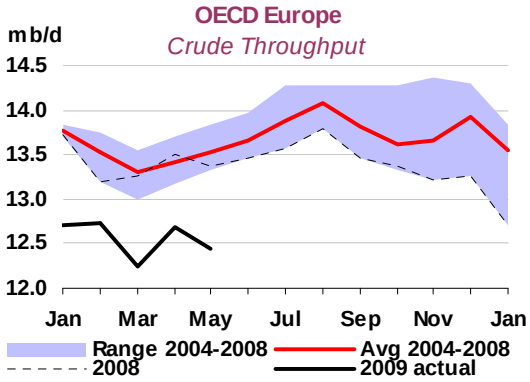
3Q09 OECD crude throughput of 36.3 mb/d is 0.4 mb/d lower than last month's report and implies quarter-on-quarter growth of just 0.2 mb/d compared with a five-year average of 0.6 mb/d. The depressed margin environment and the fact that US crude runs appear to be close to their seasonal peak, limits this increase. The year-on-year decline would be much greater than the estimated 1.3 mb/d, were it not for last year's hurricane disruption to US throughputs in September, which dropped runs by 2.2 mb/d, compared with this year's assumption of a decline of 1.1 mb/d, which is in line with the five-year average.



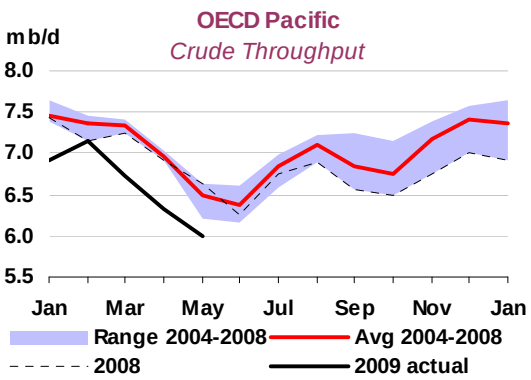


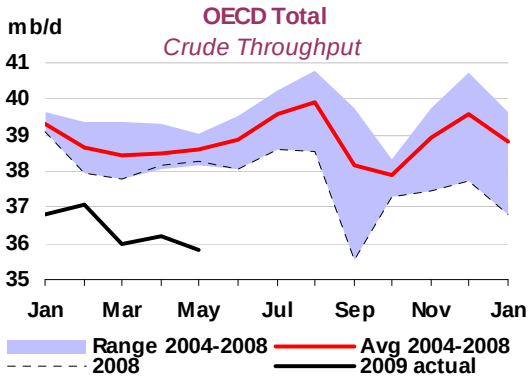
OECD North America crude throughput continues to lag the five-year range, although weekly US data suggest that the deficit narrowed during the course of June compared with May. However, as already highlighted, US crude throughput is projected to be flat from current levels for the remainder of 3Q09. Further weakness in refining margins might result in another downward step in US throughputs, as refiners reinstate heavier run cuts to try to restore profitability.





Preliminary data for May show **OECD Europe** crude throughput 0.3 mb/d weaker than forecast at 12.4 mb/d, and some 0.2 mb/d below April's level. Year-on-year contraction in crude runs of around 0.9 mb/d remains in line with the year-to-date trend. A re-evaluation of the prospects for June crude runs, in light of the weaker margin environment, sees them revised down by a hefty 0.5 mb/d to 12.7 mb/d. Overall 2Q09 throughput is now seen averaging 12.6 mb/d, 0.2 mb/d lower than last month's report. Similarly, 3Q09 throughputs are now forecast to average 12.9 mb/d, 0.3 mb/d below last month's report. However, the notable slowdown in crude runs over the second half of 2008, results in the annual decline in runs narrowing to just 0.7 mb/d, from 0.8 mb/d in 2Q09.





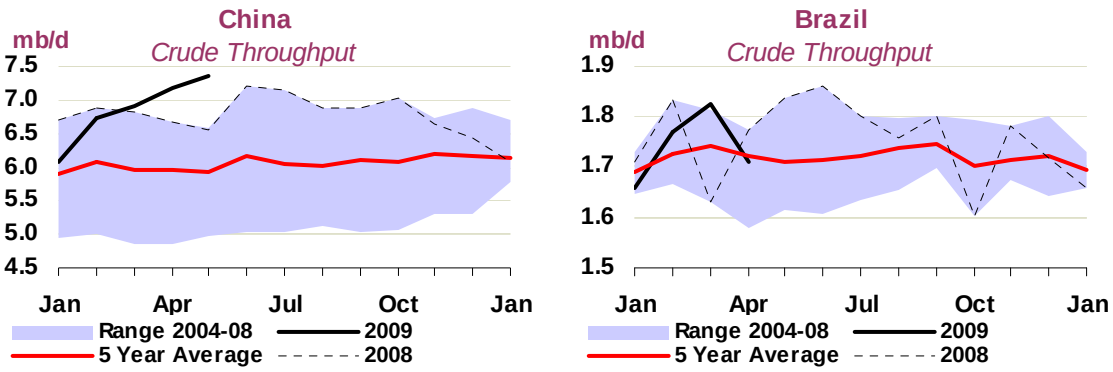
OECD Pacific crude throughput fell again in May to just below 6.0 mb/d, the lowest monthly average since June 2002, and only the second time since 1996 that runs have breached the 6 mb/d level. Weak Japanese throughputs of just 3.2 mb/d explain half of the region's annual drop of 0.6 mb/d, and Korean crude throughput of 2.1 mb/d the remainder. Weekly Japanese data suggest that June crude runs will fall to below 3.0 mb/d, the weakest monthly average level since June 1991. The decline of Korean throughputs and the absence of reported maintenance suggest that economic run cuts are becoming more widespread in the region and that the outlook for crude runs remains bleak in the face of rising Chinese activity levels. That said, the expected return in July of Shell's 85 kb/d Clyde refinery in Australia, following its shutdown in December 2008, should provide a small boost to regional crude throughputs.

Non-OECD Refinery Throughput

Forecast 3Q09 non-OECD crude throughput is broadly unchanged from last month's report, as upwardly revised China crude throughput projections offset the now-lower Nigerian outlook, following the collapse in refining activity there. The upward revisions to Chinese estimates stem largely from the start-up of further crude distillation capacity and, again, stronger than expected data, this time for May.

Chinese May crude throughput reached a new record level of 7.3 mb/d, representing a cumulative increase in crude runs of 1.3 mb/d since January's low-point. New capacity additions of around 0.5 mb/d underpin much of the increase in throughputs to May. The reported level of crude runs for May exceeded our estimate for the fourth consecutive month, this time by some 0.5 mb/d and seem particularly strong given we estimate that around 0.5 mb/d of capacity was offline for maintenance during the month. Looking forward we have raised June and 3Q09 estimates by 0.2 mb/d, to 7.4 mb/d, which may yet prove too conservative, although there is as yet little maintenance incorporated into our forecasts.

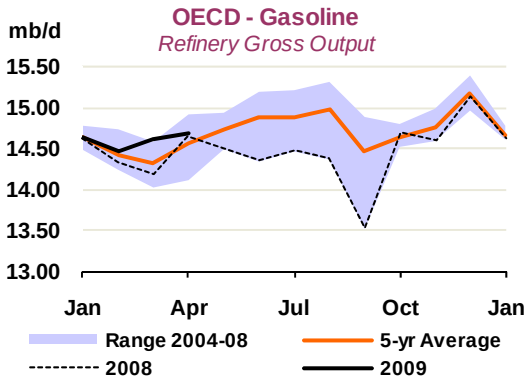
Furthermore, despite recent data to the contrary, the incentive to stockpile products ahead of almost certain price rises for Chinese deliveries may also have pushed refineries to maximise runs in recent months. As world oil prices have risen, so refiners have been presented with an opportunity to lock-in additional profit by building stocks inland, even at the tertiary level, so long as the Chinese authorities implement the price reviews in line with the declared methodology. It will be interesting to see how crude runs fare if prices weaken substantially over a period of months, thus presenting an incentive to minimise inland stock levels, ahead of reductions to administered prices.

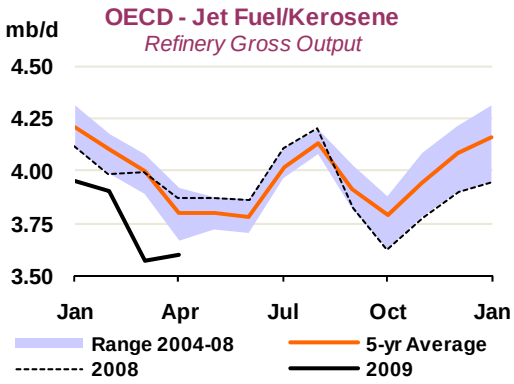


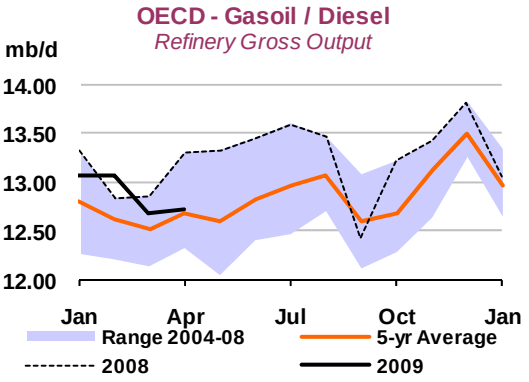
Elsewhere, **non-OECD** crude runs were stronger than expected according to data reported for April, with higher than estimated crude runs in Brazil, Indonesia and Thailand. Preliminary May data for Russia, Kuwait, Saudi Arabia, and Nigeria were all slightly weaker than anticipated. Nigeria's problems appear chronic, with ongoing disruption to crude supplies and electricity hampering operations. By late June, Nigerian refineries were reported to be operating at just 10 kb/d, compared with a notional capacity of around 450 kb/d. We have therefore assumed that Nigerian crude runs will effectively be zero for much of the third quarter, pending confirmation of a resumption of sustainable operating rates. This lack of domestic supply of products ex-refinery may provide a boost to export demand for European gasoline. However, even here, competition from Asian refiners will be tough.

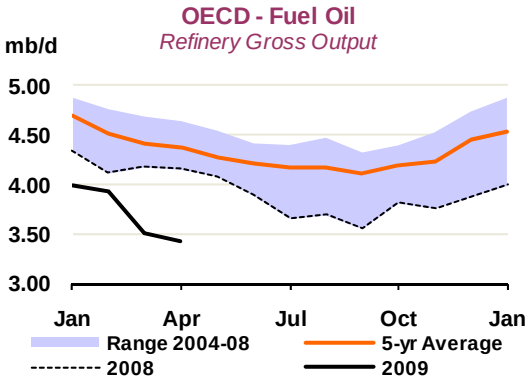
OECD Refinery Yields

The severe economic contraction has strikingly depressed 2009 product demand and refinery throughputs. However, as shown in the graphs below, gasoil/diesel and gasoline gross output levels have remained relatively resilient this year, above five-year average levels, driven by higher yields despite lower runs. On the other hand, gross output of jet fuel and fuel oil, as well as other products, has remained subdued below five-year range levels.



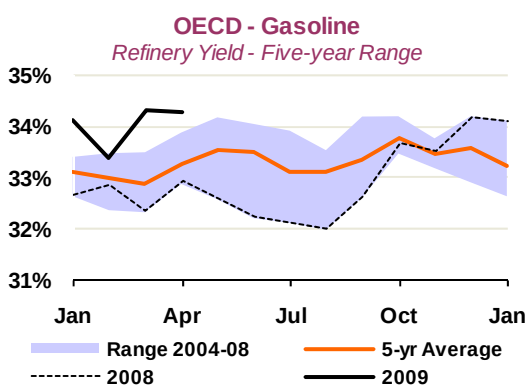


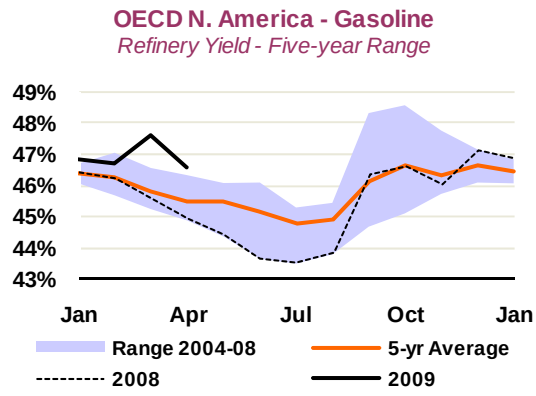




In OECD Europe, only gasoil/diesel gross output has held up, with levels in the five-year historical range and heading to the top of the range in April. Gross output levels for the rest of the products have remained below the five-year range. In OECD North America, the only products showing some strength are gasoline and gasoil/diesel, with gross output above the five-year average and, in the case of gasoil/diesel, growing net exports that have surpassed five-year-range levels. In OECD Pacific, only gasoline gross output has remained above the historical average.

After increasing strongly in March, OECD **gasoline yields** decreased slightly in April, albeit staying above the five-year average. In absolute terms, refinery gross output increased just above last year's April level, with imports from non-OECD countries decreasing counter-seasonally.

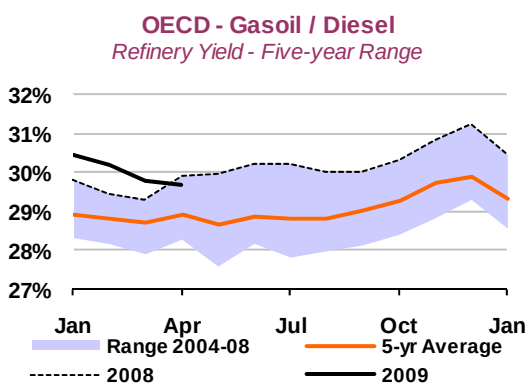


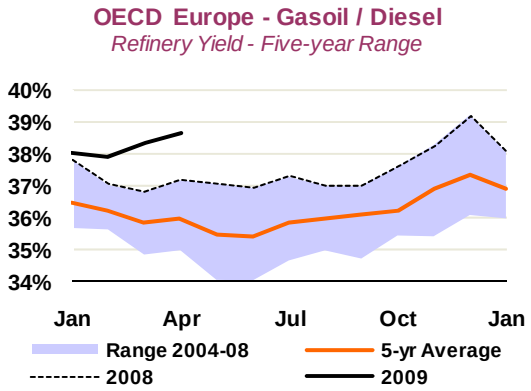


A decrease of one percentage point in OECD North American gasoline yields was partially compensated by higher refinery runs leading to a slight decrease in gross output, which remained at the top of the five-year range; net imports also decreased counter-seasonally in this region. In OECD Pacific, an increase of

1.2 percentage points in gasoline yields was undermined by a contraction in refinery throughputs, resulting in unchanged gross output. In contrast to the five-year historical trend, the Pacific region became a net exporter of gasoline this month. European gasoline yields increased as well as gross output, in line with seasonal patterns. However, 2009 gross output levels remain depressed at below five-year-range levels.

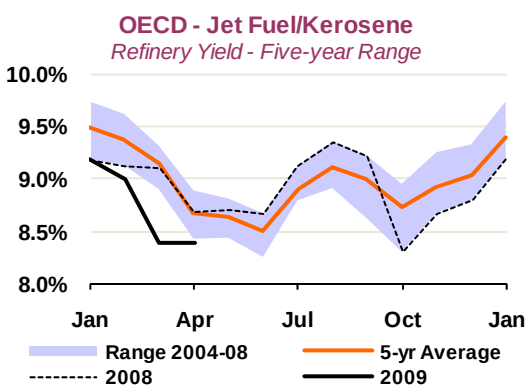
OECD **gasoil/diesel yields** decreased slightly in April, but nevertheless remain at the top of their historical range. However, gross output increased slightly as higher yields and crude runs in Europe along with a slight increase in gross output in North America outweighed lower yields and crude runs in the Pacific. European yields remained well above the five-year range, supported by wider crack spreads.

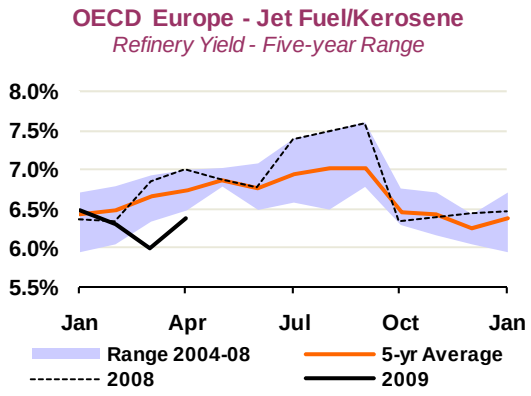




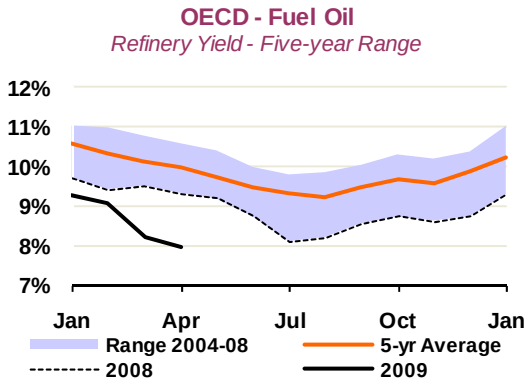
However, in terms of gross output, OECD gasoil/diesel level is only slightly above the five-year average and 570 kb/d below last year's level. Gross output in Europe rebounded to near last year's April levels, with net imports decreasing as demand remains constrained.

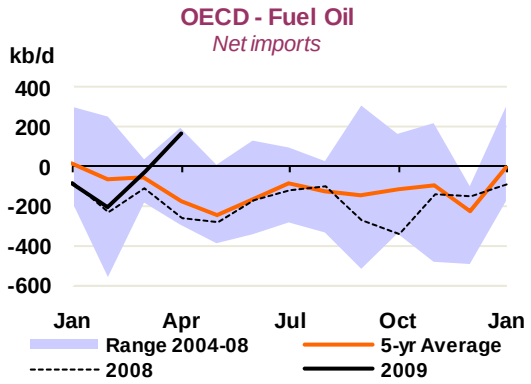
OECD **jet fuel/kerosene yields** retained last month's level after having fallen strongly in March. Gross output showed a slight counter seasonal increase, as higher yields and crude runs in both Europe and North America outpaced a seasonal yield decrease and lower crude runs in the Pacific, where demand has been severely hit. Yields saw the greatest rebound in Europe, supported by wider crack spreads and stronger month-on-month demand.





OECD **fuel oil** continued its downward trend in terms of both yields and gross output, only slightly offset by a counter-seasonal increase of net imports coming from non-OECD countries. April's OECD fuel oil gross output shows a year-on-year contraction of 732 kb/d and a contraction of 950 kb/d compared with the five-year average.





OECD Trading Patterns

Regarding year-on-year changes in gross output and trade, a marginal decrease in European gasoil/diesel gross output (-33 kb/d or -0.6%) was more than offset by much stronger imports (543 kb/d higher or about 3 times the April 2008 level), while demand shows a contraction of 434 kb/d. Some of the additional import volume came from OECD North America where gasoil/diesel net exports increased by 238 kb/d although gross output in this region decreased by 354 kb/d. As net exports from the Pacific decreased, the balance of European net imports was sourced from non-OECD countries.

Total OECD Refinery Gross Output
(thousand barrels per day)

	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09
North America	330	320	9,706	9,877	1,744	1,660	5,475	5,122	1,223	949	3,786	3,647	22,265	21,573
Europe	938	886	3,302	3,204	1,075	934	5,712	5,679	1,941	1,637	2,384	2,299	15,351	14,640
Pacific	854	799	1,642	1,603	1,048	1,004	2,127	1,944	984	831	873	820	7,528	7,000
Total	**2,121**	**2,005**	**14,650**	**14,684**	**3,867**	**3,597**	**13,315**	**12,745**	**4,148**	**3,416**	**7,044**	**6,766**	**45,144**	**43,213**

Another striking difference is North American and European total net trade positions in April. While North America became a marginal net products exporter, from a net import position of 548 kb/d in April last year, Europe saw the opposite trend and became a net importer of 761 kb/d of refined products, from a net export position of 141 kb/d last year. Finally, OECD Pacific net import position decrease by 352 kb/d (from 941 kb/d to 589 kb/d) equivalent to a decline of 37%.

Total OECD Net Exports of Petroleum Products
(thousand barrels per day)

	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09	Apr 08	Apr 09
North America	-52	29	-1,077	-956	-60	-18	451	689	49	26	141	241	-548	11
Europe	-125	-138	946	880	-344	-442	-232	-775	203	-175	-306	-111	141	-761
Pacific	-751	-691	-75	40	235	226	328	316	6	-14	-683	-466	-941	-589
Total	**-928**	**-800**	**-206**	**-36**	**-170**	**-233**	**547**	**230**	**258**	**-163**	**-848**	**-336**	**-1,347**	**-1,338**

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	25.4	25.5	24.8	24.4	23.6	23.9	24.2	23.5	22.6	22.7	22.9	22.9	23.6	23.1	23.0	23.0	23.2
Europe	15.7	15.3	15.3	15.0	15.4	15.3	15.3	14.9	14.2	14.8	14.8	14.7	14.9	14.2	14.7	14.7	14.6
Pacific	8.5	8.4	8.9	7.9	7.5	8.0	8.1	8.1	7.2	7.0	7.5	7.5	8.1	7.1	6.9	7.4	7.4
Total OECD	49.5	49.2	49.0	47.3	46.6	47.2	47.5	46.6	44.0	44.6	45.2	45.1	46.6	44.4	44.6	45.1	45.2
NON-OECD DEMAND																	
FSU	4.0	4.1	4.3	4.1	4.3	4.1	4.2	4.0	3.9	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Europe	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	7.2	7.6	7.9	8.0	8.1	7.6	7.9	7.7	8.4	8.0	7.9	8.0	8.0	8.6	8.3	8.3	8.3
Other Asia	9.0	9.5	9.9	9.9	9.4	9.5	9.7	9.9	9.7	9.4	9.6	9.6	10.1	9.9	9.6	9.8	9.9
Latin America	5.4	5.7	5.7	6.0	6.0	5.9	5.9	5.7	5.9	6.0	6.0	5.9	5.9	6.1	6.2	6.1	6.1
Middle East	6.3	6.5	6.7	7.1	7.6	6.9	7.1	6.7	7.3	7.8	7.2	7.2	7.0	7.6	8.1	7.5	7.6
Africa	3.0	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.4	3.3	3.2	3.4	3.3
Total Non-OECD	35.7	37.3	38.5	39.0	39.3	38.1	38.7	37.9	39.1	39.0	38.7	38.7	39.3	40.3	40.4	40.1	40.0
Total Demand[1]	85.2	86.5	87.5	86.3	85.8	85.3	86.2	84.4	83.1	83.6	83.9	83.8	85.9	84.7	85.0	85.2	85.2
OECD SUPPLY																	
North America	14.2	14.3	14.2	14.0	13.6	13.8	13.9	14.2	13.8	13.8	14.0	14.0	14.3	14.1	13.8	14.2	14.1
Europe	5.3	5.0	4.9	4.8	4.6	4.8	4.8	4.9	4.4	4.1	4.4	4.4	4.3	4.0	3.9	4.1	4.1
Pacific	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7
Total OECD	20.1	19.9	19.7	19.5	18.8	19.3	19.3	19.7	18.9	18.6	19.0	19.1	19.3	18.8	18.4	19.1	18.9
NON-OECD SUPPLY																	
FSU	12.2	12.8	12.8	12.9	12.7	12.7	12.8	12.8	13.1	12.9	12.9	13.0	13.1	13.3	13.0	13.3	13.2
Europe	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.9	3.9	3.8	3.9	3.9	3.9	4.0	3.9
Other Asia[2]	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.7	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.8
Latin America[2]	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.4	4.4	4.4	4.4	4.6	4.6	4.7	4.8	4.7
Middle East	1.8	1.7	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa[2]	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	28.0	28.5	28.7	28.7	28.6	28.7	28.7	28.8	29.2	29.2	29.2	29.1	29.5	29.7	29.6	30.0	29.7
Processing Gains[3]	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels[4]	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
Total Non-OPEC[2]	50.4	50.9	51.0	50.8	50.1	50.7	50.6	51.2	50.7	50.5	50.9	50.8	51.5	51.1	50.7	51.7	51.2
Non-OPEC: Historical Composition[2]	51.3	50.3	49.9	49.8	49.1	49.6	49.6	51.2	50.7	50.5	50.9	50.8	51.5	51.1	50.7	51.7	51.2
OPEC																	
Crude[5]	30.7	30.3	31.5	31.4	31.5	30.5	31.2	28.5	28.5								
NGLs	4.4	4.5	4.6	4.6	4.7	4.8	4.7	4.9	5.1	5.4	5.6	5.2	5.7	6.0	6.2	6.4	6.1
Total OPEC[2]	35.2	34.9	36.1	36.0	36.2	35.3	35.9	33.4	33.6								
OPEC: Historical Composition[2]	34.3	35.4	37.1	37.0	37.2	36.4	36.9	33.4	33.6								
Total Supply[6]	85.6	85.7	87.1	86.8	86.3	86.0	86.5	84.6	84.3								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.3	0.1	0.3	0.6	0.5	0.4	0.5									
Government	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	0.2									
Total	0.3	-0.2	0.1	0.4	0.5	0.5	0.4	0.7									
Floating Storage/Oil in Transit	-0.1	0.0	0.3	0.0	-0.3	0.1	0.0	0.5									
Miscellaneous to balance[7]	0.1	-0.6	-0.8	0.2	0.3	0.1	-0.1	-1.0									
Total Stock Ch. & Misc	0.3	-0.8	-0.4	0.5	0.5	0.7	0.3	0.1	1.2								
Memo items:																	
Call on OPEC crude + Stock ch.[8]	30.4	31.1	31.9	30.9	31.1	29.9	30.9	28.4	27.3	27.8	27.5	27.7	28.7	27.6	28.1	27.1	27.9
Adjusted Call on OPEC + Stock ch.[9]	30.5	30.5	31.1	31.0	31.3	30.0	30.9	27.3	26.8	27.3	27.0	27.1	28.3	27.2	27.7	26.7	27.4

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Biofuels from sources outside Brazil and US.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.3	-0.4	-0.2	-0.3					
Europe	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					
Pacific	-	-	-	-	-	-	-	-	0.1	0.2	0.2	0.1					
Total OECD	-0.1	-	-	-	-	-	-	-0.2	-0.2	-0.2	0.1	-0.1					
NON-OECD DEMAND																	
FSU	-	0.1	0.1	0.1	0.1	-	-	-	-	-	-	-					
Europe	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					
China	-	-	-	-	-	-	-	-	0.3	0.1	0.1	0.1					
Other Asia	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2					
Latin America	0.1	-	-	-	-	-	-	-	-	-	-	-					
Middle East	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					
Africa	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-	-					
Total Non-OECD	0.2	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.7	0.5	0.5	0.5					
Total Demand	0.1	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.5	0.3	0.6	0.4					
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1					
Europe	-	-	-	-	-	-	-	-	0.2	-	-	-					
Pacific	-	-	-	-	-	-	-	-	-	-	-	-					
Total OECD	-	-	-	-	-	-	-	-	0.3	0.1	-	0.1					
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	0.1	0.3	0.3	0.2					
Europe	-	-	-	-	-	-	-	-	-	-	-	-					
China	-	-	-	-	-	-	-	-	-	-	-	-					
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-					
Latin America	-	-	-	-	-	-	-	-	-	-	-	-					
Middle East	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1					
Africa	-	-	-	-	-	-	-	-	-	-	-	-					
Total Non-OECD	-	0.1	-	-	-	0.1	-	0.1	0.2	0.3	0.4	0.2					
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-					
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-					
Total Non-OPEC	-	-	-	-	-	0.1	-	0.1	0.4	0.4	0.4	0.3					
Non-OPEC: historical composition	-	-	-	-	-	0.1	-	0.1	0.4	0.4	0.4	0.3					
OPEC																	
Crude	-	-	-	-	-	-	-	-									
NGLs	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1					
Total OPEC	-	-	-	-	-	-	-	0.1									
OPEC: historical composition	-	-	-	-	-	-	-	0.1									
Total Supply	-	-	-	-	-	0.1	-	0.2									
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-									
Government	-	-	-	-	-	-	-	-									
Total	-	-	-	-	-	-	-	-									
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-									
Miscellaneous to balance	-0.1	-0.4	-0.4	-0.4	-0.4	-0.3	-0.4	-0.2									
Total Stock Ch. & Misc	-0.1	-0.4	-0.5	-0.4	-0.4	-0.3	-0.4	-0.2									
Memo items:																	
Call on OPEC crude + Stock ch.	0.1	0.4	0.5	0.4	0.4	0.3	0.4	0.2	-	-0.2	0.1	-					
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-0.4	-0.5	-0.3	-0.3					

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

SUMMARY OF GLOBAL OIL DEMAND

	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Demand (mb/d)																
North America	25.47	24.77	24.41	23.60	23.93	24.18	23.52	22.64	22.74	22.88	22.94	23.62	23.09	23.02	23.01	23.18
Europe	15.34	15.32	15.01	15.43	15.34	15.28	14.90	14.19	14.80	14.82	14.68	14.88	14.19	14.67	14.73	14.62
Pacific	8.37	8.91	7.86	7.54	7.97	8.07	8.14	7.17	7.04	7.50	7.46	8.10	7.07	6.91	7.36	7.35
Total OECD	49.19	49.00	47.28	46.57	47.25	47.52	46.56	44.01	44.57	45.20	45.08	46.60	44.35	44.59	45.10	45.15
Asia	17.11	17.82	17.85	17.49	17.11	17.56	17.53	18.09	17.35	17.53	17.63	18.11	18.58	17.93	18.13	18.18
Middle East	6.53	6.72	7.13	7.56	6.95	7.09	6.70	7.28	7.77	7.18	7.24	7.04	7.59	8.11	7.53	7.57
Latin America	5.69	5.71	5.96	6.04	5.92	5.91	5.73	5.93	6.03	5.95	5.91	5.91	6.11	6.21	6.14	6.09
FSU	4.15	4.26	4.12	4.32	4.15	4.21	3.96	3.85	4.08	4.07	3.99	4.13	4.01	4.19	4.18	4.13
Africa	3.07	3.20	3.19	3.14	3.22	3.19	3.23	3.21	3.11	3.26	3.20	3.36	3.33	3.23	3.37	3.32
Europe	0.77	0.76	0.74	0.72	0.74	0.74	0.72	0.71	0.70	0.71	0.71	0.74	0.73	0.72	0.73	0.73
Total Non-OECD	37.32	38.47	38.99	39.27	38.09	38.70	37.88	39.08	39.03	38.70	38.68	39.28	40.35	40.38	40.08	40.03
World	86.51	87.47	86.27	85.83	85.34	86.23	84.44	83.08	83.60	83.91	83.76	85.88	84.70	84.97	85.18	85.18
of which: US50	20.68	20.04	19.76	18.90	19.30	19.50	18.96	18.24	18.23	18.39	18.45	18.99	18.63	18.47	18.48	18.64
Europe 5*	9.48	9.50	9.29	9.50	9.57	9.47	9.41	8.82	9.12	9.12	9.11	9.30	8.74	9.00	9.01	9.01
China	7.57	7.88	7.98	8.09	7.62	7.89	7.65	8.37	7.95	7.95	7.98	8.02	8.64	8.30	8.30	8.31
Japan	5.04	5.45	4.63	4.34	4.71	4.78	4.72	3.93	3.88	4.24	4.19	4.65	3.81	3.72	4.08	4.06
India	3.00	3.25	3.17	2.97	3.14	3.13	3.40	3.25	3.05	3.21	3.23	3.50	3.35	3.16	3.34	3.34
Russia	2.89	2.94	2.88	3.08	2.87	2.94	2.70	2.65	2.87	2.81	2.76	2.84	2.79	2.97	2.91	2.88
Brazil	2.35	2.37	2.46	2.53	2.51	2.47	2.38	2.46	2.51	2.50	2.46	2.48	2.56	2.61	2.59	2.56
Saudi Arabia	2.17	2.22	2.47	2.71	2.27	2.42	2.23	2.63	2.84	2.42	2.53	2.41	2.76	3.02	2.61	2.70
Canada	2.31	2.31	2.19	2.28	2.26	2.26	2.20	2.12	2.20	2.19	2.18	2.27	2.15	2.23	2.22	2.21
Korea	2.24	2.35	2.11	2.10	2.14	2.17	2.34	2.15	2.07	2.15	2.18	2.34	2.14	2.07	2.14	2.17
Mexico	2.14	2.12	2.19	2.14	2.07	2.13	2.05	2.01	2.02	2.00	2.02	2.05	2.03	2.03	2.01	2.03
Iran	1.72	1.86	1.89	1.86	1.83	1.86	1.77	1.87	1.88	1.86	1.85	1.85	1.96	1.96	1.94	1.93
Total	61.58	62.28	61.03	60.50	60.30	61.02	59.82	58.49	58.62	58.84	58.94	60.69	59.57	59.54	59.61	59.85
% of World	71.2%	71.2%	70.7%	70.5%	70.7%	70.8%	70.8%	70.4%	70.1%	70.1%	70.4%	70.7%	70.3%	70.1%	70.0%	70.3%
Annual Change (% per annum)																
North America	0.4	-3.3	-3.7	-7.4	-5.9	-5.1	-5.1	-7.2	-3.6	-4.4	-5.1	0.5	2.0	1.2	0.5	1.0
Europe	-2.1	0.6	0.2	-0.2	-2.2	-0.4	-2.8	-5.4	-4.1	-3.4	-3.9	-0.1	0.0	-0.9	-0.6	-0.4
Pacific	-1.0	0.0	-0.6	-4.9	-8.9	-3.6	-8.6	-8.8	-6.6	-5.9	-7.5	-0.5	-1.4	-1.9	-2.0	-1.4
Total OECD	-0.7	-1.5	-2.0	-4.7	-5.3	-3.4	-5.0	-6.9	-4.3	-4.3	-5.1	0.1	0.8	0.0	-0.2	0.2
Asia	5.1	5.7	2.8	3.5	-1.4	2.6	-1.6	1.4	-0.8	2.5	0.3	3.3	2.7	3.3	3.4	3.2
Middle East	3.2	4.9	9.1	12.3	7.5	8.5	-0.2	2.2	2.7	3.3	2.1	5.0	4.3	4.5	4.9	4.6
Latin America	5.5	4.8	5.2	3.9	1.7	3.9	0.3	-0.6	-0.3	0.5	0.0	3.2	3.1	3.0	3.1	3.1
FSU	2.7	3.1	4.3	2.6	-3.7	1.5	-7.0	-6.4	-5.6	-2.0	-5.2	4.2	4.0	2.8	2.8	3.4
Africa	4.0	3.1	5.4	4.0	2.6	3.8	1.1	0.6	-0.9	1.1	0.5	3.8	3.6	3.7	3.6	3.7
Europe	4.4	4.8	4.6	4.9	0.6	3.7	-1.5	0.2	-0.6	1.6	-0.1	3.7	3.3	3.5	3.6	3.5
Total Non-OECD	3.6	0.2	-0.4	-7.3	-5.3	-3.3	-5.0	-4.0	-2.8	-3.8	-3.9	1.8	2.4	2.9	2.5	2.4
World	1.5	1.2	0.9	-0.6	-2.7	-0.3	-3.5	-3.7	-2.6	-1.7	-2.9	1.7	1.9	1.6	1.5	1.7
Annual Change (mb/d)																
North America	0.09	-0.85	-0.93	-1.89	-1.50	-1.30	-1.25	-1.77	-0.86	-1.05	-1.23	0.11	0.45	0.28	0.12	0.24
Europe	-0.33	0.09	0.03	-0.03	-0.35	-0.06	-0.42	-0.81	-0.63	-0.53	-0.60	-0.02	0.00	-0.13	-0.09	-0.06
Pacific	-0.08	0.00	-0.04	-0.39	-0.78	-0.30	-0.77	-0.69	-0.50	-0.47	-0.61	-0.04	-0.10	-0.13	-0.15	-0.11
Total OECD	-0.32	-0.75	-0.94	-2.32	-2.64	-1.66	-2.44	-3.27	-1.99	-2.05	-2.44	0.04	0.35	0.01	-0.11	0.07
Asia	0.83	0.96	0.49	0.60	-0.24	0.45	-0.29	0.24	-0.14	0.43	0.06	0.57	0.49	0.58	0.59	0.56
Middle East	0.20	0.31	0.59	0.83	0.48	0.56	-0.01	0.16	0.20	0.23	0.15	0.34	0.31	0.35	0.35	0.34
Latin America	0.30	0.26	0.30	0.23	0.10	0.22	0.02	-0.04	-0.02	0.03	0.00	0.18	0.18	0.18	0.19	0.18
FSU	0.11	0.13	0.17	0.11	-0.16	0.06	-0.30	-0.26	-0.24	-0.08	-0.22	0.16	0.15	0.12	0.11	0.14
Africa	0.12	0.10	0.16	0.12	0.08	0.12	0.04	0.02	-0.03	0.04	0.02	0.12	0.12	0.12	0.12	0.12
Europe	0.03	0.00	0.00	-0.06	-0.04	-0.03	-0.04	-0.03	-0.02	-0.03	-0.03	0.01	0.02	0.02	0.02	0.02
Total Non-OECD	1.59	1.76	1.71	1.83	0.22	1.38	-0.59	0.09	-0.24	0.61	-0.03	1.39	1.27	1.36	1.38	1.35
World	1.26	1.01	0.77	-0.48	-2.41	-0.28	-3.03	-3.18	-2.24	-1.43	-2.47	1.44	1.62	1.37	1.27	1.42
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	-0.05	-0.07	-0.11	-0.13	-0.14	-0.11	-0.27	-0.33	-0.45	-0.18	-0.31					
Europe	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.08	0.09	0.11	0.08					
Pacific	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.06	0.16	0.15	0.10					
Total OECD	0.02	0.02	-0.01	-0.03	-0.04	-0.01	-0.17	-0.19	-0.20	0.08	-0.12					
Asia	0.08	0.10	0.10	0.09	0.09	0.09	0.14	0.47	0.24	0.25	0.28					
Middle East	0.13	0.13	0.13	0.13	0.13	0.13	0.14	0.07	0.11	0.11	0.11					
Latin America	0.05	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.00	0.01	0.01					
FSU	0.07	0.07	0.05	0.07	-0.01	0.05	0.03	0.00	0.02	0.03	0.02					
Africa	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.03	0.03	0.02	0.04					
Europe	0.09	0.09	0.09	0.08	0.09	0.09	0.09	0.09	0.08	0.09	0.09					
Total Non-OECD	0.48	0.48	0.45	0.45	0.38	0.44	0.49	0.69	0.49	0.51	0.54					
World	0.50	0.50	0.44	0.42	0.35	0.43	0.31	0.50	0.29	0.59	0.43					
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.41	0.08	-0.04	-0.07	-0.24	-0.07	-0.19	0.06	-0.13	0.25	0.00					

* France, Germany, Italy, Spain & UK

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2008	2009	2010	1Q09	2Q09	3Q09	4Q09	1Q10	Apr 09	May 09	Jun 09
OPEC											
Crude Oil											
Saudi Arabia	8.90			7.87	7.86				7.73	7.93	7.93
Iran	3.90			3.71	3.76				3.75	3.72	3.80
Iraq	2.38			2.34	2.45				2.37	2.49	2.50
UAE	2.59			2.29	2.25				2.25	2.25	2.25
Kuwait	2.31			2.07	1.98				1.98	1.98	1.97
Neutral Zone	0.57			0.55	0.54				0.54	0.54	0.54
Qatar	0.85			0.76	0.77				0.78	0.76	0.78
Angola	1.85			1.67	1.74				1.67	1.75	1.80
Nigeria	1.95			1.81	1.77				1.78	1.80	1.72
Libya	1.72			1.58	1.53				1.52	1.54	1.54
Algeria	1.37			1.25	1.25				1.25	1.25	1.25
Ecuador	0.50			0.48	0.48				0.48	0.48	0.48
Venezuela	2.35			2.13	2.12				2.12	2.12	2.12
Total Crude Oil[6]	31.24			28.49	28.50				28.22	28.61	28.68
Total NGLs[1,6]	4.66	5.22	6.07	4.89	5.05	5.36	5.55	5.72	5.05	5.05	5.05
Total OPEC[6]	35.90			33.39	33.55				33.27	33.66	33.73
OPEC: Historical Composition[6]	36.93			33.39	33.55				33.27	33.66	33.73
NON-OPEC[2]											
OECD											
North America	13.91	13.96	14.08	14.21	13.85	13.80	13.97	14.32	14.22	13.67	13.66
United States	7.52	7.83	8.01	7.84	7.91	7.76	7.80	8.01	7.89	7.96	7.87
Mexico	3.16	2.96	2.81	3.04	2.97	2.95	2.88	2.85	3.02	2.99	2.90
Canada	3.22	3.17	3.27	3.33	2.97	3.09	3.29	3.45	3.31	2.72	2.90
Europe	4.77	4.44	4.08	4.89	4.40	4.13	4.35	4.29	4.70	4.37	4.12
UK	1.56	1.49	1.32	1.62	1.56	1.33	1.46	1.45	1.57	1.58	1.55
Norway	2.46	2.24	2.08	2.56	2.12	2.09	2.19	2.16	2.42	2.09	1.85
Others	0.75	0.71	0.68	0.71	0.71	0.71	0.70	0.68	0.71	0.70	0.72
Pacific	0.65	0.68	0.75	0.65	0.65	0.69	0.71	0.74	0.67	0.64	0.65
Australia	0.55	0.57	0.62	0.56	0.55	0.57	0.58	0.61	0.57	0.54	0.54
Others	0.10	0.11	0.13	0.09	0.10	0.12	0.13	0.13	0.10	0.10	0.11
Total OECD	19.33	19.07	18.90	19.75	18.90	18.62	19.03	19.35	19.59	18.68	18.43
NON-OECD											
Former USSR	12.76	12.96	13.17	12.84	13.12	12.94	12.95	13.11	13.09	13.07	13.20
Russia	10.00	10.03	9.88	10.00	10.10	10.05	9.96	9.92	10.09	10.09	10.14
Others	2.76	2.93	3.29	2.84	3.02	2.89	2.98	3.19	3.00	2.99	3.06
Asia	7.46	7.50	7.69	7.38	7.46	7.57	7.59	7.63	7.42	7.43	7.53
China	3.79	3.84	3.94	3.73	3.83	3.91	3.91	3.92	3.80	3.78	3.90
Malaysia	0.76	0.73	0.70	0.74	0.73	0.72	0.72	0.71	0.73	0.73	0.73
India	0.81	0.80	0.87	0.78	0.79	0.80	0.82	0.84	0.80	0.79	0.79
Indonesia	1.03	1.02	1.07	1.02	1.01	1.02	1.03	1.04	1.00	1.01	1.02
Others	1.08	1.11	1.12	1.10	1.10	1.12	1.11	1.12	1.09	1.11	1.09
Europe	0.14	0.13	0.12	0.14	0.14	0.13	0.13	0.13	0.14	0.14	0.13
Latin America	4.13	4.40	4.69	4.34	4.39	4.43	4.44	4.60	4.38	4.38	4.40
Brazil	2.37	2.54	2.81	2.49	2.52	2.57	2.58	2.72	2.53	2.51	2.53
Argentina	0.75	0.76	0.77	0.76	0.77	0.77	0.76	0.77	0.76	0.77	0.77
Colombia	0.59	0.65	0.66	0.64	0.65	0.66	0.66	0.66	0.65	0.65	0.65
Others	0.42	0.45	0.44	0.45	0.45	0.45	0.45	0.45	0.45	0.44	0.45
Middle East[3]	1.65	1.61	1.57	1.64	1.62	1.60	1.58	1.57	1.62	1.62	1.61
Oman	0.75	0.78	0.79	0.79	0.78	0.78	0.78	0.78	0.78	0.78	0.79
Syria	0.40	0.37	0.33	0.38	0.37	0.36	0.36	0.35	0.38	0.37	0.37
Yemen	0.31	0.27	0.26	0.28	0.27	0.26	0.26	0.26	0.28	0.27	0.27
Africa	2.53	2.50	2.47	2.50	2.50	2.52	2.50	2.49	2.50	2.50	2.50
Egypt	0.65	0.63	0.60	0.65	0.64	0.63	0.62	0.61	0.64	0.64	0.64
Gabon	0.21	0.23	0.24	0.22	0.22	0.23	0.24	0.24	0.22	0.22	0.22
Others	1.67	1.64	1.63	1.64	1.64	1.65	1.64	1.64	1.65	1.64	1.64
Total Non-OECD	28.67	29.11	29.71	28.84	29.22	29.19	29.19	29.53	29.16	29.13	29.38
Processing Gains[4]	2.24	2.29	2.20	2.29	2.29	2.29	2.29	2.20	2.29	2.29	2.29
Other Biofuels[5]	0.38	0.35	0.41	0.33	0.34	0.36	0.37	0.37	0.34	0.34	0.34
TOTAL NON-OPEC[6]	50.63	50.81	51.22	51.20	50.74	50.46	50.87	51.46	51.37	50.43	50.43
Non-OPEC: Historical Composition[6]	49.60	50.81	51.22	51.20	50.74	50.46	50.87	51.46	51.37	50.43	50.43
TOTAL SUPPLY	86.53			84.58	84.30				84.64	84.09	84.16

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Comprises fuel ethanol and biodiesel supply from outside Brazil and US.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jan2009	Feb2009	Mar2009	Apr2009	May2009*	May2006	May2007	May2008	2Q2008	3Q2008	4Q2008	1Q2009
North America												
Crude	496.9	498.7	510.4	514.0	505.5	463.5	490.3	440.6	-0.22	0.19	0.16	0.49
Motor Gasoline	248.0	247.4	248.5	243.3	232.4	242.1	229.9	235.2	-0.13	-0.22	0.27	0.06
Middle Distillate	217.0	220.6	217.0	222.4	227.0	196.4	197.2	185.0	0.14	0.06	0.22	0.00
Residual Fuel Oil	42.7	47.0	47.3	44.0	47.5	49.4	44.2	47.7	0.01	-0.01	-0.04	0.03
Total Products[3]	678.4	683.2	685.2	688.9	710.8	658.1	650.1	639.2	0.34	0.01	0.32	0.02
Total[4]	1324.1	1328.7	1347.9	1358.5	1374.5	1269.9	1285.8	1227.8	0.26	0.41	0.25	0.53
Europe												
Crude	344.4	340.2	355.4	341.5	349.7	348.5	340.9	340.3	0.01	-0.01	0.10	0.14
Motor Gasoline	109.4	106.1	102.0	99.6	99.1	102.5	101.4	111.7	-0.14	-0.11	0.12	-0.08
Middle Distillate	273.5	282.0	277.3	282.4	284.8	252.6	270.6	239.4	0.02	0.13	0.10	0.07
Residual Fuel Oil	80.5	79.2	73.6	76.2	78.2	72.7	71.0	83.0	0.00	-0.05	0.07	-0.09
Total Products[3]	571.0	575.4	561.4	567.0	570.4	529.5	542.2	540.0	-0.12	0.00	0.31	-0.15
Total[4]	990.2	988.4	987.6	979.4	989.8	951.2	957.7	955.0	-0.09	-0.06	0.45	-0.05
Pacific												
Crude	171.2	175.5	170.1	166.7	161.3	185.4	173.3	158.2	0.11	-0.07	0.01	0.08
Motor Gasoline	22.3	24.9	26.4	27.7	26.9	24.9	25.7	26.4	-0.03	-0.02	-0.02	0.06
Middle Distillate	64.5	63.4	56.8	58.8	64.9	67.0	64.7	58.8	0.02	0.16	-0.10	-0.09
Residual Fuel Oil	20.7	21.6	20.2	21.3	20.8	24.4	22.6	24.1	0.03	0.00	-0.02	0.00
Total Products[3]	168.5	170.9	168.0	166.3	171.3	180.5	178.2	171.9	0.01	0.28	-0.20	-0.06
Total[4]	408.1	415.5	407.5	402.4	403.8	438.1	425.1	404.5	0.16	0.24	-0.25	0.01
Total OECD												
Crude	1012.4	1014.4	1035.9	1022.2	1016.5	997.5	1004.5	939.1	-0.10	0.11	0.27	0.71
Motor Gasoline	379.7	378.3	377.0	370.6	358.3	369.5	357.0	373.2	-0.30	-0.34	0.37	0.05
Middle Distillate	555.0	566.0	551.1	563.6	576.7	515.9	532.5	483.2	0.19	0.34	0.22	-0.02
Residual Fuel Oil	143.8	147.8	141.1	141.5	146.4	146.5	137.8	154.8	0.04	-0.07	0.01	-0.06
Total Products[3]	1417.8	1429.5	1414.6	1422.2	1452.4	1368.1	1370.5	1351.0	0.24	0.28	0.43	-0.20
Total[4]	2722.4	2732.5	2743.0	2740.4	2768.2	2659.1	2668.5	2587.3	0.33	0.59	0.45	0.50

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jan2009	Feb2009	Mar2009	Apr2009	May2009*	May2006	May2007	May2008	2Q2008	3Q2008	4Q2008	1Q2009
North America												
Crude	703.8	705.5	712.8	718.8	721.8	688.6	690.3	704.3	0.06	-0.04	-0.01	0.12
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	185.7	187.1	188.1	185.5	185.5	172.0	175.0	181.6	-0.03	-0.02	0.07	0.02
Products	232.9	232.4	234.2	238.9	238.9	233.0	237.6	235.3	0.00	-0.01	-0.05	0.06
Pacific												
Crude	389.2	389.2	389.2	388.1	388.9	380.5	385.0	385.0	0.00	-0.01	0.03	0.02
Products	19.2	19.2	19.2	19.2	19.2	11.7	16.4	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1278.7	1281.8	1290.0	1292.4	1296.1	1241.1	1250.3	1270.8	0.02	-0.07	0.10	0.17
Products	254.0	253.5	255.4	260.1	260.1	246.7	256.0	256.2	0.00	-0.01	-0.05	0.06
Total[4]	1533.6	1536.3	1547.0	1554.0	1557.8	1488.7	1507.3	1528.0	0.02	-0.08	0.05	0.23

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End March 2008		End June 2008		End September 2008		End December 2008		End March 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	193.1	88	193.5	85	198.4	88	193.9	88	198.1	-
Mexico	46.8	21	44.7	21	55.7	27	50.3	25	45.5	-
United States[4]	1656.7	84	1688.0	89	1706.4	88	1738.7	92	1797.0	-
Total[4]	1918.7	79	1948.3	83	1982.6	83	2005.1	86	2062.6	91
Pacific										
Australia	36.1	38	37.4	39	37.7	39	40.5	44	39.9	-
Japan	610.0	132	619.1	143	646.2	137	629.6	133	611.3	-
Korea	142.8	68	146.6	70	141.2	66	134.9	58	155.2	-
New Zealand	8.4	55	8.4	58	7.9	53	7.9	51	9.5	-
Total	797.4	101	811.4	108	833.0	104	812.9	100	815.9	114
Europe[5]										
Austria	22.7	77	22.8	77	21.5	79	23.2	87	21.1	-
Belgium	30.3	48	28.4	46	29.1	46	32.4	52	35.8	-
Czech Republic	20.4	91	20.2	88	19.1	97	21.4	114	22.7	-
Denmark	16.4	89	19.0	107	18.3	101	22.9	131	25.1	-
Finland	30.5	139	25.5	116	30.1	139	30.7	147	33.5	-
France	177.5	91	176.6	90	176.6	87	179.2	89	177.6	-
Germany	281.2	116	273.2	101	273.7	103	277.4	108	277.7	-
Greece	34.9	92	36.3	87	39.2	83	40.0	83	36.7	-
Hungary	16.7	101	16.6	101	15.5	93	15.0	100	15.7	-
Ireland	12.1	64	10.4	59	10.5	54	11.4	63	11.5	-
Italy	130.9	80	136.7	83	130.3	81	127.9	83	131.0	-
Luxembourg	0.6	10	0.7	12	0.6	10	0.8	14	0.7	-
Netherlands	126.5	125	124.5	119	115.0	117	131.4	130	129.8	-
Norway	25.4	102	23.1	116	26.5	127	29.9	143	24.0	-
Poland	57.6	108	57.4	103	58.8	106	58.1	119	58.9	-
Portugal	24.9	84	25.3	85	25.0	90	24.7	92	25.0	-
Slovak Republic	9.0	111	9.1	99	8.0	93	8.8	122	9.8	-
Spain	134.2	87	135.0	87	135.8	88	137.6	89	137.8	-
Sweden	34.2	98	34.1	94	36.6	104	38.7	119	40.8	-
Switzerland	36.5	141	37.2	133	37.8	127	36.3	120	36.8	-
Turkey	60.9	93	60.9	80	60.8	98	60.9	111	59.2	-
United Kingdom	100.5	58	99.3	60	95.1	55	98.8	57	100.4	-
Total	1384.1	92	1372.4	89	1363.8	89	1407.5	94	1411.4	99
Total OECD	4100.1	87	4132.2	89	4179.4	88	4225.4	91	4289.9	97
DAYS OF IEA Net Imports[6]	-	122	-	123	-	124	-	131	-	134

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End March 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
1Q2006	4072	1487	2585	84	31	54
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	53
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	83	30	53
4Q2007	4091	1524	2567	83	31	52
1Q2008	4100	1527	2573	87	32	54
2Q2008	4132	1528	2604	89	33	56
3Q2008	4179	1521	2658	88	32	56
4Q2008	4225	1526	2700	91	33	58
1Q2009	4290	1547	2743	97	35	62

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 1Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	2Q08	3Q08	4Q08	1Q09	Feb 09	Mar 09	Apr 09	Year Earlier Apr 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.73	0.71	0.63	0.58	0.71	0.46	0.58	0.83	-0.25
Europe	0.78	0.70	0.70	0.65	0.81	0.66	0.57	0.58	0.63	0.62	0.53	0.09
Pacific	1.32	1.19	1.22	1.24	1.10	1.24	1.40	1.51	1.41	1.14	1.14	0.00
Saudi Medium												
North America	0.64	0.56	0.64	0.62	0.68	0.66	0.42	0.30	0.38	0.40	0.59	-0.19
Europe	0.14	0.05	0.05	0.07	0.03	0.05	0.03	0.04	0.02	0.02	0.17	-0.15
Pacific	0.35	0.34	0.39	0.36	0.40	0.38	0.34	0.34	0.25	0.32	0.32	0.00
Saudi Heavy												
North America	0.21	0.09	0.07	0.04	0.14	0.05	0.04	0.04	0.04	0.02	0.06	-0.03
Europe	0.18	0.11	0.09	0.10	0.12	0.09	0.03	0.00	0.03	0.04	0.07	-0.03
Pacific	0.23	0.20	0.24	0.24	0.26	0.25	0.22	0.22	0.16	0.12	0.27	-0.15
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.60	0.57	0.51	0.44	0.31	0.52	0.39	0.63	-0.24
Europe	0.32	0.30	0.21	0.19	0.23	0.21	0.13	0.08	0.17	0.11	0.15	-0.05
Pacific	0.08	0.17	0.15	0.18	0.18	0.11	0.26	0.31	0.27	0.22	0.15	0.07
Iraqi Kirkuk												
North America	0.00	-	0.08	0.11	0.10	0.06	0.07	0.09	0.02	-	-	-
Europe	0.01	0.11	0.23	0.28	0.24	0.19	0.26	0.24	0.28	0.31	0.30	0.01
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.23	0.21	0.24	0.15	0.09	0.23	0.15	0.15	-0.01
Pacific	0.13	0.09	0.08	0.06	0.06	0.07	0.11	0.09	0.10	0.10	0.10	0.00
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.48	0.60	0.43	0.33	0.33	0.25	0.32	0.42	-0.10
Pacific	0.56	0.64	0.61	0.49	0.67	0.64	0.65	0.74	0.57	0.61	0.59	0.02
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.66	0.67	0.50	0.51	0.39	0.60	0.60	0.60	0.00
Europe	0.11	0.08	0.06	0.06	0.06	0.07	0.07	0.10	0.06	0.10	0.05	0.05
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.59	0.67	0.74	0.74	0.60	0.63	0.54	0.39	0.15
Europe	0.06	0.07	0.07	0.07	0.07	0.08	0.07	0.06	0.06	0.08	0.06	0.01
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	1.00	0.99	1.04	1.06	1.02	1.03	1.01	1.03	-0.02
Europe	0.16	0.14	0.14	0.18	0.14	0.12	0.08	0.13	0.05	0.08	0.20	-0.12
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.00
Europe	0.01	0.02	0.01	0.01	-	0.02	0.01	-	-	-	0.04	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.10	0.10	-	0.09	0.10	0.18	0.27	-	-
Europe	1.68	1.86	1.81	1.95	1.74	1.67	1.58	1.59	1.42	1.80	2.15	-0.34
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.77	0.52	0.60	0.47	0.42	0.60	0.29	0.84	-0.55
Europe	0.33	0.24	0.29	0.21	0.33	0.34	0.25	0.23	0.20	0.32	0.15	0.17
Pacific	0.04	0.01	-	-	-	-	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.27	0.26	0.22	0.14	0.09	0.29	0.26	0.31	-0.04
Europe	0.10	0.07	0.14	0.20	0.13	0.14	0.12	0.07	0.08	0.10	0.18	-0.08
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	2Q08	3Q08	4Q08	1Q09	Feb-09	Mar-09	Apr-09	Year Earlier Apr-08	Year Earlier % change
Crude Oil												
North America	8194	8214	8043	8298	7895	7886	7743	7237	7823	7825	7698	2%
Europe	9784	9679	9772	9878	9977	9524	9010	9051	8757	8967	9787	-8%
Pacific	6816	6718	6604	6457	6462	6404	6560	6885	6006	5776	6649	-13%
Total OECD	24794	24610	24419	24633	24333	23814	23314	23173	22586	22568	24624	-8%
LPG												
North America	14	28	29	15	38	34	28	15	22	32	5	546%
Europe	264	276	264	246	263	239	251	227	277	234	234	0%
Pacific	578	557	589	632	582	542	504	524	525	477	689	-31%
Total OECD	856	861	881	893	884	816	784	765	823	743	928	-20%
Naphtha												
North America	71	40	55	54	58	82	40	13	18	24	81	-71%
Europe	314	265	259	260	231	270	320	271	460	194	264	-26%
Pacific	754	794	776	734	886	689	746	774	873	726	731	-1%
Total OECD	1138	1099	1090	1048	1174	1040	1105	1057	1350	944	1076	-12%
Gasoline[3]												
North America	1143	1128	1083	1220	1184	1038	996	964	1036	886	1071	-17%
Europe	160	203	218	187	260	196	239	299	120	211	293	-28%
Pacific	96	73	91	91	56	106	121	129	132	81	102	-21%
Total OECD	1399	1404	1391	1498	1501	1340	1355	1393	1287	1177	1467	-20%
Jet & Kerosene												
North America	161	183	63	78	40	39	80	77	72	54	93	-42%
Europe	374	370	402	381	400	468	450	378	510	461	358	29%
Pacific	69	43	34	39	22	33	79	130	49	52	31	65%
Total OECD	603	595	500	498	461	540	610	585	631	566	482	17%
Gasoil/Diesel												
North America	175	132	72	46	50	94	106	114	75	31	66	-53%
Europe	967	780	870	662	900	1014	1223	1360	1131	1052	582	81%
Pacific	77	91	119	133	128	117	82	108	62	54	99	-45%
Total OECD	1219	1003	1061	840	1078	1225	1411	1582	1267	1137	748	52%
Heavy Fuel Oil												
North America	343	323	286	307	246	266	326	270	331	319	314	2%
Europe	476	433	445	391	443	459	474	515	471	586	407	44%
Pacific	91	95	125	140	143	93	144	165	166	157	145	9%
Total OECD	910	851	856	838	831	818	943	950	967	1062	865	23%
Other Products												
North America	1121	1050	1075	1085	1061	1117	936	887	953	822	1034	-20%
Europe	929	854	763	771	786	750	729	790	657	786	871	-10%
Pacific	243	254	300	267	318	322	279	241	284	345	244	42%
Total OECD	2294	2157	2138	2123	2165	2188	1944	1917	1894	1953	2149	-9%
Total Products												
North America	3028	2883	2663	2804	2677	2669	2510	2339	2506	2168	2663	-19%
Europe	3484	3180	3220	2898	3282	3395	3686	3840	3625	3523	3009	17%
Pacific	1908	1906	2034	2035	2136	1902	1955	2070	2089	1892	2042	-7%
Total OECD	8420	7969	7917	7738	8095	7966	8151	8249	8220	7583	7715	-2%
Total Oil												
North America	11222	11097	10706	11102	10572	10555	10254	9576	10329	9993	10852	-8%
Europe	13268	12859	12992	12776	13259	12919	12696	12891	12382	12490	12796	-2%
Pacific	8724	8623	8638	8492	8597	8306	8515	8955	8095	7668	8691	-12%
Total OECD	33214	32579	32337	32371	32428	31780	31465	31422	30806	30151	32339	-7%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor
Head, Oil Industry and Markets Division
David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand
Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply
Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining
David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight
Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices
Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Statistics/Trade
Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant
Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
6* 0 - only within France

Media Enquiries

IEA Press Office
(+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

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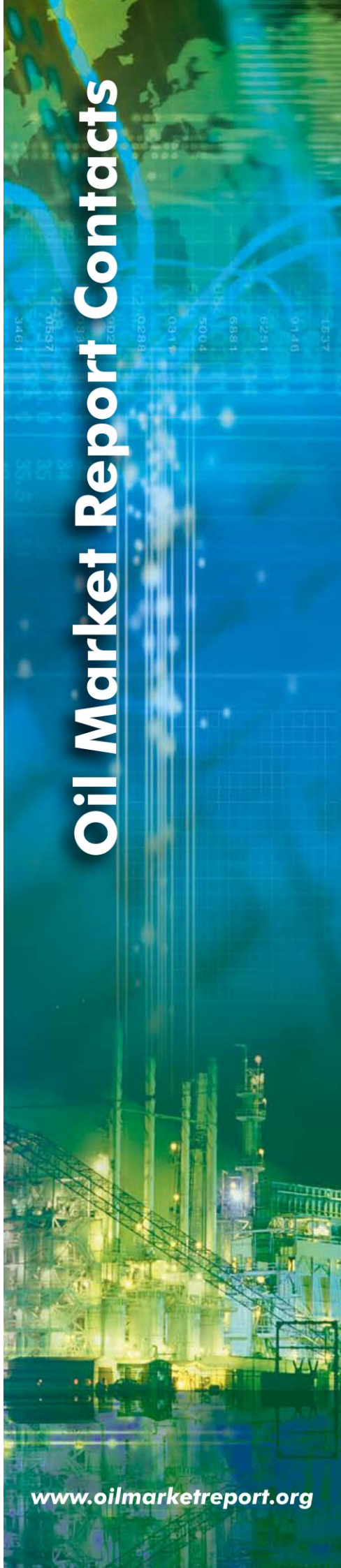

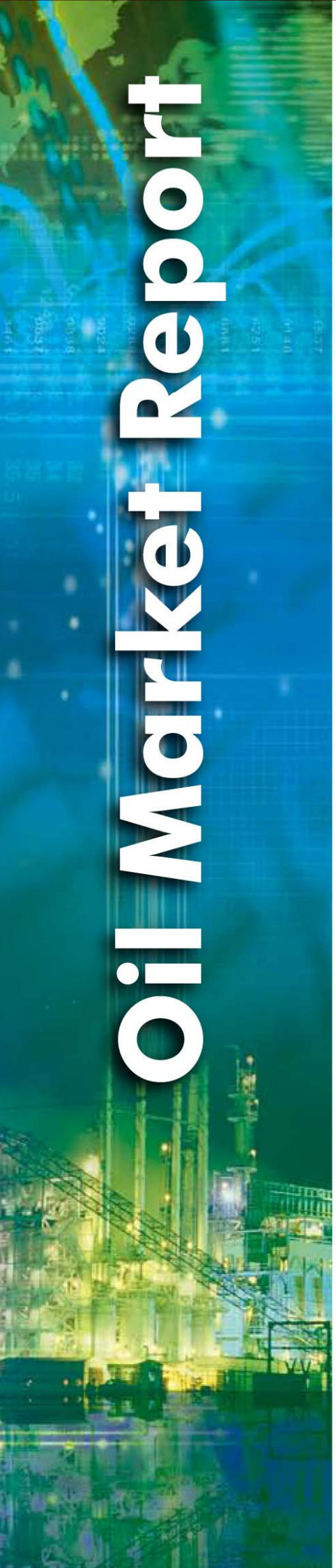

INTERNATIONAL ENERGY AGENCY

12 August 2009

HIGHLIGHTS

- **Brent and WTI crude futures hover at $72/bbl and $69/bbl** respectively, as a return of more bullish sentiment saw them rise by $8-10/bbl over the July average. Brent's premium reflects rising US Midcontinent stocks and North Sea maintenance. Light/heavy crude differentials narrowed on sustained OPEC cuts, boosting fuel oil prices.

- **Global oil supply in July rose by 570 kb/d to 85.1 mb/d**, two-thirds of which stemmed from non-OPEC. Total non-OPEC supply for 2009 is revised up 160 kb/d to 51.0 mb/d, largely due to stronger-than-expected Russian output, as in recent months. Total non-OPEC supply is now seen rising 440 kb/d to an upward-revised 51.4 mb/d in 2010.

- **OPEC crude oil supply edged lower** by around 100 kb/d in July, to 28.64 mb/d, in part due to record-low output by Nigeria. Production by OPEC-11, which excludes Iraq, was down by 120 kb/d, to 26.12 mb/d. The call on OPEC remains at 27.7 mb/d in 2009 and is trimmed to 27.8 mb/d in 2010.

- **Demand forecasts for 2009 and 2010 are revised up** by 190 kb/d and 70 kb/d, respectively, given a stronger outlook for Asia for both years. This barely dents the sharp demand contraction to 83.94 mb/d expected this year, while growth in 2010 is slightly lower than previously estimated, at +1.6% or +1.3 mb/d to 85.25 mb/d.

- **3Q09 global refinery crude runs are revised down 0.4 mb/d** to 72.0 mb/d on further weakness in European runs, rising floating distillate storage and continued refining margin weakness. Expected annual growth slips to -2.0 mb/d for 3Q09, while growth from 2Q09 is just 0.4 mb/d, far below the normal seasonal increase of 1.0 mb/d.

- **OECD industry stocks rose counter-seasonally** by 8.5 mb in June to 2,749 mb, 5.5% above last year's level. The biggest gains came in European crude and North American light distillates, while North American crude posted the largest drop. End-June forward demand cover was unchanged versus May at 61.7 days.

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DOG DAYS AND JUDGEMENT DAYS

August is traditionally vacation time for a sizeable tranche of Europe, providing those still at work the time to catch up and take stock. It is one of the reasons we release the *Annual Statistical Supplement* at this time, after the heat and dust of the release of non-OECD and OECD annual statistics, the *MTOMR* and the 2010 forecast roll-out in July. Latest data also suggest a relatively quiet time in terms of OECD oil demand – with prevailing weakness remaining the key feature. All told, European demand contraction widened to 0.9 mb/d in 2Q09, and the US 2009 gasoline season now seems to have fizzled out before getting started. Preliminary US July gasoline demand stood 1.8% below 2008 levels, after a decline of 1.6% in June. Green shoots of economic recovery there may be, but motorists have curbed driving and, at the margin, schemes to encourage vehicle fuel efficiency may begin to have an increasing impact.

The persistent overhang in OECD middle distillate stocks, both on-land and offshore in floating storage, plus very weak distillate cracks, suggest that industrial activity and freight movement also remain depressed. Another leading indicator for distillates is the level of German consumer heating stocks. Now standing not far off traditional pre-winter highs, they suggest little imminent scope for a seasonal surge in consumer buying in Europe's biggest heating oil market in coming months.

In contrast, Chinese oil demand has rebounded, underpinning this month's 100-200 kb/d upward revision for projected global demand. Uncertainties persist over the impact of China's domestic pricing reform, and the links between industrial output and oil demand. However, signs that Phase 2 of China's strategic storage programme is proceeding apace could augment underlying *crude* demand there by late 2009. With refiners worldwide hobbled by weak margins and low runs, news that Saudi Arabia has boosted direct crude burn for power generation may also help absorb otherwise surplus volumes, even if it dents fuel oil import requirements. However, persistent weakness in OECD *products* demand, exacerbated by competitive natural gas prices, leads us to keep 2009 global demand largely unchanged. Habitually accused of overstating demand growth, we are now among the bears for 2009 demand (-2.3 mb/d versus 2008). Time will tell although, notably, consensus among other analysts for average demand change in 2009 shifted from around -1.5 mb/d in April, to closer to -2.0 mb/d most recently. On the other hand, we do see recovery in economic growth in non-OECD countries prompting a demand rebound in 2010.

Judgements of a different kind are expected soon from regulators of derivatives and commodity futures markets. The CFTC and SEC are dividing up responsibilities for oversight of over-the-counter (OTC) derivatives trading. The US Treasury Department is examining new OTC derivatives legislation, recommending enhanced position reporting by participants, higher capital requirements, standardised derivative contracts and the migration of transactions to centralised clearinghouses and exchanges. Meanwhile the past fortnight has seen hearings by the CFTC into possible rules standardising position limits across commodity groups, including energy. While oil market participants appear resigned to a tightening of position limits now being inevitable, intense debate continues over the depth and breadth of such limits and the need for exemptions to sustain essential market liquidity. Parallel investigations by the European Commission and the UK Financial Services Authority continue, but may involve less direct intervention by regulators than in the US. Harmonised international norms would minimise migration of trades between exchanges or to less regulated platforms, but these will likely take time to materialise. Chairman Gensler of the CFTC has been invited to address the IEA's Governing Board at its 23 September meeting.

This whirlwind of regulatory activity potentially precedes storms of a more tangible variety. August and September are traditionally peak months for the Atlantic hurricane season. Our projections for 3Q09 and 4Q09 North American supply and refining incorporate adjustments based on five-year average levels of outages. Prior to July this netted off 235 kb/d from expected US GOM production for 3Q09 and 280 kb/d from 4Q09. Unusually, no Atlantic tropical storms had developed going into the second week of August, so the 2009 season may be poised to see less intense hurricane activity than average, implying some upside from currently projected levels of supply through end-2009. But just as the industry needs to be watchful for any sting in the tail of proposed regulatory changes, so it is also premature to write-off the hurricane season just yet.

DEMAND

Summary

- **Forecast global oil demand** in 2010 has been revised up by 70 kb/d to 85.3 mb/d, given a stronger outlook in non-OECD Asia. However, growth (+1.6% or +1.3 mb/d year-on-year, almost entirely driven by non-OECD countries) is slightly lower than previously estimated following a larger upward adjustment for 2009 demand, now assessed at 83.9 mb/d (-2.7% or -2.3 mb/d versus 2008 and +190 kb/d higher than in our last report). The revisions for 2009 were largely driven by OECD Pacific and non-OECD Asia. However, these upward changes have barely dented the sharp demand contraction expected this year. The evidence of a bottoming out of the global recession is patchy, and global gasoil demand – a key indicator of economic health – remains significantly subdued.

- **Forecast OECD oil demand** in 2010 is broadly unchanged at 45.1 mb/d (+0.1% or +30 kb/d over the previous year and 25 kb/d lower than previously expected). The estimate of oil demand in 2009 has been slightly revised up by 20 kb/d to 45.1 mb/d (-5.2% or -2.5 mb/d year-on-year), following a small adjustment in OECD Pacific demand. Meanwhile, the latest data appear to confirm that the US gasoline season failed to materialise, for the second year in a row.

Global Oil Demand (2008-2010)

(million barrels per day)

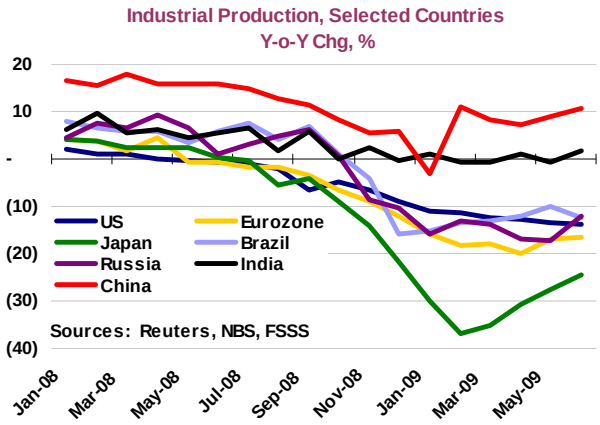
	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Africa	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.3	3.3	3.2	3.4	3.3
Americas	30.5	30.4	29.6	29.9	30.1	29.2	28.6	28.7	28.8	28.8	29.4	29.2	29.2	29.1	29.2
Asia/Pacific	26.7	25.7	25.0	25.1	25.6	25.7	25.8	24.5	25.2	25.3	26.3	25.9	25.0	25.6	25.7
Europe	16.1	15.8	16.3	16.2	16.1	15.6	14.9	15.5	15.5	15.4	15.6	14.9	15.4	15.5	15.4
FSU	4.3	4.1	4.3	4.1	4.2	4.0	3.8	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Middle East	6.7	7.1	7.6	6.9	7.1	6.7	7.3	7.7	7.2	7.2	7.0	7.5	8.1	7.5	7.5
World	**87.5**	**86.3**	**85.9**	**85.4**	**86.3**	**84.5**	**83.7**	**83.7**	**84.0**	**83.9**	**85.9**	**84.9**	**85.0**	**85.2**	**85.3**
Annual Chg (%)	1.2	1.0	-0.4	-2.7	-0.3	-3.5	-3.1	-2.6	-1.7	-2.7	1.7	1.5	1.6	1.5	1.6
Annual Chg (mb/d)	1.0	0.8	-0.4	-2.3	-0.2	-3.0	-2.7	-2.3	-1.4	-2.3	1.4	1.3	1.3	1.2	1.3
Changes from last OMR (mb/d)	0.00	0.06	0.10	0.09	0.06	0.01	0.57	0.08	0.09	0.19	-0.03	0.20	0.04	0.07	0.07

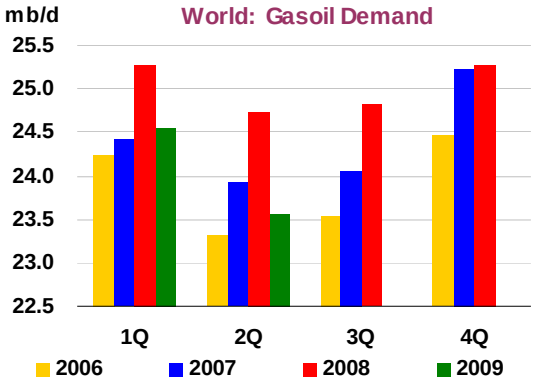
- **Forecast non-OECD oil demand** has been revised up for both 2009 and 2010, largely following a reappraisal of Chinese demand prospects. Demand in 2010 is now expected to average 40.1 mb/d (+3.3% or +1.3 mb/d year-on-year and +100 kb/d higher when compared with our previous assessment). It should be noted that even though energy-intensive non-OECD countries will largely drive global demand growth, the rise expected next year will nonetheless be below the 2004-2008 average (+1.5 mb/d per year). The revision for 2009, meanwhile, has been larger (+170 kb/d), owing to two additional developments (a persistent drought in India and much stronger direct crude burning in Saudi Arabia). This puts 2009 demand at 38.8 mb/d (+0.4% or +140 kb/d versus 2008).

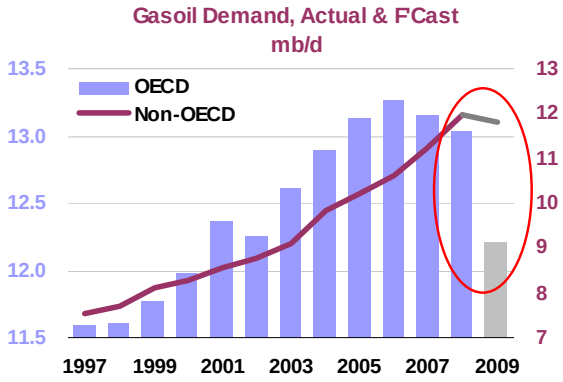
Global Overview

Has the global recession ended? This question preoccupies oil market observers and economists alike. However, despite the amelioration of some economic indicators in a few countries, the most that can be said is that the global economy may be stabilising – but even if this is confirmed, it remains far from evident that growth will resume strongly before the end of the year. For example, a look at the latest industrial production data for the largest economies offers a contrasting and sobering picture. Only in China and India is industrial production growth positive (and indeed quite strong in the former country). Elsewhere, by contrast, industrial production growth remains firmly in negative territory, even though the pace of decline has somewhat slowed, notably in Japan and Russia. More worryingly, industrial production has seemingly not reached the bottom in the US.

These poor industrial production readings are reflected in distillate demand, which is expected to plummet by roughly 1.0 mb/d or -4.1% in 2009. And given that the brunt of the recession has been borne by developed countries, the sharp contraction in gasoil demand will largely occur in the OECD. Admittedly, the year-on-year comparison is somewhat distorted by last year's stock building in China. Yet, given the correlation between gasoil use and economic activity, as long as this trend of decline is not reversed, it will be hard to argue that the recession is really over.

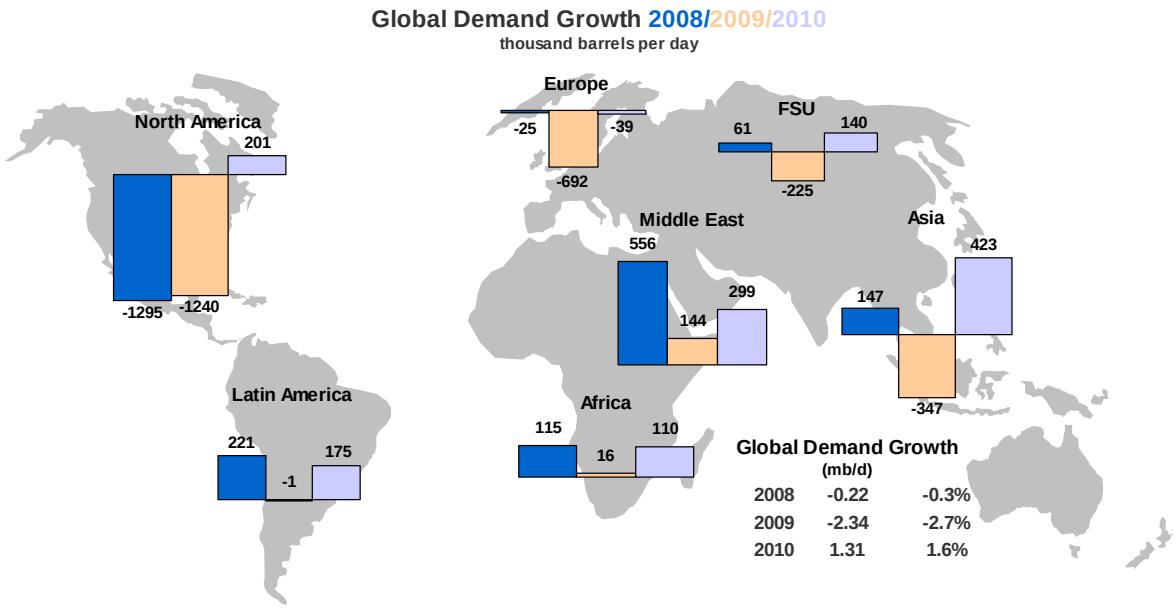






As the impact of the massive fiscal and monetary loosening increases, the global economy is expected to rebound next year, underpinning our demand forecast for 2010. (We have decided to keep our global 2010 GDP assumption of +1.9% based on the IMF April outlook, rather than integrate its last partial update, which posits a +2.5% expansion, as most other main economic forecasters maintain less bullish prognoses at around +2.0%. We will instead reassess our GDP assumptions with the IMF update due in late September.) Yet this begs the question of what will happen if and when this stimulus is withdrawn, with economists strongly arguing on whether these expansionary policies will crowd out private investment and end in hyper-inflation as governments inflate their way out of debt, or whether the stimulus will instead succeed in taming deflationary forces and restore long-term growth.

It is also unclear whether a rebalancing of the world economy will occur in the short to medium term, as there is little sign that private consumption in key exporting economies (Japan, Germany and China) is growing enough to offset its sharp fall in countries with large current account deficits, most notably the US. China's recent economic rebound, indeed, has been largely due to an investment surge as opposed to domestic consumption, raising the spectre of overcapacity, rising non-performing loans in state-owned banks and real estate and financial asset bubbles, and suggesting that the country's economic growth could trend below levels seen in the recent past. Finally, the outlook for global trade is unclear, as many industrial supply chains across several countries have been disrupted by the recession, although admittedly a large part of the trade contraction is related to the credit crunch, which should eventually recede.



OECD

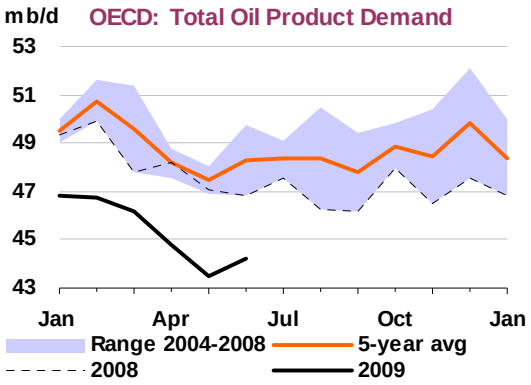
According to preliminary data, OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 5.5% year-on-year in June, with all three regions recording losses for the fourteenth month in a row. In **OECD North America** (which includes US Territories), oil product demand plunged by 7.5% year-on-year, with all product categories bar residual fuel oil posting losses. In **OECD Pacific**, demand fell by 3.6%, despite continued strength in gasoline deliveries. In **OECD Europe**, demand shrank by 3.4%, despite growing heating oil deliveries.

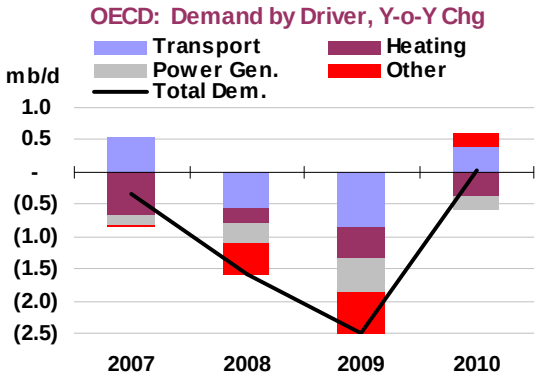
OECD Demand based on Adjusted Preliminary Submissions - June 2009
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.52**	**-1.2**	**1.61**	**-13.0**	**3.44**	**-12.5**	**0.64**	**-27.0**	**1.31**	**8.6**	**5.03**	**-13.98**	**22.55**	**-7.5**
US50	8.96	-1.6	1.40	-14.2	2.87	-15.3	0.21	-43.3	0.89	30.2	3.70	-17.6	18.04	-8.3
Canada	0.73	-1.6	0.13	5.0	0.22	1.0	0.28	-8.8	0.11	-0.2	0.70	-4.4	2.17	-2.8
Mexico	0.77	3.6	0.05	-26.4	0.30	-5.3	0.13	-5.3	0.23	-30.8	0.57	0.7	2.05	-5.3
OECD Europe	**2.39**	**-0.6**	**1.31**	**-5.3**	**4.30**	**-1.4**	**1.53**	**1.3**	**1.43**	**-7.9**	**3.50**	**-6.8**	**14.46**	**-3.4**
Germany	0.49	1.5	0.19	-5.2	0.66	-1.0	0.31	2.8	0.16	-0.8	0.55	-11.1	2.36	-2.9
United Kingdom	0.37	-3.8	0.33	-0.5	0.41	-3.1	0.14	-6.8	0.10	1.0	0.33	-3.1	1.67	-2.8
France	0.22	5.7	0.15	-6.9	0.72	8.3	0.28	12.6	0.04	-49.1	0.51	-7.6	1.93	0.1
Italy	0.27	0.1	0.09	-11.8	0.55	-1.0	0.10	16.4	0.23	0.6	0.36	-7.5	1.61	-1.9
Spain	0.15	0.4	0.12	-9.0	0.50	1.0	0.19	1.1	0.20	-3.5	0.32	-3.2	1.47	-1.5
OECD Pacific	**1.52**	**5.5**	**0.64**	**-1.0**	**1.18**	**0.6**	**0.40**	**-3.2**	**0.73**	**-14.6**	**2.73**	**-7.1**	**7.21**	**-3.6**
Japan	0.98	6.6	0.39	-3.3	0.53	-4.7	0.29	-8.5	0.43	-18.8	1.40	-15.4	4.02	-8.2
Korea	0.17	10.8	0.13	9.4	0.28	13.6	0.11	14.8	0.26	-8.9	1.15	3.8	2.11	4.6
Australia	0.32	0.3	0.10	-3.7	0.32	0.3	0.00	18.9	0.04	0.6	0.16	-0.3	0.94	-0.2
OECD Total	**14.43**	**-0.5**	**3.56**	**-8.3**	**8.91**	**-5.8**	**2.57**	**-8.2**	**3.47**	**-4.0**	**11.26**	**-10.2**	**44.21**	**-5.5**

* Including US territories

Revisions to May preliminary data were negligible (+10 kb/d), as weaker-than-anticipated demand for LPG, gasoline, diesel and residual fuel oil offset somewhat stronger deliveries of naphtha, jet fuel/kerosene, heating oil and 'other products'. Overall, although June's preliminary readings are slightly better than May's (when OECD demand plummeted by 7.5%), to interpret them as clear evidence that the sharp oil demand fall since December 2008 has bottomed out would be a somewhat premature statement. Altogether, the estimates of OECD oil demand for this year and the next have been only slightly revised up compared with the previous report. Demand is expected to contract by 5.2% in 2009 to 45.1 mb/d; in 2010, growth is foreseen to be marginal (+0.1%).





Total OECD Demand by Product

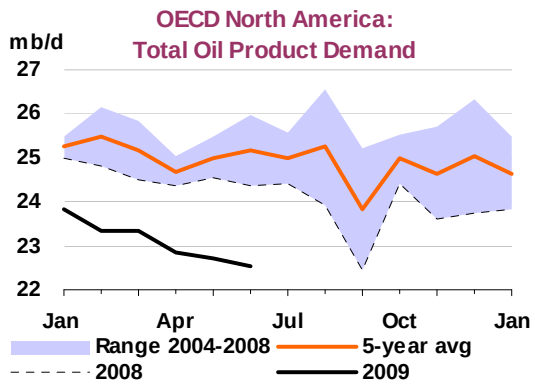
(million barrels per day)

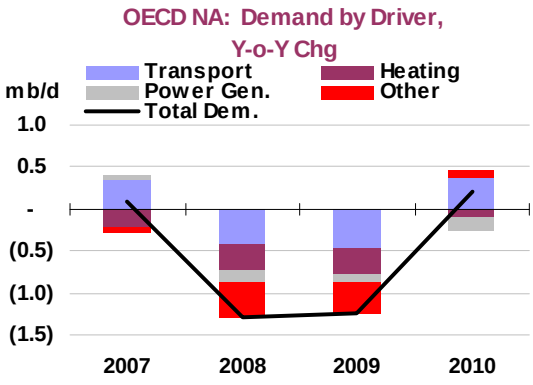
	2008	2009	2Q08	3Q08	4Q08	1Q09	Mar 09	Apr 09	May 09*	Latest month vs. Apr 09	Latest month vs. May 08
LPG & Ethane	4.65	4.39	4.57	4.28	4.55	4.81	4.67	4.50	4.23	-0.27	-0.27
Naphtha	3.08	2.88	3.04	3.07	2.88	2.97	3.03	2.90	2.85	-0.05	-0.22
Motor Gasoline	14.42	14.29	14.68	14.46	14.36	14.00	14.19	14.41	14.44	0.03	-0.30
Jet & Kerosene	3.98	3.69	3.87	3.81	3.90	4.00	3.83	3.68	3.40	-0.28	-0.39
Gas/Diesel Oil	13.04	12.22	12.66	12.65	13.43	13.09	12.91	11.87	11.48	-0.39	-0.98
Residual Fuel Oil	3.66	3.33	3.66	3.53	3.61	3.61	3.44	3.24	2.92	-0.31	-0.72
Other Products	4.76	4.30	4.85	4.88	4.61	4.08	4.09	4.19	4.17	-0.02	-0.66
Total Products	**47.59**	**45.11**	**47.34**	**46.67**	**47.34**	**46.57**	**46.16**	**44.78**	**43.49**	**-1.29**	**-3.53**

* Latest official OECD submissions (MOS)

North America

Preliminary data show that oil product demand in North America (including US Territories) plummeted by 7.5% year-on-year in June, the eighteenth monthly contraction in a row. Yet again, the decline in both Mexico and the United States was prominent (-8.2% and -5.3% year-on-year, respectively), while Canada posted a somewhat lower contraction (-2.8%).





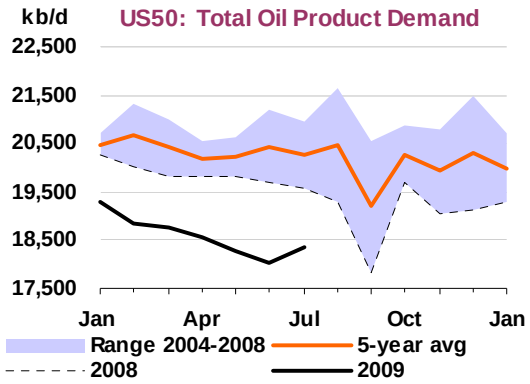
Revisions to May preliminary data (+140 kb/d) were essentially concentrated in the US, notably in the notoriously volatile 'other products' category. By contrast, gasoline and diesel were again revised down. Overall, total demand in North America fell by 7.5% in May, only marginally better than last report's estimate (-8.1%). The outlook for total demand in 2009 remains broadly unchanged at 22.9 mb/d (-5.1% or -1.2 mb/d versus 2008), as revisions (May), preliminary data (June) and weekly US estimates (July) largely offset each other. The forecast for 2010, by contrast, has been slightly revised down to 23.1 mb/d (+0.9% or +0.2 mb/d year-on-year and 40 kb/d lower than in the last report), largely owing to a reappraisal of LPG demand prospects in 1Q10, with potentially higher ethane demand for petrochemicals production being offset by weaker LPG deliveries for heating purposes.

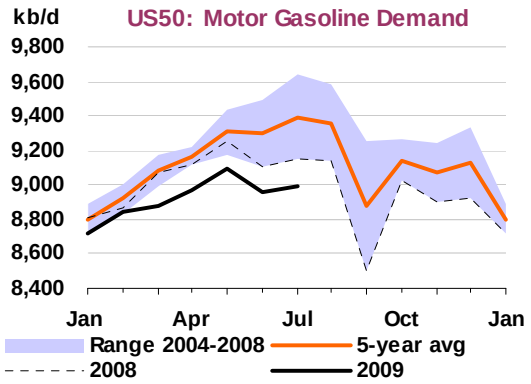
OECD North America Demand by Product
(million barrels per day)

	2008	2009	2Q08	3Q08	4Q08	1Q09	Mar 09	Apr 09	May 09*	Latest month vs. Apr 09	Latest month vs. May 08
LPG & Ethane	2.72	2.58	2.62	2.48	2.66	2.87	2.81	2.63	2.47	-0.16	-0.11
Naphtha	0.36	0.28	0.38	0.36	0.33	0.29	0.31	0.31	0.33	0.03	-0.05
Motor Gasoline	10.52	10.48	10.69	10.49	10.50	10.30	10.37	10.49	10.61	0.12	-0.21
Jet & Kerosene	1.77	1.63	1.82	1.79	1.64	1.66	1.69	1.64	1.59	-0.05	-0.21
Gas/Diesel Oil	5.01	4.48	4.96	4.77	5.03	4.94	4.72	4.36	4.38	0.02	-0.60
Residual Fuel Oil	1.10	1.02	1.21	1.05	1.06	1.08	1.10	1.08	0.92	-0.16	-0.30
Other Products	2.69	2.48	2.73	2.67	2.71	2.38	2.34	2.34	2.40	0.06	-0.36
Total Products	**24.18**	**22.95**	**24.42**	**23.60**	**23.93**	**23.51**	**23.34**	**22.83**	**22.69**	**-0.14**	**-1.84**

* Latest official OECD submissions (MOS)

Preliminary weekly data in the continental **United States** indicate that inland deliveries – a proxy of oil product demand – contracted by 6.1% year-on-year in July, with all product categories bar residual fuel oil and 'other products' featuring continued weakness. This suggests that the recovery of the world's largest economy remains elusive. In fact, the demand performance of two key products – gasoline and diesel – remains dismal. It is now clear that, for the second year in a row, the summer driving season in the US failed to take off, as motorists were deterred by rising gasoline prices and by the economic gloom. Meanwhile, the weakness in diesel demand – strongly correlated to economic activity – has, if anything, increased over the past three months. As such, our outlook for US oil demand remains largely unchanged, at 18.4 mb/d in 2009 (-5.4% year-on-year) and 18.6 mb/d in 2010 (+0.9%).





In late June, Congress approved the so-called 'cash for clunkers' law, which entices US motorists to replace old, inefficient automobiles with new, more efficient cars, with the help of a federal rebate of as much as $4,500, depending on the vehicle's fuel efficiency. The new legislation (the Car Allowance Rebate System), which was implemented on 24 July and mirrors similar moves elsewhere, notably in Europe, has been particularly successful: by late July, applications for subsidised sales of new cars had totalled some 250,000 units.

In fact, the programme has been too successful – the $1 billion allocated for the scheme until November 2009 actually ran out in the first week after implementation, raising concerns that many applications will not be honoured (only 180,000 applications had actually been processed by mid-August). The White House and Congress are now looking for ways to prolong the programme; the House passed a $2 billion bill, to be ratified by the Senate, which would cover some 500,000 vehicle purchases. In any case, this is unlikely to support gasoline demand. Even assuming that the owners of new vehicles were to drive more – an implausible proposition judging by the absence of a driving season – efficiency gains would probably result in flat, if not diminishing gasoline demand, a trend likely to continue in the years ahead as the existing vehicle stock is gradually replaced by more efficient models.

A Relentless Pursuit of Greater Efficiency

The recent moves in the search for greater motor fuel efficiency in the US are not limited to scrapping programmes. First, in an end-June landmark decision, the Environmental Protection Agency (EPA) granted California the right to regulate fuel efficiency and carbon emissions from vehicles. The ruling not only clarifies the respective regulatory role of several state and federal agencies (California's Air Resources Board, the EPA and the Department of Transportation) but also reverses an earlier decision by the previous administration, under which the EPA had opposed California's attempt to set its own efficiency and emissions standards. Moreover, thirteen other states and the District of Columbia are expected to follow California's lead. The state may now establish such standards in the 2009-2011 period, which effectively will be extended to the rest of the country along the lines announced last May; for 2012-2016, though, California will defer to federal standards.

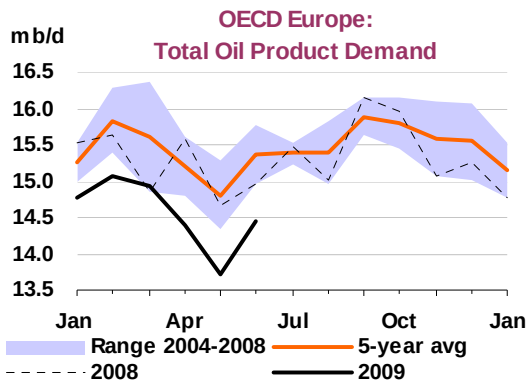
Second, several federal lawmakers are promoting natural gas vehicles (NGVs) in order to reduce the country's dependence on foreign oil. In late July, the House of Representatives appropriated $30 million a year for NGV research over the next five years. In addition, a group of senators has proposed legislation to boost production of gas-powered vehicles by offering financial incentives. However, it is unclear whether NGVs could transcend their current, niche market – the commercial vehicle fleets. Indeed, the lack of extensive refuelling infrastructure remains a significant obstacle to the development of passenger NGVs.

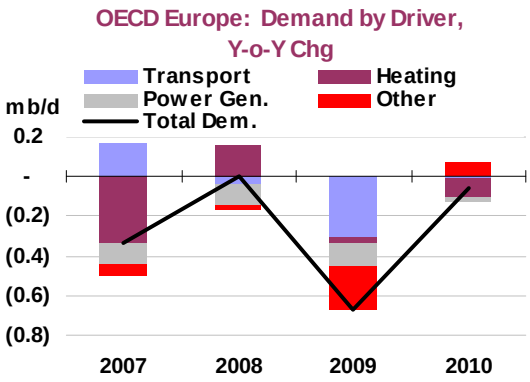
Third, the debate on whether to reform the federal gasoline tax system has resurfaced. In late July, during a congressional hearing before the Ways and Means Committee, the president and CEO of the American Automobile Association argued that such an overhaul might be needed to support highway construction and maintenance. These are paid for by the Federal Highway Trust Fund, which is currently supported by a national gasoline tax of $0.18/gallon. The Fund, however, has been shrinking since it was enacted in 1993, due both to inflation – as the tax has not been altered – and to efficiency gains, which have reduced gasoline sales relative to miles travelled. Even though several reform proposals are on the table, the Obama administration seems disinclined to act on the issue. Yet the fact that this politically sensitive issue is even being discussed – with a major car company (Ford) and two large refiners (Valero and Sunoco) supporting an increase of the federal gasoline tax – highlights how much perceptions and attitudes towards energy use in the US are changing.

Finally, in early August the White House announced that 48 selected projects focusing on the development of advanced electric vehicles (EVs) and batteries will receive $2.4 billion in federal grants. The manufacturing, research, and demonstration projects encompass both purely electric vehicles and plug-in gasoline-electric hybrids, with the aim of achieving at least 100-mile range. The programme's broader goals are to reduce both oil imports and emissions. However, EVs will need to make substantial progress regarding their price and autonomy in order to become a viable alternative. Moreover, it is unclear whether the adoption of EVs on a large scale would contribute to curbing net US greenhouse gases emissions – vehicle emissions would certainly fall, but power generation emissions might rise even if smart grids were widely developed, as about half of the country's power comes from coal-fired plants. Yet some observers argue that recharging the batteries at night would optimise the grid's load (as base load plants continue to run even if electricity demand is low), thus limiting the rise in emissions.

Europe

According to preliminary inland data, oil product demand in Europe contracted by 3.4% year-on-year in June. Moderately strong heating oil deliveries (+1.3% year-on-year) continue to somewhat mask an otherwise consistently weak demand picture. Although the contraction in road transportation fuels is less pronounced than in previous months (gasoline and diesel fell by only 0.6% and 1.4%, respectively), industrial fuels such as naphtha (-13.3%) have seemingly not bottomed out yet, thus casting doubts on the prospects of an imminent end of the recession in Europe. May's downward revisions, meanwhile, were large (-270 kb/d), suggesting that demand was much feebler than expected that month (-6.5%, roughly a third lower than previously estimated).





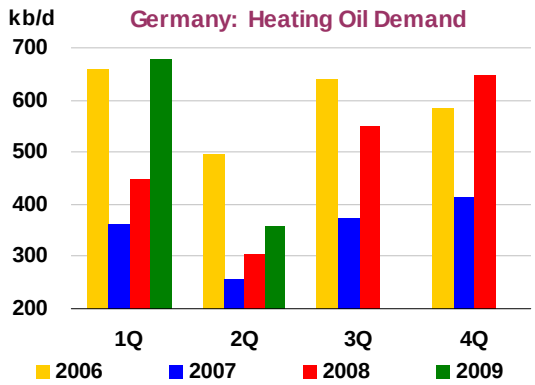
Europe's overall demand outlook remains unchanged for both 2009 and 2010, at 14.7 mb/d and 14.6 mb/d, respectively, implying a corresponding contraction of 4.3% and 0.4%. It should be noted that the contraction rate for 2009 is slightly stronger, given a 65 kb/d upward revision of Belgian demand in 2008.

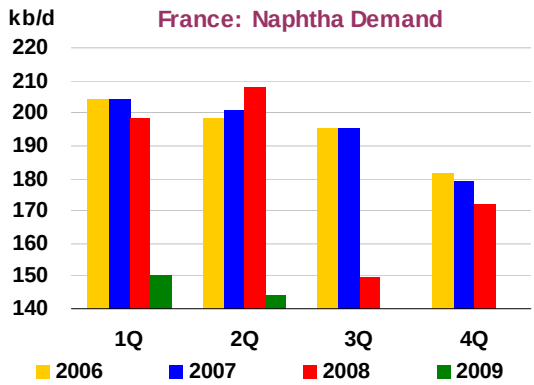
OECD Europe Demand by Product
(million barrels per day)

	2008	2009	2Q08	3Q08	4Q08	1Q09	Mar 09	Apr 09	May 09*	Latest month vs. Apr 09	Latest month vs. May 08
LPG & Ethane	1.02	0.96	1.05	0.94	0.99	1.04	1.01	1.01	0.93	-0.08	-0.07
Naphtha	1.08	0.98	1.05	1.07	0.99	1.04	1.11	0.87	0.92	0.04	-0.14
Motor Gasoline	2.36	2.28	2.43	2.44	2.30	2.19	2.27	2.41	2.31	-0.10	-0.12
Jet & Kerosene	1.32	1.27	1.32	1.42	1.27	1.19	1.17	1.28	1.21	-0.07	-0.06
Gas/Diesel Oil	6.35	6.18	6.00	6.33	6.69	6.51	6.49	5.95	5.57	-0.38	-0.20
Residual Fuel Oil	1.64	1.53	1.56	1.63	1.69	1.61	1.47	1.39	1.31	-0.07	-0.23
Other Products	1.57	1.49	1.65	1.71	1.49	1.33	1.40	1.49	1.46	-0.03	-0.13
Total Products	**15.34**	**14.68**	**15.06**	**15.54**	**15.43**	**14.92**	**14.92**	**14.40**	**13.71**	**-0.69**	**-0.95**

* Latest official OECD submissions (MOS)

In what is becoming a familiar pattern for this year, resilient **German** heating oil deliveries (+2.8% year-on-year in June) once again contributed to partially offset the fall in demand for industrial oil products and transportation fuels. Nonetheless, the pace of refilling of heating oil consumer stocks has sharply slowed down, compared with previous months (notably 1Q09). Stocks, at 64% of capacity by end-June (significantly above the 45% level in the same month of the previous year), are gradually approaching their historical maximum filling of around 75% of capacity, potentially limiting purchases in coming months. As such, total inland deliveries fell by 2.9% year-on-year, according to preliminary estimates. Meanwhile, naphtha deliveries plummeted by 11.5% year-on-year in June, the fastest pace since February, commensurate with the continuous decline of German industrial production (-18% year-on-year).

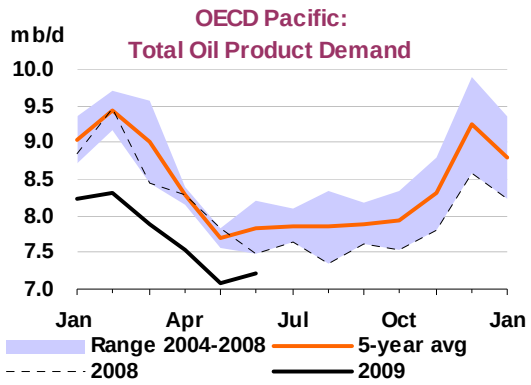


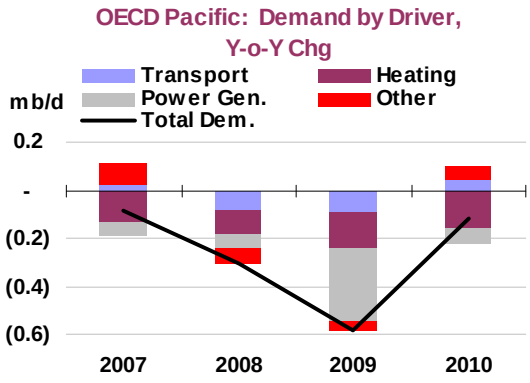


According to preliminary data, oil product deliveries in **France** were virtually flat in June (+0.1% year-on-year). Demand was supported by the somewhat surprising strength in gasoline (+5.7%) and distillate demand (diesel rose by +8.3% and heating oil by +12.6%), possibly related to the fact that the month had one extra working day compared with June 2008. As in Germany, however, naphtha deliveries continue to fall (-20.0%), with industrial production contracting faster than in previous months (-13% year-on-year).

Pacific

According to preliminary data, oil product demand in the Pacific fell for the twelfth month in a row in June (-3.6% year-on-year), with all product categories bar gasoline recording continued losses. Even though the rate of decline has somewhat slowed down compared with earlier months, demand in the region's largest economy – Japan – is still contracting sharply. By contrast, demand in Korea showed some signs of revival. Meanwhile, May's revisions, although positive (+130 kb/d), barely improved the picture: demand plummeted by 9.5% that month.





Our OECD Pacific demand forecasts for this year and the next have marginally inched up by roughly +20 kb/d on average. OECD Pacific demand is now expected to contract by 7.2% to 7.5 mb/d in 2009, and by 1.6% to 7.4 mb/d in 2010.

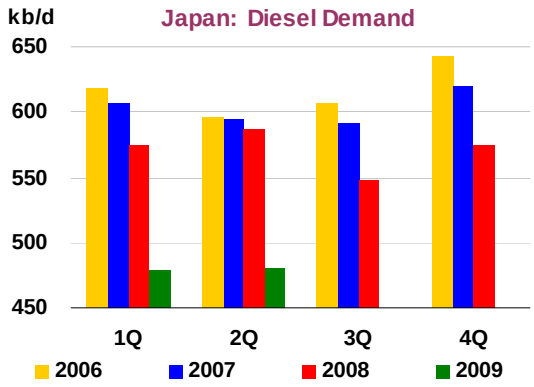
OECD Pacific Demand by Product
(million barrels per day)

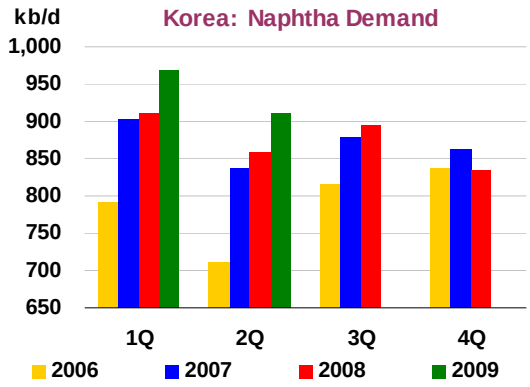
	2008	2009	2Q08	3Q08	4Q08	1Q09	Mar 09	Apr 09	May 09*	Latest month vs. Apr 09	Latest month vs. May 08
LPG & Ethane	0.90	0.86	0.90	0.86	0.90	0.90	0.85	0.85	0.82	-0.03	-0.09
Naphtha	1.64	1.62	1.61	1.65	1.56	1.64	1.61	1.72	1.60	-0.12	-0.04
Motor Gasoline	1.54	1.53	1.56	1.52	1.56	1.51	1.54	1.51	1.53	0.01	0.04
Jet & Kerosene	0.89	0.80	0.73	0.60	0.99	1.15	0.97	0.76	0.60	-0.16	-0.12
Gas/Diesel Oil	1.68	1.56	1.70	1.55	1.70	1.64	1.70	1.57	1.53	-0.03	-0.18
Residual Fuel Oil	0.91	0.79	0.89	0.85	0.86	0.92	0.87	0.77	0.69	-0.08	-0.19
Other Products	0.50	0.33	0.48	0.50	0.40	0.38	0.35	0.37	0.31	-0.05	-0.17
Total Products	**8.07**	**7.49**	**7.86**	**7.54**	**7.97**	**8.14**	**7.90**	**7.55**	**7.09**	**-0.46**	**-0.74**

* Latest official OECD submissions (MOS)

Japanese oil demand contracted by 8.2% year-on-year in June, about half the pace of upwardly revised May readings (-14.9%, instead of -18.1%). This could herald a softening of the recession (naphtha and diesel deliveries fell by 'only' 3.5% and 4.7% year-on-year in June), but it is actually reflective of strong gasoline demand (+6.6%), which had been pummelled in the previous year by exceedingly high retail prices. In addition, lower highway tolls enticed Japanese motorists to drive more.

Gasoline demand, however, is unlikely to arrest its structural decline, despite higher vehicles sales driven by a government subsidy. Indeed, the subsidy (the so-called 'eco-tax' break, introduced in April) targets more efficient vehicles – in that sense, sales of the first-ever fully electric vehicle, Mitsubishi's iMiev, began in late July. The Japanese government is reportedly considering introducing a scrapping incentive later in the year, but this will merely accelerate the adoption of more efficient models.



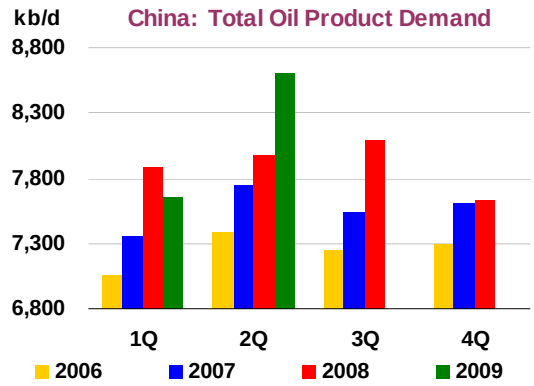


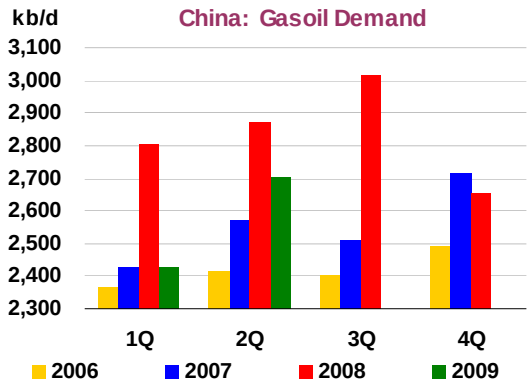
By contrast, demand jumped by 4.6% in June in **Korea**, with all product categories bar residual fuel oil posting gains. As in Japan, part of the rise is due to stronger demand for transportation fuels relative to last year's weakness, but it may also stem from a more genuine economic rebound. Whereas Japan's industrial production plummeted by 24% year-on-year in June, Korea's fell by a more modest 2% – the best reading since last December.

Non-OECD

China

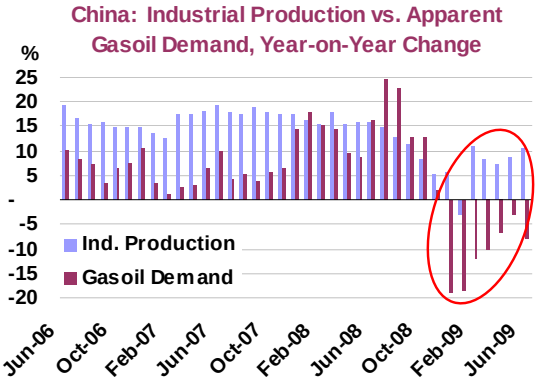
According to preliminary data, China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil, direct crude burning and stock changes) increased by 5.2% year-on-year in June, with all product categories bar gasoil posting strong gains. The robust demand rebound over the past three months is largely related to the country's resurgent economy. June's +10.2% year-on-year growth in gasoline demand, for example, has been arguably driven by the surge in passenger car sales (+48% year-on-year), supported by government subsidies and tax incentives – a trend likely to continue, considering that only some 2% of the population currently owns a private car. Given these stronger data, we have revised up our forecasts for both this year and the next by roughly 130 kb/d. As such, Chinese oil demand is expected to rise by 2.8% to 8.1 mb/d in 2009 and by 4.0% to 8.4 mb/d in 2010.

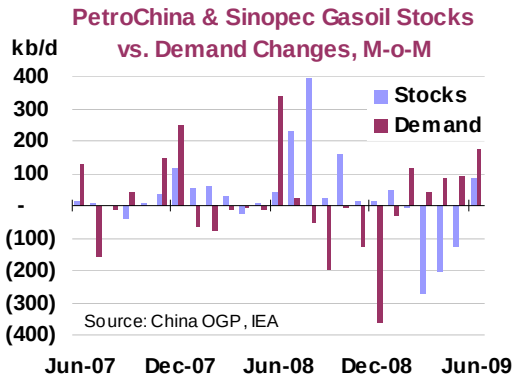




Nonetheless, the persistent weakness in gasoil demand is puzzling. Although gasoil demand has slightly risen on a monthly basis since February, it remains well below last year's levels (-7.9% year-on-year in June) and appears out of line with the strong rebound in industrial production. Until December 2008, apparent gasoil demand and industrial production had moved in tandem, but this relationship has been inverted since early 2009, with rising industrial production despite falling gasoil demand. Of course, this mismatch could simply be explained by a drawdown of stocks, which had increased sharply since mid-2008 and which arguably inflated apparent demand last year. Yet, on a month-on-month basis, reported

gasoil stocks held by PetroChina and Sinopec have fallen much more than the estimated rise in demand – and part of this fall was arguably related to exports, which remain strong. This would suggest that hoarding by private operators, ahead of the recent retail price increases, has been significant. Private storage could be as much as half of the country's total capacity, according to some observers, but the lack of comprehensive stock data makes this impossible to verify.





The mismatch between industrial production trends and gasoil demand may also imply that economic data contain inconsistencies or gaps – something that, incidentally, would not be unique to China or to other non-OECD countries. According to some reports, 1H09 GDP data show relatively large differences between provincial submissions and those provided by the central government. The Chinese authorities are aware of, and have been taking steps to address, this issue. Meanwhile, the speed of release of 1H09 data, using OECD data gathering and processing as a guide, suggests these may be prone to subsequent revision. China, like much of the OECD, may indeed be experiencing first-hand the trade offs between timeliness and completeness of data. While rapid dissemination is welcome, as long as Chinese economic data remain subject to uncertainties, it is difficult for outside bodies such as the IEA to be fully confident in appraisals of Chinese oil demand trends and prospects.

Fuelling Expectations

China's new price mechanism, introduced in early 2009, is set to trigger an adjustment to gasoline and gasoil 'guidance' (or ceiling) prices if a specific basket of crudes (Brent, Dubai, and Cinta) fluctuates by more than 4% over 22 days. As such, many stakeholders – from refiners to motorists – have been able to anticipate such domestic price moves and build product stockpiles, even if other social and economic factors are also theoretically taken into consideration before implementing any price change.

The small cut in gasoline and gasoil guidance prices in late July (-3.3% and -3.7%, respectively), mirroring falling global crude prices in the second half of the month, had thus been largely expected and probably led to some de-stocking. By the same token, the resumption of the crude price rally since early August could lead to a renewed bout of hoarding in anticipation of another retail price increase, perhaps by the end of the month.

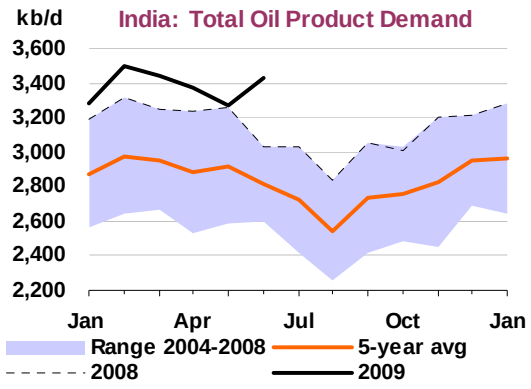
The government thus faces a conundrum: how to tame this emerging pro-cyclical behaviour, which distorts demand patterns and encourages speculative buying, while maintaining the welcome impetus towards price liberalisation. In fact, state-owned Sinopec is reportedly lobbying the National Development and Reform Commission (NDRC) to seek changes to the price mechanism, which the company allegedly perceives as being too predictable and transparent. However, it is as yet unclear whether the mechanism will be reformed, and if so, when or to what extent.

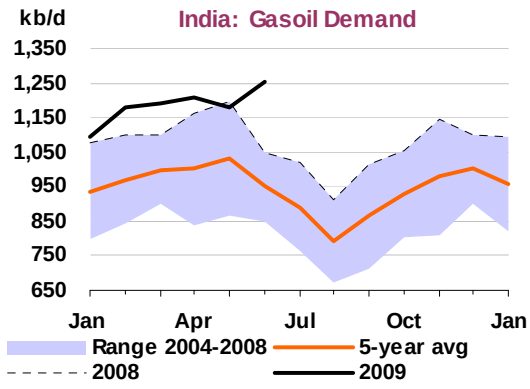
China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	653	737	770	84	34	12.9	4.6
Naphtha	768	809	844	41	35	5.3	4.3
Motor Gasoline	1,493	1,604	1,711	111	107	7.4	6.7
Jet & Kerosene	292	307	324	15	17	5.3	5.5
Gas/Diesel Oil	2,837	2,641	2,765	-196	124	-6.9	4.7
Residual Fuel Oil	603	613	631	9	19	1.5	3.0
Other Products	1,246	1,406	1,394	160	-12	12.9	-0.9
Total Products	**7,892**	**8,117**	**8,439**	**225**	**322**	**2.8**	**4.0**

Other Non-OECD

According to preliminary data, **India's** oil product sales – a proxy of demand – surged by 13.0% year-on-year in June. This strong rise is related to the previous year's low base and to delayed monsoon rains. On the one hand, in June 2008 administered retail prices for key products, notably gasoline and gasoil, had been increased by 10%, thus taming demand for both fuels in that month. On the other hand, the lack of normal seasonal monsoon rain (with precipitation some 20% to 40% lower than average depending on the region) boosted gasoil use for agricultural activities, notably for irrigation purposes, as well as electricity generation, since hydro-power output was almost 10% lower on an annual basis. Moreover, this relative drought has extended well into early August, prompting an upward revision of some 25 kb/d to our demand forecasts for this year and the next. Oil demand is expected to grow by 3.8% year-on-year to 3.3 mb/d in 2009, and by 3.3% to 3.4 mb/d in 2010, assuming normal monsoons. However, there are upside risks to this forecast, especially in 2010, should economic growth be stronger than currently expected or if unforeseen weather disturbances occur.





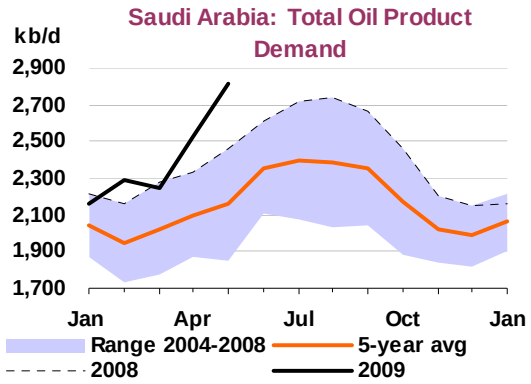
The current drought has raised concerns regarding its potentially damaging effects on India's food grain production. As such, the central and state governments decided to subsidise gasoil sales to farmers in the worst-affected areas between 15 July and 30 September. Farmers would get gasoil at a 50% discount relative to market prices; the total subsidy amount, though, will be capped at the equivalent of roughly $21 per hectare and limited to a maximum of two hectares per farmer. The subsidies are to be equally shared between central and local governments. There is a risk, however, that subsidised gasoil may be diverted to other uses, notably adulteration of on-road diesel, a relatively common practice in India.

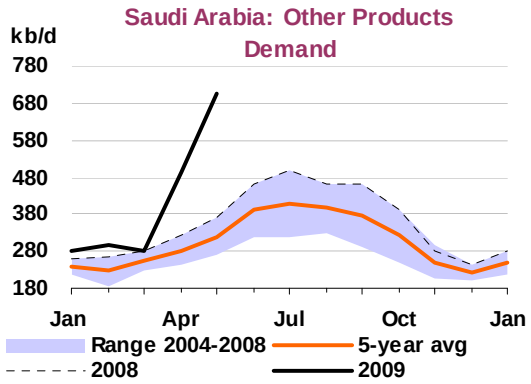
India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	406	416	435	10	20	2.5	4.7
Naphtha	310	325	299	15	-26	4.7	-7.9
Motor Gasoline	265	297	324	32	27	12.1	9.1
Jet & Kerosene	298	293	303	-5	9	-1.7	3.2
Gas/Diesel Oil	1,077	1,133	1,195	55	62	5.1	5.5
Residual Fuel Oil	394	402	409	7	8	1.8	1.9
Other Products	382	387	395	5	8	1.4	2.1
Total Products	**3,133**	**3,252**	**3,361**	**119**	**108**	**3.8**	**3.3**

In **Saudi Arabia**, demand for direct-burning crude, used in power generation and included in the 'other products' category, has spiked since last April. Indeed, 'other products' demand surged by an astonishing 90.5% year-on-year in May, thus boosting total oil demand (+14.1%). By contrast, residual fuel oil demand has sharply fallen since March (-22.9% in May). Direct crude use per se is estimated to account for about two-thirds of 'other products' demand, including power plants, refineries and other facilities related to upstream production. Consequently, our 2009 oil demand forecast has been inched up by 15 kb/d to 2.6 mb/d (+5.6% versus 2008), but this adjustment has not been carried through to next year, assuming that the direct crude spike is temporary. In 2010, demand should rise by a further +5.1% to 2.7 mb/d.





This shift in demand patterns from fuel oil to direct crude in the power sector serves three purposes. First, it allows the kingdom to hike output at the giant Khurais field, which began production last month, while fulfilling the country's OPEC commitment to curb supply via exports. Second, it will help curb and perhaps even altogether eliminate fuel oil imports this year. Third, it contributes to meet stricter environmental rules (the crude, likely Arab Light from Khurais, has typically some 80% less metals content than fuel oil).

Saudi Arabia: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	587	635	693	49	58	8.3	9.1
Naphtha	100	98	114	-2	17	-2.1	16.9
Motor Gasoline	373	407	435	34	28	9.0	6.8
Jet & Kerosene	60	57	60	-4	3	-5.9	5.0
Gas/Diesel Oil	579	591	617	12	26	2.1	4.4
Residual Fuel Oil	359	353	379	-6	27	-1.7	7.5
Other Products	359	411	384	52	-27	14.3	-6.5
Total Products	**2,417**	**2,551**	**2,682**	**135**	**131**	**5.6**	**5.1**

SUPPLY

Summary

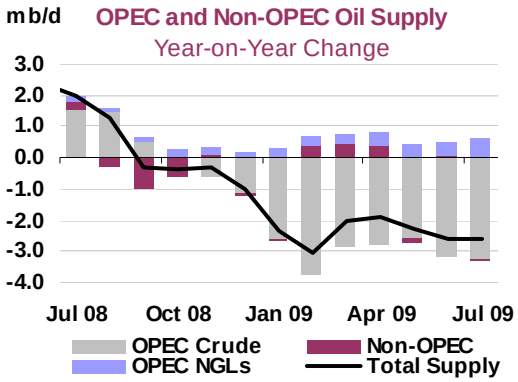
- **Global oil supply in July rose by 570 kb/d to 85.1 mb/d**, of which around two-thirds stemmed from non-OPEC and the remainder from OPEC gas liquids. Compared with July 2008, global oil supply is down by 2.6 mb/d, almost wholly due to OPEC crude production cuts.

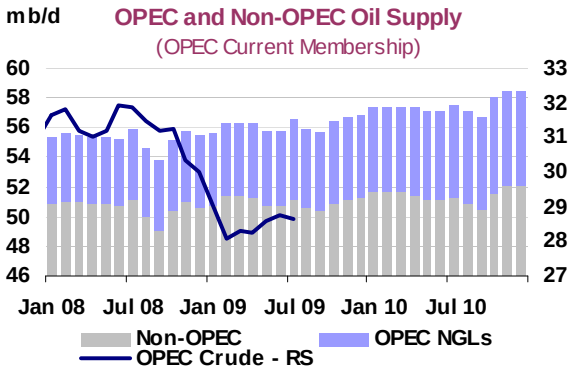
- **OPEC crude oil supply edged lower by around 100 kb/d in July, to 28.64 mb/d,** in part due to record-low output by Nigeria. Production by the 11 members with output targets, which excludes Iraq, was down by 120 kb/d, to 26.12 mb/d. OPEC-11 is now producing about 1.28 mb/d over the 24.845 mb/d output target. Overproduction by Angola and Iran accounted for about 50% of the above target output. OPEC NGL supply averages 5.1 mb/d in 2009 and 6.0 mb/d in 2010.

- **Saudi Arabia ramped up crude production over the past few months, though arguably the additional output volumes are to meet increased electricity demand** at power and desalination plants during the peak summer months. The decision to increase direct crude burn partly reflects the need to meet stricter environmental regulation on fuel quality used in electricity generation, as well as to help absorb new crude production coming online this summer.

- **Total non-OPEC supply for 2009 is revised up by 160 kb/d**, again largely due to stronger-than-expected Russian output, but also to higher US NGL and Gulf of Mexico production, as well as a more rapid ramp-up at new Canadian oil sands mining operations. Forecast 2010 supply is also raised by 200 kb/d, as many of the above factors are carried forward through the outlook. As a result, total non-OPEC supply is now seen at 51.0 mb/d in 2009, rising by 440 kb/d to 51.4 mb/d in 2010. Its 2009 growth over an unchanged 2008 is now estimated at 350 kb/d.

- **The 'call on OPEC crude and stock change' is revised** up to 27.7 mb/d in 2Q09 on stronger non-OECD demand. Thereafter, higher non-OPEC expected supply trumps upward demand revisions, marginally trimming the call for 2H09 and 2010. It now averages 27.7 mb/d in 2009 and 27.8 mb/d in 2010.





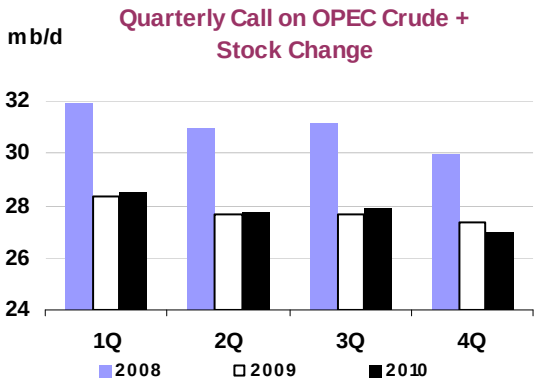
All world oil supply figures for July discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Indonesia and Russia are supported by preliminary July supply data.

Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

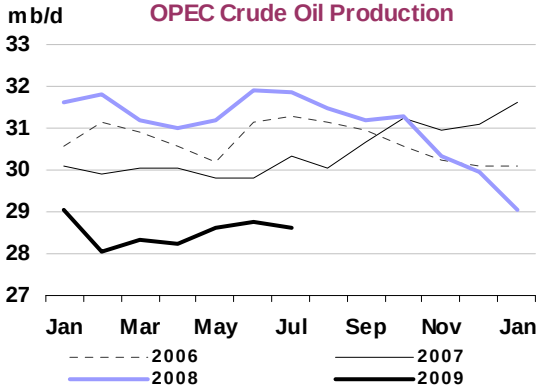
OPEC Crude Oil Supply

OPEC crude oil supply edged lower by around 100 kb/d in July, with reduced production from Nigeria accounting for about 40% of the decline. July output was assessed at 28.64 mb/d last month compared with a revised 28.75 mb/d in June. The higher June production level reflects a 150 kb/d upward revision in Saudi supplies, to 8.35 mb/d, though increased output is being used to meet peak domestic electricity demand rather than exports. The Saudi increase was partially offset by a downward revision in Angola's June output due to technical issues at several of its offshore fields.

Production by the 11 members with output targets, which excludes Iraq, was down by 120 kb/d, to 26.12 mb/d. OPEC-11 is now producing about 1.28 mb/d over the 24.845 mb/d output target. The lower output levels in July raised the group's compliance rate to around 69%. Production by Angola and Iran accounted for about 50% of the above target output.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

OPEC ministers will meet on 9 September in Vienna to review the market outlook and target levels. Several OPEC delegates are on the record saying it is unlikely the producer group will lower output targets with crude oil prices trading around $70/bbl. Both Iran and Algeria, however, have said a production cut may be needed if prices turn lower. The producer group has also said they are concerned about the high level of crude and refined products inventories. OECD oil stocks stand at 61.7 days forward cover as of end-June.

Other OPEC delegates have suggested a cut next month would be premature given the fragile state of the economy and ahead of the peak winter demand season. After its September meeting, OPEC is scheduled to meet again on 22 December to review the market, this time in Luanda, the capital city for the current OPEC presidency. Holding the meeting there could focus attention on the Angolan argument that the country should receive special consideration with regard to its output target to help the economy recover from its 30-year civil war, which officially ended in 2002.

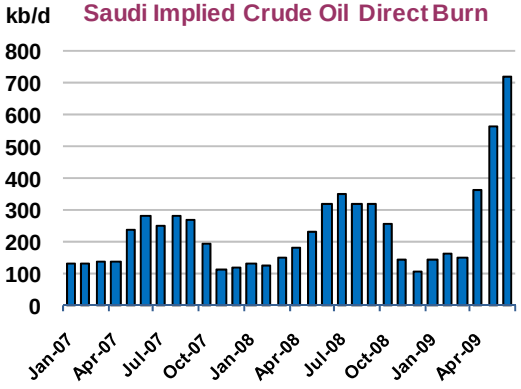
OPEC Crude Production

(million barrels per day)

	May 2009 Supply	Jun 2009 Supply	Jul 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs July 2009 Supply	OPEC Target Cuts	Percent Compliance with Volume Cuts
Algeria	1.25	1.25	1.22	1.40	0.18	0.200	75%
Angola	1.75	1.72	1.70	2.10	0.40	0.244	0%
Ecuador	0.48	0.48	0.47	0.50	0.04	0.067	49%
Iran	3.72	3.80	3.78	4.00	0.22	0.562	5%
Kuwait[2]	2.25	2.24	2.24	2.65	0.41	0.374	99%
Libya	1.54	1.54	1.54	1.77	0.23	0.252	63%
Nigeria[3]	1.80	1.72	1.68	2.55	0.87	0.319	94%
Qatar	0.76	0.78	0.77	0.90	0.13	0.122	74%
Saudi Arabia[2]	8.20	8.35	8.30	11.60	3.30	1.318	87%
UAE	2.25	2.25	2.27	2.85	0.58	0.379	100%
Venezuela[4]	2.12	2.12	2.16	2.40	0.24	0.364	58%
OPEC-11	**26.12**	**26.25**	**26.12**	**32.72**	**6.59**	**4.201**	**69%**
Iraq	2.49	2.50	2.52	2.55	0.03		
Total OPEC	**28.61**	**28.75**	**28.64**	**35.27**	**6.63**		
(excluding Iraq, Nigeria, Venezuela					*5.48)*		

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 400 kb/d in July.

Saudi Arabia's production is assessed at 8.30 mb/d for July, slightly lower than a revised 8.35 mb/d for June. The additional output volumes in recent months are earmarked for direct burn at power and desalination plants during the peak summer months. The decision partly reflects the need to meet stricter environmental regulation on fuel quality used in electricity generation as well as to help absorb new crude production coming online this summer. At the same time, it also reduces fuel oil imports.



Implied direct burn crude at power plants averaged about 150 kb/d in 1Q09. In 2Q, implied direct burn rose steadily month-on-month, with volumes estimated at 360 kb/d in April, rising to 565 kb/d in May and reached a steep 715 kb/d in June, according to data supplied to JODI. Average 2Q crude in 2Q was 545 kb/d, up around 300 kb/d from the average 245 kb/d in 2Q08. This represents roughly two-thirds of 'other product' demand than (see *Saudi Arabia* in *Demand* section).

The **UAE** also raised output in July, up by 20 kb/d, to 2.27 mb/d, due to higher output levels at offshore Lower Zakum. Despite the higher output levels, the Emirates compiled 100% with their output target last month.

Angola's output in July was down 15 kb/d, to 1.70 mb/d from 1.72 mb/d, due to technical problems at several offshore fields. At the Girassol field, a problem with a compressor reduced output at end-June and early July while the BP-operated Greater Plutonia field was operating at below 100 kb/d in early July due to technical problems.

Angola is on track to increase production, however. With the technical problems resolved, the export schedule for August is indicating volumes will rebound to around 1.8 mb/d in August and September estimates show an even higher 1.85 mb/d. Higher output in the coming months will be augmented by the early start-up of Chevron's offshore Mafumeira Norte project in Block 0 on 2 July. The first phase

Nigeria's Summer of Discontent

Nigerian crude oil production fell to the lowest level in more than two decades amid a widening conflict in the Niger Delta region last month. Output was also undermined, to a lesser extent, by technical problems at several fields. Production in July declined by a further 40 kb/d from the previous month, to 1.68 mb/d, the lowest level since 1988. The lower output was partially offset by the restart of operator Shell's EA production, shut-in since early 2006 following militant attacks. Roughly 50 kb/d of the field's 115 kb/d is expected to be brought back online in August. Meanwhile, on 21 July, operator ENI lifted its *force majeure* on Brass River exports. Pipeline attacks forced ENU to shut in 33 kb/d of Brass River production on 19 June and a further 24 kb/d on 8 July.

Technical problems with Amenam output forced operator Total to declare *force majeure* there from 13 July, affecting about 30 kb/d of output. Addax also declared *force majeure* on its 70 kb/d of Antan crude output 16 July due to weather-related problems at its offshore platform. Meanwhile, militants attacked in mid-July the just-repaired Chevron pipeline linking Alero Creek through Abiteye to the Escravos export terminal in the Delta State. Rebels from the Movement for the Emancipation of the Niger Delta (MEND) apparently waited until repair work on the pipeline damaged from an earlier bombing in June was completed before blowing it up for the second time. Despite a ceasefire agreement, MEND has said that companies that continue to restore damaged oil facilities will be targeted again. By mid-July, there were seven instances of *force majeure* in place on Nigerian supplies, including exports of Bonny, Forcados, Escravos and Brass River crudes.

Nigerian officials are under attack from several fronts over oil policy changes that could shape the country's future production profile. The government's proposed amnesty programme--aimed at halting attacks on the country's oil infrastructure - is in effect until 6 October. The *quid pro quo* calls for militants to disarm in exchange for cash payments. The response from the country's main rebel group MEND, however, has not been encouraging, with only a few figureheads actively negotiating an end to their militant activities. MEND argues that the amnesty programmes fail to address their major complaints over oil revenue distribution and the government's neglect of basic services in the region.

Criticism of the amnesty plan is not just limited to the militants. Analysts and oil company officials fear the initiative is short-sighted and fails to tackle the larger issues at the root of the militant criminal activity and broader civil unrest, including insufficient of job creation, educational opportunities and healthcare services. Moreover, some government officials are proposing that oil companies help foot the bill for amnesty payments, which would likely create ethical and legal challenges for the firms.

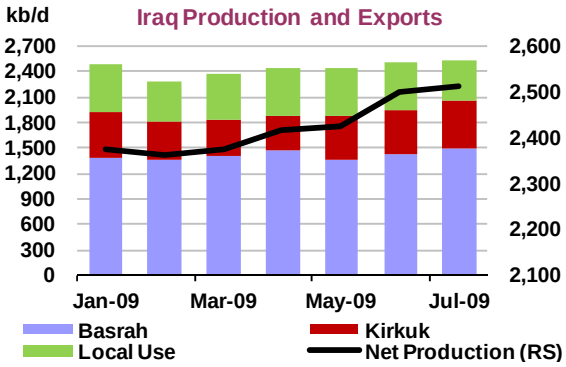
Nigeria's proposed oil law is also causing consternation among some companies and regional government leaders. The controversial law, called the Petroleum Industry Bill (PIB), has received wide-spread praise for its plan to reform the chronically cash-strapped national oil company NNPC into a profit-oriented operating company and to implement anti-corruption policies. However, proposals to increase the government's take on offshore oil projects via increased royalties and taxes, renegotiation of contracts and drastic changes to the legal and fiscal regime could derail companies' plans to spend billions of dollars on further development. Public hearings held by the Nigerian Senate at end-July and early August brought companies out in full force to express their concerns, with many arguing that some of the measures would make some of the projects economically unviable and put at risks a staggering $80-95 billion in planned investments over the next five years. For their part, local governments contend they should have a larger share of the revenue split under any new law. The very public and vigorous debate is expected to slow the passage of the law for several months.

Project	Vol. b/d	Start Date
Ofon Phase 2	60	2010
Gbaran/Ubie	160	2011
Bosi	120	2012
Usan	180	2013
Bonga SW/Aparo	150	2014
Egina	200	2014
Nsiko	200	?

While the oil law and amnesty proposal are in limbo, the government has moved forward with plans to rehabilitate the country's crumbling pipeline network. Nigeria signed a memorandum of understanding (MOU) on 30 July with Ruscorp, a Russian maintenance and security firm, to repair, upgrade and protect the country's sprawling and dilapidated oil pipeline network. Nigeria's 6,000 km of ageing pipelines have been repeatedly sabotaged by militant attacks and damaged by oil theft. They also suffer from a chronic lack of maintenance--neglected due to militant activity. State-owned NNPC, which operates the pipelines, said the new contract will help improve export flows and minimise environmental damage. Nigeria's massive pipeline network links more than 600 fields to flow stations and export terminals as well as the country's four refineries, which have been operating at under 20% capacity this year, in part due to broken pipelines.

development of Mafumeira calls for peak production of 30 kb/d of crude by 2011. Meanwhile, in neighbouring Block 14, Chevron said the Tombua Landana project is expected to come on stream ahead of schedule in 3Q09 and reach peak output of 100 kb/d by 2011.

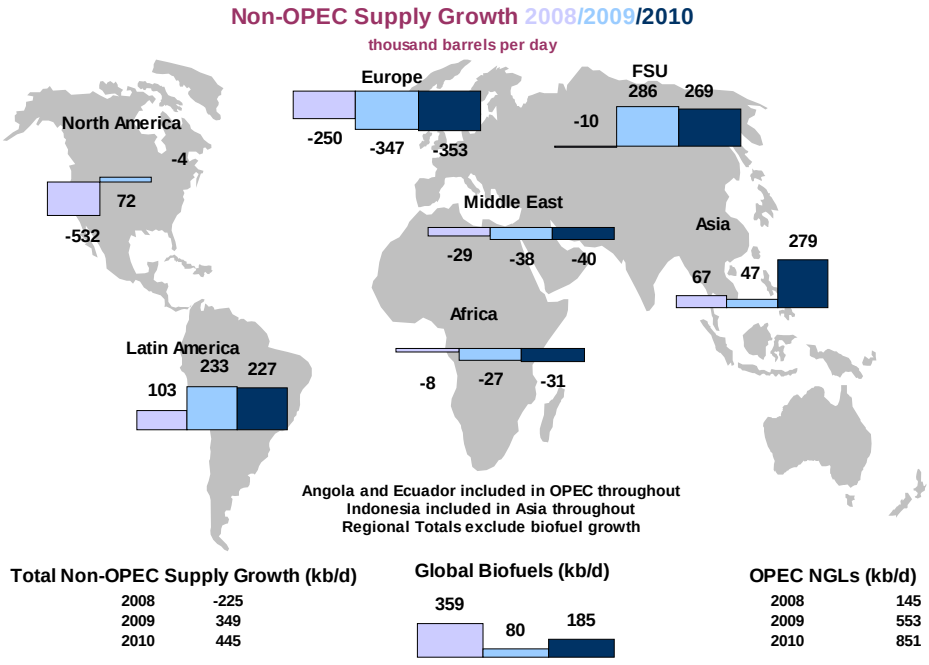
Iraqi oil production in July rose to a post-war high of 2.52 mb/d. Total Iraqi oil exports averaged 2.037 mb/d, up 112 kb/d from June levels. Exports of Basrah crude from the south were up 77 kb/d, to 1.49 mb/d—the highest level since last July. Exports of Kirkuk crude, which includes new output of Tawke and Taq Taq crude, rose to 535 kb/d compared with 500 kb/d in June. An additional 10 kb/d was exported to Jordan. Production from the Tawke and Taq Taq fields in the Kurdish region of northern Iraq commenced on 1 June. The Tawke field pumped 40 kb/d in July, of which 32 kb/d were exported. Production at Taq Taq averaged 40 kb/d in July, with most of the output exported by tanker truck. The Kurdistan Regional Government (KRG) has said it expects to export 100 kb/d from the two fields after an initial ramp-up period.



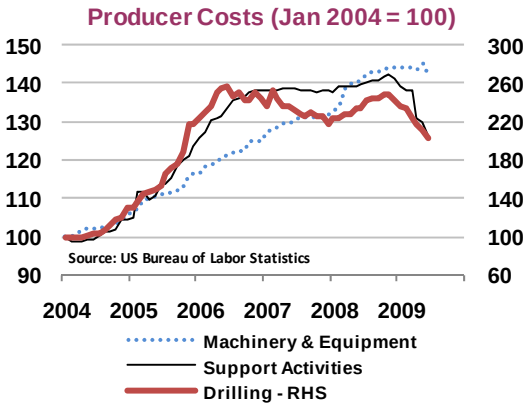
In July, KRG commissioned a 20 kb/d refinery, fed by oil from the Khurmala Dome, part of the Kirkuk field in northern Iraq, as well as oil from the Taq Taq field. The refinery is envisaged to meet the fuel needs of the Kurdish region, dependent on future planned expansions.

Non-OPEC Overview

Total non-OPEC supply for 2009 is revised up by 160 kb/d, the fourth upward monthly adjustment in a row. Once again, this is largely due to stronger-than-expected Russian output, but also to higher US NGL and Gulf of Mexico production, as well as a more rapid ramp-up at new Canadian oil sands mining operations. Forecast 2010 supply is also adjusted up by 200 kb/d, as many of the above factors are carried forward through the outlook. As a result, total non-OPEC supply is now seen at 51.0 mb/d in 2009, rising by 440 kb/d to 51.4 mb/d in 2010. Non-OPEC 2009 growth over an unchanged 2008 is now estimated at 350 kb/d.



Given the inclusion of near-complete 1H09 reported output data for key non-OPEC producer countries and our cautiously more optimistic outlook, it would appear that the decision not to implement potential downside risk for short-term supply due to lower 2009 upstream capital expenditure (see *'Spending Cuts May Worsen Decline'* in report dated 10 April 2009) was a prudent one. That analysis was expanded in the recent *Medium-Term Oil Market Report* (*MTOMR*) published in late June this year, where we argued that although an expected cut in upstream spending of around 20% in 2009 could in theory have a direct impact on short-term non-OPEC oil supply, it would more likely affect future projects and expansions, many of which have indeed been delayed.



It also appears that a decline in costs is now partly offsetting the impact of lower upstream spending. For instance, of the three relevant indicators measured by the US Bureau of Labor Statistics (BLS) related to the oil upstream business, drilling and support activities have declined by 18% and 11% respectively since respective peaks in November 2008. Even machinery equipment costs, which when reviewed in the *MTOMR*, had not budged, have now fallen by 2% since November. None of this of course precludes a delayed impact of the lower upstream investment, especially were oil prices to dip again from current levels around $70/bbl, or were the global recession (and hence lower oil demand) to remain protracted.

Revisions to Non-OPEC Oil Supply
(million barrels per day)

	Last month's OMR				This month's OMR				Change			
	2009	2010	09 v 08	10 v 09	2009	2010	09 v 08	10 v 09	2009	2010	09 v 08	10 v 09
North America	13.96	14.08	0.05	0.12	14.04	14.10	0.13	0.06	0.09	0.02	0.09	-0.07
Europe	4.44	4.08	-0.33	-0.36	4.44	4.10	-0.33	-0.34	0.00	0.02	0.00	0.02
Pacific	0.68	0.75	0.03	0.07	0.66	0.73	0.01	0.07	-0.01	-0.02	-0.01	0.00
Total OECD	**19.07**	**18.90**	**-0.26**	**-0.17**	**19.15**	**18.93**	**-0.18**	**-0.22**	**0.08**	**0.03**	**0.07**	**-0.05**
Former USSR	12.96	13.17	0.20	0.21	13.05	13.32	0.29	0.27	0.08	0.15	0.08	0.06
Europe	0.13	0.12	-0.01	-0.01	0.13	0.11	-0.01	-0.01	-0.01	-0.01	-0.01	0.00
China	3.84	3.94	0.05	0.09	3.84	3.94	0.05	0.11	-0.01	0.01	-0.01	0.01
Other Asia*	3.66	3.76	-0.01	0.10	3.66	3.76	-0.01	0.11	0.00	0.01	0.00	0.01
Latin America*	4.40	4.69	0.27	0.28	4.40	4.69	0.27	0.29	0.00	0.00	0.00	0.00
Middle East	1.61	1.57	-0.04	-0.04	1.61	1.57	-0.04	-0.04	0.00	0.00	0.00	0.00
Africa*	2.50	2.47	-0.03	-0.03	2.50	2.47	-0.03	-0.03	0.00	0.00	0.00	0.00
Total Non-OECD*	**29.11**	**29.71**	**0.44**	**0.60**	**29.18**	**29.87**	**0.51**	**0.68**	**0.07**	**0.16**	**0.07**	**0.08**
Processing Gains	2.29	2.20	0.04	-0.09	2.29	2.20	0.04	-0.09	0.00	0.00	0.00	0.00
Other Biofuels	0.35	0.41	-0.04	0.06	0.36	0.42	-0.02	0.06	0.02	0.02	0.01	0.00
Total Non-OPEC*	**50.82**	**51.22**	**0.19**	**0.41**	**50.98**	**51.42**	**0.35**	**0.44**	**0.16**	**0.20**	**0.16**	**0.03**

OMR = Oil Market Report
* adjusted to include Indonesia and exclude Angola and Ecuador throughout

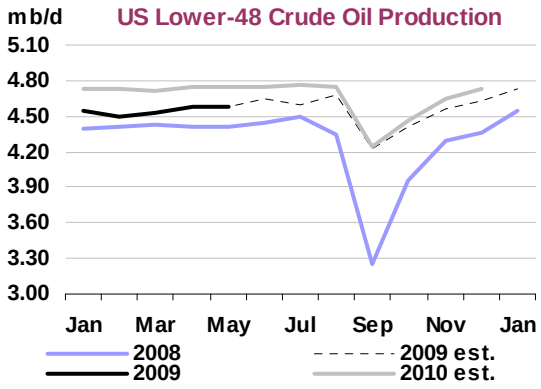
OECD

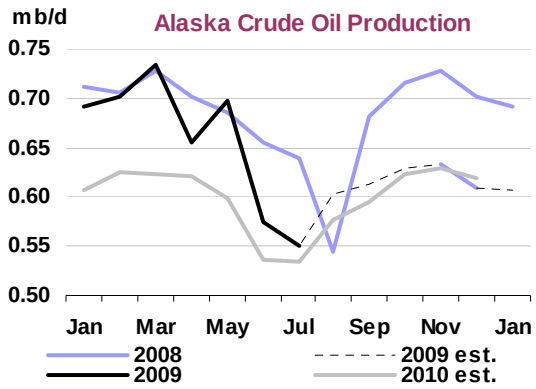
North America

US – Alaska July actual, others estimated: Total US oil production is revised up by around 60 kb/d for both 2009 and 2010 on stronger-than-expected recent performance, including at several new field start-ups. Total US oil production is now expected to rise from 7.89 mb/d in 2009 to 8.07 mb/d in 2010. Total NGL output in May was adjusted up by 115 kb/d on stronger Lower-48 output, as natural gas production remains resilient so far in the face of low prices. Fuel ethanol production also picked up again, as the economics of producing biofuels improved (see *Biofuels Update* below). In the Gulf of Mexico, Murphy's Thunder Hawk field started production in July and is expected to reach peak capacity of 45 kb/d in early 2010. The Tahiti field, which started pumping in May, has reportedly already touched its 125 kb/d capacity according to operator Chevron, several months earlier than we anticipated, though this may only stabilise at that level in several months.

A further upward revision stemmed from the elimination of the hurricane adjustment factor in July (around 40 kb/d, based upon the five-year average shut-in volume), after the month passed without incident. According to most recent weather forecasts, this year's presence of El Niño in the Pacific may indicate that the occurrence of serious storms is less likely, or at least that there will be fewer storms. The absence of any significant hurricane impact going forward would also result in an upward revision, as our current hurricane adjustment implies an average 300 kb/d shut-in for the remainder of 2009. On the other hand, March data appear to indicate that shut-in volumes after last year's storms were higher than anticipated, as repairs took longer than expected. Currently, and on the basis of the Mineral Management Service's (MMS) latest guidance, we have assumed that all volumes affected by last year's hurricanes will have been restored by the end of June (though small production volumes from destroyed platforms may effectively never resume output).

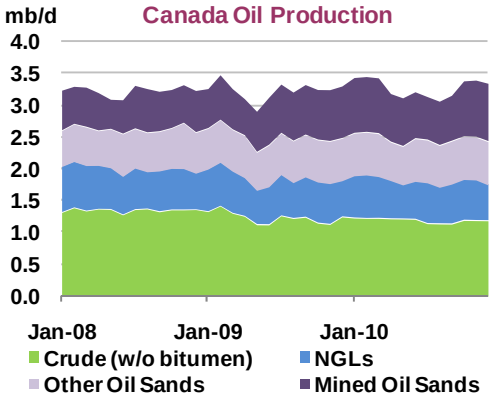
In late July, Shell reported a leak at its Gulf of Mexico Eugene Island pipeline, which caused its shutdown. At the time of the rupture, around 100 kb/d were flowing through the pipe (of around 175 kb/d capacity), including volumes from Chevron's new Tahiti field. However, Shell reported that all but 20 kb/d of this flow were rerouted through alternative pipelines, while repairs were undertaken. We have assumed an average outage of 10 kb/d for July and August, based upon the brief loss of the full volume and around two weeks of lower throughput in August.



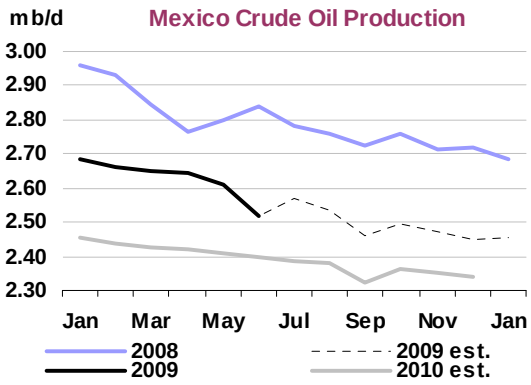


Meanwhile, Alaskan data for July (and June) confirmed earlier-than-usual seasonal maintenance, with total volumes down 150-200 kb/d from a recent peak in March. Work was underway at the Prudhoe Bay field, as well as at Endicott, Milne Point and others. Furthermore, nearly all northern Alaskan fields showed a slow-down or halt to production around 18-21 July, when the Trans-Alaska Pipeline System (TAPS) shut down for a brief 36h maintenance. As for southern Alaska, the Cook Inlet field, which halted production due to the eruption of a nearby volcano, was due to restart output in mid-August, using a different loading terminal.

Canada – Newfoundland – June actual, others May actual: Total Canadian oil production is adjusted up by 50 kb/d for 2009, largely due to a more rapid ramp-up at new oil sands mining operations. A new batch of disaggregated data for the past months showed that some of the newer projects, including CNRL's Horizon operation, which only started output in February this year, were producing at higher levels than forecast. As a result, total synthetic crude production was revised up by 40 kb/d in 2009. Elsewhere, in a sign that the economic environment has changed somewhat in recent months, Connacher's Algar bitumen project was reactivated in July, having previously been suspended. It is expected to add around 10 kb/d from end-2010. Total Canadian oil production is forecast to rise from 2009's 3.22 mb/d to 3.27 mb/d in 2010.



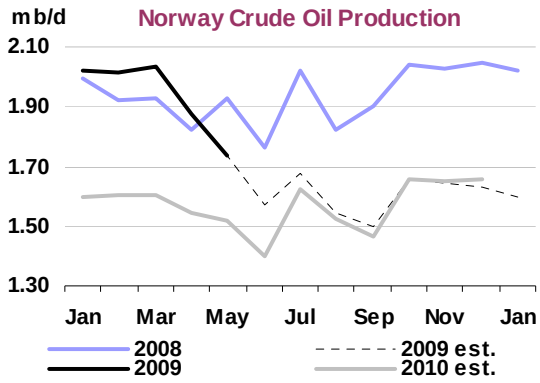
Mexico – June actual: June oil production in Mexico was reported 20 kb/d lower than expected, as NGL output was adjusted down, and once again, Cantarell production disappointed. At only just over 600 kb/d, Cantarell output is down 35 kb/d from May, or over 400 kb/d since June last year (-40%). According to Pemex, however, much of the June downtick was due to maintenance at both Cantarell and the Ku-Maloob-Zaap (KMZ) offshore field complex. Total Mexican oil output is expected to dip from 2.93 mb/d in 2009 to 2.77 mb/d in 2010 as increases in new fields fail to offset the steep decline in mature assets.

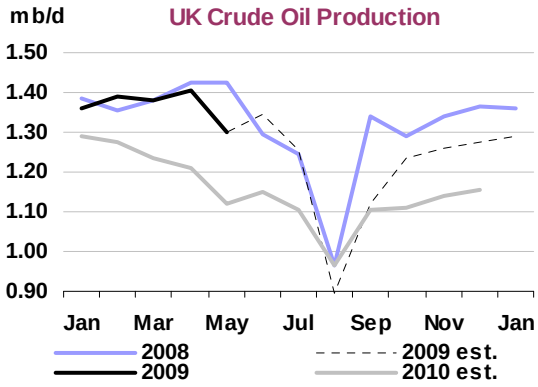


North Sea

Norway – May actual, June provisional: Norwegian production for 2009 and 2010 as a whole is revised only marginally, but recent months' production has dropped significantly due to extensive seasonal maintenance. June total oil output was reported at a provisional 2.06 mb/d, down by nearly 550 kb/d since a recent peak in February. As in the UK and some other non-OPEC producing countries, maintenance also appears to have taken place earlier than usual, perhaps due to low oil prices seen earlier in the year.

Several new Norwegian fields were added to our outlook. The Tyrihans field complex started production in early July and is expected to reach full capacity of around 90 kb/d by 4Q10. From 1Q10, the Vega fields will add condensate to the Gjoa stream, which is listed as part of the Sogn/Fram complex in our field-by-field database. Lastly, the Oselvar field should add another 13 kb/d at capacity to the Ula complex, from around mid-2010. Total Norwegian oil production is forecast to drop from 2.26 mb/d in 2009 to 2.07 mb/d in 2010.





UK – May actual: Despite its continuing decline as fields mature, our forecast for the UK was revised up, adjusted by 5 kb/d for 2009 and 50 kb/d for 2010. A series of fields have started up, and while previously included in our database, initial production volumes have been higher than assumed. The Brodgar and Callanish fields are now reported separately by the UK Department of Energy and Climate Change (DECC), including volumes going back one year. We had previously included some of this production in the Britannia field, to which they are tied back. Newest data show Brodgar producing 20 kb/d of condensate and Callanish nearly 50 kb/d of crude – both near peak capacity. Elsewhere, output for West Don, which started up in late April and is tied back to the Don field, is now being published and is expected to rise to its capacity of 35 kb/d by early 2010. Similarly, Jacky (not to be confused with the Jacqui field), also started up in April, and is expected to reach peak 10 kb/d by early 2010.

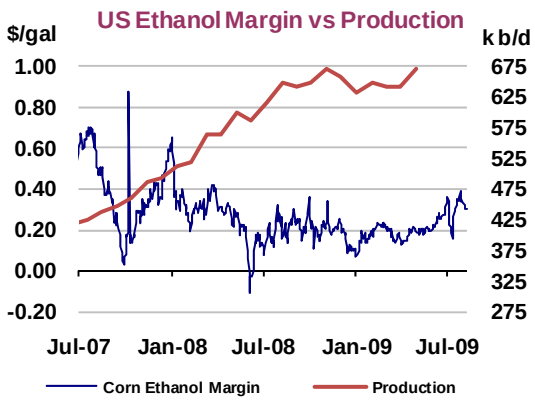
Meanwhile, latest loading schedules for August indicate heavy maintenance at the Forties complex due to work on the Hound Point export terminal, with volumes assessed as being down nearly 300 kb/d in August from July. Total UK production is expected to dip to only 1.1 mb/d in August, down 360 kb/d from July and 530 kb/d from February. In part, the expected lower volumes are likely contributing to higher North Sea Brent prices and ICE Brent futures' near-month premia over Nymex WTI. Total UK oil production is expected to decline from 1.50 mb/d in 2009 to 1.37 mb/d in 2010.

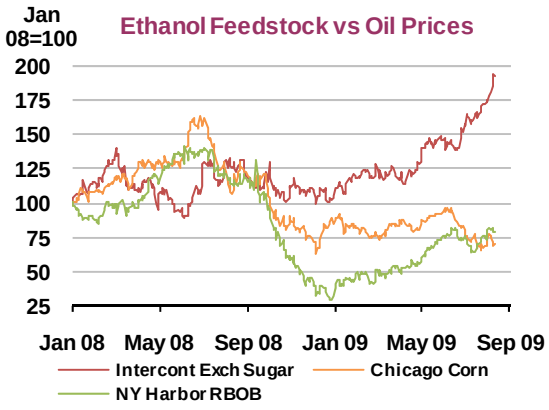
Pacific

Australia – May actual: Australian crude production is adjusted down slightly, by around 10 kb/d for 2009 and carried through to 2010, on weaker-than-expected western offshore Carnarvon Basin output. The Woollybutt field has remained offline since May, likely until November, as work continues on its Floating Production, Storage and Offloading (FPSO) vessel. Similarly, disagreements over the operation of its FPSO have kept production at the Puffin field stalled since early June. Both fields have a capacity of around 10 kb/d. Lastly, the Vincent field restarted production in June, following a fire in mid-April. Our forecast assumes a return to normal 40 kb/d production from July. Total Australian oil production is forecast to rise from 550 kb/d in 2009 to 600 kb/d in 2010.

Biofuels Update

Global biofuels production for 2009 has been revised up by about 20 kb/d, based on stronger-than-expected 2Q09 output from US ethanol and European biofuels, which offset weaker Brazilian ethanol expectations. Our estimate for 2010 global production has also risen, by about 15 kb/d. US ethanol production rose to 670 kb/d in May, up from 640 kb/d in April. Since mid-June, corn prices have trended downwards, aided by a favourable US Department of Agriculture acreage report and good weather. As a result, US ethanol margins rose to 2009 highs and we see rising production continuing through 3Q09. Though utilisation rates and margins remained weak in Europe, stronger-than-expected European biodiesel and ethanol production reported in 2Q09 has prompted an upward revision to European supplies by 15 kb/d for 2009 as a whole.

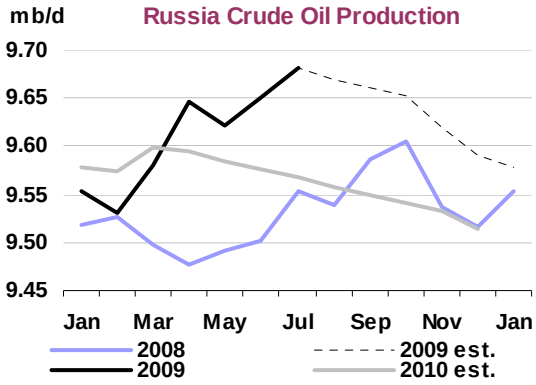


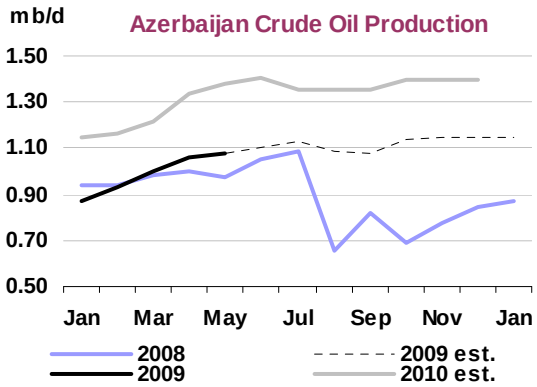


The production situation has become less optimistic in Brazil, by contrast. Feedstock costs have risen significantly as sugar prices soared past the 20 US cents/pound mark, driven by drought in India and excess rain in Brazil's Centre-South. The high sugar prices incentivise sugar production versus ethanol and the weather conditions will likely hurt overall sugar yields. We have revised down our 2H09 production estimate by only 5-10 kb/d with the start-up of new mills in July providing some offset. Still, production risks lie to the downside given the combination of weather, sugar prices and the continued negative impact of the credit crunch on production operations.

Former Soviet Union (FSU)

Russia – June actual, July provisional: While June production was revised down by around 20 kb/d on lower-than-expected output at the Sakhalin 1 joint venture, preliminary July production came in a full 75 kb/d higher than forecast, despite significant upward revisions in last month's report. Major producers Rosneft, Lukoil, TNK-BP, Gazpromneftegaz and Surgutneftegaz all saw production adjusted upward in the range of 20-30 kb/d in July. As outlined in recent reports, in part this stems from sharply rising output at a string of new fields, including now for the first time, crude from Rosneft's huge Vankor field in Eastern Siberia. Volumes there were supposedly around 35 kb/d in late July. The field is expected to ultimately pump around 400 kb/d. Meanwhile, Surgutneftegaz started production at its far smaller Alinskoye field in Eastern Siberia in July. It will produce around 7 kb/d and is part of a group of fields that will feed into the Eastern Siberia-Pacific Ocean (ESPO) pipeline. Coupled with some other small revisions, we have adjusted total Russian oil output upward by 45 kb/d in 2009 and 120 kb/d in 2010. Our current forecast sees output declining from 2009's 10.07 mb/d to 10.00 mb/d in 2010.





Other FSU: Azerbaijan – May preliminary; Kazakhstan – June actual: Forecast production for Azerbaijan and Kazakhstan are nudged up slightly for 2009 and 2010. Azerbaijan's key Azeri-Chirag-Guneshli (ACG) complex in the Caspian Sea continues to see recovery from shut-ins due to gas leaks last September, and was producing near capacity in July. August and September are however expected to see some volumes shut-in again for seasonal maintenance. Kazakhstan should also see production dip in July through October as the large Tengiz and Karachaganak fields undergo maintenance. Lastly, 1Q09 production data for Turkmenistan prompt a slight upward revision of 10 kb/d for 2009 and 2010. Total other FSU oil supply is anticipated to rise from 2.97 mb/d in 2009 to 3.31 mb/d in 2010, with expected increments of 260 kb/d and 85 kb/d respectively from Azerbaijan and Kazakhstan.

FSU net exports fell to 9.55 mb/d in June, after rising for three consecutive months supported by increasing Russian production. Crude oil exports decreased by 2.7% month-on-month, to 6.60 mb/d, due to lower Novorossiysk, BTC and Druzhba volumes. The drop was partly offset by a 3.0% rise in product exports to 3.00 mb/d due to higher fuel oil and gasoil shipments. Crude oil exports in the next two months will be affected by maintenance on the Russian pipeline network in July and on the BTC in August, coupled with an almost 40% jump in Russian oil export duties in July and another smaller increase of 4% in August. This will set the crude oil export duty at $212.6/mt ($29/bbl) in July and at $222.0/mt ($30.3/bbl) in August. The export duty for light and heavy oil products stood at $155.5/mt and $83.8/mt in July and $161.9/mt and $87.2/mt in August.

FSU Net Exports of Crude & Petroleum Products
(million barrels per day)

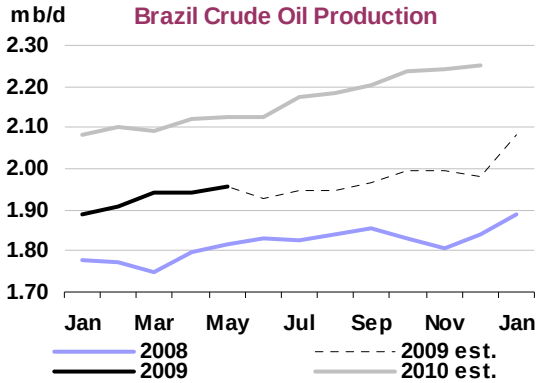
	2007	2008	3Q2008	4Q2008	1Q2009	2Q2009	Apr 09	May 09	Jun 09	Latest month vs. May 09	Latest month vs. Jun 08
Crude											
Black Sea	2.18	2.05	1.97	2.04	2.27	2.24	2.34	2.28	2.11	-0.18	-0.08
Baltic	1.59	1.46	1.40	1.47	1.52	1.66	1.69	1.63	1.65	0.01	0.14
Arctic/FarEast	0.32	0.30	0.29	0.37	0.54	0.45	0.45	0.45	0.46	0.01	0.23
BTC	0.55	0.67	0.64	0.57	0.74	0.80	0.72	0.88	0.80	-0.08	0.09
Crude Seaborne	**4.63**	**4.48**	**4.30**	**4.45**	**5.07**	**5.16**	**5.20**	**5.25**	**5.02**	**-0.23**	**0.38**
Druzhba Pipeline	1.13	1.08	1.03	1.09	1.14	1.12	1.08	1.12	1.14	0.02	0.20
Other Routes	0.44	0.42	0.46	0.40	0.40	0.40	0.36	0.41	0.43	0.02	0.02
Total Crude Exports	**6.20**	**5.98**	**5.79**	**5.94**	**6.61**	**6.67**	**6.64**	**6.78**	**6.60**	**-0.18**	**0.60**
Of Which: Transneft	4.27	3.99	3.87	3.96	4.22	4.27	4.37	4.35	4.10	-0.24	0.16
Products											
Fuel oil	1.10	1.09	1.04	1.04	0.96	1.16	1.13	1.15	1.19	0.05	-0.02
Gasoil	0.95	0.94	0.79	0.92	1.10	0.95	0.89	0.92	1.04	0.12	0.01
Other Products	0.60	0.59	0.55	0.56	0.73	0.79	0.76	0.85	0.77	-0.08	0.12
Total Product	**2.65**	**2.63**	**2.38**	**2.52**	**2.78**	**2.89**	**2.78**	**2.91**	**3.00**	**0.09**	**0.11**
Total Exports	**8.85**	**8.61**	**8.17**	**8.46**	**9.39**	**9.57**	**9.42**	**9.69**	**9.59**	**-0.09**	**0.71**
Imports	0.04	0.04	0.05	0.03	0.04	0.05	0.06	0.05	0.05	0.00	0.02
Net Exports	**8.82**	**8.57**	**8.12**	**8.43**	**9.35**	**9.52**	**9.36**	**9.64**	**9.55**	**-0.09**	**0.69**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

The Russian Ministry of Economic Development recently proposed a law to equalise light and heavy oil product export duties from January 2012. The light and heavy product export duties currently stand at around 70% and 40% respectively of the levy on crude oil exports. The new proposal suggests a standardised product export duty at 55%, decreasing the tax on light products and increasing the tax on heavy products. This should act as an incentive to upgrade refineries and therefore to boost output of higher-value refined products.

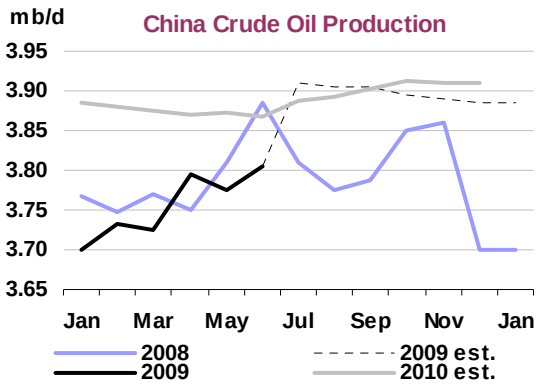
Other Non-OPEC

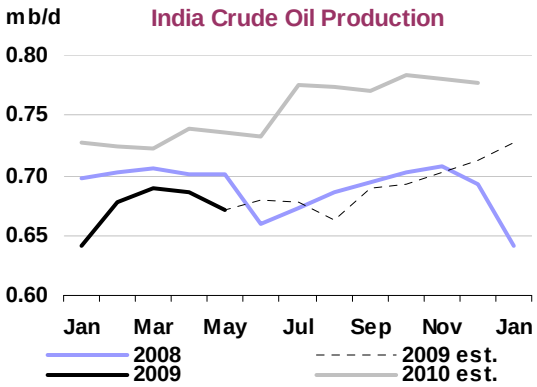
Brazil – May actual: June data for Brazil were unavailable at the time of writing, so our Brazilian forecast is left largely unchanged. Shell reported first volumes produced at its offshore Parque das Conchas (the appropriately named *Shell Park* or BC-10 field) in the Campos Basin in mid-July, slightly earlier than expected. This is reportedly the first full-field development to use entirely subsea oil and gas separation and subsea pumping, a reflection of the technical challenges posed by some of Brazil's new offshore fields. The field is expected to reach full capacity of 100 kb/d in 2010. Meanwhile, production at Tupi, the first pre-salt field to be developed, has been interrupted for technical reasons, perhaps to last three to four months. Production is only in a trial phase and start-up of full commercial production, due to start in 2010, is not expected to be affected. Total Brazilian oil production is forecast to rise from 2.54 mb/d in 2009 to 2.82 mb/d in 2010, including an increase of 60 kb/d in fuel ethanol.



Various non-OECD Asia: Chinese oil production in June is revised down by 90 kb/d on lower offshore production, possibly due to maintenance, as no outages were reported. Annual levels are more or less unaffected, however. In **India**, in early August, a sub-sea pipeline leak caused the shut-in of 40 kb/d at the Panna/Mukta fields offshore Bombay. We have assumed that the outage will last at least two weeks. **Indonesia's** government raised its crude plus condensate production guidance for 2010 to 965 kb/d, up minimally from 2009's 960 kb/d. Our current outlook foresees corresponding production volumes of

950 kb/d in 2009 and 980 kb/d in 2010 (to which we add another 70 kb/d and 90 kb/d respectively 3of other NGLs). Lastly, oil production in **Vietnam** was revised up by 10 kb/d and 15 kb/d respectively for 2009 and 2010 on evidence of higher-than-expected output at the key Bach Ho field, which is reportedly currently producing around 125 kb/d. **Total non-OECD Asia** (including China) is forecast to see oil production rise from 7.5 mb/d in 2009 to 7.7 mb/d in 2010, with increments of 100 kb/d each in China and Other Asia, largely from India and Indonesia.

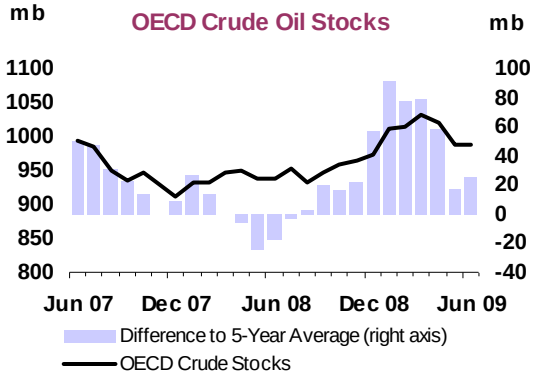


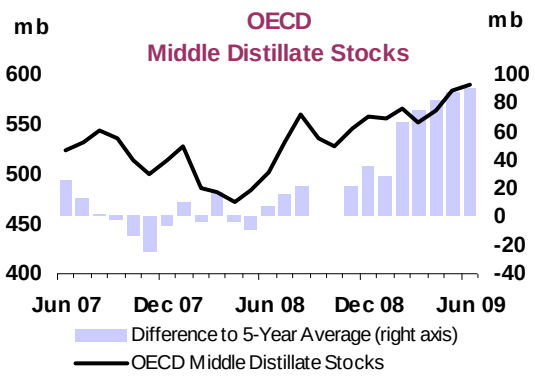


OECD STOCKS

Summary

- **OECD industry stocks rose counter-seasonally by 8.5 mb in June** to 2,749 mb, as an increase in gasoline and distillate more than offset declines in crude oil and fuel oil. A North American crude stockdraw outweighed crude gains elsewhere. Lower June inventories plus a downward revision to May levels put OECD crude stocks within the five-year range for the first time since November 2008.
- **Despite maintaining historically high absolute levels,** OECD industry stocks registered their smallest recorded second quarter build (+0.1 mb/d). Crude stocks drew counter-seasonally by almost 0.5 mb/d and total Pacific stocks drew 0.2 mb/d. As a result, OECD crude stocks have come more in balance relative to historical norms. A positive imbalance in distillate stocks, however, continued to grow.
- **OECD stocks in days of forward demand stood at 61.7 days as of end-June,** unchanged from a downward-revised end-May reading. Crude days cover fell to five-year average levels in the Pacific, but remain above the five-year range in North America and Europe. In products, residual fuel oil days tightened most of any category on the month but are trending along the top of the five-year range.
- **Preliminary July data indicate total OECD industry oil inventories fell by 3.6 mb**, although the movements of crude and products differed. Crude stocks drew by 12.9 mb, led by decreases in Japan and the EU-16. Product stocks increased 9.3 mb, led by gains in US distillate stocks.
- **Short-term crude floating storage levels declined to around 55 mb at end-July**, from 70 mb at end-June. Short-term products floating storage – mostly middle distillates – rose above 60 mb, from 50 mb at end-June. Two-thirds of products floating storage sits off Europe or in the Mediterranean.





OECD Inventory Position at End-June and Revisions to Preliminary Data

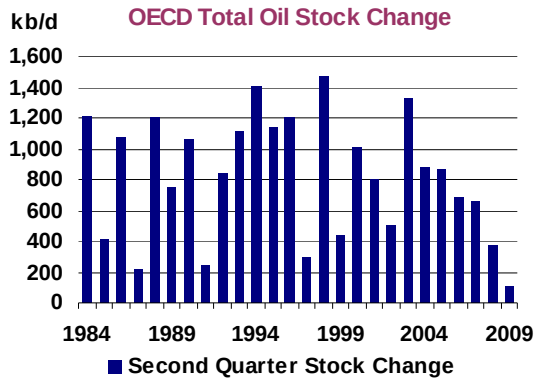
Despite increasing counter-seasonally by 8.5 mb in June to reach 2,749 mb, OECD commercial inventories have shown signs of becoming more balanced versus historical norms. End-June OECD total oil stocks remained at a lofty 137 mb surplus to the five-year average, but this surplus has narrowed by

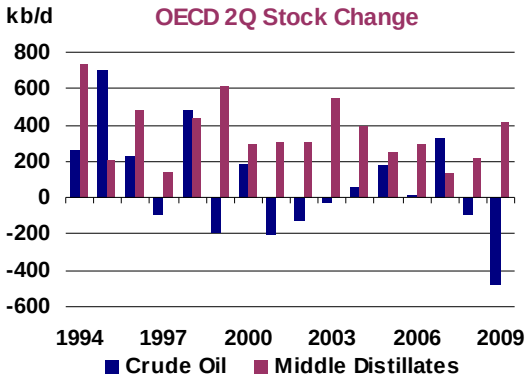
Preliminary Industry Stock Change in June 2009 and Second Quarter 2009

	June (preliminary) *(million barrels)*				June (preliminary) *(million barrels per day)*				Second Quarter 2009 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**-15.5**	**13.4**	**0.9**	**-1.3**	**-0.52**	**0.45**	**0.03**	**-0.04**	**-0.21**	**-0.12**	**-0.15**	**-0.48**
Gasoline	9.6	1.5	-0.7	10.4	0.32	0.05	-0.02	0.35	-0.02	-0.03	0.00	-0.06
Distillates	8.1	0.5	-2.7	5.8	0.27	0.02	-0.09	0.19	0.23	0.13	0.06	0.42
Fuel Oil	-3.2	-1.3	-2.0	-6.5	-0.11	-0.04	-0.07	-0.22	-0.04	0.04	-0.02	-0.02
Other Products	12.8	-4.6	-0.9	7.2	0.43	-0.15	-0.03	0.24	0.35	-0.04	-0.08	0.23
Total Products	**27.3**	**-3.9**	**-6.4**	**16.9**	**0.91**	**-0.13**	**-0.21**	**0.56**	**0.51**	**0.10**	**-0.04**	**0.57**
Other Oils[1]	-2.1	-0.5	-4.6	-7.2	-0.07	-0.02	-0.15	-0.24	0.07	-0.02	-0.04	0.02
Total Oil	**9.7**	**9.0**	**-10.1**	**8.5**	**0.32**	**0.30**	**-0.34**	**0.28**	**0.37**	**-0.04**	**-0.23**	**0.10**

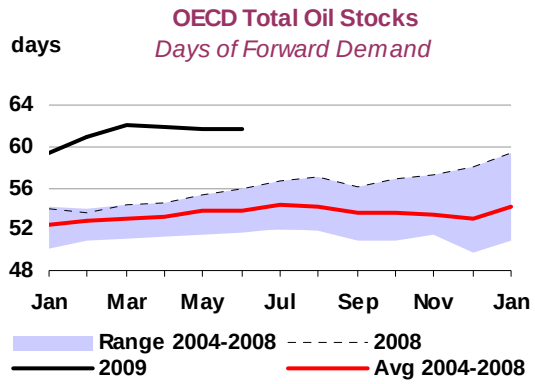
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

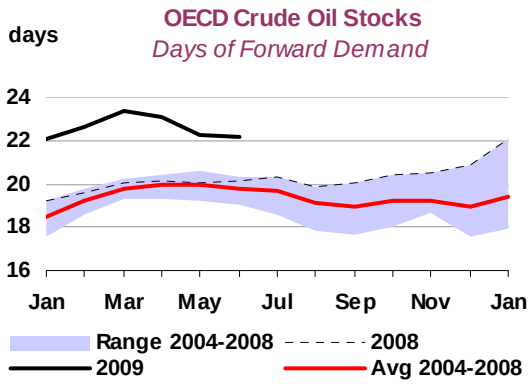
53 mb since end-March. A small 2Q total inventory build of 0.1 mb/d, a counter-seasonal 2Q crude draw and 2Q OECD government stockpiling of 0.2 mb/d have helped sop up extra oil. Yet, a growing dichotomy is emerging between crude and distillate. While crude's surplus to the five-year average decreased from 79 mb at the end of 1Q09 to 26 mb at end-June, distillate's buffer increased from 75 mb to over 89 mb. July preliminary data - both in onshore stocks and short-term floating storage - suggest little change in this trend. Meanwhile, OECD gasoline and residual fuel oil inventories have displayed relatively more balance, with the latest absolute levels of both within 5 mb of the five-year average.





Of course, the picture looks less balanced from a days-of-forward-cover-standpoint. At 61.7 days, OECD total oil days cover is 8.0 days above the five-year average and 5.9 days above levels of a year ago. OECD crude days cover remains well above the five-year range and even relatively tighter categories, such as gasoline and fuel oil, are trending along the top of the five-year range. However, present high forward demand cover is arguably more a reflection of weak demand rather than bloated stock levels.





Moreover, a sizeable downward revision of 27.7 mb to May OECD stocks played a prominent role in tightening absolute inventories. Crude stocks were revised down by 27.0 mb, led by downward changes to Norway (-8.2 mb), the UK (-5.8 mb) and Canada (-5.7 mb). In addition, sizeable revisions continued to the US 'other products' category, which was revised downward 11.3 mb.

Revisions versus 10 July 2009 Oil Market Report
(million barrels)

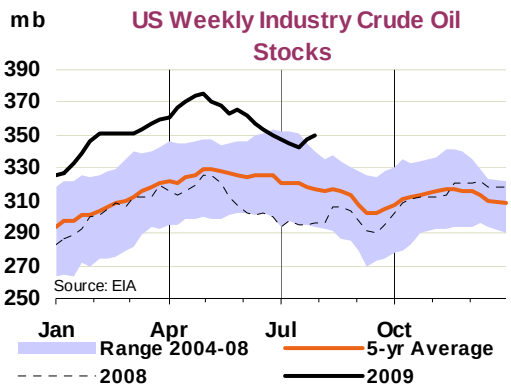
	North America		*Europe*		*Pacific*		*OECD*	
	Apr 09	May 09	Apr 09	May 09	Apr 09	May 09	Apr 09	May 09
Crude Oil	**-3.0**	**-2.7**	**0.6**	**-18.7**	**-0.2**	**-5.5**	**-2.6**	**-27.0**
Gasoline	0.8	4.4	-0.1	-1.4	0.2	0.1	0.9	3.1
Distillates	0.1	2.7	0.0	3.6	0.2	0.2	0.3	6.5
Residual Fuel Oil	-0.3	-1.0	0.0	0.2	-0.1	-0.1	-0.4	-0.9
Other Products	-1.3	-11.8	0.0	1.5	0.2	-0.4	-1.1	-10.7
Total Products	**-0.6**	**-5.7**	**-0.2**	**3.9**	**0.5**	**-0.2**	**-0.3**	**-2.0**
Other Oils[1]	-0.9	1.8	-0.1	0.0	0.0	-0.6	-1.0	1.2
Total Oil	**-4.4**	**-6.5**	**0.4**	**-14.9**	**0.2**	**-6.4**	**-3.8**	**-27.7**

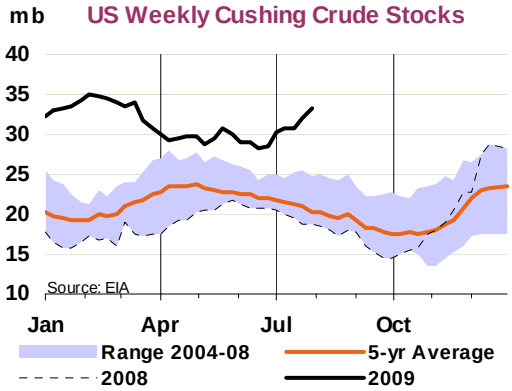
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Analysis of Recent OECD Industry Stock Changes

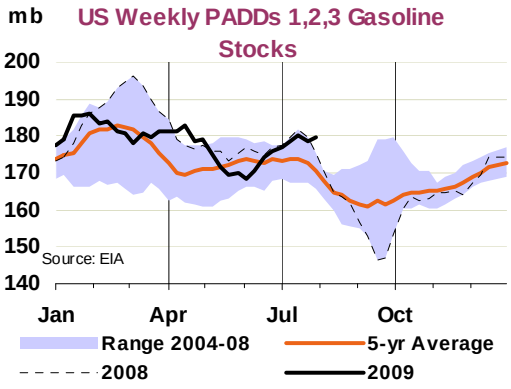
OECD North America

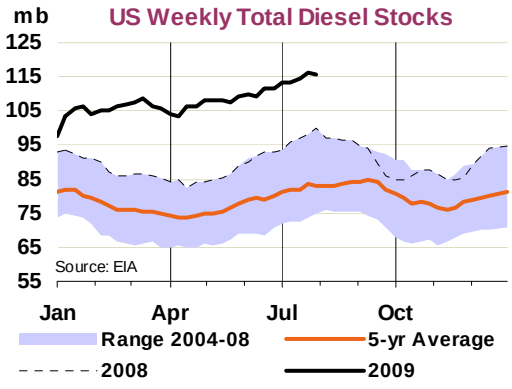
North American industry stocks rose 9.7 mb in June, almost wholly due to increases in gasoline, distillates and US other product stocks. US crude stocks, by contrast, fell by 16.0 mb as refinery runs increased and imports remained low, even as evidence mounted of drawing floating storage. Government crude holdings increased by 1.7 mb with continued filling of the US SPR. Mexican industry stocks fell 1.2 mb. Crude increased 0.5 mb but gasoline and distillate fell 0.4 mb and 0.6 mb, respectively.





July preliminary data point to an 8.4 mb total oil build and the highest weekly total US industry stocks reading since September 1990. US crude stocks rose by 1.0 mb on the month aided by refinery run cuts and a temporary import spike above 10 mb/d – likely due to discharges of floating storage - in the second half of the month. The build also benefitted from government SPR filling dropping to zero for the month. Stocks at Cushing, Oklahoma, which mainly trended sideways in 2Q09, rose 3.8 mb on the month, possibly signalling another round of deepening contango in WTI futures (see *Rising Cushing Storage Levels May Spell Another Bout of WTI Distortions*).





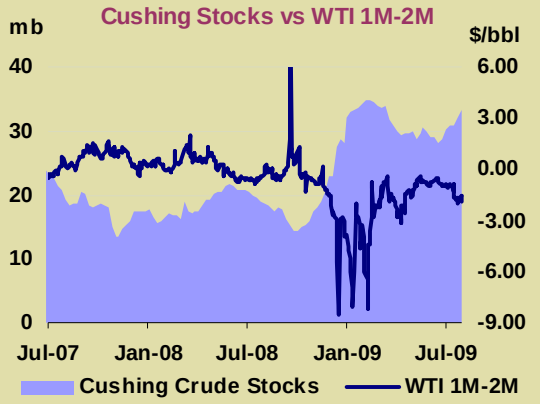
US product stocks jumped 7.4 mb with gasoline and distillate showing gains of 0.5 mb and 4.3 mb, respectively. Weak demand kept gasoline stocks trending along the top of the five-year range while distillates, particularly diesel stocks, continued to soar to new five-year highs. Principal products as a whole rose 5.8 mb, as the change in total products was supplanted by a 7.4 mb rise in propane more than offsetting falls in 'other oils' and 'unfinished oils'.

Rising Cushing Storage Levels May Spell Another Bout of WTI Distortions

Crude stocks at Cushing, Oklahoma – the delivery point for the New York Mercantile Exchange (NYMEX) light, sweet crude contract (also referred to as WTI) - registered counter-seasonal gains in July, increasing by 3.8 mb as refinery utilisation in the US Midcontinent and Gulf Coast decreased in the second half of the month while imports rose, particularly into the former area. At 33.3 mb as of July 31, Cushing stocks are at their highest level since early March, which marked the endpoint of a stretch in 1Q09 when the WTI futures curve suffered periodic bouts of deep contango near expiry as Cushing spare capacity likely eroded.

The market continues to gauge how close current levels come to storage capacity, but indications come more readily in the form of WTI price responses rather than definitive pronouncements by storage owners. A NYMEX official put current Cushing nameplate capacity at almost 50 mb, up from 47.5 mb in March. However, this figure is acknowledged as an estimate, not the site's exact capacity. Over the past few months, wire reports have carried snippets of storage expansions, maintenance and retirements by various operators, some of which will continue through this year and next, but complete capacity breakdowns remain elusive and private storage operators are not required to provide them.

Even given the NYMEX's 50 mb estimate and the assumption that only 80-90% of this capacity is usable, Cushing's effective capacity may still lie below 40 mb. That is because storage operators have recently taken an unknown amount of Cushing capacity out of service due to federally mandated inspections and repairs, which occur every 10 years. While Cushing may possess 'significant excess capacity' as indicated by the NYMEX, lack of clarity over recent net capacity changes and plans going forward may mean lower effective spare capacity than the headline numbers suggest.



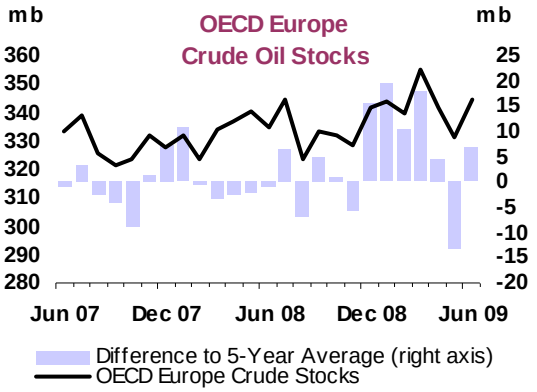
The stock build has reinforced the recent deepening contango in WTI and a weakening WTI relationship versus Brent (see *Prices* section for further discussion of WTI-Brent pricing dynamics). A similar bout of deep contango movements as occurred in January and February remains possible but tricky to predict. While Canadian oil sands production (much of which goes to the US Midcontinent) should rise slightly through the remainder of 3Q09, refinery throughput rates in the Midcontinent and along the Gulf Coast are higher than in 1Q09. With little scheduled maintenance on the horizon in both areas, crude intake will depend on the degree to which economic run cuts persist. Short-term floating storage in the US Gulf remains another variable, potentially providing a surge in imports.

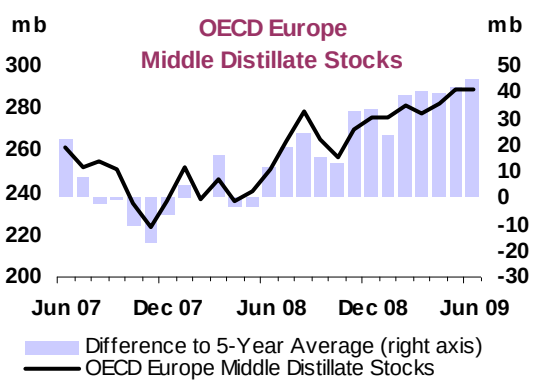
In addition, the growing WTI contango provides market players with a greater financial incentive to store oil until levels push capacity limits and increasing storage costs render the practice unattractive. At that point, absent marginal uptake by refineries, barrels without a storage home may suffer deep discounts to find a buyer. The wider market continues to guess when this may transpire.

Lack of clarity on Cushing effective storage capacity relative to fill levels means WTI's price movements provide the best clue to monitoring this underlying physical phenomenon. Moreover, uncertainty over physical flows and storage capacity may cause futures markets to overshoot or undershoot equilibrium price levels in the front-month contract. This month the CFTC has been debating ways to improve transparency and limit the overt influence of purely *financial* players in the oil market (see *On Speculation and Regulation* in the *Prices* section). It is perhaps ironic that, at the same time, the lack of transparency over Cushing storage capacity, which critically affects localised *physical* fundamentals, continues to cause distortions in the world's most important pricing benchmark.

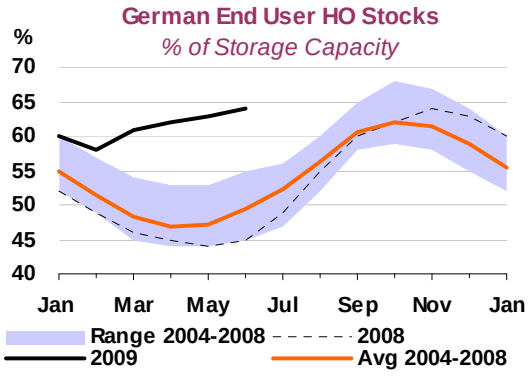
OECD Europe

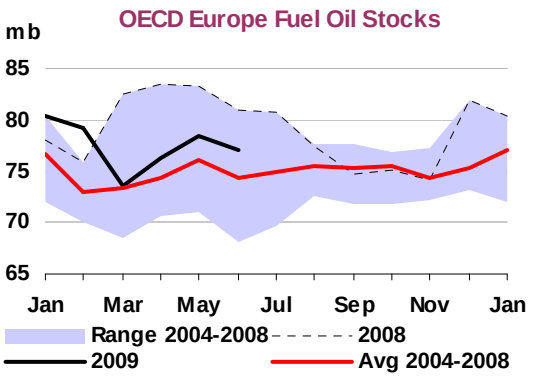
European inventories rose by 9.0 mb in June, mostly due to a 13.4 mb increase in crude inventories. Product inventories fell by 3.9 mb, though distillate and gasoline rose by 0.5 mb and 1.5 mb, respectively. Increased pull from Asian markets helped residual fuel stocks to fall 1.3 mb. A downward revision to May stock levels has put European crude stocks close to balance on an absolute level versus the five-year average.





Still, the distillate surplus continued to grow and Europe looks well stocked ahead of the heating season. German consumer heating oil stock fill levels rose from 63% at end-May to 64% at end-June. This puts those storage levels 19 percentage points above June 2008 levels and almost two percentage points above the five-year average reading for October, the beginning of the heating season. Moreover, a glut of middle distillate short-term floating storage (about 40 mb) remained off Northwest Europe and in the Mediterranean as of end-July.



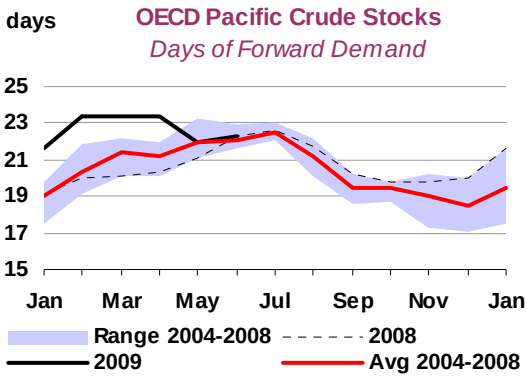


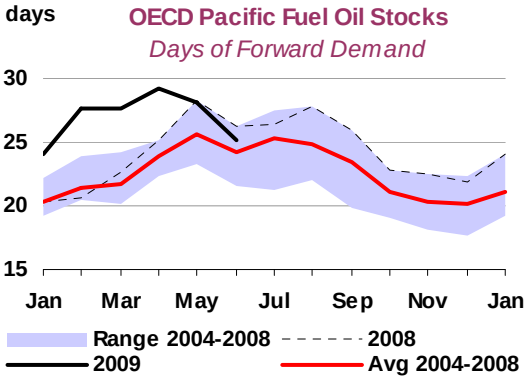
July preliminary data for onshore stocks show gasoil and jet/kerosene stocks held in NW Europe independent storage continuing to rise to new five-year highs, but gasoline, naphtha and residual fuel oil stocks all decreasing slightly. Fuel oil inventories in NW Europe are now trending in the bottom half of the five-year range versus 1H09 when they mainly stood above the five-year average. Overall OECD Europe fuel oil inventories through June had been trending above the five-year range, but increased exports to Asia may have sapped July levels. Still, preliminary data from Euroilstock indicate EU-16 fuel oil inventories posted a slight 0.4 mb gain in July. Overall EU-16 products fell, however, by 0.9 mb, led by gasoline, and EU-16 crude stocks decreased by 4.9 mb versus June. EU-16 middle distillates continued to rise, increasing 1.4 mb.

OECD Pacific

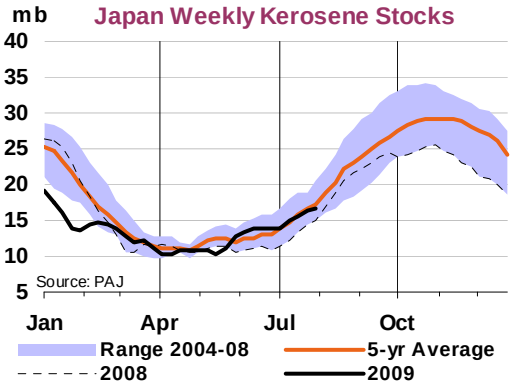
Pacific industry stocks drew counter-seasonally by 10.1 mb in June, led by draws in distillates and fuel oil of 2.7 mb and 2.0 mb, respectively. Of all OECD regions, Pacific stocks appear to have drawn down to levels most in balance on a days-of-forward-demand-cover basis, though most categories still remain

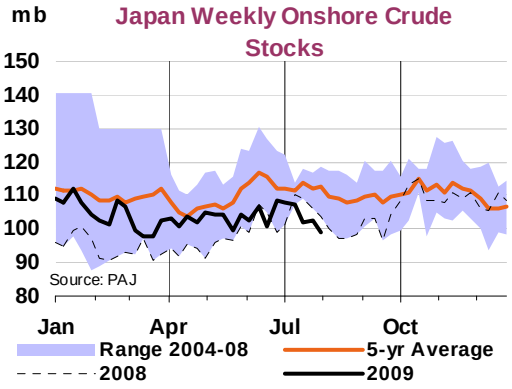
above five-year average levels. Crude forward cover is trending along the five-year average, products remain just above the five-year range and residual fuel oil has trended down towards the five-year average. However, like other regions, a healthy surplus of distillate stocks remains.





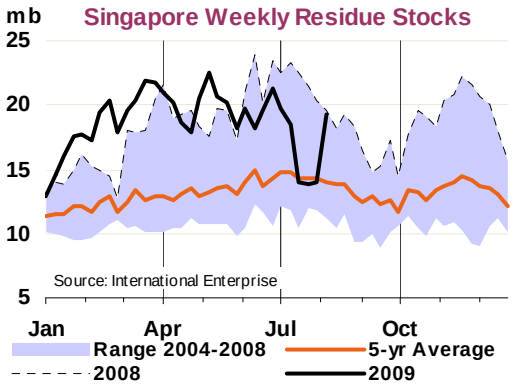
Weekly data from the Petroleum Association of Japan point to a commercial stockdraw of 6.2 mb for July, with crude falling by 8.9 mb and products increasing by 2.7 mb. Kerosene and naphtha stocks showed the largest builds, increasing by 2.6 mb and 1.2 mb, respectively. Kerosene stocks continue to trend at five-year average levels in the run-up to the winter heating season. Onshore crude stocks continue to trend near the bottom of the five-year range, but refinery utilisation remains weak.

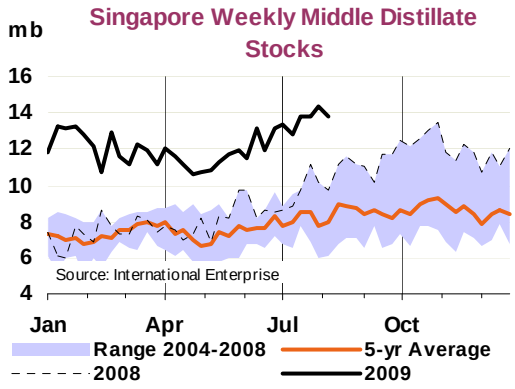




Recent Developments in Singapore and China Stocks

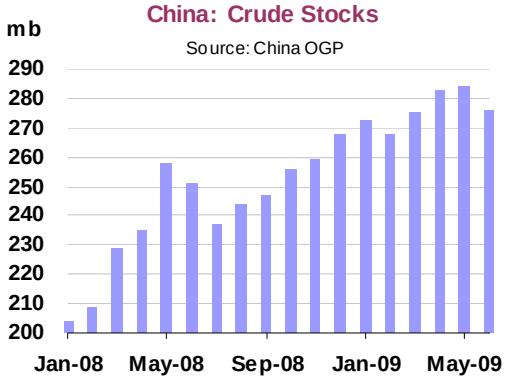
Singapore product stocks contracted in July by 4.2 mb based on falling fuel oil stocks. Increased bunker demand and tightening fuel oil supplies due to refinery run cuts spurred a draw of almost 6 mb (30%) of residual fuel oil stocks. However, a large early August fuel oil build reversed this draw and put fuel oil

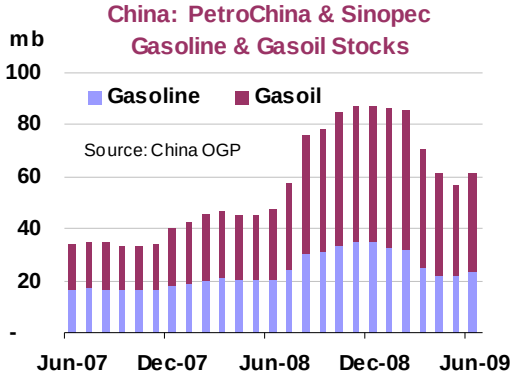




supplies back to the top of the five-year range. Light and middle distillate stocks in July increased 0.2 mb and 0.9 mb, respectively, and both categories sit at or above the five-year range.

China crude oil stocks reported by *China Oil Gas and Petrochemicals* (OGP) decreased by 7.7 mb (260 kb/d) in June, the first such decrease since February as increasing refinery runs (up 420 kb/d on the month) more than offset only slightly higher monthly net imports. Product stocks, meanwhile, posted their first monthly gain since December 2008 as gasoline and gasoil rose by 1.7 mb and 2.5 mb, respectively. High product exports were more than offset by higher refinery output for both categories.



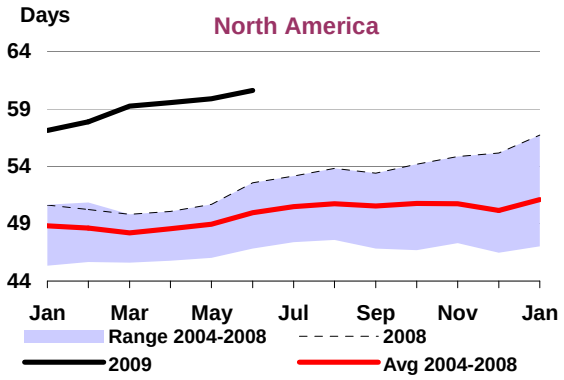


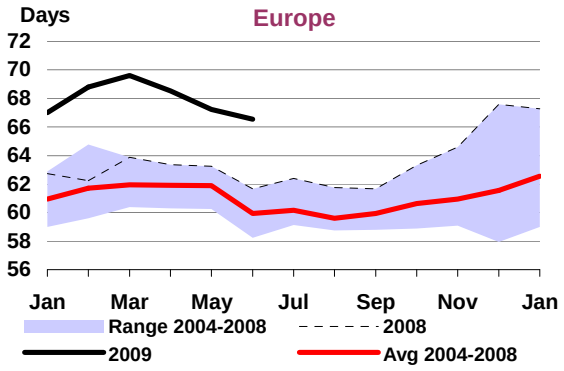
Reports continued to emerge over developments in China's Phase 2 strategic crude oil stockpiling. With the recent reported completion of the filling of 102 mb of Phase 1, China is in the midst of constructing a series of eight storage sites for Phase 2 totalling about 170 mb, some of which may reportedly be completed before end-2009.

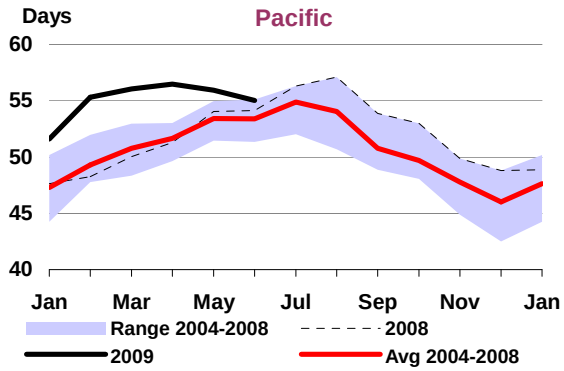
Regional OECD End-of-Month Industry Stocks

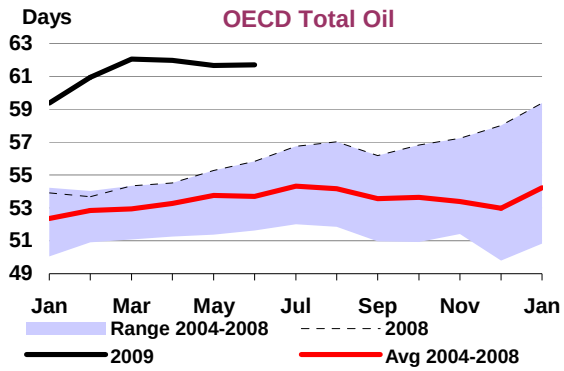
(in days of forward demand and millions barrels of total oil)

Days[1]

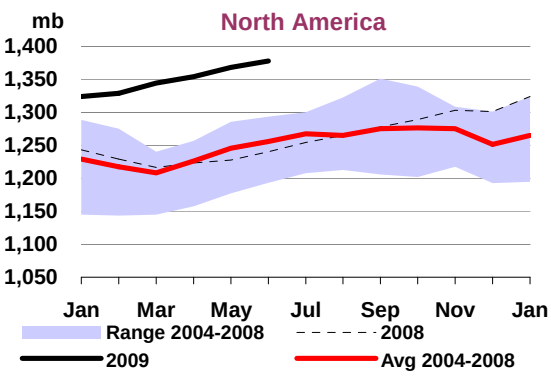


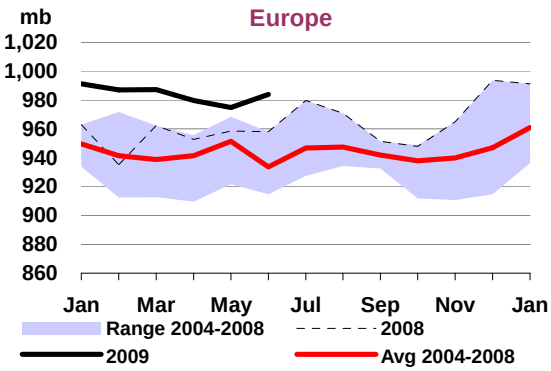


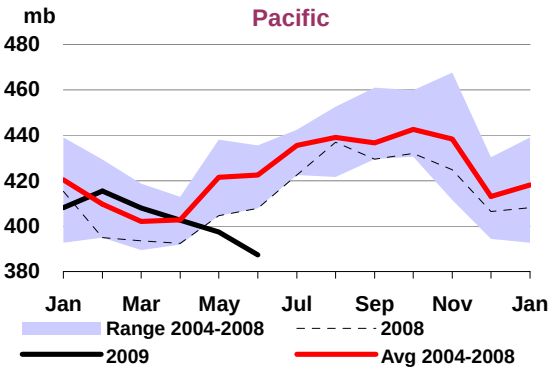


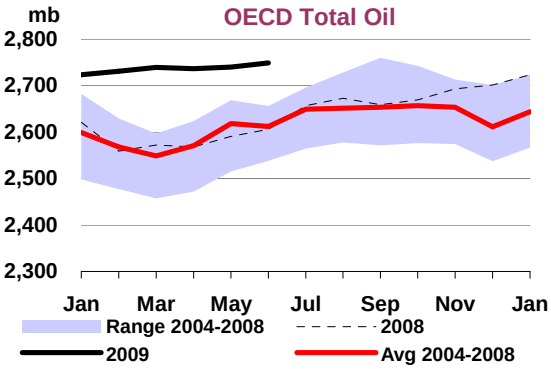


Million Barrels









1 Days of forward demand are based on average demand over the next three months

PRICES

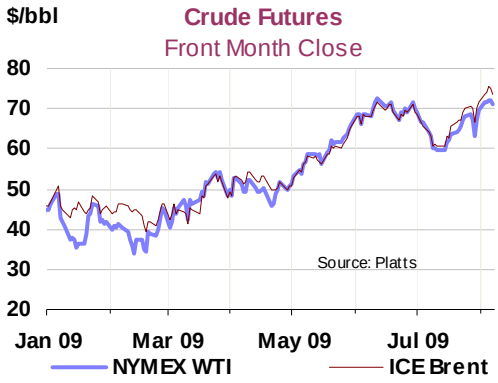
Summary

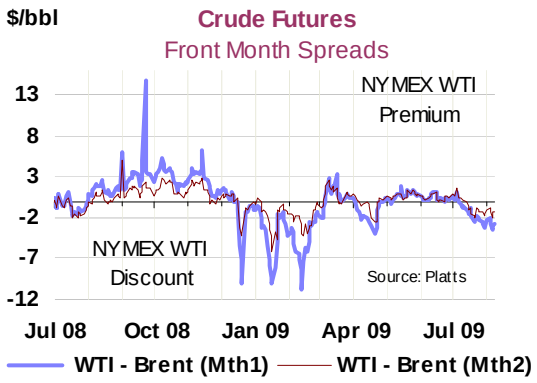
- **A more bullish sentiment returned to the market by mid-July, with prices trading around $8-10/bbl above monthly averages by early August.** Unusually, the latest rally in oil prices to around $75/bbl has been spurred on by stronger Brent futures rather than the more volatile NYMEX WTI markets. Relatively robust Brent prices reflect tighter physical supplies while rising crude stocks in the US, especially in the Midcontinent, correspondingly depressed prompt prices of WTI. Benchmark WTI was hovering around $69/bbl and Brent was just shy of $72/bbl at the time of writing.

- **Price differentials between light and heavy crudes were also further distorted this month,** as OPEC cutbacks of heavier sour grades continue to strengthen those grades relative to lighter crudes, at times even fetching a premium over their richer cousins. The narrowing price spread between light and heavy crudes kept spot prices for fuel oil relatively strong thoughout the month.

- **Refinery margins mostly improved except in the USGC, as crude oil prices headed lower in early July.** Weaker gasoline crack spreads eroded complex configurations more than the simple units, particularly in the USGC where most margins decreased. However, hydroskimming margins remained mostly negative.

- **Freight rates were down in July as the number of tankers used for short-term crude floating storage continued to decline, chartering enquiry levels remained weak and overall available tonnage increased.** Rates stood just above breakeven levels for most owners as of early August. However, short-term floating storage continues to tie up a significant portion of the tanker fleet. As of late July, more than 20 VLCCs were still engaged in the practice, over 4% of the existing fleet.

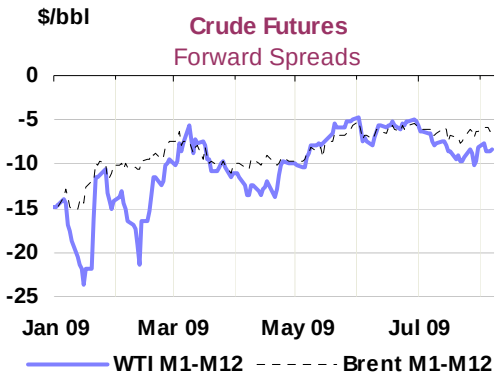


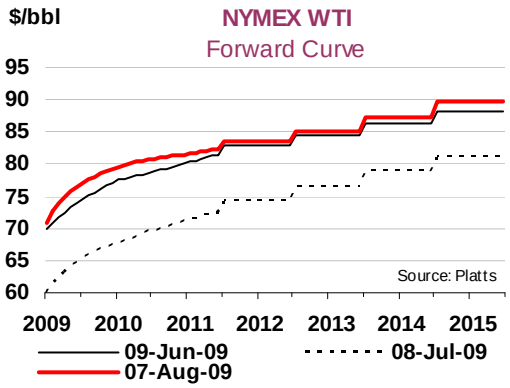


Overview

Against a backdrop of pervasive weak supply and demand fundamentals, oil prices moved in uncharted territory, with benchmark North Sea Brent breaching the $75/bbl threshold in early August. Oil prices plummeted in the first half of July, pressured lower by a weaker-than-expected gasoline demand season. By mid-month, however, prices resumed their upward path in tandem with stronger equity and financial markets. Month-on-month, futures prices for WTI and North Sea Brent declined on average by between $3.50-$5.50/bbl in July, averaging around $64.30 and $65.75/bbl respectively.

After a wave of negative economic indicators early in the month, a more bullish sentiment returned to the market by mid-July, with prices trading around $8-10/bbl higher by early August. Data released on 31 July showing the US economy contracted less than previously forecast in 2Q09 and reports on 3 August that Chinese stocks declined for the first time in four months renewed market optimism that the recession may have hit bottom.





The latest economic headline-driven oil price rally continues to overshadow underlying weak oil supply and demand fundamentals. OPEC production levels edged lower in July but output is still 1.28 mb/d above the group's target level of 24.845 mb/d. OPEC ministers will meet in Vienna on 9 September to review the market outlook. Of particular concern to OPEC are stubbornly high global oil inventories. OECD stocks remain at a steep 61.7 days of forward cover, or more than ten days higher than the target level Saudi Oil Minister Ali al-Naimi said is needed to balance the market.

Prompt Month Oil Futures Prices

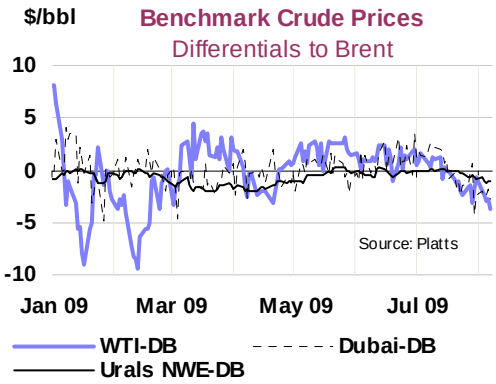
(monthly and weekly averages, $/bbl)

	May	Jun	Jul	Jul-Jun Avg Change	%	Week Commencing: 06 Jul	13 Jul	20 Jul	27 Jul	03 Aug
NYMEX										
Light Sweet Crude Oil	59.21	69.70	64.29	-5.40	-8.4	61.48	61.27	65.86	67.07	71.57
RBOB	72.92	82.10	75.51	-6.59	-8.7	70.73	71.21	77.86	81.78	86.07
No.2 Heating Oil	63.12	75.10	69.83	-5.26	-7.5	65.80	65.84	72.62	73.88	80.46
No.2 Heating Oil ($/mmbtu)	10.84	12.89	11.99	-0.90	-7.5	11.30	11.30	12.47	12.68	13.81
Henry Hub Natural Gas ($/mmbtu)	3.93	3.94	3.55	-0.39	-10.9	3.41	3.46	3.69	3.58	3.90
ICE										
Brent	58.59	69.27	65.75	-3.52	-5.4	61.87	62.55	68.02	69.81	74.35
Gasoil	65.27	77.45	72.53	-4.92	-6.8	67.78	68.94	75.54	76.85	82.06
Prompt Month Differentials										
NYMEX WTI - ICE Brent	0.63	0.42	-1.46	-1.88		-0.38	-1.29	-2.16	-2.74	-2.78
NYMEX No.2 Heating Oil - WTI	3.91	5.40	5.54	0.14		4.31	4.57	6.75	6.81	8.89
NYMEX RBOB - WTI	13.70	12.41	11.22	-1.19		9.25	9.95	12.00	14.71	14.50
NYMEX 3-2-1 Crack (RBOB)	10.44	10.07	9.32	-0.75		7.61	8.15	10.25	12.08	12.63
NYMEX No.2 - Natural Gas ($/mmbtu)	6.90	8.96	8.44	-0.52		7.89	7.84	8.78	9.10	9.91
ICE Gasoil - ICE Brent	6.69	8.18	6.78	-1.40		5.91	6.39	7.52	7.04	7.71

Source: Platts

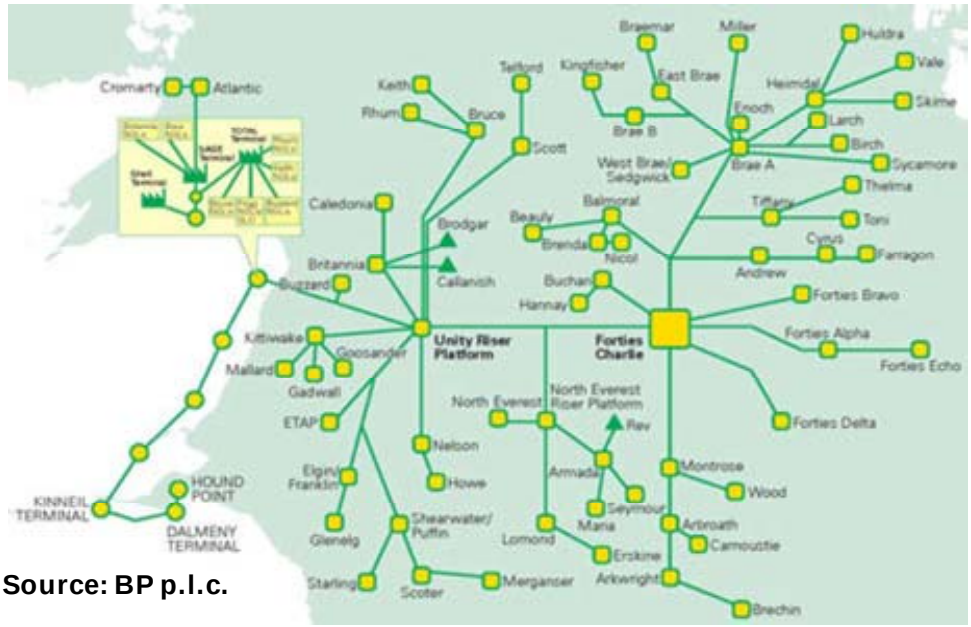
Spot Crude Oil Prices

Unusually, the latest rally in oil prices to around $75/bbl has been ignited by stronger Brent futures markets rather than more typically influential NYMEX WTI futures. The relatively stronger increase in Brent prices reflects tighter physical supplies of the grade as maintenance work on North Sea fields curtailed production in recent weeks while record levels of stocks in the US, especially at the key Cushing, Oklahoma storage facilities, have correspondingly depressed prompt prices of WTI.



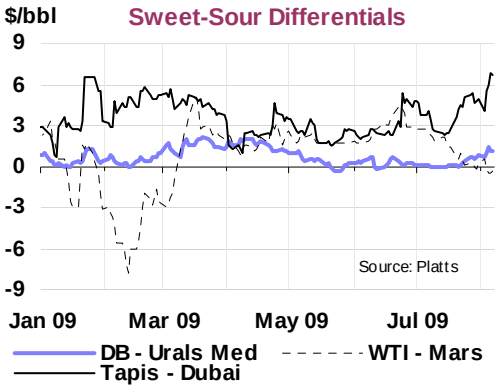
Brent's premium over WTI widened to around $2.75/bbl in recent weeks compared with around $1.50/bbl premium in July and a discount of roughly 40 cents/bbl in June.

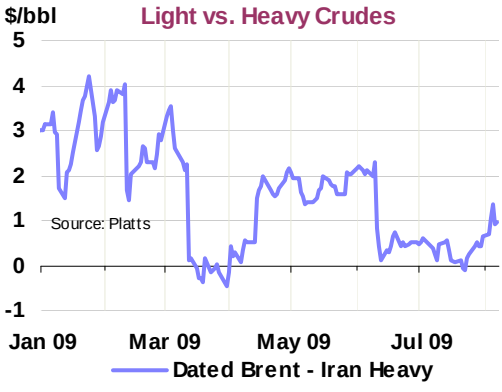
Historically, Brent prices have traded at a discount of around $2.00-2.50/bbl to WTI but the pricing relationship has reversed on and off this past year due to persistently high US crude inventories combined with storage capacity constraints at the NYMEX contract delivery point in Cushing.



Source: BP p.l.c.

The relative strength of Brent reflects an unusually heavy maintenance programme at the North Sea's Forties complex. The North Sea physical market underlies the ICE Brent futures contract. Planned maintenance at the 200 kb/d Buzzard field, the largest in the system, and other smaller ones will reduce Forties output by 300 kb/d this month and into next. There are more than 60 fields that make of the Forties system. The loss of Buzzard output will have the unintended consequence of improving the overall quality of Forties crude. Buzzard crude is heavier and more sulphurous than other field streams and its inclusion in the Forties blend reduces overall quality and value. Forties values rose in early August to their highest levels this year ahead of the planned outages. Total production from Forties is scheduled to decline to 330 kb/d in August, the lowest monthly output in three years.



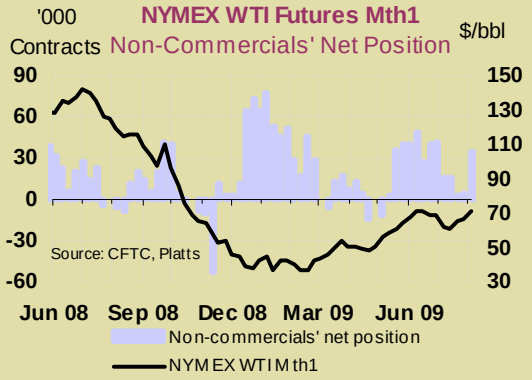


By contrast to the tightening supply in the North Sea, the US market is oversupplied, especially at the landlocked Cushing, Oklahoma storage facilities. *(See Rising Cushing Stocks May Spell Another Bout of WTI Distortions* in the *OECD Stocks* Section*).* Brent may therefore retain its pole position until the restart of the Buzzard field. Forties production is expected to return to more normal levels in October, with output expected to rebound to 600 kb/d in October.

On Speculation and Regulation

The increased volatility in oil prices over recent years has been blamed in part for the financial meltdown and general economic downturn. Speculative activity has been seen as a key reason behind unpredictable prices for consumers and the unstable investment environment for oil producers and international oil companies, and this has prompted a response by regulators and politicians. President Obama's tenure began with promises to tighten financial regulation. The aim is now to establish government oversight for the over-the-counter (OTC) derivatives market and set position limits for commodity traders. The legislation, if enacted, would amend the Commodity Exchange Act, and nullify the controversial Commodity Futures Modernization Act of 2000, which, arguably, created the so-called 'Enron loophole' in futures markets. The enthusiasm for regulation is no less elsewhere in the world. Calls for a more structured dialogue between producers and consumers to establish 'a reasonable price range' are coming from some G8 leaders and OPEC representatives alike. Current regulatory sentiment is said to show a willingness to err on the side of too much regulation rather than too little. Many market participants fear that there is a danger politicians will enact measures which 'over-regulate', bringing in restrictions possibly harmful to the functioning of the market.

The US regulator the Commodity Futures Trading Commission (CFTC) is tasked with ensuring markets that are transparent and free from fraud, manipulation and other abuses. However, studies performed by the CFTC itself, the UK's Financial Services Authority (FSA) and the International Monetary Fund (IMF) have so far been unable to prove any systematic connection between 'financialisation' of commodities – financial flows into commodity markets – and price volatility. Despite convergence in recent months between moves in the NYMEX WTI price and the movements of non-commercials net positions in NYMEX WTI futures, over a longer time span, the correlation is not significant, nor is the relationship between total open interest of non-commercials and the oil price.



More data gathering and further investigation of the linkages between OTC trading, index trading and price formation in oil markets has been recommended. The CFTC is expected to shortly release a new review re-examining the role of speculation in driving prices. The US Federal Trade Commission (FTC) will also tighten anti price-manipulation legislation, and has said it would fine traders and companies up to $1 million a day if they manipulate oil markets.

In recent weeks the CFTC held hearings to receive views on the proposed regulatory changes from various stake-holders. The concept of position limits for energy commodities trading does appear to have been accepted by exchanges and traders, although it remains to be seen how broad or deep they may be. The fears from the energy industry have been that a great deal of liquidity could be lost from the US market, possibly increasing volatility instead of reducing it. Hedging is used to manage risk and to ensure project financing. Energy companies worry that the emphasis on standardised OTC contracts will drive up hedging costs, tie up much-needed cash and eliminate the traditional practice of pledging assets in collateral. However, proponents counter that, through careful regulatory design, it should be possible to authorise the use of non-cash collateral to satisfy margin requirements and allow for the continued use of customised contracts, if a contract is not sufficiently standardised to be cleared or if one party does not qualify as a major market participant. CFTC Chairman Gary Gensler has made the, not universally accepted, point that position limits could aid liquidity by making participation less concentrated and more diversified.

For its part, the UK FSA held a private meeting on Wednesday 29th July with around 30 oil industry participants in London to discuss market transparency and regulation. No statement was issued from the meeting, but the FSA is thought to be much more reluctant to set position limits. Energy markets in the US and the UK are inextricably linked through lookalike contracts and arbitrage. They have an information-sharing agreement and claim to work under equivalent regulatory conditions. Concerns have been expressed that a lack of uniformity in regulatory extent and coverage could merely see trade migrate.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	May	Jun	Jul	Jul-Jun Avg Change	%	Week Commencing: 06 Jul	13 Jul	20 Jul	27 Jul	03 Aug
Crudes										
Dated Brent	57.48	68.55	64.61	-3.95	-5.8	60.58	61.20	66.63	68.71	74.21
Brent (Asia) Mth1 adjusted	57.92	69.09	65.37	-3.72	-5.4	62.31	61.72	66.60	69.17	73.96
WTI (Cushing) Mth1 adjusted	59.12	69.68	64.10	-5.58	-8.0	61.40	61.30	65.13	66.96	71.44
Urals (Mediterranean)	57.07	68.38	64.85	-3.53	-5.2	60.87	61.63	66.99	68.75	73.63
Dubai Mth1 adjusted	57.85	69.41	64.82	-4.59	-6.6	62.69	62.06	65.23	67.23	71.89
Tapis (Dated)	60.16	72.40	68.65	-3.74	-5.2	65.99	64.52	69.52	72.20	77.69
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	1.64	1.13	-0.50	-1.64		0.82	0.10	-1.50	-1.75	-2.76
Urals (Mediterranean)	-0.42	-0.17	0.24	0.41		0.29	0.43	0.36	0.04	-0.58
Dubai Mth1 adjusted - Dated Brent	0.37	0.86	0.21	-0.65		2.11	0.86	-1.40	-1.49	-2.32
Tapis (Dated)	2.68	3.85	4.05	0.20		5.41	3.32	2.90	3.49	3.48
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-0.86	-0.73	-0.36	0.37		-0.35	-0.18	-0.62	-0.12	-0.32
Forward WTI Cushing Mth1-Mth2 adj.	-0.91	-0.72	-1.19	-0.47		-0.98	-0.94	-1.15	-1.79	-1.82

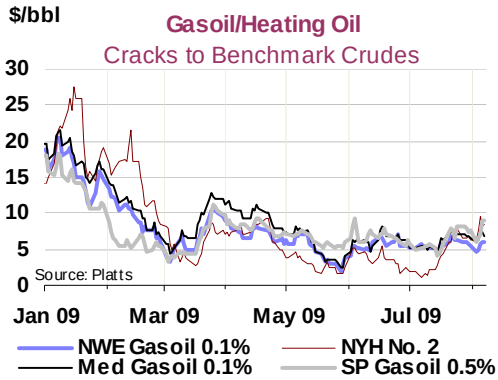
Source: Platts

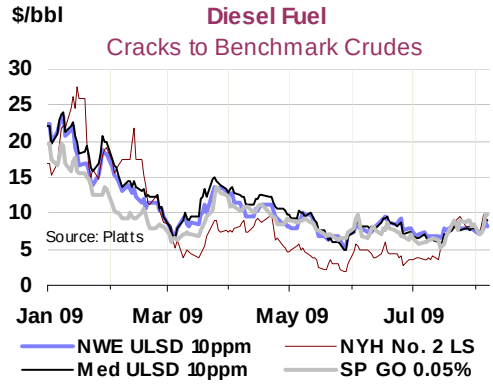
Price differentials between light and heavy crudes were also further distorted this month, as OPEC production cuts of heavier sour grades continue to strengthen relative to lighter crudes, and at times even fetching a premium over their richer cousins. The distorted price relationship between light, medium and heavy crude price structures is especially pronounced in the Atlantic basin market, with US WTI trading at a discount to Arab Heavy at times in recent months.

Spot Product Prices

Spot product prices tracked crude oil markets lower earlier in the month but crack spreads for the heavy end of the barrel strengthened in key markets by the end of the month and into early August. Even prices for middle distillates improved by early July, although ample diesel and gasoil stocks both onshore and in floating storage offshore Europe are pressuring crack spreads.

The sharp downturn in economic activity has hit gasoline and distillate markets especially hard, with prices declining $3-7/bbl in July. Despite the weak travel season, spot prices for jet fuel rose steadily in late July, with prices in early August some $10/bbl over July levels. Distillate cracks are now just $5-6/bbl compared with $25/bbl six months ago and $35/bbl a year ago.





Fuel oil saw continued strength from economic run cuts as well as reduced supplies from OPEC of heavier, sour crudes for refinery operations. Crack spreads for both high-sulphur and low-sulphur fuel oil against benchmark crudes in all regions narrowed throughout the month, with Singapore and New York Harbour posting the largest gains. The crack for LSFO 1% in NYH narrowed to WTI -$4.74 in July compared with -$9.22 in June. In Singapore, the crack for HSFO narrowed to -$1.36 in July compared with -$6.25 the previous month.

Spot Product Prices

(monthly and weekly averages, $/bbl)

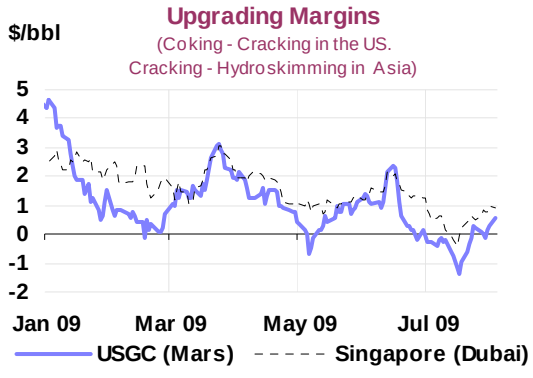
	May	Jun	Jul	Jul-Jun Change	Jul-Jun %	Week Commencing: 06 Jul	13 Jul	20 Jul	27 Jul	03 Aug	May	Jun	Jul
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	72.63	82.29	75.38	-6.91	-8.4	71.28	71.92	77.50	80.57	86.55	15.15	13.74	10.77
Naphtha	52.55	62.70	61.32	-1.38	-2.2	59.12	57.76	62.46	64.88	72.60	-4.94	-5.85	-3.28
Jet/Kerosene	64.54	78.07	71.90	-6.17	-7.9	68.03	68.28	74.28	75.59	80.34	7.06	9.52	7.30
ULSD 10ppm	65.14	76.84	72.13	-4.71	-6.1	67.53	68.37	74.97	76.63	82.03	7.66	8.29	7.53
Gasoil 0.1%	62.30	74.22	70.20	-4.03	-5.4	66.01	66.31	72.99	74.47	79.65	4.82	5.67	5.59
LSFO 1%	50.59	59.76	60.02	0.26	0.4	56.60	58.33	62.12	62.79	67.47	-6.89	-8.79	-4.58
HSFO 3.5%	50.78	58.68	59.06	0.38	0.6	55.69	57.78	60.81	61.69	65.67	-6.70	-9.87	-5.55
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	70.18	80.56	74.69	-5.87	-7.3	71.13	71.12	76.53	80.19	86.68	13.12	12.18	9.84
Naphtha	51.89	62.55	61.22	-1.33	-2.1	58.95	57.60	62.41	64.85	72.76	-5.18	-5.83	-3.63
Jet Aviation fuel	63.42	76.55	71.44	-5.11	-6.7	67.81	67.55	73.98	74.99	79.75	6.36	8.17	6.59
ULSD 10ppm	64.95	76.65	71.97	-4.69	-6.1	67.40	68.09	74.93	76.58	82.12	7.88	8.27	7.12
Gasoil 0.1%	62.47	74.66	70.53	-4.13	-5.5	65.89	66.72	73.73	75.01	79.97	5.41	6.28	5.68
LSFO 1%	53.20	60.95	60.12	-0.83	-1.4	56.53	58.64	62.48	62.70	67.22	-3.87	-7.43	-4.73
HSFO 3.5%	50.52	59.00	59.13	0.13	0.2	55.50	57.76	61.02	62.32	66.96	-6.54	-9.38	-5.72
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	78.70	87.34	79.61	-7.73	-8.9	75.34	75.40	81.93	85.18	89.91	19.58	17.66	15.50
Unleaded	71.11	80.17	73.49	-6.68	-8.3	69.23	69.24	75.86	78.80	83.25	12.00	10.49	9.39
Jet/Kerosene	63.68	77.04	72.99	-4.06	-5.3	68.29	69.49	76.22	77.27	82.03	4.56	7.36	8.88
No. 2 (Heating Oil)	61.98	73.45	68.45	-5.00	-6.8	62.92	64.61	72.15	73.49	79.51	2.86	3.76	4.35
LSFO 1%+	52.34	60.47	59.36	-1.11	-1.8	54.13	56.84	62.34	63.24	65.65	-6.77	-9.22	-4.74
No. 6 3%+	51.77	58.89	59.00	0.12	0.2	54.11	56.73	62.08	62.21	64.94	-7.35	-10.80	-5.10
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	68.50	77.15	72.83	-4.32	-5.6	69.25	68.73	74.67	77.40	83.61	10.64	7.74	8.01
Naphtha	54.01	65.86	62.92	-2.94	-4.5	61.91	59.35	63.19	64.82	70.85	-3.84	-3.55	-1.90
Jet/Kerosene	64.07	76.45	72.39	-4.06	-5.3	69.64	68.29	74.64	75.88	79.63	6.22	7.04	7.57
Gasoil 0.5%	64.06	76.31	71.08	-5.22	-6.8	68.06	66.92	72.79	75.08	79.38	6.21	6.90	6.27
LSWR Cracked	47.72	57.97	62.27	4.30	7.4	58.92	60.89	64.62	64.21	67.22	-10.13	-11.44	-2.55
HSFO 180 CST	53.38	61.81	61.95	0.14	0.2	58.96	60.36	63.49	64.20	67.64	-4.47	-7.60	-2.87
HSFO 380 CST 4%	54.61	63.16	63.46	0.31	0.5	60.44	61.92	64.97	65.79	69.49	-3.24	-6.25	-1.36

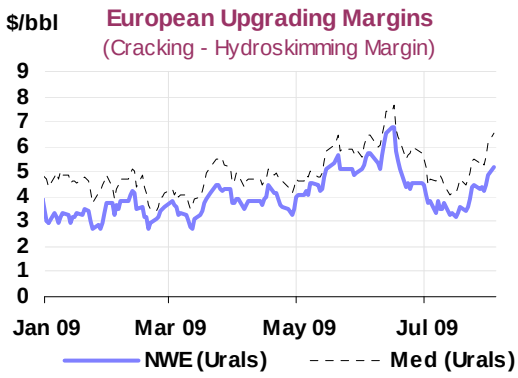
Source: Platts * CIF + Cargoes

Refining Margins

Except in the USGC, most benchmark refining margins improved in July. As argued in last month's report, the lack of profitability and low levels of demand pressured crude oil prices. Simpler configuration margins improved more than those of complex configurations. On the USGC, excluding a marginal gain in the Mars cracking margin due to stronger high-sulphur fuel oil prices, refining margins decreased due to gasoline crack spreads falling, as gasoline demand did not fulfill summer expectations.

In NW Europe and the Mediterranean, refining margins mostly improved in July, with hydroskimming margins posting the major improvements as premium gasoline crack spreads fell, favouring simpler configurations relative to cracking. However, hydroskimming margins remain negative.





In Singapore and China, refinery margins improved for most of the benchmark crudes. Daqing benchmarks reached positive levels while the rest stayed negative. The lack of support from gasoline and gasoil/diesel crack spreads favoured hydroskimming configurations to hydrocracking.

Selected Refining Margins in Major Refining Centres

($/bbl)

		Monthly Average				Change	Average for week ending:			
		May 09	Jun 09	Jul 09		Jul 09-Jun 09	03 Jul	10 Jul	17 Jul	24 Jul	31 Jul
NW Europe	Brent (Cracking)	1.96	0.98	0.65	↓	-0.33	-0.25	0.89	0.78	0.74	0.80
	Urals (Cracking)	1.47	0.43	0.56	↑	0.12	-0.50	0.62	0.67	0.66	0.97
	Brent (Hydroskimming)	-0.96	-2.19	-1.51	↑	0.68	-2.55	-1.12	-1.11	-1.43	-1.75
	Urals (Hydroskimming)	-3.30	-4.89	-3.27	↑	1.62	-4.60	-2.96	-2.67	-3.29	-3.48
Mediterranean	Es Sider (Cracking)	1.33	-0.32	-0.10	↑	0.23	-1.42	0.23	-0.06	0.02	0.18
	Urals (Cracking)	1.62	0.64	0.66	↑	0.01	-0.54	0.89	0.78	0.75	1.02
	Es Sider (Hydroskimming)	-2.91	-5.33	-4.09	↑	1.24	-5.51	-3.59	-3.59	-3.96	-4.55
	Urals (Hydroskimming)	-3.84	-5.62	-4.21	↑	1.42	-5.65	-3.78	-3.50	-4.23	-4.52
US Gulf Coast	Bonny (Cracking)	1.13	-0.38	-1.03	↓	-0.65	-2.37	-1.72	-1.15	0.16	-0.44
	Brent (Cracking)	1.25	-0.63	-1.09	↓	-0.45	-2.19	-1.54	-1.18	-0.08	-0.75
	LLS (Cracking)	1.36	0.76	-0.11	↓	-0.87	-1.26	-1.00	-0.41	1.77	-0.11
	Mars (Cracking)	1.38	1.30	1.40	↑	0.11	0.36	0.82	1.62	2.34	1.45
	Mars (Coking)	1.84	2.29	1.10	↓	-1.19	0.20	0.58	0.64	2.23	1.55
	Maya (Coking)	-1.54	0.66	-0.63	↓	-1.29	-1.70	-0.95	-1.65	0.43	0.33
US West Coast	ANS (Cracking)	2.93	0.15	2.20	↑	2.05	-0.49	-0.83	1.63	3.35	6.38
	Kern (Cracking)	9.05	6.84	11.46	↑	4.62	8.22	7.74	12.08	12.79	15.22
	Oman (Cracking)	3.17	-0.63	1.24	↑	1.87	-1.53	-2.19	0.90	3.31	4.63
	Kern (Coking)	16.15	16.37	15.74	↓	-0.64	12.10	11.71	16.24	17.87	20.04
Singapore	Dubai (Hydroskimming)	-3.02	-5.08	-2.68	↑	2.40	-4.87	-3.33	-2.67	-1.47	-2.12
	Tapis (Hydroskimming)	-4.83	-6.47	-5.20	↑	1.27	-7.51	-5.21	-4.38	-4.41	-5.64
	Dubai (Hydrocracking)	-1.98	-3.56	-2.21	↑	1.34	-3.95	-2.85	-2.76	-0.95	-1.31
	Tapis (Hydrocracking)	-3.23	-4.70	-4.89	↓	-0.19	-6.58	-4.79	-4.53	-4.22	-5.04
China	Cabinda (Hydroskimming)	-6.90	-8.15	-3.85	↑	4.30	-6.28	-3.14	-2.88	-3.74	-4.75
	Daqing (Hydroskimming)	-5.91	-5.11	0.55	↑	5.67	-1.97	1.37	1.65	0.81	-0.99
	Dubai (Hydroskimming)	-3.14	-5.44	-2.92	↑	2.52	-5.35	-3.65	-2.84	-1.62	-2.31
	Daqing (Hydrocracking)	-2.09	-1.33	2.35	↑	3.68	0.68	3.28	2.78	2.46	1.28
	Dubai (Hydrocracking)	-2.01	-3.85	-2.38	↑	1.47	-4.34	-3.09	-2.85	-1.04	-1.42

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.

Sources: IEA, Purvin & Gertz Inc.

Upgrading margins decreased during the first half of July as gasoline crack spreads weakened and high-sulphur residual fuel oil cracks increased in this period. In the second part of the month, gasoline and low- sulphur diesel cracks strengthened and the high-sulphur residual fuel oil cracks spreads weakened, increasing upgrading margins. In the USGC, upgrading margins turned negative for most of the month, reaching positive levels by the month-end.

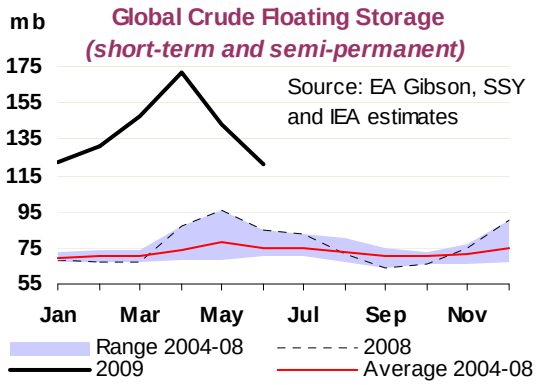
End-User Product Prices in July

End-user product prices on average increased by 0.9% in July, in US dollars, ex-tax, as a 1.5% fall in gasoline prices, month-on-month, was more than offset by 1.0%, 1.6% and 2.7% rises in diesel, heating oil and low-sulphur fuel oil prices, respectively. The change in gasoline prices in the surveyed IEA member countries ran from a decrease of 8.6% in Germany to an increase of 7.4% in Japan. Consumers in the US on average paid $2.53/gallon ($0.67/litre) for gasoline, in Japan ¥125.0/litre ($1.31/litre), in the UK £1.03/litre ($1.70/litre) and in continental Europe, prices ranged from a low of €1.02/litre ($1.44/litre) in Spain to a high of €1.28/litre ($1.82/litre) in Germany. End-user product prices were 45.8% below July 2008 levels.

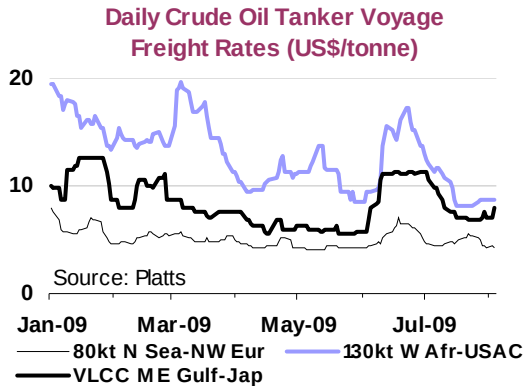
Freight

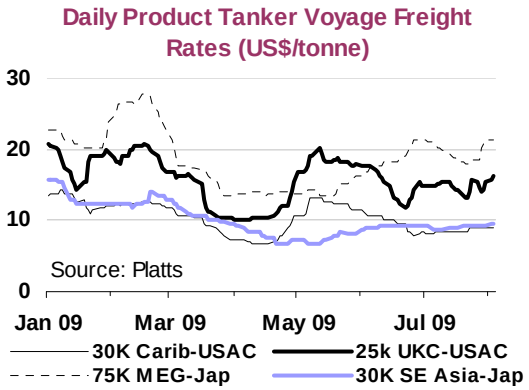
In July, dirty freight rates fell on the month as tankers employed in short-term crude floating storage continued to decline, chartering enquiry levels remained weak and overall available tonnage increased. Rates stood just above break-even levels for most owners as of early August. However, short-term floating storage continues to tie up a significant portion of the tanker fleet. As of late July, more than 20 VLCCs were still engaged in the practice, over 4% of the existing fleet.

Middle East Gulf to Japan VLCC rates fell from over $11/mt at the beginning of July to just over $7/mt by month end. Healthy fuel oil demand in Asia boosted trade to the East and, in turn, offered support to rates. West Africa to US Atlantic Coast rates fell from almost $13/mt at the beginning of the month to under $9/mt by month end. Chinese demand for Atlantic Basin crude had been offering rate support, but indications point now to lower off-take of West African grades in the near term.



Clean rates, by contrast, remained relatively steady on the month as products floating storage rose to over 60 mb by month-end. Still, as in the crude tanker market, overall weakness persisted and rate increases towards the end of the month masked mid-month drops. End-July Middle East Gulf to Japan Aframax rates remained steady at $21/mt versus early month readings. Yet, rates fell as low as $18/mt during the middle of the month. Northwest Europe to US Atlantic Coast medium-range (MR) rates increased slightly from under $15/mt at the beginning of July to almost $16/mt by month-end, though rates dropped as low as $13/mt in the middle of the month.





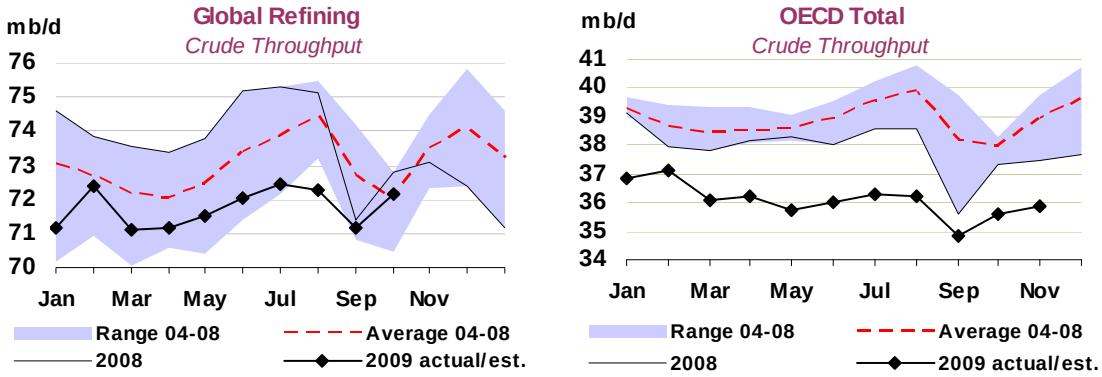
Despite overall weakness in rates and poor earnings, oil tanker deliveries continued in 2Q09 and available tonnage expanded given the long lead times involved in bringing vessels to market. According to EA Gibson Shipbrokers, the net fleet size increased about 3.4% with 111 more vessels in operation by the end of the quarter versus the end of 1Q09.

REFINING

Summary

- **Projected 3Q09 global crude runs are again revised lower this month to 72.0 mb/d,** down 0.4 mb/d from last month's report. Further recent cuts to European crude runs, rising floating storage of middle distillates and sustained low refining margins underpin the now-weaker projection. Annual growth slips to -2.0 mb/d for the quarter, while sequential growth from 2Q09 is just 0.4 mb/d, significantly below the five-year average increase of 1.0 mb/d.

- **Chinese throughputs were again stronger than expected in June, reaching 7.8 mb/d.** Consequently, upward revisions to Chinese crude runs are carried through the outlook for the remainder of the year, even though it is unclear at this time how of much of this apparent demand is actual and how much is driven by changing stock levels, due to incomplete data.



- **OECD 3Q09 crude runs are assessed at 35.8 mb/d, an annual decline of 1.8 mb/d.** Once again, weaker European throughput, this time for June, results in further reductions in 3Q09 projections. Early signs of continued restraint by refiners in the US, Japan and Europe, in the face of weak demand, appear to offer a glimmer of support to light product cracks. However, narrowing fuel oil discounts have led to some refineries cutting throughputs at coking capacity, long the mainstay of complex refinery profitability, which could in turn further limit US Gulf Coast throughputs.

- **May OECD refinery yields increased for gasoline and 'other products' at the expense of naphtha, jet fuel/kerosene and fuel oil**, while gasoil/diesel yields increased marginally. Refinery yields reflected mainly the economic incentives of production in each region as depicted by crack spreads. Total product gross output contracted 5% (2.24 mb/d) year-on-year. Gross output increased only for gasoline; however, the higher gasoline gross output was accommodated by a switch from last year's May net-import position to a net-export position this year.

Global Refinery Overview

Continued weakness in refining margins and increases in middle distillate floating storage have contributed to further downward revisions to our 3Q09 projections. The failure of the US driving season to materialise suggests there is little incentive for OECD refiners to significantly increase crude runs above current levels, barring an uptick in demand. Consequently, estimated global crude runs for **3Q09** are reduced by 0.4 mb/d, driven entirely by further substantial reductions to European projections and despite upward revisions to Chinese estimates.

Weaker preliminary data for OECD Europe in June and continued pressure on diesel cracks suggest that the region will struggle to recover until such time as the distillate market rebalances, which looks increasingly remote given further increases to regional floating storage levels of middle distillate. Conversely, a spate of refinery accidents both in the US and Europe have offered some of respite to gasoline markets, but here again the sheer scale of idle refining capacity suggest that any recovery will be short-lived, unless refiners maintain their already impressive discipline in curtailing runs in the face of anaemic demand. Of more concern are the reports that some US refiners have started to impose restrictions on coking units as current upgrading spreads do not justify their full use. As previously highlighted, upgrading margins have been the key driver for refinery profitability for more than a decade. Although we have become accustomed to refiners idling catalytic cracking capacity due to poor gasoline production economics, the move to idle coking capacity indicates that refineries face continued, and indeed increasing pressure from the structural shifts in product and crude markets*, see Refinery Upgrading Economics Under Pressure*.

Despite weaker-than-expected European June crude runs, **2Q09** global estimates are revised up by 0.4 mb/d to 71.6 mb/d. Higher-than-expected Chinese, Russian and Indian June throughputs, in addition to stronger-than-forecast crude runs in Brazil, Indonesia and Thailand for May, contribute to this upward revision, and are broadly consistent with this month's upwardly revised demand estimates.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09	Nov 09
OECD									
North America	17.1	17.2	17.3	17.8	17.7	17.5	16.5	17.3	17.3
Europe	12.2	12.7	12.4	12.3	12.5	12.4	12.5	12.3	12.2
Pacific	6.7	6.3	6.0	6.0	6.1	6.3	5.9	6.0	6.4
Total OECD	36.1	36.2	35.7	*36.0*	*36.3*	*36.2*	*34.9*	*35.6*	*35.9*
NON-OECD									
FSU	5.8	5.7	5.9	5.9	6.0	6.1	6.1	6.1	6.1
Europe	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
China	6.9	7.2	7.3	7.8	7.8	7.8	7.8	7.8	7.8
Other Asia	8.2	8.1	8.1	7.9	7.8	7.9	7.8	7.8	7.9
Latin America	5.5	5.1	5.2	5.4	5.3	5.0	5.3	5.5	5.5
Middle East	5.6	5.8	6.1	6.1	6.2	6.2	6.3	6.2	6.2
Africa	2.2	2.4	2.4	2.2	2.2	2.2	2.3	2.3	2.3
Total Non-OECD	35.0	*34.9*	35.8	*36.0*	*36.2*	*36.0*	*36.3*	*36.5*	*36.6*
Total	71.1	71.2	71.5	*72.0*	*72.5*	*72.2*	*71.2*	*72.2*	*72.5*

1 Crude runs in Italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

Despite stronger 2Q09 data, forecast **3Q09** crude runs are reduced by 0.4 mb/d this month, to 72.0 mb/d. Downward revisions are concentrated in the OECD, notably in Europe. Elsewhere, Valero's decision to idle its 275 kb/d Aruba refinery for a minimum of three months lowers Latin American projections by 0.3 mb/d. Offsetting these reductions are stronger Chinese crude runs for 3Q09 following record throughputs in June of 7.8 mb/d. Another increase in crude runs is expected in July and possibly August, although at the time of writing the impact of weather-related disruptions may temper August activity, following the arrival of Typhoon Morakot in China's Fujian province, having already passed over Taipei and the Philippines. North American throughput could prove stronger than shown here if significant hurricane outages fail to materialise in September.

Crude throughput forecasts are extended through to November, with a month-on-month increase of 0.3 mb/d and are expected to average 72.5 mb/d during the month. Despite this increase, global crude runs remain 0.6 mb/d below levels of a year ago. Higher OECD Pacific runs account for much of the increase, although much will depend on the seasonal uptick in Japanese kerosene demand.

OECD Refinery Throughput

Preliminary data for June were lower than projected, largely due to continued depressed activity in Europe. OECD crude runs of 36.0 mb/d were 0.3 mb/d below last month's estimates, with Europe some 0.5 mb/d below estimate, offset by slightly better-than-expected OECD Pacific runs. Pronounced weakness in European runs is now expected to continue throughout 3Q09, reducing estimates by an average of 0.5 mb/d, compared with previous projections. 3Q09 OECD crude runs are projected to average 35.8 mb/d, 0.5 mb/d below last month's forecast and, unusually, suggest a quarter-on-quarter decline of 0.2 mb/d, albeit depressed by the 1.2 mb/d hurricane disruption assumption which is applied to September's North American estimate.

Weak OECD demand continues to force refiners to maintain significant levels of voluntary economic run cuts, with some Japanese refiners pointing to as much as 1 mb/d of surplus domestic distillation capacity. While Japanese refiners have suggested increasing exports to offset the collapse in demand - to levels last seen in the 1980s - competition from new capacity in China and India is more likely to force incremental refinery closures in the coming years. Similar comments from independent refiners in the US and Europe point to the need for rationalisation of excess capacity noting that this is a slow and painful process.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

							Change from		Utilisation rate[1]	
	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	*May 09*	*Jun 08*	Jun 09	Jun 08
OECD North America										
US[2]	14.11	14.12	14.09	14.35	14.46	14.89	0.43	-0.49	84.56	87.44
Canada	1.82	1.83	1.80	1.57	1.61	1.73	0.12	-0.09	85.93	90.19
Mexico	1.29	1.26	1.22	1.30	1.23	1.14	-0.09	0.03	74.25	71.96
Total	17.21	17.20	17.12	17.22	17.30	17.77	0.46	-0.55	83.94	86.59
OECD Europe										
France	1.44	1.64	1.45	1.51	1.66	1.57	-0.09	-0.17	80.02	88.51
Germany	2.07	2.13	2.15	2.21	2.06	2.12	0.07	0.01	87.87	87.26
Italy	1.63	1.52	1.61	1.68	1.58	1.59	0.01	-0.13	67.95	73.73
Netherlands	1.00	1.03	0.96	1.02	1.01	0.80	-0.21	-0.27	66.25	88.22
Spain	1.21	1.21	1.03	1.17	1.01	0.97	-0.04	-0.13	76.64	87.09
UK	1.55	1.54	1.49	1.36	1.35	1.45	0.11	-0.21	76.98	88.13
Other OECD Europe	3.78	3.66	3.55	3.75	3.77	3.75	-0.02	-0.31	80.03	86.60
Total	12.69	12.73	12.24	12.68	12.44	12.26	-0.17	-1.20	77.74	85.38
OECD Pacific										
Japan	3.71	4.03	3.68	3.31	3.20	2.99	-0.21	-0.42	63.93	72.81
Korea	2.50	2.43	2.42	2.33	2.08	2.28	0.20	0.08	83.52	80.70
Other OECD Pacific	0.69	0.70	0.63	0.69	0.70	0.69	-0.01	0.04	85.50	80.29
Total	6.90	7.15	6.74	6.33	5.98	5.97	-0.02	-0.30	72.57	76.17
OECD Total	36.81	37.09	36.10	36.23	35.72	36.00	0.28	-2.05	79.71	84.27

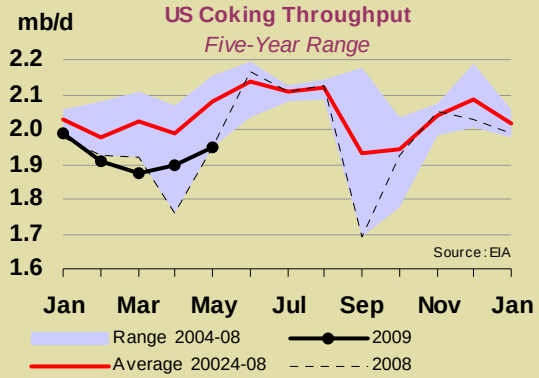
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

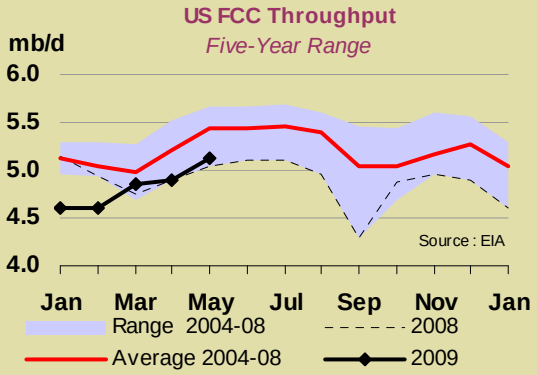
2 US50

OECD **2Q09** crude throughput is now seen averaging 36.0 mb/d, 0.1 mb/d below last month's report and 2.2 mb/d below 2Q08. Official May data were broadly in line with initial estimates, while June, as already noted, was materially weaker than expected. May data for the US indicate that crude imports from Saudi Arabia collapsed to just under 1.0 mb/d, nearly 40% lower than a year ago. This is only the second time in the last fifteen years that imports dipped below 1 mb/d, but arguably reflects Saudi crude pricing policy in recent months. Similarly, Japanese crude imports in June were 3.2 mb/d, nearly 15% lower than last year's level and consistent with provisional data that crude runs were under 3.0 mb/d for the month.

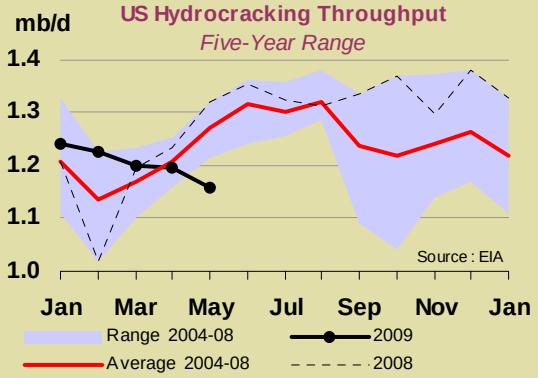
Refinery Upgrading Economics Under Pressure

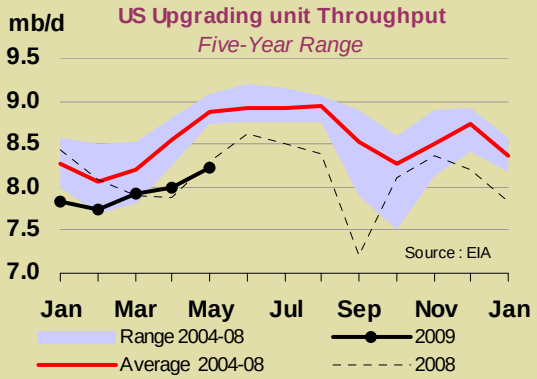
US refiners have for some time reported cutting feed rates to catalytic cracking units due to unfavourable economics, as weak gasoline demand and resilient import levels have pressured gasoline cracks. More recently, the stronger market for fuel oil and tighter heavy, sour crude markets, due to OPEC production cuts and declining production from long-term suppliers such as Mexico, have reduced upgrading spreads and contributed to run cuts at US refinery coking units. Second-quarter financial results for several US refiners, including Valero and Frontier, highlighted the changes to crude slate selection that had resulted in lower utilisation of, and in some cases even idled, coking units. Recent data from the US cover only the period up to May, but highlight the depressed level of throughputs.





Recent editions of the *MTOMR* have highlighted the prospect of reduced upgrading economics, driven by three key trends. Firstly, global crude quality will improve in the short to medium term, with additional light, sweet crude streams and rising condensate supplies cutting the supply of atmospheric residue. Secondly, OPEC production cuts have, in recent months, removed substantial volumes of heavy sour crude from the market. Lastly, increases in upgrading capacity in Asia, notably the 580 kb/d expansion of the Reliance refinery in India, will reduce fuel oil supplies to the market. All these drivers are working to narrow the upgrading spread, resulting in reduced incentives to maximise upgrading capacity.

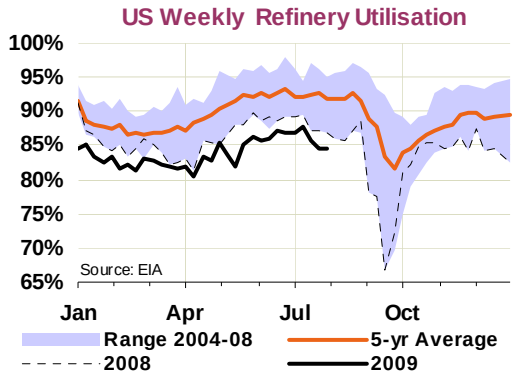


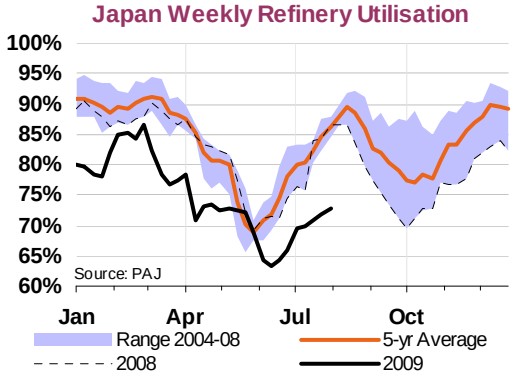


Recent data point to catalytic cracking throughputs, which are more geared to gasoline production, recovering slightly with higher gasoline cracks. However, there has been a significant decline in the utilisation of middle distillate-focussed hydrocracking capacity in the US, with throughputs falling counter-seasonally to below 1.2 mb/d in May. Continued weakness in diesel demand and bulging floating storage suggest that subsequent data will reveal further weakness in hydrocracking feed rates during the remainder of 2Q09 and 3Q09, and quite possibly beyond.

Overall upgrading capacity utilisation is likely to remain under pressure, until product markets, most notably for middle distillates, rebalance. This in turn will help restore the historical trend for heavy, sour crudes to trade at a substantial discount to lighter, sweeter grades.

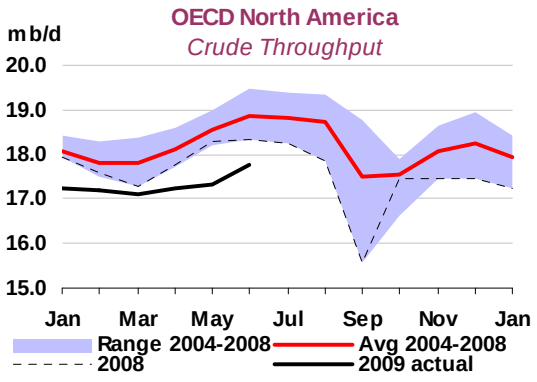
3Q09 OECD crude throughput of 35.8 mb/d is 0.5 mb/d lower than last month's report, largely due to further reductions in European projections. OECD crude throughput is expected to contract by 0.2 mb/d quarter-on-quarter and 1.8 mb/d year-on-year, well below the seasonal averages. The centre of the year-on-year collapse in crude runs has shifted from North America to Europe (-1.2 mb/d) and the OECD Pacific (-0.6 mb/d). This partly reflects the depressed baseline for comparison in the US, following the 2008 hurricanes, but also reflects the persistent weakness in middle distillate cracks, which has had a disproportionate impact on European refineries. Recent data from Japan point to a seasonal low point having passed, in line with our projections, and reports of the restart of Shell's Clyde refinery in Australia during July will provide a further small boost to August and September throughputs.

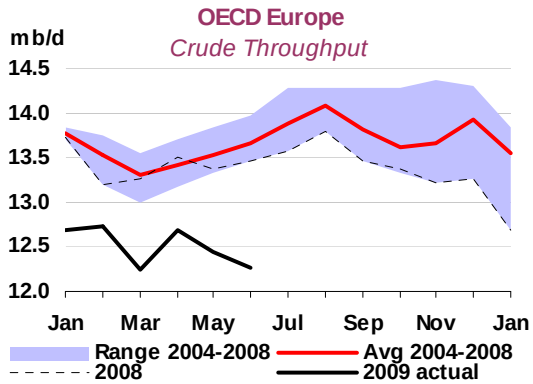




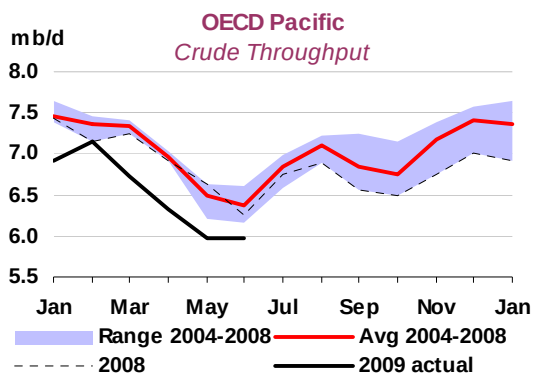
June **OECD North America** crude throughput was marginally ahead of our estimate given better-than-expected Canadian and Mexican throughputs. July crude runs are also seen marginally stronger than last month, although recent weekly US data suggest renewed weakness in refinery activity. Several US independent refiners reported weak second-quarter results during July, highlighting the ongoing pressure on refinery profitability and upgrading economics in particular, given tight heavy/sour crude markets, forcing some refiners to run lighter, sweeter crudes. Elsewhere, Pemex's maintenance at the Minatitlan refinery will lower Mexican crude runs in August, but overall 3Q09 estimates are broadly unchanged.

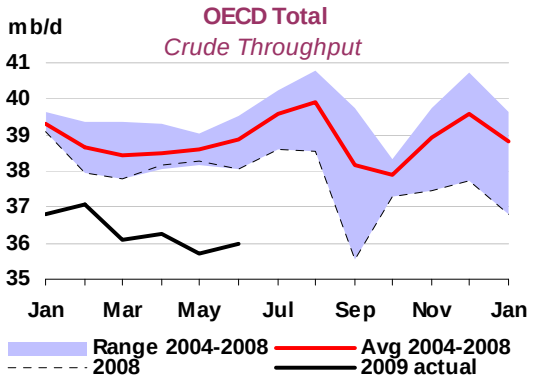
OECD Europe preliminary data for June indicate that crude throughput was 12.3 mb/d, nearly 0.5 mb/d weaker than projected. Shortfalls in France, Italy and Turkey account for much of the difference. Ongoing weakness in diesel cracks, the increasing level of middle distillate floating storage and above normal German consumer heating oil stocks suggest that the outlook for the remainder of 3Q09 is bleaker than previously assumed. We have therefore reduced our 3Q09 estimate by a further 0.5 mb/d, following last month's 0.5 mb/d downward revision. Furthermore, second-quarter results for several European independent refiners suggest that economic run cuts will be maintained, with Petroplus indicating crude runs will be 20-25% below 3Q08's level. Elsewhere, capital expenditure reductions continue apace and comments from European refiners suggests that further cutbacks may be imminent.





OECD Pacific crude throughput appears to have reached its seasonal trough in June, with Japanese runs averaging just under 3.0 mb/d and the region as a whole steady at 6.0 mb/d. Japanese crude imports picked up to 3.2 mb/d during the month, suggesting the recovery in Japanese crude throughput in weekly statistics during recent weeks marks the low point in crude runs. Nevertheless, weak domestic demand leaves a question mark over the long-term future of some refineries, given that nearly 1 mb/d of excess capacity is likely to persist over the next few years.





Furthermore, despite the extraordinarily low Japanese crude runs seen in recent months, kerosene stocks are in line with the five-year average, and seasonal patterns suggest they should build over the balance of 3Q09. Consequently, further demand weakness for kerosene may possibly trigger another round of run cuts if stocks rise substantially. 3Q09 projections are unchanged from last month, with the return of Shell's Clyde refinery in Australia, already factored into August and September estimates.

Refining Industry Consolidation – Blood in the Water

Urban myths suggest that sharks can detect traces of blood in the water up to one mile away. Similarly, the recent increase in interest in the refining industry from investment banks, management consultancies and private equity groups suggests that some refiners appear vulnerable and potentially this may herald another round of industry consolidation.

Undoubtedly, some refiners have faced significant financial strain from the economic slowdown. Planned levels of capital expenditure have been slashed to preserve balance sheet strength and allow companies some breathing room from banks and other creditors. Equally important is the need to maintain credit rating agencies' assessments of debt quality, if refiners are to maintain access to capital markets. Nevertheless, some refiners may face distressing times ahead and could be considering asset disposals to improve their business survival prospects. Similarly, the well-worn path of non-core asset disposals by Supermajors has recently seen Shell's Stanlow, Heide and Harburg refineries reportedly being on offer. Potential buyers are diverse and include Russian, Indian, Middle and Far Eastern companies. However, a change of ownership per se does not alter the structural imbalances emerging in the OECD.

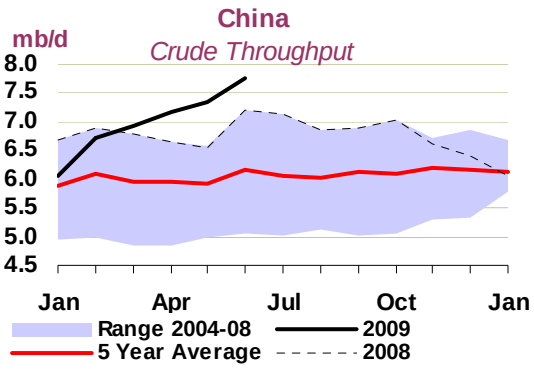
Real industrial change will only come when excess capacity is closed. As already noted, several US independent refiners see this as a slow and often painful process. Ultimately, the industry survivors may be those with the deepest pockets, rather than those with the most competitive assets. However, high closure and site remediation costs undoubtedly stack the odds in favour of refineries being sold rather than closed. Furthermore, the rehabilitation of debt and equity markets from last year's traumas may herald a new wave of industrial restructuring as cheap valuations tempt some to expand their operations. According to some refiners, banks are attempting to generate interest in assets that are not necessarily for sale. By the same token, there is very little in the world of refining that is not for sale if buyers are willing to pay a sufficiently high price for it.

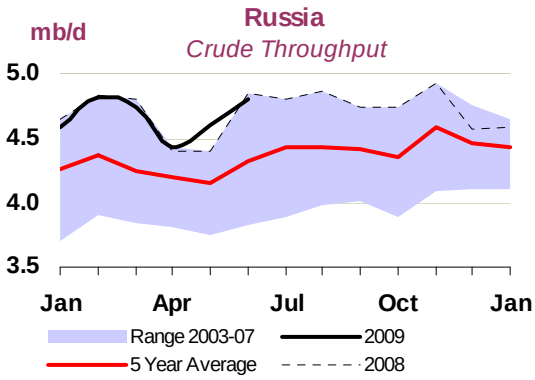
Barring a rapid recovery in refining profitability, it seems likely that the sharks will continue to circle the industry and may look to pick off the weaker players. However, weak global demand is likely to require longer-term solutions to resolve the structural imbalances that have emerged in recent months, rather than 'quick-fix' changes of ownership, which seem the preferred option for now.

Non-OECD Refinery Throughput

Forecast 3Q09 non-OECD crude throughput is revised up by 0.2 mb/d to 36.2 mb/d, following a further positive reappraisal of China's crude throughput projections and a lowered Latin American assessment. Reported May crude throughput was stronger than expected in Algeria, Brazil, Indonesia and Thailand, as run cuts, related to weak regional demand, failed to materialise. Preliminary June data were also stronger than forecast, with Russian, Indian and Iranian crude runs ahead of expectations. Reported Iraqi crude runs of 0.2 mb/d appear exceptionally weak and, given apparently conflicting data from other sources, we have delayed incorporating them into our estimates pending further review.

Latin American crude throughput projections have been cut following Valero's decision to idle the 275 kb/d Aruba plant for 3Q09. Its subsequent restart depends entirely on prevailing refinery economics, but for the moment we have altered our forecasts only through the end of September. As noted above, Indian crude runs were stronger than expected in June, as the ongoing ramp-up of Reliance's Jamnagar expansion reaches its completion. Reliance estimates that second-quarter crude runs averaged 0.3 mb/d, suggesting further increases in the coming months; we have marginally adjusted up our estimates accordingly. **Russian** crude runs in June were 0.1 mb/d ahead of expectations at 4.8 mb/d. The country's refinery throughput has recovered from seasonal maintenance to almost reach levels of a year ago, despite the economic slowdown, suggesting refineries have boosted export volumes to compensate for the slowdown in domestic demand.

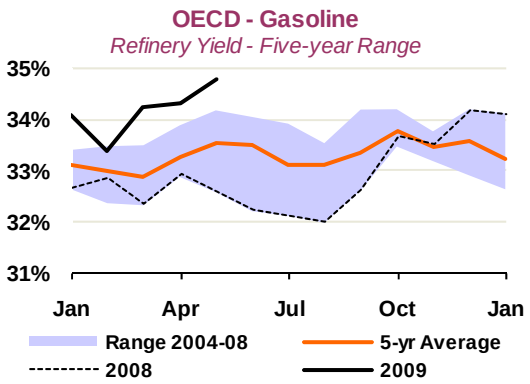


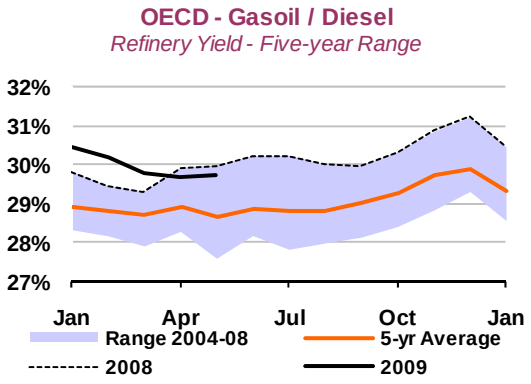


June **Chinese** crude throughput of 7.8 mb/d was 0.3 mb/d higher than expected. Quicker ramp up of new facilities and higher-than-expected crude runs at some key state-owned refineries underpin some of this outperformance. It would appear that elsewhere refineries have also increased runs substantially in recent months, although visibility on this increase remains low. Furthermore, lingering uncertainty as to the sustainability of the ramp up in Chinese crude runs (+1.7 mb/d since January 2009) remains, given falling state oil company sales figures and discrepancies over stock levels. Nevertheless, in light of reports of further increases in July, and despite the potential impact of Typhoon Marokot, we have raised 3Q09 projections to 7.8 mb/d, in line with June.

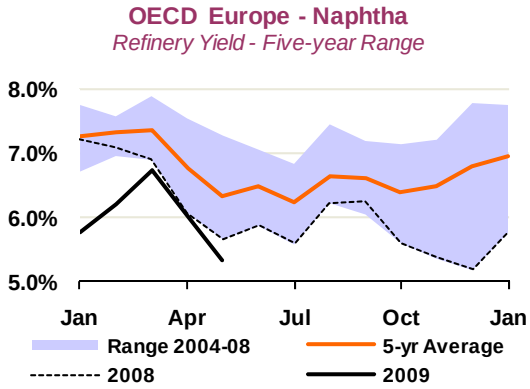
OECD Refinery Yields

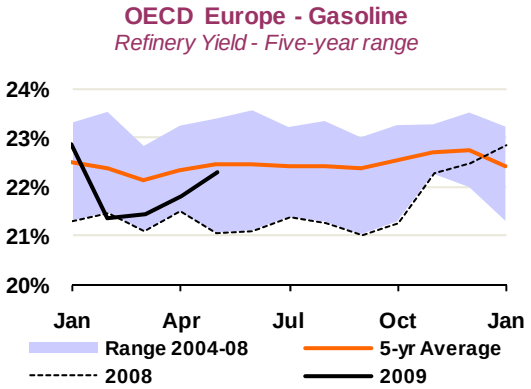
In May 2009, OECD refiners increased the yield of gasoline and 'other products' at the expense of naphtha, jet fuel/kerosene and fuel oil, while gasoil/diesel yields increased marginally. OECD gasoline yields reached a record level with yields in the Pacific increasing by one percentage point to 23.9%, a level not seen since August 2003. In Europe, gasoline yields increased by 0.5 percentage points, approaching the five-year average and in North America they increased marginally, staying above the five-year range. OECD gasoil/diesel yields were at the top of the five-year range, with yields in Europe at 38.4%, above its five-year range, and yields in North America and the Pacific around their five-year average.



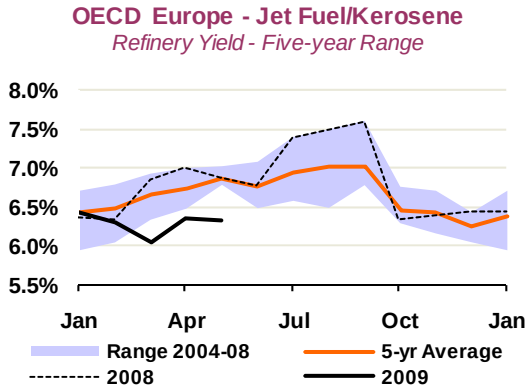


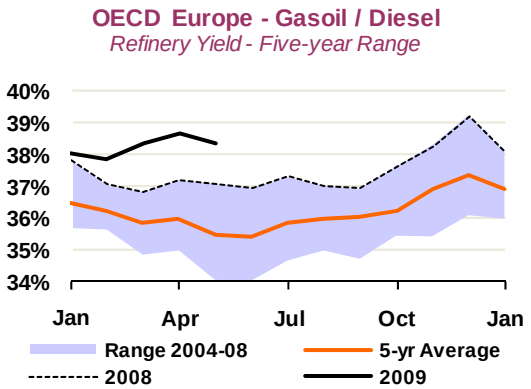
Refinery yields reflect mainly the economic incentives of production in each region as depicted by crack spreads. In OECD Europe, relative strength in crack spreads boosted gasoline yields at the expense of naphtha but also to a lesser extent jet fuel/kerosene yields. Weak gasoil spreads undermined gasoil yields relative to jet fuel kerosene, but supported them compared with fuel oil yields. Balancing this picture, yields for the 'other products' category increased.

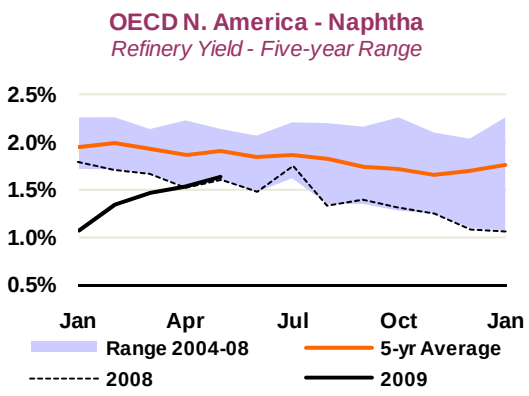


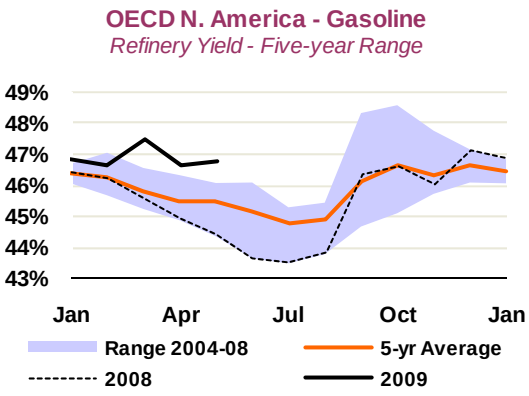


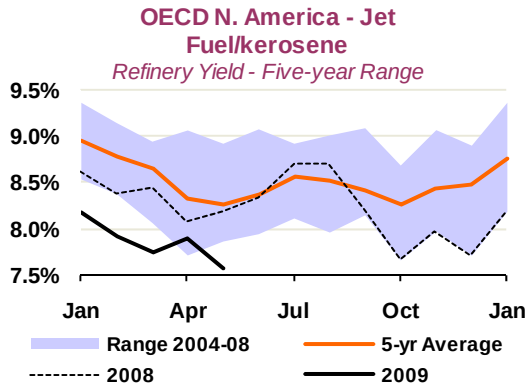
In OECD North America, May jet fuel/kerosene yields were hit not only by weak crack spreads but also by declining demand following the outbreak of the A/H1N1 virus in Mexico in late April. Jet fuel/kerosene cracks in North America slipped below those of much stronger naphtha, supporting naphtha and gasoline yields. Gasoil/diesel yields increased, even though gasoil/diesel cracks were slightly lower than those for jet fuel/kerosene. Fuel oil yields increased by 0.4 percentage points to 4.8% this month, supported by higher crack spreads.

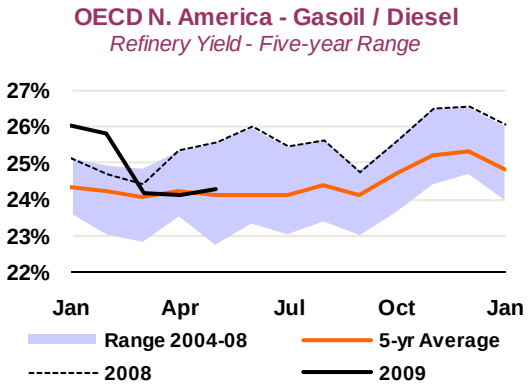




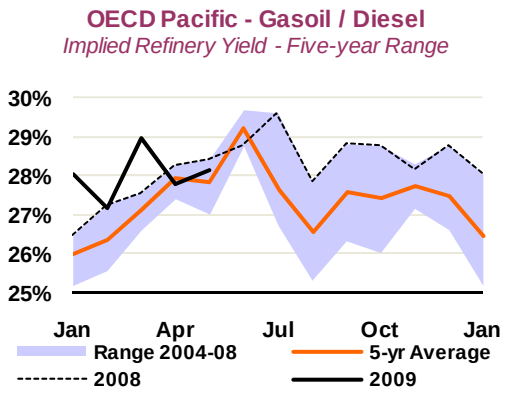


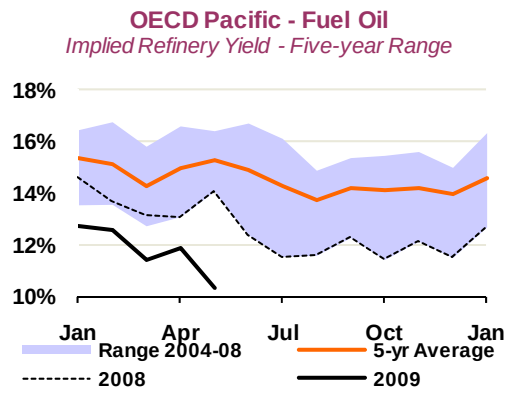


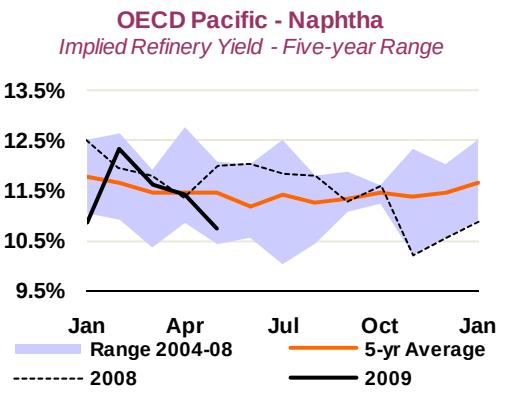


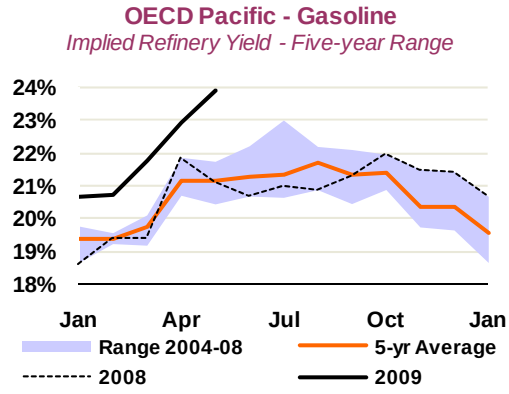


In the Pacific, strength in cracks for gasoline and jet fuel/kerosene boosted gasoline yields at the expense of those of naphtha. Jet fuel/kerosene yields remained unchanged, with crack spreads at the same level as for gasoil/diesel; however, gasoil/diesel yields increased at the expense of fuel oil yields, justified by the significant difference between these two products' crack spreads. Fuel oil yields decreased to 10.3%, 4.9 percentage points below their five-year average level.









OECD Refinery Gross Output

In May, OECD total product gross output recorded a contraction of 5% (2.24 mb/d) year-on-year. Gasoline showed some resilience with gross output above its last year's level (+2% or 265 kb/d). However, the higher gasoline gross output was accommodated by a switch from last year's May net-import position of 381 kb/d to a net-export position of 161 kb/d this year. Net imports for 'other products' remained well below their five-year range, while net-import patterns for the rest of the products broadly within their historical range.

Gasoil/diesel gross output stayed above its five-year average level, but 707 kb/d below last year's, with North American output contracting by 454 kb/d. Fuel oil gross output contracted the most (820 kb/d or 20%) while that of jet fuel fell by 10% (395 kb/d), followed by 'other products', with a 5% fall (343 kb/d), and naphtha, for which gross output shrank by 12% (243 kb/d).

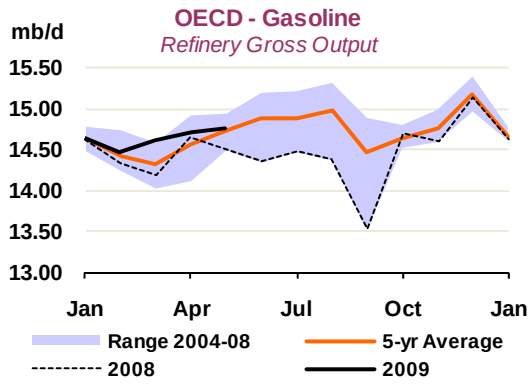
Total OECD Refinery Gross Output
(thousand barrels per day)

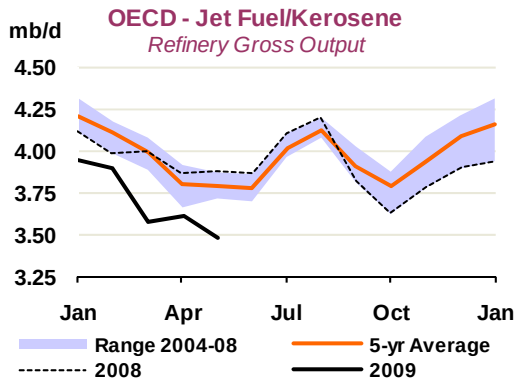
	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09
North America	352	346	9,755	9,927	1,797	1,608	5,614	5,160	1,199	1,029	3,888	3,675	22,606	21,747
Europe	870	781	3,234	3,260	1,056	928	5,696	5,620	1,879	1,553	2,446	2,389	15,181	14,531
Pacific	854	707	1,504	1,571	1,021	944	2,030	1,853	1,004	680	868	794	7,281	6,549
Total	**2,076**	**1,833**	**14,494**	**14,759**	**3,875**	**3,480**	**13,340**	**12,634**	**4,081**	**3,262**	**7,202**	**6,858**	**45,068**	**42,826**

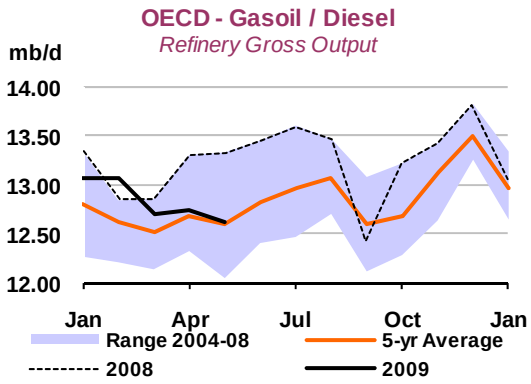
Total OECD Net Exports of Petroleum Products
(thousand barrels per day)

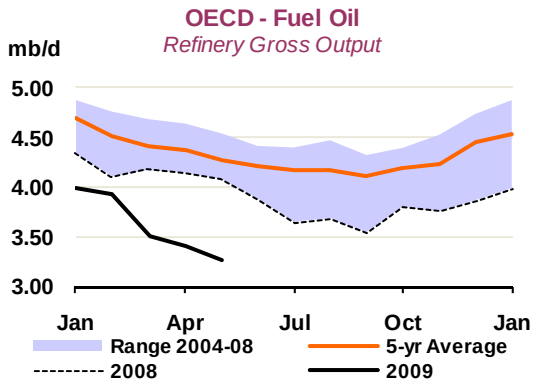
	Naphtha		Gasoline		Jet Fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09	May 08	May 09
North America	0	31	-1,238	-804	-25	17	472	607	56	68	144	278	-592	196
Europe	-163	-151	903	910	-323	-360	-322	-578	182	-12	-108	-114	169	-305
Pacific	-763	-910	-46	55	253	203	292	243	12	-37	-679	-475	-931	-921
Total	**-926**	**-1,029**	**-381**	**161**	**-95**	**-140**	**442**	**273**	**250**	**18**	**-643**	**-312**	**-1,354**	**-1,029**

On a month-on-month basis, OECD gross output for naphtha, jet fuel/kerosene and fuel oil contracted in May by more than seasonal norms, and 'other products' gross output increased seasonally, but by less than the historic average level.









In OECD **North America,** monthly gross output increased for all product categories bar jet fuel. In OECD **Europe**, gross output increased only for gasoline, reaching the low end of the five-year range. Gasoil/diesel gross output remained above its five-year average level in spite of a slight fall from April, influenced by the lack of support of crack spreads, which decreased across the board. In OECD **Pacific**, gross output decreased for all product categories; however, the seasonal monthly fall in gasoline gross output, which is exacerbated by last year's tax issues in Japan, was attenuated by higher crack spreads, keeping May gasoline output above the five-year range.

Table 1
WORLD OIL SUPPLY AND DEMAND

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	25.4	25.5	24.8	24.4	23.6	23.9	24.2	23.5	22.7	22.7	22.9	22.9	23.5	23.1	23.0	23.0	23.1
Europe	15.7	15.3	15.3	15.1	15.5	15.4	15.3	14.9	14.2	14.8	14.8	14.7	14.9	14.2	14.7	14.7	14.6
Pacific	8.5	8.4	8.9	7.9	7.5	8.0	8.1	8.1	7.3	7.0	7.5	7.5	8.1	7.1	6.9	7.4	7.4
Total OECD	49.5	49.2	49.0	47.3	46.7	47.3	47.6	46.6	44.2	44.5	45.2	45.1	46.4	44.4	44.6	45.1	45.1
NON-OECD DEMAND																	
FSU	4.0	4.1	4.3	4.1	4.3	4.1	4.2	4.0	3.8	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Europe	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	7.2	7.6	7.9	8.0	8.1	7.6	7.9	7.7	8.6	8.1	8.1	8.1	8.2	8.7	8.4	8.4	8.4
Other Asia	9.0	9.5	9.9	9.9	9.4	9.5	9.7	9.9	9.9	9.4	9.6	9.7	10.1	10.1	9.6	9.8	9.9
Latin America	5.4	5.7	5.7	6.0	6.0	5.9	5.9	5.7	5.9	6.0	6.0	5.9	5.9	6.1	6.2	6.1	6.1
Middle East	6.3	6.5	6.7	7.1	7.6	6.9	7.1	6.7	7.3	7.7	7.2	7.2	7.0	7.5	8.1	7.5	7.5
Africa	3.0	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.3	3.3	3.2	3.4	3.3
Total Non-OECD	35.7	37.3	38.5	39.0	39.3	38.1	38.7	37.9	39.5	39.2	38.8	38.8	39.4	40.5	40.5	40.1	40.1
Total Demand[1]	85.2	86.5	87.5	86.3	85.9	85.4	86.3	84.5	83.7	83.7	84.0	83.9	85.9	84.9	85.0	85.2	85.3
OECD SUPPLY																	
North America[4]	14.2	14.3	14.2	14.0	13.6	13.8	13.9	14.2	14.0	14.0	14.0	14.0	14.4	14.1	13.8	14.2	14.1
Europe	5.3	5.0	4.9	4.8	4.6	4.8	4.8	4.9	4.5	4.1	4.4	4.4	4.3	4.0	3.9	4.2	4.1
Pacific	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Total OECD	20.1	19.9	19.7	19.5	18.8	19.3	19.3	19.7	19.1	18.7	19.0	19.1	19.4	18.8	18.5	19.1	18.9
NON-OECD SUPPLY																	
FSU	12.2	12.8	12.8	12.9	12.7	12.7	12.8	12.8	13.1	13.1	13.1	13.0	13.3	13.4	13.1	13.4	13.3
Europe	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.9	3.9	3.8	3.9	3.9	4.0	4.0	3.9
Other Asia[2]	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.7	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.8
Latin America[2,4]	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.4	4.4	4.5	4.4	4.6	4.6	4.7	4.8	4.7
Middle East	1.8	1.7	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa[2]	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	28.0	28.5	28.7	28.7	28.6	28.7	28.7	28.8	29.2	29.3	29.4	29.2	29.7	29.9	29.8	30.1	29.9
Processing Gains[3]	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels[4]	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total Non-OPEC[2]	50.4	50.9	51.0	50.8	50.1	50.7	50.6	51.2	50.9	50.7	51.1	51.0	51.7	51.2	50.9	51.9	51.4
Non-OPEC: Historical Composition[2]	51.3	50.3	49.9	49.8	49.1	49.6	49.6	51.2	50.9	50.7	51.1	51.0	51.7	51.2	50.9	51.9	51.4
OPEC																	
Crude[5]	30.7	30.3	31.5	31.4	31.5	30.5	31.2	28.5	28.5								
NGLs	4.4	4.5	4.6	4.6	4.7	4.8	4.7	4.9	5.1	5.4	5.6	5.2	5.7	6.0	6.2	6.4	6.1
Total OPEC[2]	35.2	34.9	36.1	36.0	36.2	35.3	35.9	33.4	33.6								
OPEC: Historical Composition[2]	34.3	35.4	37.1	37.0	37.2	36.4	36.9	33.4	33.6								
Total Supply[6]	85.6	85.7	87.1	86.8	86.3	86.0	86.5	84.6	84.5								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.3	0.1	0.4	0.6	0.5	0.4	0.4	0.1								
Government	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2								
Total	0.3	-0.2	0.1	0.3	0.5	0.5	0.4	0.7	0.3								
Floating Storage/Oil in Transit	-0.1	0.0	0.3	0.0	-0.3	0.1	0.0	0.6	0.2								
Miscellaneous to balance[7]	0.2	-0.6	-0.9	0.1	0.1	0.0	-0.2	-1.1	0.4								
Total Stock Ch. & Misc	0.3	-0.8	-0.4	0.4	0.4	0.6	0.2	0.2	0.8								
Memo items:																	
Call on OPEC crude + Stock ch.[8]	30.4	31.1	31.9	30.9	31.2	29.9	31.0	28.3	27.7	27.6	27.4	27.7	28.5	27.7	27.9	27.0	27.8
Adjusted Call on OPEC + Stock ch.[9]	30.5	30.5	31.1	31.1	31.3	30.0	30.8	27.3	28.1	27.3	27.0	27.4	28.1	27.4	27.6	26.6	27.4

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Other Biofuels are from sources outside Brazil and US. North and Latin America oil supply totals include US and Brazilian ethanol.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Europe	-	-	-	0.1	0.1	0.1	0.1	-	-	-	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-	-	-
Total OECD	-	-	-	0.1	0.1	0.1	0.1	-	0.1	-	-	-	-0.2	0.1	-	-	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Other Asia	-	-	-	-	-	-	-	-	0.2	-	-	-	-	0.1	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	0.4	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Total Demand	-	-	-	0.1	0.1	0.1	0.1	-	0.6	0.1	0.1	0.2	-	0.2	-	0.1	0.1
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	0.1	0.2	-	0.1	-	-	0.1	-	-
Europe	-	-	-	-	-	-	-	-	0.1	-0.1	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	0.2	0.1	-	0.1	-	-	0.1	-	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Non-OPEC: historical composition	-	-	-	-	-	-	-	-	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
OPEC																	
Crude	-	-	-	-	-	-	-	-	-								
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-								
OPEC: historical composition	-	-	-	-	-	-	-	-	-								
Total Supply	-	-	-	-	-	-	-	-	0.2								
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-0.1									
Government	-	-	-	-0.1	-	-	-	-									
Total	-	-	-	-	-	-	-	-0.1									
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	0.1									
Miscellaneous to balance	-	-	-	-	-0.1	-0.1	-0.1	-									
Total Stock Ch. & Misc	-	-	-	-0.1	-0.1	-0.1	-0.1	-	-0.4								
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	0.1	0.1	0.1	0.1	-	0.4	-0.2	-0.1	-	-0.2	0.1	-0.2	-0.1	-0.1
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	1.2	-	-	0.3	-0.1	0.2	-0.1	-	-

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

SUMMARY OF GLOBAL OIL DEMAND

	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Demand (mb/d)																
North America	25.47	24.77	24.42	23.60	23.93	24.18	23.51	22.69	22.70	22.86	22.94	23.51	23.08	22.97	23.01	23.14
Europe	15.34	15.33	15.06	15.54	15.43	15.34	14.92	14.18	14.79	14.81	14.67	14.87	14.21	14.67	14.73	14.62
Pacific	8.37	8.91	7.86	7.54	7.97	8.07	8.14	7.28	7.04	7.50	7.49	8.07	7.14	6.92	7.36	7.37
Total OECD	49.19	49.01	47.34	46.67	47.34	47.59	46.57	44.15	44.53	45.17	45.10	46.45	44.43	44.56	45.10	45.13
Asia	17.11	17.82	17.85	17.49	17.11	17.57	17.53	18.48	17.51	17.68	17.80	18.27	18.81	18.05	18.24	18.34
Middle East	6.53	6.72	7.13	7.56	6.95	7.09	6.70	7.33	7.74	7.15	7.23	7.02	7.52	8.08	7.50	7.53
Latin America	5.69	5.71	5.96	6.04	5.92	5.91	5.73	5.92	6.03	5.96	5.91	5.90	6.10	6.20	6.13	6.08
FSU	4.15	4.26	4.12	4.32	4.15	4.21	3.97	3.83	4.08	4.07	3.99	4.13	4.00	4.20	4.18	4.13
Africa	3.07	3.20	3.19	3.14	3.22	3.18	3.23	3.21	3.11	3.25	3.20	3.35	3.31	3.22	3.36	3.31
Europe	0.77	0.76	0.74	0.72	0.74	0.74	0.72	0.73	0.70	0.71	0.72	0.74	0.74	0.71	0.73	0.73
Total Non-OECD	37.32	38.47	38.99	39.26	38.09	38.70	37.89	39.50	39.15	38.82	38.84	39.40	40.47	40.46	40.15	40.12
World	86.51	87.48	86.33	85.94	85.43	86.29	84.45	83.65	83.68	84.00	83.94	85.85	84.90	85.02	85.25	85.25
of which: US50	20.68	20.04	19.76	18.90	19.30	19.50	18.96	18.28	18.19	18.36	18.44	18.92	18.63	18.43	18.48	18.61
Europe 5*	9.48	9.50	9.29	9.50	9.57	9.47	9.41	8.89	9.12	9.12	9.13	9.29	8.81	9.01	9.02	9.03
China	7.57	7.88	7.98	8.09	7.62	7.89	7.65	8.60	8.11	8.10	8.12	8.18	8.73	8.42	8.42	8.44
Japan	5.04	5.45	4.63	4.34	4.71	4.78	4.72	4.02	3.88	4.24	4.21	4.62	3.87	3.74	4.08	4.07
India	3.00	3.25	3.18	2.97	3.14	3.13	3.40	3.35	3.05	3.21	3.25	3.50	3.45	3.16	3.33	3.36
Russia	2.89	2.94	2.88	3.08	2.87	2.94	2.70	2.63	2.87	2.81	2.75	2.84	2.78	2.97	2.91	2.88
Brazil	2.35	2.37	2.46	2.53	2.51	2.47	2.39	2.46	2.51	2.50	2.46	2.47	2.54	2.60	2.58	2.55
Saudi Arabia	2.17	2.22	2.47	2.71	2.27	2.42	2.23	2.70	2.84	2.42	2.55	2.39	2.71	3.02	2.60	2.68
Canada	2.31	2.31	2.19	2.28	2.26	2.26	2.19	2.13	2.20	2.19	2.18	2.23	2.14	2.23	2.22	2.20
Korea	2.24	2.35	2.11	2.10	2.14	2.17	2.34	2.17	2.07	2.15	2.18	2.34	2.17	2.07	2.14	2.18
Mexico	2.14	2.12	2.19	2.14	2.07	2.13	2.05	2.01	2.02	2.00	2.02	2.05	2.02	2.02	2.00	2.02
Iran	1.72	1.86	1.89	1.86	1.83	1.86	1.77	1.86	1.88	1.85	1.84	1.84	1.94	1.95	1.93	1.92
Total	61.58	62.28	61.04	60.50	60.30	61.02	59.82	59.09	58.73	58.96	59.15	60.68	59.81	59.62	59.71	59.95
% of World	71.2%	71.2%	70.7%	70.4%	70.6%	70.7%	70.8%	70.6%	70.2%	70.2%	70.5%	70.7%	70.4%	70.1%	70.0%	70.3%
Annual Change (% per annum)																
North America	0.4	-3.3	-3.7	-7.4	-5.9	-5.1	-5.1	-7.1	-3.8	-4.5	-5.1	0.0	1.7	1.2	0.6	0.9
Europe	-2.1	0.7	0.6	0.5	-1.7	0.0	-2.7	-5.8	-4.8	-4.0	-4.3	-0.3	0.2	-0.8	-0.5	-0.4
Pacific	-1.0	0.0	-0.6	-4.9	-8.9	-3.6	-8.6	-7.4	-6.6	-5.9	-7.2	-0.9	-1.9	-1.6	-1.9	-1.6
Total OECD	-0.7	-1.5	-1.8	-4.5	-5.1	-3.3	-5.0	-6.7	-4.6	-4.6	-5.2	-0.3	0.6	0.1	-0.2	0.1
Asia	5.1	5.7	2.8	3.5	-1.4	2.6	-1.6	3.5	0.1	3.4	1.3	4.2	1.8	3.1	3.2	3.0
Middle East	3.2	4.9	9.1	12.3	7.5	8.5	-0.2	2.8	2.3	2.9	2.0	4.8	2.6	4.4	4.8	4.1
Latin America	5.5	4.8	5.2	3.9	1.7	3.9	0.3	-0.7	-0.3	0.5	0.0	3.0	2.9	2.9	3.0	3.0
FSU	2.7	3.1	4.3	2.6	-3.7	1.5	-6.9	-7.0	-5.5	-1.9	-5.3	4.1	4.4	2.9	2.8	3.5
Africa	4.0	3.1	5.4	4.0	2.6	3.8	1.1	0.6	-0.9	1.1	0.5	3.6	3.3	3.5	3.4	3.4
Europe	3.6	0.2	-0.5	-7.4	-5.3	-3.3	-5.0	-1.6	-2.8	-3.8	-3.3	1.6	1.6	2.7	2.3	2.0
Total Non-OECD	4.4	4.8	4.6	4.9	0.6	3.7	-1.5	1.3	-0.3	1.9	0.4	4.0	2.5	3.3	3.4	3.3
World	1.5	1.2	1.0	-0.4	-2.7	-0.3	-3.5	-3.1	-2.6	-1.7	-2.7	1.7	1.5	1.6	1.5	1.6
Annual Change (mb/d)																
North America	0.09	-0.85	-0.93	-1.89	-1.50	-1.29	-1.26	-1.73	-0.90	-1.07	-1.24	0.00	0.39	0.27	0.15	0.20
Europe	-0.33	0.10	0.09	0.07	-0.26	0.00	-0.41	-0.88	-0.75	-0.62	-0.67	-0.04	0.02	-0.12	-0.08	-0.05
Pacific	-0.08	0.00	-0.04	-0.39	-0.78	-0.30	-0.77	-0.58	-0.50	-0.47	-0.58	-0.08	-0.14	-0.11	-0.14	-0.12
Total OECD	-0.32	-0.74	-0.88	-2.21	-2.55	-1.60	-2.44	-3.19	-2.15	-2.16	-2.49	-0.12	0.28	0.03	-0.07	0.03
Asia	0.83	0.96	0.49	0.60	-0.24	0.45	-0.29	0.63	0.01	0.57	0.23	0.74	0.33	0.54	0.56	0.54
Middle East	0.20	0.31	0.59	0.83	0.48	0.56	-0.01	0.20	0.18	0.20	0.14	0.32	0.19	0.34	0.34	0.30
Latin America	0.30	0.26	0.30	0.23	0.10	0.22	0.02	-0.04	-0.02	0.03	0.00	0.17	0.17	0.18	0.18	0.17
FSU	0.11	0.13	0.17	0.11	-0.16	0.06	-0.29	-0.29	-0.24	-0.08	-0.22	0.16	0.17	0.12	0.11	0.14
Africa	0.12	0.10	0.16	0.12	0.08	0.12	0.04	0.02	-0.03	0.04	0.02	0.12	0.11	0.11	0.11	0.11
Europe	0.03	0.00	0.00	-0.06	-0.04	-0.03	-0.04	-0.01	-0.02	-0.03	-0.02	0.01	0.01	0.02	0.02	0.01
Total Non-OECD	1.59	1.76	1.71	1.83	0.22	1.38	-0.58	0.51	-0.11	0.74	0.14	1.52	0.97	1.30	1.32	1.28
World	1.26	1.02	0.83	-0.38	-2.33	-0.22	-3.02	-2.68	-2.26	-1.43	-2.35	1.40	1.25	1.34	1.25	1.31
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.05	-0.04	-0.02	-0.01	-0.11	-0.01	-0.05	0.00	-0.04
Europe	0.00	0.01	0.06	0.11	0.09	0.07	0.02	-0.01	-0.01	-0.01	0.00	-0.01	0.02	0.00	0.00	0.00
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.03	-0.03	0.07	0.02	0.00	0.02
Total OECD	0.00	0.01	0.06	0.11	0.09	0.07	0.01	0.15	-0.05	-0.03	0.02	-0.15	0.08	-0.03	0.01	-0.02
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.16	0.15	0.17	0.16	0.22	0.12	0.11	0.15
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	-0.03	-0.03	0.00	-0.02	-0.08	-0.03	-0.03	-0.04
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Total Non-OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.13	0.12	0.17	0.13	0.12	0.07	0.07	0.10
World	0.00	0.00	0.06	0.10	0.09	0.06	0.01	0.57	0.08	0.09	0.19	-0.03	0.20	0.04	0.07	0.07
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.01	0.06	0.11	0.09	0.07	0.01	0.51	-0.02	0.01	0.12	-0.04	-0.37	-0.04	-0.02	-0.11

* France, Germany, Italy, Spain & UK

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2008	2009	2010	1Q09	2Q09	3Q09	4Q09	1Q10	May 09	Jun 09	Jul 09
OPEC											
Crude Oil											
Saudi Arabia	8.90			7.87	7.91				7.93	8.08	8.03
Iran	3.90			3.71	3.76				3.72	3.80	3.78
Iraq	2.38			2.34	2.45				2.49	2.50	2.52
UAE	2.59			2.29	2.25				2.25	2.25	2.27
Kuwait	2.31			2.07	1.98				1.98	1.97	1.97
Neutral Zone	0.57			0.55	0.54				0.54	0.54	0.54
Qatar	0.85			0.76	0.77				0.76	0.78	0.77
Angola	1.85			1.67	1.71				1.75	1.72	1.70
Nigeria	1.95			1.81	1.77				1.80	1.72	1.68
Libya	1.72			1.58	1.53				1.54	1.54	1.54
Algeria	1.37			1.25	1.25				1.25	1.25	1.22
Ecuador	0.50			0.48	0.48				0.48	0.48	0.47
Venezuela	2.35			2.13	2.12				2.12	2.12	2.16
Total Crude Oil[6]	31.24			28.49	28.52				28.61	28.75	28.64
Total NGLs[1,6]	4.66	5.22	6.07	4.89	5.05	5.36	5.55	5.72	5.05	5.05	5.36
Total OPEC[6]	35.90			33.39	33.58				33.66	33.80	34.00
OPEC: Historical Composition[6]	36.93			33.39	33.58				33.66	33.80	34.00
NON-OPEC[2]											
OECD											
North America	13.91	14.04	14.10	14.20	13.96	14.01	14.01	14.36	13.95	13.92	14.16
United States[5]	7.52	7.89	8.07	7.84	7.96	7.84	7.90	8.11	8.06	7.92	7.89
Mexico	3.16	2.93	2.77	3.04	2.97	2.90	2.85	2.81	2.99	2.88	2.94
Canada	3.22	3.22	3.27	3.32	3.03	3.28	3.26	3.43	2.89	3.12	3.33
Europe	4.77	4.44	4.10	4.89	4.49	4.05	4.35	4.29	4.41	4.31	4.34
UK	1.56	1.50	1.37	1.62	1.57	1.30	1.51	1.49	1.52	1.57	1.47
Norway	2.46	2.26	2.07	2.57	2.24	2.05	2.16	2.13	2.23	2.07	2.17
Others	0.75	0.69	0.66	0.70	0.68	0.70	0.68	0.67	0.66	0.67	0.70
Pacific	0.65	0.66	0.73	0.65	0.63	0.67	0.69	0.72	0.59	0.63	0.67
Australia	0.55	0.55	0.61	0.56	0.53	0.56	0.57	0.59	0.50	0.53	0.57
Others	0.10	0.11	0.12	0.09	0.10	0.11	0.12	0.12	0.09	0.10	0.11
Total OECD	19.33	19.15	18.93	19.74	19.08	18.73	19.05	19.36	18.95	18.86	19.17
NON-OECD											
Former USSR	12.76	13.05	13.32	12.85	13.11	13.08	13.14	13.27	13.05	13.19	13.11
Russia	10.00	10.07	10.00	10.00	10.10	10.12	10.07	10.03	10.09	10.11	10.14
Others	2.76	2.97	3.31	2.85	3.02	2.96	3.07	3.24	2.96	3.08	2.97
Asia	7.46	7.50	7.71	7.38	7.43	7.58	7.60	7.65	7.41	7.45	7.57
China	3.79	3.84	3.94	3.73	3.80	3.92	3.91	3.92	3.78	3.81	3.91
Malaysia	0.76	0.73	0.70	0.74	0.73	0.72	0.72	0.71	0.73	0.73	0.72
India	0.81	0.79	0.86	0.78	0.79	0.79	0.81	0.83	0.79	0.79	0.79
Indonesia	1.03	1.02	1.07	1.02	1.01	1.02	1.03	1.04	1.00	1.02	1.03
Others	1.08	1.12	1.13	1.11	1.10	1.13	1.13	1.14	1.11	1.10	1.11
Europe	0.14	0.13	0.11	0.14	0.13	0.12	0.12	0.12	0.12	0.13	0.13
Latin America	4.13	4.40	4.69	4.34	4.39	4.41	4.45	4.60	4.39	4.38	4.41
Brazil[5]	2.37	2.54	2.82	2.49	2.53	2.55	2.59	2.72	2.54	2.51	2.54
Argentina	0.75	0.76	0.76	0.76	0.76	0.76	0.76	0.77	0.75	0.77	0.76
Colombia	0.59	0.65	0.66	0.64	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Others	0.42	0.45	0.44	0.45	0.45	0.45	0.45	0.45	0.44	0.45	0.45
Middle East[3]	1.65	1.61	1.57	1.64	1.62	1.60	1.58	1.57	1.64	1.61	1.60
Oman	0.75	0.79	0.79	0.79	0.79	0.78	0.78	0.78	0.80	0.79	0.78
Syria	0.40	0.37	0.33	0.38	0.37	0.36	0.36	0.35	0.37	0.37	0.37
Yemen	0.31	0.27	0.26	0.28	0.27	0.26	0.26	0.26	0.27	0.27	0.27
Others	0.19	0.19	0.18	0.19	0.19	0.19	0.19	0.18	0.19	0.19	0.19
Africa	2.53	2.50	2.47	2.50	2.50	2.52	2.50	2.49	2.50	2.50	2.51
Egypt	0.65	0.63	0.60	0.65	0.64	0.63	0.62	0.61	0.64	0.64	0.63
Gabon	0.21	0.23	0.24	0.22	0.22	0.23	0.24	0.24	0.22	0.22	0.23
Others	1.67	1.64	1.63	1.64	1.64	1.65	1.64	1.64	1.64	1.64	1.66
Total Non-OECD	28.67	29.18	29.87	28.85	29.18	29.31	29.39	29.70	29.10	29.26	29.33
Processing Gains[4]	2.24	2.29	2.20	2.29	2.29	2.29	2.29	2.20	2.29	2.29	2.29
Other Biofuels[5]	0.38	0.36	0.42	0.34	0.37	0.36	0.37	0.39	0.37	0.37	0.36
TOTAL NON-OPEC[6]	50.63	50.98	51.42	51.22	50.91	50.69	51.09	51.66	50.71	50.78	51.15
Non-OPEC: Historical Composition[6]	49.60	50.98	51.42	51.22	50.91	50.69	51.09	51.66	50.71	50.78	51.15
TOTAL SUPPLY	86.53			84.61	84.49				84.36	84.57	85.15

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Other Biofuels are from sources outside Brazil and US. US and Brazil oil supply include ethanol.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Feb2009	Mar2009	Apr2009	May2009	Jun2009*	Jun2006	Jun2007	Jun2008	3Q2008	4Q2008	1Q2009	2Q2009
North America												
Crude	498.7	506.9	511.0	502.8	487.3	459.7	488.6	435.8	0.19	0.16	0.45	-0.21
Motor Gasoline	247.4	248.5	244.2	236.7	246.3	240.4	233.5	238.1	-0.22	0.27	0.06	-0.02
Middle Distillate	220.6	217.0	222.6	229.8	237.8	200.0	195.6	191.9	0.06	0.22	0.00	0.23
Residual Fuel Oil	47.0	47.3	43.7	46.5	43.3	51.8	44.4	48.8	-0.01	-0.04	0.03	-0.04
Total Products[3]	683.2	685.9	688.3	705.1	732.4	668.1	656.6	653.8	0.01	0.32	0.02	0.51
Total[4]	1328.7	1344.2	1354.1	1368.0	1377.7	1276.9	1293.6	1240.4	0.41	0.25	0.49	0.37
Europe												
Crude	339.5	355.4	342.2	331.0	344.3	339.8	333.2	334.9	-0.02	0.10	0.15	-0.12
Motor Gasoline	106.1	102.0	99.4	97.7	99.2	98.5	99.8	108.7	-0.11	0.11	-0.07	-0.03
Middle Distillate	281.3	277.2	282.4	288.4	288.8	248.4	260.9	251.0	0.16	0.11	0.02	0.13
Residual Fuel Oil	79.2	73.5	76.2	78.4	77.1	74.4	68.1	80.9	-0.07	0.08	-0.09	0.04
Total Products[3]	574.6	561.1	566.8	574.2	570.3	522.8	527.6	549.0	-0.01	0.31	-0.18	0.10
Total[4]	986.9	987.3	979.8	975.0	983.9	935.1	935.7	958.1	-0.07	0.46	-0.07	-0.04
Pacific												
Crude	175.5	170.1	166.5	155.8	156.6	181.2	172.3	167.9	-0.07	0.01	0.08	-0.15
Motor Gasoline	24.9	26.5	27.9	27.0	26.3	24.6	24.1	24.2	-0.02	-0.02	0.07	0.00
Middle Distillate	63.4	57.0	59.0	65.1	62.4	69.7	67.7	59.6	0.16	-0.10	-0.09	0.06
Residual Fuel Oil	21.6	20.2	21.2	20.6	18.6	23.2	22.1	22.4	0.00	-0.02	0.00	-0.02
Total Products[3]	170.9	168.5	166.8	171.2	164.8	183.2	181.9	166.1	0.28	-0.20	-0.06	-0.04
Total[4]	415.5	407.9	402.6	397.5	387.3	435.6	427.1	407.8	0.24	-0.25	0.02	-0.23
Total OECD												
Crude	1013.7	1032.3	1019.7	989.5	988.3	980.7	994.1	938.6	0.10	0.27	0.68	-0.48
Motor Gasoline	378.3	377.0	371.5	361.4	371.8	363.6	357.4	371.0	-0.35	0.36	0.06	-0.06
Middle Distillate	565.3	551.2	563.9	583.3	589.1	518.2	524.3	502.5	0.37	0.22	-0.07	0.42
Residual Fuel Oil	147.8	141.0	141.1	145.5	139.0	149.4	134.5	152.0	-0.08	0.02	-0.06	-0.02
Total Products[3]	1428.7	1415.5	1421.9	1450.5	1467.4	1374.1	1366.2	1368.9	0.28	0.44	-0.22	0.57
Total[4]	2731.0	2739.4	2736.5	2740.4	2748.9	2647.7	2656.4	2606.3	0.57	0.46	0.44	0.10

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Feb2009	Mar2009	Apr2009	May2009	Jun2009*	Jun2006	Jun2007	Jun2008	3Q2008	4Q2008	1Q2009	2Q2009
North America												
Crude	705.5	712.8	718.8	721.7	723.4	687.9	690.3	706.0	-0.04	-0.01	0.12	0.12
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	187.8	188.1	185.5	186.6	186.6	173.5	175.3	181.8	-0.02	0.07	0.01	-0.02
Products	232.4	234.2	237.3	238.7	238.7	236.2	236.6	231.7	0.02	-0.05	0.06	0.05
Pacific												
Crude	389.2	389.2	388.1	388.8	389.8	380.9	385.0	384.7	-0.01	0.03	0.02	0.01
Products	19.2	19.2	19.2	19.2	19.2	11.8	16.4	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1282.5	1290.0	1292.4	1297.1	1299.8	1242.2	1250.6	1272.5	-0.06	0.10	0.16	0.11
Products	253.5	255.4	258.5	259.9	259.9	249.9	254.9	252.5	0.02	-0.05	0.06	0.05
Total[4]	1537.0	1547.0	1552.5	1558.5	1561.2	1493.1	1506.5	1526.0	-0.04	0.05	0.23	0.16

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End June 2008		End September 2008		End December 2008		End March 2009		End June 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	193.5	85	198.4	88	193.9	88	194.4	-	-	-
Mexico	44.7	21	55.7	27	50.3	25	45.5	-	-	-
United States[4]	1688.0	89	1706.4	88	1738.7	92	1797.0	-	-	-
Total[4]	1948.3	83	1982.6	83	2005.1	86	2059.0	91	2103.0	93
Pacific										
Australia	37.4	39	37.7	39	40.5	44	40.3	-	-	-
Japan	619.1	143	646.2	137	629.6	133	611.3	-	-	-
Korea	146.6	70	141.2	66	134.9	58	155.2	-	-	-
New Zealand	8.4	58	7.9	53	7.9	51	9.5	-	-	-
Total	811.4	108	833.0	104	812.9	100	816.3	112	796.3	113
Europe[5]										
Austria	22.8	77	21.5	79	23.2	82	20.9	-	-	-
Belgium	28.5	40	31.1	43	34.9	56	35.8	-	-	-
Czech Republic	20.2	88	19.1	97	21.4	114	22.7	-	-	-
Denmark	19.0	107	18.3	101	22.9	131	25.1	-	-	-
Finland	25.5	116	30.1	139	30.7	147	33.5	-	-	-
France	176.6	90	176.6	87	179.2	89	177.6	-	-	-
Germany	273.2	101	273.7	103	277.4	108	277.7	-	-	-
Greece	36.3	87	39.2	83	40.0	83	36.7	-	-	-
Hungary	16.6	101	15.5	93	15.0	100	15.7	-	-	-
Ireland	10.4	59	10.5	54	11.4	63	11.5	-	-	-
Italy	136.7	83	130.3	81	127.9	83	131.0	-	-	-
Luxembourg	0.7	12	0.6	10	0.8	14	0.7	-	-	-
Netherlands	124.5	119	115.0	117	131.4	130	129.8	-	-	-
Norway	23.1	116	26.5	127	29.9	143	24.0	-	-	-
Poland	57.4	103	58.8	106	58.1	119	58.9	-	-	-
Portugal	25.3	85	25.0	90	24.7	92	25.0	-	-	-
Slovak Republic	9.1	99	8.0	93	8.8	122	9.8	-	-	-
Spain	135.0	87	135.8	88	137.6	89	137.8	-	-	-
Sweden	34.1	94	36.6	104	38.7	119	40.7	-	-	-
Switzerland	37.2	133	37.8	127	36.3	120	36.8	-	-	-
Turkey	60.9	80	60.8	98	60.9	111	59.2	-	-	-
United Kingdom	99.3	60	95.1	55	98.8	57	100.4	-	-	-
Total	1372.5	88	1365.9	88	1410.0	94	1411.1	99	1410.8	95
Total OECD	4132.3	88	4181.5	88	4227.9	91	4286.4	97	4310.1	97
DAYS OF IEA Net Imports[6]	-	123	-	124	-	131	-	134	-	-

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End March 2009 and June 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	53
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	83	30	53
4Q2007	4091	1524	2567	83	31	52
1Q2008	4101	1529	2572	86	32	54
2Q2008	4132	1526	2606	88	33	56
3Q2008	4181	1522	2659	88	32	56
4Q2008	4228	1527	2701	91	33	58
1Q2009	4286	1547	2739	97	35	62
2Q2009	4310	1561	2749	97	35	62

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 1Q2009 and 2Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	2Q08	3Q08	4Q08	1Q09	Mar 09	Apr 09	May 09	Year Earlier May 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.73	0.71	0.63	0.58	0.46	0.58	0.50	0.70	-0.20
Europe	0.78	0.70	0.70	0.65	0.81	0.66	0.57	0.63	0.62	0.62	0.69	-0.06
Pacific	1.32	1.19	1.22	1.24	1.10	1.24	1.40	1.41	1.14	1.16	1.36	-0.21
Saudi Medium												
North America	0.64	0.56	0.64	0.62	0.68	0.66	0.42	0.38	0.40	0.46	0.64	-0.17
Europe	0.14	0.05	0.05	0.07	0.03	0.05	0.03	0.02	0.02	0.02	0.03	-0.01
Pacific	0.35	0.34	0.39	0.36	0.40	0.38	0.34	0.25	0.32	0.32	0.38	-0.06
Saudi Heavy												
North America	0.21	0.09	0.07	0.04	0.14	0.05	0.04	0.04	0.02	0.02	0.04	-0.01
Europe	0.18	0.11	0.09	0.10	0.12	0.09	0.03	0.03	0.04	0.01	0.12	-0.11
Pacific	0.23	0.20	0.24	0.24	0.26	0.25	0.22	0.16	0.12	0.17	0.26	-0.08
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.60	0.57	0.51	0.44	0.52	0.39	0.21	0.66	-0.44
Europe	0.32	0.30	0.21	0.19	0.23	0.21	0.13	0.17	0.11	0.10	0.23	-0.13
Pacific	0.08	0.17	0.15	0.18	0.18	0.11	0.26	0.27	0.22	0.15	0.23	-0.09
Iraqi Kirkuk												
North America	0.00	-	0.08	0.11	0.10	0.06	0.07	0.02	-	0.03	0.10	-0.07
Europe	0.01	0.11	0.23	0.28	0.24	0.19	0.26	0.28	0.31	0.36	0.35	0.02
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.23	0.21	0.24	0.15	0.23	0.15	0.14	0.21	-0.07
Pacific	0.13	0.09	0.08	0.06	0.06	0.07	0.11	0.10	0.10	0.07	0.07	0.01
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.48	0.60	0.43	0.33	0.25	0.32	0.45	0.47	-0.02
Pacific	0.56	0.64	0.61	0.49	0.67	0.64	0.65	0.57	0.61	0.43	0.47	-0.04
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.66	0.67	0.50	0.51	0.60	0.60	0.62	0.68	-0.06
Europe	0.11	0.08	0.06	0.06	0.06	0.07	0.07	0.06	0.10	0.20	0.09	0.11
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.59	0.67	0.74	0.74	0.63	0.54	0.62	0.73	-0.11
Europe	0.06	0.07	0.07	0.07	0.07	0.08	0.07	0.06	0.08	0.06	0.05	0.01
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	1.00	0.99	1.04	1.06	1.03	1.01	0.97	0.99	-0.02
Europe	0.16	0.14	0.14	0.18	0.14	0.12	0.08	0.05	0.08	0.08	0.14	-0.05
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00
Europe	0.01	0.02	0.01	0.01	-	0.02	0.01	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.10	0.10	-	0.09	0.18	0.27	0.30	0.12	0.18
Europe	1.68	1.86	1.81	1.95	1.74	1.67	1.58	1.42	1.80	1.81	1.83	-0.01
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.77	0.52	0.60	0.47	0.60	0.29	0.33	0.62	-0.29
Europe	0.33	0.24	0.29	0.21	0.33	0.34	0.25	0.20	0.32	0.47	0.23	0.24
Pacific	0.04	0.01	-	-	-	-	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.27	0.26	0.22	0.14	0.29	0.26	0.29	0.27	0.02
Europe	0.10	0.07	0.14	0.20	0.13	0.14	0.12	0.08	0.10	0.11	0.16	-0.05
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	2Q08	3Q08	4Q08	1Q09	Mar-09	Apr-09	May-09	Year Earlier May-08	Year Earlier % change
Crude Oil												
North America	8194	8214	8043	8298	7895	7886	7743	7823	7691	7291	7670	-5%
Europe	9784	9679	9772	9878	9977	9524	9001	8740	8921	9143	9909	-8%
Pacific	6816	6718	6604	6457	6462	6404	6560	6006	5765	5326	6470	-18%
Total OECD	24794	24610	24419	24633	24333	23814	23305	22568	22377	21760	24479	-11%
LPG												
North America	14	28	29	15	38	34	28	22	32	2	8	-71%
Europe	264	276	267	247	277	239	251	277	236	234	242	-3%
Pacific	578	557	589	632	582	542	504	525	477	502	669	-25%
Total OECD	856	861	885	893	898	816	784	824	745	738	918	-20%
Naphtha												
North America	71	40	55	54	58	82	40	18	24	21	39	-46%
Europe	314	265	260	263	233	270	319	459	198	247	299	-18%
Pacific	754	794	776	734	886	689	746	873	726	907	767	18%
Total OECD	1138	1099	1091	1051	1177	1040	1105	1350	948	1175	1105	6%
Gasoline[3]												
North America	1143	1128	1083	1222	1184	1038	996	1036	879	786	1216	-35%
Europe	160	203	218	187	261	196	239	120	211	274	193	42%
Pacific	96	73	91	91	56	106	121	132	81	62	113	-45%
Total OECD	1399	1404	1392	1500	1501	1340	1355	1287	1171	1123	1522	-26%
Jet & Kerosene												
North America	161	183	63	78	40	39	80	72	54	40	79	-49%
Europe	374	370	402	381	399	468	454	513	462	435	370	18%
Pacific	69	43	34	39	22	33	79	49	52	52	44	17%
Total OECD	603	595	500	498	461	540	613	634	567	527	492	7%
Gasoil/Diesel												
North America	175	132	72	46	50	94	106	75	33	53	22	140%
Europe	967	780	880	662	917	1039	1224	1132	1048	1014	688	47%
Pacific	77	91	119	133	128	117	82	62	54	105	164	-36%
Total OECD	1219	1003	1072	840	1095	1250	1411	1268	1135	1171	874	34%
Heavy Fuel Oil												
North America	343	323	286	307	246	266	326	331	319	344	268	29%
Europe	476	433	447	394	446	462	474	471	586	562	353	59%
Pacific	91	95	125	140	143	93	144	166	157	118	150	-21%
Total OECD	910	851	858	841	834	821	943	967	1062	1025	770	33%
Other Products												
North America	1121	1050	1075	1085	1061	1117	935	951	824	986	1080	-9%
Europe	929	854	763	771	786	750	737	677	784	706	768	-8%
Pacific	243	254	300	267	318	322	279	284	345	346	281	23%
Total OECD	2294	2157	2138	2123	2165	2188	1951	1911	1953	2038	2129	-4%
Total Products												
North America	3028	2883	2664	2807	2677	2669	2509	2504	2165	2233	2711	-18%
Europe	3484	3180	3238	2905	3319	3424	3697	3649	3525	3471	2912	19%
Pacific	1908	1906	2034	2035	2136	1902	1955	2089	1893	2092	2188	-4%
Total OECD	8420	7969	7936	7747	8132	7994	8161	8242	7583	7796	7811	0%
Total Oil												
North America	11222	11097	10707	11105	10572	10555	10253	10326	9856	9524	10812	-12%
Europe	13268	12859	13010	12783	13296	12948	12698	12389	12445	12614	12821	-2%
Pacific	8724	8623	8638	8492	8597	8306	8515	8095	7658	7418	8657	-14%
Total OECD	33214	32579	32355	32380	32465	31808	31466	30810	29959	29556	32290	-8%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor — David Fyfe
Head, Oil Industry and Markets Division
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand — Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply — Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining — David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Freight/Biofuels — Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices — Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Statistics/Trade — Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant — Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*

* 0 - only within France

Media Enquiries

IEA Press Office — (+33) 0*1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

User's Guide and Glossary to the IEA *Oil Market Report*

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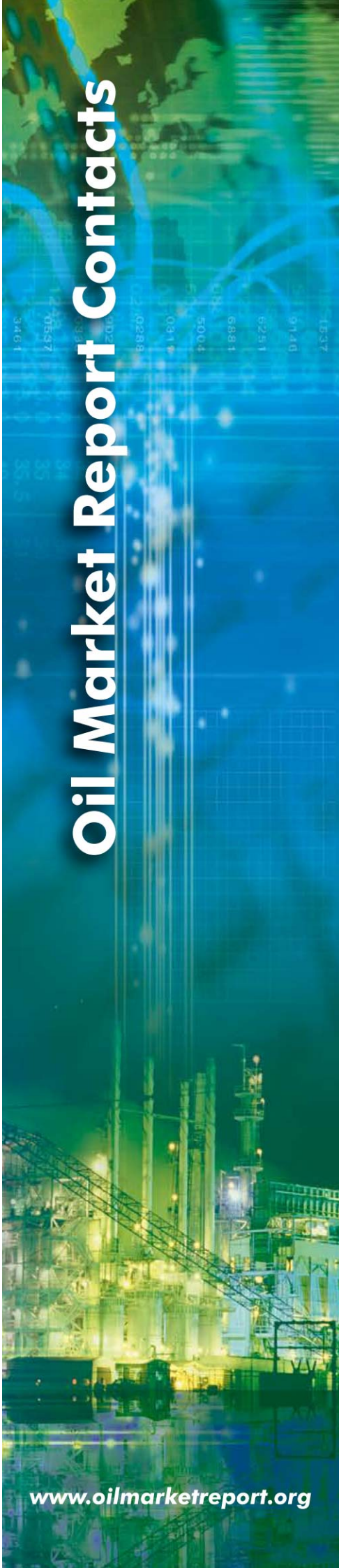
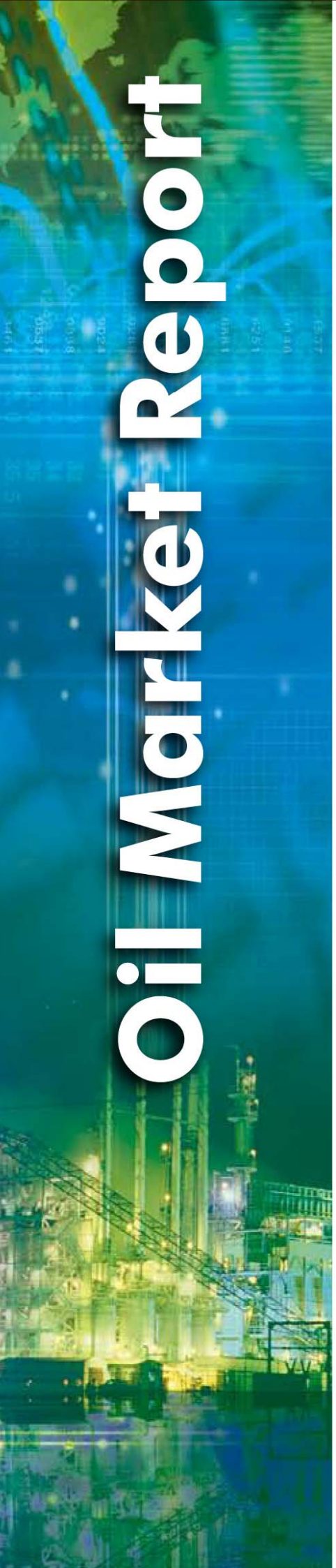
Next Issue: 10 September 2009





INTERNATIONAL ENERGY AGENCY

10 September 2009

HIGHLIGHTS

- **Global oil demand** is revised up nearly 0.5 mb/d for both 2009 and 2010, to 84.4 mb/d and 85.7 mb/d respectively, mostly on stronger-than-expected data in OECD North America and non-OECD Asia. The global economy is stabilising, but OECD demand is poised to remain weak for the remainder of this year, while seemingly strong non-OECD demand may be obscured by Chinese stock building.

- **August global oil supply** was down 400 kb/d from July to 84.9 mb/d, on lower non-OPEC output. Total non-OPEC estimates for 2009 and 2010 are unchanged versus last month, averaging 51.0 mb/d in 2009 and 51.5 mb/d in 2010. OPEC NGL averages 5.2 mb/d and 6.1 mb/d respectively.

- **OPEC crude oil supply** in August was up 55 kb/d at 28.8 mb/d. OPEC-11 output rose by 80 kb/d to 26.3 mb/d, or 1.4 mb/d over target. OPEC met in Vienna as this report went to press, with discussions on better compliance seemingly more likely than a further target cut. The 'call on OPEC crude and stock change' is revised up to 28.3 mb/d for 3Q09 and to 27.9 mb/d in 4Q09 on the more robust demand forecast.

- **Global refinery crude run projections for 3Q09** are also revised up this month to 72.1 mb/d, an increase of 0.2 mb/d from last month's report, due to higher demand estimates and a lower US hurricane adjustment. Nonetheless, runs remain pressured by poor refining margins.

- **OECD industry stocks** rose by 12.8 mb in July, to 2,778 mb, 4.6% above last year's level. Middle distillate increases in all three regions, particularly North America, outweighed a decrease in both gasoline and fuel oil stocks. End-July forward demand cover was unchanged versus June at 61.8 days.

- **Benchmark crude oil** prices rose $7/bbl on average in August, to around $71-73/bbl. Arguably, prices have tested limits and trade in a $68-74/bbl price range for now. Future price direction will hinge partly on how long the distillate overhang persists.

INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

The IEA is Seeking to Recruit Oil Market Research Assistant(s)

The Oil Industry and Markets Division (IEA) seeks Research Assistant(s) to support the Agency's work on oil market analysis. The IEA prepares current oil market assessments and forecasts; issues covered include: oil production developments, demand, prices, inventory and refining trends and international trade in crude and products. This analysis underpins the Agency's work on oil market security. The successful applicant will work under the guidance of the Head of the Oil Industry and Markets Division of the International Energy Agency.

Major responsibilities include:

- **Model Development** (participate in the construction and design of models for the IEA's oil market analysis; analyse modify and adapt existing analytical models and spreadsheets into more robust and easily updatable formats; exploit hardware and software developments to improve the efficiency of working methods. Write, maintain and develop appropriate documentation on data series. Draft methodological and technical notes).
- **Statistical Support** (Indentify, collect and manipulate data for the analysts in the Division from a wide range of internal and external sources; carry out ad hoc extractions and manipulation of data; design and implement quality-assurance systems and programs for the preparation of data for oil market reports and publications; assist users of the Division's data with technical and methodological advice, both within and outside the Agency as appropriate).
- **Oil Market Analysis and Emergency Response** (contribute to discussion, research and presentations on oil market issues within the Division and prepare descriptive notes and papers on the basis of the data and models; form part of the IEA emergency response team in case of an oil market emergency).

The ideal candidate will possess:

- Post-secondary level of education, preferably at university level or equivalent, in a topic relevant to energy, computer programming or statistics (for example, mathematics, statistics, information technology, economics, engineering, physics, chemistry, environmental studies, business etc.).
- Excellent knowledge of statistical methodologies. A broad understanding of the energy sector and, in particular, of oil markets.
- Extensive experience in the use of large computerised databases and the analytical tools and systems to manage databases, including programming. Understanding of Oracle or other database programming language. Excellent knowledge of Visual Basic for Applications.
- Very good organisational skills, initiative and commitment. An ability to work with minimum supervision and to accept responsibility for the successful completion of assigned work, to deadline. Ability to work accurately and with attention to detail. Ability to deal simultaneously with a wide variety of tasks.
- Ability to work effectively and flexibly in a multicultural environment, to foster and maintain good working relations as part of a team, with colleagues at all levels, national administrations and industry.
- Strong communication skills and an excellent knowledge of written and spoken English. Ability to draft and proofread in English. A good knowledge of other language(s) would be an advantage.

For the full vacancy notice and on-line application form, visit **www.oecd.org** and click on *Job Vacancies*, *Job Reference No.* ***3343 –Research Assistant(s) - Oil Industry and Markets***.

The OECD is an equal opportunity employer and encourages applications from all qualified candidates.

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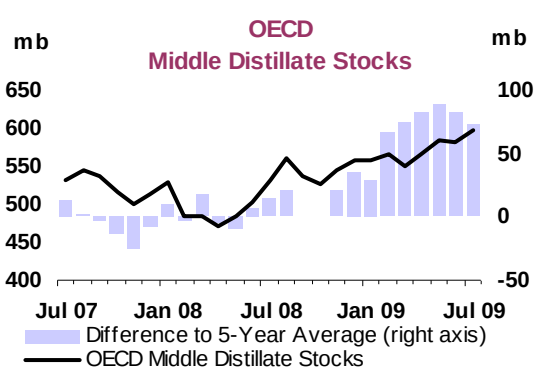
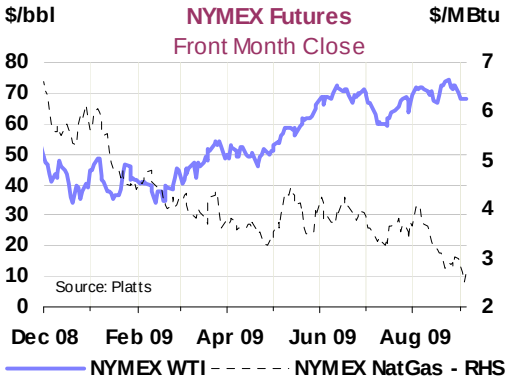
TWO STEPS FORWARD, ONE STEP BACK

Marker crudes averaged $71-$73/bbl in August, up by 10% from July, although prices weakened again in early September. Crudes' relative resilience stands in contrast to the collapse in US natural gas prices (see below). Economic prognoses from the OECD and IMF are being revised higher, while baseline oil demand in the US, China and other Asia appears to be running stronger than preliminary estimates suggested. At the time of writing, ahead of OPEC's 9 September meeting, the combination of relatively high prices and tentative signs of economic recovery were widely seen likely to encourage the group to leave crude production targets unchanged.

Economic expectations, a weak dollar and OPEC curbs have trumped still-sluggish OECD prompt demand, high inventories and widening spare capacity in propping up crude prices, but the price-driving role of paper commodity markets remains a hot topic. There have been recent hearings on CFTC and SEC oversight for over-the-counter (OTC) derivatives. The CFTC also moved to improve transparency by rolling foreign trades in the NYMEX crude contract into its weekly *Commitment of Traders Report*. Early September saw a further reporting change, with swap dealers now disaggregated from the commercial trader category, and further disaggregation of the former non-commercials category. There are also plans to eventually add quarterly/monthly reports on index fund investments. Improved data visibility is welcome, although some question whether the focus on categorising participants, rather than individual trades, has maximised transparency. Regulators will now address federal government mandated position limits, and the mechanics of standardisation and financial controls on derivatives.

While signs of economic recovery and greater market transparency are positive, our own now-higher demand estimates throw up a statistical headache, implanting in our oil matrix a consistently negative 'miscellaneous to balance' for the past couple of years. That suggests one or a combination of the following - official demand data are overstated, supplies are running ahead of consensus, or, counter-intuitively, stockdraw outside of readily observable OECD inventory has been under way. By definition, these are off-radar phenomena, which we will continue to investigate in the weeks and months to come.





Further question marks hang over the coming winter heating season. Middle distillate markets remain weak, with a stock overhang onshore and offshore. Indeed the persistent weakness of heating oil and diesel calls into question the depth and durability of fledgling industrial recovery. Some 60 mb of products, mainly middle distillates, are being held in floating storage, largely off Europe. Atlantic Basin stock levels could swell further if higher Asian refinery output growth accompanies a resurgence in apparent demand in China and elsewhere that turns out to be more a function of stockpiling than genuine recovery in local consumption. Crude oil prices have been buoyed in part by OPEC supply curbs, but neither the natural gas nor middle distillates markets are characterised by such concerted attempts at market management. However, without a sharply colder winter or economic resurgence, logistical constraints or the prospect of sub break-even prices could ultimately curb supplies of both. As always, greater clarity in some parts of the market goes hand in hand with more uncertainty in others.

DEMAND

Summary

- **Forecast global oil demand** has been revised up by 0.5 mb/d for both 2009 and 2010, largely on the back of stronger-than-expected preliminary data in OECD North America and non-OECD Asia. There is growing evidence that the global economy may be finally stabilising, with industrial destocking coming to an end, coupled with the effects of large-scale government intervention. Global demand is now expected to average 84.4 mb/d in 2009 (-2.2% or -1.9 mb/d versus 2008) and 85.7 mb/d in 2010 (+1.5% or +1.3 mb/d year-on-year). However, despite these upward adjustments, demand is poised to remain weak in the OECD for the reminder of this year, while the underlying strength of non-OECD demand has been obscured by massive stock building in China. Moreover, the spectre of a double-dip, 'W-shaped' recession, which would undermine oil demand growth next year, cannot be entirely discounted.

- **Forecast OECD oil demand** has been increased by roughly 270 kb/d for both 2009 and 2010, given higher-than-expected 2Q09 data and indications that 2H09 demand may be stronger than previously anticipated, notably in North America. These revisions have largely been carried through to next year. Oil demand is now predicted to fall by 4.7% year-on-year (-2.2 mb/d) to 45.4 mb/d in 2009, and grow marginally (+0.1%) in 2010. However, there is considerable uncertainty regarding the prospects of a sustained US economic recovery. The country's extremely weak gasoline demand readings were only briefly interrupted in the early summer, suggesting that people opted to drive for summer vacation rather than to take more expensive holidays involving air travel; meanwhile, diesel demand – strongly correlated to economic activity – has continued to decline at double-digit rates.

Global Oil Demand (2008-2010)

(million barrels per day)

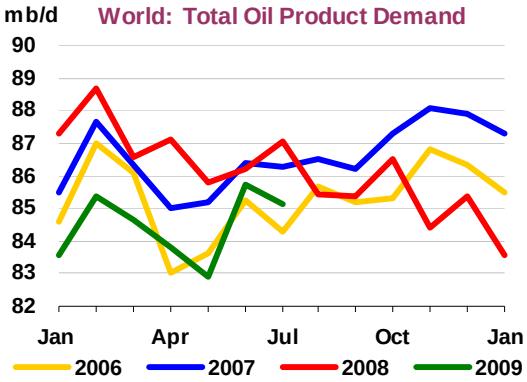
	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Africa	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.3	3.3	3.2	3.4	3.3
Americas	30.5	30.4	29.6	29.9	30.1	29.3	28.9	29.0	29.1	29.1	29.5	29.3	29.5	29.4	29.4
Asia/Pacific	26.7	25.7	25.0	25.1	25.6	25.7	25.9	25.0	25.4	25.5	26.4	26.0	25.4	25.9	25.9
Europe	16.1	15.8	16.3	16.2	16.1	15.6	14.9	15.5	15.7	15.4	15.6	15.0	15.5	15.6	15.4
FSU	4.3	4.1	4.3	4.2	4.2	4.0	3.8	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Middle East	6.7	7.1	7.6	6.9	7.1	6.7	7.3	7.7	7.1	7.2	7.0	7.4	8.0	7.4	7.5
World	**87.5**	**86.3**	**85.9**	**85.4**	**86.3**	**84.5**	**84.1**	**84.4**	**84.7**	**84.4**	**86.0**	**85.1**	**85.8**	**85.9**	**85.7**
Annual Chg (%)	1.2	1.0	-0.4	-2.6	-0.2	-3.4	-2.6	-1.8	-0.9	-2.2	1.8	1.2	1.7	1.4	1.5
Annual Chg (mb/d)	1.0	0.8	-0.4	-2.3	-0.2	-3.0	-2.2	-1.5	-0.8	-1.9	1.5	1.0	1.4	1.2	1.3
Changes from last OMR (mb/d)	0.01	0.01	0.01	0.01	0.01	0.06	0.47	0.72	0.68	0.49	0.18	0.19	0.79	0.62	0.45

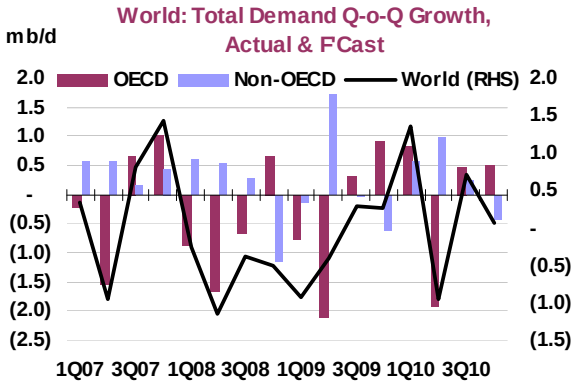
- **Forecast non-OECD oil demand** has been adjusted up for both 2009 and 2010, largely due to another reappraisal of Chinese demand prospects, which have been boosted by government stimuli measures and by significant stock building. In addition, demand data for the FSU and Latin America have also turned out to be higher than previous submissions. Demand in 2009 is now expected to average 39.1 mb/d (+0.9% or +0.4 mb/d year-on-year and +220 kb/d higher when compared with our previous assessment). The revision for 2010 is only slightly lower (+170 kb/d), with demand seen averaging 40.3 mb/d (+3.2% or +1.2 mb/d versus the previous year).

- **Recent reported oil product stocking complicates the assessment of China's demand picture.** The lack of detailed inventory data renders the outlook prone to both upside and downside risks. Forecast demand for 'other products', which has largely driven overall oil demand growth in the past few months on the back of government stimulus measures, could be understated. By contrast, forecast demand for gasoline and gasoil could be overstated, despite attempts to account for stock builds based on the limited information that is currently available.

Global Overview

Preliminary data for both June and July indicate that global oil demand was stronger than previously expected, largely because of higher readings in OECD North America and non-OECD Asia. Demand in 2Q09 has thus been raised by almost 0.5 mb/d, while 2H09 demand looks set to exceed previous estimates by as much as 0.7 mb/d. As such, our demand forecast has been revised up by roughly 0.5 mb/d for both 2009 and 2010. At first glance, this would validate the perception of an ongoing, stronger-than-expected global economic recovery. Several large OECD economies – France, Germany and Japan – have confounded most observers by technically emerging out from recession; China is seemingly roaring ahead; several other Asian countries such as India and Korea are faring relatively well; and a handful of key indicators in the US have turned out to be slightly better than anticipated.



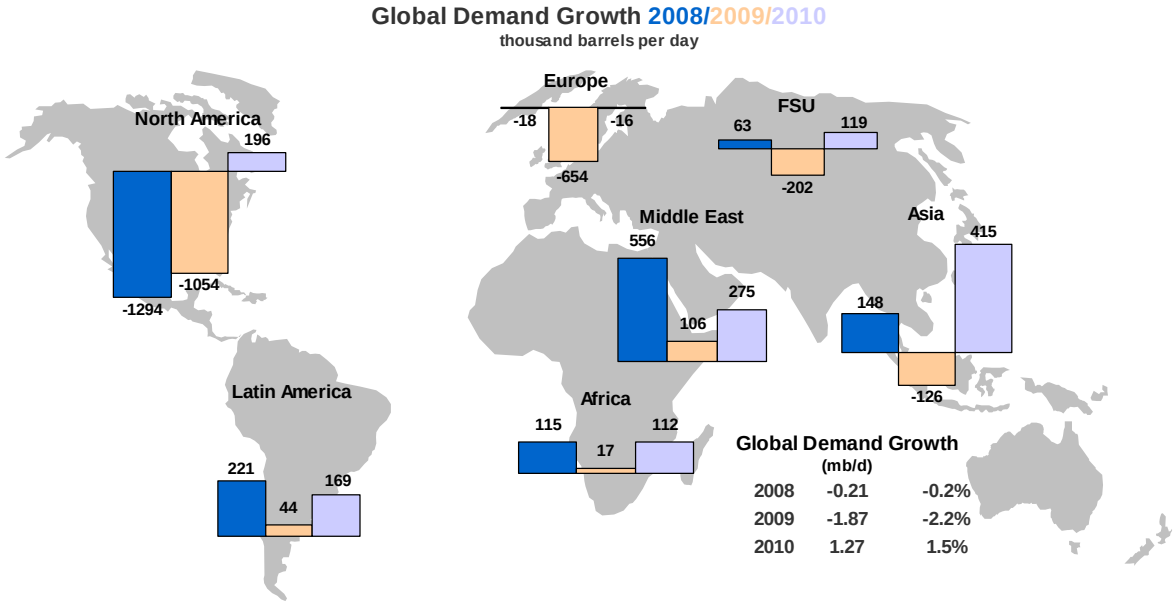


Yet, as much as these signs of recovery are welcome, closer analysis suggests that the demand picture is far from clear-cut. Overall global demand growth remains well in negative territory. On an annual basis, demand was still down by 0.5% in June and by 2.3% in July. On a quarterly basis, 2Q09 global demand was 2.6% below last year's levels, while 3Q09 demand could be some 1.8% lower. Even 4Q09 demand is set to decrease by 0.9% year-on-year, despite the expected improvement in global economic conditions and relative to last year's extremely low base. Aggregated transportation fuel demand was slightly positive in June, for the first time since last October, but this appears to have been short-lived, while demand for all other product categories, albeit markedly stronger than in late 2008, still trails well below levels of a year ago.

Demand in the OECD remains extremely weak; in fact, the region's 6.1% year-on-year fall in 2Q09 was the largest since the outbreak of the recession. Even accounting for the upward revisions, OECD demand is set to contract by 4.7% year-on-year or 2.2 mb/d in 2009. As such, the demand rebound has been almost exclusively driven by non-OECD countries, where aggregate 2009 demand is poised to rise by 0.9% or 0.4 mb/d versus 2008. Furthermore, the revisions to demand estimates are largely due to the largest oil consumers – i.e., the US and China. In the former, weekly to monthly adjustments have been relatively large and sometimes unexpected in terms of direction over the past few months. More importantly perhaps, changes in the latter have been due for the most part to massive stock building that, as discussed later in this report, nurtures doubts regarding the underlying strength of Chinese oil demand – and hence of market fundamentals, given prevailing OECD demand weakness and bulging inventory levels, notably of distillates. Nonetheless, non-OECD countries are expected to account for virtually all of next year's 1.3 mb/d rebound in global demand.

There is still considerable uncertainty concerning what has been dubbed by some observers as the 'phoney recovery'. The recent economic rebound has been essentially due to the completion of the massive inventory adjustment triggered by last year's financial panic, on the one hand, and to substantial government intervention, on the other, more than to the revival of sustained private demand, which remains feeble. Optimists argue that the spectre of a double-dip sometime next year (a 'W-shaped'

economic outlook), which would undermine oil demand, is highly unlikely, given the unique nature of this recession – last fall's near meltdown of the financial system, first in the US and then worldwide – and the massive government intervention that followed it. From this perspective, these events are unlikely to recur, and policy actions preclude a worldwide stagnation as seen in Japan, for example, during most of the 1990s.



Pessimists, by contrast, contend that several factors point towards an anaemic recovery or even a relapse: the persistent fragility of the global financial sector despite the effective nationalisation of banking losses; high and rising unemployment, notably in the OECD; weak private demand, unlikely to take the slack if and when government stimuli are withdrawn; poor private-sector profitability and deflationary pressures; persistent global current-account imbalances; the potential emergence of government-induced bubbles in some large economies such as China; and, last but not least, rising commodity prices. In sum, economic weeds are still sprouting alongside a rising number of welcome green shoots.

OECD

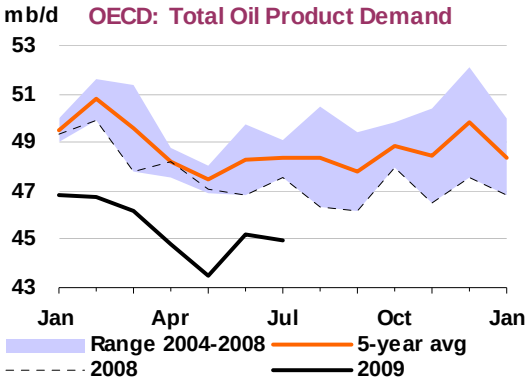
According to preliminary data, OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 5.5% year-on-year in July, with all three regions recording losses for the fifteenth month in a row. In **OECD Pacific**, demand plummeted by 7.0%, dragged down by softening middle distillate demand. In **OECD Europe**, demand sank by 5.6% year-on-year, with all product categories posting losses. In **OECD North America** (which includes US Territories), oil product demand fell by 4.9%, with all product categories bar 'other products' posting losses.

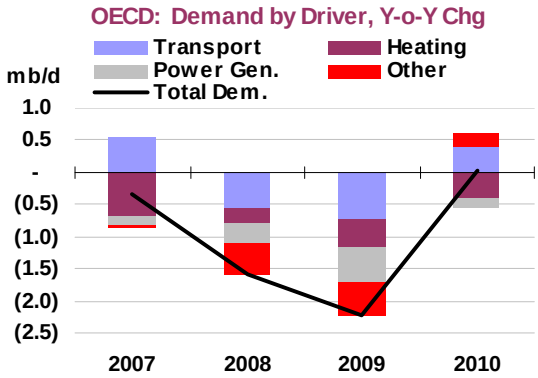
However, revisions to June preliminary data were substantial (+970 kb/d), as stronger-than-anticipated demand for LPG, gasoline, distillates and 'other products' offset weaker deliveries of residual fuel oil. Overall, June demand shrank by 3.5% year-on-year, about a third less than previously expected. Although these data lend credence to the view that the global recession is easing, OECD demand is set to contract for the rest of the year, albeit at a lower pace as economic conditions gradually improve. As such, the estimates of OECD oil demand for this year and the next have been revised up by some 270 kb/d when compared with last month's report. Demand is now expected to contract by 4.7% in 2009 to 45.4 mb/d and grow marginally in 2010 (+0.1%).

OECD Demand based on Adjusted Preliminary Submissions - July 2009
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.58**	**-1.5**	**1.62**	**-11.3**	**3.46**	**-10.3**	**0.68**	**-25.2**	**1.15**	**-4.0**	**5.74**	**-2.59**	**23.22**	**-4.9**
US50	8.99	-1.8	1.38	-12.5	2.93	-12.5	0.25	-26.8	0.69	1.2	4.33	-2.9	18.57	-5.1
Canada	0.77	0.4	0.16	2.8	0.20	2.9	0.28	-22.9	0.11	-0.5	0.74	-3.6	2.24	-4.2
Mexico	0.77	-0.1	0.05	-20.1	0.29	-8.5	0.13	-8.5	0.27	-16.8	0.61	0.6	2.13	-4.7
OECD Europe	**2.45**	**-1.7**	**1.36**	**-5.3**	**4.53**	**-0.6**	**1.39**	**-16.0**	**1.45**	**-12.0**	**3.43**	**-7.2**	**14.62**	**-5.6**
Germany	0.48	-1.5	0.20	-5.2	0.69	0.5	0.30	-31.5	0.16	-14.8	0.53	-16.8	2.36	-10.8
United Kingdom	0.37	-1.4	0.35	-0.5	0.42	5.0	0.12	-6.7	0.09	-1.6	0.31	9.9	1.67	1.9
France	0.23	-0.3	0.16	-6.4	0.73	2.9	0.22	-22.7	0.04	-57.6	0.42	-9.9	1.80	-7.8
Italy	0.28	0.7	0.10	-7.8	0.60	1.4	0.09	-4.6	0.21	-18.3	0.36	-12.0	1.64	-5.6
Spain	0.16	-1.5	0.13	2.9	0.52	-4.7	0.18	-5.6	0.20	-10.2	0.32	-4.6	1.52	-4.6
OECD Pacific	**1.56**	**2.4**	**0.55**	**-10.4**	**1.15**	**-2.0**	**0.31**	**-20.6**	**0.71**	**-18.0**	**2.82**	**-7.9**	**7.10**	**-7.0**
Japan	0.99	1.1	0.31	-15.2	0.52	-10.5	0.23	-25.1	0.43	-17.2	1.43	-17.6	3.90	-12.9
Korea	0.18	15.7	0.11	-3.0	0.27	15.7	0.08	-5.6	0.24	-21.5	1.21	5.2	2.10	2.3
Australia	0.32	-0.1	0.11	-3.8	0.33	0.5	0.00	4.1	0.03	0.3	0.16	-1.3	0.95	-0.5
OECD Total	**14.58**	**-1.1**	**3.54**	**-8.9**	**9.15**	**-4.7**	**2.39**	**-19.4**	**3.30**	**-10.8**	**11.99**	**-5.2**	**44.94**	**-5.5**

* Including US territories





Total OECD Demand by Product
(million barrels per day)

	2008	2009	3Q08	4Q08	1Q09	2Q09	Apr 09	May 09	Jun 09*	Latest month vs. May 09	Latest month vs. Jun 08
LPG & Ethane	4.66	4.48	4.29	4.55	4.82	4.36	4.52	4.27	4.30	0.03	-0.21
Naphtha	3.08	2.89	3.07	2.88	2.97	2.85	2.90	2.85	2.81	-0.04	-0.18
Motor Gasoline	14.42	14.33	14.46	14.36	14.00	14.54	14.41	14.43	14.79	0.36	0.29
Jet & Kerosene	3.98	3.70	3.81	3.90	4.00	3.54	3.68	3.39	3.55	0.15	-0.34
Gas/Diesel Oil	13.04	12.31	12.65	13.43	13.09	11.78	11.87	11.45	12.03	0.58	-0.22
Residual Fuel Oil	3.66	3.30	3.53	3.61	3.61	3.07	3.21	2.89	3.13	0.24	-0.49
Other Products	4.76	4.34	4.88	4.61	4.08	4.30	4.18	4.17	4.57	0.40	-0.47
Total Products	**47.59**	**45.36**	**46.68**	**47.34**	**46.58**	**44.45**	**44.76**	**43.46**	**45.18**	**1.73**	**-1.62**

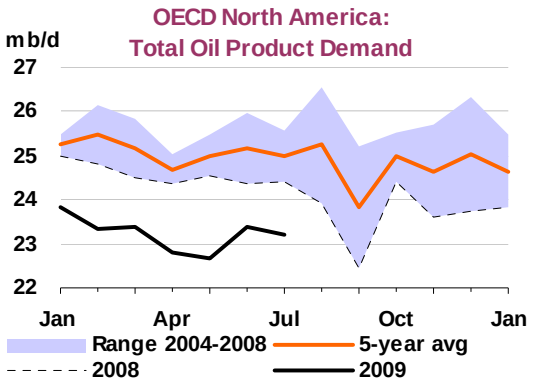
* Latest official OECD submissions (MOS)

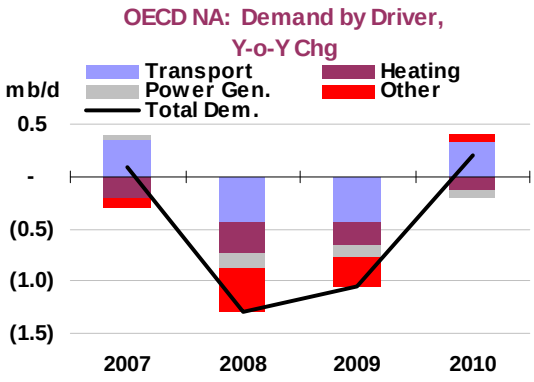
North America

Preliminary data show that oil product demand in North America (including US Territories) shrank by 4.9% year-on-year in July, the nineteenth consecutive monthly contraction. All three countries posted sharp contractions, but the United States continues to lead in terms of the pace of oil demand decline.

Meanwhile, June's revisions to preliminary data were hefty (+820 kb/d), due almost solely to the US, with gasoline, distillates and 'other products' featuring higher readings. Auspiciously, this is the first time since last February that US gasoline is revised up rather than down, although it should be noted that recent US weekly-to-monthly revisions have been somewhat unpredictable in terms of direction as well as to the product categories that have been affected, thus complicating attempts at pre-emptive adjustments. Overall, total demand in North America fell by 4.1% in June, at almost half the pace

estimated in our last report (-7.5%). With 2Q09 upward changes carried through to the end of the year, demand in 2009 is now estimated at 23.1 mb/d (-4.4% or -1.1 mb/d versus 2008), while demand in 2010 is seen rising to 23.3 mb/d (+0.8% or +0.2 mb/d year-on-year). Both prognoses are some 180 kb/d higher when compared with our last report.





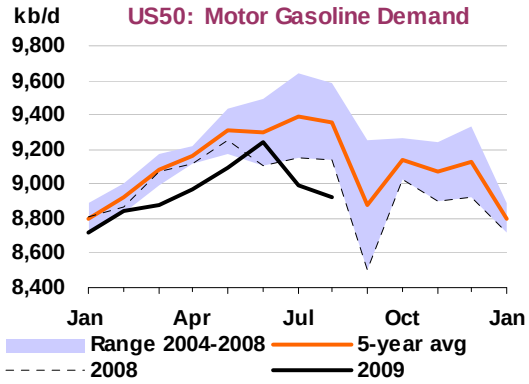
OECD North America Demand by Product

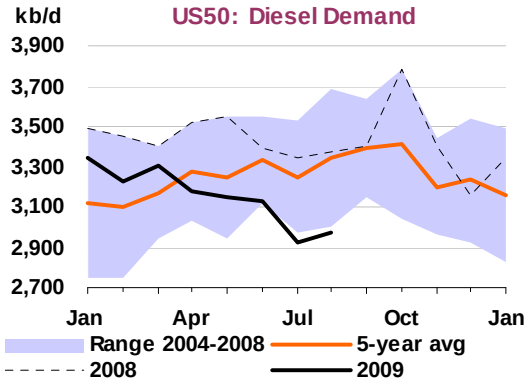
(million barrels per day)

	2008	2009	3Q08	4Q08	1Q09	2Q09	Apr 09	May 09	Jun 09*	Latest month vs. May 09	Latest month vs. Jun 08
LPG & Ethane	2.73	2.64	2.48	2.66	2.88	2.53	2.66	2.51	2.41	-0.10	-0.22
Naphtha	0.36	0.29	0.36	0.33	0.29	0.33	0.31	0.33	0.34	0.00	-0.02
Motor Gasoline	10.52	10.50	10.49	10.50	10.30	10.63	10.49	10.60	10.82	0.22	0.17
Jet & Kerosene	1.77	1.64	1.79	1.64	1.66	1.62	1.64	1.59	1.64	0.05	-0.22
Gas/Diesel Oil	5.01	4.54	4.77	5.03	4.94	4.42	4.35	4.36	4.54	0.18	-0.26
Residual Fuel Oil	1.10	1.00	1.05	1.06	1.08	0.99	1.04	0.89	1.03	0.13	-0.18
Other Products	2.69	2.52	2.67	2.71	2.38	2.44	2.32	2.40	2.59	0.19	-0.26
Total Products	**24.18**	**23.12**	**23.60**	**23.93**	**23.52**	**22.95**	**22.81**	**22.69**	**23.37**	**0.68**	**-0.99**

* Latest official OECD submissions (MOS)

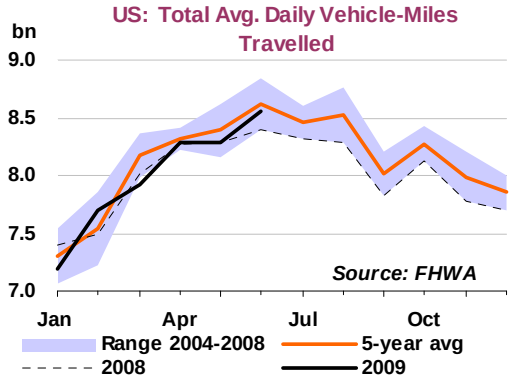
Preliminary weekly data in the continental **United States** indicate that inland deliveries – a proxy of oil product demand – contracted by 4.1% year-on-year in August, with all product categories bar LPG and 'other products' featuring continued weakness. Given the continued rise in unemployment and subdued private spending, it is unclear whether the world's largest economy is on the path of recovery, and even then, a rebound looks more likely to be anaemic rather than vigorous.





For example, June's surprising jump in gasoline demand (+1.5% year-on-year) appears to have been followed by a resumption of the steep downward trend observed in previous months, if unadjusted weekly data for July and August are of any guide. This would provide further evidence that, for the second year in a row, US motorists were deterred by rising gasoline prices and poor economic

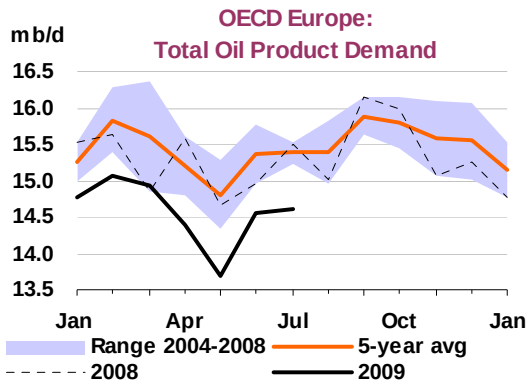
conditions. Admittedly, however, the weak gasoline preliminary readings in August (-2.3% year-on-year) may have been amplified by the fact that the previous year's demand had been boosted by emergency purchases ahead of Hurricane Gustav, notably in the Gulf Coast. The June spike itself, meanwhile, may well be explained by the so-called 'staycation' phenomenon, i.e. driving to nearby summer vacation spots rather than opting for more expensive holidays involving air travel – jet fuel demand, indeed, was 12.6% down on an annual basis in June. If so, the increase in the average daily vehicle-miles travelled during that month (+1.9% year-on-year) would be more reflective of continuing personal income woes than of a reviving economy.

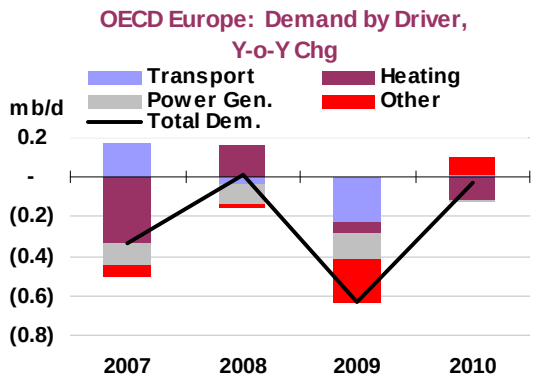


Furthermore, diesel demand – strongly correlated to economic activity – has continued to decline at double-digit rates (-11.8% year-on-year in August). Regarding other product categories, with US natural gas prices falling below $3/mmbtu, prospects for heating oil and fuel oil demand recovery are increasingly muted. Thus, although we have revised up our estimates of US oil demand for this year and the next by roughly 160 kb/d, the outlook has scarcely improved, with demand averaging 18.6 mb/d in 2009 (-4.6% year-on-year) and 18.8 mb/d in 2010 (+0.9%).

Europe

According to preliminary inland data, oil product demand in Europe plummeted by 5.6% year-on-year in July. All product categories posted losses, but the fall was mostly driven by weaker-than-expected demand for naphtha, heating oil and residual fuel oil. At first glance, the weakness in the demand for naphtha (-11.8%), a key industrial fuel, contrasts with the apparent end of the recession in France and Germany, two of the continent's largest economies, where 2Q09 quarter-on-quarter GDP growth was slightly positive. However, on an annual basis, economic output in both countries is well below last year's levels. In addition, the other three large countries (Italy, Spain and the UK) remain firmly anchored in recession. Heating oil demand, meanwhile, was dragged down by lower deliveries in Germany and France, while residual has been probably partly displaced by cheaper natural gas, with prices now reflecting the slump in crude prices earlier this year (natural gas prices tend to lag those of crude by around six months).





Revisions to June data, largely due to stronger-than-expected diesel demand, were relatively modest (+90 kb/d), suggesting that overall oil product demand fell slightly less than expected during that month (-2.8% instead of -3.4%). As such, Europe's demand outlook has been revised up for the reminder of this year, notably in 4Q09, in order to account for stronger-than-expected data submissions and assuming a

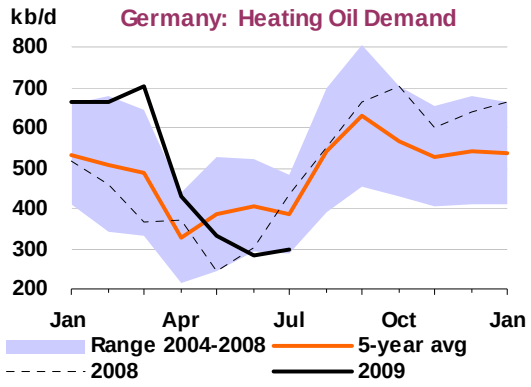
marginally quicker economic recovery in several large countries, with the adjustment largely carried through to next year. Demand is now seen at 14.7 mb/d in 2009, implying a contraction of 4.1%, and only slightly lower in 2010 (-0.2%).

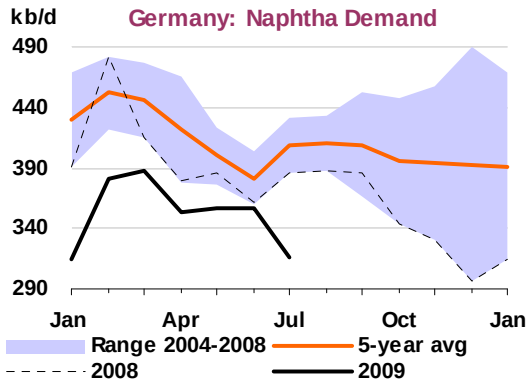
OECD Europe Demand by Product
(million barrels per day)

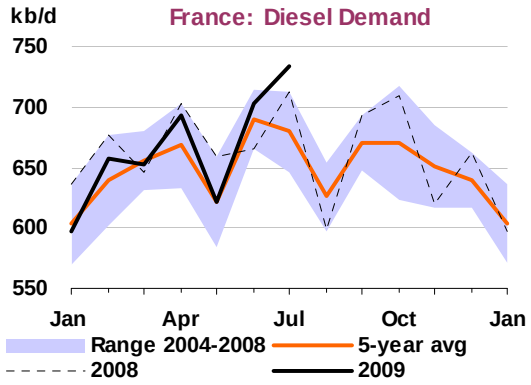
	2008	2009	3Q08	4Q08	1Q09	2Q09	Apr 09	May 09	Jun 09*	Latest month vs. May 09	Latest month vs. Jun 08
LPG & Ethane	1.03	0.97	0.95	0.99	1.04	0.99	1.01	0.93	1.02	0.08	0.00
Naphtha	1.08	0.97	1.07	0.99	1.04	0.88	0.87	0.92	0.86	-0.05	-0.16
Motor Gasoline	2.36	2.30	2.44	2.30	2.19	2.39	2.41	2.31	2.45	0.14	0.04
Jet & Kerosene	1.32	1.26	1.42	1.27	1.19	1.26	1.28	1.21	1.29	0.08	-0.09
Gas/Diesel Oil	6.35	6.21	6.33	6.69	6.51	5.80	5.95	5.56	5.90	0.34	0.04
Residual Fuel Oil	1.64	1.51	1.63	1.69	1.61	1.35	1.39	1.30	1.37	0.07	-0.18
Other Products	1.57	1.49	1.71	1.49	1.33	1.53	1.49	1.46	1.66	0.20	-0.07
Total Products	**15.35**	**14.72**	**15.55**	**15.43**	**14.92**	**14.20**	**14.40**	**13.68**	**14.55**	**0.87**	**-0.42**

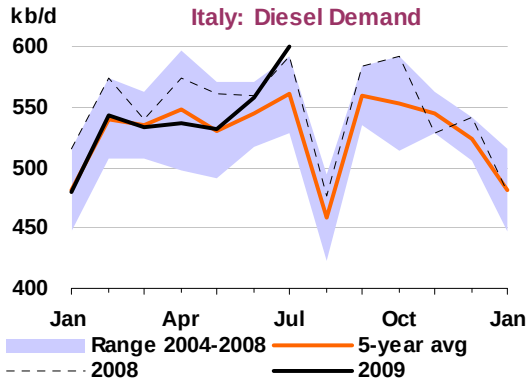
* Latest official OECD submissions (MOS)

German demand fell sharply in July (-10.8% year-on-year), according to preliminary data, as heating oil deliveries virtually dried up (-31.5%), naphtha plummeted counter-seasonally (-18.0%) and residual fuel oil (-14.8%) was displaced by cheaper natural gas supplies. The fall in the pace of heating oil deliveries had been expected, with consumer stocks rapidly approaching their maximum historical fill of around 75% of capacity (stocks reached 66% of capacity by end-July, compared with 49% in the same month of the previous year and 64% in June). The fall in naphtha demand, which is mostly used in industrial applications, is more surprising, as it does not tally with claims of an ongoing economic recovery, triggered by the modest quarter-on-quarter GDP growth. The fact that industrial production declined by roughly 19% year-on-year in 2Q09 is a sobering reminder that Europe's largest economy is not out of the recessionary woods yet.





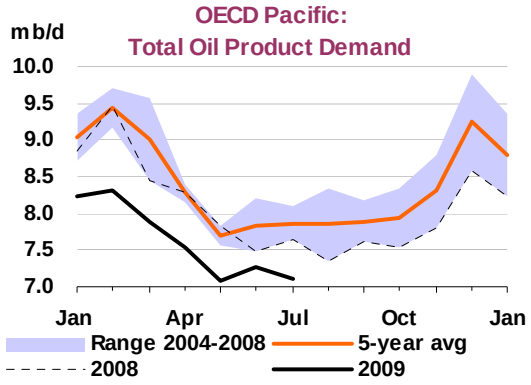


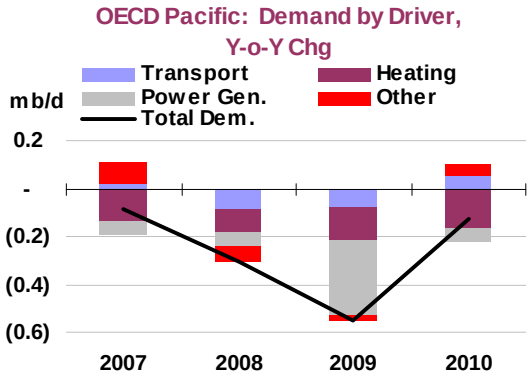


In **France**, oil product deliveries also fell sharply in July (-7.8% year-on-year) on the back of much lower-than-expected demand for naphtha and softening heating oil and residual fuel oil demand, largely mirroring German developments. By contrast, the relative strength of diesel demand (+2.9%) and the continued weakness in jet fuel deliveries (-6.4%) suggests that, as in the US, 'staycation' effects were at play. A similar trend occurred in **Italy**, with diesel demand rising by 1.4% (for the first time since December) and jet fuel deliveries plunging by 7.8%.

Pacific

According to preliminary data, oil product demand in the Pacific fell for the thirteenth month in a row in July (-7.0% year-on-year), with all product categories bar gasoline and heating oil recording continued losses. Moreover, the rate of decline accelerated relative to the previous month, dragged down by Japan, the region's largest economy, despite having technically escaped recession (it grew modestly from 1Q09 to 2Q09, although the country's GDP continued to fall on a yearly basis). By contrast, the Korean economy continues to show remarkable resilience, and could well become the only large OECD country that managed to avoid recession altogether, having contracted only in 4Q08 and being set to expand uninterruptedly during all of 2009.





Revisions to June preliminary data were modest yet positive (+60 kb/d). Demand thus contracted slightly less than previously expected (-2.8% versus -3.6%). The outlook, meanwhile, has been inched up by roughly 30 kb/d for this year and the next, owing to expectations of stronger Korean demand. OECD Pacific demand is now seen averaging 7.5 mb/d in 2009 (-6.8% versus 2008) and 7.4 mb/d in 2010 (down by 1.7% compared with the previous year).

OECD Pacific Demand by Product
(million barrels per day)

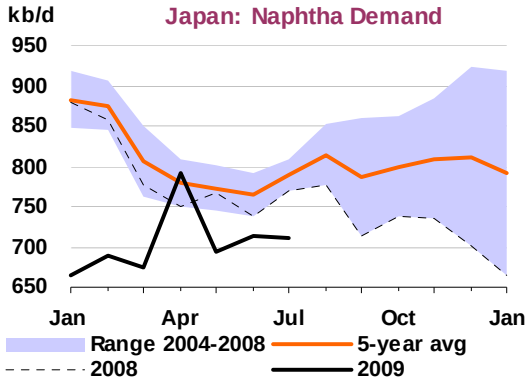
	2008	2009	3Q08	4Q08	1Q09	2Q09	Apr 09	May 09	Jun 09*	Latest month vs. May 09	Latest month vs. Jun 08
LPG & Ethane	0.90	0.87	0.86	0.90	0.90	0.85	0.85	0.82	0.87	0.05	0.01
Naphtha	1.64	1.63	1.65	1.56	1.64	1.64	1.72	1.60	1.61	0.01	0.00
Motor Gasoline	1.54	1.54	1.52	1.56	1.51	1.52	1.51	1.53	1.52	0.00	0.08
Jet & Kerosene	0.89	0.80	0.60	0.99	1.15	0.66	0.76	0.60	0.62	0.02	-0.03
Gas/Diesel Oil	1.68	1.57	1.55	1.70	1.64	1.56	1.57	1.53	1.59	0.06	0.01
Residual Fuel Oil	0.91	0.79	0.85	0.86	0.92	0.73	0.77	0.69	0.73	0.04	-0.13
Other Products	0.50	0.33	0.50	0.40	0.38	0.33	0.37	0.31	0.32	0.01	-0.14
Total Products	**8.07**	**7.52**	**7.54**	**7.97**	**8.14**	**7.30**	**7.55**	**7.09**	**7.27**	**0.18**	**-0.21**

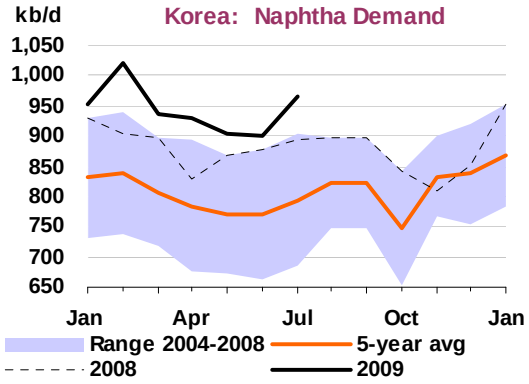
* Latest official OECD submissions (MOS)

According to preliminary data, **Japanese** oil demand contracted by 12.9% year-on-year in July, almost twice as much as the pace of upwardly revised June readings (-7.3%, instead of -8.2%). This renewed weakness, largely due to softening demand for naphtha (-7.7%), diesel (-10.5%) and direct crude use for power generation (included in 'other products'), which shrank by 53.8%, is somewhat at odds with the modest 2Q09 economic improvement, mostly driven by a timid resumption of exports, notably to China.

Albeit the country has technically emerged from recession by posting quarter-on-quarter GDP growth, industrial activity and other leading indicators remain well below last year's level, thus explaining the continued weakness in naphtha and diesel deliveries. Subdued direct crude burning, meanwhile, reflected lower electricity demand (due to the economic downturn and cooler temperatures relative to the previous year), higher nuclear generation and cheaper LNG supplies.

We have kept our Japanese demand forecast largely unchanged, although the newly elected Democratic Party of Japan (DPJ) has promised to remove the 36-year old, 25 yen/litre (roughly $43/bbl) gasoline tax levied on refiners, which serves to finance road construction and maintenance. Such a move would arguably result in lower retail prices and somewhat offset the structural decline in gasoline demand, as in early 2008, when the tax was briefly scrapped. However, many observers are sceptical regarding the new government's fiscal room to manoeuvre. Indeed, lower revenues – and hence spending – could hinder the nascent economic recovery. That said, if the measure comes to pass we may revise our oil demand outlook.





Oil demand in **Korea**, contrary to virtually all other OECD countries, continues to feature impressive strength, rising by 2.3% year-on-year in July on the back of strong deliveries of naphtha, gasoline and diesel. As noted, the country's recovery appears to be quite solid, as a result of a large fiscal stimulus package (almost 6% of GDP), which has been heavily front-loaded (some two-thirds of it were reportedly spent in 1H09). Korea's industrial production rose by 0.7% year-on-year in July – the first positive growth rate since September 2008. In absolute terms, it has almost reached the levels of late 2007/early 2008 (by contrast, industrial production in Japan was almost 23% down in July).

Non-OECD

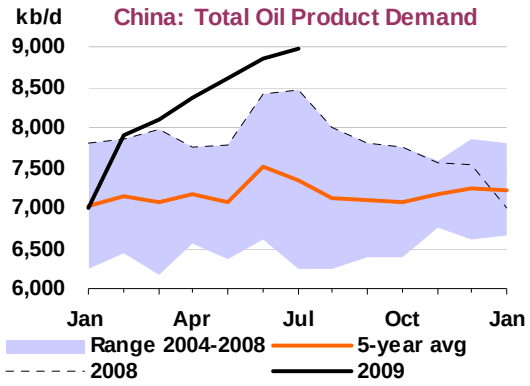
China

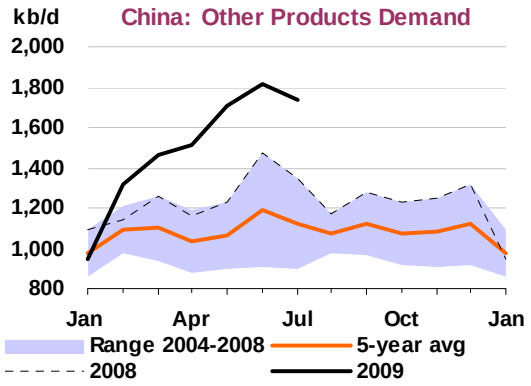
Preliminary data indicate that China's apparent demand (refinery output plus net oil product imports, adjusted for fuel oil and stock changes) rose by 5.8% year-on-year in July to almost 9.0 mb/d, with all product categories with the exception of gasoil posting strong gains. This marks the fourth consecutive month of strong demand growth, arguably largely driven by a government-induced economic rebound. Other factors, though, are also at play.

First, as we have argued in recent months, hoarding ahead of expected price movements has made it difficult to ascertain underlying demand trends. As had been widely expected, on 2 September the National Development and Reform Commission (NDRC) increased gasoline and gasoil 'guidance' (or ceiling) prices by 4.6% and 5.2%, respectively. This partially mirrored August's rise in the crude basket price upon which the retail price mechanism is based (the average price of the basket itself, which includes Brent, Dubai and Cinta crudes, had increased by about 7% since the last adjustment on 28 July). The only novelty was that the price change did not occur on 27 August, which marked the 22nd

consecutive working-day fluctuation of the basket's rolling average price (in principle, a sustained variation above 4% over such a period should, according to the rules, trigger an adjustment).

The NDRC is clearly intent upon ensuring the credibility of the price mechanism, introduced in early 2009. There have been already five price adjustments this year, compared with an annual average of only two over 2006-2008, a period when international oil prices increased sharply. Yet, as we noted last month, the very predictability of these changes has enticed refiners and distributors to stock or destock, depending on international price movements. The recent minor delay in implementing the latest price adjustment could be interpreted as an attempt to curb speculative behaviour, but equally might simply reflect administrative hurdles. Absent pressing 'social and economic factors' that would justify maintaining the status quo – such as inflationary concerns, for example – a deferral would encourage increases in refinery runs (given still attractive margins, despite the relatively moderate hike) and product stocking, as in the month leading up to the first June adjustment – and the more so if international oil prices are expected to rise further. The fact that the NDRC did not invoke the upcoming 60th anniversary of the Communist Revolution on 1 October as a strong reason to postpone the price hike tends to reinforce the impression that the authorities plan to stick to the current price regime.





Second, a large portion of the recent burst of oil demand growth has been driven by 'other products', which comprise bitumen, lubricants and coke, among others. This category, which has accounted for roughly two-thirds of China's total average annual demand growth over the past four months (almost +600 kb/d), now stands almost 30% above levels of a year ago, with both refinery output and net imports rising sharply. This trend appears to confirm reports of extensive construction of new roads, airports and railways under the fiscal stimulus plan (thus requiring, among other raw materials, significant asphalt volumes), as well as a resumption of aluminium production (which necessitates coke) and booming vehicle sales (which drive lubricant demand).

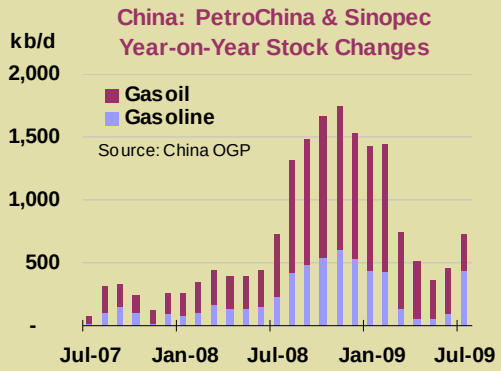
China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	653	732	765	79	33	12.1	4.5
Naphtha	768	817	850	49	33	6.3	4.1
Motor Gasoline	1,493	1,601	1,715	109	114	7.3	7.1
Jet & Kerosene	292	318	330	26	12	8.9	3.7
Gas/Diesel Oil	2,837	2,668	2,807	-169	140	-6.0	5.2
Residual Fuel Oil	603	654	670	51	15	8.5	2.3
Other Products	1,246	1,461	1,442	215	-19	17.3	-1.3
Total Products	**7,892**	**8,252**	**8,579**	**360**	**327**	**4.6**	**4.0**

Assessing Actual Chinese Oil Demand Growth

How strong is Chinese oil demand? The answer to this question, which is relatively straightforward in most other large consuming countries, remains elusive. Indeed, not only has recent reported oil product stockpiling distorted China's demand picture, but also the lack of detailed inventory data makes it difficult to assess the underlying demand trend and seriously complicates the forecasting exercise.

On the one hand, the outlook faces upside risks. As long as the government stimulus measures remain in place, oil demand for some products will most likely continue to rise markedly. This, as noted earlier, can clearly be seen in the unprecedented spike in the 'other products' category, which is now largely driving total Chinese demand growth. Assuming that the stimuli are gradually withdrawn, that demand will tend to follow patterns observed in previous years of strong economic growth and that part of the recent growth is related to inventory builds, we forecast that 'other products' demand will gently decline in 2H09 and expand moderately in 2010. Yet this outlook could well prove wrong if government spending remains unabated or if stocks for this product category happen to be low or even negligible.



On the other hand, the inflation of demand estimates by reported product stocking poses downside risks to the forecast. Indeed, storage could reach a capacity limit. Oil prices could fall. Alternatively, if international prices were to rise further, the government could be tempted to suspend the price mechanism (the NDRC has recently declared that even though it will continue to adhere to the principles of the price mechanism, it will only adjust domestic prices *when necessary*). All three occurrences would likely trigger a large destocking movement and depress apparent demand, which could even register negative growth rates despite the country's renewed economic vigour. We are attempting to account for inventory builds based on the limited information on gasoline and gasoil stocks for the largest state-owned companies provided by China Oil, Gas and Petrochemicals (OGP), but it could well be that our assessment of future demand for both products is too high.

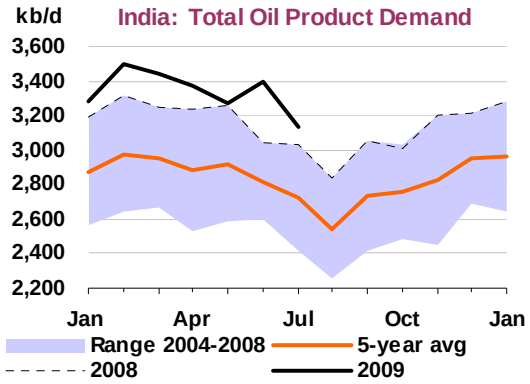
Taking into account all the above – and contradictory – elements, we have revised up our forecasts for this year and the next by roughly 140 kb/d. On that basis, Chinese oil demand is now expected to rise by as much as 4.6% to 8.3 mb/d in 2009, and by 4.0% to 8.6 mb/d in 2010. Without more detailed data, and in the face of likely continuing oil price volatility, demand projections will remain prone to substantial revisions.

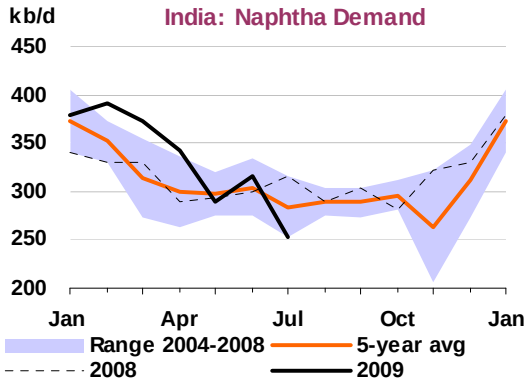
Other Non-OECD

India's oil product sales – a proxy of demand – rose by 3.4% year-on-year in July, according to preliminary data. The pace of growth was two-thirds lower than the one recorded in the previous month, when poor monsoon rains boosted gasoil demand. Nonetheless, drought conditions prevailed in some areas during July, notably in northern states, and demand for gasoil – mostly used for irrigation and electricity generation – remained relatively strong (+10.8% year-on-year). Gasoline demand was also buoyant, rising by +11.0%, with car sales surging for the sixth consecutive month. The offsetting factor was naphtha demand, which plummeted by 19.4% given greater availability of natural gas from Reliance Industries' offshore D6 block in the Krishna-Godavari basin. However, the much-publicised dispute regarding the price of D6's gas may jeopardise the block's production plans and, as such, naphtha demand could rise again.

Our Indian outlook remains unchanged, with oil demand expected to grow by 3.8% year-on-year to 3.3 mb/d in 2009, and by 3.4% to 3.4 mb/d in 2010, assuming normal monsoons. However, there are now downside risks to this forecast. The severe drought could shave as much as one percentage point from this year's GDP growth, according to some observers. Others argue that, irrespective of the

drought, the Indian government may be obliged to tighten macroeconomic policy given mounting inflationary pressures. In both cases, oil demand growth could slow down.



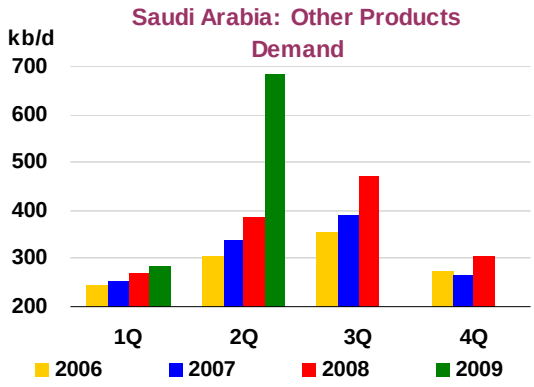


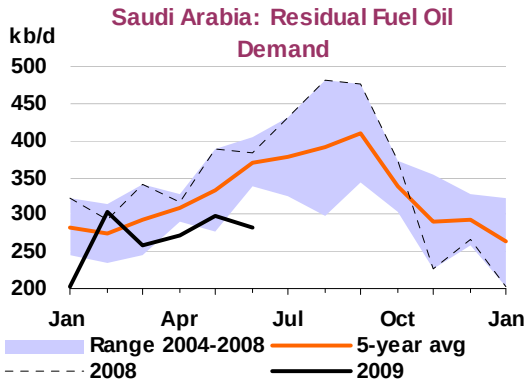
India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	406	418	437	12	18	3.0	4.4
Naphtha	310	320	296	9	-23	3.0	-7.3
Motor Gasoline	265	297	323	32	27	12.0	9.0
Jet & Kerosene	299	294	303	-4	9	-1.5	3.1
Gas/Diesel Oil	1,078	1,139	1,201	61	62	5.7	5.5
Residual Fuel Oil	395	402	409	7	8	1.7	1.9
Other Products	382	384	393	2	8	0.6	2.2
Total Products	**3,134**	**3,253**	**3,362**	**119**	**110**	**3.8**	**3.4**

Demand for direct-burning crude in **Saudi Arabia**, included in the 'other products' category, has reached new highs. Following the surge in both April and May (+51.5% and 90.5% year-on-year, respectively), 'other products' demand jumped by 84.4% in June to roughly 850 kb/d, the highest level ever attained. This boosted overall oil demand, which posted again double-digit growth (+15.2%). Direct crude, which accounts for about two-thirds of 'other products' demand and is used mostly in power plants, thus continues to displace fuel oil, which fell sharply again (-26.3%). As such, we have slightly revised up our forecast for 2009 oil demand growth to +5.9% versus 2008, compared with +5.6% in our last report. As this adjustment has not been carried through to next year, demand growth in 2010 has been marginally adjusted down to +3.9%.



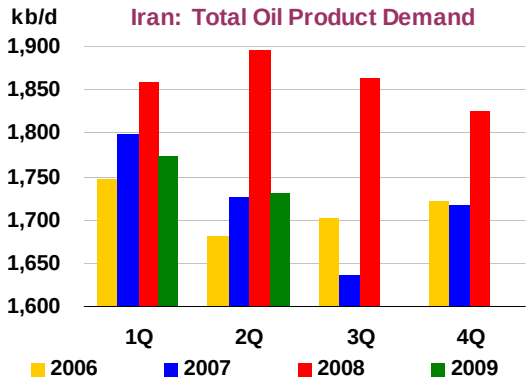


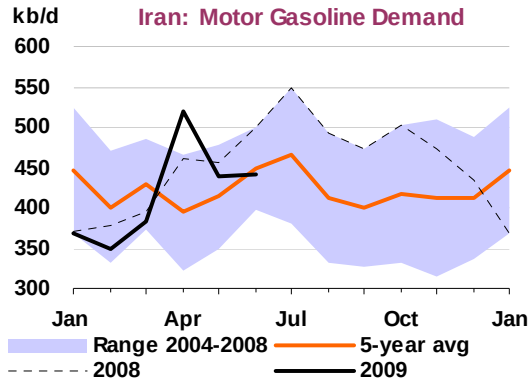
Saudi Arabia: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	587	635	693	49	58	8.3	9.1
Naphtha	100	94	114	-5	20	-5.2	20.8
Motor Gasoline	373	403	433	29	30	7.8	7.5
Jet & Kerosene	60	57	60	-3	3	-5.6	5.0
Gas/Diesel Oil	579	593	623	14	30	2.4	5.1
Residual Fuel Oil	359	315	342	-43	27	-12.1	8.6
Other Products	359	461	393	101	-68	28.2	-14.7
Total Products	**2,417**	**2,558**	**2,658**	**141**	**100**	**5.9**	**3.9**

In **Iran**, the recent political turmoil after the June presidential elections, coupled with slowing economic activity and gradual interfuel substitution in power generation (from gasoil to natural gas) has taken its toll on overall oil demand. Demand contracted sharply in both May and June (-10.8% and -9.5% year-on-year, respectively. In particular, gasoline demand – which accounts for over a quarter of total oil consumption – contracted by 11.8%. The country's demand outlook is difficult to predict, as much will depend on domestic political and economic dynamics. At this point, we expect Iran's oil demand to contract by 3.9% year-on-year in 2009 to 1.8 mb/d. In 2010, assuming that the economy rebounds, growth could be as high as 5.0%, with demand reaching 1.9 mb/d.





Iran: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	92	86	92	-6	6	-6.8	7.1
Naphtha	42	42	45	1	3	1.7	6.5
Motor Gasoline	457	457	472	0	15	-0.1	3.2
Jet & Kerosene	154	139	147	-14	7	-9.2	5.2
Gas/Diesel Oil	622	564	584	-58	21	-9.3	3.7
Residual Fuel Oil	410	399	418	-11	20	-2.7	5.0
Other Products	85	102	119	17	17	20.2	16.9
Total Products	**1,861**	**1,788**	**1,877**	**-72**	**89**	**-3.9**	**5.0**

SUPPLY

Summary

- **Global oil supply in August was down almost 400 kb/d to 84.9 mb/d**, with a 450 kb/d decline in non-OPEC production partially offset by a modest increase in OPEC output. Global oil supply is down by 1.25 mb/d from August 2008. The comparison with a year ago is partially skewed because supply in 2008 was much lower than normal due to extensive North Sea maintenance work as well as an explosion on the Baku-Tbilisi-Ceyhan (BTC) pipeline.

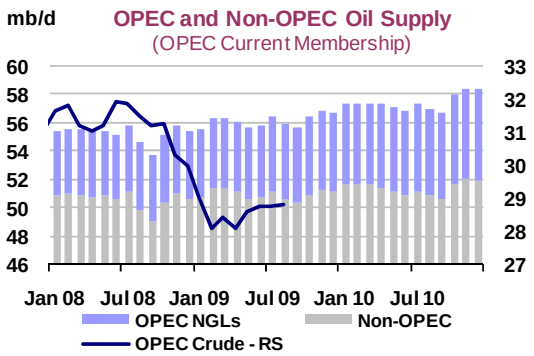
- **Non-OPEC supply estimates for 2009 and 2010 were left unchanged** compared with last month's projection, and output is expected to grow from 51.0 mb/d to 51.5 mb/d next year. For both years, upward revisions to Russia, China and the US in particular offset downward adjustments to Canada, OECD Europe and Brazil.

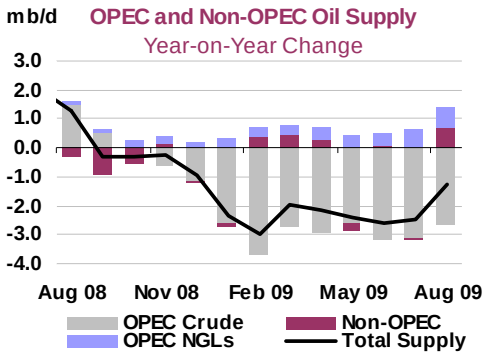
- **Non-OPEC output is holding up better than expected early in the year** following the return to higher prices**,** optimism about global economic recovery and indications that upstream development costs are falling, combined with a series of quicker than expected field start-ups. While the first Atlantic tropical storms of the season touched Canada's Atlantic coast, none had any impact on upstream operations there, and the US Gulf of Mexico has so far been unscathed.

- **OPEC crude oil supply in August was up by a marginal 55 kb/d to 28.9 mb/d** on higher production from Nigeria, Venezuela and Angola. Production by the 11 members with output targets, which excludes Iraq, rose by 80 kb/d, to 26.3 mb/d. The OPEC-11 grouping is now producing about 1.40 mb/d over the 24.845 mb/d output target. The higher output levels in August lowered the group's compliance rate to around 66%, compared with 68% in July.

- **OPEC ministers were scheduled to meet** on 9 September in Vienna as this report went to press. Indications prior to the meeting suggested better compliance rather than a further target cut was on the agenda before the formal start of the meeting, scheduled for late evening in observance of Ramadan. OPEC's effective spare capacity is estimated at 5.47 mb/d versus 5.48 mb/d in July, with Saudi Arabia accounting for 62% of the surplus at 3.4 mb/d.

- **The 'call on OPEC crude and stock change' is revised up by 0.6 mb/d, to 28.3 mb/d for 3Q09** and by 0.6 mb/d to 27.9 mb/d in 4Q09 on a more robust demand forecast. As a result, the call for 2009 increases by 0.5 mb/d, to 28.2 mb/d and by 0.4 mb/d to 28.2 mb/d for 2010.





All world oil supply figures for August discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska and Russia are supported by preliminary August supply data.

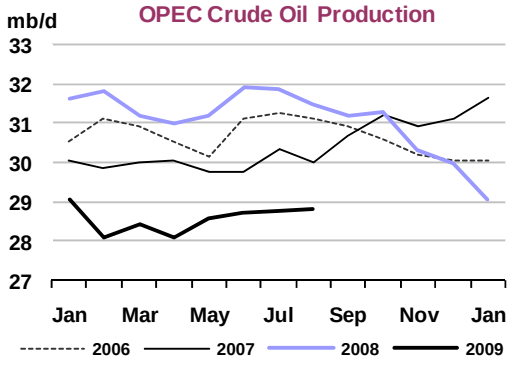
Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

OPEC Crude Oil Supply

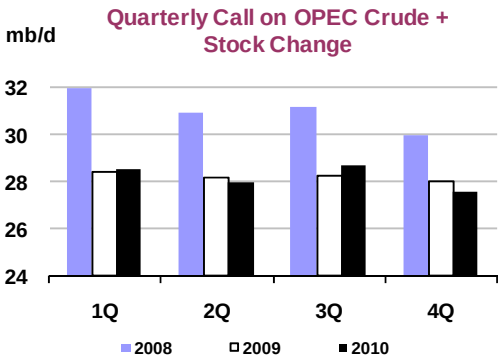
OPEC crude oil supply in August was up by a marginal 55 kb/d to 28.81 mb/d. Higher production from Nigeria, Venezuela and Angola offset lower output by Saudi Arabia, Iran and Iraq. July output was revised up by 110 kb/d to 28.75 mb/d. Production by the 11 members with output targets, which excludes Iraq, rose by 80 kb/d, to 26.25 mb/d. The OPEC-11 grouping is now producing about 1.40 mb/d over the 24.845 mb/d output target. The higher output levels in August lowered the group's compliance rate to around 66% compared with 68% in July.

Better compliance with output targets is reportedly on OPEC's agenda for the 9 September meeting in Vienna. This report went to press before the formal start of the meeting, scheduled for late evening in observance of Ramadan. Unusually, representatives from non-OPEC oil producing countries that traditionally attend OPEC's ministerial conferences have not been invited this time with the meeting falling during Ramadan.

At the time of writing, pre-meeting comments suggested member countries would opt to roll over current output targets while at the same time renew calls for greater target compliance among overproducers. OPEC-11 members in August have collectively cut 2.79 mb/d, about two-thirds of the 4.2 mb/d in cuts agreed since last September. OPEC's effective spare capacity is estimated at 5.47 mb/d versus 5.48 mb/d in July, with Saudi Arabia accounting for 62% of the surplus at 3.4 mb/d.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



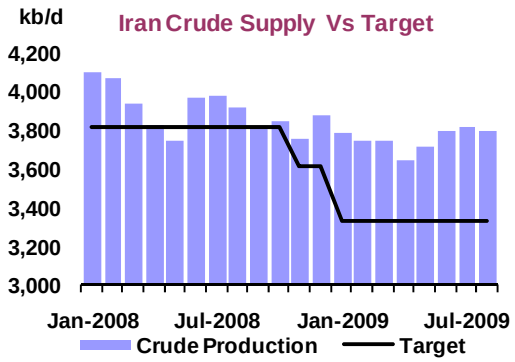
Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

Despite concerns over stubbornly high global oil stocks, a consensus appears to have emerged among OPEC members to maintain existing output targets. OECD crude oil stocks reached 61.8 days of forward cover in July, or about 10 days higher than the five-year average of 52 days OPEC has said it would prefer stock level. However, any further cut in output would largely be borne by producers already adhering to output levels, and it is unclear whether these members would be willing to shoulder the burden while others, such as Iran and Angola flout target levels.

Iran, Angola and Venezuela look to have turned a blind eye to their output targets, which collectively account for just over 65% of overproduction since January. Since the start of the year, when OPEC implemented its last target cut, Iranian production is down on average by 138 kb/d compared with its 562 kb/d target reduction.

However, against a backdrop of the fragile economy and mindful of any discord among members over output levels could undermine its credibility, OPEC was expected to brush aside compliance issues at the September meeting. OPEC will meet again to review the market on 22 December in the Angolan capital of Luanda.

Saudi Arabia lowered output in August to around 8.2 mb/d, from a revised 8.24 mb/d in July. Tanker data show exports have been holding flat over the past few months, with above quota output earmarked for internal use at power plants during the peak cooling season.



Iraq maintained production last month at 2.56 mb/d, just shy of July's post-war high, with higher exports from the south offset by lower shipments from the country's northern region. Output (measured as exports plus domestic use) was 30 kb/d below an upward revised 2.59 mb/d for July. The 70 kb/d revision for July reflects higher estimates for domestic refinery use and crude burned at power plants, rather than a change in export volumes. Domestic crude use is estimated at 550 kb/d, including around 80 kb/d for power generation, for both July and August.

Total Iraqi oil exports in August were down 25 kb/d, to 2.01 mb/d, from the previous month. Exports of Basrah crude from the south were up 18 kb/d, to 1.51 mb/d. Exports of Kirkuk crude fell 43 kb/d, to 492 kb/d in August. An additional 10 kb/d was exported to Jordan.

OPEC Crude Production

(million barrels per day)

	Jun 2009 Supply	Jul 2009 Supply	Aug 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Aug 2009 Supply	OPEC Target Cuts	Percent Compliance with Volume Cuts
Algeria	1.25	1.22	1.22	1.40	0.18	0.200	75%
Angola	1.72	1.76	1.78	2.10	0.31	0.244	0%
Ecuador	0.48	0.47	0.47	0.50	0.04	0.067	49%
Iran	3.80	3.82	3.80	4.00	0.20	0.562	2%
Kuwait[2]	2.24	2.24	2.24	2.65	0.41	0.374	99%
Libya	1.54	1.54	1.55	1.77	0.22	0.252	60%
Nigeria[3]	1.72	1.68	1.74	2.60	0.86	0.319	75%
Qatar	0.78	0.77	0.77	0.90	0.13	0.122	74%
Saudi Arabia[2]	8.35	8.24	8.20	11.60	3.40	1.318	95%
UAE	2.25	2.27	2.27	2.85	0.58	0.379	100%
Venezuela[4]	2.12	2.16	2.21	2.40	0.19	0.364	44%
OPEC-11	**26.25**	**26.16**	**26.25**	**32.77**	**6.52**	**4.201**	**66%**
Iraq	2.50	2.59	2.56	2.60	0.04		
Total OPEC	**28.75**	**28.75**	**28.81**	**35.37**	**6.56**		
(excluding Iraq, Nigeria, Venezuela					*5.47)*		

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 450 kb/d in August.

Nigerian supply rose by 60 kb/d, to 1.74 mb/d on higher production from the offshore EA field and resumption of production of around 100 kb/d from the Escravos facility. Negotiations between government officials and rebel groups over details of the amnesty programme faced another setback after the main militant group, the Movement for the Emancipation of the Niger Delta (MEND), suspended negotiations with government officials. MEND announced it was ending its 60-day ceasefire agreement effective 15 September and would resume its attacks on the oil facilities. The majority of MEND rebels rejected the government's amnesty proposal to turn in weapons in exchange for cash and

an unconditional pardon, with only several hundred rebels participating in the programme. The amnesty offer officially ends on 4 October. A similar government amnesty program offering cash in exchange for weapons under then President Obasanjo in 2004 proved ineffective in reducing militant activity.

Angolan production rose 20 kb/d, to 1.78 mb/d due to completion of repairs at several facilities last month. However, technical issues at the recently launched Gimboa field disrupted operations in August. Since January, Angolan output is down on average by 50 kb/d versus the implied 244 kb/d cut called for under OPEC guidelines.

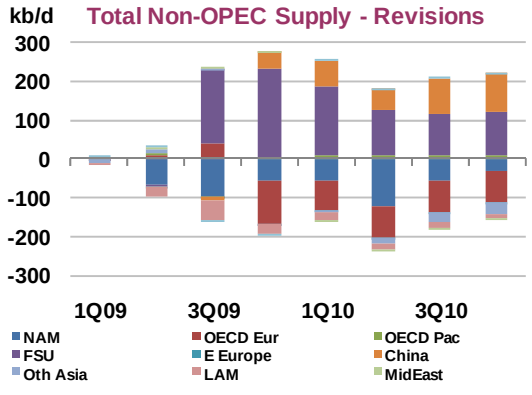
Venezuelan output rose by 50 kb/d in August, to 2.21 mb/d, after lifting output restrictions on its extra-heavy oil projects in the Orinoco belt. Upgraded extra-heavy Orinoco oil averaged 450 kb/d in August, and reportedly reached 500 kb/d by end-month as upgrading facilities came back online. As part of its OPEC commitments, Venezuelan output is down by about 250 kb/d since last September's production levels compared with its implied target cut of around 379 kb/d.

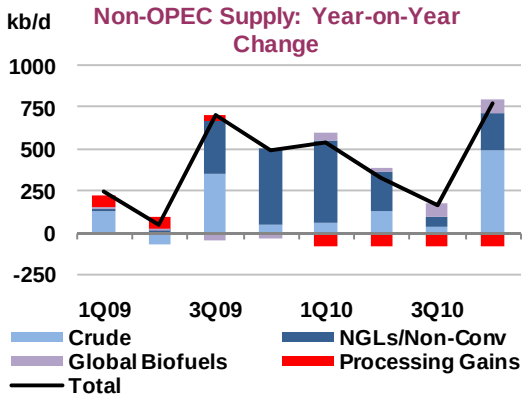
Venezuela's four upgrading plants, which turn the extra-heavy crude and bitumen of between 8-9 API gravity into lighter crude, have a nameplate capacity of around 600 kb/d. However, market reports said a 40-day shut-in was planned at the 190 kb/d PDVSA-Chevron Petropiar upgrader from 15 September due to maintenance work.

Meanwhile, the much-delayed bidding round for the country's Carabobo project in the Orinoco has been postponed indefinitely. The tender, the first in more than ten years, has drawn widespread interest but potential bidders have indicated the contract terms being considered are too vague and the tax and royalty regime unattractive given the staggering costs the partner companies would have to bear. There are seven blocks on offer, which could potentially produce 800 kb/d of upgraded oil, but each of the integrated upstream and upgrading projects could cost anywhere from $10-20 billion. PDVSA officials are reportedly reviewing contract terms.

Non-OPEC Overview

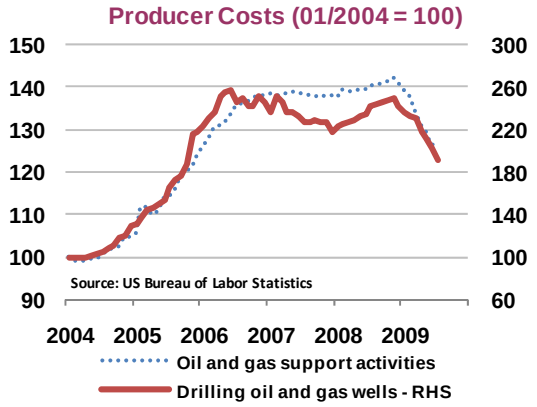
In August, total non-OPEC oil supply dipped by 450 kb/d to 50.7 mb/d from July, but was 770 kb/d higher year-on-year. Compared with last month's report, 2009 and 2010 production forecasts are left virtually unchanged, with output expected to grow from this year's estimated 51.0 mb/d to 51.5 mb/d in 2010. However, the unchanged headline totals mask the fact that revisions to individual regions and countries were in some cases quite substantial. For both years, upward revisions to Russia, China and the US in particular offset downward adjustments to Canada, OECD Europe and Brazil.

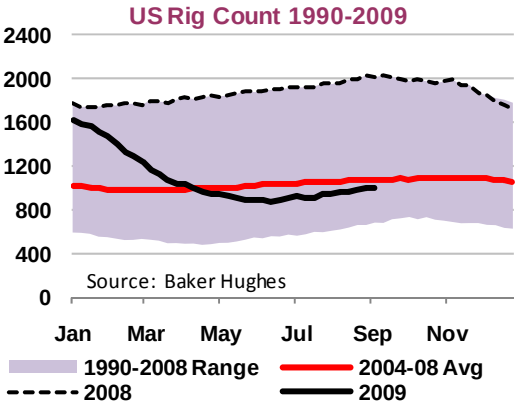




While the first Atlantic tropical storms of the season (and one hurricane – Bill) appeared, none had any impact on upstream operations offshore Canada's Nova Scotia and Newfoundland, let alone the US Gulf of Mexico. In the latter case, the absence of any storm-related shut-ins led to proportional upward

revisions to the forecast, as we usually assume a degree of reduced production on the basis of five-year average volumes shut in (prior to this month, -600 kb/d for September).





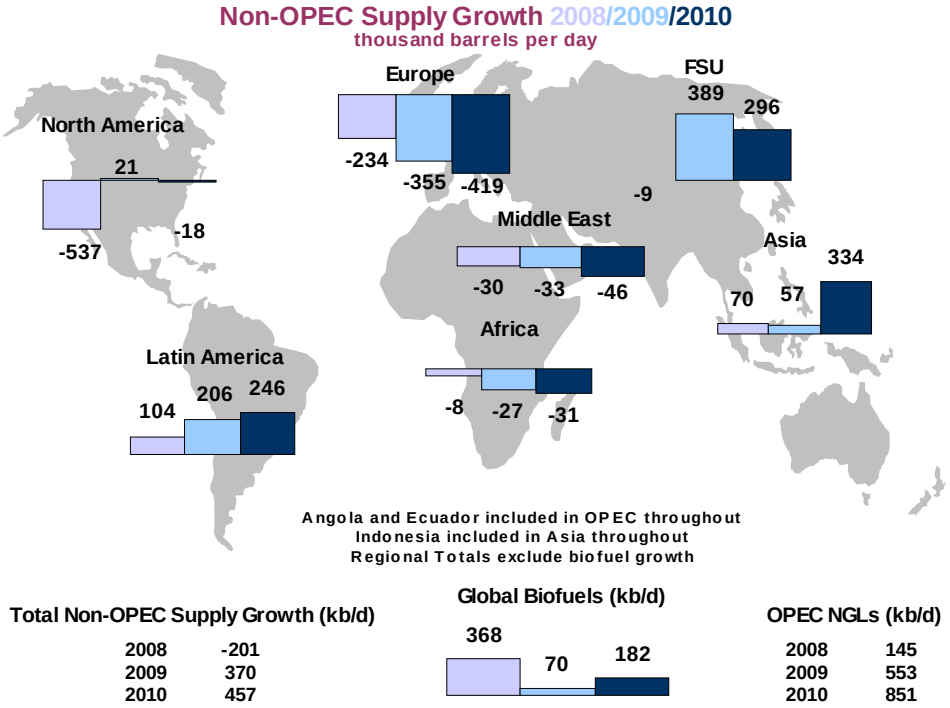
Non-OPEC production is holding up better than projected earlier in the year. A combination of a return to higher prices, optimism about global economic recovery and indications that upstream development costs are falling have contributed to stronger-than-expected growth in oil production (as has a series of earlier-than-anticipated field start-ups). For instance, the brighter outlook and substantially lower natural gas prices appear to be prompting a rethink about new Canadian oil sands projects. Only six months ago, we reported that the vast majority of upstream projects put on hold due to the collapse in the global economy, oil demand and prices, were in Canada (see the 2009 Edition of the *Medium-Term Oil Market Report [MTOMR]*).

Non-OPEC Supply

(million barrels per day)

	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
North America	14.2	14.0	13.6	13.8	13.9	14.2	13.9	13.9	14.0	14.0	14.3	13.9	13.8	14.1	14.0
Europe	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.1	4.2	4.4	4.2	3.9	3.8	4.1	4.0
Pacific	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7
Total OECD	**19.7**	**19.5**	**18.8**	**19.3**	**19.3**	**19.7**	**19.0**	**18.7**	**18.9**	**19.1**	**19.2**	**18.6**	**18.4**	**19.0**	**18.8**
Former USSR	12.8	12.9	12.7	12.7	12.8	12.8	13.1	13.3	13.4	13.1	13.4	13.5	13.3	13.6	13.4
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.9	4.0	3.8	4.0	4.0	4.0	4.1	4.0
Other Asia	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.7
Latin America	4.1	4.1	4.2	4.2	4.1	4.3	4.4	4.4	4.4	4.4	4.6	4.6	4.7	4.8	4.7
Middle East	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	**28.7**	**28.7**	**28.6**	**28.7**	**28.7**	**28.8**	**29.2**	**29.4**	**29.6**	**29.3**	**29.9**	**30.0**	**29.9**	**30.3**	**30.0**
Processing Gains	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total Non-OPEC	**51.0**	**50.8**	**50.1**	**50.7**	**50.6**	**51.2**	**50.8**	**50.8**	**51.2**	**51.0**	**51.8**	**51.2**	**50.9**	**52.0**	**51.5**
Annual Chg (mb/d)	-0.2	-0.1	-0.3	-0.2	-0.2	0.2	0.0	0.7	0.5	0.4	0.5	0.3	0.2	0.8	0.5
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.1	0.0	0.1	-0.1	0.0	0.1	0.0

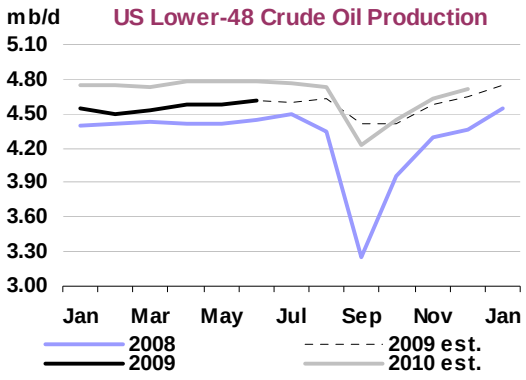
Now Imperial has announced it will after all go ahead with a 30 kb/d expansion of its Cold Lake complex, while PetroChina has shown an interest in buying a large stake of the Athabasca Oil Sands. More generally speaking, Petro-Canada's merger with Suncor appears to be an attempt to drive down costs and increase strategic heft in an otherwise uncertain market. Meanwhile, in the US, rig counts appear to have bottomed out, after falling sharply earlier in the year – though it is becoming increasingly evident that the larger part of the dip was due to fewer rigs drilling for gas.

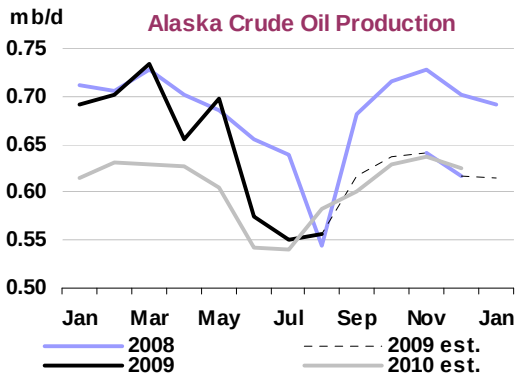


OECD

North America

US – Alaska – August actual, others estimated: US production was nudged up slightly for both 2009 and 2010, as the first storms of the season failed to have an impact on Gulf of Mexico oil production. The absence of any damage by early September prompted the reduction of assumed monthly hurricane adjustment volumes, based upon the five-year average amount shut-in. This caused an upward revision for September of 200 kb/d (and +75 kb/d for August). NGL and fuel ethanol production were also slightly higher than expected, while other crude-producing regions disappointed. In Alaska, seasonal Prudhoe Bay maintenance was still ongoing in August, causing output to be lower than expected, while in the Gulf of Mexico, the Eugene Island crude pipeline will likely remain closed until end-September following a leak, shutting-in around 20 kb/d. Total US oil production is now forecast to rise 380 kb/d to 7.9 mb/d in 2009 and another 200 kb/d to 8.1 mb/d in 2010 – its highest level since 1999, largely based on growth from the Gulf of Mexico.

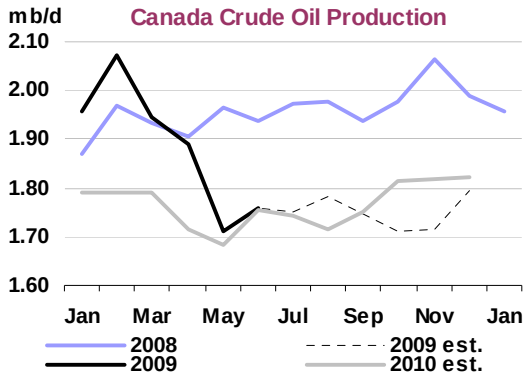


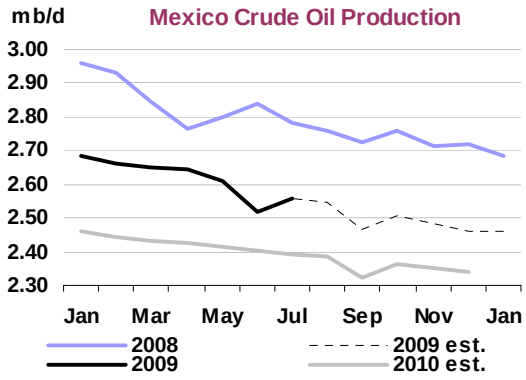


Canada – Newfoundland – July actual, others June actual: Canadian production was revised down quite strongly for both 2009 and 2010. With the exception of syncrude from mining operations, June and July production has disappointed in most regions, leading to the downward adjustments. Partly, this is related to prolonged maintenance. The White Rose field offshore Newfoundland for example, saw a

work-related reduction in output until mid-August, as new wells were attached and its Floating Production, Storage and Offloading (FPSO) vessel was overhauled. Post-maintenance volumes are also likely to be lower, according to operator Husky.

On the other hand, the start-up date for the neighbouring North Amethyst/South White Rose field – also operated by Husky – has been brought forward to 2Q10, earlier than we were forecasting. Also close by, the Hibernia AA satellite is now expected to start production in mid-2010. These two facilities should eventually add 150 kb/d and 25 kb/d respectively. Tropical storms and Hurricane Bill meanwhile, while grazing Nova Scotia and Newfoundland, caused no loss in output. The Sable offshore gas platform, which also has some condensate production, was evacuated, but this came at a time when production was in any case shut-in due to seasonal maintenance. Total Canadian oil production is nonetheless forecast to dip by 75 kb/d to 3.15 mb/d in 2009, as decline in mature, conventional basins is only partly offset by production from oil sands. In 2010, production should rise marginally to 3.17 mb/d.

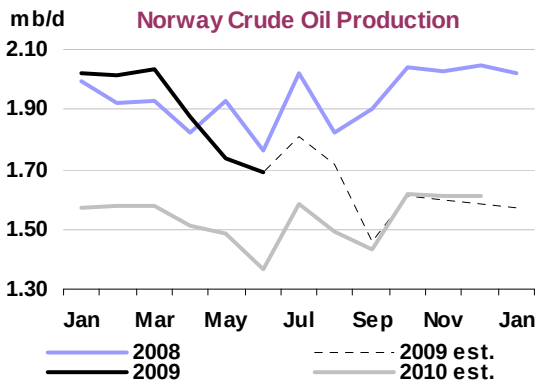


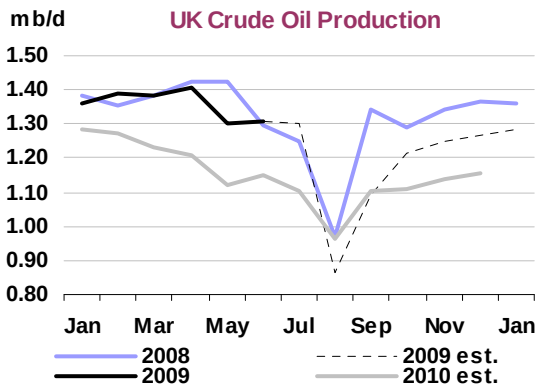


Mexico – July actual: Mexican oil production rose by 50 kb/d in July, as key fields Cantarell and Ku-Maloob-Zaap (KMZ) began to return from maintenance. But the downward slide seen in recent months is forecast to continue. State oil company Pemex announced that it had cut its 2009 *crude* output target from 2.75 mb/d to 2.65 mb/d. However, as current output is already around 100 kb/d lower, this would require a rise in supply before the end of the year, which in our opinion would only be possible in the unlikely event that production at the giant Cantarell field stabilises, or output elsewhere expands significantly. Pemex also announced its goal for 2010 was 2.5 mb/d, though again, we are more pessimistic, assuming 2.57 mb/d in 2009 and 2.40 mb/d in 2010, respectively.

North Sea

Norway – June actual, July preliminary; UK – May actual, June preliminary; Denmark – July actual: June and July production volumes in **Norway** were revised up, as output proved more robust than assumed, thereby prompting an upward adjustment of 20 kb/d for the year. Some key fields however

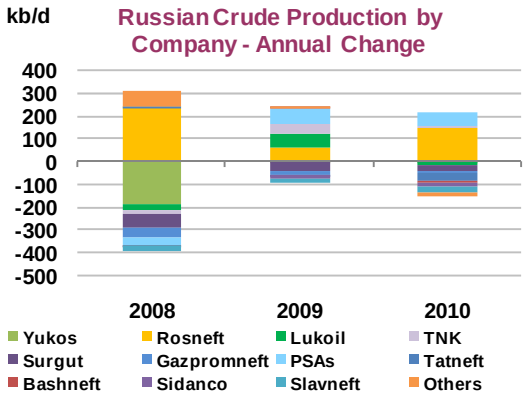


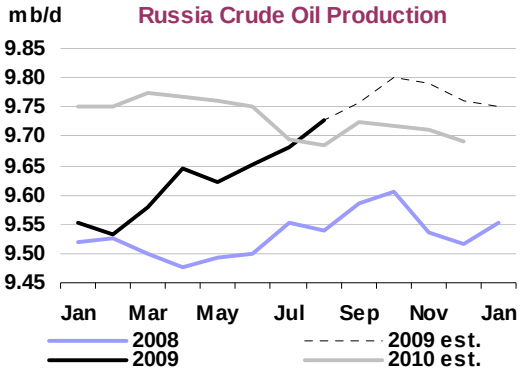


showed weaker-than-expected performance, contributing to some future downward revisions. Total 2010 production is now expected to decline by 250 kb/d to 2.03 mb/d. In the **UK**, our forecast was left unchanged. Total production is expected to dip from 2009's 1.49 mb/d to 1.37 mb/d in 2010. News was however dominated by a flurry of new field start-ups. Affleck, Ettrick, Shelley and a new well at West Don all started producing recently and should collectively contribute around 65 kb/d. In **Denmark**, cracks found in a storage tank forced the shut-in of around 15 kb/d at the Siri offshore platform in early September. Total crude production in **OECD Europe** (outside Norway and the UK) is forecast to dip from 2009's 535 kb/d to 510 kb/d in 2010.

Former Soviet Union (FSU)

Russia – July actual, August provisional: Yet again Russian production surprised on the upside, with August preliminary data coming in 65 kb/d higher than expected. This time it was largely the start-up of Rosneft's large Vankor field in East Siberia, which led to higher-than-expected output. Vankor had been scheduled to start production in August, but reports indicate initial volumes are substantially higher than we had anticipated. This has led us to revise our ramp-up profile for Vankor, thus prompting upward adjustments to total Russian supply of 55 kb/d and 170 kb/d for 2009 and 2010 respectively. On the other hand, other recent field start-ups including notably Lukoil's Yuzhno Khylchuyuskoye ('YK'), have reportedly nearly reached peak output capacity, suggesting that greenfield increments should slow in coming months – that is, assuming, as we argued in recent reports, that it is indeed new field start-ups that have contributed most to recent growth.





The huge Vankor field start-up opens up a new upstream area for development. Situated in the far north-western corner of East Siberia – the Krasnoyarsk region – it required the building of a 550 km pipeline southwards to Purpe to connect to existing crude oil infrastructure. Ultimately, Vankor should contribute as much as 500 kb/d in the middle of the next decade, thus providing the brunt of the volume to be fed into the Eastern Siberia-Pacific Ocean (ESPO) pipeline, the first 600 kb/d stage of which is due to be commissioned in December 2009.

Kazakhstan – July actual: In Kazakhstan, July data revealed the earlier-than-expected start-up of a planned expansion of Tengiz crude production, with output coming in substantially higher at 500 kb/d. This boosts total 2009 production by 50 kb/d to 1.52 mb/d. On the other hand, the first stage of the Karachaganak phase 3 expansion will likely be delayed. Rather than an early 2010 start-up, we now project additional volumes from 3Q10, later adding 100 kb/d. Following an expected incremental production of 115 kb/d in 2009, next year output is forecast to stay flat at 1.52 mb/d, as the new volumes outlined above are offset by declining production elsewhere.

FSU net exports decreased by 1.5% or 140 kb/d to 9.37 mb/d on average in July, pulled down by a 2% fall in crude oil exports. Shipments from Baltic and Black Sea ports were affected by maintenance work on the Russian pipeline network. Lower export volumes to Germany resulted in an almost 7% drop in

Druzhba pipeline deliveries. A partial offset came from a rise in BTC exports, however BTC volumes then dropped by 3.5%, according to preliminary August data, due to maintenance at the Azeri-Chirag-Guneshli (ACG) offshore field complex, its primary source for crude oil, in the second half of the month. Overall, data show August crude oil exports rising after the completion of maintenance work on Russian pipeline networks and high oil production. Loading schedules for September indicate a month-on-month decrease, with shipments closer to June and July levels. However, loading of a few tankers from the Baltic may be delayed due to a fire at a Transneft oil storage tank in West Siberia.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2007	2008	3Q2008	4Q2008	1Q2009	2Q2009	May 09	Jun 09	Jul 09	Latest month vs. Jun 09	Latest month vs. Jul 08
Crude											
Black Sea	2.18	2.05	1.97	2.04	2.30	2.23	2.28	2.06	2.06	0.00	0.00
Baltic	1.59	1.46	1.40	1.47	1.57	1.66	1.63	1.65	1.55	-0.09	0.11
Arctic/FarEast	0.32	0.30	0.29	0.37	0.46	0.45	0.45	0.46	0.44	-0.02	0.19
BTC	0.55	0.67	0.64	0.57	0.74	0.80	0.88	0.80	0.87	0.06	0.02
Crude Seaborne	**4.63**	**4.48**	**4.30**	**4.45**	**5.07**	**5.14**	**5.25**	**4.97**	**4.91**	**-0.06**	**0.33**
Druzhba Pipeline	1.13	1.08	1.03	1.09	1.14	1.12	1.12	1.14	1.06	-0.08	0.07
Other Routes	0.44	0.42	0.46	0.40	0.40	0.40	0.41	0.43	0.44	0.00	-0.01
Total Crude Exports	**6.20**	**5.98**	**5.79**	**5.94**	**6.61**	**6.66**	**6.78**	**6.55**	**6.41**	**-0.13**	**0.38**
Of Which: Transneft	4.27	3.99	3.87	3.96	4.22	4.27	4.35	4.10	3.95	-0.15	0.00
Products											
Fuel oil	1.10	1.09	1.04	1.04	0.96	1.16	1.15	1.19	1.23	0.04	0.14
Gasoil	0.95	0.94	0.79	0.92	1.10	0.95	0.92	1.04	1.08	0.04	0.18
Other Products	0.60	0.59	0.55	0.56	0.73	0.79	0.85	0.77	0.69	-0.08	0.10
Total Product	**2.65**	**2.63**	**2.38**	**2.52**	**2.78**	**2.89**	**2.91**	**3.00**	**3.00**	**0.00**	**0.42**
Total Exports	**8.85**	**8.61**	**8.17**	**8.46**	**9.39**	**9.55**	**9.69**	**9.54**	**9.41**	**-0.13**	**0.80**
Imports	0.04	0.04	0.05	0.03	0.04	0.05	0.05	0.03	0.05	0.01	0.02
Net Exports	**8.82**	**8.57**	**8.12**	**8.43**	**9.35**	**9.50**	**9.64**	**9.51**	**9.37**	**-0.14**	**0.79**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

July product exports remained virtually unchanged at 3.0 mb/d as increases in gasoil and fuel oil exports were offset by a decrease in other products. Preliminary data indicate gasoil exports, including shipments of 10 ppm diesel to Primorsk, rose further in August, while fuel oil exports decreased. Russian oil export duties rose slightly by 4.4% in August and 7.5% in September, compared with a 40% jump in July. In absolute terms, the crude oil export duty stood at $222.0/mt ($30.3/bbl) for August and at $238.6/mt ($32.6/bbl) for September exports. The duties for light and heavy products were set at $161.9/mt and $87.2/mt in August and at $173.1/mt and $93.2/mt in September.

Other Non-OPEC

Various Non-OPEC Latin America: In **Brazil**, June reported data were lower than expected, prompting a slight downward revision across the board. In **Argentina**, reported data for June and July were revised down by around 30 kb/d each, while a strike by oil workers in Santa Cruz province cut output by 40 kb/d in August. Meanwhile, in **Colombia**, the earlier-than-expected start-up of the Rubiales-Monterrey pipeline should enable a boost to production of around 40 kb/d, leading us to nudge up our output forecast. Total oil production in **Latin America** is revised down by around 25 kb/d and 15 kb/d respectively for 2009 and 2010, but is still expected to grow by 300 kb/d, from 4.37 mb/d in 2009 to 4.67 mb/d in 2010, the vast majority of which stems from incremental volumes in Brazil.

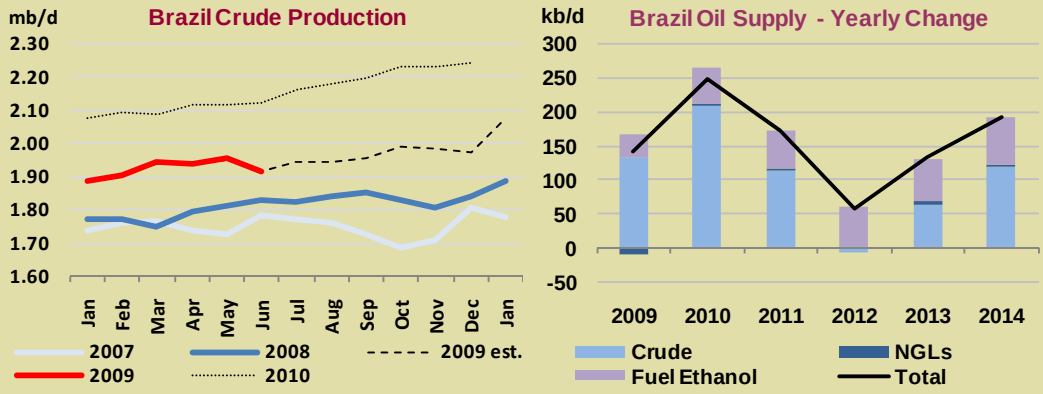
Various Non-OPEC Africa: In **Gabon**, there has been widespread unrest following the recent presidential election, but so far, there has apparently been no impact on production, which is currently assumed to be running around 235 kb/d. In the **Republic of Congo**, Murphy started output at its Azurite field, part of the offshore Mer Profonde Sud (MPS) block. Reportedly, initial volumes were around 10 kb/d, which Murphy hopes to raise to around 40 kb/d by the end of the year. Total oil production in non-OPEC **Africa** is forecast to dip from 2.50 mb/d in 2009 to 2.47 mb/d in 2010.

Brazil's Lula Outlines Suggested Pre-Salt Development Regime

On 31 August, Brazilian President Luiz Inacio 'Lula' da Silva outlined his government's long-awaited proposals for a new regulatory regime for the country's huge untapped 'pre-salt' crude oil reserves in deep water offshore. These proposals are still to pass Congress, but may ultimately determine how a supposed 50 billion barrels or more of recoverable crude will be produced in the world's newest and most significant oil frontier since the development of the Caspian. While President Lula framed the proposals in terms of a 'new independence day' for Brazil and a unique opportunity to transform the fate of Brazil's large population by boosting the state's take of profits, observers have focused on whether the suggested regime would hamper a rapid and profitable development of the reserves, as well as restrict access to one of the few attractive opportunities in which IOCs can invest.

The proposed legislation comprises four bills:

- The current system of concessions, in which investors win rights to develop a field and then pay taxes and royalties to the government, would be replaced by **production-sharing agreements** (PSAs), in which the government retains a share of the oil produced. Brazil's state-controlled Petrobras would in all cases be the field operator and would always have a minimum 30% share, but would be allowed to bid for a higher share, while winning bids would be awarded to the company that offers the largest share of oil to the government. Importantly, the PSA regime would only apply to new pre-salt discoveries or other areas the government declares of 'strategic' significance, and would not be applied retrospectively to existing contracts (i.e. non-pre-salt fields or the Tupi field in the pre-salt).
- **In order to ensure that Petrobras has sufficient financial clout** to deal with the additional demands of being the sole operator of all pre-salt projects, the Brazilian state would cede an area containing the equivalent of five billion barrels of oil to the company.
- A **new state-owned company** ('Petro-Sal') would oversee the PSAs and would wield a veto over private company decisions related to the development of reserves. Meanwhile, the National Energy Policy Council (CNPE), an existing advisory board to the President, would be given authority to oversee decisions on which acreage would be declared 'strategic' and therefore liable to PSA terms. The CNPE would also have the right to allocate some fields entirely to Petrobras, or launch a public bidding process.
- A **government social fund** would be created, in which profits from the pre-salt reserves would be deposited and transparently allocated for social development. Modelled on Norway's successful example, the fund would attempt to ensure that Brazil's population benefits from the pre-salt's development.



So far, critics of the proposed legislation have mainly focused on the monopoly operatorship role of Petrobras. The concern is that the current competitive environment would suffer, even though Petrobras is widely admired for its rapid development of challenging offshore crude supplies in recent years.

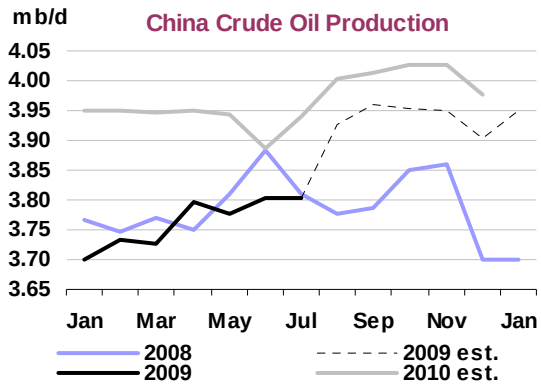
Others worry that the government's increased role could lead to political interference in operational decisions. The current energy regulator, the National Petroleum Agency (ANP), could be somewhat sidelined by the increased role of the Ministry of Mines and Energy, Petro-Sal and the CNPE. Ultimately, the state's larger role may serve mainly to ensure that the development of the pre-salt reserves is staggered (and thus more slowly), as compared with a system in which market and company considerations dominate the speed of the ramp-up (and ultimate decline) of production.

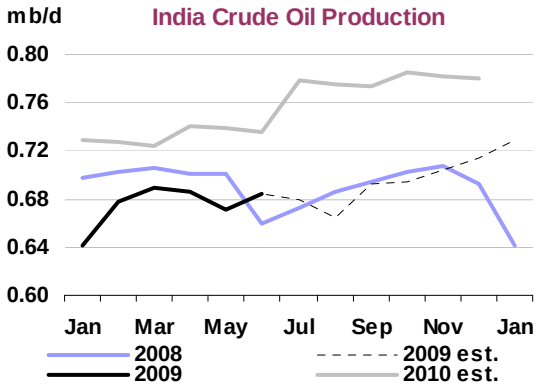
Brazil's Lula Outlines Suggested Pre-Salt Development Regime *(continued)*

Others detect political imperatives ahead of next year's presidential elections. The proposals have been put on a fast track with a so-called 'urgency provision', requiring the bill to be debated, amended and passed by Congress's two houses within 90 days, which many feel could lead to rushed and potentially flawed legislation after the government itself took two years to develop its proposals. The earliest licensing rounds may therefore be some way off if prolonged deliberations result.

With so much crude oil at stake and access to untapped reserves elsewhere often restricted, Brazil's pre-salt reserves are likely to continue to attract IOCs, even if the fiscal regime is tightened in the state's favour. Foreign operators are already active in Brazil and have contributed to recent, strong output growth. Just this summer, Chevron and Shell started output at their Frade and Parque das Conchas fields, which will ultimately contribute 80 kb/d and 100 kb/d respectively. BG and Galp share (with Petrobras) Tupi, the first pre-salt field to be developed (test production started earlier this year, but was recently interrupted due to a technical hitch). Despite potential regulatory hiccups however, the pre-salt reserves are likely to prove one of the key long-term props for otherwise potentially sluggish non-OPEC supply growth in years to come.

China – July actual: Oil production in July in China was revised down by 100 kb/d, on lower-than-estimated production at Daqing and other fields. On the other hand, production at the large offshore Jidong Nanpu project started in July, several months earlier than we had expected, boosting the baseline for 2009 and especially 2010. Initially, the field should reach 10 kb/d by the end of 2009 and then ramp-up to 50 kb/d in 2010. Peak capacity of 200 kb/d is expected to be hit in 2012, but later development stages may add additional volumes. Total Chinese production of 3.85 mb/d in 2009 is now forecast to rise by 175 kb/d to 4.02 mb/d in 2010, largely on higher offshore and growing non-conventional (coal-to-liquids) production – the latter to grow to around 55 kb/d next year.



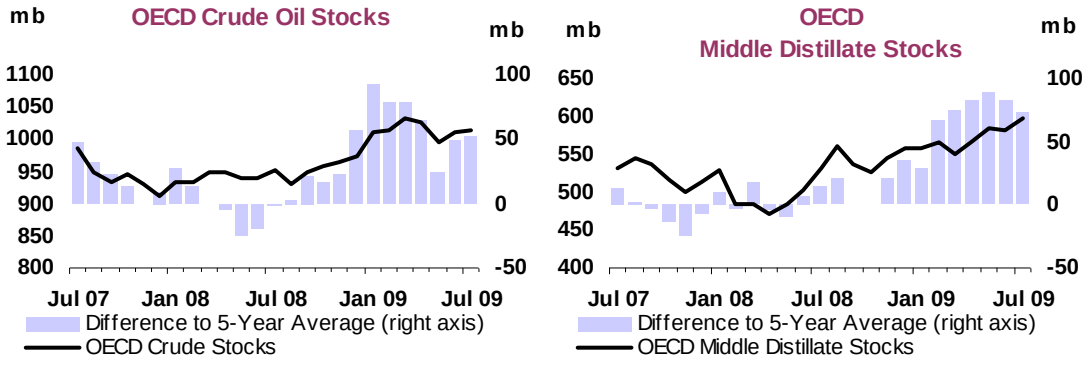


Other Asia: Total Other Asia production was left largely unchanged for 2009, but was revised down by 20 kb/d in 2010 on the basis of lower expected crude output in **Indonesia**. There, despite ExxonMobil's announcement that it had restarted production at Cepu on Java, in late August, we have cautiously assumed a slower ramp-up. The field, which started output at very low volumes at the end of 2008, has been effectively offline since March of this year, with complications over export routes. Apparently under pressure from market regulator BP Migas, production has now resumed, though volumes are expected to remain low until the end of the year and maybe well into next. In **India**, Cairn's Mangala field in Rajasthan started producing in August. Mangala itself should pump 125 kb/d at capacity, to which satellite fields Bhagyam and Aishwariya are expected to add another 30 kb/d and 20 kb/d in 2010 and 2011 respectively. Total oil production in **Other Asia** is forecast to rise by 85 kb/d from 2009's 3.66 mb/d, to 3.74 mb/d in 2010.

OECD STOCKS

Summary

- **OECD industry stocks rose by 12.8 mb in July,** to 2,778 mb. The rise was less than the five-year average monthly build of 37.6 mb. Distillate increases in all three regions, particularly North America, outweighed a decrease in both gasoline and fuel oil stocks. Crude stocks edged up by 0.8 mb, with a build in the Pacific outweighing draws in North America and Europe.
- **OECD stocks in days of forward demand stood at 61.8 days as of end-July,** unchanged from an upwardly revised end-June reading. Crude days cover stood above the five-year range for all three regions. In products days cover, European residual fuel oil, European middle distillates and Pacific gasoline fell the most, but all remained above the five-year range.
- **Preliminary data indicate total OECD industry oil inventories fell counter-seasonally by 7.7 mb in August**, driven by draws in both crude and products. Crude stocks drew by 3.7 mb, led by the US. Product stocks decreased 3.9 mb, as falls in US gasoline and 'other products' outweighed middle distillate gains in all three regions.
- **Short-term crude floating storage levels declined to 50-55 mb as of late August,** down from around 65 mb at end-July. Short-term products floating storage – mostly middle distillates – showed signs of stabilising. At 60-65 mb as of end-August, readings were down slightly from end-July.



OECD Inventory Position at End-July and Revisions to Preliminary Data

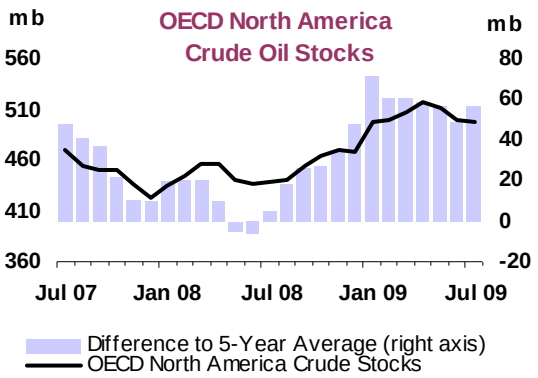
Despite increasing 12.8 mb in July, the surplus in OECD total commercial industry stocks versus the five-year average continued to be whittled away. End-July total oil stocks stood a lofty 128 mb above the five-year average, but this was down from a 153 mb surplus at end-June. OECD middle distillate stocks have narrowed their surplus versus the five-year average for two consecutive months with the end-July differential at 74 mb, down from 89 mb at end-May. Moreover, combined crude and products in short-term floating storage fell in August for the first time since the run-up in offshore inventories began late last year, while preliminary August data point to a counter-seasonal draw in OECD stocks of 7.7 mb.

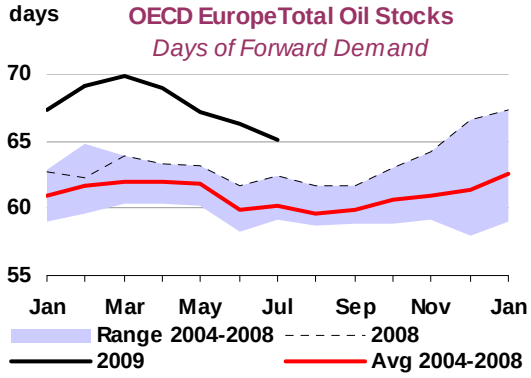
Preliminary Industry Stock Change in July 2009 and Second Quarter 2009

	July (preliminary) *(million barrels)*				July (preliminary) *(million barrels per day)*				Second Quarter 2009 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**-1.5**	**-5.0**	**7.3**	**0.8**	**-0.05**	**-0.16**	**0.23**	**0.02**	**-0.09**	**-0.14**	**0.00**	**-0.23**
Gasoline	0.2	-2.2	-1.6	-3.6	0.01	-0.07	-0.05	-0.12	-0.05	-0.03	0.00	-0.09
Distillates	7.3	2.8	4.4	14.5	0.24	0.09	0.14	0.47	0.19	0.10	0.06	0.34
Fuel Oil	-3.1	-0.4	0.4	-3.1	-0.10	-0.01	0.01	-0.10	-0.03	0.04	-0.01	0.00
Other Products	2.1	0.0	1.7	3.8	0.07	0.00	0.06	0.12	0.30	-0.05	-0.08	0.18
Total Products	**6.5**	**0.2**	**4.9**	**11.7**	**0.21**	**0.01**	**0.16**	**0.38**	**0.41**	**0.06**	**-0.04**	**0.43**
Other Oils[1]	-1.4	1.6	0.2	0.4	-0.05	0.05	0.01	0.01	0.12	-0.04	-0.04	0.04
Total Oil	**3.6**	**-3.2**	**12.4**	**12.8**	**0.12**	**-0.10**	**0.40**	**0.41**	**0.44**	**-0.12**	**-0.08**	**0.24**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

However, sizeable inventory imbalances remain, with the crude category seeing its surplus to the five-year average growing in July. An upward revision to both Canadian (+8.8 mb) and US (+2.6 mb) crude inventories in June plus July's stock change put the North American crude surplus against the five-year average at 56 mb at end-July, up from 49 mb at end-June. Japan also experienced a sizeable upward revision to its June crude





stocks of 12.6 mb. As such, OECD crude stocks for June were revised up by 23.1 mb. Some downward revisions to product stocks helped damp the overall impact of the crude revisions. Europe and the Pacific also remained relatively balanced on the crude side. Nevertheless, the overall OECD 2Q09 stock build, while still small by historical standards, was revised to 240 kb/d, up from 100 kb/d in last month's report.

Revisions versus 12 August 2009 Oil Market Report
(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	May 09	Jun 09	May 09	Jun 09	May 09	Jun 09	May 09	Jun 09
Crude Oil	**7.7**	**11.4**	**-1.4**	**-1.9**	**-0.1**	**13.5**	**6.2**	**23.1**
Gasoline	-0.4	-2.7	-0.2	0.0	0.0	-0.2	-0.5	-2.8
Distillates	-0.3	-3.8	1.9	-2.9	0.1	-0.1	1.6	-6.8
Residual Fuel Oil	0.5	1.3	4.2	4.4	0.0	0.3	4.7	6.0
Other Products	-0.2	-4.2	-4.1	-1.0	0.0	0.0	-4.3	-5.1
Total Products	**-0.4**	**-9.3**	**1.9**	**0.5**	**0.1**	**0.1**	**1.5**	**-8.7**
Other Oils[1]	1.4	4.0	0.0	-2.0	0.0	0.1	1.3	2.0
Total Oil	**8.6**	**6.1**	**0.4**	**-3.3**	**0.0**	**13.7**	**9.0**	**16.4**

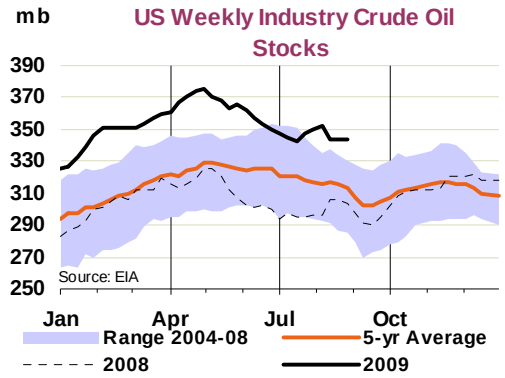
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

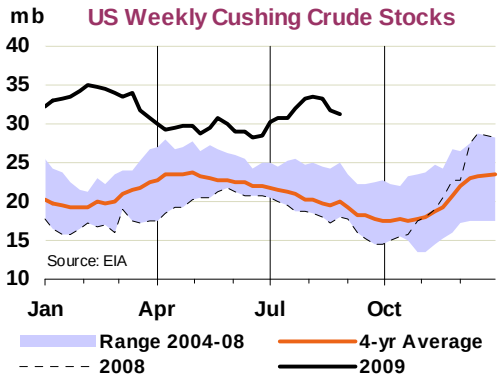
On a forward demand basis, total OECD stocks have stubbornly remained around 61.8 days as increasing inventories offset upward revisions to our three-month forward demand forecast. Regional differences have emerged, though. While days cover in North America has remained steady above the five-year range, buoyed by crude and distillate, readings in Europe and the Pacific in recent months have edged closer to the top of the five-year range, aided by relatively more balanced crude, distillate and gasoline.

Analysis of Recent OECD Industry Stock Changes

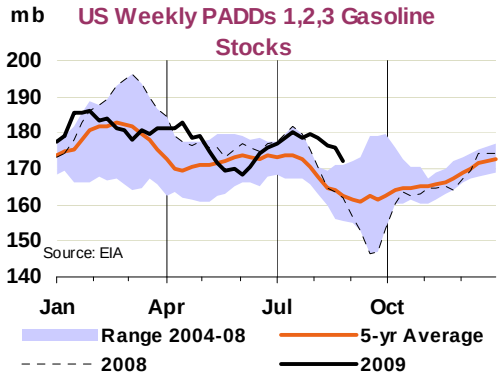
OECD North America

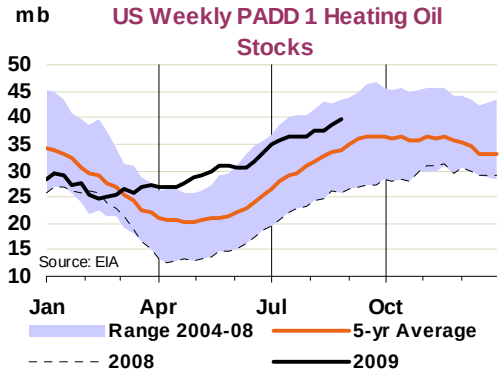
North American industry stocks rose by 3.6 mb in July, mostly due to an 8.0 mb rise in US middle distillate stocks. US crude stocks posted a counter-seasonal rise of 1.7 mb as refinery throughput fell and US government holdings of crude rose by 0.7 mb. North American crude stocks continued to show the largest surplus relative to the five-year average compared with other regions. Despite weak refinery runs, US total product stocks rose by 7.5 mb overall as the middle distillate rise more than offset falling fuel oil inventories. Gasoline stocks remained relatively unchanged. By contrast, Mexican inventories fell by 4.3 mb in July with crude and products drawing by 3.3 mb and 1.0 mb, respectively.





August preliminary data through the week ending 28 August point to a 19.2 mb drop in US stocks, which would mark the first monthly fall in total US commercial inventories since September 2008. US crude stocks drew 6.1 mb as refinery throughputs rose through the month and imports fell on average, but inventory levels remained 12.8 mb above the five-year range at the end of the month. Strategic Petroleum Reserve (SPR) filling dropped to zero. SPR holdings are expected to increase only by 1 mb during September. Crude stocks at Cushing, Oklahoma, which had begun to approach effective capacity limits in July, fell by 2.1 mb in August, partially helping to reverse some of the contango in WTI and the benchmark's discount to Brent.

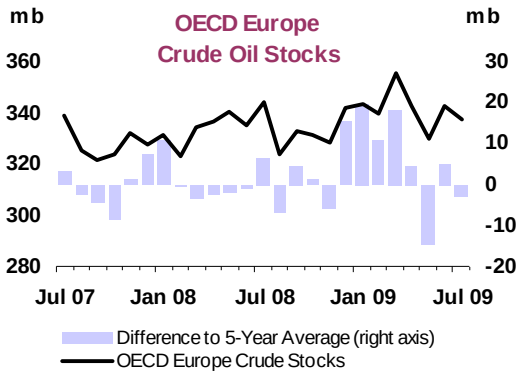


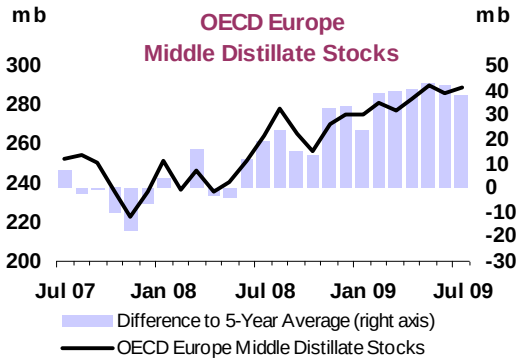


US product stocks fell by 13.1 mb in August as a decrease in gasoline stocks of 7.8 mb and a 7.0 mb decline in the combined 'unfinished oils' and 'other oils' categories outweighed a 2.1 mb rise in distillate stocks. Gasoline stocks dipped to the top of the five-year range, even though demand readings remained weak as refiners may have sought to draw down inventories of summer grade product. By contrast, distillate inventories continued to hit new five-year highs. Still, more of the overhang in distillate lies on the diesel side. Heating oil stocks on the US East Coast are trending within their five-year range as the start of the heating season approaches in October.

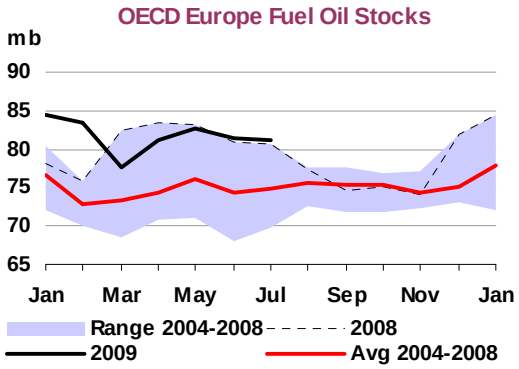
OECD Europe

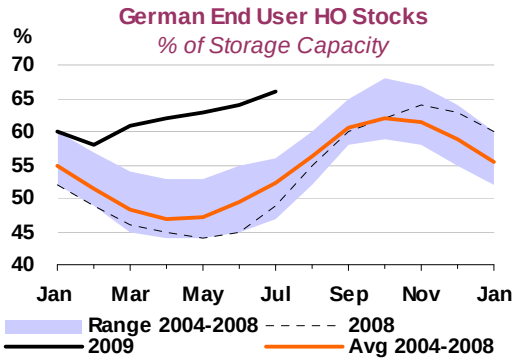
European inventories fell by 3.2 mb in July, mostly due to a 5.0 mb decrease in crude inventories. European crude stocks continued to show balance relative to the five-year average. Product inventories rose slightly by 0.2 mb, as a 2.8 mb rise in distillate outweighed a 2.2 mb fall in gasoline stocks. A slight decrease in fuel oil inventories continued to leave that category trending along the top of the five-year range. While the distillate surplus to the five-year average remains robust, in July this narrowed by 4.0 mb and European distillate demand cover fell by 0.7 days.





Still, absolute middle distillate levels continued to grow. German consumer heating oil stocks rose by two percentage points in July, to 66% of fill capacity. Although the change was less than the five-year average build for the month, heating oil stocks stood almost 14 percentage points above the five-year average. Gasoil stocks held in NW Europe independent storage also rose in August to new five-year highs. In addition, preliminary data from Euroilstock indicate EU-16 distillate inventories increased 2.6 mb in August. While middle distillate floating storage globally showed signs of stabilising in August, it remained high, with a substantial component still stored off NW Europe and in the Mediterranean.

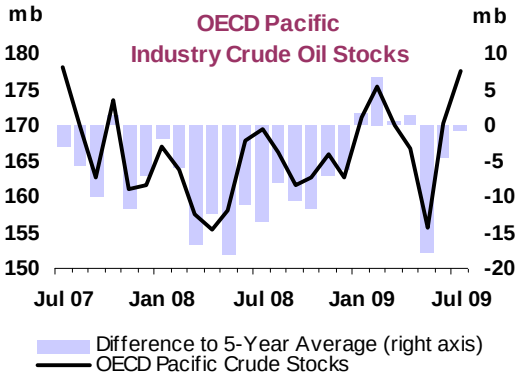


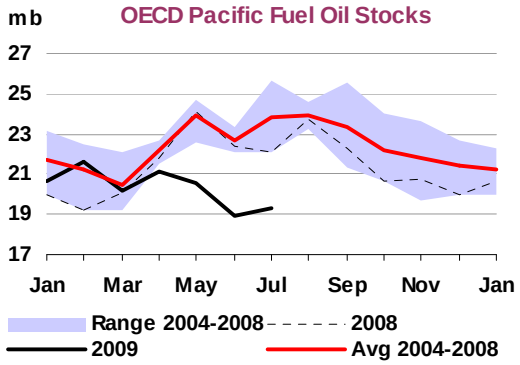


August preliminary data for other product categories show fuel oil and gasoline held in NW Europe independent storage increasing on the month, but by month-end both categories still stood at or below the five-year average. Naphtha and jet/kerosene stocks both posted monthly declines. Preliminary data from Euroilstock indicate EU-16 product stocks rose by 4.8 mb in August. Middle distillates and residual fuel oil posted the largest gains, rising 2.6 mb and 2.3 mb, respectively. Naphtha remained unchanged while gasoline stocks edged downward by 0.1 mb. Crude stocks rose by 0.7 mb even as refinery utilisation, which remained historically low, rose slightly.

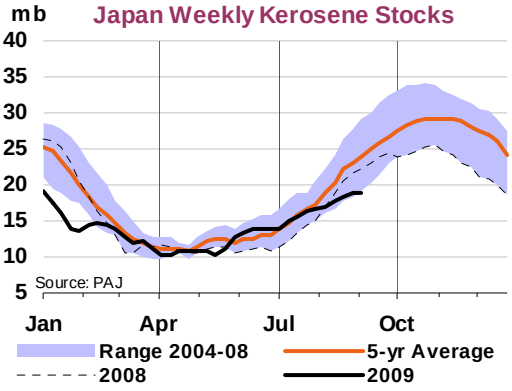
OECD Pacific

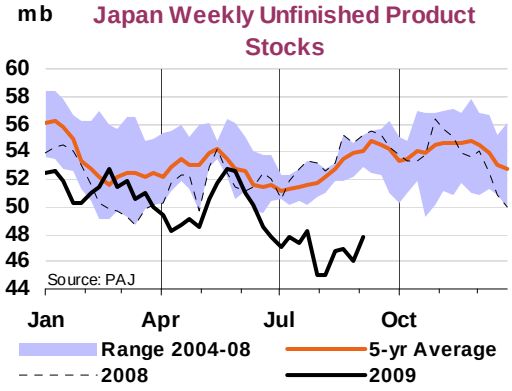
Pacific industry stocks built by 12.4 mb in July, driven by a 7.3 mb crude increase. Like Europe, the Pacific continued to show crude stock levels near the five-year average, though inventories looked healthier on a days cover basis. Product inventories rose by 4.9 mb as a 4.4 mb rise in distillates outweighed a 1.6 mb gasoline fall. Residual fuel oil stocks rose by 0.4 mb, but remained well below the five-year range. On a days cover basis, gasoline, distillates and fuel oil trended at the top or above the five-year range, while the 'other products' category remained near the bottom of the five-year range.





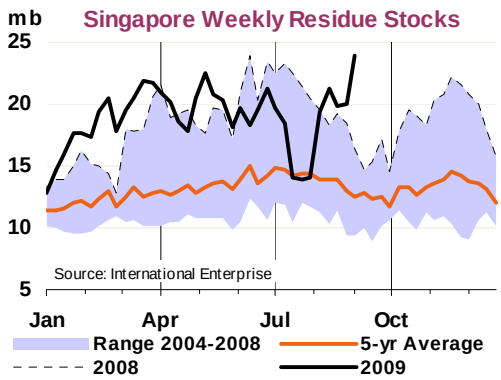
Weekly data from the Petroleum Association of Japan (PAJ) point to a commercial stock build of 6.0 mb in August, with crude rising by 1.7 mb and products increasing by 4.4 mb. Crude inventories continued to trend at the bottom of the five-year range, but weak forward refinery utilisation suggests a healthier picture on a days cover basis. Kerosene showed the largest build among products, increasing by 2.2 mb while gasoline posted the only product draw, falling by 1.1 mb. Still, kerosene inventories trended below the five-year average in August while other product categories remained more in line. In addition, unfinished product stocks – which include unfinished gasoline, middle distillates and fuel oil – continued to trend well below the five-year range, reflective of weak refinery utilisation.

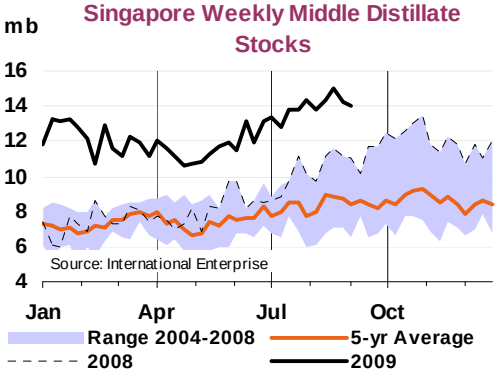




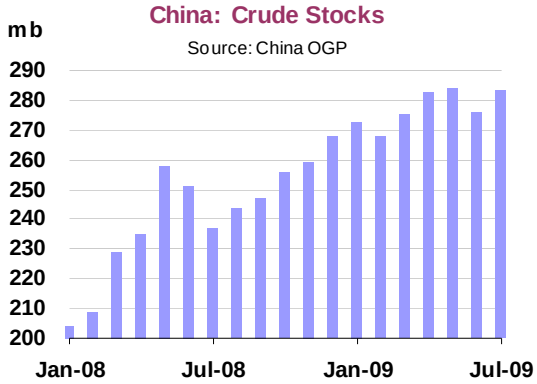
Recent Developments in Singapore and China Stocks

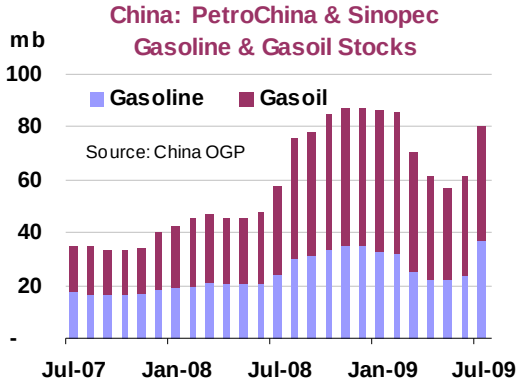
Singapore product stocks increased in August by 6.3 mb on the back of rising fuel oil stocks. After falling below the five-year average in July, Singapore fuel oil stocks rebounded sharply by 7.3 mb in August, putting them back above the five-year range. Light and middle distillate stocks, by contrast, posted draws of 0.9 mb and 0.1 mb. Yet, both categories remained at or above the five-year range.





China crude oil stocks reported by *China Oil Gas and Petrochemicals* (OGP) increased by 7.3 mb in July to 283 mb, reversing June's 7.7 mb draw. Net imports of crude rose to record high levels on the month, outweighing an increase in refinery runs. OGP also noted that the crude inventories data included 'both the commercial and state strategic reserves'. Aided by high refinery output, product stocks posted a strong gain on the month as gasoline increased 13.8 mb and gasoil rose 5.5 mb. However, the headline products build may have masked opposite movements at the wholesale level. A looming end-July decrease in gasoline and gasoil guidance prices may have incentivised some destocking from storage not captured by the OGP data.

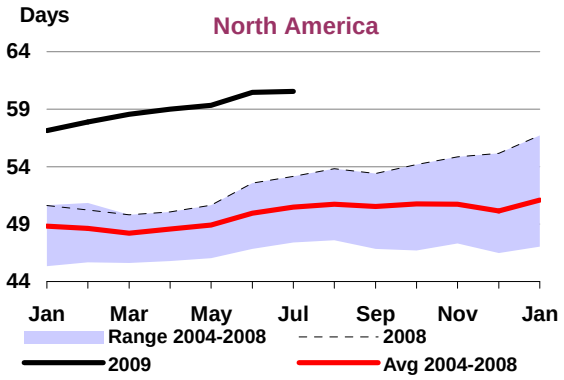


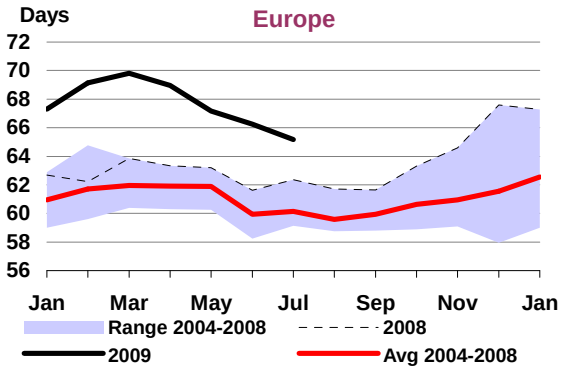


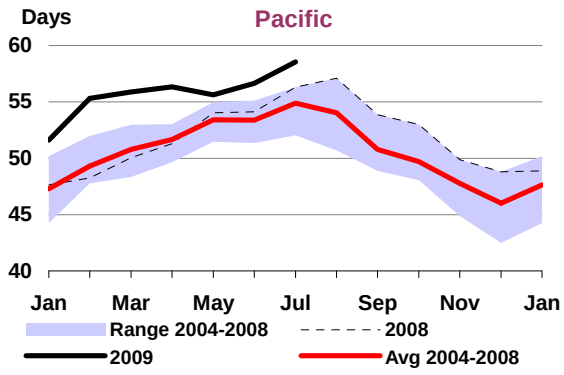
Regional OECD End-of-Month Industry Stocks

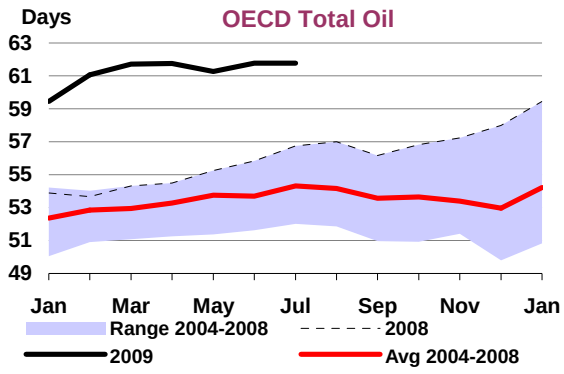
(in days of forward demand and millions barrels of total oil)

Days[1]

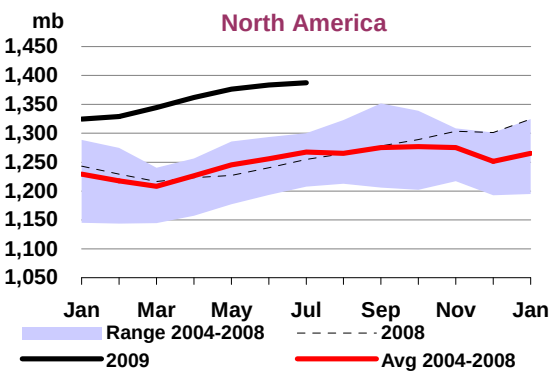


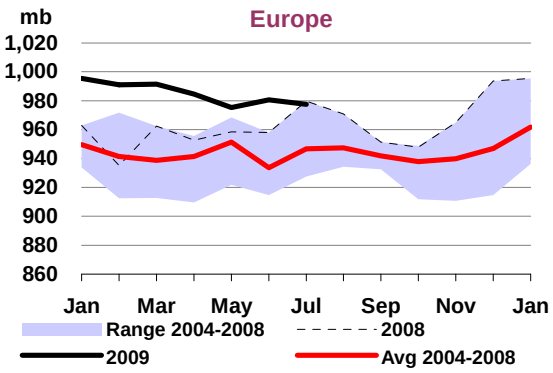


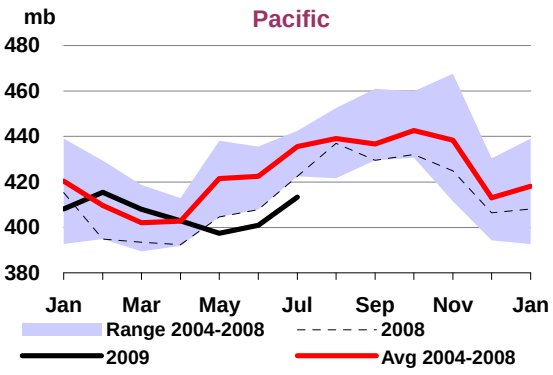


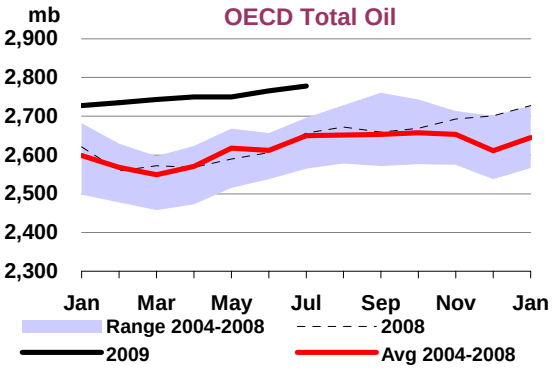


Million Barrels







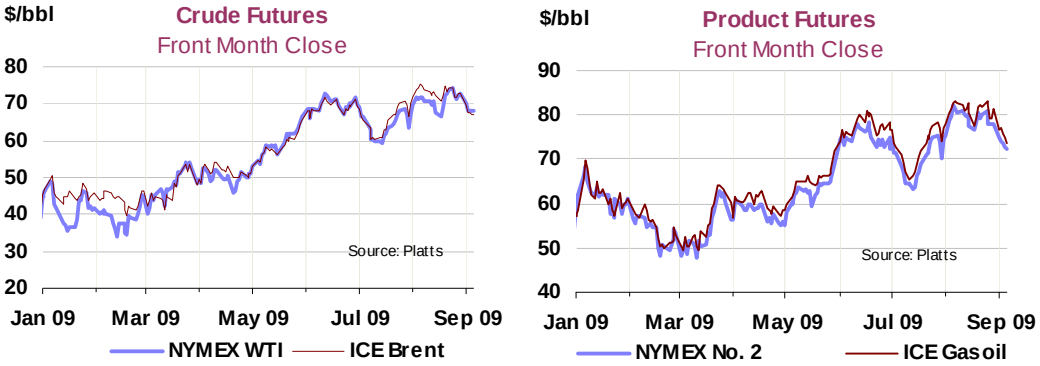


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **A relative calm descended on oil markets in early September** as the seasonal shift in demand appears to have prompted traders to focus more on fundamental factors driving oil prices. Futures prices for WTI and Brent rose on average by $7/bbl in August to around $71/bbl and $73/bbl, respectively. By early September, benchmark crude prices were trading $3-4/bbl below August levels. Arguably, prices appear to have tested limits and settled in a $68-74/bbl price range for now.
- **The latest range-bound price may prove transient depending on how the market copes with the menacing high levels of distillate stocks** hanging over all major consuming regions. However, a growing number of analysts are taking a longer-term view and see a rebound in demand whittling away at stocks this winter and into 2010. OPEC officials at writing appeared set to rollover existing output targets despite persistently high global oil stocks.
- **Refining margins in August showed a mixed picture** as both crude oil and product prices increased across the board. In the US Gulf Coast, margins suffered from weaker-than-expected summer gasoline demand. In Europe, hydroskimming margins were negative, continuing the trend seen since March 2009. Similarly, in Singapore both hydrocracking and hydroskimming margins remained negative over the same period.
- **The beleaguered tanker industry remained under pressure through August**, and only Suezmax tankers generated returns above break-even, with increasing bunker prices contributing to the gloom.



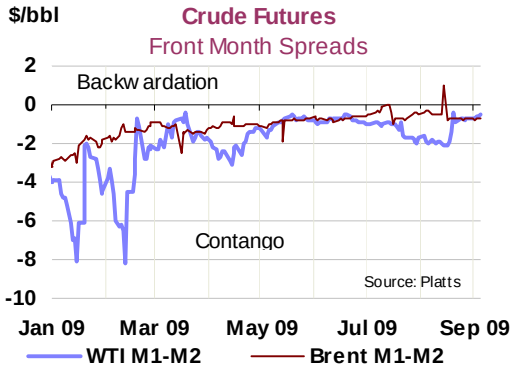
Overview

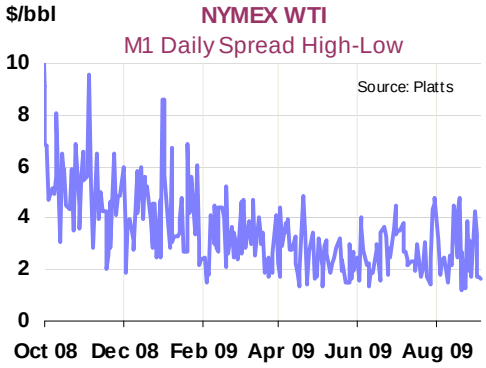
A relative calm descended on oil markets in early September as the seasonal shift in focus from gasoline to heating/gasoil demand appears to have prompted traders to take stock of fundamental factors driving oil prices. Structurally weak oil fundamentals have largely remained just a footnote in the recent oil market narrative, with crude prices closely following more headline-driven bullish equity and financial markets in recent months.

However, broader market fears that the recent strength in financial and equity markets lacks sustainability, coupled with a growing consensus that any recovery in the global economy may be slower and protracted in nature than previously anticipated, has had a trickle down effect on oil prices. Market reaction to the daily stream of both negative and positive economic data appears to be more tempered than the exuberance of the past six months. The much-hoped for decision by leaders of the G-20 to maintain economic stimulus measures was greeted with an unusual degree of equanimity.

Futures prices for WTI and North Sea Brent rose on average by $7/bbl in August, to around $71/bbl and $73/bbl, respectively. After hitting a low in February, prices jumped by more than 120% to reach a 2009 intra-day high over $75/bbl in mid-August.

Arguably, prices appear to have tested a downside of about $66/bbl and an upside of $75/bbl, settling in a $68-74/bbl price range for now. Daily price swings have also been less volatile, averaging around $2.50/bbl for crude futures over the past month, or around half the $5/bbl seen a year ago. That said, the latest range-bound price may prove transient depending on the how the market copes with the elephant in the room: high levels of distillate stocks hanging over all major consuming regions.





Middle distillates stocks have reached 20-year highs in the US. In Europe, on-land tanks are brimming with stocks well above the five-year average, at both the secondary and consumer level. A further 60-65 mb, of mostly middle distillates, was being held in floating storage at the end of August.

While exceptionally high levels of distillates stocks are pressuring markets, a growing number of analysts are taking a longer-term view and see a rebound in demand whittling away at stocks this winter and into 2010. The thinking goes that once increased demand growth gathers steam, secondary and tertiary inventories, drawn down over the past year partially due to credit woes, will be gradually replenished, temporarily augmenting growth rates.

Spot Crude Oil Prices and Differentials

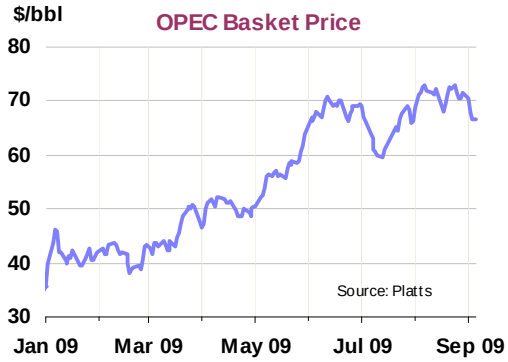
(monthly and weekly averages, $/bbl)

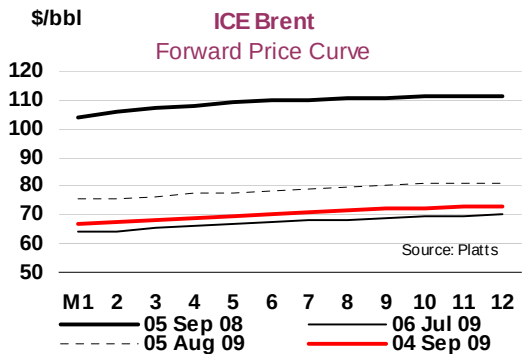
	Jun	Jul	Aug	Aug-Jul		Week Commencing:				
				Avg Change	%	03 Aug	10 Aug	17 Aug	24 Aug	31 Aug
Crudes										
Dated Brent	68.55	64.61	72.83	8.22	12.7	74.21	72.63	72.09	72.39	67.12
Brent (Asia) Mth1 adjusted	69.09	65.37	72.75	7.38	11.3	73.96	73.21	71.69	72.44	69.23
WTI (Cushing) Mth1 adjusted	69.68	64.10	71.05	6.95	10.8	71.44	69.83	70.76	72.48	68.36
Urals (Mediterranean)	68.38	64.85	72.25	7.40	11.4	73.63	72.28	71.38	71.71	66.72
Dubai Mth1 adjusted	69.41	64.82	71.34	6.52	10.1	71.89	71.90	70.43	71.44	68.29
Tapis (Dated)	72.40	68.65	76.42	7.76	11.3	77.69	76.94	75.20	76.28	71.57
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	1.13	-0.50	-1.78	-1.27		-2.76	-2.80	-1.33	0.09	1.24
Urals (Mediterranean)	-0.17	0.24	-0.58	-0.82		-0.58	-0.35	-0.71	-0.67	-0.39
Dubai Mth1 adjusted - Dated Brent	0.86	0.21	-1.49	-1.70		-2.32	-0.73	-1.66	-0.94	1.17
Tapis (Dated)	3.85	4.05	3.59	-0.46		3.48	4.31	3.11	3.89	4.45
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-0.73	-0.36	-0.33	0.03		-0.32	-0.33	-0.28	-0.38	-0.69
Forward WTI Cushing Mth1-Mth2 adj	-0.72	-1.19	-1.39	-0.19		-1.82	-1.99	-1.27	-0.61	-0.62

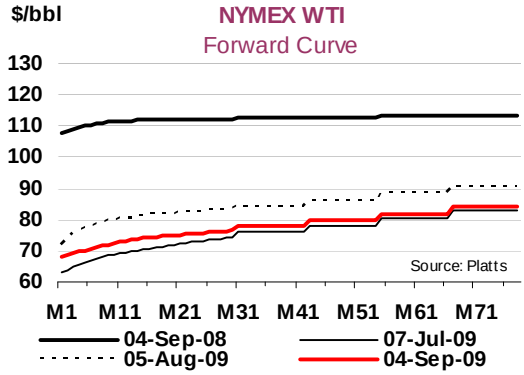
Source: Platts

Indeed, this month's report shows a significant 0.5 mb/d upward revision in oil demand estimates for this year and 2010. Stronger demand in the US and non-OECD Asia, especially China, is expected to lead the recovery, albeit growth is expected to be strongest for gasoline and other fuels such as LPG. However, there is much uncertainty regarding the true strength of Chinese demand.

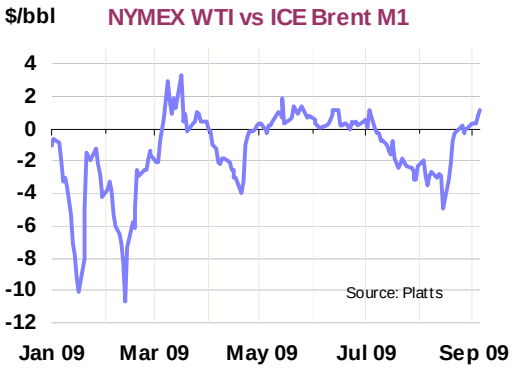
Market reports suggest OPEC ministers will maintain current output target levels despite persistently high global oil stocks. Saudi Arabia, in particular, reportedly sees a rebound in demand negating the need for any further cuts in output targets. The formal meeting is scheduled to take place in Vienna as this report goes to press on 9 September. OPEC-11 members have collectively cut in August 2.79 mb/d compared with the 4.2 mb/d in cuts agreed since last September. Prices hovering close to OPEC's stated price target of around $70-75/bbl also likely behind the calm going into the meeting. OPEC's price basket increased by around $7/bbl, to $71/bbl, in August. That is about $10/bbl above the level when ministers last met to discuss production policy.

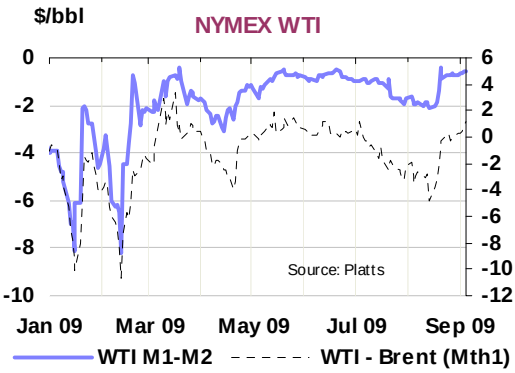






The forward price spread for benchmark crudes narrowed by around $3.50/bbl, reflecting a tighter prompt market. The 12-month strip for WTI declined from $76.38/bbl to $70.76/bbl over the course of August and Brent from $78.62/bbl to $70.31/bbl.



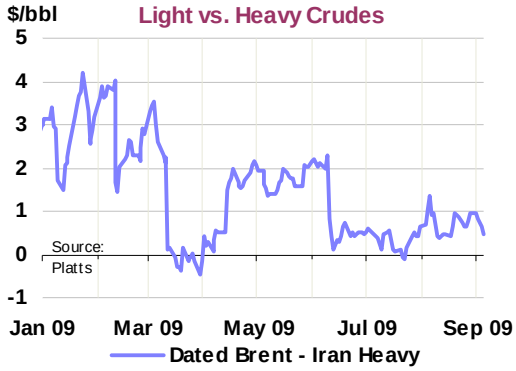


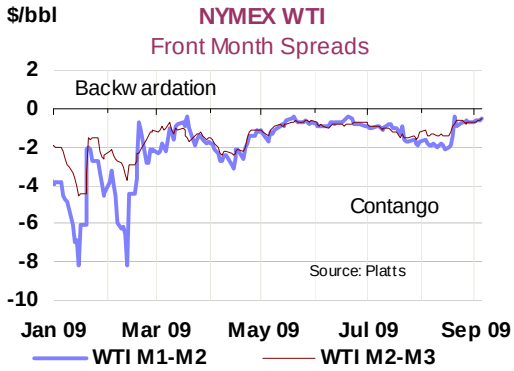
The relatively strong price premium for Brent crude over WTI ballooned to $1.92/bbl in August, however, the spread collapsed at end-month, largely due to expectations of increased North Sea supplies in September following completion of seasonal field maintenance work. WTI regained its premium by late August, but just barely, at around 50 cents/bbl, in part on lower stocks at Cushing.

Spot Crude Oil Prices

Spot crude oil markets moved higher throughout most of August before easing again in early September. Both light and heavy crudes posted month-on-month increases of around $6-8/bbl. Higher throughput rates in the US on the back of improved crack spreads early in the month helped support prices, especially for lighter domestic grades like Light Louisiana Sweet. By early September, prices eased as the end of the disappointing summer gasoline season gave way to worry about swelling stocks of distillate going into the peak heating oil demand period.

In the US, a flatter contango, with spreads between prompt and forward prices narrowing, triggered a wave of selling from crude stored at the pivotal Cushing, Oklahoma facilities. Cushing stocks declined for three weeks in a row, and were down by 2.1 mb in August.

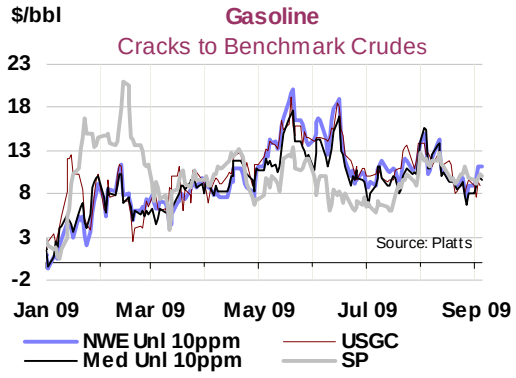


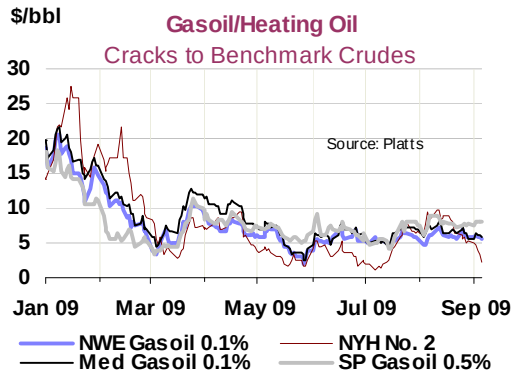


In Asia, crude oil markets found some support from Chinese buying in step with higher refinery throughput rates, with prices for lighter crudes such as Cinta and Iranian Light up by around $8/bbl while gasoil-rich crudes from Abu Dhabi were up by a lesser $5-6/bbl. In Europe spot crude prices tracked futures prices higher but refiner demand remained muted. OPEC's cutback of heavy and medium sour crudes continued to support higher premiums for Middle East crudes.

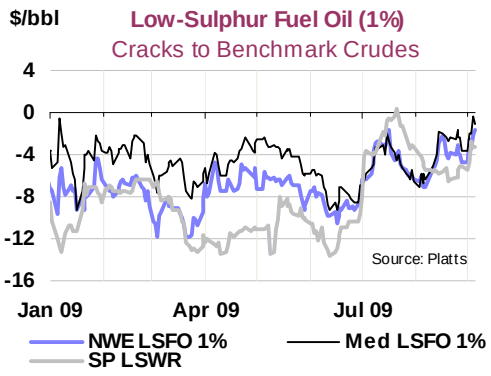
Spot Product Prices

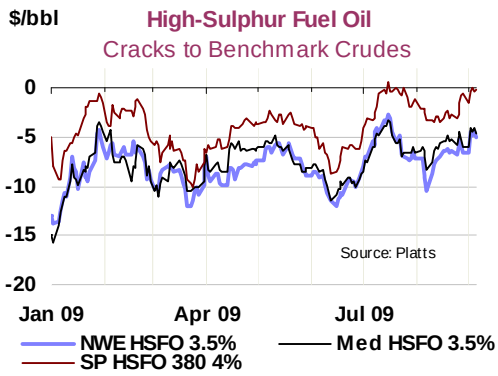
Spot product prices followed crude oil markets higher in August. In the near term, middle distillates remain the weak link across all regions, reflecting anaemic demand and plentiful stocks both onshore and offshore, especially in Europe and Asia. While analysts are betting on a recovery in demand in the longer term, distillate prices are likely to remain under pressure well into 2010. Moreover, substitution opportunities are limited in the short term due to record-weak natural gas prices.





Fuel oil prices continue to be bolstered by lower supplies of heavier, sour crudes from OPEC and reduced refinery throughput rates. Brisk demand for bunker fuel, coupled with reduced refinery output, supported crack spreads in all regions.





Spot Product Prices

(monthly and weekly averages, $/bbl)

	Jun	Jul	Aug	Aug-Jul Change	Aug-Jul %	Week Commencing: 03 Aug	10 Aug	17 Aug	24 Aug	31 Aug	Jun	Jul	Aug
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	82.29	75.38	83.65	8.27	11.0	86.55	85.23	81.53	81.30	77.98	13.74	10.77	10.83
Naphtha	62.70	61.32	70.81	9.48	15.5	72.60	71.69	69.63	69.31	67.25	-5.85	-3.28	-2.02
Jet/Kerosene	78.07	71.90	79.48	7.58	10.5	80.34	79.18	78.21	80.21	75.51	9.52	7.30	6.66
ULSD 10ppm	76.84	72.13	81.07	8.93	12.4	82.03	81.62	80.15	80.46	74.85	8.29	7.53	8.24
Gasoil 0.1%	74.22	70.20	78.86	8.66	12.3	79.65	79.27	77.90	78.63	72.92	5.67	5.59	6.04
LSFO 1%	59.76	60.02	68.12	8.10	13.5	67.47	67.89	68.64	68.49	64.65	-8.79	-4.58	-4.70
HSFO 3.5%	58.68	59.06	65.69	6.63	11.2	65.67	65.06	65.69	66.34	62.42	-9.87	-5.55	-7.14
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	80.56	74.69	82.85	8.17	10.9	86.68	84.31	80.54	79.88	76.30	12.18	9.84	10.61
Naphtha	62.55	61.22	70.89	9.67	15.8	72.76	71.77	69.67	69.37	67.29	-5.83	-3.63	-1.36
Jet Aviation fuel	76.55	71.44	78.57	7.13	10.0	79.75	78.40	77.35	78.79	74.32	8.17	6.59	6.32
ULSD 10ppm	76.65	71.97	81.25	9.29	12.9	82.12	81.72	80.40	80.77	74.90	8.27	7.12	9.00
Gasoil 0.1%	74.66	70.53	78.81	8.28	11.7	79.97	78.99	77.92	78.36	72.97	6.28	5.68	6.56
LSFO 1%	60.95	60.12	68.38	8.26	13.7	67.22	68.09	69.02	69.21	65.35	-7.43	-4.73	-3.87
HSFO 3.5%	59.00	59.13	66.33	7.20	12.2	66.76	65.98	66.13	66.47	62.46	-9.38	-5.72	-5.91
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	87.34	79.61	87.24	7.63	9.6	89.91	87.65	86.29	86.60	79.83	17.66	15.50	16.19
Unleaded	80.17	73.49	81.07	7.58	10.3	83.25	81.61	80.48	79.77	76.80	10.49	9.39	10.02
Jet/Kerosene	77.04	72.99	80.62	7.63	10.5	82.03	80.87	80.31	80.13	73.65	7.36	8.88	9.57
No. 2 (Heating Oil)	73.45	68.45	78.48	10.03	14.7	79.51	78.83	78.34	78.06	72.20	3.76	4.35	7.43
LSFO 1%+	60.47	59.36	66.65	7.29	12.3	65.65	65.64	67.98	67.47	63.37	-9.22	-4.74	-4.40
No. 6 3%+	58.89	59.00	66.26	7.25	12.3	64.94	65.34	67.59	67.26	63.36	-10.80	-5.10	-4.79
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	77.15	72.83	82.13	9.30	12.8	83.61	83.86	79.97	81.83	78.14	7.74	8.01	10.79
Naphtha	65.86	62.92	70.37	7.45	11.8	70.85	71.03	69.75	70.06	68.82	-3.55	-1.90	-0.97
Jet/Kerosene	76.45	72.39	78.67	6.29	8.7	79.63	79.24	77.53	78.75	75.61	7.04	7.57	7.33
Gasoil 0.5%	76.31	71.08	79.02	7.94	11.2	79.38	79.96	78.08	79.06	76.29	6.90	6.27	7.68
LSWR Cracked	57.97	62.27	65.92	3.65	5.9	67.22	66.26	64.58	65.86	64.39	-11.44	-2.55	-5.42
HSFO 180 CST	61.81	61.95	67.34	5.39	8.7	67.64	67.23	66.36	68.10	66.35	-7.60	-2.87	-4.00
HSFO 380 CST 4%	63.16	63.46	68.92	5.46	8.6	69.49	68.70	67.73	69.72	67.86	-6.25	-1.36	-2.42

Source: Platts * CIF + Cargoes

Refining Margins

Refining margins in August were mixed as both crude oil and product prices increased across the board on a monthly basis. In the USGC, margins suffered from weaker-than-expected summer demand. In Europe, hydroskimming margins remained negative, continuing the trend seen since March 2009. Similarly, in Singapore both hydrocracking and hydroskimming margins remain negative over the same period.

In Europe, relatively stronger spot prices for Brent due to supply cutbacks as a result of planned maintenance, far outpaced the increase in product prices for both cracking and hydroskimming configurations. Brent cracking margins were $0.49/bl, the lowest level since May 2002. Stronger gasoline and gasoil/diesel crack-spreads led to improved margins for Urals at cracking refineries in August, but started deteriorating by early September. Negative margins for Urals widened for hydroskimming in Northwest Europe and in the Mediterranean.

Weak margins will keep refiners reducing crude runs and shutting down production capacity until market conditions improve, particularly for simple configurations. Petroplus is reducing crude runs to around 80% of capacity on average at its European refineries for the rest of the year, in addition to already closing its UK Teesside refinery ahead of a potential sale or conversion into an import-fed storage depot.

In Singapore, stronger gasoline and gasoil/diesel cracks allowed Dubai hydrocracking margins to improve. Product prices have found support from the temporary shutdown of Vietnam's first refinery due to a technical repair at the end of August. However, Dubai hydroskimming margins fell due to the lower gasoline and gasoil/diesel yields for this type of refinery and a weakening of high sulphur fuel oil cracks.

The price increase for Tapis offset product prices, pushing margins to below -$5.00/bbl. Tapis hydrocracking margins have remained negative since February 2009, while hydroskimming margins have not reached positive territory since January 2005 on a full cost basis.

Selected Refining Margins in Major Refining Centres

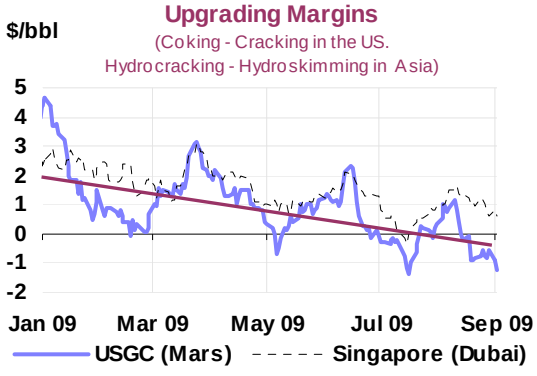
($/bbl)

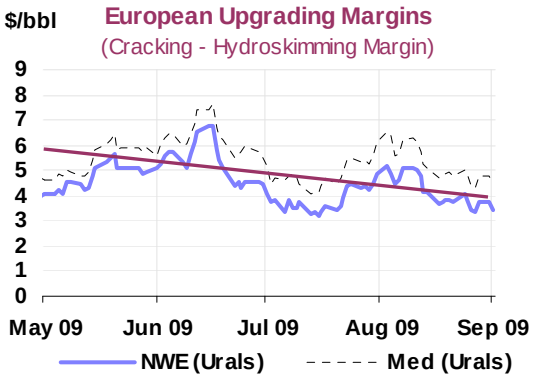
		Monthly Average				Change	Average for week ending:				
		Jun 09	Jul 09	Aug 09		Aug 09-Jul 09	04 Aug	11 Aug	18 Aug	25 Aug	01 Sep
NW Europe	Brent (Cracking)	0.98	0.65	0.49	↓	-0.16	1.14	1.00	0.74	-0.08	0.13
	Urals (Cracking)	0.43	0.56	0.81	↑	0.24	1.29	1.28	0.93	0.43	0.45
	Brent (Hydroskimming)	-2.19	-1.50	-1.75	↓	-0.25	-1.67	-1.72	-1.37	-2.02	-1.60
	Urals (Hydroskimming)	-4.89	-3.27	-3.41	↓	-0.14	-3.42	-3.60	-3.16	-3.43	-3.10
Mediterranean	Es Sider (Cracking)	-0.32	-0.10	0.36	↑	0.46	0.69	0.82	0.47	0.16	-0.25
	Urals (Cracking)	0.64	0.66	0.97	↑	0.32	1.56	1.44	1.05	0.73	0.32
	Es Sider (Hydroskimming)	-5.33	-4.09	-3.78	↑	0.30	-4.50	-4.10	-3.39	-3.46	-3.67
	Urals (Hydroskimming)	-5.62	-4.20	-4.31	↓	-0.10	-4.42	-4.52	-4.04	-4.16	-4.22
US Gulf Coast	Bonny (Cracking)	-0.37	-1.03	-1.73	↓	-0.70	-0.49	-0.86	-1.12	-2.76	-2.87
	Brent (Cracking)	-0.63	-1.08	-1.96	↓	-0.87	-0.82	-1.45	-1.02	-2.81	-3.08
	LLS (Cracking)	0.76	-0.11	0.13	↑	0.24	0.33	1.00	0.89	-1.15	-0.63
	Mars (Cracking)	1.30	1.41	1.05	↓	-0.36	1.41	0.82	1.74	0.86	0.86
	Mars (Coking)	2.30	1.10	0.97	↓	-0.13	1.79	1.73	1.58	0.08	0.00
	Maya (Coking)	0.67	-0.62	-0.31	↑	0.31	0.87	1.64	0.36	-2.30	-2.06
US West Coast	ANS (Cracking)	0.16	2.21	1.98	↓	-0.23	5.69	2.98	2.33	0.37	1.97
	Kern (Cracking)	6.84	11.47	10.86	↓	-0.61	15.19	11.55	12.35	9.20	8.99
	Oman (Cracking)	-0.63	1.25	1.68	↑	0.43	5.10	2.47	1.05	0.58	1.58
	Kern (Coking)	16.38	15.74	16.98	↑	1.24	21.29	19.28	17.59	14.47	14.92
Singapore	Dubai (Hydroskimming)	-5.08	-2.67	-2.82	↓	-0.14	-2.53	-2.69	-3.04	-3.13	-2.04
	Tapis (Hydroskimming)	-6.47	-5.20	-6.34	↓	-1.14	-5.77	-7.01	-5.94	-6.57	-5.61
	Dubai (Hydrocracking)	-3.56	-2.21	-1.69	↑	0.52	-1.63	-1.33	-1.79	-2.06	-1.28
	Tapis (Hydrocracking)	-4.70	-4.89	-5.25	↓	-0.36	-5.09	-5.87	-4.81	-5.41	-4.54
China	Cabinda (Hydroskimming)	-8.15	-3.85	-6.30	↓	-2.45	-5.91	-5.88	-5.67	-7.17	-5.98
	Daqing (Hydroskimming)	-5.11	0.56	-3.37	↓	-3.92	-1.52	-3.42	-3.12	-4.13	-3.17
	Dubai (Hydroskimming)	-5.44	-2.92	-3.06	↓	-0.15	-2.73	-2.98	-3.31	-3.39	-2.24
	Daqing (Hydrocracking)	-1.33	2.35	-0.30	↓	-2.65	1.03	-0.28	-0.03	-1.01	-0.17
	Dubai (Hydrocracking)	-3.85	-2.38	-1.87	↑	0.51	-1.75	-1.54	-1.98	-2.23	-1.40

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.
Sources: IEA, Purvin & Gertz Inc.

In the USGC, margins lacked support from the gasoline markets as gasoline premiums to crude narrowed in spite of a 7.8 mb stockdraw, which is likely to be more related to the move to winter-grade gasoline than to strong demand. Only Light Louisiana Sweet margins improved, supported by stronger diesel crack spreads and this crude's higher diesel yield.





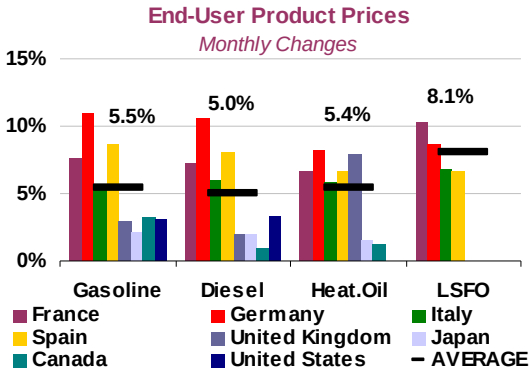
Upgrading margins in the US and Asia have been showing a decreasing trend this year. In August, US upgrading margins were positive for the first part of the month and negative for the second as gasoline and distillates differentials to crude narrowed, affecting more coking configurations while fuel oil prices strengthened, favouring cracking configurations. The poor economics of coking configurations had forced the largest US independent refiner, Valero, to shut down the coker unit at its Corpus Christi, Texas, refinery and to reduce throughputs of two other coker units at end of July. In addition, in early September, Valero announced further capacity rationalisation, this time the coker unit at the Delaware City refinery, again on economic basis.

European upgrading margins present a more balanced view. Upgrading margins reflected mainly the behaviour of gasoline prices, with falls in gasoline prices during the second and fourth weeks of August particularly affecting cracking configurations.

In the short term, the refinery margins outlook is gloomy as product stocks, particularly middle distillates, continue piling up in the Atlantic basin. The ample availability of products continues to undermine prompt prices, creating a contango market structure and incentivising stock building by traders. Limits to storage may pressure further run cuts unless winter demand and/or economic growth pick up sharply.

End-User Product Prices in August

End-user product prices followed spot markets higher in August, rising on average by 6.0% month-on-month, in US dollars, ex-tax. Transportation fuels and heating oil/gas oil prices increased by 5.3% last month. Prices for low-sulphur fuel oil rose by a stronger 8.1%. After a dip in July, retail gasoline prices for consumers in the US averaged $2.62/gallon ($0.69/litre). For the seventh month running, prices for consumers in Japan increased, to ¥126.0/litre ($1.32/litre) in August. In the UK prices were up to £1.04/litre ($1.72/litre) while elsewhere in Europe prices ranged from a low of €1.06/litre ($1.51/litre) in Spain to a high of €1.34/litre ($1.90/litre) in Germany. Year-on-year, retail prices for the surveyed products declined 35.6% from August 2008.

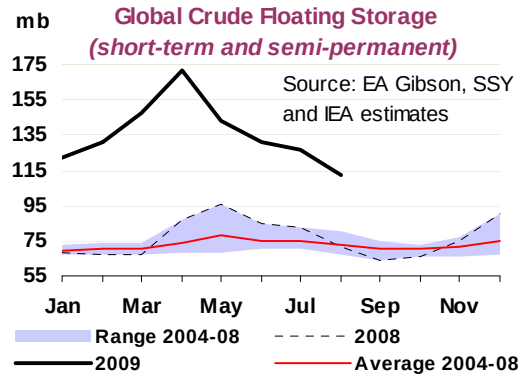


Freight

Dreadful conditions in the tanker industry persisted throughout August, and only Suezmax tankers generated returns above break-even levels, with increasing bunker prices contributing to the gloom.

Dirty rates on the benchmark route between West Africa and the US Atlantic Coast increased from around $9/mt to almost $15/mt on increased exports from West Africa to new Asian refinery centres. However, towards the end of the month the rates fell again and were back at $10/mt in early September.

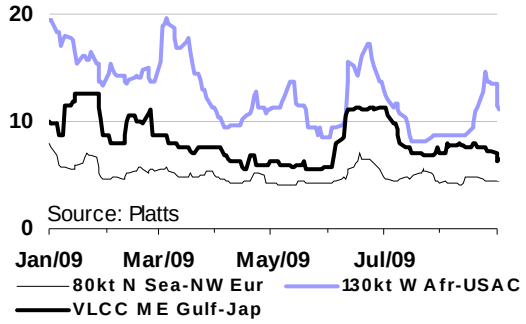
Middle East Gulf to Japan VLCC rates fell back to end-July levels of $7/mt at the end of August, after a slight mid-month uptick to $8/mt, and fell further in early September, with persistently low demand and a surplus of available vessels. Increasing bunker prices eroded



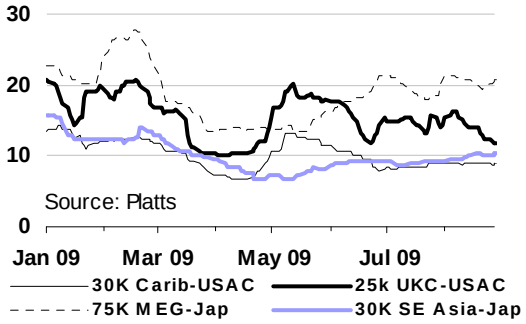
margins, and the withdrawal of some vessels rebalanced the market somewhat. North Sea Aframax was the worst performing market with freight rates between $4/mt and $5/mt throughout the month. In the short term floating storage of crude oil has come down considerably since its April peak. However it continues to tie up a significant portion of the tanker fleet, with an estimated 25 VLCCs engaged in the practice as of the end of August.

Clean rates in the Far East showed signs of life, with the benchmark South East Asia to Japan route climbing by $1/mt, to over $10/mt over the course of the month, and other routes in the region posting even higher gains. An uptick in regional trade, as Chinese refineries offered products to neighbouring states hit by refinery outages, partly explains the situation. Middle distillates from India's Jamnagar refinery, attracted by low freight rates and a European gasoil price contango, piled up as short-term floating storage in the Rotterdam area. Other long-haul routes in the Pacific region posted gains, as US West Coast gasoline imports increased. Middle East Gulf to Japan Aframax rates fell in mid-August to near $19/mt, before rebounding to above $21/mt. The Atlantic products market was slow, and rates for 25 kt clean tankers between NW Europe and the US Atlantic Coast fell from an early month peak of $16/mt down to $12/mt at end-August. Caribbean rates for 30k clean tankers were stable at just below $9/mt.

Daily Crude Oil Tanker Voyage Freight Rates (US$/tonne)



Daily Product Tanker Voyage Freight Rates (US$/tonne)



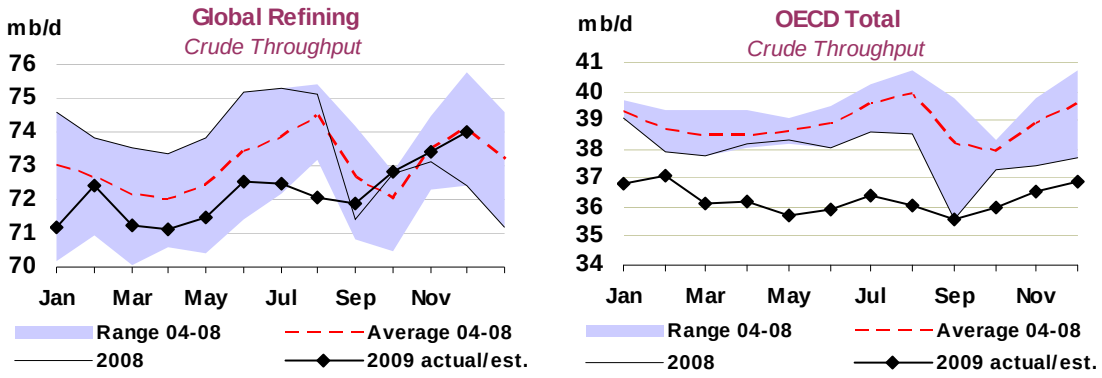
The current overcapacity in VLCCs and diminishing margins due to higher bunker prices is encouraging long-awaited scrapping or conversion of single-hull VLCCs, which still make up around 18% of the global VLCC fleet. Reportedly, two VLCCs were sold for demolition in August, and others await conversion to dry-bulk or floating oil production purposes. Single-hull tankers are on a phase-out scheme set by the International Maritime Organisation (IMO), and this factor has provided some support to oil tanker rates.

REFINING

Summary

- **Projected 3Q09 global crude runs are revised up this month to 72.1 mb/d,** an increase of 0.2 mb/d from last month's report, due to higher demand estimates and a lower US hurricane adjustment. Despite this, global refinery crude runs remain under pressure from poor refining margins.

- **Preliminary July data for OECD countries was 0.1 mb/d ahead of expectations, while June data for several non-OECD countries were, on aggregate, 0.6 mb/d stronger than expected.** Much of the upward revisions relate to actual maintenance falling short of previous announcements. Consequently, our forecasts included overly pessimistic prognoses for Lithuania, Indonesia, and Thailand among others. Conversely, Chinese throughputs were in line with estimates for the first time since February. However, announced commissioning of several new refineries sooner than we had expected leads to further increases in our crude throughput forecasts for the rest of the year.



- **Global 4Q09 crude runs are provisionally assessed at 73.4 mb/d, an annual increase of 0.6 mb/d.** This would represent the first annual growth in crude runs since 3Q08, but is predicated on a return to normal seasonal patterns. Should European refiners still face significant excess middle distillate stocks and weak gasoil/diesel margins in December, or were Japanese kerosene demand weaker than forecast, it would suggest that there is significant downside risk to these estimates. Annual growth in Chinese runs averages 1.2 mb/d for 4Q09, while the OECD looks set to register a decline of 1.0 mb/d, despite the assumed seasonal uptick in activity.

- **In June, OECD refinery yields increased for gasoline, jet fuel/kerosene and 'other products' at the expense of naphtha, gasoil/diesel and fuel oil.** Only gasoline yields stayed above the five-year range. Gasoil/diesel yields fell and approached their five-year average level, reflecting weak product cracks and brimming stocks in Europe. Yields for the rest of the products remained below their historical ranges. Gasoline yields rose as the seasonal peak in US demand approached and low stocks levels.

Global Refinery Overview

Refiners continue to suffer from the fallout of the global economic downturn, despite growing evidence that some countries may have reached a low point and that a resumption of economic growth, while not yet a reality, may become apparent in the coming months. The legacy of the consequential drop in oil demand for refiners is likely to take several years to wear off. Owners of excess refining capacity in regions where it is no longer needed must wrestle with the industrial necessity of closing uncompetitive plants or integrating them into larger-scale operations, in order to capture economies of scale.

Only Chinese refiners appear to have dodged the impact of oversupplied global product markets and the associated weak margin environment, as the government's product pricing regime continues to incentivise refiners to maximise throughputs and where possible build stocks inland. Trade data for China for the first half of 2009 indicate that net exports of gasoline and middle distillates have returned to 2007 levels, in contrast to the stock building–induced surge in imports seen during the summer of 2008, but overall net imports of products remain in line with the five-year average.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09	Nov 09	Dec 09
OECD									
North America	17.2	17.3	17.7	17.7	*17.6*	*17.3*	*17.6*	*17.7*	*17.7*
Europe	12.7	12.4	12.3	12.6	*12.2*	*12.4*	*12.3*	*12.5*	*12.7*
Pacific	6.3	6.0	6.0	6.1	*6.3*	*5.9*	*6.0*	*6.4*	*6.6*
Total OECD	36.2	35.7	35.9	*36.4*	*36.0*	*35.6*	*36.0*	*36.6*	*36.9*
NON-OECD									
FSU	5.7	5.9	6.1	*6.1*	*6.3*	*6.1*	*6.4*	*6.3*	*6.4*
Europe	0.7	0.7	0.7	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*
China	7.2	7.3	7.8	*7.8*	*7.7*	*7.9*	*7.9*	*7.9*	*7.9*
Other Asia	8.1	8.1	8.3	*7.8*	*7.8*	*7.8*	*7.7*	*7.8*	*7.9*
Latin America	5.1	5.2	5.4	*5.3*	*5.0*	*5.2*	*5.5*	*5.5*	*5.5*
Middle East	5.8	6.1	6.0	*6.0*	*6.1*	*6.3*	*6.2*	*6.2*	*6.3*
Africa	2.4	2.4	2.3	*2.3*	*2.3*	*2.3*	*2.3*	*2.3*	*2.3*
Total Non-OECD	35.0	*35.7*	36.6	*36.1*	*36.0*	*36.3*	*36.8*	*36.9*	*37.1*
Total	71.1	71.5	72.5	*72.4*	*72.0*	*71.9*	*72.8*	*73.4*	*74.0*

1 Crude runs in italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

2Q09 global estimates are revised up by 0.1 mb/d to 71.7 mb/d, on the back of stronger-than-expected June crude runs in Lithuania, Thailand, Chinese Taipei, and Indonesia. This follows last month's upward adjustments to Brazil, Indonesia, and Thailand for May crude runs. It may prove that our working assumption for economic run cuts in some non-OECD countries was overly severe, especially if demand estimates continue to be revised up in future months.

Global **3Q09** crude run projections are revised up on the back of better-than-expected July OECD crude runs, and June non-OECD data. In addition to the stronger demand estimates for 3Q09, a reduction to the hurricane-related adjustment for September also raises our 3Q09 projection. Nevertheless, the continued weakness in refining margins, notably in Europe, where Brent cracking margins reached their lowest monthly average level in August since May 2002, suggests that continued economic run cuts before the end of the year are likely. With the end of the US gasoline demand season, German consumer heating oil stocks near record levels for the time of year and Chinese crude runs up year-on-year by around 0.9 mb/d, incentives to boost activity elsewhere in the world may be few and far between.

Projections are extended through to December, with a provisional estimate that crude runs will average 74.0 mb/d during the month. This represents a month-on-month increase of 0.6 mb/d and would represent the highest level since of crude throughput since August 2008. Much of this increase relies on European and Japanese refiners re-instating the seasonal increase in crude runs, which did not occur in 4Q08, plus the now higher demand estimates becoming a reality and, not least, a continuation of Chinese refinery crude runs at 7.9 mb/d. All told, there remain significant downside risks to this forecast, most notably from the persistence of the bulging middle distillate inventories floating offshore Europe and elsewhere.

OECD Refinery Throughput

Preliminary **July** crude runs of 36.4 mb/d were marginally ahead of projections, largely due to better-than-expected European crude runs. Despite this, European crude throughput remains 1.0 mb/d below July 2008 levels, reflecting the structural decline in demand that the region has experienced, and the impact of materially weaker diesel cracks year-on-year.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

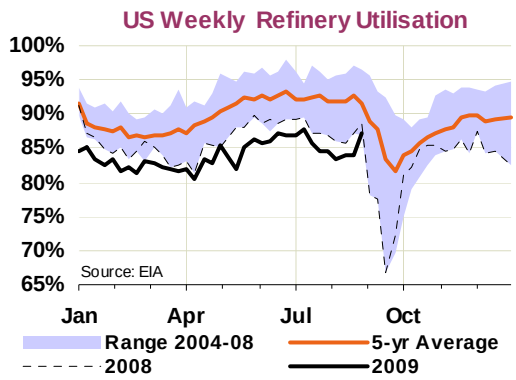
							Change from		Utilisation rate[1]	
	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Jun 09	Jul 08	Jul 09	Jul 08
OECD North America										
US[2]	14.12	14.09	14.35	14.46	14.84	14.73	-0.11	-0.50	83.67	86.60
Canada	1.83	1.80	1.50	1.62	1.67	1.72	0.04	-0.08	85.10	89.26
Mexico	1.26	1.22	1.30	1.23	1.14	1.21	0.06	-0.01	78.47	71.96
Total	17.20	17.12	17.16	17.32	17.66	17.66	0.00	-0.60	83.43	86.31
OECD Europe										
France	1.64	1.45	1.51	1.66	1.57	1.56	-0.01	-0.16	79.52	87.59
Germany	2.13	2.15	2.21	2.06	2.13	2.11	-0.02	-0.14	87.30	93.25
Italy	1.52	1.61	1.68	1.58	1.59	1.59	0.00	-0.14	68.07	73.92
Netherlands	1.03	0.96	1.02	1.01	0.84	0.90	0.06	-0.15	74.10	86.11
Spain	1.21	1.03	1.17	1.01	0.97	1.06	0.08	-0.06	83.08	87.95
UK	1.54	1.49	1.36	1.35	1.45	1.50	0.05	-0.09	79.44	84.26
Other OECD Europe	3.66	3.55	3.75	3.77	3.73	3.87	0.14	-0.26	82.39	87.88
Total	12.73	12.24	12.68	12.43	12.28	12.58	0.30	-0.99	79.73	86.04
OECD Pacific										
Japan	4.03	3.68	3.31	3.20	2.99	3.21	0.22	-0.53	68.68	80.06
Korea	2.43	2.42	2.33	2.08	2.28	2.26	-0.03	-0.09	82.54	85.88
Other OECD Pacific	0.70	0.63	0.69	0.70	0.69	0.68	-0.01	0.01	84.05	82.38
Total	7.15	6.74	6.33	5.98	5.97	6.15	0.18	-0.61	74.80	82.22
OECD Total	37.09	36.10	36.17	35.73	35.91	36.39	0.48	-2.20	80.57	85.47

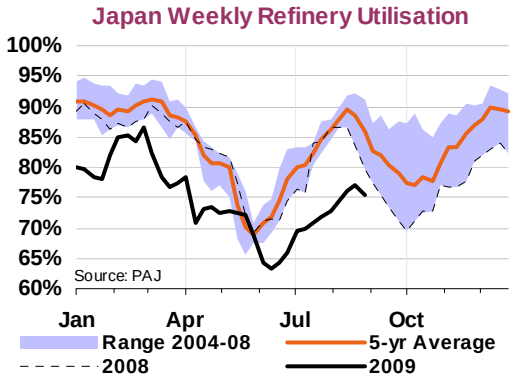
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

2 US50

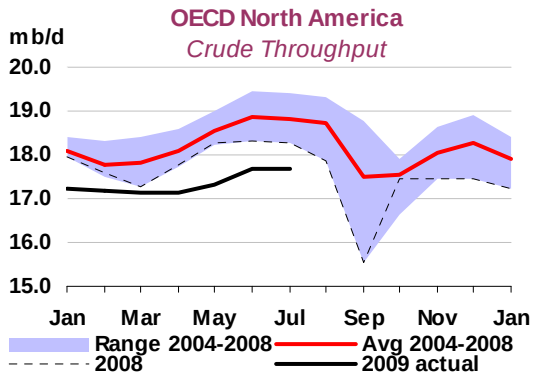
Prospects for a sustained recovery in OECD crude throughputs look limited in the short term as refiners continue to cut runs. A notable addition to the list of refiners pursuing further ways curtail activity is Total, which has announced plans to shut its 140 kb/d Dunkirk refinery, ostensibly on economic grounds, with restart reportedly dependent on favourable demand conditions. Elsewhere, Japanese refiners continue to limit crude throughputs, with Nippon Oil, the largest Japanese refiner, limiting utilisation of its 1.3 mb/d of distillation capacity to 58% during September. More generally, Japanese crude runs appear to have passed the summer peak with utilisation reaching just 77%, versus a five-year average of around 90%.

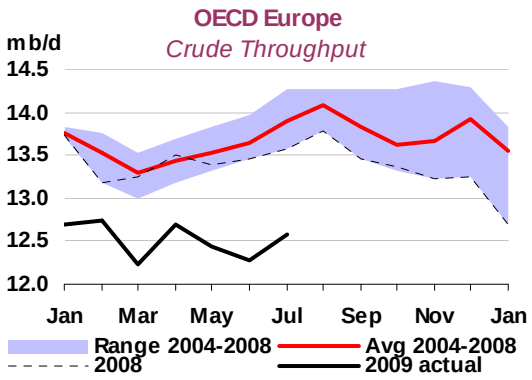
Nevertheless, upward revisions to demand forecasts suggest that US, and possibly European, refineries could see higher crude runs during 4Q09. We have thus revised up our October and November estimate accordingly. Similarly, we have removed one-third of our 1.2 mb/d North American hurricane disruption adjustment for September, as hurricanes have yet to materially trouble the operations of North American refiners. All told, OECD **3Q09** crude throughputs are revised up by 0.2 mb/d, almost wholly due to higher September estimates. Similarly, the October and November projections are an average of 0.5 mb/d higher than last month's report.





July **OECD North America** crude throughput was in line with expectations, although the continuation of weak US July throughputs through the first half of August suggests that next month's preliminary data will be lower than expected and we have cut our US estimate accordingly, by 0.2 mb/d. Late August saw a recovery in US crude runs to near 15.0 mb/d, the highest weekly level since early July, suggesting crude throughputs in September will post their first sustained period of annual growth since early 2007, albeit aided by last year's significant hurricane-related disruptions. 3Q09 projections are raised by 0.3 mb/d, to 17.5 mb/d, largely thanks to higher demand estimates and a now lower hurricane disruption adjustment, given the lack of impact from tropical storms to date.

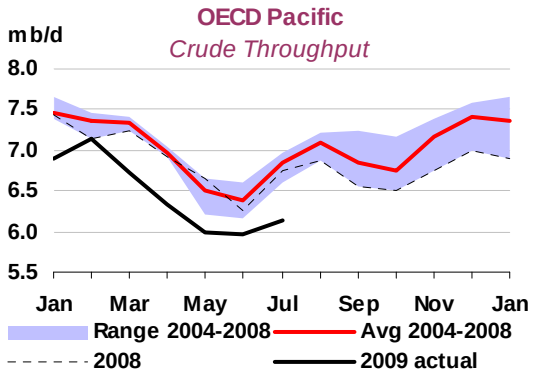




Preliminary data for July **OECD Europe** crude runs were marginally ahead of expectations at 12.6 mb/d and 0.3 mb/d above June's level, but still some 1.0 mb/d lower than July 2008. Turkish crude runs continue to track well below historical levels, down by more than 35% year-to-date against last year, and account for a significant portion of the decline in European activity. The disruption to the SPSE pipeline in southern France, following a leak, is not thought to have disrupted refinery operations significantly during August, with the exception of Petroplus's Cressier refinery in Switzerland, which was closed for two weeks.

Elsewhere, Total has announced the closure for economic reasons of its 140 kb/d Dunkirk refinery, for an unspecified period. The restart of operations is reported to be dependent on a recovery in demand sufficient for the plant to operate profitably. This closure comes in addition to the partial shutdowns at its much larger 340 kb/d Gonfreville refinery, also on France's Northwest coast, and the 200 kb/d Lindsey Oil refinery in the UK, both reportedly for economic reasons. However, rising exports of ULSD and European specification gasoil from the FSU is likely to defer a quick reduction of excess middle distillate stocks, absent a pick-up in demand. Planned maintenance is likely to depress European runs during October, but a subdued seasonal recovery is now expected over the balance of 4Q09, although the average of 12.5 mb/d remains 0.8 mb/d below the comparable period for 2008.

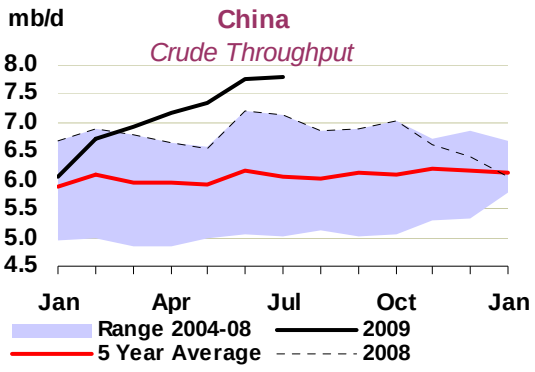
OECD Pacific crude throughput projections are little changed from last month's report. Following the August peak in Japanese crude runs, a drop in activity levels during September and October is now expected, as refineries undertake maintenance. The low levels of Japanese refinery throughput appear to be contributing to the subdued build-up in kerosene stocks, which are back below levels of a year ago and five-year-average levels and, on their current trajectory, are expected to drop below the five-year range during September. In due course, this may raise the potential for higher crude runs at some point, but robust demand would also be a prerequisite. 4Q09 is expected to see a rise in activity levels, in line with seasonal norms, with the region averaging 6.3 mb/d, but nevertheless a drop of 0.4 mb/d from 4Q08. The bleak outlook for refining, and depressed cash flow from operations, continues to dampen refiners' appetite for new investments, with SK Energy the latest refiner to postpone upgrading projects. It now expects to complete the upgrade to its 275 kb/d Incheon plant by 2016, rather than 2012 as we had previously assumed in our *MTOMR* - 2009 Edition, published in June.

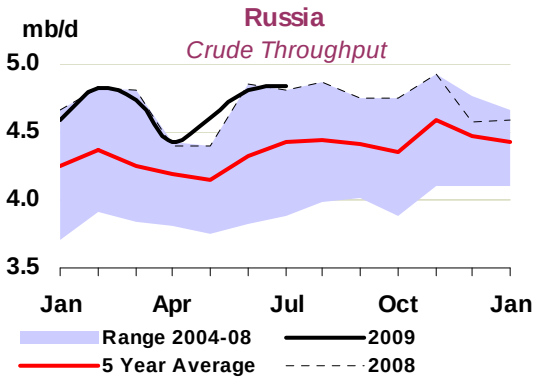


Non-OECD Refinery Throughput

Non-OECD crude throughput estimates for **2Q09** have been revised up by 0.2 mb/d to 35.8 mb/d, following stronger than expected June data for several countries. Similarly, following stronger than expected July data for Russia, we have reassessed their likely crude runs for the balance of 2009, leading to an upward revision of 0.1 mb/d, despite higher than previously expected maintenance in October. China's July crude throughput was in line with expectations, but the earlier than expected start-up of two new refineries, in conjunction with the supportive pricing environment currently in place, leads us to revise up 4Q09 projections by 0.2 mb/d, to 7.9 mb/d. Furthermore, the consistent outperformance of some Asian countries raises the possibility that our existing assumptions on run cuts for the region may have been too onerous, leaving potential for further upward revisions in the coming months to 3Q09 non-OECD throughput estimates.

Russian crude runs in July were again 0.1 mb/d ahead of expectations at 4.8 mb/d, in line with levels of a year ago and close to record throughputs. Increased exports of ULSD and European specification gasoil have helped refineries offset weak domestic demand and capture higher margins for a better quality product specification. Consequently, we have revised up 3Q09 throughputs by 0.1 mb/d, and 4Q09 by 0.2 mb/d, with the incorporation of heavier maintenance for September and October acting as a partial offset.

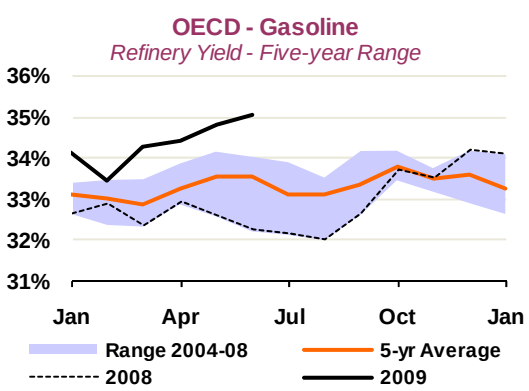


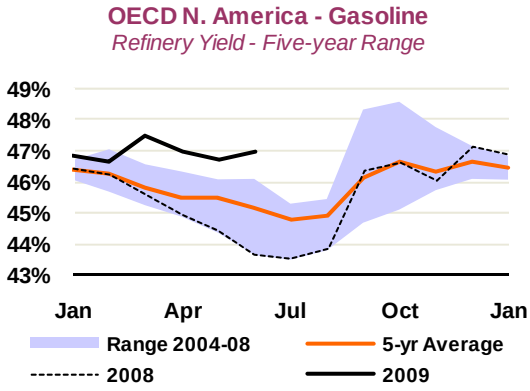


Chinese crude throughput in July was 7.8 mb/d, in line with expectations. August crude runs are seen falling slightly to 7.7 mb/d on the back of planned maintenance, although still representing an annual increase of 0.9 mb/d. However, the start of test runs at PetroChina's 200 kb/d Dushanzi refinery and state-owned China North Industries Group's 100 kb/d Huajin refinery raises both September and 4Q09 estimates. Financial data for 1H09 suggest that the government's current policy of raising product prices continues to benefit Chinese state refiners. PetroChina's first-half refining operating profit of around $6.50/bbl, compares to a loss of more than $20/bbl during 1H2008. Similarly, Sinopec 1H09 operating profit of over $4.50/bbl, compares to a loss of nearly $11/bbl in 1H08.

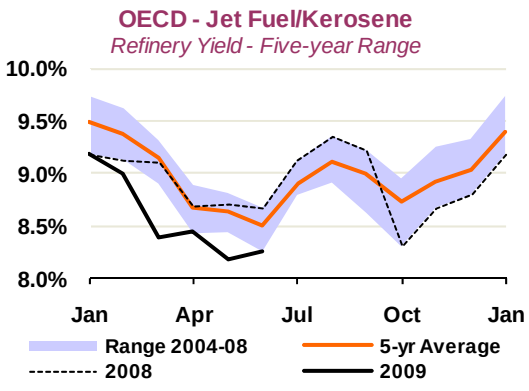
OECD Refinery Yields

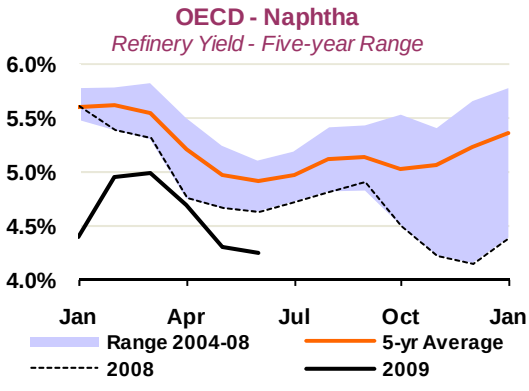
In June, OECD refinery yields increased for gasoline, jet fuel/kerosene and 'other products' at the expense of naphtha, gasoil/diesel and fuel oil. Only gasoline yields stayed above their five-year range. Gasoil/diesel yields fell and approached their five-year average, reflecting weak product cracks and brimming stocks in Europe. Yields for the rest of the products remained below their historical ranges.



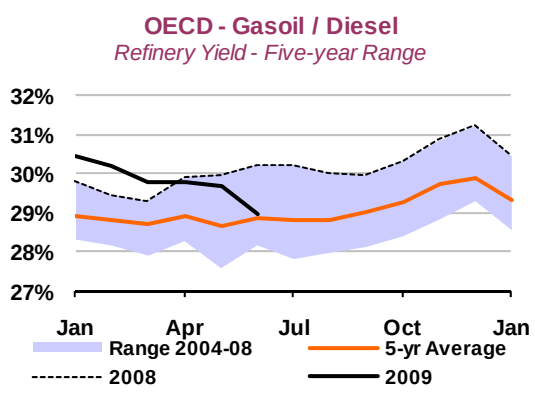


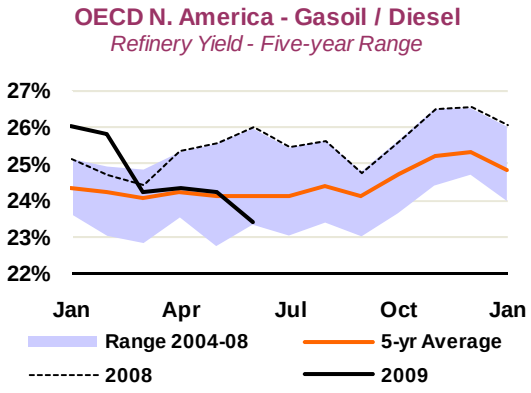
Gasoline yields reached 35.0%, surpassing last month's record level of 34.8%, as refiners in the US prepared for the driving season and stocks levels were low. Gasoline crack spreads remained the best option for refiners, even though they decreased month-on-month across the regions. The decline in the Pacific region, albeit from a five-year high the previous month, was more than offset by higher yields in North America and Europe. European yields increased above the historical average, while in North America and the Pacific they were above the five-year range.





Jet fuel/kerosene yields increased counter-seasonally, supported by higher crack spreads in June. A yield increase in Europe outweighed marginal decreases in North America and the Pacific. Naphtha yields continued their downward trend for the third consecutive month as crack spreads continued to deteriorate. In the Pacific, yields fell below the five-year range, and have lost two percentage points since February. In Europe, naphtha yields increased marginally. However, they continued below their five-year range, losing 1.3 percentage points since March.





Gasoil/diesel yields fell heavily, from near the top of the five-year range to just above the five-year average, with crack spreads lower than those for jet fuel/kerosene across the board. Lower yields in Europe and North America offset a seasonal increase in the Pacific. Fuel oil yields decreased marginally in accordance with weaker crack spreads across the board and remained well below seasonal averages on lower heavy crude availability. Decreases in Europe and North America offset an increase in the Pacific, where yields remained 4.2 percentage points below their five-year average as fuel oil demand is being substituted by increased use of LNG and nuclear power.

OECD Refinery Gross Output and Trading Patterns

On a year-on-year basis, OECD total product gross output in June contracted by 4.1% (1.8 mb/d). All three OECD regions posted lower output, with Europe contracting the most (7.0% or 1.1 mb/d). In North America, output decreased by 2.6% (589 kb/d) while in the Pacific by 2.4% (164 kb/d). In contrast, June OECD output were up 0.9% versus May, driven by North America and the Pacific and by gasoline and other products. OECD gasoline gross output increased by 4.6% or 665 kb/d annually, and was partially offset by lower net imports, which fell 197 kb/d. Most of the increase in gasoline gross output (556 kb/d) occurred in North America, with a concurrent decrease in net imports of 307 kb/d.

Gasoil/diesel gross output declined the most (by 7.8% or 1.0 mb/d), with both output and net exports in North America contracting by 653 kb/d and 255 kb/d, respectively. In Europe, both gross output and net imports fell by 386 kb/d and 84 kb/d, respectively. Fuel oil gross output fell by the largest amount in percentage terms (16%), equivalent to 622 kb/d, of which 325 kb/d were in Europe, matching a year-on-year contraction in demand of 13.5%.

Total OECD Refinery Gross Output

(thousand barrels per day)

	Naphtha		Gasoline		Kerosene		Gasoil / Diesel		Fuel Oil		Other Products		Total	
	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09
North America	325	355	9,639	10,195	1,842	1,636	5,732	5,080	1,189	1,023	3,998	3,847	22,724	22,135
Europe	915	772	3,287	3,258	1,055	945	5,754	5,368	1,847	1,522	2,532	2,448	15,389	14,313
Pacific	824	691	1,418	1,555	968	953	1,976	1,969	851	719	835	821	6,872	6,708
Total	**2,063**	**1,818**	**14,343**	**15,009**	**3,865**	**3,533**	**13,462**	**12,416**	**3,886**	**3,264**	**7,365**	**7,116**	**44,984**	**43,155**

Total OECD Net Exports of Petroleum Products

(thousand barrels per day)

	Naphtha		Gasoline		Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09	Jun 08	Jun 09
North America	-10	26	-1,382	-1,075	17	-9	732	477	-60	172	240	199	-462	-211
Europe	-81	-217	1,051	920	-359	-476	-397	-313	144	-1	-165	-230	193	-317
Pacific	-698	-785	13	34	261	289	366	416	45	18	-543	-553	-555	-581
Total	**-789**	**-976**	**-319**	**-122**	**-81**	**-196**	**701**	**579**	**129**	**189**	**-467**	**-584**	**-825**	**-1,108**

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	25.4	25.5	24.8	24.4	23.6	23.9	24.2	23.5	23.0	22.9	23.1	23.1	23.5	23.2	23.3	23.3	23.3
Europe	15.7	15.3	15.3	15.1	15.5	15.4	15.3	14.9	14.2	14.8	15.0	14.7	14.9	14.3	14.8	14.9	14.7
Pacific	8.5	8.4	8.9	7.9	7.5	8.0	8.1	8.1	7.3	7.1	7.6	7.5	8.1	7.1	7.0	7.4	7.4
Total OECD	49.5	49.2	49.0	47.3	46.7	47.3	47.6	46.6	44.5	44.8	45.7	45.4	46.5	44.6	45.0	45.5	45.4
NON-OECD DEMAND																	
FSU	4.0	4.1	4.3	4.1	4.3	4.2	4.2	4.0	3.8	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Europe	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	7.2	7.6	7.9	8.0	8.1	7.6	7.9	7.7	8.6	8.5	8.2	8.3	8.3	8.8	8.7	8.6	8.6
Other Asia	9.0	9.5	9.9	9.9	9.4	9.5	9.7	9.9	10.0	9.5	9.6	9.7	10.1	10.2	9.7	9.9	9.9
Latin America	5.4	5.7	5.7	6.0	6.0	5.9	5.9	5.8	6.0	6.1	6.0	6.0	5.9	6.2	6.2	6.2	6.1
Middle East	6.3	6.5	6.7	7.1	7.6	6.9	7.1	6.7	7.3	7.7	7.1	7.2	7.0	7.4	8.0	7.4	7.5
Africa	3.0	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.3	3.3	3.2	3.4	3.3
Total Non-OECD	35.7	37.3	38.5	39.0	39.3	38.1	38.7	37.9	39.7	39.6	39.0	39.1	39.6	40.5	40.8	40.3	40.3
Total Demand[1]	85.2	86.5	87.5	86.3	85.9	85.4	86.3	84.5	84.1	84.4	84.7	84.4	86.0	85.1	85.8	85.9	85.7
OECD SUPPLY																	
North America[4]	14.2	14.3	14.2	14.0	13.6	13.8	13.9	14.2	13.9	13.9	14.0	14.0	14.3	13.9	13.8	14.1	14.0
Europe	5.3	5.0	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.1	4.2	4.4	4.2	3.9	3.8	4.1	4.0
Pacific	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7
Total OECD	20.1	19.9	19.7	19.5	18.8	19.3	19.3	19.7	19.0	18.7	18.9	19.1	19.2	18.6	18.4	19.0	18.8
NON-OECD SUPPLY																	
FSU	12.2	12.8	12.8	12.9	12.7	12.7	12.8	12.8	13.1	13.3	13.4	13.1	13.4	13.5	13.3	13.6	13.4
Europe	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.9	4.0	3.8	4.0	4.0	4.0	4.1	4.0
Other Asia[2]	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.7
Latin America[2,4]	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.4	4.4	4.4	4.4	4.6	4.6	4.7	4.8	4.7
Middle East	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa[2]	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	28.0	28.5	28.7	28.7	28.6	28.7	28.7	28.8	29.2	29.4	29.6	29.3	29.9	30.0	29.9	30.3	30.0
Processing Gains[3]	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels[4]	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total Non-OPEC[2]	50.4	50.8	51.0	50.8	50.1	50.7	50.6	51.2	50.8	50.8	51.2	51.0	51.8	51.2	50.9	52.0	51.5
Non-OPEC: Historical Composition[2]	51.3	50.3	49.9	49.8	49.0	49.7	49.6	51.2	50.8	50.8	51.2	51.0	51.8	51.2	50.9	52.0	51.5
OPEC																	
Crude[5]	30.7	30.3	31.5	31.4	31.5	30.5	31.2	28.5	28.5								
NGLs	4.4	4.5	4.6	4.6	4.7	4.8	4.7	4.9	5.1	5.4	5.6	5.2	5.7	6.0	6.2	6.4	6.1
Total OPEC[2]	35.2	34.9	36.1	36.0	36.2	35.3	35.9	33.4	33.5								
OPEC: Historical Composition[2]	34.3	35.4	37.1	37.0	37.2	36.4	36.9	33.4	33.5								
Total Supply[6]	85.6	85.7	87.1	86.8	86.3	86.0	86.5	84.6	84.4								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.3	0.1	0.4	0.6	0.5	0.4	0.5	0.2								
Government	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2								
Total	0.3	-0.2	0.1	0.3	0.5	0.5	0.4	0.7	0.4								
Floating Storage/Oil in Transit	-0.1	0.0	0.3	0.0	-0.3	0.1	0.0	0.6	0.2								
Miscellaneous to balance[7]	0.2	-0.6	-0.9	0.1	0.1	0.0	-0.2	-1.2	-0.3								
Total Stock Ch. & Misc	0.3	-0.8	-0.4	0.4	0.3	0.6	0.2	0.1	0.3								
Memo items:																	
Call on OPEC crude + Stock ch.[8]	30.4	31.2	32.0	31.0	31.2	29.9	31.0	28.4	28.2	28.3	27.9	28.2	28.6	28.0	28.7	27.5	28.2
Adjusted Call on OPEC + Stock ch.[9]	30.5	30.5	31.1	31.1	31.3	30.0	30.8	27.3	27.9	27.8	27.5	27.6	28.1	27.5	28.2	27.1	27.7

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Other Biofuels are from sources outside Brazil and US. North and Latin America oil supply totals include US and Brazilian ethanol.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	0.3	0.2	0.3	0.2	-	0.1	0.3	0.3	0.2
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	0.1	0.1	0.1
Pacific	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	0.1	0.1	-
Total OECD	-	-	-	-	-	-	-	-	0.3	0.2	0.5	0.3	-	0.1	0.5	0.4	0.3
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.4	0.1	0.1	0.1	-	0.3	0.2	0.1
Other Asia	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	-	0.1	0.1	-	0.1
Latin America	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	0.1	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-0.1	-0.1	-0.1	-0.1
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	0.1	0.2	0.5	0.2	0.2	0.2	0.1	0.3	0.2	0.2
Total Demand	-	-	-	-	-	-	-	0.1	0.5	0.7	0.7	0.5	0.2	0.2	0.8	0.6	0.4
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.2	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-0.1	0.1	0.1	-	0.1	-0.1	-	0.1	-
Non-OPEC: historical composition	-	-	-	-	-	-	-	-	-0.1	0.1	0.1	-	0.1	-0.1	-	0.1	-
OPEC																	
Crude	-	-	-	-	-	-	-	0.1	-								
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	0.1	-								
OPEC: historical composition	-	-	-	-	-	-	-	0.1	-								
Total Supply	-	-	-	-	-	-	-	-	-0.1								
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	0.1								
Government	-	-	-	-	-	-	-	-	-								
Total	-	-	-	-	-	-	-	-	0.1								
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-								
Miscellaneous to balance	-	-	-	-	-	-	-	-0.1	-0.7								
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-	-0.6								
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	0.1	0.5	0.6	0.6	0.5	0.1	0.2	0.8	0.6	0.4
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-0.2	0.5	0.5	0.2	-	0.1	0.6	0.4	0.3

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

SUMMARY OF GLOBAL OIL DEMAND

	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Demand (mb/d)																
North America	25.47	24.77	24.42	23.60	23.93	24.18	23.52	22.95	22.89	23.14	23.12	23.54	23.17	23.31	23.26	23.32
Europe	15.34	15.34	15.07	15.55	15.44	15.35	14.92	14.20	14.80	14.95	14.72	14.89	14.26	14.76	14.86	14.69
Pacific	8.37	8.91	7.86	7.54	7.97	8.07	8.14	7.30	7.08	7.57	7.52	8.05	7.14	6.98	7.41	7.39
Total OECD	49.19	49.02	47.35	46.68	47.34	47.59	46.58	44.45	44.77	45.67	45.36	46.48	44.57	45.04	45.54	45.40
Asia	17.11	17.82	17.85	17.49	17.11	17.57	17.53	18.59	17.96	17.87	17.99	18.39	18.91	18.38	18.44	18.53
Middle East	6.53	6.72	7.13	7.56	6.95	7.09	6.70	7.31	7.68	7.09	7.20	7.02	7.41	8.00	7.44	7.47
Latin America	5.69	5.71	5.96	6.04	5.92	5.91	5.77	5.98	6.08	5.99	5.96	5.94	6.15	6.24	6.16	6.12
FSU	4.15	4.26	4.12	4.32	4.15	4.21	3.98	3.85	4.11	4.10	4.01	4.13	3.99	4.20	4.19	4.13
Africa	3.07	3.20	3.19	3.14	3.22	3.18	3.23	3.21	3.11	3.25	3.20	3.35	3.33	3.22	3.36	3.31
Europe	0.77	0.76	0.74	0.72	0.74	0.74	0.72	0.73	0.70	0.71	0.72	0.74	0.74	0.71	0.73	0.73
Total Non-OECD	37.32	38.47	38.99	39.26	38.09	38.71	37.94	39.67	39.64	39.01	39.07	39.56	40.53	40.76	40.33	40.30
World	86.51	87.48	86.34	85.95	85.44	86.30	84.52	84.12	84.40	84.68	84.43	86.04	85.09	85.81	85.87	85.70
of which: US50	20.68	20.04	19.76	18.90	19.30	19.50	18.96	18.54	18.33	18.61	18.61	18.94	18.71	18.74	18.70	18.77
Europe 5*	9.48	9.50	9.29	9.50	9.57	9.47	9.41	8.85	9.09	9.21	9.14	9.29	8.80	9.04	9.09	9.06
China	7.57	7.88	7.98	8.09	7.62	7.89	7.65	8.61	8.50	8.24	8.25	8.29	8.75	8.69	8.58	8.58
Japan	5.04	5.45	4.63	4.34	4.71	4.78	4.72	4.03	3.87	4.26	4.22	4.61	3.85	3.75	4.10	4.08
India	3.00	3.25	3.18	2.97	3.14	3.13	3.40	3.35	3.06	3.21	3.25	3.51	3.43	3.18	3.34	3.36
Russia	2.89	2.94	2.88	3.08	2.88	2.94	2.71	2.65	2.90	2.84	2.78	2.84	2.78	2.98	2.92	2.88
Brazil	2.35	2.37	2.46	2.53	2.51	2.47	2.39	2.47	2.54	2.50	2.48	2.47	2.55	2.62	2.59	2.56
Saudi Arabia	2.17	2.22	2.47	2.71	2.27	2.42	2.23	2.78	2.82	2.39	2.56	2.40	2.69	2.97	2.56	2.66
Canada	2.31	2.31	2.19	2.28	2.26	2.26	2.20	2.12	2.23	2.22	2.19	2.24	2.16	2.25	2.25	2.23
Korea	2.24	2.35	2.11	2.10	2.14	2.17	2.34	2.17	2.11	2.19	2.20	2.34	2.16	2.11	2.18	2.20
Mexico	2.14	2.12	2.19	2.14	2.07	2.13	2.05	2.01	2.04	2.01	2.03	2.05	2.02	2.03	2.01	2.03
Iran	1.72	1.86	1.89	1.86	1.83	1.86	1.77	1.73	1.83	1.82	1.79	1.83	1.84	1.92	1.91	1.88
Total	61.58	62.28	61.04	60.50	60.30	61.03	59.85	59.32	59.32	59.51	59.50	60.80	59.77	60.27	60.22	60.26
% of World	71.2%	71.2%	70.7%	70.4%	70.6%	70.7%	70.8%	70.5%	70.3%	70.3%	70.5%	70.7%	70.2%	70.2%	70.1%	70.3%
Annual Change (% per annum)																
North America	0.4	-3.3	-3.7	-7.4	-5.9	-5.1	-5.1	-6.0	-3.0	-3.3	-4.4	0.1	1.0	1.8	0.5	0.8
Europe	-2.1	0.7	0.7	0.5	-1.6	0.0	-2.7	-5.8	-4.8	-3.1	-4.1	-0.2	0.4	-0.3	-0.6	-0.2
Pacific	-1.0	0.0	-0.6	-4.9	-8.9	-3.6	-8.6	-7.2	-6.0	-5.0	-6.8	-1.1	-2.2	-1.4	-2.1	-1.7
Total OECD	-0.7	-1.5	-1.8	-4.5	-5.1	-3.2	-5.0	-6.1	-4.1	-3.5	-4.7	-0.2	0.3	0.6	-0.3	0.1
Asia	5.1	5.7	2.9	3.5	-1.4	2.6	-1.6	4.1	2.7	4.4	2.4	4.9	1.7	2.3	3.2	3.0
Middle East	3.2	4.9	9.1	12.3	7.5	8.5	-0.2	2.5	1.5	2.0	1.5	4.7	1.4	4.3	5.0	3.8
Latin America	5.5	4.8	5.2	3.9	1.7	3.9	1.0	0.3	0.6	1.0	0.7	2.9	2.8	2.7	3.0	2.8
FSU	2.7	3.1	4.3	2.6	-3.6	1.5	-6.5	-6.6	-4.8	-1.3	-4.8	3.7	3.8	2.1	2.3	3.0
Africa	4.0	3.1	5.4	4.0	2.6	3.8	1.1	0.7	-0.9	1.1	0.5	3.6	3.5	3.5	3.4	3.5
Europe	3.6	0.2	-0.5	-7.4	-5.3	-3.3	-5.0	-1.6	-2.8	-3.8	-3.3	1.6	1.2	2.7	2.3	2.0
Total Non-OECD	4.4	4.8	4.6	4.9	0.6	3.7	-1.4	1.7	0.9	2.4	0.9	4.3	2.2	2.8	3.4	3.2
World	1.5	1.2	1.0	-0.4	-2.6	-0.2	-3.4	-2.6	-1.8	-0.9	-2.2	1.8	1.2	1.7	1.4	1.5
Annual Change (mb/d)																
North America	0.09	-0.85	-0.93	-1.89	-1.50	-1.29	-1.25	-1.47	-0.71	-0.79	-1.05	0.02	0.22	0.42	0.12	0.20
Europe	-0.33	0.11	0.10	0.08	-0.26	0.01	-0.42	-0.87	-0.75	-0.48	-0.63	-0.03	0.05	-0.05	-0.10	-0.03
Pacific	-0.08	0.00	-0.04	-0.39	-0.78	-0.30	-0.77	-0.56	-0.46	-0.40	-0.55	-0.09	-0.16	-0.10	-0.16	-0.13
Total OECD	-0.32	-0.74	-0.87	-2.20	-2.55	-1.59	-2.44	-2.90	-1.92	-1.67	-2.23	-0.10	0.11	0.28	-0.13	0.04
Asia	0.83	0.96	0.50	0.60	-0.24	0.45	-0.29	0.73	0.47	0.76	0.42	0.86	0.32	0.42	0.57	0.54
Middle East	0.20	0.31	0.59	0.83	0.48	0.56	-0.01	0.18	0.11	0.14	0.11	0.32	0.10	0.33	0.35	0.28
Latin America	0.30	0.26	0.30	0.23	0.10	0.22	0.06	0.02	0.04	0.06	0.04	0.17	0.17	0.16	0.18	0.17
FSU	0.11	0.13	0.17	0.11	-0.16	0.06	-0.28	-0.27	-0.21	-0.06	-0.20	0.15	0.15	0.09	0.09	0.12
Africa	0.12	0.10	0.16	0.12	0.08	0.12	0.04	0.02	-0.03	0.04	0.02	0.12	0.11	0.11	0.11	0.11
Europe	0.03	0.00	0.00	-0.06	-0.04	-0.03	-0.04	-0.01	-0.02	-0.03	-0.02	0.01	0.01	0.02	0.02	0.01
Total Non-OECD	1.59	1.76	1.72	1.83	0.23	1.38	-0.53	0.67	0.37	0.91	0.36	1.62	0.86	1.12	1.33	1.23
World	1.26	1.02	0.84	-0.37	-2.32	-0.21	-2.97	-2.22	-1.54	-0.76	-1.87	1.52	0.97	1.40	1.19	1.27
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.26	0.19	0.28	0.19	0.03	0.09	0.34	0.26	0.18
Europe	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.02	0.01	0.14	0.04	0.01	0.05	0.09	0.12	0.07
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.07	0.03	-0.01	-0.01	0.06	0.06	0.02
Total OECD	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.30	0.24	0.50	0.26	0.03	0.14	0.49	0.43	0.27
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.46	0.19	0.19	0.12	0.10	0.34	0.20	0.19
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.06	-0.07	-0.04	0.00	-0.11	-0.08	-0.06	-0.06
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.06	0.05	0.03	0.05	0.03	0.05	0.04	0.03	0.04
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.03	0.02	0.00	0.00	0.00	0.01	0.00
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.17	0.48	0.18	0.22	0.15	0.05	0.30	0.19	0.17
World	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.47	0.72	0.68	0.49	0.18	0.19	0.79	0.62	0.45
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.01	0.01	0.01	0.01	0.01	0.06	0.45	0.71	0.67	0.48	0.12	-0.28	0.06	-0.06	-0.04

* France, Germany, Italy, Spain & UK

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2008	2009	2010	1Q09	2Q09	3Q09	4Q09	1Q10	Jun 09	Jul 09	Aug 09
OPEC											
Crude Oil											
Saudi Arabia	8.90			7.87	7.91				8.08	7.97	7.93
Iran	3.90			3.76	3.72				3.80	3.82	3.80
Iraq	2.38			2.34	2.45				2.50	2.59	2.56
UAE	2.59			2.29	2.25				2.25	2.27	2.27
Kuwait	2.31			2.07	1.98				1.97	1.97	1.97
Neutral Zone	0.57			0.55	0.54				0.54	0.54	0.54
Qatar	0.85			0.76	0.77				0.78	0.77	0.77
Angola	1.85			1.67	1.71				1.72	1.76	1.78
Nigeria	1.95			1.81	1.77				1.72	1.68	1.74
Libya	1.72			1.58	1.53				1.54	1.54	1.55
Algeria	1.37			1.25	1.25				1.25	1.22	1.22
Ecuador	0.50			0.48	0.48				0.48	0.47	0.47
Venezuela	2.35			2.13	2.12				2.12	2.16	2.21
Total Crude Oil[6]	31.24			28.54	28.48				28.75	28.75	28.81
Total NGLs[1,6]	4.66	5.22	6.07	4.89	5.05	5.36	5.55	5.72	5.05	5.36	5.36
Total OPEC[6]	35.90			33.44	33.54				33.80	34.11	34.17
OPEC: Historical Composition[6]	36.93			33.44	33.54				33.80	34.11	34.17
NON-OPEC[2]											
OECD											
North America	13.91	13.99	14.04	14.20	13.89	13.92	13.95	14.30	13.90	13.99	13.97
United States[5]	7.52	7.90	8.10	7.84	7.97	7.87	7.93	8.15	7.96	7.89	7.94
Mexico	3.16	2.94	2.77	3.04	2.97	2.89	2.85	2.82	2.88	2.93	2.92
Canada	3.22	3.15	3.17	3.32	2.96	3.15	3.17	3.33	3.06	3.17	3.11
Europe	4.76	4.42	4.02	4.89	4.49	4.09	4.24	4.21	4.32	4.50	3.92
UK	1.56	1.49	1.37	1.62	1.56	1.30	1.49	1.49	1.52	1.52	1.08
Norway	2.46	2.28	2.03	2.57	2.27	2.15	2.11	2.09	2.17	2.33	2.20
Others	0.74	0.66	0.62	0.69	0.66	0.64	0.63	0.63	0.64	0.65	0.65
Pacific	0.65	0.66	0.74	0.65	0.64	0.67	0.70	0.73	0.65	0.68	0.66
Australia	0.55	0.56	0.62	0.56	0.54	0.57	0.58	0.60	0.56	0.58	0.56
Others	0.10	0.10	0.12	0.09	0.09	0.10	0.12	0.12	0.09	0.10	0.10
Total OECD	19.32	19.08	18.79	19.74	19.01	18.68	18.89	19.24	18.87	19.17	18.55
NON-OECD											
Former USSR	12.76	13.15	13.45	12.85	13.11	13.27	13.37	13.44	13.17	13.28	13.35
Russia	10.00	10.13	10.17	10.00	10.10	10.18	10.23	10.20	10.11	10.13	10.19
Others	2.76	3.02	3.28	2.85	3.01	3.10	3.13	3.24	3.06	3.15	3.16
Asia	7.47	7.51	7.77	7.37	7.44	7.57	7.64	7.72	7.49	7.46	7.59
China	3.79	3.85	4.02	3.73	3.80	3.91	3.96	3.99	3.81	3.81	3.94
Malaysia	0.76	0.73	0.70	0.74	0.73	0.72	0.72	0.71	0.73	0.72	0.72
India	0.81	0.80	0.87	0.78	0.80	0.79	0.81	0.84	0.80	0.79	0.78
Indonesia	1.03	1.02	1.05	1.02	1.01	1.02	1.02	1.03	1.02	1.03	1.02
Others	1.08	1.12	1.13	1.10	1.12	1.13	1.13	1.14	1.12	1.11	1.14
Europe	0.14	0.13	0.11	0.14	0.13	0.12	0.12	0.12	0.12	0.13	0.12
Latin America	4.14	4.37	4.67	4.34	4.36	4.36	4.43	4.58	4.32	4.37	4.33
Brazil[5]	2.37	2.53	2.80	2.50	2.52	2.53	2.57	2.70	2.49	2.53	2.53
Argentina	0.75	0.74	0.75	0.76	0.75	0.73	0.75	0.76	0.74	0.74	0.70
Colombia	0.59	0.66	0.68	0.64	0.66	0.66	0.67	0.67	0.66	0.66	0.66
Others	0.42	0.44	0.44	0.44	0.43	0.44	0.45	0.45	0.43	0.44	0.45
Middle East[3]	1.65	1.61	1.57	1.64	1.63	1.60	1.58	1.57	1.61	1.60	1.60
Oman	0.75	0.79	0.79	0.79	0.79	0.78	0.78	0.78	0.79	0.78	0.78
Syria	0.39	0.36	0.33	0.38	0.37	0.36	0.35	0.34	0.37	0.36	0.36
Yemen	0.31	0.27	0.26	0.28	0.27	0.26	0.26	0.26	0.27	0.27	0.26
Others	0.19	0.19	0.18	0.19	0.19	0.19	0.19	0.18	0.19	0.19	0.19
Africa	2.53	2.50	2.47	2.50	2.50	2.52	2.50	2.49	2.50	2.51	2.52
Egypt	0.65	0.63	0.60	0.65	0.64	0.63	0.62	0.61	0.64	0.63	0.63
Gabon	0.21	0.23	0.24	0.22	0.22	0.23	0.24	0.24	0.22	0.23	0.24
Others	1.67	1.64	1.63	1.64	1.64	1.65	1.64	1.64	1.64	1.66	1.66
Total Non-OECD	28.68	29.27	30.04	28.84	29.16	29.45	29.64	29.92	29.21	29.35	29.51
Processing Gains[4]	2.24	2.29	2.20	2.29	2.29	2.29	2.29	2.20	2.29	2.29	2.29
Other Biofuels[5]	0.38	0.36	0.42	0.34	0.38	0.36	0.37	0.39	0.38	0.36	0.36
TOTAL NON-OPEC[6]	50.63	51.00	51.45	51.20	50.84	50.77	51.18	51.75	50.75	51.17	50.71
Non-OPEC: Historical Composition[6]	49.60	51.00	51.45	51.20	50.84	50.77	51.18	51.75	50.75	51.17	50.71
TOTAL SUPPLY	86.53			84.64	84.38				84.55	85.28	84.88

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Other Biofuels are from sources outside Brazil and US. US and Brazil oil supply include ethanol.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Mar2009	Apr2009	May2009	Jun2009	Jul2009*	Jul2006	Jul2007	Jul2008	3Q2008	4Q2008	1Q2009	2Q2009
North America												
Crude	506.9	516.9	510.5	498.7	497.2	457.5	469.8	438.1	0.19	0.16	0.45	-0.09
Motor Gasoline	248.5	244.2	236.3	243.7	243.8	237.4	233.2	234.5	-0.22	0.27	0.06	-0.05
Middle Distillate	217.0	222.6	229.5	234.0	241.4	207.9	203.7	201.8	0.06	0.22	0.00	0.19
Residual Fuel Oil	47.3	43.7	46.9	44.6	41.5	52.4	48.9	43.6	-0.01	-0.04	0.03	-0.03
Total Products[3]	685.9	689.0	704.7	723.0	729.6	684.3	675.4	660.0	0.01	0.32	0.02	0.41
Total[4]	1344.1	1361.9	1376.6	1383.8	1387.4	1298.5	1300.3	1254.5	0.41	0.25	0.49	0.44
Europe												
Crude	355.4	342.4	329.5	342.5	337.5	351.4	338.7	344.4	-0.02	0.10	0.15	-0.14
Motor Gasoline	102.0	99.2	97.5	99.3	97.0	96.6	103.4	105.8	-0.11	0.11	-0.07	-0.03
Middle Distillate	277.2	283.0	290.2	285.9	288.7	256.1	252.3	263.9	0.16	0.11	0.02	0.10
Residual Fuel Oil	77.7	81.1	82.7	81.5	81.1	74.1	69.7	80.8	-0.07	0.08	-0.05	0.04
Total Products[3]	565.3	572.1	576.1	570.8	571.1	531.4	526.1	560.4	-0.01	0.31	-0.13	0.06
Total[4]	991.5	984.7	975.4	980.6	977.4	955.6	938.1	979.7	-0.07	0.46	-0.02	-0.12
Pacific												
Crude	170.1	166.7	155.7	170.2	177.5	177.5	178.2	169.5	-0.07	0.01	0.08	0.00
Motor Gasoline	26.5	27.9	27.0	26.1	24.5	23.6	22.5	22.8	-0.02	-0.02	0.07	0.00
Middle Distillate	57.0	59.0	65.2	62.3	66.7	75.5	75.2	65.8	0.16	-0.10	-0.09	0.06
Residual Fuel Oil	20.2	21.2	20.6	18.9	19.4	24.8	24.4	22.1	0.00	-0.02	0.00	-0.01
Total Products[3]	168.5	167.4	171.2	164.8	169.7	192.5	191.2	178.0	0.28	-0.20	-0.06	-0.04
Total[4]	407.9	403.0	397.4	401.0	413.4	441.8	442.4	422.4	0.24	-0.25	0.02	-0.08
Total OECD												
Crude	1032.3	1026.1	995.7	1011.4	1012.2	986.4	986.7	951.9	0.10	0.27	0.68	-0.23
Motor Gasoline	377.0	371.2	360.9	369.0	365.4	357.6	359.1	363.1	-0.35	0.36	0.06	-0.09
Middle Distillate	551.2	564.6	584.9	582.2	596.8	539.4	531.2	531.5	0.37	0.22	-0.07	0.34
Residual Fuel Oil	145.2	146.0	150.2	145.0	142.0	151.3	143.0	146.5	-0.08	0.02	-0.01	0.00
Total Products[3]	1419.6	1428.4	1452.0	1458.7	1470.3	1408.2	1392.7	1398.4	0.28	0.44	-0.17	0.43
Total[4]	2743.5	2749.6	2749.4	2765.4	2778.2	2695.9	2680.8	2656.7	0.57	0.46	0.48	0.24

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Mar2009	Apr2009	May2009	Jun2009	Jul2009*	Jul2006	Jul2007	Jul2008	3Q2008	4Q2008	1Q2009	2Q2009
North America												
Crude	712.8	718.8	721.7	724.1	724.8	687.9	690.3	707.2	-0.04	-0.01	0.12	0.12
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	188.1	185.5	186.6	186.6	186.6	174.6	177.0	180.0	-0.02	0.07	0.01	-0.02
Products	234.2	237.3	238.7	238.0	238.0	235.7	245.2	231.7	0.02	-0.05	0.06	0.04
Pacific												
Crude	389.2	388.1	388.8	389.1	389.1	382.2	385.0	384.2	-0.01	0.03	0.02	0.00
Products	19.2	19.2	19.2	19.2	19.2	11.8	16.8	18.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1290.0	1292.4	1297.1	1299.9	1300.6	1244.7	1252.2	1271.5	-0.06	0.10	0.16	0.11
Products	255.4	258.5	259.9	259.2	259.2	249.5	264.0	252.5	0.02	-0.05	0.06	0.04
Total[4]	1547.0	1552.5	1558.5	1560.6	1561.3	1495.2	1517.2	1525.0	-0.04	0.05	0.23	0.15

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End June 2008		End September 2008		End December 2008		End March 2009		End June 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	193.5	85	198.4	88	193.9	88	194.3	92	198.7	-
Mexico	44.7	21	55.7	27	50.3	25	45.5	23	48.1	-
United States[4]	1688.0	89	1706.4	88	1738.7	92	1797.0	97	1841.0	-
Total[4]	1948.3	83	1982.6	83	2005.1	86	2058.9	90	2109.8	92
Pacific										
Australia	37.4	39	37.7	39	40.5	44	40.3	43	40.5	-
Japan	619.1	143	646.2	137	629.6	133	611.3	152	611.2	-
Korea	146.6	70	141.2	66	134.9	58	155.2	72	149.2	-
New Zealand	8.4	58	7.9	53	7.9	51	9.5	61	8.5	-
Total	811.4	108	833.0	104	812.9	100	816.3	112	809.3	114
Europe[5]										
Austria	22.8	77	21.5	79	23.2	82	20.9	78	21.4	-
Belgium	28.5	39	31.1	43	34.9	56	35.8	65	35.1	-
Czech Republic	20.2	88	19.1	97	21.4	114	22.7	111	22.0	-
Denmark	19.0	107	18.3	101	22.9	131	25.1	152	26.4	-
Finland	25.5	116	30.1	139	30.7	147	33.5	167	27.1	-
France	176.6	90	176.6	87	179.2	89	177.6	98	172.6	-
Germany	273.2	101	273.7	103	277.4	108	277.7	116	280.8	-
Greece	36.3	87	39.2	83	40.0	83	36.7	93	35.9	-
Hungary	16.6	101	15.5	93	15.0	100	15.7	100	15.1	-
Ireland	10.4	59	10.5	54	11.4	63	11.5	74	12.3	-
Italy	136.7	83	130.3	81	127.9	83	131.0	86	129.1	-
Luxembourg	0.7	12	0.6	10	0.8	14	0.7	15	0.8	-
Netherlands	124.5	119	115.0	117	131.4	130	133.9	140	144.3	-
Norway	23.1	116	26.5	127	29.9	143	24.0	108	23.6	-
Poland	57.4	103	58.8	106	58.1	119	58.9	111	63.1	-
Portugal	25.3	85	25.0	90	24.7	92	25.0	90	25.1	-
Slovak Republic	9.1	99	8.0	93	8.8	122	9.8	123	8.4	-
Spain	135.0	87	135.8	88	137.6	89	137.8	94	135.6	-
Sweden	34.1	94	36.6	104	38.7	119	40.7	127	39.5	-
Switzerland	37.2	133	37.8	127	36.3	120	36.8	133	38.0	-
Turkey	60.9	80	60.8	98	60.9	111	59.2	97	58.8	-
United Kingdom	99.3	60	95.1	55	98.8	57	100.4	60	91.8	-
Total	1372.5	88	1365.9	88	1410.0	94	1415.3	99	1406.8	95
Total OECD	4132.3	88	4181.5	88	4227.9	91	4290.5	96	4326.0	97
DAYS OF IEA Net Imports[6]	-	123	-	124	-	131	-	134	-	135

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End July 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4165	1499	2666	84	30	53
1Q2007	4104	1507	2597	85	31	54
2Q2007	4163	1506	2656	85	31	54
3Q2007	4169	1520	2649	83	30	53
4Q2007	4091	1524	2567	83	31	52
1Q2008	4101	1529	2572	86	32	54
2Q2008	4132	1526	2606	88	33	56
3Q2008	4181	1522	2659	88	32	56
4Q2008	4228	1527	2701	91	33	58
1Q2009	4290	1547	2743	96	35	62
2Q2009	4326	1561	2765	97	35	62

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 2Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	3Q08	4Q08	1Q09	2Q09	Apr 09	May 09	Jun 09	Year Earlier Jun 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.71	0.63	0.58	0.51	0.58	0.50	0.45	0.66	-0.21
Europe	0.78	0.70	0.70	0.81	0.66	0.57	0.57	0.62	0.62	0.48	0.72	-0.24
Pacific	1.32	1.19	1.22	1.10	1.24	1.40	1.16	1.14	1.16	1.18	1.21	-0.04
Saudi Medium												
North America	0.64	0.56	0.64	0.68	0.66	0.42	0.45	0.40	0.46	0.48	0.63	-0.16
Europe	0.14	0.05	0.05	0.03	0.05	0.03	0.02	0.02	0.02	0.02	0.02	0.00
Pacific	0.35	0.34	0.39	0.40	0.38	0.34	0.32	0.32	0.32	0.31	0.37	-0.06
Saudi Heavy												
North America	0.21	0.09	0.07	0.14	0.05	0.04	0.02	0.02	0.02	0.02	0.04	-0.02
Europe	0.18	0.11	0.09	0.12	0.09	0.03	0.03	0.04	0.01	0.04	0.10	-0.06
Pacific	0.23	0.20	0.24	0.26	0.25	0.22	0.15	0.12	0.17	0.16	0.19	-0.03
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.57	0.51	0.44	0.31	0.39	0.21	0.32	0.51	-0.19
Europe	0.32	0.30	0.21	0.23	0.21	0.13	0.12	0.11	0.10	0.16	0.18	-0.02
Pacific	0.08	0.17	0.15	0.18	0.11	0.26	0.20	0.22	0.15	0.22	0.15	0.07
Iraqi Kirkuk												
North America	0.00	-	0.08	0.10	0.06	0.07	0.02	-	0.03	0.03	0.22	-0.19
Europe	0.01	0.11	0.23	0.24	0.19	0.26	0.33	0.31	0.36	0.32	0.18	0.13
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.21	0.24	0.15	0.15	0.15	0.14	0.15	0.31	-0.16
Pacific	0.13	0.09	0.08	0.06	0.07	0.11	0.06	0.10	0.07	0.02	0.02	0.00
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.60	0.43	0.33	0.38	0.32	0.45	0.37	0.55	-0.18
Pacific	0.56	0.64	0.61	0.67	0.64	0.65	0.51	0.61	0.43	0.50	0.42	0.08
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.67	0.50	0.51	0.63	0.60	0.62	0.68	0.71	-0.04
Europe	0.11	0.08	0.06	0.06	0.07	0.07	0.13	0.10	0.20	0.10	0.06	0.05
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.67	0.74	0.74	0.62	0.54	0.63	0.69	0.66	0.03
Europe	0.06	0.07	0.07	0.07	0.08	0.07	0.06	0.08	0.06	0.05	0.09	-0.04
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	0.99	1.04	1.06	0.96	1.01	0.97	0.91	0.98	-0.07
Europe	0.16	0.14	0.14	0.14	0.12	0.08	0.09	0.08	0.08	0.12	0.21	-0.08
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	-	0.01	-
Europe	0.01	0.02	0.01	-	0.02	0.01	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.10	-	0.09	0.27	0.27	0.31	0.21	0.19	0.03
Europe	1.68	1.86	1.81	1.74	1.67	1.58	1.70	1.80	1.81	1.49	1.88	-0.38
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.52	0.60	0.47	0.40	0.29	0.33	0.58	0.84	-0.27
Europe	0.33	0.24	0.29	0.33	0.34	0.25	0.39	0.32	0.47	0.36	0.26	0.11
Pacific	0.04	0.01	-	-	-	-	0.01	-	-	0.04	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.26	0.22	0.14	0.30	0.26	0.29	0.36	0.24	0.12
Europe	0.10	0.07	0.14	0.13	0.14	0.12	0.11	0.10	0.11	0.14	0.26	-0.12
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	3Q08	4Q08	1Q09	2Q09	Apr-09	May-09	Jun-09	Year Earlier Jun-08	Year Earlier % change
Crude Oil												
North America	8194	8214	8043	7895	7886	7743	7457	7793	7291	7291	8062	-10%
Europe	9784	9679	9772	9977	9524	9001	9144	8921	9083	9429	9937	-5%
Pacific	6816	6718	6604	6462	6404	6560	5706	5765	5325	6040	6251	-3%
Total OECD	24794	24610	24419	24333	23814	23305	22306	22479	21699	22761	24800	-8%
LPG												
North America	14	28	29	38	34	28	11	32	2	0	31	-100%
Europe	264	276	268	277	241	251	251	236	236	281	264	7%
Pacific	578	557	589	582	542	504	518	477	502	575	537	7%
Total OECD	856	861	885	898	818	784	780	745	740	856	832	3%
Naphtha												
North America	71	40	55	58	82	40	19	24	21	14	44	-69%
Europe	314	265	260	233	270	319	232	198	244	255	226	13%
Pacific	754	794	776	886	689	746	814	726	907	806	701	15%
Total OECD	1138	1099	1091	1177	1040	1105	1066	948	1172	1075	970	11%
Gasoline[3]												
North America	1143	1128	1083	1184	1038	996	906	879	800	1043	1373	-24%
Europe	160	203	218	261	196	239	280	211	274	355	75	371%
Pacific	96	73	91	56	106	121	72	81	62	71	56	27%
Total OECD	1399	1404	1392	1501	1340	1355	1257	1171	1136	1469	1504	-2%
Jet & Kerosene												
North America	161	183	63	40	39	80	45	54	40	41	62	-33%
Europe	374	370	402	399	468	454	462	462	439	485	416	17%
Pacific	69	43	34	22	33	79	49	52	52	44	42	6%
Total OECD	603	595	500	461	540	613	556	567	531	571	520	10%
Gasoil/Diesel												
North America	175	132	72	50	94	106	40	31	52	37	50	-27%
Europe	967	780	880	917	1039	1224	963	1048	988	852	736	16%
Pacific	77	91	119	128	117	82	81	54	105	84	133	-37%
Total OECD	1219	1003	1072	1095	1250	1411	1084	1133	1144	973	919	6%
Heavy Fuel Oil												
North America	343	323	286	246	266	326	326	319	344	315	342	-8%
Europe	476	433	447	446	462	474	567	586	561	553	415	33%
Pacific	91	95	125	143	93	144	129	157	118	110	124	-11%
Total OECD	910	851	858	834	821	943	1021	1062	1024	978	881	11%
Other Products												
North America	1121	1050	1075	1061	1117	935	897	821	995	872	1141	-24%
Europe	929	854	763	786	750	737	772	784	741	792	673	18%
Pacific	243	254	300	318	322	279	323	345	346	278	277	0%
Total OECD	2294	2157	2138	2165	2188	1951	1992	1950	2081	1942	2091	-7%
Total Products												
North America	3028	2883	2663	2677	2669	2509	2245	2160	2253	2322	3042	-24%
Europe	3484	3180	3238	3319	3426	3697	3526	3525	3483	3573	2805	27%
Pacific	1908	1906	2034	2136	1902	1955	1986	1893	2092	1970	1871	5%
Total OECD	8420	7969	7936	8132	7996	8161	7757	7577	7828	7864	7718	2%
Total Oil												
North America	11222	11097	10706	10572	10555	10253	9702	9953	9545	9613	11654	-18%
Europe	13268	12859	13011	13296	12950	12698	12670	12445	12566	13002	12742	2%
Pacific	8724	8623	8638	8597	8306	8515	7692	7658	7417	8010	8122	-1%
Total OECD	33214	32579	32355	32465	31811	31466	30064	30056	29527	30625	32518	-6%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor **Head, Oil Industry and Markets Division**	David Fyfe (+33) 0*1 40 57 65 90 **e-mail: david.fyfe@iea.org**
Demand	Eduardo Lopez (+33) 0*1 40 57 65 93 **e-mail: eduardo.lopez@iea.org**
Non-OPEC Supply	Julius Walker (+33) 0*1 40 57 65 22 **e-mail: julius.walker@iea.org**
Refining	David Martin (+33) 0*1 40 57 65 95 **e-mail: david.martin@iea.org** Ricardo Crespo (+33) 0*1 40 57 65 97 **e-mail: ricardo.crespo@iea.org**
OECD Stocks/Biofuels	Michael Waldron (+33) 0*1 40 57 66 18 **e-mail:** michael.waldron@iea.org
OPEC Supply/Prices	Diane Munro (+33) 0*1 40 57 65 94 **e-mail: diane.munro@iea.org**
Freight	Ellen Dalland (+33) 0*1 40 57 67 63 **e-mail: ellen.dalland@iea.org**
Statistics/Trade	Martina Repikova (+33) 0*1 40 57 67 16 **e-mail: martina.repikova@iea.org**
Editorial Assistant	Anne Mayne (+33) 0*1 40 57 65 96 **e-mail: anne.mayne@iea.org**
Fax:	*(+33) 0*1 40 57 65 99* *0 - only within France

Media Enquiries

IEA Press Office	(+33) 0* 1 40 57 65 54 **e-mail: ieapressoffice@iea.org**

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

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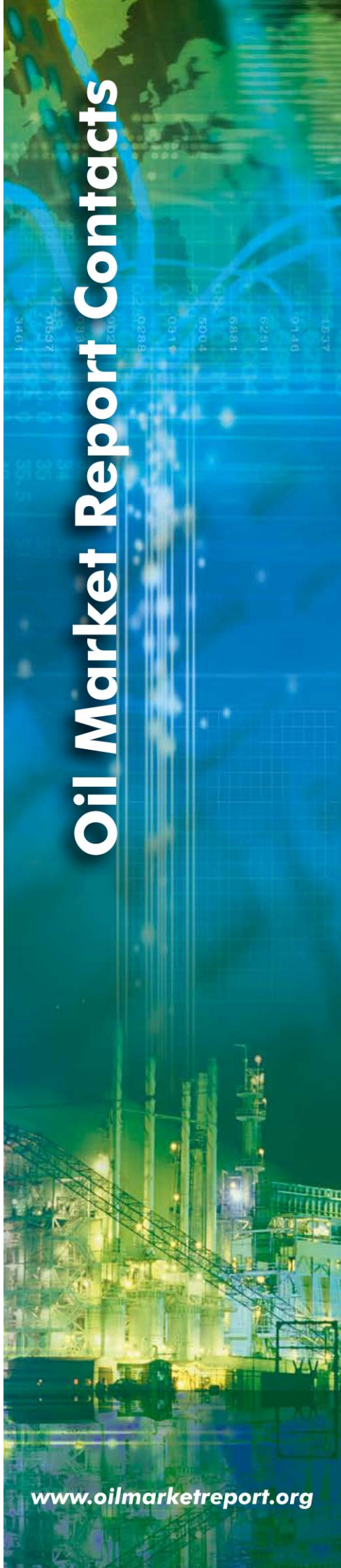

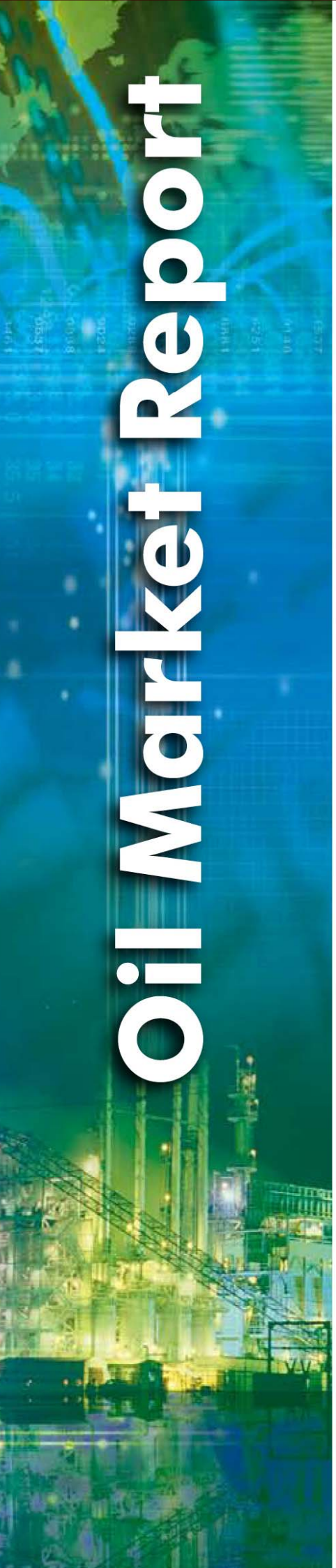

INTERNATIONAL ENERGY AGENCY

9 October 2009

HIGHLIGHTS

- **Global oil demand** has been revised up by 200 kb/d for 2009 and by 350 kb/d for 2010, given more optimistic IMF economic prognoses and stronger preliminary data from the Americas and Asia. Global oil demand now averages 84.6 mb/d in 2009 and 86.1 mb/d in 2010, implying yearly growth of -1.7 mb/d and +1.4 mb/d, respectively.
- **Crude oil prices** in September continued to trade in a $65-75/bbl range, although high distillate stocks ahead of winter and worries about the global economic recovery added a downward bias, with WTI and Brent trading at around $68-72/bbl in early October. Market concerns over Iran's nuclear programme have been muted, partly because OPEC's spare production capacity currently exceeds 5.4 mb/d.
- **OECD industry stocks** decreased by 3.9 mb in August to 2,750 mb, 2.8% above last year's level. Crude draws in North America and the Pacific outweighed middle distillate increases in all three regions. End-August forward demand cover decreased to 60.7 days, 3.7 days higher than a year ago.
- **Global oil supply** rose by 310 kb/d in September to 84.9 mb/d, driven by non-OPEC growth. Compared with September 2008, global supply was nearly flat, as a non-OPEC recovery of 1.6 mb/d relative to last year's hurricane-hit base was offset by OPEC curbs. That said, OPEC supply has continued to rise from early 2009 lows.
- **Non-OPEC output** projections are left largely unchanged, and production should continue to rise towards the end of 2009. Output is expected to average 51.0 mb/d this year, rising to 51.6 mb/d next year. Total annual growth stands at +380 kb/d in 2009 and +550 kb/d in 2010, augmented by OPEC NGL growth of 550 kb/d and 850 kb/d, respectively.
- **Global refinery crude throughput** in 4Q09 is reduced by 0.2 mb/d to 73.2 mb/d, as further weakness in refining margins undermines the outlook. Declines in OECD Europe and North America compound lower Latin American projections, only partially offset by higher Other Asian estimates resulting from stronger 3Q09 data.

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INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

The IEA is Seeking to Recruit a Senior Oil Market Analyst

The International Energy Agency (IEA), an intergovernmental body committed to advancing security of energy supply, economic growth and environmental sustainability through energy policy co-operation, is seeking to recruit a Senior Oil Market Analyst to examine developments and future prospects in global oil markets. The successful applicant will work under the guidance of the Head of the Oil Industry and Markets Division of the IEA.

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- In-depth knowledge of, and eight to ten years' experience in, oil industry and markets analysis, with a focus on refinery operations and downstream oil markets. International experience desirable.
- Policy experience with exposure to energy questions in government and/or industry. Demonstrated experience in quantitative data analysis and in developing analytical methodologies. Proven skills in working with databases, spreadsheets and word-processing software.
- Ability to work well under extremely demanding deadlines.
- Excellent level of oral and written communication skills and excellent drafting ability in English; a working knowledge of French would be an advantage.

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THE JOYS OF SUMMITRY

After a lull in July and August, international organisations traditionally face a slew of meetings, summits and gatherings in the autumn. The last month has seen an OPEC ministerial meeting in Vienna, the G20 gathering in Pittsburgh, IMF/World Bank annual meetings in Istanbul, and talks on Iran's nuclear programme in Geneva. Aside from wisecracks about these events' collective carbon footprint, each could have major implications for oil and energy markets. October also sees the IEA's own biennial Ministerial meeting in Paris, with a focus this year on global energy partnerships.

Heading into its annual meeting in Istanbul this week amid calls for an expanded role in world financial markets, the IMF released its new *World Economic Outlook (WEO).* This trimmed the expected global economic contraction in 2009 to -1.2% (from -1.4% in its last complete outlook in April), based on stronger than expected performance in OECD and non-OECD Asia, including China. The 2010 global GDP growth level, now +3.1%, stands 1.2 percentage points higher than in April, with expectations for North America and Asia upgraded. Our own base case oil demand projection is raised accordingly, albeit by a muted 200-350 kb/d. Offsets to higher GDP accrue from a higher price assumption (now around $75/bbl in 2010 based on the prevailing futures strip) and further evidence of fuel substitution and efficiency improvements. Given continuing uncertainties about the path of economic recovery, we also illustrate a downside GDP sensitivity, which suggests global demand 0.1 mb/d and 0.6 mb/d lower than the base case for second-half 2009 and full year 2010, respectively.

OPEC's 9 September meeting saw a much-expected retention of existing production targets, with post-meeting statements distancing future output decisions from a sole focus on OECD forward stock cover. Saudi Oil Minister al-Naimi was quoted saying that economic growth, not inventories, was now the real driver of prices. We too have previously noted that forward stock cover can be a misleading metric when oil demand is declining. While OPEC is presently producing well above output targets, the existing production agreement at least holds the potential to push absolute OECD inventory levels closer to seasonal norms again by second half 2010. OPEC Ministers will meet again in December in Angola.

The G20 discussions in Pittsburgh were notable for two key reasons from an oil standpoint. First, the pledge to remove fossil fuel price subsidies, while unencumbered by a firm timetable, could ultimately make non-OECD oil demand more responsive to price signals from the international market. Second, price volatility was addressed, with the communiqué citing agreement to improve the regulation, functioning and transparency of financial and commodity markets. On derivatives, the US administration's approach appeared to gain ground, with a recommendation that all standardised OTC derivative contracts be traded on exchanges or electronic trading platforms, where appropriate, and centrally cleared by the end of 2012 at the latest. Similarly, all OTC derivatives contracts should be reported to trade repositories and non-centrally cleared contracts should be subject to higher capital requirements. The *OMR* this month examines newly disaggregated weekly data from the US CFTC on futures market trades and the recent role of broader financial factors in oil price formation.

Finally, two key themes of the upcoming IEA Governing Board meeting at Ministerial level (with participation from China, India and Russia) will be *comprehensive energy security* and *enhanced global energy dialogue*. The scope of these matters is of course much broader than the oil market. Nonetheless, the *OMR* this month notes ongoing concerns surrounding Iran's nuclear programme, albeit the impact of any hypothetical supply disruption, were diplomatic efforts to fail, would currently be blunted by weak refiner crude demand and high OPEC spare capacity. The crucial role of China in shaping future oil markets also permeates this report, amid upward-revised demand and inventory estimates, and evidence of growing reach in the international upstream arena. Ongoing dialogue with key oil market actors outside the IEA fold remains an Agency preoccupation, and the presence of China and India at the Ministerial meeting will be followed by joint oil market seminars in Beijing and Delhi later in October.

DEMAND

Summary

- **Forecast global oil demand** has been revised up by 200 kb/d for 2009 and by 350 kb/d for 2010, on the back of more optimistic economic assumptions by the International Monetary Fund and stronger-than-expected preliminary data in OECD North America, non-OECD Asia and Latin America. Global oil demand is now expected to average 84.6 mb/d in 2009 (-1.9% or -1.7 mb/d year-on-year), with a slightly higher assessment of 4Q09 OECD demand. In 2010, oil demand should rise to 86.1 mb/d (+1.7% or +1.4 mb/d versus 2009), largely reflecting buoyant economic activity in more oil intensive emerging countries. Even though the pace of demand contraction is clearly easing, auguring a return to year-on-year growth by 4Q09, the outlook for 2010 is still fraught with uncertainty, as the IMF warns. Were global economic growth next year to be around two-thirds of what is currently projected, oil demand itself could be some 0.6 mb/d lower, as discussed in our sensitivity analysis.

- **Forecast OECD oil demand** has been increased by roughly 70 kb/d for both 2009 and 2010, given minor upward revisions to preliminary data and higher economic growth assumptions for 4Q09 and next year. Oil demand is now seen falling by 4.5% year-on-year (-2.1 mb/d) to 45.4 mb/d in 2009 and remaining flat in 2010. Most recent data show minor year-on-year contractions or even positive growth in several countries for some product categories, notably in North America and the Pacific, but these readings are relative to a very weak 2008 baseline and should arguably not be construed as a takeoff resulting from an allegedly buoyant economic recovery. In Europe, the continuing fall in naphtha demand, a fuel mostly used in industrial applications, suggests that any such recovery remains fragile.

Global Oil Demand (2008-2010)

(million barrels per day)

	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Africa	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.3	3.3	3.2	3.4	3.3
Americas	30.5	30.4	29.6	29.9	30.1	29.3	28.8	28.9	29.5	29.1	29.4	29.3	29.7	29.7	29.5
Asia/Pacific	26.7	25.7	25.0	25.1	25.6	25.7	26.0	25.5	25.7	25.7	26.5	26.3	25.7	26.2	26.2
Europe	16.1	15.8	16.3	16.2	16.1	15.6	14.9	15.4	15.6	15.4	15.5	15.0	15.5	15.6	15.4
FSU	4.3	4.1	4.3	4.2	4.2	4.0	3.8	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Middle East	6.7	7.1	7.6	7.0	7.1	6.7	7.3	7.7	7.1	7.2	7.1	7.5	7.9	7.5	7.5
World	**87.5**	**86.4**	**86.0**	**85.4**	**86.3**	**84.6**	**84.1**	**84.6**	**85.2**	**84.6**	**86.0**	**85.4**	**86.3**	**86.5**	**86.1**
Annual Chg (%)	1.2	1.0	-0.4	-2.6	-0.2	-3.3	-2.6	-1.6	-0.3	-1.9	1.7	1.5	1.9	1.6	1.7
Annual Chg (mb/d)	1.0	0.9	-0.4	-2.3	-0.2	-2.9	-2.2	-1.3	-0.2	-1.7	1.4	1.3	1.6	1.3	1.4
Changes from last OMR (mb/d)	0.01	0.02	0.01	0.01	0.01	0.05	0.01	0.21	0.53	0.20	-0.03	0.30	0.46	0.66	0.35

- **Forecast non-OECD oil demand** has been adjusted up for both 2009 and 2010, following a reassessment of demand prospects in Asia (China, Chinese Taipei, India, Indonesia, Malaysia and Singapore) and Latin America (Brazil), as well as much higher economic forecasts. Demand in 2009 is now expected to average 39.2 mb/d (+1.2% or +0.5 mb/d year-on-year and 120 kb/d higher versus our previous assessment). The revision for 2010 is higher (+290 kb/d), with demand seen averaging 40.6 mb/d (+3.6% or +1.4 mb/d versus the previous year).

Global Overview

This report incorporates the latest IMF GDP forecasts, published on 1 October. Arguing that the global economy is on the mend, the Fund's new prognoses are sharply up, both versus its April *World Economic Outlook* and its July *Update*. While the 2009 global economic contraction is now expected to be less pronounced, notably in non-OECD countries, the 2010 global rebound has been revised to +3.1% year-on-year, up by 1.2 percentage points versus the Fund's April assessment and by roughly 0.6 percentage points compared with its July interim evaluation. (The IMF interim report was not taken into account by this report at the time, as most other forecasters were then significantly less bullish. Nowadays, by

contrast, the consensus is closer to the Fund's projections.) Emerging countries will be the driving force, expanding by +5.2%, but the recovery in the OECD will be far from negligible (+1.4%). Asia and the Middle East, in particular, are seen featuring strong economic growth.

Largely as a result of these higher GDP assumptions, global oil demand is now seen averaging 84.6 mb/d in 2009 (-1.9% or -1.7 mb/d year-on-year and +200 kb/d higher compared with our last report), with a slightly higher assessment of 4Q09 OECD demand. In 2010, oil demand is expected to rise to 86.1 mb/d (+1.7% or +1.4 mb/d versus 2009 and +350 kb/d higher than previously expected), reflecting more buoyant economic activity, notably in emerging countries, where oil demand is more responsive to economic growth than in the OECD. It must be noted, however, that these revisions are not entirely attributable to different GDP figures. Preliminary oil data for several non-OECD countries showed stronger-than-expected readings in both July and August, thus slightly lifting the baseline. In addition, we have also adjusted up our oil price assumptions for both years (to roughly $71/bbl in 2009 and $76/bbl in 2010 in nominal terms), thus partly counterbalancing GDP changes. Overall, nonetheless, both oil demand growth forecasts remain consistent with historical trends relative to GDP growth, taking into account interfuel substitution and declining oil intensity.

Real GDP Growth
OMR dated 9 October 2009

% change	2009	2010
WORLD	**(1.2)**	**3.1**
OECD	**(3.6)**	**1.4**
OECD, North America	(3.1)	1.7
OECD, Europe	(4.1)	0.7
OECD, Pacific	(3.7)	2.1
Non-OECD	**2.1**	**5.2**
Africa	2.0	4.0
Latin America	(0.9)	2.7
China (excl. Hong Kong)	8.5	9.0
Other Asia	2.2	5.0
Non-OECD Europe	(4.9)	0.4
FSU	(7.3)	1.9
Middle East	1.9	4.2

Current vs. Previous
OMR dated 10 April 2009

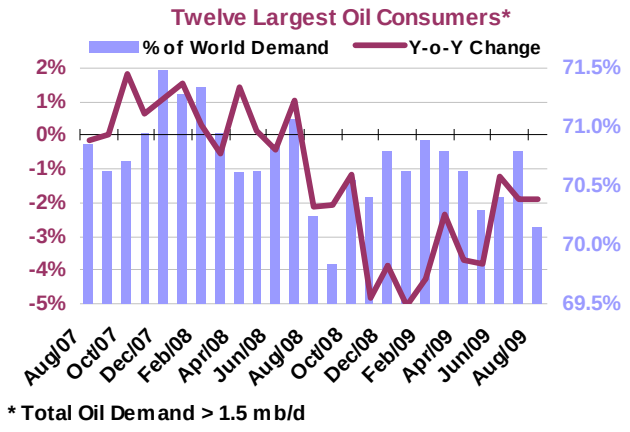
WORLD	**0.2**	**1.2**
OECD	**0.1**	**1.3**
OECD, North America	(0.3)	1.6
OECD, Europe	(0.1)	0.9
OECD, Pacific	1.4	1.4
Non-OECD	**0.5**	**1.1**
Africa	0.1	0.5
Latin America	(0.2)	1.0
China (excl. Hong Kong)	2.0	1.5
Other Asia	1.1	1.4
Non-OECD Europe	(2.6)	(0.0)
FSU	(1.9)	0.8
Middle East	(0.6)	0.4

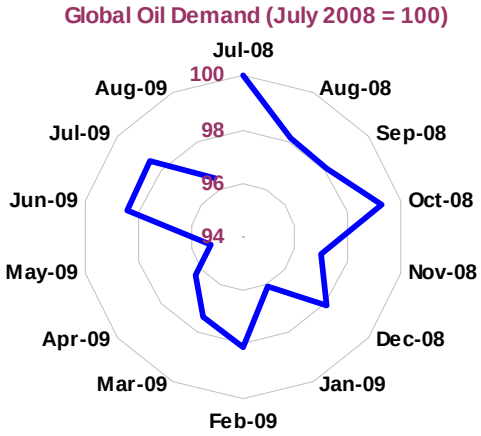
Sources: IMF, IEA

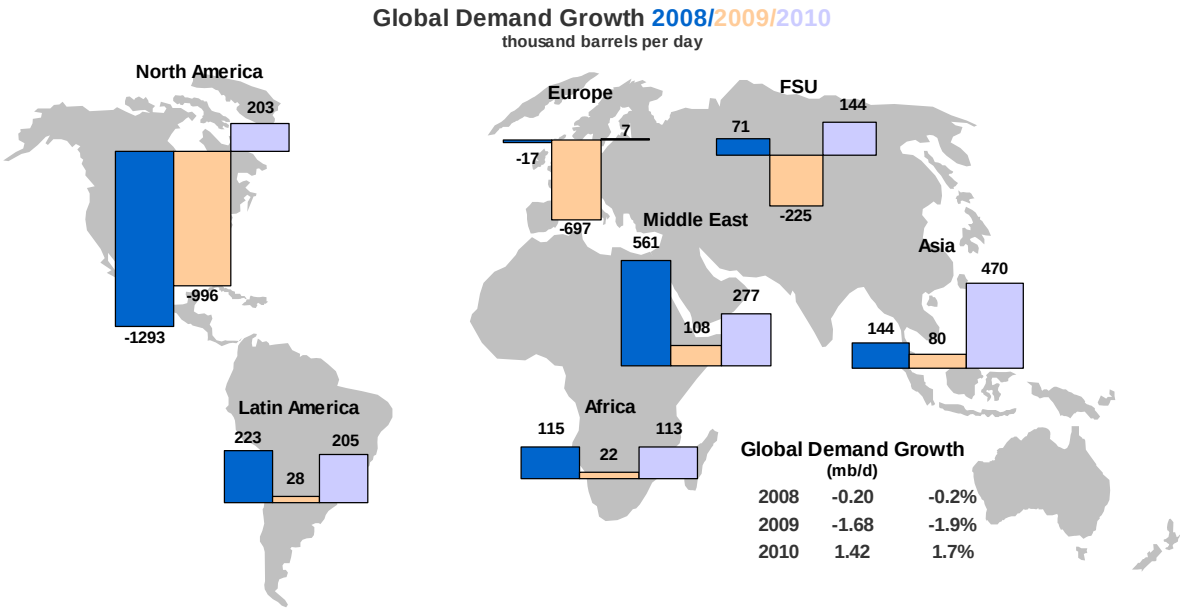
Real GDP Growth vs. Oil Demand Growth 1981-2010



Yet despite revising up the outlook, prompt oil demand remains in the doldrums. Global demand was still *down* by 1.6% year-on-year in July (versus -2.3% as previously estimated) and by 1.7% in August. More significantly, demand among the world's twelve largest oil consumers (those using at least 1.5 mb/d), which collectively account for about 70% of the world total, is still contracting by roughly 2% on a yearly basis; the modest demand surge in June appears to have been short-lived. Gasoil demand, in particular, remains very weak, trailing by about 4% below last year's levels on a quarterly basis. Nonetheless, the pace of demand contraction is clearly easing, auguring a return to year-on-year growth by 4Q09. But, as noted, the contraction in 2009 as a whole will be significant; meanwhile, despite the expected 2010 rebound, oil demand next year will still remain below 2008 levels. From that perspective, at this juncture the *absolute* level of oil demand, rather than its relative change, is more instructive when outlining market fundamentals.







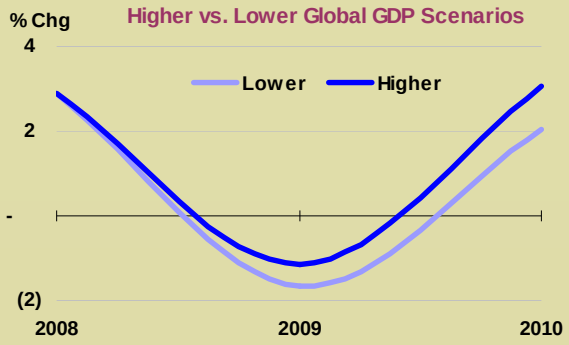
Bulls Versus Bears: Oil Demand Sensitivity

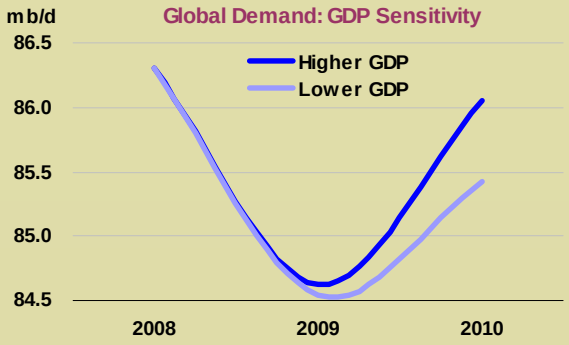
The latest IMF forecasts, released on 1 October, suggest that the recession is largely over. Although global economic growth will not immediately return to the pre-crisis rates of roughly 5% on average from 2004 to 2007, the Fund predicts it will still feature a quite respectable rebound (+3.1%) – and eventually reach +4.5% in the medium term (2014). Yet, as the IMF is the first to acknowledge, this prognosis faces several vexing question marks regarding its sustainability.

The incipient recovery has largely been engineered by extensive government intervention, as would have been expected, but the Fund warns against complacency. It notes that despite very loose fiscal and monetary policies, unemployment is on the rise and likely to remain high for some time. Public debt in many countries has increased sharply, placing many governments in a predicament: they will eventually have to tighten macroeconomic policies in order to avoid damaging public balance sheets in the medium term. Yet the deleveraging in the private sector will continue to weigh on consumption and credit availability, thus limiting the scope for policy changes in the short term. Moreover, there are concerns with regards to the emergence of massive overcapacity across the globe in key industries, which could further sour the balance sheets of the banking sector in several large countries, exacerbate trade tensions and foster deflationary pressures. Meanwhile, global imbalances, albeit diminishing, remain significant. Another risk is related to the rise in commodity prices, notably of oil, which could yet easily derail the recovery.

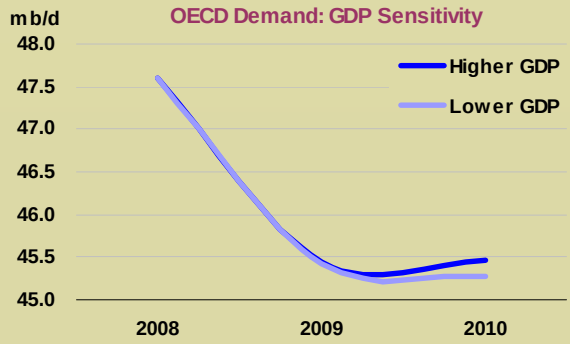
Bulls Versus Bears: Oil Demand Sensitivity *(continued)*

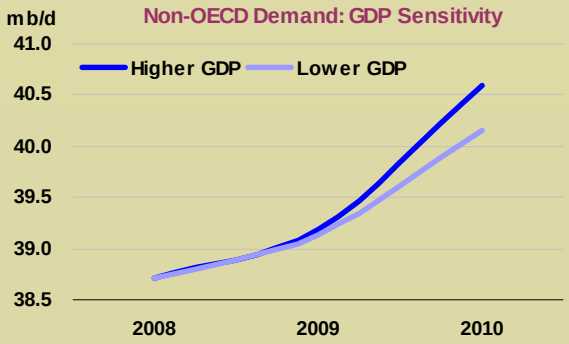
In sum, as we have repeatedly noted in this report, there is considerable uncertainty as to the world's short-term economic outlook. The ongoing, lively debate among different economic schools of thought – in shorthand, bulls versus bears – regarding the strength and shape of the economic rebound is far from settled. By implication, any oil demand forecasting is open to equal uncertainty. Facing this conundrum, we present a sensitivity analysis based on different GDP scenarios, akin to the one published in June's *Medium-Term Oil Market Report (MTOMR)*: a 'higher' GDP profile (based on the current IMF assessment) and a 'lower' one (shaving a third off global growth in 2H09 and in 2010, attempting to reflect more bearish economic forecasts).





This sensitivity analysis is merely illustrative, as it does not imply a probability of occurrence and ignores the iterations between economic activity and the oil price, which is held unchanged in both scenarios. Yet it is useful to pinpoint the potential range within which oil demand may evolve, particularly next year. Under the higher case (+3.1% GDP growth in 2010), demand is expected to reach 86.1 mb/d, as noted earlier. By contrast, under the lower case (+2.1% GDP growth), demand would stand some 620 kb/d below the higher scenario's level, at 85.4 mb/d, and growth would be subdued (+1.0% versus +1.7% or +0.9 mb/d versus +1.4 mb/d). In terms of regions, the effect of less buoyant economic activity upon oil demand would be felt more in emerging countries, which are much more oil intensive than mature OECD countries. Indeed, under the lower GDP scenario, demand would be 190 kb/d less in the OECD, but 430 kb/d less in non-OECD countries.





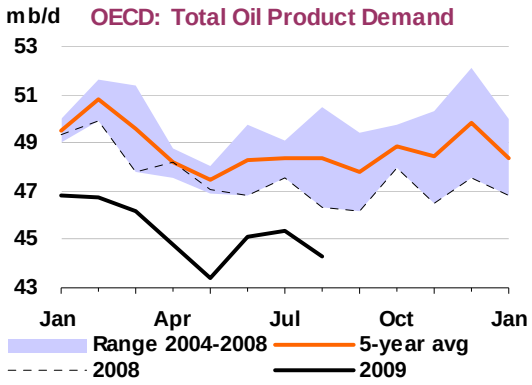
OECD

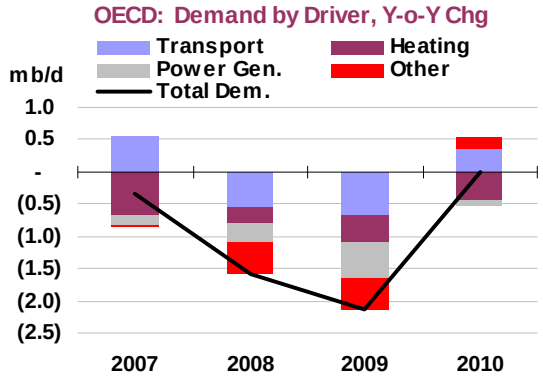
According to preliminary data, OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 4.4% year-on-year in August, with all three regions recording losses for the sixteenth month in a row. In **OECD Europe**, demand plummeted by 6.7% year-on-year, with all product categories bar diesel posting losses. In **OECD North America** (which includes US Territories), oil demand sank by 4.1%, with all product categories bar LPG and 'other products' showing yearly decline. In **OECD Pacific**, demand fell by 0.4% as depressed demand for LPG, residual fuel oil and 'other products' offset a marked rebound in gasoline and middle distillate demand.

OECD Demand based on Adjusted Preliminary Submissions - August 2009
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.52**	**-1.5**	**1.78**	**-4.1**	**3.15**	**-19.5**	**0.77**	**-2.2**	**0.99**	**-3.2**	**5.74**	**1.38**	**22.95**	**-4.1**
US50	8.97	-1.8	1.56	-4.8	2.60	-23.1	0.32	10.7	0.46	-9.0	4.40	1.7	18.31	-5.0
Canada	0.75	-0.4	0.12	8.8	0.23	-0.3	0.31	3.8	0.11	-1.8	0.71	-1.5	2.24	0.2
Mexico	0.74	-0.3	0.06	-14.0	0.28	-9.6	0.12	-9.6	0.33	4.7	0.57	3.1	2.08	-1.0
OECD Europe	**2.38**	**-0.2**	**1.33**	**-5.4**	**4.15**	**1.5**	**1.29**	**-29.8**	**1.40**	**-11.0**	**3.46**	**-7.2**	**14.01**	**-6.7**
Germany	0.48	5.2	0.20	-1.2	0.68	6.4	0.21	-62.4	0.16	-8.4	0.54	-11.9	2.26	-14.0
United Kingdom	0.37	-1.9	0.32	-2.5	0.40	1.4	0.12	-6.4	0.08	-0.3	0.30	9.3	1.60	0.5
France	0.21	-0.6	0.16	-4.8	0.63	5.2	0.21	-30.6	0.05	-43.6	0.45	-11.5	1.71	-9.0
Italy	0.25	-3.8	0.09	-11.1	0.47	-1.6	0.08	-9.2	0.20	-12.4	0.33	-11.7	1.42	-7.1
Spain	0.15	-3.8	0.13	-6.6	0.47	-1.9	0.16	-7.8	0.21	-2.9	0.32	-2.0	1.44	-3.4
OECD Pacific	**1.69**	**12.0**	**0.69**	**25.5**	**1.18**	**4.5**	**0.34**	**7.9**	**0.62**	**-25.4**	**2.80**	**-7.0**	**7.32**	**-0.4**
Japan	1.11	16.7	0.43	39.5	0.54	12.1	0.25	4.1	0.33	-38.3	1.50	-12.1	4.15	-1.5
Korea	0.19	4.0	0.13	20.0	0.27	-4.6	0.09	20.1	0.25	-2.9	1.12	-0.4	2.07	1.0
Australia	0.33	4.0	0.10	-2.6	0.33	1.9	0.00	24.2	0.03	1.1	0.16	-1.7	0.96	1.5
OECD Total	**14.58**	**0.1**	**3.80**	**-0.3**	**8.48**	**-7.1**	**2.41**	**-18.4**	**3.01**	**-12.2**	**12.00**	**-3.2**	**44.28**	**-4.4**

* Including US territories





Revisions to July preliminary data totalled +440 kb/d, with stronger-than-anticipated demand for all product categories bar residual fuel oil and 'other products'. Overall, July demand contracted by 4.5% year-on-year, slightly less than previously assessed (-5.5%). These revisions, coupled with higher GDP assumptions, have resulted in slightly adjusted estimates of OECD oil demand for this year and next (up by about 70 kb/d when compared with last month's report). OECD demand is now expected to contract by 4.5% in 2009 to 45.4 mb/d and remain largely flat in 2010.

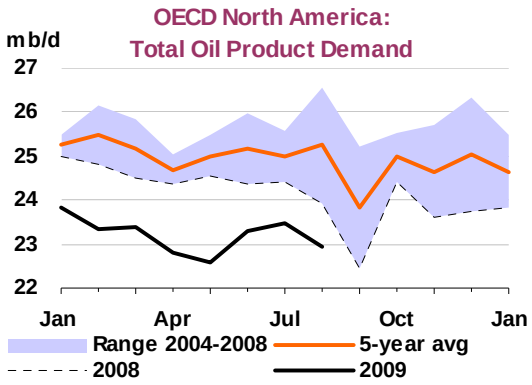
Total OECD Demand by Product
(million barrels per day)

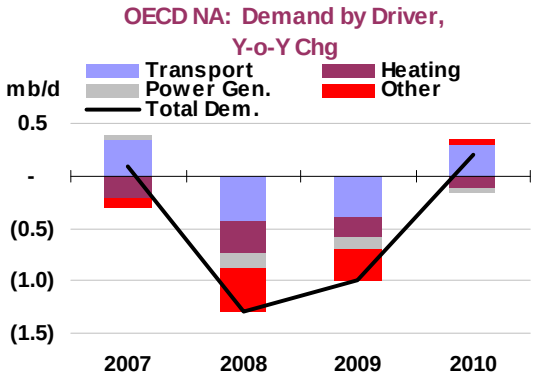
	2008	2009	3Q08	4Q08	1Q09	2Q09	May 09	Jun 09	Jul 09*	Latest month vs. Jun 09	Latest month vs. Jul 08
LPG & Ethane	4.66	4.46	4.29	4.55	4.82	4.32	4.20	4.25	4.41	0.16	-0.09
Naphtha	3.08	2.94	3.07	2.88	2.98	2.86	2.86	2.82	3.01	0.19	-0.06
Motor Gasoline	14.41	14.38	14.46	14.36	14.00	14.55	14.43	14.80	14.96	0.17	0.21
Jet & Kerosene	3.98	3.74	3.81	3.90	3.99	3.53	3.39	3.54	3.64	0.10	-0.25
Gas/Diesel Oil	13.04	12.31	12.65	13.43	13.09	11.78	11.45	12.03	11.86	-0.17	-0.69
Residual Fuel Oil	3.66	3.27	3.53	3.61	3.61	3.06	2.88	3.11	2.86	-0.25	-0.84
Other Products	4.76	4.35	4.88	4.61	4.08	4.30	4.16	4.58	4.64	0.06	-0.44
Total Products	**47.60**	**45.45**	**46.68**	**47.34**	**46.58**	**44.41**	**43.37**	**45.12**	**45.38**	**0.26**	**-2.15**

* Latest official OECD submissions (MOS)

North America

Preliminary data show that oil product demand in North America (including US Territories) shrank by 4.1% year-on-year in August, the twentieth monthly contraction in a row. The decline in the US was particularly marked (-4.9%), but more moderate in Mexico (-1.0%).





Meanwhile, July's revisions to preliminary data (+250 kb/d) were again almost solely due to the US, with all product categories bar 'other products' featuring higher readings. For the second month in a row, US gasoline and distillate demand have been revised up. Total demand in North America actually fell by 3.8% in July, a lower pace when compared with our last report (-4.9%). However, this does not necessarily signal a demand rebound, but rather that our pre-emptive weekly-to-monthly adjustments, which were based on the six-month average of previous adjustments, were slightly overstated. Taking into account the latest IMF GDP prognoses, North American demand is now estimated at 23.2 mb/d in 2009 (-4.1% or -1.0 mb/d versus 2008), while demand in 2010 is seen rising to 23.4 mb/d (+0.9% or +0.2 mb/d year-on-year). Both forecasts are some 60 kb/d higher than their predecessors.

OECD North America Demand by Product
(million barrels per day)

	2008	2009	3Q08	4Q08	1Q09	2Q09	May 09	Jun 09	Jul 09*	Latest month vs. Jun 09	Latest month vs. Jul 08
LPG & Ethane	2.73	2.61	2.48	2.66	2.88	2.49	2.44	2.37	2.57	0.19	-0.11
Naphtha	0.36	0.29	0.36	0.33	0.29	0.33	0.33	0.34	0.34	0.00	-0.09
Motor Gasoline	10.52	10.52	10.49	10.50	10.30	10.63	10.60	10.82	10.92	0.10	0.18
Jet & Kerosene	1.77	1.67	1.79	1.64	1.66	1.62	1.59	1.63	1.76	0.12	-0.07
Gas/Diesel Oil	5.01	4.57	4.77	5.03	4.94	4.41	4.36	4.52	4.45	-0.07	-0.32
Residual Fuel Oil	1.10	1.00	1.05	1.06	1.08	0.98	0.88	1.02	0.80	-0.22	-0.40
Other Products	2.69	2.52	2.67	2.71	2.38	2.43	2.39	2.60	2.65	0.06	-0.14
Total Products	**24.18**	**23.18**	**23.60**	**23.93**	**23.52**	**22.89**	**22.59**	**23.29**	**23.47**	**0.18**	**-0.94**

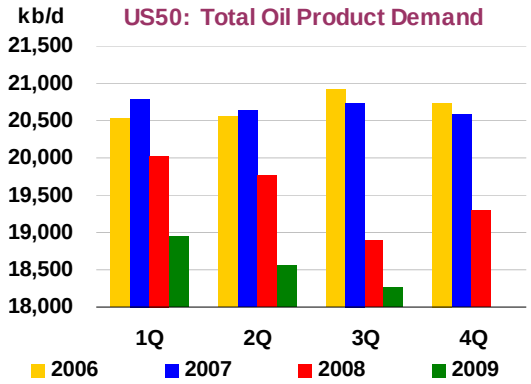
* Latest official OECD submissions (MOS)

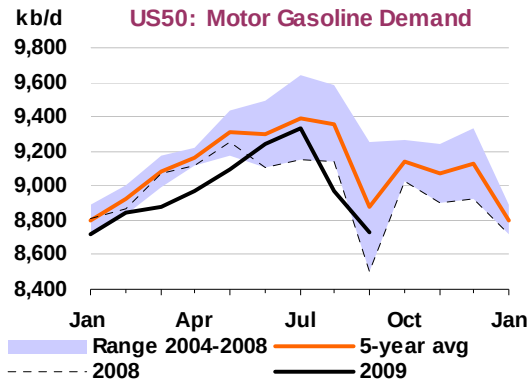
Preliminary weekly data in the continental **United States** indicate that inland deliveries – a proxy of oil product demand – contracted by 1.5% year-on-year in September. This could be interpreted as an easing of the demand contraction and hence of economic recovery, but some caveats are in order.

First, the precise state of US oil demand is becoming increasingly difficult to ascertain. In the past several years, weekly-to-monthly revisions have generally been downward, reflecting the fact that weekly data only capture a preliminary snapshot of demand. However, in recent months weekly-to-monthly revisions have abruptly changed both in terms of direction (up, rather than down), magnitude and products affected (revisions to distillate or gasoline demand, for example, have been unusually large), possibly because of evolving trade patterns for several key products. This has complicated our efforts to pre-empt these changes, hitherto based on the six-month average of previous adjustments (we have now moved to a twelve-month average).

These weekly-to-monthly revisions have also dramatically changed the demand picture for some products, notably gasoline. Given the sharp upward adjustments to June and July data, it appears that this summer did indeed feature a driving season, at least in its earlier stages, contrary to preliminary weekly data showing depressed gasoline use, which had suggested that demand had fared worse than in an already weak 2008. Despite these upward revisions, though, gasoline demand has nonetheless been

trailing below the five-year average. On the basis of weekly data, the driving season appears to have petered out at the end of the summer – yet gasoline demand in August and September may turn out to be eventually revised up as well.

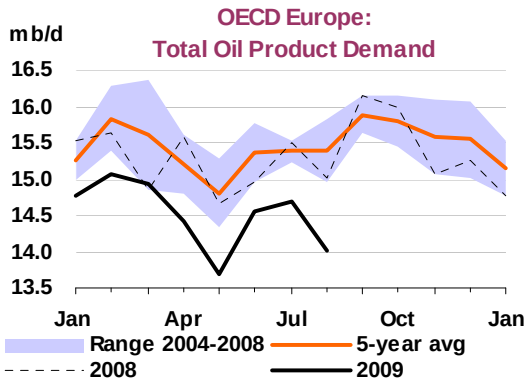


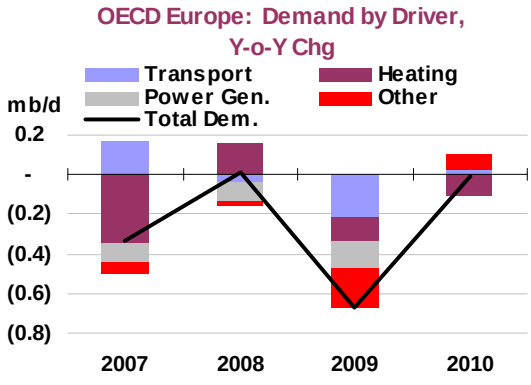


Second, the current, relatively strong growth readings result from a very weak baseline. The US Gulf Coast was battered by severe hurricanes over August and September 2008, which disrupted refinery operations and deliveries and further compounded the impact of the financial meltdown (as such, total oil demand contracted by almost 13% year-on-year in September 2008). Therefore, a demand bounce in September this year was to be expected, given the calmer conditions (meteorological and economic), and should arguably not be construed as a takeoff on the back of an allegedly buoyant economic recovery. Diesel demand – strongly correlated to economic activity – has continued to decline sharply on a yearly basis (-6.8% in July, despite upward revisions, and with weekly data suggesting a double-digit contraction in both August and September). As such, the outlook for US demand has only marginally improved, with demand averaging 18.7 mb/d in 2009 (-4.3% year-on-year) and 18.8 mb/d in 2010 (+0.9%), some 40 kb/d higher in both years compared with our previous assessment.

Europe

According to preliminary inland data, oil product demand in Europe plummeted by 6.7% year-on-year in August. All product categories bar diesel posted losses, but the fall was mostly driven by weaker-than-expected demand for naphtha, heating oil and residual fuel oil. The persistent weakness in naphtha demand (-13.9%) continues to defy expectations of a rebound in industrial activity in the continent's largest economies, although it could be also partly explained by ethylene cracker maintenance as well as rising competition from low-cost areas such as the Middle East. The fall in heating oil demand reflected once again lower deliveries in both Germany and France, as consumer stocks approach historical highs. Residual fuel oil demand, meanwhile, continues to be displaced by cheaper natural gas in the power generation sector.





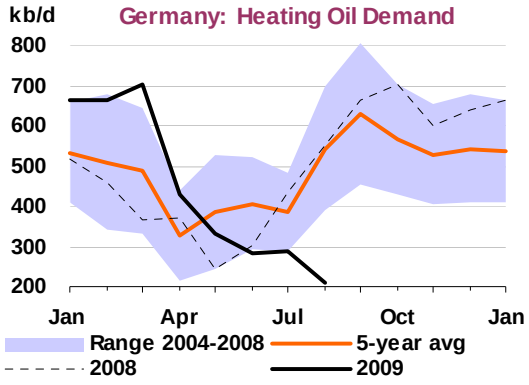
Paradoxically, July's revisions (+70 kb/d) were to a great extent due to stronger-than-expected naphtha demand. Overall, European oil product demand fell slightly less than expected during that month (-5.2% instead of -5.6%). Despite slightly stronger economic growth assumptions, the demand outlook remains largely unchanged. Total demand is now seen at 14.7 mb/d in 2009 (-4.4% or -670 kb/d versus 2008 and 40 kb/d lower than previously expected). Demand is expected to remain flat in 2010 (but down 20 kb/d when compared with our last report, given a minor reappraisal of 1Q10).

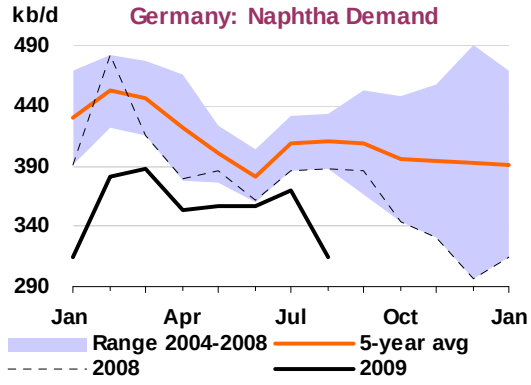
OECD Europe Demand by Product
(million barrels per day)

	2008	2009	3Q08	4Q08	1Q09	2Q09	May 09	Jun 09	Jul 09*	Latest month vs. Jun 09	Latest month vs. Jul 08
LPG & Ethane	1.03	0.97	0.95	0.99	1.04	0.99	0.93	1.01	0.94	-0.07	-0.02
Naphtha	1.08	1.00	1.07	0.99	1.05	0.90	0.93	0.87	0.99	0.13	0.01
Motor Gasoline	2.36	2.31	2.44	2.30	2.19	2.39	2.31	2.45	2.47	0.02	-0.02
Jet & Kerosene	1.32	1.25	1.42	1.27	1.19	1.26	1.21	1.29	1.33	0.04	-0.11
Gas/Diesel Oil	6.35	6.16	6.33	6.69	6.51	5.81	5.56	5.92	5.95	0.03	-0.27
Residual Fuel Oil	1.64	1.50	1.63	1.69	1.61	1.35	1.30	1.37	1.36	-0.01	-0.29
Other Products	1.57	1.49	1.71	1.49	1.33	1.53	1.46	1.66	1.65	-0.01	-0.10
Total Products	**15.35**	**14.68**	**15.55**	**15.44**	**14.92**	**14.22**	**13.70**	**14.56**	**14.69**	**0.13**	**-0.80**

* Latest official OECD submissions (MOS)

According to preliminary data, **German** demand plummeted in August (-14.0% year-on-year) as heating oil deliveries plunged counter-seasonally (-62.4%), naphtha contracted again (-18.6%) and cheaper natural gas supplies continued to displace residual fuel oil (-8.4%) for power generation. Although gasoline and diesel rebounded strongly in August (+5.2% and +6.4% year-on-year, respectively), this surge may be explained by a very low baseline (deliveries of both products had plummeted in August 2008) and by incentives to buy new cars, rather than stronger economic conditions. In fact, the abrupt fall in naphtha demand, a fuel mostly used in industrial applications, suggests that the much-trumpeted economic recovery remains fragile.

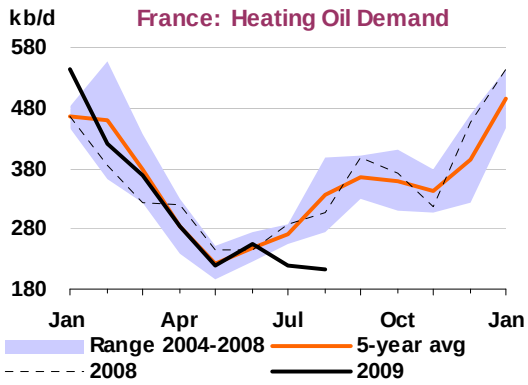




The drop in heating oil deliveries, meanwhile, confirms that after the surge in demand during 1H09 – arguably fostered by the sharp fall in oil prices – the replenishing of consumer stocks has been largely completed as expected. Indeed, stocks reached 66% of capacity by end-August, unchanged versus July but much higher than the 55% recorded in the same month of the previous year. The current fill rate is below the record attained in August 1986 (79% of capacity), but is higher than the five-year average, suggesting that deliveries are likely to remain weak for the rest of 2009.

In **France**, oil product deliveries also fell sharply in August (-9.0% year-on-year), mimicking German trends, with continued weakness in deliveries of naphtha (-17.6%), heating oil (-30.6%) and residual fuel oil (-43.6%) but rebounding diesel demand (+5.2%), albeit from a low base in the previous year. As in Germany, the poor readings for industrial fuels place the extent of the economic recovery in context.

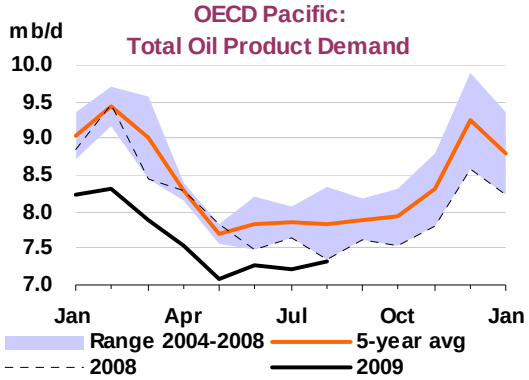
In mid-September, the French government launched a new carbon tax, to be levied at a rate of €17/tonne of CO_2 from January 2010, assuming that the necessary legislation is approved by parliament over the next few months. The country would thus become the first large economy to adopt such a tax (Denmark and Sweden have already imposed a carbon tax, while Germany adopted a 'green' tax 10 years ago). The new duty will be applied to transportation fuels (gasoline and diesel), heating oil, natural gas and coal, with the aim of gradually reducing carbon emissions. However, it remains to be seen whether the move will actually encourage energy conservation to any significant degree: retail gasoline and diesel prices, for example, are expected to increase by a marginal ¢4-5/litre – in Sweden, by contrast, the carbon tax is levied at €108/tonne of CO_2, which translates into much higher pump prices. Moreover, the tax is to be fiscally neutral, offset by 'green cheques' for poorer and rural households, while several industries (farming, fishing and trucking) will be granted exemptions. A government agency in charge of monitoring energy use (Ademe) has estimated that the new tax will at best reduce transportation fuel demand by 1.3% per year if the cost of CO_2 emissions is kept at the proposed price level.

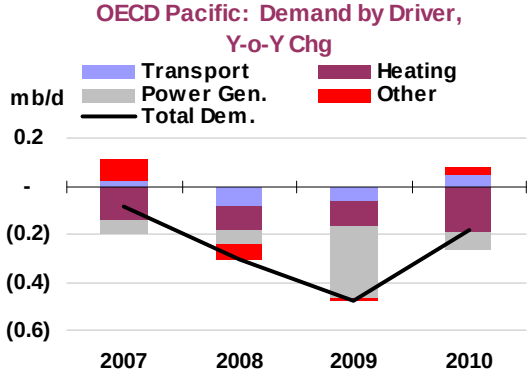


Of potentially greater impact is France's goal to encourage the adoption of electric vehicles (EVs). In early October, the government announced it will invest €1.5 billion to install 4.4 million charging points across the country over the next decade, as well as subsidise both car manufacturers and consumers. It aims at having two million EVS (either totally electric or hybrid/electric) on the roads by 2020 and 4.5 million by 2025, equivalent to about 12% of the French vehicle fleet (currently estimated at some 30 million units). Although there are many questions on the technical viability and evolution of EVs, the trend in France – and in other large OECD countries – seems clear: to transcend the traditional internal combustion engine, a move that will likely have dramatic consequences in terms of oil demand in the medium to long term.

Pacific

According to preliminary data, oil product demand in the Pacific fell for the fourteenth month in a row in August, albeit marginally (-0.4% year-on-year). A newfound strength in gasoline, jet/kerosene and distillates almost offset the persistent decline in residual fuel oil demand and 'other products'. This relative strength, compared with the record plunges observed in previous months, was almost entirely due to Korea, whose economy continues to show a remarkable rebound (Australia, whose demand is about half the size of Korea's, also featured marginally positive growth). By contrast, Japanese demand recorded yet another contraction.





Yet the upward revisions to July preliminary data (+110 kb/d) came largely from Japan, and specifically from the 'other products' category. Pacific oil demand thus contracted slightly less than previously expected (-5.5% versus -7.0%). The demand outlook has also been revised up on the back of these data adjustments and stronger GDP assumptions. OECD Pacific demand is now seen averaging 7.6 mb/d in 2009 (-5.9% or -480 kb/d on a yearly basis and +70 kb/d versus our last report) and 7.4 mb/d in 2010 (down by 2.4% or 190 kb/d when compared with the previous year and 10 kb/d from the last estimate).

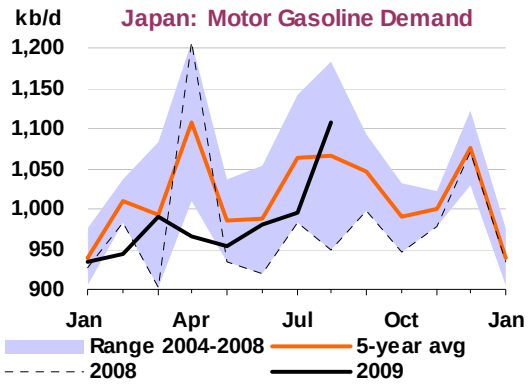
OECD Pacific Demand by Product
(million barrels per day)

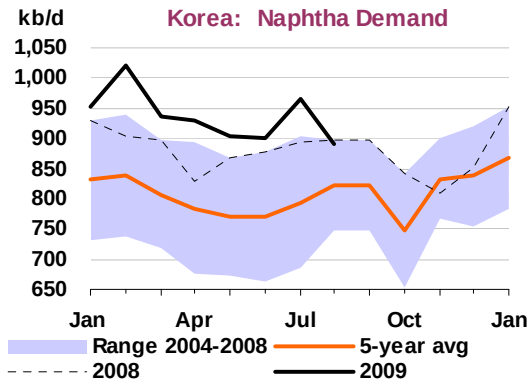
	2008	2009	3Q08	4Q08	1Q09	2Q09	May 09	Jun 09	Jul 09*	Latest month vs. Jun 09	Latest month vs. Jul 08
LPG & Ethane	0.90	0.88	0.86	0.90	0.90	0.85	0.82	0.87	0.91	0.04	0.04
Naphtha	1.64	1.65	1.65	1.56	1.64	1.64	1.60	1.61	1.67	0.06	0.01
Motor Gasoline	1.54	1.55	1.52	1.56	1.51	1.52	1.53	1.52	1.57	0.05	0.05
Jet & Kerosene	0.89	0.82	0.60	0.99	1.15	0.66	0.60	0.62	0.55	-0.06	-0.07
Gas/Diesel Oil	1.68	1.58	1.55	1.70	1.64	1.56	1.53	1.59	1.47	-0.13	-0.11
Residual Fuel Oil	0.91	0.78	0.85	0.86	0.92	0.73	0.69	0.73	0.71	-0.02	-0.16
Other Products	0.50	0.34	0.50	0.40	0.38	0.33	0.31	0.32	0.34	0.01	-0.20
Total Products	**8.07**	**7.59**	**7.54**	**7.97**	**8.14**	**7.30**	**7.09**	**7.27**	**7.22**	**-0.05**	**-0.42**

* Latest official OECD submissions (MOS)

According to preliminary data, **Japanese** oil demand contracted by 1.5% year-on-year in August. This relatively limited decline – at least compared with double-digit rates for most of the past year – was largely due to a strong rebound in transportation fuels, with gasoline, jet fuel/kerosene and diesel rising by 16.7%, 39.5% and 12.1%, respectively. Naphtha demand posted a marginal increase, which may indicate an improvement in economic conditions – even though both residual fuel and direct crude demand continued to post sharp losses, reflective of subdued electricity demand.

However, as in other OECD countries, the rise in transportation fuels is related to a very low base. August normally marks a seasonal spike in gasoline demand, as many Japanese travel back to their hometowns to celebrate the Obon holidays. Last year, however, driving was sharply curtailed by exceedingly high retail prices (about 30% above current levels), with gasoline demand falling by 13.7% in August 2008 (and diesel plunging by 14.5%). Moreover, Japanese drivers have benefited this year from lower highway tolls, which were reduced in early 2009 as part of the government's fiscal stimulus package. By contrast, the counter-seasonal surge in jet fuel/kerosene is more difficult to interpret, but it could suggest a bounce in air travel on the back of lower fares.





The rebound in **Korean** oil demand took a pause in August, up by only 1.0% year-on-year after two consecutive months of strong growth. This was largely due to subdued deliveries of naphtha (-0.7%), possibly because of cracker maintenance. Diesel demand also fell (-4.6%) relative to last year's high base (diesel had rebounded strongly in August 2008, following a sharp plunge in June and July). As both products account for roughly 56% of total Korean oil demand (naphtha itself represents 43%), they exert

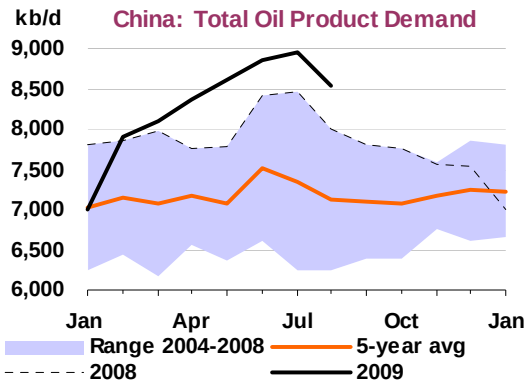
great influence on overall demand trends, even if other product categories such as gasoline (+4.0%) or jet/kerosene (+20.0%) appear more robust, probably given lower oil prices.

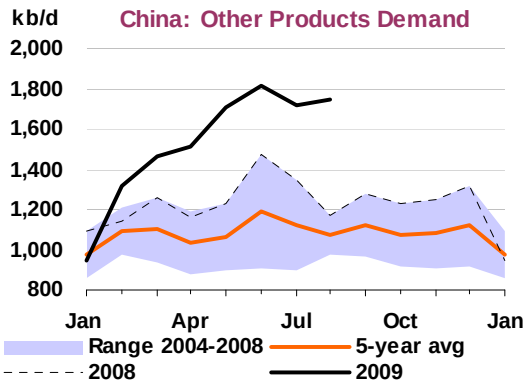
Yet the government appears worried that another oil price spike could derail Korea's enviable economic recovery. In late September, the government's Fair Trade Commission launched an investigation of some 200 service stations across the country, on the grounds of potential collusion to rig LPG, gasoline and diesel prices, citing the fact that domestic retail prices had remained high despite a softening in international oil prices. Although the Korean market is dominated by only four companies (SK Energy, GS Caltex, S-Oil and Hyundai Oilbank, with a combined 98.5% share), the relative inelasticity of domestic retail prices could be partly related to tight regulations governing oil product imports.

Non-OECD

China

Preliminary data indicate that China's apparent demand (refinery output plus net oil product imports) rose by 6.8% year-on-year in August to roughly 8.5 mb/d, with all product categories bar gasoline and gasoil posting strong gains. This marks the fifth consecutive month of strong demand growth, which continues to be largely driven by 'other products'. This category, which includes mostly bitumen, lubricants and coke, surged by 49.3% in August, standing some 580 kb/d above last year's levels, effectively accounting for this year's entire oil demand growth to date.

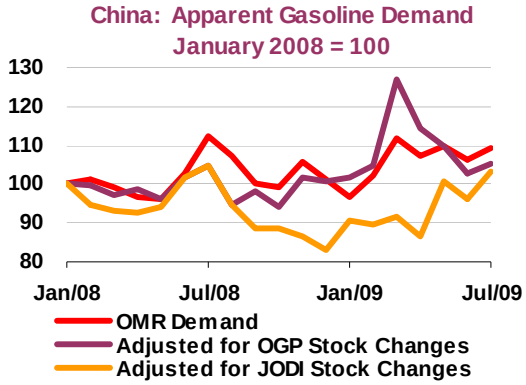


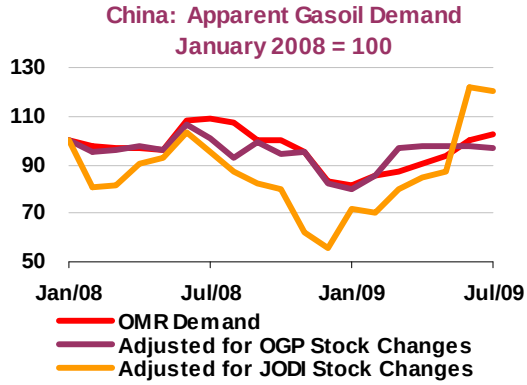


Meanwhile, the lack of detailed inventory data continues to test observers' powers of deduction. As we have repeatedly noted in this report, these data are key to any assessment of underlying demand trends, particularly amid the recent surge of oil product stocks. As discussed in this report's *OECD Stocks* section, the two official sources reporting partial stock data – *China Oil, Gas and Petrochemicals* (OGP) and the Joint Oil Data Initiative (JODI) – provide some guidance, but unfortunately do not match in terms of monthly changes. Moreover, analysts are still working out how to interpret OGP's gasoline and gasoil stocks series from 2008 onwards, which were abruptly revised this month (although the monthly changes inferred from the previous data remained identical).

Using monthly stock changes from OGP and JODI data (starting in January 2008, given OGP's revisions) to adjust our estimates of apparent gasoline and gasoil demand produces contradictory trends, depending on which source is used. If apparent demand is adjusted with OGP data, actual gasoline demand appears to have been much lower in 3Q08 and much higher in 1Q09. However, last summer car sales were booming and Chinese motorists were insulated from international price fluctuations, while early this year China was flirting with recession amid falling car sales. Using JODI data, actual gasoline demand looks consistently lower, yet perhaps this is plausible – the fall and rise of demand would match the slowdown and rebound in economic activity. Interestingly, all three series show a rebound in July, consistent with reviving vehicle sales, but only the OGP-adjusted series shows year-on-year growth. Although the two

price increases in June may have somewhat moderated gasoline demand growth, the strong rebound in vehicle sales should indeed entail strong growth – unless Chinese motorists were to park their brand-new vehicles, which seems unlikely.





Regarding gasoil, apparent demand and OGP-adjusted demand match more closely, although the 3Q08 and 1Q09 discrepancies observed in the case of gasoline are also discernible. More strikingly, perhaps, JODI-adjusted gasoil demand indicates a sharp surge in June and July – which would tally with the reported rebound in industrial activity. However, the president of state-owned Sinopec has reportedly stated that gasoil demand in China continues to lag the country's economic recovery, as suggested by both our apparent demand and the OGP-adjusted series.

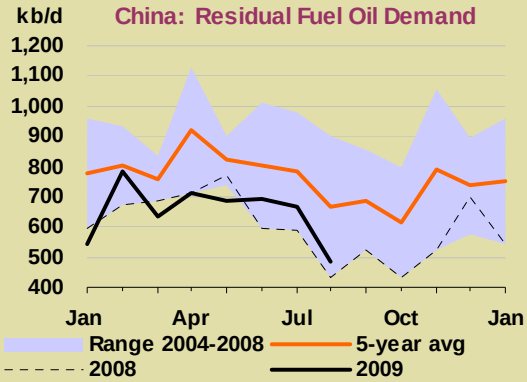
In sum, both the current demand picture and outlook for two key products remains blurred. In the meantime, taking into account the astonishing strength of 'other products' demand and the recent adjustment to ex-refinery gasoline and gasoil prices (which were cut in late September by 2.8% and 3.1%, respectively, slightly less than implied by the NDRC's price mechanism), we have revised up our prognoses of Chinese oil demand by roughly 50 kb/d for both 2009 and 2010. Total oil demand is now expected to increase by 5.1% or 410 kb/d to 8.3 mb/d in 2009, and by 4.1% or 340 kb/d to 8.6 mb/d in 2010.

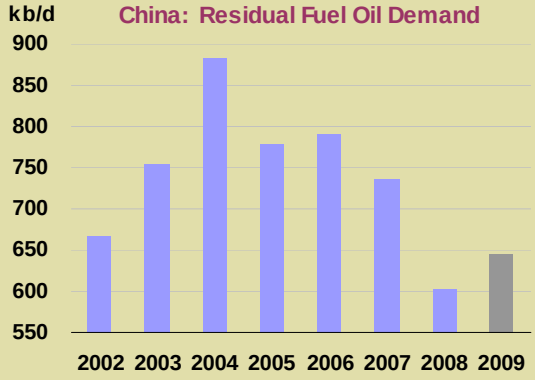
China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	653	729	762	77	33	11.7	4.5
Naphtha	768	823	856	54	34	7.1	4.1
Motor Gasoline	1,493	1,572	1,701	79	129	5.3	8.2
Jet & Kerosene	292	322	341	30	19	10.4	5.8
Gas/Diesel Oil	2,837	2,706	2,848	-131	141	-4.6	5.2
Residual Fuel Oil	603	645	661	41	16	6.8	2.5
Other Products	1,246	1,502	1,468	256	-34	20.6	-2.3
Total Products	**7,892**	**8,299**	**8,637**	**406**	**338**	**5.1**	**4.1**

Residual's Revival?

In early 2009, apparent Chinese residual fuel oil demand looked to be firmly set on a downward path. After all, fuel oil use had plummeted by 18.1% to roughly 600 kb/d in 2008, and it remained largely below last year's level during the first five months of this year, aside from a brief spike in February. Yet demand has rebounded since June on a year-on-year basis, reaching almost 490 kb/d in August(+12.2%). Does this signal the revival of residual fuel oil?





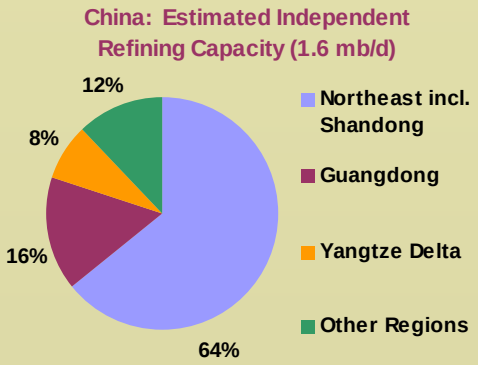
Fuel oil's sharp decline in 2008 was related to several factors. Demand had already begun to fall in 2007 as large power plants and industrial users gradually switched to alternative fuels, either to reduce costs (by using cheaper coal) or for environmental reasons (by burning cleaner LNG), using residual only for peak power demand. This largely offset rising consumption by 'teapot' refineries – which use fuel oil to produce industrial grade gasoil, low-octane gasoline and heavy products such as bitumen – and by merchant shipping, buoyed by strong Chinese exports. The January 2008 increase in the domestic fuel oil consumption tax, the sharp rise in oil prices in 1H08 and the outbreak of the global recession in 2H08 further accelerated fuel oil's decline. The operations of many teapots, which rely on imported straight-run fuel oil such as Russian M100, became unprofitable, while international trade came to a virtual halt. To cap it all, the government raised the consumption tax again in January 2009, this time eightfold, and tightened specifications for imported fuel oil in June (in order to prevent the extensive practice of importing fuel oil mixed with crude or labelling crude as fuel oil to evade import restrictions).

The recent recovery is probably related to the ongoing economic rebound. This has pushed up demand for bunkers and other heavy products, hence providing incentives for teapots to boost runs. This is remarkable, considering the government's plans to consolidate the country's refining sector in order to improve its overall global competitiveness. Such a move would effectively entail closing down many of these refineries, which collectively account for as much as a fifth of the country's total refining capacity, according to some estimates. Indeed, the latest hike in the consumption tax was intended to drive out of business those refineries with less than 20 kb/d of capacity, given the lack of alternative feedstocks. Teapots are legally barred from importing crude, reserved to state-owned majors (PetroChina, Sinopec, CNOOC and ChemChina).

It is open to debate, however, whether the residual revival will last beyond 2009. Although we foresee average fuel oil demand rising by 6.8% to 650 kb/d in 2009, the annual pace of growth could slow down to +2.5% in 2010, with demand averaging 660 kb/d. Still, demand will remain well below the 880 kb/d peak reached in 2004. Indeed, the outlook for residual will arguably be shaped by the refining consolidation and rationalisation drive. Although data on the independent refining sector are patchy, it is likely that teapots located in southeast China, notably in Guangdong province, will bear the brunt of the adjustment. Indeed, Guangdong teapots typically have simple refining units, are heavily dependent on residue and are barely supported by provincial authorities. As such, they are more likely to be shut down. By contrast, those based in the northeast, mostly in Shandong province, are likely to fare better, as they have access to crude (from local fields and partnerships with the majors), feature more sophisticated refining capacity and enjoy strong local government support (by virtue of being a key source of employment and fiscal revenue).

Residual's Revival? *(continued)*

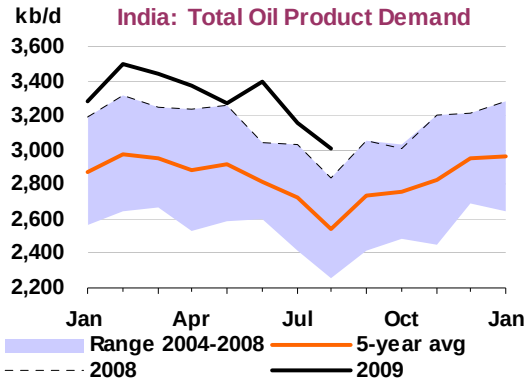
The smaller and more polluting teapots had long been tolerated and even encouraged because of their key role as swing product suppliers. Indeed, teapots helped ease the shortages that emerged from late 2007 to the run-up to the Olympics in August 2008. Today, by contrast, the timing for a consolidation drive is arguably optimal. Even in the unlikely event that all teapots were to be shut down, implying the loss of some 1.6 mb/d, this would be offset by ample product stocks and large, planned and ongoing refining capacity additions by state-owned companies. Moreover, the last pockets of resistance are vanishing. A plan drafted earlier in the year to present a common front by creating a refining consortium encompassing most Shandong teapots – over half of estimated independent capacity – has seemingly stalled, mostly because state-owned majors have already acquired many of the largest and most sophisticated plants.

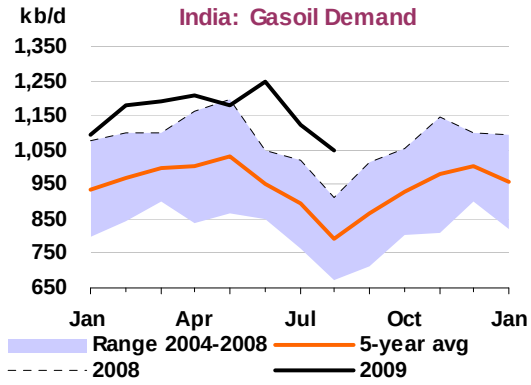


Source: Argus Global Markets, IEA

Other Non-OECD

According to preliminary data, **India's** oil product sales – a proxy of demand – rose by 6.4% year-on-year in August, driven by strong sales of gasoline (+18.0%), gasoil (+15.2%) and residual fuel oil (+7.1%). The demand narrative was unchanged from the previous month: strong car sales continue to support gasoline demand, while the drought boosted gasoil and fuel oil consumption – as both fuels, particularly gasoil, are used for back-up electricity generation and irrigation. Meanwhile, naphtha demand, long the preferred feedstock for utilities, fertiliser producers and steel plants, continued to trend down (-15.6%) on the back of greater natural gas availability. However, it should be noted that July sales were revised up from preliminary estimates, suggesting that the year-on-year drop in that month was less than previously reported (-2.3% versus -19.4%).





In September, the Indian government appointed a panel to examine, over the next three months, how to reform the administered price regime governing domestic transportation fuels. The petroleum ministry has already suggested two potential reforms: to reduce taxes on gasoline and gasoil, which currently account for about 45% and 25%, respectively, of pump prices in major cities, and to introduce a unified Goods and Services Tax (GST) on oil products, which would replace the different – and distorting – sales taxes currently levied by state governments. However, judging by past experience, the likelihood that such recommendations are implemented is low given their political sensitivity, even if the new expert panel endorse them. In recent years, two other committees had proposed several reforms, but these never came to fruition.

SUPPLY

Summary

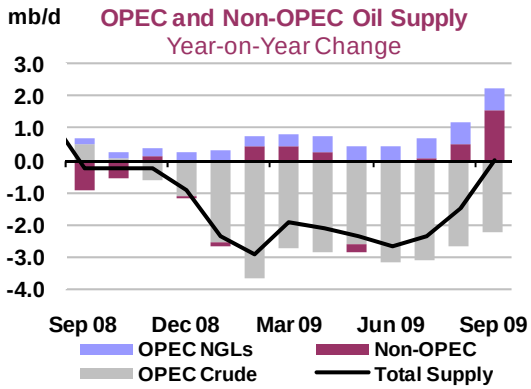
- **Global oil supply** rose by 310 kb/d in September to 84.9 mb/d, driven by non-OPEC growth. Compared with September 2008, global supply was nearly flat, as a non-OPEC recovery of 1.6 mb/d relative to last year's hurricane-hit base was offset by OPEC curbs.

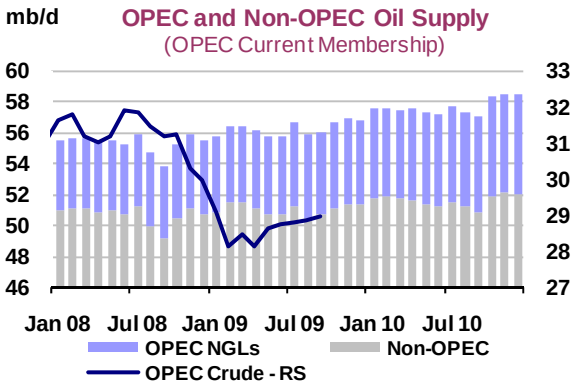
- **September non-OPEC supply rose 200 kb/d from August** in the absence of US hurricane outages. It was up 1.6 mb/d compared with last year when Gustav and Ike forced the shut-in of around 1.2 mb/d in the US GoM. Forecast revisions are again minimal this month at +8 kb/d for 2009 and +105 kb/d in 2010. Non-OPEC production is expected to continue to rise towards the end of the year, as seasonal maintenance in key areas ends and as FSU output continues to pick up. Total production for 2009 is forecast to average 51.0 mb/d, while 2010 output is seen at a revised 51.6 mb/d. Total yearly growth will be +380 kb/d in 2009 and +550 kb/d in 2010, with OPEC NGLs adding 550 kb/d and 850 kb/d respectively.

- **OPEC production rose by 120 kb/d to 28.9 mb/d in September**, with higher output from Nigeria, Angola and Venezuela accounting for the lion's share of the increase. Crude oil production by the 11 members with output targets, which excludes Iraq, rose by 170 kb/d, to 26.4 mb/d. As a result, the group's compliance rate slipped to around 62% compared with 66% in August.

- **OPEC opted to maintain existing output targets at the 9 September meeting** in Vienna. There was broad agreement among member countries that relatively stable oil prices hovering in the $65-$75/bbl range in recent months negated the need to tamper with output levels. OPEC's effective spare capacity is estimated at 5.45 mb/d.

- **The call on 'OPEC crude and stock change' for 4Q09 is revised up 500 kb/d, to 28.4 mb/d** on higher forecast demand. The call for 2010 is also now pegged at 28.4 mb/d, up 200 kb/d from last month's estimate.





All world oil supply figures for September discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Indonesia and Russia are supported by preliminary September supply data.

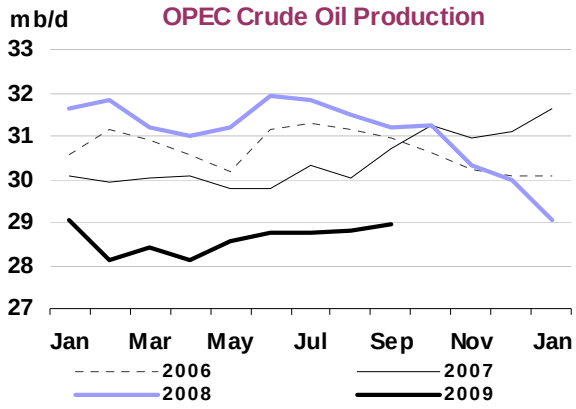
Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

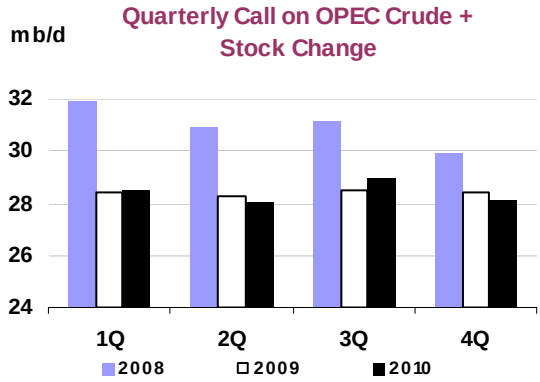
OPEC Crude Oil Supply

OPEC production rose by 120 kb/d to 28.93 mb/d in September, with higher output from Nigeria, Angola and Venezuela accounting for the lion's share of the increase. Crude oil production by the 11 members with output targets, which excludes Iraq, rose by 170 kb/d, to 26.42 mb/d.

OPEC-11 is now producing about 1.58 mb/d over the group's 24.845 mb/d output target. Relative to targeted output cuts, the group's compliance rate slipped to around 62% compared with 66% in August. OPEC's effective spare capacity is estimated at 5.45 mb/d versus 5.47 mb/d in August.

As widely anticipated, OPEC opted to maintain existing output targets at the 9 September meeting in Vienna. There was broad agreement among member countries that relatively stable oil prices hovering in the $65-$75/bbl range in recent months negated the need to tamper with output levels. OPEC is calculating that a recovery in oil demand will bring down stocks overhanging the market. Unusually, there were no formal calls for better compliance with output targets in the group's formal communiqué this time despite the steady climb in production over the past five months. Output is up by around 800 kb/d from May levels of 28.12 mb/d.





Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

While the market outlook for the group's production and compliance with output targets are usually the focus of discussions at OPEC's ministerial meetings, broader concerns about the global economy and the need for stable oil prices have taken on an added importance ahead of the Copenhagen climate change summit in December. OPEC opened its conference acknowledging the summit could have far-reaching economic repercussions on oil producing countries and wants to ensure that their interests are represented in the post-Kyoto agreement. Some OPEC members are mindful that higher oil prices could threaten the global economic recovery and further strain relationships with consuming nations at this critical juncture in the climate change talks. OPEC's next scheduled meeting follows the Copenhagen summit and will take place in Luanda, Angola on 22 December.

Saudi Arabia's production declined by 50 kb/d in September, to an estimated 8.2 mb/d. Above-target output continues to be used at domestic power plants. While the peak cooling season is winding down, extra crude burn at power and water desalination plants may persist to meet stronger overall demand. The substitution of lighter quality crude at the expense of fuel may become a permanent feature in the market in line with new environmental regulations calling for cleaning burner feedstock.

Qatar also saw production decline in September, by 10 kb/d to 760 kb/d, due to lower output of heavy sour Shaheen crude. Production at Shaheen was reduced by around 20 kb/d at end-September due to extensive field work underway to expand the field's capacity to 525 kb/d in 1Q10.

OPEC Crude Production

(million barrels per day)

	Jul 2009 Supply	Aug 2009 Supply	Sep 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Sept 2009 Supply	OPEC Target Cuts	Percent Compliance with Volume Cuts
Algeria	1.22	1.22	1.22	1.40	0.18	0.200	75%
Angola	1.76	1.79	1.86	2.10	0.23	0.244	0%
Ecuador	0.47	0.46	0.46	0.50	0.04	0.067	57%
Iran	3.82	3.80	3.78	4.00	0.22	0.562	5%
Kuwait[2]	2.24	2.24	2.25	2.65	0.40	0.374	96%
Libya	1.54	1.55	1.55	1.77	0.22	0.252	60%
Nigeria[3]	1.68	1.74	1.87	2.60	0.73	0.319	34%
Qatar	0.77	0.77	0.76	0.90	0.14	0.122	82%
Saudi Arabia[2]	8.24	8.20	8.15	11.60	3.45	1.318	99%
UAE	2.27	2.27	2.28	2.85	0.57	0.379	98%
Venezuela[4]	2.16	2.21	2.24	2.40	0.16	0.364	36%
OPEC-11	**26.16**	**26.25**	**26.42**	**32.77**	**6.34**	**4.201**	**62%**
Iraq	2.59	2.56	2.51	2.60	0.09		
Total OPEC	**28.75**	**28.81**	**28.93**	**35.37**	**6.43**		
(excluding Iraq, Nigeria, Venezuela					*5.45)*		

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 480 kb/d in September.

Iraqi output fell by about 50 kb/d in September, to 2.51 mb/d. Total exports were estimated at 1.96 mb/d, with shipments of Basrah were down about 50 kb/d at 1.5 mb/d, while Kirkuk loadings were unchanged at 490 kb/d. An additional 10 kb/d was exported to Jordan. Domestic crude use is estimated at 550 kb/d, with 470 kb/d for refinery output and around 80 kb/d for power generation.

Stable Iraqi oil exports in September mask a relatively tumultuous month for crude oil sales. Iraqi exports have risen to post-2003 highs of around 2 mb/d in recent months, but reports now suggest that part of the recent uptick in volumes is due to spiking fuel oil into the crude mix rather than a reflection of higher production levels. Iraq has spiked fuel oil into crude in the past but some reports say the latest moves are intended to boost export volumes to fend off criticism that the country's production is on a downward trend.

Iraqi state marketer SOMO has not formally explained the shift in policy to add fuel oil in with its crude exports but has acknowledged a change in quality by offering discounts to compensate for the grade changes. The injection of fuel oil into the country's primary Basrah Light has boosted volumes by 50 to 100 kb/d, while at the same time lowering the quality of the crude. The normal API gravity for Basrah is 31-32°, but in recent months it has been averaging a heavier 29-30° API due to the addition of fuel oil. State SOMO is discounting the price by 4 cents/bbl for every degree drop below 34°API.

Iraq's Kirkuk crude has also become heavier following the start-up of new production from the Tawke field in the northern region last June and additional injection of fuel oil. The 27° API Tawke crude is blended into the lighter 34.5-35° API Kirkuk export stream, with similar discounts to Basrah applied to compensate for the quality differential. The suspension of Tawke production on 21 September may not necessarily result in a marked improvement in the quality of Kirkuk, since fuel oil reportedly has also been injected into the crude stream. Production of around 60 kb/d from the Tawke field was halted after the Kurdish Regional Government (KRG) demanded that Norwegian operator DNO clear the government of any improprieties related to a dispute between DNO and Norway's stock exchange over the controversy surrounding the stockholdings of the company. The KRG and DNO resolved their differences in early October but output is expected to resume at a smaller 6-8 kb/d. DNO now plans to sell the Tawke oil locally since the payment mechanism has yet to be agreed with Baghdad. DNO says it

will not sell its crude through SOMO until the contentious payment issues are resolved. SOMO collects the money for exports from the region via the Kirkuk pipeline to the Ceyhan port on the Mediterranean but Baghdad has refused to distribute revenues to the KRG since it does not recognize production contracts the regional government signed with oil companies.

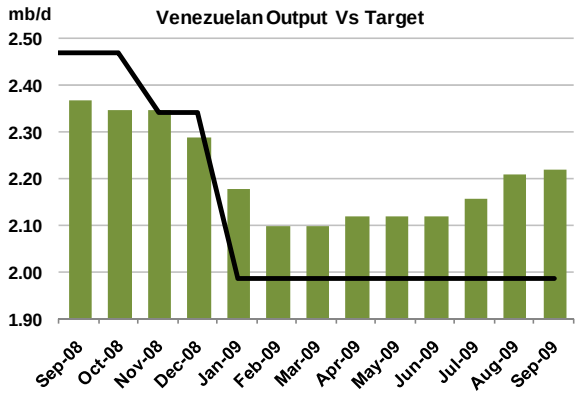
Nigerian production increased by 130 kb/d, to 1.87 mb/d in September and, as a result, compliance with the country's OPEC target slipped to just 34% from 75% in August. Repair work to idled oil infrastructure affecting Bonny, Forcados and Escravos production is moving apace in large part due to the ceasefire agreement in place between the government and militant groups. Operator Shell continues to make headway restoring Forcados crude production, but work at Bonny facilities is moving more slowly. Chevron has said it had restored about 100 kb/d of Escravos exports in September after militant attacks forced the shut-in last May. Meanwhile, operator Total continued to ramp up output at the Amenam field last month, following the shut-in of around 50 kb/d in late July. Production from the Chevron-operated offshore Agbami field also continued to ramp up, reaching its 250 kb/d target plateau four months ahead of schedule.

However, production at the 115 kb/d offshore EA field, which was restarted in July after being shut down since January 2006 due to militant activity, was shut-in again in early September. The Shell-operated Sea Eagle floating production, storage and offloading (FSPO) vessel at EA was shut-in due to problems with the FPSO's emergency shutdown valve. Repairs were still ongoing at end-September.

After dropping to the lowest levels in more than two decades this summer, Nigerian production is poised to rebound further following an eleventh hour agreement between the government and key militant leaders. The government's amnesty programme has proved more successful than initially anticipated. A number of key rebel leaders from the main militant group, the Movement for the Emancipation of the Niger Delta (MEND), surrendered their weapons by the 4 October deadline. While this potentially bodes well for the near-term outlook for Nigeria production, what is still unclear is the government's plan to deal with the remaining militants who number in the thousands. Moreover, a reorganized MEND announced it will resume attacks on the country's oil industry on 15 October, the date when the current ceasefire agreement ends. A similar government amnesty programme offering cash in exchange for weapons under then President Obasanjo in 2004 ultimately failed, because rebel groups simply reorganized under new leaders and rearmed.

Angolan output was up by 70 kb/d, to 1.86 mb/d, due to completion of repairs at several facilities last month and start-up of new production at the Mafumeira Norte and Tombua Landana fields.

Venezuelan production rose by 30 kb/d, to 2.24 mb/d in September, with target cut compliance slipping to 33% versus 44% in the previous month. Output from the country's heavy oil upgraders edged higher after production cuts at its joint venture Orinoco Belt upgrading operations were suspended in August. In September, PDVSA also suspended earlier cuts at other projects, including Petrolera Indovenezolana, its joint venture with India's ONGC, and at Petrolera Sinovensa, its project with China National Petroleum Corp. Mid-September scheduled maintenance work at the 190 kb/d PDVSA-Chevron Petropiar upgrader was delayed until 5 October. To offset the loss of output from Petropiar during the planned 40-day plant maintenance period, the company plans to spike the extra-heavy crude feedstock with lighter grades in order to maintain production at around 100 kb/d during the outage.



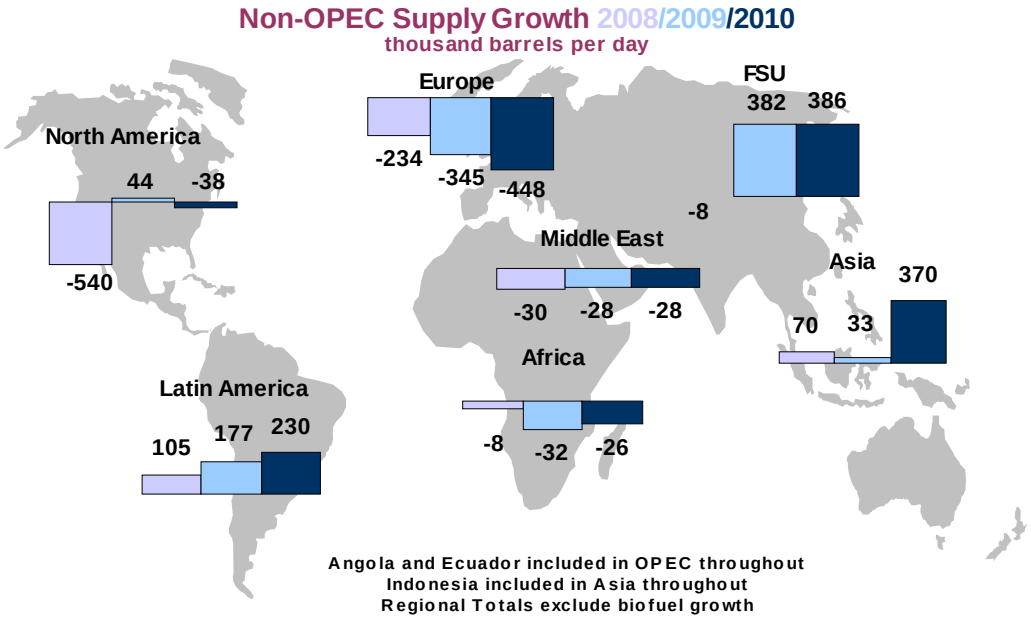
Diplomatic Tensions over Iran's Nuclear Program

There were escalating tensions between the global community and Iran over the latter's revelations that it had a second nuclear enrichment facility. Fears of a potential disruption in Iranian supplies to the market were tempered somewhat given still sluggish demand and a relatively high level of OPEC surplus production capacity. OPEC's effective spare capacity is estimated at 5.45 mb/d, and excluding Iran amounts to 5.23 mb/d. Iranian oil production in September averaged 3.78 mb/d, down by 20 kb/d from August levels. Iranian crude exports fluctuate around 2 mb/d.

Initial tense negotiations have given way to more collaborative efforts to address the issue, but lingering fears may provide something of a floor to prices. Iran rejects allegations that it is seeking to build nuclear weapons, arguing it plans to use the facility for domestic power use. The United Nations' nuclear watchdog, the IAEA, is taking the lead in investigating the hitherto unknown uranium enrichment facility, with inspections planned for 25 October. However, Washington is moving forward with legislation that will tighten sanctions in a bid to halt gasoline sales to Iran, a net importer of roughly 120 kb/d. Proposed legislation has been crafted in order to punish international oil companies that export gasoline to Iran. Some of Iran's traditional gasoline trading partners severed their ties several months ago but new suppliers have readily emerged, notably China. Some analysts contend sanctions would be ineffective given the growing glut of surplus products available via third parties to Iran.

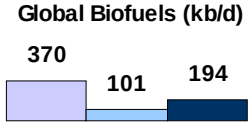
Non-OPEC Overview

September non-OPEC supply rose by 200 kb/d to 50.6 mb/d from August, with the absence of any hurricane impact in the US Gulf of Mexico prompting an upward revision to the forecast. In addition, many fields are returning from seasonal maintenance. Year-on-year, non-OPEC supply was up by 1.6 mb/d in September, compared with last year when Hurricanes Gustav and Ike forced the shut-in of around 1.2 mb/d in the US GOM.



Total Non-OPEC Supply Growth (kb/d)

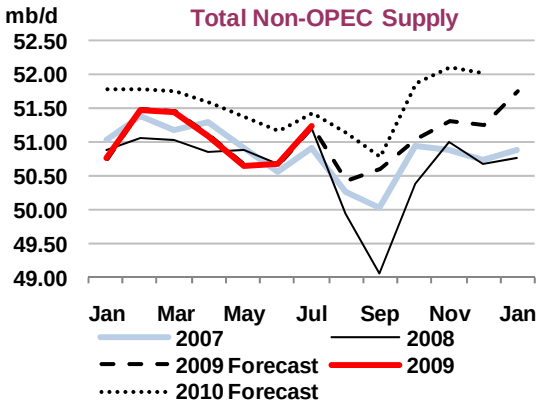
2008	-201
2009	375
2010	554

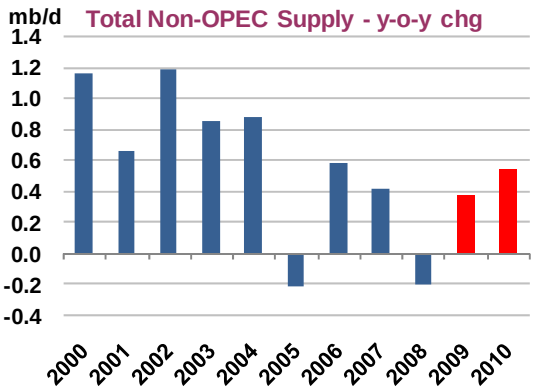


OPEC NGLs (kb/d)

2008	145
2009	553
2010	851

Overall revisions to the forecast are again minimal this month, at +8 kb/d for 2009 and +105 kb/d in 2010. Rising Russian production was in line with our expectations, while Kazakhstan's oil output was markedly lower than expected in August, but is still seen stronger next year. The single largest revision was the elimination of the hurricane outage adjustment, resulting in a 400 kb/d upward correction for the US GOM in September, which was, however, partly offset by weaker-than-expected performance in Canada. Global biofuels were also nudged upwards in our forecast, after output in the US and elsewhere exceeded expectations as production economics improved.





Non-OPEC production is expected to continue to rise towards the end of the year, as seasonal maintenance in key areas ends and as FSU output continues to pick up. Next year's increments come from the FSU (+400 kb/d), Brazil (+250 kb/d, of which 200 kb/d is crude and 50 kb/d fuel ethanol), and the US GOM (+200 kb/d). Another 100 kb/d will stem from Canadian mined syncrude, which has seen rekindled interest since earlier in the year. Generally speaking, there is still no evidence of any short-term impact of the curtailed upstream development spending reported earlier this year – in fact, non-OPEC supply currently appears as robust as in the 2006/07 period. Total production for 2009 is now forecast at 51.0 mb/d, unchanged from last month's report, while 2010 output is seen at an upward-revised 51.6 mb/d. Total annual growth will be +380 kb/d in 2009 and +550 kb/d in 2010.

Non-OPEC Supply

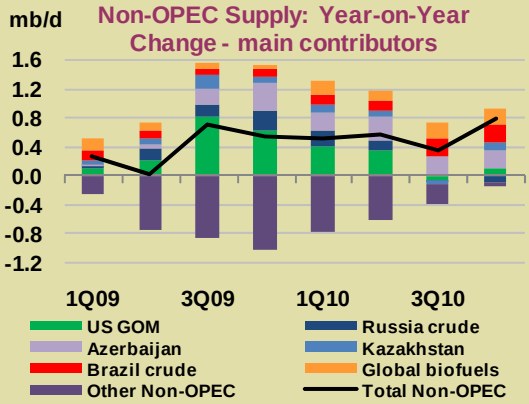
(million barrels per day)

	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
North America	14.2	14.0	13.6	13.8	13.9	14.2	13.9	14.0	14.0	14.0	14.3	14.0	13.8	14.2	14.1
Europe	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.1	4.3	4.4	4.2	3.9	3.8	4.1	4.0
Pacific	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Total OECD	**19.7**	**19.5**	**18.8**	**19.3**	**19.3**	**19.7**	**19.0**	**18.8**	**19.0**	**19.1**	**19.3**	**18.7**	**18.4**	**19.0**	**18.9**
Former USSR	12.8	12.9	12.7	12.7	12.8	12.9	13.1	13.2	13.4	13.1	13.5	13.6	13.4	13.6	13.5
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.9	3.9	3.8	4.0	4.0	4.0	4.1	4.0
Other Asia	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.6	3.7	3.6	3.7	3.7	3.8	3.8	3.7
Latin America	4.1	4.1	4.2	4.2	4.1	4.3	4.4	4.3	4.4	4.3	4.5	4.6	4.7	4.7	4.6
Middle East	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	**28.7**	**28.7**	**28.6**	**28.7**	**28.7**	**28.9**	**29.2**	**29.3**	**29.5**	**29.2**	**29.9**	**30.1**	**30.0**	**30.3**	**30.1**
Processing Gains	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total Non-OPEC	**51.0**	**50.8**	**50.1**	**50.7**	**50.6**	**51.2**	**50.8**	**50.8**	**51.2**	**51.0**	**51.8**	**51.4**	**51.1**	**52.0**	**51.6**
Annual Chg (mb/d)	-0.2	-0.1	-0.3	-0.2	-0.2	0.3	0.0	0.7	0.5	0.4	0.5	0.6	0.3	0.8	0.6
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.1

Putting Recent Large Oil Finds in Context

The recent discovery of several large new non-OPEC oilfields has been greeted by some as effectively banishing 'peak oil' for the foreseeable future. These finds represent the culmination of several years of greater efforts and higher investment in exploration. The fact that most of these fields are in technically difficult environments proves how far international oil companies are prepared to go to find new oil outside of traditional low-cost areas, as mature provinces decline and access restrictions remain in place. As such, these finds are to be welcomed as timely additions to non-OPEC reserves, and as potential offsets to declining production elsewhere.

Independent Anadarko made headlines in mid-September with the announcement of its Venus discovery in relatively unexplored waters offshore Sierra Leone. The apparent geological similarities between Venus and the huge Jubilee field being developed in Ghana led the company to suggest that this find indicated the existence of a new 1,100 km-long oil basin stretching between the two countries and including waters off Liberia and Cote d'Ivoire. The Jubilee field, which is due to start production in 2H2010, is among the largest non-OPEC fields in Africa found to date. In East Africa, Tullow also reported the discovery of the Ngassa-2 field in the Albert Basin in Uganda, which is significant as it may finally give critical mass to the relatively isolated reserves there, making their development much more likely.



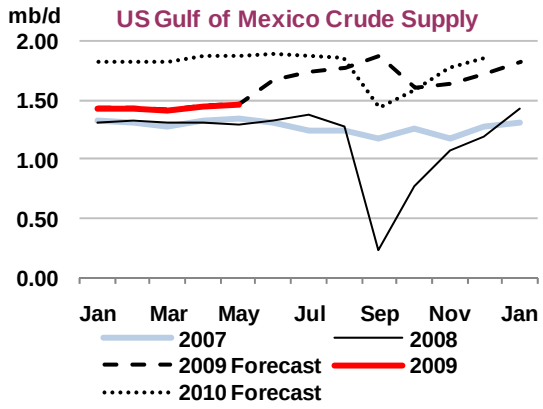
Elsewhere, BP recently announced what may be the largest discovery to date in the Gulf of Mexico, Tiber, while new discoveries within Brazil's much-feted pre-salt deepwater offshore basin have come along recently with such regularity as to almost go unremarked! Nonetheless, the pre-salt, spanning Brazil's Santos and Campos Basins, is arguably the most attractive new non-OPEC frontier since the development of the Caspian (see *Brazil's Lula Outlines Suggested Pre-Salt Development Regime* in report dated 10 September 2009).

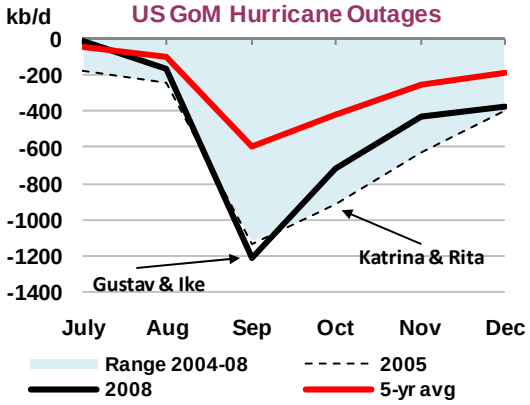
But these discoveries must be seen in context. Over 3.5 mb/d of new crude production capacity need to be added to global supply every year in order to offset decline from mature assets. Part of this increment can come from OPEC members, which are not discussed here, but have in some cases added significant capacity (e.g. Saudi Arabia). Another chunk can be gained through increased recovery rates due to increased drilling and/or enhanced oil recovery (EOR). But a recent report by IHS Herold/Harrison Lovegrove found that 2008 global oil and gas reserve replacement came to only 88% – the lowest since 2004. This came despite a surge in upstream spending of around 20% to nearly $500 billion (though some reserves figures were revised down following the fall in prices in late 2008 and early 2009). While the resource base likely remains plentiful, this illustrates how hard the upstream sector is having to work to sustain productive capacity – as welcome as the recent discoveries are.

OECD

North America

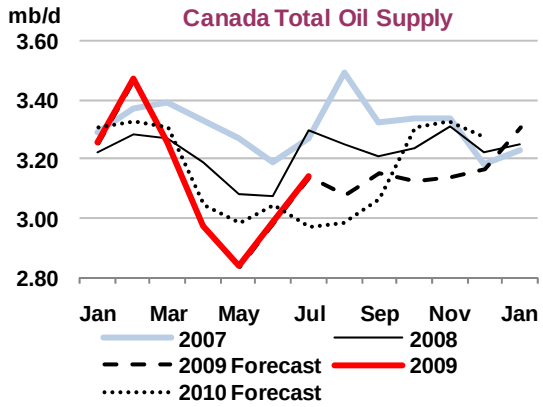
US – Alaska September actual, others estimated: US oil production is estimated to have risen by 170 kb/d in September to 8.1 mb/d in the absence of any hurricanes affecting GOM output. Rather than attempt to forecast meteorological developments, we include a downward adjustment based on five-year average outages. September is typically the peak outage month, resulting in a 600 kb/d adjustment, the remainder of which we have now removed. We have also reduced the October adjustment. Some forecasters have opined that, given this year's *El Niño*, it is unlikely that there will be any more storms this year.

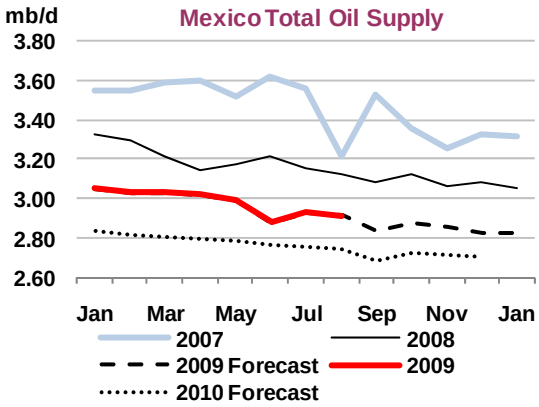




In Alaska, September production rose by 100 kb/d, as Prudhoe Bay and other fields ended several months of maintenance. Meanwhile, Alaskan NGL numbers were revised down by 45 kb/d in August and adjusted in past months, after the receipt of historical data. August also saw maintenance at the Prudhoe Bay Central Gas Facility, in line with field workovers. Elsewhere, increased activity in the Bakken Shale is resulting not only in a slug of US natural gas, but also gradually increased shale oil output in North Dakota. The formation also covers part of northeastern Montana, but higher oil production is not yet showing up in that state's data. Total North Dakotan production is estimated at around 200 kb/d this year, having doubled from 2005. Lastly, fuel ethanol output was around 60 kb/d higher in July than we had anticipated. In sum, forecast US production is nudged up by around 60 kb/d for 2009, to 7.96 mb/d and by a similar amount in 2010, to 8.16 mb/d.

Canada – July actual: Canadian oil production in July was 25 kb/d lower than our forecast, which has partly been carried through the outlook. But July production was still up 160 kb/d on June, with synthetic crude and production from offshore Newfoundland returning from heavy maintenance. In September and early October, oil sands operations run by Shell and Suncor were briefly interrupted on three occasions by environmental protesters, but none of the incidents resulted in anything but the briefest outage. For 2009 and 2010, total Canadian supply is revised down by around 20 kb/d and 10 kb/d respectively, to 3.13 mb/d and 3.16 mb/d.



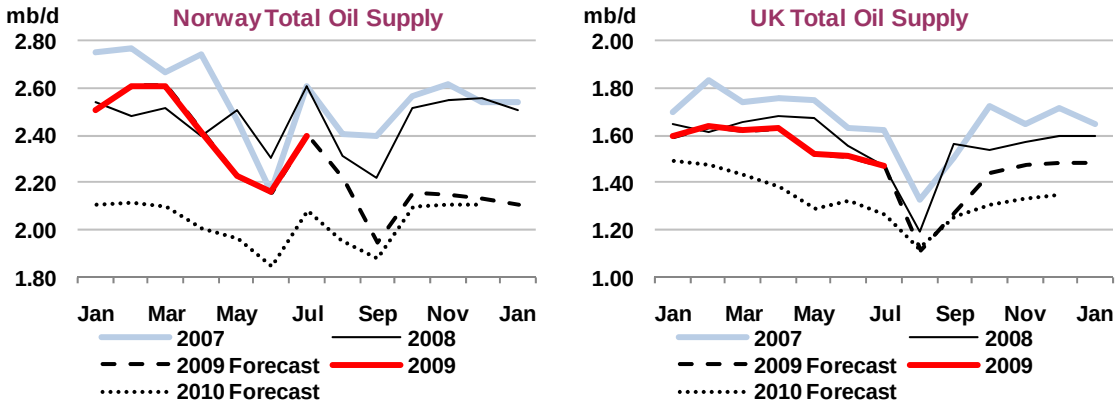


Mexico – August actual: Mexican production in August was in line with last month's forecast, at 2.92 mb/d, down slightly from July. In early September, President Calderon installed a new chief executive at Pemex, tasked with shoring up steadily declining oil production. The company is apparently considering restructuring, and the new head has reportedly already questioned the strategy of largely depending on the Chicontepec field for future growth. Chicontepec undoubtedly has significant hydrocarbon reserves, but spread over a large onshore area in small pockets. Despite substantial investments, current production is only around 30 kb/d, despite ambitious plans to ramp up to several hundred thousand barrels per day by the middle of the next decade. A possible shift in strategy could

involve more emphasis on deepwater offshore potential, an area so far relatively underexplored – though as things stand, many doubt that Pemex has the expertise and budget to do this on its own. In the meantime, Mexico's oil production remains on a steady downhill course, forecast to slide to 2.94 mb/d in 2009 and further to 2.76 mb/d in 2010.

North Sea

Norway – July actual, August provisional: Norwegian production in July was around 60 kb/d higher than our forecast, at just under 2.40 mb/d, as maintenance was less heavy than anticipated. Production was around 240 kb/d higher than June, as fields returned from maintenance work. Problems following a gas leak were ongoing at the Valhall complex, with production down since April. In September, Marathon started output at Volund, a tie-back to the Alvheim field. Peak capacity will be 20 kb/d, which is expected to offset decline at Alvheim, thus keeping production steady at around 90 kb/d. A leak cut output briefly at the Statfjord C platform at the end of September, but this was reportedly rapidly repaired. Total Norwegian production is forecast to reach 2.29 mb/d in 2009, then dipping by around 260 kb/d to 2.04 mb/d in 2010 due to its mature base.



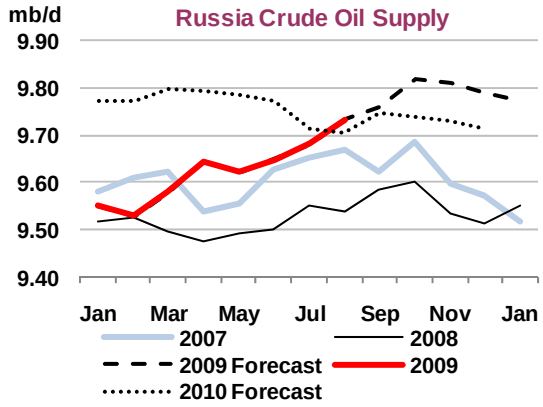
UK – July actual: July oil production in the UK was reported around 45 kb/d lower than our forecast, of which around half was NGLs. At 1.47 mb/d, production was down due to maintenance and is expected to fall further in August for the same reason, after which it should gradually pick up again towards the end of the year. June saw the start-up of the Don Southwest field, while in August, Affleck commenced production. The two fields are expected to have peak capacity of 10 kb/d and 8 kb/d respectively. Total UK output is forecast to average 1.48 mb/d in 2009 and then to decline to 1.33 mb/d in 2010.

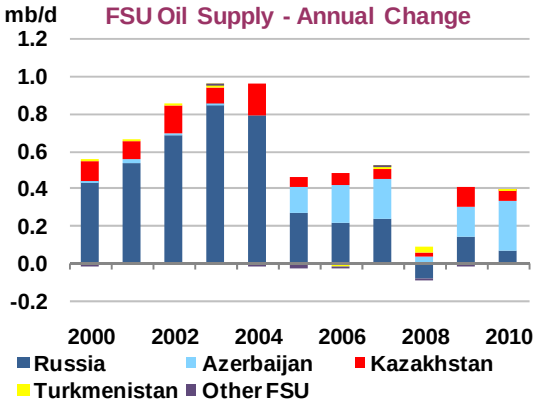
Pacific

Australia – July actual: Australian oil production was slightly lower than our forecast in July, at 570 kb/d. Output is due to rise towards the end of the year, as the Van Gogh field starts up, with peak capacity of 20 kb/d. In our forecast, the Pyrenees field start-up is brought forward to 2Q10 from 3Q10, after construction of its FPSO was completed in a Chinese shipyard. Pyrenees will add 90 kb/d of heavy crude to the Carnarvon Basin. On this basis, the total 2010 supply forecast is raised slightly, to 640 kb/d, versus 570 kb/d in 2009.

Former Soviet Union (FSU)

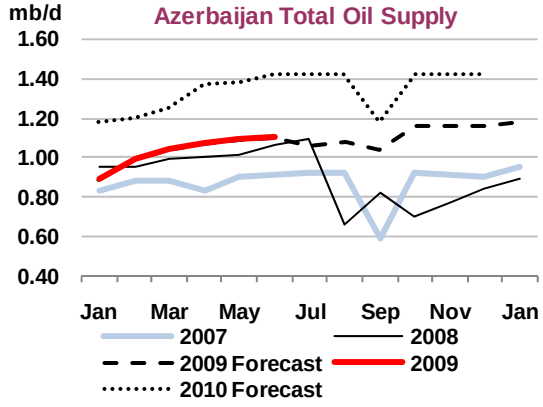
Russia – August actual, September provisional: Russian oil production in August was unrevised and rose by a further 38 kb/d in September, in line with our forecast. Recent months' output is the highest since October 2007, with notable increases from Rosneft, which is ramping up its giant Vankor field (where September production was at around 150 kb/d, according to preliminary data), but also Gazprom and the Sakhalin projects. Vankor is expected to hit 220 kb/d at the end of the year and Russian oil output is now expected to average 10.14 mb/d in 2009, rising to 10.2 mb/d in 2010.

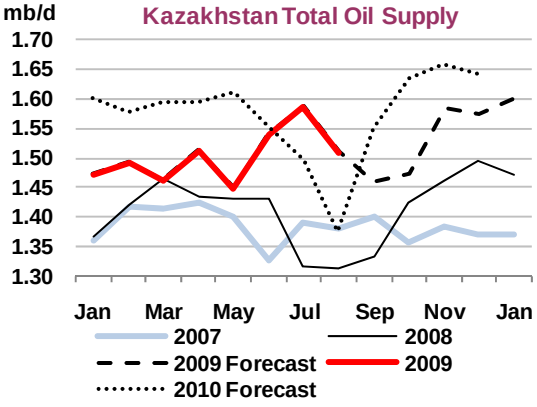




As outlined in recent reports, new fields are part of this return to growth, but also an improving fiscal regime. Some tax breaks are in place, yet the picture is far from certain as to how incentives for the newer province of Eastern Siberia will eventually be set. Intriguingly, in September Prime Minister Putin said foreign companies would be conditionally welcome to invest in Russia's energy sector. Firstly, this would involve taking Russian companies' interests outside of Russia into account – a hint at Russian oil companies' difficulties at establishing footholds in downstream and retailing infrastructure in Europe and elsewhere. Secondly, foreign companies would have to respect that some Russian hydrocarbon assets would remain off-limits due to their 'strategic' nature. Neither of these points is new, but more specific offers concerning potential gas investment on the Yamal peninsula have already attracted some IOCs.

Azerbaijan – June actual: A reappraisal of data sources for Azerbaijan's oil production leaves 2009 and 2010 total output levels unchanged at 1.07 mb/d and 1.34 mb/d respectively, but quarterly and monthly totals have changed. One adjustment is the move of Shakh Deniz output into the NGL category, as it is effectively condensate from offshore natural gas production. Total output has returned to last year's pre-ACG gas leak levels and is seen steadily increasing towards the end of the year. 2010 growth then stems from higher output at the ACG complex.





Kazakhstan – August actual: August production in Kazakhstan of 1.51 mb/d was below July levels, as Tengiz output came in lower than we had anticipated. July had seen growth at the field to 500 kb/d, indicating the first results from the next expansion phase, but August production was at a lower 430 kb/d, perhaps due to seasonal maintenance. Karachaganak output was also lower than in our last forecast, possibly also heralding maintenance work, which we had previously assumed for September and October. Total 2009 production is left unchanged at the forecast 1.51 mb/d, while the 2010 forecast is raised to 1.57 mb/d on otherwise-robust growth.

Squeezing Central Europe?

Major pipeline projects in the FSU region designed to geographically diversify export outlets may lead to stiff competition for regional crude supplies. Russia's East Siberia-Pacific Ocean pipeline (ESPO) and the Baltic Pipeline System 2 (BPS-2) will effectively attract volumes now flowing through the Druzhba line and thus potentially curb current levels of pipeline deliveries to Central Europe. The same is true of a pipeline spat in Ukraine.

The much-anticipated launch of the first stage of the 600 kb/d ESPO line is scheduled for 25 December, with the first test shipment planned to sail from the oil terminal at Kozmino Bay on the Pacific Coast, the future end-point of the ESPO, on 18 November. During the first phase of the project crude will be shipped through the pipeline from Taishet to Skovorodino, with half of the volume continuing by rail to Kozmino and the other half to China via a new pipeline spur.



Rail and pipeline charges are yet to be decided, but two separate tariffs are expected in the future for crude from Western Siberia and from Eastern Siberia. New fields in Eastern Siberia will likely become the primary source of supply for the pipeline. However, relatively lower tariffs for West Siberian crudes, which normally flow west, may encourage producers to ship more barrels eastwards.

Meanwhile, the Russian government is considering speeding up construction work on the BPS-2. The line connecting Unecha, a junction on the Druzhba pipeline, and the Russian Baltic port of Ust Luga, could commence operations six months earlier than the scheduled 3Q12 start and will inevitably divert some volumes otherwise destined to Europe via the Druzhba route.

Developments in Ukraine could also curb Druzhba volumes. Until recently, Russian and Kazakh crude flowed from Samara to Odessa for exports via the Black Sea. But a shortage of crude deliveries to the Kremenchug refinery in central Ukraine, which is on this trunk line, has now led to the reversal of the Odessa-Kremenchug spur. As a result, crude supplies to Lukoil's Odessa refinery have been cut off.

Lukoil in turn is now exploring other options for crude feedstock for its refinery. One alternative would be to bring in crude via the underused Brody-Odessa link. This too would potentially limit Druzhba volumes headed for Central Europe. But the Ukrainian authorities are actually considering resurrecting long-held plans to reverse the Odessa-Brody pipeline flow, which would boost volumes of Caspian crude to Central Europe, partly compensating for the lower Druzhba flow because of ESPO and BPS-2.

A month-on-month drop in product exports of 330 kb/d combined with another month of crude oil pipeline maintenance work were behind a fall in total **FSU net exports** in August, to 9.17 mb/d. Baltic exports rose 7.4% after the completion of July work on the Russian pipeline network, but lower Black Sea and BTC volumes offset the increase. Maintenance work on the Baku-Supsa pipeline halted oil flows for ten days and on the BTC line for two days. The story continued in September, as preliminary data show that Ukhta-Yaroslavl pipeline maintenance cut back deliveries to Primorsk by 6.6% and that BTC volumes dropped to 770 kb/d on maintenance at the ACG complex.

In September, a scarcity of tankers caused a sharp fall in shipments across the Caspian Sea from Kazakhstan to Neka in Iran. Odessa exports also dropped drastically following the escalation of a conflict over the ownership of the Ukrainian Kremenchug refinery. Uncertainty about this dispute delayed the publication of the Russian export loading schedule for 4Q09. It shows zero exports from Odessa in October and loadings at Yuzhny at their highest ever, suggesting also a redirection of extra volumes from

Novorossiysk as the pipeline leading to the port is reportedly scheduled for maintenance in October. Lastly, the new Kozmino terminal, the future end-point of the ESPO on the Pacific coast, received its first 24 kb/d export allocation in the 4Q09 loading schedule (see *Squeezing Central Europe?*).

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2007	2008	3Q2008	4Q2008	1Q2009	2Q2009	Jun 09	Jul 09	Aug 09	Latest month vs. Jul 09	Latest month vs. Aug 08
Crude											
Black Sea	2.18	2.05	1.97	2.04	2.30	2.23	2.06	2.06	2.02	-0.04	0.03
Baltic	1.59	1.46	1.40	1.47	1.57	1.66	1.65	1.55	1.67	0.11	0.36
Arctic/FarEast	0.32	0.30	0.29	0.37	0.46	0.45	0.46	0.44	0.52	0.09	0.21
BTC	0.55	0.67	0.64	0.57	0.74	0.80	0.80	0.87	0.80	-0.06	0.44
Crude Seaborne	**4.63**	**4.48**	**4.30**	**4.45**	**5.07**	**5.14**	**4.97**	**4.91**	**5.01**	**0.10**	**1.04**
Druzhba Pipeline	1.13	1.08	1.03	1.09	1.14	1.12	1.14	1.06	1.07	0.01	0.03
Other Routes	0.44	0.42	0.46	0.40	0.40	0.40	0.43	0.44	0.46	0.02	0.04
Total Crude Exports	**6.20**	**5.98**	**5.79**	**5.94**	**6.61**	**6.66**	**6.55**	**6.41**	**6.54**	**0.13**	**1.10**
Of Which: Transneft	4.27	3.99	3.87	3.96	4.22	4.27	4.10	3.95	4.15	0.20	0.41
Products											
Fuel oil	1.10	1.09	1.04	1.04	0.96	1.16	1.19	1.23	1.10	-0.13	0.03
Gasoil	0.95	0.94	0.79	0.92	1.10	0.95	1.04	1.08	0.95	-0.13	0.22
Other Products	0.60	0.59	0.55	0.56	0.73	0.79	0.77	0.69	0.63	-0.07	0.09
Total Product	**2.65**	**2.63**	**2.38**	**2.52**	**2.78**	**2.89**	**3.00**	**3.00**	**2.67**	**-0.33**	**0.35**
Total Exports	**8.85**	**8.61**	**8.17**	**8.46**	**9.39**	**9.55**	**9.54**	**9.41**	**9.21**	**-0.20**	**1.45**
Imports	0.04	0.04	0.05	0.03	0.04	0.05	0.03	0.04	0.04	0.00	-0.03
Net Exports	**8.82**	**8.57**	**8.12**	**8.43**	**9.35**	**9.50**	**9.51**	**9.38**	**9.17**	**-0.20**	**1.47**

Sources: Petro-Logistics, IEA estimates

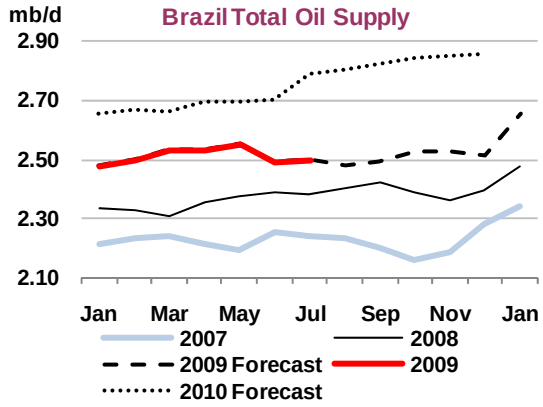
Note: Transneft data has been revised to exclude Russian CPC volumes.

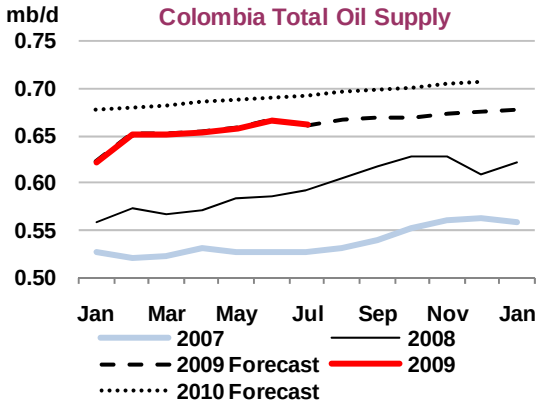
Other Non-OPEC

Brazil – July actual: July crude and NGL production in Brazil was slightly weaker than anticipated, the former stemming from lower offshore production, which has been carried forward. At the Tupi pilot, production was reportedly resumed in mid-September, after some technical hitches were overcome. The first pre-salt crude to be produced, Tupi started up in May, but suffered problems in July, keeping output at a minimal level. If everything goes to plan, production should reach 15 kb/d by the end of the year and rise to around 50 kb/d by mid-2010, after which it should gradually ramp up to 100 kb/d in its initial phase.

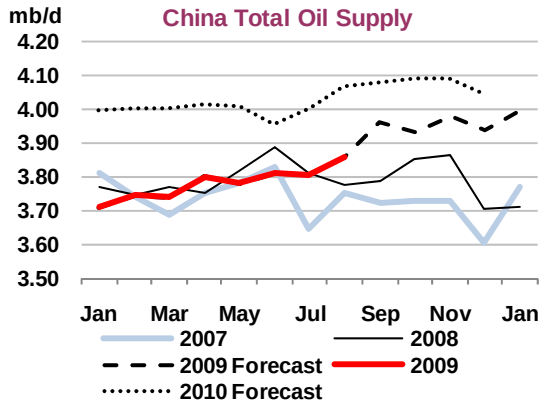
On the proposed pre-salt legislation, as outlined last month (see *Brazil's Lula Outlines Suggested Pre-Salt Development Regime* in report dated 10 September 2009), parliamentary deliberations continue. The initial idea to fast-track legislation has already been scrapped, after long lists of proposed changes were received from interested parties. On the other hand, members of the Brazilian government went on a September road-show, advertising the suggested legislative regime and investment opportunities and garnering much interest. Energy Minister Edison Lobao already hinted at a first bidding round in mid-2010, though this would depend on the legislation being passed by then, which is far from certain. The forecast for total Brazilian supply is revised down by 25 kb/d to 2.51 mb/d in 2009 and down by 45 kb/d to 2.75 mb/d in 2010, still implying strong 2010 growth of nearly 250 kb/d.

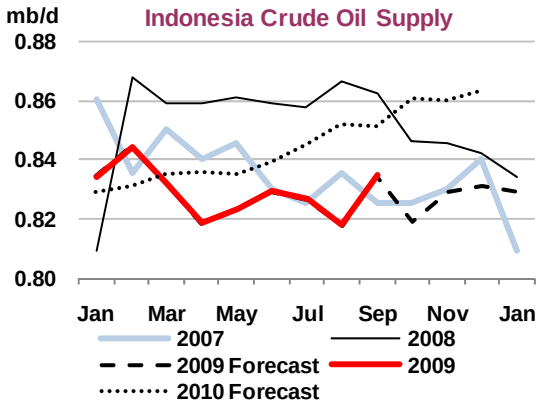
Other Non-OPEC Latin America: In **Colombia**, Rubiales production continues to rise after the start-up of a new spur connecting to the country's pipeline infrastructure. Revisions were minimal and production is forecast to increase steadily on steady investment and improved security. The Rubiales expansion, for instance, was long stalled due to its remote location in the Llanos basin and concerns about pipeline security. Total 2009 oil supply is forecast to average 660 kb/d, rising to 690 kb/d in 2010. In **Argentina**, August supply was revised down by 35 kb/d, partly due to a prolongation of an oil workers' strike in Santa Cruz province. Total oil production is expected to rise from 740 kb/d in 2009 to 750 kb/d in 2010.





China – August actual: August oil production in China undershot this report's expectations by around 85 kb/d, though the overall profile remains virtually unchanged. Offshore production is gradually returning from mid-year seasonal maintenance and output rose by 20 kb/d in Xinjiang, to nearly 250 kb/d. Changqing output is also steadily increasing, currently around 320 kb/d. From mid-September, Typhoon Koppu shut-in oil production at the offshore Huizhou field, thus shaving off approximately 20 kb/d in September and an assumed 45 kb/d in October until the FPSO can be reconnected. Total Chinese oil production is forecast to average 3.84 mb/d in 2009, rising to 4.03 mb/d in 2010 as steady growth in the new offshore fields and from Xinjiang and Changqing offsets decline elsewhere.



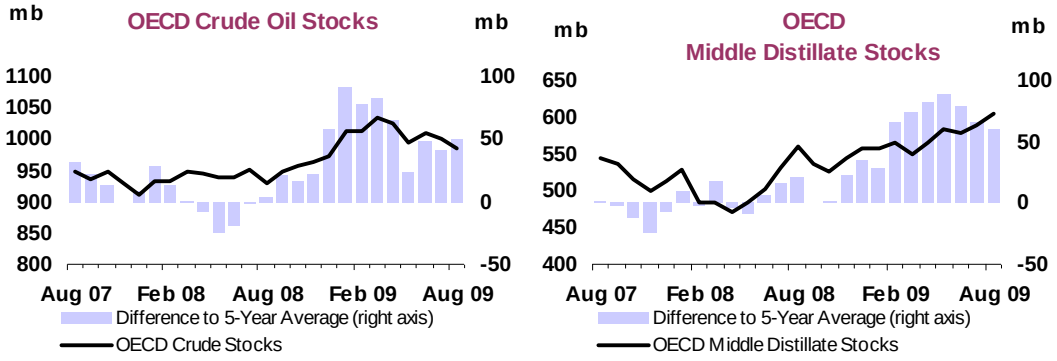


Indonesia – September actual: Indonesia is still experiencing problems at its new Cepu field, as previously reported. The Indonesian market regulator threatened to withdraw the operatorship from ExxonMobil, while the company itself has sent signals that output will soon increase. We are assuming a delayed but slow ramp-up towards the end of the year and steady growth thereafter, with production averaging 30 kb/d in 2010. In early October, the Oyong field started up, which should ultimately generate 10 kb/d of condensate. The devastating earthquakes in Sumatra in late September appear not to have affected oil and gas production. Total Indonesian oil supply is forecast to rise from 1.01 mb/d in 2009 to 1.03 mb/d in 2010.

OECD STOCKS

Summary

- **OECD industry stocks decreased by 3.9 mb in August,** to 2,750 mb. OECD crude and products diverged seasonally as the former fell by 16.1 mb and the latter rose by 19.0 mb. The 'other oils' category fell by 6.7 mb. Crude fell in all three regions, though most heavily in North America and the Pacific. Middle distillates drove the products build, with all OECD regions posting gains.
- **OECD stocks in days of forward demand stood at 60.7 days as of end-August,** down from a revised end-July reading of 61.4. Despite falling across all three regions, crude days cover remained above the five-year range. Products days cover increased on the month, led by European gasoline and North American residual fuel oil.
- **Preliminary data indicate total OECD industry oil inventories rose by 10.5 mb in September**, as an increase in product stocks outweighed a fall in crude stocks. Products rose 19.9 mb, led by US distillate and gasoline. Crude stocks decreased 9.3 mb, led by a fall in Japan. The stock change did not include EU-16 data from Euroilstock, which were unavailable as this month's *OMR* went to press.
- **Short-term *crude* floating storage levels declined to 45 mb at end-September,** from 50-55 mb in August. Narrower contango in the crude futures curve and a draw from onshore stocks diminished the economic attractiveness of the practice. Yet, products floating storage, particularly middle distillates, remained more viable as levels increased to over 75 mb from 60-65 mb at end-August.



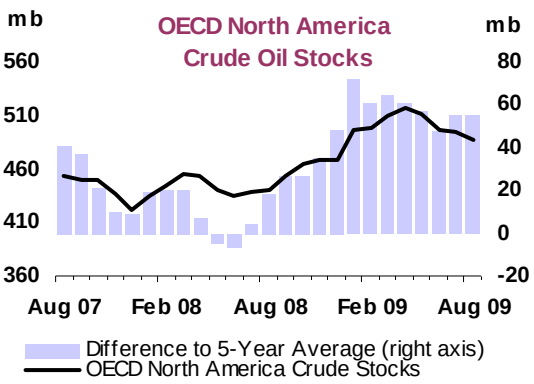
OECD Inventory Position at End-August and Revisions to Preliminary Data

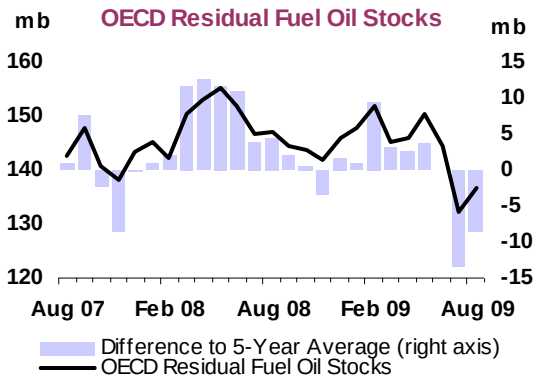
OECD industry stocks decreased by 3.9 mb in August, to 2,750 mb. The change was slightly below seasonal norms; the five-year average stock change for the month is a 1.7 mb build. Crude and product movements diverged seasonally, with the former falling by 16.1 mb and the latter rising by 19.0 mb. The OECD stock surplus to the five-year average continued to fall. At end-August, the surplus stood at 97.6 mb, down from 147.4 mb in June. Yet, September's preliminary 10.5 mb stock build looks higher than seasonal norms. Moreover, though short-term crude floating storage continued falling in September, a rise in products floating storage caused the combined crude and products total to increase by about 5 mb. With refinery utilisation in a seasonal trough, the large OECD stock surplus may stagnate through November unless demand surges or a bout of cold weather boosts distillate consumption.

Preliminary Industry Stock Change in August 2009 and Second Quarter 2009

	August (preliminary)								Second Quarter 2009			
	(million barrels)				*(million barrels per day)*				*(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**-8.4**	**-0.2**	**-7.6**	**-16.1**	**-0.27**	**-0.01**	**-0.25**	**-0.52**	**-0.15**	**-0.14**	**0.00**	**-0.28**
Gasoline	-6.6	2.1	0.1	-4.3	-0.21	0.07	0.00	-0.14	-0.05	-0.04	0.00	-0.09
Middle Distillate	3.2	7.1	4.5	14.8	0.10	0.23	0.15	0.48	0.19	0.07	0.06	0.31
Residual Fuel O	0.2	2.1	2.2	4.4	0.01	0.07	0.07	0.14	-0.03	0.03	-0.01	-0.01
Other Products	-2.4	0.5	6.0	4.1	-0.08	0.02	0.19	0.13	0.30	-0.05	-0.09	0.16
Total Products	**-5.6**	**11.7**	**12.8**	**19.0**	**-0.18**	**0.38**	**0.41**	**0.61**	**0.41**	**0.01**	**-0.05**	**0.37**
Other Oils[1]	-5.3	-0.9	-0.6	-6.7	-0.17	-0.03	-0.02	-0.22	0.12	-0.04	-0.03	0.05
Total Oil	**-19.2**	**10.7**	**4.7**	**-3.9**	**-0.62**	**0.34**	**0.15**	**-0.13**	**0.38**	**-0.16**	**-0.08**	**0.14**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.





On the crude side, the end-August surplus to the five-year average remained high at 50.4 mb, mostly due to North America, which saw its surplus to the five-year average stay flat on the month at around 55 mb. Continued discharge of short-term crude floating storage has likely kept onshore surpluses intact while downward revisions to crude stock levels in Japan (-8.1 mb) provided some offset. Even with a preliminary September stockdraw of 9.3 mb, OECD crude stocks look unlikely to draw down over the next few months. Around 45 mb of short-term floating storage remains off the US, Europe and West Africa and OECD refinery throughput is expected to remain low. Moreover, the absence of a severe hurricane this year has kept non-OPEC production seasonally healthier in comparison to previous years.

Revisions versus 10 September 2009 Oil Market Report

(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Jun 09	Jul 09	Jun 09	Jul 09	Jun 09	Jul 09	Jun 09	Jul 09
Crude Oil	**-1.8**	**-1.7**	**0.5**	**-2.4**	**0.0**	**-6.7**	**-1.3**	**-10.8**
Gasoline	0.0	-5.3	-0.6	-0.6	0.0	-0.7	-0.6	-6.6
Middle Distillates	0.0	-5.2	-2.8	-1.2	0.0	0.3	-2.8	-6.1
Residual Fuel Oil	0.1	1.6	-0.8	-11.2	0.0	-0.1	-0.7	-9.7
Other Products	-0.2	3.4	-0.4	-0.1	0.0	0.7	-0.6	4.0
Total Products	**-0.1**	**-5.6**	**-4.7**	**-13.1**	**0.0**	**0.2**	**-4.8**	**-18.5**
Other Oils[1]	0.5	4.5	0.0	0.2	0.0	-0.1	0.5	4.6
Total Oil	**-1.4**	**-2.8**	**-4.2**	**-15.2**	**0.0**	**-6.7**	**-5.5**	**-24.7**

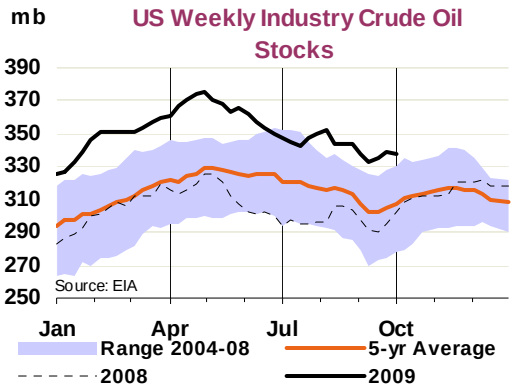
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

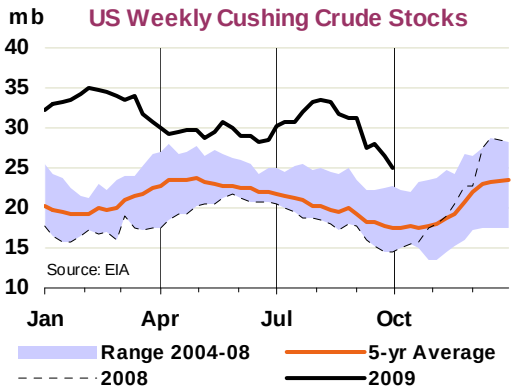
In products, OECD gasoline stocks appear to have emerged from the summer driving season in relatively normal shape, with end-August absolute levels slightly below the five-year average and days of forward cover above the five-year average. Large distillate surpluses to the five-year average persisted in North America (30.1 mb) and Europe (35.3 mb), with end-August levels more than ample to cover demand needs heading into the colder season. In the Pacific, where absolute distillate levels trended below the five-year average, end-August days cover nonetheless remained well above the five-year range. In residual fuel oil, stock levels have trended below the five-year average in all three regions, aided by an 11.2 mb downward revision to European inventories in July and a tightening Asia-Pacific market. Yet, on a days cover basis, all three regions remained near the top of the five-year range.

Analysis of Recent OECD Industry Stock Changes

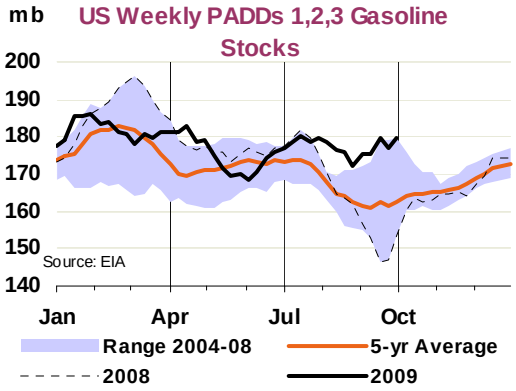
OECD North America

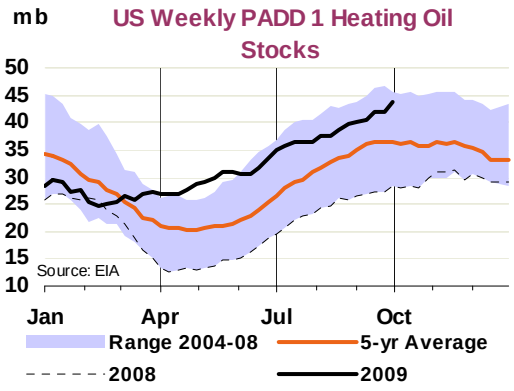
North American commercial inventories fell by 19.2 mb in August, led by decreases in US crude and gasoline. US crude stocks drew by 9.8 mb as refinery throughput increased and imports sagged. Mexican crude stocks increased by 1.5 mb. North American crude stocks continued to show the largest regional surplus relative to the five-year average. In products, US gasoline decreased seasonally by 6.5 mb while middle distillates posted a 2.1 mb seasonal rise. Mexican product stocks rose by 1.6 mb, led by distillates.





September preliminary weekly data point to a 9.1 mb build in US commercial stocks, with an increase in products outweighing a 3.2 mb decrease in crude. Crude stocks drew seasonally in September, though as of early October inventories remained above the five-year range. With weak product margins and low refinery utilisation expected through the remainder of autumn, crude inventories may continue to build seasonally. Crude stocks at Cushing, Oklahoma – the delivery point for NYMEX light, sweet crude – drove much of the change at the national level as they fell by 5.7 mb on the month to 2009 lows. The change reflected narrowing contango in the WTI curve, which made storage returns less attractive, and a volatile pattern of imports into the US Mid-Continent and Gulf Coast during the month.



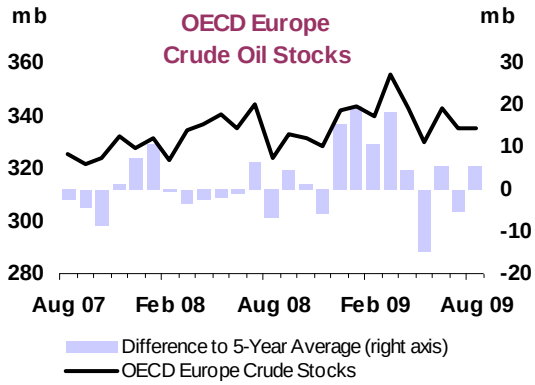


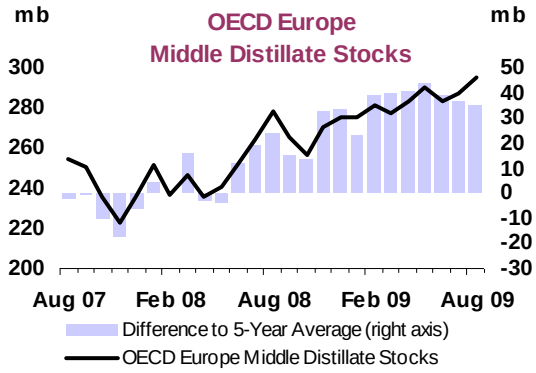
US product stocks increased by 12.3 mb in September, led by gains in gasoline and distillate of 7.6 mb and 7.1 mb, respectively. Gasoline stocks remained near the top of the five-year range as a weak summer driving season came to its end. Both diesel and heating oil stocks increased within the distillate category. The former continued to push to new five-year highs while heating oil stocks along the US East Coast – the primary region for oil-based heating – trended in the top half of the five-year range.

OECD Europe

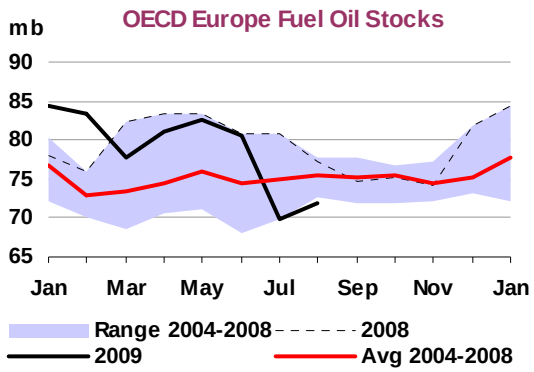
European inventories rose by 10.7 mb in August, led by an increase in middle distillates. European crude stocks remained relatively unchanged on the month and continued to track the five-year average. Product inventories rose 11.7 mb as middle distillates increased 7.1 mb and gasoline and fuel oil both posted 2.1 mb gains. The European distillate surplus to the five-year average narrowed slightly, but remained high at 35.3 mb. A July downward revision to residual fuel oil stocks, combined with falling August levels, left that category trending at the bottom of the five-year range at end-August.

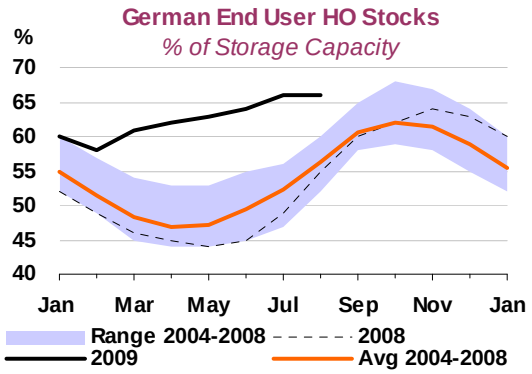
German consumer heating oil stocks showed signs of levelling off in August, with an end-month reading at 66% capacity fill, unchanged from July. Still inventory levels remain ample with end-August levels already above the five-year average for the beginning of the heating season in October. Gasoil stocks held in NW Europe independent storage continued to indicate a strong middle distillate buffer in





September. Levels remained at five-year highs, but stocks there decreased slightly on the month. Meanwhile, products floating storage – mostly middle distillates – off NW Europe and the Mediterranean grew to about 50 mb as of end-September versus around 40 mb the previous month.

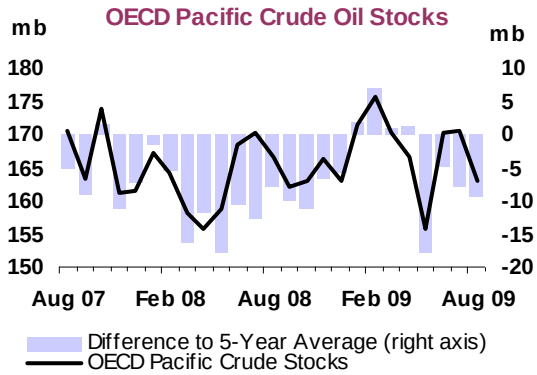


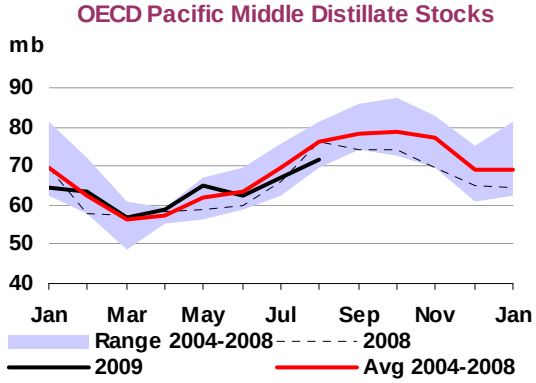


September preliminary data for other product categories in NW Europe independent storage showed gasoline, naphtha, jet/kerosene and fuel oil posting inventory gains. Fuel oil and jet-kerosene posted the largest increases as the former topped the five-year range for the first time since April. Gasoline and naphtha stocks finished the month at the top of their respective five-year ranges. September EU-16 preliminary stock data from Euroilstock were not yet available as this month's *OMR* went to press.

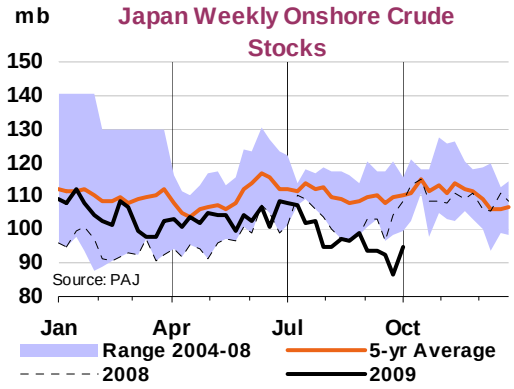
OECD Pacific

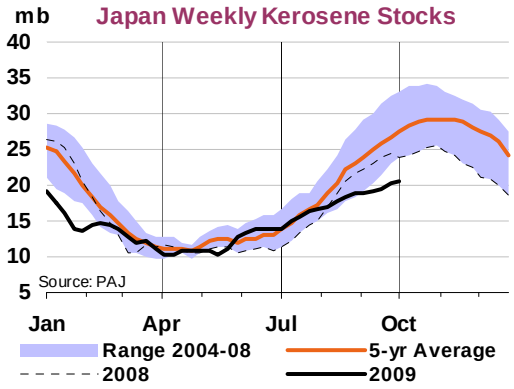
Pacific industry stocks rose by 4.7 mb in August as an increase in product stocks outweighed a fall in crude inventories. Stock levels in crude fell further below the five-year average as August inventories drew 7.6 mb, driven largely by a 6.2 mb decrease in Japan. On a days of forward cover basis, however, Pacific crude stocks stood above the five-year range. Product inventories rose by 12.8 mb led by increases in middle distillates and the 'other products' category. Middle distillates rose by 3.3 mb on the





month in Japan and by 1.3 mb in Korea. Pacific residual fuel oil stocks increased by 2.2 mb. On an absolute basis they remained under the five-year range, yet on a days cover basis they continue to trend at the top of the range.

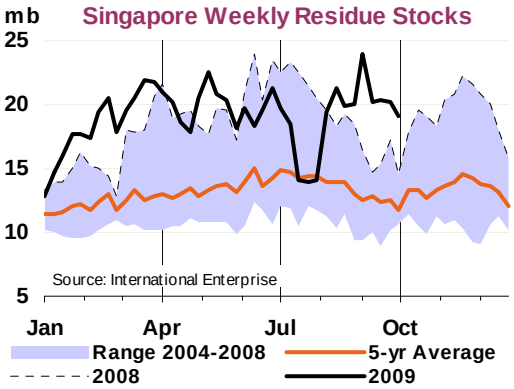


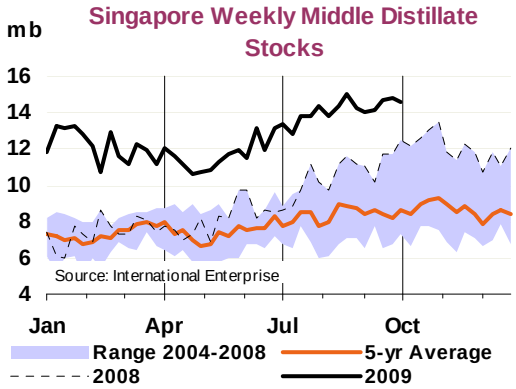


Weekly data from the Petroleum Association of Japan (PAJ) point to a small commercial stock build of 1.4 mb in September, with a crude fall of 6.2 mb partially offsetting a products rise of 7.6 mb. Crude inventories fell even as refinery utilisation decreased on the month. Though they continued to trend below the five-year range on an absolute basis, crude stocks appear healthier on a days cover basis with refinery throughput expected to remain below the five-year average in the months ahead. Among products, kerosene and residual fuel oil showed the largest increases, gaining 1.6 mb and 1.7 mb, respectively. Yet, after trending along the five-year average during much of the year, kerosene stocks are entering October below the five-year range. Gasoline, gasoil and naphtha remained in line with or slightly above their historical averages.

Recent Developments in Singapore and China Stocks

Singapore product stocks decreased by 2.8 mb in September as fuel oil stocks partly pared the previous month's gains. Fuel oil inventories decreased by 3.8 mb in September with strong regional demand and tighter Russian supplies. Still, stockdraws may prove limited as a recent increase in high-sulphur fuel oil prices relative to those in NW Europe has begun attracting more cargoes from the West. Light and middle distillate stocks both edged up, by 0.6 mb and 0.5 mb, respectively, to end-month levels near their 2009 highs as regional demand remained weak.





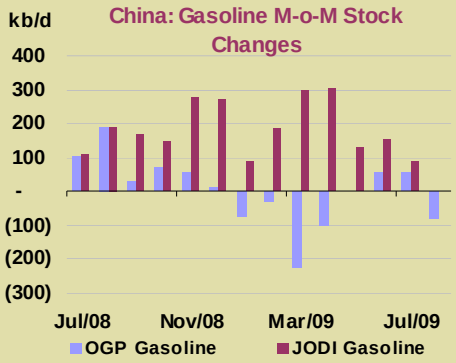
China crude oil stocks reported by *China Oil, Gas and Petrochemicals* (OGP) rose by 2.2 mb in August to near 286 mb on higher domestic output, lower runs and continued elevated import levels. The end-month stock level was the highest reported since the beginning of the series in January 2008. OGP again noted that the inventory figure included 'both commercial and state strategic reserves'.

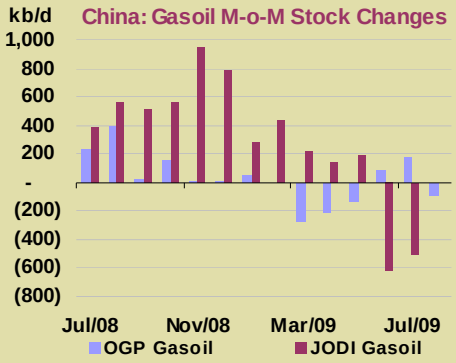
More Pieces, But Chinese Inventories Remain Puzzling

Additional data from China are always welcome. Yet, the October 1 issue of China OGP included upward product stock revisions that have generated many questions. OGP reported gasoline and gasoil stocks higher on average by 71% and 60%, respectively, from January 2008 to July 2009 versus corresponding data from previous issues. Starting in January 2008, gasoline and gasoil stocks were revised up by 18.4 mb and 21.4 mb, respectively, with the baseline changes carried through the remainder of the data set. Month-on-month stock changes following January 2008 remained unchanged from the previous figures up until July 2009. Moreover, the series in the October 1 issue did not include data points before January 2008, leaving open the question as to when exactly the inventory change occurred.

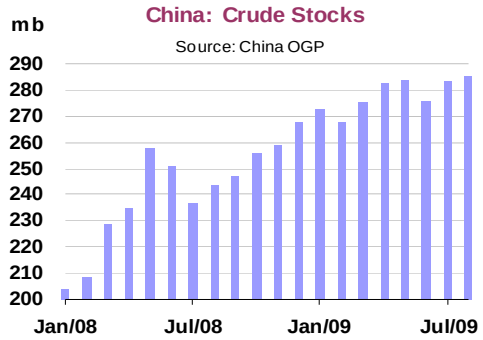
OGP provided no explanation for the change in its monthly report, but a Dow Jones Newswire story indicated that OGP attributed the change to CNPC data. The long holiday from October 1-8, which included the 60th anniversary of the founding of the People's Republic of China and the traditional Mid-Autumn festival, closed offices in China, including those of OGP. Consequently, further insights were not available as this month's *OMR* went to press.

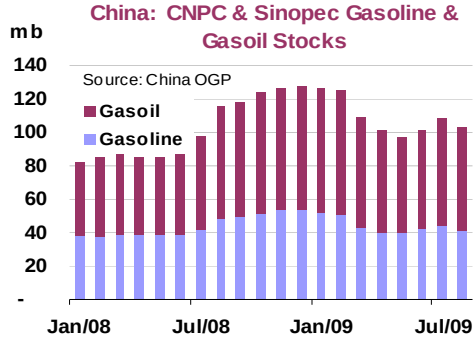
Improved data should ultimately contribute to a more comprehensive understanding of the Chinese stock-holding position. Still, the lack of clarity surrounding this disclosure creates near-term uncertainty not only on inventories but also on demand, as discussed in this report's *Demand* section. Since monthly stock changes for both gasoline and gasoil remained largely intact from the old series, it remains unclear whether OGP's data are actual reported monthly inventories or estimates based on monthly changes. Questions also persist over stocks held by other entities, as suggested by sometimes-stark differences between the OGP monthly stock changes, based on only CNPC and Sinopec, with those reported by China to the Joint Oil Data Initiative (JODI).





As indicated in media reporting, China's Phase 2 Strategic Petroleum Reserve construction, about 170 mb of storage, continues. Tank completion and filling schedules remain ambiguous, however. The deputy head of China's National Energy Administration was recently quoted in Reuters as saying that Phase 2 construction may take two years to finish and that filling would be based upon market conditions. Yet, the head of the National Energy Administration indicated in another Reuters story that construction completion may occur within three to four years. A third phase of 170 mb is scheduled for completion by 2020.

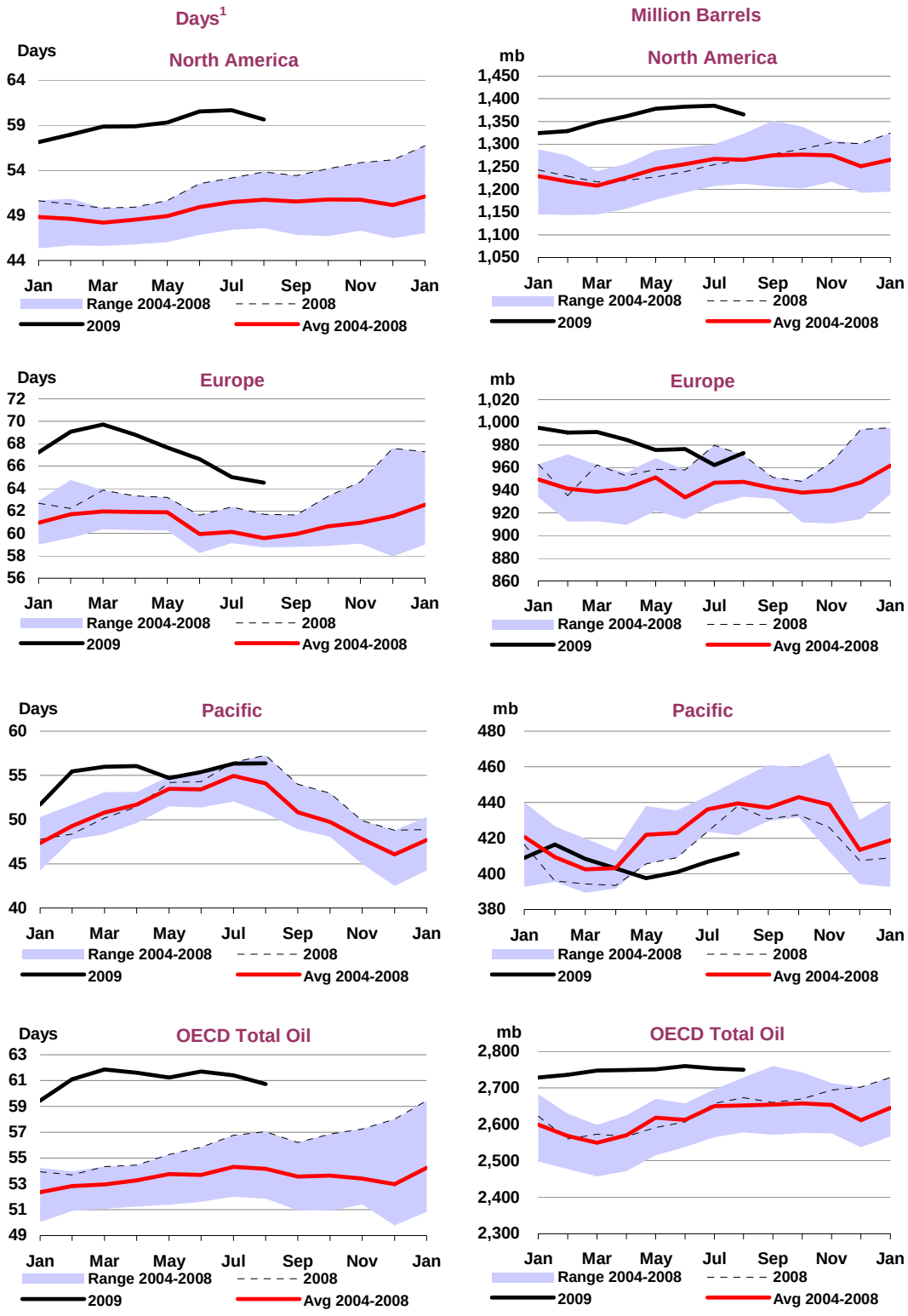




End-August inventory data showed gasoline and gasoil declining on the month by 2.4 mb and 3.0 mb, respectively, as refinery output fell and gasoline and diesel exports rose. Curiously, OGP data showed a large upward historical revision to absolute gasoline and gasoil stock levels held by CNPC and Sinopec (see *More Pieces, But Chinese Inventories Remain Puzzling*).

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and millions barrels of total oil)



1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Benchmark crude oil prices waxed and waned throughout September** but continued to trade in the relatively narrow $65-$75/bbl range seen over the past three months. Growing concerns over mounting distillate stocks and worries about the pace and depth of a global economic recovery added a downward bias, with prices ending lower by $1.65-$4.90/bbl for the month.

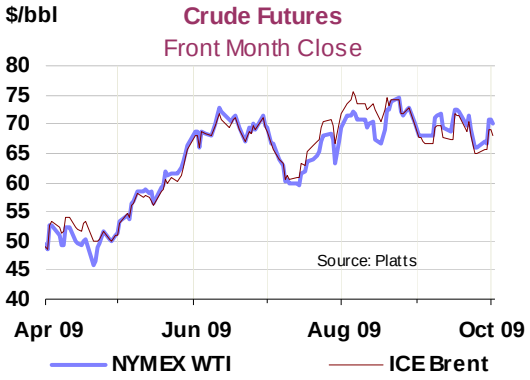
- **Oil prices tracked the upward swings in financial markets over the month** but were frequently knocked off their perch by negative economic developments, including worsening unemployment data, and continued lacklustre industrial and transportation.

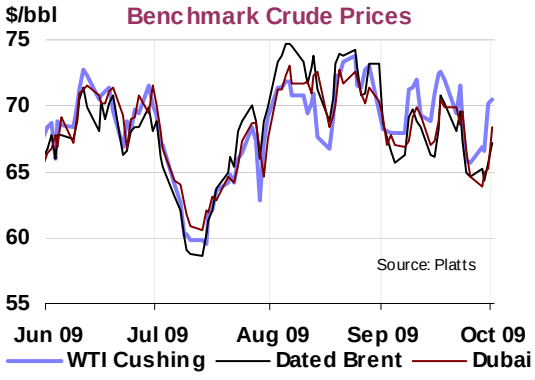
- **Refining margins in September remained dismal**, but directionally trends were mixed as both crude and product prices decreased across the board. Gasoline and gasoil/diesel cracks mostly fell as the driving season in the US ended and high levels of middle distillates stocks continued to build in the Atlantic basin. Hydroskimming margins improved, but remained heavily negative, and upgrading margins deteriorated across the board.

- **The tanker market continues to be pressured by an oversupply of vessels** against the backdrop of weak demand. The year-on-year drop in seaborne crude shipments of 1.5 mb/d has hit mainly westbound trade out of the Middle East and Western Africa. While oil demand is expected to rise by 0.6 mb/d in 4Q09 compared with the previous quarter, high tanker fleet additions combined with a further potential drawdown in crude floating storage will keep freight rates under extreme pressure.

Overview

Benchmark crude oil prices in September continued to trade in the relatively narrow $65-75/bbl range seen over the past three months. Oil prices were pushed lower during the month by worrisome economic data and persistently weak oil market fundamentals, not least continued lacklustre industrial and transportation demand for diesel and other middle distillates.





Varying market dynamics in the Atlantic basin saw average futures prices for WTI decline in September by $1.65/bbl, while North Sea Brent was down a steeper $4.90/bbl, to around $69.50/bbl and $68.15/bbl respectively. The relative strength for WTI reflected a drawdown to the lowest levels this year in crude oil stocks held at the key Cushing, Oklahoma storage depots, while volumes of some North Sea crudes increased following completion of oil field maintenance work.

Heightened tensions over the nuclear standoff with Iran tempered the downturn by the end of September, but by early October apparently cooperative dialogue between Iran and the International Atomic Energy Agency (IAEA) calmed market fears of a potential supply disruption, or worse. Concern

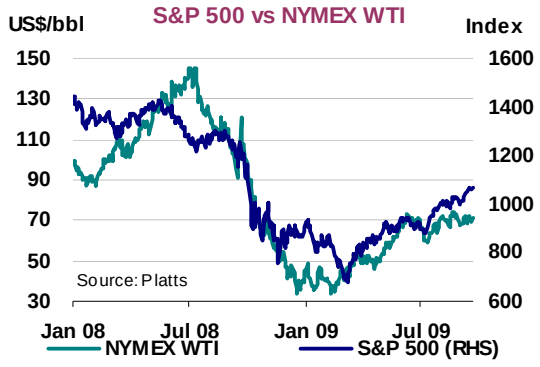
about a show-down with Iran over its nuclear programme was also muted, in part because OPEC currently holds more than 5.4 mb/d in spare production capacity. WTI and Brent were trading in a $68-72/bbl range at the time of writing.

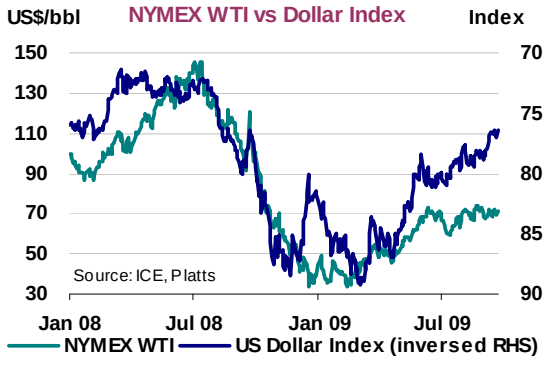
While market perception turned a bit gloomier on worries over swelling stockpiles of distillates, OPEC's own economists were resolutely upbeat about the global economy and prospects of increased demand for the group's crude at their 9 September meeting in Vienna. OPEC ministers largely agreed that there was little need for further target cuts given stable prices of around $65-$75/bbl. Concern about the relatively high level of global inventories was cast aside at the meeting, with expectations that the economy will pick up in 4Q09, helping soak up both crude and product stocks. Perhaps underscoring the group's optimism, latest data for September show OPEC production up by just 120 kb/d, to 28.9 mb/d, about 1.6 mb/d shy of the 4.2 mb/d cuts in place since last September.

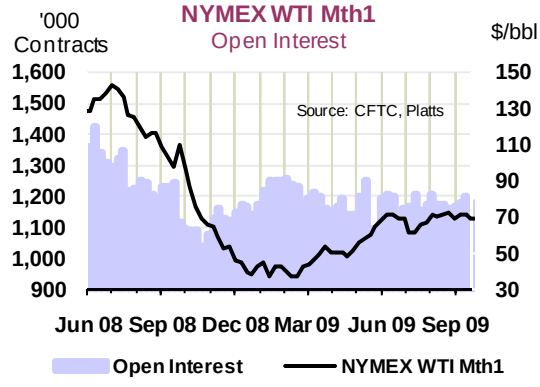
Reports that several key Nigerian rebel leaders in the Delta oil-producing region had agreed to a government ceasefire triggered selling as it raised the prospect of increased crude oil flows into an already saturated market. Yet it is far from certain that the latest calm will last. Militants who rejected the government's amnesty programme said on 7 October that they would start attacking the country's oil infrastructure when the ceasefire ends on 15 October.

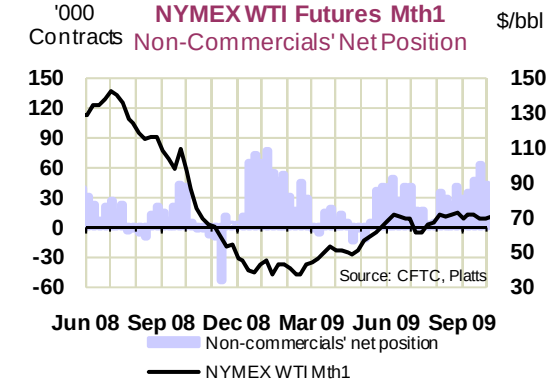
Futures Markets

Futures prices continued to track global financial and equity market expectations, which directionally exerted pressure to the upside. As the recovery from the global economic crisis unfolds, oil traders have increasingly looked to financial markets for signs of 'green shoots' in the broader economy, which ultimately will trickle down to a recovery in oil demand. Oil prices and broader financial markets have had a fairly strong correlation for the past year. Of late, the link has become more tenuous as weak supply and demand fundamentals appear to be exerting more pressure to the downside.



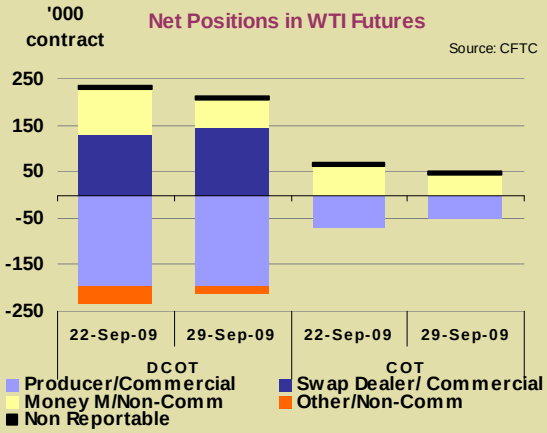






CFTC Unveils New Disaggregated Report

The US Commodity Futures Trading Commission (CFTC) released a new disaggregated version of the Commitments of Traders (DCOT) report in September, as part of its effort to increase market transparency. The new format is designed to better reveal the role of investment banks and index traders, among others, in commodities markets.



However, the time series currently available is as yet too small to draw meaningful conclusions. The CFTC plans to publish three years' of historical data under the new format later this month, which should enable more detailed analysis. For the time being, the report will be published alongside the original Commitments of Traders (COT) report.

In the disaggregated version, the two original categories (commercial and non-commercial) are each broken down further according to the traders' predominant business activity, making four new categories:

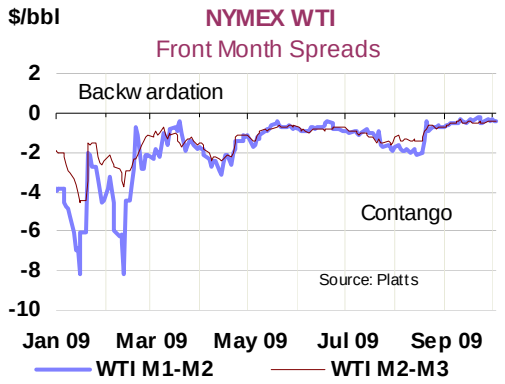
- Producer/Merchant/Processor/User – Commercial producers or other users of a physical energy commodity.
- Swap Dealers – Entities, e.g. investment banks, which manage or hedge the risk associated with their swap transactions.
- Money Manager - Commodity traders who trade futures on behalf of clients, like hedge funds or index funds.
- Other Reportables – Small volume traders or others who do not fall within the three categories outlined.

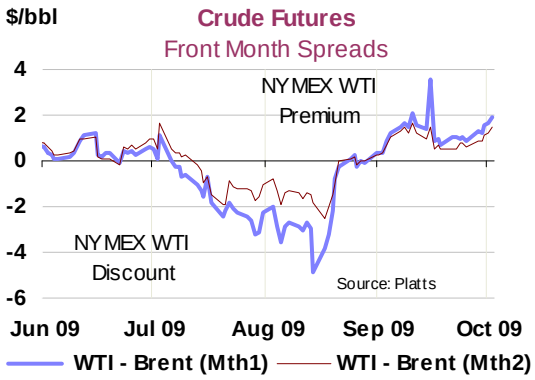
The new report is expected to provide greater depth on activities of swap dealers, which were previously included in the commercial category. However, one current flaw with the report is that it does not fully capture information about the swap dealer's counterparties. These may be speculative traders, such as index fund managers or traditional commercial users that hedge risks arising from dealings in the physical commodity market. What the new report does show is that most of the swap dealers hold their positions in an offsetting number of long and short contracts, otherwise known as spreading.

The disaggregated commercial and non-commercial categories still contain the same number of contracts as before. The COT report for the week of 29 September shows commercial players hold net short positions of 50,069 NYMEX WTI futures contracts. According to the DCOT, the Swap Dealers hold 145,520 net long contracts and are offset by Producers/Merchants having net short exposure of 195,589 contracts. Similarly, net long non-commercial players hold 42,142 contracts, comprising net long 60,002 contracts held by Money Managers and net short 17,860 contracts of Others.

Open interest rose by 53,610 contracts the week of 29 September compared with 22 September. Commercial traders decreased their net short positions by 19,737 lots, with Swap Dealers' net long holdings rising by 17,356 contracts versus falling net short exposure of 2,381 contracts by Producers/Merchants. On the non-commercial side, net long positions fell by 20,074 contracts, when Money Managers axed net long exposure by 38,029 lots and Others reduced their net short positions by 17,955 contracts. The remaining increase of 337 net long contracts comes from Non-Reportables, shown in both COT and DCOT.

Among a multitude of other factors, the flow of money into futures markets partly reflects investor attempts to hedge against inflation and a weaker US dollar. The inverse relation between the US dollar index and NYMEX WTI price has been strong of late even if the longer-term correlation is much less evident. A London newspaper report in early October claiming Gulf Arab states were in secret talks with Russia, China, Japan and France to replace the US dollar with a basket of currencies for most oil sales has been roundly denied by officials on both sides. Indeed, a change from pricing oil in dollars has been muted before, recently by Venezuelan President Hugo Chavez. However, while at various times the dollar can be an imperfect denominator, so too are other options explored in the past.





The contango for NYMEX WTI futures narrowed sharply in September, averaging 44 cents/bbl compared with $1.43/bbl in August. The narrower contango prompted companies holding crude on tankers and at onshore storage tanks in Cushing, Oklahoma to sell off their stocks. Meanwhile, WTI solidly regained its more typical premium over Brent in September. The WTI premium over Brent average $1.32/bbl in September compared with a discount of $1.92/bbl in August.

Spot Crude Oil Prices

Spot crude oil prices were down on the month, in part following futures lower, but also on reduced buying by refiners. Economic run cuts and worries over the economy curtailed buying interest. Despite relatively lower runs in recent months, US, Asian and European refiners are still grappling with swelling stockpiles of refined products, especially middle distillates. Spot crude barrels were also under pressure from the narrowing of the contango and the unwinding of crude storage plays in the US Mid-continent. Cushing storage levels fell to the lowest level this year.

OPEC's cutback of heavy and medium sour crudes helped lift prices of competing grades in recent months, but demand for heavy crude oil is now easing due to reduced runs of coking units in the US.

Increased supplies of Nigerian and UK North Sea crude also weighed on Atlantic basin markets. After months of reduced exports due to militant attacks on the country's infrastructure, a rebound in Nigerian production in September has left many unsold barrels on offer in the market.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Jul	Aug	Sep	Sep-Aug Avg Change	%	Week Commencing: 31 Aug	07 Sep	14 Sep	21 Sep	28 Sep
Crudes										
Dated Brent	64.61	72.83	67.39	-5.44	-7.5	67.12	68.50	68.34	66.93	65.78
Brent (Asia) Mth1 adjusted	65.37	72.75	67.74	-5.01	-6.9	69.23	68.71	68.36	67.15	66.13
WTI (Cushing) Mth1 adjusted	64.10	71.05	69.41	-1.64	-2.3	68.36	70.98	71.34	68.22	68.79
Urals (Mediterranean)	64.85	72.25	67.09	-5.16	-7.1	66.72	68.25	68.23	66.38	65.70
Dubai Mth1 adjusted	64.82	71.34	67.64	-3.70	-5.2	68.29	68.51	68.73	67.31	66.08
Tapis (Dated)	68.65	76.42	69.76	-6.66	-8.7	71.57	70.16	70.67	69.32	67.95
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	-0.50	-1.78	2.02	3.80		1.24	2.47	3.00	1.29	3.01
Urals (Mediterranean)	0.24	-0.58	-0.30	0.28		-0.39	-0.25	-0.11	-0.55	-0.08
Dubai Mth1 adjusted - Dated Brent	0.21	-1.49	0.26	1.74		1.17	0.01	0.39	0.38	0.30
Tapis (Dated)	4.05	3.59	2.37	-1.22		4.45	1.66	2.33	2.39	2.17
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-0.36	-0.33	-0.79	-0.46		-0.69	-0.77	-0.93	-0.79	-0.75
Forward WTI Cushing Mth1-Mth2 adj.	-1.19	-1.39	-0.40	0.99		-0.62	-0.43	-0.42	-0.21	-0.36

Source: Platts

In Europe, Iraqi crude quality problems have buyers seeking alternatives such as Russian Urals but customers are complaining retroactive official prices are too high. The heavier Basrah quality, however,

has not deterred Asian buyers since the higher yield of fuel oil is currently much in demand. The normal API gravity for Basrah is 31-32°, but in recent months it has been averaging a heavier 29-30° API due to the addition of fuel oil. State marketer SOMO is discounting the price by ¢4/bbl for every degree drop below 34° API.

Spot Product Prices

Refined product markets moved lower in tandem with weaker crude levels in September. Spot prices were down across the board for all products in all major markets. Only fuel oil showed any relative strength over the month, with continued cutbacks of heavier, sour Middle East crudes the main prop for the market. The light end of the barrel posted the sharpest declines in September, with gasoline cracks shedding about $2-3/bbl in Europe and Singapore, and $4-6/bbl the US. However, by early October European gasoline cracks rebounded above $5/bbl, after hitting six month lows of around $2/bbl in late September.

Spot Product Prices

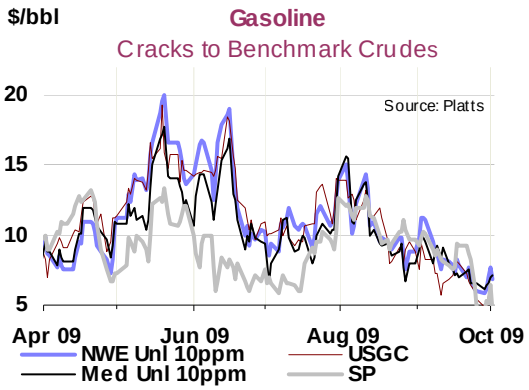
(monthly and weekly averages, $/bbl)

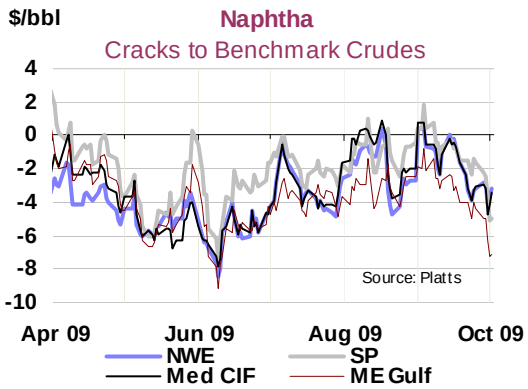
	Jul	Aug	Sep	Sep-Aug		Week Commencing:					Jul	Aug	Sep
				Change	%	31 Aug	07 Sep	14 Sep	21 Sep	28 Sep			
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	75.38	83.65	75.49	-8.16	-9.8	77.98	77.10	76.20	73.66	72.49	10.77	10.83	8.11
Naphtha	61.32	70.81	65.78	-5.03	-7.1	67.25	67.04	67.76	63.75	62.45	-3.28	-2.02	-1.61
Jet/Kerosene	71.90	79.48	76.18	-3.31	-4.2	75.51	76.84	77.09	76.06	75.15	7.30	6.66	8.79
ULSD 10ppm	72.13	81.07	75.70	-5.37	-6.6	74.85	76.27	76.61	75.30	75.97	7.53	8.24	8.31
Gasoil 0.1%	70.20	78.86	73.37	-5.49	-7.0	72.92	74.13	74.59	72.68	72.77	5.59	6.04	5.99
LSFO 1%	60.02	68.12	64.84	-3.28	-4.8	64.65	65.48	66.10	64.30	63.65	-4.58	-4.70	-2.55
HSFO 3.5%	59.06	65.69	62.47	-3.22	-4.9	62.42	63.48	63.32	61.76	60.83	-5.55	-7.14	-4.92
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	74.69	82.85	74.94	-7.91	-9.5	76.30	76.97	75.64	73.34	72.34	9.84	10.61	7.86
Naphtha	61.22	70.89	65.76	-5.13	-7.2	67.29	67.14	67.82	63.62	62.25	-3.63	-1.36	-1.33
Jet Aviation fuel	71.44	78.57	75.20	-3.37	-4.3	74.32	75.79	76.29	75.04	74.66	6.59	6.32	8.11
ULSD 10ppm	71.97	81.25	75.46	-5.79	-7.1	74.90	76.35	76.36	74.96	74.85	7.12	9.00	8.38
Gasoil 0.1%	70.53	78.81	73.16	-5.65	-7.2	72.97	74.29	73.99	72.28	72.71	5.68	6.56	6.08
LSFO 1%	60.12	68.38	65.25	-3.13	-4.6	65.35	65.54	66.60	64.70	63.06	-4.73	-3.87	-1.84
HSFO 3.5%	59.13	66.33	62.61	-3.73	-5.6	62.46	63.52	63.74	61.95	60.96	-5.72	-5.91	-4.48
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	79.61	87.24	79.51	-7.73	-8.9	79.83	81.02	82.48	76.96	77.52	15.50	16.19	10.10
Unleaded	73.49	81.07	74.75	-6.32	-7.8	76.80	76.69	77.18	71.49	72.11	9.39	10.02	5.34
Jet/Kerosene	72.99	80.62	73.89	-6.73	-8.3	73.65	74.34	75.69	72.97	74.17	8.88	9.57	4.48
No. 2 (Heating Oil)	68.45	78.48	72.67	-5.82	-7.4	72.20	72.85	74.37	71.86	73.29	4.35	7.43	3.26
LSFO 1%†	59.36	66.65	63.08	-3.57	-5.4	63.37	63.96	64.79	62.09	61.89	-4.74	-4.40	-6.33
No. 6 3%†	59.00	66.26	62.95	-3.31	-5.0	63.36	63.93	64.70	61.82	61.68	-5.10	-4.79	-6.46
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	72.83	82.13	75.63	-6.49	-7.9	78.14	77.13	77.08	74.35	71.31	8.01	10.79	7.99
Naphtha	62.92	70.37	66.80	-3.57	-5.1	68.82	68.11	68.02	65.61	62.38	-1.90	-0.97	-0.84
Jet/Kerosene	72.39	78.67	74.58	-4.09	-5.2	75.61	74.73	75.09	74.96	73.02	7.57	7.33	6.94
Gasoil 0.5%	71.08	79.02	74.65	-4.37	-5.5	76.29	75.90	75.10	73.99	72.14	6.27	7.68	7.00
LSWR Cracked	62.27	65.92	62.96	-2.96	-4.5	64.39	63.79	63.36	62.34	60.75	-2.55	-5.42	-4.69
HSFO 180 CST	61.95	67.34	65.49	-1.85	-2.7	66.35	66.10	66.19	65.10	63.63	-2.87	-4.00	-2.15
HSFO 380 CST 4%	63.46	68.92	67.17	-1.75	-2.5	67.86	67.72	67.89	66.93	65.36	-1.36	-2.42	-0.47

Source: Platts * CIF † Cargoes

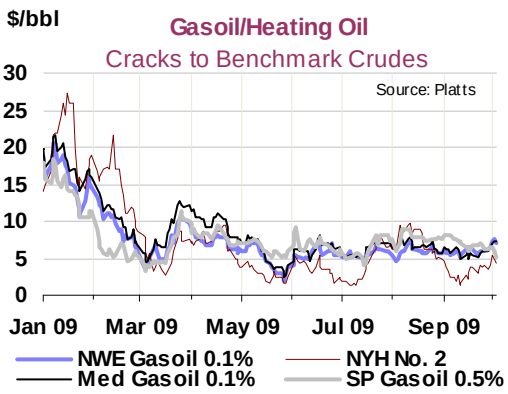
Middle distillate markets are being battered on all fronts. Across the oil complex nowhere is the reversal of fortune more pronounced than in the diesel market. Diesel led the market higher to record levels two years ago, and now it threatens to lead it lower this year. After ranging from $15-$25/bbl in 1Q09, gasoil and diesel cracks to benchmark crudes have steadily eroded. However, a semblance of stability emerged in September, with cracks stabilising in the $5-$10/bbl range although this may reflect tighter specifications ahead of winter.

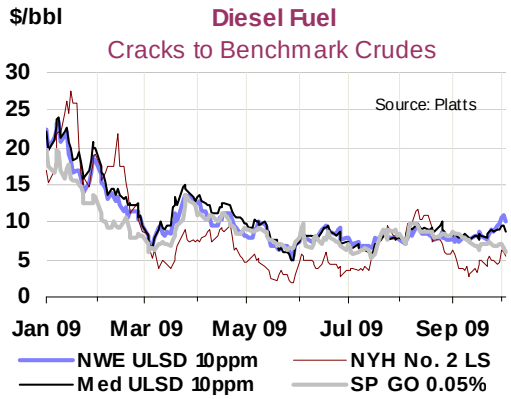
The much-anticipated rebound in industrial and transport demand for diesel remains elusive while stocks are brimming over, with swelling offshore storage at unprecedented levels. While Europe, Japan and the US implement economic run cuts to stem the build of gasoil/diesel supplies, new refining capacity in China, India and Vietnam continues to flood the market with unwanted supplies.



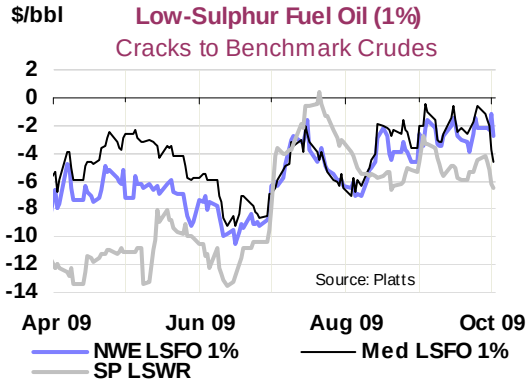


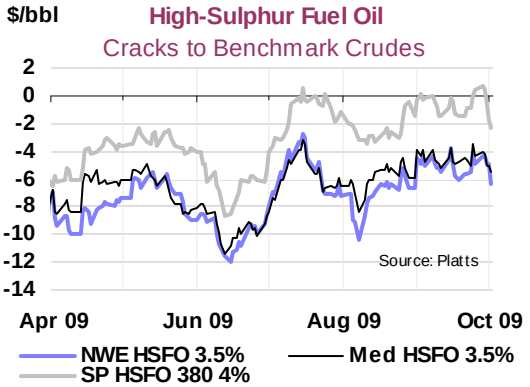
The emergence of China as a net exporter of diesel and gasoline this year, following the start-up of new refineries, and guaranteed refining profits in domestic markets, has been a game changer for the region. Persistently high Chinese throughput rates continue to threaten profit margins at neighbouring refineries. But on the flip side, China also holds the promise of reversing the region's fortunes when the country's economic engine gathers steam again.





Fuel oil cracks generally rebounded again in September as markets tightened on reduced processing of heavier sour crudes. High sulphur cracks in Singapore strengthened on stronger demand for bunker fuel in Singapore and from the UAE's Jebel Ali port. Increased demand from Pakistan also helped support regional prices.

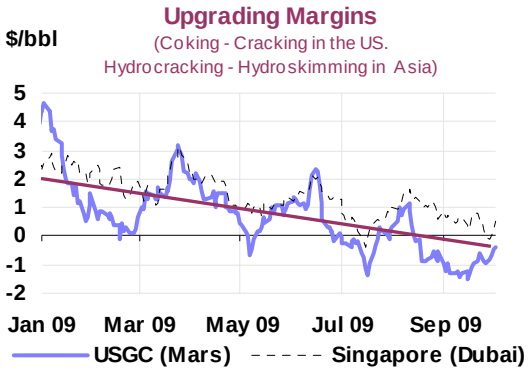


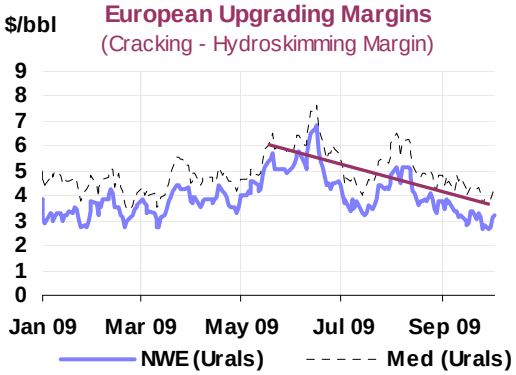


Refining Margins

Refining margins in September were weak, but directionally trends were mixed, as both crude and product prices decreased across the board. Gasoline and gasoil/diesel cracks mostly fell as the driving season in the US ended and high levels of middle distillate stocks continued to build in the Atlantic basin.

The fuel oil discount to crude narrowed as OPEC's production cuts of heavier crudes limited fuel oil availability. Naphtha differentials to crude improved as demand from the petrochemical industry increased. Therefore, hydroskimming margins improved, but remained heavily negative, and upgrading margins deteriorated across the board.





In Europe, margins for cracking configurations decreased mainly on weaker gasoline and gasoil/diesel differentials to crude. The Brent cracking margin improved only marginally in spite of a month-on-month price fall of more than $5/bbl. Similarly, lower Urals and Es Sider prices were insufficient to improve cracking margins.

Selected Refining Margins in Major Refining Centres

($/bbl)

		Monthly Average				Change	Average for week ending:				
		Jul 09	Aug 09	Sep 09		Sep 09-Aug 09	04 Sep	11 Sep	18 Sep	25 Sep	02 Oct
NW Europe	Brent (Cracking)	0.65	0.49	0.51	↑	0.02	1.13	0.40	0.39	-0.07	0.72
	Urals (Cracking)	0.56	0.80	0.41	↓	-0.40	1.17	0.29	0.05	0.03	0.48
	Brent (Hydroskimming)	-1.50	-1.75	-0.89	↑	0.86	-0.69	-1.12	-0.86	-1.30	-0.56
	Urals (Hydroskimming)	-3.27	-3.41	-2.77	↑	0.63	-2.53	-3.00	-3.02	-2.96	-2.54
Mediterranean	Es Sider (Cracking)	-0.10	0.36	0.26	↓	-0.09	0.60	0.28	0.00	0.07	0.06
	Urals (Cracking)	0.66	0.97	0.84	↓	-0.13	1.07	0.80	0.56	0.70	0.96
	Es Sider (Hydroskimming)	-4.09	-3.79	-2.85	↑	0.93	-2.76	-3.24	-3.02	-2.85	-2.94
	Urals (Hydroskimming)	-4.20	-4.31	-3.44	↑	0.86	-3.54	-3.79	-3.66	-3.37	-3.13
US Gulf Coast	Bonny (Cracking)	-1.00	-1.71	-2.69	↓	-0.98	-2.99	-3.42	-1.97	-3.17	-2.19
	Brent (Cracking)	-1.06	-1.94	-2.65	↓	-0.72	-2.94	-2.96	-1.77	-3.59	-2.44
	LLS (Cracking)	-0.09	0.15	-1.67	↓	-1.82	-0.64	-2.03	-1.58	-1.71	-2.13
	Mars (Cracking)	1.42	1.06	0.80	↓	-0.27	1.25	0.46	1.27	0.84	0.13
	Mars (Coking)	1.12	0.99	-0.25	↓	-1.24	0.17	-0.84	0.05	0.02	-0.40
	Maya (Coking)	-0.60	-0.31	-2.65	↓	-2.34	-2.19	-3.15	-2.93	-2.41	-2.09
US West Coast	ANS (Cracking)	1.76	1.53	2.23	↑	0.69	4.24	4.13	0.00	0.81	0.77
	Kern (Cracking)	11.02	10.41	9.23	↓	-1.18	10.94	11.22	6.86	6.46	8.84
	Oman (Cracking)	0.79	1.22	2.53	↑	1.31	3.57	5.02	1.41	-0.46	1.47
	Kern (Coking)	15.05	16.29	14.90	↓	-1.38	18.41	19.51	12.67	9.98	11.26
Singapore	Dubai (Hydroskimming)	-2.67	-2.81	-2.16	↑	0.65	-1.55	-2.22	-2.51	-2.35	-2.87
	Tapis (Hydroskimming)	-5.19	-6.34	-3.63	↑	2.71	-3.81	-3.05	-3.84	-3.83	-4.49
	Dubai (Hydrocracking)	-2.20	-1.68	-1.69	↓	-0.01	-0.84	-1.65	-2.02	-1.92	-2.65
	Tapis (Hydrocracking)	-4.88	-5.24	-2.73	↑	2.51	-2.87	-2.15	-2.91	-2.89	-3.65
China	Cabinda (Hydroskimming)	-3.84	-6.30	-4.84	↑	1.46	-4.23	-5.27	-5.44	-4.36	-5.89
	Daqing (Hydroskimming)	0.56	-3.36	-2.49	↑	0.87	-2.12	-2.81	-2.66	-2.21	-3.28
	Dubai (Hydroskimming)	-2.91	-3.06	-2.37	↑	0.69	-1.74	-2.39	-2.67	-2.60	-3.12
	Daqing (Hydrocracking)	2.36	-0.29	0.15	↑	0.44	0.64	-0.18	0.15	0.48	-0.89
	Dubai (Hydrocracking)	-2.36	-1.85	-1.83	↑	0.03	-0.96	-1.75	-2.11	-2.11	-2.84

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.
Sources: IEA, Purvin & Gertz Inc.

In the US Gulf Coast, margins decreased for both cracking and coking configurations, again on weaker gasoline and gasoil/diesel differentials to crude. Cracking margins were down nearly $1/bbl and coking margins off by around $1.80/bbl.

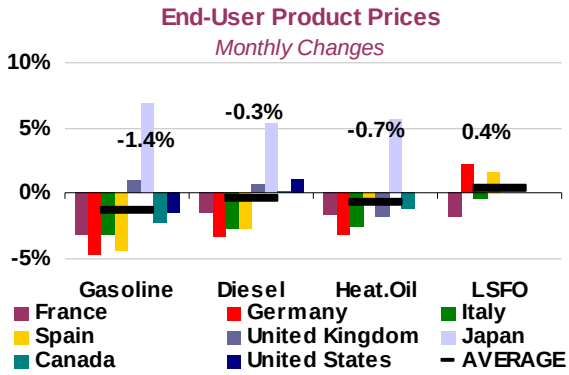
In Singapore, margins generally improved although they remained in negative territory. The price differential between extra-light sweet Tapis and medium sour Dubai narrowed by nearly $3/bbl, highlighting the relative price strength of sour to sweet crudes, improving Tapis margins accordingly. However, Dubai margins still outperformed Tapis by more than $1.50/bbl for hydroskimming and $1/bbl for hydrocracking configurations.

Upgrading margins deteriorated on a monthly basis as weak gasoline and gasoil/diesel crack spreads weigh more heavily on complex configurations, and stronger fuel oil crack spreads relatively favour simple configurations. In the US Gulf Coast, the cracking to coking upgrading margin remained negative for the entire month; reports of upgrading capacity shutdowns suggest some refiners are taking the necessary actions to offset this. In Singapore, the hydrocracking to hydroskimming differential briefly touched negative territory by the end of the month and in NW Europe, the cracking to hydroskimming upgrading margin touched a month-low level not seen since November of 2003.

Demand prospects for middle distillates in OECD countries remain bleak in the near term, especially given the high stock levels and mix of crude qualities in the market, which may force further rationalisation of upgrading units as well as continued economic run cuts well into 2010.

End-User Product Prices in September

End-user product prices in US dollars ex-tax fell on average by 0.5% month-on-month in September. However, a closer look uncovers very different trends in the surveyed IEA member countries. Prices in Japan continued rising by 6% month-on-month across all product categories, with gasoline prices up by 6.9%. On the other side of the spectrum, prices in European countries, with Germany at the top, saw end-user product prices drop by 1.6% on average. European consumers paid on average between €1.06/litre ($1.52/litre) in Spain and €1.31/litre ($1.87/litre) in Germany for gasoline. In the US the average price at the pump was $2.55/gallon ($0.68/litre) and in Japan ¥128.9/litre ($1.39/litre). Average retail product prices for all countries surveyed were 31.1% below levels of a year ago.



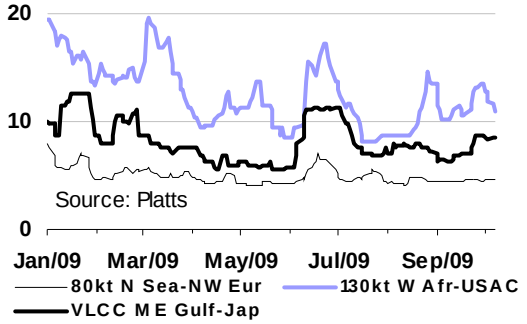
Freight

The tanker market continues to suffer from an oversupply of vessels and weak oil demand. Entering October, a year-on-year reduction of seaborne crude exports of 1.5 mb/d has hit mainly westbound trade out of the Middle East and Western Africa. While oil demand is expected to rise by 0.6 mb/d in 4Q09 compared with the previous quarter, high tanker fleet additions combined with a further potential crude floating storage draw-down will keep crude freight rates under extreme pressure, as reflected in continuously depressed October crude tanker fixtures. Some relief came for long-haul product tankers this month, especially east of Suez, supported by higher distillate exports from Asia to Europe and a very high 75 mb of products, which is tying up short-term floating storage.

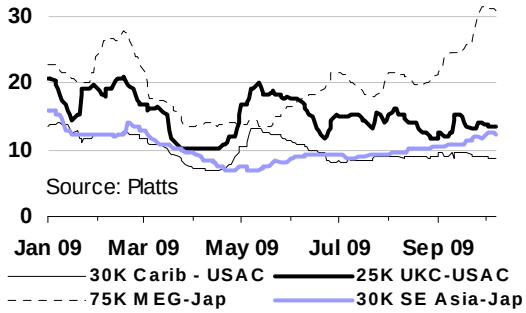
Dirty rates on the benchmark VLCC route Mideast Gulf - Japan initially fell from $7/mt at end-August to $6/mt, before rising steadily over the remainder of September, ending at $9/mt as some ship-owners decided to withdraw from the market. Rates for Suezmax West Africa – US Atlantic Coast fell from end-

August heights of $14/mt to $10/mt, touching $13/mt at the month-end, but were down at $11/mt in early October, still in the lower end of the five-year range. Asian refiner purchasing of West African crude has supported freight rates on this route since July, but their appetite now seems to have diminished. Some market observers forecast West African crude exports to Asia to drop in October compared with recent months, which may be bearish for rates. Aframax North Sea - North West Europe rates have moved little and remain mired at around $4/mt, below operating cost.

Daily Crude Oil Tanker Voyage Freight Rates (US$/tonne)

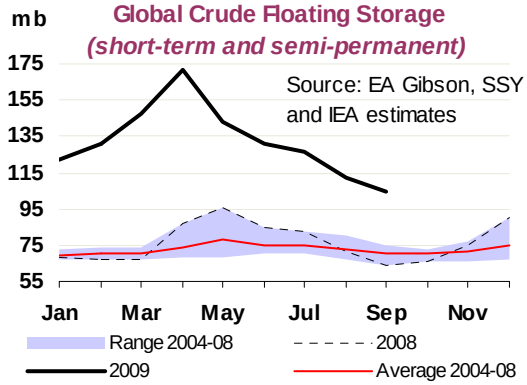


Daily Product Tanker Voyage Freight Rates (US$/tonne)



Clean rates on the benchmark Aframax Mideast Gulf – Japan route rose throughout the month from $21/mt at end-August to $31.5/mt at end-September, the highest quotation so far this year and within the five-year range. New refinery centres in Asia have been aggressively targeting sales of products in Western Europe and the USA, sending large product tankers on long-haul voyages transporting gasoline and gasoil. While demand is still weak, a persistent contango signals hopes that a cold winter will diminish the product overhang. Rates for Handymax South-East Asia – Japan rose slowly, but steadily from the end-August level of $10/mt up to just above $12/mt. Rates for 25kt UK coast - US Atlantic Coast trades ended the month at $14/mt, somewhat above end-August levels but down from a mid-month peak of $15/mt, and well below break-even levels. Rates for Handymax Caribbean - US Atlantic Coast have stayed stable at around $9/mt since July, below the five-year range.

Global Crude Floating Storage *(short-term and semi-permanent)*



Short-term floating storage of crude has fallen almost 70 mb since its peak in April. Short-term floating storage of products has risen by 25 mb to 75 mb over the third quarter, mainly off Northwest Europe. While the contango for crude is flattening, the contango for distillates still works in Northwest Europe.

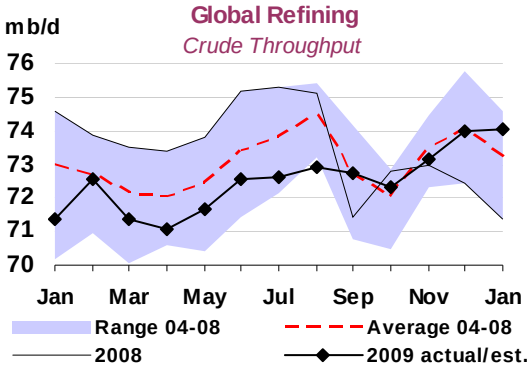
In spite of tanker oversupply, relatively few oil tankers have been laid up. Lay-up costs are higher than previously due to more on-board electronics. Three VLCCs were reportedly sold for scrapping in August, and three at the beginning of September. However, the pace of new-builds entering the market is higher, and buoyant order books are expected to keep the tanker market oversupplied for years to come.

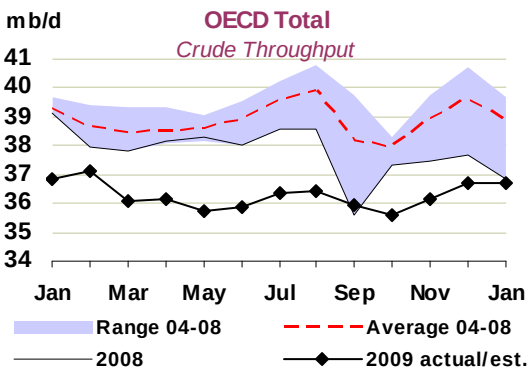
REFINING

Summary

- **Projected 4Q09 global crude throughput is reduced by 0.2 mb/d to 73.2 mb/d** as further weakness in refining margins undermines the outlook for activity levels in the coming months. Declines in OECD Europe and North America compound lower Latin American projections. These reductions are only partially offset by higher Other Asian estimates, following stronger 3Q09 data.

- **Preliminary data indicate that 3Q09 global crude runs averaged 72.7 mb/d,** some 0.6 mb/d higher than in last month's report, following stronger-than-expected crude runs in Other Asia, notably in Chinese Taipei, Indonesia and Thailand during June and July. In addition, a further re-evaluation of Indian refinery runs, in light of Reliance's Jamnagar refinery expansion reportedly reaching full utilisation in September, raises August and September estimates.





- **August OECD preliminary data indicate crude runs averaged 36.4 mb/d,** 0.3 mb/d ahead of last month's report, with stronger than expected runs in Korea raising OECD Pacific runs above our estimate. This upward revision is carried through September and October for the region, although the period remains a seasonal low point in activity levels as planned maintenance levels peak.

- **In July, OECD refinery yields increased for naphtha, jet fuel/kerosene and fuel oil.** Gasoline yields fell to 34.6%, as premia to crude continued to deteriorate across the board and summer demand in the US was lower than expected. Gasoil/diesel yields continued their downward trend, reaching levels below the five-year average, with yields in North America and Europe decreasing counter-seasonally on very high stock levels. OECD total product gross output contracted by 4.1% year-on-year in July (1.9 mb/d). All three OECD regions posted lower production figures. European output contracted by 5.4%, North America decreased by 2.4% while the Pacific fell by 6.9%.

Global Refinery Overview

Weak refining margins continue to weigh on global crude throughputs. Evidence continues to emerge of refineries becoming increasingly more proactive in dealing with the poor cash flow generated from operations. European refineries appear to have been particularly active in cutting runs, although this may be due greater visibility to the market, rather than an inherent predisposition to act. Nevertheless, the proximity to significant floating products storage leads us to once again trim European forecasts. Until floating stocks have been worked off by tighter market conditions and an accompanying rise in margins throughput seems likely to remain subdued.

The recent strengthening of gasoil/diesel cracks appears to reflect a shift towards tighter winter quality specification material and possibly a spate of hydrotreater turnarounds rather than any meaningful and sustainable improvement in market fundamentals. Consequently, we continue to see refiners struggling to raise global crude runs, with the following notable exceptions:

- Firstly, Chinese refiners continue to report strong annual increases of nearly 1 mb/d in crude throughputs, despite seasonal maintenance trimming crude runs slightly during August.
- Secondly, the ongoing ramp-up in Reliance's 580 kb/d expansion of the Jamnagar refinery in India, continues to be under-reported within official statistics, and suggests that annual growth of around 0.5 mb/d will continue for the balance of the year.
- Lastly, Russian crude runs remain at close to record levels, given the substantial tax incentives to maximise exports of products in preference to exports of crude.

Elsewhere, crude runs remain under pressure, although as noted last month the drop in Japanese kerosene stocks below the five-year range may, in time, prompt a response from refiners, were robust seasonal demand to materialise at some point. Similarly, the reports of a recovery in petrochemical demand for naphtha might also provide some added incentives for higher runs, although competition from low-cost supplies from the Middle East is expected to remain intense over the medium term.

Global Refinery Throughput

3Q09 global refinery throughput estimates are revised up by 0.6 mb/d following the removal of the September hurricane adjustment from US estimates, stronger than expected OECD Pacific preliminary data and upward revisions to Indian data as Reliance's Jamnagar refinery expansion reaches full capacity. Nevertheless, 3Q09 crude throughputs of 72.7 mb/d represent an annual decline of 1.2 mb/d, albeit September year-on-year comparisons are distorted by hurricane-related baseline disruption.

Global Refinery Crude Throughput[1]

(million barrels per day)

	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09	Nov 09	Dec 09	Jan 10
OECD									
North America	17.3	17.6	17.6	17.6	17.5	17.3	17.6	17.6	17.4
Europe	12.4	12.3	12.6	12.2	12.24	12.1	12.3	12.5	12.5
Pacific	6.0	6.0	6.1	6.5	6.2	6.2	6.4	6.6	6.8
Total OECD	35.8	35.9	36.4	36.4	36.0	35.6	36.2	36.7	36.7
NON-OECD									
FSU	5.9	6.1	6.1	6.4	6.1	6.3	6.3	6.4	6.4
Europe	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
China	7.3	7.8	7.8	7.7	7.9	7.9	7.9	7.9	7.9
Other Asia	8.2	8.2	8.1	8.4	8.5	8.1	8.1	8.4	8.5
Latin America	5.4	5.5	5.2	5.0	5.2	5.3	5.3	5.3	5.3
Middle East	6.1	6.0	6.0	6.1	6.1	6.0	6.2	6.3	6.2
Africa	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3
Total Non-OECD	35.9	36.7	36.2	36.5	36.7	36.7	37.0	37.3	37.3
Total	71.7	72.6	72.6	*72.9*	*72.7*	*72.3*	*73.2*	*74.0*	*74.0*

1 Crude runs in italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

Conversely, **4Q09** projections have been lowered by 0.2 mb/d, to 73.2 mb/d and represent annual and quarterly growth of 0.4 mb/d. Unsurprisingly, the main drivers of this revision are the continued weakness in refining margins and build-up in global middle distillates stocks, particularly those stocks held offshore. The greater proportion in Europe and US of independent refineries, who arguably must defend their profitability more vigorously, suggests a greater response in these regions.

Crude throughput projections are extended this month through to January 2010. Crude runs are forecast to average 74.0 mb/d, potentially the highest level since August 2008. Seasonal strength in runs in OECD Pacific should underpin a month-on-month increase, while the assumed start of seasonal maintenance at US refineries in January undermines North American runs.

OECD Refinery Throughput

Preliminary data for August indicate that OECD crude throughput averaged 36.4 mb/d, a drop of 2.2 mb/d compared with last year, but flat on July's level. However, compared with July, weaker European runs were offset by higher activity in the OECD Pacific. Overall, OECD refining activity remains subdued by weak margins, high distillate stocks and tepid regional demand.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

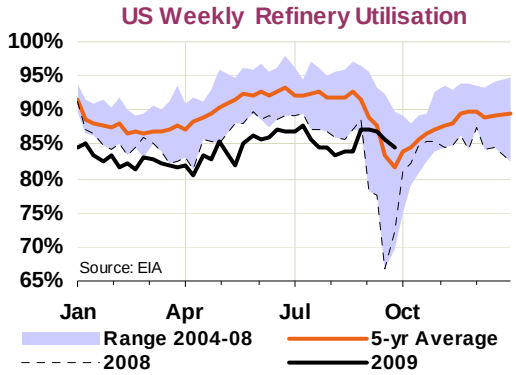
							Change from		Utilisation rate[1]	
	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Aug 09	*Jul 09*	*Aug 08*	Aug 09	Aug 08
OECD North America										
US[2]	14.09	14.35	14.46	14.84	14.63	14.65	0.02	-0.30	83.20	84.90
Canada	1.80	1.50	1.65	1.64	1.79	1.72	-0.07	0.02	85.03	83.86
Mexico	1.22	1.30	1.23	1.14	1.21	1.27	0.06	0.04	82.34	71.96
Total	17.12	17.16	17.34	17.63	17.63	17.63	0.00	-0.24	83.31	84.44
OECD Europe										
France	1.45	1.51	1.66	1.57	1.56	1.44	-0.12	-0.35	73.50	91.28
Germany	2.15	2.21	2.06	2.13	2.12	2.11	0.00	-0.08	87.35	90.75
Italy	1.61	1.68	1.58	1.59	1.71	1.65	-0.06	-0.12	70.52	75.73
Netherlands	0.96	1.02	1.01	0.84	0.89	0.91	0.03	-0.12	75.29	85.18
Spain	1.03	1.17	1.01	0.97	1.06	1.01	-0.05	-0.17	79.44	92.77
UK	1.49	1.36	1.35	1.45	1.50	1.46	-0.04	-0.16	77.30	85.99
Other OECD Europe	3.55	3.75	3.77	3.73	3.82	3.67	-0.15	-0.54	78.13	89.64
Total	12.24	12.68	12.43	12.28	12.64	12.25	-0.40	-1.55	77.63	87.42
OECD Pacific										
Japan	3.68	3.31	3.20	2.99	3.17	3.46	0.30	-0.43	74.08	83.18
Korea	2.42	2.33	2.08	2.28	2.26	2.34	0.08	0.06	85.56	83.34
Other OECD Pacific	0.63	0.69	0.70	0.69	0.69	0.71	0.02	0.00	87.71	88.22
Total	6.74	6.33	5.98	5.97	6.12	6.51	0.40	-0.37	79.24	83.73
OECD Total	36.10	36.17	35.76	35.88	36.39	36.39	0.01	-2.15	80.58	85.35

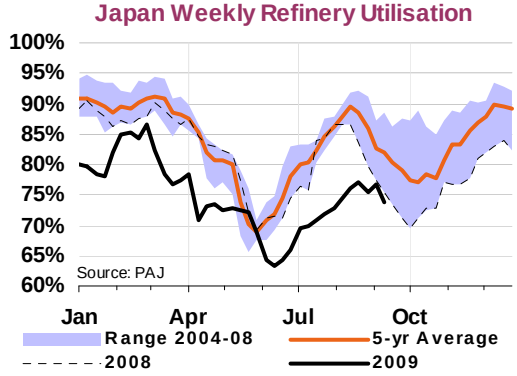
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

2 US50

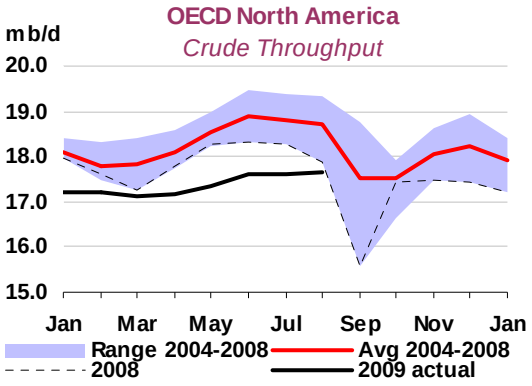
North American August crude throughput remained flat for the second month in a row, at 17.6 mb/d, with activity subdued by weak margins. Industry reports suggest that an increasing number of refiners are proactively trying to support margins by idling of both crude distillation and upgrading capacity.

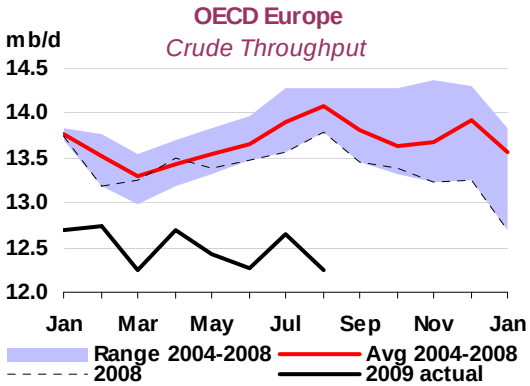
Weekly US data showed that activity levels showed some strength early in the September, but the continued poor profitability of cracking and, more importantly, coking activities for US refineries, have hampered overall throughput levels. Furthermore, the start of planned maintenance looks to have depressed US crude runs in the latter half of September and is expected to do so again in October. 4Q09 projections have been reduced by 0.2 mb/d for both Europe and North America in light of prevailing economic factors and middle distillate stock levels, given the greater proportion of profit-driven operations in these regions.



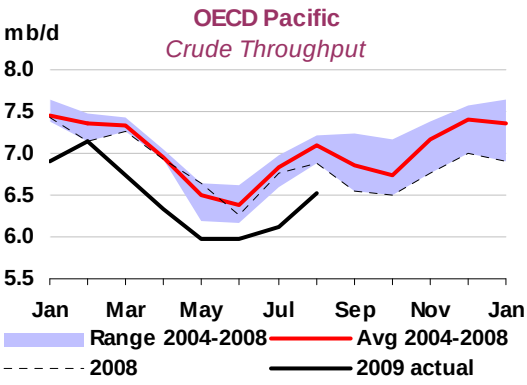


Notably, the announced shutdown of Sunoco's Eagle Point refinery for an indefinite period highlights the depth of cuts necessary to cope with current market conditions. The step also shows the potential benefit that independent refiners may obtain from fully closing one refinery within their portfolio, rather than running all plants at 80%, due to the nature of refinery economics.





European crude runs fell in August to 12.2 mb/d, equalling the 10-year low seen in March. Further weakness in September and October is expected for economic and logistical reasons, and planned maintenance. The economic closures highlighted last month, and ongoing partial disruption to crude supplies via the SPSE pipeline in southern France, suggest further weakness in French, Swiss and possibly German crude runs is probable. Moves by Repsol in Spain to cut runs by 20% at its 120 kb/d La Coruña refinery and close the coking plant, plus 40% run cuts at its 220 kb/d Bilbao refinery, once again highlight the difficult choices facing refiners. At the heart of this issue lies the tight fuel oil and heavy sour crude markets on the one hand and weak light and middle distillate cracks on the other.



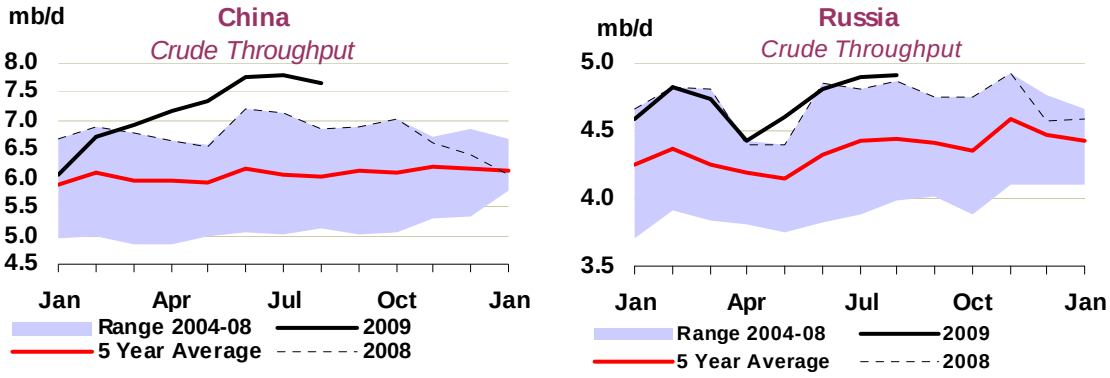
OECD Pacific August crude runs were 0.2 mb/d above expectations thanks to stronger Korean runs. We have reflected this better-than-expected performance in our September estimate. Elsewhere, continued low utilisation of Japanese refining assets remains the dominant theme for the region. Announcements by the major refining groups suggest October runs will remain almost 10% lower than previous years' levels, although as noted already the tighter kerosene stock levels now reported by PAJ may offer some incentive to raise runs if robust demand for kerosene re-emerges during the winter. Korean refineries continue to perform well compared with other OECD Pacific countries, notably Japan. 4Q09 crude runs are expected to recover to 6.6 mb/d by December, some 0.4 mb/d above current levels, but still 0.4 mb/d below December 2008 levels. Preliminary industry reports suggest that runs may rise further in January, but as previously highlighted any recovery is likely to need a demand for kerosene and also possibly naphtha to return to normal seasonal levels.

Non-OECD Refinery Throughput

Non-OECD runs were stronger than expected in July and August, based on preliminary data. Chinese crude runs were again in line with expectations, but remain well above 2008 levels following the start-up of more than 0.5 mb/d of capacity since the beginning of the year and the positive margin environment that state refiners enjoy on domestic sales. However, although profit margins are still guaranteed, lower domestic prices may weigh on crude runs in the coming months. Crude runs will be boosted by the official start-up in late September of a 200 kb/d crude unit at Dushanzi to process imported Kazakh crude

will boost runs. Offsetting these positive factors is the poor profitability of exports, given weak crack spreads in Asian markets, which may ultimately temper crude runs.

Upside surprises to **3Q09** centred on Other Asia, with better-than-expected progress at the 580 kb/d Jamnagar refinery expansion in India underpinning much of the upward revision. Industry reports indicate that this plant is now running near full capacity, and with Reliance crude imports at over 1.2 mb/d in August we estimate that official Indian data likely understates the true level of crude runs by around 0.5 mb/d. Elsewhere in the Other Asia region, reported crude runs were broadly ahead of expectations, with Chinese Taipei and Thailand once again performing better than expected. The resumption of crude processing at Vietnam's Dung Quat plant in October is in line with previous expectations. In total, the combination of the stronger than anticipated performance of the Jamnagar refinery and higher demand estimates leads us to revise up our 4Q09 Other Asia forecast by 0.4 mb/d to 8.2 mb/d.



Russian crude runs averaged 4.9 mb/d in August, in line with expectations and close to five-year highs, as strong incentives to maximise crude runs to capture the tax benefits of exporting products over crude remain. Elsewhere in the FSU, Ukrtransnafta, the operator of the pipeline running from Samara via Lisichansk and Kremenchug to Odessa decided to reverse the direction of crude oil flows in the last leg of the pipeline. This will allow the supply of oil to the troubled Kremenchug refinery, which has been struggling to secure crude supplies for the past two years. The reversal of the line to flow northeast to the Kremenchug refinery has allowed Ukrtransnafta to ship alternative crudes, including Azeri Light, from Odessa up the line to the refinery.

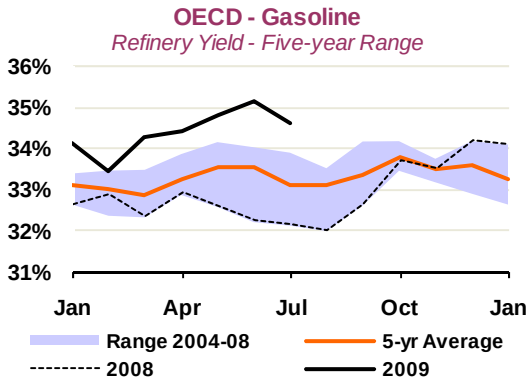
However, as a result of Ukraine's decision to reverse the pipeline flow, crude supplies to Lukoil's Odessa refinery have been cut off and Lukoil was forced to halt operations at the plant after it was unable to secure alternative economic crude oil volumes for October. The company is now exploring other options for crude feedstock for its refinery.

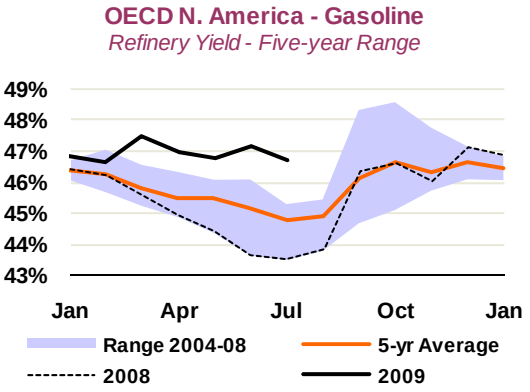
4Q09 Latin American crude runs are lowered by 0.2 mb/d this month, following Valero's closure of the Aruba refinery for an indefinite period. Citing economic pressures and the fact that the refinery produces mainly feedstocks for the broader Valero refining system the plant is likely to remain offline until the margin environment improves.

Ongoing reliability problems with Venezuela's refineries have not yet prompted us to cut our estimates of crude processed there, as issues appear to centre on upgrading units, notably the recently expanded catalytic cracker at PDVSA's El Palito refinery. In the absence of reliable data, we assume that gasoline imports have increased to meet the shortfall in domestic supply, while VGO exports have also increased. Perhaps, if there is a silver lining to this particular cloud, it may be that such a move is not as financially disadvantageous as would have been the case in previous years, given the tight fuel oil market and depressed state of the gasoline market.

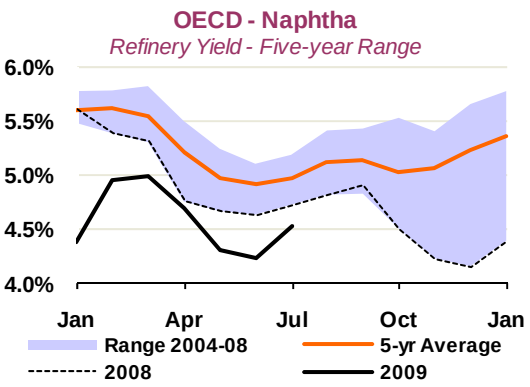
OECD Refinery Yields

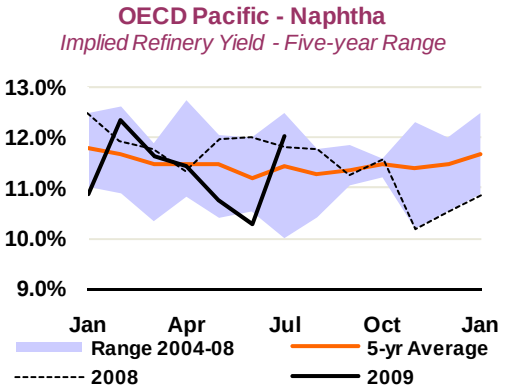
In July OECD refinery yields increased for naphtha, jet fuel/kerosene and fuel oil at the expense of gasoline and gasoil/diesel, while yields for 'other products' remained unchanged. Only gasoline yields stayed above their five-year range. Gasoil/diesel yields are now below the five-year average as growing stock levels in the Atlantic basin have weakened crack spreads. Yields for other products also remained below their five-year ranges.



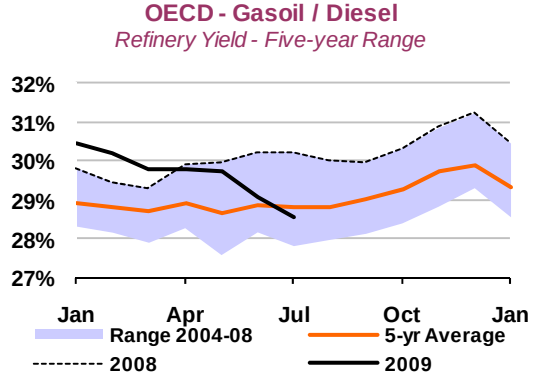


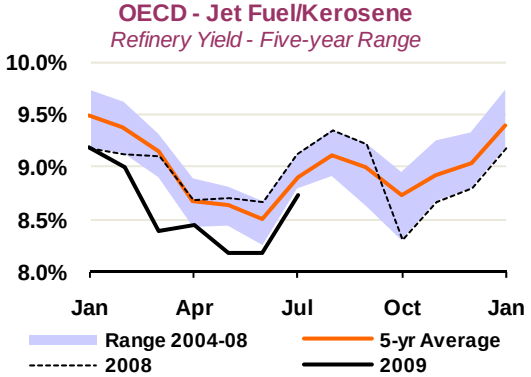
OECD gasoline yields fell to 34.6%, albeit remaining well above their five-year range, as its premium to crude continued deteriorating across the board and summer demand in the US came up lower than expected. In North America and the Pacific, yields remained above their five-year range, while in Europe they reached the five-year average level.





Naphtha yields increased sharply from near five-year lows, supported by stronger crack spreads. A fall in North America was more than offset by a counter-seasonal increase in Europe and a spike of more than 1.5 percentage points in the Pacific as demand from the petrochemical sector increased. It is worth noting than in July, naphtha demand in the Pacific and Europe increased on both a monthly and yearly basis, and that in the Pacific gross output increased by 18.9% (130 kb/d) and net imports by 16.0%





(125 kb/d) month-on-month. The boost in naphtha demand is partly related to the manufacture of plastic components as demand for cars in China is burgeoning, and the "Cash for Clunkers" programmes in the US and Europe had already increased vehicle demand.

Gasoil/diesel yields continued their downward trend, falling below their five-year average, with crack spreads lower than those for jet fuel/kerosene across the regions. Yields in North America and Europe decreased counter-seasonally on very high stock levels, while in the Pacific they fell in line with seasonal patterns.

Jet fuel/kerosene yields rebounded seasonally, with yields in Europe and North America increasing sharply. In the Pacific, yields fell marginally and counter-seasonally. In Japan, jet fuel/kerosene demand remains particularly subdued, with a contraction of 17.8% on a yearly basis. Fuel oil yields increased slightly, supported by stronger crack spreads across the board as demand for bunker fuel strengthened and the availability of sour crudes diminished.

OECD Refinery Gross Output and Trading Patterns

In July, OECD total product gross output contracted by 4.1% year-on-year (1.9 mb/d). All three OECD regions continued to post lower output. European output contracted the most with a 5.4% fall (836 kb/d), North American output decreased by 2.4% (530 kb/d), while in the Pacific output fell 6.9% (512 kb/d). By contrast, July OECD output was up by 282 kb/d (0.7%) versus June, muted relative to the five-year average increase of 1.1%, with output in Europe and the Pacific increasing by 2.1% (305 kb/d) and 2.4% (164 kb/d), respectively. In North America, meanwhile, output fell 0.8 % (187 kb/d).

Total OECD Refinery Gross Output
(thousand barrels per day)

	Naphtha		Gasoline		Jet fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09
North America	382	296	9,577	10,087	1,913	1,745	5,600	5,005	1,054	1,055	3,959	3,766	22,485	21,955
Europe	874	846	3,343	3,326	1,156	1,075	5,833	5,418	1,746	1,541	2,572	2,482	15,523	14,687
Pacific	871	822	1,547	1,570	1,039	963	2,183	1,946	851	726	893	845	7,383	6,872
Total	**2,128**	**1,963**	**14,467**	**14,983**	**4,108**	**3,783**	**13,615**	**12,368**	**3,651**	**3,322**	**7,424**	**7,093**	**45,392**	**43,513**

Only total OECD gasoline gross output increased by 3.6% on a yearly basis (516 kb/d), with most of the rise corresponding to North America (510 kb/d), partially compensated by a decrease of 237 kb/d in net imports. It is worth mentioning that our yield calculation includes the ethanol blended in gasoline, which in the case of the US has increased continuously in the last few years. The EIA reported 673 kb/d being blended in July, which represents a year-on-year increase of 139 kb/d or 20.7%, arguably displacing US gasoline imports.

Total OECD Net Exports of Petroleum Products
(thousand barrels per day)

	Naphtha		Gasoline		Jet fuel/Kerosene		Gasoil/Diesel		Fuel Oil		Other Products		Total	
	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09	Jul 08	Jul 09
North America	-22	-14	-1,134	-897	30	-68	685	570	50	316	136	386	-255	292
Europe	-117	-173	972	874	-359	-417	-627	-644	57	222	-236	-108	-310	-246
Pacific	-871	-910	54	34	288	291	484	412	-26	-12	-623	-482	-694	-667
Total	**-1,010**	**-1,098**	**-108**	**11**	**-41**	**-194**	**542**	**337**	**81**	**526**	**-723**	**-204**	**-1,259**	**-621**

July OECD gasoil/diesel gross output decreased the most, both in absolute and percentage terms, 9.2% or 1.2 mb/d vs. July 2008. In North America, both gasoil/diesel output and net exports fell by 595 kb/d and by 115 kb/d, respectively, while in Europe, gross output fell by 415 kb/d and net imports increased marginally.

Table 1
WORLD OIL SUPPLY AND DEMAND

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	25.4	25.5	24.8	24.4	23.6	23.9	24.2	23.5	22.9	22.8	23.5	23.2	23.4	23.1	23.4	23.6	23.4
Europe	15.7	15.3	15.3	15.1	15.5	15.4	15.3	14.9	14.2	14.7	14.9	14.7	14.8	14.3	14.7	14.9	14.7
Pacific	8.5	8.4	8.9	7.9	7.5	8.0	8.1	8.1	7.3	7.2	7.7	7.6	7.9	7.1	7.1	7.5	7.4
Total OECD	49.5	49.2	49.0	47.4	46.7	47.3	47.6	46.6	44.4	44.7	46.1	45.4	46.2	44.5	45.2	45.9	45.5
NON-OECD DEMAND																	
FSU	4.0	4.1	4.3	4.1	4.3	4.2	4.2	4.0	3.8	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Europe	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	7.2	7.6	7.9	8.0	8.1	7.6	7.9	7.7	8.6	8.6	8.3	8.3	8.3	8.8	8.8	8.6	8.6
Other Asia	9.0	9.5	9.9	9.9	9.4	9.5	9.7	9.9	10.1	9.6	9.7	9.8	10.3	10.3	9.9	10.0	10.1
Latin America	5.4	5.7	5.7	6.0	6.0	5.9	5.9	5.8	6.0	6.1	6.0	5.9	6.0	6.2	6.3	6.2	6.1
Middle East	6.3	6.5	6.7	7.1	7.6	7.0	7.1	6.7	7.3	7.7	7.1	7.2	7.1	7.5	7.9	7.5	7.5
Africa	3.0	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.3	3.2	3.3	3.3	3.2	3.4	3.3
Total Non-OECD	35.7	37.3	38.5	39.0	39.3	38.1	38.7	38.0	39.7	39.9	39.1	39.2	39.8	40.9	41.0	40.6	40.6
Total Demand[1]	85.3	86.5	87.5	86.4	86.0	85.4	86.3	84.6	84.1	84.6	85.2	84.6	86.0	85.4	86.3	86.5	86.1
OECD SUPPLY																	
North America[4]	14.2	14.3	14.2	14.0	13.6	13.8	13.9	14.2	13.9	14.0	14.0	14.0	14.3	14.0	13.8	14.2	14.1
Europe	5.3	5.0	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.1	4.3	4.4	4.2	3.9	3.8	4.1	4.0
Pacific	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Total OECD	20.1	19.9	19.7	19.5	18.8	19.3	19.3	19.7	19.0	18.8	19.0	19.1	19.3	18.7	18.4	19.0	18.9
NON-OECD SUPPLY																	
FSU	12.2	12.8	12.8	12.9	12.7	12.7	12.8	12.9	13.1	13.2	13.4	13.1	13.5	13.6	13.4	13.6	13.5
Europe	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.9	3.9	3.8	4.0	4.0	4.0	4.1	4.0
Other Asia[2]	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.6	3.7	3.6	3.7	3.7	3.8	3.8	3.7
Latin America[2,4]	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.4	4.3	4.4	4.3	4.5	4.6	4.7	4.7	4.6
Middle East	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa[2]	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	28.0	28.5	28.7	28.7	28.6	28.7	28.7	28.9	29.2	29.3	29.5	29.2	29.9	30.1	30.0	30.3	30.1
Processing Gains[3]	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels[4]	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total Non-OPEC[2]	50.4	50.8	51.0	50.8	50.1	50.7	50.6	51.2	50.8	50.8	51.2	51.0	51.8	51.4	51.1	52.0	51.6
Non-OPEC: Historical Composition[2]	51.3	50.3	50.0	49.8	49.0	49.7	49.6	51.2	50.8	50.8	51.2	51.0	51.8	51.4	51.1	52.0	51.6
OPEC																	
Crude[5]	30.7	30.3	31.5	31.4	31.5	30.5	31.2	28.5	28.5	28.8							
NGLs	4.4	4.5	4.6	4.6	4.7	4.8	4.7	4.9	5.1	5.4	5.6	5.2	5.7	6.0	6.2	6.4	6.1
Total OPEC[2]	35.2	34.9	36.1	36.0	36.2	35.3	35.9	33.4	33.5	34.2							
OPEC: Historical Composition[2]	34.3	35.4	37.1	37.0	37.2	36.4	36.9	33.4	33.5	34.2							
Total Supply[6]	85.6	85.7	87.1	86.8	86.3	86.0	86.5	84.7	84.3	85.0							
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.3	0.1	0.4	0.6	0.5	0.4	0.5	0.1								
Government	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2								
Total	0.3	-0.2	0.1	0.3	0.5	0.5	0.4	0.7	0.3								
Floating Storage/Oil in Transit	-0.1	0.0	0.3	0.0	-0.3	0.1	0.0	0.6	0.2								
Miscellaneous to balance[7]	0.1	-0.6	-0.9	0.1	0.1	0.0	-0.2	-1.2	-0.3								
Total Stock Ch. & Misc	0.3	-0.8	-0.4	0.4	0.3	0.6	0.2	0.1	0.2	0.3							
Memo items:																	
Call on OPEC crude + Stock ch.[8]	30.4	31.2	32.0	31.0	31.2	30.0	31.0	28.4	28.3	28.5	28.4	28.4	28.5	28.1	29.0	28.1	28.4
Adjusted Call on OPEC + Stock ch.[9]	30.5	30.5	31.1	31.1	31.3	30.0	30.8	27.2	28.0	28.0	28.0	27.8	28.1	27.6	28.5	27.7	28.0

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Other Biofuels are from sources outside Brazil and US. North and Latin America oil supply totals include US and Brazilian ethanol.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-0.1	-	0.3	0.1	-0.1	-0.1	0.1	0.3	0.1
Europe	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	0.2	0.1	0.1	-0.1	-	0.1	0.1	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.4	0.1	-0.3	-0.1	0.2	0.4	0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	0.1	0.1	-	0.1
Other Asia	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	0.1	0.3	0.1	0.1	0.3	0.4	0.3	0.3	0.3
Total Demand	-	-	-	-	-	-	-	0.1	-	0.2	0.5	0.2	-	0.3	0.5	0.7	0.3
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	0.2	0.1	0.1	0.1	0.1	0.1	-	0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	0.1	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-	0.1	0.1	-	-
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2	-	0.1
Non-OPEC: historical composition	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2	-	0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-								
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-								
OPEC: historical composition	-	-	-	-	-	-	-	-	-								
Total Supply	-	-	-	-	-	-	-	-	-								
STOCK CHANGES AND MISCELLANEOUS REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-0.1								
Government	-	-	-	-	-	-	-	-	-								
Total	-	-	-	-	-	-	-	-	-0.1								
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-								
Miscellaneous to balance	-	-	-	-	-	-	-	-0.1	0.1								
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-	-								
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	-	0.2	0.5	0.2	-	0.1	0.3	0.6	0.2
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	0.1	0.2	0.5	0.2	-	0.1	0.3	0.6	0.2

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

SUMMARY OF GLOBAL OIL DEMAND

	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Demand (mb/d)																
North America	25.47	24.77	24.42	23.60	23.93	24.18	23.52	22.89	22.84	23.49	23.18	23.44	23.12	23.42	23.56	23.39
Europe	15.34	15.34	15.07	15.55	15.44	15.35	14.92	14.22	14.65	14.91	14.68	14.81	14.25	14.74	14.87	14.67
Pacific	8.37	8.91	7.86	7.54	7.97	8.07	8.14	7.30	7.24	7.69	7.59	7.94	7.13	7.06	7.49	7.40
Total OECD	49.19	49.02	47.36	46.68	47.34	47.60	46.58	44.41	44.73	46.09	45.45	46.19	44.50	45.22	45.92	45.46
Asia	17.11	17.82	17.85	17.49	17.10	17.56	17.58	18.67	18.22	18.00	18.12	18.58	19.19	18.67	18.66	18.78
Middle East	6.53	6.72	7.13	7.57	6.95	7.10	6.71	7.31	7.68	7.10	7.20	7.05	7.46	7.94	7.46	7.48
Latin America	5.69	5.71	5.97	6.04	5.93	5.91	5.77	5.95	6.07	5.97	5.94	5.96	6.17	6.26	6.18	6.15
FSU	4.15	4.27	4.13	4.33	4.16	4.22	3.97	3.84	4.09	4.07	4.00	4.14	4.00	4.22	4.20	4.14
Africa	3.07	3.19	3.19	3.14	3.22	3.18	3.23	3.22	3.12	3.26	3.21	3.35	3.33	3.23	3.37	3.32
Europe	0.77	0.76	0.74	0.72	0.74	0.74	0.72	0.73	0.70	0.71	0.72	0.74	0.74	0.72	0.73	0.73
Total Non-OECD	37.32	38.48	39.00	39.28	38.10	38.72	37.99	39.72	39.89	39.11	39.18	39.81	40.89	41.04	40.60	40.59
World	86.51	87.49	86.36	85.96	85.44	86.31	84.57	84.13	84.62	85.20	84.63	86.01	85.40	86.27	86.52	86.05
of which: US50	20.68	20.04	19.76	18.90	19.30	19.50	18.96	18.54	18.26	18.86	18.65	18.87	18.69	18.79	18.90	18.81
Europe 5*	9.48	9.50	9.29	9.50	9.57	9.47	9.41	8.85	8.98	9.15	9.10	9.21	8.78	8.99	9.08	9.02
China	7.57	7.88	7.98	8.09	7.62	7.89	7.65	8.61	8.61	8.31	8.30	8.32	8.85	8.76	8.62	8.64
Japan	5.04	5.45	4.63	4.34	4.71	4.78	4.72	4.03	4.02	4.36	4.28	4.52	3.85	3.83	4.16	4.09
India	3.00	3.25	3.18	2.97	3.14	3.13	3.40	3.35	3.10	3.21	3.26	3.53	3.45	3.20	3.35	3.38
Russia	2.89	2.94	2.89	3.09	2.89	2.95	2.71	2.65	2.89	2.83	2.77	2.84	2.78	2.99	2.92	2.88
Brazil	2.35	2.37	2.46	2.53	2.51	2.47	2.39	2.47	2.54	2.50	2.48	2.48	2.57	2.63	2.60	2.57
Saudi Arabia	2.17	2.22	2.47	2.71	2.27	2.42	2.23	2.78	2.89	2.40	2.58	2.40	2.72	2.94	2.56	2.66
Canada	2.31	2.31	2.19	2.28	2.26	2.26	2.20	2.06	2.21	2.26	2.18	2.22	2.13	2.26	2.29	2.23
Korea	2.24	2.35	2.11	2.10	2.14	2.17	2.34	2.17	2.11	2.21	2.21	2.32	2.16	2.11	2.20	2.20
Mexico	2.14	2.12	2.19	2.14	2.07	2.13	2.05	2.01	2.08	2.06	2.05	2.04	2.02	2.07	2.06	2.05
Iran	1.72	1.86	1.89	1.86	1.83	1.86	1.77	1.73	1.76	1.82	1.77	1.84	1.84	1.86	1.91	1.86
Total	61.58	62.28	61.06	60.51	60.31	61.03	59.85	59.26	59.45	59.97	59.63	60.60	59.85	60.44	60.67	60.39
% of World	71.2%	71.2%	70.7%	70.4%	70.6%	70.7%	70.8%	70.4%	70.3%	70.4%	70.5%	70.5%	70.1%	70.1%	70.1%	70.2%
Annual Change (% per annum)																
North America	0.4	-3.3	-3.6	-7.4	-5.9	-5.1	-5.1	-6.3	-3.2	-1.9	-4.1	-0.3	1.0	2.6	0.3	0.9
Europe	-2.1	0.7	0.7	0.5	-1.6	0.1	-2.7	-5.6	-5.8	-3.4	-4.4	-0.7	0.2	0.6	-0.3	0.0
Pacific	-1.0	0.0	-0.6	-4.9	-8.9	-3.6	-8.6	-7.2	-3.9	-3.6	-5.9	-2.5	-2.3	-2.5	-2.5	-2.4
Total OECD	-0.7	-1.5	-1.8	-4.5	-5.1	-3.2	-5.0	-6.2	-4.2	-2.6	-4.5	-0.8	0.2	1.1	-0.4	0.0
Asia	5.1	5.7	2.8	3.5	-1.4	2.6	-1.3	4.6	4.2	5.3	3.2	5.7	2.8	2.4	3.7	3.6
Middle East	3.2	4.9	9.2	12.4	7.6	8.6	-0.2	2.5	1.5	2.1	1.5	5.1	2.0	3.3	5.1	3.9
Latin America	5.5	4.8	5.2	4.0	1.8	3.9	0.9	-0.3	0.4	0.8	0.5	3.3	3.7	3.2	3.5	3.5
FSU	2.7	3.3	4.5	2.8	-3.5	1.7	-6.8	-6.9	-5.5	-2.1	-5.3	4.1	4.2	3.2	3.1	3.6
Africa	4.0	3.1	5.4	4.0	2.6	3.7	1.2	0.8	-0.5	1.2	0.7	3.6	3.5	3.6	3.4	3.5
Europe	3.6	0.3	-0.4	-7.3	-5.2	-3.3	-5.1	-1.7	-2.2	-3.9	-3.3	1.5	1.7	2.3	2.2	1.9
Total Non-OECD	4.4	4.8	4.6	4.9	0.6	3.7	-1.3	1.8	1.6	2.7	1.2	4.8	3.0	2.9	3.8	3.6
World	1.5	1.2	1.0	-0.4	-2.6	-0.2	-3.3	-2.6	-1.6	-0.3	-1.9	1.7	1.5	1.9	1.6	1.7
Annual Change (mb/d)																
North America	0.09	-0.85	-0.92	-1.89	-1.50	-1.29	-1.25	-1.53	-0.76	-0.45	-1.00	-0.08	0.23	0.58	0.07	0.20
Europe	-0.33	0.11	0.10	0.08	-0.26	0.01	-0.42	-0.85	-0.89	-0.53	-0.67	-0.11	0.03	0.09	-0.04	-0.01
Pacific	-0.09	0.00	-0.05	-0.39	-0.78	-0.30	-0.77	-0.56	-0.29	-0.28	-0.48	-0.20	-0.17	-0.18	-0.20	-0.19
Total OECD	-0.33	-0.74	-0.87	-2.20	-2.54	-1.59	-2.44	-2.94	-1.95	-1.25	-2.15	-0.39	0.09	0.49	-0.17	0.01
Asia	0.83	0.96	0.49	0.60	-0.25	0.45	-0.24	0.82	0.74	0.90	0.56	1.00	0.52	0.45	0.66	0.66
Middle East	0.20	0.32	0.60	0.84	0.49	0.56	-0.01	0.18	0.11	0.14	0.11	0.34	0.14	0.26	0.37	0.28
Latin America	0.30	0.26	0.30	0.23	0.10	0.22	0.05	-0.02	0.03	0.05	0.03	0.19	0.22	0.20	0.21	0.21
FSU	0.11	0.13	0.18	0.12	-0.15	0.07	-0.29	-0.29	-0.24	-0.09	-0.22	0.16	0.16	0.13	0.12	0.14
Africa	0.12	0.10	0.16	0.12	0.08	0.11	0.04	0.03	-0.01	0.04	0.02	0.12	0.11	0.11	0.11	0.11
Europe	0.03	0.00	0.00	-0.06	-0.04	-0.02	-0.04	-0.01	-0.02	-0.03	-0.02	0.01	0.01	0.02	0.02	0.01
Total Non-OECD	1.59	1.77	1.73	1.84	0.24	1.39	-0.49	0.71	0.61	1.01	0.47	1.83	1.18	1.15	1.49	1.41
World	1.26	1.03	0.86	-0.35	-2.31	-0.20	-2.92	-2.23	-1.34	-0.24	-1.68	1.44	1.27	1.65	1.32	1.42
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.06	-0.05	0.34	0.06	-0.09	-0.05	0.12	0.29	0.07
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	-0.15	-0.04	-0.04	-0.07	0.00	-0.02	0.01	-0.02
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.12	0.07	-0.12	0.00	0.08	0.08	0.01
Total OECD	0.00	0.00	0.01	0.00	0.00	0.00	0.00	-0.04	-0.04	0.42	0.09	-0.28	-0.06	0.18	0.38	0.06
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.08	0.26	0.13	0.13	0.19	0.28	0.29	0.22	0.25
Middle East	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.05	-0.07	0.02	0.01
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.01	-0.01	-0.01	0.02	0.02	0.02	0.02	0.02
FSU	0.00	0.01	0.01	0.01	0.01	0.01	-0.01	-0.01	-0.02	-0.02	-0.02	0.01	0.01	0.02	0.01	0.01
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	0.01	0.01	0.01	0.01	0.01	0.05	0.05	0.25	0.11	0.12	0.26	0.37	0.28	0.27	0.29
World	0.00	0.01	0.02	0.01	0.01	0.01	0.05	0.01	0.21	0.53	0.20	-0.03	0.30	0.46	0.66	0.35
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.01	0.01	0.01	0.01	0.01	0.04	-0.01	0.20	0.52	0.19	-0.08	0.29	0.25	0.13	0.15

* France, Germany, Italy, Spain & UK

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2008	2009	2010	2Q09	3Q09	4Q09	1Q10	2Q10	Jul 09	Aug 09	Sep 09
OPEC											
Crude Oil											
Saudi Arabia	8.90			7.91	7.93				7.97	7.93	7.88
Iran	3.90			3.72	3.80				3.82	3.80	3.78
Iraq	2.38			2.45	2.55				2.59	2.56	2.51
UAE	2.59			2.25	2.27				2.27	2.27	2.28
Kuwait	2.31			1.98	1.97				1.97	1.97	1.98
Neutral Zone	0.57			0.54	0.54				0.54	0.54	0.54
Qatar	0.85			0.77	0.77				0.77	0.77	0.76
Angola	1.85			1.71	1.80				1.76	1.79	1.86
Nigeria	1.95			1.77	1.76				1.68	1.74	1.87
Libya	1.72			1.53	1.55				1.54	1.55	1.55
Algeria	1.37			1.25	1.22				1.22	1.22	1.22
Ecuador	0.50			0.48	0.46				0.47	0.46	0.46
Venezuela	2.35			2.12	2.20				2.16	2.21	2.24
Total Crude Oil[6]	31.24			28.48	28.83				28.75	28.81	28.93
Total NGLs[1,6]	4.66	5.22	6.07	5.05	5.36	5.55	5.72	5.96	5.36	5.36	5.36
Total OPEC[6]	35.90			33.54	34.19				34.11	34.17	34.29
OPEC: Historical Composition[6]	36.93			33.54	34.19				34.11	34.17	34.29
NON-OPEC[2]											
OECD											
North America	13.91	14.03	14.09	13.87	14.03	14.02	14.33	14.02	14.09	13.91	14.08
United States[5]	7.52	7.96	8.16	7.97	8.01	8.02	8.20	8.22	8.02	7.92	8.09
Mexico	3.16	2.94	2.76	2.97	2.89	2.85	2.82	2.78	2.93	2.92	2.84
Canada	3.22	3.13	3.16	2.93	3.13	3.15	3.31	3.02	3.15	3.08	3.16
Europe	4.76	4.44	4.01	4.48	4.13	4.26	4.22	3.91	4.52	4.00	3.87
UK	1.56	1.48	1.33	1.56	1.29	1.47	1.46	1.33	1.47	1.11	1.28
Norway	2.46	2.29	2.04	2.27	2.19	2.15	2.11	1.94	2.40	2.22	1.95
Others	0.74	0.66	0.64	0.66	0.65	0.65	0.64	0.64	0.65	0.67	0.64
Pacific	0.65	0.67	0.76	0.64	0.67	0.71	0.74	0.77	0.66	0.67	0.69
Australia	0.55	0.57	0.64	0.54	0.57	0.59	0.62	0.64	0.57	0.57	0.58
Others	0.10	0.10	0.12	0.09	0.10	0.12	0.12	0.12	0.09	0.10	0.11
Total OECD	19.32	19.13	18.85	18.98	18.83	19.00	19.29	18.70	19.27	18.58	18.64
NON-OECD											
Former USSR	12.76	13.14	13.53	13.11	13.19	13.39	13.46	13.63	13.21	13.21	13.16
Russia	10.00	10.14	10.20	10.10	10.19	10.26	10.23	10.23	10.13	10.19	10.23
Others	2.76	3.01	3.33	3.02	3.01	3.12	3.22	3.40	3.08	3.02	2.92
Asia	7.47	7.48	7.76	7.42	7.51	7.61	7.69	7.70	7.46	7.48	7.61
China	3.79	3.84	4.03	3.80	3.87	3.95	4.00	3.99	3.81	3.86	3.96
Malaysia	0.76	0.73	0.70	0.72	0.72	0.71	0.71	0.70	0.74	0.72	0.72
India	0.81	0.79	0.86	0.80	0.78	0.81	0.83	0.85	0.79	0.77	0.79
Indonesia	1.03	1.01	1.03	1.00	1.01	1.01	1.01	1.03	1.01	1.00	1.01
Others	1.08	1.11	1.14	1.11	1.13	1.13	1.14	1.13	1.12	1.13	1.13
Europe	0.14	0.12	0.11	0.13	0.12	0.11	0.11	0.11	0.11	0.12	0.12
Latin America	4.14	4.35	4.63	4.36	4.31	4.37	4.54	4.57	4.34	4.25	4.34
Brazil[5]	2.37	2.51	2.75	2.52	2.49	2.52	2.66	2.70	2.50	2.48	2.49
Argentina	0.75	0.74	0.75	0.75	0.72	0.74	0.76	0.75	0.74	0.66	0.74
Colombia	0.59	0.66	0.69	0.66	0.66	0.67	0.68	0.69	0.66	0.67	0.67
Others	0.42	0.44	0.44	0.43	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Middle East[3]	1.65	1.62	1.59	1.63	1.61	1.58	1.58	1.59	1.65	1.60	1.59
Oman	0.75	0.79	0.82	0.80	0.80	0.78	0.80	0.81	0.82	0.78	0.78
Syria	0.39	0.36	0.33	0.37	0.36	0.35	0.34	0.33	0.36	0.36	0.36
Yemen	0.31	0.27	0.26	0.27	0.26	0.26	0.26	0.26	0.27	0.26	0.26
Others	0.19	0.19	0.18	0.19	0.19	0.19	0.18	0.18	0.19	0.19	0.19
Africa	2.53	2.50	2.47	2.50	2.51	2.48	2.49	2.47	2.51	2.52	2.51
Egypt	0.65	0.63	0.60	0.64	0.63	0.62	0.61	0.61	0.63	0.63	0.63
Gabon	0.21	0.23	0.24	0.22	0.23	0.24	0.24	0.24	0.23	0.24	0.24
Others	1.67	1.64	1.63	1.64	1.65	1.62	1.64	1.63	1.66	1.66	1.64
Total Non-OECD	28.68	29.21	30.09	29.16	29.26	29.55	29.87	30.07	29.28	29.18	29.32
Processing Gains[4]	2.24	2.29	2.20	2.29	2.29	2.29	2.20	2.20	2.29	2.29	2.29
Other Biofuels[5]	0.38	0.38	0.42	0.38	0.39	0.39	0.40	0.40	0.40	0.38	0.38
TOTAL NON-OPEC[6]	50.63	51.01	51.56	50.81	50.77	51.22	51.76	51.37	51.24	50.43	50.62
Non-OPEC: Historical Composition[6]	49.60	51.01	51.56	50.81	50.77	51.22	51.76	51.37	51.24	50.43	50.62
TOTAL SUPPLY	86.53			84.35	84.96				85.35	84.60	84.92

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Other Biofuels are from sources outside Brazil and US. US and Brazil oil supply include ethanol.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Apr2009	May2009	Jun2009	Jul2009	Aug2009*	Aug2006	Aug2007	Aug2008	3Q2008	4Q2008	1Q2009	2Q2009
North America												
Crude	517.9	510.6	496.9	495.5	487.2	458.5	453.6	440.8	0.20	0.16	0.49	-0.15
Motor Gasoline	244.2	236.4	243.7	238.5	232.0	237.6	222.2	221.7	-0.22	0.27	0.06	-0.05
Middle Distillate	222.6	229.5	234.1	236.1	239.3	217.2	207.6	205.8	0.06	0.22	0.00	0.19
Residual Fuel Oil	43.7	46.9	44.7	43.1	43.4	52.2	45.6	45.9	-0.01	-0.04	0.03	-0.03
Total Products[3]	689.0	705.6	723.0	724.0	718.4	700.9	671.3	660.3	0.01	0.32	0.02	0.41
Total[4]	1361.3	1378.2	1382.4	1384.6	1365.3	1322.5	1285.1	1264.8	0.42	0.25	0.53	0.38
Europe												
Crude	342.4	329.5	343.0	335.1	335.0	333.6	325.4	323.8	-0.02	0.10	0.15	-0.14
Motor Gasoline	99.2	97.6	98.6	96.5	98.6	100.3	102.4	109.6	-0.11	0.11	-0.07	-0.04
Middle Distillate	283.0	290.3	283.1	287.6	294.7	264.3	254.7	278.4	0.16	0.11	0.02	0.07
Residual Fuel Oil	81.1	82.7	80.7	69.9	71.9	76.9	72.6	77.4	-0.07	0.08	-0.05	0.03
Total Products[3]	572.1	576.2	566.1	557.9	569.7	546.5	533.8	576.4	-0.01	0.31	-0.13	0.01
Total[4]	984.7	975.5	976.4	962.2	972.9	953.1	934.3	970.8	-0.07	0.46	-0.02	-0.16
Pacific												
Crude	166.8	155.8	170.2	170.7	163.1	176.5	170.5	166.8	-0.07	0.01	0.08	0.00
Motor Gasoline	27.9	27.0	26.1	23.8	23.9	23.8	23.0	24.3	-0.02	-0.02	0.06	0.00
Middle Distillate	59.0	65.2	62.3	67.0	71.5	80.8	81.4	76.0	0.16	-0.10	-0.09	0.06
Residual Fuel Oil	21.2	20.6	18.9	19.3	21.4	24.6	24.3	23.7	0.00	-0.02	0.00	-0.01
Total Products[3]	167.4	171.2	164.8	169.9	182.8	203.3	198.5	195.9	0.28	-0.20	-0.07	-0.05
Total[4]	403.1	397.5	401.0	406.7	411.3	452.6	443.0	438.1	0.23	-0.25	0.01	-0.08
Total OECD												
Crude	1027.1	995.9	1010.1	1001.4	985.2	968.6	949.5	931.4	0.11	0.27	0.72	-0.28
Motor Gasoline	371.2	361.0	368.4	358.7	354.4	361.7	347.5	355.6	-0.35	0.36	0.05	-0.09
Middle Distillate	564.6	585.0	579.5	590.6	605.4	562.2	543.7	560.1	0.37	0.22	-0.07	0.31
Residual Fuel Oil	146.0	150.2	144.3	132.2	136.7	153.7	142.5	147.0	-0.08	0.02	-0.01	-0.01
Total Products[3]	1428.4	1453.0	1453.9	1451.9	1470.8	1450.7	1403.6	1432.6	0.28	0.44	-0.17	0.37
Total[4]	2749.0	2751.2	2759.8	2753.5	2749.5	2728.2	2662.4	2673.8	0.58	0.45	0.52	0.14

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Apr2009	May2009	Jun2009	Jul2009	Aug2009*	Aug2006	Aug2007	Aug2008	3Q2008	4Q2008	1Q2009	2Q2009
North America												
Crude	718.8	721.7	724.1	724.1	724.1	687.8	690.4	707.2	-0.04	-0.01	0.12	0.12
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	185.5	186.6	186.7	185.6	185.6	174.6	176.7	178.5	-0.02	0.07	0.01	-0.01
Products	237.3	238.7	238.3	239.5	239.5	237.3	245.7	233.7	0.02	-0.05	0.06	0.05
Pacific												
Crude	388.1	388.8	389.1	388.5	388.5	381.5	385.0	384.2	-0.01	0.03	0.02	0.00
Products	19.2	19.2	19.2	19.2	19.2	11.8	17.6	19.2	0.00	0.00	0.00	0.00
Total OECD												
Crude	1292.4	1297.1	1299.9	1298.1	1298.1	1243.9	1252.1	1270.0	-0.06	0.10	0.16	0.11
Products	258.5	259.9	259.5	260.7	260.7	251.1	265.2	254.9	0.02	-0.05	0.06	0.05
Total[4]	1552.5	1558.5	1561.0	1560.6	1560.6	1496.0	1518.4	1525.8	-0.04	0.05	0.23	0.15

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End June 2008		End September 2008		End December 2008		End March 2009		End June 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	192.5	84	198.4	88	193.9	88	197.7	96	197.3	-
Mexico	44.7	21	55.7	27	50.3	25	45.5	23	48.1	-
United States[4]	1688.0	89	1706.4	88	1738.7	92	1797.0	97	1841.0	-
Total[4]	1947.4	83	1982.6	83	2005.1	86	2062.3	90	2108.5	92
Pacific										
Australia	38.7	41	38.9	40	41.4	45	40.8	43	40.5	-
Japan	619.1	143	646.2	137	629.6	133	611.3	152	611.2	-
Korea	146.6	70	141.2	66	134.9	58	155.2	72	149.2	-
New Zealand	8.4	58	7.9	53	7.9	51	9.5	61	8.5	-
Total	812.7	108	834.1	105	813.8	100	816.8	112	809.3	112
Europe[5]										
Austria	22.8	77	21.5	79	23.2	82	20.9	78	20.4	-
Belgium	28.5	39	31.1	43	34.9	56	35.8	65	35.0	-
Czech Republic	20.2	88	19.1	97	21.4	114	22.7	111	22.0	-
Denmark	19.0	107	18.3	101	22.9	131	25.1	152	26.4	-
Finland	25.5	116	30.1	139	30.7	147	33.5	167	25.4	-
France	176.6	90	176.6	87	179.2	89	177.6	98	172.9	-
Germany	273.2	101	273.7	103	277.4	108	277.7	116	280.2	-
Greece	36.3	87	39.2	83	40.0	83	36.7	93	35.9	-
Hungary	16.6	101	15.5	93	15.0	100	15.7	100	15.1	-
Ireland	10.4	59	10.5	54	11.4	63	11.5	74	11.7	-
Italy	136.7	83	130.3	81	127.9	83	131.0	86	129.1	-
Luxembourg	0.7	12	0.6	10	0.7	14	0.7	14	0.8	-
Netherlands	124.5	119	115.0	117	131.4	130	133.9	140	144.5	-
Norway	23.1	116	26.5	127	29.9	143	24.0	108	23.6	-
Poland	57.4	103	58.8	106	58.1	119	58.9	111	63.1	-
Portugal	25.3	85	25.0	90	24.7	92	25.0	90	24.8	-
Slovak Republic	9.1	99	8.0	93	8.8	122	9.8	123	8.4	-
Spain	135.0	87	135.8	88	137.6	89	137.8	94	135.6	-
Sweden	34.1	94	36.6	104	38.7	119	40.7	127	39.5	-
Switzerland	37.2	133	37.8	127	36.3	120	36.8	133	38.0	-
Turkey	60.9	80	60.8	98	60.9	111	59.2	97	58.8	-
United Kingdom	99.3	60	95.1	55	98.8	57	100.4	60	91.7	-
Total	1372.5	88	1365.9	88	1409.9	94	1415.3	99	1403.0	96
Total OECD	4132.6	88	4182.6	88	4228.8	91	4294.4	97	4320.8	97
DAYS OF IEA Net Imports[6]	-	123	-	124	-	131	-	134	-	135

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End June 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
2Q2006	4141	1493	2648	84	30	54
3Q2006	4255	1495	2760	85	30	55
4Q2006	4166	1499	2667	84	30	54
1Q2007	4105	1507	2598	85	31	54
2Q2007	4164	1506	2658	85	31	54
3Q2007	4170	1520	2650	83	30	53
4Q2007	4091	1524	2567	83	31	52
1Q2008	4102	1529	2573	86	32	54
2Q2008	4133	1526	2607	88	33	56
3Q2008	4183	1522	2660	88	32	56
4Q2008	4229	1527	2702	91	33	58
1Q2009	4294	1547	2747	97	35	62
2Q2009	4321	1561	2760	97	35	62

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 2Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	3Q08	4Q08	1Q09	2Q09	May 09	Jun 09	Jul 09	Year Earlier Jul 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.71	0.63	0.58	0.51	0.50	0.45	0.56	0.79	-0.23
Europe	0.78	0.70	0.70	0.81	0.66	0.57	0.60	0.62	0.54	0.63	0.65	-0.02
Pacific	1.32	1.19	1.22	1.10	1.24	1.40	1.16	1.16	1.18	1.30	1.16	0.15
Saudi Medium												
North America	0.64	0.56	0.64	0.68	0.66	0.42	0.45	0.46	0.48	0.44	0.76	-0.32
Europe	0.14	0.05	0.05	0.03	0.05	0.03	0.02	0.02	0.02	0.02	0.05	-0.03
Pacific	0.35	0.34	0.39	0.40	0.38	0.34	0.33	0.32	0.35	0.39	0.47	-0.09
Saudi Heavy												
North America	0.21	0.09	0.07	0.14	0.05	0.04	0.02	0.02	0.02	0.02	0.20	-0.18
Europe	0.18	0.11	0.09	0.12	0.09	0.03	0.03	0.01	0.04	0.00	0.10	-0.10
Pacific	0.23	0.20	0.24	0.26	0.25	0.22	0.15	0.17	0.16	0.13	0.23	-0.10
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.57	0.51	0.44	0.31	0.21	0.34	0.32	0.65	-0.32
Europe	0.32	0.30	0.21	0.23	0.21	0.13	0.12	0.10	0.16	0.20	0.17	0.03
Pacific	0.08	0.17	0.15	0.18	0.11	0.26	0.20	0.15	0.22	0.21	0.27	-0.06
Iraqi Kirkuk												
North America	0.00	-	0.08	0.10	0.06	0.07	0.02	0.03	0.03	0.13	0.16	-0.03
Europe	0.01	0.11	0.23	0.24	0.19	0.26	0.34	0.36	0.34	0.38	0.29	0.08
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.21	0.24	0.15	0.16	0.14	0.19	0.05	0.21	-0.15
Pacific	0.13	0.09	0.08	0.06	0.07	0.11	0.06	0.07	0.02	0.08	0.05	0.03
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.60	0.43	0.33	0.41	0.45	0.44	0.43	0.51	-0.08
Pacific	0.56	0.64	0.61	0.67	0.64	0.65	0.51	0.43	0.50	0.56	0.62	-0.06
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.67	0.50	0.51	0.63	0.62	0.68	0.42	0.72	-0.31
Europe	0.11	0.08	0.06	0.06	0.07	0.07	0.13	0.20	0.10	0.08	0.05	0.03
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.67	0.74	0.74	0.62	0.63	0.70	0.73	0.70	0.03
Europe	0.06	0.07	0.07	0.07	0.08	0.07	0.06	0.06	0.05	0.06	0.05	0.01
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	0.99	1.04	1.06	0.96	0.97	0.91	0.83	1.06	-0.23
Europe	0.16	0.14	0.14	0.14	0.12	0.08	0.09	0.08	0.12	0.10	0.17	-0.07
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.01	0.00	0.01	0.00	0.00	-	0.01	0.01	0.00
Europe	0.01	0.02	0.01	-	0.02	0.01	-	-	-	0.03	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.10	-	0.09	0.27	0.31	0.21	0.20	0.14	0.06
Europe	1.68	1.86	1.81	1.74	1.67	1.58	1.76	1.81	1.65	1.73	1.95	-0.21
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.52	0.60	0.47	0.40	0.33	0.58	0.64	0.48	0.16
Europe	0.33	0.24	0.29	0.33	0.34	0.25	0.39	0.47	0.36	0.42	0.29	0.13
Pacific	0.04	0.01	-	-	-	-	0.01	-	0.04	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.26	0.22	0.14	0.30	0.29	0.36	0.28	0.21	0.06
Europe	0.10	0.07	0.14	0.13	0.14	0.12	0.12	0.11	0.16	0.09	0.09	0.00
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	3Q08	4Q08	1Q09	2Q09	May-09	Jun-09	Jul-09	Year Earlier Jul-08	Year Earlier % change
Crude Oil												
North America	8194	8214	8043	7895	7886	7743	7541	7373	7462	7458	7995	-7%
Europe	9784	9679	9772	9977	9524	9001	9132	9083	9393	8822	9974	-12%
Pacific	6816	6718	6605	6460	6408	6559	5706	5326	6041	5828	6674	-13%
Total OECD	24794	24610	24420	24331	23819	23304	22379	21782	22895	22107	25031	-12%
LPG												
North America	14	28	29	38	34	28	11	2	0	5	42	-88%
Europe	264	276	268	277	241	251	250	236	280	281	274	3%
Pacific	578	557	589	582	543	504	518	502	575	501	663	-24%
Total OECD	856	861	885	897	818	784	780	740	855	787	978	-20%
Naphtha												
North America	71	40	55	58	82	40	19	21	14	29	60	-51%
Europe	314	265	260	233	270	319	232	244	255	223	245	-9%
Pacific	754	794	776	886	689	746	814	907	806	927	854	9%
Total OECD	1138	1099	1091	1177	1040	1105	1066	1172	1075	1179	1160	2%
Gasoline[3]												
North America	1143	1128	1082	1184	1038	996	889	800	990	946	1181	-20%
Europe	160	203	218	261	196	239	280	274	355	296	291	2%
Pacific	96	73	90	56	105	120	71	62	70	86	53	63%
Total OECD	1399	1404	1390	1501	1339	1354	1239	1136	1415	1328	1525	-13%
Jet & Kerosene												
North America	161	183	63	40	39	80	45	40	41	72	42	71%
Europe	374	370	402	399	468	454	462	439	485	425	377	13%
Pacific	69	43	34	22	33	79	49	52	42	44	26	66%
Total OECD	603	595	500	461	540	612	555	531	569	541	445	21%
Gasoil/Diesel												
North America	175	132	72	50	94	106	39	52	36	17	41	-59%
Europe	967	780	880	917	1039	1224	963	988	852	1259	981	28%
Pacific	77	91	119	128	117	81	81	105	83	95	150	-37%
Total OECD	1219	1003	1072	1095	1250	1410	1083	1144	971	1370	1171	17%
Heavy Fuel Oil												
North America	343	323	286	246	266	326	326	344	315	210	267	-21%
Europe	476	433	447	446	462	474	567	561	553	799	477	68%
Pacific	91	95	125	143	94	144	128	118	110	101	136	-26%
Total OECD	910	851	858	834	821	943	1021	1024	978	1110	879	26%
Other Products												
North America	1121	1050	1075	1061	1117	935	896	992	872	923	1080	-15%
Europe	929	854	763	786	750	737	776	741	806	895	754	19%
Pacific	243	254	298	319	316	279	324	346	278	370	293	27%
Total OECD	2294	2157	2137	2165	2182	1951	1996	2078	1956	2188	2127	3%
Total Products												
North America	3028	2883	2662	2677	2669	2509	2226	2250	2268	2202	2713	-19%
Europe	3484	3180	3238	3319	3426	3697	3530	3483	3585	4177	3398	23%
Pacific	1908	1906	2032	2135	1895	1952	1985	2092	1965	2123	2174	-2%
Total OECD	8420	7969	7932	8131	7990	8159	7741	7825	7818	8503	8285	3%
Total Oil												
North America	11222	11097	10705	10572	10555	10253	9767	9624	9730	9660	11095	-13%
Europe	13268	12859	13011	13296	12950	12698	12662	12566	12977	12999	13373	-3%
Pacific	8724	8623	8637	8594	8303	8512	7691	7418	8007	7951	8848	-10%
Total OECD	33214	32579	32352	32463	31809	31463	30120	29608	30714	30610	33316	-8%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor
Head, Oil Industry and Markets Division
David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand
Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply
Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining
David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Biofuels
Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices
Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Freight
Ellen Dalland
(+33) 0*1 40 57 67 63
e-mail: ellen.dalland@iea.org

Statistics/Trade
Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant
Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
*0 - only within France

Media Enquiries

IEA Press Office
(+33) 0* 1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

User's Guide and Glossary to the IEA *Oil Market Report*

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2009), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Platts prices, converted when appropriate to US$ per barrel according to the Platts specification of products (© 2009 Platts - a division of McGraw-Hill Inc.).

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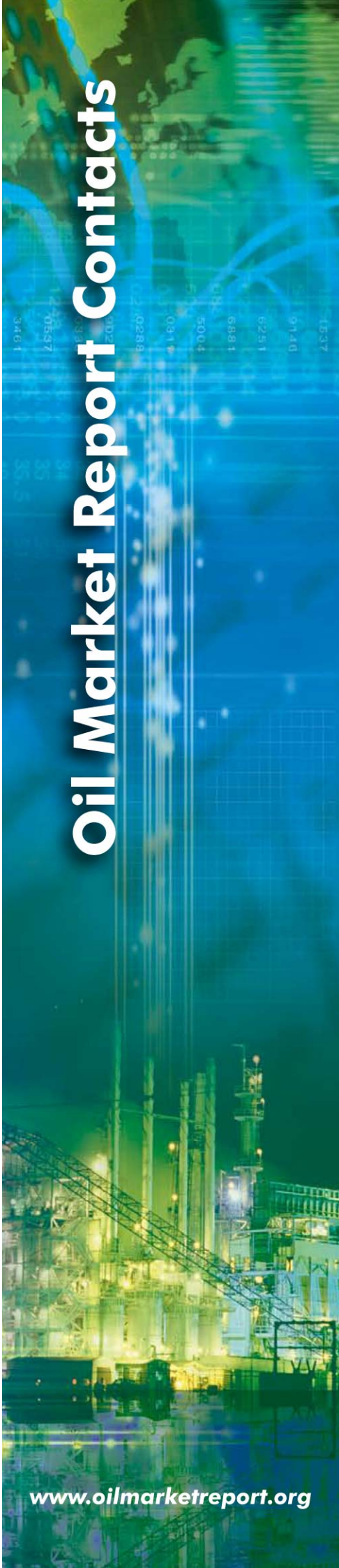

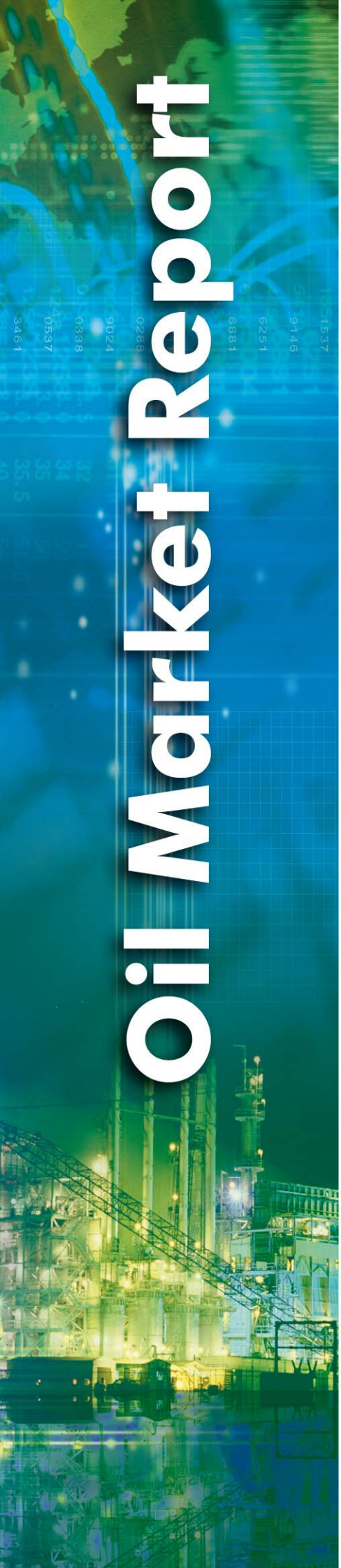

International Energy Agency

12 November 2009

HIGHLIGHTS

- **Crude oil prices** rose to their highest level in more than a year in October with WTI and Brent futures up an average of $6/bbl, to $75.82/bbl and $73.93/bbl, respectively. Growing expectations for economic recovery boosted markets, with WTI reaching over $81/bbl before settling in a $75-80/bbl range by early November.

- **Global oil supply** in October rose by 635 kb/d to 85.6 mb/d. OPEC production attained its highest level since January 2009, up by 110 kb/d to 29.0 mb/d. The 'call on OPEC crude and stock change' for 2010 is revised up 100 kb/d to 28.5 mb/d, on higher demand and a 300 kb/d downward revision to OPEC NGLs. The 2009 call averages 28.7 mb/d.

- **Non-OPEC supply** is revised up 130 kb/d for 2009 and 350 kb/d for 2010 on stronger US GOM, Norway and Russia estimates. Output is forecast at 51.1 mb/d in 2009 and 51.9 mb/d in 2010. Production rose 380 kb/d in October to 51.4 mb/d as North Sea maintenance ended. Tropical Storm Ida shut-in 560 kb/d (43%) of US GOM output in early November, though reports indicate no lasting damage.

- **Global oil demand** is revised up 210 kb/d for 2009 and 140 kb/d for 2010, on stronger preliminary data in OECD North America and buoyant demand in non-OECD Asia/Middle East. Global demand is on track for year-on-year growth in 4Q09 for the first time since 2Q08 and is now seen averaging 84.8 mb/d in 2009 (-1.5 mb/d year-on-year) and 86.2 mb/d in 2010 (+1.3 mb/d versus 2009).

- **OECD industry stocks** rose by 1.6 mb in September to 2,774 mb, 4.3% above last year's level. Gasoline and distillates built in North America while crude and distillates drew in the Pacific and Europe, respectively. End-September forward demand cover fell to 60.0 days from 60.9 days, but remained 3.8 days higher than a year ago.

- **Global refinery crude throughput** in 4Q09 is reduced by 0.3 mb/d to 72.8 mb/d as higher crude oil prices, falling OECD demand and high middle distillate inventories continued to undermine margins. Higher China and Other Asia estimates, following stronger 3Q09 data, only partly offset downward revisions from lower reported OECD runs.

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12 November 2009

OMR PUBLISHING SCHEDULE – 2010

Please find below the 2010 release dates for the ***Oil Market Report***:

Friday 15 January
Thursday 11 February
Friday 12 March
Tuesday 13 April
Wednesday 12 May
Thursday 10 June
Tuesday 13 July
Wednesday 11 August
Friday 10 September
Wednesday 13 October
Friday 12 November
Friday 10 December

This information is also available at: **oilmarketreport.org/schedule** and **omrpublic.iea.org/schedule**.

The 2010 Edition of the ***Medium-Term Oil Market Report (MTOMR)*** will be published in late June 2010.

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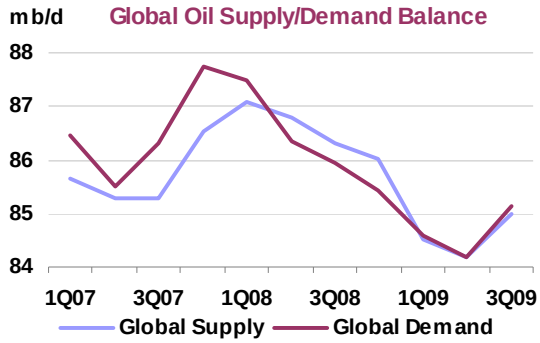
TABLES 51

NOT SO DISCONNECTED?

Concerns persist over an apparent disconnect between prevailing market fundamentals and $75-$80/bbl crude prices. True, OPEC nominal spare capacity is around 6.5 mb/d, and OECD inventory demand cover only just dropped back to 60 days at the end of September. But equally, the extent to which global oil supply in 2009 has matched the downward path of oil demand is striking. Quarterly demand began rising again in 3Q09 after six successive quarters of decline, but only after having lost 3.5 mb/d from late-2007 highs in the face of a game-changing economic recession.

Non-OPEC supply and OPEC NGL have risen marginally since mid-2008, but OPEC production curbs at their height took around 3 mb/d off the market (although leakage has been evident since 1Q09). So, the *crude* market 'surplus' (as distinct from *middle distillates*) was largely a hangover from last year's economic collapse, since when upstream supply has broadly matched demand. Meanwhile, concerns persist about the adequacy of upstream spending and capacity ahead of potential demand rebound, while project costs have remained stubbornly high. So the sub-$40/bbl prices seen at the turn of the year were, purely from a crude perspective, likely to prove short-lived. Add in a heady brew of loose monetary policy, surging equities and a weaker dollar, plus a belated arrival of the season's first Atlantic hurricane to threaten oil infrastructure, and today's crude prices may not be as disconnected as first appears. Of course, if upward price momentum persists, this risks endangering economic recovery. But equally, if economic prognoses are too optimistic, or the winter stays mild, market sentiment could easily weaken once again.

Pricing dynamics and the interplay between fundamental and financial flows do remain difficult to explain though. Newly disaggregated CFTC data on futures market activity by swap dealers fails to demonstrate a primary price-driving role for this segment of the market. The regulatory spotlight in the US and Europe is now shifting to the larger and more opaque over-the-counter (OTC) derivatives sector.



The interpretation of physical market fundamentals also remains clouded by issues of timeliness and availability of data. This affects all countries – OECD and non-OECD alike. However, since non-OECD countries will account for all of future demand growth (OECD demand likely peaked in 2005), the availability of regular data from these economies will come into ever-sharper focus. This makes the recent discontinuation of public reporting of Chinese inventory data unfortunate.

The past month has also seen discussion of further apparent disconnects in the pricing arena, which may ultimately prove less puzzling than they first appear. Saudi Arabia next year will shift the pricing basis for its North American crude sales from WTI to the Argus Sour Crude Index. This is logical in terms of crude quality and since WTI prices can swing widely due to fluctuating imports from Canada and logistical constraints around the Cushing delivery point for the WTI contract. The debate on abandoning the dollar for a substantial portion of crude oil sales also continued, although major producers and consumers were keen to play this down. With more than 60% of global currency reserves held in dollars, not least by the Mideast Gulf producers and by China, the financial implications of dropping the dollar would be dire for these players in the short to medium term. Finally, much has been made of the disconnect between spot and contract natural gas prices. But a multitude of suppliers competing within a market where demand has collapsed was always likely to see lower spot gas prices in order to clear the market. One upshot may be that highly competitive spot natural gas will put a further brake on OECD heating oil sales for the coming winter. The market has flipped from the 2007/early-2008 situation, when distillates provided a strong prop for crude prices, to one in which they could now exert downward pressure. Despite recent signs of readjustment in the sector, OECD refiners may therefore face high middle distillate stocks and an imperative to curb runs for a while longer.

DEMAND

Summary

- **Forecast global oil demand** is revised up by 210 kb/d for 2009 and by 140 kb/d for 2010, following stronger-than-expected preliminary data in OECD North America and buoyant demand in non-OECD Asia and the Middle East. Global oil demand is now averaging 84.8 mb/d in 2009 (-1.7% or -1.5 mb/d year-on-year) and 86.2 mb/d in 2010 (+1.6% or +1.3 mb/d versus 2009). The pace of demand contraction is easing in the OECD, while demand in non-OECD countries is exceeding expectations. This would suggest that global demand is well on track for resumed year-on-year growth in 4Q09, for the first time since 2Q08.

- **Forecast OECD oil demand** has been increased by 80 kb/d for 2009 and 10 kb/d for 2010. Upward revisions in North America and the Pacific offset downward adjustments in Europe. Oil demand is thus expected to contract by 4.3% year-on-year (-2.1 mb/d) to 45.5 mb/d in 2009 and remain largely flat in 2010 (-0.1%). However, the demand picture remains uncertain, notably in the US. Weekly-to-monthly data revisions become more difficult to anticipate, and diesel demand – strongly correlated to economic activity – continues to languish. It would thus seem that the 'real' US economy, as opposed to the financial one, is struggling to recover, despite the end of the recession.

Global Oil Demand (2008-2010)

(million barrels per day)

	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Africa	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.3	3.2	3.3	3.3	3.3	3.4	3.3
Americas	30.5	30.4	29.6	29.9	30.1	29.3	28.9	29.2	29.7	29.3	29.4	29.3	29.7	29.9	29.6
Asia/Pacific	26.7	25.7	25.0	25.1	25.6	25.7	26.0	25.7	25.7	25.8	26.5	26.3	25.9	26.1	26.2
Europe	16.1	15.8	16.3	16.2	16.1	15.6	15.0	15.2	15.5	15.3	15.5	15.0	15.3	15.5	15.4
FSU	4.3	4.1	4.3	4.2	4.2	4.0	3.9	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Middle East	6.7	7.1	7.6	7.0	7.1	6.7	7.3	7.8	7.2	7.2	7.1	7.6	8.1	7.5	7.6
World	**87.5**	**86.4**	**85.9**	**85.4**	**86.3**	**84.6**	**84.2**	**85.1**	**85.5**	**84.8**	**86.0**	**85.5**	**86.5**	**86.7**	**86.2**
Annual Chg (%)	1.2	1.0	-0.4	-2.6	-0.2	-3.3	-2.5	-0.9	0.1	-1.7	1.7	1.6	1.6	1.4	1.6
Annual Chg (mb/d)	1.0	0.9	-0.4	-2.3	-0.2	-2.9	-2.2	-0.8	0.0	-1.5	1.4	1.4	1.4	1.2	1.3
Changes from last OMR (mb/d)	0.00	0.00	-0.01	-0.01	-0.01	0.01	0.05	0.52	0.28	0.22	0.00	0.15	0.25	0.17	0.14

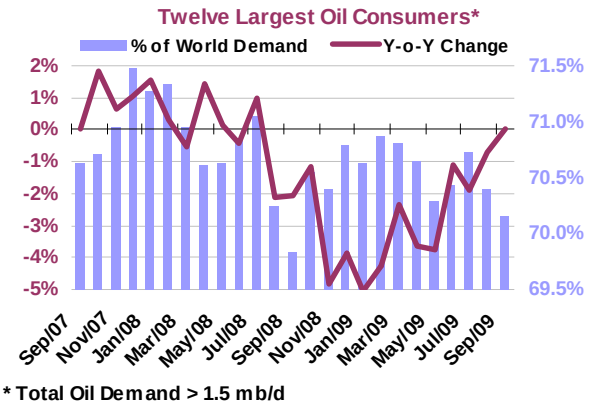
- **Forecast non-OECD oil demand** has been adjusted up by around 130 kb/d for both 2009 and 2010, following a reassessment of the demand outlook in Asia (China) and the Middle East (Saudi Arabia). Growth in both countries continues to be largely driven by 'other products' in China, reflecting stimulus-induced infrastructure spending, and direct crude burning in Saudi Arabia for power generation. Demand is now expected to average 39.3 mb/d in 2009 (+1.6% or +0.6 mb/d year-on-year) and 40.7 mb/d in 2010 (+3.6% or +1.4 mb/d versus 2009).

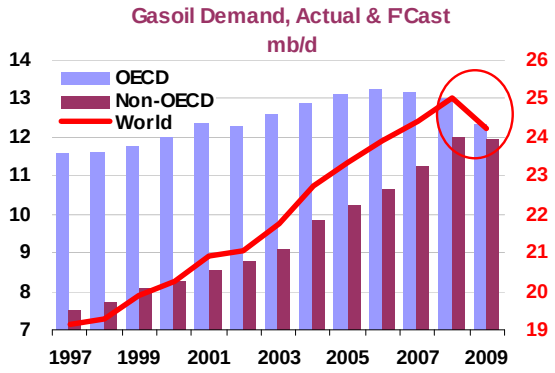
Global Overview

This month's report has revised up forecast oil demand for both 2009 and 2010, on the back of surging demand in China and Saudi Arabia, as well as somewhat higher-than-anticipated data for the US. Thus, global oil demand is expected to average 84.8 mb/d in 2009 (-1.7% or -1.5 mb/d year-on-year and +210 kb/d higher when compared with our last report). Next year, oil demand is expected to rise to 86.2 mb/d (+1.6% or +1.3 mb/d versus 2009 and +140 kb/d higher than previously expected). Several developments are worth noting:

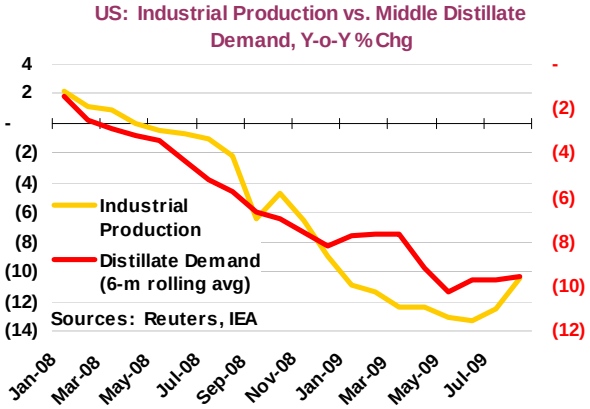
- According to preliminary data, year-on-year demand growth among the world's twelve largest consumers – US, Europe 5 (France, Germany, Italy, Spain & UK), China, Japan, India, Russia, Brazil, Saudi Arabia, Canada, Korea, Mexico and Iran – was marginally positive in September (+0.03%), for the first time since July 2008. As these countries collectively account for over 70% of global demand, this could be interpreted as proof that the global economy is on the mend (although total global

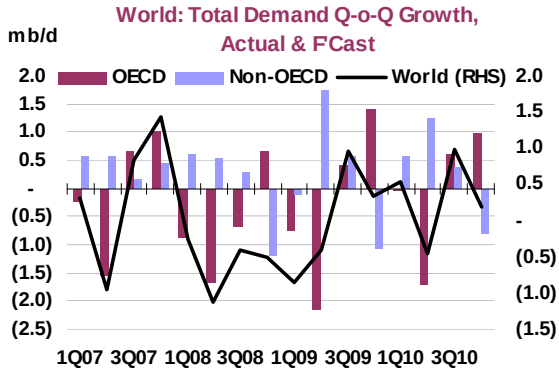
demand fell in September by -0.4% year-on-year.) However, this modest rebound among the largest consumers must be judged versus a very low base, as demand plummeted in September 2008. Signs of renewed growth thus remain tentative.



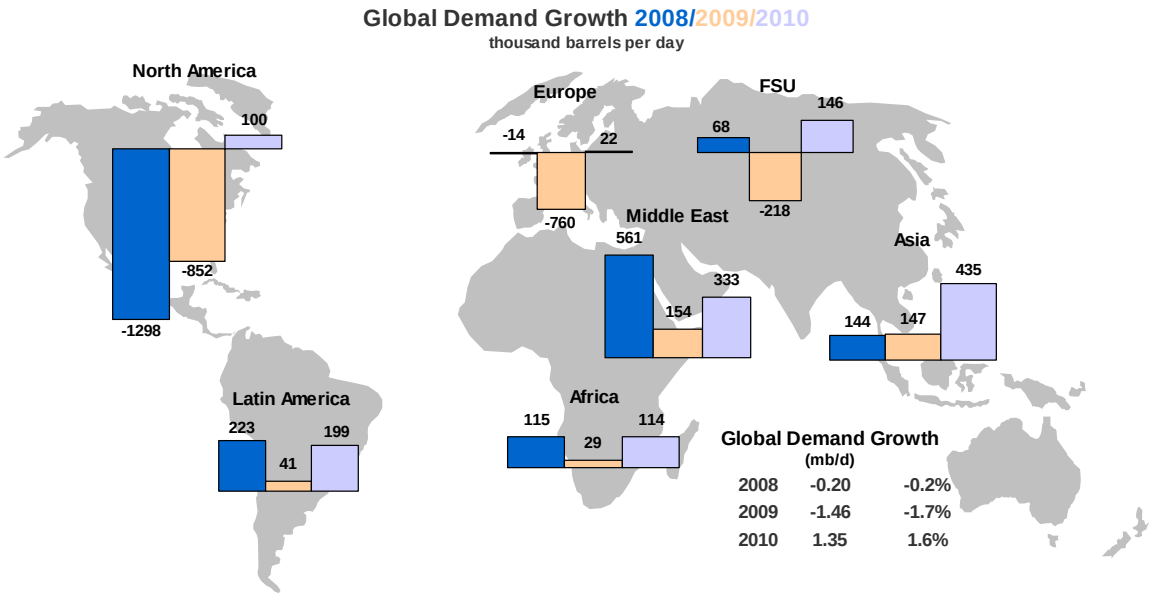


- Growth continues to be largely driven by 'other products' in China, reflecting stimulus-induced infrastructure spending, and direct crude burning in Saudi Arabia for power generation – rather than by more conventional industrial production, which is a better gauge of sustained economic activity. Indeed, global gasoil demand – which powers the railways and trucks that underpin global industrial activity and trade – remains subdued and should decline by 3.1% year-on-year in 2009, with the OECD featuring a particularly severe contraction (-5.7%), in sharp contrast to non-OECD countries (-0.3%). Therefore, a leading indicator of a sustained economic rebound will arguably be gasoil demand, despite the likelihood that the gasoil-to-GDP ratio will decline gradually (gasoil use will fall for power generation purposes in some large non-OECD countries, notably in Asia and the Middle East, while it should continue to be displaced by natural gas for heating purposes in the OECD, particularly given gas' current price advantage).





- Nonetheless, the pace of demand contraction is easing in the OECD, while demand in non-OECD countries is exceeding expectations. This would suggest that global demand is well on track to feature year-on-year growth in 4Q09, for the first time since 2Q08. (Note: in last month's report we incorrectly stated that we had revised our nominal price assumption *for 2009* to roughly $71/bbl, but we actually meant *4Q09*. The average for 2009 is likely to be around $60/bbl.)
- Looking ahead, however, the recent price spike, if further extended, risks derailing the recovery. Not only that, but oil demand itself would rebound much more slowly were the price rally sustained into 2010. The prospects for lower demand growth in 2010, primarily under a lower GDP scenario but also if prices were to rise further and for longer, were highlighted in last month's report and estimated to represent a downside sensitivity of some 0.7 mb/d.



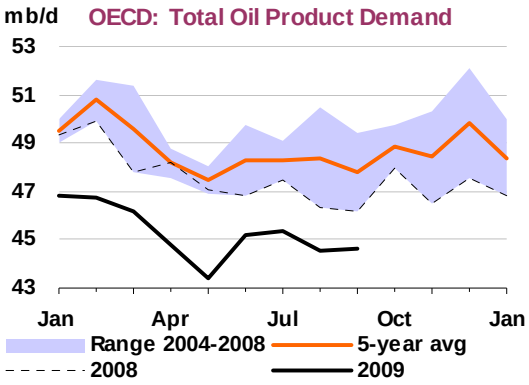
OECD

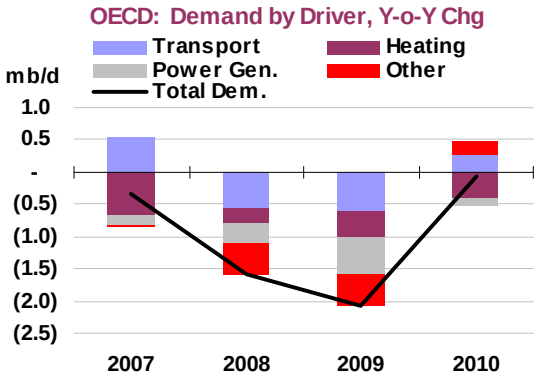
According to preliminary data, OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 3.5% year-on-year in September, with all three regions recording losses for the seventeenth month in a row. In **OECD Europe**, oil product demand tumbled by 6.8% year-on-year, with all product categories bar diesel posting losses. In **OECD Pacific**, demand dropped by 6.1% despite a rebound in LPG, naphtha and jet fuel/kerosene demand. By contrast, the demand contraction in **OECD North America** (which includes US Territories) was marginal (-0.2%), as strong LPG, gasoline and residual fuel deliveries counterbalanced the continued decline in middle distillates.

OECD Demand based on Adjusted Preliminary Submissions - September 2009
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.29**	**2.6**	**1.63**	**-3.2**	**3.57**	**-9.4**	**0.76**	**-14.7**	**1.04**	**12.3**	**5.11**	**2.82**	**22.39**	**-0.2**
US50	8.77	3.2	1.43	-3.9	3.02	-11.1	0.30	-11.3	0.52	0.4	3.77	5.1	17.82	-0.1
Canada	0.73	-0.8	0.12	8.9	0.22	-5.9	0.32	-12.5	0.12	3.0	0.70	-0.5	2.20	-2.5
Mexico	0.74	-0.8	0.05	-10.6	0.28	-6.5	0.12	-6.5	0.32	49.8	0.58	-6.2	2.10	1.4
OECD Europe	**2.39**	**-3.0**	**1.30**	**-7.3**	**4.61**	**0.5**	**1.78**	**-21.7**	**1.46**	**-12.9**	**3.51**	**-6.4**	**15.05**	**-6.8**
Germany	0.49	-1.7	0.20	-4.5	0.74	5.1	0.40	-39.8	0.14	-17.4	0.59	-0.1	2.57	-9.7
United Kingdom	0.38	-1.8	0.32	-3.8	0.43	-0.9	0.15	-7.9	0.11	1.1	0.31	-0.7	1.70	-2.1
France	0.21	-4.5	0.15	-8.1	0.71	2.7	0.33	-18.3	0.09	-25.5	0.41	-5.7	1.89	-6.5
Italy	0.26	-3.3	0.08	-14.4	0.58	-0.1	0.11	-6.2	0.21	-14.6	0.30	-15.0	1.55	-7.1
Spain	0.14	-4.0	0.12	-10.5	0.50	-0.6	0.17	-4.1	0.20	-11.4	0.33	-7.4	1.47	-5.4
OECD Pacific	**1.53**	**-1.0**	**0.65**	**1.8**	**1.16**	**-6.0**	**0.34**	**-15.2**	**0.55**	**-35.3**	**2.92**	**-0.9**	**7.15**	**-6.1**
Japan	0.98	-1.9	0.39	5.9	0.52	-10.7	0.24	-17.9	0.26	-46.7	1.59	0.1	3.99	-7.9
Korea	0.18	-0.3	0.13	-4.5	0.26	-4.3	0.10	-8.0	0.25	-22.1	1.15	-2.3	2.07	-5.7
Australia	0.32	0.9	0.10	-3.5	0.32	0.5	0.00	18.5	0.04	0.5	0.17	-1.2	0.95	-0.1
OECD Total	**14.21**	**1.2**	**3.58**	**-3.9**	**9.33**	**-4.3**	**2.88**	**-19.2**	**3.05**	**-11.7**	**11.54**	**-1.1**	**44.59**	**-3.5**

* Including US territories





Revisions to August preliminary data amounted to +270 kb/d, notably from stronger-than-anticipated diesel demand in North America. Yet August demand contracted by 3.8% year-on-year, only slightly less than previously reported (-4.4%). Nonetheless, OECD oil demand is slightly revised up for this year (+80 kb/d) and next (+10 kb/d) when compared with last month's report. Demand is thus expected to contract by 4.3% in 2009 to 45.5 mb/d and remain virtually unchanged in 2010 (-0.1%).

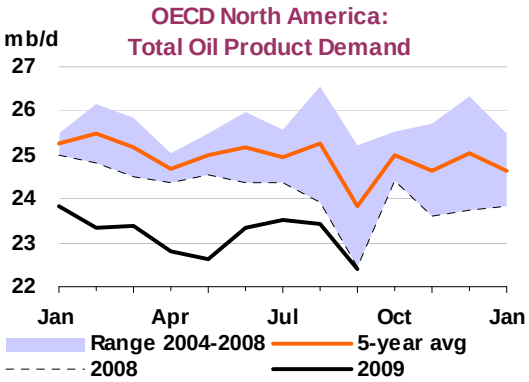
Total OECD Demand by Product
(million barrels per day)

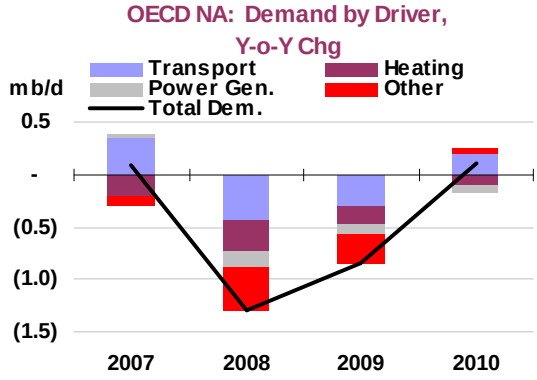
	2008	2009	3Q08	4Q08	1Q09	2Q09	Jun 09	Jul 09	Aug 09*	Latest month vs. Jul 09	Latest month vs. Aug 08
LPG & Ethane	4.65	4.51	4.27	4.55	4.82	4.35	4.31	4.48	4.32	-0.16	-0.06
Naphtha	3.08	2.94	3.07	2.88	2.98	2.86	2.82	2.93	2.91	-0.02	-0.26
Motor Gasoline	14.41	14.43	14.45	14.36	14.00	14.55	14.80	14.97	14.87	-0.09	0.30
Jet & Kerosene	3.98	3.75	3.81	3.90	3.99	3.53	3.54	3.63	3.69	0.06	-0.12
Gas/Diesel Oil	13.04	12.30	12.65	13.43	13.09	11.78	12.03	11.85	11.21	-0.64	-0.88
Residual Fuel Oil	3.66	3.26	3.53	3.61	3.61	3.07	3.10	2.88	3.01	0.13	-0.41
Other Products	4.76	4.34	4.88	4.61	4.08	4.30	4.57	4.65	4.55	-0.11	-0.31
Total Products	**47.59**	**45.53**	**46.67**	**47.34**	**46.58**	**44.44**	**45.16**	**45.39**	**44.55**	**-0.84**	**-1.74**

* Latest official OECD submissions (MOS)

North America

Preliminary data show that oil product demand in North America (including US Territories) fell by 0.2% year-on-year in September, the 21st monthly contraction in a row. Although the decline in Canada appears to have been significant (-2.5%), it was marginal in the US (-0.1%). By contrast, Mexico posted modest growth (+1.4%).





Revisions to August preliminary data were substantial (+480 kb/d), almost entirely due to the US, with large upward adjustments in both gasoline and diesel offsetting much lower readings for 'other products'. As such, total demand in North America actually contracted by 2.1% in August, roughly half the pace previously reported (-4.1%). North American oil product demand is now seen averaging

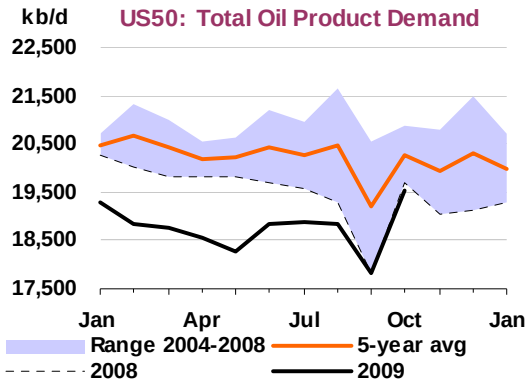
23.3 mb/d in 2009 (-3.5% or -850 kb/d versus 2008 and +140 kb/d versus our last report), while demand in 2010 is seen rising to 23.4 mb/d (+0.4% or +100 kb/d year-on-year and some 40 kb/d higher than previously forecast).

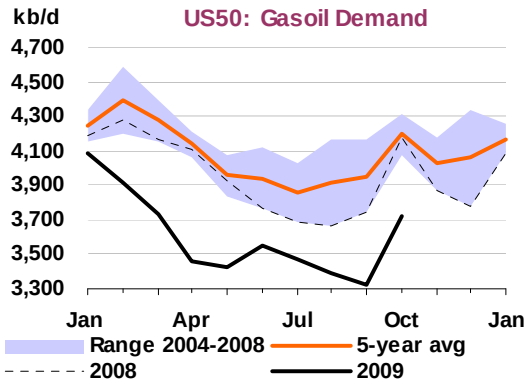
OECD North America Demand by Product
(million barrels per day)

	2008	2009	3Q08	4Q08	1Q09	2Q09	Jun 09	Jul 09	Aug 09*	Latest month vs. Jul 09	Latest month vs. Aug 08
LPG & Ethane	2.72	2.66	2.47	2.66	2.88	2.51	2.43	2.63	2.65	0.03	0.02
Naphtha	0.36	0.30	0.36	0.33	0.29	0.33	0.34	0.34	0.30	-0.04	-0.02
Motor Gasoline	10.52	10.58	10.48	10.50	10.30	10.63	10.82	10.92	10.84	-0.08	0.15
Jet & Kerosene	1.77	1.66	1.79	1.64	1.66	1.62	1.63	1.76	1.68	-0.08	-0.18
Gas/Diesel Oil	5.01	4.60	4.77	5.03	4.94	4.41	4.52	4.45	4.36	-0.09	-0.34
Residual Fuel Oil	1.10	1.02	1.05	1.06	1.08	0.98	1.00	0.80	1.01	0.21	-0.01
Other Products	2.69	2.51	2.67	2.71	2.38	2.43	2.59	2.65	2.58	-0.07	-0.12
Total Products	**24.17**	**23.32**	**23.58**	**23.93**	**23.52**	**22.92**	**23.33**	**23.54**	**23.42**	**-0.11**	**-0.50**

* Latest official OECD submissions (MOS)

Preliminary weekly data in the continental **United States** indicate that inland deliveries – a proxy of oil product demand – contracted by 0.8% year-on-year in October. At first glance, this figure might suggest an imminent takeoff of oil demand. However, the picture remains blurred, not least since 2008 demand already represents a weak baseline.





On the one hand, the EIA weekly-to-monthly revisions have again changed in terms of direction (down again in August, after four months of either upward or negligible revisions), magnitude (sharply down, almost -600 kb/d) and products affected (revisions were essentially concentrated in 'other products' rather than in distillate or gasoline demand, as in recent months). As a result, our own pre-emptive weekly-to-monthly adjustments turned out to be too pessimistic, thus leading to an upward revision of +510 kb/d to our August preliminary estimate. Since last month our pre-emptive, weekly-to-monthly adjustments have been based on a twelve-month average of previous changes, instead of a 6-month average, in order to smooth out the unexpected changes observed in recent months. However, despite this move, as with August data, our September and October demand estimates could ultimately prove too low. We will await the re-emergence of a more discernible trend before making further changes to the pre-emptive adjustment methodology.

On the other hand, aside from the increasing difficulty in gauging monthly demand trends from preliminary weekly data, one product category continues to consistently languish: diesel. Indeed, demand for this product – which, as noted earlier, is strongly correlated to economic activity – has continued to decline sharply on a yearly basis: -8.9% in August, despite upward revisions, and as much as -11% in both September and October if weekly data are any guide.

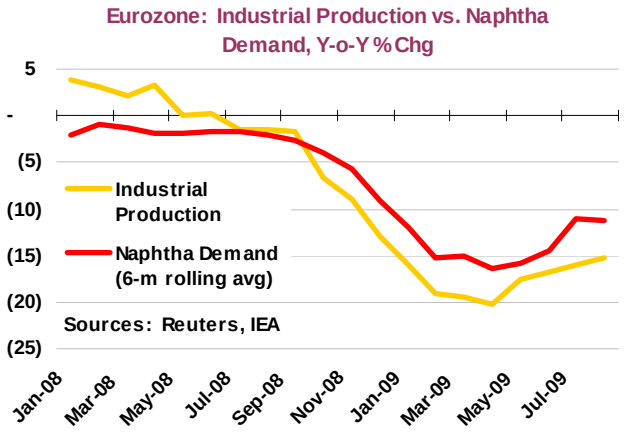
It would thus seem that the 'real' economy, as opposed to the financial one, is struggling to recover, despite the technical ending of the recession (US GDP rose by 3.5% on an annualised basis in 3Q09, slightly above expectations). Indeed, the rebound was mostly driven by one-off factors such as federal

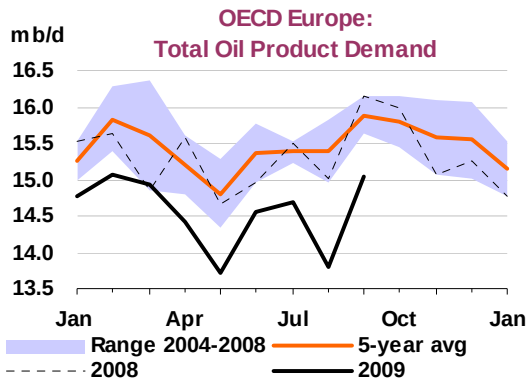
car purchasing incentives ('cash-for-clunkers'), a temporary tax credit for homebuyers and the gradual rebuild of depleted inventories across several industries. Since private consumption accounts for almost three-quarters of GDP, this could suggest that economic growth going forward may be subdued, as consumers retreat again after their recent spending binge. It is worth noting that car sales dropped by 35% year-on-year in September (the 'cash-for-clunkers' programme expired early that month). Moreover, the personal savings rate fell by 1.6 percentage points to 3.3% of disposable income in 3Q09, a trend unlikely to continue given persistently high household debt and restricted access to credit. Should the government withdraw its stimulus spending measures – in principle, in mid-2010 – economic activity could hence choke again, unless new measures were to be implemented, and cast further gloom on an already depressed job market (unemployment rose to a 26-year high of 10.2% in October). This possibility in part underpinned the lower GDP and demand sensitivity contained in last month's OMR.

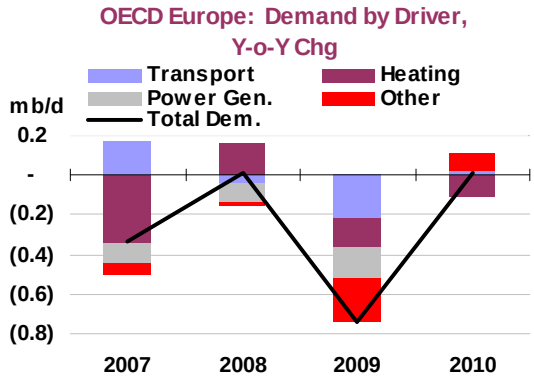
Overall, the outlook for US oil demand remains largely unchanged. Oil product demand is now seen averaging 18.8 mb/d in 2009 (-3.7% year-on-year) and 18.9 mb/d in 2010 (+0.4%), some 130 kb/d and 40 kb/d higher in both years, respectively, compared to our previous forecast.

Europe

Oil product demand in Europe plummeted by 6.7% year-on-year in September, according to preliminary inland data. All product categories bar diesel posted losses, notably naphtha, heating oil and residual fuel oil. As in recent months, the persistent weakness in naphtha demand (-20.2%) continues to confound expectations of a sustained economic rebound, as the use of this fuel tends to track industrial production closely. The fall in heating oil demand was expected, resulting from lower deliveries in both Germany and France, given the strong pace of consumer stockbuilds during 1H09. Cheaper natural gas, meanwhile, continues to weigh on residual fuel oil use.







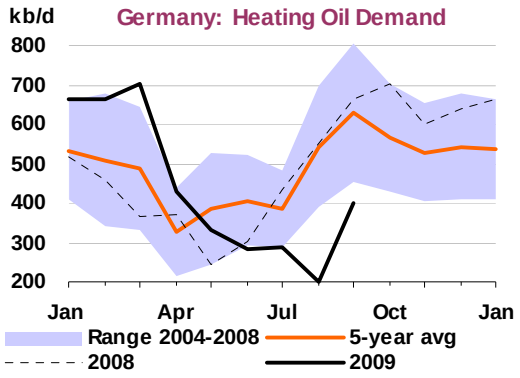
Revisions to August preliminary data were large (-220 kb/d), affecting mostly naphtha, gasoline, distillates and residual fuel oil demand. As such, OECD Europe oil demand contracted at a steeper year-on-year pace during that month (-8.2% instead of -6.7%, as previously expected). Consequently, total oil product demand is now expected to average 14.6 mb/d in 2009 (-4.8% or -740 kb/d versus 2008 and 60 kb/d lower than previously expected) and to barely rise in 2010 (+0.1%, some 50 kb/d lower when compared to last month's report).

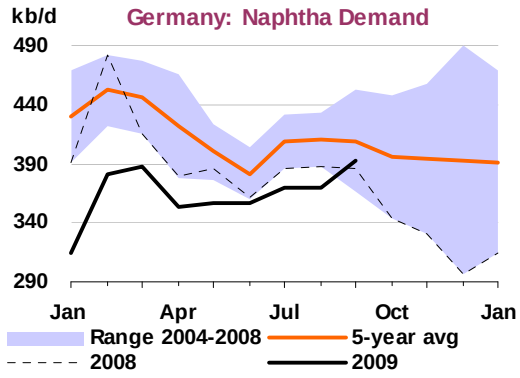
OECD Europe Demand by Product
(million barrels per day)

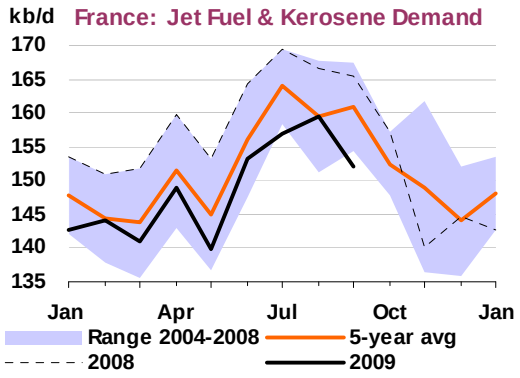
	2008	2009	3Q08	4Q08	1Q09	2Q09	Jun 09	Jul 09	Aug 09*	Latest month vs. Jul 09	Latest month vs. Aug 08
LPG & Ethane	1.03	0.97	0.95	0.99	1.04	0.99	1.01	0.95	0.87	-0.08	-0.03
Naphtha	1.08	0.99	1.07	0.99	1.05	0.90	0.87	0.99	0.94	-0.06	-0.24
Motor Gasoline	2.36	2.31	2.44	2.30	2.19	2.39	2.45	2.48	2.35	-0.12	-0.03
Jet & Kerosene	1.32	1.25	1.42	1.27	1.19	1.26	1.29	1.32	1.36	0.05	-0.04
Gas/Diesel Oil	6.35	6.13	6.33	6.69	6.51	5.81	5.92	5.94	5.34	-0.59	-0.60
Residual Fuel Oil	1.64	1.48	1.63	1.69	1.61	1.36	1.37	1.38	1.35	-0.03	-0.22
Other Products	1.57	1.48	1.71	1.49	1.33	1.53	1.66	1.65	1.58	-0.07	-0.08
Total Products	**15.35**	**14.61**	**15.55**	**15.44**	**14.92**	**14.23**	**14.56**	**14.70**	**13.79**	**-0.91**	**-1.24**

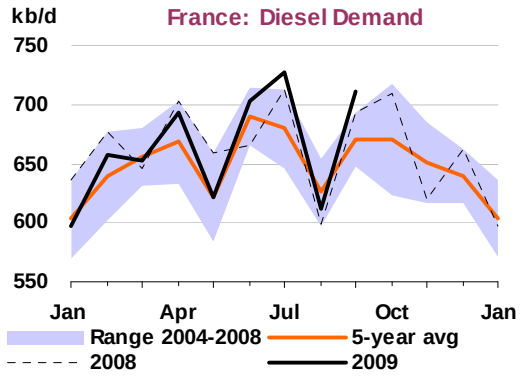
* Latest official OECD submissions (MOS)

Preliminary data indicate that **German** oil product demand, although rising from August, sank in September by 9.7% year-on-year, largely on the back of weak heating oil (-39.8%) and residual fuel oil deliveries (-17.4%). Consumer heating oil stocks reached 68% of capacity by end-September, the highest level since October 2006, compared with 66% in August and 60% in September 2008, which suggests that deliveries are likely to remain weak for the rest of this year. Meanwhile, cheaper natural gas supplies continued to displace fuel oil. On a positive note, by contrast, naphtha demand was sharply revised up for August (+55 kb/d) and recorded higher-than-expected growth in September (+1.5% year-on-year), for the first time in a year. Although naphtha demand should post relatively strong readings in the next few months given the extremely weak 4Q08 baseline, these improved figures suggest that German industrial production is faring somewhat better than previously thought.





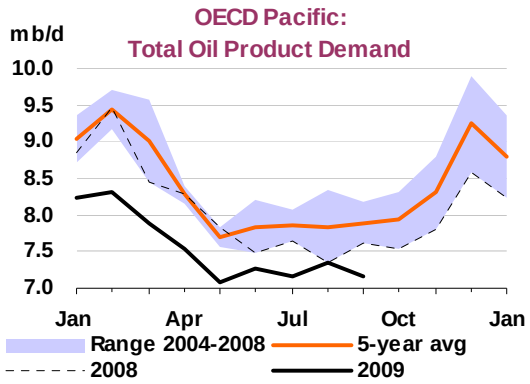


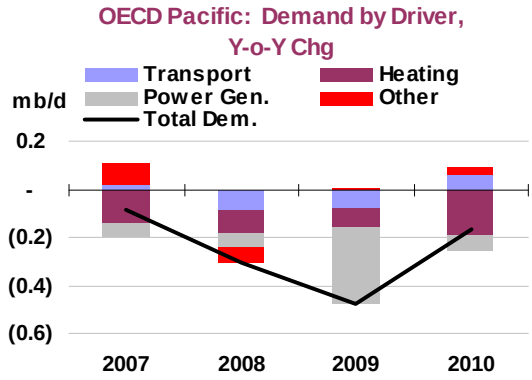


In **France**, oil product deliveries continued to contract in September (-6.5% year-on-year), with lower deliveries of heating oil (-18.3%) and residual fuel oil (-25.5%), as in Germany. By contrast, however, naphtha demand was much weaker than previously expected, having been revised down by 80 kb/d in August and recording another marked contraction in September (-9.7%). As such, it would appear that French industry is still struggling. Meanwhile, it is interesting to note that on-road diesel demand has been sustained since the early summer, while jet fuel/kerosene demand has sharply fallen. This provides further evidence that during the last holiday seasons most French opted to drive to near-by locations rather than undertaking more expensive trips involving air travel.

Pacific

Oil product demand in the Pacific fell for the fifteenth month in a row in September (-6.1% year-on-year), according to preliminary data. All product categories bar LPG, naphtha and jet fuel/kerosene recorded losses, thus bringing to an end the modest improvement observed in August, when overall oil demand fell marginally (-0.1%) as Korean gains almost offset continued Japanese losses.





August data turned out to be 20 kb/d higher than expected, with upward adjustments in 'other products' deliveries barely offsetting large downward changes in middle distillate demand. Forecast OECD Pacific demand is thus virtually unchanged, expected to average 7.6 mb/d in 2009 (-5.9% or -470 kb/d on a yearly basis and unchanged versus our last report) and 7.4 mb/d in 2010 (down by 2.2% or 170 kb/d when compared to the previous year and +20 kb/d higher than previously estimated).

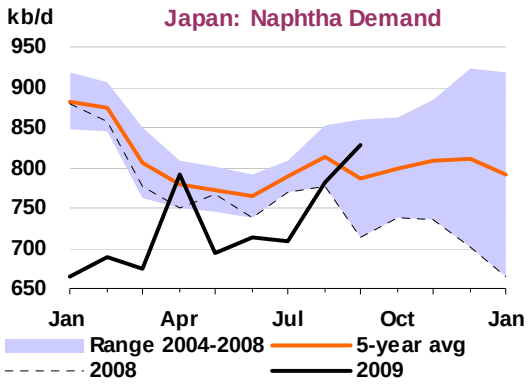
OECD Pacific Demand by Product
(million barrels per day)

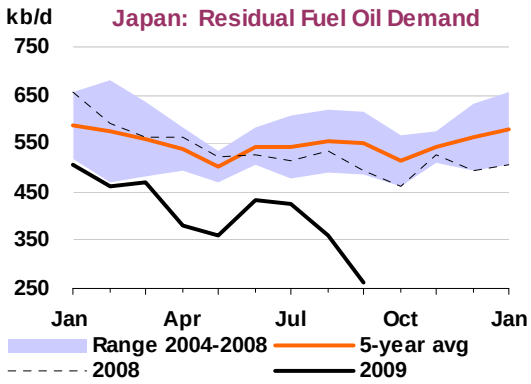
	2008	2009	3Q08	4Q08	1Q09	2Q09	Jun 09	Jul 09	Aug 09*	Latest month vs. Jul 09	Latest month vs. Aug 08
LPG & Ethane	0.90	0.88	0.86	0.90	0.90	0.85	0.87	0.91	0.80	-0.11	-0.04
Naphtha	1.64	1.66	1.65	1.56	1.64	1.64	1.61	1.60	1.67	0.08	0.00
Motor Gasoline	1.54	1.55	1.52	1.56	1.51	1.52	1.52	1.57	1.68	0.11	0.18
Jet & Kerosene	0.89	0.84	0.60	0.99	1.15	0.66	0.62	0.55	0.64	0.09	0.09
Gas/Diesel Oil	1.68	1.57	1.55	1.70	1.64	1.56	1.59	1.47	1.51	0.04	0.06
Residual Fuel Oil	0.91	0.76	0.85	0.86	0.92	0.73	0.73	0.71	0.65	-0.06	-0.19
Other Products	0.50	0.35	0.50	0.40	0.38	0.33	0.32	0.35	0.39	0.04	-0.11
Total Products	**8.07**	**7.59**	**7.54**	**7.97**	**8.14**	**7.30**	**7.27**	**7.16**	**7.34**	**0.18**	**-0.01**

* Latest official OECD submissions (MOS)

According to preliminary data, **Japanese** oil demand contracted by 7.9% year-on-year in September, with all product categories bar LPG, naphtha and jet fuel/kerosene posting strong declines. Naphtha demand, in particular, surged by 16.1%, which would tend to confirm a noticeable improvement in economic conditions. Indeed, ethylene production recovered in September, mainly underpinned by rising exports to China.

By contrast, residual fuel and direct crude demand, included in 'other products', continued to post sharp losses (-46.7% and -38.1%, respectively), reflecting the continued weakness in electricity consumption, notably among large industrial users; less air conditioning at households and business given lower-than-normal temperatures in September; and possibly some substitution by cheaper natural gas. The decline of these fuels is bound to accelerate as nuclear's share in power generation rises – Tokyo's utility TEPCO is set to restart the Kashiwazaki-Kariwa No.7 reactor for commercial purposes by end-2009. The 1.4 GW unit, which had been damaged by an earthquake, had been conditionally restarted in May to undertake several tests, but was shut down in late September in order to replace fuel rods.





The new Japanese government is reportedly mulling whether to impose mandatory targets in order to reduce greenhouse gas emissions by 25% by 2020. It may also institute a carbon tax and provide incentives to encourage motorists to switch to energy-efficient hybrid cars. These moves, if implemented, would partially offset the planned abolition of the so-called 'provisional' gasoline and diesel taxes (which have been in place almost uninterruptedly since the early 1950s in order to finance road maintenance) in the 2010-2011 fiscal year (April-March). Moreover, the government may still set a 'mileage tax' to pay for road maintenance, following the example of several European countries (such as Switzerland and Germany). The net effect of all these measures would arguably be a faster decline in gasoline demand.

Non-OECD

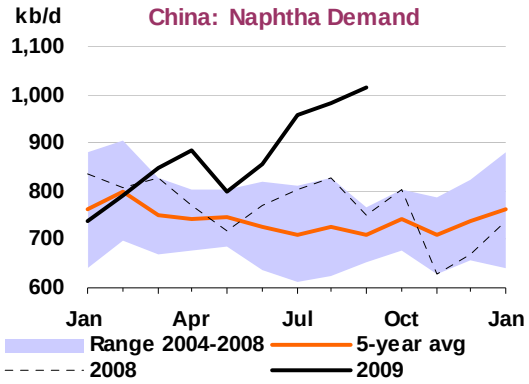
China

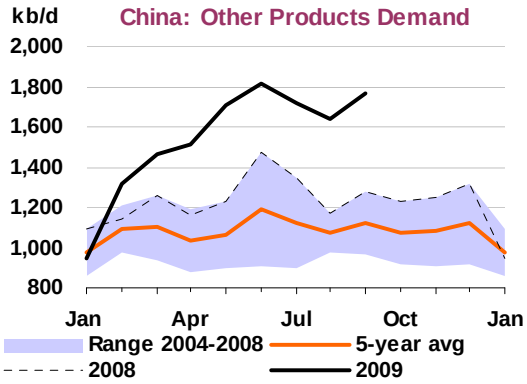
Preliminary data indicate that China's apparent demand (refinery output plus net oil product imports) surged by 15.1% year-on-year in September, with all product categories posting gains. Demand growth, however, continues effectively to be largely driven by 'other products', which includes mostly bitumen, lubricants and coke (+38.5%). Naphtha demand also recorded a sharp jump (+35.2%), as petrochemical production recovers. Both product categories are arguably directly related to the effects of the government's stimulus measures – 3Q09 GDP rose by 8.9% on an annual basis, according to official statistics. Meanwhile, gasoline demand remains vigorous (+6.8%), as car sales remain buoyant (+90% year-on-year in August, +78% in September and +76% in October), helped by generous government incentives, such as halved sales taxes on vehicles with engines under 1.6 litres. (Luxury car sales, though, have also increased strongly, by about 45% on average, indicating rising incomes in the main urban areas).

However, as this report has previously noted, Chinese end-user demand trends are obscured by a lack of detailed inventory data. Moreover, such data are becoming scarcer, as one of the two public sources for domestic oil stocks (Xinhua's *China Oil, Gas and Petrochemicals* newsletter) announced in its latest edition that it has ceased publishing crude, gasoline and gasoil inventories. Given the recent rise in international oil prices, the apparent strength in gasoline and gasoil demand could be related to stockpiling in anticipation of domestic product price increases, as has been the case in several of the past few months. (In fact, the actual year-on-year demand growth for both products is probably lower, assuming significant destocking after the 2008 Olympics.)

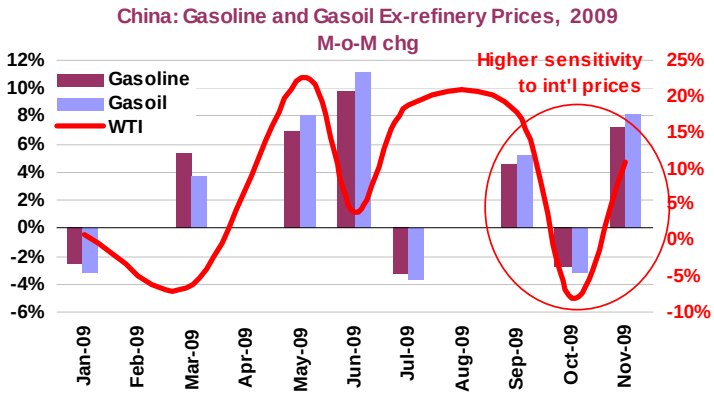
Looking ahead, two issues will arguably steer Chinese oil demand trends: 1) whether and to what extent the macroeconomic stimulus measures are maintained, and 2) whether and to what extent international oil price changes are passed on to the consumer. Regarding the first issue, many voices inside and outside China are warning about emerging asset bubbles, rising inflationary pressures, industrial overcapacity and potential trade dumping issues. Some official economists have also downplayed the 'rebalancing' of the economy (from exports to domestic consumption). Moreover, the incentives for car

purchases are due to expire by year-end, and it is unclear whether the small car market will be able to withstand this and sustain strong gasoline demand growth after that.





With respect to the pricing issue, on 10 November the National Development and Reform Commission increased the 'guidance' (wholesale) prices, for the eighth time this year (gasoline rose by 7.3%, gasoil by 8.2% and jet fuel by 6.6%). However, since 5 November, the day when the price revision window opened, there were contradictory reports regarding its implementation (9 or 10 November or not at all) and its extent (5% or 7%). The price adjustment may have been delayed to account for the week-long National Day holidays in early October, but it may also indicate that the government feels uncomfortable with current high international oil prices. It must again balance the profitability of state-owned refiners against the effects (inflationary and political) of higher domestic prices if changes are fully passed on the end-user. However, the price scheme has a provision to limit the impact on consumers if prices rise further: refining margins will shrink gradually if international oil prices exceed $80/bbl and drop to zero if oil prices reach $130/bbl; above that level, the government may freeze domestic prices and exercise full discretion regarding ways to compensate refiners.



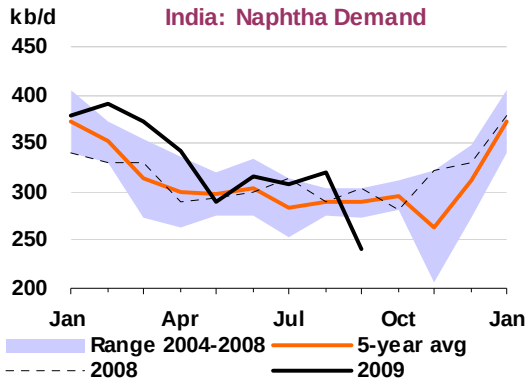
Therefore, China's oil demand outlook remains highly uncertain. We have revised up our 2009 forecast by roughly 40 kb/d in order to account for the continued strength in 'other products' demand, but have left our 2010 prognosis largely unchanged. Total oil demand is thus expected to increase by 5.7% or 450 kb/d to 8.3 mb/d in 2009, and by 3.5% or 290 kb/d to 8.6 mb/d in 2010.

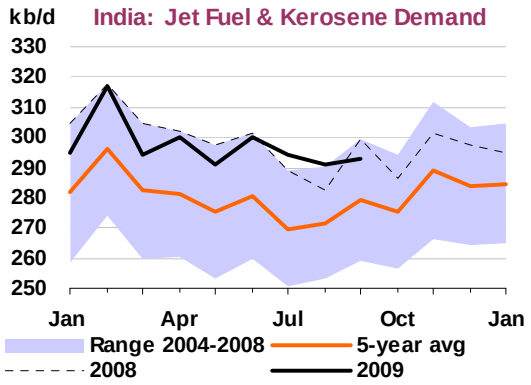
China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	653	734	763	81	29	12.4	4.0
Naphtha	768	851	883	83	32	10.8	3.7
Motor Gasoline	1,493	1,552	1,676	59	124	3.9	8.0
Jet & Kerosene	292	330	348	38	18	12.8	5.6
Gas/Diesel Oil	2,837	2,732	2,870	-105	138	-3.7	5.0
Residual Fuel Oil	603	624	638	21	14	3.5	2.2
Other Products	1,246	1,520	1,459	274	-61	22.0	-4.0
Total Products	**7,892**	**8,342**	**8,636**	**450**	**294**	**5.7**	**3.5**

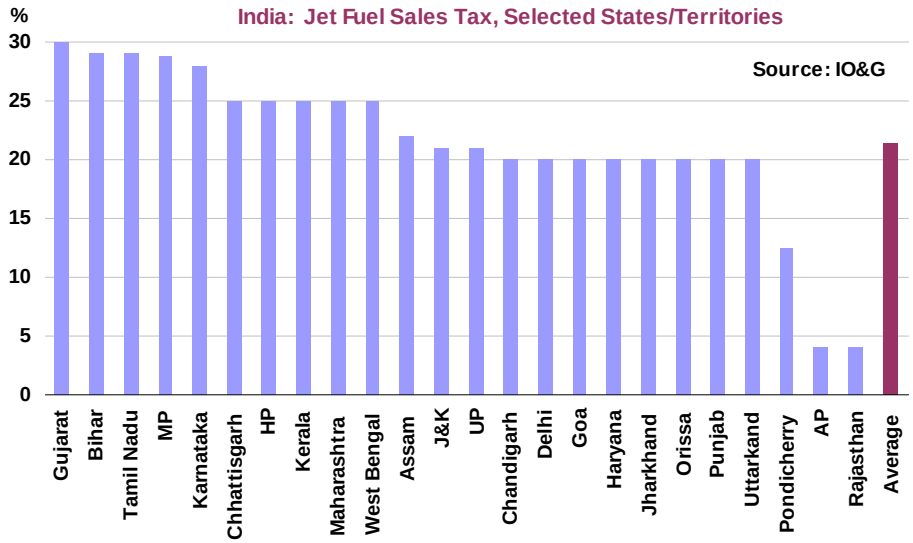
Other Non-OECD

India's oil product sales – a proxy of demand – rose marginally by 0.7% year-on-year in September, according to preliminary data. This relatively subdued growth was mostly due to a sharp fall in the demand for naphtha (-20.8%) and residual fuel oil (-5.0%) given reported greater natural gas availability to utilities, fertiliser producers and steel plants, as well as single-digit increases in gasoil sales (+4.7%). In September, the government increased the allocation of gas from Reliance Industries' Krishna Godvari (KG) D-6 field, off India's East Coast, to 50 million cubic metres per day, from 40 mcm/d before. However, naphtha figures tend to be revised up, sometimes sharply (+75 kb/d in August). As such, the precise extent of naphtha's structural decline is still unclear. Meanwhile, gasoil demand eased as drought conditions abated (demand had surged over the previous months to fuel power generators and irrigation pumps). Gasoline demand continues to boom (+15.2% year-on-year), as car and two-wheeler sales, supported by holiday promotions and low interest rates, surged by 21% year-on-year in September.





By contrast, jet fuel/kerosene sales (-2.1% in September) have been depressed since mid-2008. The reason is to be found in the distorting impact of high state sales taxes, which average roughly 21% across the country – only two states, Andhra Pradesh and Rajasthan, have recently lowered their sales taxes to 4%, in order to encourage the establishment of local aviation services. Paradoxically, even though pent-up demand for air travel is considerable, most Indian airlines are posting heavy losses by virtue of buying jet fuel from local refiners at import parity prices and then paying state sales taxes on top. Domestic end-user jet fuel prices are thus effectively the most expensive in the world. Air carriers have therefore requested that jet fuel be declared an 'essential commodity', eligible for a maximum tax of 4%. However, for this to occur – or for the rest of the states to lower their tax burden substantially – the federal government would probably need to foot the bill for lost state revenues.

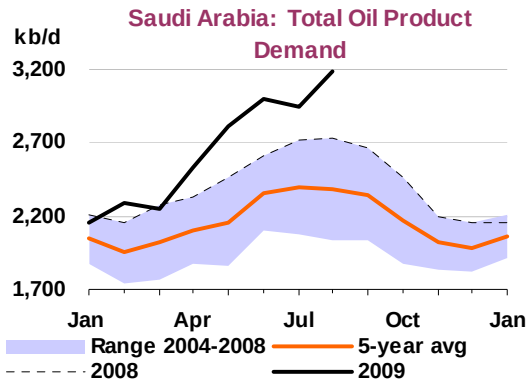


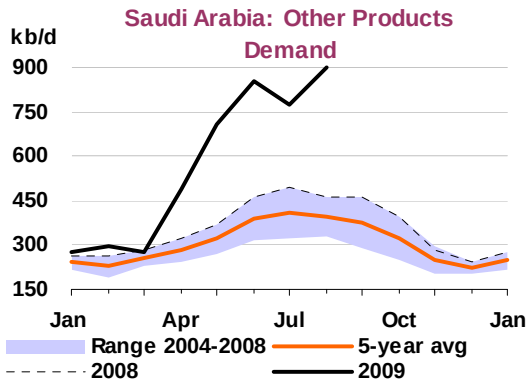
India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	407	420	437	13	17	3.2	4.0
Naphtha	310	321	288	11	-33	3.5	-10.4
Motor Gasoline	265	299	330	34	31	12.8	10.5
Jet & Kerosene	299	295	304	-3	9	-1.1	3.0
Gas/Diesel Oil	1,078	1,145	1,212	67	66	6.3	5.8
Residual Fuel Oil	395	398	402	4	3	1.0	0.8
Other Products	381	386	393	4	8	1.1	2.0
Total Products	**3,134**	**3,264**	**3,365**	**130**	**101**	**4.1**	**3.1**

Oil demand in **Saudi Arabia** jumped by an astonishing 16.4% year-on-year in August, driven by an unprecedented surge in direct crude burning (accounting for about two-thirds of 'other products', which were up by 94.1%). Direct crude, used in power plants, refineries and other facilities related to upstream production, has displaced fuel oil for the past several months (fuel oil demand has fallen by 22% year-on-year on average in every month from March). Moreover, given the constrained call on OPEC crude in 2010, this pattern of strong direct crude burning and falling fuel oil use is likely to continue. As such, we have revised up our forecast of Saudi oil demand for both this year and next. Total demand is now expected to rise by 8.9% year-on-year to 2.6 mb/d in 2009, and by 4.9% to 2.8 mb/d in 2010 (+50 kb/d and +100 kb/d, respectively, compared with our previous assessment).



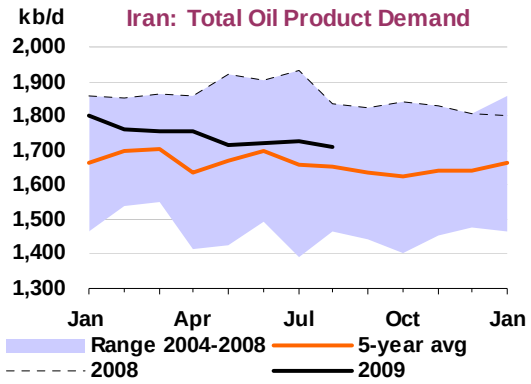


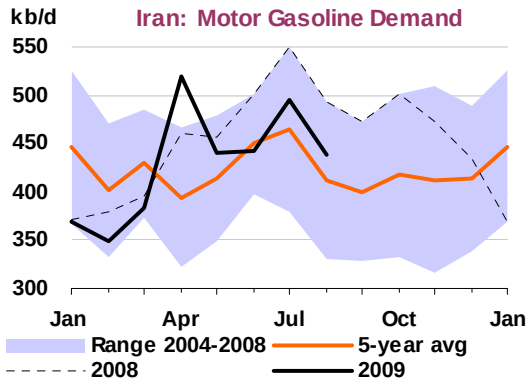
Oil product demand in **Iran** has been subdued for most of this year, contracting by roughly 7% year-on-year on average in every month from January. The slowing economy and political turmoil have arguably played a large role. In addition, fuel smuggling out of the country also distorts demand patterns. The Deputy Economy Minister was quoted saying that some 250 kb/d of gasoline, diesel and kerosene are smuggled out to neighbouring countries, where retail prices are much higher. The trade is so entrenched that smugglers have reportedly even built 'export' pipelines at some border points. Yet Iran currently imports some 40% of its domestic gasoline requirements at great cost – in early October, the government asked the Iranian parliament (Majlis) for an extra $3.8-billion emergency funding to pay for gasoline imports, despite having implemented a rationing scheme since mid-2007.

Saudi Arabia: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	587	635	693	48	58	8.3	9.1
Naphtha	100	94	114	-6	20	-5.5	21.2
Motor Gasoline	373	401	432	28	30	7.4	7.6
Jet & Kerosene	60	57	60	-3	3	-5.8	6.0
Gas/Diesel Oil	579	596	624	17	28	2.9	4.7
Residual Fuel Oil	359	291	269	-68	-21	-18.9	-7.4
Other Products	359	558	568	199	10	55.3	1.9
Total Products	**2,417**	**2,632**	**2,760**	**215**	**129**	**8.9**	**4.9**



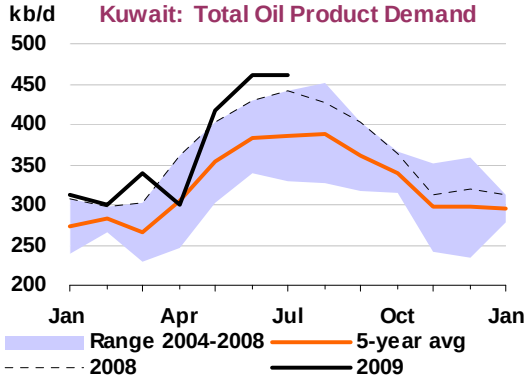


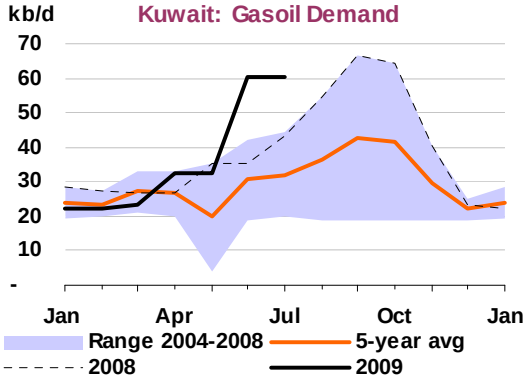
The Iranian government faces a mounting import bill – perhaps as much as $10 billion in 2009 – and the threat of further US sanctions aimed at curbing gasoline exports to Iran given the nuclear standoff (although whether such sanctions would be effective is debatable, given the availability of gasoline supplies in the region). As such, the need to raise domestic prices in order to effectively manage demand and curb smuggling has become compelling. Indeed, a new energy bill passed in early October aims at gradually raising gasoline (and natural gas) prices to close to international levels. By 2013, retail prices should be at least 90% of the import cost. The first incremental increase will be implemented in principle next March (the start of the Iranian fiscal year).

Iran: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	92	85	92	-7	8	-7.9	8.9
Naphtha	42	43	44	1	2	3.2	3.7
Motor Gasoline	457	447	470	-10	23	-2.3	5.2
Jet & Kerosene	154	139	146	-15	7	-9.8	5.1
Gas/Diesel Oil	622	550	573	-72	23	-11.6	4.2
Residual Fuel Oil	410	400	418	-9	18	-2.3	4.5
Other Products	85	99	119	14	20	17.0	19.8
Total Products	**1,861**	**1,762**	**1,862**	**-98**	**100**	**-5.3**	**5.7**

The issue of fuel smuggling is not restricted to Iran. In **Kuwait**, state-owned Kuwait Petroleum Corporation has reportedly launched an internal investigation on a large-scale smuggling operation. Over the past two years, some 15-20 Kuwaiti gate operators allegedly helped ship $2.5 million worth of diesel to Iraq in large tanker trucks driving through the Abdali border crossing. The diesel, which apparently came from KPC's Shuaiba refinery and several service stations in the area, was sold in Iraq at 20 times Kuwait's domestic price, according to local observers. Smuggling may explain the somewhat erratic pattern of Kuwaiti gasoil demand, which surged in 2H08 and then again in recent months (+38.6% year-on-year in July, the last month for which data are available).





SUPPLY

Summary

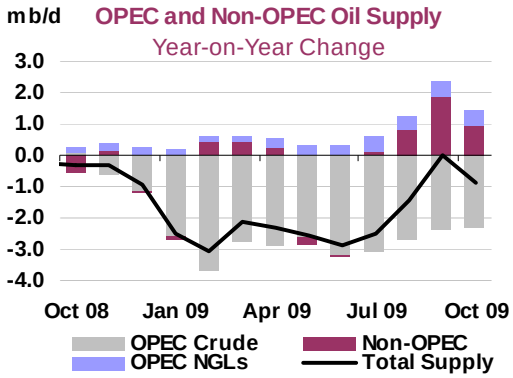
- **Global oil supply in October rose by 635 kb/d to 85.6 mb/d**, with both non-OPEC and OPEC supplies rising month-on-month. Global production is still down 850 kb/d from levels of a year ago, with a steep fall in OPEC supplies partially offset by higher non-OPEC output.

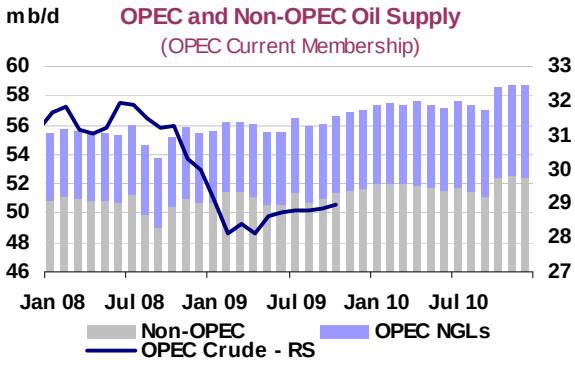
- **Non-OPEC supply rose 380 kb/d in October, to 51.4 mb/d as North Sea maintenance ended.** The absence of any hurricanes in the US Gulf of Mexico *until November* also contributed to higher-than-expected output. A more optimistic outlook in the US GOM, Mexico, Norway, Russia and 'Other Biofuels' contributed to upward revisions of 130 kb/d and 350 kb/d for 2009 and 2010 respectively. Non-OPEC output in 2009 is now forecast to average 51.1 mb/d, rising to 51.9 mb/d in 2010.

- **Tropical Storm Ida made landfall near Mobile in Alabama just before going to press**. The storm had previously slowed from hurricane status and early reports indicate little to no damage. However, as a precautionary measure, 560 kb/d or around 43% of Gulf of Mexico crude output was shut-in by 10 November, according to the US Minerals Management Service (MMS), in addition to 1.957 bcf/d or 28% of regional natural gas production.

- **OPEC crude production rose by 110 kb/d to 29.0 mb/d in October, the highest level since January 2009**. Crude production by the 11 members with output targets rose by 150 kb/d to 26.5 mb/d. OPEC-11 is now producing about 1.6 mb/d over the group's 24.845 mb/d output target. Relative to targeted output cuts, the group's compliance rate slipped to around 61% compared with 64% in September.

- **The call on 'OPEC crude and stock change' for 4Q09 is revised up 200 kb/d, to 28.6 mb/d** on higher forecast demand and lower OPEC NGLs. A slower-than-forecast ramp up in new NGL output in Saudi Arabia is largely behind this month's revision to OPEC NGLs, which were lowered 200 kb/d to 5.0 mb/d for 2009 and by 300 kb/d, to 5.8 mb/d for 2010.





All world oil supply figures for October discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Indonesia and Russia are supported by preliminary October supply data.

Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

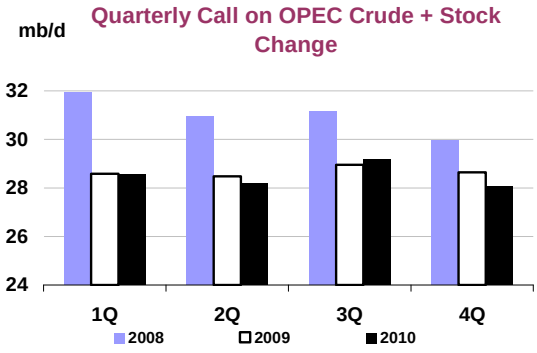
OPEC Crude Oil Supply

OPEC crude production rose by 110 kb/d to 29.0 mb/d in October, its highest level since January 2009. Production by the 12 member countries has steadily edged higher over the year from a low of 28.1 mb/d in February.

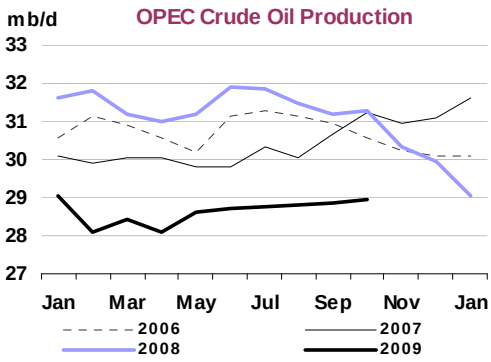
Crude oil production by the 11 members with output targets, which excludes Iraq, rose by 150 kb/d, to 26.5 mb/d in October. Higher production month-on-month was led by Nigeria followed by Angola, Kuwait, Algeria, Qatar and Saudi Arabia. OPEC-11 is now producing about 1.6 mb/d over the group's 24.845 mb/d output target. Relative to targeted output cuts, the group's compliance rate slipped to around 61% compared with 64% in September. OPEC's effective spare capacity is estimated at 5.4 mb/d.

OPEC output could edge higher in the last two months of the year as Nigeria presses ahead with restoring damaged oil infrastructure following the unexpected success so far of the country's amnesty programme for militant groups.

Several OPEC countries, especially in the Gulf, are easing up on volume cuts for some buyers, especially in Asia. While OPEC price hawks talk of the need to reduce output further due to the persistently high level of stocks in the market, there seems to be a quasi-consensus among others that an increase in output targets may be in the offing at the next meeting if prices move significantly above current levels. Saudi Arabia has unofficially branded $70-75/bbl as an ideal target price for the producer group—but markets have moved above this level in late October and early November. OPEC members, especially in the Middle East Gulf, are worried that higher oil prices could threaten the global economic recovery and further strain relationships with consuming nations ahead of climate change talks in Copenhagen. OPEC's next scheduled meeting will take place in Angola on 22 December.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

Saudi Arabia's October output was assessed largely unchanged at 8.2 mb/d following an upward revision to the September estimate. September Saudi output was increased from 8.15 mb/d to 8.19 mb/d following the country's data submission to JODI. Above-target output of some 150 kb/d continues to be burned at domestic power plants despite the end of the peak summer demand cooling season when extra crude burn at power and water desalination plants is needed to meet stronger overall demand. Aramco's decision to substitute Arab Light for crude burn instead of fuel oil looks set to continue given new environmental regulations calling for cleaning burner feedstock *(*see *Is It Always The Darkest in the Hour Just Before Dawn* in the Refining section.).

While Saudi Arabia's above-target output hitherto appears to have been earmarked for domestic use, reports that several customers in Asia will receive full contract volumes for the first time in a year may signal a further easing of output curbs. The higher volumes on offer are for light grades, no doubt reflecting the start-up of new production. The bulk of Saudi export cuts since last September appear to be medium and heavy crudes. Saudi Arabia accounted for almost 50% of OPEC's total cuts in October.

Kuwait and the **UAE** also increased output in October but compliance with their output targets is still above 90%. Kuwaiti production rose 40 kb/d, to 2.3 mb/d while the UAE increased output by about half that amount also, to 2.3 mb/d.

Iran's oil production in October was down by 50 kb/d, to around 3.7 mb/d. Tensions between the global community and Iran over the latter's nuclear enrichment facilities continue but so far the impact on the market has been muted. The US Congress is moving forward with plans to tighten sanctions on Iran, but the new legislation targets companies that sell refined products to Iran-a net importer of roughly 120 kb/d of gasoline. However, sanctions on Iran by the international community via the UN are likely to be blocked by China and Russia.

OPEC Crude Production

(million barrels per day)

	Aug 2009 Supply	Sep 2009 Supply	Oct 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Oct 2009 Supply	OPEC Target Cuts	Percent Compliance with Volume Cuts
Algeria	1.22	1.22	1.24	1.40	0.16	0.200	65%
Angola	1.79	1.86	1.90	2.10	0.19	0.244	0%
Ecuador	0.46	0.46	0.46	0.50	0.04	0.067	57%
Iran	3.80	3.70	3.65	4.00	0.35	0.562	28%
Kuwait[2]	2.24	2.23	2.27	2.65	0.38	0.374	91%
Libya	1.55	1.55	1.55	1.77	0.22	0.252	60%
Nigeria[3]	1.74	1.85	1.90	2.60	0.70	0.319	25%
Qatar	0.76	0.76	0.78	0.90	0.12	0.122	66%
Saudi Arabia[2]	8.20	8.19	8.20	11.60	3.40	1.318	95%
UAE	2.27	2.27	2.29	2.85	0.56	0.379	95%
Venezuela[4]	2.21	2.24	2.24	2.40	0.16	0.364	36%
OPEC-11	**26.24**	**26.33**	**26.48**	**32.77**	**6.28**	**4.201**	**61%**
Iraq	2.56	2.51	2.47	2.60	0.13		
Total OPEC	**28.80**	**28.84**	**28.95**	**35.37**	**6.41**		
(excluding Iraq, Nigeria, Venezuela					*5.42)*		

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 480 kb/d in October.

Iraqi output fell by about 40 kb/d in October, to 2.5 mb/d, largely due to lower output in the northern region. Total exports in October were down by 90 kb/d to just under 1.9 mb/d in October. Domestic crude use at refineries and for power use is estimated at 600 kb/d compared with 550 kb/d last month.

Exports via the southern Basrah terminals were up by a small 30 kb/d in October, at about 1.5 mb/d. By contrast, exports of Kirkuk crude fell by around 110 kb/d to 375 kb/d—the lowest since last November. Exports from the northern fields were disrupted for a week following insurgency attacks on the pipeline running from Kirkuk to the Turkish Ceyhan port on the Mediterranean.

Northern exports via the Kirkuk-Ceyhan pipeline were averaging around 500 kb/d before the start-up of new production from the Tawke and Taq Taq fields in June. The two fields were producing a combined 100 kb/d this past summer but the operators have opted to shut-in production until payment issues over the export volumes are resolved. Iraqi state marketer SOMO handles collection of all oil revenues but refuses to make payments to the companies for this new northern production on the grounds that the contracts signed with the Kurdish Regional Government (KRG) are illegal. The stand-off between the companies and Baghdad is not expected to be resolved until after the country's elections in January and until a new petroleum law is adopted, which is unlikely until mid-2010 at the earliest.

SOMO is apparently still spiking fuel oil into crude exports to maintain higher levels of exports but the quality has improved following the withdrawal of lower quality Tawke and Taq Taq crude from the Kirkuk blend. The 27°API Tawke stream had earlier lowered the quality of the normally lighter 34.5-35° API Kirkuk export grade.

Angolan output was up by 40 kb/d, to 1.9 mb/d in October as output from the start-up of the new Tombua Landana and Mafumeira Norte fields continued to slowly ramp up. Both fields are not expected to reach their peak capacity until sometime in 2011, to 100 kb/d and 35 kb/d respectively.

In October, **Nigerian** production rose to its highest level this year following new peace agreements between rebel groups and the government. Output rose 50 kb/d, to 1.9 mb/d in October. As a result, Nigeria's compliance with the country's targeted cuts slipped to just 25% in October from around 40% in September.

After dropping to the lowest levels in more than two decades this summer, Nigerian production may steadily increase following the success of the government's amnesty programme for militants. The ceasefire has already enabled IOCs to pick up the pace on repair work to damaged oil infrastructure.

Operating companies have been unable to assess the damage to operations in recent years given persistent attacks in the sprawling Niger Delta region. Plans are being developed now by companies to do a survey of the infrastructure but any significant increase in production is not expected to start until next year. The country's largest operator, Royal Dutch Shell, has said it has restored around 100 kb/d of shut-in production in recent months and has plans on the drawing board to start work repairing the rebel-damaged Trans-Escravos, Trans-Ramos and Trans-Forcados pipelines. Shell said around 800 kb/d remains offline.

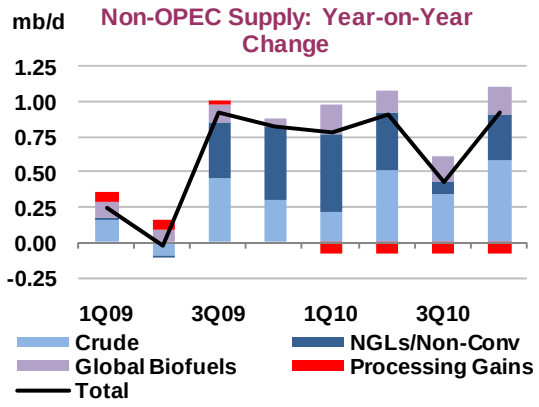
OPEC NGLs

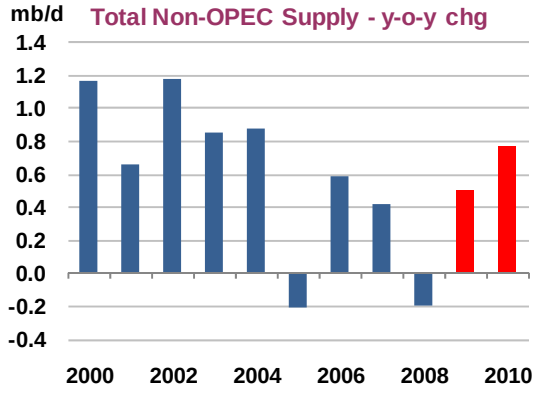
OPEC NGLs were revised down by 200 kb/d, to 5.0 mb/d for 2009 and by 300 kb/d, to 5.8 mb/d for 2010. A slower-than-forecast ramp up in new NGL output in Saudi Arabia is largely behind this month's revision to OPEC NGLs.

Partial start-up of Saudi Aramco's long-delayed gas processing plant at Khursaniyah is expected sometime this month but initial volumes are expected to be modest. The gas plant project has been delayed for more than year after the Khursaniyah oil field started production. The facility will have the capacity to produce 560 million cf/d of gas and 280 kb/d of NGLs and ethane. Pre-commissioning of Train 1 is expected this month but Trains 2 and 3 are not slated for start-up until the end of 1Q10.

Non-OPEC Overview

Total non-OPEC supply rose by 380 kb/d in October, to 51.4 mb/d, as seasonal North Sea maintenance, which had been heavier than usual this year, came to an end. The absence of any hurricane-related shut-in volumes in the US Gulf of Mexico *until November* also contributed to higher-than-forecast production, though at the time of writing, Tropical Storm Ida had caused precautionary crude production shut-ins of around 560 kb/d.





More generally, higher-than-anticipated September production in Norway, Mexico, Russian NGLs, Kazakhstan, Brazil and 'Other Biofuels' led to upward revisions to forecast. Total 2009 production is now forecast to average 51.1 mb/d and is set to rise to 51.9 mb/d in 2010, following respective upward revisions of 130 kb/d and 350 kb/d.

Minimal Impact of Tropical Storm Ida on US Gulf of Mexico Upstream Operations

Just before going to press, Tropical Storm Ida made landfall near Mobile in Alabama. The storm had previously slowed from hurricane status and early reports indicated nothing like as devastating an impact as Hurricanes Gustav & Ike in the late summer of 2008. Ultimately, Ida veered to the east, thereby avoiding much of the offshore oil production areas.

Nonetheless, the US Minerals Management Service (MMS) reported that as a precautionary measure around 560 kb/d of oil production capacity had been shut in on 10 November, representing around 43% of total US GOM output. In addition, 1.957 bcf/d of natural gas production was shut in, around 28% of regional capacity.

A comprehensive assessment of the storm's impact is expected now the storm has passed. But it is worth stressing two points. Firstly, that global spare upstream capacity is high, as are stock levels. Secondly, initial reports indicate no damage and some companies are already in the process of restarting production. A rough calculation shows that even assuming the currently shut-in volumes are only fully back online within a week, that would only amount to around 80 kb/d being shaved off monthly US production. This is less than the 180 kb/d we had previously estimated as likely to be shut-in, simply based on the five-year average.

Much of this incremental volume is set to come onstream towards the end of 2010, such as phased expansions at Azerbaijan's ACG complex and incremental volumes of Canadian conventional crude, Kazakhstan and offshore Brazil, where the Tupi and Parque das Conchas fields, among others, will be ramping up production. However, over 50% of this 1 mb/d increase in total non-OPEC supply from 3Q10 to 4Q10 is due to output returning from seasonal maintenance – typically heaviest in the third quarter in many parts of the world, such as the North Sea, but also assumed for Canadian crude and Kazakhstan. In the latter, due to the Tengiz field's size and complexity, maintenance can shut-in production anywhere between 20-30% for a period in the third quarter. This year's seasonal dip was actually partly masked due to some incremental capacity coming online around the same time.

Non-OPEC Supply

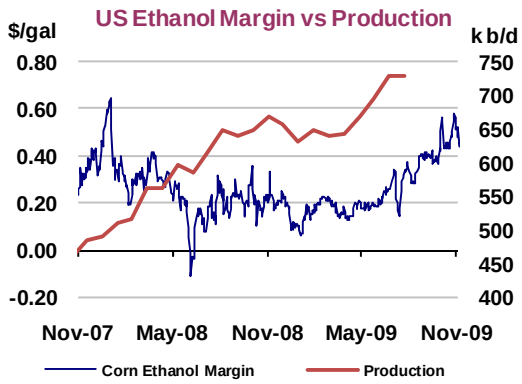
(million barrels per day)

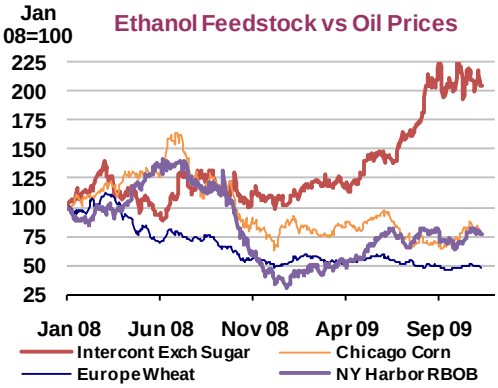
	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
North America	14.2	14.0	13.6	13.8	13.9	14.2	13.9	14.1	14.2	14.1	14.4	14.1	13.9	14.3	14.2
Europe	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.2	4.3	4.5	4.3	4.0	3.9	4.1	4.1
Pacific	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Total OECD	**19.7**	**19.5**	**18.8**	**19.3**	**19.3**	**19.7**	**19.0**	**19.0**	**19.2**	**19.2**	**19.4**	**18.9**	**18.6**	**19.2**	**19.0**
Former USSR	12.8	12.9	12.7	12.7	12.8	12.9	13.1	13.2	13.4	13.2	13.5	13.7	13.5	13.7	13.6
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.8	4.0	3.8	4.0	4.0	4.1	4.1	4.1
Other Asia	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.6	3.7	3.6	3.7	3.7	3.8	3.8	3.7
Latin America	4.1	4.1	4.2	4.2	4.1	4.3	4.3	4.3	4.4	4.3	4.5	4.6	4.7	4.8	4.6
Middle East	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total Non-OECD	**28.7**	**28.7**	**28.6**	**28.7**	**28.7**	**28.9**	**29.2**	**29.3**	**29.6**	**29.2**	**30.0**	**30.2**	**30.2**	**30.6**	**30.2**
Processing Gains	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Total Non-OPEC	**51.0**	**50.8**	**50.1**	**50.7**	**50.6**	**51.2**	**50.8**	**51.0**	**51.5**	**51.1**	**52.0**	**51.7**	**51.5**	**52.5**	**51.9**
Annual Chg (mb/d)	-0.2	-0.1	-0.3	-0.2	-0.2	0.3	0.0	0.9	0.8	0.5	0.8	0.9	0.4	0.9	0.8
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.3	0.3	0.3	0.5	0.4

Biofuels Update

Global biofuels production was revised down slightly for 2009 and 2010, by 5 kb/d and 10 kb/d, to 1.6 mb/d and 1.7 mb/d, respectively. (Note, these production figures are *volumetric,* whereas in the recently published IEA *World Energy Outlook,* biofuels volumes are reported on an *energy equivalent basis* to fossil fuels). However, minimal changes to the headline number mask more significant underlying revisions to the US, Europe and Brazil. US ethanol producers continued to benefit from favourable corn and natural gas prices, which have translated into steadily improving margins. August production data

from the EIA put US ethanol production at 727 kb/d, largely unchanged from July. This output level suggests capacity utilisation rates around 93%, much improved from the 80-85% utilisation rates seen during most of 1H09. We have revised up our 2H09 production expectations by 10 kb/d and our overall 2009 production to 685 kb/d, in line with the US government's mandated usage volume while keeping 2010 relatively unchanged at 770 kb/d.



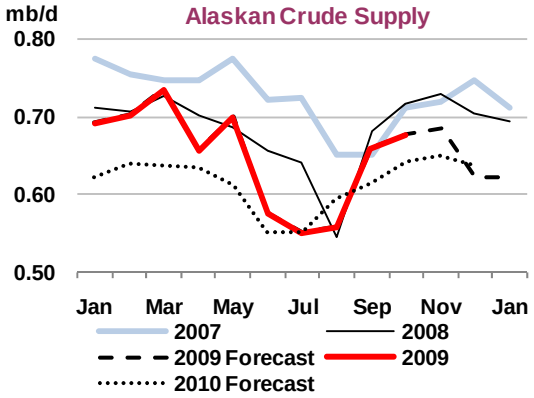


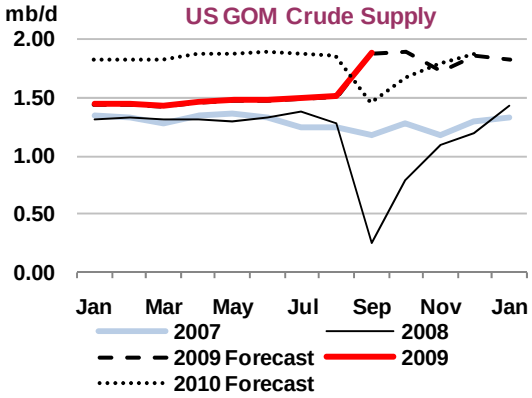
European ethanol production, which falls under the 'Other Biofuels' category (i.e. all biofuels excepting US and Brazilian ethanol, which are included in those countries' totals) in our balance, has also benefitted from stronger margins. Favourable wheat feedstock prices have lifted monthly output and have prompted an upward revision of 10 kb/d to 2H09 production and 15 kb/d to 2010 production. By contrast, short-term Brazilian ethanol production expectations continue to recede. Production is revised down by 25 kb/d for 2009 to 480 kb/d as rains have hampered the harvest in the Centre-South region and high sugar prices have encouraged sugar production at the expense of ethanol. Rising domestic ethanol prices may also start curtailing ethanol demand as the price discount to gasoline is eroded in some areas. Slower domestic consumption, tight sugar markets and reduced expectations for new mills have also lowered 2010 production by 45 kb/d, to 510 kb/d.

OECD

North America

US – October Alaska actual, others estimated: Total US oil production in October rose marginally to 8.1 mb/d as output in the US Gulf of Mexico (GOM) grew and Alaskan production returned from summer maintenance. In the latter, production at Cook Inlet rose to more normal output levels, following several months of shut-ins due to volcano activity in the plant's vicinity. In the US GOM, once again the absence of any hurricane-affected shut-ins in October led to an upward revision. Typically, the hurricane season ends on 30 November, although in early November, Tropical Storm Ida prompted some production shut-ins (see *Minimal Impact of Tropical Storm Ida on US Gulf of Mexico Upstream Operations*). Lastly, some revised historical data for natural gas liquids (NGL) prompted a small lift in the baseline. Total US oil production is revised up by 60 kb/d in 2009 and is now expected to average 8.0 mb/d. 2010 was revised up by 50 kb/d to 8.2 mb/d, with anticipated strong growth in the US GOM.



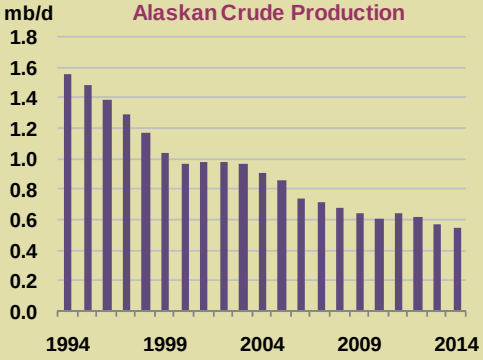


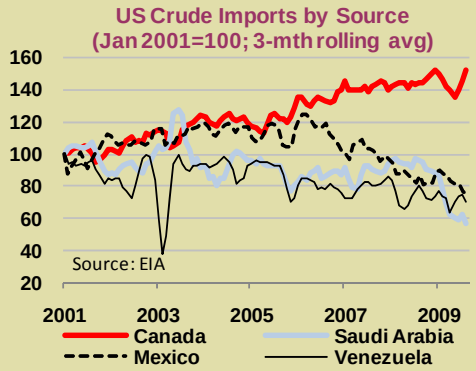
Going to California: Shrinking PADD 5 Output Redirects Crude Flows

This summer saw crude volumes through the *Trans-Alaska Pipeline System* (TAPS) fall to a record low below 600 kb/d, leading to worries about its economic and technical sustainability. The pipeline, which takes output from the giant Prudhoe Bay oil field on Alaska's North Slope to the Valdez export terminal in the south of the state, used to pump as much as 2 mb/d at its peak 20 years ago. Besides economics, the fear is that even lower volumes could lead to more frequent and damaging outages – a major issue for oil companies lacking alternative export routes.

Alaskan authorities are mulling technical solutions – fewer pumping stations is one suggestion. But another answer would lie in increasing Alaskan output. September data put North Slope crude production at 650 kb/d and falling – output was over 1 mb/d in 1999 and at around 2 mb/d ten years earlier.

But long-standing hopes to produce more crude in northern Alaska depend on changes to legislation. Three large areas in Alaska lie unexplored and undeveloped – the *National Petroleum Reserve in Alaska* (NPR-A), reserved for the US Navy's use since 1923, the *Arctic National Wildlife Refuge* (ANWR) and federal waters offshore the north coast. All have been surveyed to some extent, generating estimates of billions of barrels of recoverable crude. Another boost for the pipeline could be natural gas liquids (NGL) from new gas fields being developed – e.g. Exxon's Point Thompson, though this will likely only start producing in 2014, and overall NGL volumes are unlikely to compensate for declining crude output.



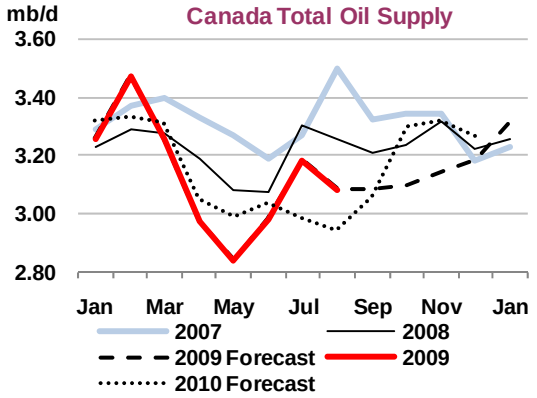


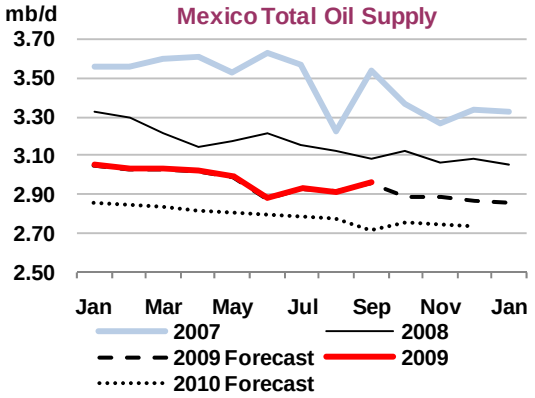
The previous federal administration chose to loosen restrictions on the development of Alaskan Arctic waters, as well as the *Outer Continental Shelf* (OCS) – both long out of bounds for oil producers due to environmental concerns. In principle the Obama administration favours opening up these areas – the US Department of the Interior estimates that around 85 billion barrels of oil and 12 trillion cubic metres of gas are yet to be discovered there – but the debate on this issue is highly polarised. For instance, a US court recently cancelled, on environmental grounds, some licences for blocks offshore Alaska which had been awarded under the Bush administration.

Lower Alaskan crude output has implications beyond state boundaries. Californian refiners, which have long relied on Alaskan crude to top up declining local output, are having to search further afield. Crude from Latin American producers used to flow north to the Golden State. But competition from East Asia, notably China, is drawing some of this output across the Pacific. One change in oil flows to result from this is the reversal of the Panama Canal pipeline. Originally built to accommodate Alaskan crude heading to the US Gulf of Mexico refining cluster, it was recently converted to bring Atlantic Basin or even more remote crude to the Pacific, including California. First shipments of Colombian crude were pumped in August.

A likely option in the face of declining Alaskan production will be to hike crude imports from Canada. This northern neighbour has overtaken competitors Saudi Arabia and Mexico in recent years to become the US's largest source of crude oil, benefiting on proximity and energy security grounds as production has increased. US Midwestern refineries have long taken heavy sour Canadian crude, and pipelines to bring the crude all the way to the US Gulf are under construction. From 2010, Enbridge's Alberta Clipper pipeline, which will run 1,600 km from Hardisty, Alberta to Superior, Wisconsin, will add 450 kb/d of Canadian crude, later to be expanded to 800 kb/d. With some other changes to the US pipeline network, these barrels will eventually be able to flow south to the US Gulf Coast. Freight and refining economics permitting, some of these may even make it to California.

Canada – Newfoundland – September actual, others August actual: August oil production in Canada was unchanged at 3.1 mb/d, but was adjusted down for September (-70 kb/d) on lower-than-expected output at the Terra Nova and White Rose fields offshore Newfoundland. Synthetic crude producer Suncor reported a fire at one of its upgraders in mid-October, cutting an assumed 50 kb/d of average monthly output. Total Canadian output is forecast to average 3.1 mb/d in 2009, growing to 3.2 mb/d in 2010.





Mexico – September actual: In September, oil production in Mexico rose by 50 kb/d to 3.0 mb/d, as decline at the large Cantarell field slowed, at least temporarily, averaging 575 kb/d, and output at the Ku-Maloob-Zaap (KMZ) complex jumped by 50 kb/d to a new record high of 825 kb/d. Production was also higher than forecast due to the absence of any hurricane impact. Storms did close some export terminals on the Gulf of Mexico coast in late October and early November, a common occurrence, but no shut-in production volumes were reported.

In early October, the recently-formed *National Hydrocarbons Commission* recommended a full review of development plans at the large onshore Chicontepec field, leading to speculation that production might be halted. Pemex statements have since affirmed that operations will continue, but it does appear likely that a full review of costs, service contracts and overall strategy at Chicontepec will take place. Criticism focuses on the fact that, despite large investments, production at Chicontepec still only hovers around 30 kb/d, despite Pemex staking its hopes on Chicontepec's growth offsetting the sharp decline in Cantarell's output. This report cautiously assumes only a marginal increase in Chicontepec output in 2010. Meanwhile, better September performance elsewhere has led to an upward revision of 15 kb/d and 30 kb/d for 2009 and 2010 respectively. However, production is nonetheless forecast to decline from 3.0 mb/d this year to 2.8 mb/d in 2010, weighed down by Cantarell's decline.

North Sea

Norway – August actual, September provisional: Total Norwegian oil supply dipped in August and September month-on-month, but was expected to rise again in October, as maintenance ends. Production was however more robust than forecast in August and September, leading to an overall upward revision of 35 kb/d and 50 kb/d for 2009 and 2010 respectively. Average output is expected at 2.3 mb/d in 2009 and 2.1 mb/d in 2010.

Oil field maintenance took place at the Vigdis, Snorre and Snoehvit fields amongst others, the last of which came back onstream in October just to be halted again briefly due to technical problems. On the other hand, there was a boost in output at the Varg field in August (and now confirmed for July too), as the Rev tie-back ramps up production. Meanwhile, problems at the Valhall group of fields continue. With a combined output of around 50 kb/d as recently as the beginning of the year, July and August saw production come to a nearly total halt.

Looking ahead, the Norwegian government announced that total capital expenditure in the oil industry, including exploration, will be just under $24 billion in 2009, up 7% from 2008, though much of the higher investment is expected to be offset by higher costs. On average, forecast costs at ten monitored projects have risen by 23% over projections made in 2005-07. Regarding the capex spent on exploration, much is focused on exploration in mature production areas, where development of even relatively small projects can be profitable by tying them back to existing infrastructure. Meanwhile, the government hopes to publish a white paper on its petroleum policy next year, including plans for the environmentally sensitive Lofoten and Vesteralen archipelagos, where a drilling moratorium until 2013 was recently announced.

Pacific

Australia – August actual: Australian production was steady in August at 555 kb/d, though this and previous months were revised down marginally. An oil spill at the Montara development had been underway since mid-August. On 1 November, an attempt to halt the leak caused a fire on a platform and on a drilling rig. This is expected to have set back the start-up of the 40 kb/d Montara complex by around one year until 3Q10. Offsetting this, the start-up of production at the Pyrenees field was brought forward to 1Q10 from later next year, with the Van Gogh field now also expected to see first production volumes in 2010. Total Australian oil production is forecast to average 550 kb/d in 2009 and to rise sharply to 660 kb/d as the above-mentioned fields start up.

Former Soviet Union (FSU)

Russia – September actual, October provisional: September crude production was adjusted up by 40 kb/d on higher output at the Sakhalin projects. However, in October, crude oil production in Russia fell for the first time since May, to 9.8 mb/d. Partly disaggregated data continue to support the case that the main reason for recent growth was a group of new fields including the vast Vankor project, where output rose by 20 kb/d each month in September and October and is currently producing at around 170 kb/d. On the NGL front, assumed Gazprom condensate production in October was also 25 kb/d higher than previously forecast. In addition, an ongoing reappraisal of NGL output from the processing of associated gas, which is not included in the Russian Energy Ministry's reported crude oil and condensate production figures, has led to an upward revision of the total NGL baseline figure by 40 kb/d for 2010. Total Russian oil production is forecast to average 10.1 mb/d in 2009, only marginally higher than in last month's report, while forecast 2010 output is raised by 60 kb/d to 10.3 mb/d.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2007	2008	3Q2008	4Q2008	1Q2009	2Q2009	Jul 09	Aug 09	Sep 09	Latest month vs. Aug 09	Latest month vs. Sep 08
Crude											
Black Sea	2.18	2.05	1.97	2.04	2.30	2.23	2.06	2.07	2.19	0.12	0.33
Baltic	1.59	1.46	1.40	1.47	1.57	1.66	1.55	1.67	1.61	-0.06	0.14
Arctic/FarEast	0.32	0.30	0.29	0.37	0.46	0.45	0.44	0.47	0.54	0.07	0.24
BTC	0.55	0.67	0.64	0.57	0.74	0.80	0.87	0.81	0.79	-0.02	0.07
Crude Seaborne	**4.63**	**4.48**	**4.30**	**4.45**	**5.07**	**5.14**	**4.91**	**5.01**	**5.13**	**0.12**	**0.79**
Druzhba Pipeline	1.13	1.08	1.03	1.09	1.14	1.12	1.06	1.07	1.13	0.06	0.08
Other Routes	0.44	0.42	0.46	0.40	0.40	0.40	0.37	0.46	0.38	-0.08	-0.12
Total Crude Exports	**6.20**	**5.98**	**5.79**	**5.94**	**6.61**	**6.66**	**6.35**	**6.54**	**6.64**	**0.10**	**0.75**
Of Which: Transneft	4.27	3.99	3.87	3.96	4.22	4.27	3.95	4.15	4.24	0.09	0.35
Products											
Fuel oil	1.10	1.09	1.04	1.04	0.96	1.16	1.23	1.10	1.16	0.07	0.18
Gasoil	0.95	0.94	0.79	0.92	1.10	0.95	1.08	0.95	0.88	-0.07	0.14
Other Products	0.60	0.59	0.55	0.56	0.73	0.79	0.69	0.63	0.57	-0.06	0.05
Total Product	**2.65**	**2.63**	**2.38**	**2.52**	**2.78**	**2.89**	**3.00**	**2.67**	**2.61**	**-0.06**	**0.37**
Total Exports	**8.85**	**8.61**	**8.17**	**8.46**	**9.39**	**9.55**	**9.35**	**9.21**	**9.25**	**0.04**	**1.12**
Imports	0.04	0.04	0.05	0.03	0.04	0.05	0.04	0.04	0.04	0.00	-0.03
Net Exports	**8.82**	**8.57**	**8.12**	**8.43**	**9.35**	**9.50**	**9.31**	**9.17**	**9.22**	**0.04**	**1.15**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

September FSU net exports rose 1.2 mb/d year-on-year, as Varandey and Sakhalin shipments boosted Arctic and Far East exports, while more Caspian crude left Black Sea ports compared with last year when shipments dropped sharply due to problems at Azerbaijan's ACG field complex. Month-on-month, FSU net oil exports reached 9.2 mb/d, up 0.5% from August. Product flows contracted by 2.2% as some Russian refineries carried out maintenance of secondary units. A rise in fuel oil volumes partially offset the drop of gasoil and other product deliveries. In Ukraine, bad weather caused a power cut that halted flows via the southern leg of the Druzhba, but only for one day. A 60 kb/d drop in loadings from the Baltic port of Primorsk reflected maintenance carried out on the Ukhta-Yaroslavl pipeline. BTC volumes fell to 790 kb/d on maintenance at the ACG complex in Azerbaijan.

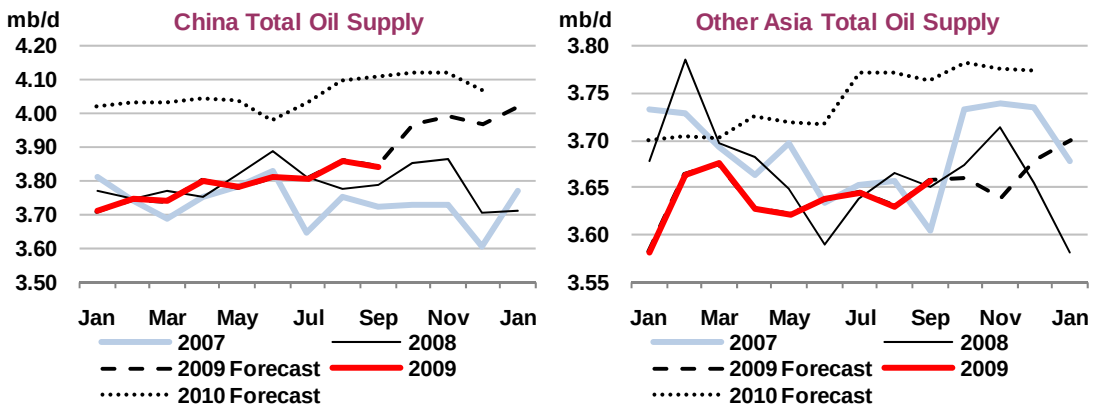
Crude oil export volumes from Odessa were curtailed in September and ceased completely in October. The port is currently used for *imports* of crude oil loaded in Tuapse and Ceyhan to feed the Kremenchug refinery in central Ukraine (see *Squeezing Central Europe?* in report dated 9 October 2009). But preliminary data show that exports from neighbouring Pivdenne port rocketed to almost 250 kb/d in October. The Brody-Odessa line supplying the port with crude oil reached its maximum capacity, also carrying Kazakh crude redirected from Novorossiysk due to maintenance at the pipeline servicing the latter. October also saw Kazakh volumes replace Russian crude exported to China via the Atasu-Alashankou line, after all three sections of the Kazakhstan-China oil pipeline were connected.

Russian loading schedules for November revealed shipments are set to fall from all ports except Novorossiysk. The crude oil export duty is set at $231.2/mt ($31.5/bbl) from 1 November, down 3.9% from October's $240.7/mt ($32.8/bbl). Light and heavy oil products carry an export tax of $168.1/mt and $90.5/mt, respectively.

Other Non-OPEC

China – September actual: September oil production in China was around 120 kb/d lower than forecast, at 3.8 mb/d, and dipped slightly from August. Notably, offshore production was around 40 kb/d lower than anticipated, while output at China's largest field, Daqing, came in around 20 kb/d below forecast. On the other hand, Xinjiang production was reported 30 kb/d higher than expected. In early October, the typhoon-hit Huizhou field came back onstream, while in early November, the 11 kb/d Luda 27-2 platform started production in Bohai Bay.

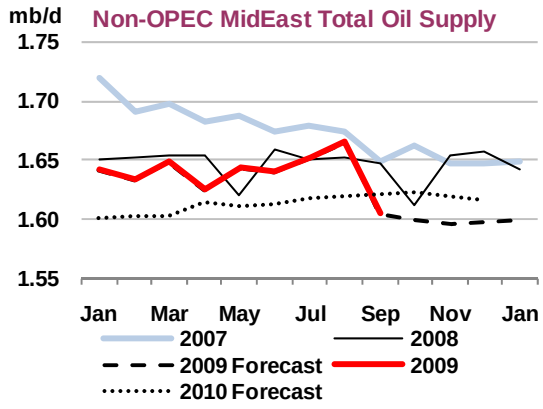
Meanwhile, state oil company CNPC started building a port on Myanmar's east coast, from which a crude oil pipeline will ultimately run to southwestern China, thereby bypassing the congested (and pirate-ridden) Malacca Straits between Malaysia and Indonesia. This is another step in China's ongoing efforts to diversify its crude imports, adding to the Kazakhstan-China crude pipeline and the soon-to-be-completed Eastern Siberia-Pacific Ocean (ESPO) pipeline from Russia. Total Chinese domestic oil production is forecast to average 3.8 mb/d in 2009 and to steadily rise to 4.1 mb/d in 2010.

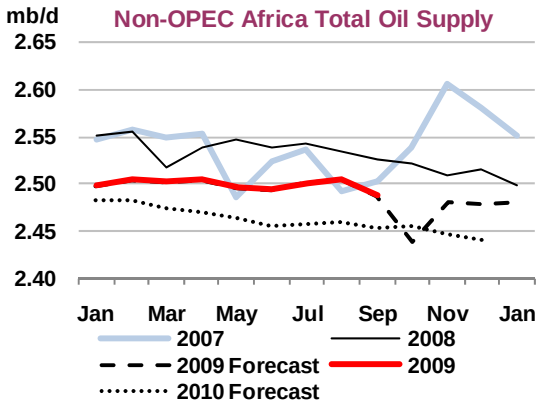


Other Asia: In **India**, August production was around 13 kb/d higher than forecast, at just under 790 kb/d, on stronger condensate output. This has largely been carried through the forecast. In **Indonesia**, despite government pressure on operator ExxonMobil to hike output, production at the troubled Cepu field was apparently still only around 16 kb/d in early November. Export limitations appear to be the bottleneck, rather than production *per se*, and it seems likely that state oil company Pertamina will offer to take additional volumes. In **Malaysia**, September production was around 13 kb/d higher than our forecast. In the **Philippines**, the offshore Galoc field once again experienced difficulties, this time due to a faulty hose. Output was shut-in in early November for a week. In **Vietnam**, news reports indicated production at the Su Tu Vang field was halted in early November due to a water breakthrough, cutting around 30 kb/d for an undetermined period of time. **Total Other Asian oil production** is forecast at 3.6 mb/d in 2009, rising to 3.7 mb/d in 2010. Around 75 kb/d of that growth is due to the new Mangala field complex in Rajasthan in India.

Brazil – August actual: Brazilian crude production in August was reported around 65 kb/d higher than forecast and once again rose to a new record at over 1.9 mb/d. Part of this was offset by lower fuel ethanol production (see *Biofuels Update*), with a lower ethanol outlook also for 2010. On the crude side, the Urugua/Tambau field start-up has been brought forward to 2Q10, ultimately to add 35 kb/d. On the other hand, the projected ramp-up of output at the Tupi pilot field has been slipped to 3Q10. Currently, production is constrained at 20 kb/d, but should start to rise towards 100 kb/d late next year. Total Brazilian liquids production is now forecast to average 2.5 mb/d in 2009 and to rise to 2.7 mb/d in 2010.

Oman – August actual: In Oman, there are indications that enhanced oil recovery (EOR) projects are beginning to have an impact on oil production in mature fields. As a result, 2009 and 2010 output forecasts have been revised up 10 kb/d and 20 kb/d respectively, now to reach 800 kb/d this year and rise to 840 kb/d in 2010.



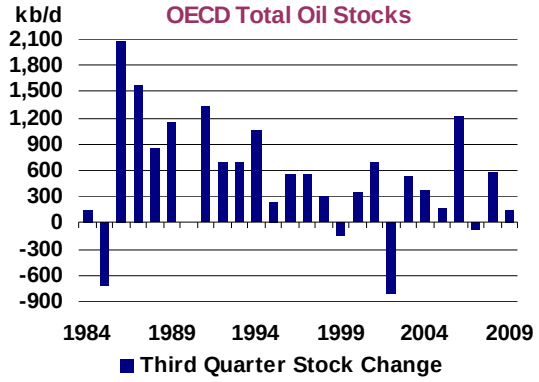


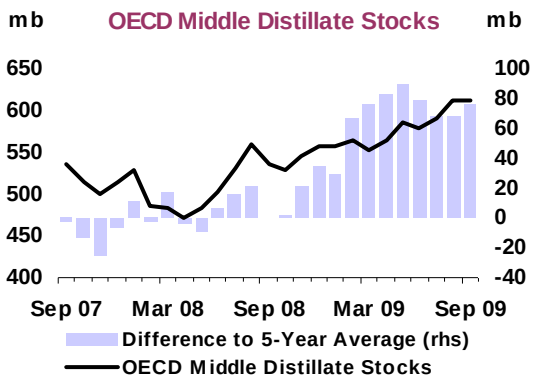
Non-OPEC Africa: In **Sudan**, the oil minister admitted that 2009 oil production had disappointed so far. Despite an ambitious plan to increase production to 600 kb/d, actual output has not even averaged 500 kb/d. According to the minister, delays by contractors and large volumes of water in the key Nile and Dar Blend crude streams are ongoing problems affecting production. On this basis, 2009 production is revised down 10 kb/d, to average 470 kb/d, while 2010 production is now assumed flat year-on-year, a downward adjustment of 30 kb/d. In **Tunisia**, the offshore Hasdrubal gas field started production in November, and is expected to add around 15 kb/d of condensate when it reaches peak capacity early next year. This led to an upward adjustment in total output, now set to reach 120 kb/d in 2009 and 140 kb/d in 2010.

OECD STOCKS

Summary

- **OECD industry stocks rose by 1.6 mb in September,** to 2,774 mb. The rise was in line with the five-year average build of 2.0 mb. Gasoline stocks increased more than normal, particularly in North America. Middle distillate stocks remained largely unchanged, as a European draw offset a North American build. Crude stocks declined almost 10 mb, driven by a fall in Pacific holdings.
- **In 3Q09, total OECD industry stocks increased by 150 kb/d,** less than the 10-year average build of 280 kb/d and the five-year average build of 450 kb/d. Crude stocks drew faster than normal, falling 370 kb/d versus the 10-year average draw of 290 kb/d and the five-year average draw of 270 kb/d.
- **OECD stocks in days of forward demand fell to 60.0 days as of end-September,** down from 60.9 days at end-August. Days cover fell sharpest in the Pacific, particularly in the crude category. Both Pacific crude and products trended along the top of the five-year range while days cover in North America and Europe for both categories remained above the five-year range.
- **Preliminary data indicate OECD industry stocks fell counter-seasonally by 28.9 mb in October,** driven by a 28.8 mb products decline. Roughly 40% of the products draw came in middle distillates, driven by the US and Europe. Crude stocks drew 0.1 mb, as US and Japanese draws offset a European build.
- **Short-term *crude* floating storage levels at end-October hovered near 60 mb,** relatively unchanged from an upwardly revised end-September number. Short-term products floating storage continued to rise, to over 80 mb at end-October from 75 mb at end-September, with most of the build occurring in the Asia-Pacific. Some market estimates put products floating storage almost as high as 100 mb.





OECD Stock Position at End-September and Revised Preliminary Data

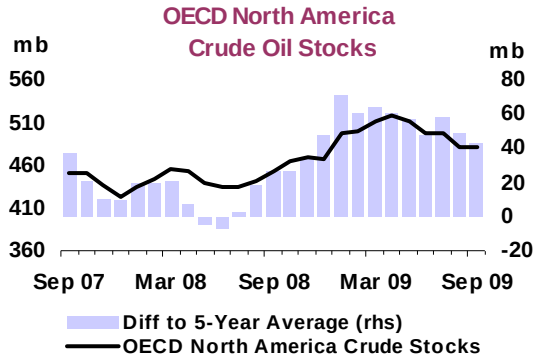
The OECD industry stock position did not significantly change in September and at month-end stood at 2,774 mb. Total oil inventories increased 1.6 mb, in line with the five-year average build of 2.0 mb. The OECD total oil surplus to the five-year average remained essentially flat versus August at 120 mb. Yet, an

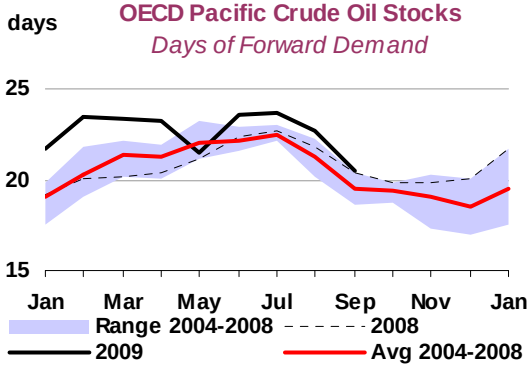
Preliminary Industry Stock Change in September 2009 and Third Quarter 2009

	September (preliminary) *(million barrels)*				*(million barrels per day)*				Third Quarter 2009 *(million barrels per day)*			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**-1.4**	**-1.3**	**-7.1**	**-9.8**	**-0.05**	**-0.04**	**-0.24**	**-0.33**	**-0.18**	**-0.06**	**-0.13**	**-0.37**
Gasoline	7.7	1.8	1.0	10.4	0.26	0.06	0.03	0.35	-0.01	0.00	-0.01	-0.02
Middle Distillates	7.2	-9.0	1.7	-0.1	0.24	-0.30	0.06	0.00	0.16	0.10	0.12	0.37
Residual Fuel Oil	1.4	-0.9	-0.4	0.0	0.05	-0.03	-0.01	0.00	-0.02	-0.10	0.03	-0.09
Other Products	-1.4	1.0	0.1	-0.3	-0.05	0.03	0.00	-0.01	0.06	0.05	0.09	0.21
Total Products	**14.8**	**-7.1**	**2.3**	**10.0**	**0.49**	**-0.24**	**0.08**	**0.33**	**0.19**	**0.05**	**0.22**	**0.47**
Other Oils[1]	-1.8	0.8	2.4	1.3	-0.06	0.03	0.08	0.04	0.00	0.03	0.02	0.06
Total Oil	**11.6**	**-7.6**	**-2.4**	**1.6**	**0.39**	**-0.25**	**-0.08**	**0.05**	**0.01**	**0.03**	**0.12**	**0.15**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

upward revision to August OECD stocks indicates that the five-year surplus for that month stood 23.2 mb higher than indicated in last month's report. Almost one-third of the August upward revision came in middle distillates. With September middle distillate stocks essentially unchanged versus the previous month, the OECD surplus to the five-year average in that category grew to 76 mb.





The OECD crude surplus narrowed, to 39 mb, on the back of a larger than average September crude draw. Yet, almost all of this surplus remains in North America, where crude stocks were little changed. By contrast, Pacific crude stocks have run a consistent deficit to the five-year average and have come down to the five-year range in days of forward cover despite expectations of weak refinery runs ahead.

Revisions versus 09 October 2009 Oil Market Report
(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Jul 09	Aug 09	Jul 09	Aug 09	Jul 09	Aug 09	Jul 09	Aug 09
Crude Oil	**2.5**	**-5.6**	**3.8**	**4.0**	**0.4**	**2.2**	**6.7**	**0.7**
Gasoline	0.0	3.1	0.4	-1.1	0.0	0.3	0.5	2.3
Middle Distillates	0.0	2.0	-0.3	5.4	0.2	0.0	0.0	7.5
Residual Fuel Oil	0.0	-2.0	-1.1	0.9	0.0	0.3	-1.1	-0.7
Other Products	0.3	5.1	0.1	3.2	-0.1	-0.6	0.4	7.7
Total Products	**0.3**	**8.3**	**-0.8**	**8.5**	**0.2**	**0.0**	**-0.3**	**16.8**
Other Oils[1]	-0.6	4.2	0.0	1.1	0.0	0.5	-0.6	5.7
Total Oil	**2.2**	**6.8**	**3.0**	**13.6**	**0.6**	**2.8**	**5.8**	**23.2**

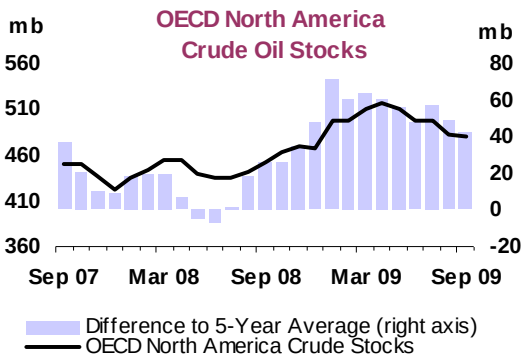
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

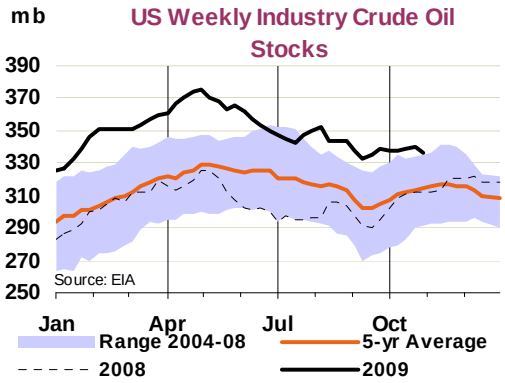
Indeed, tightening days cover in the Pacific helped OECD total oil demand cover fall to 60 days for the first time since early 2009. Of course, this lower days-cover stems from expectations of higher three-month forward demand rather than drawing inventories. While part of this demand strength arises from an anticipated improvement in 4Q09 economic conditions, it also relies upon seasonal winter weather patterns. A large October OECD stockdraw of 28.9 mb (around 40% from middle distillates), based on preliminary data, suggests OECD forward cover could fall below 60 days over the next month. Still, with continued builds in products floating storage, a warmer-than-normal winter in the OECD or weaker-than-expected economic growth, OECD days of forward could equally remain inflated in the months ahead.

Analysis of Recent OECD Industry Stock Changes

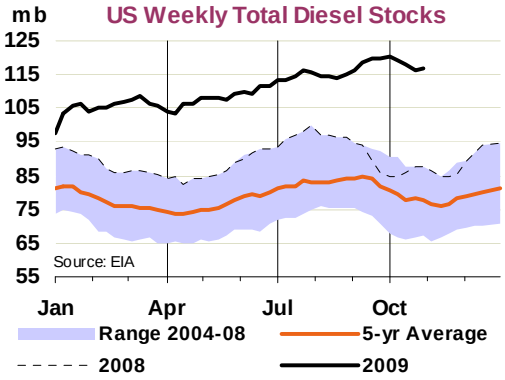
OECD North America

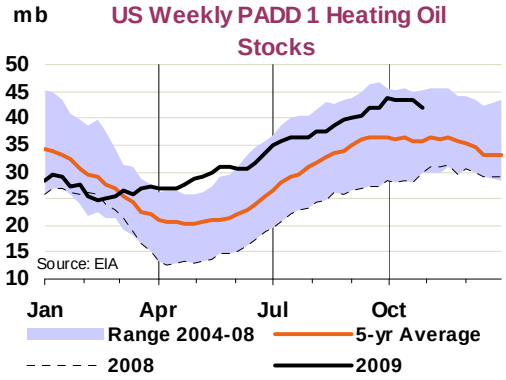
North American industry stocks rose 11.6 mb in September, led by gains in US gasoline and middle distillates of 7.7 mb and 7.2 mb, respectively. US commercial crude stocks declined slightly by 2.5 mb while US government crude holdings increased by 1.0 mb. Mexican crude inventories increased by 1.1 mb, driving most of the Mexico's 1.2 mb total oil build. The North American crude surplus to the five-year average remained high, at 42.5 mb, though this is down from 57.4 mb in July.





Preliminary data through 30 October point to an 18.9 mb drop in US stocks in October, when stocks more typically remain static. US crude stocks drew 1.8 mb as lower imports balanced lower refinery runs. Historically low imports may persist in forthcoming weekly reporting with the temporary closure of the Louisiana Offshore Oil Port (LOOP) due to Tropical Storm Ida. The Strategic Petroleum Reserve (SPR) levels remained unchanged in October while, 1 mb of filling is expected for November and 0.5 mb is expected for December. Crude stocks at Cushing, Oklahoma remained relatively unchanged at 25.5 mb.

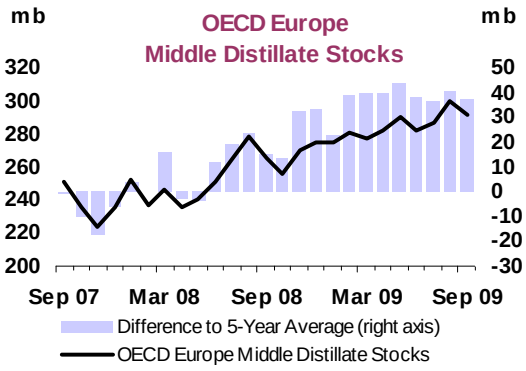


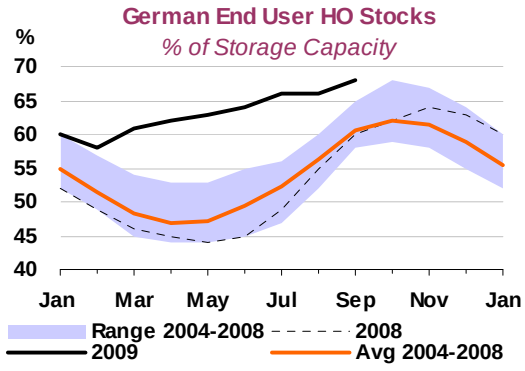


US product stocks fell by 17.1 mb in October driven by decreases in gasoline stocks (-5.3 mb), distillate stocks (-4.2 mb) and 'other oils' (-5.1 mb). In distillate, about three-quarters of the draw came from diesel, marking the first monthly draw of that category since March of this year. Still, more of the surplus in distillate continued to lie on the diesel side as heating oil stocks for the US as a whole trended only along the five-year average. Yet, on the US East Coast, heating oil inventories remained healthier in the top half of the five-year range, despite drawing slightly in October.

OECD Europe

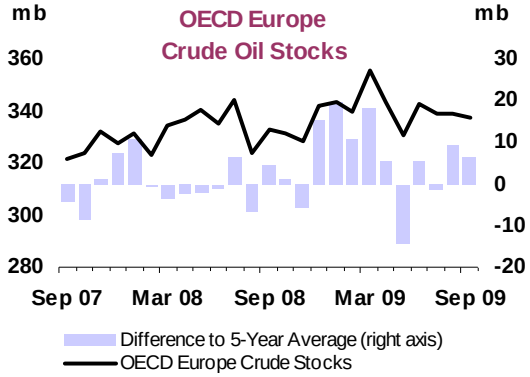
European inventories fell by 7.6 mb in September, as middle distillates decreased 9.0 mb. The middle distillate draw was larger than the five-year average draw of 5.6 mb, but *effectively* was weaker than the headline number suggested. September products floating storage – mostly middle distillates – off

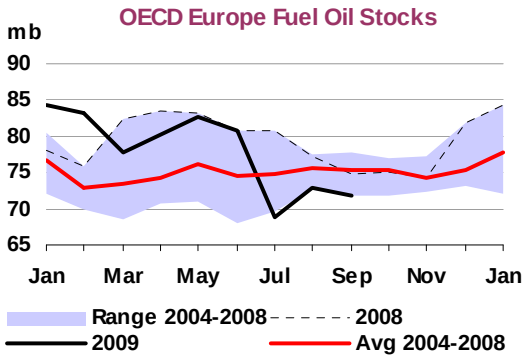




Northwest Europe and the Mediterranean increased by over 8 mb, implying a more static overall stock change when including offshore stocks. Moreover, German consumer heating oil stocks continued to increase, moving from 66% capacity fill to 68% at month-end, suggesting that some of the draw in primary stocks merely went to buoy consumer inventories. The OECD Europe middle distillate stock surplus to the five-year average remained high at 37.4 mb, relative to its 2009 peak of 43.3 mb in May.

European crude stocks remained above the five-year average but within the five-year range. Gasoline and residual fuel oil remained relatively steady on the month but both categories are trending at the bottom of the five-year range.

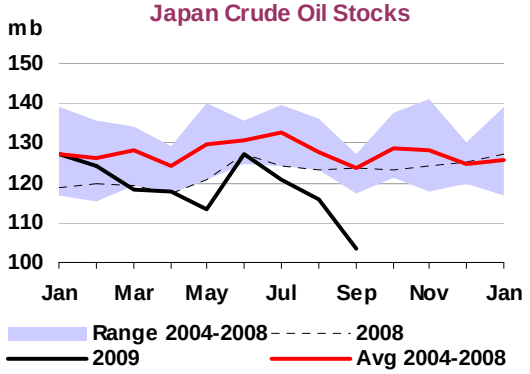


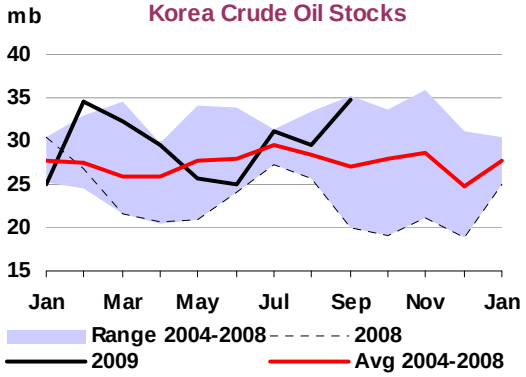


October preliminary data point to further product draws, particularly in middle distillates. Gasoil stocks held in NW Europe independent storage fell by over 2 mb, though they remained well above the five-year range. Jet fuel/kerosene and naphtha posted draws on the month and the latter category fell to five-year lows. Products floating storage off Northwest Europe and in the Mediterranean fell by about 3 mb. Moreover, EU-16 preliminary stock data from Euroilstock showed middle distillate stocks decreasing 6.8 mb in October. Other EU-16 categories showed smaller changes with gasoline decreasing 1.5 mb and crude stocks building 2.3 mb.

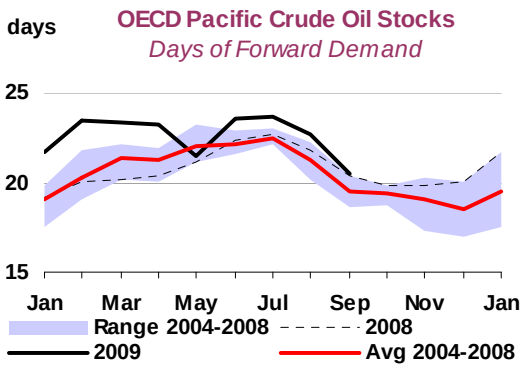
OECD Pacific

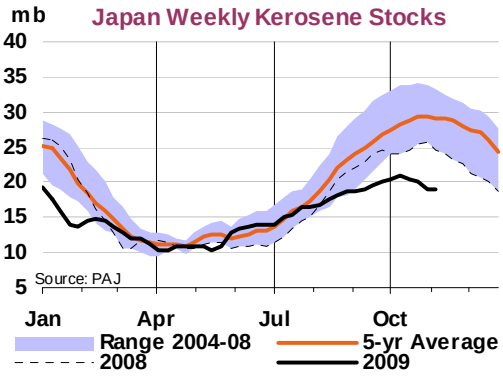
Pacific industry stocks fell by 2.4 mb in September, driven by a 7.1 mb decline in crude. Japanese crude inventories fell by 12.3 mb to below the five-year range and to 20 mb under the five-year average. Japanese crude stocks have drawn almost 24 mb since June despite historically low crude runs. Korean crude stocks, by contrast, have risen almost 10 mb since June and ended September at the top of the five-year range. On a days cover basis, the Korean crude stocks are also at the top of the five-year range, while the Japanese inventories are only at five-year average levels.





Product inventories rose 2.3 mb on gains in gasoline and distillate of 1.0 mb and 1.7 mb, respectively. Residual fuel oil stocks fell by 0.4 mb. On a days cover basis, gasoline, distillates and fuel oil trended at the top or above the five-year range, while the 'other products' category remained near the bottom of the five-year range.

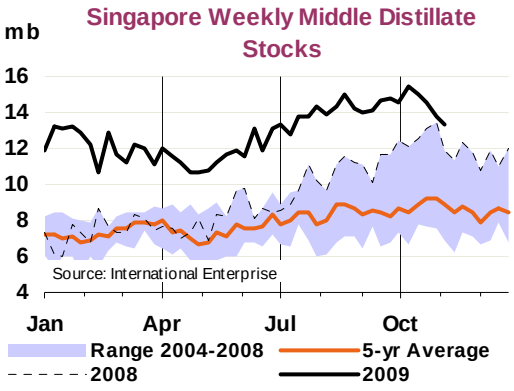


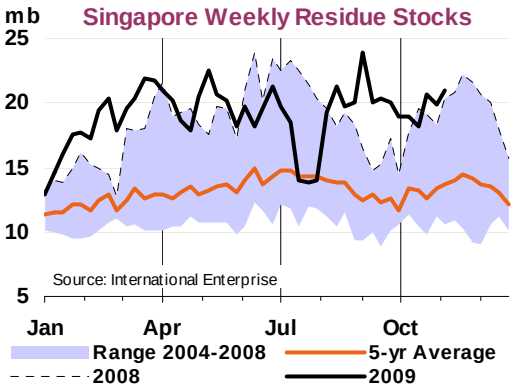


Weekly data from the Petroleum Association of Japan (PAJ) point to a commercial stockdraw of 4.2 mb in October, with crude falling by 0.7 mb and products decreasing by 3.5 mb. Crude stocks continued to trend under the five-year range as correspondingly low refinery utilisation has dampened the need to hold higher inventories. Kerosene stocks drew counter-seasonally by 1.3 mb, when they usually rise by 2.0 mb, and fell further below the five-year range. However, with jet fuel/kerosene demand expected to fall by 11.1% y-o-y from October-March and heating usage in structural decline, lower stock levels may not signal a tightening of regional kerosene markets. In other product categories, residual fuel oil drew by 2.3 mb while gasoil, jet fuel and gasoline all built slightly or remained unchanged.

Recent Developments in Singapore and China Stocks

Singapore product stocks declined slightly in October by 0.2 mb. A rise in fuel oil stocks of 1.33 mb only partially offset a fall in middle distillates of 1.0 mb and a decrease in light distillates of 0.6 mb. All inventory categories remained at historical highs near or above the five-year range. However, middle distillate stocks have drawn down to near 2008 levels for the first time this year.



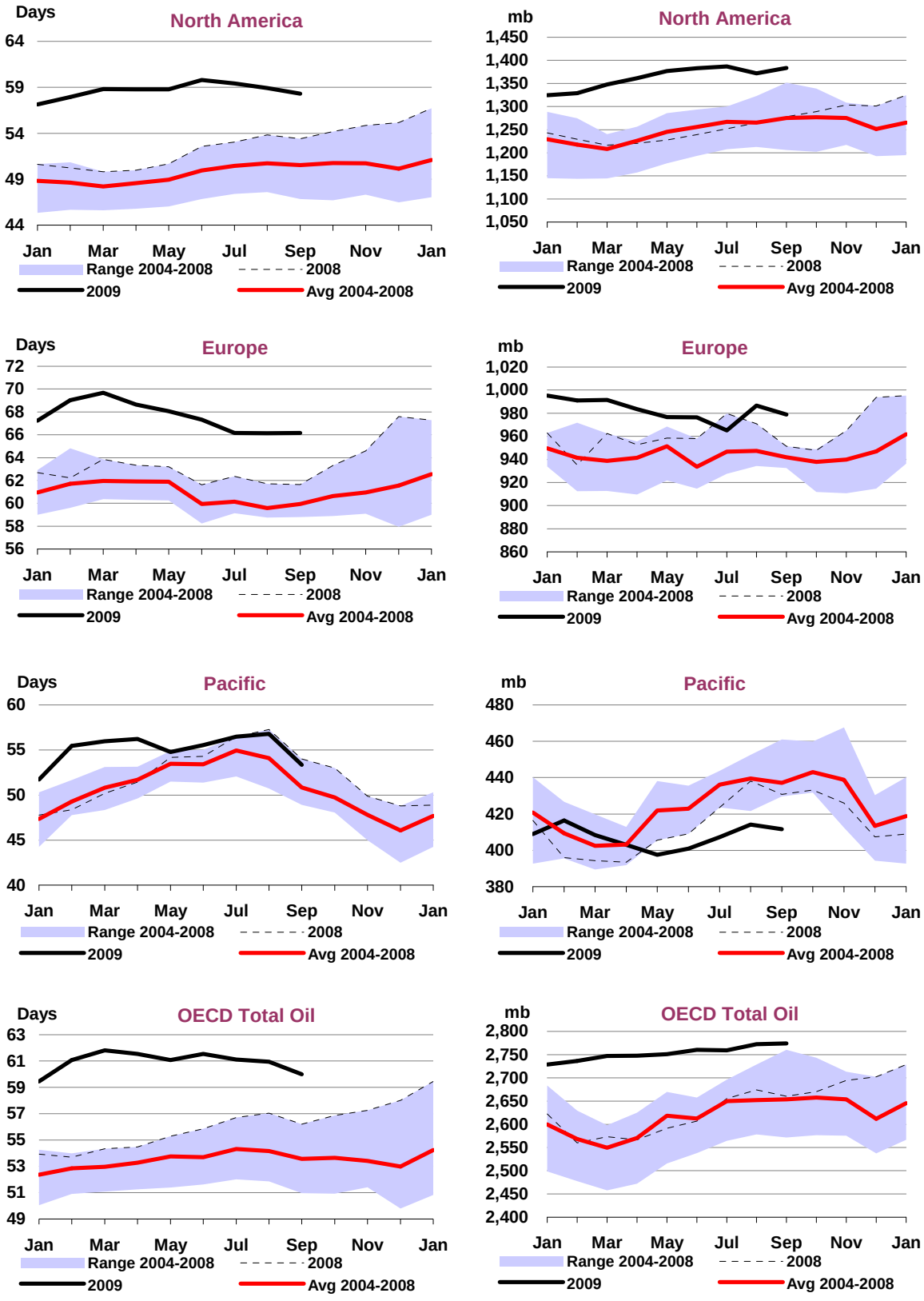


China Oil Gas and Petrochemicals (OGP) announced a cessation of monthly reporting of crude, gasoline and gasoil inventories. As such, for the time being, we will not include these figures in the *OMR*. We will reinstate coverage if and when the data are made available again in the future.

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and millions barrels of total oil)

Days[1] **Million Barrels**

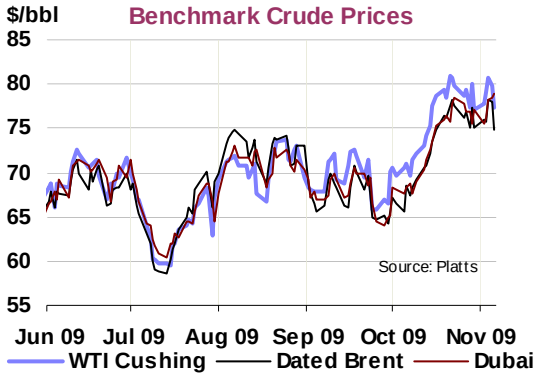


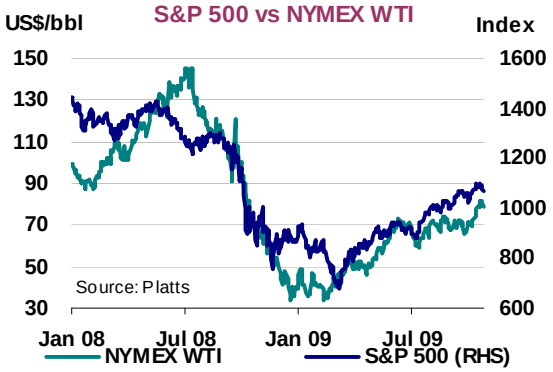
1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Crude oil prices rose to their highest levels in more than a year in October,** with WTI and Brent futures up by an average of around $6/bbl for the month, to $75.82/bbl and $73.93/bbl, respectively. Growing expectations for fledgling economic recovery continued to exert upward pressure on markets. WTI briefly traded at over $81/bbl before settling in a $75-80/bbl range by early November.
- **US West Texas Intermediate's (WTI) reign as a global oil price benchmark looks increasingly precarious** after Saudi Aramco announced in late October that is was replacing the volatile marker as the basis for pricing its sales to the US with a US Gulf Coast sour crude index that is more akin to its own crude quality, starting in January 2010.
- **Higher refined product prices were supported by fledgling oil demand growth in key markets** in October but ample distillate stocks both onshore and held in floating storage may temper further increases. Refined products held in floating storage rose to over 80 mb at end-October from 75 mb at end-September, with most of the build occurring in the Asia-Pacific. Other market estimates put products floating storage as high as 100 mb. Even a colder-than-normal winter demand season may only make a dent in the massive inventory overhang.
- **Refining margins were generally lower in October,** with cracking margins in Europe and the US Gulf Coast the exception thanks to relatively stronger spot gasoline prices. Hydroskimming margins deteriorated further in October, especially in Asia, and remained heavily negative.





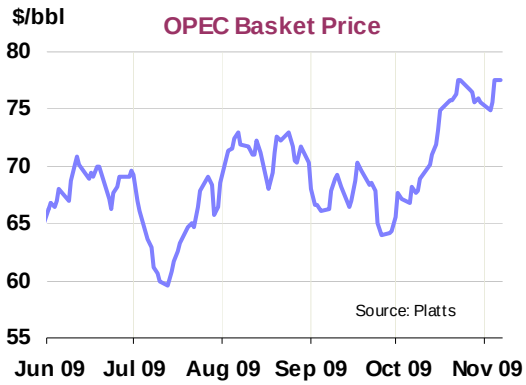
Market Overview

Crude oil prices rose to their highest levels in more than a year in October, breaching the $65-75/bbl trading range seen over the past three months and settling in a $75-80/bbl range late in the month and into early November. Financial markets continued to exert upward pressure and growing expectations for a significant resurgence in oil demand next year lifted prices, at times, to over $80/bbl.

Futures prices for benchmark crudes WTI and Brent rose on average by around $6/bbl in October, to $75.82/bbl and $73.93/bbl, respectively. Prices took a hit again in early November after the US Labor Department reported that the unemployment rate rose to a 26-year high, fuelling fears of a protracted economic recovery. However, the downturn proved fleeting with prices quickly rebounding on the late season arrival of Tropical Storm Ida in the Gulf of Mexico. Prices jumped more than $2/bbl on 9 November as operators shut-in oil and gas fields in the path of the storm. The US Gulf Coast is home to roughly 25% of US oil production, 15% of natural gas output and 40% of the country's refining capacity. But prices ebbed marginally lower as Ida gradually weakened. Most recently futures prices were up by $3-4/bbl over October levels, with WTI last trading around $79 and Brent at $78/bbl.

Bullish economic data underpinned the rise in oil prices through much of October. GDP data showing that the US economy grew at an annualised rate of 3.5% in the third quarter pushed WTI over $80/bbl and sparked a rise in equity markets to their best one-day percentage gain in three months in October. At first glance, the data were hailed as marking the end of recession in the US. On closer examination it appears much of the recovery was driven by one-off measures such as the 'cash-for-clunkers' car purchasing programme, and a temporary homebuyer tax credit, among other stimulus measures. As a result, 'real' growth may be more moderate than initially perceived.

That said, the nascent recovery in oil demand in some pivotal markets appears to be underpinning stronger oil prices. Preliminary US oil demand data suggest a substantial 1.7 mb/d month-on-month increase in October. China's economic engine is also gathering steam judging by latest apparent demand estimates. This month's OMR sees China's year-on-year oil demand up by 15% in September, or more than double the previous estimate.



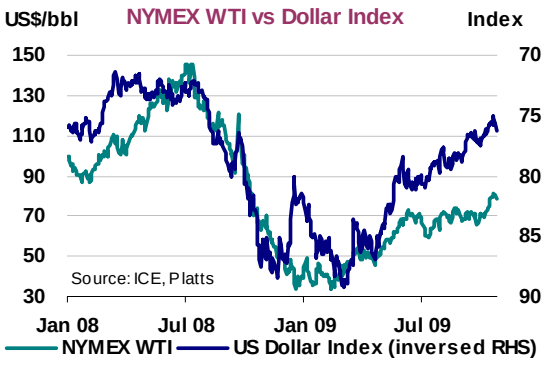
Global oil demand is now forecast to rise by 1.3 mb/d, to 86.2 mb/d in 2010. However, the much-anticipated resurgence in oil demand is being tempered by a historically large overhang of refined products stocks held in floating storage, estimated at 80 mb at end October. Even a colder-than-normal winter demand season may only make a dent in the massive inventory overhang.

The steady rise in both OPEC and non-OPEC production is also weighing on markets. Non-OPEC output was revised up in October while OPEC output rose for the sixth month running. OPEC production could continue its upward trend as some Gulf countries have indicated they are easing contractual cuts for November and December. In addition, the success of the Nigerian government's amnesty programme for rebel groups holds the potential that the country's oil production will rise in coming months.

The steep jump in monthly oil prices of 93% for WTI and 68% for Brent since February's low has likely encouraged slippage from output targets and some countries may even quietly add more supplies to the market in a bid to calm down prices. A small contingent of OPEC members is reportedly worried that oil prices above $80/bbl could threaten the global economic recovery and trigger another round of demand destruction.

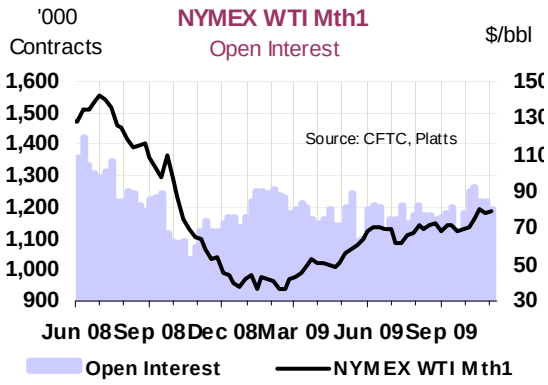
Futures Markets

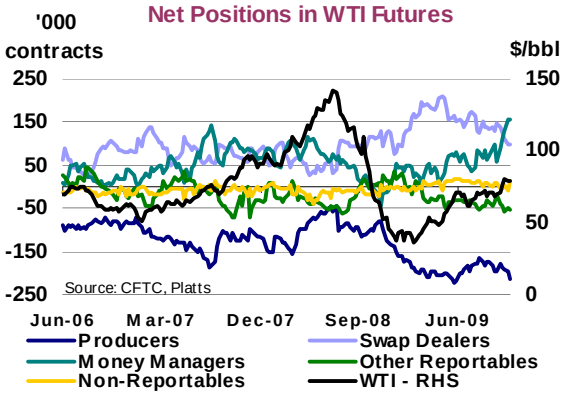
Prompt month oil prices closely tracked the exceptional gains in global equity markets in October. The Dow Jones hit a 13-month high on 9 November. The G-20 decision's to continue stimulus measures and the US Federal Reserve's announcement that it would hold interest rates at current rock-bottom levels helped push the US dollar to a 15-month low against a basket of major currencies. As a result, market reports suggest investors continue to shift funds into commodity markets as a hedge against inflation.



To what extent investment funds influence prices, however, is still no clearer after the US Commodities Futures Trading Commission (CFTC) published the much-anticipated three-year historical data series for the disaggregated version of its Commitments of Traders report on 20 October (for more details see *CFTC Unveils New Disaggregated Report* in report dated 9 October 2009*).*

While the time series sheds some light on the breakout of players, it falls short of expectations by some that the new reporting format may prove a correlation, or even causality, between the positions of money managers or swap dealers and price movements. For example, when prices were at $140/bbl, swap dealers held 39,000 net long contracts and money managers were net long of 61,000 lots. When prices hovered at below $40/bbl levels, the swap dealers held 160,000 net long positions and money managers were exposed to 31,000 net longs.



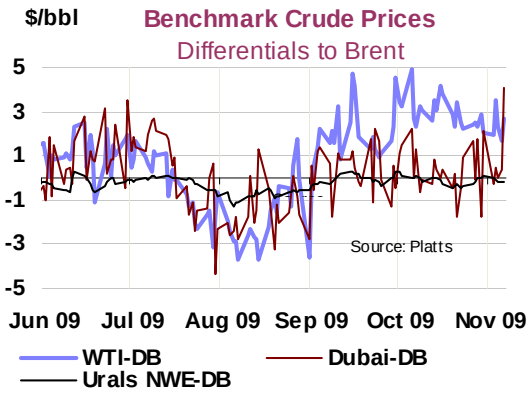


The historical time series does offer some interesting details. The new disaggregated data show that producers usually hold net short positions, while swap dealers have net long exposure in NYMEX WTI futures. Money managers are generally net long with the exception of a brief period from 21 October 2008 to beginning of December 2008. During this time money managers held net short positions and the price of WTI plunged from $69/bbl to $45/bbl. Interestingly, in the past few weeks the money managers more than doubled their net long positions. A similar situation occurred during July 2007 when money managers almost doubled their net long positions while crude price rose $7/bbl. In summary, it appears that financial flows can occasionally, and in the short term, augment price volatility but a persistent price-driving role remains difficult to establish.

Spot Crude Oil Markets

Spot crude prices rose across all major regions in October, with prices for benchmark grades up on average by $5-6/bbl. But reduced refinery runs and weak margins in the US and Europe saw spot prices edge lower later in the month.

In Asia, Chinese crude buying remained brisk as refiners ramped up throughput rates to record levels. Reduced volumes of medium and heavy sour grades from OPEC served to prop up Dubai prices. Prices for heavier Dubai crude versus Brent moved to a premium of 40 cents/bbl in October compared with 25 cents/bbl in September and a discount of around $1.50/bbl in August.



Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Aug	Sep	Oct	Oct-Sep Avg Change	%	Week Commencing: 05 Oct	12 Oct	19 Oct	26 Oct	02 Nov
Crudes										
Dated Brent	72.83	67.39	72.75	5.37	8.0	67.78	72.33	77.18	76.08	76.55
Brent (Asia) Mth1 adjusted	72.75	67.74	73.19	5.45	8.0	68.37	72.81	77.05	76.50	77.45
WTI (Cushing) Mth1 adjusted	71.05	69.41	75.73	6.32	9.1	71.03	75.75	79.87	78.50	78.98
Urals (Mediterranean)	72.25	67.09	72.67	5.59	8.3	67.77	72.32	76.91	76.00	76.39
Dubai Mth1 adjusted	71.34	67.64	73.15	5.51	8.1	68.31	72.59	76.87	76.81	77.49
Tapis (Dated)	76.42	69.76	75.42	5.66	8.1	70.17	75.12	79.46	79.20	79.61
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	-1.78	2.02	2.98	0.95		3.24	3.43	2.69	2.42	2.43
Urals (Mediterranean)	-0.58	-0.30	-0.08	0.22		-0.01	-0.01	-0.27	-0.08	-0.17
Dubai Mth1 adjusted - Dated Brent	-1.49	0.26	0.40	0.14		0.53	0.27	-0.31	0.73	0.94
Tapis (Dated)	3.59	2.37	2.67	0.30		2.39	2.79	2.29	3.13	3.05
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-0.33	-0.79	-0.72	0.07		-0.80	-0.67	-0.70	-0.70	-0.77
Forward WTI Cushing Mth1-Mth2 adj.	-1.39	-0.40	-0.44	-0.04		-0.31	-0.48	-0.37	-0.61	-0.66

Source: Platts

WTI – For Which The Bell Tolls?

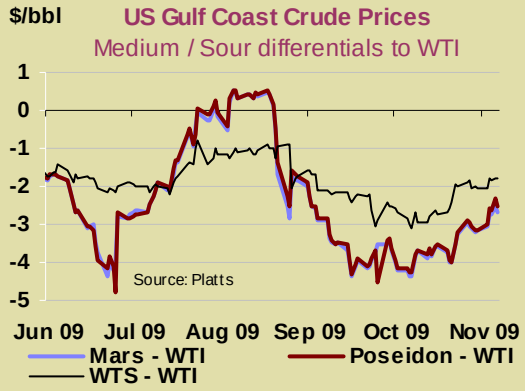
The reign of US West Texas Intermediate (WTI) as the pre-eminent crude price benchmark looks increasingly precarious after Saudi Aramco announced in late October that is was replacing the volatile light sweet crude oil as the basis for pricing its sales to the US. Instead, Saudi Aramco will use a sour crude index that is more representative of its own crude grades starting in January 2010.

Saudi Aramco said its decision to use the recently launched Argus Sour Crude Index (ASCI), (based on Mars, Poseidon and Southern Green Canyon crudes from the US Gulf Coast) was due to wild volatility and regional distortions in WTI prices. Saudi Arabia's exports to the United States are mostly medium-sour crudes. Aramco previously used WTI prices published by Platts as its price market, which are closely linked with the NYMEX light sweet futures contracts.

The change in contract pricing comes at a time when Saudi sales to the US have dropped to the lowest level in more than 20 years. US imports of Saudi crude fell to 745 kb/d in August compared with a year to date average of around 1 mb/d, and 1.5 mb/d in 2008, though part of the drop reflects reduced demand by refiners in the wake of the economic crisis. Saudi Arabia's switch away from WTI is expected to trigger a similar shift by other sellers of medium, sour crudes. Roughly 5.0 mb/d of US imports are pegged to WTI prices.

Arguably US WTI has been the most important price benchmark for several decades but its fall from grace was long in the making. WTI largely gained its stature after the New York Mercantile Exchange (NYMEX) started using it in 1983 as the basis for its light, sweet crude contract. Inherent logistical flaws given the contracts delivery point at the landlocked Cushing, Oklahoma frequently led to a disconnect from international markets (see *WTI Benchmark: Past Imperfect, Future Tense*, in report dated 11 February 2009.

For all its flaws, WTI still has an important role to play since spot prices will continue to be linked to the NYMEX WTI contract Indeed, both the NYMEX and IPE are planning to launch an Argus Sour Crude Index futures contract following Saudi Aramco's decision to link its formula prices to the index. Derivative products are expected to emerge linking the ASCI to the WTI contract in order to provide hedging opportunities for buyers and sellers.

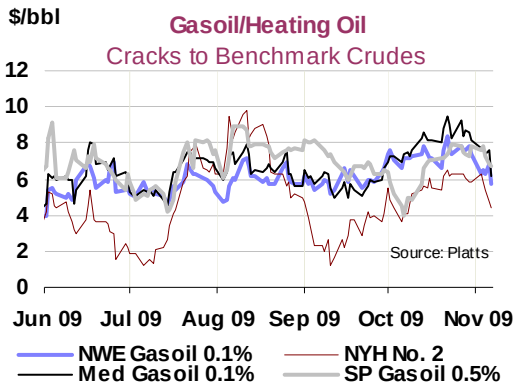


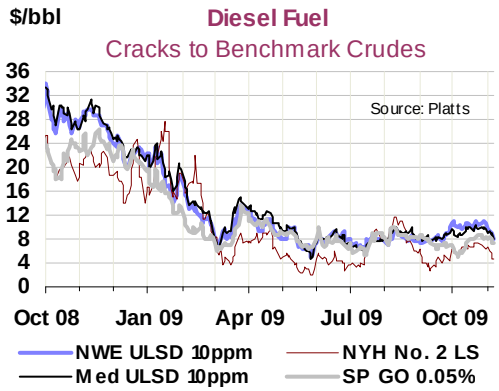
Spot Product Prices

Spot product prices rose in all major regions in October but diverging market trends resulted in uneven increases. Economic run cuts and scheduled refinery maintenance work continue to provide offsets for an otherwise well supplied markets.

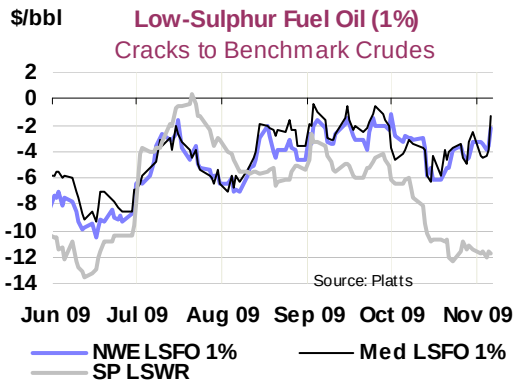
Gasoil/heating crack spreads in October improved by about $1.50-2/bbl in Europe and the US but weakened by around 50 cents/bbl in Singapore. Even the weather may not cooperate. Weather forecasters are predicting a moderate winter season on both sides of the Atlantic, which will likely weigh further on gas oil prices. Warmer than normal weather in Japan is also likely to reduce demand for kerosene. In addition, Japanese consumers continue to switch to electric powered heaters and away from kerosene-fired units.

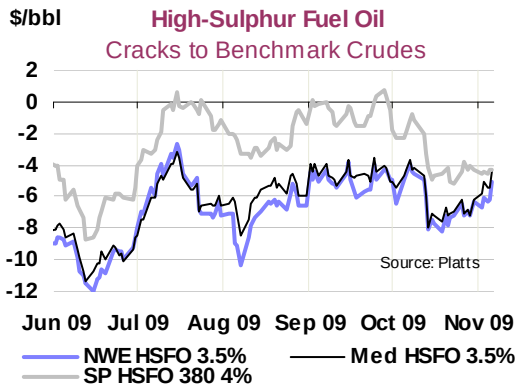
In Europe, imports of gasoil cargoes and jet fuel are moving into the region at a steady clip despite weak demand and swelling stockpiles. The brisk trade largely reflects the strengthening contango in the ICE gasoil futures contract. The wider contango, where front month contracts are cheaper than later months, is still returning a decent profit. The front-month November gasoil contract traded at a $10/mt discount to the December contract and at a $20/mt discount to the January contract. Most of the additional imports are expected to end up in storage.





Fuel oil crack spreads were down on the month but staged a rebound as the month wore on in Europe and the US. By contrast, Singapore fuel cracks deteriorated further on lacklustre demand from utilities, for industrial use and marine bunkers. Low-sulphur fuel oil cracks to Dubai were down by $4.76/bbl on the month, to a negative $9.45/bbl, while high-sulphur differentials were off a smaller $2.74/bbl to minus $4.89/bbl. In Japan, higher utilisation rates at nuclear power plants have also curtailed fuel oil purchases.





Spot Product Prices

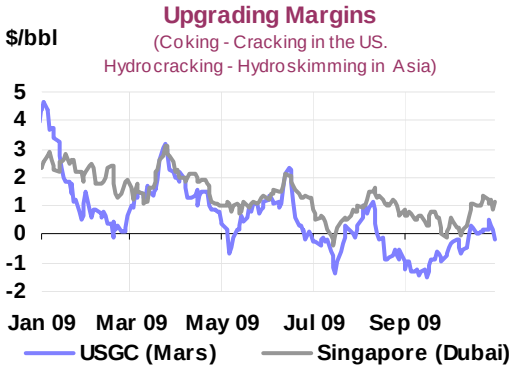
(monthly and weekly averages, $/bbl)

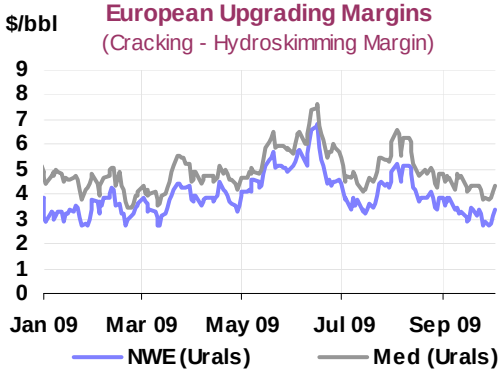
	Aug	Sep	Oct	Oct-Sep Change	Oct-Sep %	Week Commencing: 05 Oct	12 Oct	19 Oct	26 Oct	02 Nov	Aug	Sep	Oct
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	83.65	75.49	80.92	5.43	7.2	74.72	79.93	85.15	86.59	85.10	10.83	8.11	8.17
Naphtha	70.81	65.78	69.12	3.35	5.1	64.45	67.37	73.51	73.42	72.68	-2.02	-1.61	-3.63
Jet/Kerosene	79.48	76.18	82.11	5.94	7.8	76.87	81.66	86.66	85.76	85.95	6.66	8.79	9.36
ULSD 10ppm	81.07	75.70	83.18	7.49	9.9	77.73	82.79	87.62	86.92	85.52	8.24	8.31	10.43
Gasoil 0.1%	78.86	73.37	80.15	6.78	9.2	74.83	79.73	84.70	83.72	82.87	6.04	5.99	7.40
LSFO 1%	68.12	64.84	68.69	3.85	5.9	64.75	67.53	71.96	72.06	73.29	-4.70	-2.55	-4.06
HSFO 3.5%	65.69	62.47	66.40	3.94	6.3	63.31	65.48	69.64	69.26	70.49	-7.14	-4.92	-6.35
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	82.85	74.94	80.34	5.40	7.2	74.89	79.17	84.92	84.95	83.35	10.61	7.86	7.67
Naphtha	70.89	65.76	69.10	3.35	5.1	64.34	67.35	73.58	73.46	72.74	-1.36	-1.33	-3.57
Jet Aviation fuel	78.57	75.20	81.10	5.90	7.8	76.07	81.02	85.31	84.06	84.22	6.32	8.11	8.43
ULSD 10ppm	81.25	75.46	82.21	6.74	8.9	76.47	82.10	86.80	85.92	85.19	9.00	8.38	9.53
Gasoil 0.1%	78.81	73.16	80.79	7.62	10.4	75.11	80.51	85.50	84.60	83.70	6.56	6.08	8.11
LSFO 1%	68.38	65.25	68.53	3.28	5.0	64.20	67.52	72.47	72.25	72.72	-3.87	-1.84	-4.15
HSFO 3.5%	66.33	62.61	66.59	3.98	6.4	63.51	65.72	69.80	69.28	71.13	-5.91	-4.48	-6.09
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	87.24	79.51	87.15	7.65	9.6	80.59	86.62	92.38	92.14	88.18	16.19	10.10	11.42
Unleaded	81.07	74.75	80.89	6.14	8.2	74.90	79.89	85.85	85.70	83.14	10.02	5.34	5.16
Jet/Kerosene	80.62	73.89	82.95	9.07	12.3	77.44	83.12	87.91	86.14	85.60	9.57	4.48	7.22
No. 2 (Heating Oil)	78.48	72.67	81.17	8.50	11.7	75.36	81.36	85.97	84.55	84.30	7.43	3.26	5.44
LSFO 1%†	66.65	63.08	68.23	5.16	8.2	63.96	67.51	72.01	71.54	73.06	-4.40	-6.33	-7.50
No. 6 3%†	66.26	62.95	67.47	4.52	7.2	63.63	66.85	71.15	70.13	71.73	-4.79	-6.46	-8.26
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	82.13	75.63	77.71	2.08	2.7	72.52	76.24	81.44	82.25	81.30	10.79	7.99	4.56
Naphtha	70.37	66.80	69.20	2.40	3.6	64.75	67.25	72.83	74.38	73.90	-0.97	-0.84	-3.95
Jet/Kerosene	78.67	74.58	80.07	5.49	7.4	74.49	79.56	84.15	84.33	84.64	7.33	6.94	6.92
Gasoil 0.5%	79.02	74.65	79.64	4.99	6.7	72.95	79.27	84.32	84.37	84.76	7.68	7.00	6.49
LSWR Cracked	65.92	62.96	63.70	0.75	1.2	61.75	62.73	65.54	65.54	65.75	-5.42	-4.69	-9.45
HSFO 180 CST	67.34	65.49	68.26	2.77	4.2	65.19	67.29	70.79	71.31	71.67	-4.00	-2.15	-4.89
HSFO 380 CST 4%	68.92	67.17	69.76	2.59	3.9	66.86	68.78	72.21	72.66	73.05	-2.42	-0.47	-3.39

Source: Platts * CIF † Cargoes

Refining Margins

Refining margins were generally lower in October with cracking margins in Europe and the US Gulf Coast the exception thanks to relatively stronger spot gasoline prices. Hydroskimming margins deteriorated further in October, especially in Asia, and remained heavily negative.





In the US, Gulf Coast margins improved for most cracking and coking configurations due to stronger gasoline and gasoil/diesel differentials but still remained in negative territory. Cracking margins for Bonny Light were -$1.65/bbl in October compared to -$2.68/bbl the previous month while Brent margins were pegged at -$2.05/bbl compared with -$2.64/bbl over the same period. Normally stronger West Coast margins also declined for both coking and cracking configurations.

Selected Refining Margins in Major Refining Centres

($/bbl)

		Monthly Average				Change	Average for week ending:				
		Aug 09	Sep 09	Oct 09		Oct 09-Sep 09	09 Oct	16 Oct	23 Oct	30 Oct	06 Nov
NW Europe	Brent (Cracking)	0.61	0.66	0.91	↑	0.25	0.76	0.60	0.43	1.77	0.49
	Urals (Cracking)	0.92	0.56	0.81	↑	0.25	0.75	0.53	0.57	1.41	0.47
	Brent (Hydroskimming)	-1.68	-0.80	-0.96	↓	-0.16	-0.71	-1.26	-1.58	-0.50	-1.37
	Urals (Hydroskimming)	-3.34	-2.69	-3.03	↓	-0.34	-2.38	-3.31	-3.51	-3.06	-3.45
Mediterranean	Es Sider (Cracking)	0.41	0.33	-0.03	↓	-0.36	-0.21	-0.48	0.02	0.54	-0.73
	Urals (Cracking)	1.03	0.91	0.83	↓	-0.09	0.97	0.48	0.66	1.10	0.33
	Es Sider (Hydroskimming)	-3.75	-2.81	-3.78	↓	-0.96	-3.65	-4.23	-3.93	-3.40	-4.41
	Urals (Hydroskimming)	-4.28	-3.41	-4.12	↓	-0.72	-3.29	-4.42	-4.73	-4.36	-4.44
US Gulf Coast	Bonny (Cracking)	-1.71	-2.68	-1.65	↑	1.03	-1.95	-1.44	-1.26	-1.88	-3.60
	Brent (Cracking)	-1.94	-2.64	-2.05	↑	0.59	-1.98	-2.08	-2.08	-2.10	-3.52
	LLS (Cracking)	0.16	-1.65	-1.59	↑	0.06	-1.77	-2.06	-1.22	-1.27	-2.96
	Mars (Cracking)	1.08	0.82	-0.08	↓	-0.91	0.35	-0.65	-0.05	-0.24	-1.30
	Mars (Coking)	1.01	-0.20	-0.12	↑	0.08	-0.05	-0.59	0.03	-0.04	-2.21
	Maya (Coking)	-0.27	-2.58	-1.42	↑	1.16	-1.69	-1.46	-1.43	-1.07	-3.67
US West Coast	ANS (Cracking)	1.28	1.94	-1.91	↓	-3.85	-1.28	-2.58	-2.82	-1.62	-4.20
	Kern (Cracking)	10.01	8.88	3.47	↓	-5.42	4.90	3.82	1.87	2.33	1.68
	Oman (Cracking)	1.00	2.26	-1.70	↓	-3.96	-0.90	-1.38	-2.11	-2.97	-5.40
	Kern (Coking)	15.88	14.37	7.83	↓	-6.54	8.68	8.57	6.78	6.44	3.61
Singapore	Dubai (Hydroskimming)	-2.79	-2.13	-4.31	↓	-2.18	-3.81	-4.51	-4.81	-4.33	-4.76
	Tapis (Hydroskimming)	-6.32	-3.60	-6.07	↓	-2.47	-5.50	-6.68	-6.65	-5.98	-6.37
	Dubai (Hydrocracking)	-1.64	-1.64	-3.55	↓	-1.91	-3.66	-3.74	-3.69	-3.22	-3.74
	Tapis (Hydrocracking)	-5.21	-2.68	-4.58	↓	-1.89	-4.65	-5.17	-4.77	-4.03	-4.43
China	Cabinda (Hydroskimming)	-6.29	-4.82	-8.03	↓	-3.21	-6.71	-8.30	-9.42	-8.60	-8.71
	Daqing (Hydroskimming)	-3.35	-2.48	-5.83	↓	-3.35	-4.10	-6.36	-7.01	-6.72	-7.27
	Dubai (Hydroskimming)	-3.04	-2.35	-4.60	↓	-2.26	-4.06	-4.76	-5.15	-4.69	-5.10
	Daqing (Hydrocracking)	-0.27	0.18	-2.61	↓	-2.79	-1.64	-3.27	-3.36	-2.84	-3.54
	Dubai (Hydrocracking)	-1.83	-1.79	-3.82	↓	-2.03	-3.87	-3.97	-4.03	-3.56	-4.09

For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

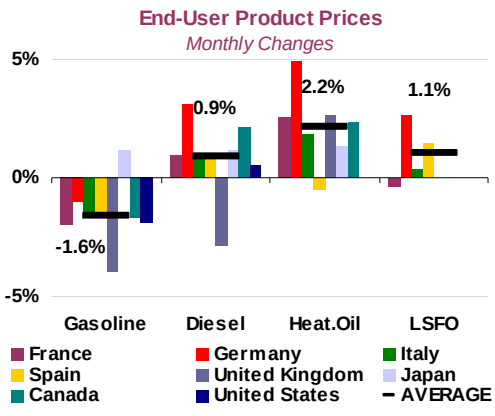
*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.
Sources: IEA, Purvin & Gertz Inc.

In Europe, only cracking margins improved over the month on stronger gasoil/diesel differentials to crude. Cracking margins for both Brent and Urals in Northwest Europe were up by a modest 25 cents/bbl, to 91 cents/bbl and 81 cents/bbl, respectively.

Refining margins in Singapore and China fell month-on-month by around $2-$3/bbl. In Singapore, Dubai hydroskimming and hydrocracking margins were -$4.31/bbl and -$3.55/bbl, respectively.

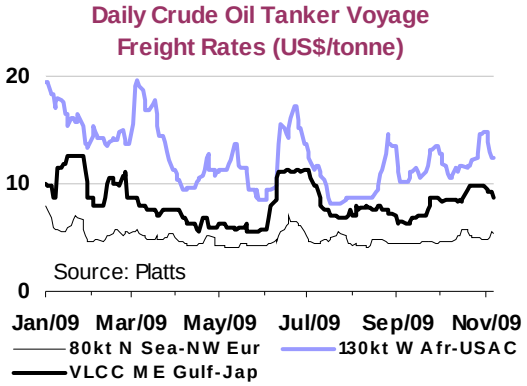
End-User Product Prices in October

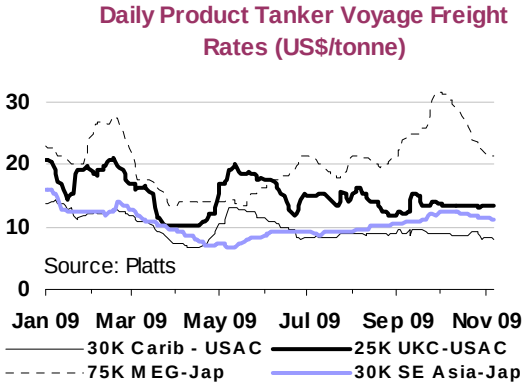
End-user prices rose on average by 0.6% month-on-month in October but were 27.1% below levels of a year ago, in US dollars, ex-tax. Diesel, heating oil and low-sulphur fuel oil prices on average rose by 0.9%, 2.2% and 1.1%, respectively. However, gasoline prices ran against the trend last month and decreased by 2.0% in almost all surveyed countries except Japan where petrol prices were unchanged in domestic currency. Consumers in Japan on average paid ¥128.9/litre ($1.43/litre), in the US $2.55/gallon ($0.67/litre) and in the UK £1.05/litre ($1.71/litre). In Europe, the average price at petrol stations was between €1.05/litre ($1.55/litre) in Spain and €1.29/litre ($1.91/litre) in Germany for gasoline.



Freight

Freight rates remained under pressure from an oversupply of ships and lacklustre demand. At the outbreak of the economic recession one year ago the demand for seaborne oil transport contracted in percentage terms at more than twice the rate of global oil demand in a year when the tanker fleet grew by 5%. While oil demand is expected to rise by 0.4 mb/d in 4Q09 compared to the previous quarter, high tanker fleet additions combined with a further potential drawdown in crude floating storage could keep freight rates under extreme pressure. Dirty freight rates were volatile in October, but performed better than clean tanker rates.

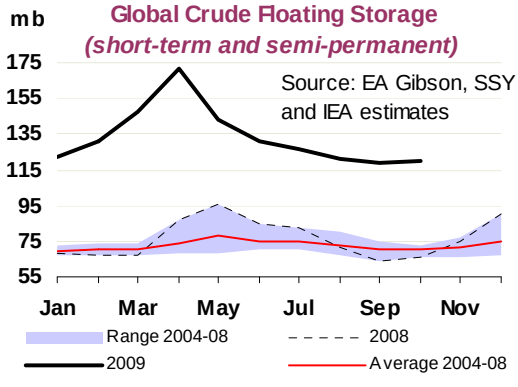




Mideast Gulf – Japan VLCC rates were stable at $8-9/mt the first three weeks of October, then rising to almost $10/mt over the last ten days of the month. After an end September uptick to $13/mt, Suezmax West Africa – US Atlantic Coast rates fell down to $11/mt in the second week of October, before rising steadily again to $15/mt. However, by early November gains for both tanker categories had begun to falter. The Chinese holidays explain lower chartering activity in the first eight days of October, as well as the rise that followed. A temporary rise in bunker prices during the third week of October sent prices further up, as owners refused to assume higher losses. Aframax North Sea-North West Europe rates moved slightly higher to a level of around $5/mt, almost touching $6/mt during a mid-month recovery.

Crude oil stored at sea remained at around 60 mb at end October, while floating storage of products continued its upward surge, estimated at above 80 mb at the end of the month. Interestingly, much of the increase in product storage appears to have come from products from Asian refinery centres stored in two brand-new VLCCs and one Suezmax tanker, located near their source refineries.

Clean rates were weaker, as Aframax Mideast Gulf – Japan rates sank throughout the month, reversing last month's rally, and ending at $21/mt from end-September levels of $31.5/mt. Fewer large product carriers were engaged in floating storage at the end of October as compared to the end of September, as vessels of this category rushed to take advantage of the temporary spike in rates. All benchmark rates were below or at the lower rim of the five-year range.



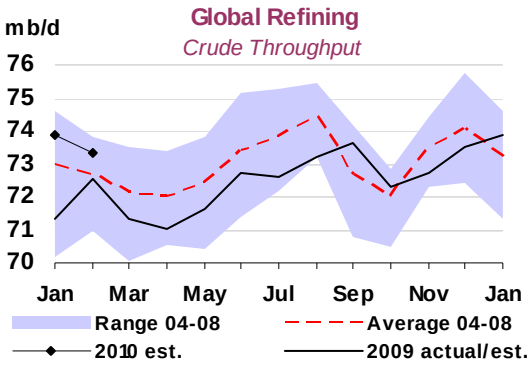
The tonnage growth for product carriers has outpaced that of crude carriers this year, as the VLCC fleet got some relief from three months of accelerated single-hull phase-out and some conversion activity, as well as a temporarily lower new-build delivery rate due to negotiated delays. Further, the trend of more long-haul transportation of crude oil, notably from West Africa to Asia, has been supportive of rates for crude carriers. However, the weight of expected tanker deliveries continues to cast a shadow over the outlook for the tanker rates.

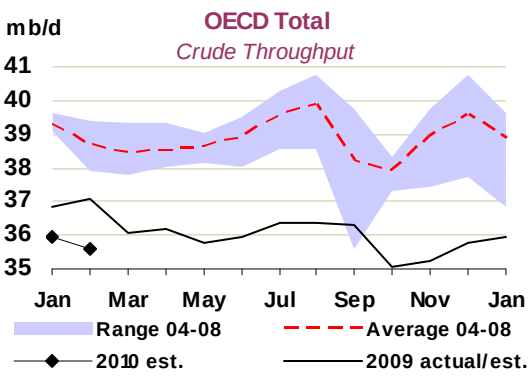
REFINING

Summary

- **Projected 4Q09 global crude throughput is reduced by 0.3 mb/d to 72.8 mb/d.** The refining industry continues to be squeezed by higher crude oil prices, falling OECD demand and high inventories of middle distillates, all of which weigh on refining margins. Downward revisions in OECD regions, following reported lower crude runs in the US, Europe and Japan, were partially offset by higher estimates in China and Other Asia, following stronger 3Q09 data.

- **Preliminary data indicate that 3Q09 global crude runs averaged 73.1 mb/d.** August data turned out higher by 0.3 mb/d, mainly the result of stronger runs in Brazil and in Other Asia. Preliminary data for September was 0.9 mb/d stronger than expected, with runs in the OECD up by 0.3 mb/d, and up by 0.6 mb/d in the non-OECD.





- **August OECD refinery yields increased for gasoline, gasoil and fuel oil.** Gasoline yields stayed above the five-year range, with gross output at 15.0 mb/d and 600 kb/d higher than last year's level. Gasoil/diesel yields moved back above the five-year average level, with gross output at 12.5 mb/d, 960 kb/d below last year. Despite a wider discount to crude, fuel oil yields increased for the second consecutive month as coking throughputs remained under pressure.

Global Refinery Overview

The refining industry continues to be squeezed by higher crude oil prices, falling OECD demand and high inventories of middle distillates, all of which continues to weigh on refining margins. The profitability of upgrading capacity has been particularly hard hit by OPEC cuts, which have narrowed heavy-sour crude discounts to light-sweet grades. Furthermore, record crude runs in China and the ramp-up of new production capacity in India add further pressure on margins at uncompetitive refineries in OECD countries.

This month's report sees further downward revisions to planned crude runs in 4Q09. Both independent and majors' 3Q09 refining results have been badly hit, ranging from striking decreases in net profits, to net losses of hundred of million dollars, forcing some to idle refineries, streamline operations, shut down non-profitable plants and consider selling non-core assets. On the other hand, the current situation may turn out to be a good strategic opportunity for growth-orientated Asian companies to expand their presence in target regions through the acquisition of assets; effectively betting on strong demand growth, once economic recovery filters through the refining industry. As such, the refining industry is going through a painful, though necessary, process of adjusting to the changes in the competitive landscape (see *Is It Always Darkest in the Hour Just Before Dawn?*).

Global Refinery Throughput

Despite the weak macro economic environment, **3Q09** global refinery throughput estimates are revised up by 0.4 mb/d to 73.1 mb/d. August data turned out higher by 0.3 mb/d, mainly the result of higher runs in Brazil and in Other Asia. Preliminary data for September was 0.9 mb/d stronger than expected, with runs in the OECD revised up by 0.3 mb/d and by 0.6 mb/d in the non-OECD. The quarterly year-on-year comparison now shows a decline of 0.8 mb/d, significantly better than the 2.3 mb/d differential shown in 2Q09, although the comparison is distorted by last year's disruptions caused by hurricane activity in the US Gulf Coast.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10
OECD									
North America	17.7	17.6	17.3	17.5	17.0	17.2	17.2	17.1	17.1
Europe	12.3	12.6	12.4	12.5	12.0	12.0	12.2	12.4	12.3
Pacific	6.0	6.1	6.6	6.3	6.1	6.0	6.3	6.5	6.3
Total OECD	36.0	36.4	36.4	36.3	35.1	35.2	35.8	36.0	35.6
NON-OECD									
FSU	6.1	6.1	6.3	6.2	6.3	6.3	6.4	6.4	6.4
Europe	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
China	7.8	7.8	7.7	8.0	8.0	8.0	8.0	8.0	8.0
Other Asia	8.3	8.2	8.6	8.9	8.5	8.6	8.7	9.0	8.8
Latin America	5.5	5.2	5.3	5.2	5.3	5.3	5.3	5.3	5.3
Middle East	6.0	6.0	6.1	6.0	6.1	6.2	6.3	6.2	6.3
Africa	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2
Total Non-OECD	36.7	36.2	36.8	37.4	37.2	37.5	37.8	37.9	37.7
Total	72.7	72.6	73.2	*73.7*	*72.3*	*72.7*	*73.5*	*73.9*	*73.3*

1 Crude runs in italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

Conversely, we have decreased our **4Q09** projection by 0.3 mb/d, to 72.8 mb/d, following a significant reduction of 0.8 mb/d in OECD runs and an upward revision of 0.5 mb/d for non-OECD. The increase in non-OECD results from higher Other Asia projections (+0.4 mb/d), as reported crude runs continue to exceed previous estimates, and upwardly revised demand forecasts. The reduction in OECD runs is the result of protracted poor margins, persistent high middle distillate inventories, competition from higher runs in non-OECD and announcements by some majors in the US, Europe and Japan of further crude run cuts in 4Q09.

January 2010 throughput of 73.9 mb/d remains the seasonal peak, but this estimate is reduced by 0.2 mb/d. This minor change to the overall total masks a reduction of 0.7 mb/d in OECD crude runs, as refiners in the US and the Pacific are forced to further reduce crude runs in order to cope with higher output in Other Asia and China, which have been raised by 0.5 mb/d and 0.1 mb/d, respectively. February crude throughput is initially estimated at 73.3 mb/d, in line with the normal seasonal pattern.

OECD Refinery Throughput

OECD crude throughput estimates for **3Q09** have been revised up by 0.1 mb/d to 36.3 mb/d as August data turned out marginally lower and September preliminary data were 0.3 mb/d ahead of projections, mainly the result of higher-than-expected runs in the UK, Belgium and Greece. This new estimate for 3Q09 represents a quarter-on-quarter increase of 0.4 mb/d, but a 1.2 mb/d decrease year-on-year.

Preliminary data for September indicate that OECD crude throughput averaged 36.3 mb/d, an increase of 0.7 mb/d compared to last year's hurricane-depressed baseline. However, on a monthly basis, September crude runs were marginally lower, with higher North America and Europe crude runs partially compensating a fall in the Pacific, where the start of seasonal maintenance in Japan lowered activity levels.

North American September crude throughput is 1.9 mb/d higher year-on-year, mainly as a consequence of last year's disruptions caused by Hurricanes Gustav and Ike, which significantly dented crude runs in the region. This year saw no material impact from hurricanes during September, and indeed for the summer as a whole.

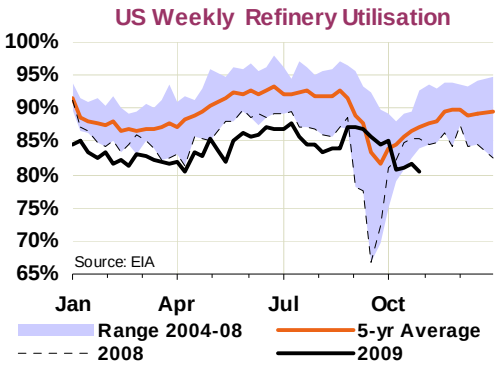
Refinery Crude Throughput and Utilisation in OECD Countries

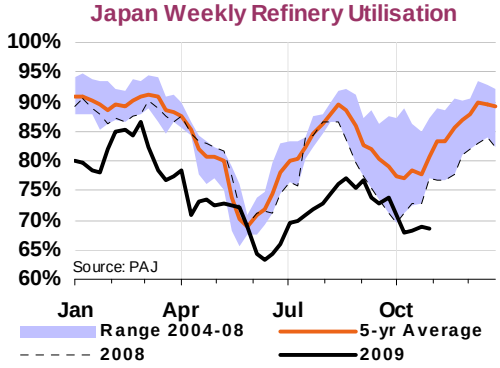
(million barrels per day)

	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Change from Aug 09	Change from Sep 08	Utilisation rate[1] Sep 09	Utilisation rate[1] Sep 08
OECD North America										
US[2]	14.35	14.46	14.84	14.63	14.57	14.79	0.22	2.03	83.67	72.46
Canada	1.50	1.65	1.73	1.79	1.51	1.47	-0.04	-0.19	72.67	82.26
Mexico	1.30	1.23	1.14	1.21	1.27	1.25	-0.02	0.10	81.08	71.96
Total	17.16	17.34	17.72	17.63	17.34	17.50	0.16	1.93	82.43	73.55
OECD Europe										
France	1.51	1.66	1.57	1.56	1.45	1.40	-0.05	-0.36	71.65	90.18
Germany	2.21	2.06	2.13	2.12	2.12	2.04	-0.08	0.08	84.31	81.02
Italy	1.68	1.58	1.59	1.71	1.70	1.69	-0.01	-0.04	72.43	74.23
Netherlands	1.02	1.01	0.84	0.89	0.94	1.04	0.10	-0.01	85.79	86.38
Spain	1.17	1.01	0.97	1.06	1.01	1.02	0.01	-0.22	80.10	97.49
UK	1.36	1.35	1.45	1.50	1.46	1.52	0.07	-0.14	80.81	88.12
Other OECD Europe	3.75	3.77	3.73	3.82	3.76	3.76	0.00	-0.29	80.04	86.15
Total	12.68	12.43	12.28	12.64	12.44	12.47	0.04	-0.98	79.07	85.27
OECD Pacific										
Japan	3.31	3.20	2.99	3.17	3.53	3.39	-0.13	-0.09	72.57	74.46
Korea	2.33	2.08	2.28	2.26	2.34	2.25	-0.09	-0.17	82.41	88.56
Other OECD Pacific	0.69	0.70	0.69	0.69	0.71	0.66	-0.05	0.02	82.13	80.04
Total	6.33	5.98	5.97	6.12	6.58	6.31	-0.26	-0.24	76.79	79.70
OECD Total	36.17	35.76	35.96	36.39	36.36	36.28	-0.07	0.71	80.23	78.76

1 Expressed as a percentage, based on crude throughput and current operable refining capacity
2 US50

In the US, some refiners have announced further run cuts for 4Q09 on low profitability. Valero, the largest independent US refiner with a combined capacity of almost 3 mb/d, announced the reduction of crude runs to 73% in 4Q09 from a 3Q09 level near to 80%, driven by maintenance and economic run cuts. ConocoPhillips, with a reported global refining capacity close to 2.7 mb/d, announced plans to reduce 4Q09 refinery utilisation rates to the upper 70% range from 3Q09 runs close to 90%. In addition, Sunoco has recently announced the indefinite shut down of its 145 kb/d Eagle Point refinery in New Jersey a process that, by 5 November, appeared to be complete.

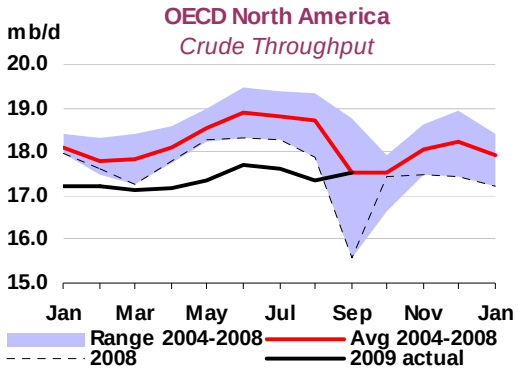


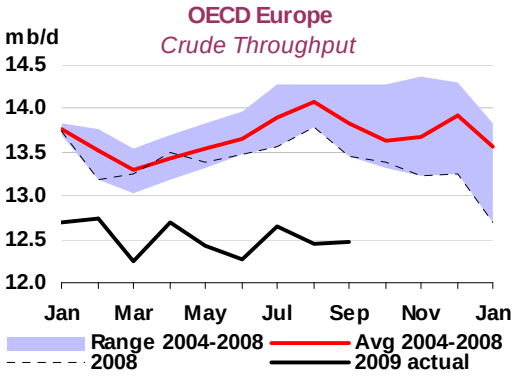


Weekly US refinery utilisation rates have now returned to levels below the five-year range, a pattern only interrupted this year by the absence of hurricane-related disruptions. At the time of writing Tropical Storm Ida was approaching the Eastern US Gulf Coast, suggesting that some disruption to Chevron's

300 kb/d Pascagoula refinery may be possible, but more widespread disruption looks unlikely at this time. Nevertheless, North American 4Q09 projections have been reduced further this month by 0.4 mb/d to an average of 17.1 mb/d.

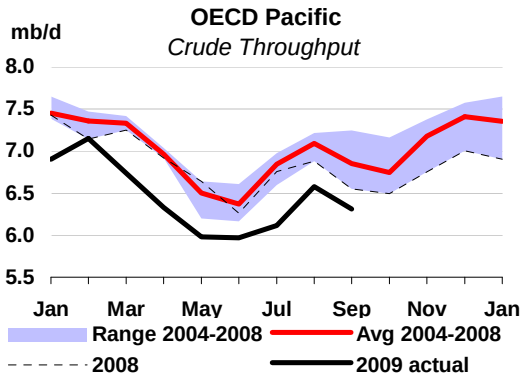
European crude runs were 0.2 mb/d higher than expected in September, remaining constant compared to August, but 1.0 mb/d lower year-on-year. Utilisation rates remained particularly weak in France and Italy. The disruption to the SPSE pipeline, in Southern France prompted Petroplus to bring forward planned maintenance at its 85 kb/d Reichstett refinery in France from 2Q10 and it is now expected to be operational in December. Petroplus' 68 kb/d Cressier refinery in Switzerland, also closed after the pipeline accident, has already restarted operations. Elsewhere, we have assumed that the shutdown of Total's Dunkirk refinery in France now continues into 1Q10, due to continued poor economics.





In Italy, the 84 kb/d ENI refinery in Livorno restarted operations at the end of September, after unions had blocked loading operations of cargoes in protest against possible job cuts. ENI's crude runs in Italy are reported 25% lower in the first nine months of 2009, versus a year ago, due to prolonged refinery downtime prompted by weak market conditions.

OECD Pacific September crude runs were 0.1 mb/d above expectations, with all countries in this region posting higher runs. However, we have adjusted downward our **4Q09** projection by 0.2 mb/d, as products demand continues to post annual declines, and increased runs in non-OECD countries, particularly China, are projected to further depress OECD Pacific utilisation rates, particularly in Japan. 4Q09 crude runs are now expected to average 6.1 mb/d, reaching 6.3 mb/d by December, on par with September levels, but 0.7 mb/d below December 2008.



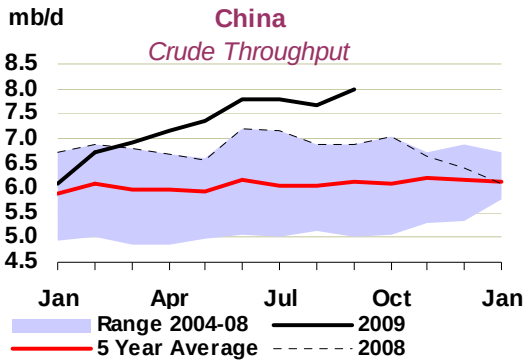
Non-OECD Refinery Throughput

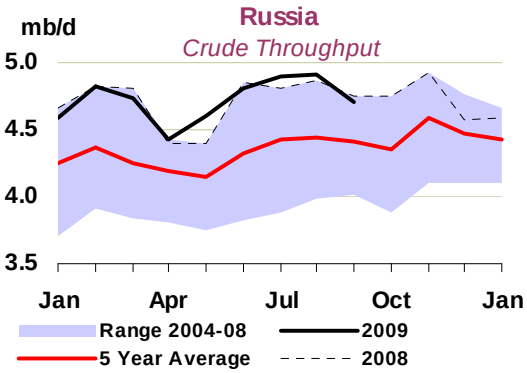
Non-OECD crude throughput estimates for **3Q09** have been revised up by 0.3 mb/d to 36.8 mb/d as August data were stronger than expected and September preliminary data were 0.6 mb/d ahead of projections. This new estimate for 3Q09 represents a quarter-on-quarter increase of 1 mb/d and a 0.4 mb/d increase year-on-year. Should preliminary data be reasonably accurate, 3Q09 would represent the first time crude throughput in non-OECD countries is higher than that in OECD countries, on a quarterly basis.

Chinese crude runs reached a new record level of 8.0 mb/d in September, 0.1 mb/d ahead of our estimate, supported by the government-guaranteed positive margins on domestic sales for state companies. This new record level represents a monthly increase of 4% and a 16% increase year-on-year.

However, our calculations show crack spreads in the region weakened in October, as crude oil gains outpaced product price increases, which, as argued in last month's report, may temper Chinese crude runs if incremental products are exported at world oil market prices rather than sold domestically. Furthermore, the seasonal dip in Chinese demand in 4Q09, currently estimated at 0.5 mb/d, may also weigh on crude runs, despite the healthy domestic margin environment.

Indian throughputs were slightly ahead of our estimates in September. According to our calculations based on industry reports, official Indian data continue to understate the true level of crude runs by around 0.5 mb/d, representing crude processed at Reliance's Jamnagar expansion. Elsewhere in Other Asia, reported crude runs continued ahead of expectations, with Indonesia, Malaysia, Chinese Taipei and Thailand once again performing better than expected. Accordingly, we have revised up our 4Q09 Other Asia forecast by 0.4 mb/d to 8.6 mb/d.





The grim situation of the global refining industry is providing Reliance, Essar and other Asian refining companies with the opportunity to expand their presence in the US and Europe. Reliance is reportedly looking to acquire assets worth several billion US dollars. News reports indicate that companies including Valero, Sunoco and Flying J have been approached about potential US acquisitions. In Europe, Royal Dutch Shell refineries are reported to be under consideration.

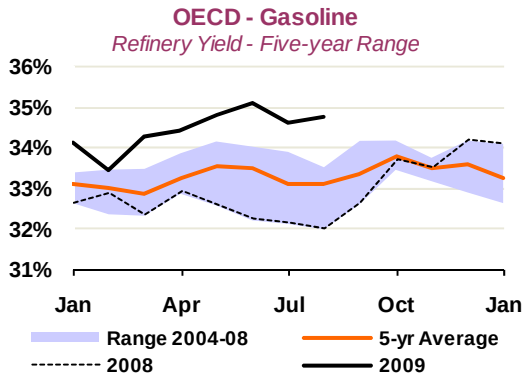
Russian crude runs averaged 4.7 mb/d in September, just below five-year highs, as scheduled refinery maintenance took place. Data provided by the Russian Ministry of Energy show September exports of gasoline, gas oil and fuel oil decreased month-on-month, by 32.3%, 8.4% and 8.2%, while October gasoline exports increased by 17.5% and decreased by 5.5% and 2.2% for gas oil and fuel oil, respectively.

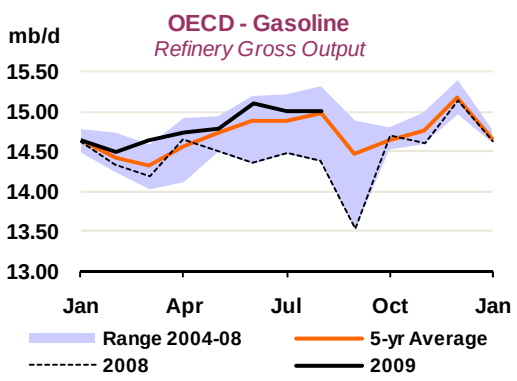
As noted last month, the decision by Lukoil to stop operations at its Odessa refinery in Ukraine on October 2 followed Ukrtransnafta's reversal of the last leg of the Samara to Odessa pipeline, in order to ensure the supply of oil to the Kremenchug refinery in Ukraine. Early November saw reports that the Russian pipeline operator Transneft had started to supply oil along the Brody-Odessa pipeline to the Odessa refinery as of November 5, allowing this refinery to refine oil at previous operating rates.

OECD Refinery Yields

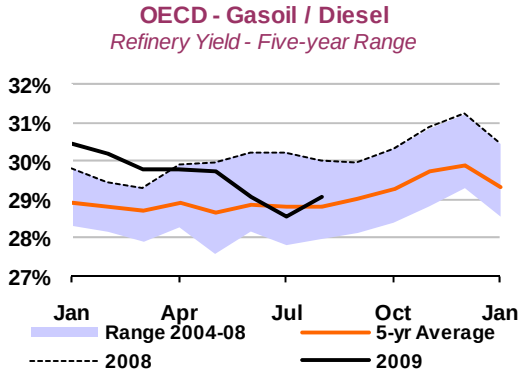
August refinery yields mainly followed production economics as depicted by crack spreads. Jet fuel/kerosene yields fell counter-seasonally as crack spreads mostly weakened across regions. Yields for gasoline, gas oil/diesel and naphtha were higher, in line with a strengthening of their crack spreads. The exception was fuel oil, whose yields increased in spite of wider discounts to crude.

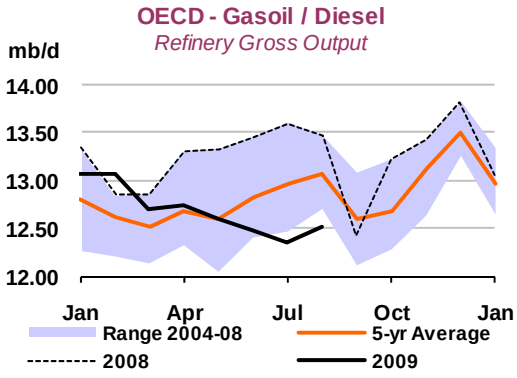
Gasoline is the only product for which yields remained above the five-year range, although, in absolute terms, gasoline gross output only matched five-year average levels at 15.0 mb/d, nonetheless it was around 600 kb/d above last year's level.



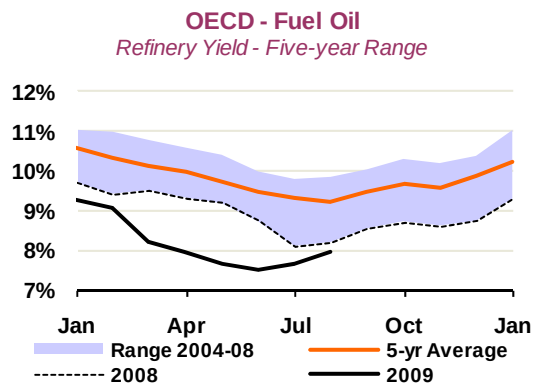


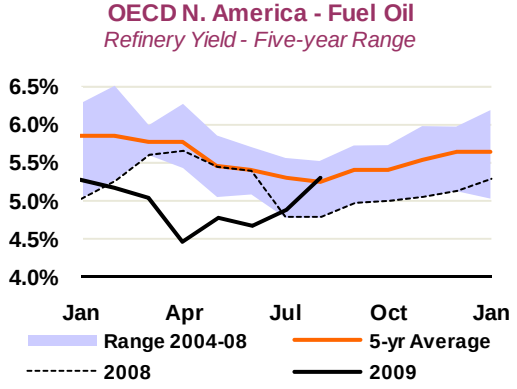
Gasoil/diesel yields continued around their five-year average level, with gross output increasing to 12.5 mb/d, 960 kb/d below last year's level and 540 kb/d less than the five-year average. Yields and gross output for other products remained suppressed below their five-year average.





Fuel oil yields increased for the second consecutive month in spite of wider discounts to crude. Yields increased in Europe and particularly in North America, where yields and gross output reached five-year averages. The increase may be related to the rationalisation of upgrading capacity, as coking throughputs have been strongly hit by the economic slump (see *Is It Always Darkest in the Hour Just Before Dawn?*).

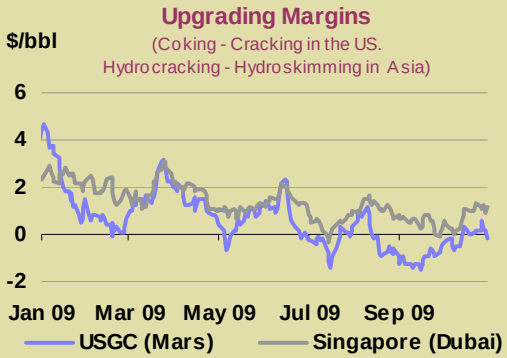


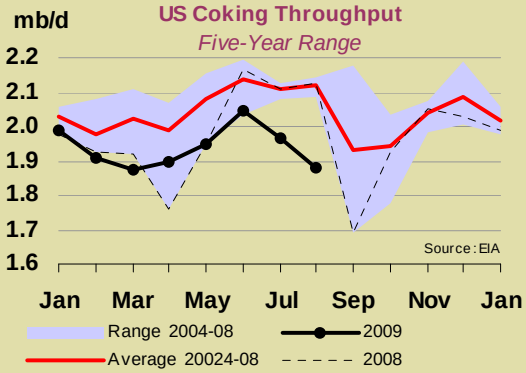


Refining – Is It Always Darkest in the Hour Just Before Dawn?

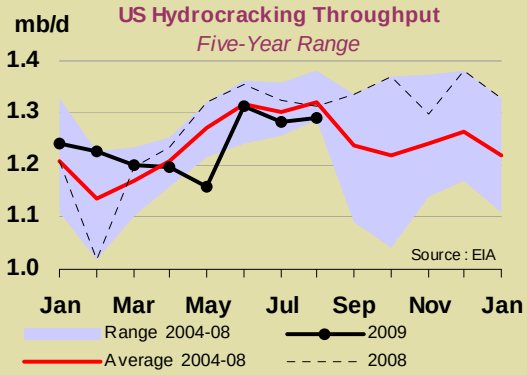
The outlook for the global refining industry has seldom seemed gloomier, as refineries continue to struggle against economic headwinds. While the cliché has it that it is always darkest in the hour just before dawn, in reality it is darkest in the middle of the night. However, although the outlook for refineries is bleak, and in the OECD particularly bleak, some necessary changes appear to be happening, which could herald, if not a new dawn, then at least the passing of the darkest hour.

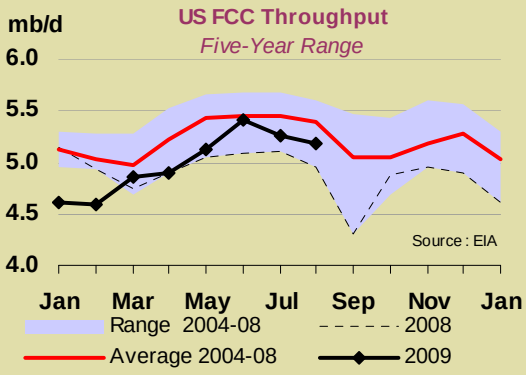
Historically, hydroskimming margins have averaged less than zero, suggesting that refinery profitability relies less on the simple process of fractional distillation of crude and is more closely tied to upgrading margins. However, the removal of significant volumes of heavy sour crude from the market have crushed the light-sweet/heavy sour spreads, reducing upgrading economics.





Furthermore, tight fuel oil markets, at least by historical standards, have further hampered refineries' second source of additional profits, namely the reprocessing of relatively cheap residue into distillate and gasoline through upgrading capacity. The bottom of the last profitability cycle in 2002 saw refineries shutting crude units and simply feeding vacuum towers with residue in order to most profitably (or perhaps least unprofitably) supply products to the market. Recent data from OECD countries suggest that current markets have not allowed this opportunity for refineries to raise profitability. Hence, the two potential sources of refining industry profitability over the past two decades have been temporarily removed.

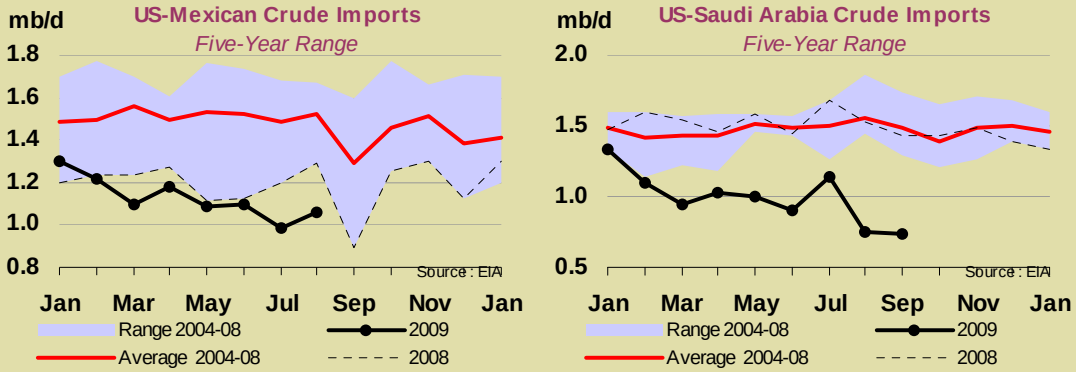




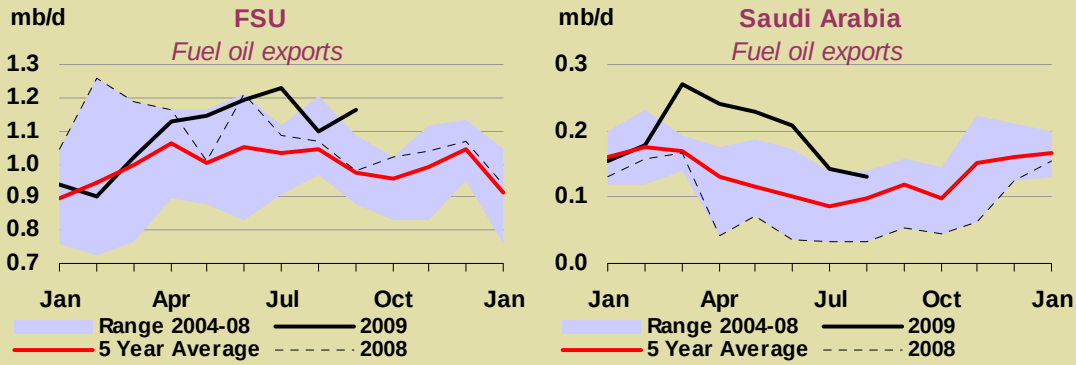
US data uniquely provides insights into refiners' utilisation of upgrading units. Recent months' data show that catalytic cracking unit throughputs moved above the 2008 level. Given their bias towards gasoline production, this perhaps points to the re-emergence of gasoline as the binding constraint on US refining activity. While encouraging, the continued weak premium for high quality gasoline components, such as alkylate, and strong gasoline imports, continue to limit gasoline's ability to restore refinery margins. By contrast, weak hydrocracking and, more importantly, coking unit throughputs, demonstrate a response to weak distillate markets and the narrowing of heavy sour crude discounts, suggesting refineries are adapting.

Refining – Is It Always Darkest in the Hour Just Before Dawn? (continued)

Other changes revolve around the dramatic redrawing of global crude trade flows. US imports of Saudi Arabian crude have collapsed from around 1.5 mb/d, to just over 700 kb/d. Similarly, US imports of Mexican crude have plunged to around 1.0 mb/d in August, from a five year average level of 1.6 mb/d. Offsetting these declines has been the rising volumes of Canadian crude imports and increasing variety of crudes, e.g., Russian Urals, which requires refineries to adapt to these new crudes.



Furthermore, narrower fuel oil cracks have resulted in several changes to fuel oil markets. Firstly, OECD fuel oil yields have ticked up, as noted elsewhere in this report, suggesting refineries are responding to shifting product cracks. Secondly, above average FSU and Saudi fuel oil exports may help restore typical fuel oil discounts, although the rise in condensate volumes may hamper such a move. Lastly, the start of permanent, or at least semi-permanent, refinery closures will begin to establish a 'new normal' in the refining industry. Namely, that capacity rationalisation will accelerate in the coming quarters as uncompetitive capacity is marginalised and shut down.



These factors in aggregate suggest that the industry is grappling with the outlook of persistently weak profitability. It also highlights that some of the changes necessary to avoid the untenable imbalances highlighted in the June 2009 Edition of the *Medium-Term Oil Market Report* are indeed beginning to happen. While the initial stages of the industry evolution to these changes are encouraging, more still needs to be done.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	25.4	25.5	24.8	24.4	23.6	23.9	24.2	23.5	22.9	23.1	23.7	23.3	23.4	23.1	23.4	23.8	23.4
Europe	15.7	15.3	15.3	15.1	15.5	15.4	15.3	14.9	14.2	14.5	14.8	14.6	14.8	14.3	14.6	14.8	14.6
Pacific	8.5	8.4	8.9	7.9	7.5	8.0	8.1	8.1	7.3	7.2	7.7	7.6	8.0	7.1	7.1	7.5	7.4
Total OECD	49.5	49.2	49.0	47.4	46.7	47.3	47.6	46.6	44.4	44.8	46.2	45.5	46.2	44.5	45.1	46.1	45.5
NON-OECD DEMAND																	
FSU	4.0	4.1	4.3	4.1	4.3	4.2	4.2	4.0	3.9	4.1	4.1	4.0	4.1	4.0	4.2	4.2	4.1
Europe	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	7.2	7.6	7.9	8.0	8.1	7.6	7.9	7.7	8.6	8.8	8.3	8.3	8.3	8.8	8.9	8.5	8.6
Other Asia	9.0	9.5	9.9	9.9	9.4	9.5	9.7	9.9	10.1	9.7	9.7	9.8	10.2	10.3	10.0	10.1	10.1
Latin America	5.4	5.7	5.7	6.0	6.0	5.9	5.9	5.8	6.0	6.1	6.0	6.0	6.0	6.2	6.3	6.2	6.2
Middle East	6.3	6.5	6.7	7.1	7.6	7.0	7.1	6.7	7.3	7.8	7.2	7.2	7.1	7.6	8.1	7.5	7.6
Africa	3.0	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.3	3.2	3.3	3.3	3.3	3.4	3.3
Total Non-OECD	35.7	37.3	38.5	39.0	39.3	38.1	38.7	38.0	39.7	40.3	39.2	39.3	39.8	41.0	41.4	40.6	40.7
Total Demand[1]	85.3	86.5	87.5	86.4	85.9	85.4	86.3	84.6	84.2	85.1	85.5	84.8	86.0	85.5	86.5	86.7	86.2
OECD SUPPLY																	
North America[4]	14.2	14.3	14.2	14.0	13.6	13.8	13.9	14.2	13.9	14.1	14.2	14.1	14.4	14.1	13.9	14.3	14.2
Europe	5.3	5.0	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.2	4.3	4.5	4.3	4.0	3.9	4.1	4.1
Pacific	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Total OECD	20.1	19.9	19.7	19.5	18.8	19.3	19.3	19.7	19.0	19.0	19.2	19.2	19.4	18.9	18.6	19.2	19.0
NON-OECD SUPPLY																	
FSU	12.2	12.8	12.8	12.9	12.7	12.7	12.8	12.9	13.1	13.2	13.4	13.2	13.5	13.7	13.5	13.7	13.6
Europe	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.8	4.0	3.8	4.0	4.0	4.1	4.1	4.1
Other Asia[2]	3.8	3.7	3.7	3.6	3.7	3.7	3.7	3.6	3.6	3.6	3.7	3.6	3.7	3.7	3.8	3.8	3.7
Latin America[2,4]	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.3	4.3	4.4	4.3	4.5	4.6	4.7	4.8	4.6
Middle East	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa[2]	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.5
Total Non-OECD	28.0	28.5	28.7	28.7	28.6	28.7	28.7	28.9	29.2	29.3	29.6	29.2	30.0	30.2	30.2	30.5	30.2
Processing Gains[3]	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels[4]	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Total Non-OPEC[2]	50.4	50.8	51.0	50.8	50.1	50.7	50.6	51.2	50.8	51.0	51.5	51.1	52.0	51.7	51.5	52.4	51.9
Non-OPEC: Historical Composition[2]	51.3	50.3	50.0	49.8	49.1	49.7	49.6	51.2	50.8	51.0	51.5	51.1	52.0	51.7	51.5	52.4	51.9
OPEC																	
Crude[5]	30.7	30.3	31.5	31.4	31.5	30.5	31.2	28.5	28.5	28.8							
NGLs	4.4	4.5	4.6	4.6	4.7	4.8	4.7	4.8	4.9	5.2	5.3	5.0	5.4	5.7	5.9	6.2	5.8
Total OPEC[2]	35.2	34.9	36.1	36.0	36.2	35.3	35.9	33.3	33.4	34.0							
OPEC: Historical Composition[2]	34.3	35.4	37.1	37.0	37.2	36.4	36.9	33.3	33.4	34.0							
Total Supply[6]	85.6	85.7	87.1	86.8	86.3	86.0	86.5	84.5	84.2	85.0							
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.3	0.1	0.4	0.6	0.5	0.4	0.5	0.1	0.2							
Government	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.0							
Total	0.3	-0.2	0.1	0.3	0.5	0.5	0.4	0.7	0.3	0.2							
Floating Storage/Oil in Transit	-0.1	0.0	0.3	0.0	-0.3	0.1	0.0	0.6	0.2	0.1							
Miscellaneous to balance[7]	0.2	-0.6	-0.9	0.1	0.1	0.0	-0.2	-1.4	-0.5	-0.4							
Total Stock Ch. & Misc	0.3	-0.8	-0.4	0.4	0.3	0.6	0.2	0.0	0.0	-0.2							
Memo items:																	
Call on OPEC crude + Stock ch.[8]	30.4	31.2	32.0	31.0	31.2	29.9	31.0	28.6	28.5	29.0	28.6	28.7	28.6	28.2	29.2	28.1	28.5
Adjusted Call on OPEC + Stock ch.[9]	30.5	30.5	31.1	31.1	31.3	30.0	30.8	27.2	28.0	28.6	28.2	28.0	28.1	27.7	28.7	27.6	28.1

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Other Biofuels are from sources outside Brazil and US. North and Latin America oil supply totals include US and Brazilian ethanol.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	0.3	0.2	0.1	-	-	-	0.2	-
Europe	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-	-	-0.1	-0.1	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Total OECD	-	-	-	-	-	-	-	-	-	0.1	0.2	0.1	-	-	-0.1	0.2	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	0.1	-0.1	-
Other Asia	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	0.2	0.2	-	0.1
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	0.4	0.1	0.1	-	0.2	0.4	-	0.1
Total Demand	-	-	-	-	-	-	-	-	-	0.5	0.3	0.2	-	0.2	0.3	0.2	0.1
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	0.1	0.1	0.1	0.1
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Total OECD	-	-	-	-	-	-	-	-	-	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	0.1	0.1	0.2	0.1
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-	0.3	0.3	0.1	0.3	0.3	0.3	0.5	0.3
Non-OPEC: historical composition	-	-	-	-	-	-	-	-	-	0.3	0.3	0.1	0.3	0.3	0.3	0.5	0.3
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-							
NGLs	-	-	-	-	-	-	-	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.2	-0.3
Total OPEC	-	-	-	-	-	-	-	-0.1	-0.1	-0.2							
OPEC: historical composition	-	-	-	-	-	-	-	-0.1	-0.1	-0.2							
Total Supply	-	-	-	-	-	-	-	-0.1	-0.2	-							
STOCK CHANGES AND MISCELLANEOUS REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-								
Government	-	-	-	-	-	-	-	-	-								
Total	-	-	-	-	-	-	-	-	-								
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-								
Miscellaneous to balance	-	-	-	-	-	-	-	-0.1	-0.2								
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-0.1	-0.2	-0.5							
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	0.1	0.2	0.5	0.2	0.3	-	0.1	0.2	-0.1	0.1
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	0.5	0.2	0.2	0.1	0.1	0.2	-0.1	0.1

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

SUMMARY OF GLOBAL OIL DEMAND

	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Demand (mb/d)																
North America	25.47	24.77	24.42	23.58	23.93	24.17	23.52	22.92	23.12	23.73	23.32	23.44	23.10	23.40	23.75	23.42
Europe	15.34	15.34	15.07	15.55	15.44	15.35	14.92	14.23	14.50	14.80	14.61	14.81	14.26	14.62	14.79	14.62
Pacific	8.37	8.91	7.86	7.54	7.97	8.07	8.14	7.30	7.22	7.72	7.59	7.96	7.13	7.08	7.55	7.43
Total OECD	49.18	49.02	47.36	46.67	47.34	47.59	46.58	44.44	44.85	46.25	45.53	46.20	44.50	45.10	46.08	45.47
Asia	17.11	17.82	17.85	17.49	17.10	17.56	17.58	18.67	18.47	18.01	18.19	18.54	19.18	18.82	18.60	18.79
Middle East	6.53	6.72	7.13	7.57	6.95	7.10	6.71	7.32	7.78	7.18	7.25	7.08	7.62	8.11	7.51	7.58
Latin America	5.69	5.71	5.97	6.04	5.93	5.91	5.77	5.96	6.10	5.99	5.95	5.95	6.17	6.28	6.20	6.15
FSU	4.15	4.27	4.12	4.33	4.15	4.22	3.98	3.86	4.08	4.08	4.00	4.15	4.01	4.22	4.20	4.15
Africa	3.07	3.19	3.19	3.14	3.22	3.18	3.23	3.21	3.15	3.26	3.21	3.35	3.32	3.26	3.37	3.33
Europe	0.77	0.76	0.74	0.72	0.74	0.74	0.72	0.73	0.71	0.71	0.72	0.74	0.74	0.72	0.73	0.73
Total Non-OECD	37.32	38.48	39.00	39.28	38.09	38.71	38.00	39.73	40.29	39.24	39.32	39.81	41.05	41.41	40.61	40.73
World	86.51	87.49	86.36	85.95	85.43	86.30	84.58	84.18	85.14	85.48	84.85	86.01	85.55	86.52	86.69	86.19
of which: US50	20.68	20.04	19.76	18.90	19.30	19.50	18.96	18.54	18.51	19.11	18.78	18.86	18.68	18.77	19.10	18.85
Europe 5*	9.48	9.50	9.29	9.50	9.57	9.47	9.41	8.85	8.90	9.06	9.06	9.22	8.79	8.92	9.02	8.99
China	7.57	7.88	7.98	8.09	7.62	7.89	7.65	8.61	8.81	8.29	8.34	8.31	8.83	8.85	8.55	8.64
Japan	5.04	5.45	4.63	4.34	4.71	4.78	4.72	4.03	4.05	4.39	4.30	4.54	3.85	3.91	4.22	4.13
India	3.00	3.25	3.18	2.97	3.14	3.13	3.40	3.35	3.11	3.21	3.26	3.49	3.44	3.21	3.32	3.36
Russia	2.89	2.94	2.88	3.09	2.88	2.95	2.72	2.66	2.87	2.83	2.77	2.85	2.79	2.99	2.93	2.89
Brazil	2.35	2.37	2.46	2.53	2.51	2.47	2.39	2.48	2.57	2.52	2.49	2.48	2.57	2.65	2.62	2.58
Saudi Arabia	2.17	2.22	2.47	2.71	2.27	2.42	2.23	2.78	3.02	2.48	2.63	2.43	2.88	3.12	2.60	2.76
Canada	2.31	2.31	2.19	2.26	2.26	2.26	2.20	2.08	2.22	2.25	2.19	2.22	2.13	2.26	2.28	2.22
Korea	2.24	2.35	2.11	2.10	2.14	2.17	2.34	2.17	2.07	2.20	2.19	2.32	2.16	2.05	2.19	2.18
Mexico	2.14	2.12	2.19	2.14	2.07	2.13	2.05	2.01	2.10	2.06	2.06	2.04	2.02	2.07	2.05	2.05
Iran	1.72	1.86	1.89	1.86	1.83	1.86	1.77	1.73	1.74	1.81	1.76	1.85	1.84	1.85	1.92	1.86
Total	61.58	62.28	61.05	60.49	60.30	61.03	59.85	59.31	59.97	60.23	59.84	60.59	59.98	60.67	60.81	60.51
% of World	71.2%	71.2%	70.7%	70.4%	70.6%	70.7%	70.8%	70.5%	70.4%	70.5%	70.5%	70.4%	70.1%	70.1%	70.1%	70.2%
Annual Change (% per annum)																
North America	0.4	-3.3	-3.6	-7.5	-5.9	-5.1	-5.1	-6.2	-1.9	-0.8	-3.5	-0.4	0.8	1.2	0.1	0.4
Europe	-2.1	0.7	0.7	0.5	-1.6	0.1	-2.7	-5.6	-6.7	-4.1	-4.8	-0.7	0.2	0.8	-0.1	0.1
Pacific	-1.0	0.0	-0.6	-4.9	-8.9	-3.6	-8.6	-7.2	-4.2	-3.2	-5.9	-2.3	-2.3	-1.9	-2.2	-2.2
Total OECD	-0.7	-1.5	-1.8	-4.5	-5.1	-3.2	-5.0	-6.1	-3.9	-2.3	-4.3	-0.8	0.1	0.6	-0.3	-0.1
Asia	5.1	5.7	2.8	3.5	-1.4	2.6	-1.3	4.6	5.6	5.3	3.5	5.5	2.8	1.9	3.3	3.3
Middle East	3.2	4.9	9.2	12.4	7.6	8.6	-0.2	2.6	2.8	3.2	2.2	5.5	4.2	4.2	4.6	4.6
Latin America	5.5	4.8	5.2	4.0	1.8	3.9	0.9	-0.1	0.9	1.1	0.7	3.2	3.7	3.1	3.4	3.3
FSU	2.7	3.2	4.5	2.9	-3.7	1.6	-6.8	-6.4	-5.7	-1.7	-5.2	4.3	3.9	3.5	3.0	3.7
Africa	4.0	3.1	5.4	4.0	2.6	3.7	1.2	0.5	0.6	1.3	0.9	3.6	3.6	3.4	3.5	3.5
Europe	3.6	0.3	-0.4	-7.3	-5.2	-3.3	-5.1	-1.7	-1.3	-3.9	-3.0	1.5	1.7	2.0	2.1	1.8
Total Non-OECD	4.4	4.8	4.6	4.9	0.6	3.7	-1.2	1.9	2.6	3.0	1.6	4.8	3.3	2.8	3.5	3.6
World	1.5	1.2	1.0	-0.4	-2.6	-0.2	-3.3	-2.5	-0.9	0.1	-1.7	1.7	1.6	1.6	1.4	1.6
Annual Change (mb/d)																
North America	0.09	-0.85	-0.92	-1.91	-1.50	-1.30	-1.25	-1.51	-0.46	-0.20	-0.85	-0.08	0.19	0.28	0.02	0.10
Europe	-0.34	0.11	0.11	0.08	-0.26	0.01	-0.42	-0.84	-1.04	-0.64	-0.74	-0.11	0.03	0.12	-0.01	0.01
Pacific	-0.09	0.00	-0.05	-0.39	-0.78	-0.30	-0.77	-0.56	-0.32	-0.26	-0.48	-0.19	-0.17	-0.14	-0.17	-0.17
Total OECD	-0.33	-0.73	-0.86	-2.22	-2.54	-1.59	-2.44	-2.91	-1.82	-1.10	-2.06	-0.38	0.05	0.26	-0.16	-0.06
Asia	0.83	0.96	0.49	0.60	-0.25	0.45	-0.23	0.82	0.98	0.91	0.62	0.96	0.51	0.35	0.59	0.60
Middle East	0.20	0.32	0.60	0.84	0.49	0.56	-0.01	0.18	0.21	0.22	0.15	0.37	0.31	0.33	0.33	0.33
Latin America	0.30	0.26	0.30	0.23	0.10	0.22	0.05	-0.01	0.05	0.07	0.04	0.19	0.22	0.19	0.20	0.20
FSU	0.11	0.13	0.18	0.12	-0.16	0.07	-0.29	-0.27	-0.25	-0.07	-0.22	0.17	0.15	0.14	0.12	0.15
Africa	0.12	0.10	0.16	0.12	0.08	0.11	0.04	0.02	0.02	0.04	0.03	0.12	0.12	0.11	0.11	0.11
Europe	0.03	0.00	0.00	-0.06	-0.04	-0.02	-0.04	-0.01	-0.01	-0.03	-0.02	0.01	0.01	0.01	0.02	0.01
Total Non-OECD	1.59	1.77	1.73	1.85	0.23	1.39	-0.48	0.73	1.01	1.14	0.61	1.82	1.32	1.12	1.37	1.41
World	1.26	1.03	0.86	-0.37	-2.32	-0.20	-2.92	-2.18	-0.81	0.05	-1.46	1.44	1.37	1.38	1.21	1.35
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	-0.02	0.00	0.00	0.00	0.02	0.29	0.25	0.14	-0.01	-0.02	-0.02	0.19	0.04
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.15	-0.11	-0.06	0.00	0.01	-0.11	-0.08	-0.05
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.03	0.00	0.02	0.00	0.02	0.05	0.02
Total OECD	0.00	0.00	0.00	-0.02	0.00	0.00	0.00	0.03	0.12	0.16	0.08	0.01	-0.01	-0.12	0.17	0.01
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.01	0.07	-0.04	-0.01	0.15	-0.06	0.01
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.08	0.05	0.03	0.16	0.17	0.04	0.10
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.02	0.01	-0.01	0.00	0.02	0.01	0.01
FSU	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.02	-0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.03	0.00	0.01	0.00	-0.01	0.03	0.00	0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	0.00	0.00	0.01	-0.01	0.00	0.01	0.02	0.40	0.12	0.14	0.00	0.16	0.37	0.00	0.13
World	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.01	0.05	0.52	0.28	0.22	0.00	0.15	0.25	0.17	0.14
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	0.01	-0.01	-0.01	0.00	0.01	0.05	0.53	0.29	0.22	0.00	0.10	-0.27	-0.11	-0.07

* France, Germany, Italy, Spain & UK

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2008	2009	2010	2Q09	3Q09	4Q09	1Q10	2Q10	Aug 09	Sep 09	Oct 09
OPEC											
Crude Oil											
Saudi Arabia	8.90			7.91	7.94				7.93	7.92	7.93
Iran	3.90			3.72	3.77				3.80	3.70	3.65
Iraq	2.38			2.45	2.55				2.56	2.51	2.47
UAE	2.59			2.25	2.27				2.27	2.27	2.29
Kuwait	2.31			1.98	1.97				1.97	1.96	2.00
Neutral Zone	0.57			0.54	0.54				0.54	0.54	0.54
Qatar	0.85			0.77	0.76				0.76	0.76	0.78
Angola	1.85			1.71	1.80				1.79	1.86	1.90
Nigeria	1.95			1.77	1.76				1.74	1.85	1.90
Libya	1.72			1.53	1.55				1.55	1.55	1.55
Algeria	1.37			1.25	1.22				1.22	1.22	1.24
Ecuador	0.50			0.48	0.46				0.46	0.46	0.46
Venezuela	2.35			2.12	2.20				2.21	2.24	2.24
Total Crude Oil[6]	31.24			28.48	28.80				28.80	28.84	28.95
Total NGLs[1,6]	4.66	5.04	5.80	4.92	5.17	5.31	5.41	5.68	5.17	5.17	5.31
Total OPEC[6]	35.90			33.40	33.97				33.97	34.01	34.26
OPEC: Historical Composition[6]	36.93			33.40	33.97				33.97	34.01	34.26
NON-OPEC[2]											
OECD											
North America	13.91	14.10	14.16	13.87	14.13	14.22	14.41	14.09	14.08	14.18	14.13
United States[5]	7.52	8.02	8.21	7.97	8.08	8.20	8.24	8.26	8.08	8.14	8.15
Mexico	3.16	2.95	2.79	2.97	2.94	2.88	2.85	2.81	2.92	2.96	2.89
Canada	3.22	3.13	3.16	2.93	3.11	3.14	3.32	3.02	3.08	3.08	3.10
Europe	4.76	4.47	4.08	4.48	4.21	4.33	4.29	3.98	4.00	4.05	4.34
UK	1.56	1.48	1.35	1.56	1.28	1.47	1.48	1.35	1.07	1.29	1.44
Norway	2.46	2.33	2.08	2.27	2.27	2.20	2.16	1.99	2.26	2.11	2.24
Others	0.74	0.67	0.65	0.66	0.66	0.66	0.65	0.65	0.68	0.65	0.65
Pacific	0.65	0.65	0.78	0.62	0.66	0.69	0.72	0.78	0.66	0.66	0.68
Australia	0.55	0.55	0.66	0.53	0.55	0.57	0.60	0.66	0.56	0.56	0.56
Others	0.10	0.10	0.12	0.09	0.10	0.12	0.12	0.12	0.11	0.11	0.11
Total OECD	19.32	19.23	19.02	18.97	18.99	19.23	19.42	18.86	18.74	18.90	19.15
NON-OECD											
Former USSR	12.77	13.17	13.60	13.13	13.24	13.40	13.51	13.69	13.22	13.26	13.32
Russia	10.00	10.14	10.26	10.10	10.20	10.28	10.27	10.28	10.19	10.27	10.27
Others	2.77	3.02	3.34	3.03	3.04	3.11	3.23	3.40	3.03	2.99	3.05
Asia	7.47	7.48	7.80	7.42	7.48	7.63	7.73	7.74	7.49	7.50	7.63
China	3.79	3.83	4.05	3.80	3.84	3.98	4.03	4.02	3.86	3.84	3.97
Malaysia	0.76	0.73	0.70	0.72	0.73	0.72	0.71	0.71	0.72	0.73	0.72
India	0.81	0.80	0.87	0.80	0.79	0.82	0.84	0.86	0.79	0.79	0.81
Indonesia	1.03	1.01	1.03	1.00	1.01	1.01	1.01	1.03	1.00	1.01	1.00
Others	1.08	1.11	1.13	1.11	1.12	1.11	1.13	1.13	1.13	1.13	1.13
Europe	0.14	0.13	0.12	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13
Latin America	4.14	4.34	4.64	4.34	4.33	4.38	4.54	4.59	4.29	4.38	4.38
Brazil[5]	2.37	2.50	2.72	2.50	2.51	2.51	2.64	2.68	2.52	2.53	2.51
Argentina	0.75	0.74	0.75	0.75	0.71	0.74	0.76	0.75	0.66	0.74	0.74
Colombia	0.59	0.66	0.73	0.66	0.66	0.68	0.70	0.72	0.67	0.67	0.68
Others	0.42	0.44	0.44	0.43	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Middle East[3]	1.65	1.63	1.61	1.64	1.64	1.60	1.60	1.61	1.67	1.60	1.60
Oman	0.75	0.80	0.84	0.80	0.82	0.80	0.81	0.83	0.85	0.79	0.79
Syria	0.39	0.36	0.33	0.37	0.36	0.35	0.34	0.33	0.36	0.36	0.35
Yemen	0.31	0.27	0.26	0.27	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Others	0.19	0.19	0.18	0.19	0.19	0.19	0.18	0.18	0.19	0.19	0.19
Africa	2.53	2.49	2.46	2.50	2.50	2.47	2.48	2.46	2.50	2.49	2.44
Egypt	0.65	0.63	0.60	0.64	0.63	0.62	0.61	0.61	0.63	0.63	0.62
Gabon	0.21	0.23	0.24	0.22	0.23	0.24	0.24	0.24	0.24	0.24	0.24
Others	1.67	1.63	1.62	1.64	1.63	1.60	1.62	1.61	1.64	1.62	1.58
Total Non-OECD	28.69	29.24	30.23	29.15	29.32	29.60	29.98	30.21	29.30	29.36	29.50
Processing Gains[4]	2.24	2.29	2.20	2.29	2.29	2.29	2.20	2.20	2.29	2.29	2.29
Other Biofuels[5]	0.38	0.39	0.46	0.38	0.42	0.41	0.42	0.43	0.42	0.43	0.41
TOTAL NON-OPEC[6]	50.64	51.14	51.91	50.79	51.02	51.53	52.03	51.70	50.75	50.97	51.35
Non-OPEC: Historical Composition[6]	49.61	51.14	51.91	50.79	51.02	51.53	52.03	51.70	50.75	50.97	51.35
TOTAL SUPPLY	86.54			84.19	84.99				84.71	84.98	85.61

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Other Biofuels are from sources outside Brazil and US. US and Brazil oil supply include ethanol.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	May2009	Jun2009	Jul2009	Aug2009	Sep2009*	Sep2006	Sep2007	Sep2008	4Q2008	1Q2009	2Q2009	3Q2009
North America												
Crude	510.6	497.0	498.0	481.6	480.2	461.2	449.8	453.2	0.16	0.49	-0.15	-0.18
Motor Gasoline	236.4	243.7	238.5	235.1	242.8	244.1	227.8	218.1	0.27	0.06	-0.05	-0.01
Middle Distillate	229.5	234.1	236.2	241.3	248.5	224.3	207.2	197.1	0.22	0.00	0.19	0.16
Residual Fuel Oil	46.9	44.7	43.1	41.4	42.8	53.0	44.3	47.5	-0.04	0.03	-0.03	-0.02
Total Products[3]	705.6	723.9	724.3	726.6	741.5	723.6	672.1	654.4	0.32	0.02	0.42	0.19
Total[4]	1376.8	1382.9	1386.8	1372.2	1383.8	1351.3	1285.2	1278.2	0.25	0.53	0.39	0.01
Europe												
Crude	330.2	343.0	338.9	339.0	337.7	329.5	321.5	333.1	0.10	0.15	-0.14	-0.06
Motor Gasoline	98.0	99.3	96.9	97.5	99.2	102.6	103.7	98.3	0.11	-0.07	-0.03	0.00
Middle Distillate	290.3	282.3	287.3	300.1	291.1	262.8	250.8	265.3	0.11	0.02	0.06	0.10
Residual Fuel Oil	82.7	80.7	68.8	72.9	71.9	71.9	77.7	74.7	0.08	-0.05	0.03	-0.10
Total Products[3]	576.6	566.0	557.2	578.2	571.0	545.2	537.4	548.2	0.31	-0.13	0.01	0.05
Total[4]	976.5	976.4	965.2	986.5	978.9	947.9	932.5	951.5	0.46	-0.02	-0.17	0.03
Pacific												
Crude	155.8	170.2	171.1	165.4	158.2	177.2	163.4	162.1	0.01	0.08	0.00	-0.13
Motor Gasoline	27.0	26.1	23.8	24.2	25.2	23.5	21.7	22.7	-0.02	0.06	0.00	-0.01
Middle Distillate	65.2	62.3	67.2	71.4	73.1	86.0	77.7	74.3	-0.10	-0.09	0.06	0.12
Residual Fuel Oil	20.6	18.9	19.3	21.8	21.3	23.8	25.6	22.3	-0.02	0.00	-0.01	0.03
Total Products[3]	171.2	164.8	170.1	182.8	185.1	210.9	196.8	192.9	-0.20	-0.07	-0.05	0.22
Total[4]	397.5	401.0	407.3	414.1	411.7	461.0	432.2	430.7	-0.25	0.01	-0.08	0.12
Total OECD												
Crude	996.6	1010.2	1008.0	985.9	976.1	967.8	934.7	948.4	0.27	0.72	-0.28	-0.37
Motor Gasoline	361.4	369.1	359.2	356.7	367.2	370.1	353.2	339.1	0.36	0.05	-0.09	-0.02
Middle Distillate	585.0	578.7	590.6	612.9	612.8	573.1	535.6	536.7	0.22	-0.07	0.30	0.37
Residual Fuel Oil	150.2	144.3	131.1	136.0	136.0	148.7	147.6	144.5	0.02	-0.01	-0.01	-0.09
Total Products[3]	1453.4	1454.7	1451.6	1487.6	1497.7	1479.6	1406.4	1395.5	0.44	-0.17	0.38	0.47
Total[4]	2750.9	2760.2	2759.3	2772.7	2774.3	2760.1	2650.0	2660.4	0.45	0.52	0.14	0.15

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	May2009	Jun2009	Jul2009	Aug2009	Sep2009*	Sep2006	Sep2007	Sep2008	4Q2008	1Q2009	2Q2009	3Q2009
North America												
Crude	721.7	724.1	724.1	724.1	725.1	687.8	692.8	702.4	-0.01	0.12	0.12	0.01
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	186.6	186.7	185.6	186.1	186.1	175.5	177.4	180.4	0.07	0.01	-0.01	-0.01
Products	238.7	238.3	239.5	240.5	240.5	235.1	244.2	233.1	-0.05	0.06	0.05	0.02
Pacific												
Crude	388.8	389.1	388.5	388.5	388.5	381.5	385.1	384.3	0.03	0.02	0.00	-0.01
Products	19.2	19.2	19.2	19.2	19.2	11.8	17.9	19.2	0.00	0.00	0.00	0.00
Total OECD												
Crude	1297.1	1299.9	1298.1	1298.7	1299.7	1244.8	1255.2	1267.0	0.10	0.16	0.11	0.00
Products	259.9	259.5	260.7	261.7	261.7	249.0	264.0	254.2	-0.05	0.06	0.05	0.02
Total[4]	1558.5	1561.0	1560.6	1562.1	1563.1	1494.8	1520.2	1522.2	0.05	0.23	0.15	0.02

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End September 2008		End December 2008		End March 2009		End June 2009		End September 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	198.4	88	193.9	88	197.7	95	197.8	-	-	-
Mexico	55.7	27	50.3	25	45.5	23	48.1	-	-	-
United States[4]	1706.4	88	1738.7	92	1797.0	97	1841.0	-	-	-
Total[4]	1982.6	83	2005.1	86	2062.3	90	2108.9	91	2110.9	89
Pacific										
Australia	38.9	40	41.4	45	40.8	43	40.5	-	-	-
Japan	646.2	137	629.6	133	611.3	152	611.2	-	-	-
Korea	141.2	66	134.9	58	155.2	72	149.1	-	-	-
New Zealand	7.9	53	7.9	51	9.5	61	8.5	-	-	-
Total	834.1	105	813.8	100	816.8	112	809.3	112	819.3	106
Europe[5]										
Austria	21.5	79	23.2	82	20.9	78	20.4	-	-	-
Belgium	31.1	43	34.9	56	35.8	65	35.0	-	-	-
Czech Republic	19.1	97	21.4	114	22.7	111	22.0	-	-	-
Denmark	18.3	101	22.9	131	25.1	152	26.4	-	-	-
Finland	30.1	139	30.7	147	33.5	167	25.4	-	-	-
France	176.6	87	179.2	89	177.6	98	172.9	-	-	-
Germany	273.7	103	277.4	108	277.7	116	280.2	-	-	-
Greece	39.2	83	40.0	83	36.7	93	35.9	-	-	-
Hungary	15.5	93	15.0	100	15.7	100	15.1	-	-	-
Ireland	10.5	54	11.4	63	11.5	74	11.7	-	-	-
Italy	130.3	81	127.9	83	131.0	86	129.1	-	-	-
Luxembourg	0.6	10	0.7	14	0.7	14	0.8	-	-	-
Netherlands	115.0	117	131.4	130	133.9	139	144.4	-	-	-
Norway	26.5	127	29.9	143	24.0	108	23.6	-	-	-
Poland	58.8	106	58.1	119	58.9	111	63.1	-	-	-
Portugal	25.0	90	24.7	92	25.0	90	24.8	-	-	-
Slovak Republic	8.0	93	8.8	122	9.8	123	8.4	-	-	-
Spain	135.8	88	137.6	89	137.8	94	135.6	-	-	-
Sweden	36.6	104	38.7	119	40.7	127	39.5	-	-	-
Switzerland	37.8	127	36.3	120	36.8	133	38.0	-	-	-
Turkey	60.8	98	60.9	111	59.2	97	58.8	-	-	-
United Kingdom	95.1	55	98.8	57	100.4	60	91.7	-	-	-
Total	1365.9	88	1409.9	94	1415.3	99	1403.0	97	1407.2	95
Total OECD	4182.6	88	4228.8	91	4294.4	97	4321.2	96	4337.4	94
DAYS OF IEA Net Imports[6]	-	124	-	131	-	134	-	135	-	-

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End June 2009 and September 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand*[2]		
3Q2006	4255	1495	2760	85	30	55
4Q2006	4166	1499	2667	84	30	54
1Q2007	4105	1507	2598	85	31	54
2Q2007	4164	1506	2658	85	31	54
3Q2007	4170	1520	2650	83	30	53
4Q2007	4091	1524	2567	83	31	52
1Q2008	4102	1529	2573	86	32	54
2Q2008	4133	1526	2607	88	33	56
3Q2008	4183	1522	2660	88	32	56
4Q2008	4229	1527	2702	91	33	58
1Q2009	4294	1547	2747	97	35	62
2Q2009	4321	1561	2760	96	35	62
3Q2009	4337	1563	2774	94	34	60

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 2Q2009 and 3Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	3Q08	4Q08	1Q09	2Q09	Jun 09	Jul 09	Aug 09	Year Earlier Aug 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.71	0.63	0.58	0.51	0.45	0.56	0.36	0.60	-0.24
Europe	0.78	0.70	0.70	0.81	0.66	0.57	0.60	0.54	0.66	0.43	0.85	-0.42
Pacific	1.32	1.19	1.22	1.10	1.24	1.40	1.16	1.18	1.30	1.20	1.08	0.13
Saudi Medium												
North America	0.64	0.56	0.64	0.68	0.66	0.42	0.45	0.48	0.44	0.34	0.61	-0.27
Europe	0.14	0.05	0.05	0.03	0.05	0.03	0.02	0.02	0.02	-	0.01	-
Pacific	0.35	0.34	0.39	0.40	0.38	0.34	0.33	0.35	0.39	0.30	0.38	-0.09
Saudi Heavy												
North America	0.21	0.09	0.07	0.14	0.05	0.04	0.02	0.02	0.02	0.02	-	-
Europe	0.18	0.11	0.09	0.12	0.09	0.03	0.03	0.04	0.00	0.01	0.14	-0.13
Pacific	0.23	0.20	0.24	0.26	0.25	0.22	0.15	0.16	0.13	0.12	0.22	-0.10
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.57	0.51	0.44	0.31	0.34	0.32	0.56	0.59	-0.03
Europe	0.32	0.30	0.21	0.23	0.21	0.13	0.12	0.16	0.20	0.30	0.24	0.06
Pacific	0.08	0.17	0.15	0.18	0.11	0.26	0.20	0.22	0.21	0.31	0.10	0.21
Iraqi Kirkuk												
North America	0.00	-	0.08	0.10	0.06	0.07	0.02	0.03	0.13	0.07	0.13	-0.06
Europe	0.01	0.11	0.23	0.24	0.19	0.26	0.34	0.34	0.44	0.24	0.26	-0.02
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.21	0.24	0.15	0.16	0.19	0.05	0.17	0.20	-0.03
Pacific	0.13	0.09	0.08	0.06	0.07	0.11	0.06	0.02	0.08	0.06	0.07	-0.01
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.60	0.43	0.33	0.41	0.44	0.51	0.48	0.65	-0.17
Pacific	0.56	0.64	0.61	0.67	0.64	0.65	0.51	0.50	0.56	0.57	0.74	-0.17
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.67	0.50	0.51	0.63	0.68	0.42	0.40	0.73	-0.33
Europe	0.11	0.08	0.06	0.06	0.07	0.07	0.13	0.10	0.08	0.01	0.11	-0.09
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.67	0.74	0.74	0.62	0.70	0.74	0.88	0.67	0.21
Europe	0.06	0.07	0.07	0.07	0.08	0.07	0.06	0.05	0.06	0.08	0.11	-0.03
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	0.99	1.04	1.06	0.96	0.91	0.83	0.92	1.13	-0.21
Europe	0.16	0.14	0.14	0.14	0.12	0.08	0.09	0.12	0.10	0.08	0.16	-0.09
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.01	0.00	0.01	0.00	-	0.01	0.01	0.01	0.00
Europe	0.01	0.02	0.01	-	0.02	0.01	-	-	0.03	0.03	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	0.10	-	0.09	0.27	0.21	0.20	0.12	0.14	-0.02
Europe	1.68	1.86	1.81	1.74	1.67	1.58	1.76	1.65	1.86	1.60	1.77	-0.17
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.52	0.60	0.47	0.40	0.58	0.64	0.65	0.66	-0.01
Europe	0.33	0.24	0.29	0.33	0.34	0.25	0.39	0.36	0.42	0.33	0.29	0.04
Pacific	0.04	0.01	-	-	-	-	0.01	0.04	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.26	0.22	0.14	0.30	0.36	0.28	0.13	0.43	-0.30
Europe	0.10	0.07	0.14	0.13	0.14	0.12	0.12	0.16	0.09	0.07	0.16	-0.09
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	3Q08	4Q08	1Q09	2Q09	Jun-09	Jul-09	Aug-09	Year Earlier Aug-08	Year Earlier % change
Crude Oil												
North America	8194	8214	8046	7905	7886	7743	7541	7462	7507	6954	8034	-13%
Europe	9784	9684	9772	9977	9524	9001	9132	9393	8918	8633	9801	-12%
Pacific	6816	6718	6605	6460	6408	6559	5706	6041	5829	6034	6530	-8%
Total OECD	24794	24615	24423	24342	23819	23304	22379	22895	22254	21621	24682	-12%
LPG												
North America	14	28	29	38	34	28	11	0	5	22	31	-29%
Europe	264	276	268	277	241	251	250	280	285	220	289	-24%
Pacific	578	557	589	582	543	504	518	575	501	544	558	-2%
Total OECD	856	861	885	897	818	784	780	855	791	787	879	-10%
Naphtha												
North America	71	40	55	58	82	40	19	14	29	16	43	-63%
Europe	314	265	260	233	270	319	232	255	227	295	224	32%
Pacific	754	794	776	886	689	746	814	806	927	927	863	7%
Total OECD	1138	1099	1091	1177	1040	1105	1066	1075	1183	1238	1130	10%
Gasoline[3]												
North America	1143	1128	1081	1181	1038	996	889	990	946	829	1084	-24%
Europe	160	203	218	261	196	239	280	355	293	168	288	-42%
Pacific	96	73	90	56	105	120	71	70	85	70	43	65%
Total OECD	1399	1404	1389	1498	1339	1354	1239	1415	1325	1068	1415	-25%
Jet & Kerosene												
North America	161	183	63	40	39	80	45	41	72	58	30	93%
Europe	374	370	402	399	468	454	462	485	454	383	456	-16%
Pacific	69	43	34	22	33	79	49	42	42	39	12	233%
Total OECD	603	595	500	461	540	612	555	569	568	480	498	-4%
Gasoil/Diesel												
North America	175	132	72	50	94	106	39	36	17	18	19	-5%
Europe	967	780	880	917	1039	1224	963	852	1245	843	818	3%
Pacific	77	91	119	128	117	81	81	83	94	45	115	-61%
Total OECD	1219	1003	1072	1095	1250	1410	1083	971	1356	905	952	-5%
Heavy Fuel Oil												
North America	343	323	286	246	266	326	326	315	210	174	287	-39%
Europe	476	433	447	446	462	474	567	553	799	560	435	29%
Pacific	91	95	125	143	94	144	128	110	99	116	160	-27%
Total OECD	910	851	858	834	821	943	1021	978	1109	851	882	-4%
Other Products												
North America	1121	1050	1075	1061	1117	935	896	871	923	786	1011	-22%
Europe	929	854	763	786	750	737	776	806	892	831	777	7%
Pacific	243	254	298	319	316	279	324	278	370	296	388	-24%
Total OECD	2294	2157	2137	2165	2182	1951	1996	1956	2185	1913	2177	-12%
Total Products												
North America	3028	2883	2661	2674	2669	2509	2226	2267	2202	1903	2505	-24%
Europe	3484	3180	3238	3319	3426	3697	3530	3585	4195	3300	3288	0%
Pacific	1908	1906	2032	2135	1895	1952	1985	1965	2119	2037	2138	-5%
Total OECD	8420	7969	7931	8128	7990	8159	7741	7817	8516	7241	7932	-9%
Total Oil												
North America	11222	11097	10707	10579	10555	10253	9767	9729	9709	8858	10856	-18%
Europe	13268	12864	13011	13296	12950	12698	12662	12977	13113	11934	13089	-9%
Pacific	8724	8623	8637	8594	8303	8512	7691	8007	7948	8071	8668	-7%
Total OECD	33214	32584	32354	32469	31809	31463	30120	30713	30770	28862	32614	-12%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Editorial Enquiries

Editor
Head, Oil Industry and Markets Division
David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand
Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply
Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining
David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Biofuels
Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices
Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Freight
Ellen Dalland
(+33) 0*1 40 57 67 63
e-mail: ellen.dalland@iea.org

Statistics/Trade
Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant
Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
*0 - only within France

Media Enquiries

IEA Press Office
(+33) 0* 1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

User's Guide and Glossary to the IEA *Oil Market Report*

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2009), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Platts prices, converted when appropriate to US$ per barrel according to the Platts specification of products (© 2009 Platts - a division of McGraw-Hill Inc.).

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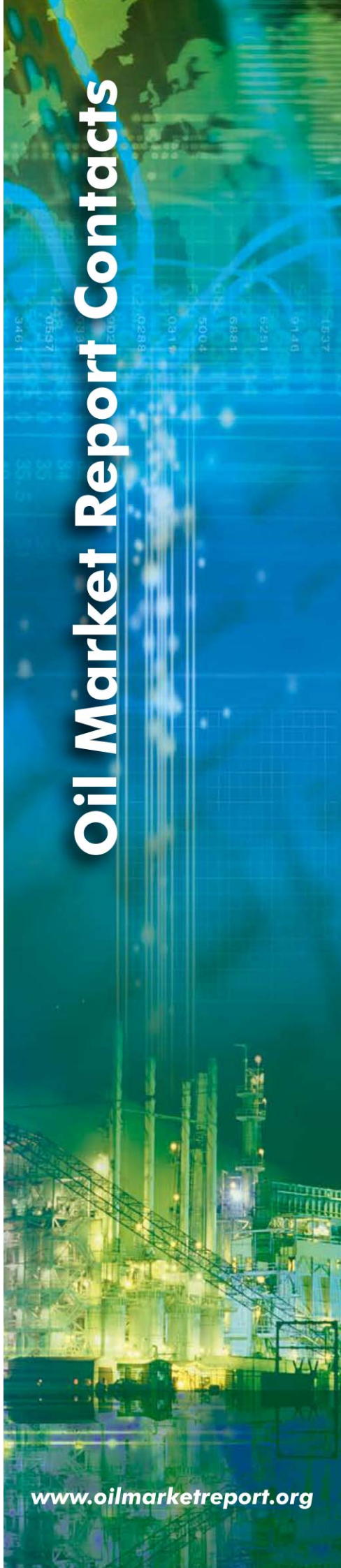

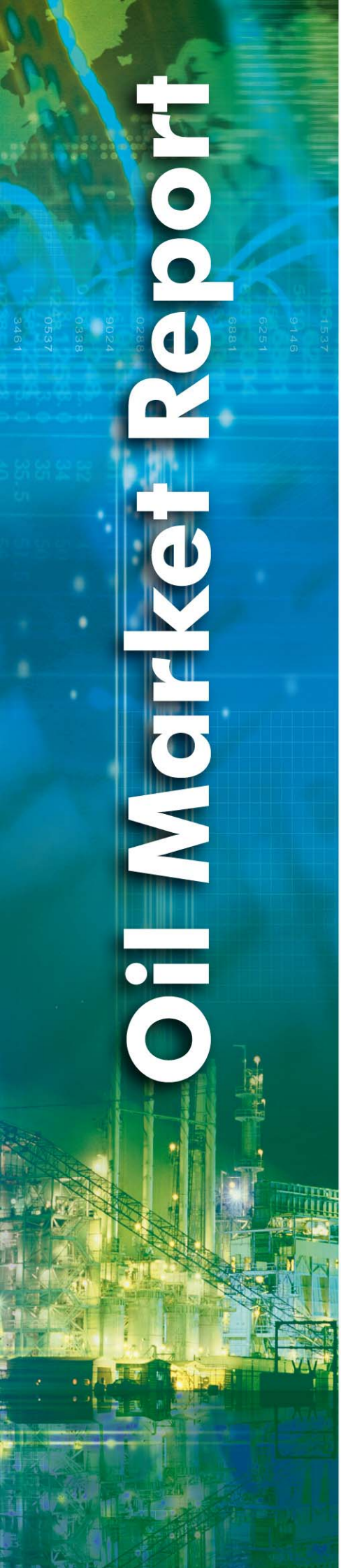

International Energy Agency

11 December 2009

HIGHLIGHTS

- **Forecast global oil demand** is virtually unchanged for 2009 at 84.9 mb/d but is revised up by 130 kb/d to 86.3 mb/d in 2010. Yearly growth (-1.4 mb/d and +1.5 mb/d, respectively) remains driven by non-OECD countries, but OECD prospects have slightly improved.
- **OECD industry stocks** fell by 36 mb in October to 2,735 mb, 2.5% above 2008's level. Middle distillates accounted for over 40% of the draw, yet global products in floating storage continued to rise in October and November. End-October forward demand cover fell to 59.4 days, 2.5 days higher than a year ago.
- **Global oil supply** rose by 200 kb/d in November. OPEC crude production increased by 135 kb/d to 29.1 mb/d, its highest level in a year. Largely as a result of lower non-OPEC supply prospects for 2010, next year's call on OPEC is raised by 0.5 mb/d to 29.0 mb/d, compared with 28.7 mb/d in 2009.
- **Forecast 2009 non-OPEC supply** is raised by 125 kb/d to 51.3 mb/d as Russian gas liquids output is revised up. In addition, the end of the quietest US hurricane season since 1997 has contributed to lift this year's outlook. By contrast, 2010 supply is revised down by 265 kb/d to 51.6 mb/d, with North American supply now lower.
- **Projected global 4Q09 refinery crude throughput** is revised down by 0.6 mb/d to 72.3 mb/d, due to weaker US preliminary data and higher maintenance in Asia and the Middle East. Global 1Q10 crude throughput is seen rising by 1.0 mb/d year-on-year to 72.7 mb/d, but OECD crude runs are expected to fall given weak refining margins.
- **Crude oil futures prices** traded in a higher $75-80/bbl range in November before weakening in early December on fears that the recovery in the global economy could be shallower and slower than expected, especially in the key US market. Prices were trading at eight-week lows of around a $70-74/bbl range at the time of writing.
- **A medium-term market update** sees upward revisions for demand (largely non-OECD Asia) outstripping those for supply (Russia, OPEC NGLs and Nigerian and Iraqi capacity). Yet higher OPEC capacity ensures similar market outlooks – tightening under the higher GDP case, but remaining comfortable under lower GDP growth or faster efficiency gains.

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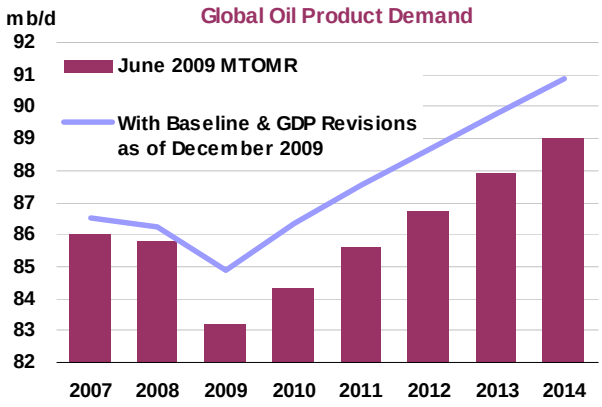
REVIEWING THE MEDIUM-TERM HORIZON

The December *OMR* contains not only the customary review and projections through 2010, but also a preliminary update of June's *MTOMR* outlook to 2014. Our short-term balance looks marginally tighter for 2010 than last month, with lower non-OPEC supply giving an underlying 'call on OPEC crude and stock change' which now rises in 2010 to 29 mb/d. The medium-term outlook also sees a stronger 'call' compared with the June *MTOMR*, alongside slightly tighter spare capacity in the higher GDP case. We summarise key features of the medium-term update below, and individual *OMR* sections discuss *MTOMR* revision specifics. An interim update will be a regular feature of the *MTOMR* cycle, published within the *OMR*. June 2010 will see the next full medium-term report. The exercise here focuses on baseline data changes, updated GDP/price assumptions and revised upstream/downstream project schedules. An *MTOMR* data appendix will be available for subscribers later in December and, as ever, we welcome your comments.

Oil Demand

Adjustments to the outlook result in average 2009-2014 demand around 1.9 mb/d higher than in June's report. A higher 2009 baseline, partly from the impact of economic and fiscal stimulus programmes (notably for the non-OECD), and stronger assumed 2009/2010 GDP growth underpin this upgrade. Our higher GDP case hinges on the IMF's October 2009 outlook, which sees more front-end loaded recovery than last time, but with the global economy again regaining trend growth around 4.5% later in the forecast. Assumed crude prices follow the futures strip as at early December 2009, equating to $80/bbl (nominal) by mid-decade, compared with the $70/bbl assumed last time. The higher GDP case generates annual average demand growth of 1.2 mb/d (+1.4%) from 2009 onwards, taking world demand close to 91 mb/d by 2014. All of the growth comes from the non-OECD, which overtakes the OECD to account for 51% of world demand by 2014. Of course, much dust still has to settle in the aftermath of the 2008 economic meltdown, but our working assumption remains that a degree of structural demand destruction has occurred, notably in the OECD, which may constrain overall levels of demand growth in future. After the economic hiatus of 2009 and 2010, ongoing declines in oil intensity (tighter fuel economy standards, industry restructuring and gas-for-oil substitution) are assumed.



Demand Scenarios

(million barrels per day)

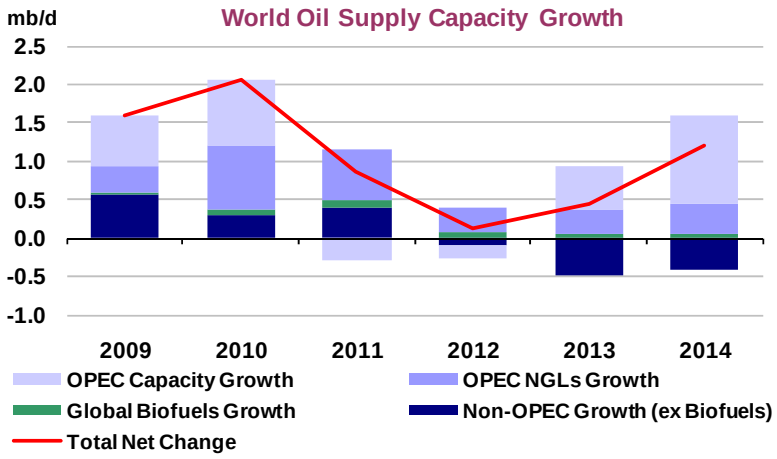
	2008	2009	2010	2011	2012	2013	2014	Avg. Yearly Growth, 2008-2014		Avg. Yearly Growth, 2009-2014	
								%	mb/d	%	mb/d
Higher GDP											
Global GDP (y-o-y chg)	2.9%	-1.2%	3.1%	4.2%	4.4%	4.5%	4.5%	3.2%		3.2%	
OECD	47.6	45.5	45.5	45.4	45.2	45.0	44.8	-1.0%	-0.45	-0.3%	-0.14
Non-OECD	38.6	39.3	40.8	42.1	43.4	44.8	46.0	3.0%	1.23	3.2%	1.34
World	86.2	84.9	86.3	87.5	88.7	89.8	90.9	0.9%	0.77	1.4%	1.20
Lower GDP											
Global GDP (y-o-y chg)	2.9%	-1.2%	2.1%	2.8%	3.0%	3.0%	3.0%	2.2%		2.1%	
OECD	47.6	45.5	45.5	45.1	44.8	44.3	43.9	-1.3%	-0.61	-0.7%	-0.32
Non-OECD	38.6	39.3	40.5	41.3	42.0	42.6	43.1	1.8%	0.74	1.8%	0.75
World	86.2	84.9	85.9	86.4	86.8	86.9	87.0	0.2%	0.13	0.5%	0.43
Lower vs. Higher											
Global GDP (% points)	0.00	0.00	-1.00	-1.34	-1.44	-1.49	-1.50	-1.0		-1.1	
OECD	0.00	0.00	-0.08	-0.27	-0.48	-0.70	-0.92	-0.3	-0.15	-0.4	-0.18
Non-OECD	0.00	0.00	-0.30	-0.82	-1.43	-2.15	-2.92	-1.1	-0.49	-1.3	-0.58
World	0.00	0.00	-0.38	-1.09	-1.91	-2.85	-3.84	-0.7	-0.64	-0.9	-0.77

As in June, we also run a simplified lower GDP scenario, with economic growth levelling off at around 3% annually during 2011-2014. Price and efficiency assumptions are the same as in the higher case. This would generate sub-0.5 mb/d annual oil demand growth (+0.5% per annum) post-2009 and take global demand to just 87 mb/d in 2014 (broadly returning to 2007 global demand levels). As was the case in June, the resulting 4 mb/d variance for mid-decade demand makes a huge difference for medium-term oil market balances. Although annual contraction in OECD oil demand in this case is double that in the higher GDP case, volumetrically 75% of the demand difference comes from the non-OECD, where income elasticity is higher.

Oil Supply

World oil supply growth now shows signs of an uptick around mid-decade, compared with the weaker trend developed in June. Although, based on currently active investment projects, non-OPEC potential still looks weak after 2011, higher expected OPEC crude and NGL capacity underpin this stronger outlook for supply as a whole. That said, expanding the supply base remains difficult amid stretching lead times and a shift to higher cost oil. However, the supply profile comes in an average 1.1 mb/d higher for the 2008-2014 period, weighted to the back end of the forecast period. Amid higher prices and re-emerging oil demand growth, some previously deferred projects are moving forward once again.

Key to the ***non-OPEC*** profile is a nearly 1 mb/d upgrade for 2009 production, centred on higher Russian output, more robust Caspian supply and the absence of significant autumn US GOM hurricane outages. Together these account for about 75% of the 2009 upgrade, which is largely fed through to 2014. Non-OPEC supply now *increases* by 0.7 mb/d for the 2008-2014 period, compared with an earlier expected *decline* of 0.4 mb/d. No across-the-board changes are made to future decline rates, since there is little evidence that lower spending in 2009 versus 2008 has so far exacerbated these compared with our original expectation. We have therefore not reproduced June's low supply sensitivity for non-OPEC.



The main change is for Russia, with 2009 crude output now 270 kb/d higher than expected in June. New fields, like Rosneft's Vankor in East Siberia, have ramped up quicker than expected, and mature West Siberian output has borne up better than we had anticipated. Late-2008 rouble devaluation, a modest easing of fiscal terms in early 2009 and stronger crude prices since then have all helped sustain spending and activity levels. Nonetheless, after renewed growth in 2009 and 2010, we expect Russian crude production to drift lower in 2011-2014. But a detailed review of global gas liquids prospects (to be presented in full in 2010) suggests growth from Russian NGL through mid-decade could offset the crude decline, as gas flaring is curbed and liquids capture increases. The key 2008-2014 sources of non-OPEC supply growth remain Canadian oil sands, biofuels, the US GOM, Russian NGL, Azerbaijan, Kazakhstan and Colombia. Conversely, Mexican and North Sea output fall by some 2 mb/d combined.

OPEC crude capacity is now seen growing by 2.8 mb/d over 2008-2014, to 36.9 mb/d compared with the 1.7 mb/d expansion envisaged last June. Improvements in the geopolitical situation (Nigeria), development contract uptake (Iraq) and the completion of cost renegotiation (Saudi Arabia) mean that several projects now have firmer timelines. Angola, Iraq and Nigeria see projected 2014 capacity revised higher by around 350 kb/d each, although Libyan capacity is revised down slightly.

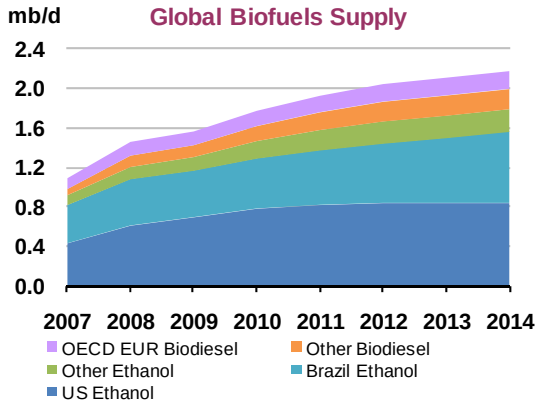
The mainstay of growth remains Saudi Arabia, where capacity increases by a largely unchanged 1.2 mb/d to 12 mb/d (much of this during 2009/2010). The earlier idled Manifa project is now back on track, albeit for later completion. Iraq sees capacity grow by 0.6 mb/d to 3.1 mb/d as more development contracts have been signed with foreign companies. New projects also underline Angolan growth from 1.9 mb/d to 2.5 mb/d. Nigerian capacity growth is more modest, reaching 2.85 mb/d in 2014 from 2.65 mb/d in 2009. However, this is a stronger profile than before, amid an admittedly still-fragile peace deal between government and Niger Delta rebels.

The ***OPEC gas liquids*** supply trend is slightly stronger, with production seen rising by 2.8 mb/d to 7.3 mb/d in 2014. About 80% of this increase comes from the Middle East Gulf producers, with Qatar, Iran and Saudi Arabia prominent, while Nigeria and Algeria also show strong growth. Projections for Algeria, UAE, Angola and Nigeria have been revised up since June, while lower associated gas supply accounts for a slightly weaker Saudi Arabian profile. Nonetheless, ongoing LNG plant progress and an imperative to develop natural gas for domestic use continue to underpin strong gas liquids growth for OPEC overall.

Biofuels

Within the non-OPEC supply forecast, biofuels prospects in 2008-2014 are also revised up marginally (by an average 35 kb/d, or some 2%) compared with the June *MTOMR*. Production in 2009 is now 1.6 mb/d, with 2014 supply potentially hitting 2.2 mb/d. Brazil and the USA continue to account for the bulk of expected growth, which, though marginal in overall volume terms, nonetheless accounts for around 15% of expected incremental road transport fuel growth on an energy equivalent basis.

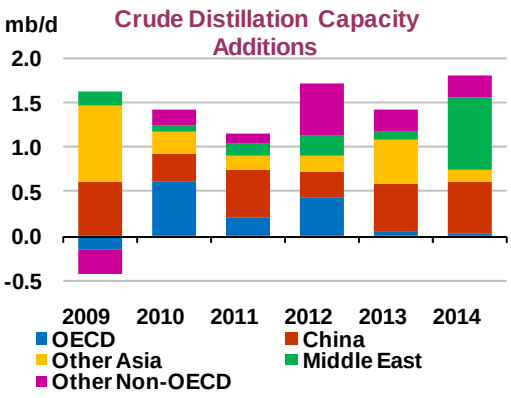
US ethanol production has proven robust since 2Q09 as plant utilisation has increased on better production margins. Total US ethanol production rises from 690 kb/d this year to 835 kb/d in 2014, despite ongoing industry consolidation and uncertainty surrounding adoption of an E15 blend. We also remain cautious over the US' ability to meet a Renewable Fuel Standard for cellulosic ethanol of 115 kb/d in 2014.

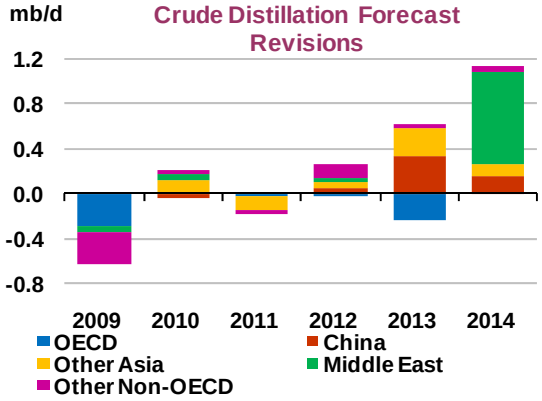


Although still the key source of biofuels growth, Brazilian 2009 ethanol production is revised down after poor harvest conditions, high sugar prices and constrained capacity expansion. That said, supply still grows from 475 kb/d in 2009 to 730 kb/d in 2014. Biodiesel prospects from Latin America are revised up however, and supply is seen increasing by 50% between 2009 and 2014, to attain 75 kb/d. Although policy uncertainty in OECD Europe persists, capacity expansions suggest regional biofuels output could rise from 200 kb/d this year to 265 kb/d in 2014.

Refining

Expected global refinery capacity growth is revised up by 1.1 mb/d to 8.7 mb/d for the period 2008-2014. Growth is dominated by China (2.9 mb/d), other Asia (2.1 mb/d) and the Middle East (1.5 mb/d). Elsewhere, initial signs of capacity rationalisation in the US and Latin America cut growth in these regions. The closure of Valero's Delaware and Sunoco's Eagle Point refineries markedly reduce expected North American regional growth to just 0.6 mb/d. European growth is unchanged since the last June's report, although several key projects are now expected to complete sooner, including GALP's Sines and Repsol's Cartagena refinery expansions.





More generally, our earlier concerns over project delays, due to limited access to capital markets or retendering to capture lower costs, seem to have been overdone. Projects such as Saudi Arabia's 400 kb/d Jubail refinery and the UAE's 420 kb/d Ruwais expansion awarded engineering, procurement, and construction contacts some nine to 15 months ahead of our previous expectations. Consequently, we have now included these projects within the 2014 timeframe. The Chinese government's stimulus programme is seen boosting Chinese capacity expansions over the medium term, notably in the country's southeast. Similarly, in India, progress to date on several refinery projects aiming to take advantage of tax breaks, which expire in 2012, has been better than expected, so we have brought forward expected completion dates, even if early utilisation rates may be open to question. A more complete review of regional operating rates and oil products balances will be contained in *MTOMR* 2010.

Oil Market Balances

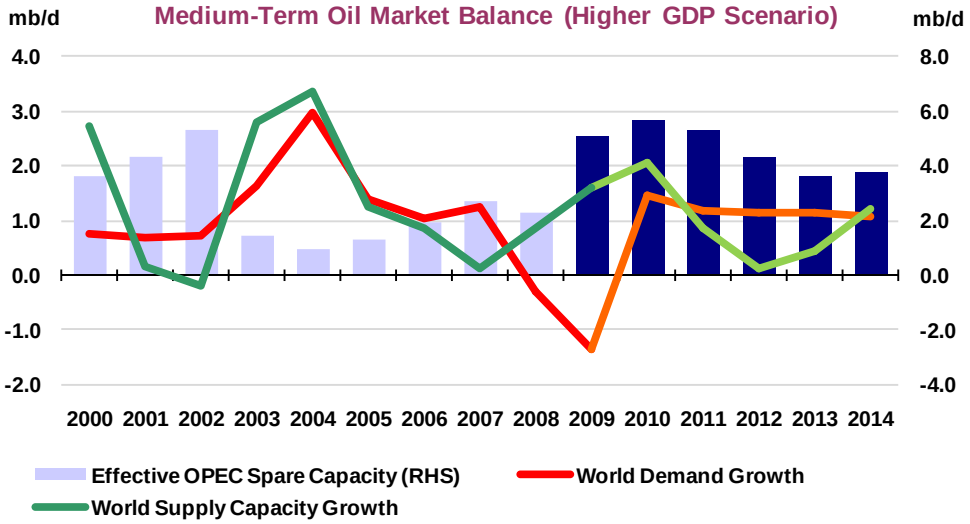
The expected call on OPEC crude and stock change in the higher GDP scenario now stands an average 1 mb/d higher than in June, primarily due to a stronger demand baseline carried through the forecast. This has also curbed average effective OPEC spare capacity for most of the period until 2014, even though OPEC capacity itself has also been revised higher (not to mention the persistent OECD stock overhang evident in 2009). The basic shape of the market balance under the higher GDP case nonetheless remains similar to June, with physical fundamentals tightening from 2011 onwards, pushing effective OPEC spare capacity back down towards 3.5 mb/d in 2013 and 2014.

Global Balance Summary (Higher GDP Scenario)
(million barrels per day)

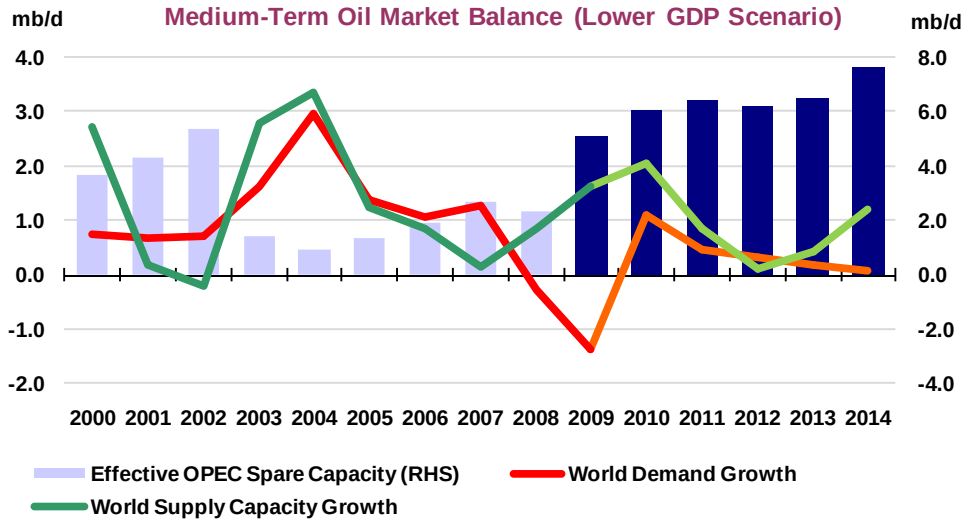
	2008	2009	2010	2011	2012	2013	2014
Global Demand	**86.22**	**84.86**	**86.33**	**87.51**	**88.66**	**89.80**	**90.86**
Non-OPEC Supply	50.68	51.27	51.65	52.13	52.12	51.69	51.35
OPEC NGLs, etc.	4.51	4.86	5.68	6.34	6.65	6.96	7.35
Global Supply excluding OPEC Crude	**55.19**	**56.13**	**57.33**	**58.48**	**58.78**	**58.65**	**58.70**
OPEC Crude Capacity	**34.15**	**34.81**	**35.66**	**35.37**	**35.19**	**35.75**	**36.90**
Call on OPEC Crude + Stock Ch.	**31.03**	**28.73**	**29.00**	**29.03**	**29.89**	**31.14**	**32.16**
Implied OPEC Spare Capacity[1]	3.12	6.08	6.67	6.34	5.30	4.61	4.74
Effective OPEC Spare Capacity[2]	2.12	5.08	5.67	5.34	4.30	3.61	3.74
as percentage of global demand	*2.5%*	*6.0%*	*6.6%*	*6.1%*	*4.9%*	*4.0%*	*4.1%*
Changes since June 2009 MTOMR							
Global Demand	**0.45**	**1.66**	**2.00**	**1.92**	**1.91**	**1.89**	**1.88**
Non-OPEC Supply	0.08	0.95	1.06	1.02	1.42	1.29	1.13
OPEC NGLs, etc.	-0.15	-0.35	-0.39	-0.27	-0.25	-0.13	0.03
Global Supply excluding OPEC Crude	**-0.07**	**0.60**	**0.67**	**0.74**	**1.17**	**1.15**	**1.16**
OPEC Crude Capacity	**0.00**	**0.11**	**0.21**	**0.42**	**0.35**	**0.27**	**1.06**
Call on OPEC Crude + Stock Ch.	**0.53**	**1.06**	**1.32**	**1.18**	**0.73**	**0.74**	**0.72**
Implied OPEC Spare Capacity[1]	-0.53	-0.95	-1.11	-0.76	-0.38	-0.47	0.35

1 OPEC Capacity minus 'Call on Opec + Stock Ch.' 2 Historically effective OPEC spare capacity averages 1mb/d below notional spare capacity.

That said, and acknowledging that the pace of supply growth will remain constrained for the foreseeable future, the path of economic recovery remains the key to determining where oil markets are heading over the next five years. The lower GDP case may not currently be a consensus view but it has many adherents, who see the pressures of accumulating budgetary deficits and for now rising rates of unemployment as inevitably constraining economic recovery. Our simplified scenario, merely slicing a third off the higher GDP case, likely fails to represent the distinct shape of any such constrained recovery, but does demonstrate the primacy of economic growth in driving oil demand.



Put simply, despite persistently sluggish supply-side growth, annual demand growth of markedly below 1 mb/d can likely be accommodated, without eating into the current margin of spare capacity. OPEC producers might be alarmed at the prospect of spare capacity above 6 mb/d sustained through mid-decade. However, we would argue that in the face of manifold geopolitical risks, a margin of supply flexibility of between 7-8% is hardly excessive and is unlikely on its own to lead to any form of price collapse. Of course, this 'shock absorber' for the market could also be realised in the event of the stronger economic growth case, if that was accompanied by accelerated efficiency improvements. So, over the longer term, security of supply and environmental goals (like those itemised in the *WEO's* 450 scenario) can be met, even under an assumption of higher GDP growth, by accelerating efforts to reduce oil intensity beyond the 3% annual gains assumed here. A dual-track approach of unblocking supply-side bottlenecks and encouraging more efficient oil use may therefore be the most effective policy path for avoiding price volatility in future.



DEMAND

Summary

- **Forecast global oil demand** remains virtually unchanged in 2009 and is revised up by 130 kb/d in 2010. Global oil demand is expected to average 84.9 mb/d in 2009 (-1.6% or -1.4 mb/d year-on-year) and 86.3 mb/d in 2010 (+1.7% or +1.5 mb/d versus the previous year). Growth continues to be driven by non-OECD countries, notably in Asia and the Middle East. Nonetheless, OECD prospects have improved to some extent, particularly in the Pacific.

- **The OECD oil demand projection** remains broadly unchanged in 2009, but is slightly adjusted up by 70 kb/d in 2010 on the back of an improved outlook for the Pacific, especially in Korea. Oil demand is set to fall by 4.3% year-on-year (-2.0 mb/d) to 45.5 mb/d in 2009 and remain flat in 2010, as a year-on-year contraction in 1Q10 is expected to be offset by a return to modest growth in the following quarters. Yet a key risk to the forecast pertains to the US outlook. Demand remains stubbornly sluggish, with a continued contraction in distillate deliveries and very modest growth in gasoline demand despite a very weak 2008 baseline. Moreover, the unpredictable nature of weekly-to-monthly revisions, given the weight of US demand, have resulted in large regional and global adjustments in recent months. These have retrospectively revealed markedly different oil market conditions than suggested by preliminary weekly data, thus highlighting the difficulty of reconciling data timeliness and accuracy.

Global Oil Demand (2008-2010)

(million barrels per day)

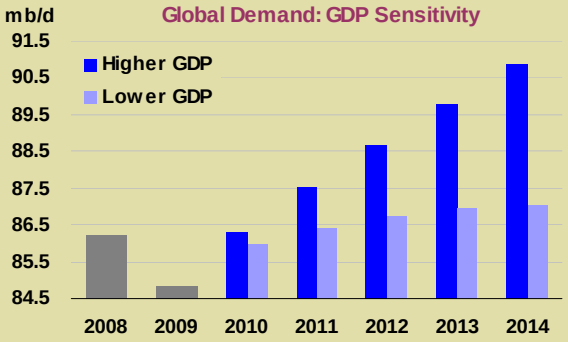
	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Africa	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3
Americas	30.5	30.4	29.6	29.9	30.1	29.3	28.9	29.4	29.4	29.2	29.4	29.3	29.9	29.8	29.6
Asia/Pacific	26.7	25.7	25.0	25.1	25.6	25.7	26.0	25.8	26.3	26.0	26.6	26.4	26.0	26.5	26.4
Europe	16.1	15.8	16.2	16.2	16.1	15.6	15.0	15.2	15.5	15.3	15.5	15.0	15.3	15.5	15.4
FSU	4.2	4.1	4.3	4.1	4.2	3.9	3.8	4.0	4.0	3.9	4.1	4.0	4.2	4.2	4.1
Middle East	6.7	7.1	7.6	7.0	7.1	6.7	7.3	7.8	7.1	7.2	7.1	7.6	8.0	7.5	7.6
World	**87.4**	**86.3**	**85.8**	**85.3**	**86.2**	**84.5**	**84.1**	**85.3**	**85.5**	**84.9**	**86.1**	**85.6**	**86.7**	**86.8**	**86.3**
Annual Chg (%)	1.1	0.9	-0.6	-2.8	-0.3	-3.4	-2.5	-0.6	0.2	-1.6	2.0	1.8	1.6	1.5	1.7
Annual Chg (mb/d)	1.0	0.8	-0.5	-2.4	-0.3	-3.0	-2.2	-0.5	0.2	-1.4	1.6	1.5	1.4	1.3	1.5
Changes from last OMR (mb/d)	-0.05	-0.07	-0.12	-0.11	-0.09	-0.10	-0.07	0.18	0.06	0.02	0.11	0.09	0.18	0.16	0.13

- **Forecast non-OECD oil demand** has been increased up by roughly 20 kb/d and 60 kb/d for 2009 and 2010, respectively. This results from higher-than-expected preliminary data for China and India, whose economies continue to benefit from government stimuli. Non-OECD demand is expected to reach 39.3 mb/d in 2009 (+1.8% or +0.7 mb/d year-on-year) and 40.8 mb/d in 2010 (+3.7% or +1.4 mb/d versus the previous year). Nonetheless, the forecast faces considerable uncertainty regarding data quality. The most glaring is the seeming mismatch between China's subdued gasoline demand and surging car sales. It remains unclear whether Chinese drivers are highly circumspect with regards to car usage, whether the vehicle fleet has suddenly become extremely efficient or whether gasoline demand is simply being under-reported.

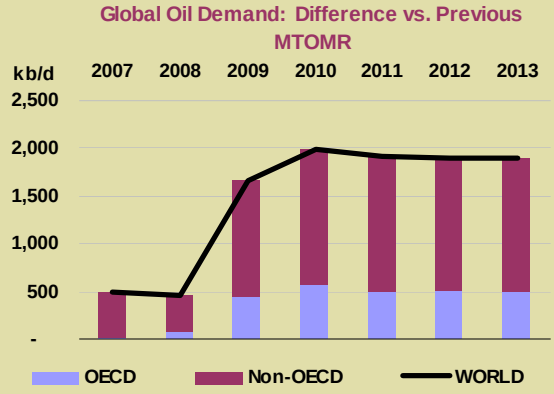
- **Medium-term oil product demand** is now expected to be some 1.9 mb/d higher over 2009-2014 when compared with the June 2009 *MTOMR*. Global oil product demand is forecast to rise by 1.4% or 1.2 mb/d per year on average between 2009 and 2014, from 84.9 mb/d to 90.9 mb/d, with non-OECD demand accounting for more than half of global demand by mid-decade. The changes to the prognoses are related to baseline revisions, essentially in China and non-OECD Asia; much stronger-than-expected oil demand growth in 2009 as a result of massive fiscal and monetary stimulus programmes; and stronger IMF GDP assumptions for 2009 and 2010, offset to a degree by a higher price assumption.

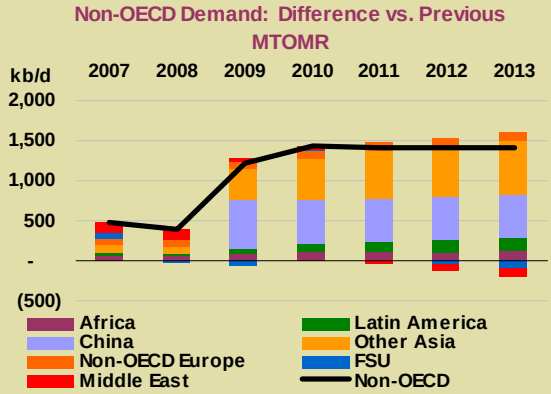
Medium-Term Demand Update

We have updated our medium-term forecast released in June. As noted in the market overview, oil demand is now expected to be some 1.9 mb/d higher over 2009-2014 when compared with June's MTOMR. Global oil product demand is seen growing by 1.4% or 1.2 mb/d per year on average between 2009 and 2014, from 84.9 mb/d to 90.9 mb/d, with non-OECD demand accounting for more than half of global demand for the first time ever by mid-decade. In order to provide a range for potential demand evolution, we maintain our alternative, 'low GDP' scenario, whereby global GDP growth would remain subdued, expanding by only 3% post-2011 or about a third less than under the higher case. Under this scenario, oil demand would grow by only 0.5% or 430 kb/d per year on average to 87 mb/d by 2014, a difference of 3.8 mb/d versus the higher case.

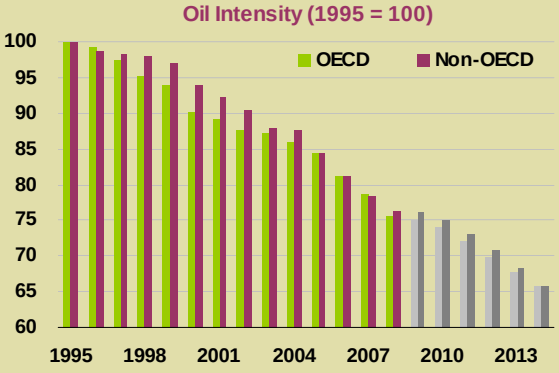


The changes to the prognoses are primarily related to baseline revisions, notably in non-OECD countries, much stronger-than-expected oil demand growth in 2009 as a result of massive fiscal and monetary stimuli implemented by governments across the world, and higher IMF GDP assumptions for 2009 and 2010. (In its October update, the IMF front-loaded growth at the beginning of the forecast period while trimming slightly the prognoses for later years.) In addition, we lifted our medium-term price assumption to roughly $76/bbl in real terms by 2014, compared with $60/bbl in June, based on the prevailing futures strip as of early December. Non-OECD countries – mostly China and the rest of Asia – account for roughly three-quarters of the forecast revision, highlighting the growing resilience of that part of the world relative to the OECD. It also demonstrates that data remain patchy in several key emerging countries, an issue poised to become more pressing in future, given that the centre of gravity of the oil market will shift to emerging countries.



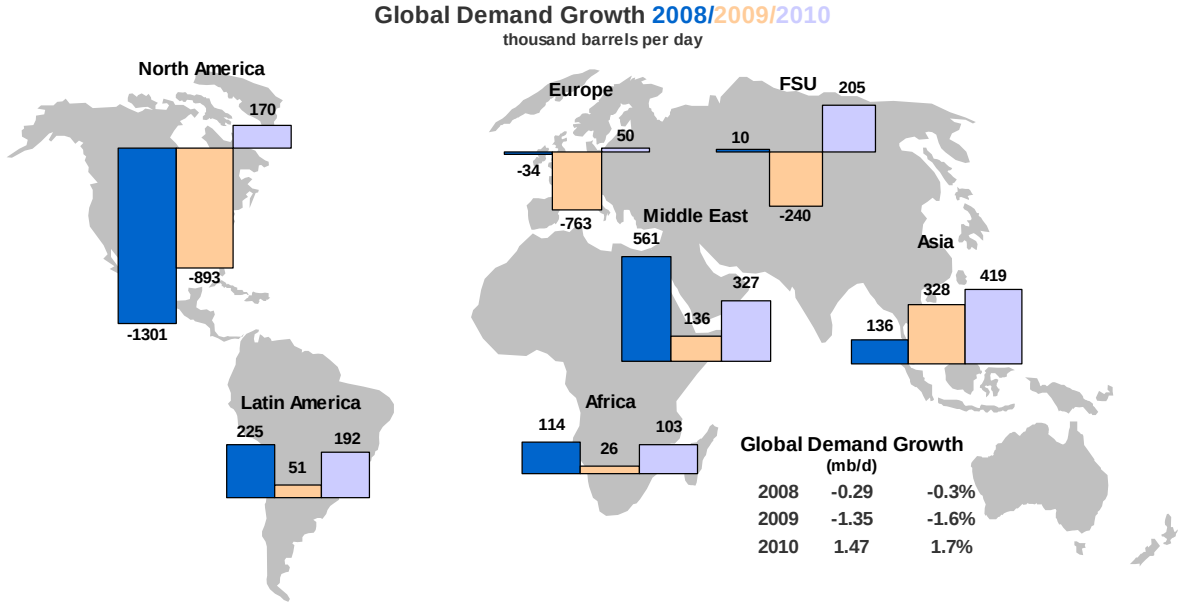


It is worth noting that the growth in oil demand observed in 2009 and expected in 2010 will be somewhat 'anomalous', driven by extremely loose macroeconomic policies in big emerging economies, most notably China. As such, the fall in oil intensity over 2009-2010 will be relatively limited, but by 2011 it should resume and even accelerate relative to its historical pattern, assuming economic growth is sustained after the withdrawal of macroeconomic stimuli. Between 1998 and 2008, global oil intensity declined by -2.2% per year on average. We assume that the fall will slow to only -0.9% per year on average over 2009-2010, and then accelerate to -3.0% per year on average over 2011-2014.



OECD

According to preliminary data, OECD inland deliveries (oil products supplied by refineries, pipelines and terminals) contracted by 4.1% year-on-year in October. In **OECD Europe**, oil product demand plummeted by 7.1% year-on-year, with all product categories posting losses. In **OECD North America** (which includes US Territories), demand fell by 3.7% as the rebound in LPG, gasoline, jet fuel/kerosene and residual fuel oil demand failed to offset continued gasoil decline. By contrast, demand in **OECD Pacific** grew (+1.0%) for the first time in 16 months, boosted by strong deliveries of naphtha, gasoline and middle distillates.

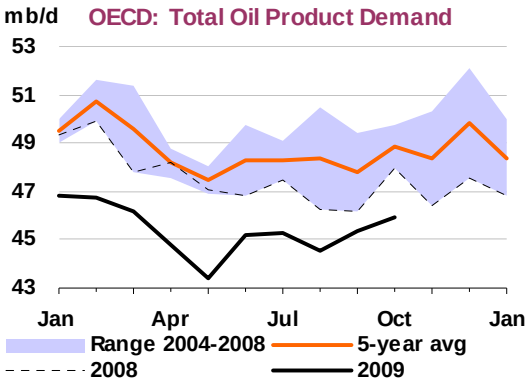


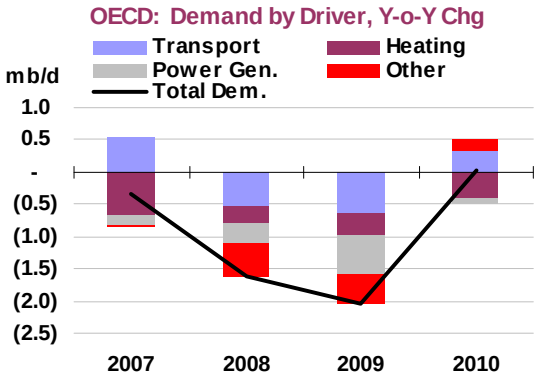
The relatively large revisions to September preliminary data (+790 kb/d) were almost entirely due to North America, as deliveries for LPG, gasoline, gasoil and 'other products' proved to be much stronger than suggested by preliminary data. As such, September demand contracted by 1.7% year-on-year, almost half than previously reported (-3.5%). However, given other revisions, OECD oil demand is virtually unchanged for this year (-10 kb/d when compared with last month's report), but is revised slightly higher for next year (+70 kb/d). Demand is thus expected to contract by 4.3% in 2009 to 45.5 mb/d and remain flat in 2010.

OECD Demand based on Adjusted Preliminary Submissions - October 2009
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD North America*	**10.62**	**0.5**	**1.65**	**0.9**	**3.66**	**-15.4**	**0.93**	**-8.1**	**1.05**	**2.1**	**5.59**	**-4.29**	**23.52**	**-3.7**
US50	9.06	0.4	1.44	0.8	3.11	-17.9	0.43	7.3	0.58	-3.2	4.19	-6.1	18.80	-4.5
Canada	0.73	0.8	0.12	9.0	0.21	-6.4	0.35	-11.4	0.09	-21.7	0.74	4.9	2.26	-1.6
Mexico	0.76	0.8	0.05	-10.6	0.29	-8.6	0.12	-8.6	0.28	30.6	0.59	-1.8	2.09	0.8
OECD Europe	**2.27**	**-3.6**	**1.29**	**-5.5**	**4.48**	**-3.2**	**1.92**	**-17.7**	**1.48**	**-14.4**	**3.39**	**-4.4**	**14.83**	**-7.1**
Germany	0.46	-7.4	0.20	-4.0	0.70	-0.2	0.42	-40.1	0.13	-31.7	0.53	-5.4	2.44	-14.7
United Kingdom	0.35	4.5	0.34	-4.5	0.40	-13.0	0.13	-7.5	0.09	-21.2	0.34	5.1	1.66	-4.6
France	0.20	-6.8	0.15	-7.4	0.70	-1.9	0.33	-10.5	0.11	-13.1	0.44	-11.6	1.92	-7.4
Italy	0.25	-6.2	0.08	-7.8	0.58	-2.5	0.13	-1.4	0.20	-17.8	0.32	-4.8	1.56	-6.0
Spain	0.14	-4.0	0.12	2.0	0.49	-3.9	0.20	-9.4	0.20	-5.9	0.31	-7.2	1.46	-5.2
OECD Pacific	**1.56**	**5.5**	**0.84**	**21.3**	**1.27**	**5.7**	**0.40**	**-6.2**	**0.61**	**-24.5**	**2.92**	**0.0**	**7.61**	**1.0**
Japan	0.98	3.8	0.52	21.5	0.59	3.1	0.28	-4.0	0.33	-28.1	1.56	-7.3	4.26	-2.7
Korea	0.19	20.7	0.20	40.8	0.30	17.2	0.11	-11.4	0.24	-22.2	1.18	11.9	2.22	8.5
Australia	0.33	0.1	0.11	-0.4	0.33	0.6	0.00	9.9	0.04	-0.1	0.17	-1.3	0.97	0.0
OECD Total	**14.46**	**0.3**	**3.78**	**2.4**	**9.42**	**-7.3**	**3.25**	**-13.8**	**3.14**	**-12.0**	**11.90**	**-3.3**	**45.95**	**-4.1**

* Including US territories





Total OECD Demand by Product

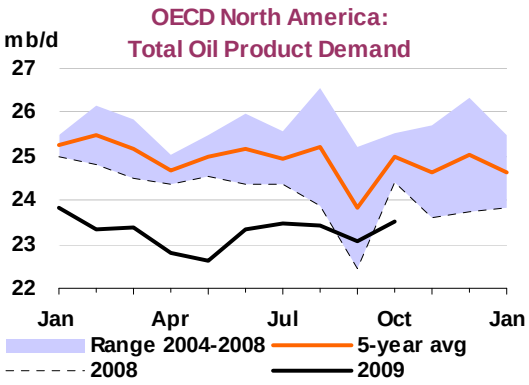
(million barrels per day)

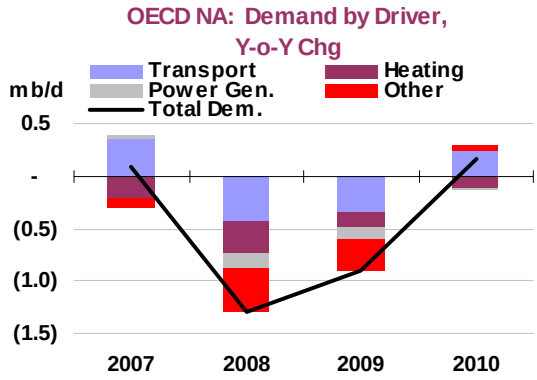
	2008	2009	3Q08	4Q08	1Q09	2Q09	Jul 09	Aug 09	Sep 09*	Latest month vs. Aug 09	Latest month vs. Sep 08
LPG & Ethane	4.65	4.52	4.27	4.55	4.83	4.36	4.47	4.29	4.38	0.09	0.41
Naphtha	3.06	2.95	3.05	2.86	2.96	2.86	2.93	2.90	3.10	0.20	0.14
Motor Gasoline	14.41	14.43	14.45	14.36	14.00	14.55	14.96	14.88	14.39	-0.48	0.35
Jet & Kerosene	3.98	3.77	3.81	3.90	3.99	3.53	3.62	3.68	3.56	-0.12	-0.17
Gas/Diesel Oil	13.04	12.30	12.64	13.43	13.09	11.78	11.83	11.23	12.24	1.01	-1.08
Residual Fuel Oil	3.66	3.22	3.53	3.61	3.61	3.07	2.86	2.99	2.89	-0.10	-0.57
Other Products	4.76	4.33	4.88	4.61	4.08	4.30	4.62	4.55	4.81	0.26	0.10
Total Products	**47.57**	**45.52**	**46.63**	**47.32**	**46.57**	**44.45**	**45.29**	**44.51**	**45.38**	**0.86**	**-0.81**

* Latest official OECD submissions (MOS)

North America

Preliminary data show that oil product demand in North America (including US Territories) fell by 3.7% year-on-year in October. With the exception of September 2009, which posted growth relative to a low 2008 baseline, demand in the region has uninterruptedly contracted on a yearly basis since the summer of 2007. The fall in October was largely due to the United States (-4.4% year-on-year), followed by Canada (-1.6%). By contrast, Mexico posted modest growth for the second month in a row (+0.8%).





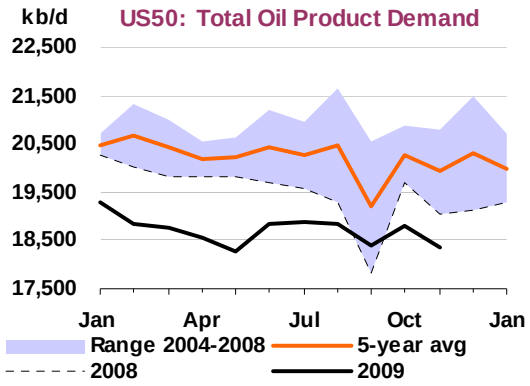
Revisions to September preliminary data were sizeable (+670 kb/d), almost entirely due to the US, with upward adjustments in LPG, naphtha, gasoline, gasoil and 'other products' offsetting lower readings for jet fuel/kerosene and residual fuel oil. Total demand in North America actually rose by 2.8% year-on-year in September, rather than declining by 0.2%. However, on an annual basis, forecast North American oil product demand is little changed. It should average 23.3 mb/d in 2009 (-3.7% or -890 kb/d versus 2008 and -40 kb/d versus our last report), while demand in 2010 should rise to 23.4 mb/d (+0.7% or +170 kb/d year-on-year and some 30 kb/d higher than previously thought).

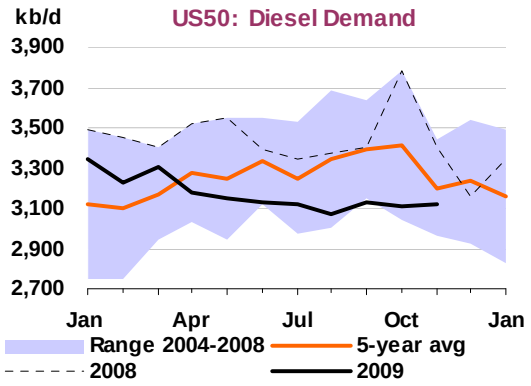
OECD North America Demand by Product
(million barrels per day)

	2008	2009	3Q08	4Q08	1Q09	2Q09	Jul 09	Aug 09	Sep 09*	Latest month vs. Aug 09	Latest month vs. Sep 08
LPG & Ethane	2.72	2.67	2.46	2.66	2.88	2.51	2.62	2.64	2.64	0.00	0.51
Naphtha	0.36	0.31	0.36	0.33	0.29	0.33	0.33	0.30	0.33	0.03	0.01
Motor Gasoline	10.51	10.57	10.48	10.50	10.30	10.63	10.91	10.84	10.45	-0.39	0.42
Jet & Kerosene	1.77	1.66	1.79	1.64	1.66	1.62	1.75	1.68	1.59	-0.10	-0.10
Gas/Diesel Oil	5.01	4.60	4.77	5.03	4.94	4.41	4.44	4.36	4.49	0.13	-0.34
Residual Fuel Oil	1.10	0.99	1.05	1.06	1.08	0.98	0.78	1.01	0.85	-0.16	-0.07
Other Products	2.69	2.48	2.67	2.71	2.38	2.43	2.62	2.58	2.72	0.14	0.20
Total Products	**24.17**	**23.28**	**23.57**	**23.93**	**23.52**	**22.92**	**23.45**	**23.41**	**23.06**	**-0.35**	**0.63**

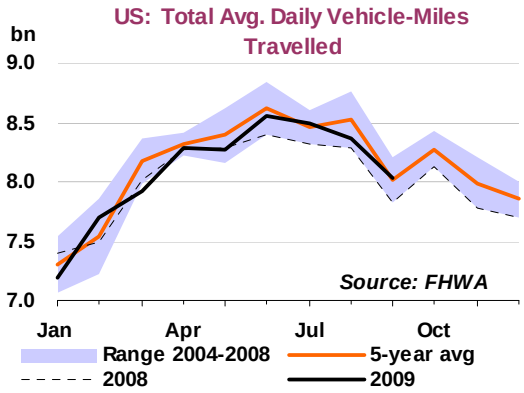
* Latest official OECD submissions (MOS)

Adjusted preliminary weekly data in the continental **United States** indicate that inland deliveries – a proxy of oil product demand – contracted by 3.7% year-on-year in November, following a 4.5% fall in October. The September spike (+3.1% on revised data) appears to have been short-lived and owing mostly to a weak, hurricane-stricken 2008 baseline. However, the preliminary estimates for October and November could still be sharply revised (see *Another Source of Uncertainty*).





Meanwhile, diesel demand – which is strongly correlated with economic activity – continues to be stubbornly weak, falling by 7.9% year-on-year in September. Adjusted weekly figures suggest that demand may have contracted by as much as 17.9% in October and by 8.3% in November, despite the beginning of the Christmas shopping season after Thanksgiving. Jet fuel demand, which is also considered a leading economic indicator, is hardly faring better. It fell by 5.7% in September, and rose by only +0.8% and +2.7% in October and November, respectively – a very modest improvement considering the extremely weak 2008 baseline.

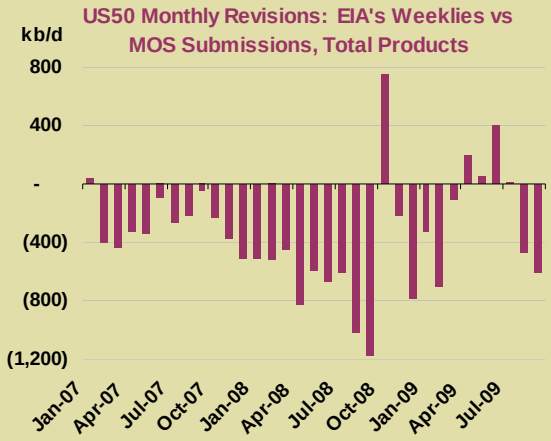


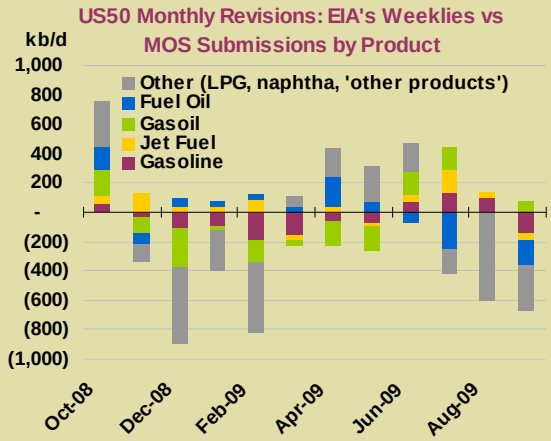
Gasoline demand registered a bounce in September (+4.8%), commensurate with a 2.6% yearly increase in average daily vehicle-miles travelled for the fourth month in a row. Yet this appears to have been a temporary summer holiday phenomenon as travellers reportedly choose to drive rather than fly. Indeed, adjusted weekly data indicate that gasoline deliveries rose by only 0.4% and 0.7% in October and November, respectively. In sum, the outlook for US oil demand is largely unchanged, with oil product demand expected to average 18.7 mb/d in 2009 (-4.0% year-on-year) and 18.9 mb/d in 2010 (+0.7%).

Another Source of Uncertainty

Over recent months, it has become increasingly difficult to gauge US monthly demand trends from preliminary weekly data. In terms of *direction*, the revisions from EIA weekly to monthly data have been generally downwards, reflecting the fact that weekly figures are an initial sample that tends to overestimate actual demand. However, the revisions for October 2008 and April-July 2009 were *positive*. While the October 2008 revision was probably due to the effects of last year's hurricanes, those of the 2009 summer were quite unusual – actually revealing that there was a driving season this year, contrary to what the weekly data had suggested. Perhaps the change in direction was related to strong ethanol production, but if so, it is unclear why there was again a reversal in August and September.

Regarding their *magnitude*, the revisions increased gradually – and markedly – over the past year. This could result from the economic recession; indeed, exports may have been counted as demand in the weekly data, being later removed from the more precise monthly estimates. However, if this is the case, it is unclear why the revisions for November 2008 and January, March, April and July 2009 were relatively minor, and why they increased sharply again in August and September. Finally, the *products concerned* have also varied noticeably. The revisions are usually concentrated in 'other oils' (comprising LPG, naphtha and 'other products' as defined in this report), gasoline and gasoil. However, in recent months the changes to jet fuel or fuel oil have also been relatively sizeable.

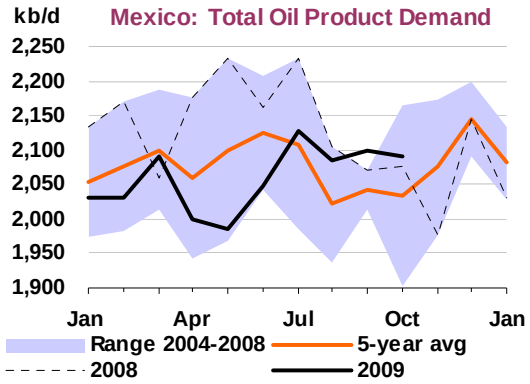


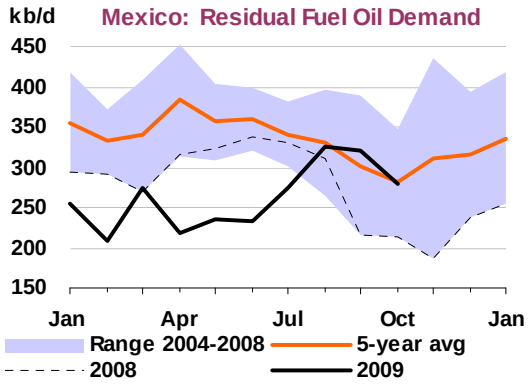


Given this irregular pattern of revisions, any pre-emptive weekly-to-monthly adjustment on our part is prone to miss the mark. Indeed, based on a three-month average of previous changes, the revision for October should be around -350 kb/d. However, using a six-month average would result in a -70 kb/d adjustment, while a nine-month average would imply -170 kb/d and a twelve-month average -150 kb/d. For the past two months, our own pre-emptive adjustment has been based on a twelve-month average, in order to smooth out the unexpected changes observed recently. Yet we underestimated demand for September by almost +580 kb/d. In sum, difficulties in anticipating US monthly data have become a major source of oil demand uncertainty. Given the weight of US demand, these weekly-to-monthly revisions have resulted in large regional and global swings, retrospectively revealing markedly different market profiles than thought when preliminary weekly data were first released. While US weekly data are immensely helpful in providing an initial snapshot, it nonetheless highlights the vexing issue of data timeliness versus accuracy, with a convergence unfortunately very difficult to achieve.

Oil product demand in **Mexico** has risen for the past two months, after a year of continuous monthly falls (only briefly interrupted in March) triggered by the combined effects of the recession and the A/H1N1 flu alert. Demand increased by 1.4% year-on-year in September and by 0.8% in October, but this improvement was essentially due to a surge in residual fuel oil demand for power generation over the summer, rather than to a sustained recovery from the global economic slump. Indeed, the country has

faced one of its worst droughts since the 1930s (which has resulted in less electricity production from hydro sources). On the economic front, Mexico is actually likely to be among the hardest hit countries, owing to its dependence on the US market.

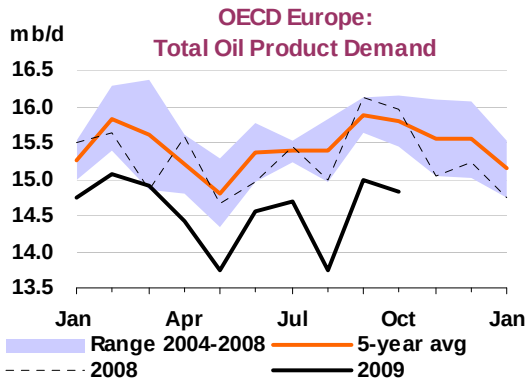


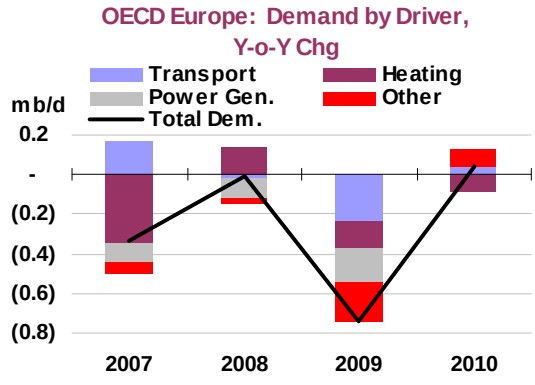


State-owned Pemex announced plans to invest $12.1 billion over the next decade to repair its 47,000-km pipeline network and build new lines. This will probably help reduce the number of pipeline leaks from a 25-year old network that has suffered from inadequate maintenance. However, it is unclear whether the theft of crude and refined products from Pemex's pipelines – which may be somewhat inflating overall demand – will be curbed. The company admits this is a serious issue, implying a loss of at least $700 million per year through some 400 illegal pipeline connections (other observers reckon that Mexico's fuel black market could total as much as $2 billion per year). More recently, the smuggling even acquired an international dimension, as executives of two oil companies based in Houston admitted to having bought stolen condensate in order to resell it in the US, and there are reports that several other companies are being investigated.

Europe

Oil product demand in Europe plunged by 7.1% year-on-year in October, according to preliminary inland data, with all product categories posting losses. Admittedly, the fall was largely driven by weak deliveries of heating oil (-17.7%) and residual fuel oil (-14.4%), following trends that emerged a few months ago. Lower heating oil demand in 2H09 has naturally followed the strong pace of consumer stockbuilds during 1H09, while cheaper natural gas remains also a viable alternative to residual fuel oil in industry.





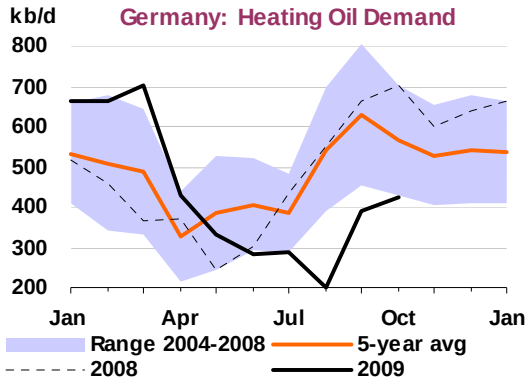
Revisions to September preliminary demand data (-70 kb/d) were mostly concentrated on distillates and residual fuel oil. OECD Europe oil demand thus fell more on a yearly basis during that month than previously anticipated (-7.2% instead of -6.8%). Forecast oil product demand remains broadly unchanged at 14.6 mb/d in 2009 (-4.8% or -740 kb/d versus 2008), barely increasing in 2010 (+0.3%or +40 kb/d year-on-year).

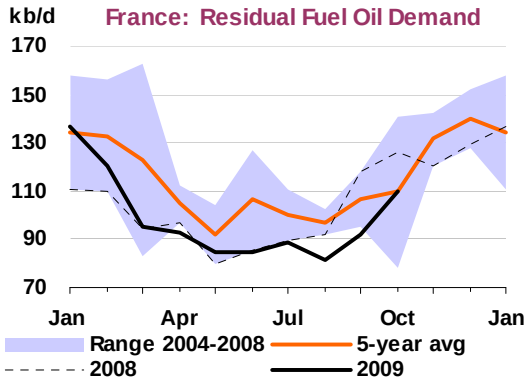
OECD Europe Demand by Product
(million barrels per day)

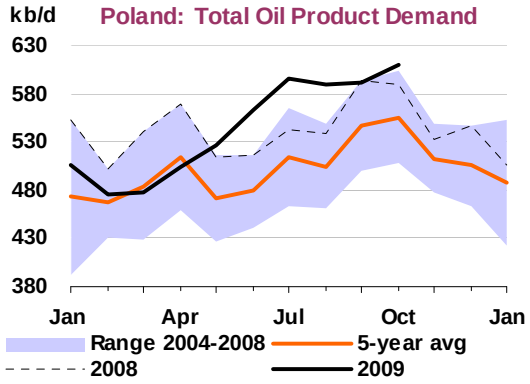
	2008	2009	3Q08	4Q08	1Q09	2Q09	Jul 09	Aug 09	Sep 09*	Latest month vs. Aug 09	Latest month vs. Sep 08
LPG & Ethane	1.03	0.97	0.95	0.99	1.05	0.99	0.95	0.86	0.86	0.01	-0.11
Naphtha	1.06	0.98	1.04	0.96	1.03	0.89	0.99	0.93	1.04	0.12	0.02
Motor Gasoline	2.36	2.31	2.45	2.30	2.19	2.39	2.48	2.36	2.39	0.03	-0.08
Jet & Kerosene	1.32	1.25	1.42	1.27	1.19	1.26	1.32	1.36	1.35	-0.01	-0.06
Gas/Diesel Oil	6.35	6.12	6.33	6.69	6.51	5.81	5.94	5.36	6.25	0.89	-0.60
Residual Fuel Oil	1.64	1.48	1.63	1.70	1.61	1.36	1.38	1.32	1.44	0.11	-0.25
Other Products	1.57	1.49	1.71	1.49	1.33	1.53	1.65	1.58	1.65	0.07	-0.07
Total Products	**15.33**	**14.59**	**15.52**	**15.41**	**14.91**	**14.23**	**14.70**	**13.76**	**14.98**	**1.22**	**-1.15**

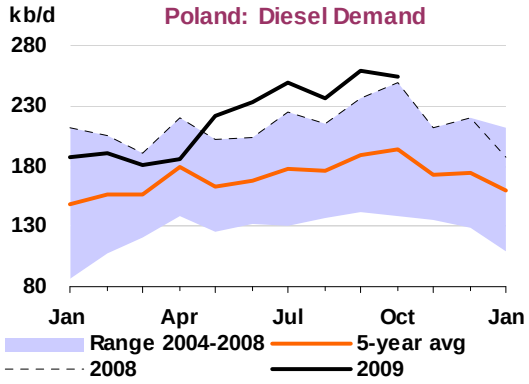
* Latest official OECD submissions (MOS)

Preliminary data indicate that **German** oil product demand plummeted in October (-14.7% year-on-year), marking the third consecutive month of double-digit falls. This is mostly due to weak demand for heating oil (-40.1%) and residual fuel oil (-31.7%). Consumer heating oil stocks remained at 68% of capacity by end-October, the highest level in the past two years, unchanged from September but much higher than in the same month of the previous year (62%). In the meantime, cheaper natural gas continued to compete favourably against fuel oil. A similar picture prevailed in **France**, although the contraction was less pronounced. Oil product deliveries fell in October (-7.4% year-on-year), dragged down by lower deliveries of heating oil (-10.5%) and residual fuel oil (-13.1%).





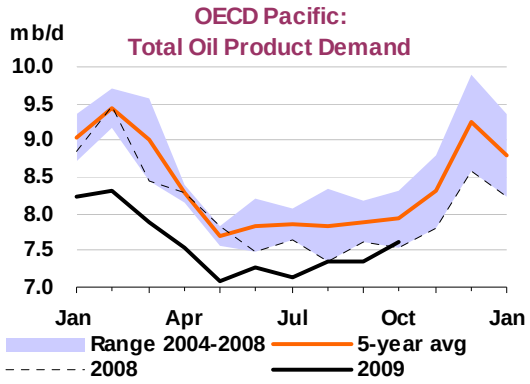


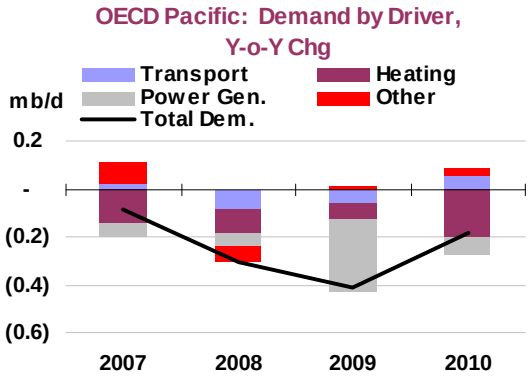


It is worth noting that **Polish** oil product demand has rebounded strongly since May, growing at 3.6% on a yearly basis in October, according to preliminary figures. Poland is the only large European country that managed to avoid a recession altogether. As such, oil demand has been fairly resilient – although, admittedly, total demand is about a third to a half of that of European countries of equivalent land size and population. Growth has been supported mostly by transportation needs, which have offset the structural decline of heating oil and residual fuel oil. Diesel, which accounts for roughly 40% of total demand, has expanded at double-digit rates for the past four months, reflecting the ongoing 'dieselisation' of the vehicle fleet, notably among corporate users.

Pacific

Oil product demand in the Pacific grew (+1.0%) for the first time in 16 months, boosted by strong deliveries of naphtha, gasoline and middle distillates, according to preliminary data. In terms of countries, though, growth was entirely due to Korea, as Japan continued to report a contraction.





September revisions were relatively large (+190 kb/d), owing to higher-than-expected demand for heating oil, residual and 'other products'. Forecast OECD Pacific demand has thus been slightly revised up to 7.7 mb/d in 2009 (-5.1% or -410 kb/d on a yearly basis and +60 kb/d versus our last report) and 7.5 mb/d in 2010 (down by 2.4% or 190 kb/d when compared with the previous year and +40 kb/d versus previous estimates).

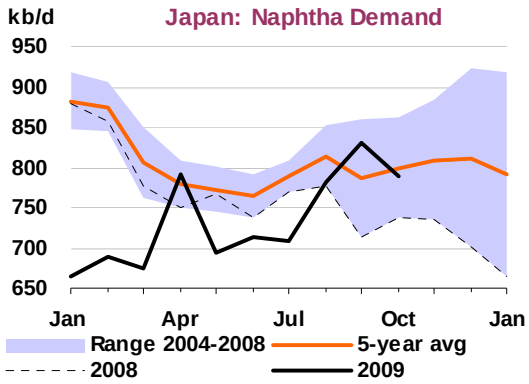
OECD Pacific Demand by Product
(million barrels per day)

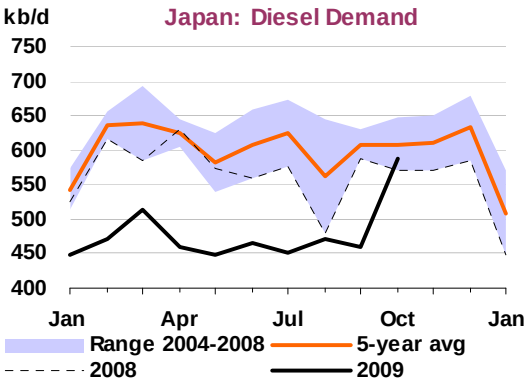
	2008	2009	3Q08	4Q08	1Q09	2Q09	Jul 09	Aug 09	Sep 09*	Latest month vs. Aug 09	Latest month vs. Sep 08
LPG & Ethane	0.90	0.87	0.86	0.90	0.90	0.85	0.91	0.80	0.88	0.08	0.02
Naphtha	1.64	1.67	1.65	1.56	1.64	1.64	1.60	1.67	1.73	0.05	0.12
Motor Gasoline	1.54	1.56	1.52	1.56	1.51	1.52	1.57	1.68	1.55	-0.13	0.01
Jet & Kerosene	0.89	0.85	0.60	0.99	1.15	0.66	0.55	0.64	0.63	-0.01	-0.01
Gas/Diesel Oil	1.68	1.59	1.55	1.70	1.64	1.56	1.45	1.52	1.51	-0.01	-0.13
Residual Fuel Oil	0.91	0.75	0.85	0.86	0.92	0.73	0.71	0.65	0.60	-0.05	-0.25
Other Products	0.50	0.36	0.50	0.40	0.38	0.33	0.35	0.39	0.44	0.05	-0.03
Total Products	**8.07**	**7.65**	**7.54**	**7.97**	**8.14**	**7.30**	**7.14**	**7.35**	**7.34**	**-0.01**	**-0.28**

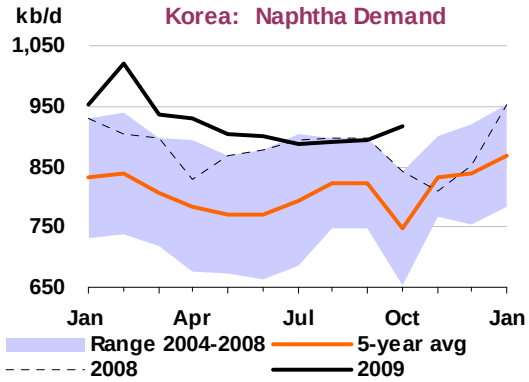
* Latest official OECD submissions (MOS)

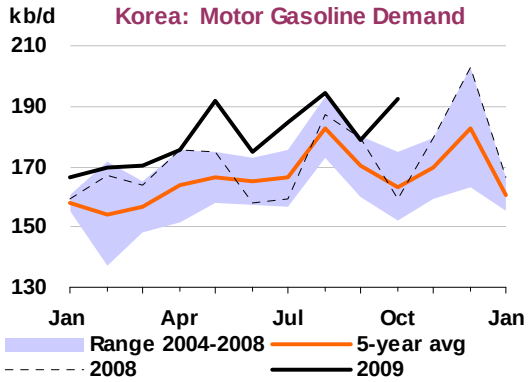
According to preliminary data, **Japanese** oil demand contracted by 2.7% year-on-year in October, dragged down by weak deliveries of LPG (-10.9%), residual (-28.1%) and 'other products' (-27.5%). Nonetheless, diesel, naphtha and jet fuel/kerosene demand recorded strong readings (+3.1%, +6.9% and +21.5%, respectively). The resilience of naphtha and diesel demand reflect rebounding industrial and transportation activity fuelled by rising exports to Asia, particularly to China (petrochemicals, cars, electronics and steel). The rise in jet fuel/kerosene deliveries, meanwhile, is largely in line with seasonal patterns, as kerosene is mostly used for heating, although it could be argued that Japanese consumers may have decided to fill their tanks somewhat earlier in anticipation of seasonally higher prices.

Korea has also benefited from strong Chinese imports, perhaps even more than Japan. Its economy grew faster in 3Q09 than initially estimated (+0.9% year-on-year instead of 0.6%, equivalent to +3.2% quarter-on-quarter). Total oil product deliveries rose by 8.5% year-on-year in October, underpinned by strong demand for naphtha (+9.0%), which accounts for 40% of total Korean demand, and jet fuel/kerosene ahead of the heating season. More interestingly, perhaps, gasoline deliveries surged counter-seasonally (+20.7%), but it should be noted that gasoline demand has been particular strong since 2Q09, possibly indicating more resilient disposable income per capita.





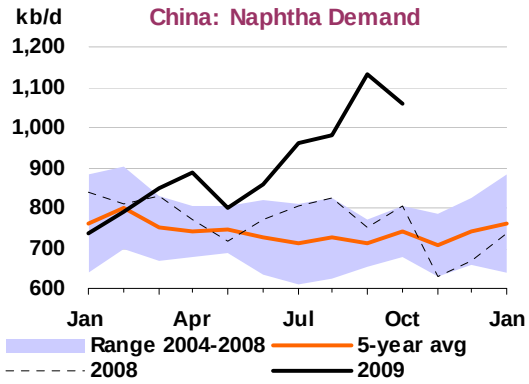


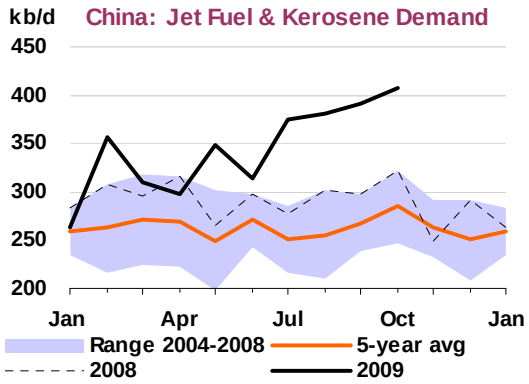


Non-OECD

China

Preliminary data indicate that China's apparent demand (refinery output plus net oil product imports) surged by 13.4% year-on-year in October, with all product categories bar residual fuel oil posting gains. This was the second consecutive month of double-digit growth, underpinned by buoyant demand for naphtha (+31.7%), jet fuel/kerosene (+26.5%) and 'other products' (+40.3%). Arguably, oil demand continues to be boosted by the government's stimulus programme, but as this report has repeatedly noted, some of this rise may be also related to stockpiling in anticipation of domestic price increases.





China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	653	735	792	82	57	12.6	7.8
Naphtha	768	902	957	134	55	17.4	6.1
Motor Gasoline	1,493	1,542	1,668	49	126	3.3	8.2
Jet & Kerosene	292	342	359	50	17	17.3	5.0
Gas/Diesel Oil	2,837	2,739	2,875	-99	137	-3.5	5.0
Residual Fuel Oil	603	592	602	-11	10	-1.9	1.7
Other Products	1,246	1,562	1,465	316	-97	25.3	-6.2
Total Products	**7,892**	**8,413**	**8,718**	**521**	**305**	**6.6**	**3.6**

Given these higher-than-expected figures, we have revised up once again our demand forecast by roughly 80 kb/d on average for both this year and next. Total oil demand is now expected to average 8.4 mb/d in 2009 (+6.6% or +520 kb/d) and 8.7 mb/d in 2010 (+3.6% or +300 kb/d). However, these prognoses may be revised again next month. The severe snowstorms and the accompanying cold snap that hit northern and north-western China in early November reportedly disrupted coal, oil products and natural gas deliveries, and forced the closure of highways and roads. This may translate into weaker-than-expected demand for that month. Still, it is worth noting that Chinese demand growth is on track this year to match the last surge (in 2006: +550 kb/d) – and the highest growth of any country during a recession year.

Who's (Not) Driving?

Chinese apparent demand data feature some odd trends. The most glaring is the seeming mismatch between subdued gasoline demand and surging car sales, which we have highlighted over the past few months. We have argued that this inconsistency is probably largely related to incomplete data (notably the lack of inventory figures and possibly missing or understated estimates from independent retailers), but other observers have proposed alternative explanations.

Some contend that the reason behind subdued gasoline demand is simply due to a dramatic efficiency improvement, as small cars have accounted for over two-thirds of total sales given higher sales taxes on bigger engines and rising retail gasoline prices. A variant of this argument is that, since tax incentives on small cars are due to expire by year-end, consumers are rushing to buy new cars or replace existing, less efficient ones even if they do not really intend to use them for the time being. Along the same lines, other analysts suggest that local governments and state-owned companies have been ordered to purchase cars in order to support local manufacturers, but that these vehicles are sitting idle in car parks.

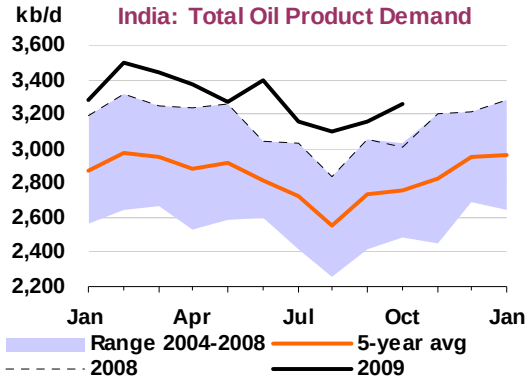
Some behavioural explanations have also been advanced. One posits that Chinese motorists drive intrinsically less than elsewhere. Cars would serve primarily to enhance the social status of their owners, who typically would use them only during the weekend, preferring public transportation during the working week, notably in large urban areas (in Beijing, for example, all private vehicles are not allowed to circulate one day per week based on their number plates' last digit). Another explanation is that some sales reflect second-car purchases by wealthy households, and these vehicles would also tend to be driven only on an occasional basis.

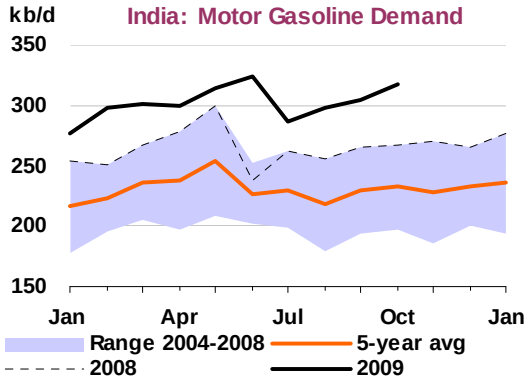
However, as compelling as these explanations may be, they remain largely anecdotal, while some appear to be contradictory. As much as efficiency may have improved, the sheer volume of car sales should arguably point towards much higher gasoline demand than currently inferred from official statistics. Moreover, sales of big, gas-guzzling imported cars have also increased strongly (albeit at a slightly lower pace than domestic ones), thus somewhat downplaying the alleged price sensitivity of Chinese consumers. In addition, the central government has frozen expenditures of new cars and has strongly encouraged local governments to follow suit, thus casting doubts on its supposed willingness to support the local industry at all costs. Finally, the behavioural explanations are virtually impossible to assess, although they may become retrospectively clearer in a few years. Yet the mystery remains unsolved: are the Chinese highly circumspect about driving, has the vehicle fleet become extremely efficient or is gasoline demand under-reported?

Other Non-OECD

India's oil product sales – a proxy of demand – surged by 8.4% year-on-year in October, according to preliminary data. This strong performance, reflecting the country's remarkable economic resilience, was mostly due to buoyant growth across all product categories bar naphtha, particularly LPG (+10.8%), gasoline (+18.6%), gasoil (+12.4%) and 'other products' (+16.4%). By contrast, naphtha demand was reported to have declined by 23.3% given greater natural gas availability to utilities, fertiliser producers and steel plants. However, as we have often noted in this report, naphtha preliminary figures are usually revised up (+70 kb/d in September, showing that demand actually expanded by +2.3% rather than declining by 20.8% as previously assessed). Therefore, the much-anticipated structural decline in naphtha demand is so far proving elusive.

The rise in gasoline demand is noteworthy. October car sales increased at their fastest pace in over two years (+34% year-on-year), helped by cheap credit. In addition, the Diwali holidays, which traditionally boost domestic travel, fell in mid-October. Meanwhile, the strength of gasoil demand was largely driven by farmers in key grain producing states, where the fuel is used to run water pumps and power generators.





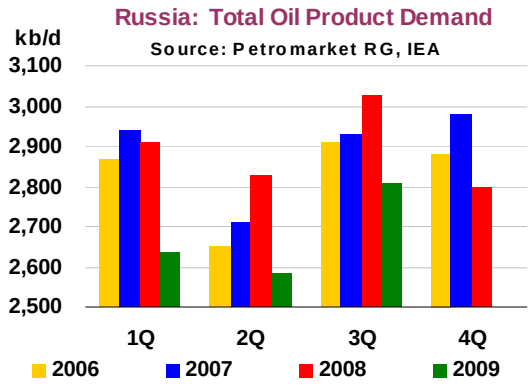
The government has taken some tentative steps to address the issue of fuel subsidies, which have again become a pressing concern as international oil prices hover around $75/bbl. Short of moving to abolish them, the Ministry of Petroleum & Natural Gas has reportedly launched a pilot project in three cities (Pune in Maharashtra, Hyderabad in Andhra Pradesh and Bangalore in Karnataka) to allocate kerosene and domestic LPG – two fuels used by the majority of the population – via smart cards, targeting the population quintiles that truly need subsidised fuel. If the project proves successful, smart cards will be introduced throughout the country. In addition, the government may implement dual pricing for transportation fuels, but such a decision is not expected before year-end.

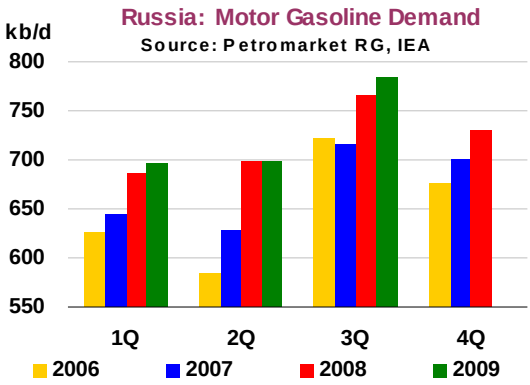
India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	407	423	439	15	16	3.8	3.8
Naphtha	310	319	283	8	-35	2.7	-11.1
Motor Gasoline	265	303	333	38	30	14.5	9.9
Jet & Kerosene	299	299	306	0	7	0.0	2.4
Gas/Diesel Oil	1,078	1,162	1,246	84	84	7.8	7.2
Residual Fuel Oil	395	399	397	4	-1	1.1	-0.3
Other Products	381	394	401	13	7	3.5	1.7
Total Products	**3,134**	**3,299**	**3,405**	**164**	**106**	**5.2**	**3.2**

In early December, **Russia's** Federal Anti-Monopoly Service (FAS) announced a deal with the country's oil companies aimed at working out a price formula to set 'fair' domestic oil product prices. This comes after almost a year of investigations – and heavy fines – against Russia's majors, both private and state-owned, for alleged manipulation of retail prices. (The vertically-integrated majors reportedly control sales in 57 out of the country's 89 regions, despite owning less than half of total retail outlets.) According to the agreement, a specific domestic refinery (yet to be determined) will be chosen as a benchmark for a new price formula, which will eventually also incorporate international prices (possibly oil product prices in Rotterdam, although some companies argue in favour of pegging domestic prices to several, rather than just one, international benchmarks).





This solution appears to discard an earlier proposal to oblige oil companies to trade at least 15% of their domestically-oriented output through Russia's three commodity exchanges (which currently handle less than 2% of the country's total oil product sales). Moreover, it is unclear whether another FAS proposal to achieve 'fair' prices – by forcing companies to dispose of their retail operations – will be implemented. Interestingly, Russian motorists seem unconcerned by these price issues, judging by the fact that gasoline has remained buoyant. By contrast, overall oil demand plummeted as the country entered into a severe recession last year.

Russia: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2008	2009	2010	2009	2010	2009	2010
LPG & Ethane	326	296	315	-30	19	-9.3	6.5
Naphtha	253	237	248	-16	12	-6.4	4.9
Motor Gasoline	720	727	762	7	35	0.9	4.8
Jet & Kerosene	248	219	231	-29	12	-11.7	5.3
Gas/Diesel Oil	626	587	611	-39	24	-6.2	4.0
Residual Fuel Oil	286	218	257	-68	40	-23.9	18.3
Other Products	431	409	448	-22	38	-5.1	9.3
Total Products	**2,890**	**2,692**	**2,871**	**-198**	**179**	**-6.8**	**6.6**

Source: Petromarket RG, IEA

SUPPLY

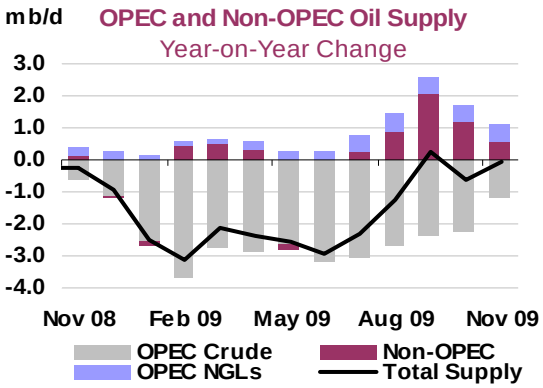
Summary

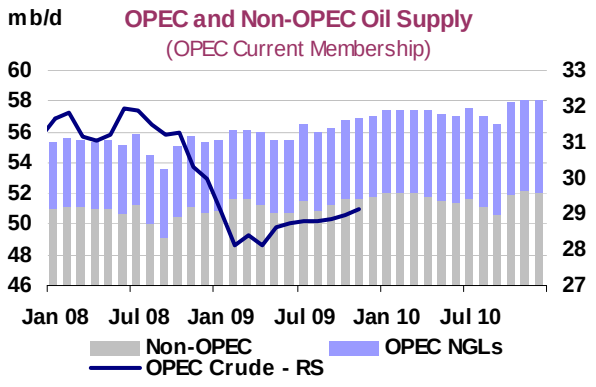
- **Global oil supply rose by 200 kb/d in November**, two-thirds of which came from OPEC. Year-on-year, global supply is down marginally, with lower OPEC output mostly offset by higher non-OPEC production. Largely as a result of lower non-OPEC supply prospects for 2010, next year's call on OPEC is raised by 0.5 mb/d to 29 mb/d, compared with 28.7 mb/d in 2009.

- **OPEC production rose 135 kb/d in November, to 29.1 mb/d**, led by a sharp rebound in Nigerian output amid improved security following the government's October ceasefire agreement with rebel forces. OPEC-12 production is now at the highest level in a year and up by 1 mb/d from the group's February low of 28.1 mb/d. OPEC ministers are scheduled to meet in Angola on 22 December to discuss output targets.

- **Forecast non-OPEC supply in 2009 is nudged up to 51.3 mb/d** (+125 kb/d versus last month's report), as the quietest US hurricane season since 1997 came to a close. In addition, a review of global NGL capacity brings an upward adjustment to Russian and other gas liquids output in 2009. In contrast, for 2010, lower North American NGL and US GOM crude prospects more than offset higher Russian NGL, with total supply now revised down by 265 kb/d to 51.6 mb/d.

- **Updated medium-term global supply capacity projections show an upward adjustment of 1.1 mb/d** on average in 2008-2014, weighted to the latter half of the forecast period. OPEC's crude capacity growth was revised up largely on a stronger outlook for Nigeria and Iraq, now forecast to rise by 2.8 mb/d, to 36.9 mb/d. OPEC NGLs were also slightly higher, with capacity now forecast to increase by 2.8 mb/d, to 7.3 mb/d. Non-OPEC supply prospects have improved, now forecast to grow by 0.7 mb/d compared with a previous decline of 0.4 mb/d in 2008-2014 period.





All world oil supply figures for November discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Indonesia and Russia are supported by preliminary November supply data.

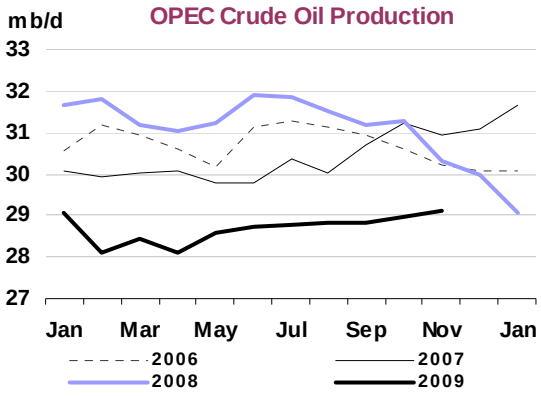
Note: Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from July 2007, a nationally allocated (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals –410 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

OPEC Crude Oil Supply

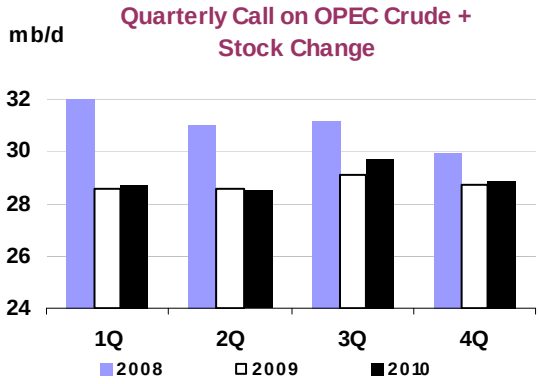
OPEC production inched higher in November, up by 135 kb/d to 29.1 mb/d, led by a sharp rebound in Nigerian output amid improved security following the government's October ceasefire agreement with rebel forces. OPEC-12 production is now at the highest level in a year and up by 1.0 mb/d from the group's February low of 28.1 mb/d.

Crude oil production by OPEC-11 rose by 90 kb/d to 26.6 mb/d in November with the group now producing about 1.8 mb/d above its 24.845 mb/d output target. Relative to targeted output cuts, OPEC's compliance rate slipped to just 58% in November compared with 60% in October.

Iran and Angola continue to top the list of overproducers, collectively accounting for 40% of above target output. **Iran's** production increased by 40 kb/d to 3.7 mb/d, with the country's target compliance slipping to just 20% in November. **Angolan** production was 25% above its implied target of 1.5 mb/d. OPEC's newest member continues to argue its output target allocation in place since September 2008 is too low. Angola's less-than-stellar compliance level may prove awkward at OPEC's 22 December meeting taking place in the country's capital.



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)



Entire series based on OPEC Composition as of January 2009 onwards (including Angola & Ecuador & excluding Indonesia)

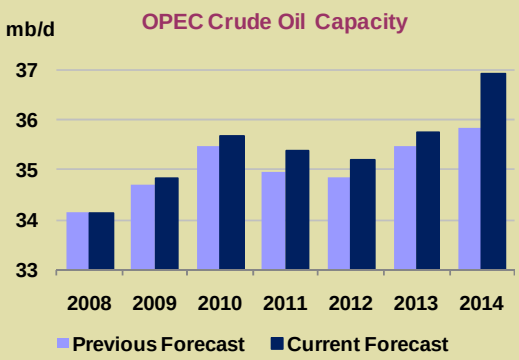
Despite weakening compliance with output targets, pre-meeting statements by OPEC ministers suggest the group is comfortable with current levels of both oil production and crude prices. With oil prices hovering around $75/bbl in November and early December, a consensus appears to favour rolling over current output targets. OPEC may be calculating that a recovery in oil demand in 2010 will quickly reduce the relatively high levels of global crude and refined product stocks. Indeed, OPEC may be banking on stronger winter demand for its crude judging by higher customer contract allocations for December and tanker tracking reports which show higher exports this month.

Saudi Arabia's production was estimated at 8.28 mb/d in November, unchanged from the upward revised October level. The higher levels are in line with previously announced increased contract allocations for some customers in Asia for December. Above-target output also continues to be used for domestic use at power plants. The substitution of lighter quality crude instead of fuel oil partly reflects the Kingdom's new environmental regulations calling for cleaning burning feedstock.

Nigeria's output rose to the highest level in 15 months and accounted for around 60% of the group's increase in November. Production rose 80 kb/d, to just under 2 mb/d in November, as companies stepped up the pace of repair work to damaged oil infrastructure with the ceasefire agreement holding. Nigeria's oil minister estimated that the country could bring back onstream some 500 kb/d of shut-in production by the end of 2010 (*see Medium-Term OPEC Capacity)*.

Medium-Term OPEC Capacity Update: Nigeria and Iraq Key to Stronger Increases

The unexpected success of the Nigerian government's ceasefire accord with key rebel groups, Iraq's tangible progress in awarding technical service agreements to IOCs and new development plans in Angola are behind our upward revision to the outlook for OPEC production capacity published in the June *MTOMR*. OPEC crude production capacity over the 2008-14 period is now forecast to rise by 2.8 mb/d, to 36.9 mb/d. This represents a revision of +1.1 mb/d compared with last June's outlook for capacity growth of 1.69 mb/d.



OPEC's condensate and natural gas liquids (NGL) capacity has also been raised, by a smaller 175 kb/d, with growth now forecast at 2.79 mb/d, to 7.3 mb/d.

Nigeria's Reversal of Fortune

Nigeria's eleventh hour victory in securing a ceasefire agreement with militant groups holds the promise of a significantly improved operating environment for IOCs after years of debilitating attacks on the country's oil production infrastructure. Nigeria's oil minister estimated that the country could bring back on stream some 500 kb/d of shut-in production next year. Those projections are in line with our previous estimate of 500-600 kb/d of available capacity that could be restored in the short term. For the 2008-14 forecast period, Nigeria's production capacity has been revised higher by 386 kb/d from the June report, with output levels now expected to *increase* by 370 kb/d versus a previous *decline* of 20 kb/d. Nigeria's production capacity is forecast to reach 2.9 mb/d by 2014. In the near term, restoration of shut-in production will be augmented by a ramp up in the Agbami field next year.

Before the ceasefire, Nigerian production fell to the lowest level in more than two decades in August but output is on track to breach the 2 mb/d mark in December as companies fast track repair work on damaged infrastructure. The medium-term outlook critically hinges on the government's success in rehabilitating the former militants and improving the living conditions in the Niger Delta region. A similar amnesty offer based on a cash-for-arms program under then President Obasanjo in 2004 collapsed because the government failed to deliver on promises or follow through with a sustainable development plan. As a result, militants groups reorganised under new leaders and rearmed, ushering in a new wave of violence and disruption.

This time, however, the government has significantly increased spending in the region, earmarking roughly $1.3 bn for post-amnesty development projects, including building roads, schools and hospitals as well as proposing to allocate 10% of revenues from its oil joint ventures to residents in the Niger Delta.

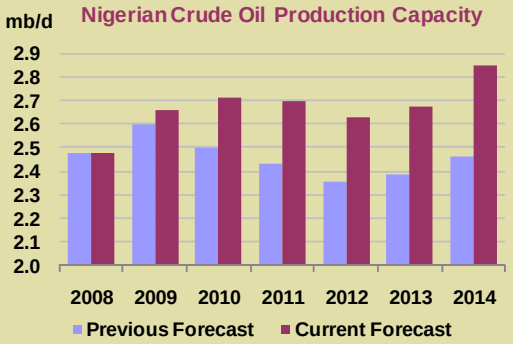
Estimated Average Sustainable Crude Production Capacity

(million barrels per day)

	2008	2009	2010	2011	2012	2013	2014	*Increment 08 - 14*
Algeria	1.42	1.39	1.40	1.49	1.60	1.68	1.73	*0.31*
Angola	1.94	2.03	2.05	2.04	2.08	2.25	2.52	*0.58*
Ecuador	0.50	0.49	0.48	0.45	0.43	0.41	0.39	*(0.11)*
Iran	3.97	3.97	3.92	3.78	3.69	3.61	3.48	*(0.49)*
Kuwait	2.63	2.62	2.59	2.55	2.52	2.64	2.69	*0.06*
Libya	1.78	1.77	1.78	1.81	1.78	1.80	1.97	*0.19*
Nigeria	2.48	2.66	2.71	2.70	2.63	2.67	2.85	*0.37*
Qatar	0.88	0.93	1.00	1.02	1.00	0.98	0.96	*0.08*
Saudi Arabia	10.74	11.23	12.16	12.04	11.83	11.79	11.97	*1.23*
UAE	2.72	2.72	2.71	2.75	2.88	2.99	3.06	*0.34*
Venezuela	2.62	2.51	2.42	2.33	2.25	2.22	2.20	*(0.42)*
OPEC-11	**31.68**	**32.33**	**33.21**	**32.97**	**32.69**	**33.02**	**33.81**	***2.13***
Iraq	2.47	2.48	2.45	2.40	2.50	2.74	3.09	*0.62*
Total OPEC	**34.15**	**34.81**	**35.66**	**35.37**	**35.19**	**35.75**	**36.90**	***2.76***
Increment	*0.51*	*0.67*	*0.85*	*-0.29*	*-0.18*	*0.56*	*1.15*	

Medium-Term OPEC Capacity Update (continued)

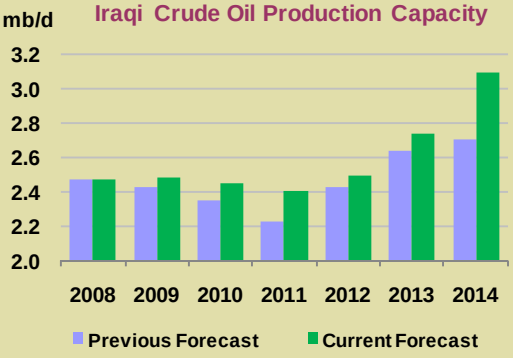
The administration has also enlisted support from companies operating in the country. In tandem with government officials, Shell launched training programmes in November for former militants. The European Union and South Korea, among others, have also offered financial assistance to provide training and build infrastructure for the impoverished oil-producing region.



While the prospect for securing peace with rebel groups looks more promising than at any time in the past, Nigeria's controversial 'Petroleum Industry Bill (PIB)' may yet derail production capacity expansion plans. Nigerian lawmakers are pushing forward with plans to pass legislation a decade in the making aimed at restructuring the state oil company to put it on a profit-making footing capable of meeting funding commitments with its joint venture partners. At the same time, the proposed legislation would allow the government to renegotiate old contracts, including offshore oil production contracts from the 1993 bid round, and impose higher royalties and taxes. Negotiations are ongoing and we assume for our forecast that a positive outcome for the government and companies will prevail, allowing stalled capacity expansion plans to move forward.

Navigating Iraqi Minefields

Iraqi production capacity is forecast to rise by just over 600 kb/d, to 3.1 mb/d by 2014. That is an upward revision of 390 kb/d from our June forecast in light of the progress made on contract awards and the pressing imperative to increase revenues. However, the many political and security risks that continue to challenge the government and industry remain, leaving our outlook extremely vulnerable to future revision. Iraq's three-track strategy to boost oil production in the short term has met with mixed success. The enhanced drilling programmes by the Southern Oil Company (SOC) and the Northern Oil Company (NOC) have so far failed to increase production as planned. The joint venture between the Iraq Drilling Company and Mesopotamia Petroleum Company (UK) collapsed for lack of funding, underscoring the difficulties the national companies have had in ramping up production on their own.



The first bidding round for Technical Service Contracts (TSCs) for fields currently in production ended in only one contract being signed for the much coveted Rumaila field. On paper, the contract calls for production to rise from the current 1.0 mb/d to 2.85 mb/d. Negotiated Engineering, Procurement and Construction (EPC) contracts with IOCs are also near being concluded for Nasseriya, Zubair and West Qurna. The deals in the pipeline are aimed at increasing capacity to 7.0 mb/d.

The second international licensing round, which focuses on undeveloped fields under TSCs, is scheduled for 11-12 December, and includes the Majnoon and West Qurna Phase-2. The second bid round is expected to increase production by a further 3 mb/d, with the ministry forecasting production capacity to reach 10 mb/d by 2018-20. However, the production targets are arguably very ambitious and are near impossible to reach in the announced time frame given political, logistical and technical hurdles. Clarity on the contract awards may emerge following the country's elections now planned for early March. However, a significant increase in violence and bombings leading up to the elections are already causing security problems for the second bid round, highlighting the overwhelming security issues for companies.

Equally important, logistical constraints on the country's export capacity in the medium term are a formidable issue that urgently needs to be addressed if the country is to move forward with its expansion plans. Experts estimate that current capacity constraints will limit exports to under 3.0 mb/d until major infrastructure work can be completed in the southern region, with 2013-14 the earliest expansion work would be completed. Our updated forecast sees annual production capacity holding flat at around 2.5 mb/d in the near term and then rising to 2.7 mb/d in 2013 and to 3.1 mb/d in 2014.

Crude oil production in **Iraq** also increased last month despite further attacks on the northern export pipeline and weather-related delays disrupting southern shipments. Production rose 45 kb/d, to 2.5 mb/d last month, with exports pegged at 1.96 mb/d. Exports of Basrah crude were up 65 kb/d, to 1.56 mb/d even as shipments from the south were hampered by loading delays during the last week of the month due to bad weather. Exports of Kirkuk crude from the north were unchanged from October's levels at around 375 kb/d. Iraqi production estimates include 550 kb/d of crude used for refinery operations and at power plants as well as an estimated 20 kb/d of output in the Kurdish region of the country.

OPEC Crude Production

(million barrels per day)

	Sep 2009 Supply	Oct 2009 Supply	Nov 2009 Supply	Sustainable Production Capacity[1]	Spare Capacity vs Nov 2009 Supply	OPEC Target Cuts	Percent Compliance with Volume Cuts
Algeria	1.22	1.24	1.24	1.40	0.16	0.200	65%
Angola	1.86	1.90	1.90	2.10	0.19	0.244	0%
Ecuador	0.46	0.46	0.46	0.50	0.04	0.067	57%
Iran	3.70	3.66	3.70	4.00	0.30	0.562	20%
Kuwait[2]	2.23	2.27	2.27	2.65	0.38	0.374	91%
Libya	1.55	1.52	1.52	1.77	0.25	0.252	71%
Nigeria[3]	1.85	1.90	1.98	2.60	0.62	0.319	0%
Qatar	0.76	0.77	0.77	0.90	0.13	0.122	74%
Saudi Arabia[2]	8.19	8.28	8.28	11.60	3.32	1.318	89%
UAE	2.27	2.28	2.27	2.85	0.58	0.379	100%
Venezuela[4]	2.24	2.24	2.22	2.40	0.18	0.364	41%
OPEC-11	**26.33**	**26.52**	**26.61**	**32.77**	**6.15**	**4.201**	**58%**
Iraq	2.51	2.47	2.52	2.60	0.09		
Total OPEC	**28.84**	**28.99**	**29.13**	**35.37**	**6.24**		
(excluding Iraq, Nigeria, Venezuela					*5.35)*		

1 Capacity levels can be reached within 30 days and sustained for 90 days.
2 Includes half of Neutral Zone production.
3 Nigeria excludes some 0.5 mb/d of shut-in capacity.
4 Includes upgraded Orinoco extra-heavy oil assumed at 460 kb/d in November.

Venezuela's November output declined by 20 kb/d, to 2.2 mb/d, reflecting technical problems at two of the country's extra-heavy oil upgrading plants, Petrocedeno (165 kb/d) and Petroanzoategui (135 kb/d). As a result, upgraded Orinoco oil averaged 460 kb/d in November, down 20 kb/d from October levels.

Non-OPEC Overview

Revisions to short-term non-OPEC supply this month stemmed mainly from baseline changes to natural gas liquids (NGL), while recent reported data contained few surprises. Tropical Storm Ida brought the US hurricane season to an end, only briefly shuttering Gulf of Mexico production, though by less than we had already deducted on the basis of five-year average outages, thus nudging up the US baseline. In the process of updating our medium-term outlook, project start-up dates have been reviewed, while in addition, we undertook a wide-ranging reappraisal of NGL production figures (see *Medium-Term*

Non-OPEC Supply

(million barrels per day)

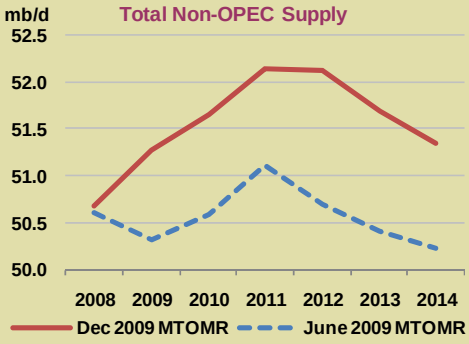
	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
North America	14.2	14.0	13.6	13.8	13.9	14.2	13.9	14.2	14.3	14.1	14.2	13.9	13.5	13.9	13.9
Europe	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.2	4.3	4.5	4.3	3.9	3.8	4.0	4.0
Pacific	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Total OECD	**19.7**	**19.5**	**18.8**	**19.3**	**19.3**	**19.7**	**19.0**	**19.0**	**19.2**	**19.2**	**19.2**	**18.6**	**18.1**	**18.7**	**18.6**
Former USSR	12.9	12.9	12.7	12.7	12.8	13.0	13.2	13.3	13.6	13.3	13.7	13.9	13.7	13.9	13.8
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.8	3.9	3.8	4.0	4.0	4.0	4.1	4.0
Other Asia	3.7	3.6	3.6	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.7	3.7	3.8	3.8	3.7
Latin America	4.1	4.1	4.2	4.2	4.1	4.3	4.3	4.3	4.4	4.3	4.5	4.5	4.6	4.7	4.6
Middle East	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa	2.6	2.6	2.6	2.5	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4
Total Non-OECD	**28.8**	**28.8**	**28.7**	**28.7**	**28.7**	**29.0**	**29.2**	**29.4**	**29.7**	**29.3**	**30.1**	**30.3**	**30.2**	**30.6**	**30.3**
Processing Gains	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Total Non-OPEC	**51.0**	**50.9**	**50.1**	**50.7**	**50.7**	**51.3**	**50.9**	**51.2**	**51.7**	**51.3**	**52.0**	**51.6**	**51.1**	**52.0**	**51.6**
Annual Chg (mb/d)	-0.2	-0.1	-0.3	-0.2	-0.2	0.3	0.0	1.1	1.0	0.6	0.7	0.7	-0.1	0.3	0.4
Changes from last OMR (mb/d)	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	-0.1	-0.1	-0.4	-0.5	-0.3

Non-OPEC Supply Update: Higher Baseline, More Optimistic Outlook). The net result for total non-OPEC supply is an upward revision of 125 kb/d to 2009, now forecast to average 51.3 mb/d, and a downward revision of 265 kb/d to 2010, now seen growing to 51.6 mb/d.

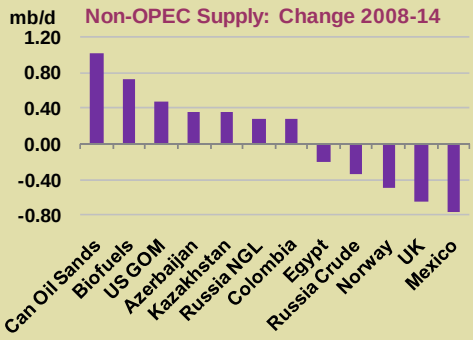
Medium-Term Non-OPEC Supply Update: Higher Baseline, More Optimistic Outlook

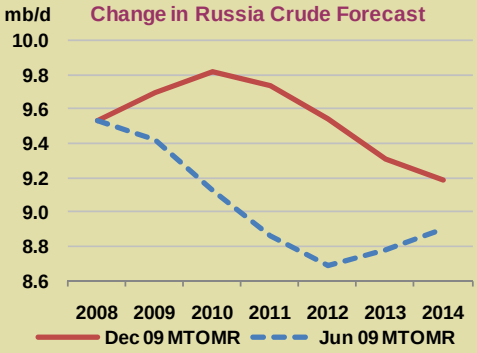
A series of monthly upward revisions, a more optimistic view on project start-up dates and a wide-reaching reappraisal of natural gas liquids (NGL) have led to substantial upward revisions to our medium-term non-OPEC supply figures. Total output is now expected to *grow* 0.7 mb/d from 2008 to 2014, reaching 51.4 mb/d, compared with a *decline* of 0.4 mb/d forecast in June's *MTOMR*.

The single largest contribution to the higher forecast comes from Russia's unexpectedly robust crude production in 2009. Compared with earlier in the year, when this report and most others were still anticipating a *decline* in 2009 Russian crude output, monthly production figures have disproved this, as new fields ramped up earlier and faster than expected, encouraged by a recovery in oil prices and some well-timed fiscal incentives. Our outlook now expects Russian crude output to rise for a second year running in 2010, but then to drop, as decline at mature fields outweighs new start-ups.



The outlook for supply overall has improved, with a higher price assumption (around $75/bbl on average for 2010-2014, in real terms) and a widespread perception that the worst of the global economic crisis is over. It appears that upstream investments have not been cut as sharply as feared earlier in the year, though costs, too, may not have fallen as much as anticipated and overall, it is fair to say that many upstream projects are back on the drawing board again. This is certainly true for Canadian oil sands, which (as in June's *MTOMR*) are forecast to show the strongest growth over the forecast period. But earlier-than-assumed starting dates at projects have also boosted the outlook for Brazil, Colombia, Kazakhstan, Oman and others. In the US, the absence of any significant hurricane shut-ins this season has raised baseline production in the near term. Partly offsetting these adjustments, downward revisions were made in Mexico, Indonesia, Brazilian fuel ethanol and Ivory Coast.



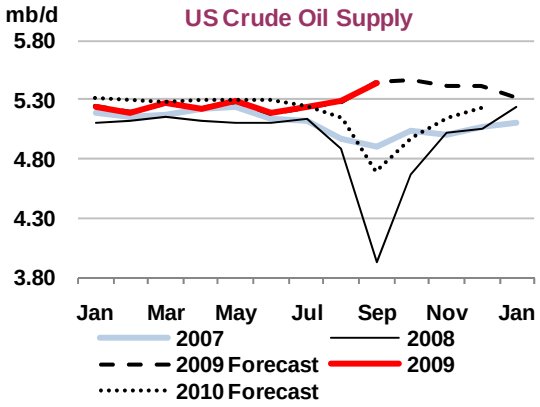


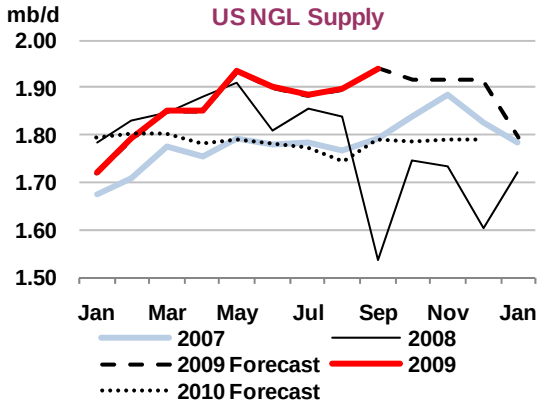
NGL projections have been recalibrated to reflect the latest IEA gas production forecast, which has led to numerous adjustments, both for baseline and outlook profiles. The resulting aggregate downward revision is quite small for current output levels though greater towards the tail-end of the forecast, while changes to individual countries are significant. Notably, Russia's NGL baseline is upped by 50 kb/d and both gas plant liquids and condensate output are expected to grow much more strongly than previously forecast, collectively rising by 50% from current levels. The main factor supporting Russian NGL production growth is higher utilisation of associated gas as a result of curbs to flaring and ongoing investments in the midstream sector, as well as a higher liquids ratio of non-associated Russian gas as it is produced from deeper reservoirs. Conversely, forecast NGL production in the US and Canada is curbed sharply, with output now expected to decline a combined 100 kb/d over the forecast period, on the basis of a less optimistic North American gas production forecast. Other noteworthy upward revisions include Argentina, India, Kazakhstan, Malaysia, Norway, Peru, Thailand and Uzbekistan, while downward adjustments affect Australia, Indonesia, Oman and Tunisia. (A detailed review of global gas liquids prospects (to be presented in full in 2010).)

OECD

North America

US – November Alaska actual, others estimated: September and October US production were revised up by around 140 kb/d on average, as was November, though by a lower 50 kb/d. Officially, the hurricane season came to an end on 30 November, the quietest since 1997 in terms of number of named storms, largely due to the presence of *El Niño*. Tropical Storm Ida, the only storm this year to cause oil production shut-ins, ultimately only knocked out 50 kb/d of Gulf of Mexico output for November, as despite forcing the precautionary closure of 43% of regional production, operations were resumed only days later. This report had previously assumed an average November shut-in volume of 180 kb/d and a lingering 50 kb/d in December. The hurricane season's passing prompted the elimination of these adjustments and henceforth, recalculated five-year average outages of 210 kb/d and 240 kb/d respectively for the third and fourth quarters.





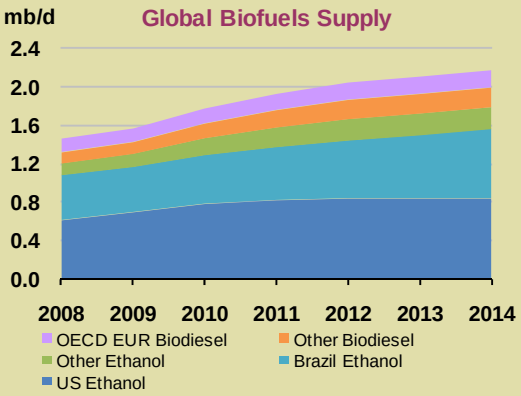
Forecast NGL output was reduced by a sharp 140 kb/d for 2010 and similar volumes thereafter on the basis of a reassessed gas forecast. Some changes were made to crude project start-up dates, especially in the Gulf of Mexico, resulting in downward revisions there of -20 kb/d and -165 kb/d for 2009 and 2010 respectively. Nonetheless, the Gulf of Mexico is still forecast to contribute 410 kb/d of incremental output this year. Even slightly offset by lower crude production elsewhere, US total net crude growth of 355 kb/d in 2009 should be the highest year-on-year increase since 1978. Added to growth in NGLs and biofuels, US total oil production increases by 525 kb/d to just over 8 mb/d in 2009. 2010 total US oil production is now forecast at a lower 7.9 mb/d.

Canada – Newfoundland – October actual, others September actual: September production was revised down nearly 50 kb/d on lower-than-expected output across the board. Lower NGL production likely stems from curbed natural gas output, while the Terra Nova oil field offshore Newfoundland has been at a reduced output level since August. As part of our NGL reappraisal, Canadian forecast production is adjusted down by around 90 kb/d for 2010-2014. Total Canadian liquids production is forecast to rise from 3.1 mb/d in 2009 to 3.2 mb/d in 2010.

Mexico – October actual: October oil production in Mexico was higher than expected and flat month-on-month, as production at key oil fields Cantarell and Ku-Maloob-Zaap (KMZ) was unchanged. The last couple of months have seen previously-steep decline at Cantarell slow, though we still envisage a further drop in coming months and years. Looking ahead, the recent government decision to slash investment at the Chicontepec field leads us to project a slower ramp-up towards the tail-end of our medium-term forecast period. In the shorter term, oil output for both 2009 and 2010 are revised up minimally, now forecast to average 3 mb/d and 2.8 mb/d respectively.

Better Biofuels Prospects in the Medium Term

The global biofuels production outlook has improved since our June 2009 *MTOMR* forecast. For 2008-2014, biofuels production has been revised up on average by 35 kb/d annually, with the largest adjustments in the 2009-2011 timeframe. We now see 2009 global biofuels production at 1.6 mb/d, up 105 kb/d from 2008 and 40 kb/d higher than in the *MTOMR*. Over the medium term, we see global output increasing to 2.2 mb/d, with annual growth from 2008-2014 averaging 120 kb/d, similar to what we foresaw in June.



The headline revisions mask more significant underlying changes. US ethanol production in 2Q09 and 3Q09 came in higher than expectations, buoyed by more favourable production margins. Many producers remain vulnerable to ongoing industry consolidation and capacity surpluses remain, but utilisation has improved since 1H09 and some formerly shut plants have returned to duty. We expect US ethanol output at 690 kb/d in 2009, growing to 835 kb/d in 2014. Still, uncertainty surrounds the introduction of E15. While the US Environmental Protection Agency (EPA) has positively signalled the ability of vehicles built after 2001 to handle a 15% ethanol blend (versus a current 10% limit), EPA recently delayed its ruling until next summer. We continue to doubt that the US will be able to meet its Renewable Fuel Standard for cellulosic ethanol, which envisages 7 kb/d of usage in 2010 and 115 kb/d by 2014.

World Biofuels Production

(thousand barrels per day)

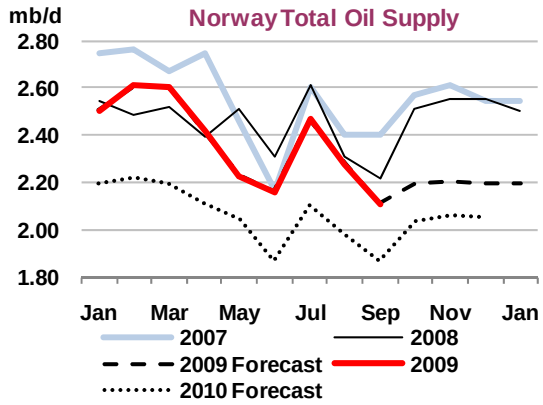
	2008	2009	2010	2011	2012	2013	2014
OECD North America	669	745	847	896	919	920	920
United States	652	722	819	865	885	885	885
OECD Europe	192	200	229	247	261	262	263
OECD Pacific	7	5	8	12	14	15	15
Total OECD	**868**	**950**	**1,084**	**1,155**	**1,195**	**1,197**	**1,198**
FSU	3	2	3	9	11	11	11
Non-OECD Europe	3	5	5	5	5	5	5
China	32	32	35	41	43	43	43
Other Asia	35	44	64	86	98	98	98
Latin America	519	531	583	629	691	751	816
Brazil	493	502	547	592	647	705	770
Middle East	0	0	0	0	0	0	0
Africa	1	2	3	5	5	7	7
Total Non-OECD	**594**	**617**	**693**	**775**	**854**	**916**	**982**
Total World	**1,461**	**1,567**	**1,776**	**1,930**	**2,049**	**2,113**	**2,180**

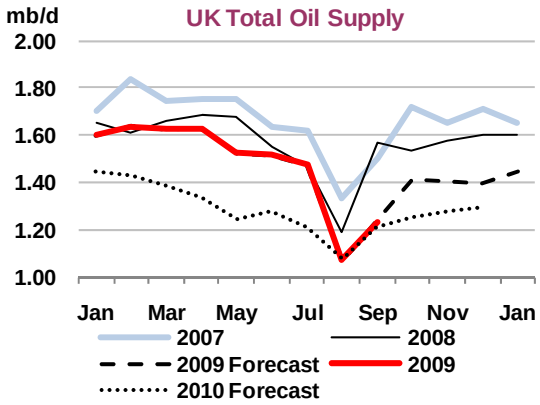
In Latin America, ethanol and biodiesel production fortunes have diverged. We revised down Brazilian ethanol output from 2008-2014 on average by 60 kb/d as high sugar prices, challenging harvest conditions and reduced capacity expansion undermined production levels. In 2009 we see output at 475 kb/d, unchanged from 2008. Despite the lower baseline, however, medium-term growth still appears strong to meet expanding domestic consumption and an ever-expanding flex-fuel vehicle fleet; 2014 output is expected near 730 kb/d. Biodiesel output, by contrast, has been revised up in both Brazil and Argentina, boosted by rising domestic consumption in the former and increased transatlantic export opportunities for the latter. Latin American biodiesel production is seen at 50 kb/d in 2009, rising to over 75 kb/d in 2014.

In OECD Europe, favourable wheat prices improved margins for ethanol producers, prompting higher 2009 production than previously anticipated. The baseline revision has prompted higher output on average by 10 kb/d from 2008-2014. Despite the imposition of tariffs on biodiesel coming from the US, European biodiesel production from 2008-2014 is virtually unchanged with imports from Argentina and SE Asia having filled the gap in the near term. Some sizeable biofuel capacity additions are on the horizon for 2010-2012, which should boost European total biofuels production from 200 kb/d in 2009 to 265 kb/d in 2014. Still, market access uncertainties remain for both foreign and domestic producers. The European Commission is due in 2010 to propose sustainability criteria legislation that accounts for the impacts of indirect land-use change on biofuels greenhouse gas savings versus fossil fuels.

North Sea

Norway – September actual, October provisional: Norwegian October output was revised down by 50 kb/d, despite including first reported output from new fields 33/9-6 Delta, Tyrihans, Yttergryta and Volund, the last of which was previously included in the Alvheim figures, to which it is tied back. Notably Tyrihans shows a much more rapid ramp-up than previously assumed. Elsewhere, the Snohvit LNG plant, shut down for maintenance since mid-August, eventually resumed operations in mid-November, after some start-up problems earlier in the month. Norway's NGL forecast was raised by around 50 kb/d in 2010-2014. Total oil production in 2009 and 2010 is now forecast at 2.3 mb/d and 2.1 mb/d respectively.

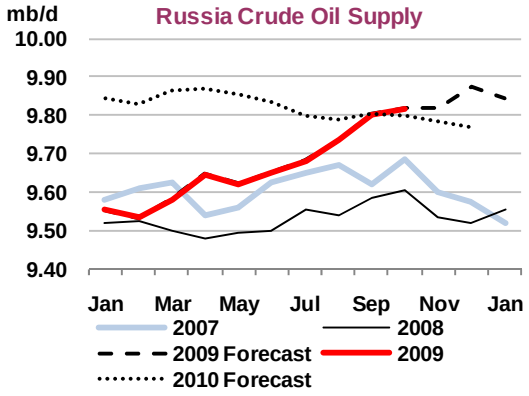


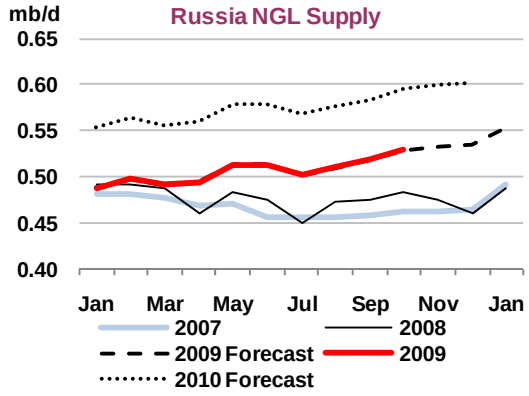


UK – September actual: September oil production in the UK was revised down by 60 kb/d on lower-than-expected crude output, which was then carried through the forecast. Disaggregated August field-by-field data confirmed the extent and details of this summer's heavier-than-usual field maintenance, which saw total UK liquids output dip to below 1.1 mb/d, its lowest since 1978. August data also showed the first reported production at the Affleck, Ettrick and Shelley fields, which will collectively add around 40 kb/d of crude. Total UK oil production is forecast to average 1.5 mb/d in 2009 and to decline to 1.3 mb/d in 2010.

Former Soviet Union (FSU)

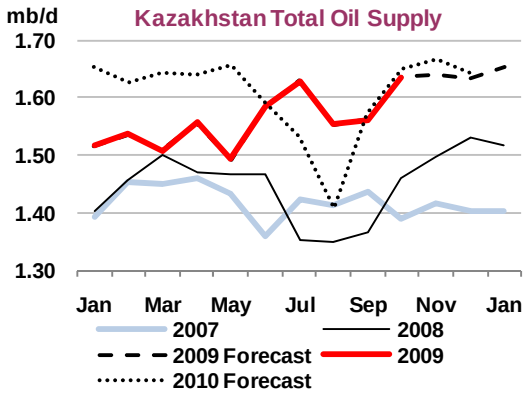
Russia – October actual, November provisional: Revisions to preliminary October production data for Russia showed crude output 25 kb/d higher than expected, most of which stemmed from higher production from smaller producers. Preliminary November oil production data showed output flat compared with October, with an increase from Rosneft's new Vankor field offsetting small declines from other companies.

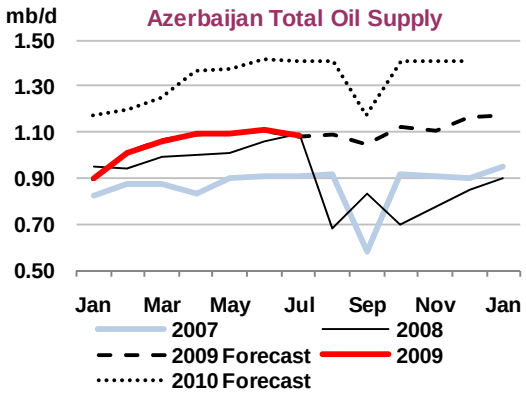




The Russian government has confirmed that a group of 19 oil fields in Eastern Siberia will benefit from an exemption to crude export duties from 1 December 2009. However, there still remains some uncertainty as to how long the exemption will last. It is generally held that a minimum of five years is necessary to break even on capital-intensive greenfield projects in what is still an undeveloped province. The start-up

of production at the new Talakanskoye, Verkhnechonskoye and the huge Vankor fields in the past year is one of the main reasons Russian production has picked up – and expectations of tax breaks were central to this development. However, considerable uncertainty stems from the fact that the export duty waiver will still have to be renewed each month. Total 2009 oil production in Russia is revised up 60 kb/d to 10.2 mb/d, while 2010 output is nudged up by 140 kb/d to 10.4 mb/d.





Other FSU: Kazakhstan's NGL baseline is revised up by 45 kb/d for 2009. In addition, October crude production data were around 100 kb/d higher than anticipated, with the large Tengiz field picking up to over 500 kb/d again, only the second time it has breached that level, following some capacity expansion work this summer. The Karachaganak field meanwhile also came in slightly higher than expected, following maintenance in September. Total 2009 production is forecast to average 1.6 mb/d and is set to remain broadly flat in 2010. In **Azerbaijan** and **Uzbekistan**, NGL baselines were revised downward and upwards by around 5 kb/d and 10 kb/d respectively – both historically and in the forecast.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2007	2008	3Q2008	4Q2008	1Q2009	2Q2009	Aug 09	Sep 09	Oct 09	Latest month vs. Sep 09	Latest month vs. Oct 08
Crude											
Black Sea	2.18	2.05	1.97	2.04	2.30	2.23	2.07	2.18	2.12	-0.06	0.03
Baltic	1.59	1.46	1.40	1.47	1.57	1.66	1.67	1.61	1.69	0.08	0.37
Arctic/FarEast	0.32	0.30	0.29	0.37	0.46	0.45	0.47	0.54	0.50	-0.04	0.10
BTC	0.55	0.67	0.64	0.57	0.74	0.80	0.81	0.79	0.85	0.06	0.46
Crude Seaborne	**4.63**	**4.48**	**4.30**	**4.45**	**5.07**	**5.14**	**5.01**	**5.12**	**5.16**	**0.04**	**0.96**
Druzhba Pipeline	1.13	1.08	1.03	1.09	1.14	1.12	1.07	1.13	1.15	0.02	0.06
Other Routes	0.44	0.42	0.46	0.40	0.40	0.40	0.30	0.38	0.33	-0.05	-0.15
Total Crude Exports	**6.20**	**5.98**	**5.79**	**5.94**	**6.61**	**6.66**	**6.38**	**6.63**	**6.64**	**0.01**	**0.87**
Of Which: Transneft	4.27	3.99	3.87	3.96	4.22	4.27	4.15	4.24	4.21	-0.03	0.19
Products											
Fuel oil	1.10	1.09	1.04	1.04	0.96	1.16	1.10	1.16	0.98	-0.19	-0.04
Gasoil	0.95	0.94	0.79	0.92	1.10	0.95	0.95	0.88	0.87	-0.01	0.04
Other Products	0.60	0.59	0.55	0.56	0.73	0.79	0.63	0.57	0.56	-0.01	0.01
Total Product	**2.65**	**2.63**	**2.38**	**2.52**	**2.78**	**2.89**	**2.67**	**2.61**	**2.40**	**-0.21**	**0.00**
Total Exports	**8.85**	**8.61**	**8.17**	**8.46**	**9.39**	**9.55**	**9.05**	**9.24**	**9.04**	**-0.20**	**0.87**
Imports	0.04	0.04	0.05	0.03	0.04	0.05	0.04	0.04	0.04	0.00	0.00
Net Exports	**8.82**	**8.57**	**8.12**	**8.43**	**9.35**	**9.50**	**9.01**	**9.21**	**9.00**	**-0.20**	**0.87**

Sources: Petro-Logistics, IEA estimates
Note: Transneft data has been revised to exclude Russian CPC volumes.

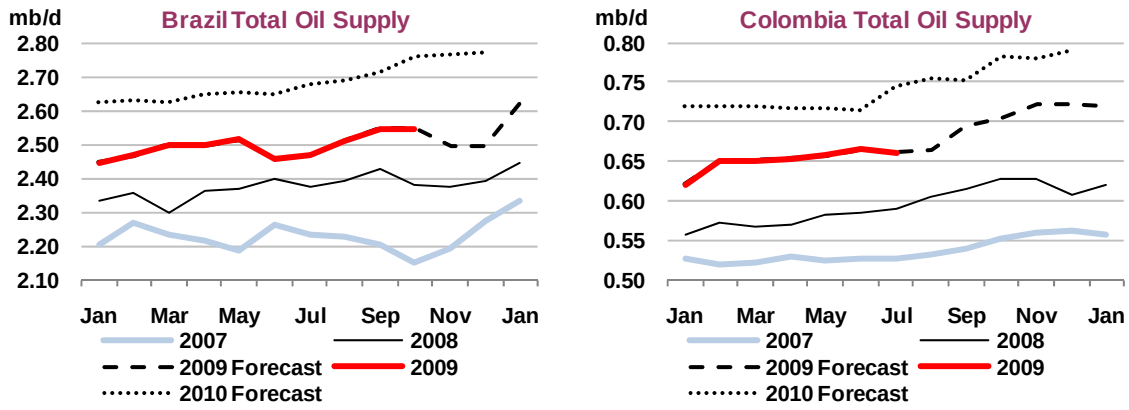
FSU net exports fell by 2.2% to 9.0 mb/d in October on a 7.9% drop in products exports caused mainly by a decrease in fuel oil shipments. Crude oil exports remained almost unchanged at 6.6 mb/d in October as a drop in the Black Sea and Arctic shipments balanced higher loadings from the Baltic and the BTC. The Ukrainian port of Pivdenne has accommodated oil usually shipped by pipeline to Novorossiysk and Odessa. These ports saw deliveries cut due to maintenance and line reversal, respectively.

Russian loading schedules for November and December do not show any exports from Odessa, nor any deliveries of Russian crude oil to China via the Atasu-Alashankou line, after all three sections of the Kazakhstan-China oil pipeline were connected. The Kozmino terminal on Russia's Pacific Coast appeared as a new export outlet in December's loading schedule. The end-point of the ESPO pipeline is scheduled to load its first 100,000 mt tanker with Rosneft crude oil delivered to the port by rail.

According to preliminary data, Russian crude oil exports dropped in November on lower Baltic and Arctic shipments, as well as lower BTC volumes. December shipments are expected to rise month-on-month, supported by higher volumes scheduled for export from Baltic ports and via the BTC, despite a 17% increase in Russian crude oil export duties from 1 December to $271.1/mt ($37.0/bbl). Export duties for light and heavy oil products are set at $194.9/mt and $105.0/mt, respectively.

Other Non-OPEC

China – October actual: Chinese oil production in October was revised down by 135 kb/d to 3.8 mb/d on lower-than-expected production offshore and, to a lesser degree, elsewhere. In mid-November, strong winds shut-in offshore production in Bohai Bay, but it is unclear by how much and for how long (this report adjusted by -25 kb/d). Total Chinese oil production in 2009 and 2010 was revised down slightly and is now forecast to average 3.8 mb/d and 4 mb/d respectively.



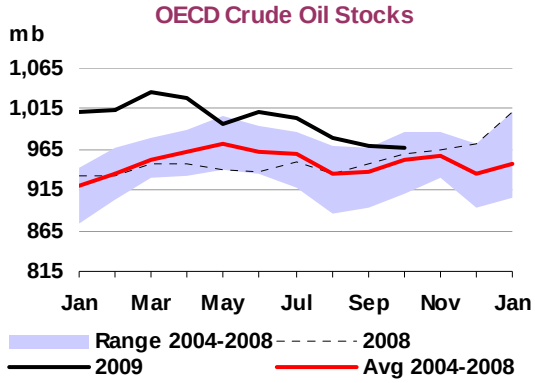
Various Latin America: In **Brazil**, total oil production in October was revised up by 30 kb/d, as higher-than-expected crude and NGL output offset slightly lower fuel ethanol supply. A review of project start-up dates indicated some slippage in 2010-2012, and therefore downward revisions, though these projects then simply lead to upward adjustments in 2013 and 2014. Total 2009 oil production is set to rise from 2.5 mb/d in 2009 to 2.7 mb/d in 2010. In **Peru**, the NGL review has prompted the reallocation of some crude production into the NGL category, related to the Camisea gas project. Forecast production in 2009 and 2010 is kept steady at 150 kb/d. In **Colombia**, steady gains at the Rubiales heavy crude field and anticipated future projects, incentivised by a welcoming upstream investment environment, have prompted small revisions to the near term (around +15 kb/d for 2009/10) and a greater upward adjustment for the medium-term forecast (around +170 kb/d on average for 2011-2014). Total 2009 oil production is expected to average 670 kb/d and rise to 740 kb/d in 2010.

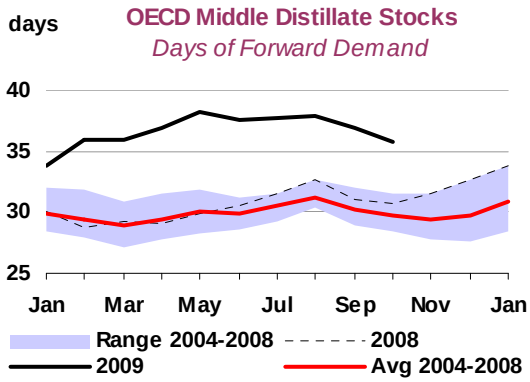
Various Africa and Middle East: For **Egypt**, the NGL review resulted in an upward revision by around 25 kb/d of historical estimates and a slightly higher forecast profile. Crude production figures were left unchanged this month. Total Egyptian oil production is forecast to decline from 660 kb/d in 2009 to 620 kb/d in 2010. In **Tunisia**, the NGL and crude forecasts were trimmed by a collective 12 kb/d in 2009 and marginally curbed for 2010-2014. In **Oman**, the NGL baseline was also nudged down somewhat. In the medium-term outlook however, Oman's crude profile has been raised substantially as several Enhanced Oil Recovery (EOR) projects boost production. Total 2009 oil production is forecast to average 800 kb/d, rising to 860 kb/d in 2010.

OECD STOCKS

Summary

- **OECD industry stocks fell counter-seasonally by 36.0 mb in October** to 2,735 mb. The five-year average stock change for October is a 3.9 mb build. Over 40% of the draw came in middle distillates as holdings in all three regions declined. Crude stocks fell 0.9 mb, led by a 6.8 mb draw in Europe, countered by a 4.9 mb build in Pacific inventories. North American 'other products' and gasoline stock draws also drove the overall change.
- **OECD stocks in days of forward demand fell to 59.4 days as of end-October,** down from 60.2 days at end-September. Days cover fell most in residual fuel oil and middle distillates, with declines evident in all three regions. Nonetheless, distillate days cover remains well above the five-year range in North America and Europe and just above the five-year average in the Pacific.
- **Preliminary data indicate total OECD industry oil inventories** edged up by 0.4 mb in November, with crude rising 6.6 mb and products falling 6.2 mb. The five-year average stock change in November is a draw of 4.0 mb. Middle distillate stocks drew 3.1 mb with US jet fuel/kerosene falling 3.0 mb.
- **Short-term crude floating storage levels declined to 55 mb as of end-November,** from 61 mb at end-October. Market reports continue to vary, with one estimate putting short-term storage below 35 mb. However, recent widening contango in the crude futures curve may signal increasing December storage volumes. Short-term products floating storage continued to rise, increasing to 98 mb at end-November from 83 mb at end-October, with most of the build occurring off Europe.





OECD Stock Position at End-October and Revisions to Preliminary Data

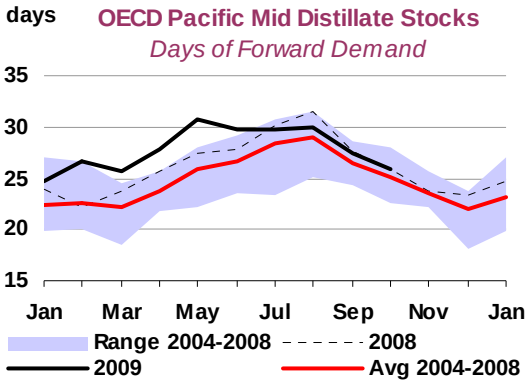
OECD commercial inventories dropped by 36.0 mb in October to 2,735 mb. The downward move was the largest OECD monthly stock draw since February 2008 and marked only the second time OECD inventories have decreased over the past twelve months. By comparison, the five-year average stock movement for October is a 3.9 mb build. Significantly, over 40% of the overall draw came in middle

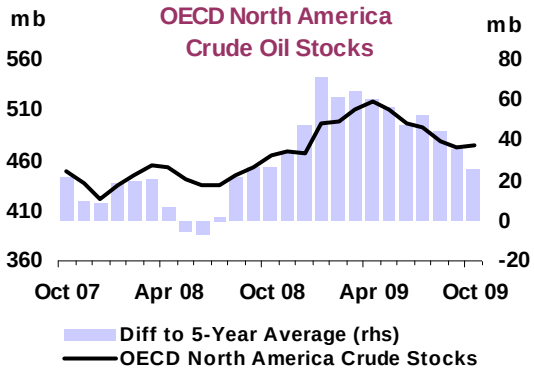
Preliminary Industry Stock Change in October 2009 and Third Quarter 2009

	October (preliminary) (million barrels)				October (preliminary) (million barrels per day)				Third Quarter 2009 (million barrels per day)			
	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total	N. Am	Europe	Pacific	Total
Crude Oil	**0.9**	**-6.8**	**4.9**	**-0.9**	**0.03**	**-0.22**	**0.16**	**-0.03**	**-0.26**	**-0.15**	**-0.05**	**-0.45**
Gasoline	-5.2	-0.4	-0.1	-5.7	-0.17	-0.01	0.00	-0.18	-0.03	0.02	-0.01	-0.02
Middle Distillates	-6.3	-5.8	-3.4	-15.5	-0.20	-0.19	-0.11	-0.50	0.16	0.08	0.11	0.35
Residual Fuel Oil	-0.3	-1.9	0.2	-2.0	-0.01	-0.06	0.01	-0.07	-0.01	-0.09	0.03	-0.07
Other Products	-10.2	-1.0	0.6	-10.7	-0.33	-0.03	0.02	-0.34	0.07	0.06	0.10	0.23
Total Products	**-22.0**	**-9.1**	**-2.7**	**-33.8**	**-0.71**	**-0.29**	**-0.09**	**-1.09**	**0.19**	**0.07**	**0.22**	**0.48**
Other Oils[1]	1.4	0.0	-2.7	-1.3	0.05	0.00	-0.09	-0.04	0.06	0.01	0.02	0.08
Total Oil	**-19.6**	**-15.8**	**-0.5**	**-36.0**	**-0.63**	**-0.51**	**-0.02**	**-1.16**	**-0.01**	**-0.07**	**0.20**	**0.11**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

distillates as all three regions posted declines. The OECD distillate surplus to the five-year average – concentrated in Europe and North America – narrowed to 66 mb. Yet, with products floating storage rising 14 mb in Europe and preliminary data pointing to only a 3.1 mb onshore middle distillate stock draw during November, it is too soon infer any sustained draining of surpluses in that product category. Moreover, days of distillate forward demand cover, though only near five-year average levels in the Pacific, remain well above the five-year range in North America and Europe.





OECD crude stocks continued to come more into balance with historical norms. Despite only drawing by 0.9 mb in October, downward revisions to September holdings in North America and Europe narrowed the OECD crude surplus versus the five-year average to 15 mb, the smallest since August 2008. Preliminary November data point to a fall in short-term floating storage, but a rise in onshore stocks. Moreover, a recent widening of the contango in NYMEX light, sweet crude combined with dismal refinery runs in the US have made onshore and offshore crude storage more attractive. Year-end tax considerations in the US may prompt some destocking before January, but without a sustained boost in refinery demand, crude inventories look to remain healthy in the near term.

Revisions versus 12 November 2009 Oil Market Report

(million barrels)

	North America		*Europe*		*Pacific*		*OECD*	
	Aug 09	Sep 09	Aug 09	Sep 09	Aug 09	Sep 09	Aug 09	Sep 09
Crude Oil	**-3.5**	**-6.7**	**-3.2**	**-8.7**	**0.1**	**7.8**	**-6.7**	**-7.7**
Gasoline	0.0	-1.9	1.5	1.9	0.0	-0.1	1.5	-0.1
Middle Distillates	1.0	0.4	0.0	-1.8	0.0	-0.6	1.0	-2.0
Residual Fuel Oil	-0.3	1.2	-1.0	0.7	0.0	0.0	-1.3	1.9
Other Products	1.2	0.2	-0.4	0.8	0.0	0.8	0.8	1.7
Total Products	**1.9**	**-0.1**	**0.1**	**1.6**	**0.0**	**0.0**	**1.9**	**1.5**
Other Oils[1]	-0.4	5.0	-0.1	-2.2	0.0	-0.2	-0.5	2.5
Total Oil	**-2.0**	**-1.9**	**-3.3**	**-9.4**	**0.1**	**7.6**	**-5.2**	**-3.7**

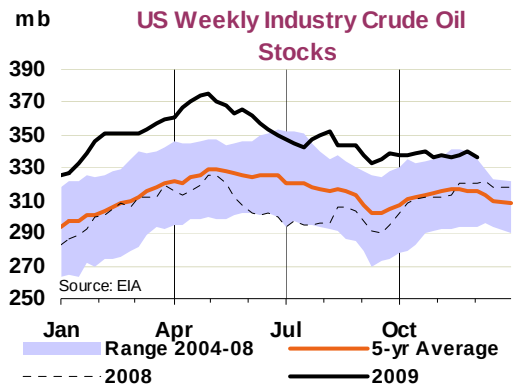
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

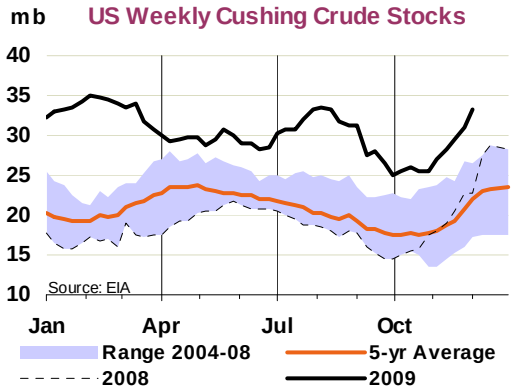
Analysis of Recent OECD Industry Stock Changes

OECD North America

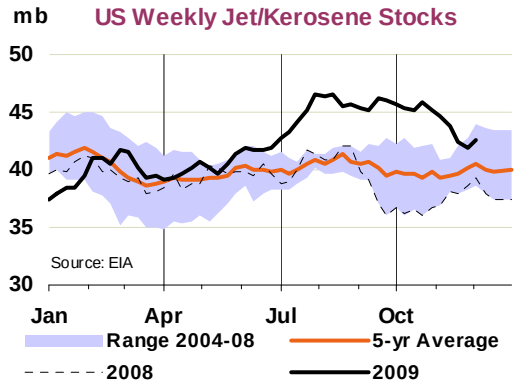
North American industry stocks fell 19.6 mb in October, entirely focused on oil products and driven by a 4.9 mb fall in US distillates and a 4.6 mb fall in US gasoline. US 'other products' - a volatile category that includes naphtha, liquefied petroleum gases, petroleum coke, white spirits, lubricants, bitumen and others - fell 10.4 mb. A 2.4 mb draw in Mexican products was led by distillate and residual fuel oil. Crude changed little overall, with a 1.8 mb gain in Mexico partially offset by a 0.9 mb fall in the US. North American government crude holdings remained unchanged.

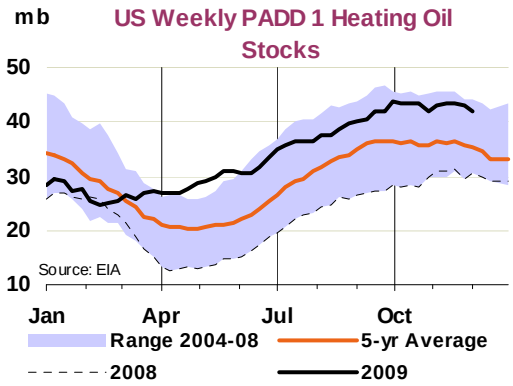
November preliminary data point to a 0.6 mb draw in total US commercial stocks. Crude stocks increased by 2.1 mb and inventories at Cushing, Oklahoma – the delivery point for the NYMEX light, sweet crude contract – swelled by 6.2 mb, including a 2.5 mb increase in the most recent week. Deepening contango in WTI has both resulted from and contributed to the Cushing builds. Strategic Petroleum Reserve (SPR) holdings rose by 1.0 mb in November and are expected to increase a further 0.5 mb in December.





US product stocks fell by 2.7 mb in November, driven by a decrease in propane of 7.3 mb and in jet fuel/kerosene of 3.0 mb. The latter category came back into the five-year range for the first time since June. Distillate stocks drew by 1.0 mb. Yet diesel accounted for the entire draw. Heating oil stocks continued to trend above the five-year average, particularly along the US East Coast and Northeast, where most home oil-fired heating is concentrated.

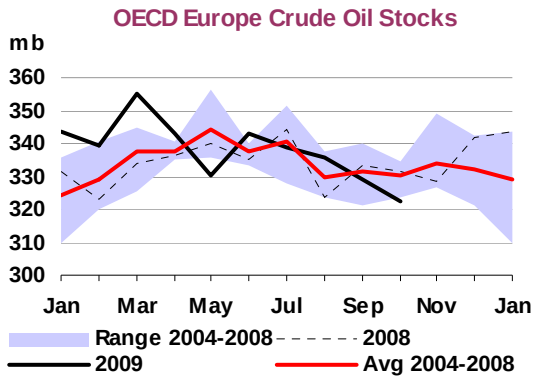


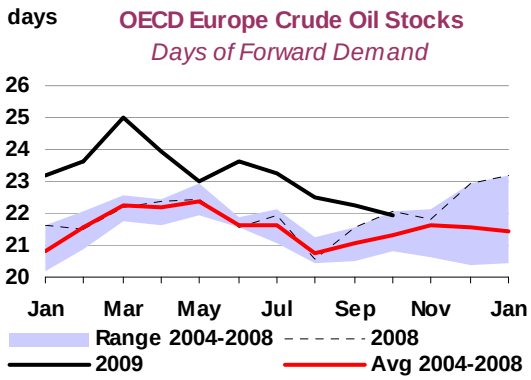


OECD Europe

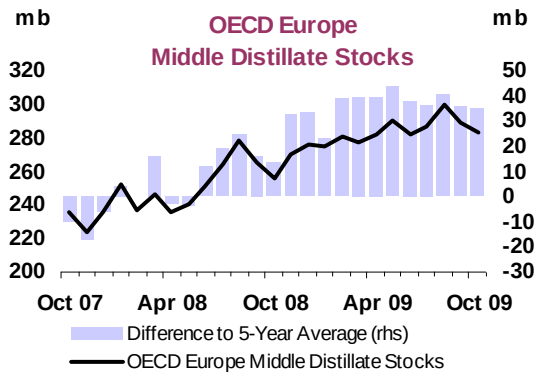
European inventories fell by 15.8 mb in October, mostly due to a 6.8 mb decrease in crude and a 5.8 mb draw in middle distillate inventories. European crude stocks fell to the bottom of the five-year range on an absolute basis, but remained at the top of the five-year range on a days cover basis.

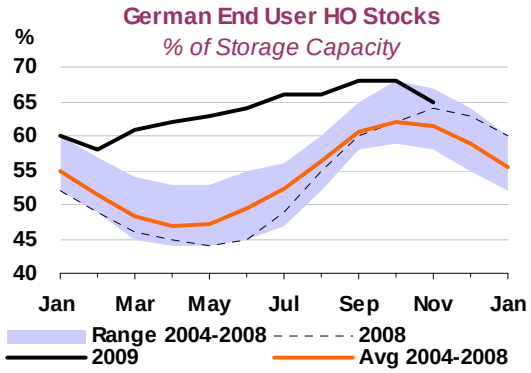
The draw in middle distillates was slightly larger than the five-year average draw of 5.1 mb, and came as October products floating storage – mostly middle distillates – off Northwest Europe and the Mediterranean decreased by almost 3 mb (albeit, levels rose again in November). German consumer heating oil stock levels remained unchanged at 68% at end-October, but dropped to 65% at end-November. Still, the October OECD Europe middle distillate stock surplus to the five-year average remained high, at 34.9 mb, relative to its 2009 peak of 43.3 mb in May.





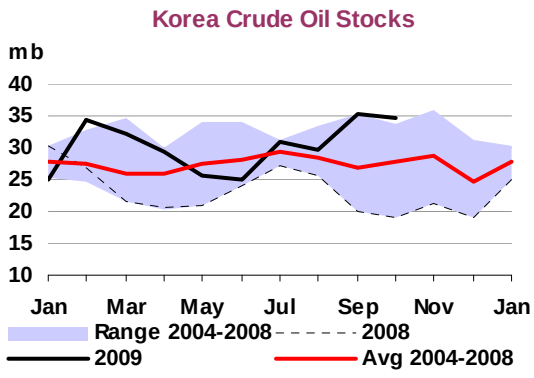
November preliminary data show gasoil stocks held in NW Europe independent storage remained relatively constant through the month and well above the five-year range. Naphtha, jet-kerosene, residual fuel oil and gasoline all posted increases on the month with the latter three categories all trending above the five-year range. Products floating storage off Northwest Europe and in the Mediterranean increased by over 14 mb, accounting for most of the global change in November. EU-16 preliminary data from Euroilstock also showed middle distillate stocks increasing, by 0.2 mb in November. Fuel oil and naphtha posted gains of 0.8 mb and 0.4 mb, respectively, while gasoline fell 0.8 mb. Crude stocks showed larger movement, however, increasing 8.0 mb.

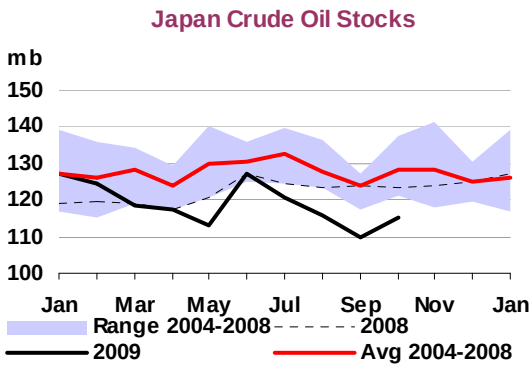




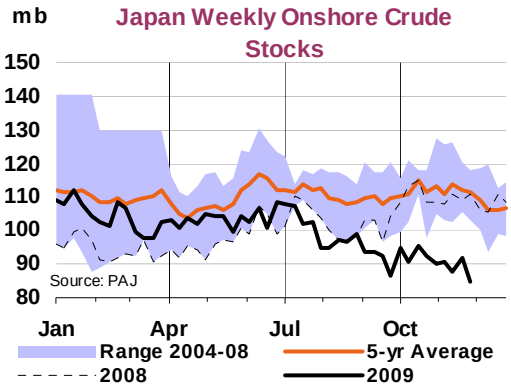
OECD Pacific

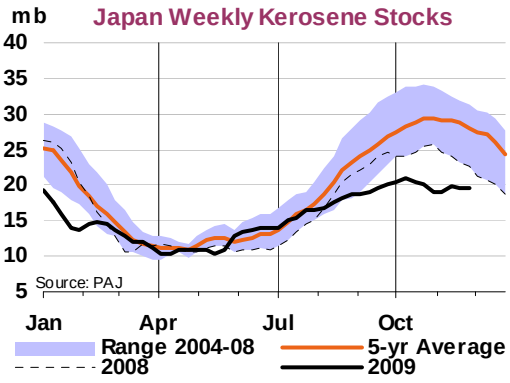
Pacific industry stocks fell by 0.5 mb in October, as a 4.9 mb crude build was offset by a 3.4 mb decrease in middle distillates and a fall in 'other oils'. The Pacific middle distillate deficit to the five-year average fell to 10 mb. Japanese crude stocks gained 5.5 mb, while Korean crude holdings decreased 0.6 mb. On an absolute basis, Japanese crude inventories have trended below the five-year range while Korean holdings are at five-year highs. Yet, on a days of forward cover basis, crude inventories for both countries remained above the five-year average, near the top of the five-year range.





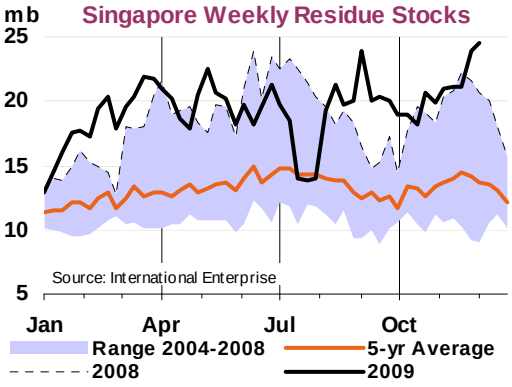
Weekly data from the Petroleum Association of Japan (PAJ) point to a commercial stock draw of 7.7 mb in November, with crude falling 3.6 mb and products falling 4.1 mb. Naphtha stocks decreased 2.2 mb while kerosene stocks increased 1.0 mb. Kerosene stocks continued to trend below the five-year range as refinery throughputs have languished. Still, inventory levels have thus far not drawn steeply in comparison to previous winters. As such, stocks have slightly narrowed their deficit to the five-year average in recent weeks.

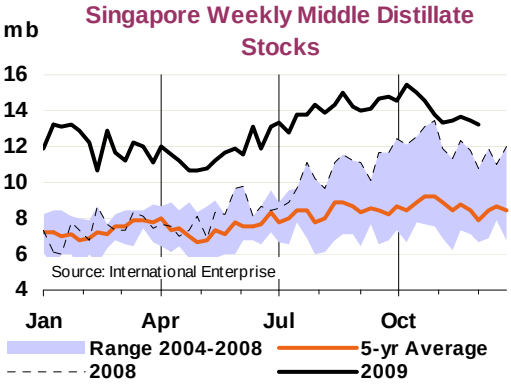




Recent Developments in Singapore Stocks

Singapore product stocks increased by 3.8 mb in November. Fuel oil stocks rose by 4.0 mb to new five-year highs as increasing supplies from Europe outweighed strong regional demand. Light distillate stocks edged up on the month and remained above the five-year range. Despite a slight fall in middle distillates, low export opportunities and high levels of regional floating storage kept stocks in the category also above the five-year range.

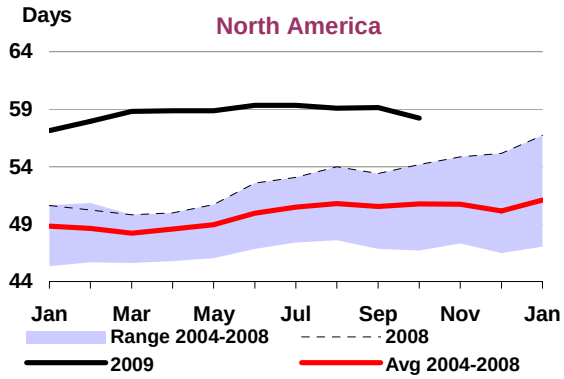


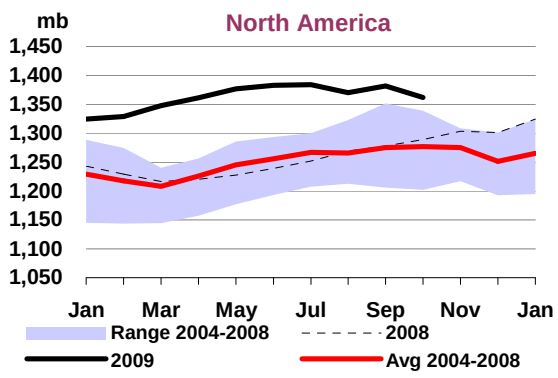


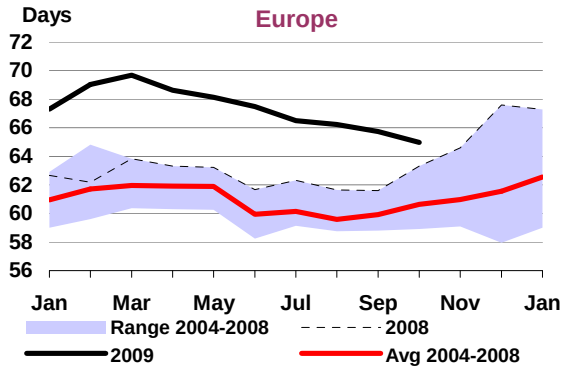
Regional OECD End-of-Month Industry Stocks

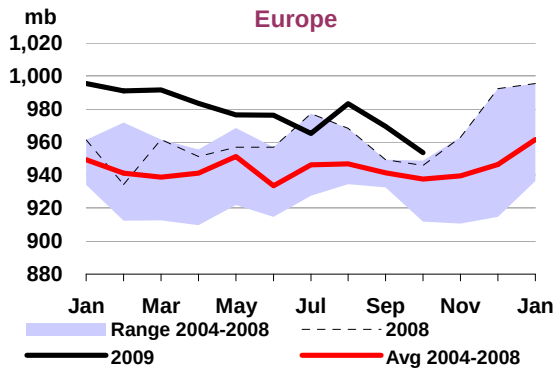
(in days of forward demand and millions barrels of total oil)

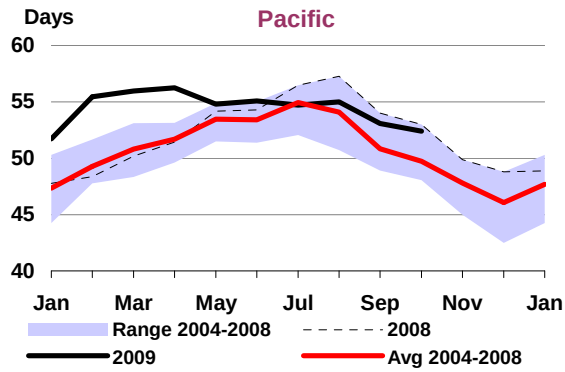
Days[1] **Million Barrels**

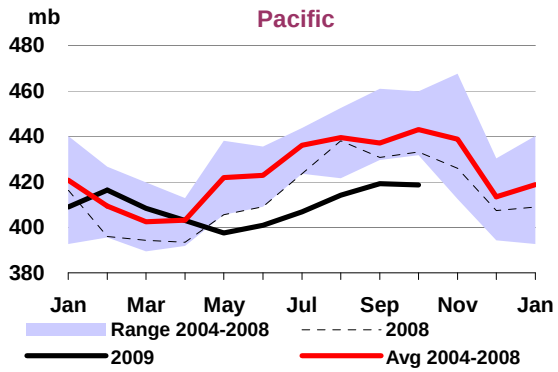


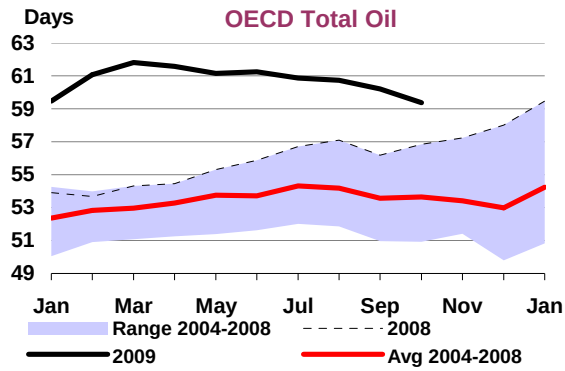


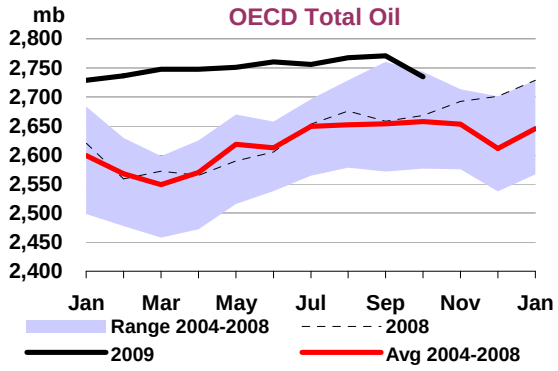










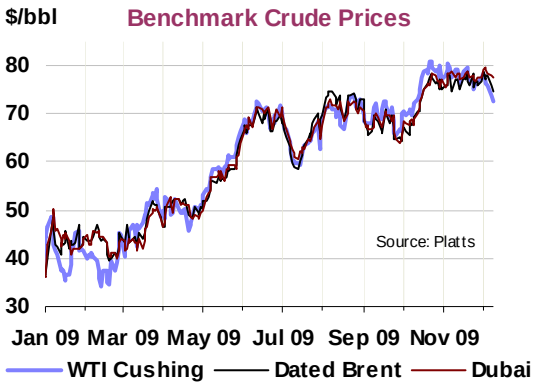


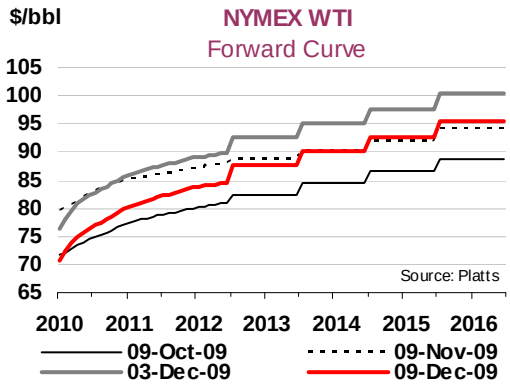
1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Crude oil futures prices traded in a higher $75-80/bbl range in November**, with WTI averaging $78.15/bbl and Brent $77.58/bbl for the month. By early December, however, prices weakened on market fears that the recovery in the global economy will be shallower and slower than expected, especially in the key US market. Prices were trading at eight-week lows of around a $70-74/bbl range at the time of writing.
- **The oil price correlation with macro financial market activity that has marked most of 2009 has arguably started to weaken as supply and demand fundamentals appear to reassert** more control over price direction. Global oil demand growth, led largely by China, appears to be putting a floor under price expectations for the medium and long term. The NYMEX WTI crude oil futures forward curve reached the $100/bbl mark for the 2016 contract. However, despite significant idled refining capacity, a persistent high level of distillate stocks continues to temper near-term price moves to the upside.
- **Spot product prices were higher across the board in November, with naphtha in Asia posting the sharpest increases.** Gas oil markets posted more modest gains on relatively weak demand and high stock levels. Refining margins were universally weaker in November as product price gains trailed higher crude oil prices. Losses on the US Gulf Coast generally outpaced other regions.
- **Freight rates firmed in November and posted further gains in early December.** Crude tanker rates in particular improved amid increased volatility caused by both adverse weather conditions and the impact of holidays on chartering activity.



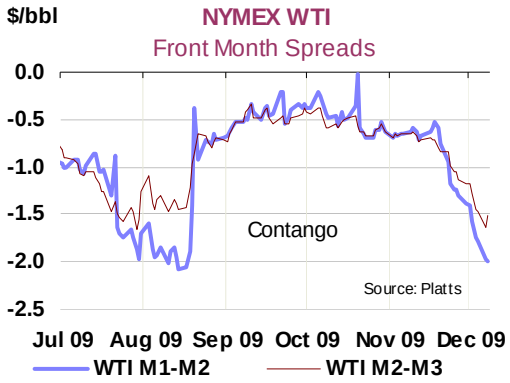


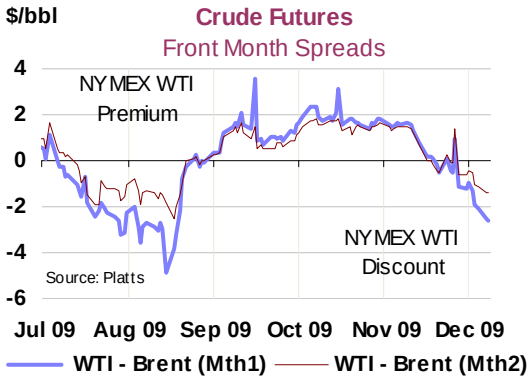
Market Overview

Crude oil futures prices in November traded in a higher $75-80/bbl range, with WTI averaging $78.15/bbl and Brent $77.58/bbl for the month. By early December, however, prices reversed course amid fears that the global economic recovery, especially in the US and Europe, will be shallower and slower than expected. Prices were hovering at eight-week lows at the time of writing, with WTI last trading at around $70.50/bbl and Brent at $72/bbl.

North Sea Brent prices have far outpaced the rise in West Texas Intermediate, given the latter's steepening discount for prompt barrels amid high stock levels and reduced refiner buying. Over the course of the month, WTI crude went from trading at a premium to Brent of around $1.65/bbl to a discount of more than $2.50/bbl by the first week of December. Deteriorating refining margins in the key US Gulf Coast region over the last month have forced refiners to sharply curtail refinery operations, with runs cut to some of the lowest levels in the past decade. By contrast, margins in Europe have been relatively stronger, propping up Brent prices relative to WTI.

The WTI 1M-2M contango, with the prompt price under pressure from swelling stocks at the pivotal Cushing, Oklahoma storage hub and forward prices strengthening on expectations for stronger demand next year, steadily widened over the past month. The contango rose from an average 44 cents/bbl in October, to 75 cents/bbl in November and to around $2/bbl in early December. The widening contango not only highlights the current weakness in US markets but also relative strength in other markets.





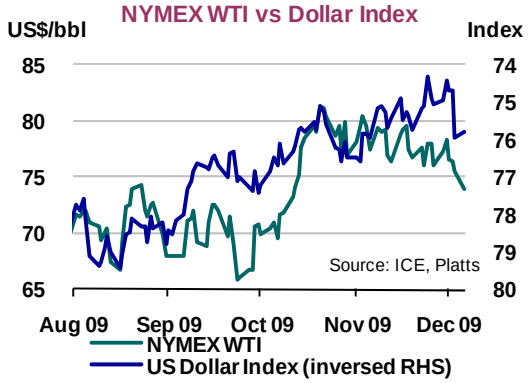
Indeed, a growing East-West oil market divide between the US (and to a certain extent Europe) and Asia is becoming more pronounced—mirroring the global economic recovery outlook. Current market strength is centred on Asia, and especially China and India, where much of next year's demand growth will likely take place.

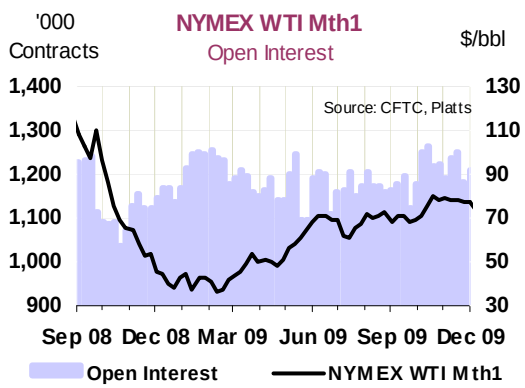
Stimulus packages in China have had the intended consequence of boosting oil product markets, especially demand for petrochemical feedstocks like naphtha. Latest demand projections show Chinese apparent demand posted double-digit growth rates for the second month in a row in October, with all products bar residual fuel oil posting gains. By contrast, demand in the US remains anaemic; with sharply lower refinery throughput rates pressuring spot crude prices.

Ample OECD and floating crude and refined products stocks are likely to cap upward price moves in the near term while stronger forecast global oil demand growth for 2010, led largely by China, appears to be putting a floor under price levels for the medium term. The NYMEX WTI crude oil futures curve for 2016 contracts reached the $100/bbl mark in November, reflecting market expectations of higher long-term prices.

Futures

The oil price correlation with macroeconomic factors and financial market activity that has marked most of 2009 may be weakening as supply and demand fundamentals reasserted more control over price direction. Oil prices have largely moved in lock step with financial and equity markets this year as traders focus on macroeconomic developments for any signs of a potential recovery in oil demand while the weaker dollar has prompted some investors to hedge their exposure with oil futures. Over the past month, the link between oil prices and equity markets and the dollar index appears to have frayed.





Positions on NYMEX Light Sweet Crude Oil (WTI) Futures Contracts

Thousand Contracts

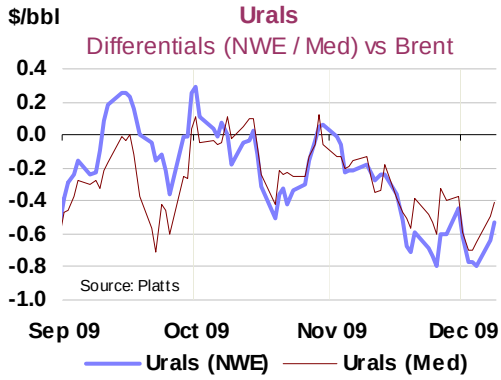
End of Week 1 December 2009	Long	Short	Net	Long/Short	Δ Net from Prev. Week	Δ Net Vs Last Month
Producers' Positions	148.9	379.1	-230.2	*Short*	↑ 0.3	↓ -15.1
Swap Dealers' Positions	238.4	104.3	134.1	*Long*	↑ 8.9	↑ 35.1
Money Managers' Positions	165.4	41.0	124.5	*Long*	↑ 9.5	↓ -31.2
Others' Positions	73.1	121.2	-48.1	*Short*	↓ -8.6	↑ 3.8
Non-Reportable Positions	95.5	75.8	19.7	*Long*	↓ -10.1	↑ 7.4
Open Interest			1209.8		↑ 27.0	↑ 18.7

Source: CFTC

Open interest in NYMEX WTI futures increased by 18,700 contracts in November. Swap dealers increased their net long exposure by 35,100 lots while money managers decrease their net long exposure by 31,200 contracts. Meanwhile, producers increased their net short positions by 15,100 contracts. However, discerning a clear linkage between open interest and prices remains problematic.

Spot Crude Oil Prices

Spot crude oil prices rose across all major regions in November, with benchmark grades up on average by $2-5/bbl month-on-month. Asia posted the strongest gains on continued strong Chinese buying. By contrast, the US spot crude market was markedly weaker due to significantly lower refinery run rates, rising stocks at Cushing and by reduced year-end crude purchases as companies try to minimise their tax liability.



China continued to be the major prop under spot crude markets in November with refiners holding throughput rates at record levels. Chinese refiners continue to augment contract supplies with spot purchases of African crudes, which have been relatively cheap given increased volumes of Nigerian and Angolan supplies in the market. Chinese, South Korean and other Asian refiners have stepped up their buying of naphtha-rich crudes such as Algeria's Saharan Blend and Nigeria's Agbami given robust crack spreads and strong demand. Asian light grades also firmed on stronger naphtha cracks.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Sep	Oct	Nov	Nov-Oct Avg Change	%	Week Commencing: 09 Nov	16 Nov	23 Nov	30 Nov	07 Dec
Crudes										
Dated Brent	67.39	72.75	76.66	3.90	5.4	76.34	77.19	76.56	77.59	75.14
Brent (Asia) Mth1 adjusted	67.74	73.19	77.33	4.14	5.7	77.28	77.78	76.80	78.32	77.19
WTI (Cushing) Mth1 adjusted	69.41	75.73	78.05	2.33	3.1	78.16	78.36	76.04	76.86	73.33
Urals (Mediterranean)	67.09	72.67	76.32	3.65	5.0	76.09	76.73	76.09	76.99	74.69
Dubai Mth1 adjusted	67.64	73.15	77.71	4.56	6.2	77.78	78.19	77.36	78.78	77.71
Tapis (Dated)	69.76	75.42	80.23	4.81	6.4	80.38	80.69	80.24	81.20	79.54
Differential to Dated Brent										
WTI (Cushing) Mth1 adjusted	2.02	2.98	1.40	-1.58		1.83	1.17	-0.51	-0.73	-1.81
Urals (Mediterranean)	-0.30	-0.08	-0.34	-0.26		-0.25	-0.46	-0.47	-0.60	-0.45
Dubai Mth1 adjusted - Dated Brent	0.26	0.40	1.06	0.66		1.44	1.01	0.80	1.19	2.57
Tapis (Dated)	2.37	2.67	3.58	0.91		4.04	3.51	3.68	3.61	4.40
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2 adj.	-0.79	-0.72	-0.72	0.01		-0.67	-0.70	-0.72	-0.82	-0.83
Forward WTI Cushing Mth1-Mth2 adj.	-0.40	-0.44	-0.75	-0.31		-0.65	-0.62	-1.05	-1.57	-1.99

Source: Platts

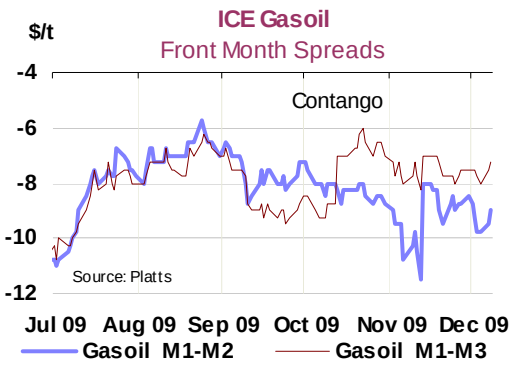
In Europe, growing volumes of unsold gasoil-rich Russian Urals for December pressured spot prices in NW Europe and the Mediterranean. Russian exports for December are slated to rise despite a 17% increase in crude oil export duties (*see Non-OPEC Supply, FSU Exports*).

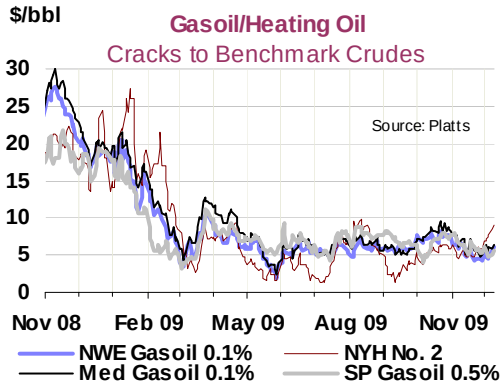
Spot Product Prices

Spot product prices were higher across the board in November, with naphtha posting the sharpest increases while gasoil posted more modest gains. However, crack spreads were generally weaker in November, with the exception of naphtha and fuel oil in New York, as the rise in spot crude oil markets eclipsed product prices.

Heading into the peak winter demand period, distillate markets remained under pressure from swelling stockpiles of heating oil and diesel. Record levels of distillate are being held offshore Europe and the US Gulf Coast. Distillates stored at sea are estimated at 98 mb at end-November and set to rise further in December and January based on tanker bookings.

In Europe, the steep gas oil contango on London's ICE futures exchange is fuelling the stockbuilding offshore Europe. Since October, the gas oil contango has held steady at between $8-10/mt compared with $6-8/mt in the August-September period.

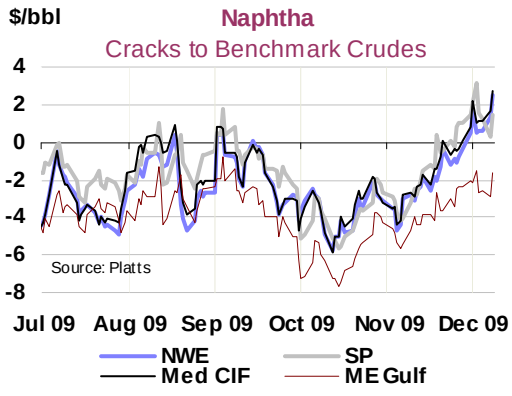




Asian naphtha prices and cracks rose to their highest level in more than a year on 1 December in the face of stronger demand for January supplies. The economics for most naphtha cracking complexes improved markedly, with plants working full-out producing olefins to meet stronger demand from China, South Korea and Japan.

One of Asia's top petrochemicals importers, South Korea, helped put a floor under naphtha prices in November with term deals for 1H10 fetching a premia of around $5/mt to Japanese spot quotes compared with a discount of $12/mt for the full year 2009 term contracts. Naphtha crack spreads in Singapore averaged -$1.51/bbl in November compared with -$3.95/bbl in October.

In Europe, naphtha crack spreads turned positive in late November on increased export flows to Asia. Rotterdam naphtha cracks averaged -$2.11/bbl for November versus -$3.63/bbl the previous month. Mediterranean naphtha cracks averaged -$1.83/bbl in November compared with -$3.57/bbl in October.



Spot Product Prices

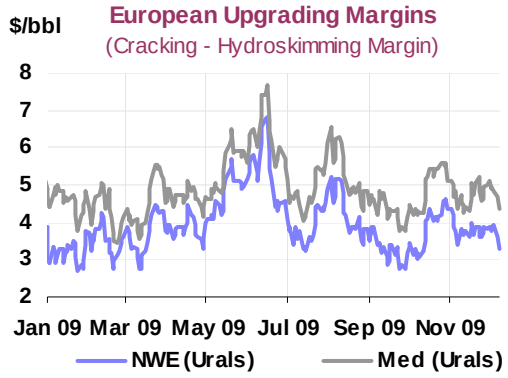
(monthly and weekly averages, $/bbl)

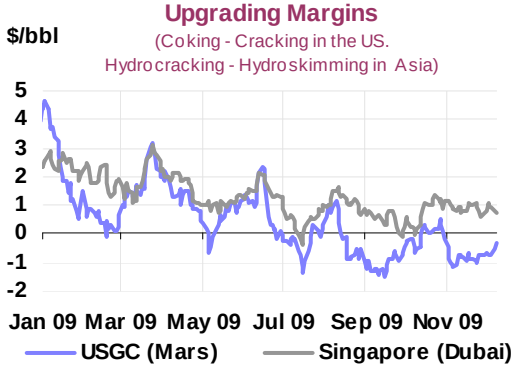
	Sep	Oct	Nov	Nov-Oct Change	Nov-Oct %	Week Commencing: 09 Nov	16 Nov	23 Nov	30 Nov	07 Dec	Sep	Oct	Nov
Rotterdam, Barges FOB											**Differential to Brent**		
Premium Unl 10 ppm*	75.49	80.92	84.54	3.62	4.5	84.19	84.95	84.01	84.84	81.66	8.11	8.17	7.89
Naphtha	65.78	69.12	74.55	5.43	7.8	73.77	75.55	75.67	78.38	77.07	-1.61	-3.63	-2.11
Jet/Kerosene	76.18	82.11	84.97	2.85	3.5	85.04	84.91	84.09	84.66	82.06	8.79	9.36	8.31
ULSD 10ppm	75.70	83.18	84.43	1.24	1.5	84.14	84.73	83.41	85.02	83.71	8.31	10.43	7.77
Gasoil 0.1%	73.37	80.15	82.10	1.95	2.4	82.20	82.42	80.99	82.54	80.92	5.99	7.40	5.44
LSFO 1%	64.84	68.69	74.05	5.36	7.8	73.97	74.83	74.08	73.18	69.76	-2.55	-4.06	-2.60
HSFO 3.5%	62.47	66.40	70.47	4.07	6.1	70.17	71.09	70.25	70.57	69.35	-4.92	-6.35	-6.18
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	74.94	80.34	82.88	2.53	3.2	82.13	83.72	82.31	83.39	80.69	7.86	7.67	6.56
Naphtha	65.76	69.10	74.49	5.38	7.8	73.73	75.47	75.52	78.14	76.72	-1.33	-3.57	-1.83
Jet Aviation fuel	75.20	81.10	83.58	2.48	3.1	83.53	83.86	82.75	84.72	82.60	8.11	8.43	7.26
ULSD 10ppm	75.46	82.21	84.32	2.12	2.6	84.26	84.73	83.20	85.11	83.41	8.38	9.53	8.00
Gasoil 0.1%	73.16	80.79	82.53	1.75	2.2	82.50	82.99	81.07	82.72	80.62	6.08	8.11	6.21
LSFO 1%	65.25	68.53	73.34	4.81	7.0	73.92	73.99	72.96	73.08	71.08	-1.84	-4.15	-2.98
HSFO 3.5%	62.61	66.59	70.44	3.85	5.8	70.87	71.13	68.88	69.94	68.88	-4.48	-6.09	-5.88
New York Harbor, Barges											**Differential to WTI**		
Super Unleaded	79.51	87.15	86.91	-0.25	-0.3	85.87	86.87	86.34	86.82	83.52	10.10	11.42	8.85
Unleaded	74.75	80.89	83.31	2.42	3.0	82.52	84.09	83.32	83.77	80.46	5.34	5.16	5.26
Jet/Kerosene	73.89	82.95	84.31	1.36	1.6	84.28	84.21	82.18	84.78	83.46	4.48	7.22	6.26
No. 2 (Heating Oil)	72.67	81.17	83.42	2.25	2.8	83.37	83.39	81.85	84.09	82.15	3.26	5.44	5.37
LSFO 1%†	63.08	68.23	73.13	4.90	7.2	72.93	72.98	73.44	73.94	71.39	-6.33	-7.50	-4.92
No. 6 3%†	62.95	67.47	71.89	4.42	6.5	71.53	71.98	72.18	72.79	70.24	-6.46	-8.26	-6.16
Singapore, Cargoes											**Differential to Dubai**		
Premium Unleaded	75.63	77.71	81.89	4.18	5.4	81.96	82.83	81.45	83.31	81.94	7.99	4.56	4.17
Naphtha	66.80	69.20	76.21	7.01	10.1	75.37	77.54	77.77	80.66	78.59	-0.84	-3.95	-1.51
Jet/Kerosene	74.58	80.07	84.95	4.88	6.1	84.88	85.77	84.52	85.60	84.33	6.94	6.92	7.24
Gasoil 0.5%	74.65	79.64	84.02	4.38	5.5	83.93	84.18	83.10	84.17	83.11	7.00	6.49	6.31
LSWR Cracked	62.96	63.70	66.15	2.45	3.8	66.20	66.60	66.04	66.52	65.53	-4.69	-9.45	-11.56
HSFO 180 CST	65.49	68.26	72.34	4.08	6.0	72.31	72.71	72.51	73.89	73.19	-2.15	-4.89	-5.38
HSFO 380 CST 4%	67.17	69.76	73.86	4.10	5.9	73.94	74.26	74.05	75.36	74.62	-0.47	-3.39	-3.85

Source: Platts * CIF † Cargoes

Refining Margins

Refining margins were universally weaker in November as product price gains trailed higher crude oil prices. Losses on the US Gulf Coast generally outpaced other regions. Upgrading margins stabilised in the US but remained negative, close to September lows. Deteriorating refining margins in the key US over the last month have forced refiners to cut runs to just below 80%, a level not seen in a decade if hurricane-related low utilisation rates are excluded.





With the exception of Urals cracking in NW Europe and Kern processing on the West Coast, margins were in negative territory. European upgrading margins revisited the lows seen in September and the first –

quarter of 2009. The deterioration in light and middle distillate cracks (with the exception of naphtha) and stronger fuel oil cracks underpin these moves.

Selected Refining Margins in Major Refining Centres

($/bbl)

		Monthly Average				Change	Average for week ending:				
		Sep 09	Oct 09	Nov 09		Nov 09-Oct 09	06 Nov	13 Nov	20 Nov	27 Nov	04 Dec
NW Europe	Brent (Cracking)	0.66	0.91	-0.11	↓	-1.02	0.49	-0.01	-0.30	-0.61	-0.30
	Urals (Cracking)	0.56	0.81	0.31	↓	-0.50	0.47	0.19	0.37	0.21	0.43
	Brent (Hydroskimming)	-0.80	-0.96	-1.83	↓	-0.87	-1.37	-1.59	-2.03	-2.32	-2.08
	Urals (Hydroskimming)	-2.69	-3.03	-3.49	↓	-0.46	-3.45	-3.56	-3.41	-3.53	-3.43
Mediterranean	Es Sider (Cracking)	0.33	-0.03	-0.86	↓	-0.83	-0.73	-0.74	-0.47	-1.47	-1.01
	Urals (Cracking)	0.91	0.83	-0.05	↓	-0.87	0.34	-0.03	0.17	-0.63	-0.12
	Es Sider (Hydroskimming)	-2.81	-3.78	-4.23	↓	-0.45	-4.41	-3.86	-3.87	-4.69	-4.56
	Urals (Hydroskimming)	-3.41	-4.12	-4.77	↓	-0.65	-4.44	-4.50	-4.59	-5.47	-5.06
US Gulf Coast	Bonny (Cracking)	-2.68	-1.66	-4.09	↓	-2.43	-3.61	-4.23	-4.40	-4.27	-4.30
	Brent (Cracking)	-2.65	-2.06	-4.03	↓	-1.97	-3.53	-4.21	-4.43	-4.12	-4.20
	LLS (Cracking)	-1.66	-1.60	-2.56	↓	-0.96	-2.97	-3.02	-2.76	-1.42	-2.90
	Mars (Cracking)	0.82	-0.09	-1.26	↓	-1.17	-1.31	-1.72	-1.30	-0.67	-1.30
	Mars (Coking)	-0.21	-0.14	-2.12	↓	-1.98	-2.23	-2.55	-2.16	-1.50	-2.03
	Maya (Coking)	-2.58	-1.43	-3.23	↓	-1.80	-3.70	-3.66	-3.34	-2.33	-2.14
US West Coast	ANS (Cracking)	1.89	-1.86	-3.02	↓	-1.16	-3.92	-3.90	-2.72	-1.94	-1.89
	Kern (Cracking)	8.84	3.47	3.06	↓	-0.41	1.83	2.11	3.27	4.65	5.31
	Oman (Cracking)	2.22	-1.65	-5.52	↓	-3.87	-5.11	-6.28	-5.54	-5.30	-5.41
	Kern (Coking)	14.31	8.00	5.36	↓	-2.64	4.31	3.90	5.73	7.02	6.40
Singapore	Dubai (Hydroskimming)	-2.13	-4.31	-4.58	↓	-0.27	-4.76	-4.66	-4.64	-4.36	-4.53
	Tapis (Hydroskimming)	-3.60	-6.07	-6.68	↓	-0.61	-6.37	-6.95	-6.47	-6.94	-6.54
	Dubai (Hydrocracking)	-1.64	-3.56	-3.67	↓	-0.12	-3.75	-3.82	-3.64	-3.55	-3.64
	Tapis (Hydrocracking)	-2.69	-4.58	-4.73	↓	-0.15	-4.43	-5.08	-4.46	-4.96	-4.38
China	Cabinda (Hydroskimming)	-4.82	-8.03	-8.63	↓	-0.60	-8.71	-8.19	-8.77	-8.83	-9.03
	Daqing (Hydroskimming)	-2.48	-5.83	-7.60	↓	-1.77	-7.27	-7.67	-7.80	-7.67	-8.56
	Dubai (Hydroskimming)	-2.35	-4.60	-4.95	↓	-0.35	-5.11	-4.98	-5.11	-4.73	-4.95
	Daqing (Hydrocracking)	0.17	-2.62	-3.66	↓	-1.04	-3.55	-3.83	-3.71	-3.61	-3.99
	Dubai (Hydrocracking)	-1.79	-3.82	-4.04	↓	-0.22	-4.09	-4.13	-4.12	-3.91	-3.98

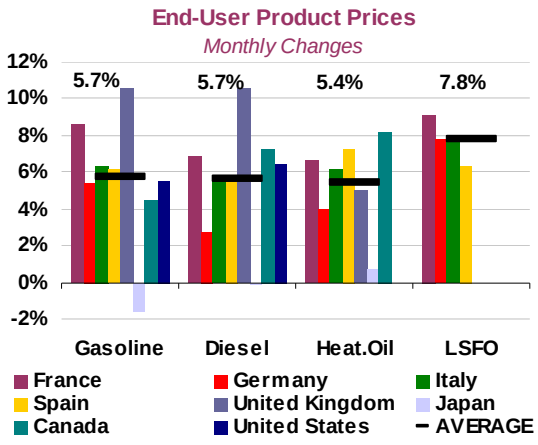
For the purposes of this report, refining margins are calculated for various complexity configurations, each optimised for processing the specific crude in a specific refining centre on a 'full-cost' basis. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crudes for pricing purposes.

*The China refinery margin calculation represents a model based on spot product import/export parity, and does not reflect internal pricing regulations.

End-User Product Prices in November

In November, retail prices on average rose by 6.1%, in US dollars, ex-tax, and were 17.7% above levels of a year ago. Heating oil and low-sulphur fuel oil prices rose by 5.4% and 7.8%, respectively, across all surveyed IEA member countries.

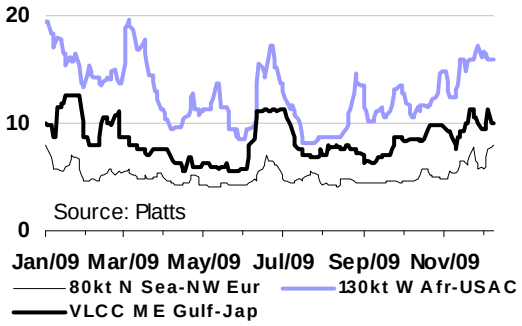
Transport fuel prices on average increased by 5.7% month-on-month. US consumers paid $2.65/gallon ($0.70/litre) and in the UK prices averaged £1.09/litre ($1.80/litre). In mainland Europe, the average gasoline price at petrol station was between €1.07/litre ($1.60/litre) in Spain and €1.32/litre ($1.96/litre) in Germany. In contrast, gasoline prices in Japan decreased by 1.6% and consumers on average paid ¥126.9/litre ($1.42/litre).



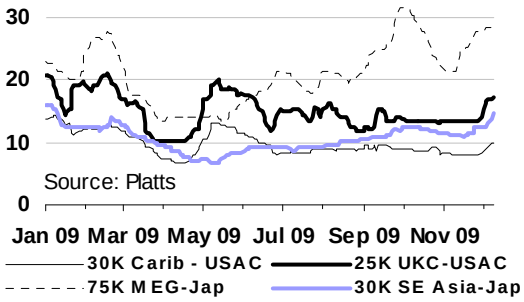
Freight

Overall freight rates firmed in November and posted further gains in early December. Crude tanker rates especially improved, amid much volatility caused by both adverse weather conditions and the impact of holidays on the chartering activity, with rates typically rising ahead of the holidays and then falling.

Daily Crude Oil Tanker Voyage Freight Rates (US$/tonne)



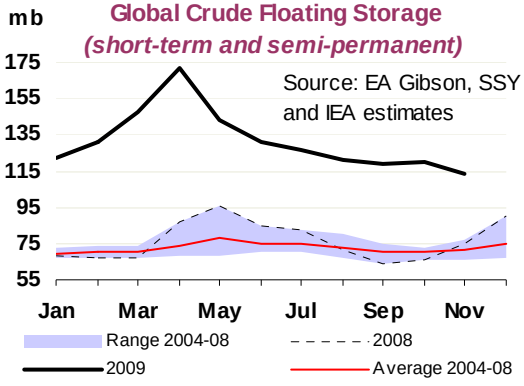
Daily Product Tanker Voyage Freight Rates (US$/tonne)



On the crude tanker side, rates for VLCC Mideast Gulf- Japan started the month on a weakening trend, but were soon hiked by a chartering rush ahead of the Eid and Thanksgiving holidays, reaching above $11/tonne, before falling again from 26th November. Early December saw tighter tonnage availability and a run-up in chartering activity before Christmas. Suezmax West Africa-US Atlantic Coast rates posted their highest levels since January/February at above $17/mt. Aframax North Sea-NWE rates also hit peak levels for 2009 at close to $8/mt on 23 November, supported by weather-related delays in the Turkish straits and the Caribbean, which caused charterers to seek replacement tankers, and also due to higher North Sea and Baltic crude supply. After a small dip at month end, rates were rising in early December.

On the product tanker side, Aframax (75kt) Mideast Gulf – Japan rates rose steadily to above $28/mt at month end, supported by high interest for moving naphtha to the Far East. These routes also received support from a build-up in products stored at large product tankers. Other product tanker benchmark rates were all remarkably flat throughout the month at levels below the five-year range, but recovered in early December. Generally limited interest for moving gasoline into the US undermined product tanker rates in the Atlantic basin in November.

Global Crude Floating Storage *(short-term and semi-permanent)*



Short-term floating storage of crude fell to an estimated 54 mb, while floating storage of products continued an upward trend, increasing to 98 mb as of end-November. The centre of gravity for both crude and product storage at sea is still North West Europe and Mediterranean, while the build-up seen in October in Asia has subsided. Reportedly, 149 tankers were employed for storage, with a large growth in large product tanker participation during November. Floating storage now reportedly employs around 7-8% of both the VLCC and the large product tanker fleet.

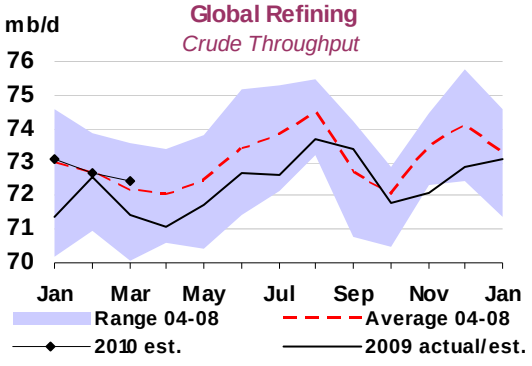
REFINING

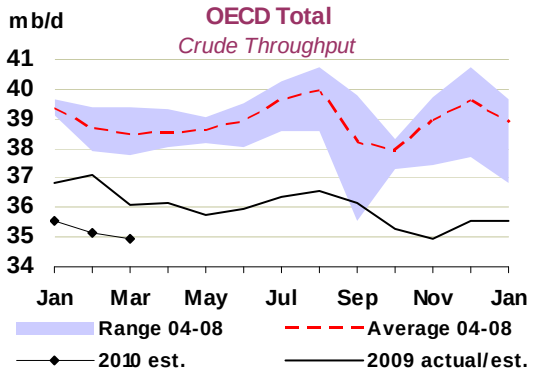
Summary

- **Market conditions for the refining industry appear bleaker than last month**, particularly for OECD countries. November refining margins fell across the board, while upgrading margins stabilised but remained negative in the US and total product stocks in the OECD reached their highest level in several years in September. Crude runs in non-OECD countries have shown an upward trend since January 2009, with China reaching records levels, pressuring crude runs elsewhere in the region. However, signs that global demand may be trending higher once again after many months of decline, provides a glimmer of light on the horizon.

- **Global 4Q09 crude throughput is expected to average 72.3 mb/d,** 0.6 mb/d lower than forecast in last month's report. Underpinning the lower estimate are weaker October preliminary data, weaker November weekly data for the US and higher maintenance activity in Other Asia and the Middle East.

- **Global 1Q10 crude throughput is forecast to average 72.7 mb/d**, which represents a quarterly and yearly increase of 0.5 mb/d and 1.0 mb/d, respectively. 1Q10 OECD crude runs are expected to remain flat quarter-on-quarter at 35.2 mb/d, nonetheless representing a reduction of 1.4 mb/d year-on-year, as weak refining margins continue to weigh on crude runs.



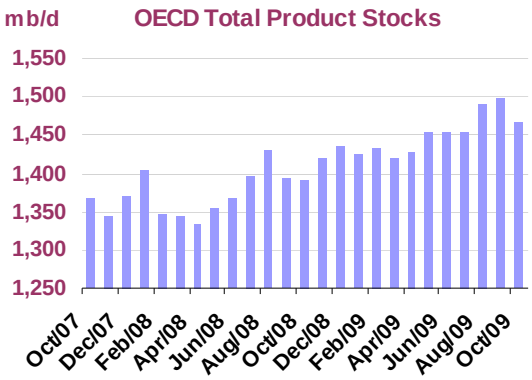


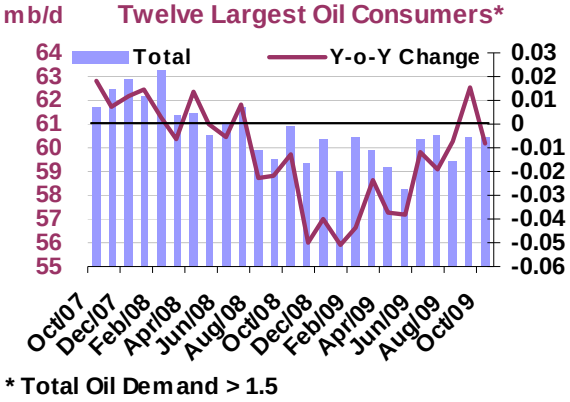
- **September refinery yields increased for naphtha, gasoline and gasoil/diesel** at the expense of jet fuel/kerosene and fuel oil. Total OECD gasoline yield increased in spite of weaker crack spreads and lower yields in Europe and the Pacific. However, gasoline gross output fell, as crude runs in OECD countries remain constrained. Gasoil/diesel yields continued around five-year average levels, despite high middle distillates stocks. Naphtha yields increased, supported by a spike in crack spreads on the US Gulf Coast.

- **Medium-term projections for crude distillation capacity growth have increased by 1.1 mb/d to 8.7 mb/d.** Despite the weak margin outlook, better than expected progress at several world-class export refineries in the Middle East and additional Chinese domestic projects result in upward revisions to our projections. Conversely, the announced capacity closures in the US and a slew of other project cancellations drive much of the downward revisions to our projections.

Global Refinery Overview

Market conditions for the refining industry appear bleaker than last month, particularly for OECD countries. November refining margins fell across the board as product price gains were outpaced by higher crude oil prices. Upgrading margins stabilised but remained negative in the US and total product stocks in the OECD reached their highest level in several years in September in spite of OECD refiners reducing crude runs by 1.7 mb/d on average in the first three quarters of 2009 compared with the same period in 2008.





* Total Oil Demand > 1.5

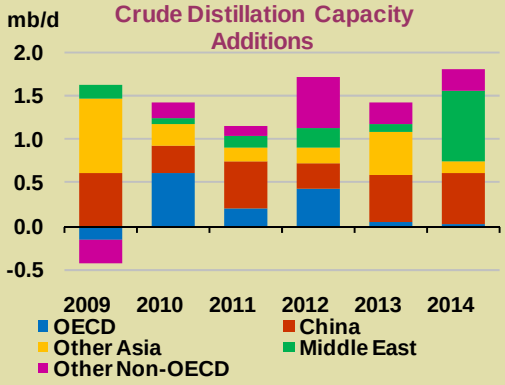
Furthermore, crude runs in non-OECD countries have increased since January, with China reaching records levels supported by guaranteed domestic margins and tax incentives on exports. This has resulted in lower product imports and higher product exports, pressuring crude runs elsewhere in the region.

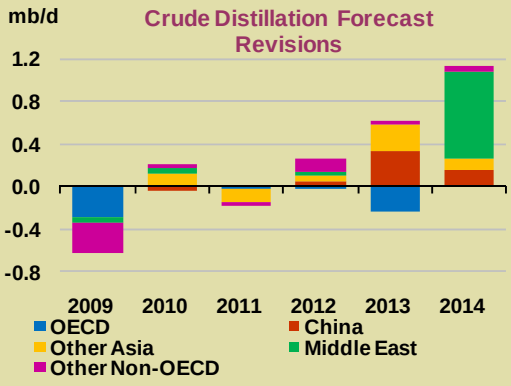
However, a glimmer of light on the horizon has appeared in the form of product demand. The year-on-year change in product demand in the twelve largest oil consumers, which account for around 70% of global product demand, depicts an upward trend since January, and regained growth in September for the first time in a year. Unless the economic recovery turns out to be w-shaped, the low-point for global demand could prove to be that of May 2009. That said, the refining industry still faces a long period of consolidation and restructuring.

Medium-Term Refinery Capacity Growth Projections Bounce

As highlighted in last month's report, the refining industry appears to be starting to address the structural issues that are currently undermining its profitability. That structural changes have started to occur provides some reason to be optimistic for the medium-term outlook for the industry. However, that does not mean there will be much relief from weak profitability in the short term, in the face of still growing middle distillate stocks, rising NGL volumes and tight fuel oil markets.

Nevertheless, a review of industry developments since the publication of the *MTOMR* in June suggests that projected global refinery capacity growth is likely to total 8.7 mb/d for the period 2008-2014. This represents an upward revision of 1.1 mb/d. Growth remains dominated by China at 2.9 mb/d, Other Asia at 2.1 mb/d and the Middle East at 1.5 mb/d. Upward revisions are also dominated by these regions, following better than expected progress at several world-scale export and domestic refining projects. Upward revisions to projected growth amount to 0.8 mb/d in the Middle East, 0.5 mb/d in China and 0.4 mb/d in Other Asia. The latter revision is largely driven by higher expectations for Indian capacity growth

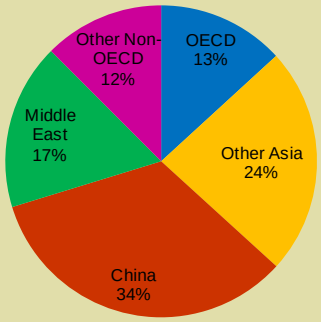




Medium-Term Refinery Capacity Growth Projections Bounce (continued)

In contrast, the start of capacity rationalisation in North and Latin America partially offset these increases when compared with June's projection. North American growth is halved to just 0.6 mb/d, for 2008-2014, as a result of several project cancellations and, more importantly, the closure of Valero's Delaware and Sunoco's Eagle Point refineries. The closure of these two plants reduces regional distillation capacity by more than 0.3 mb/d. North American growth rests mainly on the large-scale expansions of Marathon's Garyville refinery (180 kb/d), Motiva's 325 kb/d Port Arthur expansion and Pemex's 150 kb/d Minatitlan expansion. A continuation of the current weak margin conditions may yet result in further project cancellations. Refineries continue to strive to balance limited cash flow with ongoing non-discretionary capex for environmental and product quality improvements against the desire to expand and upgrade their operations. European growth is unchanged since last June's report, although several key projects are now expected to be completed sooner than previously projected, including GALP's Sines expansion (2011) and Repsol's Cartagena refinery expansion (2012).

Crude Distillation Capacity Additions



More generally, our concerns over project delays due to a lack of access to capital markets, or delays resulting from the retendering of contracts to lower costs seem to have been overdone. Projects such as Saudi Arabia's 400 kb/d Jubail refinery and the UAE's 420 kb/d Ruwais refinery expansion awarded engineering, procurement, and construction contacts some 9-15 months ahead of our previous expectations. Evidently, project sponsors took advantage of slack contracting markets to lock-in favourable cost reductions more quickly than we had anticipated. Consequently, we now expect these projects to be completed within the 2014 timeframe.

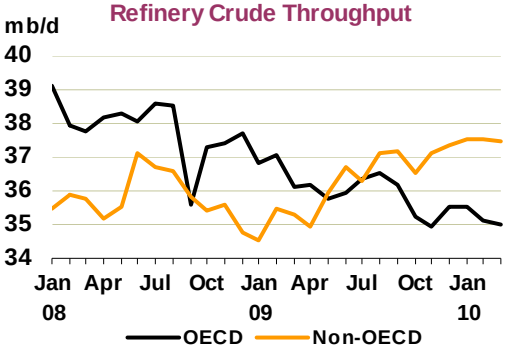
The Chinese government's stimulus programme is seen boosting Chinese capacity expansions over the medium term by an additional 0.5 mb/d. Higher growth is concentrated among projects in the south-east of the country. Progress to date at several Indian refinery construction projects has been better than expected, as they strive to meet the Indian government's 2012 deadline for a seven year tax-break on new-build refineries. Consequently, we have brought forward projected completion dates for a number of projects. However, not all Indian projects are currently expected to be meet the 2012 deadline, and it remains to be seen whether they will start processing crude while downstream units are still under construction, in order to qualify for the tax incentive, or whether the completion deadline itself will be pushed back to accommodate the laggards.

Global Refinery Throughput

3Q09 global refinery throughput averaged 73.2 mb/d, 70 kb/d higher than in last month's report. Data for September were 0.3 mb/d lower than the preliminary figures, but this was compensated by revisions to August data, which were raised 0.5 mb/d. Overall, 3Q09 refinery runs were 0.7 mb/d below 3Q08 levels.

More interestingly, 3Q09 throughput was 1.4 mb/d higher than the previous quarter, while global product demand increased only by 1.2 mb/d, signalling stronger than required crude runs. Considering NGL and other feedstock, the 3Q over-hang of product comes into sharper focus. Refinery runs in non-OECD countries have shown an upward trend since January 2009, outperforming those of OECD, which, in spite of higher runs from June to August, are likely to show continued decline thereafter, potentially reaching a low of 34.9 mb/d in November 2009.

Refinery Crude Throughput



4Q09 global refinery throughput is forecast to reach 72.3 mb/d, which represents a contraction of 0.6 mb/d compared with last month's report. Underpinning the lower estimate are weaker October preliminary data (-0.5 mb/d), weaker November weekly data for the US and higher maintenance activity in Other Asia and the Middle East.

Global Refinery Crude Throughput[1]

(million barrels per day)

	Jul 09	Aug 09	Sep 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10
OECD									
North America	17.6	17.6	17.5	*17.1*	*16.7*	*16.9*	*16.5*	*16.6*	*16.6*
Europe	12.6	12.4	12.4	*12.0*	*11.8*	*12.3*	*12.5*	*12.2*	*12.2*
Pacific	6.1	6.6	6.3	*6.1*	*6.4*	*6.4*	*6.6*	*6.4*	*6.2*
Total OECD	36.4	36.6	36.2	*35.3*	*34.9*	*35.5*	*35.5*	*35.1*	*35.0*
NON-OECD									
FSU	6.1	6.3	6.2	*5.8*	*6.1*	*6.4*	*6.4*	*6.4*	*6.4*
Europe	0.7	0.7	0.7	*0.8*	*0.8*	*0.8*	*0.8*	*0.6*	*0.8*
China	7.8	7.7	8.0	*7.8*	*8.0*	*8.0*	*8.0*	*8.0*	*8.0*
Other Asia	8.2	8.6	8.8	*8.4*	*8.5*	*8.5*	*9.0*	*8.8*	*8.6*
Latin America	5.3	5.5	5.2	*5.1*	*5.2*	*5.3*	*5.3*	*5.3*	*5.3*
Middle East	6.0	6.1	6.0	*6.2*	*6.2*	*6.1*	*5.8*	*6.3*	*6.1*
Africa	2.2	2.3	2.3	*2.3*	*2.3*	*2.3*	*2.3*	*2.2*	*2.4*
Total Non-OECD	36.3	37.1	37.2	*36.5*	*37.1*	*37.3*	*37.5*	*37.5*	*37.5*
Total	72.6	73.7	73.4	*71.8*	*72.1*	*72.9*	*73.1*	*72.7*	*72.4*

1 Crude runs in italics are estimates. Forecast crude throughput is based on current IEA demand forecasts.

We have rolled over our forecast to cover **1Q10** and assumed weak refining margins will continue to weigh on crude runs, particularly for OECD countries. 1Q10 global crude runs are estimated at 72.7 mb/d on average, which represents a quarterly and yearly increase of 0.5 mb/d and 1.0 mb/d, respectively. 1Q10 OECD crude runs are expected to remain the same quarter-on-quarter to 35.2 mb/d, but remain 1.4 mb/d below 1Q09. In North America, seasonal maintenance work, mainly in the US, will reduce crude runs to an average of 16.6 mb/d, representing a quarterly decrease of 0.3 mb/d and a 0.6 mb/d decrease year-on-year. The non-OECD sees crude runs at 37.5 mb/d, which represents a 0.5 mb/d increase on a quarterly basis and an increase of 2.4 mb/d year-on-year, driven by growth from China and India of 1.5 mb/d and 0.4 mb/d respectively.

OECD Refinery Throughput

OECD crude throughput estimates for **4Q09** have been revised down by 0.1 mb/d to 35.2 mb/d as weaker November data offset higher than expected preliminary data for October. This new estimate for 4Q09 represents a quarter-on-quarter decrease of 1.1 mb/d and a 2.2 mb/d contraction year-on-year.

OECD October utilisation rates decreased two percentage points month-on-month to 78%, representing a 4.7 percentage point decrease year-on-year. European utilisation rates shrunk the most on an annual basis, losing more than eight percentage points, while utilisation rates in the Pacific and North America show a decrease of around four and two percentage points, respectively.

North American October crude throughput turned out 0.1 mb/d higher than expected at 17.0 mb/d. Higher runs in Canada and Mexico offset lower-than-expected runs in the US. However, this level represents a decrease of 0.4 mb/d year-on-year and a fall of 0.4 mb/d on a monthly basis, the latter mainly due to higher maintenance.

Refinery Crude Throughput and Utilisation in OECD Countries

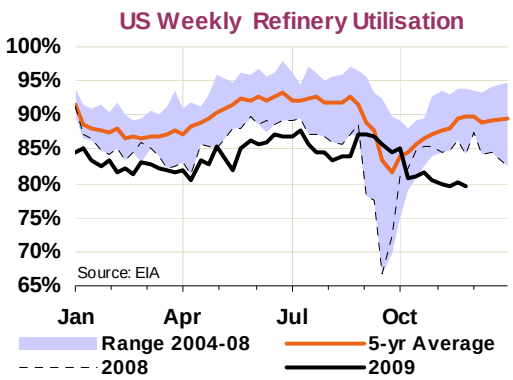
(million barrels per day)

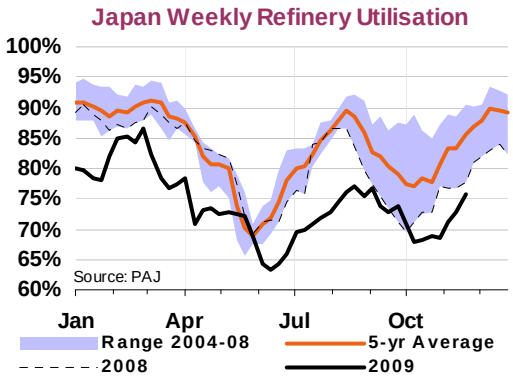
	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09	Change from Sep 09	Change from Oct 08	Utilisation rate[1] Oct 09	Utilisation rate[1] Oct 08
OECD North America										
US[2]	14.46	14.84	14.63	14.57	14.68	14.09	-0.60	-0.47	79.70	82.63
Canada	1.65	1.73	1.75	1.74	1.54	1.71	0.18	0.02	84.94	83.76
Mexico	1.23	1.14	1.21	1.27	1.25	1.29	0.04	0.09	83.63	71.96
Total	17.34	17.72	17.60	17.58	17.47	17.09	-0.38	-0.36	80.49	82.40
OECD Europe										
France	1.66	1.57	1.56	1.45	1.40	1.36	-0.04	-0.47	69.48	93.70
Germany	2.06	2.13	2.12	2.12	2.05	1.99	-0.06	-0.28	82.16	93.72
Italy	1.58	1.59	1.71	1.70	1.65	1.64	-0.01	-0.08	70.10	73.31
Netherlands	1.01	0.84	0.89	0.94	1.08	0.95	-0.13	0.14	78.14	66.79
Spain	1.01	0.97	1.06	1.01	1.02	1.01	-0.01	-0.16	79.11	91.55
UK	1.35	1.45	1.50	1.46	1.52	1.38	-0.14	-0.18	73.15	82.61
Other OECD Europe	3.77	3.73	3.82	3.73	3.64	3.71	0.07	-0.32	78.99	85.88
Total	12.43	12.28	12.64	12.41	12.36	12.02	-0.34	-1.35	76.22	84.79
OECD Pacific										
Japan	3.20	2.99	3.17	3.53	3.45	3.15	-0.29	-0.29	67.38	73.52
Korea	2.08	2.28	2.26	2.34	2.25	2.33	0.08	-0.07	85.21	87.79
Other OECD Pacific	0.70	0.69	0.69	0.71	0.64	0.66	0.02	0.00	81.38	81.21
Total	5.98	5.97	6.12	6.58	6.34	6.14	-0.20	-0.36	74.69	79.02
OECD Total	35.76	35.96	36.35	36.56	36.17	35.25	-0.92	-2.06	77.94	82.62

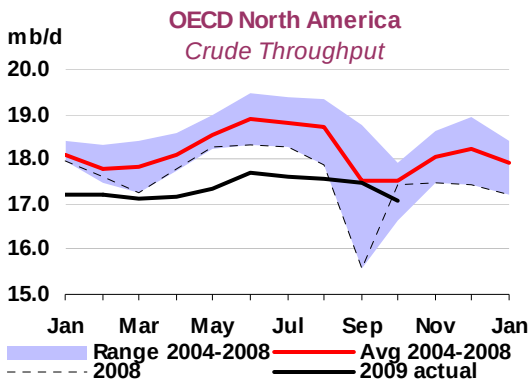
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

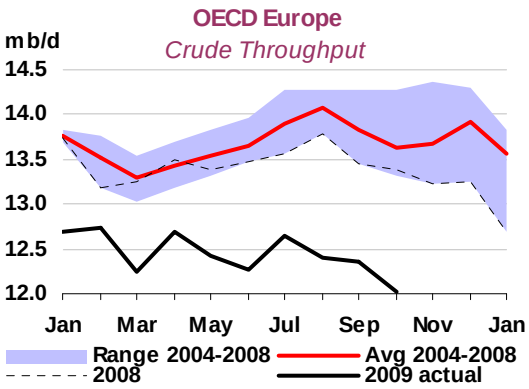
2 US50

November US weekly data fell 0.6 mb/d short of expectations to an estimate of 13.9 mb/d. Utilisation rates fell just below 80%, a level not seen in at least 10 years if we exclude hurricane-related low points. We expect US utilisation rates to remain below 80% in December and through 1Q10 and have modified our forecast accordingly. The Atlantic hurricane season ended as the least active in a decade, with only two tropical storms - Claudette and Ida - making landfall in the US. Tropical Storm Ida hit land in Alabama on November 10 with no impact on refineries. The light season stemmed in part from *El Niño*'s development last summer.



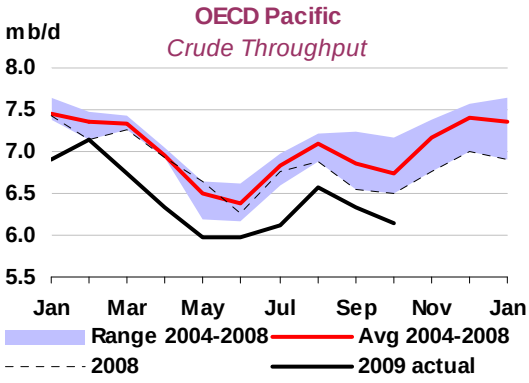






European crude runs matched our expectations at 12.0 mb/d in October, 0.3 mb/d lower month-on-month and 1.4 mb/d lower year-on-year. 4Q09 runs are forecast at 12.0 mb/d, which represents a drop of 0.4 mb/d quarter-on-quarter and a drop of 1.2 mb/d year-on-year. We keep last month's forecast unchanged. Utilisation rates remain particularly weak in France and Italy.

OECD Pacific October crude runs were in line with expectations at 6.1 mb/d. Lower Korean runs were offset by slightly higher runs elsewhere in this region. However, we have reversed last month's downward adjustment for **4Q09** (-0.2 mb/d) as November Japanese weekly data point to crude runs 0.3 mb/d higher than expected. However, increased runs in China and other non-OECD countries in Asia will weigh on OECD Pacific utilisation rates. As such, 4Q09 crude runs are now expected to average 6.3 mb/d, on par with 3Q09 levels, but 0.4 mb/d below 4Q08.



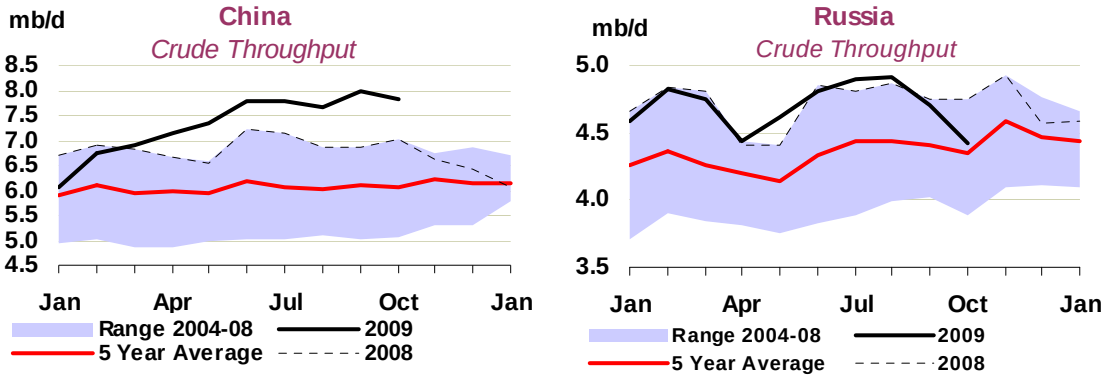
Non-OECD Refinery Throughput

Non-OECD crude throughput estimates for **4Q09** have been revised down by 0.5 mb/d to 37.0 mb/d as October refinery runs were 0.7 mb/d below our projections, mainly the result of lower-than-expected crude runs in Russia and China and higher maintenance activity in Latin America. Nonetheless, this new estimate for 4Q09 represents a quarter-on-quarter and year-on-year increase of 0.2 mb/d and 1.8 mb/d, respectively. On a quarterly basis, 3Q09 was also the first time non-OECD crude throughput came in higher than that in OECD countries.

Chinese October crude runs were 7.8 mb/d, 0.2 mb/d below September's record level and 0.2 mb/d below our estimate. The October throughput level represents a year-on-year increase of 12%. China's Fujian facility, the country's first integrated refining and petrochemical complex with foreign participation, was reportedly completed and at full operation as of 11 November. Reportedly, more than $4.5 billion was invested in the complex, with refining capacity tripled to 240 kb/d. The complex also features a 250 megawatt cogeneration facility which should result in lower operating costs and reduced greenhouse gas emissions. The complex had been in ramp-up mode for several months, with October crude runs reported at 219 kb/d. Additionally, refining capacity at Petrochina's Golmud plant in north-western Qinghai province is reported to have been increased to 30 kb/d as a catalytic cracker unit started operations at the end of November.

As a result of higher throughput rates, China's fuel exports are reported up 38% in the first 10 months of the year, while imports are 6.6% lower, pressuring crude runs elsewhere in the region. China's vehicle sales continue to soar, up 73% in October year-on-year, in spite of the government's decision to increase pump prices for gasoline and diesel, by about 7%, as well as jet fuel prices during the second week of November.

This assures domestic profits to refiners, and on the export side, the Chinese government offers tax incentives, thus Chinese refiners have every incentive to maximise crude runs. However, we think that incremental exports may temper any further tax incentives, eventually weighing on crude runs. We are keeping last month's 8.0 mb/d throughput projection for 4Q09, albeit upward potential exists.

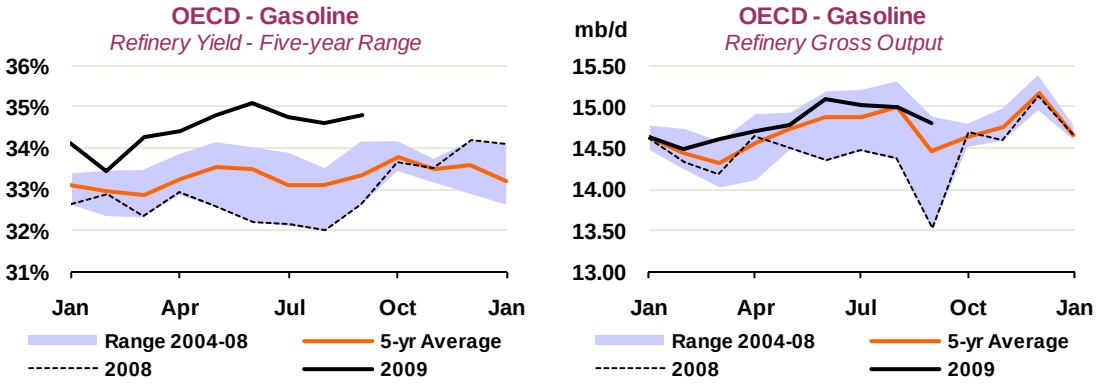


Russian crude runs averaged 4.4 mb/d in October, 0.5 mb/d below our projection. Logistical problems in the delivery of crude to far east refiners as well as maintenance at Lukoil's refineries, deferred from September, are behind the lower throughput. Preliminary data for November show crude runs at 4.7 mb/d, 0.2 mb/d lower than expected. Accordingly, we have lowered by 0.2 mb/d our FSU 4Q09 forecast to 6.1 mb/d.

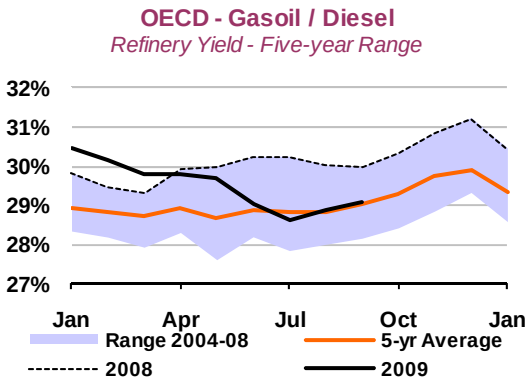
October **Indian** throughputs were in line with last month's estimates, which include an estimation of crude processed at Reliance's Jamnagar expansion of around 0.5 mb/d. Similarly, elsewhere in Other Asia, October crude runs were in accord with projections. However, we have revised down our 4Q09 Other Asia forecast by 0.1 mb/d to 8.5 mb/d as additional maintenance activity has been scheduled.

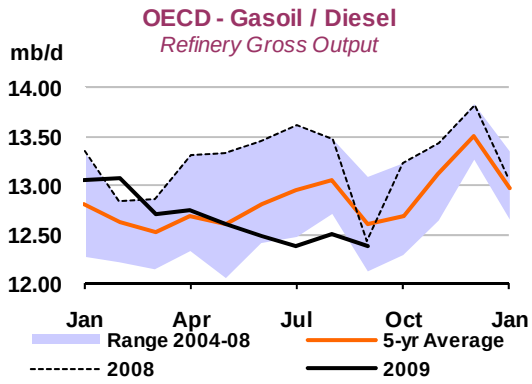
OECD Refinery Yields

September refinery yields increased for naphtha, gasoline and gasoil/diesel at the expense of jet fuel/kerosene and fuel oil, while yields for other products remained unchanged. OECD gasoline yields as a whole increased despite weaker crack spreads and lower yields in Europe and the Pacific. However, gasoline gross output fell, as crude runs in OECD countries remained constrained. Gasoline is the only product for which gross output remains above the five-year average. Gasoline gross output is well above that of last year as there were not hurricane related disruptions in the US Gulf Coast this year.

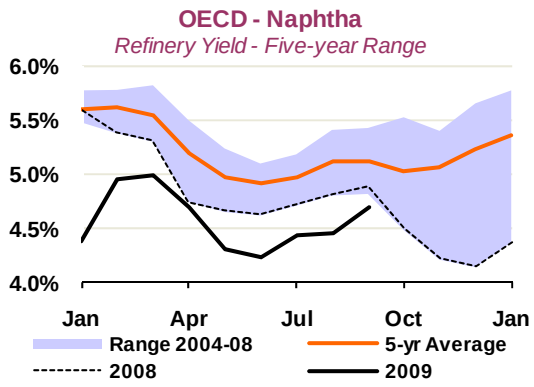


Gasoil/diesel yields continued around their five-year average level, with gross output below the five-year average as middle distillates stocks levels continue above five-year-range levels. Gasoil/diesel gross output remains particularly weak in Europe, 0.4 mb/d below last year's level. In North America, gross output remained unchanged at 5.1 mb/d during a month when output usually falls 0.4 mb/d according to the five-year average.





Naphtha yields increased, supported by a crack spread spike in the US Gulf Coast. Both yields and gross output are recovering towards the five-year range. Net imports in the Pacific have strengthened through the year as demand from the petrochemical sector increases and gross output remains constrained at the bottom of the five-year range.



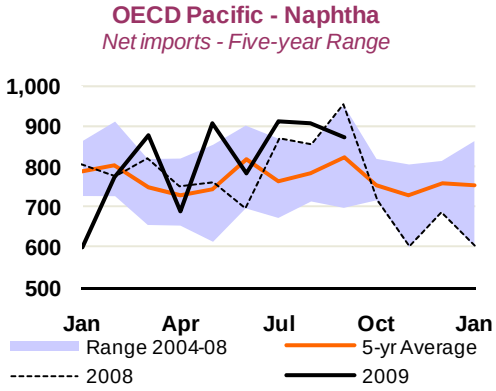


Table 1
WORLD OIL SUPPLY AND DEMAND

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	25.4	25.5	24.8	24.4	23.6	23.9	24.2	23.5	22.9	23.3	23.4	23.3	23.4	23.1	23.6	23.6	23.4
Europe	15.7	15.3	15.3	15.1	15.5	15.4	15.3	14.9	14.2	14.5	14.7	14.6	14.8	14.3	14.6	14.8	14.6
Pacific	8.5	8.4	8.9	7.9	7.5	8.0	8.1	8.1	7.3	7.3	7.9	7.7	8.0	7.1	7.1	7.6	7.5
Total OECD	49.5	49.2	49.0	47.3	46.6	47.3	47.6	46.6	44.4	45.1	46.0	45.5	46.2	44.5	45.3	46.1	45.5
NON-OECD DEMAND																	
FSU	4.0	4.1	4.2	4.1	4.3	4.1	4.2	3.9	3.8	4.0	4.0	3.9	4.1	4.0	4.2	4.2	4.1
Europe	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	7.2	7.6	7.9	8.0	8.1	7.6	7.9	7.7	8.6	8.8	8.6	8.4	8.4	8.9	8.8	8.7	8.7
Other Asia	9.0	9.5	9.9	9.9	9.4	9.5	9.7	9.9	10.1	9.7	9.8	9.9	10.3	10.3	10.0	10.1	10.2
Latin America	5.4	5.7	5.7	6.0	6.0	5.9	5.9	5.8	6.0	6.1	6.0	6.0	6.0	6.2	6.3	6.2	6.2
Middle East	6.3	6.5	6.7	7.1	7.6	7.0	7.1	6.7	7.3	7.8	7.1	7.2	7.1	7.6	8.0	7.5	7.6
Africa	3.0	3.1	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3
Total Non-OECD	35.7	37.3	38.4	38.9	39.2	38.0	38.6	37.9	39.7	40.3	39.5	39.3	39.9	41.1	41.4	40.8	40.8
Total Demand[1]	85.3	86.5	87.4	86.3	85.8	85.3	86.2	84.5	84.1	85.3	85.5	84.9	86.1	85.6	86.7	86.8	86.3
OECD SUPPLY																	
North America[4]	14.2	14.3	14.2	14.0	13.6	13.8	13.9	14.2	13.9	14.2	14.3	14.1	14.2	13.9	13.5	13.9	13.9
Europe	5.3	5.0	4.9	4.8	4.5	4.8	4.8	4.9	4.5	4.2	4.3	4.5	4.3	3.9	3.8	4.0	4.0
Pacific	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Total OECD	20.1	19.9	19.7	19.5	18.8	19.3	19.3	19.7	19.0	19.0	19.2	19.2	19.2	18.6	18.1	18.7	18.6
NON-OECD SUPPLY																	
FSU	12.3	12.8	12.9	12.9	12.7	12.7	12.8	13.0	13.2	13.3	13.6	13.3	13.7	13.9	13.7	13.9	13.8
Europe	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.8	3.9	3.8	4.0	4.0	4.0	4.1	4.0
Other Asia[2]	3.8	3.7	3.7	3.6	3.6	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.7	3.7	3.8	3.8	3.7
Latin America[2,4]	3.9	3.9	4.1	4.1	4.2	4.2	4.1	4.3	4.3	4.3	4.4	4.3	4.5	4.5	4.6	4.7	4.6
Middle East	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Africa[2]	2.5	2.6	2.6	2.6	2.6	2.5	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4
Total Non-OECD	28.0	28.5	28.8	28.8	28.7	28.7	28.7	29.0	29.2	29.4	29.7	29.3	30.1	30.3	30.2	30.6	30.3
Processing Gains[3]	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Other Biofuels[4]	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Total Non-OPEC[2]	50.4	50.9	51.1	50.9	50.1	50.7	50.7	51.3	50.9	51.2	51.7	51.3	52.0	51.6	51.1	52.0	51.6
Non-OPEC: Historical Composition[2]	51.3	50.4	50.1	49.9	49.1	49.7	49.7	51.3	50.9	51.2	51.7	51.3	52.0	51.6	51.1	52.0	51.6
OPEC																	
Crude[5]	30.7	30.3	31.5	31.4	31.5	30.5	31.2	28.5	28.5	28.8							
NGLs	4.3	4.3	4.4	4.4	4.5	4.6	4.5	4.6	4.7	5.0	5.2	4.9	5.4	5.6	5.9	6.0	5.7
Total OPEC[2]	35.0	34.7	35.9	35.8	36.1	35.2	35.7	33.1	33.2	33.9							
OPEC: Historical Composition[2]	34.1	35.2	36.9	36.8	37.1	36.2	36.7	33.1	33.2	33.9							
Total Supply[6]	85.4	85.6	87.0	86.7	86.2	85.9	86.4	84.4	84.0	85.0							
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.3	0.1	0.4	0.6	0.5	0.4	0.5	0.1	0.1							
Government	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.0							
Total	0.3	-0.2	0.1	0.3	0.5	0.5	0.4	0.8	0.3	0.1							
Floating Storage/Oil in Transit	-0.1	0.0	0.3	0.0	-0.3	0.1	0.0	0.6	0.2	0.1							
Miscellaneous to balance[7]	0.0	-0.8	-0.9	0.1	0.1	0.0	-0.2	-1.4	-0.5	-0.5							
Total Stock Ch. & Misc	0.2	-0.9	-0.4	0.4	0.4	0.6	0.2	0.0	-0.1	-0.3							
Memo items:																	
Call on OPEC crude + Stock ch.[8]	30.6	31.3	32.0	31.0	31.2	30.0	31.0	28.6	28.5	29.1	28.7	28.7	28.7	28.5	29.8	28.9	29.0
Adjusted Call on OPEC + Stock ch.[9]	30.5	30.5	31.1	31.1	31.3	29.9	30.8	27.2	28.0	28.6	28.2	28.0	28.3	28.0	29.3	28.4	28.5

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.
Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.
Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time.
3 Net volumetric gains and losses in the refining process (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
4 Other Biofuels are from sources outside Brazil and US. North and Latin America oil supply totals include US and Brazilian ethanol.
5 As of the March 2006 OMR, Venezuelan Orinoco heavy crude production is included within Venezuelan crude estimates. Orimulsion fuel remains within the OPEC NGL & non-conventional category, but Orimulsion production reportedly ceased from January 2007.
6 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
7 Includes changes in non-reported stocks in OECD and non-OECD areas.
8 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.
9 Equals the "Call on OPEC + Stock Ch." with "Miscellaneous to balance" added for historical periods and with an average of "Miscellaneous to balance" for the most recent 8 quarters added for forecast periods.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
OECD DEMAND																	
North America	-	-	-	-	-	-	-	-	-	0.2	-0.4	-	-	-	0.2	-0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	0.1	0.2	0.1	-	-	0.1	0.1	-
Total OECD	-	-	-	-	-	-	-	-	-	0.2	-0.2	-	-	0.1	0.2	-	0.1
NON-OECD DEMAND																	
FSU	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	0.3	0.1	0.1	0.1	-	0.1	0.1
Other Asia	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	-	0.1	-
Latin America	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-	0.3	-	0.1	-	-0.1	0.2	0.1
Total Demand	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.2	0.1	-	0.1	0.1	0.2	0.2	0.1
OECD SUPPLY																	
North America	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.2	-0.2	-0.4	-0.3	-0.3
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-0.1	-0.2	-0.1
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	0.1	-	-	-0.2	-0.3	-0.5	-0.5	-0.4
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	0.1	0.1	-	-	0.1	0.1	0.1	0.2	0.1	0.1	-0.1	-0.1	-0.4	-0.4	-0.3
Non-OPEC: historical composition	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	-0.1	-0.1	-0.4	-0.4	-0.3
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-							
NGLs	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-	-0.1	-	-0.2	-0.1
Total OPEC	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1							
OPEC: historical composition	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1							
Total Supply	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-							
STOCK CHANGES AND MISCELLANEOUS REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-							
Government	-	-	-	-	-	-	-	-	-	-							
Total	-	-	-	-	-	-	-	-	-	-							
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-							
Miscellaneous to balance	-0.2	-0.1	-	-	-	-	-	-	-0.1	-0.1							
Total Stock Ch. & Misc	-0.2	-0.1	-	-	-	-	-	-	-0.1	-0.1							
Memo items:																	
Call on OPEC crude + Stock ch.	0.2	0.1	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.2	0.3	0.6	0.8	0.5
Adjusted Call on OPEC + Stock ch.	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.3	0.6	0.8	0.4

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2

SUMMARY OF GLOBAL OIL DEMAND

	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010
Demand (mb/d)																
North America	25.47	24.77	24.42	23.57	23.93	24.17	23.52	22.92	23.31	23.37	23.28	23.45	23.14	23.58	23.63	23.45
Europe	15.34	15.32	15.06	15.52	15.41	15.33	14.91	14.23	14.47	14.75	14.59	14.81	14.28	14.61	14.80	14.63
Pacific	8.37	8.91	7.86	7.54	7.97	8.07	8.14	7.30	7.28	7.90	7.65	7.95	7.13	7.15	7.64	7.47
Total OECD	49.18	49.00	47.35	46.63	47.32	47.57	46.57	44.45	45.06	46.02	45.52	46.21	44.55	45.35	46.07	45.54
Asia	17.11	17.81	17.84	17.48	17.10	17.55	17.58	18.67	18.54	18.39	18.30	18.70	19.25	18.85	18.82	18.90
Middle East	6.53	6.72	7.13	7.57	6.95	7.10	6.71	7.32	7.75	7.13	7.23	7.08	7.61	8.04	7.50	7.56
Latin America	5.69	5.72	5.97	6.05	5.93	5.91	5.77	5.96	6.09	6.04	5.97	5.96	6.18	6.29	6.21	6.16
FSU	4.15	4.23	4.07	4.26	4.07	4.16	3.90	3.78	4.01	3.99	3.92	4.11	4.00	4.20	4.18	4.12
Africa	3.07	3.19	3.19	3.14	3.22	3.18	3.23	3.21	3.15	3.25	3.21	3.34	3.31	3.26	3.34	3.31
Europe	0.77	0.76	0.74	0.72	0.74	0.74	0.72	0.73	0.71	0.71	0.72	0.73	0.74	0.72	0.73	0.73
Total Non-OECD	37.32	38.44	38.94	39.20	38.01	38.65	37.91	39.66	40.26	39.52	39.34	39.92	41.08	41.35	40.78	40.79
World	86.51	87.44	86.28	85.83	85.33	86.22	84.48	84.11	85.31	85.54	84.86	86.13	85.63	86.70	86.85	86.33
of which: US50	20.68	20.04	19.76	18.90	19.30	19.50	18.96	18.54	18.70	18.70	18.72	18.87	18.71	18.91	18.95	18.86
Europe 5*	9.48	9.50	9.29	9.50	9.57	9.47	9.41	8.85	8.92	9.01	9.05	9.22	8.79	8.92	9.02	8.99
China	7.57	7.88	7.98	8.09	7.62	7.89	7.65	8.61	8.82	8.56	8.41	8.44	8.91	8.84	8.68	8.72
Japan	5.04	5.45	4.63	4.34	4.71	4.78	4.72	4.03	4.10	4.53	4.35	4.54	3.85	3.97	4.27	4.16
India	3.00	3.25	3.18	2.97	3.14	3.13	3.40	3.35	3.14	3.32	3.30	3.51	3.44	3.25	3.42	3.41
Russia	2.89	2.91	2.83	3.02	2.80	2.89	2.64	2.58	2.81	2.74	2.69	2.82	2.78	2.97	2.91	2.87
Brazil	2.35	2.37	2.46	2.53	2.51	2.47	2.39	2.48	2.57	2.58	2.51	2.49	2.58	2.66	2.64	2.59
Saudi Arabia	2.17	2.22	2.47	2.71	2.27	2.42	2.23	2.78	3.00	2.47	2.62	2.43	2.88	3.12	2.62	2.76
Canada	2.31	2.31	2.19	2.25	2.26	2.25	2.20	2.08	2.22	2.28	2.20	2.22	2.13	2.28	2.29	2.23
Korea	2.24	2.35	2.11	2.10	2.14	2.17	2.34	2.17	2.07	2.26	2.21	2.32	2.16	2.05	2.23	2.19
Mexico	2.14	2.12	2.19	2.14	2.07	2.13	2.05	2.01	2.10	2.09	2.06	2.04	2.02	2.10	2.07	2.06
Iran	1.72	1.86	1.89	1.86	1.83	1.86	1.77	1.73	1.73	1.80	1.76	1.85	1.84	1.84	1.91	1.86
Total	61.58	62.25	61.00	60.42	60.22	60.97	59.77	59.23	60.18	60.32	59.88	60.75	60.09	60.91	61.01	60.69
% of World	71.2%	71.2%	70.7%	70.4%	70.6%	70.7%	70.8%	70.4%	70.5%	70.5%	70.6%	70.5%	70.2%	70.3%	70.3%	70.3%
Annual Change (% per annum)																
North America	0.4	-3.3	-3.6	-7.5	-5.9	-5.1	-5.1	-6.2	-1.1	-2.3	-3.7	-0.3	1.0	1.2	1.1	0.7
Europe	-2.1	0.6	0.7	0.3	-1.8	-0.1	-2.7	-5.5	-6.8	-4.3	-4.8	-0.7	0.3	1.0	0.4	0.3
Pacific	-1.0	0.0	-0.6	-4.9	-8.9	-3.6	-8.6	-7.2	-3.4	-0.9	-5.1	-2.3	-2.3	-1.8	-3.3	-2.4
Total OECD	-0.7	-1.5	-1.8	-4.6	-5.1	-3.3	-5.0	-6.1	-3.4	-2.7	-4.3	-0.8	0.2	0.6	0.1	0.0
Asia	5.1	5.7	2.8	3.5	-1.5	2.6	-1.3	4.6	6.1	7.6	4.2	6.4	3.1	1.6	2.3	3.3
Middle East	3.2	4.9	9.2	12.4	7.6	8.6	-0.2	2.6	2.4	2.6	1.9	5.5	3.9	3.8	5.1	4.5
Latin America	5.5	4.9	5.3	4.0	1.7	3.9	0.9	-0.1	0.7	2.0	0.9	3.3	3.7	3.2	2.7	3.2
FSU	2.7	2.6	2.7	1.4	-5.4	0.2	-8.0	-7.1	-5.8	-2.1	-5.8	5.6	5.8	4.7	4.9	5.2
Africa	4.0	3.1	5.4	4.0	2.5	3.7	1.2	0.7	0.5	0.9	0.8	3.3	3.3	3.3	3.0	3.2
Europe	3.6	0.3	-0.4	-7.3	-5.2	-3.3	-5.1	-1.7	-1.2	-4.2	-3.1	1.3	1.5	1.7	2.3	1.7
Total Non-OECD	4.4	4.7	4.4	4.7	0.4	3.6	-1.4	1.9	2.7	4.0	1.8	5.3	3.6	2.7	3.2	3.7
World	1.5	1.1	0.9	-0.6	-2.8	-0.3	-3.4	-2.5	-0.6	0.2	-1.6	2.0	1.8	1.6	1.5	1.7
Annual Change (mb/d)																
North America	0.09	-0.85	-0.92	-1.92	-1.50	-1.30	-1.25	-1.51	-0.26	-0.56	-0.89	-0.07	0.22	0.27	0.25	0.17
Europe	-0.34	0.09	0.10	0.05	-0.28	-0.01	-0.41	-0.83	-1.05	-0.66	-0.74	-0.10	0.05	0.14	0.05	0.04
Pacific	-0.09	0.00	-0.05	-0.39	-0.78	-0.30	-0.77	-0.56	-0.26	-0.07	-0.41	-0.19	-0.17	-0.13	-0.26	-0.19
Total OECD	-0.33	-0.75	-0.87	-2.26	-2.57	-1.61	-2.43	-2.90	-1.57	-1.30	-2.05	-0.36	0.10	0.29	0.05	0.02
Asia	0.83	0.95	0.49	0.58	-0.25	0.44	-0.23	0.83	1.07	1.30	0.74	1.12	0.58	0.30	0.43	0.61
Middle East	0.20	0.32	0.60	0.84	0.49	0.56	-0.01	0.18	0.19	0.18	0.14	0.37	0.29	0.29	0.36	0.33
Latin America	0.30	0.27	0.30	0.23	0.10	0.22	0.05	-0.01	0.04	0.12	0.05	0.19	0.22	0.20	0.16	0.19
FSU	0.11	0.11	0.11	0.06	-0.23	0.01	-0.34	-0.29	-0.25	-0.09	-0.24	0.22	0.22	0.19	0.20	0.21
Africa	0.12	0.10	0.16	0.12	0.08	0.11	0.04	0.02	0.02	0.03	0.03	0.11	0.11	0.10	0.10	0.10
Europe	0.03	0.00	0.00	-0.06	-0.04	-0.02	-0.04	-0.01	-0.01	-0.03	-0.02	0.01	0.01	0.01	0.02	0.01
Total Non-OECD	1.59	1.74	1.65	1.78	0.15	1.33	-0.53	0.72	1.05	1.50	0.69	2.01	1.42	1.10	1.27	1.45
World	1.26	0.99	0.78	-0.48	-2.42	-0.29	-2.96	-2.18	-0.52	0.21	-1.35	1.65	1.53	1.38	1.31	1.47
Revisions to Oil Demand from Last Month's Report (mb/d)																
North America	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.19	-0.36	-0.04	0.01	0.03	0.18	-0.12	0.03
Europe	0.00	-0.02	-0.01	-0.03	-0.02	-0.02	-0.01	0.00	-0.03	-0.05	-0.02	0.00	0.02	-0.01	0.01	0.01
Pacific	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.18	0.06	0.00	0.00	0.07	0.09	0.04
Total OECD	0.00	-0.02	-0.01	-0.04	-0.02	-0.02	-0.01	0.00	0.21	-0.22	-0.01	0.01	0.05	0.24	-0.02	0.07
Asia	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.07	0.38	0.11	0.15	0.07	0.03	0.22	0.12
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.04	-0.02	0.00	-0.02	-0.07	-0.01	-0.02
Latin America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.05	0.01	0.00	0.00	0.00	0.01	0.00
FSU	0.00	-0.03	-0.06	-0.07	-0.08	-0.06	-0.08	-0.08	-0.07	-0.10	-0.08	-0.03	-0.01	-0.02	-0.02	-0.02
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01	-0.01	-0.01	-0.03	-0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	-0.03	-0.06	-0.08	-0.08	-0.06	-0.09	-0.07	-0.03	0.28	0.02	0.11	0.03	-0.06	0.17	0.06
World	0.00	-0.05	-0.07	-0.12	-0.11	-0.09	-0.10	-0.07	0.18	0.06	0.02	0.11	0.09	0.18	0.16	0.13
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	-0.05	-0.08	-0.12	-0.11	-0.09	-0.05	0.00	0.30	0.16	0.10	0.21	0.16	0.00	0.10	0.12

* France, Germany, Italy, Spain & UK

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2008	2009	2010	2Q09	3Q09	4Q09	1Q10	2Q10	Sep 09	Oct 09	Nov 09
OPEC											
Crude Oil											
Saudi Arabia	8.90			7.91	7.94				7.92	8.01	8.01
Iran	3.90			3.72	3.77				3.70	3.66	3.70
Iraq	2.38			2.45	2.55				2.51	2.47	2.52
UAE	2.59			2.25	2.27				2.27	2.28	2.27
Kuwait	2.31			1.98	1.97				1.96	2.00	2.00
Neutral Zone	0.57			0.54	0.54				0.54	0.54	0.54
Qatar	0.85			0.77	0.76				0.76	0.77	0.77
Angola	1.85			1.71	1.80				1.86	1.90	1.90
Nigeria	1.95			1.77	1.76				1.85	1.90	1.98
Libya	1.72			1.53	1.55				1.55	1.52	1.52
Algeria	1.37			1.25	1.22				1.22	1.24	1.24
Ecuador	0.50			0.48	0.46				0.46	0.46	0.46
Venezuela	2.35			2.12	2.20				2.24	2.24	2.22
Total Crude Oil[6]	31.24			28.48	28.80				28.84	28.99	29.13
Total NGLs[1,6]	4.51	4.86	5.72	4.67	5.05	5.17	5.42	5.57	5.05	5.17	5.17
Total OPEC[6]	35.74			33.15	33.85				33.89	34.16	34.29
OPEC: Historical Composition[6]	36.74			33.15	33.85				33.89	34.16	34.29
NON-OPEC[2]											
OECD											
North America	13.91	14.13	13.89	13.87	14.17	14.29	14.21	13.88	14.28	14.31	14.27
United States[5]	7.52	8.05	7.93	7.97	8.13	8.25	8.01	8.03	8.29	8.28	8.24
Mexico	3.16	2.97	2.80	2.97	2.94	2.93	2.89	2.83	2.96	2.96	2.92
Canada	3.22	3.12	3.16	2.93	3.11	3.11	3.31	3.02	3.04	3.07	3.12
Europe	4.76	4.46	4.00	4.48	4.21	4.26	4.28	3.95	4.00	4.25	4.27
UK	1.56	1.46	1.29	1.56	1.26	1.40	1.42	1.29	1.23	1.41	1.40
Norway	2.46	2.33	2.06	2.27	2.29	2.20	2.20	2.01	2.11	2.20	2.21
Others	0.74	0.67	0.65	0.66	0.66	0.65	0.66	0.65	0.66	0.64	0.66
Pacific	0.65	0.66	0.76	0.64	0.67	0.69	0.72	0.77	0.65	0.68	0.69
Australia	0.55	0.56	0.64	0.54	0.57	0.57	0.59	0.65	0.55	0.56	0.57
Others	0.10	0.10	0.12	0.09	0.10	0.12	0.13	0.13	0.11	0.12	0.13
Total OECD	19.32	19.25	18.65	18.98	19.05	19.23	19.21	18.60	18.94	19.25	19.23
NON-OECD											
Former USSR	12.81	13.28	13.78	13.23	13.34	13.57	13.70	13.89	13.36	13.54	13.53
Russia	10.00	10.20	10.40	10.15	10.25	10.37	10.40	10.43	10.32	10.35	10.35
Others	2.80	3.08	3.38	3.08	3.09	3.20	3.30	3.46	3.04	3.19	3.18
Asia	7.45	7.43	7.75	7.40	7.44	7.54	7.69	7.69	7.45	7.46	7.54
China	3.79	3.82	4.02	3.80	3.84	3.92	3.99	3.99	3.84	3.84	3.95
Malaysia	0.77	0.74	0.72	0.74	0.74	0.74	0.73	0.72	0.74	0.74	0.73
India	0.81	0.80	0.87	0.80	0.79	0.82	0.83	0.85	0.80	0.81	0.82
Indonesia	1.00	0.98	1.02	0.97	0.98	0.98	1.01	1.01	0.98	0.98	0.98
Others	1.08	1.09	1.12	1.10	1.09	1.08	1.12	1.12	1.09	1.10	1.06
Europe	0.14	0.13	0.13	0.13	0.14	0.13	0.13	0.13	0.14	0.13	0.13
Latin America	4.13	4.33	4.57	4.31	4.31	4.39	4.50	4.52	4.40	4.40	4.38
Brazil[5]	2.37	2.50	2.68	2.49	2.51	2.51	2.62	2.65	2.55	2.55	2.50
Argentina	0.75	0.73	0.72	0.73	0.70	0.72	0.73	0.72	0.72	0.72	0.73
Colombia	0.59	0.67	0.74	0.66	0.67	0.72	0.72	0.72	0.70	0.70	0.72
Others	0.42	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.44	0.44	0.43
Middle East[3]	1.64	1.65	1.64	1.66	1.66	1.63	1.63	1.64	1.66	1.63	1.63
Oman	0.75	0.80	0.86	0.79	0.82	0.80	0.83	0.85	0.82	0.80	0.80
Syria	0.39	0.37	0.33	0.37	0.36	0.35	0.35	0.34	0.36	0.36	0.35
Yemen	0.31	0.29	0.27	0.30	0.29	0.28	0.27	0.27	0.28	0.28	0.28
Others	0.19	0.19	0.18	0.19	0.19	0.19	0.18	0.18	0.19	0.19	0.19
Africa	2.56	2.50	2.44	2.52	2.51	2.47	2.46	2.45	2.50	2.44	2.48
Egypt	0.69	0.66	0.62	0.67	0.65	0.64	0.63	0.62	0.65	0.65	0.64
Gabon	0.21	0.23	0.24	0.22	0.23	0.24	0.24	0.24	0.24	0.24	0.24
Others	1.66	1.62	1.59	1.63	1.62	1.59	1.59	1.59	1.61	1.56	1.60
Total Non-OECD	28.73	29.33	30.31	29.24	29.40	29.72	30.12	30.30	29.50	29.61	29.69
Processing Gains[4]	2.24	2.29	2.20	2.29	2.29	2.29	2.20	2.20	2.29	2.29	2.29
Other Biofuels[5]	0.39	0.41	0.49	0.39	0.45	0.43	0.45	0.46	0.46	0.43	0.43
TOTAL NON-OPEC[6]	50.69	51.27	51.65	50.90	51.18	51.67	51.98	51.57	51.18	51.58	51.64
Non-OPEC: Historical Composition[6]	49.69	51.27	51.65	50.90	51.18	51.67	51.98	51.57	51.18	51.58	51.64
TOTAL SUPPLY	86.44			84.05	85.03				85.07	85.74	85.94

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.
2 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
3 Includes small amounts of production from Israel, Jordan and Bahrain.
4 Net volumetric gains and losses in refining (excludes net gain/loss in China and non-OECD Europe) and marine transportation losses.
5 Other Biofuels are from sources outside Brazil and US. US and Brazil oil supply include ethanol.
6 Total OPEC comprises all countries which were OPEC members at 1 January 2009. OPEC Historical Composition comprises countries which were OPEC members at that point in time. Total Non-OPEC excludes all countries that were OPEC members at 1 January 2009. Non-OPEC Historical Composition excludes countries that were OPEC members at that point in time.

Table 4

OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jun2009	Jul2009	Aug2009	Sep2009	Oct2009*	Oct2006	Oct2007	Oct2008	4Q2008	1Q2009	2Q2009	3Q2009
North America												
Crude	497.0	493.1	478.1	473.5	474.4	473.4	449.6	464.2	0.16	0.49	-0.15	-0.26
Motor Gasoline	243.7	239.1	235.1	240.9	235.7	233.0	225.8	225.0	0.27	0.06	-0.05	-0.03
Middle Distillate	234.1	237.1	242.3	248.9	242.7	216.4	207.0	197.1	0.22	0.00	0.19	0.16
Residual Fuel Oil	44.7	42.8	41.1	44.0	43.7	51.4	47.0	47.7	-0.04	0.03	-0.03	-0.01
Total Products[3]	723.9	726.9	728.5	741.4	719.4	701.3	666.5	656.0	0.32	0.02	0.42	0.19
Total[4]	1382.9	1384.1	1370.1	1381.9	1362.3	1338.8	1277.8	1289.2	0.25	0.53	0.39	-0.01
Europe												
Crude	343.0	338.9	335.8	329.0	322.2	334.6	323.4	331.6	0.10	0.15	-0.14	-0.15
Motor Gasoline	99.3	96.9	99.0	101.1	100.7	104.2	101.8	98.1	0.11	-0.08	-0.03	0.02
Middle Distillate	282.3	287.3	300.1	289.3	283.5	255.3	235.3	256.4	0.11	0.02	0.06	0.08
Residual Fuel Oil	80.7	68.8	71.9	72.6	70.7	76.9	71.8	75.2	0.08	-0.05	0.03	-0.09
Total Products[3]	566.0	557.2	578.3	572.6	563.6	540.6	513.1	541.3	0.32	-0.12	0.01	0.07
Total[4]	976.3	965.2	983.2	969.5	953.6	944.6	911.7	945.8	0.47	-0.01	-0.17	-0.07
Pacific												
Crude	170.2	170.5	165.4	166.0	170.9	178.2	174.0	163.1	0.01	0.08	0.00	-0.05
Motor Gasoline	26.1	23.8	24.2	25.1	25.0	23.8	22.1	23.9	-0.02	0.06	0.00	-0.01
Middle Distillate	62.3	67.4	71.4	72.5	69.1	87.5	72.8	74.2	-0.10	-0.09	0.06	0.11
Residual Fuel Oil	18.9	19.3	21.8	21.3	21.5	23.5	21.8	20.7	-0.02	0.00	-0.01	0.03
Total Products[3]	164.8	170.3	182.8	185.2	182.4	209.7	187.1	194.1	-0.20	-0.07	-0.05	0.22
Total[4]	401.0	406.9	414.2	419.3	418.8	459.8	431.8	433.2	-0.25	0.01	-0.08	0.20
Total OECD												
Crude	1010.2	1002.5	979.2	968.4	967.5	986.2	947.0	958.9	0.27	0.72	-0.28	-0.45
Motor Gasoline	369.0	359.7	358.2	367.1	361.4	361.1	349.7	347.0	0.36	0.05	-0.09	-0.02
Middle Distillate	578.7	591.8	613.9	610.8	595.3	559.1	515.1	527.7	0.22	-0.07	0.30	0.35
Residual Fuel Oil	144.3	130.8	134.7	137.9	135.9	151.8	140.6	143.6	0.02	-0.01	-0.01	-0.07
Total Products[3]	1454.7	1454.4	1489.6	1499.1	1465.3	1451.6	1366.7	1391.4	0.45	-0.16	0.38	0.48
Total[4]	2760.2	2756.2	2767.5	2770.6	2734.6	2743.2	2621.3	2668.2	0.47	0.53	0.14	0.11

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jun2009	Jul2009	Aug2009	Sep2009	Oct2009*	Oct2006	Oct2007	Oct2008	4Q2008	1Q2009	2Q2009	3Q2009
North America												
Crude	724.1	724.1	724.1	725.1	725.1	688.6	694.1	701.8	-0.01	0.12	0.12	0.01
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
Europe												
Crude	186.7	185.6	186.1	186.3	186.3	174.7	180.6	185.5	0.07	0.01	-0.01	0.00
Products	238.3	239.5	240.6	240.8	240.8	234.7	234.7	229.5	-0.05	0.06	0.05	0.03
Pacific												
Crude	389.1	388.5	388.5	388.4	388.4	381.5	385.0	384.7	0.03	0.02	0.00	-0.01
Products	19.2	19.2	19.2	19.2	19.2	11.8	18.4	19.2	0.00	0.00	0.00	0.00
Total OECD												
Crude	1299.9	1298.1	1298.7	1299.8	1299.8	1244.8	1259.7	1272.0	0.10	0.16	0.11	0.00
Products	259.5	260.7	261.8	262.0	262.0	248.5	255.0	250.6	-0.05	0.06	0.05	0.03
Total[4]	1561.0	1560.6	1562.2	1563.5	1563.5	1494.3	1515.8	1523.6	0.05	0.23	0.15	0.03

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5

TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]

('millions of barrels' and 'days')

	End September 2008		End December 2008		End March 2009		End June 2009		End September 2009 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
North America										
Canada	198.4	88	193.9	88	197.7	95	197.8	89	190.1	-
Mexico	55.7	27	50.3	25	45.5	23	48.1	23	50.2	-
United States[4]	1706.4	88	1738.7	92	1797.0	97	1841.0	99	1846.5	-
Total[4]	1982.6	83	2005.1	86	2062.3	90	2108.9	91	2108.9	90
Pacific										
Australia	38.9	40	41.4	45	40.8	43	40.5	42	45.0	-
Japan	646.2	137	629.6	133	611.3	152	611.2	149	607.3	-
Korea	141.2	66	134.9	58	155.2	72	149.1	72	167.0	-
New Zealand	7.9	53	7.9	51	9.5	61	8.5	56	7.5	-
Total	834.1	105	813.8	100	816.8	112	809.3	111	826.8	105
Europe[5]										
Austria	21.5	79	23.2	82	20.9	78	20.4	72	20.4	-
Belgium	31.1	43	34.9	56	35.8	65	35.0	59	34.7	-
Czech Republic	19.1	97	21.4	114	22.7	111	22.0	98	21.8	-
Denmark	18.3	101	22.9	131	25.1	152	26.4	161	24.9	-
Finland	30.1	139	30.7	147	33.5	167	25.4	122	29.3	-
France	176.6	87	179.2	89	177.6	98	172.9	95	174.0	-
Germany	273.7	103	277.4	108	277.7	116	280.2	117	276.7	-
Greece	39.2	83	40.0	83	36.7	93	35.9	94	35.5	-
Hungary	15.5	93	15.0	100	15.7	100	15.1	93	14.4	-
Ireland	10.5	54	11.4	63	11.5	74	11.7	78	12.4	-
Italy	130.3	81	127.9	83	131.0	86	129.1	82	129.0	-
Luxembourg	0.6	10	0.7	14	0.7	14	0.8	16	0.8	-
Netherlands	115.0	117	131.4	130	133.9	139	144.4	149	139.6	-
Norway	26.5	127	29.9	143	24.0	108	23.6	122	24.7	-
Poland	58.8	106	58.1	119	58.9	111	63.1	106	64.8	-
Portugal	25.0	90	24.7	92	25.0	90	24.8	91	24.5	-
Slovak Republic	8.0	93	8.8	122	9.8	123	8.4	99	8.3	-
Spain	135.8	88	137.6	89	137.8	94	135.6	92	135.4	-
Sweden	34.4	105	37.4	116	40.8	125	39.5	122	38.5	-
Switzerland	37.8	127	36.3	120	36.8	133	38.0	148	38.2	-
Turkey	60.8	98	60.9	111	59.2	97	58.8	93	57.8	-
United Kingdom	95.1	55	98.8	57	100.4	60	91.7	55	92.4	-
Total	1363.6	88	1408.6	94	1415.3	99	1402.9	97	1398.4	95
Total OECD	4180.4	88	4227.5	91	4294.4	97	4321.2	96	4334.1	94
DAYS OF IEA Net Imports[6]	-	124	-	131	-	134	-	135	-	135

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End September 2009 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand[2]*		
3Q2006	4255	1495	2760	85	30	55
4Q2006	4166	1499	2667	84	30	54
1Q2007	4106	1507	2598	85	31	54
2Q2007	4164	1506	2658	85	31	54
3Q2007	4170	1520	2650	83	30	53
4Q2007	4090	1524	2566	83	31	52
1Q2008	4101	1529	2572	86	32	54
2Q2008	4131	1526	2605	89	33	56
3Q2008	4180	1522	2658	88	32	56
4Q2008	4228	1527	2701	91	33	58
1Q2009	4294	1547	2747	97	35	62
2Q2009	4321	1561	2760	96	35	61
3Q2009	4334	1564	2771	94	34	60

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 3Q2009 (when latest forecasts are used).

Table 6

IEA Member Country Destinations of Selected Crude Streams[1]

(million barrels per day)

	2006	2007	2008	4Q08	1Q09	2Q09	3Q09	Jul 09	Aug 09	Sep 09	Year Earlier Sep 08	Year Earlier change
Saudi Light & Extra Light												
North America	0.60	0.73	0.70	0.63	0.58	0.51	0.45	0.56	0.36	0.41	0.74	-0.33
Europe	0.78	0.70	0.70	0.66	0.57	0.60	0.54	0.66	0.43	0.52	0.93	-0.41
Pacific	1.32	1.19	1.22	1.24	1.40	1.16	1.23	1.30	1.20	1.18	1.06	0.12
Saudi Medium												
North America	0.64	0.56	0.64	0.66	0.42	0.45	0.40	0.44	0.34	0.44	0.69	-0.25
Europe	0.14	0.05	0.05	0.05	0.03	0.02	0.01	0.02	-	0.02	0.03	-0.02
Pacific	0.35	0.34	0.39	0.38	0.34	0.33	0.35	0.39	0.30	0.38	0.34	0.04
Saudi Heavy												
North America	0.21	0.09	0.07	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.23	-0.21
Europe	0.18	0.11	0.09	0.09	0.03	0.03	0.01	0.00	0.01	0.02	0.12	-0.10
Pacific	0.23	0.20	0.24	0.25	0.22	0.15	0.12	0.13	0.12	0.11	0.31	-0.20
Iraqi Basrah Light[2]												
North America	0.52	0.50	0.60	0.51	0.44	0.31	0.45	0.32	0.56	0.46	0.47	0.00
Europe	0.32	0.30	0.21	0.21	0.13	0.12	0.19	0.20	0.30	0.05	0.28	-0.23
Pacific	0.08	0.17	0.15	0.11	0.26	0.20	0.24	0.21	0.31	0.19	0.16	0.03
Iraqi Kirkuk												
North America	0.00	-	0.08	0.06	0.07	0.02	0.11	0.13	0.07	0.14	-	-
Europe	0.01	0.11	0.23	0.19	0.26	0.34	0.34	0.44	0.24	0.34	0.18	0.16
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Light												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.26	0.27	0.23	0.24	0.15	0.16	0.13	0.05	0.17	0.15	0.21	-0.06
Pacific	0.13	0.09	0.08	0.07	0.11	0.06	0.06	0.08	0.06	0.04	0.05	-0.01
Iranian Heavy[3]												
North America	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.58	0.56	0.49	0.43	0.33	0.41	0.47	0.51	0.48	0.40	0.65	-0.25
Pacific	0.56	0.64	0.61	0.64	0.65	0.51	0.57	0.56	0.57	0.58	0.66	-0.07
Venezuelan Light & Medium												
North America	0.66	0.76	0.62	0.50	0.51	0.63	0.33	0.42	0.40	0.16	0.56	-0.41
Europe	0.11	0.08	0.06	0.07	0.07	0.13	0.04	0.08	0.01	0.04	0.01	0.03
Pacific	-	0.01	-	-	-	-	-	-	-	-	-	-
Venezuelan 22 API and heavier												
North America	0.72	0.68	0.65	0.74	0.74	0.62	0.87	0.74	0.88	1.01	0.63	0.38
Europe	0.06	0.07	0.07	0.08	0.07	0.06	0.06	0.06	0.08	0.03	0.05	-0.03
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
North America	1.24	1.22	1.02	1.04	1.06	0.96	0.87	0.83	0.92	0.86	0.77	0.09
Europe	0.16	0.14	0.14	0.12	0.08	0.09	0.09	0.10	0.08	0.09	0.08	0.01
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Isthmus												
North America	0.04	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.01	-	0.00	-
Europe	0.01	0.02	0.01	0.02	0.01	-	0.02	0.03	0.03	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-
Russian Urals												
North America	0.09	0.06	0.05	-	0.09	0.27	0.17	0.20	0.12	0.18	0.02	0.16
Europe	1.68	1.86	1.81	1.67	1.58	1.76	1.72	1.86	1.60	1.70	1.49	0.20
Pacific	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Nigerian Light[4]												
North America	0.79	0.88	0.68	0.60	0.47	0.40	0.63	0.64	0.65	0.61	0.43	0.18
Europe	0.33	0.24	0.29	0.34	0.25	0.39	0.30	0.42	0.33	0.15	0.40	-0.25
Pacific	0.04	0.01	-	-	-	0.01	-	-	-	-	-	-
Nigerian Medium												
North America	0.17	0.23	0.27	0.22	0.14	0.30	0.19	0.28	0.13	0.18	0.14	0.03
Europe	0.10	0.07	0.14	0.14	0.12	0.12	0.12	0.09	0.07	0.20	0.13	0.07
Pacific	0.00	0.01	-	-	-	-	-	-	-	-	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.
IEA North America includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Hungary. The Slovak Republic and Poland is excluded through December 2007 but included thereafter.
IEA Pacific data includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33 API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
Regional OECD Imports[1,2]
(thousand barrels per day)

	2006	2007	2008	4Q08	1Q09	2Q09	3Q09	Jul-09	Aug-09	Sep-09	Year Earlier Sep-08	Year Earlier % change
Crude Oil												
North America	8194	8214	8046	7886	7743	7541	7313	7519	7078	7342	6639	11%
Europe	9784	9684	9781	9548	9001	9132	8797	8918	8574	8902	10163	-12%
Pacific	6816	6718	6605	6408	6559	5706	5960	5829	6065	5987	6165	-3%
Total OECD	24794	24615	24431	23843	23304	22379	22069	22266	21716	22231	23247	-4%
LPG												
North America	14	28	29	34	28	11	9	5	22	0	43	-100%
Europe	264	276	268	241	251	250	249	285	215	246	268	-8%
Pacific	578	557	589	543	504	518	566	501	544	654	522	25%
Total OECD	856	861	885	818	784	780	823	791	782	901	833	8%
Naphtha												
North America	71	40	55	82	40	19	18	29	16	8	71	-88%
Europe	314	265	260	270	319	232	282	227	295	325	230	42%
Pacific	754	794	776	689	746	814	907	927	927	866	943	-8%
Total OECD	1138	1099	1091	1040	1105	1066	1207	1183	1238	1200	1244	-4%
Gasoline[3]												
North America	1143	1128	1080	1038	996	889	854	947	829	785	1292	-39%
Europe	160	203	218	197	239	280	247	293	166	282	202	39%
Pacific	96	73	90	105	120	71	97	85	69	139	73	90%
Total OECD	1399	1404	1389	1339	1355	1239	1198	1325	1063	1206	1567	-23%
Jet & Kerosene												
North America	161	183	63	39	80	45	65	71	58	67	47	42%
Europe	374	370	402	468	454	462	449	454	377	517	365	42%
Pacific	69	43	34	33	79	49	37	42	36	32	27	16%
Total OECD	603	595	500	540	612	555	551	567	471	616	439	40%
Gasoil/Diesel												
North America	175	132	72	94	106	39	48	17	18	112	93	21%
Europe	967	780	880	1039	1224	963	969	1245	867	788	953	-17%
Pacific	77	91	119	117	81	81	73	94	45	82	118	-31%
Total OECD	1219	1003	1072	1249	1410	1083	1090	1356	930	981	1164	-16%
Heavy Fuel Oil												
North America	343	323	286	266	326	326	205	210	174	231	181	27%
Europe	476	433	448	462	474	567	643	799	561	567	427	33%
Pacific	91	95	125	94	144	128	103	99	116	94	132	-29%
Total OECD	910	851	859	821	943	1021	951	1109	852	891	740	20%
Other Products												
North America	1121	1050	1075	1117	935	896	899	923	786	991	1092	-9%
Europe	929	854	763	750	737	776	828	892	847	743	828	-10%
Pacific	243	254	298	316	279	324	337	375	296	339	273	24%
Total OECD	2294	2157	2137	2182	1951	1996	2064	2190	1929	2073	2193	-5%
Total Products												
North America	3028	2883	2660	2669	2509	2226	2098	2202	1903	2194	2818	-22%
Europe	3484	3180	3240	3427	3697	3530	3666	4195	3328	3468	3272	6%
Pacific	1908	1906	2032	1895	1952	1985	2120	2124	2033	2206	2090	6%
Total OECD	8420	7969	7932	7990	8159	7741	7884	8521	7264	7867	8180	-4%
Total Oil												
North America	11222	11097	10706	10555	10253	9767	9411	9721	8981	9536	9737	-2%
Europe	13268	12864	13020	12975	12698	12662	12463	13113	11902	12370	13435	-8%
Pacific	8724	8623	8637	8303	8512	7691	8080	7953	8097	8193	8255	-1%
Total OECD	33214	32584	32363	31834	31463	30120	29953	30786	28980	30098	31427	-4%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade
3 Includes additives

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Oil Market Report Contacts

Editorial Enquiries

Editor
Head, Oil Industry and Markets Division — David Fyfe
(+33) 0*1 40 57 65 90
e-mail: david.fyfe@iea.org

Demand — Eduardo Lopez
(+33) 0*1 40 57 65 93
e-mail: eduardo.lopez@iea.org

Non-OPEC Supply — Julius Walker
(+33) 0*1 40 57 65 22
e-mail: julius.walker@iea.org

Refining — David Martin
(+33) 0*1 40 57 65 95
e-mail: david.martin@iea.org
Ricardo Crespo
(+33) 0*1 40 57 65 97
e-mail: ricardo.crespo@iea.org

OECD Stocks/Biofuels — Michael Waldron
(+33) 0*1 40 57 66 18
e-mail: michael.waldron@iea.org

OPEC Supply/Prices — Diane Munro
(+33) 0*1 40 57 65 94
e-mail: diane.munro@iea.org

Freight — Ellen Dalland
(+33) 0*1 40 57 67 63
e-mail: ellen.dalland@iea.org

Statistics/Trade — Martina Repikova
(+33) 0*1 40 57 67 16
e-mail: martina.repikova@iea.org

Editorial Assistant — Anne Mayne
(+33) 0*1 40 57 65 96
e-mail: anne.mayne@iea.org

Fax: *(+33) 0*1 40 57 65 99*
*0 - only within France

Media Enquiries

IEA Press Office — (+33) 0* 1 40 57 65 54
e-mail: ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions
International Energy Agency
BP 586-75726 PARIS Cedex 15, France
e-mail: **OMRSubscriptions@iea.org**

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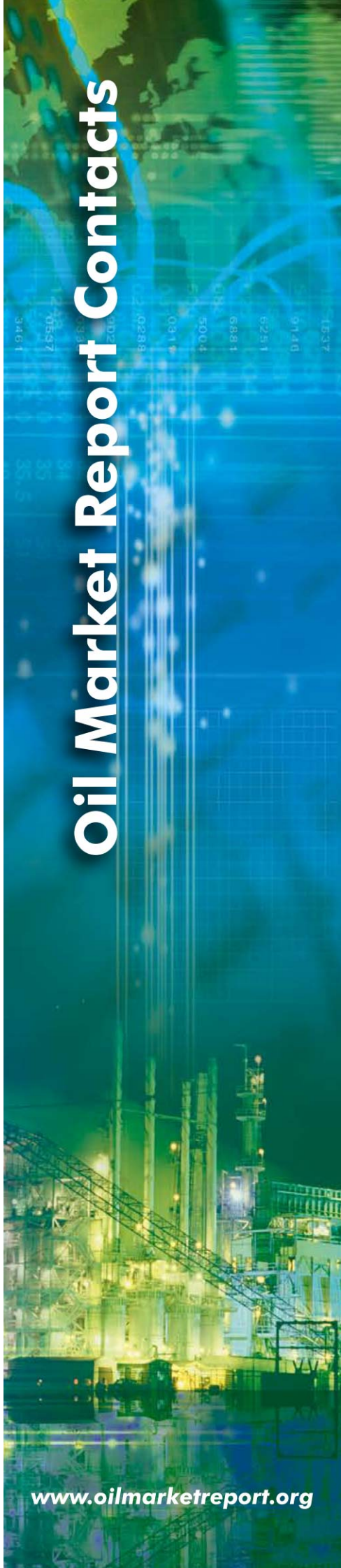

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