7 November 1997

HIGHLIGHTS

- Oil market fundamentals appear to have continued to loosen in October, but the high level of tension between Iraq and the UN kept prices relatively firm. The fourth quarter began with evidence of a solid 0.7 mb/d increase in non-OPEC supply in October, led by the North Sea and continued high levels of OPEC supply. For the 4Q97/1Q98 heating season, continued supply growth is expected with only a limited stockdraw necessary to meet projected demand.

- The "call on OPEC crude plus stock change" for 3Q97 has been revised upwards by 0.4 mb/d to 26.2 mb/d as the result of upward revisions to demand for a number of areas, totalling 0.5 mb/d. The 4Q97 "call" is also now slightly higher at 27.2 mb/d than the previous estimate, and is expected to remain just below that level in 1Q98.

- October average crude oil prices increased in the Atlantic Basin in response to increased tensions in the Middle East which raised concerns about the future of Iraqi crude exports, despite the an obvious oversupply in North Sea and West African markets. Firm crude demand in the US, the Mediterranean and in Asia supported prices of regional crude grades.

- Product markets remained weak, trapped in the slack period between the summer gasoline season and the forthcoming winter heating season. Distillate prices suffered from muted demand and high inventory levels. Conversely, Atlantic Basin fuel oil markets strengthened, as surging US natural gas prices led to strong fuel oil demand from US utilities. Average refining margins in October declined in all major refining centres, as generally weak product prices lagged the rise in crude prices.

- In September, aggregate crude throughputs in OECD countries averaged 34.7 mb/d, the highest September level of the decade and an impressive 1.3 mb/d or 4% higher than a year earlier. US crude throughputs again set a record by topping 15.3 mb/d. European refinery utilisation rates decreased from 96.3% in August to 94.4% in September, but these levels still cast doubt on the widely-held perception of refining overcapacity in Northwest Europe.

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THERE'S MORE TO THE OIL MARKET THAN JUST IRAQ

World interest has focused on the oil market implications of the recent standoff between Iraq and the United Nations. Such interest is perfectly understandable, but the potential risk of lost Iraqi exports needs to be understood in a wider supply/demand context. Both supply and demand are expected to rise over the next six months, but net effect on the direction of inventory changes will depend on a complex network of factors. The Iraqi situation is just one such factor.

Among the key elements affecting oil inventories in the coming quarter will be the winter heating season in the Northern Hemisphere, which annually generates a seasonal peak in world oil demand. (Only a few large oil-consuming countries – Argentina, South Africa, Australia – lie south of the Tropic of Capricorn). Each winter, consumers typically draw down inventories built during the summer. At the same time, though, output from oil fields rises in autumn and winter, when wells closed for maintenance during the summer kick in again. The question of seasonal supply/demand were discussed in Reports dated 8 October 1996 and 8 November 1996. This note concentrates on the coming heating season, its impact on demand and the likelihood that increased demand may be met by rises in non-OPEC supply, especially from the North Sea.

"Winter" Oil Supply/Demand Outlook
(million barrels per day)

	Fourth Quarter 1997				First Quarter 1998			
	Level	Quarterly Change	Annual Change	*Annual %-Change*	Level	Quarterly Change	Annual Change	*Annual %-Change*
World Demand	**75.71**	**+2.25**	**+2.45**	***3.3%***	**76.03**	**+0.32**	**+2.35**	***3.2%***
OECD	43.05	+1.25	+0.64	*1.5%*	42.84	-0.21	+0.81	*1.9%*
Non-OECD	32.66	+1.00	+1.81	*5.9%*	33.19	+0.53	+1.54	*4.9%*
Non-OPEC Supply	**45.63**	**+1.19**	**+1.36**	***3.0%***	**46.07**	**+0.44**	**+1.77**	***4.0%***
OECD	19.30	+0.88	+0.44	*2.2%*	19.47	+0.17	+0.75	*4.0%*
Non-OECD	24.73	+0.26	+0.87	*3.7%*	24.95	+0.22	+0.93	*3.9%*
Processing Gains	1.60	+0.05	+0.05	*3.5%*	1.64	+0.04	+0.08	*4.4%*
OPEC NGLs	2.86	+0.03	+0.19	*7.2%*	2.88	+0.01	+0.15	*5.7%*
Call on OPEC Crude + Stk. Chg.	**27.22**	**+1.03**	**+0.90**	***3.4%***	**27.08**	**-0.15**	**+0.42**	***1.6%***

Non-OPEC sources are expected to meet half of the 2.6 mb/d of incremental demand during the heating season. (There will be a small additional contribution from natural gas liquids produced by OPEC). The rest is likely to be picked up from daily OPEC oil production. During the second and third quarters, OPEC production went into inventories or displaced non-OPEC oil going into inventory. In the fourth quarter, the "call on OPEC crude plus stock changes" will roughly equal OPEC crude production for this year's third quarter, despite the absence of Iraqi exports for half that period. If Iraqi exports do remain on the market for most of the current quarter, and if production by other OPEC countries matches that of the last quarter, there would be no need for an inventory drawdown before the New Year. Of course, the picture could change if there are significant disruptions in supply, delays in new field start-ups or very cold weather. Theoretically, the absence of Iraqi exports in the second half of the quarter would require an estimated half-a-million barrels a day to be drawn from inventories – well below normal drawdowns in the fourth quarter.

"Winter" Oil Demand Outlook
(million barrels per day)

	Fourth Quarter 1997				First Quarter 1998			
	Level	Quarterly Change	Annual Change	*Annual %-Change*	Level	Quarterly Change	Annual Change	*Annual %-Change*
Non-OECD Asia[1]	13.46	+0.80	+0.82	*6.5%*	13.90	+0.45	+0.68	*5.2%*
OECD Asia	7.10	+0.74	+0.15	*2.2%*	7.43	+0.33	+0.11	*1.5%*
OECD Europe	14.97	+0.52	+0.29	*2.0%*	14.55	-0.43	+0.24	*1.7%*
Other Non-OECD[2]	14.56	+0.07	+0.56	*4.0%*	14.67	+0.11	+0.55	*3.9%*
FSU	4.64	+0.12	+0.43	*10.3%*	4.61	-0.03	+0.30	*7.0%*
OECD North America	20.98	-0.01	+0.19	*0.9%*	20.87	-0.11	+0.46	*2.2%*
Total	**75.71**	**+2.25**	**+2.45**	***3.3%***	**76.03**	**+0.32**	**+2.35**	***3.2%***

1 including China
2 Latin America, Africa, Other Middle East and Africa

The regional demand pattern shown in the table on the previous page reflects two primary factors: underlying strong demand growth in developing countries, especially Asia; and an (arbitrary) assumption of normal weather in consuming regions. Both of these assumptions may turn out to be invalid, the first due to recent economic difficulties in Southeast and East Asian countries and the second because of Pacific Ocean El Nino weather phenomenon. The largest growth rates are projected for the FSU, related primarily to very mild weather last winter, but Russian demand could also turn out lower than anticipated because of the unsettled business environment.

Fourth Quarter 1997 Non-OPEC Supply Growth
(thousand barrels per day)

	OECD			Non-OECD	
	Level	*Change*		Level	*Change*
North Sea	6683	*+695*	Latin America	7139	*+200*
US	8697	*+91*	Africa	2929	*+80*
Canada	2619	*+78*	Asia	5377	*+79*
Onshore Europe	521	*+36*	FSU	7170	*-106*
Pacific (excl. Austral.)	92	*+3*	Middle East	1898	*+7*
Australia	682	*-18*	Central & East Europe	*220*	*-2*
Total	**19294**	***+885***	**Total**	**24733**	***+258***

The chief source of winter supply growth is clearly the North Sea. A substantial gain is also expected for Latin America. Moderate quarterly increases of 75-100 kb/d each in the US, Africa, Asia and Canada more than offset a projected decline of just over 100 kb/d in the FSU. New fields, the end of summer maintenance and repairs to several problem fields account for most of the 695 kb/d rise in North Sea production. Seventeen new fields have started up in the area in the last three months and another five are scheduled for start-up before next spring. Several of these fields have peak capacities in excess of 50 kb/d, including the Norwegian Norne field being is expected to produce 150-200 kb/d and the UK Foinaven field, 90-110 kb/d at their peaks.

A dozen or so new UK fields add about 170 kb/d to 4Q97 production and nearly 260 kb/d more to 1Q98. A smaller number of new Norwegian fields account for 40 kb/d and 165 kb/d quarterly increments in 4Q97 and 1Q98 respectively. As discussed in the Supply section, the UK Kingfisher, West Brae-Sedgewick, Armada, Mallard and Curlew fields and Norway's Njord field have all come onstream in the space of a few weeks. These follow start-ups of MacCulloch, Gannet E&F, Katrine and Dauntless-Durward in the third quarter. The next major event is the Norne field start-up in November, which was delayed by an oil workers strike. The Foinaven field could be brought onstream very soon but also could slide well into next year, depending on weather in the Atlantic Margin area. A late March/early April start-up is currently assumed.

Another estimated 230 kb/d of 4Q97 North Sea supply growth is expected to come from repairs to fields where equipment problems, platform redesign or other difficulties have temporarily limited production. Gas pipeline problems at the Douglas and Lennox fields off the Welsh coast appear to have been resolved. Gas compressor problems at Norway's Vigdis and Snorre fields should be over soon. Similarly, the shake-out of start-up difficulties for the production vessel on the Captain heavy oil field may finally be over. After three years of extended platform reconfiguration work, the Brent complex will have all four platforms working together in 4Q97, adding at least 30 kb/d to the 4Q97 total.

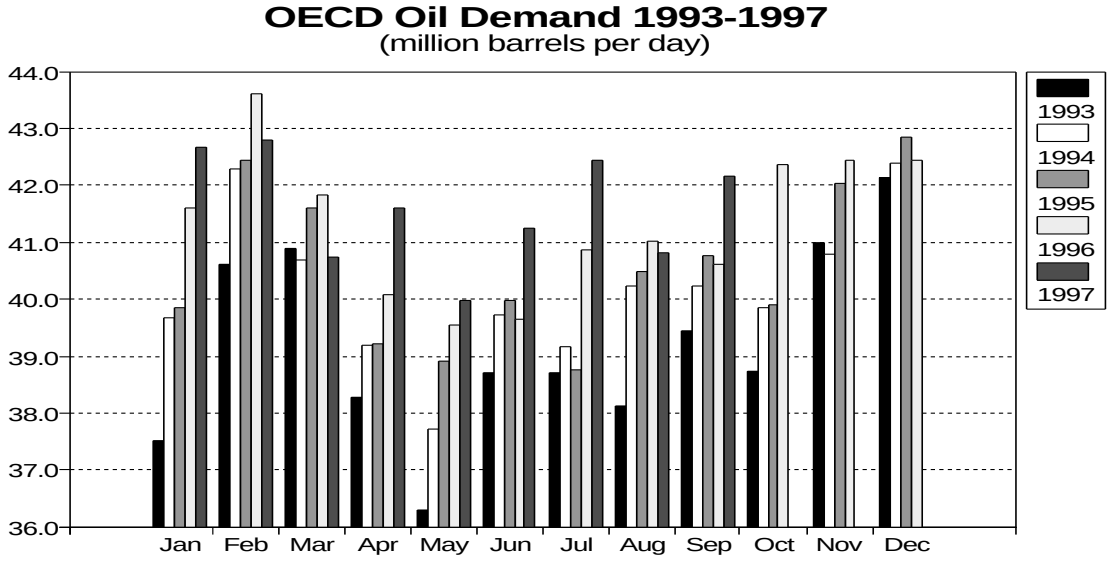
Most of the remainder of the 355 kb/d Norwegian and 315 kb/d UK 4Q97 increases are the result of the return of many fields from summer maintenance. The larger Norwegian increment results from Norway's concentration of maintenance in 3Q97, particularly August. The practice in the UK sector is to do more maintenance in the second quarter. The remaining 25 kb/d of the 695 kb/d 4Q97 North Sea increment reflects Danish maintenance effects. Typically there is little or no scheduled maintenance in the fourth quarter in any of the North Sea sectors.

The critical question is whether the delays and difficulties that have plagued North Sea production over the last two years are going to continue over the winter, resulting in lower non-OPEC supplies and tighter markets. The proliferation of new field start-ups in the last few weeks is a positive sign, as is the favourable recent performance of most of the problem fields. But uncertainties remain, albeit uncertainties of a much less newsworthy variety than the headlines about Iraq.

DEMAND

Summary

- **September** oil deliveries in the G7 countries increased by a combined 1.32 mb/d or 4.1%. US oil deliveries were 5.8% higher, led by a 430 kb/d increase in gasoline deliveries, but with demand increasing for all other major products except residual fuel oil. Conversely, demand increased by only 0.9% in the four largest European oil-consuming countries, as a 5.0% increase in Italy primarily due to an upturn in fuel oil deliveries to the power generation sector was dampened by lower heating oil deliveries and residual fuel oil substitution, despite an additional working day. Japanese oil deliveries increased by 3.2%, as robust transport and petrochemical demand more than compensated for weak deliveries to the power generation sector.
- With the strong G7 demand in September, **3Q97** global demand is estimated to have increased by 2.6 mb/d to 73.5 mb/d. This represents a 0.5 mb/d upward revision from last month's Report, reflecting significant upward adjustments to apparent demand in the FSU and China combining with the greater-than-anticipated demand in the US and Japan in September. Netting off oil trade against production, Chinese apparent demand increased by 16.5% and 25.1% in July and August, far greater than the perceived underlying consumption and indicative of marked stockbuilding. Reversal of this stockbuilding could lead to weaker apparent demand growth in the coming months.
- Global demand in **4Q97** is projected to increase by 2.5 mb/d to 75.7 mb/d, consistent with assumed normal weather in the Northern Hemisphere, compared with milder-than-normal weather in 4Q96. Adjustments to Middle Eastern and Other Asian demand have contributed to downward revisions to global demand in other quarters of the year, but due to upward revisions to the FSU, Latin America and Africa, the net effect is an 0.1 mb/d upward adjustment to **1997** demand, to 73.8 mb/d, an annual increase of 2.8% or 2.0 mb/d.
- Global demand in **1998** is projected to increase by slightly less than in 1997, despite a similar a 0.1 mb/d upward revision from last month's Report. This reflects an upward adjustment to 1Q98 FSU apparent demand to account more accurately for the impact on oil demand growth of assumed normal weather, and upward adjustments to the projection of US and Chinese demand growth. These adjustments have more than offset minor downward revisions to anticipated demand in some countries of Other Asia, reflecting a preliminary assessment of the impact on oil demand of economic difficulties in the region.



Summary of Global Oil Demand

	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98	3Q98	4Q98	1998
Demand (mb/d)																
North America	19.79	20.40	19.94	20.17	20.78	20.32	20.41	20.64	20.98	20.98	20.75	20.87	20.73	21.08	21.29	20.99
Europe	14.09	14.54	13.66	14.39	14.68	14.32	14.30	14.18	14.45	14.97	14.48	14.55	14.11	14.65	15.16	14.62
Pacific	6.67	7.38	6.16	6.27	6.95	6.69	7.32	6.11	6.37	7.10	6.72	7.43	6.23	6.45	7.21	6.83
Total OECD	40.55	42.32	39.76	40.83	42.41	41.33	42.04	40.93	41.80	43.05	41.96	42.84	41.07	42.18	43.66	42.44
FSU	4.76	4.65	4.20	4.30	4.21	4.34	4.31	4.36	4.52	4.64	4.46	4.61	4.49	4.29	4.71	4.53
Europe	1.16	1.33	1.23	1.13	1.23	1.23	1.39	1.29	1.19	1.29	1.29	1.44	1.33	1.23	1.33	1.33
China	3.33	3.55	3.67	3.48	3.66	3.59	3.96	3.81	4.01	3.95	3.93	4.08	4.15	4.25	4.27	4.19
Other Asia	7.94	8.75	8.34	8.14	8.99	8.55	9.26	8.78	8.65	9.51	9.05	9.82	9.35	9.16	10.15	9.62
Latin America	6.04	6.21	6.28	6.42	6.40	6.33	6.38	6.56	6.70	6.65	6.58	6.67	6.79	6.94	6.89	6.83
Middle East	4.09	4.04	4.17	4.31	4.06	4.15	4.05	4.16	4.33	4.25	4.20	4.21	4.25	4.46	4.37	4.32
Africa	2.19	2.18	2.27	2.21	2.31	2.24	2.29	2.31	2.26	2.37	2.31	2.35	2.38	2.33	2.44	2.37
Total Non-OECD	29.50	30.70	30.15	29.99	30.85	30.42	31.65	31.27	31.66	32.66	31.81	33.19	32.75	32.65	34.15	33.18
World	70.06	73.02	69.91	70.82	73.26	71.75	73.69	72.20	73.46	75.71	73.77	76.03	73.82	74.83	77.80	75.62
Annual Change (% per annum)																
North America	0.2%	3.6%	2.2%	1.6%	3.3%	2.7%	0.0%	3.5%	4.0%	0.9%	2.1%	2.2%	0.4%	0.5%	1.5%	1.1%
Europe	2.2%	2.0%	-0.4%	3.8%	1.0%	1.6%	-1.6%	3.8%	0.5%	2.0%	1.1%	1.7%	-0.5%	1.3%	1.2%	1.0%
Pacific	1.0%	1.1%	0.3%	-0.4%	0.2%	0.3%	-0.8%	-0.9%	1.5%	2.2%	0.5%	1.5%	2.0%	1.3%	1.5%	1.6%
Total OECD	1.0%	2.6%	1.0%	2.1%	2.0%	1.9%	-0.7%	2.9%	2.4%	1.5%	1.5%	1.9%	0.3%	0.9%	1.4%	1.1%
FSU	-2.1%	-9.0%	-6.0%	-5.6%	-14.1%	-8.8%	-7.3%	3.7%	5.2%	10.3%	2.8%	7.0%	3.0%	-5.0%	1.5%	1.5%
Europe	2.1%	6.2%	5.9%	5.2%	5.2%	5.7%	4.8%	4.8%	4.8%	4.8%	4.8%	3.2%	3.2%	3.2%	3.2%	3.2%
China	8.7%	14.9%	10.7%	0.6%	6.4%	7.9%	11.6%	3.9%	15.0%	8.0%	9.6%	3.0%	9.0%	6.0%	8.0%	6.5%
Other Asia	8.8%	8.0%	6.5%	8.2%	8.2%	7.7%	5.8%	5.3%	6.3%	5.8%	5.8%	6.1%	6.5%	5.9%	6.7%	6.3%
Latin America	0.9%	1.5%	5.4%	6.3%	5.8%	4.7%	2.8%	4.6%	4.4%	4.0%	4.0%	4.6%	3.5%	3.6%	3.5%	3.8%
Middle East	1.5%	1.7%	2.3%	1.9%	0.1%	1.5%	0.4%	-0.3%	0.5%	4.6%	1.3%	3.7%	2.3%	2.9%	2.8%	2.9%
Africa	4.2%	-1.9%	6.5%	2.1%	2.8%	2.3%	5.2%	1.9%	2.4%	2.8%	3.0%	2.7%	2.7%	2.7%	2.8%	2.7%
Total Non-OECD	3.6%	2.8%	4.2%	3.2%	2.3%	3.1%	3.1%	3.7%	5.6%	5.9%	4.6%	4.9%	4.7%	3.1%	4.6%	4.3%
World	2.1%	2.7%	2.3%	2.6%	2.1%	2.4%	0.9%	3.3%	3.7%	3.3%	2.8%	3.2%	2.2%	1.9%	2.8%	2.5%
Annual Change (mb/d)																
North America	0.04	0.71	0.43	0.33	0.67	0.53	0.01	0.70	0.81	0.19	0.43	0.46	0.09	0.10	0.32	0.24
Europe	0.30	0.28	-0.06	0.52	0.14	0.22	-0.24	0.52	0.07	0.29	0.16	0.24	-0.07	0.19	0.18	0.14
Pacific	0.07	0.08	0.02	-0.03	0.01	0.02	-0.06	-0.05	0.10	0.15	0.03	0.11	0.12	0.08	0.11	0.11
Total OECD	0.41	1.07	0.39	0.82	0.82	0.78	-0.28	1.17	0.97	0.64	0.63	0.81	0.14	0.38	0.61	0.48
FSU	-0.10	-0.46	-0.27	-0.25	-0.69	-0.42	-0.34	0.16	0.22	0.43	0.12	0.30	0.13	-0.23	0.07	0.07
Europe	0.02	0.08	0.07	0.06	0.06	0.07	0.06	0.06	0.05	0.06	0.06	0.04	0.04	0.04	0.04	0.04
China	0.27	0.46	0.36	0.02	0.22	0.26	0.41	0.14	0.52	0.29	0.34	0.12	0.34	0.24	0.32	0.26
Other Asia	0.64	0.64	0.51	0.61	0.68	0.61	0.51	0.44	0.51	0.52	0.50	0.57	0.57	0.51	0.64	0.57
Latin America	0.05	0.09	0.32	0.38	0.35	0.29	0.17	0.29	0.29	0.25	0.25	0.29	0.23	0.24	0.23	0.25
Middle East	0.06	0.07	0.09	0.08	0.00	0.06	0.02	-0.01	0.02	0.19	0.05	0.15	0.10	0.13	0.12	0.12
Africa	0.09	-0.04	0.14	0.04	0.06	0.05	0.11	0.04	0.05	0.06	0.07	0.06	0.06	0.06	0.07	0.06
Total Non-OECD	1.03	0.84	1.21	0.94	0.68	0.92	0.95	1.12	1.67	1.81	1.39	1.54	1.47	0.99	1.49	1.37
World	1.44	1.91	1.60	1.76	1.51	1.70	0.66	2.29	2.64	2.45	2.01	2.35	1.62	1.37	2.09	1.85
Changes from Last Month's Report																
North America	-	-	-	-	-	-	-	0.02	0.04	-	0.01	0.17	0.11	0.10	-	0.09
Europe	-	-	-	-	-	-	-	0.03	0.06	-	0.02	-	0.03	0.04	-	0.02
Pacific	-	-	-	-	-	-	-	-	0.04	-	0.01	-	-	0.03	-	0.01
Total OECD	-	-	-	-	-	-	-	0.05	0.14	-	0.05	0.17	0.15	0.17	-	0.12
FSU	-	-	-	-	-	-	-	-	0.15	0.09	0.06	0.23	0.06	-0.15	0.08	0.06
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	0.17	-	0.04	-	0.08	0.18	0.08	0.09
Other Asia	-	0.05	-	-0.02	0.04	0.02	0.02	-0.04	-0.06	-0.10	-0.04	0.02	-0.14	-0.14	-0.14	-0.10
Latin America	-	-	0.04	0.01	0.04	0.02	0.01	-0.02	0.06	0.05	0.03	0.01	-0.02	0.07	0.05	0.03
Middle East	-	-0.06	0.09	0.05	-0.21	-0.03	-0.15	-0.02	-0.04	-0.13	-0.09	-0.10	-0.02	-0.02	-0.12	-0.07
Africa	-	-0.10	-0.01	0.03	0.02	-0.01	-0.05	-0.03	0.03	0.02	-0.01	-0.05	-0.03	0.03	0.02	-0.01
Total Non-OECD	-	-0.12	0.12	0.08	-0.11	-0.01	-0.17	-0.11	0.32	-0.07	-0.01	0.11	-0.07	-0.03	-0.02	-
World	-	-0.12	0.12	0.07	-0.11	-0.01	-0.17	-0.05	0.45	-0.07	0.04	0.28	0.07	0.15	-0.02	0.12

Global Oil Demand

Global demand in 3Q97 is estimated to have increased by 2.6 mb/d or 3.7%, to 73.5 mb/d. This represents a 0.5 mb/d upward revision from last month's Report, reflecting significant upward adjustments to apparent demand in the FSU and China and smaller revisions to OECD demand, consistent with greater-than-anticipated demand in the US and Japan in September. Global demand in 4Q97 is projected to increased by 2.5 mb/d or 3.3% to 75.7 mb/d, consistent with an expectation of normal weather in the northern hemisphere compared with milder-than-normal weather in 4Q96. Adjustments to Middle Eastern and Other Asian demand have contributed to downward revisions to global demand in other quarters of the year but the net effect is an 0.1 mb/d upward adjustment to 1997 demand, to 73.8 mb/d, representing an annual increase of 2.0 mb/d or 2.8%.

Global demand in 1998 is projected to increase by slightly less than in 1997, to 75.6 mb/d, also representing a 0.1 mb/d upward revision from last month's Report. This reflects the combination of a higher base in 1997, an upward adjustment to 1Q98 FSU apparent demand to primarily reflect more accurately the impact on oil demand growth of a return to normal weather, and upward adjustments to the projection of US and Chinese demand growth. These adjustments have more than offset minor downward revisions to anticipated demand in some countries of Other Asia, the latter reflecting the impact on oil demand of currency devaluation.

Global Demand in 1997 and 1998

	Demand	Annual Change		Changes from last month's Report
	(mb/d)	(%)	(mb/d)	(mb/d)
1Q97	73.7[r]	0.9%	0.7	-0.2
2Q97	72.2[r]	3.3%	2.3	-0.1
3Q97	73.5[r]	3.7%	2.6	0.5
4Q97	75.7[r]	3.3%	2.5	-0.1
1997	73.8[r]	2.8%	2.0	0.1
1Q98	76.0[r]	3.2%	2.3	0.2
2Q98	73.8[r]	2.2%	1.6	0.1
3Q98	74.8[r]	1.9%	1.4	0.1
4Q98	77.8	2.8%	2.1	-
1998	75.6[r]	2.5%	1.9	0.1

* year-on-year change (mb/d)
r revised since last Report

OECD[1]

Demand in September in the G7 Countries

Inland deliveries of oil products increased by a combined 1.32 mb/d or 4.1% in September in the seven largest oil-consuming countries of the OECD. This compares with a 478 kb/d or 1.4% increase in the twelve-month moving average. Among the G7 countries, US deliveries increased by the greatest amount in both absolute and percentage terms, primarily due to a significant increase in gasoline deliveries. In

Preliminary Inland Deliveries - September 1997[1]

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other [2]		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
USA[3]	8.09	+5.6	1.61	+0.1	2.23	+1.7	1.04	+6.4	0.70	-2.9	5.01	+11.5	18.68	+5.8
Canada	0.63	+5.7	0.11	+3.6	0.42	+13.4	0.06	0.0	0.10	+11.6	0.23	-14.5	1.56	+3.8
Japan	0.96	+5.6	0.36	+6.0	0.80	+1.4	0.44	+4.0	0.63	-2.2	1.80	+3.9	4.97	+3.2
France	0.35	+2.9	0.12	+3.9	0.54	+8.2	0.31	-13.2	0.07	+14.0	0.49	-4.9	1.87	-0.4
Germany	0.71	+0.1	0.15	+6.3	0.58	-2.7	0.88	-1.2	0.10	-10.7	0.56	+14.9	2.97	+1.5
Italy	0.43	+5.5	0.07	+3.4	0.36	+14.9	0.12	-20.6	0.50	+12.4	0.40	-1.3	1.88	+5.0
UK	0.51	-0.6	0.27	+5.4	0.32	+7.4	0.16	-2.8	0.05	-61.1	0.32	-1.0	1.63	-2.9
European Four	2.00	+1.5	0.61	+5.1	1.80	+5.5	1.46	-5.9	0.71	-3.0	1.76	+2.3	8.35	+0.9
Total	11.68	+4.9	2.69	+2.1	5.25	+3.8	3.00	-0.4	2.13	-2.2	8.81	+7.1	33.56	+4.1

Sources: US EIA, Japan MITI, France CPDP, Germany MWV, UK PIA, Italy Ministry of Industry, Statistics Canada
1 excludes refinery fuel and bunkers (except US)
2 includes direct use of crude oil
3 fifty states only. Diesel is estimated from preliminary indications of low sulphur gasoil deliveries
Percentage change is calculated versus September 1996

1 excluding some Member countries, see note on back cover

Japan, weak deliveries of crude and residual fuel oil to the power generation sector dampened somewhat strong demand growth for most other products. In the four largest oil-consuming countries in Europe combined, aggregate demand increased moderately, with strong Italian deliveries, primarily caused by increased purchases of residual fuel oil by ENEL, somewhat offset by weak UK deliveries. As mentioned in recent Reports, the marked year-on-year decline in fuel oil deliveries followed the cessation in March 1997 of Venezuelan *Orimulsion* deliveries, which were classified as fuel oil, to UK electric utilities. German and French deliveries were affected by the difference in the timing of this year's heating oil purchases ahead of the heating season, with deliveries of heating oil this September declining in both countries. G7 countries' deliveries increased for all products except heating oil and residual fuel oil with "other products" increasing by the greatest proportion, mainly reflecting an 11.5% increase in US deliveries.

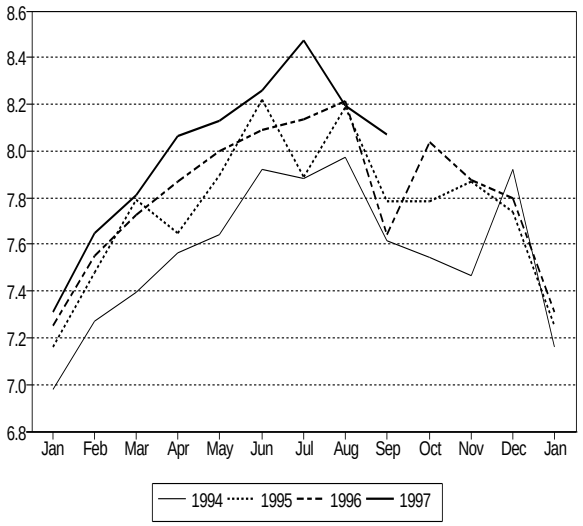
Moving Annual Average Change in Oil Demand
(12-Month Moving Average to September 97)

	LPG	Naphtha	Gasoline	Jet/Kero	Diesel	Other Gasoil	RFO	Other	Total	kb/d
US	1.0%	24.6%	1.9%	2.4%	3.2%	2.2%	-6.9%	6.7%	2.5%	447
Canada	2.2%	4.0%	2.2%	7.5%	0.4%	7.0%	9.7%	5.0%	4.0%	75
Japan	0.4%	5.7%	3.2%	-2.7%	0.4%	-1.0%	-4.5%	-2.6%	0.0%	0
France	2.4%	-5.2%	-2.9%	3.0%	3.8%	0.1%	-3.4%	-4.2%	-0.4%	-9
Germany	-10.3%	11.3%	-0.0%	6.1%	1.5%	0.1%	-10.8%	2.7%	0.9%	25
Italy	-4.8%	-2.7%	1.5%	-1.3%	-9.1%	13.0%	-9.8%	6.9%	-3.1%	-61
UK	1.7%	-8.8%	1.5%	5.2%	5.1%	1.3%	-21.5%	0.7%	-0.0%	-0
European Four	*-2.2%*	*2.6%*	*0.2%*	*4.1%*	*0.6%*	*1.6%*	*-10.8%*	*0.7%*	*-0.5%*	*-44*
Total	0.5%	6.8%	1.7%	1.6%	1.8%	1.9%	-7.0%	3.9%	1.4%	478
kb/d	17	118	196	49	80	68	-200	149	478	

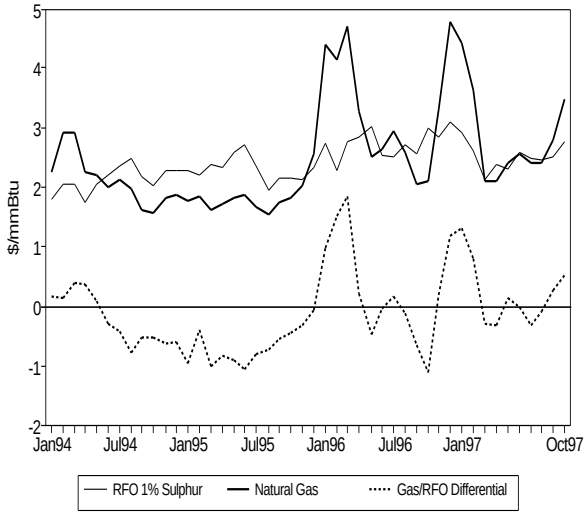
On a twelve-month moving average basis, oil deliveries in the G7 countries increased by 1.4% or 478 kb/d up to September, with demand increasing for all products except residual fuel oil. Gasoline deliveries increased by the greatest amount, mainly due to strong North American and Japanese demand, but percentage growth was highest for naphtha deliveries, consistent with a strong upturn in petrochemical feedstock demand this year in the United States. Residual fuel oil deliveries have decreased in all G7 countries, except Canada. Increased fuel oil use in the Canadian power generation sector to compensate for nuclear outages has contributed significantly to overall strong Canadian demand growth. In Europe, deliveries have been weak, primarily due to lower fuel oil deliveries. The bar charts on the opposite page illustrate particularly strong US growth during this summer while during the same period, Japanese demand has been dampened by declines in deliveries to the power generation sector.

Following comparatively weak growth in August, **US** deliveries increased strongly in September, largely due to a rebound in gasoline deliveries which is quite likely to have been far greater than changes in underlying consumption, due to a combination of working day effects this September and a delay to

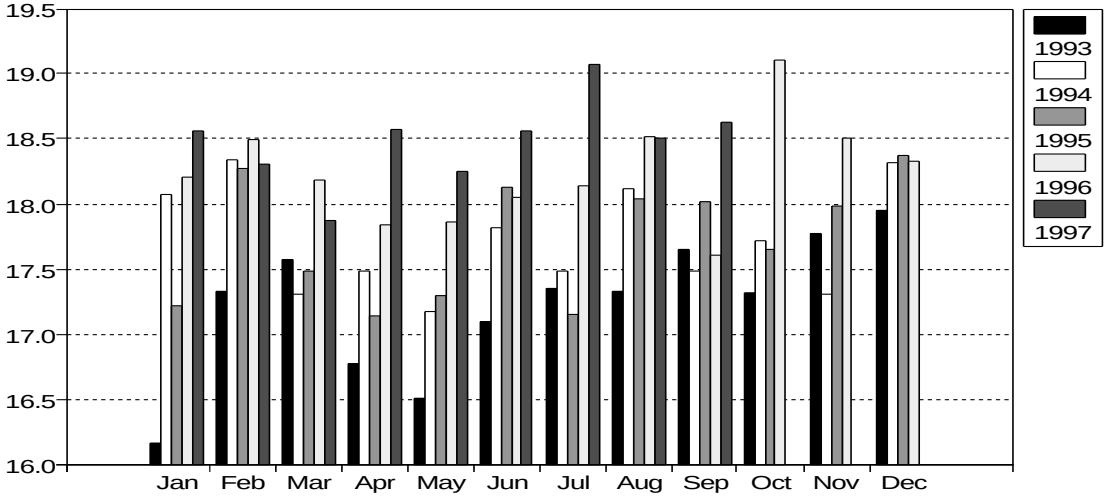
US Gasoline Demand
(million barrels per day)



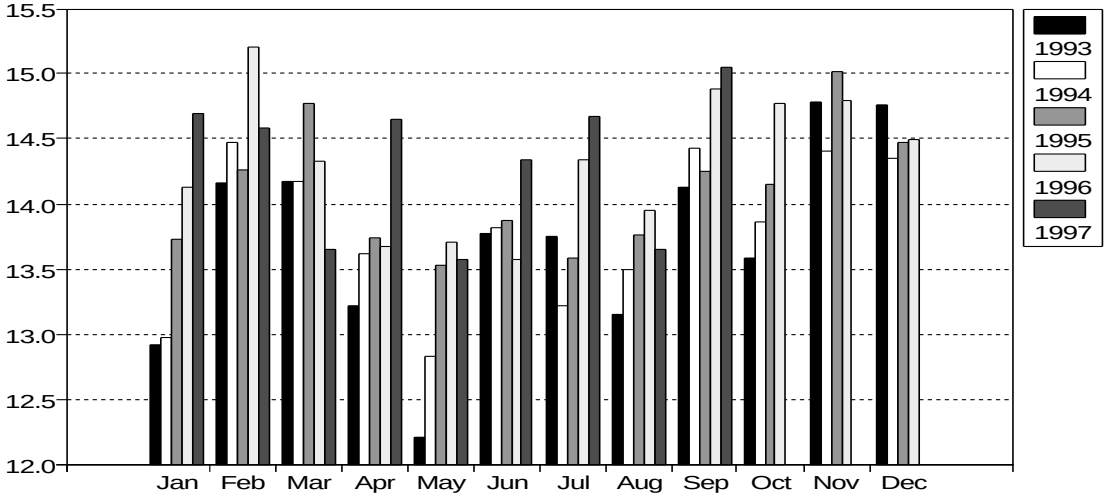
New York RFO & Gas Prices
January 1994 - October 1997



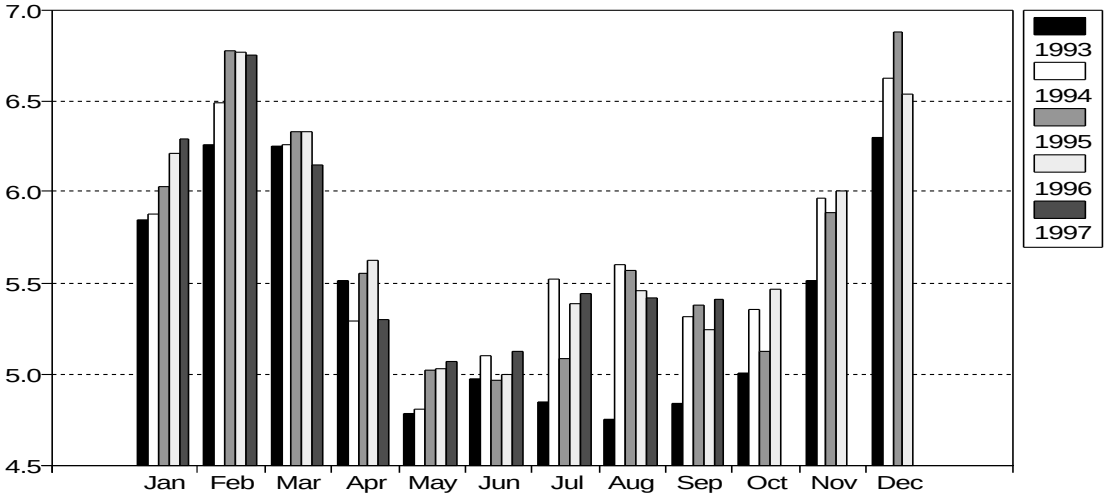
US Oil Demand 1993-1997
(million barrels per day)



European Oil Demand 1993-1997
(million barrels per day)



Japanese Oil Demand 1993-1997
(million barrels per day)



purchases by wholesalers in August in response to a steep price backwardation. With an easing of wholesale prices in September, additional purchases occurred. Retail prices also declined from recent levels, although they remained some 2.9% higher than a year earlier (see table of page 11). The strength in gasoline deliveries may also be due to a change from last year's pattern of stocking of winter grade gasoline. The growth in gasoil deliveries in part reflects continuing strong road transport demand, consistent with increased manufacturing output. Although the US experienced marginally cooler weather, it is not thought to have significantly affected heating oil consumption. Deliveries are more likely to have been affected by the timing of purchases by wholesalers, reflecting perceptions of future prices. Surprisingly, jet/kerosene deliveries were below trend, inconsistent with indications of continuing strong domestic air travel demand, possibly due to lower purchases of kerosene jet fuel by the military.

Deliveries of residual fuel oil declined by less than the trend, reflecting fuel switching to coal and possibly natural gas in the power generation sector. The decline occurred despite fuel oil in New York being at a $0.28/mmBtu discount to natural gas compared with a $0.65/mmBtu premium in September 1996. While the volatility in this differential affects fuel switching at the margin, fuel oil use continues to decline due to the persistence in low cost alternative fuels, particularly coal. Deliveries of "other products" increased significantly, reflecting strong petrochemical feedstock demand and weak growth a year earlier. The table at the right highlights the difference between preliminary US demand growth rates derived from the DOE/EIA's Weekly Petroleum Status Report and data provided by the American Petroleum Institute. The two organisations' estimates of total US demand for September diverged again, most notably for "other products". The API recorded only a 1.6% increase in deliveries, leading to a divergence of 350 kb/d in the estimates of "other products" deliveries between the two sources. The two organisations were in agreement as to the direction of demand changes for all product categories, with very similar estimates of gasoline demand growth. However, the API estimated stronger jet/kerosene demand growth and a smaller decline in fuel oil deliveries than the EIA.

Comparison Between Estimates of Annual US Oil Demand Growth in September 1997

	EIA	API	EIA-API kb/d
Gasoline	5.6%	5.5%	7
Jet/Kerosene	0.1%	1.8%	-27
Diesel	na	2.0%	na
Other Gasoil	na	7.4%	na
Total Gasoil	3.2%	3.6%	-15
Residual Fuel Oil	-2.9%	-0.1%	-20
Other	11.5%	1.6%	350
Total	5.8%	4.2%	295

EIA=US Department of Energy, Energy Information Administration
API=American Petroleum Institute

In **France**, deliveries decreased despite an additional working day, mainly due to a marked decline in heating oil deliveries from strong growth a year earlier. This September, prevailing heating oil prices may have discouraged deliveries to wholesalers, and consumer stocks are believed to be higher than a year earlier due to a mild end to the 1996/97 heating season, following substantial purchases that occurred during a particularly cold spell in January 1997. Gasoline deliveries increased for only the second month this year, dampening somewhat the impact of ongoing dieselisation on gasoline deliveries. The demand strength cannot be explained solely by exchange rates (which may have prolonged the tourist season), favourable weather conditions and additional working days. More importantly, it is possible that deliveries made at the last weekend of the month (30-31 August) were recorded as September deliveries, weakening August and overstating September. Diesel deliveries increased strongly due to trading days, which particularly affects diesel-fuelled commercial road traffic. Increasing road transport fuel demand is consistent with a 2.8% increase in vehicle kilometres driven recorded in the first eight months of the year. In contrast with the trend, deliveries of residual fuel oil increased in the industrial and power generation sectors by 6.6% and 134.1% respectively. On a 12-month moving average basis, deliveries to the industrial and power generation sectors have declined by 4.7% and 38.1% respectively. The unexpected strength in September is believed to be due to weakening prices and particularly weak deliveries a year earlier. By the end of September, fuel oil consumption by EDF had

Change in Number of Working Days in 1997 Compared with a Year Earlier

	USA	Canada	Japan	France	Germany	Italy
January	-	-	-	-	-	-1
February	-1	-1	-1	-1	-1	-1
March	-	-2	-	-1	-2	-1
1Q97	-1	-3	-1	-2	-3	-3
April	-	2	-	1	2	1
May	-1	-1	-	-1	-1	-1
June	1	1	1	1	1	1
2Q97	0	2	1	1	2	1
July	-	-	-	-1	-	-
August	-1	-1	-1	-1	-1	-1
September	1	1	1	1	1	1
3Q97	0	0	0	-1	0	0
October	-	-	-	-	-	-
November	-1	-1	-2	-	-1	-
December	1	1	1	1	1	-
4Q97	0	0	-1	1	0	0

Includes Public Holidays
German public holidays are based on Southern German dates

declined by 47% on a 12-month moving average. Electricity production in the first eight months of the year increased only marginally (by 0.5%), but with lower electricity exports and increased nuclear and hydro output, oil and coal consumption in thermal power stations declined by a combined 8.7%.

Following a steep decline in deliveries in August**, German** oil demand recovered in September. A 24.1% increase in naphtha deliveries contributed 49 kb/d to net incremental demand for all products of 44 kb/d, while slight weakness in LPG deliveries may be indicative of feedstock switching to naphtha in the petrochemical sector. The decline in heating oil deliveries, which was responsible for most of the decline in demand in August, continued in September, albeit to a lesser extent. The weakness in heating oil deliveries reflects heavy consumer restocking earlier in the year and consumer stocks ended the month some 9 million barrels higher than a year earlier. Increased gas penetration in the industrial and utility sectors has continued to contribute to a significant decline in fuel oil deliveries, taking the 12-month moving average decline in deliveries to 10.8%. Gasoline and diesel deliveries were weak, despite the working day effect but more importantly due to higher retail prices.

Demand in the **UK** decreased for the third successive month, largely due to the 74 kb/d or 61.1% decline in residual fuel oil deliveries caused by the combination of the cessation of *Orimulsion* use in the Pembroke power station and ongoing substitution by North Sea natural gas throughout the electricity utility sector. These two factors have contributed to a 21.5% decline in fuel oil deliveries on a 12-month moving average basis. Significantly higher retail prices are believed to be largely responsible for the decline in gasoline deliveries, which occurred despite a working day effect and against the trend. The two excise increases in the last 12 months for both gasoline and diesel and the end of last year's retail gasoline price war have helped raise gasoline prices by 13.3%. Conversely, the strength in jet/kerosene demand reflects not only strong aviation demand but also possibly increased purchases of kerosene heating, given lower prices than a year earlier.

Percentage Annual Change in Retail Prices in September 1997[1]

(% per annum change in local currency)

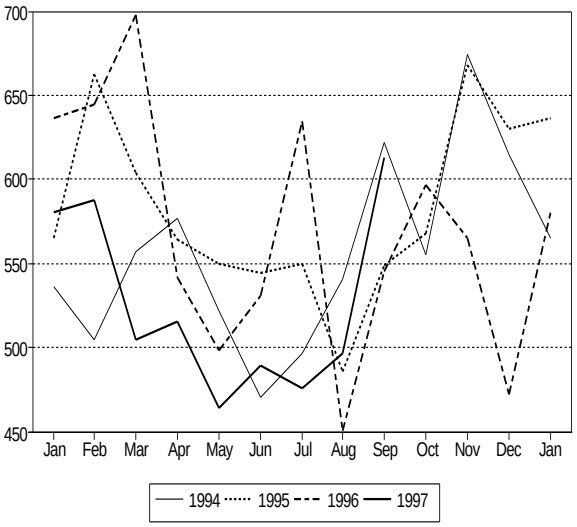
	Gasoline	Diesel	Heating Oil	RFO
USA	2.9%	na	-3.6%	na
Canada	3.9%	3.0%	0.0%	na
Japan[2]	-1.1%	4.6%	9.3%	17.8%
France	3.8%	0.8%	0.6%	-1.4%
Germany	6.1%	2.6%	-10.0%	2.2%
Italy	1.6%	-1.8%	-2.1%	-4.3%
UK	13.3%	12.4%	-12.8%	-4.6%
Europe Four Avg.	*6.2%*	*3.5%*	*-6.1%*	*-2.0%*
G7 Average[3]	4.4%	3.6%	-2.7%	1.9%

1 Mid-month
2 Japanese heating oil is represented by kerosene
3 Countries with missing data are excluded from the average calculations

Growth in **Italian** oil deliveries far exceeded the trend, primarily due to a marked increase in residual fuel oil deliveries to the power generation sector. Despite this, fuel oil deliveries have declined by 9.8% on a 12-month moving average, reflecting ongoing substitution of Algerian natural gas for fuel oil in the power generation sector. As shown in the table on the right below, increased electricity demand in the year-to-date has been met by higher electricity imports and greater hydroelectric output, with hydrocarbon use (in which oil is losing share to natural gas) increasing by only 0.9%. Deliveries of road transport fuel were boosted by an additional working day and, in the case of gasoline, by weak demand a year earlier.

Italian Fuel Oil Deliveries

(thousand barrels per day)

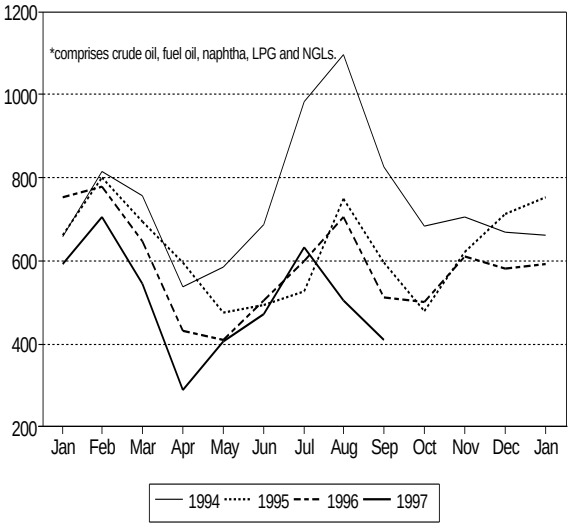


Italian Electricity Consumption

	Sept 97		Year-to-Date	
	Twh	% pa	Twh	% pa
Gross Electricity Output	21.5	8.4	186.7	2.5
Thermoelectric	17.2	6.2	146.5	0.9
Geothermal	0.3	13.3	2.8	0.9
Hydro	4.0	18.4	37.4	9.8
+ Electricity Imports	3.3	6.8	28.5	3.0
- Own Use/Losses	1.1	4.7	9.0	-0.3
- Pumped Storage	0.6	20.9	4.8	-6.4
= Net Consumption	23.3	8.3	201.3	3.0

In contrast to the three other European countries, deliveries of petrochemical feedstocks decreased, with LPG and naphtha deliveries both declining, by 2.0% and 3.8% respectively.

Japanese Oil Deliveries in Electricity Generation*
(thousand barrels per day)



Japanese Electricity Generation - September 1997

	TWh		
	Sep-97	Sep-96	% Change
Hydro	58.3	51.6	13.0%
Hydrocarbon	330.0	344.6	-4.2%
Nuclear	255.0	208.2	22.5%
Total Utility Companies	643.3	604.4	6.4%
Autoproduced	109.8	92.1	19.2%
Total Output	733.8	685.9	7.0%
Water Level (v Normal)	93.4	89.6	4.2%
Nuclear Load Factor	84.7	75.0	12.9%

Japanese Utilities' Position - September 1997

Annual Change (% pa)	Stocks Open	Deliveries	Use	Stocks Close
Coal	9.0%	-10.0%	1.7%	1.0%
LNG	13.6%	2.3%	0.8%	16.8%
Crude	-3.1%	-25.0%	-16.5%	-6.4%
NGL	-11.4%	72.8%	2.2%	-11.8%
LPG	7.2%	-58.4%	-27.9%	-9.6%
Naphtha	166.8%	33.3%	na	60.9%
Residual Fuel	-5.9%	-12.6%	-21.6%	-1.5%
Total Oil	-3.9%	-20.4%	-18.8%	-4.3%

Japanese oil demand increased by the largest proportion since October 1996, primarily due to a 14.8% or 107 kb/d increase in naphtha deliveries to the petrochemical sector. Strong naphtha demand does not appear to reflect feedstock switching, as LPG deliveries also increased strongly (by 5.0%), despite a large decline in deliveries to the power generation sector. Demand increased strongly for road transport fuels, reflecting an additional delivery day. This demand strength was somewhat offset by decreased deliveries of crude oil and residual fuel oil to the power generation sector, as shown in the table below. Despite a marked increase in electricity demand, consumption of oil products declined while hydro and nuclear output and use of LNG increased sharply. The increase in nuclear output reflected outages last September, consistent with the lower nuclear load factor shown in the table. Stocks of oil products at the utility companies ended the month 1.5 million barrels lower than last year. For the second successive month, the increase in jet/kerosene deliveries was significantly greater than the trend, which was weak due to this year's mild heating season. The strength in jet/kerosene deliveries this September was greater than anticipated, given 4.3% growth last September, and is thought to have been attributable to continuing strong commercial aviation demand. Kerosene demand from the domestic sector is unlikely to have been the cause, given limited tertiary storage and higher retail prices than a year ago (see table on page 11).

Demand in 3Q97

OECD demand in 3Q97 is estimated to have increased by 2.4% or 1.0 mb/d, to 41.8 mb/d, representing for the second successive month an upward adjustment of around 130 kb/d from the previous month's Report. The latest adjustment reflects upward revisions to demand in all three OECD regions, most notably in **Europe** where Italian deliveries in September were greater than expected and preliminary demand data for August in the four largest oil-consuming countries were revised upwards. In addition, Spanish demand continued to exceed expectations, increasing by 3.6% in August.

Third Quarter OECD Oil Demand by Region
(million barrels per day)

			Change	
	3Q96	3Q97	mb/d	%
North America	20.2	21.0 r	0.8	4.0
Europe	14.4	14.5 r	0.1	0.5
Pacific	6.3	6.4 r	0.1	1.5
Total	40.8	41.8 r	1.0	2.4

r revised from last month's Report

Although data for some smaller European oil-consuming countries remain estimated, it is thought that the existing demand projections for these countries are sensitive to upward adjustment, given indications of increased fuel oil use by the power generation sector in southern Europe in response to low hydroelectric availability. In **North America**, Canadian demand was greater than expected in September and last month's preliminary Canadian data for August have been revised upwards by 50 kb/d. In the US, a 100 kb/d downward revision to preliminary demand in August, following a restatement of residual fuel oil and "other product" deliveries, was counterbalanced by a similar-sized under projection of September deliveries, which occurred mainly due to an underestimation of "other product" demand. Despite continuing weakness in oil deliveries to the Japanese power generation sector in September, strong demand for oil in other sectors of the Japanese economy, most notably for road transport fuels, has contributed to an upward revision to **Pacific** demand in 3Q97. In addition, Japanese demand in July has been revised upwards and Australian and New Zealand deliveries in August were greater than expected.

Although the September demand data for the G7 countries remain sensitive to revision, an initial analysis of deliveries in 3Q97 indicates that G7 demand increased by 710 kb/d or 2.1%, with demand increasing most rapidly in Canada (+4.9%) and falling in Germany, Italy and the UK. Naphtha deliveries increased by the greatest proportion (+6.9%) while gasoline increased by the greatest amount (+268 kb/d). Fuel oil deliveries declined by a combined 171 kb/d or 6.5% with deliveries falling in all countries except Canada and France.

OECD Demand in 4Q97, 1997 and 1998

OECD demand for oil in 1997 is projected to increase by 0.6 mb/d or 1.5% to 42.0 mb/d, at a growth rate slightly greater than that shown in last month's Report, consistent with stronger-than-anticipated growth in 3Q97. The projection of demand in 4Q97 remains unchanged from last month's Report, however, as much of the demand strength in 3Q97 was related to transport fuel deliveries rather than a marked change in the restocking pattern of heating fuels. The latter would normally indicate a movement of deliveries between quarters that would require a downward adjustment to the 4Q97 projection. Preliminary indications of US demand in October, based on delivery data up to 24 October, show that oil demand declined by 1.8%, with a particularly large fall in fuel oil deliveries, which contradicts indications of greater purchases by the utility companies. The US experienced 5.4% more heating degree days than last year and gas prices in New York moved from a $1.10/mmBtu discount to fuel oil in October 1996 to a $0.51/mmBtu premium this October, indicating that the preliminary demand data may be sensitive to upward revision. OECD demand in 4Q97 is projected to increase by 0.6 mb/d or 1.5% to 43.1 mb/d. The projection European demand in 4Q97 is sensitive to revision, however, reflecting the potential impact of a French truckers' strike, which started in early November, on both oil deliveries and economic activity. In 1998, demand is expected to increase by 0.5 mb/d or 1.1% to 42.4 mb/d, again slightly greater than the growth rate given in last month's Report, in part reflecting an upward adjustment to US demand in 1Q98, following a reappraisal of the impact of an assumed return to normal weather on the annual change in heating oil demand. The 1997 and 1998 projections of OECD demand both represent 0.1 mb/d upward adjustments from last month's Report.

Non-OECD[2]

Demand Trends in Leading Non-OECD Oil Consuming Countries

Starting with this month's Report, the latest monthly demand data for the largest non-OECD oil-consuming countries are shown in the following table. The data are taken from various government and company sources adjusted on the basis of the difference between 1995 source data and the IEA's estimate of demand in the same year, published in *Energy Statistics and Balances of Non-OECD Countries*. The countries in the table below represent the largest oil-consuming countries listed in descending order of oil demand recorded in 1995. For the purposes of the Oil Market Report, Korea and Mexico are included as non-OECD countries pending full submission of the detailed historical data, as outlined in a note on the back cover. Demand data among the countries vary in their timeliness and the table has been constructed so as to indicate for each country the general oil demand trend (12-month moving average) as well as the latest available information. Many of these countries are regularly discussed in detail in the Report. As monthly apparent demand for the FSU and China often tends to vary widely, it remains appropriate to discuss demand trends on a quarterly basis where the impact of the wide monthly variation in demand is likely to be less distracting. The availability of data will continue to vary among countries from month to month and it is envisaged that in future Reports, the table may contain other countries, selected on the basis not only of size but also of data availability.

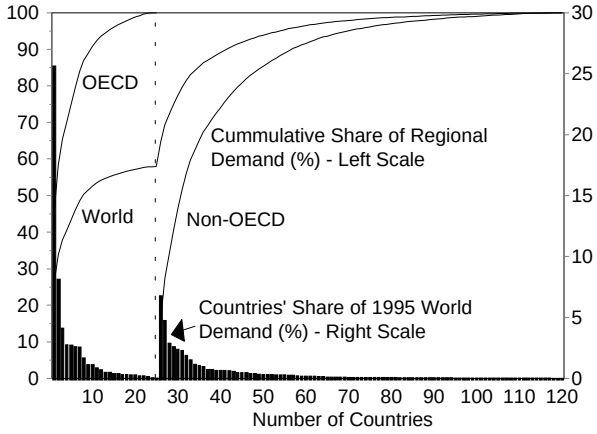
2 including some OECD Member countries, see note on back cover

Non-OECD Demand - Leading Oil-Consuming Countries

	Latest Month	mb/d Latest Month	mb/d Year Earlier	mb/d Previous Month	Change Versus Last Year	Change Versus Previous Month	12-Month Moving Average
FSU	Sept 97	4.77	4.29	4.70	11.1%	1.4%	-4.1%
China	Aug 97	4.17	3.35	3.47	24.5%	20.1%	6.9%
Korea	Aug 97	2.03	1.88	2.51	7.7%	-19.3%	6.0%
Mexico	Sept 97	2.05	1.94	1.98	6.0%	3.8%	5.4%
Brazil	Aug 97	1.93	1.81	1.63	6.4%	18.1%	7.6%
India	July 97	1.80	1.68	1.76	7.1%	2.2%	6.6%
Iran	Sept 97	1.33	1.35	1.38	-2.0%	-3.8%	-3.2%
Saudi Arabia	Sept 97	1.24	1.21	1.03	2.5%	20.2%	1.9%
Indonesia	Sept 97	1.02	0.92	0.90	10.8%	13.6%	10.3%

The purpose of this additional table is to improve the coverage of monthly non-OECD demand. By concentrating on the larger non-OECD countries, an increasing proportion of global demand can be analysed on a monthly basis. For example, the nine countries listed above represent 63% of non-OECD demand and, together with monthly OECD demand, represent some 85% of 1995 global demand. By improving the coverage of the next six largest countries, some 75% of non-OECD and just under 90% of global demand can be covered on a monthly basis. This approach is illustrated in the graph to the right. The suggestion that the demand growth patterns of the largest non-OECD oil-consuming countries are atypical of the non-OECD as a whole is not supported by initial analysis, with the exception of the FSU. However, trends in the smaller oil-consuming countries will continue to be monitored and reported. For example, the changes in Thai demand in response to its financial difficulties will be commented upon, reflecting the country's status as the eleventh largest non-OECD oil-consuming country.

Countries in Descending Order of Oil Demand (OECD followed by Non-OECD)



Former Soviet Union Apparent Demand

3Q97 is estimated to have increased by 5.2% or 220 kb/d to 4.5 mb/d, a 0.1 mb/d upward adjustment from last month's Report, primarily reflecting receipt of higher-than-expected FSU production data.

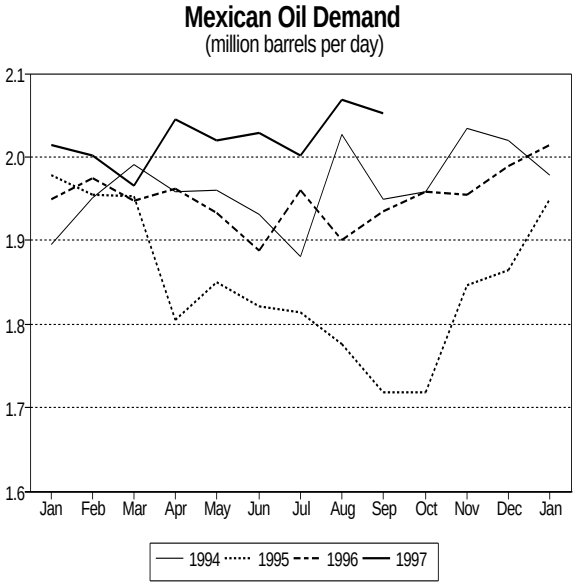
FSU Oil Demand
(million barrels per day)

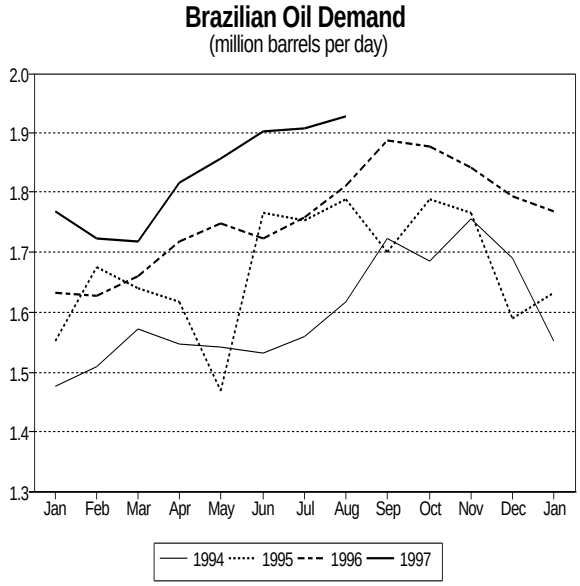
It is probable that stocks have been built rather than demand increasing significantly, although there are indications of improved economic activity that may have led to increased consumption. Demand in 4Q97 is projected to increase by 10.3% or 430 kb/d to 4.6 mb/d, consistent with an expectation of normal weather compared with a year earlier when mild weather dampened internal demand (-14.1%) and contributed to a marked increase in net exports. The projection of demand in 4Q97 has been revised upwards by 90 kb/d, reflecting adjustments to future production, in line with recent trends, and has contributed to a 60 kb/d upward revision to demand in 1997. FSU apparent demand in 1997 is projected to increase by 120 kb/d or 2.8% to 4.5 mb/d. FSU demand in 1Q98 has been revised upwards by 0.2 mb/d to 4.6 mb/d, primarily to reflect more accurately the impact on oil demand growth of a return to normal weather conditions compared with particularly mild weather experienced in western Russia in

1Q97. Upward revisions to demand in 2Q98 and 4Q98 mainly reflect an expectation of improved economic conditions. The modifications have led to an essentially unchanged demand growth assumption in 1998 of 1.5%.

Brazilian Demand in July and Preliminary Estimates for August

Data published in *Brazil Energy* magazine indicate that inland oil deliveries increased in July by 8.2%, slightly greater than the 12-month moving average of 7.1%. Including estimates of bunkers and refinery fuel use, total Brazilian demand in July is estimated to have grown by less than 115 kb/d to 1.93 mb/d. For the second successive month, demand grew for all major products except kerosene, "other products" and alcohol used as a gasoline additive. For the third successive month, demand for naphtha increased faster than any other product, increasing by 90 kb/d or 64.3%, but while the demand strength in recent months partly reflected weak petrochemical demand a year earlier, strong demand growth in July occurred despite a 21.0% increase in deliveries in July 1996, reflecting a combination of increased utilisation and new capacity in the petrochemical sector. Gasoline and diesel deliveries increased by 5.7% and 4.8%, (with gasoline increasing at a lower rate than the trend), representing some 28% of total incremental demand in June. Fuel oil deliveries increased by 30 kb/d or 12.4% in July, similar to the 12-month moving average of 14.0%. Fuel oil is being increasingly used in the power generation sector, which continues to struggle to meet rapidly-increasing electricity demand. Preliminary data for Brazilian demand in August indicate demand growth of 6.4%, although no product breakdown is available.





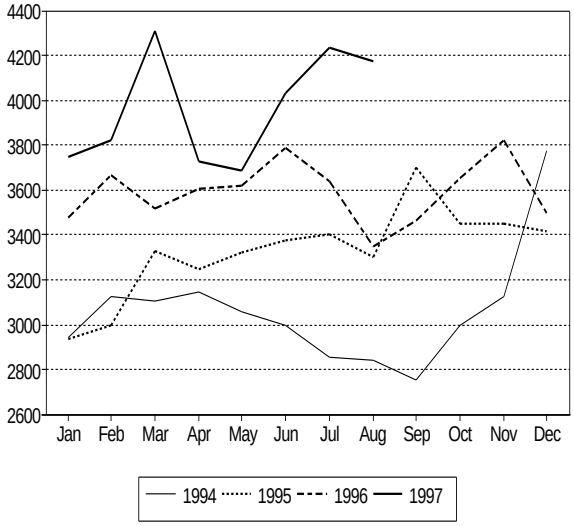
Mexican Demand in September

Preliminary data published by state oil company Pemex indicate that inland oil deliveries (excluding refinery fuels) grew by 7.9% in September, greater than the 12-month moving average of 6.7%. Including estimates of bunkers and refinery fuel use, and an adjustment to calibrate the monthly data to the historical series, total Mexican demand in September is estimated to have grown more slowly than inland deliveries, increasing by 115 kb/d to 2.05 mb/d, representing an increase of 6.0% or 54.5% on a 12-month moving average (see table). Underlying demand growth was strong in September, given particularly strong growth a year earlier when a 47.7% increase in residual fuel oil deliveries led to an overall 14.8% increase in product deliveries. Despite last year's demand strength for fuel oil, deliveries of fuel oil increased this September by a further 7.3% or 34 kb/d, representing 30% of total incremental demand in the month. On a 12-month moving average, residual fuel oil represents the fastest growing source of oil product demand, consistent with increased use in the power generation sector due to low water levels in western Mexico that have constrained hydropower output in recent months. Gasoline and diesel deliveries increased by 7.3% and 13.3% respectively, or a combined 65 kb/d. The strength in gasoline deliveries partly reflects weak growth last September, but an acceleration in the rate of growth seen in recent months may be evidence of a sustained recovery in gasoline consumption since the currency crisis in 1995. Moreover, the increase in demand for gasoline and for most products has occurred despite significantly higher prices than a year earlier. In local currency terms, the retail prices of gasoline and diesel have increased by 21.1% and 23.3% respectively, reflecting a combination of increased commodity prices and unfavourable currency movements.

Chinese Apparent Demand in August

Primarily due to an four-fold annual increase in net crude oil/oil product imports in August, apparent demand in China is estimated to have increased by some 25% to 4.17 mb/d, after allowing for adjustments to calibrate the monthly data with the historical series. Apparent demand in July increased by some 17%, again reflected in a marked increase in net imports. The growth in apparent demand appears unlikely to have been consistent with changes in consumption. The most recent sharp increase in crude imports is likely to have contributed to either greater crude or greater product stocks, the latter following increased refinery runs. On this assumption, the recent increase in imports may be followed by lower net imports in the next few months and a lower rate of apparent demand growth. As apparent demand has continued, and will continue, to vary widely from month to month, it is more appropriate to discuss demand trends on a quarterly basis where the impact of the wide monthly variation in demand may be mitigated.

Chinese Apparent Demand
(thousand barrels per day)



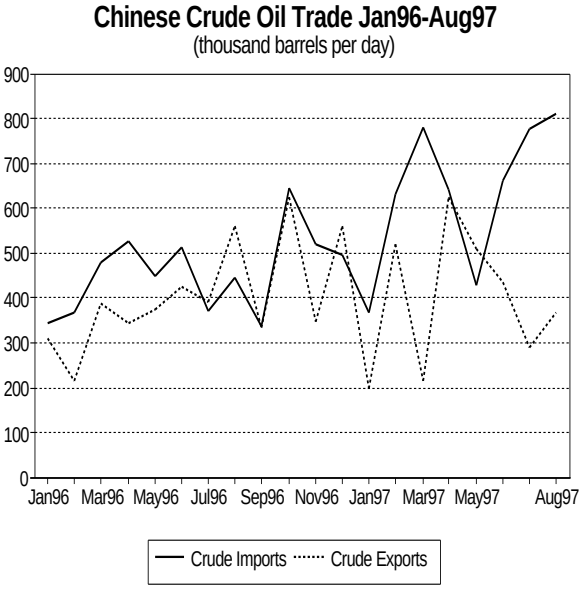
Lower apparent demand growth is expected for the remainder of the year while inventories are drawn down. Chinese demand in 3Q97 is projected to increase by 15% but by only 8% in 4Q97, with average demand in 1997 of 3.9 mb/d, representing 9.6% growth. The projection of demand growth in 1998 has been adjusted upwards from last month's Report to 6.5%, contributing to a 0.1 mb/d upward revision to Chinese demand in 1998 to 4.2 mb/d.

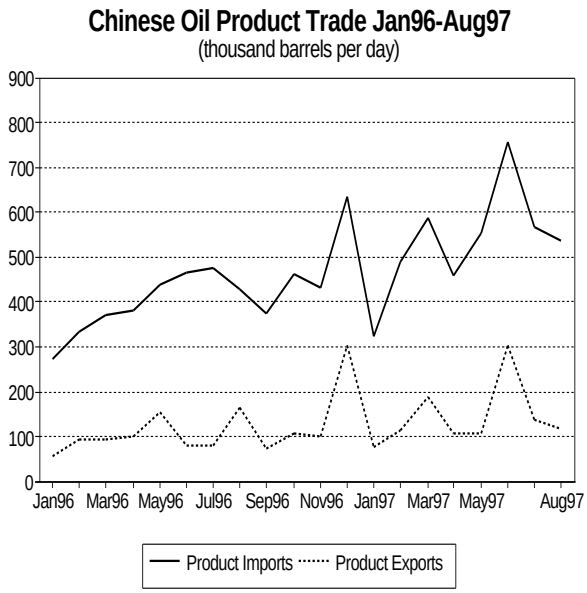
Chinese Trade

In August, Chinese total net imports decreased marginally from the previous month's level, but were substantially greater than a year earlier. A marked change in crude trade dominates the annual differences. Last August, China was a net exporter of crude oil, but this position has been reversed in recent months with China becoming a substantial net importer of crude oil due to a combination of lower exports and higher imports. The net import position has improved compared with July, however, primarily due to an increase in crude exports. Crude imports increased above July levels most notably from Congo (+64 kb/d), Norway (+63 kb/d) and Indonesia (+55 kb/d) but declined from Oman (-162 kb/d), Angola (-34 kb/d) and Yemen (-30 kb/d). The largest source of oil imports was Oman (20% of total imports) followed by Indonesia (18%). Crude exports increased above July levels most notably to Korea (+64 kb/d) and Japan (+44 kb/d) but declined to the US (-23 kb/d). Japan remained the largest export market, receiving 72% of total crude exports in August. Net product imports were substantially greater than a year earlier but marginally lower than in July. China remained a net exporter of gasoline, although at lower levels than last year. The country's requirement for net imports increased compared with last year for all products except diesel and increased most notably for naphtha and LPG, reflecting increased petrochemical demand.

Chinese Crude Oil and Product Trade

	kb/d			Latest Month v.	
	Aug 97	Jul 97	Aug 96	Jul 97	Aug 96
Crude Imports	808	776	443	4%	82%
Crude Exports	366	287	560	27%	-35%
Net Crude Imports	442	488	-117	-9%	-479%
Product Imports	533	566	427	-6%	25%
Product Exports	117	136	164	-14%	-28%
Net Product Imports	416	431	264	-3%	58%
Total Imports	1341	1342	871	-0%	54%
Total Exports	483	423	724	14%	-33%
Total Net Imports	858	919	147	-7%	484%
Product Net Imports					
LPG	102	109	85	-7%	20%
Naphtha	20	27	6	-28%	241%
Gasoline	-24	-33	-56	-26%	-57%
Kerosene	34	33	-10	5%	na
Diesel	119	114	73	5%	64%
RFO	137	168	153	-18%	-10%
Other Products	29	13	13	124%	120%
Total Products	416	431	264	-3%	58%





Non-OECD Demand

Non-OECD demand in 3Q97 is estimated to have increased by 1.7 mb/d or 5.6%, to 31.7 mb/d. This represents a 320 kb/d upward revision consistent with significant upward adjustments to apparent demand in the FSU and China, which have more than offset minor downward adjustments to Other Asian and Middle Eastern demand. Lower demand in the Middle East, in particular, has contributed to downward revisions to non-OECD demand in 1Q97 and 2Q97. The changes to quarterly demand have left 1997 non-OECD demand essentially unchanged at 31.8 mb/d, representing an annual increase of 4.6% or 1.4 mb/d.

Non-OECD demand in 1998 is projected to increase by the same amount as in 1997, by 1.4 mb/d to 33.2 mb/d. FSU and Chinese demand have been adjusted upwards due to a combination of a higher base and greater growth, while Other Asian and Middle Eastern demand have been adjusted downwards, the former due to an expectation of slower economic growth in some countries of the region and the latter due to receipt of data that indicate lower-than-expected demand in 1997. On the basis of the historical relationship between oil demand and GDP and the latest projection of lower economic growth in 1998 in those Asian countries affected by recent economic difficulties, the projection of Other Asian demand in 1998 has been reduced by some 100 kb/d. It should be noted that the large oil-consuming countries in Other Asia such as India have not been affected by recent events and the impact on oil demand of devaluation in the affected countries remains extremely tentative, given that the exchange rate movements are likely to be conducive to an export-led recovery, while domestic consumption may be constrained.

SUPPLY

Summary

- **World oil production** is estimated to have risen to 75.9 mb/d in October, an increase of 0.7 mb/d from September's 75.2 mb/d, which was revised downwards by 0.1 mb/d. The gain was driven by an estimated 0.6 mb/d rise in **non-OPEC oil supply**, from 44.7 mb/d to 45.3 mb/d. OECD countries, led by Norway and the UK, appear to have accounted for virtually all of the increment with gains and losses elsewhere cancelling out.
- **OPEC crude production** reached 27.8 mb/d in October, a gain of 0.1 mb/d from the downwardly-revised figure of 27.7 mb/d for the previous month. The largest monthly change was in Iran's production which is estimated to have recovered by 0.2 mb/d from a below-trend performance in September.
- **The "call on OPEC crude plus stock change"** has been revised upwards by 0.1 mb/d in 4Q97 to 27.2 mb/d. The average "call" in 1998 has also been revised upwards by 0.2 mb/d to 26.1 mb/d, mainly as a result of downward revisions to the forecast for North Sea production next year.
- **Net FSU exports** averaged 2.4 mb/d in October, a drop of 0.1 mb/d compared with the September figure. Interruptions in seaborne exports from the Black Sea, caused by weather-related port closures, accounted for the decrease.

Non-OPEC Oil Supply

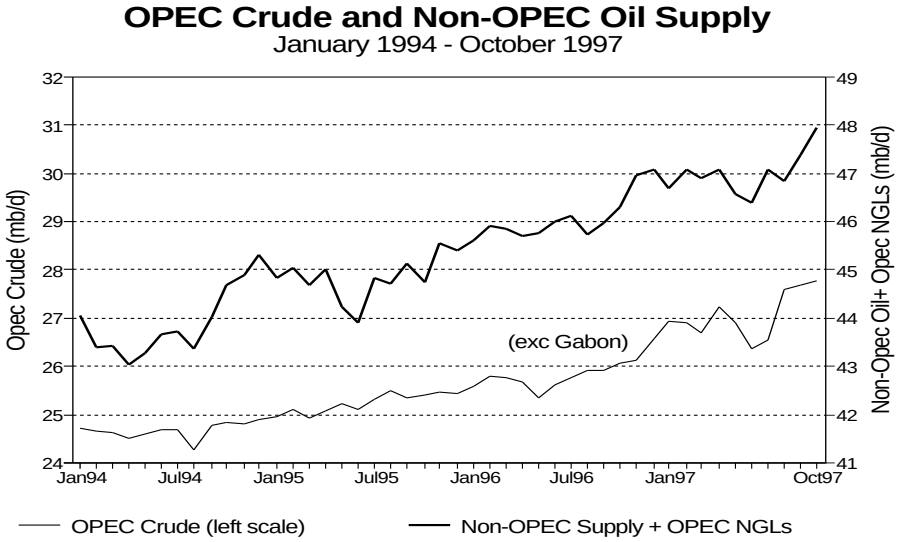
(million barrels per day)

	1996	1997[f]	1998[f]	3Q96	4Q96	1Q97	2Q97	3Q97[p]	4Q97[f]
CRUDE OIL									
North America	8.03	8.04	8.24	7.97	8.10	8.07	7.98	8.00	8.10
United States	6.46	6.43	6.51	6.39	6.49	6.47	6.43	6.39	6.45
Canada	1.56	1.60	1.73	1.57	1.61	1.60	1.55	1.60	1.65
Europe	6.24	6.31	6.82	6.14	6.45	6.38	6.11	6.05	6.70
North Sea	5.79	5.87	6.37	5.69	6.01	5.93	5.67	5.62	6.25
UK*	2.45	2.42	2.70	2.34	2.61	2.52	2.19	2.34	2.61
Norway	3.09	3.19	3.38	3.09	3.13	3.15	3.21	3.01	3.37
Other North Sea**	0.25	0.27	0.29	0.25	0.27	0.26	0.27	0.26	0.28
Other Europe	0.45	0.44	0.45	0.46	0.44	0.45	0.44	0.43	0.45
Pacific	0.59	0.65	0.75	0.61	0.59	0.59	0.63	0.70	0.69
Australia	0.54	0.58	0.67	0.55	0.52	0.52	0.56	0.62	0.61
Other Pacific	0.05	0.07	0.08	0.06	0.07	0.07	0.07	0.07	0.07
Total OECD	14.85	15.00	15.81	14.71	15.13	15.04	14.72	14.74	15.49
Latin America	5.76	6.14	6.61	5.76	5.86	6.00	6.05	6.15	6.34
Asia (inc. China)	5.03	5.10	5.21	4.99	5.07	5.11	5.10	5.06	5.13
Africa (inc. Gabon)	2.42	2.57	2.74	2.45	2.48	2.51	2.53	2.58	2.66
Other Middle East	1.87	1.86	1.87	1.88	1.89	1.87	1.85	1.86	1.86
Central and Eastern Europe	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Total Non-OECD (ex. FSU)	15.28	15.87	16.65	15.28	15.51	15.69	15.75	15.86	16.20
Russia	5.84	5.87	5.82	5.88	5.82	5.78	5.92	6.00	5.79
Other Republics	0.91	0.97	1.06	0.92	0.94	0.92	0.96	0.97	1.02
Total FSU	6.75	6.84	6.89	6.80	6.76	6.70	6.88	6.97	6.81
NGLS & OTHER									
United States	2.13	2.21	2.22	2.13	2.22	2.18	2.18	2.21	2.25
Canada	0.90	0.92	0.95	0.90	0.92	0.92	0.83	0.94	0.97
North Sea	0.41	0.40	0.41	0.37	0.45	0.43	0.37	0.37	0.43
Russia	0.19	0.20	0.21	0.17	0.20	0.21	0.19	0.18	0.21
Other Non-OPEC	1.58	1.61	1.79	1.54	1.53	1.57	1.58	1.62	1.67
Total NGLs and Other	5.20	5.33	5.57	5.11	5.32	5.31	5.16	5.32	5.53
Processing Gains	1.52	1.57	1.64	1.50	1.55	1.57	1.56	1.56	1.60
Total Non-OPEC Supply	**43.60**	**44.61**	**46.55**	**43.41**	**44.27**	**44.31**	**44.06**	**44.44**	**45.63**

p preliminary
f forecast
* excluding on-shore production
** Denmark, offshore Netherlands and offshore Germany

Overview of Supply Developments and Revisions

World oil supply is estimated to have increased by 0.65 kb/d in October to 75.89 mb/d. Non-OPEC countries accounted for 0.58 kb/d of the gain. OECD output rose by 0.63 kb/d, while non-OECD production fell by about 100 kb/d. Within the OECD, almost all of the increases came from the North Sea, nearly 400 kb/d from Norway and 185 kb/d from the UK. The sharp increase resulted from the return of fields from summer maintenance, mostly in Norway, combined with production from new fields that came onstream during August, September, and October, mostly in the UK. US and Canadian production is estimated to have risen by about 15 kb/d and 25 kb/d respectively, while Australian supply is thought to have dropped by 10 kb/d.



The non-OECD decline was caused by a provisional assumed drop in Russia that was not entirely offset by smaller increments estimated for various Asian and African countries. In Asia, Vietnamese production is expected to have rebounded from September maintenance with a 50 kb/d rise, and China is estimated to have added another 10 kb/d. Gabon and Angola added an estimated 10 kb/d each to African supply. In Latin America, it is assumed that a Colombian increment of 30 kb/d occurred, due to Cusiana gains despite continued bombings. This was offset by an estimated Mexican decline of 25 kb/d, in part due to a fire at an offshore platform.

OPEC crude provided another estimated 90 kb/d of the world increase in oil supply last month. Declines of about 60 kb/d and 50 kb/d in Saudi Arabian and Iraqi crude production respectively were more than counterbalanced by a 200 kb/d jump in Iranian crude output, as supply there recovered from constrained performance in September. An increase in Algerian crude production of 30 kb/d was countered by a 35 kb/d decrease in Nigerian crude supply.

Revisions

The major revisions to the supply outlook were in the North Sea, all downwards. For the UK offshore, revisions were as follows: 4Q97 down 200 kb/d, full-year 1997 down 70 kb/d, and full-year 1998 down 95 kb/d. For Norway, the revisions were: 4Q97 down 75 kb/d, full-year 1997 down 30 kb/d, and full-year 1998 down 80 kb/d. Factors included lower production expectations for certain existing fields, some additional new field startup delays, and more gradual production increases assumed for new fields after startup. Partly offsetting the North Sea revisions, projections for Mexican oil production was increased by 50 kb/d in 4Q97 and 80 kb/d for full-year 1998.

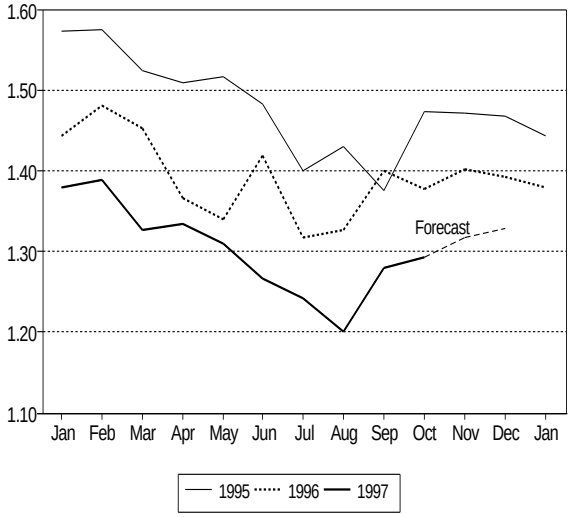
For September, actual UK offshore production was 2.62 mb/d, 200 kb/d less than the estimate, and Norwegian production was 3.06 mb/d, 155 kb/d less than the estimate. In addition, OPEC was adjusted downwards by 80 kb/d, due to an adjustment to Iran. However, world production in September was only revised downwards by 90 kb/d, because of upward revisions in the FSU (+210 kb/d), Latin America (+80 kb/d), and Australia and New Zealand (+40 kb/d).

OECD[1]

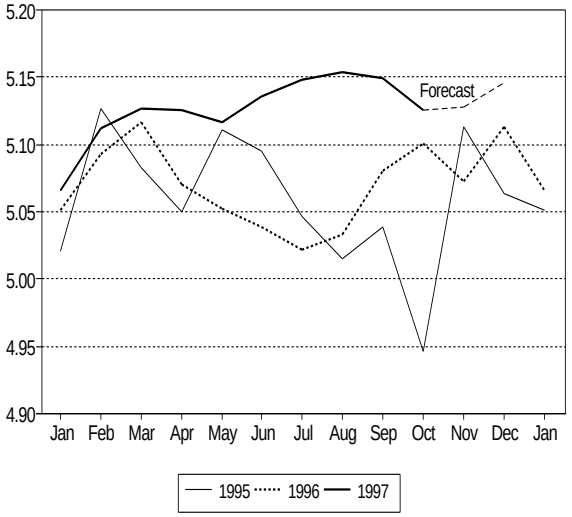
North America

US crude oil production is estimated to have recovered 6.42 mb/d in October, a decrease of 12 kb/d compared to the September figure. US crude production is forecast to average 6.45 mb/d in 4Q97 and 6.53 mb/d in 1Q98, on the strength of growing production from the deepwater Gulf of Mexico. Output in Alaska rose by 12 kb/d to 1.29 mb/d in what was an uneventful month. Prudhoe Bay field crude production averaged 674 kb/d, only 4 kb/d higher than in September, and 26 kb/d less than the forecast. Supply levels at Kuparuk, Point McIntyre, and the other main fields on the North Slope were all within 3 kb/d of projected figures. Information received from a major operator in Alaska has caused a modest downward revision to the production forecast for the Prudhoe Bay field. Total Alaskan crude output is now forecast to average 1.31 mb/d and 1.32 mb/d in 4Q97 and 1Q98 respectively, with the corresponding figures for Prudhoe Bay at 0.69 mb/d and 0.67 mb/d. Inventories at Valdez ended October at 2.3 mb, within the normal range. This month marks the beginning of the winter storm season in the Gulf of Alaska, when tanker loadings at the Valdez terminal can be delayed, sometimes causing production to be shut in on the North Slope if inventory levels get too high.

Alaskan Crude Oil Production
(million barrels per day)



Lower 48 Crude Oil Production
(million barrels per day)



Crude production in the Lower 48 states averaged 5.13 mb/d in October, a decline of 23 kb/d. Output is estimated at 1.42 mb/d in Texas (-10 kb/d), 1.30 mb/d in the offshore Gulf of Mexico (+11 kb/d), 925 kb/d in California (-7 kb/d), and 1.48 mb/d from the rest of the lower 48 states (-17 kb/d). In the Gulf of Mexico, production from the two-month old Ram-Powell field is estimated to be in the process of gradually increasing. Preliminary US Government data indicate that the non-crude components of October US oil production included NGLs output of 1.93 mb/d (+24 kb/d) and "other hydrocarbons" output of 305 kb/d (unchanged). NGLs production continued to grow seasonally, in line with natural gas production.

Preliminary data indicate that **Canadian** oil production averaged 2.52 mb/d in August, equalling the preliminary estimate made last month, but slightly less than the upwardly revised July level. As shown in the table, synthetics production dominated the July revisions, with crude oil and NGLs only modestly above the previous estimates. Despite the small revision in total crude, bitumen production in Alberta was substantially higher than

Canadian Oil Production - Second Half 1997
(thousand barrels per day)

	July		August				
	Level	Revision	Level	vs. July	vs. est.	Sep[e]	4Q97[f]
Alberta Conventional	888	-39	884	-4	-46	928	940
Alberta Bitumen	252	44	252	0	42	212	216
Saskatchewan	366	0	358	-8	-14	382	395
Atlantic Offshore	12	0	7	-5	3	9	19
Other Provinces	88	2	87	-1	0	84	82
Total Crude	**1606**	**7**	**1588**	**-18**	**-15**	**1615**	**1652**
NGLs	605	7	604	-1	-23	626	672
Synthetics	335	44	331	-4	39	315	295
Total Oil	**2546**	**58**	**2523**	**-23**	**1**	**2556**	**2619**
vs. 1996	*93*		*44*			*87*	*94*

e estimate f forecast

1 excluding some Member countries, see note on back cover

the preliminary data had shown, offsetting a downward revision to Alberta conventional output. The opposing trends continued into August, with Alberta conventional crude falling 46 kb/d short of the earlier estimate and bitumen 42 kb/d higher, leaving Alberta crude production just 4 kb/d below the July level. Saskatchewan crude production declined by 8 kb/d in August versus an expected gain of 6 kb/d. Both synthetic crude oil plants were at or near record levels in July and August, as the Syncrude plant reached 341 kb/d in July and the Suncor plant produced 95 kb/d in August. Extensive maintenance and debottlenecking earlier this year should allow favourable operating performance for a prolonged period and both plants have medium-term expansion plans. The Suncor plant is also increasing its sales of distillate by-products, which have risen to over 20 kb/d this summer. Several new projects in the tar sands region of northern Alberta are now planned and appear likely to be completed in the next 5-10 years.

Nearer term, the last four months of 1997 are expected to show additional gains in Canadian oil supply, with September production assumed to have been up by about 30 kb/d and 4Q97 averaging more 60 kb/d higher than September. Seasonally higher NGL production, the start-up of the offshore Hibernia field and the benefits of crude oil pipeline expansions into the US Midwest are all expected to contribute to the growth in Canadian production.

North Sea

North Sea Oil Production

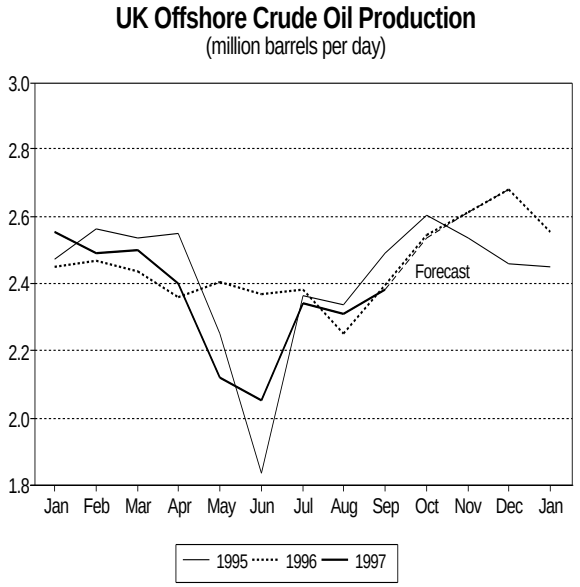
(thousand barrels per day)

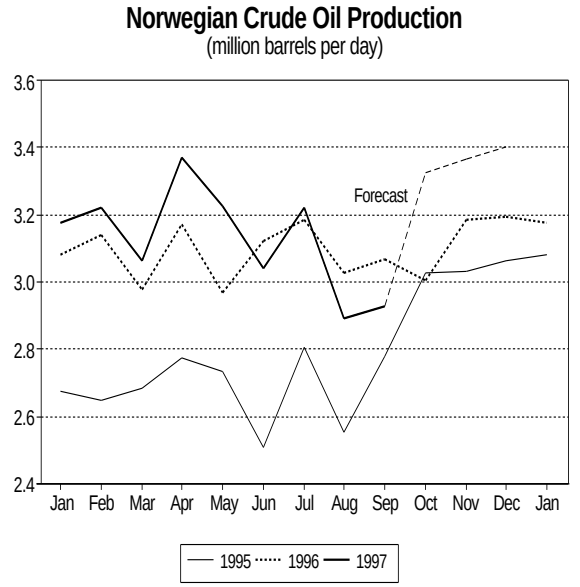
	Oct	*vs. Sep*	September Level	*vs. Aug*	*vs. est*
UK	2803	*+185*	2618	*+84*	*-200*
Norway	3460	*+397*	3064	*+57*	*-156*
Denmark	235	*-4*	239	*+25*	*+10*
Other	42	*+9*	33	*+1*	*-5*
Total	**6540**	***+587***	**5954**	***167***	***-351***

1 offshore Netherlands crude and NGLs and offshore German crude

The sharp rebound in North Sea oil production expected in September appears to have been delayed until October, based on anecdotal evidence and preliminary information from producing companies. September output increased by only about one-third as much as expected, reaching 5.95 mb/d. However, October North Sea output is estimated to have risen by almost 600 kb/d to 6.54 mb/d. The October rise is thought have been led by Norway's nearly 400 kb/d gain, due primarily to the return of Gullfaks System fields from maintenance. A UK increase of 185 kb/d is estimated to have occurred primarily at offshore-loaded fields, due to a combination of limited maintenance activity, output increases from fields that started up over the past few months, and a small increment from fields that came onstream during October. The 350 kb/d lower-than-expected September North Sea production level was about 60% in the UK sector and 40% in Norway. Danish production was moderately better than expected.

September **UK** crude production averaged 2.38 mb/d, an increase of 70 kb/d compared to August. September crude output was 182 kb/d lower than forecast. Brent System production averaged 381 kb/d (+20 kb/d versus August, -8 kb/d versus the estimate). The gains came from the Brent and North Cormorant fields (+16 kb/d and +6 kb/d respectively). Ninian System supply was 237 kb/d, 13 kb/d above August, but 25 kb/d below the estimate. The Magnus field was up 24 kb/d (to 64 kb/d), as it returned from maintenance, but it had been expected to increase to 80 kb/d. The Dunbar/Ellon and Columba fields also produced less than expected. Forties System output averaged 866 kb/d (+6 kb/d versus August, -56 kb/d versus the estimate). Production from individual fields within the system were all essentially flat with the prior month. The forecast fell short because expected increases did not occur at Miller (-19 kb/d versus the estimate), Scott (-15 kb/d), Bruce (-10 kb/d), Brae East (-13 kb/d), Nelson (-8 kb/d), and Birch (-6 kb/d). Based on performance in recent months and on information from field operators, the short-term forecasts for all of the above-mentioned Forties System fields, except Bruce, were adjusted downwards. Flotta System production was at 195 kb/d, 3 kb/d below August and 14 kb/d below the estimate. Output at the Piper and Claymore fields was lower than expected, by 20 kb/d combined, and the Claymore field forecast has been lowered. At offshore-loaded fields, the Douglas/Lennox development in Liverpool Bay averaged only 33 kb/d (-6 kb/d versus August, -35 kb/d versus the estimate). Elsewhere, the story continued to be flat or slightly increasing output, rather than the larger gains expected. This was the case at Fife, Statfjord UK, and Alba. In addition, 20 kb/d of Curlew production had been assumed for September, but was re-scheduled for early November.





October UK crude production is estimated at 2.54 mb/d, an increase of 155 kb/d compared to the September figure. Most of the increase is thought to have taken place at offshore-loaded fields, with highlights including Douglas/Lennox (+33 kb/d), Mariner's extended well test (+10 kb/d), Statfjord UK (+11 kb/d), Captain (+20 kb/d), and Durward/Dauntless (+14 kb/d). Flotta System output is estimated to have risen by 20 kb/d, with the Brent and Ninian Systems adding 12 kb/d each. Regarding new field startups, at this point all of the 2H97 fields have either already started or are reported to be close to coming onstream. During October alone, Kingfisher, Brae West/Sedgewick, and Armada all started up, following Durward/Dauntless and MacCulloch in August and Bladon in September. Erskine, Curlew, and Mallard were on track for November, with nothing currently scheduled for December.

According to preliminary data, **Norwegian** crude production in September averaged 2.93 mb/d, an increase of 35 kb/d compared to August. September crude output had been expected to increase by 180 kb/d. Almost of the shortfall was in the Statfjord-Gullfaks-Snorre Area, where the impacts of maintenance work at the three main fields was more severe than expected. Combined production at the Statfjord, Gullfaks, and Snorre fields was 695 kb/d, down from 779 kb/d in August, and 115 kb/d lower than the estimate. In the Oseberg Area, Troll West gained 83 kb/d as it returned from maintenance, but the Oseberg Area as a whole still fell 28 kb/d below the estimate. The Sleipner fields also rebounded from planned work the previous month, gaining 52 kb/d.

October Norwegian crude production is estimated at 3.32 mb/d, a gain of 398 kb/d. The Statfjord-Gullfaks-Snorre Area was again the key swing factor, with 382 kb/d of the rebound occurring there. There were not thought to be any lingering effects of the extensive August/September maintenance program. In addition, the Vigdis field, which has been hampered by gas compressor problems since the spring, was reported to be problem-free last month, with output reaching 70 kb/d and plateau production of 95 kb/d expected in December. The Yme field, where production fell in September due to a labour dispute, increased by 19 kb/d to an estimated 44 kb/d. The Njord field came onstream during October, with monthly average production assumed at 10 kb/d. Plateau output of 70 kb/d is not anticipated until May 1998, however. Startup of the Norne field is expected in November, with plateau production expected next May.

Danish production rose by 25 kb/d in September to a record 239 kb/d. All three major producing areas posted increases. The Tyra Area was 12 kb/d higher than in August, as production from Denmark's two newest fields, Svend and Harald, each grew by 5 kb/d to 26 kb/d and 17 kb/d respectively. Svend began production in May 1996 and quickly surged to over 30 kb/d before settling back to 22-23 kb/d between June and August of this year. Harald started up in late April 1997 and is still in its production escalation phase. The original expected peak for each field was only 15 kb/d. The Dan Area accounted for another 9 kb/d of the monthly increment, primarily from the Dan field, with the remaining 3 kb/d occurring in the Gorm Area. Danish production is projected to continue to increase in 4Q97, averaging 246 kb/d. **Dutch** oil production also rose in September by 5 kb/d (to 30 kb/d) due to higher output from the P18 condensate field.

Pacific

Australian oil production surged in August, surpassing the 700 kb/d mark for the first time. Output rose by 22 kb/d compared to July's upwardly-revised level, on the strength of a similar-sized increase from the Wanaea-Cossack project. The Griffin and Wandoo fields also increased production in August, but the Griffin field's recovery from extensive maintenance earlier in the summer has been slower than expected. NGL production continued at relatively high levels, as higher natural gas production and expanded ethane extraction have raised NGL production from around 60 kb/d last year to over 75 kb/d this summer. Performance has also been surprisingly good in aging Gippsland Basin, where a few new platforms and workovers of older facilities have brought production back up to near the 240 kb/d level. Australian production is assumed to have held just above the 700 kb/d level in September before declining seasonally to around 680 kb/d for 4Q97. In **New Zealand** estimated September production was revised from 35 kb/d to 64 kb/d, as expected maintenance did not materialise.

Australian Oil Production - Second Half 1997
(thousand barrels per day)

	July Level	July Revision	August Level	August vs. July	August vs. est.	Sep[e]	4Q97[f]
Gippsland Basin	235	+3	239	-4	+9	230	224
Wanaea-Cossack	62	0	86	+24	+34	70	70
Griffin	43	0	48	+5	-14	62	62
Wandoo	40	0	7	+7	+1	51	48
Other Carnarvon	167	+10	164	-3	+6	158	154
Other Basins	56	+2	56	0	-1	56	56
Total Crude	**604**	**+16**	**640**	**+24**	**+35**	**64**	**614**
NGLs	79	+11	77	-2	+9	60	68
Total Oil	**683**	**+27**	**717**	**+22**	**+44**	**701**	**682**
vs. 1996	*22*		*108*			*120*	*100*

e estimated f forecast

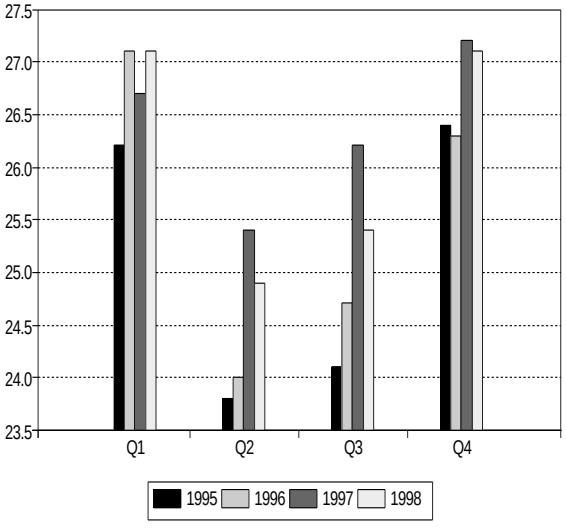
OPEC

OPEC crude production in October is estimated to have averaged 27.77 mb/d, an increase of 90 kb/d over the September figure of 27.68 mb/d (revised downwards by 70 kb/d). It was the fourth consecutive monthly gain for OPEC crude, which is now 1.41 mb/d above the June level.

The "call on OPEC crude plus stock change" has been revised upwards by 0.4 mb/d in 3Q97 (to 26.2 mb/d) and 0.1 mb/d in 4Q97 (to 27.2 mb/d). The average "call" in 1998 has been revised upwards by 0.2 mb/d (to 26.1 mb/d). The largest quarterly revisions for next year were for 3Q97 and 4Q97, up 0.3 mb/d and 0.5 mb/d respectively.

OPEC Crude Oil Production
(million barrels per day)

Quarterly Call on OPEC Crude + Stock Change
(million barrels per day)



For the first time since August, **Iraqi** crude production did not increase and did not drive the increase for OPEC as a whole. Iraqi exports are estimated to have fallen by 50 kb/d to 1.08 mb/d, with production assumed to have declined by the same amount, to 1.63 mb/d. There is some modest downside sensitivity to these preliminary figures as some loadings have already been delayed to conform to the $ 1.05 billion revenue ceiling for the period ending 4 December. **Saudi Arabian** crude production also fell in October, by 60 kb/d to an estimated 8 mb/d. Saudi crude output in September was revised upwards by 100 kb/d

to 8.06 mb/d. In the other direction, a 200 kb/d increase in **Iranian** crude output in October was the biggest month-to-month change within OPEC. Iranian supply in September was revised downwards by 210 kb/d (to 3.45 mb/d), but is assumed to have recovered to 3.65 mb/d last month. The main oil fields in Iran are mature and thought to be suffering from water incursion. In response to this, it appears as though the reservoir engineers are occasionally "resting" parts of the various fields, causing the periodic one-month drops in production from 3.6-3.7 mb/d to 3.4-3.5 mb/d. Month-to-month changes in crude production from the UAE, Kuwait, the Neutral Zone, and Qatar were all less than 15 kb/d.

Venezuelan crude production continued to increase in October, growing by an estimated 25 kb/d to 3.26 mb/d. Tanker-tracking data indicated that **Algerian** crude production also gained, averaging 0.87 mb/d, up 30 kb/d. On the downside, **Nigerian** crude production is thought to have fallen by 35 kb/d to 2.28 mb/d. Production from the Qua Iboe area increased sharply to 580 kb/d in October (+50 kb/d), due to the expansion of the offshore Ubit field. However, this was temporarily offset by planned maintenance at the Brass River terminal, causing a sharp cutback in crude production there. **Libyan** crude production is also estimated to have fallen to 1.39 mb/d (-25 kb/d), based on tanker tracking data.

Former Soviet Union (FSU)

Production

FSU crude production was more stable in 3Q97 than expected, averaging 7.28 mb/d and varying by less than 50 kb/d between July, August and September. Output surpassed 2Q97 levels primarily due to increases in Russian production, with output from the other Republics about equalling the previous quarter's. Growth versus 1996 was surprisingly balanced with gains from Russia and Kazakhstan, the latter being much larger on a percentage basis.

3Q97 FSU Oil Production

(thousand barrels per day)

	July	Aug	Sep	3Q97	*Changes vs. 2Q*	*vs. 96*
Russia	6169	6194	6182	6182	*71*	*125*
Kazakhstan	525	531	533	537	*3*	*76*
Azerbaijan	191	191	191	191	*2*	*4*
Other Republics	368	366	366	367	*0*	*-24*
Total	**7253**	**7282**	**7293**	**7276**	***76***	***180***

Azerbaijani production was up slightly, but there were declines elsewhere, particularly in Uzbekistan and Ukraine. As shown in the table at the right, **Russian** production increased in August. Gains in output from joint ventures and Lukoil offset small declines from Tatneft and Sidanco. Russian supply fell in September as the pattern was reversed, with Lukoil, the joint ventures, and Yukos showing declines and Gazprom, while the joint stock companies and the Tyumen Company showed modest increases.

Azerbaijani oil production held steady at 191 kb/d throughout 3Q97, according to data from state oil company (and the only current producer) SOCAR. The start-up of pipeline exports through Russia on 25 October is not likely to have had any visible impact on last month's production since the pipeline was then shut down for two days. Production through the new export route is only expected to add 6 kb/d to November production, as the new offshore Chirag platform will be brought on slowly. December supply could increase by as much as 20 kb/d and may allow some additional Tengiz production from **Kazakhstan** to displace co-mingled rail volumes going to the Georgian Black Sea port of Batumi. Production from Chechnya is also expected to rise, as a result of excess capacity along the repaired Baku-Novorossiisk pipeline route. Oil production in Kazakhstan is expected to increase to 588 kb/d in 4Q97, up 52 kb/d over the estimated 3Q97 average of 536 kb/d. Ongoing work at the Tengizchevroil joint venture project is expected to raise production to 170-180 kb/d in 4Q97, compared to recent production highs of around 150 kb/d. By the end of next year, Tengiz capacity is intended to reach 220 kb/d.

Net Exports

Net FSU exports averaged 2.41 mb/d in October, a drop of 110 kb/d from the previous month. Seaborne exports fell by 130 kb/d, with cargoes originating at Black Sea and Baltic Sea ports falling by 110 kb/d and 20 kb/d, respectively. The decline of the Black Sea exports was primarily due to the weather-related closures of Novorossiisk for a total of about 6 days spread throughout the month, reportedly causing two cargoes to be cancelled. Overland exports via the Druzhba Pipeline rose slightly, by 10 kb/d to 800 kb/d.

1995-1997 Net FSU Exports
(million barrels per day)

	1995	1996	1997 f	1Q97	2Q97	3Q97 p	June	July	Aug	Sept p	Oct p
Black Sea Exports*	0.98	1.14	†	1.07	1.16	1.31	1.16	1.52	1.33	1.07	0.96
Baltic Exports	0.61	0.77	†	0.83	0.92	0.76	1.12	0.84	0.72	0.73	0.71
Total Seaborne	**1.59**	**1.91**	†	**1.90**	**2.08**	**2.07**	**2.28**	**2.36**	**2.05**	**1.80**	**1.67**
Druzhba Pipeline**	0.83	0.87	†	0.90	0.82	0.75	0.73	0.70	0.75	0.79	0.80
Total Exports	**2.42**	**2.78**	†	**2.80**	**2.89**	**2.82**	**3.01**	**3.06**	**2.80**	**2.59**	**2.47**
Imports	0.05	0.06	†	0.07	0.05	0.06	0.06	0.06	0.07	0.07	0.07
Net FSU Exports	**2.37**	**2.72**	**2.74**	**2.74**	**2.84**	**2.76**	**2.95**	**3.00**	**2.74**	**2.52**	**2.41**
NB: Crude Oil	1.91	2.12	†	2.14	2.12	2.20	2.07	2.29	2.32	1.86	1.75
Oil Products	0.46	0.61	†	0.60	0.72	0.56	0.88	0.72	0.42	0.67	0.66

* includes a small amount of non-Russian crude oil exports
** crude oil only
† data not available
p preliminary
f forecast
r revised

Other Non-OPEC[2]

Oil production from other non-OPEC countries increased in 3Q97, despite lower July production in China, Brazil and Colombia. In August and September, strong growth in Mexico and an estimated recovery in Brazil led to an estimated gain of over 200 kb/d for the quarter. An acceleration of this growth is expected in 4Q97, spread across a number of the major oil producing developing countries, with significant gains also projected for the smaller producers.

Largest Non-OPEC Developing Country Oil Producers[1]
(thousand barrels per day)

	July		August		September		4Q97	
Country (latest data)	Level	*Change*	Level	*Change*	Level	*Change*	Level	*Change*
Mexico (Sep)	3404	*28*	3491	*87*	3534	*43*	3518	*43*
China (Aug)	3187	*-32*	3187	*0*	3193	*6*	3213	*25*
Brazil (Jul)	1141	*-34*	1187	*46*	1202	*16*	1235	*58*
Egypt (Jun)	915	*14*	930	*15*	935	*5*	937	*11*
Argentina (Jul)	875	*2*	882	*7*	899	*17*	884	*-1*
Oman (Sep)	915	*15*	917	*2*	919	*2*	919	*2*
India (Jul)	752	*7*	770	*18*	772	*2*	751	*-13*
Malaysia (Sep)	725	*0*	725	*0*	745	*20*	745	*13*
Angola (Jul)	727	*7*	735	*8*	740	*5*	753	*19*
Colombia (Aug)	618	*-11*	647	*29*	684	*37*	736	*86*
Other	3497	*-24*	3531	*34*	3561	*30*	3638	*109*
Total	**16756**	***-26***	**17001**	***245***	**17184**	***183***	**17330**	***352***
Memo:								
Crude	15467	*-29*	15665	*198*	15831	*166*	15986	*334*
NGLs	820	*3*	867	*47*	882	*15*	873	*17*
Other	469	*0*	469	*0*	471	*2*	471	*1*

1 excludes Central & East Europe and the FSU

Data from **Mexican** state oil company Pemex for September show robust gains in both crude oil and NGL production. Crude oil output rose by 25 kb/d to a new high of over 3.1 mb/d and NGL production was 18 kb/d above August's level. At 429 kb/d, Mexican NGL output is at its highest level since before the explosion at the Cactus gas plant in July 1996. Due to the steady gains throughout the third quarter, the 4Q97 average is projected to increase by over 40 kb/d. A fire at the Chuc platform in the Gulf of Campeche is assumed to have had only a modest impact upon October production.

The situation elsewhere in Latin America is less positive, with the July data from **Brazil** indicating a drop in offshore production in the Campos Basin, possibly due to maintenance, leading to an overall decline of 34 kb/d for the month. It is assumed that production has recovered in the three succeeding months and will continue to rise in 4Q97, but this has yet to be confirmed by official data. Similarly for **Colombia**, reported declines for July were made up in August and September. However, an ongoing escalation of

2 including some OECD Member countries, see note on back cover

guerrilla attacks on pipelines has slowed down the expected increase in output associated with the mid-summer completion of the Ocensa pipeline project. Such activity flared up in advance of the local and regional elections held on 26 October and is now considered likely to be a factor until the national election next spring. The production situation in **Ecuador** is also being restrained by physical and political pipeline problems.

As discussed in last month's Report, **Chinese** production declined over the first two months of 3Q97 due primarily to lower offshore output. However, recent exploration successes in the East China Sea and the Bohai Gulf have the potential to improve the medium-term outlook. The future of **Indian** production is less certain as the offshore gains in the first quarter did not continue into the second quarter.

OECD STOCKS

Industry Stock Changes in September

Preliminary data from OECD Member Countries for September show a major build in industry stocks. Combined with a massive upward revision to August data and smaller increases in July data, the 3Q97 stockbuild was over 900 kb/d. Oil-in-transit was also reported to be at an at least 10-year high. The combination of the onshore stockbuilds and increases in oil-at-sea resolves the discrepancy between the calculated supply/demand difference and measured inventory changes pointed out in last month's Report.

The September build exceeded 1 mb/d as both aggregate OECD crude oil and gasoline stocks were able to be rebuilt during the month, reversing the trend of the summer. Crude oil inventories rose by about 0.5 mb/d and gasoline stocks by a little more than half that amount, but due to the decline in July and August each fell by an average of 0.2 mb/d for the quarter and end-September crude oil and gasoline stocks remain not too far from last year's low levels. Stocks of middle distillates grew again in September, albeit at a slower rate of 0.2 mb/d. The average 3Q97 distillate build of 0.6 mb/d accounted for two-thirds of the OECD stockbuild.

Preliminary Industry Stock Change in September and Third Quarter
(million barrels per day)

	September				Third Quarter			
	North America	Europe	Pacific	Total	North America	Europe	Pacific	Total
Crude Oil	**0.09**	**0.23**	**0.15**	**0.48**	**-0.18**	**0.17**	**-0.16**	**-0.17**
Gasolines	0.37	-0.10	-0.01	0.27	-0.07	-0.07	-0.01	-0.16
Distillate	0.22	-0.13	0.10	0.19	0.27	0.20	0.17	0.64
Fuel Oil	0.03	0.07	0.00	0.10	-0.02	0.04	0.00	0.02
Other Products	0.03	-0.01	0.02	0.05	0.47	0.07	0.09	0.63
Total Products	**0.65**	**-0.17**	**0.11**	**0.60**	**0.64**	**0.24**	**0.24**	**1.12**
Other Oils[1]	-0.01	-0.02	0.03	-0.01	-0.07	0.01	0.03	-0.03
Total Oil	**0.73**	**0.04**	**0.30**	**1.07**	**0.39**	**0.42**	**0.12**	**0.93**

1 includes feedstocks, NGLs and other hydrocarbons

A majority of the 3Q97 inventory growth is now thought to have occurred in August. Substantial upward revisions to estimates of US product stock and European crude and product stocks have resulted in an OECD industrial stockbuild of over 1.9 mb/d, nearly 1 mb/d higher than the preliminary assessment made last month. Smaller revisions were made for selected countries and categories going back as far as May.

Revisions to Revisions May-August OECD Industry Stock Levels
(million barrels)

	May	June	July	Aug
North America				
United States	-	-	-	20
Canada	-	1	0	2
Total	**-**	**1**	**0**	**22**
Europe				
Big 4 [1]	-	-	-	8
Netherlands	-1	-	-	4
EC10 [2]	0	-1	6	10
Other [3]	6	8	10	17
Total	**5**	**7**	**15**	**39**
Pacific				
Japan	-	-	0	-7
Australia/NZ	-	-	-	-4
Total	**-**	**-**	**-**	**-11**
OECD	**5**	**8**	**16**	**50**

	May	June	July	Aug
Crude Oil				
North America	-	1	1	-4
Europe	0	8	9	19
Pacific	-	-	0	-13
Total	**0**	**9**	**10**	**3**
Products				
North America	-	-1	-2	33
Europe	0	-1	2	12
Pacific	-	-	0	2
Total	**0**	**-2**	**0**	**46**
Other Oils				
North America	-	1	1	-7
Europe	-2	0	5	9
Pacific	-	-	0	-1
Total	**-2**	**1**	**5**	**1**

1 France, Germany, Italy and the United Kingdom
2 Austria, Belgium, Denmark, Finland, Greece, Ireland, Luxembourg, Portugal, Spain and Sweden
3 Hungary, Iceland, Norway, Switzerland and Turkey

As shown in the table on the previous page, the August revision totalled 50 mb, 46 mb of it in oil products. Europe accounted for 60% of the total revision,with crude oil, products and other oils stock estimates all raised substantially. At 16 mb, the upward adjustment to the July figure was much smaller and left a small stockdraw for the month (150 kb/d), as a consequence of the absence of Iraqi exports and peaking US gasoline demand. The changes for May and June were less than 10 mb, but also are upwards.

Preliminary Stock Levels at the End of September

OECD industry stocks at the end of September are estimated to have been 2554 mb, 107 mb above last September and 32 mb higher than in August. Inventories also are now above 1995 levels for the comparable month, but lag September 1994 by about 25 mb. North American oil product stocks are substantially higher than end-September 1996 and European product inventories are solidly ahead of year-earlier levels.

Year-on-Year End-September OECD Industry Stock Comparisons

(million barrels)

	North America	Europe	Pacific	Total
Crude Oil	+1	+7	0	+8
Products	+73	+33	+5	+111
Other Oils [1]	-12	+2	-2	-12
Total Oil	**+62**	**+42**	**+3**	**+107**
vs. 1995	*+6*	*+14*	*+5*	*+25*

1 includes feedstocks, NGLs and other hydrocarbons

Regional Stock Developments

Preliminary data indicate that the rise in **US** inventories in September was led by a sharp 650 kb/d rise in "other product" inventories. Distillate inventories also rose again, but by a more moderate 6.6 mb, versus a distillate stockbuild of over 10 mb in August. Gasoline inventories rose by 375 kb/d reaching just under 200 mb. Crude oil inventories were able to be built by a modest 90 kb/d, despite refinery crude runs reaching a new record of 15.32 mb/d in September, as high levels of crude imports compensated for the increase in crude runs. With a small decline in inventories of non-crude feedstocks and a small rise in fuel oil stocks, the increase for the month was 22 mb, or 730 kb/d. The revised increase for August was over 900 kb/d.

Preliminary data from the US DOE for the first 24 days of October indicate US oil inventories were relatively stable, advancing by about 80 kb/d. A rebuilding of non-crude feedstocks was offset by lower stocks of other products, most likely LPGs, which had reached record levels in September. Stocks of distillates and fuel oil were each up by just over 50 kb/d, while crude inventories fell by 25 kb/d.

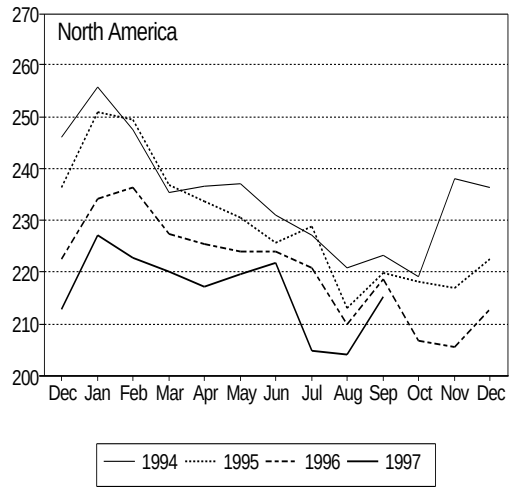
European industry stocks rose modestly in September following a massive build of over 1 mb/d in August as higher French stocks and gains in some of the smaller European countries more than offset declines in the UK, Germany and Italy. Total Dutch stocks are also estimated to have increased. The September build occurred exclusively in crude oil and to a lesser extent in fuel oil as all other categories retreated after the strong gains in August. European crude and distillate stock levels are sufficiently above year-earlier levels to compensate for year-on-year declines in gasoline and fuel oil inventories.

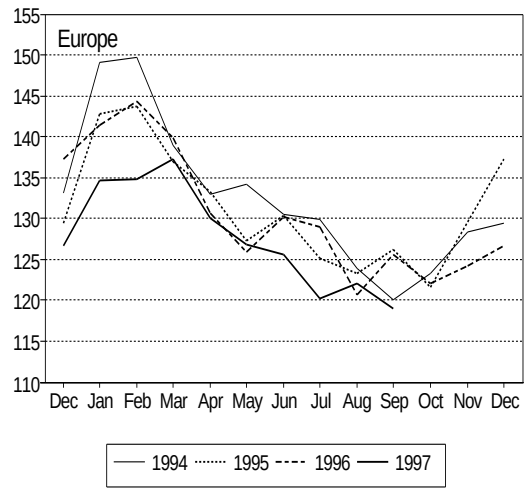
Oil stocks in **Japan** increased by 301 kb/d in September, about half, as a result of crude oil stock building. Japanese crude oil stock levels recovered to now exceed year-earlier levels by 2 mb after dipping below a year ago in August. Distillate inventories rose by another 97 kb/d to 64 mb and are 0.7 mb/d higher than at the end of September 1996. Gasoline stocks are 0.9 mb above year-earlier levels, despite a small decline for the month.

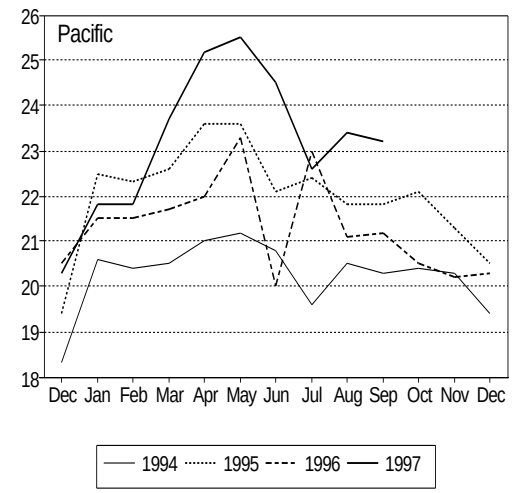
Regional OECD Industry End-Month Stocks: Gasoline and Middle Distillates

(Million barrels)

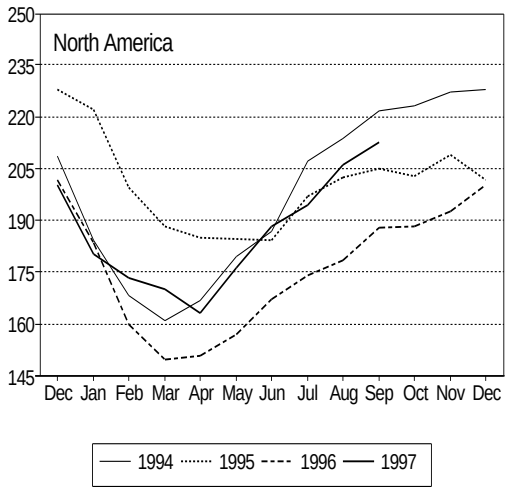
Gasoline

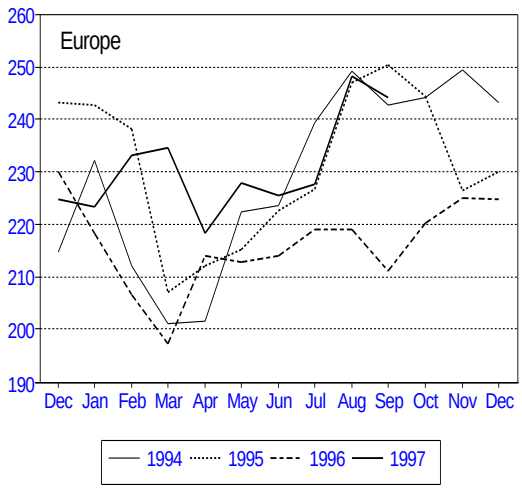


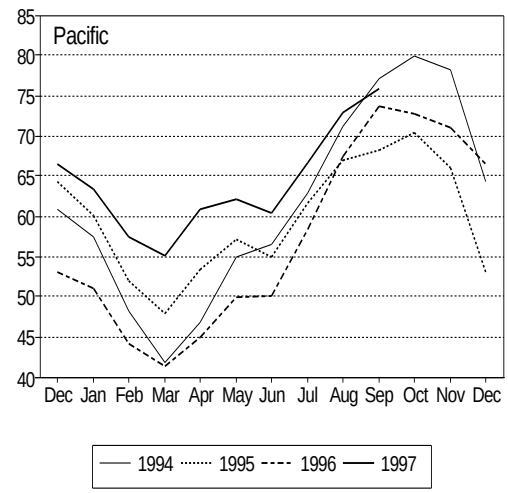




Middle Distillates



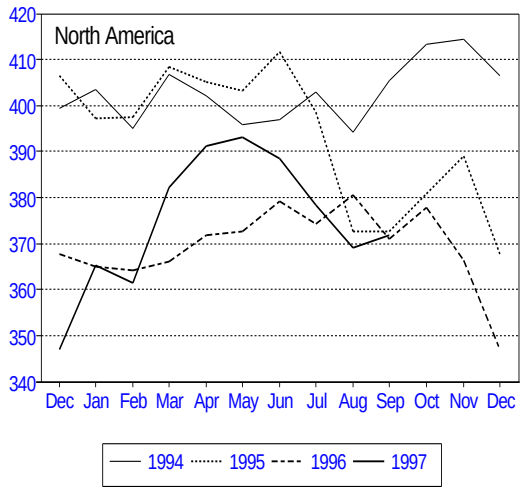


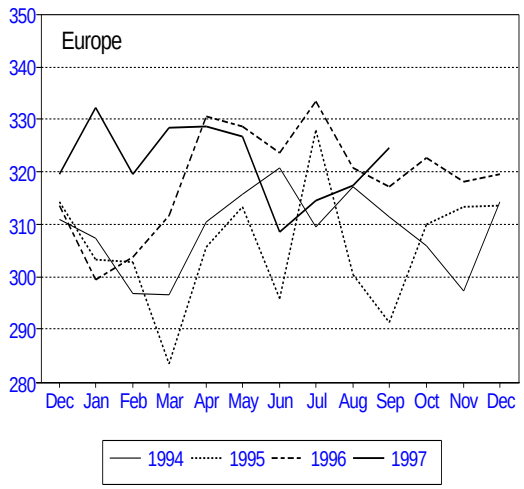


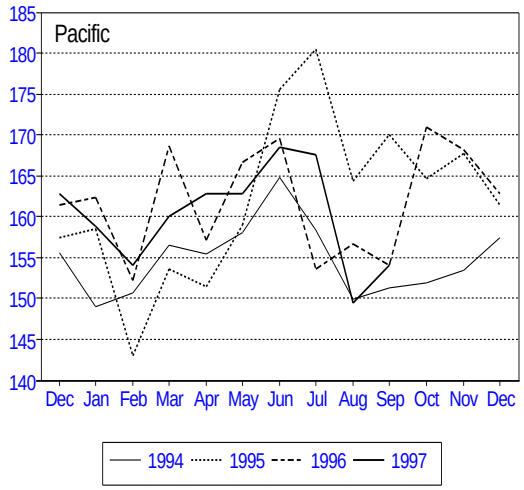
Regional OECD Industry End-Month Stocks: Crude Oil and Fuel Oil

(Million barrels)

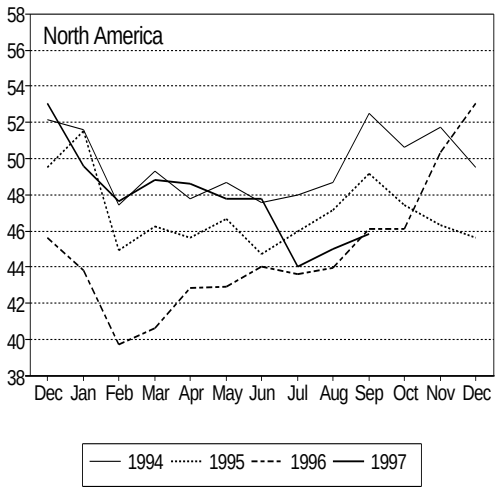
Crude Oil

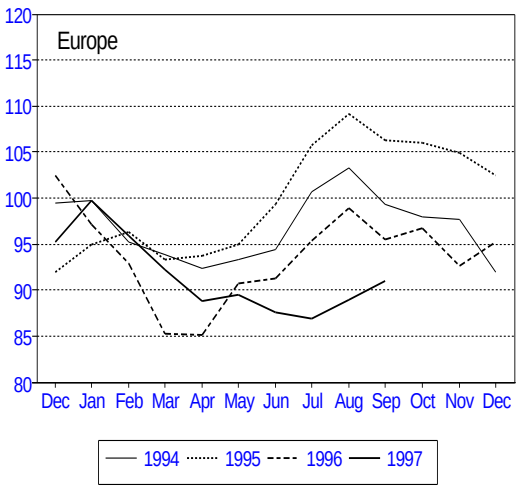


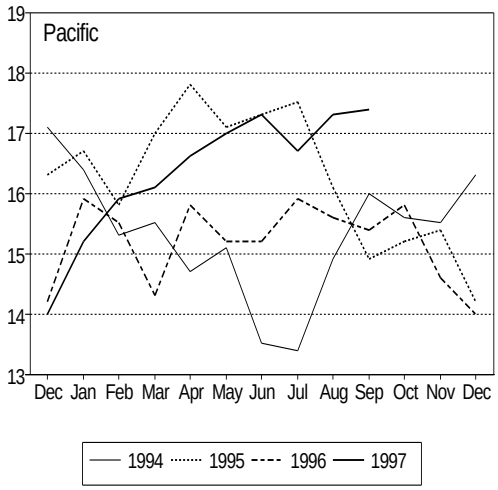




Fuel Oil



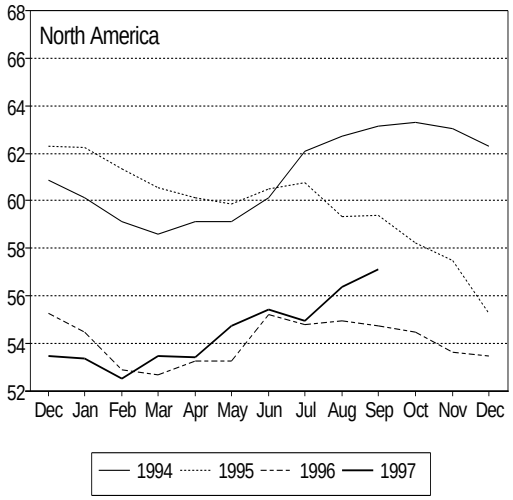


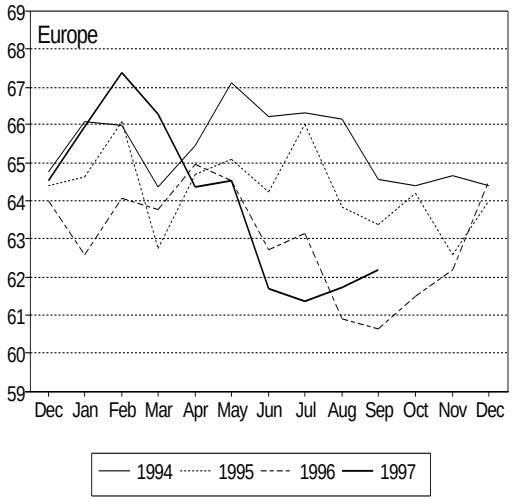


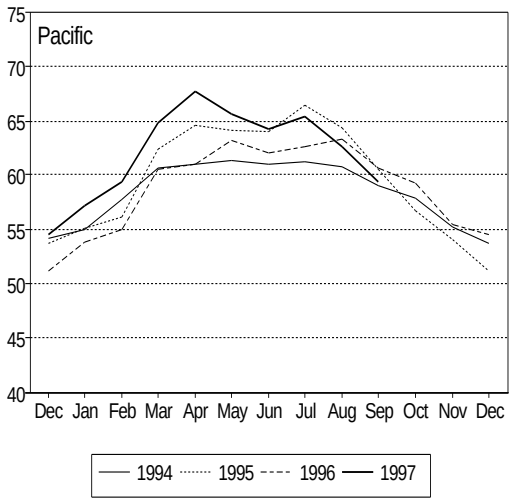
Regional OECD End-Month Industry Stocks

(In days of forward demand and million barrels)

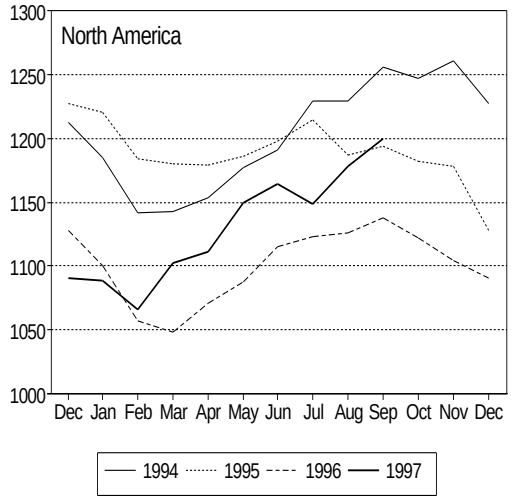
Days[1]

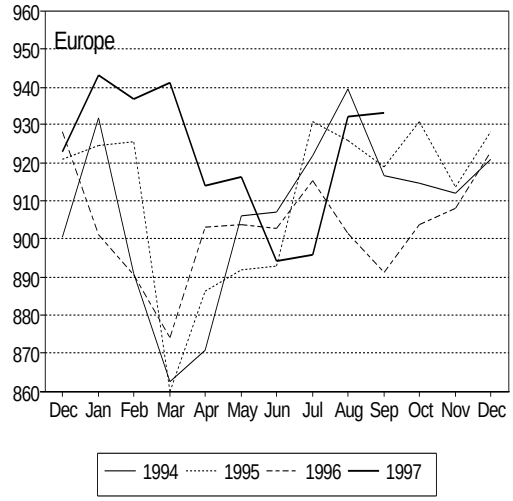


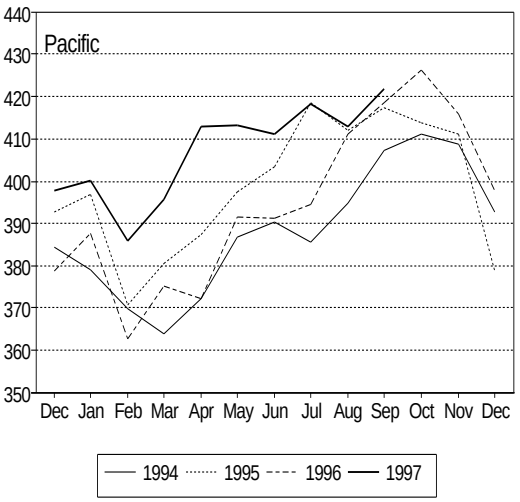




Million Barrels





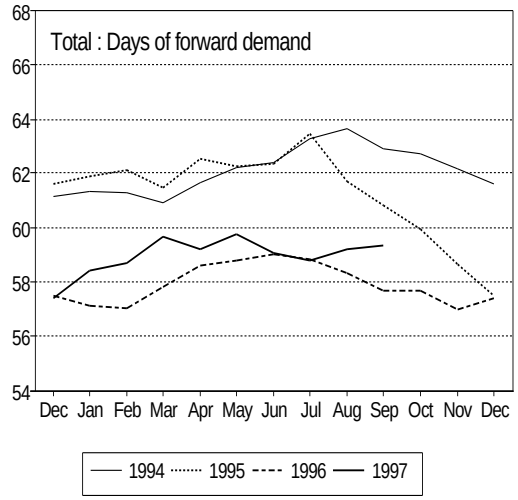


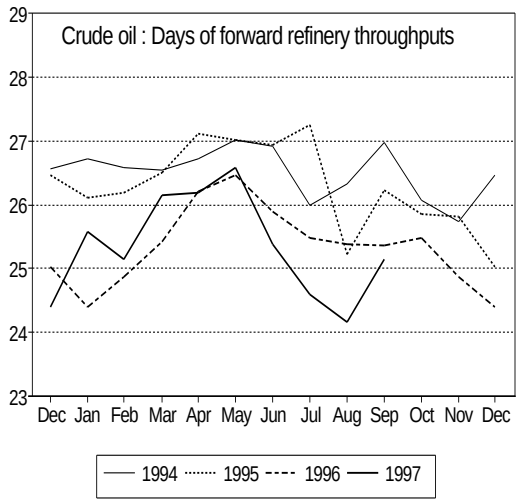
1 Days of total stocks are based on demand for the next three months.

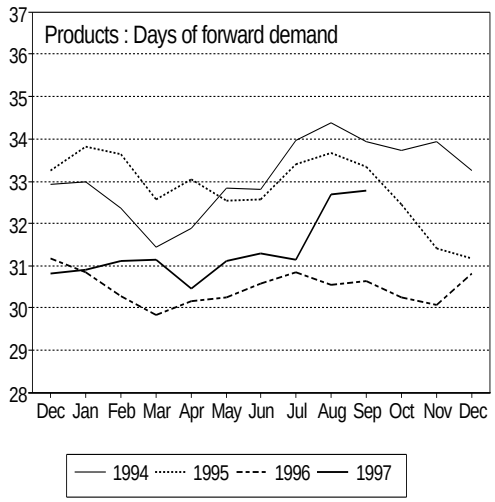
Total OECD End-Month Industry Stocks

(In days and million barrels)

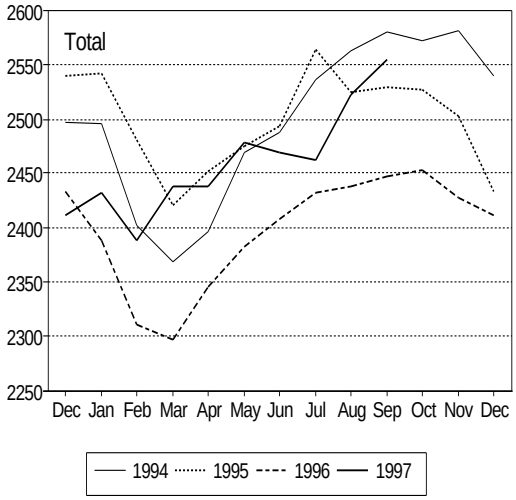
Days[1]

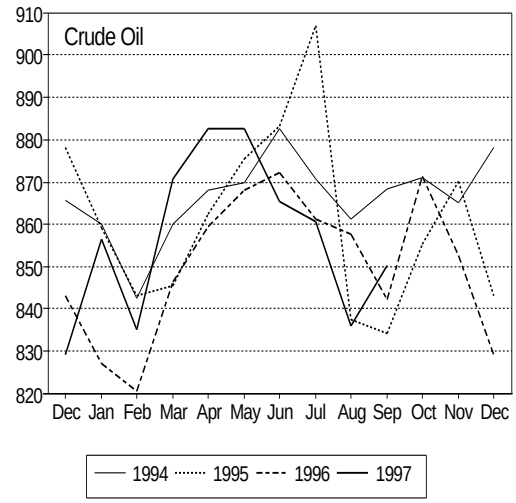


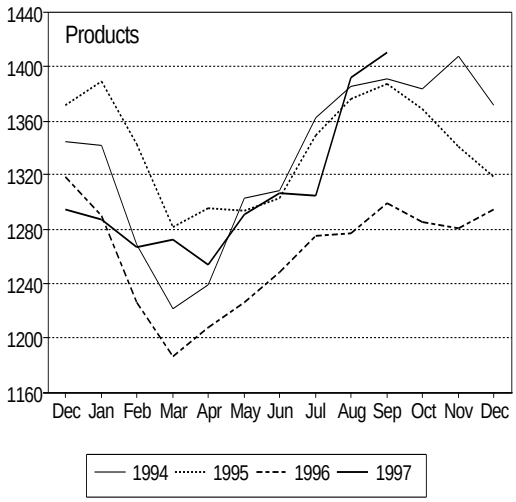




Million Barrels







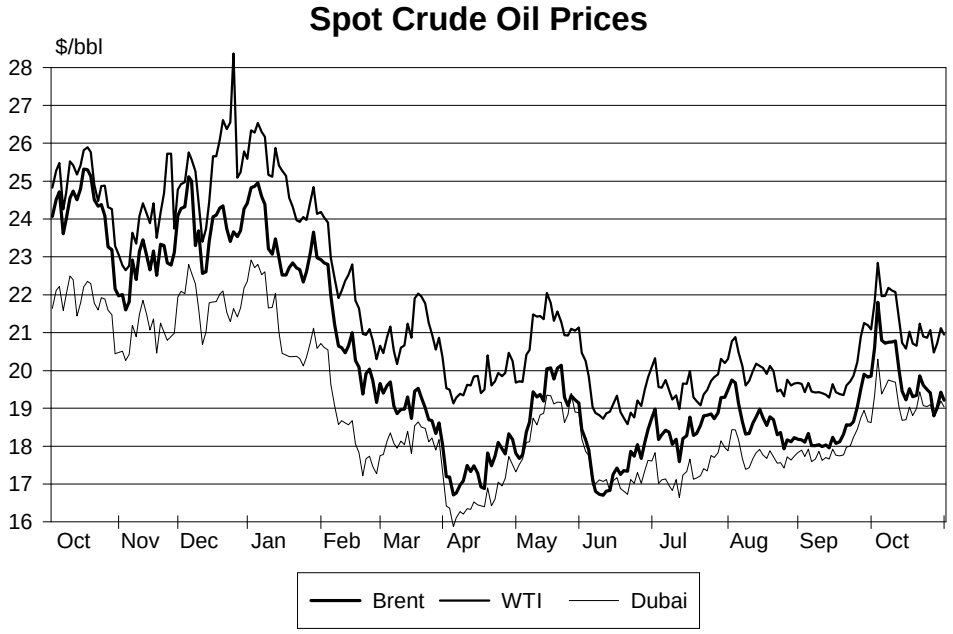
1 Days of total and product stocks are based on demand for the next three months. Days of crude oil stocks are based on refinery throughputs for the next month.

OIL PRICES AND REFINERY ACTIVITY

Summary

- Despite an obvious oversupply in North Sea and West African **crude** markets, October average prices for Atlantic Basin benchmark crudes Brent and WTI reached the highest level since February. Another round of mounting tension in the Middle East caused crude prices to surge in late September and early October. Once tensions eased, prices settled into a new and higher trading range for most of the second half of the month. The new range reflected lingering concerns about the smooth continuation of Iraqi crude exports in December. Sour crude markets in the Mediterranean gained support from these concerns amid tightening supplies. Asian crude markets strengthened as high freight rates deterred the influx of West African crude grades. Globally, crude supply/demand appears to be fundamentally balanced, with obvious weakness in the North Sea and West African markets offset by firm crude demand in the US, the Mediterranean and Far Eastern markets.

- Global **product** markets remained trapped in the trough between the gasoline-dominated summer season and the distillate-dominated winter season. Some limited support for product prices was gained from planned refinery maintenance shutdowns, particularly in Europe and Asia. Resulting incremental refiner demand for product concentrated on gasoline. Gasoline stocks remained at low levels on both sides of the Atlantic. Distillate prices were under downward pressure in all major markets due to muted demand, ample supplies and comfortable and rising inventory levels. The most notable exception to generally weak product markets was the Atlantic Basin fuel oil market. Surging US natural gas prices led to strong fuel oil demand from US utilities and contributed to an appreciable rise in both US and European fuel oil prices.
- Average **refining margins** declined in all major refining centres, as weak product markets lagged the rise in crude oil prices. The steepest decline in margins occurred in the US. Hydroskimming margins were supported by the general strength in fuel oil markets, declining by appreciably less than cracking margins.
- In September, aggregate refinery **throughputs** in OECD countries are estimated to have decreased by 0.36 mb/d to 34.7 mb/d, but were an impressive 1.3 mb/d or 4% higher than a year earlier. Throughput levels in October appear to have decreased in the US, Europe and Japan. Average refinery utilisation in OECD countries declined by one percentage point to 93.8% in September, but was nonetheless almost 2.9 percentage points higher than last September.



Spot Crude Oil Prices

After surging in late September and early October to almost $22/bbl and $23/bbl respectively due to mounting tension in the Middle East, prices for Atlantic Basin benchmark crudes Brent and West Texas Intermediate settled for most of the second half of the month into a volatile trading range around $19.50/bbl and $20.90/bbl. The initial spurt was led by rising supply concerns in physical markets and a boost in bullish sentiment and trading activity in futures markets, despite a lack of fundamental justification. Subsequently, easing tensions in the Persian Gulf sparked a technical sell off on crude futures markets, led by non-commercial traders unwinding large scale long positions (see lower graph on following page) acquired during the run-up of prices just days earlier.

Interestingly, prices for Brent and WTI settled in the second half of the month into an appreciably higher trading range than that as of late, despite an obvious supply overhang in West African and North Sea crude markets during October, which was trapped in European markets due to the lack of arbitrage possibilities. Prices repeatedly failed to breach significant support levels. This contrast with the extended sideways trading period in August and September (see graph on preceding page), when the Atlantic Basin saw an even tighter crude supply/demand balance. Because of the mounting UN/Iraq tension surrounding the UN weapons inspection programme, crude prices continued to contain a risk premium reflecting market doubts about the chances for a smooth continuation of Iraqi crude exports in a third UN-Iraq oil-for-food deal in December. Worries have arisen about the low level of crude stock cover in the Atlantic Basin going into the peak demand winter quarters, despite the evidence of an adequately supplied market, as discussed at the beginning of this Report.

Spot Crude Oil Prices and Differentials

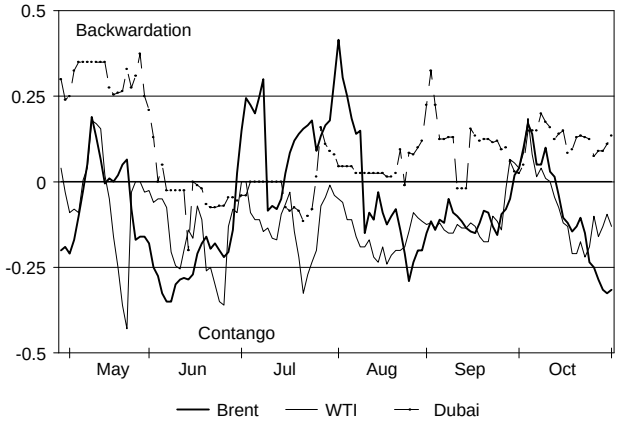
(monthly and weekly averages, $/bbl)

					Week Ending:					
	Aug	Sep	Oct	Change	26-Sep	03-Oct	10-Oct	17-Oct	24-Oct	31-Oct
WTI	19.98	19.78	21.31	1.53	20.06	21.63	22.06	20.92	20.87	20.84
Brent Dated	18.68	18.46	19.93	1.47	18.87	20.39	20.76	19.56	19.52	19.16
Urals (del. Mediterranean)	17.84	17.70	19.26	1.56	18.09	19.71	20.04	18.80	18.86	18.65
Dubai	17.77	17.98	19.20	1.22	18.28	19.17	19.62	18.86	19.07	19.00
Tapis	20.12	19.42	21.32	1.90	19.43	20.30	21.66	21.32	21.39	21.43
Brent over Dubai	0.91	0.48	0.73		0.58	1.22	1.14	0.69	0.45	0.16
WTI over Brent	1.30	1.32	1.38		1.19	1.24	1.30	1.37	1.35	1.68
Tapis over Brent	1.44	0.96	1.39		0.56	-0.09	0.90	1.76	1.87	2.27
Brent 1st month minus 2nd month	-0.03	-0.10	-0.07		-0.11	0.06	0.07	-0.06	-0.15	-0.29
WTI 1st month minus 2nd month	-0.16	-0.11	-0.07		-0.11	0.09	0.03	-0.09	-0.20	-0.12

In early October, dated **Brent** prices were pulled higher by surging WTI prices on the NYMEX, rather than by local demand. Ample and rising supplies in physical North Sea crude markets turned into an obvious oversupply by mid-month as prompt European refiner demand for crude waned in line with a steep decline in refining margins. North Sea grades increasingly encountered competition from West African crudes in traditional home markets. The closed arbitrage possibility for exports of North Sea grades to the US confined these grades to the region, compounding the downward pressure on regional crude prices. This led to a meltdown in typical premia of higher quality Nigerian and other North Sea grades to dated Brent (Nigerian Qua Iboe was even on offer at a *discount* to Brent). There was also a pronounced widening of the renewed contango in Brent prices. Front month prices were at a $0.32/bbl discount to second month prices by end October, as shown in the graph to the right. The oversupply in North Sea crude markets gradually dissipated towards the end of October, mainly as a result of stronger refiner demand for crude due to improved refining margins. At the onset of November, fundamentals in the Atlantic Basin appear to be more balanced, despite the rise in North Sea supplies.

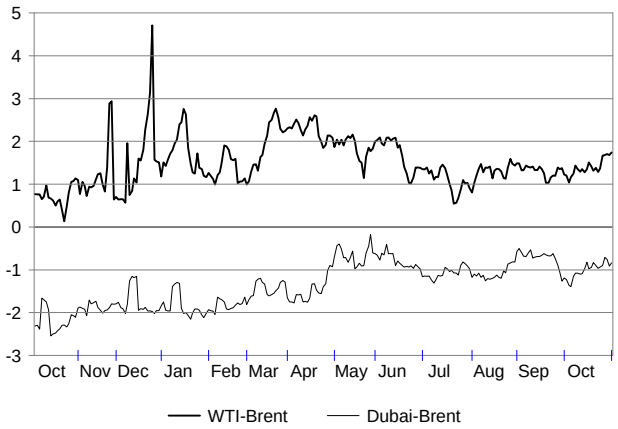
Forward Differentials

First month minus second month ($/bbl)



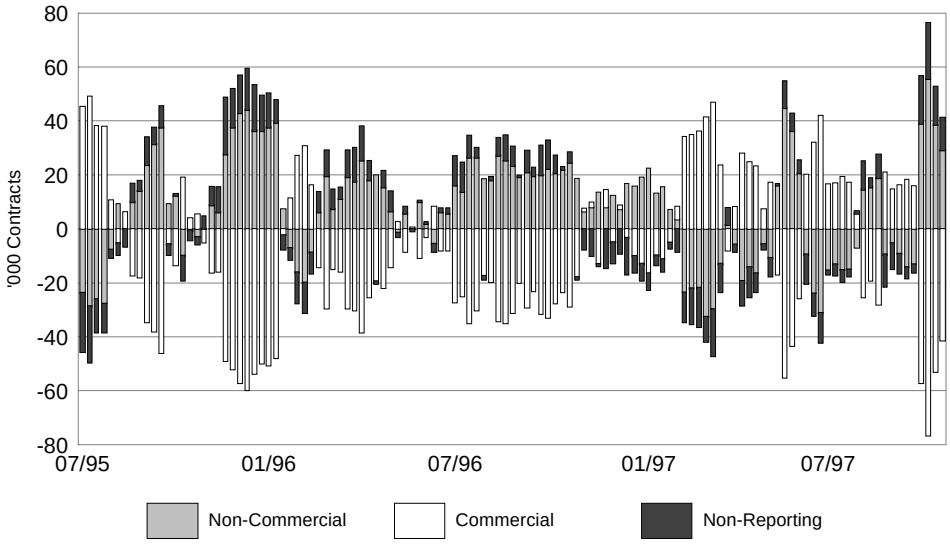
The weakness in physical European crude markets relative to those in the US was also reflected in the steeper decline of Brent prices from early-month highs (as shown by the widening of the WTI/Brent differential in the graph to the right). The North Sea supply situation also created a higher susceptibility to downward price pressure during the second half of the month. Nonetheless, this bearish sentiment in physical markets was partly offset by technical strength in Atlantic Basin crude futures markets emanating from lingering supply concerns for the latter part of 4Q97 and low forward crude stock cover in both Europe and the US.

WTI/Brent/Dubai Differentials
($/bbl)



Strong buying activity of non-commercial market participants in the **WTI** futures contract on the NYMEX pulled the whole oil market higher in late September and early October. The open interest in the WTI contract reached the highest level in the year. Net positions of non-commercial and non-reporting traders changed from a net short position of 15,980 contracts on 23 September to a net long position of 76,546 contacts on 7 October (representing a total volume of 92,526 contracts or 92 mb of crude). This buying spree was fuelled by bullish market sentiment due to supply anxiety resulting from rising tensions in the Middle East. When these tensions eased, traders took profits by unwinding from their long positions. The volume of net long positions declined by 35,183 contracts by 21 October, as shown in the graph below. As a consequence, WTI prices declined by more than $2/bbl, but remained firmly supported in the second half of October by continuing firm prompt crude demand from refiners and concerns about low US crude inventory levels. The physical WTI market moved back into shallow contango as shown in the graph on the preceding page.

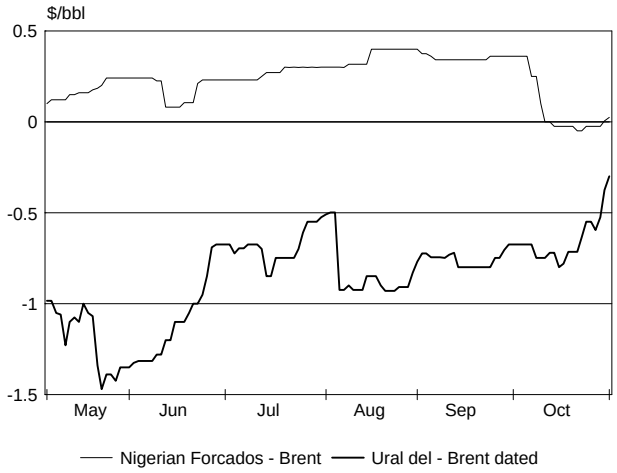
Distribution of Net Open Positions of WTI Contracts on the NYMEX



Physical US crude markets gained additional support in the second half of the month from the brief weather-related closure of two Mexican crude export ports and concerns about the effect of a potential oil workers strike in Colombia. Differentials of regional, short-haul sweet crudes to WTI came under strong downward pressure as a result of distressed West African crude cargoes on the US Gulf Coast being offered on a delivered basis.

The prompt supply overhang of **West African crude**, which developed in September, intensified in early October with increasing volumes of unsold barrels on the water. Exceptionally high freight rates to Asia and ample crude supplies already on offer on the US Gulf Coast kept export possibilities firmly closed and confined these barrels to Europe. This led to rising competition with North Sea grades in European markets. The collapse in premia for Nigerian grades to dated Brent (see graph to the right) triggered sales of Nigerian crude to the Mediterranean, the UK and Scandinavia. Nigerian Qua Iboe, typically traded at a premium to Brent was on offer at a *discount* to dated Brent. Due to the price reaction, the end of the month sales into European markets had cleared the overhang in October-loading barrels.

Urals and Forcados compared to Brent



Sour Mediterranean crude markets remained firm throughout the month with the Brent/**Urals** differential narrowing from $0.68/bbl at the start of the month to $0.38/bbl at the end of October, as shown in the graph above. Firm refiner demand for crude during the last three weeks of the month (in line with improved refining margins) faced tight sour crude availabilities, resulting from a series of weather-related and maintenance-related loading delays for Urals in the Black Sea, as discussed in the Supply section. Additional support for Mediterranean sour crude markets was derived from the projected decline of about 175 kb/d of Iraqi exports into the Mediterranean in November in order to remain within the $1.07 billion ceiling for the current tranche of the Iraqi “oil-for-food” exports .

Prices for Asian sour benchmark crude **Dubai** strengthened during the first three weeks of the month relative to Brent prices, mainly as a result of the decline in Brent prices. Weak Asian demand for incremental crude barrels, linked to prospects of a mild winter in northern Asia, weighed on Middle Eastern crude prices and differentials. Towards the end of the month, however, prices gained support from improving Asian demand, despite the narrowing of the Brent/Dubai differential. Market concerns about the volatility in Brent prices increased and deterred Asian refiners from the purchase of Brent-related West African grades for incremental crude demand. The Brent/Dubai differential narrowed to about $0.85/bbl at the end of October (see upper graph on preceding page) despite the fact that no Dubai cargoes have been bought by Indian Oil Corporation in its latest crude tender for December loading.

The market for sweet Asian crude grades strengthened amid active trade at firming levels. Prices for light, sweet Asian benchmark crude **Tapis** gradually increased relative to Brent, both as a result of the decline in Brent prices and the export of excess supplies of Tapis to the US. Prices for heavy, sweet Asian benchmark crude **Minas** strengthened primarily as a result of firm regional demand, particularly from China. Minas prices rose from a discount to Brent in late September to a premium of around $1/bbl by late October.

The first 600 kb cargo of North Sea Oseberg crude oil was sold from Norwegian Statoil’s newly-leased storage facility in Okinawa to South Korea for December loading on a fob Okinawa basis. Statoil's Okinawa storage is leased from a Japanese oil company and is reportedly able to accept ultra large crude carriers (ULCCs).

Freight rates from the Persian Gulf have soared to a six-year high. VLCC fixtures to Rotterdam from the Gulf are now almost $2.20/bbl, more than 10¢/bbl higher than the previous peak in August. Eastbound vessels have seen a similar surge with costs for a VLCC moving to Japan reaching $1.71/bbl in early November, almost double the rate compared to the same time last year. Rising long-haul trade has increased the volume of oil at sea and drained the market of available VLCCs, pushing the cost of shipping sharply upwards.

Table 8 shows that the preliminary weighted average **CIF crude import costs** into IEA countries in August was $18.13/bbl, $0.11/bbl higher than in July. The corresponding estimates for September and October are $18.14/bbl and $19.39/bbl respectively.

Spot Product Prices in October

Europe

Spot **gasoline** prices in Rotterdam and in the Mediterranean held steady during October following the decline from contra-seasonally strong prices in September. Planned and unplanned European refinery maintenance shutdowns led to incremental gasoline demand from refiners, particularly in northern Europe, and supported price levels. The unexpectedly firm European gasoline market in early October offset the impact of closing arbitrage possibilities for exports to the US, which had opened in late September. Additional support for gasoline prices in Northwest Europe was derived from strong gasoline demand from the Baltic, where traders were building stocks ahead of the ice-bound closure of the main Baltic gasoline import port of Riga. Mediterranean spot gasoline prices also remained firm as a result of regional refinery outages and demand from Black Sea and eastern Mediterranean countries. While contracting appreciably in October, the average regular gasoline/Brent differential in Rotterdam remained at $3.03/bbl, considerably higher than last October's low of $1.35/bbl.

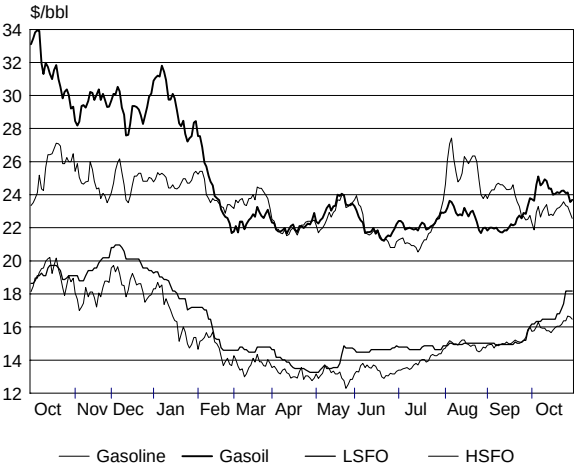
European **naphtha** prices declined from early October peak values amid easing supply tightness, weak regional demand and a closed arbitrage possibility for European naphtha to Asia. This contributed to gradually rising gasoline/naphtha differentials, improving regional **reforming margins**, which remained below the threshold for reforming profitability, however.

European **gasoil** markets did not live up to seasonal expectations due to muted prompt demand and stock levels perceived by the market as comfortable. Low water levels on the Rhine led to a rise in unit freight rates for barge trade. This reinforced the demand weakness in Amsterdam-Rotterdam-Antwerp distillate markets. The average gasoil/crude differential in Rotterdam and in the Mediterranean increased slightly. Spot prices trended lower during all but the first week of the month, roughly tracking developments in benchmark crude prices. As shown in the right-hand graph below, premia for **diesel** prices versus gasoil increased appreciably in Rotterdam and, to a lesser extent, in the Mediterranean, primarily as a result of the switch to tighter winter grade specifications. Additional support to prices was gained from strong prompt diesel demand and tight diesel supplies, particularly in the Mediterranean (due to an unplanned refinery outage). The rise of diesel premia attracted low-sulphur diesel imports from the US.

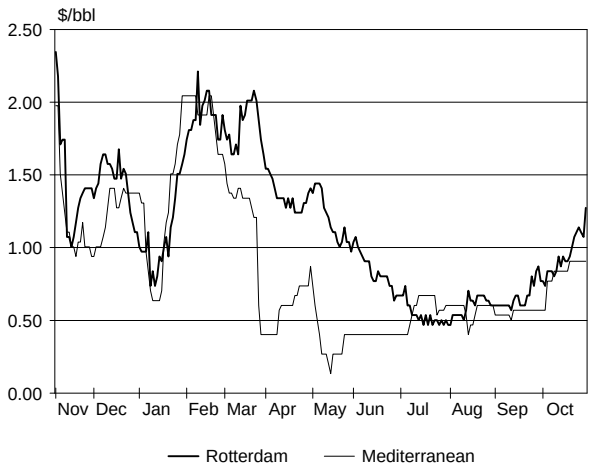
Spot **kerosene** prices in Europe generally moved in line with those of gasoil. The kerosene/gasoil spread in Rotterdam widened slightly in a well-balanced kerosene market, as refiners maximised diesel production at the expense of kerosene. There was firm demand for small kerosene parcels (10 kt) which, however, faced supply offers for larger cargoes only.

Spot **LSFO** prices in Northwest Europe and in the Mediterranean increased by almost $2/bbl during October, led by the steep rise in US LSFO prices and the consequent opening of transatlantic arbitrage possibilities for exports to the US. Regional markets were also tightened by improved fuel oil demand in the Mediterranean due to declining hydroelectricity production following low rainfall and ongoing European refinery maintenance. The Brent/LSFO differential consequently narrowed from $3/bbl during most of August and September to less than $1/bbl by the end of October, the narrowest spread since February 1996.

Rotterdam Product Prices



Low Sulphur Diesel-Gasoil Differential



European **HSFO** prices continued to drift higher amid firm regional demand in a thinly supplied spot market. Product tightness was exacerbated by declining supplies of Russian fuel oil. The LSFO/HSFO differential in Rotterdam widened during the month, after remaining near parity during most of August and September.

Spot Product Prices

(monthly and weekly averages, $/bbl)

	Gasoline				Gas Oil				Low Sulphur Residual Fuel Oil			
	Rotterdam	Med	NY Harbour	Singapore	Rotterdam	Med	NY Harbour	Singapore	Rotterdam	Med	NY Harbour	Singapore
Aug	25.58	26.45	29.40	23.05	22.76	21.17	22.69	22.47	14.99	14.97	16.28	15.67
Sep	23.85	25.28	25.88	23.14	22.29	20.84	22.28	23.22	15.09	15.11	16.72	15.88
Oct	22.96	24.07	24.49	25.22	24.27	23.25	24.05	23.87	16.94	16.99	19.31	16.54
Oct-Sep	-0.89	-1.21	-1.39	2.08	1.98	2.41	1.77	0.64	1.85	1.88	2.59	0.65
Week ending:												
26-Sep	22.94	24.26	24.90	23.39	22.72	21.46	23.23	23.82	15.10	15.25	17.36	15.92
03-Oct	22.48	23.74	26.23	24.82	23.81	22.69	24.68	23.73	16.09	16.21	18.49	15.97
10-Oct	23.11	24.56	25.15	25.76	24.82	23.66	24.50	24.00	16.43	16.59	18.72	16.26
17-Oct	22.83	24.01	23.84	25.16	24.20	22.99	23.60	23.43	16.49	16.64	18.72	16.47
24-Oct	23.34	24.10	23.90	24.98	24.17	23.24	23.75	24.09	17.26	17.16	19.68	16.44
31-Oct	22.89	23.80	23.76	25.11	23.99	23.29	23.68	23.96	18.18	18.10	20.60	17.47

Product Price Differentials to Crude Oil Prices

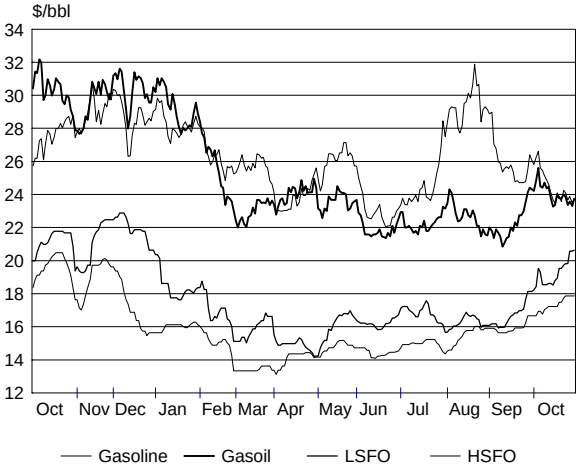
	Brent	Urals	WTI	Dubai	Brent	Urals	WTI	Dubai	Brent	Urals	WTI	Dubai
Aug	6.90	8.61	9.42	5.28	4.08	3.33	2.71	4.69	-3.69	-2.86	-3.70	-2.11
Sep	5.39	7.58	6.10	5.16	3.83	3.14	2.51	5.24	-3.37	-2.59	-3.06	-2.10
Oct	3.03	4.81	3.18	6.02	4.34	3.99	2.74	4.67	-2.99	-2.27	-2.00	-2.66

Americas

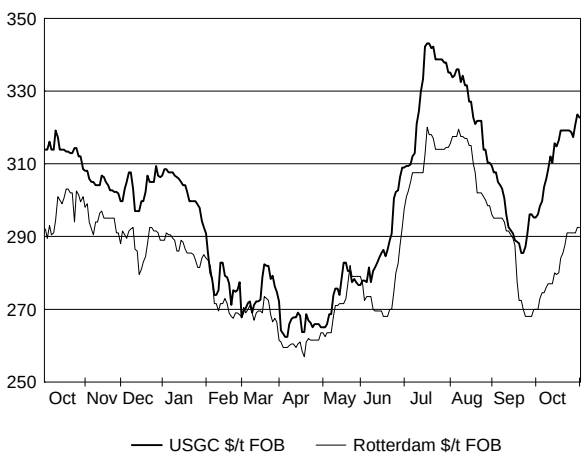
Spot US **gasoline** prices largely tracked developments in benchmark crude prices, increasing in late September, declining in early October and trading sideways for the remainder of the month. The regular gasoline/WTI differential was little changed at around $2.95/bbl, but was less than half the September average of $6.10/bbl. However, finely-balanced supply/demand fundamentals and low gasoline inventory levels kept prices vulnerable to volatility. Refinery maintenance on the US West Coast tightened regional gasoline availabilities (which must meet more stringent specifications than in the remainder of the US) early in the month and kept gasoline prices at a strong premium to US Gulf Coast and East Coast markets. Some support for gasoline prices was also derived from a new surge in US MTBE prices (see right-hand graph below). MTBE availability was tightened by firm demand for blending into imported gasoline components combined with operational problems at two MTBE production plants on the US Gulf Coast.

US spot **gasoil** prices were weakened by rising US gasoil inventory levels, particularly on the US East Coast, and muted regional demand. Persistently high US gasoil production levels (3.56 mb/d on average for the four-week period ending 24 October) raised distillate inventories to 25 mb more than year earlier levels. US gasoil markets, both physical and futures, remained in contango, encouraging the movement of heating oil into rapidly declining storage availability ahead of the winter heating season. Together with some limited export possibilities for low-sulphur diesel to Europe, this provided a floor to gasoil prices.

New York Harbour Product Prices



MTBE



The average gasoil/WTI spread in New York Harbour widened slightly as shown in the table on the preceding page, but remained below the gasoline/WTI differential, atypical for the time of the year.

Spot **kerosene** prices in the US generally followed the pattern of gasoil prices. However, the kerosene premium to gasoil in New York Harbour continued to contract, from more than $2/bbl in early September to less than $0.50/bbl towards the end of October, as high refinery production levels led to an amply-supplied market and a pronounced rise in inventory levels. Refinery maintenance on the US West Coast attracted kerosene imports from Asia in early October.

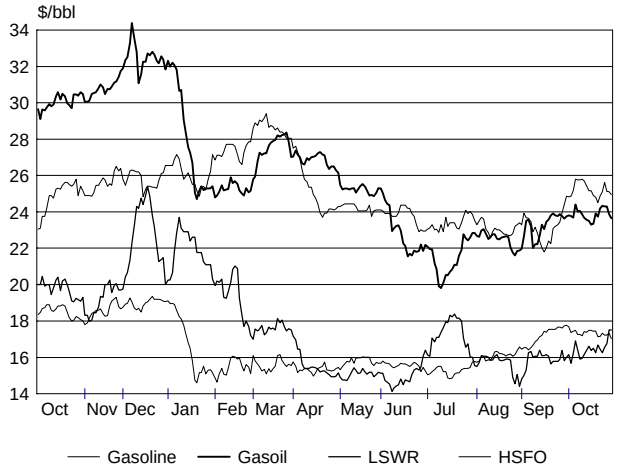
Soaring US natural gas prices boosted demand for fuel oil from electric utilities on the US East Coast and in Florida. Following a $2/bbl rise in September, spot **LSFO** prices in New York Harbour continued to increase by more than $2/bbl in October amid gradually tightening fuel oil supply/demand balances. High US LSFO prices opened arbitrage possibilities for imports from Europe, contributing to the aforementioned tightness in strong Northwest European and Mediterranean markets. A proliferation of refinery conversion capacity has reduced the amount of residual fuel available for power plants in the US Northeast. Consequently, by the end of October LSFO prices in New York Harbour traded almost at parity with WTI.

HSFO prices in New York Harbour and on the US Gulf Coast also increased during October, in line with a tightening HSFO supply/demand balance. Firm bunker demand, HSFO export possibilities to Mexico, Canada and the Caribbean and an ongoing appetite for sweet crude grades by US refiners helped raise New York Harbour prices to $17.24/bbl, their highest monthly average since December 1996.

Asia-Pacific

Spot **gasoline** prices in Singapore, which had strengthened in September, remained surprisingly stable at relatively firm levels throughout October. Refinery problems and planned refinery turnarounds in India, Indonesia and Malaysia (the latter due to an unplanned outage of reforming capacity) provided for incremental regional gasoline demand from refiners and contributed to firm price levels. Additional support was gained from gasoline exports to the Middle East and South America and an apparent slowdown of Chinese gasoline exports. Unlike in Europe and in the US, the Singapore average crude/gasoline spread increased, as shown in the table on page 38.

Singapore Product Prices



Spot Singapore **naphtha** prices were also little changed during October after rebounding by almost $2/bbl in September. Firm regional demand was covered by ample regional naphtha availability, especially from increased production by Korean and Japanese refiners. The arbitrage possibility from Europe remained firmly closed. The gasoline/naphtha differential in Singapore, representative of regional **reforming margins**, remained at a relatively firm level due to strength in regional gasoline prices.

Spot **gasoil** prices in Singapore moved within a narrow band around the average of $23.96/bbl during most of the month. The positive effect of incremental Indonesian and Vietnamese gasoil demand was offset by the continuing downward pressure on gasoil prices. Limited regional demand from traditional key demand centres such as China and India faced more than adequate supply and high inventory levels. Singapore refiners were confronted with mounting competition from Korean, Japanese and Thai refineries, particularly for gasoil deliveries into Southern China.

Spot **kerosene** prices in Singapore increased in October amid signs of seasonally strengthening demand and surpassed gasoil prices early in the month. Incremental demand from India and rising tensions in the Middle East provided additional physical and psychological support to prices. The kerosene/gasoil differential in Singapore increased from a discount of $0.50/bbl in the first week of the month to a premium of $1.70/bbl in the last week of October.

Spot **HSFO** prices in Singapore trended slightly lower during the month reflecting a loosening supply/demand balance. Increasing regional supplies from Korea and Japan and the arrival of arbitrage cargoes from the Middle East and South America were complemented by waning Chinese demand. The average Dubai/HSFO differential in Singapore widened by more than $1/bbl, to $1.86/bbl, but remained narrow compared to $3.28/bbl last October.

The Asian **LSWR** (Low Sulphur Waxy Residue) market continued to suffer from ample supplies and scant regional demand. Spot prices nonetheless drifted slightly higher as arbitrage possibilities, to the US Gulf Coast for cracking and to the Atlantic Coast for direct burning, alleviated some of the oversupply in the market. Nonetheless, LSWR traded at a discount to HSFO during all but the last week of October.

End-User Product Prices

October mid-month end-user prices for **gasoline** decreased in local currencies in nearly all countries shown in Table 9, following the price decline in international spot gasoline markets. The two exceptions were Italy, where a 1% increase in the rate of VAT applicable to most oil products prices led to a slight increase in tax-inclusive prices, and Japan, where gasoline prices remained unchanged. The steepest decline in prices occurred in the US and Germany. Local currency gasoline prices were generally higher than last year, except for those in Japan.

Mid-month **automotive diesel** end-user prices decreased in local currencies in the UK and Germany but increased in Spain, France and Italy and remained unchanged in Japan and Canada. In contrast to gasoline prices, local currency diesel prices were lower than last year in all countries, except for the UK and Japan, where prices were appreciably higher.

Mid-month **heating oil** prices for domestic consumers increased appreciably in all the reported countries. The steepest increase occurred in Germany (8.9%), mainly because of the passthrough of higher barge freight rates caused by low Rhine water levels. In Japan, kerosene prices matched mid-September levels.

Mid-month **heavy fuel oil** prices to industry increased in all the countries shown in Table 9, tracking the gradual rise in fuel oil prices in international spot markets. Again the exception was Japan, where prices remained unchanged.

Monthly End-User Product Price Changes - October 1997 versus September 1997

Local Currency Including Taxes

	Gasoline[1] per Litre		Automotive Diesel[3] per Litre		Domestic Heating Oil per 1000 Litres		HFO for Industry[5] per Metric Ton	
US	-0.008[2]	-2.3%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Canada	-0.005	-0.8%	0	0.0%	n.a.	n.a.	n.a.	n.a.
France	-0.036	-0.6%	0.030	0.8%	60.3	2.7%	39.0	5.0%
Germany	-0.033	-2.0%	-0.011	-1.0%	42.6	8.9%	8.7	3.8%
Italy	6.000	0.3%	4.190	0.4%	32000	2.3%	9000	3.3%
Spain	-1.80	-1.5%	2.080	2.6%	2017	4.2%	784	3.5%
UK	-0.008	-1.1%	-0.008	-1.4%	8.26	5.8%	2.56	2.9%
Japan	0	0.0%	0	0.0%	0[4]	0.0%	0	0.0%

1 premium leaded gasoline for France, Italy, Spain, UK; regular unleaded gasoline for Canada, Germany, Japan and USA
2 estimated
3 VAT excluded where it is refundable: HFO for Industry, Automotive Diesel for Industry
4 kerosene
5 high sulphur fuel oil price for France, Spain, UK and Japan; low sulphur fuel oil price for Germany and Italy

Refining Margins in October

European refining margins declined appreciably in late September and early October, as a result of spiking benchmark crude oil prices in the Atlantic Basin, but recovered to more favourable levels during the last three weeks of October. However, margins were more volatile than during most of August and September and remained at a lower level than in the last two months. This was mainly due to the effect of lower relative gasoline prices more than offsetting the relative rise in distillate and fuel oil prices in October. The latter did, however, support hydroskimming margins, which declined by appreciably less than cracking margins (see table below). The differential between cracking and hydroskimming margins declined for the third successive month.

On the **US Gulf Coast**, refining margins remained within a narrow, slightly upward-trending band, but were still at unsatisfactory levels after having declined by more than $4/bbl during late August and September, as shown in the graph on page 45. The relative rise in fuel oil prices was the only source of support for margins, which suffered most from the weakness in relative distillate prices.

Refining margins in **Singapore** remained within a narrow range at even lower levels than in recent months. Weak distillate prices more than offset strengthening regional gasoline prices and kept downward pressure on regional refining margins. Unlike in Europe, the Singapore Dubai cracking margin declined by less than the hydroskimming margin, thus contributing to a slight improvement in cracking economics. However, margins remained at levels low enough to prompt Singapore and Thai refiners to keep refinery throughput levels at reduced rates.

Refining Margins in Major Refining Centres
(monthly and weekly averages, $/bbl)

					Week Ending:					
	Aug	Sep	Oct	Change	26-Sep	03-Oct	10-Oct	17-Oct	24-Oct	31-Oct
NW Europe										
Brent (Hydroskimming)	0.43	0.40	0.20	-0.20	0.12	-0.66	-0.27	0.45	0.44	1.04
Brent (Cracking)	1.97	1.77	1.20	-0.57	1.37	0.43	0.87	1.50	1.39	1.83
Mediterranean										
Urals (Hydroskimming)	0.79	0.76	0.70	-0.05	0.60	-0.23	0.10	0.93	1.12	1.57
Urals (Cracking)	2.41	2.18	1.79	-0.39	1.91	0.92	1.33	2.06	2.17	2.47
US Gulf Coast										
Brent (Cracking)	3.64	1.84	0.16	-1.68	1.13	0.80	-0.01	0.03	0.10	0.34
WTI (Cracking)	3.88	1.94	0.43	-1.52	1.35	1.06	0.22	0.27	0.48	0.46
Singapore										
Dubai (Hydroskimming)	-0.46	0.01	-0.73	-0.75	0.06	-0.79	-1.06	-0.48	-0.55	-0.53
Dubai (Cracking)	1.27	1.61	1.14	-0.48	1.69	1.01	0.93	1.31	1.29	1.33

Refinery Crude Throughputs in September

Despite a 360 kb/d decline from August's appreciably upward-revised figure (+550 kb/d), aggregate OECD refinery crude throughputs for September reached an estimated 34.7 mb/d, the highest September level in more than nine years. A decline in European and Japanese throughputs (260 kb/d and 150 kb/d respectively) was partly offset by increased throughputs in North America and Australasia (see table below). Total September OECD throughput is estimated to have been an impressive 1.3 mb/d or 4% higher than a year earlier. Average refinery utilisation in OECD countries declined by 1 percentage point to 93.8% in September, but was nonetheless almost 2.9 percentage points higher than a year earlier.

While total OECD year-to-date refinery runs through September are an average 800 kb/d higher than last year, crude stocks in OECD countries remained close to low year-ago levels. This leaves refiners, particularly in the Atlantic Basin, with low and gradually declining levels of forward crude cover, thus contributing to the potential for higher price volatility for benchmark crudes in the Atlantic Basin.

Preliminary data suggest that **European** refinery throughputs declined by 260 kb/d to 12.9 mb/d from August's upwardly-revised figures (+ 370 kb/d). Decreased throughput levels, reflecting planned seasonal refinery maintenance, were concentrated in Northwest Europe with reductions in Finland (120 kb/d) and the Netherlands (118 kb/d) only partly offset by increases in the UK (50 kb/d) and Sweden (20 kb/d). Throughput levels in the Mediterranean remained little changed. Nonetheless, September throughputs in OECD Europe were 130 kb/d or 1% higher than last year, reflecting the strength in regional refining margins. European refinery utilisation rates decreased from near capacity levels of 96.3% in August to 94.4% in September. They varied widely between western Europe (96.5% in September compared to 99.4% in August) and southern Europe (90.3% in September, 90.4% in August). These high utilisation rates appear to defy, at least for this summer, the widely-held perception of overcapacity in Northwest European refining, which seems to be firmly engraved in contemporary mythology, following a number of successive years showing unsatisfactory refining margins in Europe.

Taking advantage of strong refining margins fuelled by tightness in the gasoline market, overall refinery throughputs in the **US** again set a record in September by topping 15.3 mb/d, the highest level for any month in more than eighteen years. Refinery utilisation rose to 98%, based on current operable refining capacity. US throughputs were an impressive 840 kb/d or 5.8% higher than a year earlier.

Japanese crude throughputs decreased by 150 kb/d to 4.18 mb/d, consistent with the onset of the autumn refinery turnaround season. However, throughputs declined in September by appreciably less than in previous years (see graph on page 45) as Japanese refiners in general maintained high throughput levels to take advantage of liberalized oil product export possibilities. Japanese throughputs were 3% or 120 kb/d higher than in September 1996.

Refinery Crude Throughput and Utilisation in OECD Countries

	million barrels per day						% change from		utilisation rate[2]	
	May	Jun	Jul	Aug	Sep[1]	Jan-Sep[1]	Sep-96	Jan-Sep 96	Sep-97	Sep-96
OECD Europe	12.60	12.48	12.78	13.18	12.92	12.70	1.0	1.6	94.4%	92.6%
France	1.80	1.85	1.75	1.81	1.76	1.77	7.6	5.9	101.3%	94.2%
Germany	2.04	1.85	2.00	2.06	2.06	2.03	-6.3	-3.1	100.9%	103.9%
Italy	1.64	1.60	1.61	1.83	1.83	1.64	1.4	3.1	90.1%	88.8%
Netherlands	1.21	1.22	1.22	1.18	1.06	1.16	3.5	0.0	87.4%	84.4%
UK	1.72	1.75	1.83	1.83	1.89	1.79	1.8	1.8	102.5%	100.6%
US	15.08	15.14	14.96	15.22	15.32	14.57	5.8	2.9	98.0%	94.9%
Canada	1.41	1.38	1.50	1.58	1.50	1.44	17.0	6.5	81.3%	69.5%
Japan	3.72	3.47	4.17	4.33	4.18	4.25	3.0	2.1	83.3%	81.5%
Australia/New Zealand	0.78	0.73	0.76	0.76	0.78	0.76	1.4	4.5	95.9%	94.6%
OECD Total	33.60	33.20	34.16	35.06	34.70	33.72	4.0	2.5	93.8%	90.9%

1 estimate
2 based on crude throughput and current operable refining capacity

In October, refinery throughputs are thought to have declined in Europe, Japan and the US, consistent with an increase in planned refinery maintenance. However, turnarounds are scheduled to be light in all regions this autumn. Weekly US statistics up to 24 October suggest that US throughput levels decreased by about 370 kb/d to just below 15 mb/d.

Refinery Maintenance Shutdowns

Planned refinery maintenance shutdowns are declining seasonally in all major refining centres in November and December. In January 1998, some 750 kb/d of refining capacity is expected to be out of operation for maintenance in the US, starting the annual eastwards-moving turnaround cycle in 1H98, with peak outages expected for the US in February, for Europe in March/April and for Japan in June. There is, nonetheless, some flexibility in the timing of turnarounds and the extent of maintenance shutdowns, which may well be influenced by product markets, refining margins and weather conditions. This is particularly true for Asia, where weak product markets currently exert massive downward pressure on refining margins.

Refinery Maintenance Shutdowns (Primary Distillation)
(million barrels per day of nameplate capacity)

	November	December	January
Europe	0.08	0.03	-
US	0.39	0.19	0.75
Middle East	0.06	-	-
Japan	0.02	-	-
Other Asia/Pacific	0.25	0.19	0.10

IEA estimates (except for US: PIRA Energy Group, New York)
Other Asia/Pacific consists of: Australia, Chinese Taipei, India, Indonesia, Korea, Malaysia, Pakistan, the Phillippines, Singapore, Sri Lanka, Thailand

Refining Capacity Additions in 1997, 1998 and 1999

The rapid expansion of Asian refinery capacity slowed markedly in 1997 and is projected to slow further in 1998, as shown in the table below. This is in stark contrast to 1995 and 1996, when 670 kb/d and just over 1.1 mb/d respectively of refining capacity were started up in the region. Asia's slower rise in refining capacity results from economic uncertainties, adding to the usual financial and strategic considerations facing new refining capacity plans, and contrasts sharply with expectations of continuing strong growth in regional demand. This will most likely contribute to higher refining capacity utilisation rates not only in the Asia-Pacific region, but also in other areas from which product imports will be drawn.

Net Global Refining Capacity Additions 1996 to 1999
Calendar Day Capacity in kb/cd

	1996	1997	1998	1999
Asia Pacific	1101	426	500	850
North America	65	154	153	117
Latin America	56	212	104	45
Western Europe	47	-129	-32	50
Africa	59	80	9	113
Middle East	-14	183	203	203
Eastern Europe	-36	-47	68	0
FSU	9	108	118	166
Total	**1285**	**987**	**1125**	**1543**
Detail - Asia				
China	*90*	*158*	*108*	*117*
India	*65*	*18*	*217*	*162*
Chinese Taipei	*0*	*0*	*63*	*270*

As shown in the table below, a net volume of at least 140 kb/d of refining capacity are bound to close down in Europe during 1997 and early 1998. These net capacity reductions come despite already high refinery utilisation rates during 1996 and 1997 and will certainly necessitate even higher utilisation rates in the near future. An additional 240 kb/d of refining capacity, identified by their current owners as disposable, are up for sale, but are at risk of being closed if no suitable buyer is found.

Changes to European Refinery Capacity 1997/1998

Refinery Capacity Reduction		
Denmark - KPC Stignaes	59 kb/d	closure April 1997
Germany - Leuna	104 kb/d	closure June 1997
UK - Gulf Milford Haven	112 kb/d	closure end 1997
Germany - Exxon/OMW Karlsruhe	54 kb/d	reduction 4Q97
Germany - PCK Schwedt	30 kb/d	reduction 1Q97
France - Shell Berre	60 kb/d	reduction likely in January 1998
Netherlands - BP Nerefco[1]	70 kb/d	reduction in January 1998
Total	**489 kb/d**	
Refinery Capacity Addition		
Germany - Leuna	175 kb/d	grassroots plant 4Q97
Germany - Holborn	16 kb/d	expansion - 2Q97
Germany - Beta	36 kb/d	expansion - 3Q97
Turkey TPRC Izmit	120 kb/d	expansion early 1997
Total	**347 kb/d**	
Refineries for Sale		
France - BP Lavera	180 kb/d	
Switzerland - Shell Cressier	60 kb/d	
Total	**240 kb/d**	

1 net reduction from a 200 kb/d capacity closure and a 130 kb/d capacity de-mothballing

Downstream Industry Developments

Maintenance and repairs at the shut-down Kaduna refinery in Nigeria have reportedly been delayed. The French company Total, which was awarded the contract for maintenance and repair work, and the Nigerian National Petroleum Corporation are still discussing financial arrangements. Total reportedly estimates that the work at the refinery will take eight months to complete, which means that the 105 kb/d refinery, shut-down since July, may not come back on stream until about the middle of 1998.

On 1 October a new Japanese regulation on oil product specifications went into effect, requiring the sulphur content in gasoil to be lowered from 0.2% to 0.05%. The county's wholesalers are legally permitted to market only the low sulphur gasoil. The wholesalers started shipping the low sulphur gasoil from their refineries in July in order to ensure the switch-over of all their gasoil stocks, including those circulating in the retail market, to the new grade by 1 October.

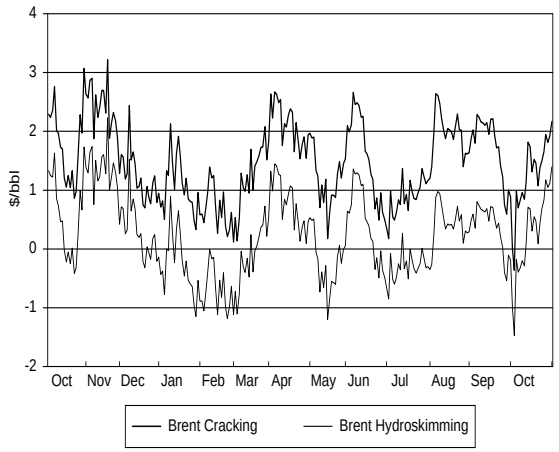
Exxon Corporation announced plans to introduce a new fluid catalytic cracking (FCC) technology by 2005 that could massively raise petrochemical yields. Propylene yields from FCC units could be raised to as much as 25% of total FCC throughput, compared with a current typical 3-4%, or 6-7% for leading edge plants. Propylene, derived both from refinery FCC units and from steam crackers, is converted into polypropylene and a range of other bulk plastics and fibres.

Trans American's refinery at Norco in Louisiana, formerly the Good Hope refinery which has been closed since 1983, will restart crude runs in late 1997 or early 1998. Throughput potential for the plant is estimated at 200 kb/d. A 75 kb/d coker, a 100 kb/d catalytic cracker and alkylation units are scheduled to start up in early 1998. The company has recently consolidated its position through sale of properties and a bond issue. It acquired GATX terminals, giving it 9.8 million barrels of storage capacity along the Mississippi River. Nearly $2 billion have reportedly been invested into upgrading the refinery at Norco.

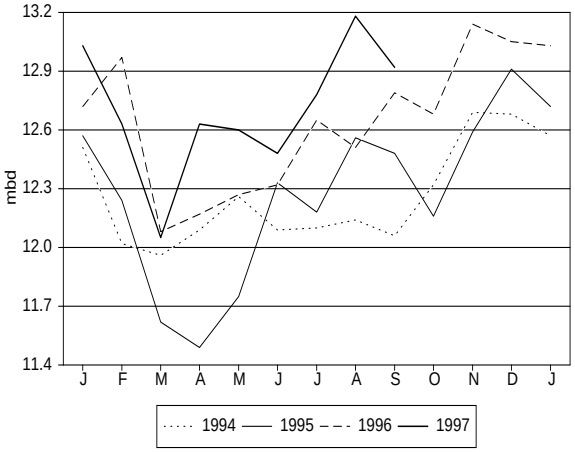
US companies Arco and Syntroleum have announced plans to build a gas-to-liquids pilot plant in Washington State. Construction should finish late next year. Texaco, which has a separate joint venture with Syntroleum, plans to join this project as well. The pilot plant will have a throughput of around 70 b/d, with a product slate ranging from distillates to heavy waxes. Syntroleum also has licence agreements with Amec of the UK, Marathon and Argentina's YPF.

Saudi Arabia will reportedly be self-sufficient in gasoline after start-up of its upgraded Ras Tanura refinery next year. Commissioning of new units is due to start in early 1998, with full operation expected by the second quarter. Throughput levels at the 300 kb/d refinery will be unchanged, but the gasoline yield is projected to rise to as high as 32% and the fuel oil yield is expected to be almost halved.

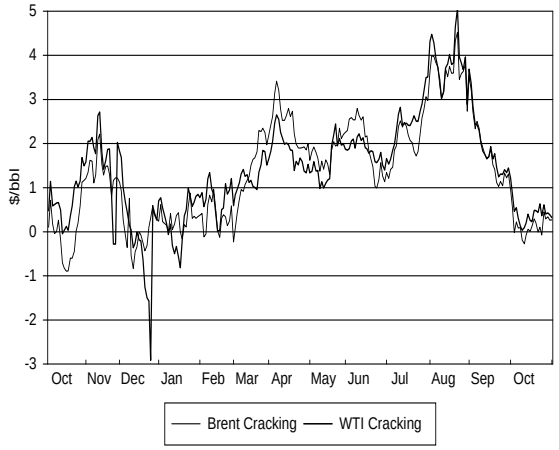
Rotterdam Refining Margins



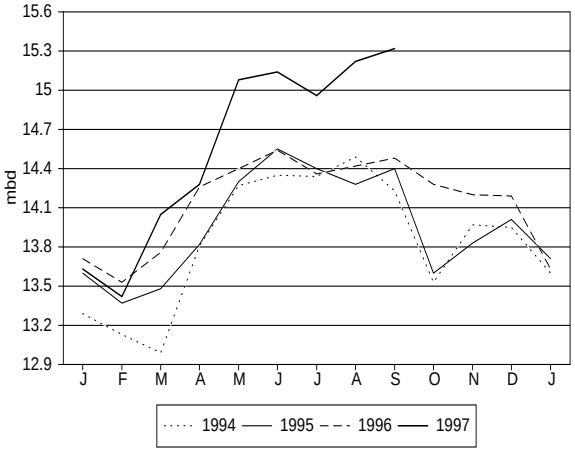
OECD Europe Crude Throughputs



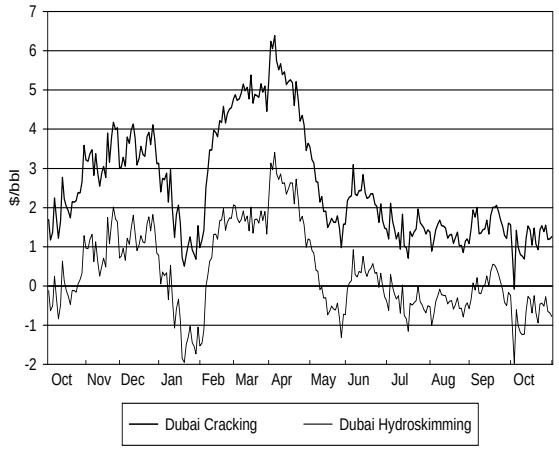
US Gulf Refining Margins



US Crude Throughputs



Singapore Refining Margins



Japan Crude Throughputs

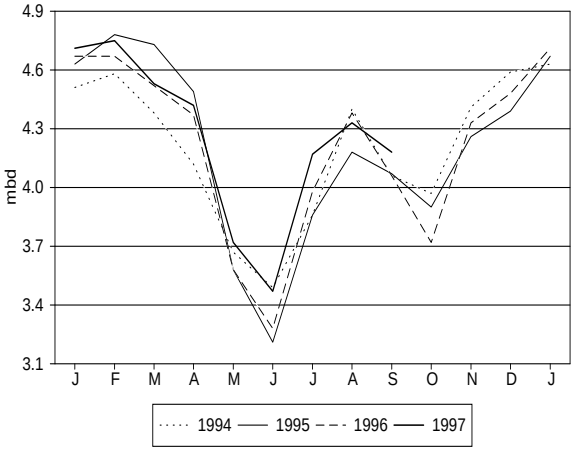


Table 1
WORLD OIL SUPPLY AND DEMAND

(million barrels per day)

	1994	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98	3Q98	4Q98	1998
DEMAND																	
OECD																	
North America	19.8	19.8	20.4	19.9	20.2	20.8	20.3	20.4	20.6	21.0	21.0	20.8	20.9	20.7	21.1	21.3	21.0
Europe	13.8	14.1	14.5	13.7	14.4	14.7	14.3	14.3	14.2	14.5	15.0	14.5	14.5	14.1	14.6	15.2	14.6
Pacific	6.6	6.7	7.4	6.2	6.3	6.9	6.7	7.3	6.1	6.4	7.1	6.7	7.4	6.2	6.4	7.2	6.8
TOTAL OECD	40.1	40.6	42.3	39.8	40.8	42.4	41.3	42.0	40.9	41.8	43.1	42.0	42.8	41.1	42.2	43.7	42.4
NON-OECD																	
FSU[1]	4.9	4.8	4.6	4.2	4.3	4.2	4.3	4.3	4.4	4.5	4.6	4.5	4.6	4.5	4.3	4.7	4.5
Europe	1.1	1.2	1.3	1.2	1.1	1.2	1.2	1.4	1.3	1.2	1.3	1.3	1.4	1.3	1.2	1.3	1.3
China[2]	3.1	3.3	3.5	3.7	3.5	3.7	3.6	4.0	3.8	4.0	3.9	3.9	4.1	4.2	4.2	4.3	4.2
Other Asia	7.3	7.9	8.8	8.3	8.1	9.0	8.6	9.3	8.8	8.6	9.5	9.0	9.8	9.4	9.2	10.2	9.6
Latin America	6.0	6.0	6.2	6.3	6.4	6.4	6.3	6.4	6.6	6.7	6.7	6.6	6.7	6.8	6.9	6.9	6.8
Middle East	4.0	4.1	4.0	4.2	4.3	4.1	4.1	4.1	4.2	4.3	4.3	4.2	4.2	4.3	4.5	4.4	4.3
Africa	2.1	2.2	2.2	2.3	2.2	2.3	2.2	2.3	2.3	2.3	2.4	2.3	2.4	2.4	2.3	2.4	2.4
TOTAL NON-OECD	28.5	29.5	30.7	30.2	30.0	30.8	30.4	31.6	31.3	31.7	32.7	31.8	33.2	32.7	32.7	34.1	33.2
TOTAL DEMAND[3]	68.6	70.1	73.0	69.9	70.8	73.3	71.8	73.7	72.2	73.5	75.7	73.8	76.0	73.8	74.8	77.8	75.6
SUPPLY																	
OECD																	
North America	10.9	11.0	11.0	10.9	11.0	11.2	11.0	11.2	11.0	11.1	11.3	11.2	11.4	11.2	11.4	11.7	11.4
Europe	6.1	6.4	6.7	6.6	6.6	7.0	6.7	6.9	6.5	6.5	7.2	6.8	7.3	7.1	7.0	7.7	7.3
Pacific	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.8
TOTAL OECD	17.7	18.0	18.4	18.2	18.3	18.9	18.4	18.7	18.3	18.4	19.3	18.7	19.5	19.1	19.3	20.3	19.5
NON-OECD																	
FSU	7.2	7.1	7.0	7.0	7.1	7.1	7.1	7.0	7.2	7.3	7.2	7.2	7.2	7.3	7.3	7.3	7.3
Europe	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
China	2.8	3.0	3.1	3.1	3.1	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Other Asia	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.3	2.3	2.2
Latin America	5.9	6.1	6.5	6.6	6.5	6.6	6.5	6.7	6.8	6.9	7.1	6.9	7.3	7.4	7.5	7.7	7.5
Middle East	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Africa	2.4	2.6	2.6	2.6	2.7	2.8	2.7	2.8	2.8	2.8	2.9	2.8	3.0	3.0	3.1	3.1	3.0
Processing Gains[4]	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
TOTAL NON-OPEC	41.6	42.5	43.4	43.3	43.4	44.3	43.6	44.3	44.1	44.4	45.6	44.6	46.1	46.0	46.4	47.6	46.5
OPEC																	
Crude	24.7	25.2	25.7	25.5	25.9	26.3	25.8	26.8	26.8	27.3							
NGLs	2.4	2.4	2.5	2.6	2.7	2.7	2.6	2.7	2.8	2.8	2.9	2.8	2.9	2.9	3.0	3.0	2.9
TOTAL OPEC	27.0	27.7	28.2	28.1	28.5	28.9	28.5	29.6	29.6	30.1							
TOTAL SUPPLY[5]	68.6	70.2	71.6	71.5	71.9	73.2	72.1	73.9	73.7	74.5							
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	0.1	-0.3	-1.8	1.2	0.4	-0.4	-0.1	0.3	0.3	0.9							
Government	0.1	0.0	0.4	-0.1	-0.1	-0.1	0.0	0.1	0.0	0.0							
TOTAL OECD	0.2	-0.3	-1.3	1.1	0.3	-0.4	-0.1	0.4	0.3	0.9							
Floating Storage/Oil in Transit	-0.1	0.1	-0.3	0.1	0.0	-0.1	-0.1	0.1	0.5	0.5							
Miscellaneous to balance[6]	-0.1	0.3	0.2	0.3	0.8	0.5	0.4	-0.3	0.7	-0.3							
TOTAL STOCK CH. & MISC.	0.0	0.1	-1.4	1.6	1.1	-0.1	0.3	0.2	1.5	1.1							
Memo items:																	
FSU Net Exports	2.4	2.4	2.4	2.8	2.8	2.9	2.7	2.7	2.8	2.8	2.5	2.7	2.6	2.8	3.0	2.6	2.7
Call on OPEC crude + Stock ch.[7]	24.7	25.1	27.1	24.0	24.7	26.3	25.5	26.7	25.4	26.2	27.2	26.4	27.1	24.9	25.4	27.1	26.1
Total Demand ex. FSU	63.8	65.3	68.4	65.7	66.5	69.1	67.4	69.4	67.8	68.9	71.1	69.3	71.4	69.3	70.5	73.1	71.1
Total demand exc. FSU (% ch)[8]	3.1	2.4	3.6	2.9	3.1	3.3	3.2	1.5	3.2	3.6	2.9	2.8	2.9	2.2	2.3	2.8	2.6

1 Figures for FSU are apparent demand derived from official production figures and quarterly trade data.
2 Annual Chinese demand is estimated from production and (adjusted) trade; quarterly figures represent estimates of domestic oil deliveries and are not derived from trade data.
3 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply.
4 Net of volumetric gains and losses in refining process (excludes net gain/loss in former USSR, China and non-OECD Europe) and marine transportation losses.
5 Comprises crude oil, condensates, NGLS, oil from non-conventional sources and other sources of supply.
6 Includes changes in non-reported stocks in OECD and non-OECD areas.
7 Equals total demand minus total non-OPEC supply minus OPEC NGLS. Thus includes "Miscellaneous to balance"for historical time periods.
8 Year on year % growth in global oil demand excluding FSU.

Table 1A

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

(million barrels per day)

	1994	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98	3Q98	4Q98	1998
DEMAND																	
OECD																	
North America	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.2	0.1	0.1	-	0.1
Europe	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
TOTAL OECD	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	0.2	0.2	-	0.1
NON-OECD																	
FSU	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.2	0.1	-0.1	0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.2	-	-	-	0.1	0.1	0.1	0.1
Other Asia	-	-	0.1	-	-0.1	0.1	0.1	0.1	-	-0.1	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1
Latin America	-	-	-	0.1	-	-	-	-	-	0.1	0.1	0.1	-	-	-	0.1	-
Middle East	-	-	-0.1	0.1	-	-0.2	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1	-	-	-0.1	-0.1
Africa	-	-	-0.1	-	-	-	-0.1	-	-	0.1	-	-	-	-	-	-	-
TOTAL NON-OECD	-	-	-0.1	0.2	0.1	-0.2	-	-0.2	-0.1	0.4	-	-	0.1	-0.1	-	-0.1	-
TOTAL DEMAND	-	-	-0.1	0.1	0.1	-0.1	-	-0.2	-0.1	0.5	-0.1	0.1	0.2	0.1	0.1	-	0.1
SUPPLY																	
OECD																	
North America	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-0.1	-0.3	-0.1	-	-	-0.3	-0.6	-0.2
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL OECD	-	-	-	-	-	-	-	-	-	-0.1	-0.3	-0.1	0.1	-	-0.3	-0.6	-0.3
NON-OECD																	
FSU	-	-	-	-	-	-	-	-	-	0.2	-	0.1	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	0.1
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-OPEC	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	0.1	-	-0.2	-0.6	-0.2
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-							
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL OPEC	-	-	-	-	-	-	-	-	-	-							
TOTAL SUPPLY	-	-	-	-	-	-	-	-	-	-							
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	0.1	0.5							
Government	-	-	-	-	-	-	-	0.1	-	0.1							
TOTAL OECD	-	-	-	-	-	-	-	0.1	0.1	0.6							
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	0.1							
Miscellaneous to balance	-	-	0.1	-0.1	-	0.1	-	0.2	-	-1.1							
TOTAL STOCK CH. & MISC.	-	-	0.1	-0.1	-0.1	0.1	-	0.2	0.1	-0.4							
Memo items:																	
FSU Net Exports	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.2	-0.1	0.2	-0.1	-0.1
Call on OPEC crude + Stock ch.	-	-	-0.1	0.1	-	-0.1	-	-0.1	-	0.4	0.1	0.1	0.2	0.1	0.3	0.5	0.2
Total Demand ex. FSU	-	-	-0.1	0.1	-	-0.1	-	-0.1	-0.1	0.3	-0.1	-	-	-	0.3	-0.1	0.1

When submitting their monthly oil statistics, IEA Member countries periodically update data for earlier years. Similar updates to non-OECD data can occur.
While the changes are generally small, due to rounding they can lead to changes to historical data of 0.1 mb/d.

Table 2

OECD REGIONAL OIL DEMAND

(million barrels per day)

	April			May			June			Second Quarter			July		
	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%
North America															
LPG	2.20	2.23	1.4	2.15	2.06	-3.9	2.07	2.05	-1.1	2.14	2.11	-1.2	2.06	2.08	1.0
Naphtha	0.28	0.35	24.9	0.28	0.39	41.1	0.29	0.36	25.0	0.28	0.37	30.4	0.30	0.38	28.3
Motor Gasoline	8.51	8.73	2.6	8.66	8.83	1.9	8.77	8.98	2.4	8.65	8.85	2.3	8.83	9.22	4.5
Jet/Kerosene	1.66	1.78	7.3	1.58	1.68	6.1	1.71	1.74	1.8	1.65	1.73	5.0	1.72	1.87	8.7
Gasoil	3.82	3.99	4.5	3.58	3.74	4.2	3.63	3.70	2.0	3.68	3.81	3.6	3.46	3.75	8.2
Residual Fuel Oil	0.90	0.99	10.4	0.98	0.93	-5.0	0.92	0.96	4.7	0.93	0.96	3.0	1.05	0.98	-7.0
Other Products	2.45	2.60	5.9	2.60	2.79	7.2	2.78	3.05	9.7	2.61	2.81	7.7	2.78	3.10	11.6
Total	**19.83**	**20.68**	**4.3**	**19.83**	**20.41**	**2.9**	**20.17**	**20.84**	**3.3**	**19.94**	**20.64**	**3.5**	**20.19**	**21.37**	**5.8**
Europe															
LPG	0.88	0.92	4.5	0.82	0.82	0.4	0.75	0.76	1.4	0.82	0.83	2.1	0.78	0.81	3.6
Naphtha	0.88	1.03	16.5	1.06	1.05	-1.6	0.93	1.05	13.1	0.96	1.04	8.6	0.99	1.03	4.0
Motor Gasoline	3.10	3.15	1.5	3.08	3.04	-1.4	3.00	3.13	4.4	3.06	3.11	1.4	3.23	3.21	-0.6
Jet/Kerosene	0.86	0.91	5.9	0.91	0.91	0.1	0.91	0.96	5.6	0.89	0.93	3.8	0.98	1.00	2.3
Gasoil	4.72	5.36	13.6	4.61	4.50	-2.4	4.61	5.03	9.3	4.65	4.96	6.8	4.87	5.23	7.5
Residual Fuel Oil	2.08	2.06	-0.6	1.97	1.91	-2.8	2.04	1.92	-5.7	2.03	1.96	-3.0	2.13	1.91	-10.4
Other Products	1.15	1.21	4.6	1.26	1.32	4.9	1.35	1.48	9.5	1.25	1.34	6.4	1.37	1.46	6.6
Total	**13.67**	**14.64**	**7.1**	**13.72**	**13.55**	**-1.2**	**13.58**	**14.33**	**5.5**	**13.66**	**14.18**	**3.8**	**14.34**	**14.65**	**2.1**
Pacific															
LPG	0.76	0.71	-6.3	0.66	0.66	-0.9	0.65	0.66	0.5	0.69	0.68	-2.4	0.63	0.68	7.1
Naphtha	0.78	0.82	5.4	0.72	0.79	9.6	0.68	0.76	11.0	0.73	0.79	8.5	0.79	0.73	-7.1
Motor Gasoline	1.24	1.25	0.8	1.23	1.25	1.8	1.20	1.25	3.8	1.23	1.25	2.1	1.32	1.34	1.2
Jet/Kerosene	0.81	0.69	-14.4	0.58	0.54	-7.5	0.54	0.55	1.6	0.64	0.59	-7.8	0.54	0.55	1.5
Gasoil	1.54	1.53	-0.7	1.43	1.42	-0.5	1.41	1.44	2.5	1.46	1.46	0.4	1.50	1.47	-1.8
Residual Fuel Oil	0.76	0.68	-10.9	0.69	0.70	1.7	0.71	0.74	4.1	0.72	0.71	-1.9	0.81	0.83	2.8
Other Products	0.69	0.60	-12.9	0.68	0.62	-8.9	0.71	0.66	-6.6	0.69	0.63	-9.4	0.73	0.80	9.2
Total	**6.58**	**6.28**	**-4.5**	**6.00**	**5.98**	**-0.2**	**5.91**	**6.06**	**2.5**	**6.16**	**6.11**	**-0.9**	**6.32**	**6.39**	**1.2**
OECD															
LPG	3.85	3.87	0.6	3.63	3.54	-2.4	3.48	3.47	-0.3	3.65	3.62	-0.7	3.47	3.57	2.7
Naphtha	1.94	2.20	13.3	2.06	2.23	8.0	1.90	2.17	14.2	1.97	2.20	11.7	2.07	2.14	3.3
Motor Gasoline	12.86	13.13	2.1	12.97	13.12	1.1	12.98	13.36	3.0	12.94	13.20	2.1	13.38	13.77	2.9
Jet/Kerosene	3.32	3.38	1.7	3.08	3.13	1.8	3.16	3.25	2.8	3.19	3.25	2.1	3.24	3.42	5.6
Gasoil	10.08	10.89	8.0	9.62	9.66	0.4	9.64	10.17	5.5	9.78	10.23	4.6	9.83	10.45	6.3
Residual Fuel Oil	3.74	3.73	-0.1	3.63	3.54	-2.6	3.66	3.62	-1.2	3.68	3.63	-1.3	3.99	3.72	-6.9
Other Products	4.30	4.40	2.5	4.55	4.73	4.1	4.84	5.19	7.2	4.56	4.77	4.7	4.88	5.36	9.9
Total	**40.08**	**41.60**	**3.8**	**39.54**	**39.95**	**1.0**	**39.66**	**41.23**	**4.0**	**39.76**	**40.93**	**2.9**	**40.86**	**42.42**	**3.8**

Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply.
Jet/kerosene comprises jet kerosene and non-aviation kerosene grades. Gasoil comprises diesel, light heating oil and other gasoils.
North America comprises US 50 States, territories and Canada.

Table 3

OIL DEMAND IN SELECTED OECD COUNTRIES

(million barrels per day)

	May			June			Second Quarter			July			August		
	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%
United States															
LPG	1.85	1.77	-4.2	1.77	1.75	-1.5	1.83	1.81	-1.2	1.80	1.79	-0.9	1.87	1.87	-0.5
Naphtha	0.20	0.30	49.0	0.21	0.27	29.3	0.21	0.28	34.7	0.21	0.29	35.8	0.24	0.28	17.4
Motor Gasoline	8.00	8.13	1.6	8.09	8.26	2.1	7.99	8.15	2.1	8.14	8.47	4.1	8.22	8.20	-0.3
Jet/Kerosene	1.48	1.55	4.7	1.58	1.60	1.1	1.54	1.60	4.3	1.59	1.72	8.5	1.60	1.70	6.2
Gasoil	3.12	3.24	3.9	3.19	3.23	1.3	3.23	3.33	3.1	3.05	3.28	7.7	3.18	3.12	-1.9
Residual Fuel Oil	0.83	0.73	-11.0	0.74	0.77	3.5	0.77	0.77	-0.7	0.90	0.78	-13.5	0.86	0.72	-16.5
Other Products	2.38	2.52	5.7	2.46	2.68	9.1	2.35	2.51	7.0	2.46	2.74	11.3	2.53	2.61	3.3
Total	**17.86**	**18.24**	**2.2**	**18.05**	**18.56**	**2.8**	**17.91**	**18.46**	**3.0**	**18.14**	**19.06**	**5.1**	**18.51**	**18.51**	**0.0**
Japan															
LPG	0.58	0.58	-0.7	0.58	0.58	-0.3	0.61	0.59	-2.8	0.56	0.59	6.2	0.57	0.52	-8.5
Naphtha	0.71	0.78	9.7	0.68	0.75	11.1	0.72	0.78	8.6	0.78	0.72	-7.2	0.78	0.85	8.1
Motor Gasoline	0.88	0.92	5.0	0.86	0.90	4.4	0.88	0.91	3.4	0.98	0.98	0.5	1.04	1.06	2.0
Jet/Kerosene	0.48	0.44	-7.6	0.44	0.45	1.6	0.54	0.49	-8.7	0.44	0.45	2.3	0.44	0.46	5.2
Diesel*	0.75	0.72	-3.4	0.73	0.73	0.2	0.75	0.73	-3.3	0.79	0.77	-2.5	0.74	0.75	0.5
Other Gasoil*	0.42	0.45	6.8	0.42	0.46	8.7	0.45	0.47	5.1	0.47	0.45	-3.2	0.45	0.43	-3.2
Residual Fuel Oil	0.65	0.67	3.8	0.68	0.71	4.4	0.68	0.68	-0.9	0.75	0.80	5.9	0.74	0.70	-5.7
Direct use of Crude Oil	0.20	0.18	-7.7	0.26	0.26	-0.6	0.22	0.18	-16.0	0.31	0.31	-0.4	0.35	0.28	-21.6
Other Products	0.37	0.33	-12.0	0.35	0.30	-15.6	0.36	0.33	-9.9	0.32	0.37	16.6	0.34	0.37	9.0
Total	**5.03**	**5.08**	**0.8**	**5.00**	**5.13**	**2.6**	**5.22**	**5.17**	**-1.0**	**5.39**	**5.45**	**1.0**	**5.46**	**5.42**	**-0.7**
Germany															
LPG	0.10	0.09	-11.2	0.08	0.08	-5.7	0.09	0.09	-5.2	0.10	0.09	-9.2	0.10	0.10	-6.5
Naphtha	0.33	0.41	24.0	0.28	0.39	36.6	0.32	0.39	22.6	0.31	0.37	16.8	0.32	0.38	17.9
Motor Gasoline	0.72	0.70	-2.7	0.69	0.71	2.1	0.71	0.72	0.9	0.73	0.72	-0.8	0.71	0.69	-3.5
Jet/Kerosene	0.13	0.14	3.5	0.14	0.15	5.7	0.13	0.14	6.5	0.15	0.15	0.7	0.14	0.15	3.7
Diesel	0.44	0.41	-5.5	0.43	0.45	5.6	0.44	0.45	3.8	0.45	0.47	3.6	0.44	0.43	-3.3
Other Gasoil	0.80	0.71	-11.9	0.84	1.00	19.4	0.78	0.91	16.5	0.85	0.97	13.8	0.98	0.71	-27.7
Residual Fuel Oil	0.17	0.17	-3.5	0.17	0.16	-2.9	0.17	0.17	-2.0	0.17	0.15	-13.8	0.17	0.14	-20.7
Other Products	0.19	0.18	-2.6	0.21	0.22	1.1	0.19	0.20	5.0	0.21	0.20	-4.0	0.18	0.18	-3.3
Total	**2.88**	**2.80**	**-2.7**	**2.84**	**3.15**	**10.7**	**2.83**	**3.06**	**8.3**	**2.97**	**3.11**	**4.7**	**3.05**	**2.75**	**-9.7**
Italy															
LPG	0.08	0.09	10.7	0.08	0.07	-5.9	0.09	0.09	2.9	0.09	0.09	-4.4	0.09	0.08	-6.9
Naphtha	0.13	0.13	4.5	0.13	0.11	-11.0	0.13	0.13	-1.4	0.13	0.12	-12.1	0.12	0.12	-7.6
Motor Gasoline	0.45	0.44	-1.2	0.43	0.46	7.8	0.45	0.46	2.5	0.48	0.48	-0.5	0.46	0.44	-2.6
Jet/Kerosene	0.08	0.06	-22.7	0.06	0.07	23.5	0.07	0.07	1.3	0.08	0.08	-2.3	0.07	0.08	12.0
Diesel	0.32	0.29	-8.0	0.32	0.33	1.9	0.32	0.31	-2.5	0.33	0.33	-0.6	0.24	0.25	0.5
Other Gasoil	0.11	0.14	28.0	0.09	0.13	43.8	0.11	0.14	31.1	0.14	0.17	21.8	0.13	0.11	-12.5
Residual Fuel Oil	0.50	0.46	-6.7	0.53	0.49	-7.9	0.52	0.49	-6.4	0.63	0.48	-25.0	0.45	0.50	10.1
Other Products	0.09	0.15	59.8	0.13	0.13	4.1	0.10	0.13	26.6	0.13	0.15	19.3	0.09	0.10	12.5
Total	**1.74**	**1.76**	**1.0**	**1.77**	**1.81**	**2.2**	**1.78**	**1.81**	**1.8**	**2.02**	**1.89**	**-6.4**	**1.65**	**1.67**	**1.3**
France															
LPG	0.08	0.08	-8.7	0.07	0.07	8.7	0.09	0.08	-3.9	0.08	0.08	6.1	0.07	0.08	6.6
Naphtha	0.18	0.16	-13.1	0.12	0.16	34.4	0.13	0.15	15.9	0.13	0.14	8.8	0.16	0.10	-37.6
Motor Gasoline	0.36	0.34	-4.0	0.35	0.35	-1.3	0.36	0.35	-2.0	0.39	0.38	-2.1	0.38	0.37	-4.0
Jet/Kerosene	0.11	0.11	-2.1	0.11	0.12	2.3	0.11	0.11	1.0	0.12	0.12	-2.9	0.12	0.12	2.6
Diesel	0.47	0.48	2.0	0.48	0.51	6.9	0.48	0.51	6.0	0.51	0.53	3.6	0.45	0.45	0.2
Other Gasoil	0.27	0.23	-14.4	0.28	0.31	12.9	0.30	0.29	-2.4	0.38	0.42	12.0	0.33	0.31	-7.1
Residual Fuel Oil	0.14	0.13	-7.0	0.14	0.12	-9.5	0.15	0.14	-7.8	0.12	0.12	2.1	0.11	0.10	-4.7
Other Products	0.20	0.19	-6.4	0.28	0.24	-16.1	0.24	0.20	-16.7	0.26	0.28	9.6	0.22	0.26	17.6
Total	**1.81**	**1.71**	**-5.5**	**1.82**	**1.87**	**3.0**	**1.85**	**1.83**	**-1.0**	**1.98**	**2.07**	**4.8**	**1.84**	**1.78**	**-3.0**
United Kingdom															
LPG	0.17	0.16	-10.3	0.18	0.16	-11.6	0.18	0.16	-8.8	0.17	0.18	2.7	0.18	0.18	-2.9
Naphtha	0.07	0.04	-49.4	0.05	0.06	9.0	0.07	0.05	-23.3	0.06	0.05	-9.9	0.07	0.06	-6.0
Motor Gasoline	0.53	0.54	0.9	0.52	0.55	5.9	0.53	0.54	3.0	0.54	0.53	-1.7	0.52	0.50	-3.0
Jet/Kerosene	0.24	0.23	-1.5	0.22	0.24	8.0	0.23	0.24	4.2	0.24	0.25	4.5	0.24	0.25	4.6
Diesel	0.30	0.30	0.6	0.29	0.33	13.4	0.29	0.32	7.8	0.30	0.30	-1.7	0.29	0.28	-3.0
Other Gasoil	0.18	0.17	-2.6	0.17	0.17	2.8	0.18	0.18	2.1	0.18	0.17	-0.7	0.18	0.17	-1.7
Residual Fuel Oil	0.17	0.11	-34.6	0.16	0.11	-30.6	0.16	0.11	-32.9	0.12	0.10	-20.4	0.14	0.09	-33.6
Other Products	0.19	0.18	-6.1	0.16	0.19	15.1	0.18	0.18	0.9	0.20	0.21	2.3	0.19	0.19	-2.8
Total	**1.85**	**1.72**	**-6.7**	**1.75**	**1.80**	**2.9**	**1.82**	**1.79**	**-1.7**	**1.80**	**1.78**	**-1.4**	**1.81**	**1.73**	**-4.3**
Canada															
LPG	0.29	0.28	-2.7	0.29	0.30	0.8	0.30	0.29	-2.0	0.25	0.28	13.2	0.27	0.28	2.8
Naphtha	0.08	0.09	20.2	0.07	0.08	12.9	0.07	0.09	18.1	0.08	0.09	8.7	0.09	0.09	0.0
Motor Gasoline	0.62	0.64	2.7	0.63	0.66	5.4	0.61	0.63	3.3	0.65	0.69	5.3	0.68	0.66	-2.4
Jet/Kerosene	0.08	0.10	24.1	0.10	0.11	10.5	0.09	0.10	13.9	0.11	0.12	3.9	0.12	0.12	1.8
Diesel	0.16	0.16	0.0	0.15	0.15	0.0	0.15	0.15	0.0	0.15	0.15	0.0	0.16	0.15	-3.9
Other Gasoil	0.28	0.30	7.0	0.24	0.27	11.4	0.27	0.29	9.7	0.24	0.28	15.3	0.25	0.29	14.9
Residual Fuel Oil	0.10	0.13	20.8	0.11	0.12	9.9	0.10	0.12	20.7	0.11	0.13	20.7	0.11	0.14	30.3
Other Products	0.20	0.24	20.1	0.29	0.33	14.6	0.24	0.27	12.2	0.30	0.33	11.8	0.30	0.29	-6.3
Total	**1.82**	**1.94**	**6.9**	**1.90**	**2.04**	**7.3**	**1.83**	**1.95**	**6.4**	**1.89**	**2.07**	**9.2**	**1.97**	**2.01**	**1.9**

Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply.

Jet/kerosene comprises jet kerosene and non-aviation kerosene grades. Gasoil comprises diesel, light heating oil and other gasoils.

US figures do not include territories.

* In Japan, the breakdown between Diesel and Other Gasoil in the latest month is estimated using the same split between the two products as last year.

Table 4

WORLD OIL PRODUCTION

(million barrels per day)

	1996	1997[f]	1998[f]	4Q96	1Q97	2Q97	3Q97[p]	4Q97[f]	Aug97	Sep97	Oct97
OPEC[1]											
Crude Oil											
Saudi Arabia	7.91			7.90	7.98	7.92	8.05		8.08	8.06	8.00
Iran	3.67			3.66	3.62	3.62	3.58		3.65	3.45	3.65
Iraq	0.58			0.65	1.11	1.05	1.22		1.46	1.68	1.63
UAE	2.23			2.27	2.29	2.23	2.25		2.25	2.25	2.25
Kuwait	1.81			1.81	1.84	1.81	1.83		1.81	1.85	1.84
Neutral Zone	0.48			0.52	0.53	0.52	0.54		0.54	0.54	0.56
Qatar	0.49			0.51	0.56	0.61	0.65		0.65	0.66	0.67
Nigeria	2.15			2.23	2.25	2.29	2.29		2.28	2.31	2.28
Libya	1.39			1.40	1.41	1.43	1.43		1.43	1.42	1.39
Algeria	0.82			0.84	0.85	0.85	0.85		0.85	0.84	0.87
Venezuela	2.94			3.06	3.07	3.16	3.22		3.22	3.24	3.26
Indonesia	1.39			1.40	1.36	1.38	1.39		1.40	1.39	1.38
Total Crude Oil	25.84			26.25	26.84	26.83	27.27		27.59	27.68	27.77
NGLs[2]	2.61	2.80	2.95	2.67	2.73	2.77	2.83	2.86	2.81	2.86	2.85
TOTAL OPEC	28.45			28.92	29.57	29.60	30.10		30.40	30.53	30.62
NON-OPEC[1,3]											
OECD											
North America	11.05	11.16	11.41	11.24	11.17	11.00	11.15	11.32	11.08	11.19	11.23
United States	8.59	8.64	8.73	8.71	8.65	8.62	8.61	8.70	8.56	8.64	8.65
Canada	2.46	2.52	2.68	2.53	2.53	2.39	2.54	2.62	2.52	2.56	2.58
Europe	6.71	6.77	7.30	6.96	6.88	6.54	6.47	7.21	6.27	6.47	7.07
UK	2.81	2.77	3.08	3.00	2.91	2.51	2.67	3.00	2.63	2.72	2.91
Norway	3.23	3.32	3.50	3.27	3.29	3.35	3.15	3.50	3.01	3.06	3.46
Others	0.67	0.68	0.72	0.69	0.68	0.68	0.66	0.71	0.64	0.68	0.70
Pacific	0.67	0.74	0.83	0.66	0.67	0.72	0.79	0.77	0.80	0.79	0.78
Australia	0.60	0.65	0.73	0.58	0.58	0.63	0.70	0.68	0.72	0.70	0.69
Others	0.07	0.09	0.10	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09
Total OECD	18.44	18.67	19.54	18.86	18.72	18.27	18.41	19.29	18.15	18.45	19.08
Non-OECD											
Former USSR	7.07	7.17	7.27	7.08	7.05	7.20	7.28	7.17	7.28	7.29	7.11
Russia	6.04	6.07	6.03	6.02	5.99	6.11	6.18	6.00	6.19	6.18	5.97
Others	1.03	1.10	1.25	1.07	1.06	1.09	1.09	1.17	1.09	1.11	1.14
Asia	5.23	5.33	5.48	5.28	5.33	5.33	5.30	5.38	5.31	5.30	5.36
China	3.12	3.21	3.24	3.15	3.21	3.22	3.19	3.21	3.19	3.19	3.21
Malaysia	0.73	0.75	0.77	0.75	0.75	0.75	0.75	0.76	0.74	0.76	0.76
India	0.74	0.76	0.78	0.73	0.75	0.76	0.76	0.76	0.77	0.77	0.76
Others	0.64	0.62	0.69	0.65	0.62	0.61	0.60	0.64	0.61	0.58	0.63
Europe	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Latin America	6.54	6.91	7.47	6.60	6.75	6.81	6.94	7.14	6.95	7.09	7.10
Mexico	3.28	3.42	3.58	3.25	3.33	3.35	3.48	3.52	3.49	3.53	3.50
Brazil	1.06	1.19	1.34	1.11	1.15	1.17	1.18	1.24	1.19	1.20	1.22
Argentina	0.83	0.88	0.89	0.85	0.87	0.89	0.89	0.88	0.88	0.90	0.90
Colombia	0.64	0.67	0.86	0.65	0.64	0.64	0.65	0.74	0.65	0.68	0.71
Ecuador	0.39	0.39	0.42	0.38	0.39	0.39	0.38	0.40	0.37	0.40	0.40
Others	0.36	0.37	0.38	0.37	0.37	0.37	0.37	0.36	0.37	0.37	0.37
Middle East[4]	1.90	1.89	1.91	1.92	1.90	1.88	1.89	1.90	1.89	1.89	1.90
Oman	0.90	0.91	0.91	0.93	0.91	0.91	0.92	0.92	0.92	0.92	0.92
Syria	0.58	0.56	0.54	0.57	0.57	0.56	0.56	0.56	0.56	0.56	0.56
Yemen	0.37	0.37	0.41	0.38	0.38	0.37	0.37	0.38	0.37	0.37	0.38
Africa	2.68	2.84	3.03	2.75	2.77	2.80	2.85	2.93	2.86	2.89	2.91
Egypt	0.92	0.92	0.94	0.90	0.91	0.91	0.93	0.94	0.93	0.94	0.94
Angola	0.69	0.73	0.83	0.70	0.71	0.72	0.73	0.75	0.74	0.74	0.75
Gabon	0.36	0.37	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.36	0.37
Others	0.71	0.82	0.90	0.79	0.78	0.81	0.82	0.87	0.83	0.85	0.86
Total Non-OECD	23.65	24.37	25.37	23.86	24.02	24.24	24.48	24.73	24.51	24.69	24.59
Processing Gains[5]	1.52	1.57	1.64	1.55	1.57	1.56	1.56	1.60	1.56	1.56	1.60
TOTAL NON-OPEC	43.60	44.61	46.55	44.27	44.31	44.06	44.44	45.63	44.21	44.70	45.28
TOTAL SUPPLY	**72.06**			**73.19**	**73.87**	**73.66**	**74.54**		**74.61**	**75.23**	**75.89**

1 Gabon is identified separately as a non-OPEC producer country throughout the period covered by this table for the purposes of comparison.
2 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Orimulsion, and non oil inputs to Saudi Arabian MTBE.
3 Comprises crude oil, condensates, NGLs and oil from non-conventional sources.
4 Includes small amounts of production from Israel, Jordan and Bahrain.
5 Net of volumetric gains and losses in refining (excludes net gain/loss in FSU, China and non-OECD Europe) and marine transportation losses.
p preliminary
f forecast

Table 4A

OIL SUPPLY IN OECD COUNTRIES[1]

(thousand barrels per day)

	September		3rd Quarter 97p		October		4th Quarter 97f		1997f		1998f	
	Level	Change[2]	Level	Change	Level	Change	Level	Change	Level	Change	Level	Change
United States												
Alaska	1281	79	1241	-64	1293	12	1313	71	1306	-88	1281	-24
California (inc. offshore)	932	-2	934	4	925	-7	926	-8	927	-20	916	-11
Texas	1430	-10	1437	-18	1420	-10	1416	-21	1448	-33	1359	-89
Offshore Gulf of Mexico	1289	11	1278	58	1300	11	1316	39	1245	160	1506	261
Other US Lower 48	1498	-4	1502	-19	1481	-17	1475	-27	1508	-49	1448	-61
NGLs[3]	1902	52	1867	26	1926	24	1942	75	1881	55	1910	29
Other Hydrocarbons	305	-44	347	4	305	0	308	-39	327	25	310	-16
Total	**8637**	**82**	**8606**	**-9**	**8649**	**12**	**8697**	**90**	**8641**	**51**	**8730**	**89**
Canada												
Alberta Light & Medium	650	20	638	20	660	10	655	17	643	-36	632	-11
Alberta Heavy	278	24	262	17	280	2	285	23	262	0	300	38
Alberta Bitumen	212	-40	239	25	214	2	216	-23	219	56	230	11
Saskatchewan	382	24	368	-7	393	11	395	26	379	23	384	5
Other Conventional	93	-1	96	-6	92	-1	102	6	100	-30	182	83
NGLs	626	21	611	5	649	24	672	60	635	15	652	17
Syncrudes	315	-16	327	101	294	-21	295	-32	280	2	295	15
Total	**2556**	**33**	**2541**	**156**	**2583**	**27**	**2619**	**78**	**2518**	**30**	**2676**	**158**
United Kingdom[4]												
Brent Fields	381	20	383	-8	393	12	403	20	412	-68	387	-25
Forties Fields	866	6	848	98	869	3	900	52	863	-46	885	23
Ninian Fields	237	13	242	-15	249	12	245	3	256	-51	213	-43
Flotta Fields	195	-3	186	7	215	20	220	34	199	-23	228	29
Other Offshore Fields	702	34	684	72	810	108	841	156	685	155	990	305
NGLs	237	14	230	9	267	30	282	52	253	-2	270	16
Total	**2618**	**84**	**2574**	**163**	**2803**	**185**	**2891**	**317**	**2668**	**-33**	**2973**	**305**
Norway[4]												
Ekofisk/Ula Area	525	-17	537	5	547	22	548	11	519	17	501	-18
Oseberg Area	912	79	881	25	899	-13	895	15	894	-16	836	-57
Statfjord-Gullfaks-Snorre	920	-100	1048	-234	1302	382	1319	271	1210	8	1247	36
Haltenbanken	419	22	410	20	425	6	450	40	414	58	633	218
Sleipner/Frigg	151	52	138	-14	152	1	152	14	148	26	162	14
Plant Condensate (as NGLs)	6	-2	7	0	6	0	6	-1	7	-1	6	-1
Lighter NGLs	131	23	125	-10	130	-1	130	6	130	-4	117	-12
Total	**3064**	**57**	**3145**	**-208**	**3460**	**397**	**3500**	**355**	**3322**	**88**	**3503**	**180**
Other OECD Europe												
Other North Sea	272	26	259	-6	277	5	279	19	266	19	288	22
Onshore U.K.	102	10	94	-9	107	5	107	13	104	-3	102	-2
Italy	110	4	108	-4	115	5	120	12	112	12	130	18
Turkey	64	0	65	-2	63	-1	63	-2	65	-2	61	-4
Other	160	-3	163	5	160	0	161	-2	161	-16	157	-4
NGLs	39	11	32	-2	42	3	45	13	39	1	43	4
Non-Conventional Oils	38	5	33	-7	38	0	38	5	37	-2	40	3
Total	**785**	**53**	**754**	**-25**	**802**	**17**	**813**	**60**	**784**	**8**	**822**	**37**
Australia												
Gippsland Basin	230	-9	235	5	227	-3	224	-11	221	23	215	-6
Cooper/Eromanga	33	-1	33	-3	33	0	33	0	33	-2	34	1
Carnarvon Basin	341	-4	333	62	337	-3	334	2	301	25	374	73
Bonaparte Basin	18	-0	19	0	18	-1	18	-1	18	-2	43	25
Other Fields	5	0	5	-0	5	1	5	1	5	-1	5	0
NGLs	75	-2	77	2	71	-4	68	-9	70	6	61	-9
Total	**701**	**-16**	**701**	**67**	**691**	**-10**	**682**	**-18**	**648**	**49**	**732**	**83**
Other OECD Pacific												
New Zealand	64	7	62	1	64	0	63	1	62	19	65	3
Japan	11	1	10	-0	11	0	11	1	10	-0	11	1
NGLs	14	1	14	0	14	0	14	0	14	2	13	-1
Synthetic Fuels	4	1	3	-1	4	0	4	1	4	-4	11	7
Total	**93**	**10**	**90**	**-0**	**93**	**0**	**92**	**3**	**91**	**17**	**100**	**9**
OECD												
Crude Oil	14762	237	14737	16	15335	573	15490	753	14996	118	15806	810
NGLs	3031	119	2963	30	3106	75	3159	196	3029	72	3072	43
Non-Conventional Oils	662	-54	710	98	641	-21	645	-65	648	21	657	9
Total	**18454**	**303**	**18411**	**145**	**19082**	**628**	**19294**	**883**	**18673**	**211**	**19535**	**862**

1 Subcategories refer to crude oil only unless otherwise noted.
2 All changes are period to period not year-on-year.
3 To the extent possible, condensates derived from natural gas processing plants are included with NGLs, whereas field condensates are counted as crude oil.
4 North Sea production is grouped by area including all fields being processed through the named facility, i.e. not just the field of that name.

Table 5

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			
	May97	Jun97	Jul97	Aug97*	Sep97*	Sep94	Sep95	Sep96	Q496	Q197	Q297	Q397
North America												
Crude	393	388	378	369	372	405	373	371	-0.26	0.38	0.00	-0.18
Gasoline	220	222	205	204	215	223	220	219	-0.06	0.07	0.04	-0.07
Middle Distillate	176	188	194	206	213	222	205	188	0.13	-0.34	0.26	0.27
Residual Fuel Oil	48	48	44	45	46	53	49	46	0.07	-0.04	0.00	-0.02
Total Products[3]	599	625	616	664	684	670	652	611	-0.10	-0.34	0.58	0.64
Total[4]	1149	1164	1148	1178	1199	1256	1194	1138	-0.52	0.10	0.61	0.39
Europe												
Crude	327	308	314	317	324	312	291	317	0.03	0.10	-0.22	0.17
Gasoline	127	126	120	122	119	120	126	126	0.01	0.12	-0.13	-0.07
Middle Distillate	228	225	228	248	244	243	250	211	0.15	0.11	-0.10	0.20
Residual Fuel Oil	89	88	87	89	91	99	106	96	0.00	-0.03	-0.05	0.04
Total Products[3]	531	526	524	553	548	548	572	515	0.24	0.16	-0.27	0.24
Total[4]	916	894	896	932	933	917	919	891	0.34	0.22	-0.52	0.42
Pacific												
Crude	163	169	168	150	154	151	170	154	0.10	-0.03	0.09	-0.16
Gasoline	26	25	23	23	23	20	22	21	-0.01	0.04	0.01	-0.01
Middle Distillate	62	60	67	73	76	77	68	74	-0.08	-0.13	0.06	0.17
Residual Fuel Oil	17	17	17	17	17	16	15	15	-0.01	0.02	0.01	0.00
Total Products[3]	161	157	164	175	179	173	163	174	-0.18	-0.08	0.07	0.24
Total[4]	413	411	418	413	422	407	417	419	-0.23	-0.02	0.17	0.12
Total												
Crude	883	866	860	836	850	868	834	842	-0.14	0.45	-0.12	-0.17
Gasoline	372	372	348	349	357	364	368	365	-0.06	0.23	-0.08	-0.16
Middle Distillate	466	474	489	527	533	542	523	473	0.20	-0.35	0.22	0.64
Residual Fuel Oil	154	153	148	151	154	168	170	157	0.06	-0.05	-0.04	0.02
Total Products[3]	1291	1307	1304	1392	1410	1391	1387	1299	-0.05	-0.25	0.37	1.12
Total[4]	2479	2469	2462	2522	2554	2580	2530	2447	-0.40	0.30	0.26	0.93

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[3] in mb/d			
	May97	Jun97	Jul97	Aug97*	Sep97*	Sep94	Sep95	Sep96	Q496	Q197	Q297	Q397
North America												
Crude	563	563	563	563	563	592	592	574	-0.09	-0.03	0.00	0.00
Europe												
Crude	132	131	131	127	127	134	134	134	-0.02	0.00	-0.01	-0.05
Products	191	191	192	193	193	187	184	186	0.02	0.03	0.01	0.02
Pacific												
Crude	307	307	308	309	309	267	293	300	0.03	0.05	0.00	0.02
Total												
Crude	1003	1002	1003	999	999	993	1018	1007	-0.07	0.02	-0.01	-0.03
Products	191	191	192	193	193	187	184	186	0.02	0.03	0.01	0.02
Total[4]	1194	1193	1195	1191	1191	1180	1202	1194	-0.05	0.05	0.00	-0.02

* Estimated

1 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 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 6

INDUSTRY STOCKS[1] ON LAND IN SELECTED COUNTRIES

(million barrels)

	April			May			June			July			August		
	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%
United States															
Crude	303.0	320.4	5.7	304.8	327.0	7.3	314.3	321.8	2.4	309.6	309.5	-0.1	315.2	300.8	-4.6
Motor Gasoline	203.0	197.5	-2.7	205.1	202.0	-1.5	204.6	204.8	0.1	201.5	189.9	-5.8	191.5	187.2	-2.2
Middle Distillate	128.4	140.1	9.1	135.3	153.3	13.3	143.2	165.9	15.9	148.4	170.8	15.1	152.9	181.1	18.5
Residual Fuel Oil	33.7	40.6	20.4	34.3	39.2	14.4	34.9	39.2	12.2	34.8	35.5	2.0	35.8	36.4	1.8
Other Products	116.1	123.3	6.2	121.9	136.1	11.6	130.9	147.7	12.9	136.4	153.9	12.8	137.9	190.7	38.2
Total Products	481.1	501.5	4.2	496.7	530.6	6.8	513.6	557.6	8.6	521.1	550.0	5.6	518.1	595.4	14.9
Other [2]	130.6	133.5	2.2	132.1	140.7	6.5	133.2	134.0	0.7	136.2	135.7	-0.4	136.4	126.9	-7.0
Total	**914.7**	**955.4**	**4.4**	**933.6**	**998.3**	**6.9**	**961.1**	**1013.4**	**5.4**	**966.9**	**995.1**	**2.9**	**969.8**	**1023.1**	**5.5**
Japan															
Crude	140.0	145.4	3.9	151.2	147.1	-2.7	152.7	152.4	-0.2	136.4	149.4	9.5	140.1	135.5	-3.3
Motor Gasoline	13.7	15.1	10.5	13.9	14.4	3.6	11.6	13.0	12.1	11.6	12.8	10.3	11.7	13.0	11.1
Middle Distillate	37.0	49.8	34.6	40.5	50.0	23.4	42.3	48.6	14.9	47.9	54.3	13.4	58.6	61.0	4.1
Residual Fuel Oil	13.0	14.0	7.5	12.7	14.0	9.8	12.6	14.6	15.8	12.9	13.7	6.1	13.1	13.8	5.9
Other Products	46.3	50.8	9.6	49.7	48.3	-2.8	49.7	47.3	-4.8	52.8	51.2	-3.0	54.2	55.1	1.6
Total Products	110.0	129.7	17.9	116.8	126.6	8.4	116.3	123.6	6.3	125.2	132.1	5.4	137.6	142.9	3.9
Other [2]	72.2	83.3	15.3	73.3	83.8	14.3	71.9	79.4	10.5	75.6	80.1	5.8	80.8	82.1	1.6
Total	**322.1**	**358.3**	**11.2**	**341.2**	**357.5**	**4.8**	**340.8**	**355.3**	**4.3**	**337.3**	**361.5**	**7.2**	**358.5**	**360.5**	**0.6**
Germany															
Crude	21.2	21.6	2.2	20.9	23.0	10.4	20.9	20.7	-1.3	19.1	23.8	24.6	21.1	21.5	1.8
Motor Gasoline	9.6	13.6	41.7	9.7	12.7	31.1	11.4	11.4	0.4	11.2	10.0	-10.2	8.6	9.7	11.8
Middle Distillate	17.8	16.0	-10.1	15.6	22.4	43.5	15.3	15.8	3.5	18.3	18.2	-0.8	15.4	21.8	41.5
Residual Fuel Oil	8.4	8.5	0.9	8.9	9.5	7.1	8.3	8.6	3.2	8.3	8.8	6.1	9.1	8.4	-7.1
Other Products	11.6	11.1	-5.0	11.2	11.8	4.5	11.9	11.2	-6.5	11.5	11.6	0.8	11.5	12.1	5.5
Total Products	47.5	49.2	3.6	45.4	56.3	24.1	46.9	47.0	0.2	49.3	48.6	-1.4	44.6	52.0	16.6
Other [2]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**68.6**	**70.8**	**3.1**	**66.3**	**79.4**	**19.8**	**67.9**	**67.7**	**-0.3**	**68.4**	**72.4**	**5.8**	**65.7**	**73.5**	**11.9**
Italy															
Crude	35.2	35.4	0.4	39.5	37.2	-5.8	39.6	38.9	-1.7	37.5	40.1	7.0	36.5	34.9	-4.4
Motor Gasoline	21.1	19.0	-10.1	21.2	20.1	-5.1	21.0	20.3	-3.2	21.6	19.8	-8.3	21.0	21.7	3.4
Middle Distillate	35.3	33.4	-5.4	35.1	32.6	-6.9	34.9	32.9	-5.8	33.4	31.6	-5.6	37.4	36.5	-2.4
Residual Fuel Oil	20.0	21.6	7.9	23.0	20.8	-9.4	24.9	20.2	-18.9	25.2	22.1	-12.4	26.9	22.2	-17.6
Other Products	8.9	7.9	-10.9	9.9	9.0	-8.2	9.4	10.1	7.6	8.5	10.0	17.1	8.4	11.1	32.1
Total Products	85.3	81.9	-4.0	89.1	82.7	-7.3	90.2	83.5	-7.4	88.8	83.4	-6.0	93.7	91.4	-2.4
Other [2]	5.8	10.9	88.0	4.7	7.4	55.7	4.5	7.6	68.5	5.2	5.4	3.0	5.4	6.1	11.9
Total	**126.3**	**128.2**	**1.4**	**133.3**	**127.2**	**-4.6**	**134.3**	**130.0**	**-3.2**	**131.5**	**128.9**	**-2.0**	**135.6**	**132.4**	**-2.3**
France															
Crude	45.5	42.8	-5.8	40.3	43.4	7.6	37.6	35.2	-6.2	43.4	40.0	-7.9	43.8	38.2	-12.8
Motor Gasoline	20.5	17.3	-15.5	20.8	16.9	-18.6	21.2	16.1	-23.9	20.1	15.0	-25.3	16.9	16.1	-5.2
Middle Distillate	36.5	34.6	-5.0	39.3	38.0	-3.2	38.7	36.3	-6.1	36.3	32.4	-10.8	35.8	37.2	3.7
Residual Fuel Oil	8.4	7.6	-9.6	8.9	8.0	-10.2	8.2	7.9	-2.9	8.2	8.3	1.2	8.4	9.1	8.2
Other Products	9.2	8.3	-9.1	8.5	8.2	-4.0	8.5	8.7	2.6	8.4	7.9	-5.9	8.2	8.8	6.9
Total Products	74.5	67.9	-8.9	77.5	71.2	-8.2	76.4	69.0	-9.7	73.0	63.6	-12.9	69.4	71.1	2.4
Other [2]	12.2	12.9	5.7	12.7	12.2	-4.2	13.6	12.1	-11.2	13.1	12.3	-6.0	12.6	12.0	-5.3
Total	**132.2**	**123.6**	**-6.5**	**130.6**	**126.7**	**-2.9**	**127.6**	**116.3**	**-8.8**	**129.6**	**116.0**	**-10.5**	**125.9**	**121.3**	**-3.7**
United Kingdom															
Crude	35.4	34.9	-1.5	32.8	34.5	5.2	32.6	34.0	4.3	35.9	34.4	-4.0	31.2	34.5	10.4
Motor Gasoline	15.1	15.0	-1.1	14.7	14.6	-0.7	15.2	15.6	3.0	14.2	14.7	3.8	14.5	15.4	6.0
Middle Distillate	18.1	20.0	10.5	18.4	20.4	11.0	18.8	20.0	6.6	18.2	19.3	6.3	18.0	20.3	13.0
Residual Fuel Oil	7.4	7.0	-6.4	7.5	7.3	-2.1	6.5	7.6	16.8	7.0	7.7	9.1	7.3	6.4	-12.4
Other Products	11.9	11.5	-3.2	11.7	12.0	3.3	12.4	12.9	3.6	11.7	11.8	0.8	11.7	12.6	7.0
Total Products	52.5	53.4	1.7	52.2	54.4	4.1	52.9	56.1	6.1	51.1	53.5	4.7	51.6	54.7	6.0
Other [2]	17.0	15.0	-12.0	16.6	14.3	-14.0	15.2	16.2	6.7	14.3	14.0	-1.4	14.8	14.8	0.2
Total	**104.9**	**103.3**	**-1.6**	**101.6**	**103.1**	**1.5**	**100.7**	**106.3**	**5.6**	**101.3**	**102.0**	**0.7**	**97.6**	**104.0**	**6.5**
Canada															
Crude	60.3	62.2	3.2	59.5	57.6	-3.1	56.3	58.2	3.4	56.1	60.5	7.9	56.8	59.6	4.9
Motor Gasoline	20.9	18.2	-12.6	17.4	16.2	-6.9	17.7	15.4	-12.9	17.6	13.3	-24.3	16.9	15.2	-10.4
Middle Distillate	18.6	19.5	4.9	18.0	19.2	6.4	20.3	18.8	-7.4	22.3	20.2	-9.4	21.9	21.6	-1.3
Residual Fuel Oil	5.1	4.1	-20.5	4.6	4.6	-0.7	5.0	4.7	-7.6	4.9	4.5	-7.1	4.2	4.6	9.6
Other Products	15.9	17.9	12.5	17.7	18.4	4.1	16.8	17.7	4.8	16.1	17.6	9.4	15.7	16.9	7.6
Total Products	60.4	59.6	-1.3	57.7	58.4	1.1	60.0	56.6	-5.6	60.9	55.7	-8.6	58.7	58.3	-0.8
Other [2]	11.0	9.8	-10.5	12.5	11.0	-12.1	13.6	11.8	-13.1	15.4	12.8	-17.2	16.8	12.8	-23.8
Total	**131.7**	**131.7**	**0.0**	**129.7**	**127.0**	**-2.1**	**129.9**	**126.6**	**-2.5**	**132.3**	**128.9**	**-2.6**	**132.3**	**130.7**	**-1.2**

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

2 Other includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

Table 7
TOTAL STOCKS ON LAND IN OECD COUNTRIES

('millions of barrels' and 'days')

	End September 1996		End December 1996		End March 1997		End June 1997 [4]		End September 1997 [3]	
	Stock[1] 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
Canada	133.9	69	124.9	64	129.2	66	126.6	-	-	-
United States	1553.7	83	1507.4	83	1512.3	82	1576.9	-	-	-
NORTH AMERICA	1711.3	82	1656.0	81	1665.2	81	1727.2	83	1762.8	84
Australia	43.2	53	40.9	51	44.1	53	45.1	-	-	-
Japan	664.5	111	651.1	102	649.7	126	662.2	-	-	-
New Zealand	10.6	81	8.4	61	8.9	80	10.6	-	-	-
PACIFIC	718.4	103	700.4	96	702.6	115	717.9	114	730.6	103
Austria	17.2	73	17.9	82	17.4	78	17.4	-	-	-
Belgium	27.4	48	29.3	46	28.4	51	27.2	-	-	-
Denmark	19.1	77	19.2	80	20.2	90	17.5	-	-	-
Finland	23.8	111	26.8	136	24.4	121	24.4	-	-	-
France	147.6	75	154.4	76	156.5	85	149.2	-	-	-
Germany	297.0	103	303.0	109	312.6	102	299.3	-	-	-
Greece	19.7	52	21.8	57	23.4	67	22.9	-	-	-
Hungary	13.4	77	16.2	116	18.8	109	16.9	-	-	-
Ireland	8.2	63	8.6	63	7.8	61	8.7	-	-	-
Italy	144.3	73	134.9	72	142.8	79	133.4	-	-	-
Luxembourg	0.8	20	0.8	20	1.0	24	0.9	-	-	-
Netherlands	97.4	126	106.3	135	104.8	125	102.9	-	-	-
Norway	57.7	252	59.7	271	57.2	246	48.4	-	-	-
Portugal	18.8	67	18.2	65	20.9	70	18.3	-	-	-
Spain	94.1	77	94.4	79	94.5	80	94.0	-	-	-
Sweden	29.7	67	32.5	83	33.0	107	32.7	-	-	-
Switzerland	44.5	153	45.4	169	45.4	161	45.9	-	-	-
Turkey	48.9	73	50.1	83	50.8	81	50.4	-	-	-
United Kingdom	101.7	53	103.8	56	104.1	58	106.3	-	-	-
EUROPE[5]	1211.2	83	1243.1	87	1263.9	89	1216.7	85	1252.3	84
Total	3640.9	86	3599.6	86	3631.7	89	3661.8	89	3745.7	87
DAYS OF IEA NET IMPORTS[6]	-	127	-	123	-	123	-	124	-	-

1 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 in the IEA's Emergency Sharing System.
3 End September 1997 stock level based on preliminary data.
3 End June 1997 and end September 1997 forward demand figures are IEA Secretariat forecasts.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions. 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]		
Q394	3760	1180	2580	92	29	63
Q494	3730	1190	2540	90	29	62
Q195	3618	1198	2421	92	30	61
Q295	3686	1192	2494	92	30	62
Q395	3732	1202	2530	90	29	61
Q495	3625	1191	2434	86	28	58
Q196	3507	1210	2297	88	30	58
Q296	3611	1203	2408	88	29	59
Q396	3641	1194	2447	86	28	58
Q496	3600	1189	2411	86	28	57
Q197	3632	1193	2439	89	29	60
Q297	3662	1193	2469	89	29	60
Q397	3746	1191	2554	87	28	59

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 June and September 1997(when latest forecasts are used).

Table 8
AVERAGE IEA CIF CRUDE COST AND SPOT CRUDE AND PRODUCT PRICES
($/bbl)

	1994	1995	1996	3Q96	4Q96	1Q97	2Q97	3Q97	May97	Jun97	Jul97	Aug97	Sep97	Oct97
Crude Oil Prices														
IEA CIF Average Import	15.65	17.19	20.52	20.45	23.19	21.57	18.13	18.10*	18.44	17.89	18.02	18.13	18.14*	18.39*
FOB Spot														
Brent (Dated)	15.80	17.02	20.65	20.96	23.58	21.10	18.06	18.56	19.14	17.58	18.54	18.68	18.46	19.93
WTI (1st month)	17.19	18.41	22.15	22.43	24.75	22.75	20.00	19.80	20.99	19.28	19.63	19.98	19.78	21.31
Urals (Del. Med.)	15.23	16.62	20.06	20.10	22.96	20.12	16.90	17.80	17.95	16.48	17.85	17.84	17.70	19.26
Dubai (1st month)	14.75	16.10	18.54	18.96	21.51	19.37	17.52	17.71	18.65	17.28	17.37	17.77	17.98	19.20
OPEC Basket	15.53	16.88	20.23	20.30	23.01	20.79	17.86	18.03	18.75	17.37	17.86	18.07	18.16	19.58*
Product Prices[1]														
Rotterdam, Barges FOB														
Premium 0.15 g/l	20.18	21.25	24.62	24.83	26.93	25.92	24.15	25.66	24.92	23.69	23.72	27.44	25.83	24.39
Regular Unleaded	18.65	19.75	22.99	23.31	25.02	24.18	22.28	23.66	22.93	21.87	21.57	25.58	23.85	22.96
Naphtha	17.30	18.15	21.70	21.90	25.01	23.57	19.99	20.98	20.08	19.97	20.27	21.31	21.37	22.45
Jet/Kerosene	20.95	21.60	27.05	27.48	31.88	26.93	23.37	23.49	24.21	22.73	23.09	23.85	23.53	25.11
Gasoil	19.80	20.47	25.91	26.41	30.08	25.45	22.41	22.42	23.24	21.93	22.20	22.76	22.29	24.27
Fuel Oil 1.0%S	14.00	15.76	17.52	16.35	19.62	16.21	14.08	14.94	13.90	14.61	14.74	14.99	15.09	16.94
Fuel Oil 3.5%S	13.01	14.82	16.30	15.57	18.56	15.03	13.20	14.64	13.07	13.35	13.90	14.90	15.11	16.10
Gross Product Worth[2]	18.34	19.28	23.34	23.46	26.57	23.33	20.87	21.28	21.51	20.40	20.55	21.86	21.43	22.45
Brent Cracking Margin	1.49	1.15	1.51	1.41	1.84	0.99	1.63	1.54	1.17	1.60	0.87	1.97	1.77	1.20
Mediterranean - Basis Italy, Cargoes FOB														
Premium 0.15 g/l	20.23	20.99	24.56	24.80	26.49	25.51	23.93	24.99	24.98	23.11	23.24	26.45	25.28	24.07
Naphtha	15.71	16.35	19.81	20.13	23.14	21.96	18.74	19.73	18.83	18.65	19.05	20.10	20.03	21.16
Jet/Kerosene	19.26	19.94	25.39	26.00	29.70	24.70	20.99	20.78	21.52	20.21	20.30	21.16	20.88	22.95
Gasoil	18.71	19.39	24.64	25.06	28.81	23.73	21.07	20.85	21.86	20.01	20.54	21.17	20.84	23.25
Fuel Oil 1.0%S	13.93	15.48	18.10	18.02	19.72	15.91	14.45	14.93	14.37	14.96	14.70	14.97	15.11	16.99
Fuel Oil 3.5%S	11.98	13.95	18.00	25.65	17.51	14.03	12.35	13.14	12.30	12.13	12.61	13.19	13.61	15.13
Gross Product Worth[3]	17.36	18.39	22.17	22.23	25.19	21.87	19.64	20.03	20.21	19.02	19.31	20.57	20.21	21.37
Urals Cracking Margin	1.79	1.44	1.80	1.81	1.93	1.43	2.42	1.91	1.93	2.21	1.13	2.41	2.18	1.79
NY Harbour, Barges														
Premium Unleaded 93	23.65	24.81	27.77	28.00	30.59	28.19	26.56	29.74	28.32	26.13	28.42	32.53	28.28	26.11
Regular Unleaded 87	20.54	22.57	25.81	25.88	28.37	26.77	24.31	26.61	26.04	23.10	24.54	29.40	25.88	24.49
Jet/Kerosene	22.20	21.76	27.57	27.13	30.86	27.21	23.73	23.87	24.06	22.72	23.47	24.38	23.76	24.79
No.2 (Heating Oil)	20.68	20.72	26.35	25.69	30.06	25.93	23.17	22.41	23.56	21.93	22.26	22.69	22.28	24.05
Fuel Oil 1.0%S (Cargo)	15.05	16.06	19.21	17.93	21.34	17.10	15.72	16.60	16.05	16.22	16.80	16.28	16.72	19.31
Fuel Oil 3.0%S (Cargo)	12.25	14.47	16.03	15.49	18.52	14.83	14.43	15.46	14.77	14.44	14.96	15.48	15.94	17.35
Gross Product Worth[4]	19.54	20.33	23.06	23.93	26.57	24.62	22.87	23.66	23.66	22.23	23.21	24.95	22.82	22.83
WTI Cracking Margin	1.24	0.82	0.75	0.41	0.72	0.77	1.76	2.77	1.57	1.86	2.48	3.88	1.94	0.43
Singapore, Cargoes														
Gasoline[5]	21.10	22.11	23.58	22.32	25.38	27.34	24.38	23.19	24.21	23.77	23.38	23.05	23.14	25.22
Naphtha	16.34	17.54	20.22	20.22	23.62	24.36	21.21	20.98	21.46	20.73	21.40	21.00	20.53	22.04
Jet/Kerosene	21.74	22.72	28.36	27.75	31.70	28.97	24.48	22.89	24.71	23.67	23.20	22.91	22.55	24.63
Gasoil	20.87	21.60	27.07	25.86	31.07	26.90	24.98	22.38	25.21	22.87	21.45	22.47	23.22	23.87
LSWR (0.3%)[7]	13.58	14.74	18.04	17.57	20.54	19.61	15.19	16.25	15.08	14.95	17.19	15.67	15.88	16.54
HSFO (3.5%S 180cst)	13.17	14.98	16.83	15.89	18.67	15.91	15.57	16.18	15.79	15.56	15.27	16.09	17.17	17.32
HSFO (3.5%S 380cst)	12.37	14.30	15.90	15.21	17.85	14.89	14.55	15.62	14.72	14.60	14.83	15.57	16.45	16.56
Gross Product Worth[6]	18.76	19.74	23.06	22.03	25.88	24.12	22.11	20.85	22.23	21.06	20.38	20.83	21.33	22.36
Dubai Cracking Margin	2.97	2.35	3.10	1.58	2.96	3.34	3.12	1.43	2.07	2.21	1.40	1.27	1.61	1.14

* = Estimated.

1 Product prices are mean values and are converted to $/bbl using following conversion factors.
Rotterdam: 8.35 bbl/MT for premium leaded gasoline, 8.46 bbl/MT for regular unleaded gasoline, 8.82 bbl/MT for naphtha, 7.88 bbl/MT for jet fuel, 7.46 bbl/MT for gasoil, 6.49 bbl/MT for 1.0%S LSFO and 6.31 bbl/MT for 3.5%S HSFO.
Singapore: 6.46 bbl/MT for 3.5%S HSFO.

2 Calculated using Brent cracking yield of a typical refinery in Rotterdam.
3 Calculated using Urals cracking yield of a typical refinery in the Mediterranean.
4 Calculated using WTI cracking yield of a typical refinery in US Gulf Coast.
5 Changed from regular 0.15 g/l to unleaded 95 as of 2 February 1995.
6 Calculated using Dubai cracking yield of a typical refinery in Singapore.
7 As from 1 April 1996 mixed/cracked LSWR fob Indonesia.

Table 9

END USER PRICES FOR PETROLEUM PRODUCTS[1]
October 1997

	National Currency						US Dollars					
			% ch Prev. Month		% ch Year Ago				% ch Prev. Month		% ch Year Ago	
	Price	Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax
GASOLINE[2] Price per Litre												
France	6.450	5.160	-0.6	-2.3	2.5	4.9	1.089	0.218	1.2	-0.6	-10.6	-8.5
Germany	1.639	1.194	-2.0	-6.1	3.3	11.5	0.930	0.252	-0.3	-4.5	-10.4	-3.3
Italy	1926	1432	0.3	-1.7	1.9	3.3	1.116	0.286	1.6	-0.4	-10.0	-8.7
Spain	120.6	81.4	-1.4	-3.7	0.4	1.0	0.811	0.264	0.1	-2.2	-13.2	-12.7
UK	0.697	0.555	-1.1	-4.7	9.9	-4.7	1.131	0.231	0.3	-3.3	12.4	-2.5
Japan	103	59	0.0	0.0	-1.1	-6.6	0.848	0.362	-0.5	-0.5	-8.3	-13.4
Canada	0.588	0.291	-0.8	-1.7	3.0	4.2	0.426	0.215	-0.1	-0.9	0.7	1.9
USA[3]	0.344	0.101	-2.3	-3.2	1.2	1.7	0.344	0.243	-2.3	-3.2	1.2	1.7
AUTOMOTIVE DIESEL[4] Price per Litre												
France	3.661	2.351	0.8	2.3	-3.2	-12.1	0.618	0.221	2.6	4.1	-15.5	-23.3
Germany	1.080	0.620	-1.0	-2.3	-1.5	-3.6	0.613	0.261	0.7	-0.7	-14.7	-16.4
Italy	1200.83	747.47	0.4	0.9	-4.7	-11.5	0.696	0.263	1.6	2.2	-15.8	-21.8
Spain	80.85	43.20	2.6	5.9	-4.5	-9.2	0.544	0.253	4.3	7.6	-17.4	-21.4
UK	0.546	0.403	-1.4	-4.6	5.4	-17.7	0.886	0.234	0.0	-3.2	7.8	-15.8
Japan	82	36	0.0	0.0	4.6	3.6	0.675	0.378	-0.5	-0.5	-3.1	-4.0
Canada	0.547	0.222	0.0	0.0	..	-2.1	0.396	0.236	0.7	0.7	-2.2	-4.2
USA	..	..	..	..	..	..	..	..	..	..	..	..
DOMESTIC HEATING OIL Price per 1000 Litres												
France	2297.2	907.2	2.7	3.7	-4.0	-6.1	388.0	234.8	4.5	5.5	-16.2	-18.0
Germany	520.2	147.9	8.9	11.0	-7.1	-8.5	295.1	211.2	10.8	12.9	-19.4	-20.7
Italy	1415000	983300	2.3	4.1	-2.3	-8.0	819.8	250.1	3.6	5.4	-13.7	-18.7
Spain	49649	19448	4.2	6.1	-6.9	-9.6	333.9	203.1	5.9	7.8	-19.5	-21.8
UK	150.60	32.97	5.8	7.2	-18.5	-20.4	244.5	191.0	7.3	8.7	-16.6	-18.6
Japan[5]	50190	2390	0.0	0.0	9.3	7.2	413.8	394.1	-0.5	-0.5	1.2	-0.7
Canada	..	..	..	..	..	..	..	..	..	..	..	..
USA[6]	249.6	..	..	..	-3.6	..	249.6	..	..	..	-3.6	..
HFO FOR INDUSTRY[4,7] Price per Metric Ton												
France	818.0	159.9	5.0	6.3	-4.2	-5.6	138.2	111.1	6.83	8.1	-16.4	-17.6
Germany	240.6	30.0	3.8	4.3	-3.5	-4.0	136.5	119.5	5.52	6.1	-16.4	-16.8
Italy	284000	45000	3.3	3.9	-4.4	-5.2	164.5	138.5	4.59	5.2	-15.5	-16.2
Spain	23262	2150	3.5	3.9	-5.6	-6.1	156.4	142.0	5.16	5.5	-18.3	-18.8
UK	92.25	20.20	2.9	3.7	-7.5	-11.6	149.8	117.0	4.36	5.2	-5.4	-9.6
Japan	22989	1095	0.0	0.0	17.8	15.5	189.5	180.5	-0.49	-0.5	9.2	7.1
Canada	..	..	..	..	..	..	..	..	..	..	..	..
USA	..	..	..	..	..	..	..	..	..	..	..	..

1 Mid-Month Prices
2 Premium leaded gasoline for France, Italy, Spain, UK; regular unleaded gasoline for Canada, Germany, Japan and USA
3 Estimated
4 VAT excluded where it is refundable: HFO for Industry, Automotive Diesel for Industry
5 Kerosene
6 Previous month data
7 High sulphur fuel oil price for France, Spain, UK and Japan; low sulphur fuel oil price for Germany and Italy

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Users' Guide to the IEA Oil Market Report

Readers are referred to the Users' Guide, that was published in conjunction with the Annual Statistical Supplement on 9 October 1997, for information on the data sources, definitions, technical terms and general approach used in preparing the Report. It should be noted that the spot crude and product price assessments are based on daily Platt's prices, converted when appropriate to $US per barrel according to the Platt's specification of products (© 1997 Platt's a division of McGraw-Hill Inc.).

Pending submission of the detailed historical data needed to incorporate them into the OECD, the following OECD countries continue to be shown in the relevant non-OECD regions: the Czech Republic and Poland in Non-OECD Europe, Korea in Other Asia and Mexico in Latin America.

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