International Energy Agency

Oil Market Report

12 November 2020

- Weak historical data and the resurgence of Covid-19 in Europe and the United States led us to revise down our near-term global demand outlook by 0.4 mb/d in 3Q20, 1.2 mb/d in 4Q20 and 0.7 mb/d in 1Q21. We now expect demand to decrease by 8.8 mb/d in 2020 (versus 8.4 mb/d in last month's *Report*) and to rise by 5.8 mb/d in 2021 (versus 5.5 mb/d last month). Vaccines are unlikely to significantly boost demand until well into next year.

- Global oil supply rose by 0.2 mb/d m-o-m to 91.2 mb/d in October. Production from countries participating in the OPEC+ agreement held largely steady. Overall compliance was 103%. In November, world oil supply may rise by over 1 mb/d as the US recovers from hurricanes and Libya continues to bounce back. Output from producers outside of OPEC+ is set to fall by 1.3 mb/d in 2020 and rise by 0.2 mb/d next year. US supply falls by 600 kb/d in 2020 and by 655 kb/d in 2021.

- Global refining throughput fell in September as US hurricane shutdowns were not fully offset by higher activity elsewhere. Permanent shutdowns of refinery capacity now amount to 1.7 mb/d, but there remains significant structural overcapacity with more than 20 mb/d of crude distillation capacity idle. In October, the modest fall in crude prices and tighter product markets contributed to generally stronger cracks, except for gasoline.

- OECD industry stocks fell for the second consecutive month by 19.7 mb (0.66 mb/d) in September to 3 192 mb, and were 225 mb above their five-year average. OECD industry crude stocks are only 51 mb below their peak in May. In 3Q20, observed global stocks fell by 0.8 mb/d. Preliminary data for October show crude stocks falling 8.4 mb in the US, 8.3 mb in Europe and 1.2 mb in Japan. In October, volumes of crude oil held in floating storage decreased by 17.8 mb to 156.3 mb.

- Despite October being volatile, ICE Brent futures fell only $0.35/bbl versus September to $41.52/bbl. The contango deepened slightly, but forward curves fell below $50.00/bbl for ICE Brent through mid-2028. North Sea Dated discounts to futures widened in October, emphasising the supply overhang. Freight rates continued to fall for crude tankers, paralleling the fall in activity. News of a potential Covid-19 vaccine saw Brent futures climb above $45/bbl earlier this week.



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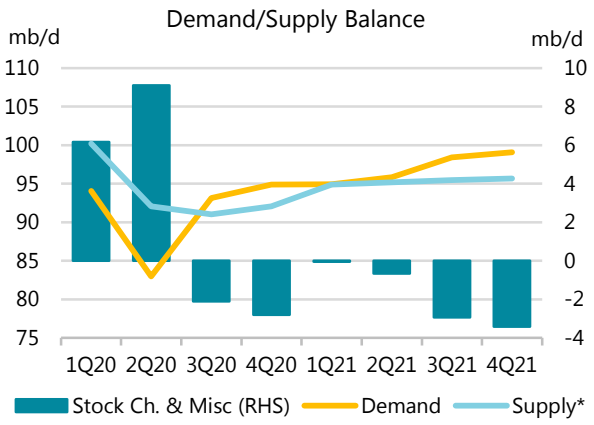
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To the rescue?

As we publish this *Report* there is considerable excitement at news that an effective vaccine against Covid-19 might soon be available. Oil prices initially surged and just ahead of publishing this *Report* the Brent front month futures price bounced back to over $45/bbl, a level not seen since the beginning of September. However, it is far too early to know how and when vaccines will allow normal life to resume. For now, our forecasts do not anticipate a significant impact in the first half of 2021.

In the here and now we continue to see surging caseloads, particularly in Europe and the United States. The recent announcements of lockdowns and other containment measures in many countries have led us to significantly lower our estimates for global oil demand. Revised data for the third quarter of 2020 have reduced demand by 0.4 mb/d. Early data and our estimates for the fourth quarter, also impacted by a mild start to the northern hemisphere winter heating season, have cut demand by 1.2 mb/d versus last month's *Report*. The lingering impact of the pandemic is likely to reduce demand by 0.7 mb/d in the first quarter of 2021.

Nearly all of these massive reductions are found in OECD countries. For the non-OECD world, we have actually *raised* our demand estimates mainly due to improved expectations in China and India. In 2020, global oil demand will be 91.3 mb/d, which is 8.8 mb/d lower than in 2019 and below the average level for 2013. In 2021, demand will recover by 5.8 mb/d to 97.1 mb/d, about 3 mb/d below the pre-Covid level in 2019.



* Assumes 100% compliance with OPEC+ deal

In the short term, the poor outlook for demand and rising production in some countries; for example Libya (production has increased to 1 mb/d from only 0.1 mb/d in August), Iraq and the United States (recovering from hurricane disruptions), suggest that the current fundamentals are too weak to offer firm support to prices. Physical crude prices remain below futures and this is a signal that markets are well supplied. Observed oil stocks fell by only 0.8 mb/d in the third quarter against an implied draw of 2.1 mb/d. Lack of data transparency for some non-OECD countries partly explains the gap. We can see that OECD crude stocks in September are only 51 million barrels (4%) below their high point in May. Product stocks, following six consecutive months of builds, finally fell in September.

With a Covid-19 vaccine unlikely to ride to the rescue of the global oil market for some time, the combination of weaker demand and rising oil supply provides a difficult backdrop to the meeting of OPEC+ countries due to take place on 1 December. Our current balances, incorporating the quota increase of 2 mb/d included in the OPEC+ supply agreement, imply almost zero stock change in the first quarter of 2021. Unless the fundamentals change, the task of re-balancing the market will make slow progress.

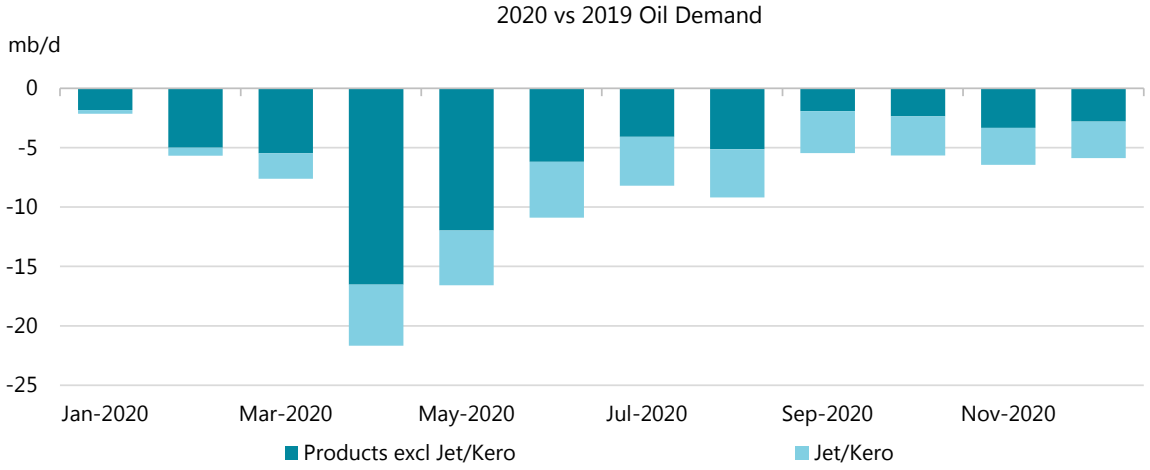
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Demand

Overview

In August, the last month for which we have full data, global oil demand continued to recover from the first wave of Covid-19, but at a considerably slower pace than in the May-July period. Consumption was up just 90 kb/d month-on-month (m-o-m), down from an average 4.9 mb/d per month previously. Non-OECD deliveries grew 380 kb/d m-o-m, down from 2.5 mb/d in May-July, because of floods in India and rising Covid-19 cases nearly everywhere. In OECD countries, demand fell by 300 kb/d m-o-m, the first such fall since April, due to lower mobility and factory closures. The global increase in consumption was far less than implied by seasonal patterns.

This weak August data underlines the continuing challenges faced by the world economy in the face of the pandemic. September consumption is likely to have risen by a robust 2 mb/d m-o-m, mainly in non-OECD countries, as Chinese energy demand continued to increase amid higher industrial output, and with the easing of coronavirus restrictions in several large countries (Argentina, India, Saudi Arabia and South Africa).



The month of October saw rapid increases in Covid-19 cases in Europe, forcing many countries to impose new restrictions on mobility. While we do not think the impact of these latest measures will be as significant as in the first wave in March-May, they will nonetheless temporarily halt the demand recovery seen in Europe.

In this *Report*, due to weak historical data and the resurgence of the pandemic, we have revised down our near-term global demand outlook by 400 kb/d in 3Q20, 1.2 mb/d in 4Q20 and 690 kb/d in 1Q21. The downward revisions impact the OECD while non-OECD demand was revised up. Large downward revisions affected gasoline, gasoil and jet in 3Q20 and 4Q20. We now expect oil demand to decrease by 8.8 mb/d in 2020 (versus 8.4 mb/d in last month's *Report*) and to rise by 5.8 mb/d in 2021 (versus 5.5 mb/d last month). We do not currently include in our forecast new waves of the pandemic beyond what we are currently seeing mainly in Europe and the United States. Vaccine under development -some in the final stages of testing- would contribute to a demand recovery next year. Our outlook continues to assume that vaccines will

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be widely available by the middle of 2021. Under this assumption, economic activity and thus oil demand should receive a boost in 2H201.

Global Oil Demand (2019-2021)

(million barrels per day)*

	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
Africa	4.3	4.3	4.2	4.3	4.3	4.2	3.3	3.9	4.1	3.9	4.1	4.0	4.0	4.1	4.0
Americas	31.5	31.7	32.3	32.1	31.9	30.1	24.9	28.7	29.4	28.3	29.1	29.7	31.1	31.1	30.3
Asia/Pacific	35.9	35.6	35.2	36.4	35.8	33.3	32.1	34.1	35.5	33.7	35.9	35.6	35.4	36.6	35.9
Europe	14.8	15.0	15.5	14.9	15.0	14.1	11.6	13.6	13.3	13.2	13.6	14.1	14.6	14.5	14.2
FSU	4.6	4.7	5.0	4.9	4.8	4.6	4.0	4.8	4.7	4.5	4.5	4.5	4.9	4.9	4.7
Middle East	8.1	8.1	8.7	8.3	8.3	7.8	7.0	8.1	7.7	7.7	7.8	7.9	8.5	7.9	8.0
World	**99.2**	**99.3**	**100.8**	**100.9**	**100.1**	**94.0**	**83.0**	**93.2**	**94.9**	**91.3**	**94.9**	**95.8**	**98.4**	**99.1**	**97.1**
Annual Chg (%)	0.6	0.6	0.7	1.4	0.8	-5.2	-16.5	-7.6	-5.9	-8.8	0.9	15.5	5.7	4.4	6.4
Annual Chg (mb/d)	0.6	0.6	0.7	1.4	0.8	-5.1	-16.4	-7.6	-6.0	-8.8	0.9	12.9	5.3	4.2	5.8
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-1.2	-0.4	-0.7	-0.3	0.2	0.3	-0.1

* Including biofuels

Fundamentals

Recent economic indicators are relatively supportive, with growth in 3Q20 stronger than expected in most regions. A resurgence of Covid 19 cases reduced mobility at the end of the quarter however. In 4Q20, a strong increase in Covid cases and the introduction of containment measures have constrained mobility and economic activity in the Americas and Europe, slowing transport fuel demand. Elsewhere, the demand recovery continues in Asia, Africa and Latin America.

We continue to assume in our outlook that countries will have to fight sporadic resurgences of the virus by implementing social distancing measures. The accelerating development and eventual deployment of vaccines could reduce uncertainty and support investment and growth next year. Based on our assumption that vaccines will be widely available from mid-2021, we expect mobility and oil demand to return progressively to normal conditions.

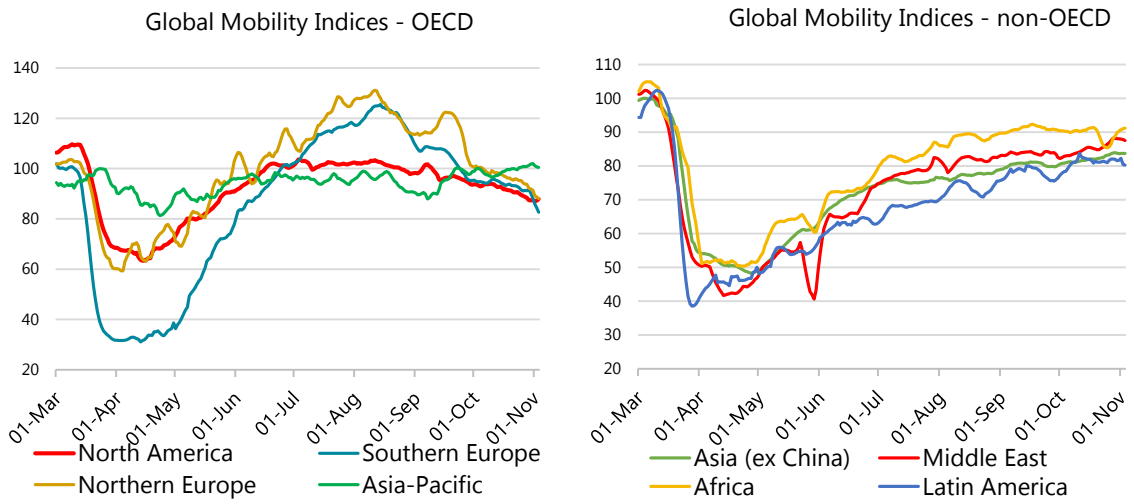
After a small decrease in 1Q20 and a 31% (seasonally adjusted) annualised drop in 2Q20, US GDP recovered two-thirds of its losses in 3Q20, ending up around 3% below last year's level. The recovery was supported by pent-up consumer demand and government stimulus. In 4Q20, economic activity has slowed due to a strong resurgence of the coronavirus. Remarkably, mobility has declined even in the absence of new federal or state constraints. Congress has not yet reached an agreement on a new fiscal stimulus. It could happen in the next few weeks but may have to wait until the beginning of 2021.

The Eurozone's GDP rose by nearly 13% quarter-on-quarter in 3Q20 to around 4% below last year's level. The recent jump in Covid cases in Europe has led to new containment measures in many countries. These measures, while less severe than those introduced earlier in the year, will have a strong impact on economic activity and mobility. In France, for example, the finance ministry estimated that the economic cost of the lockdown will be roughly 15% of GDP, half of the impact seen earlier in the year. We estimate that the impact on transport fuel demand will be between one third and one half of that seen earlier this year.

Other regions are progressively returning to normal. Composite purchasing managers' indices (PMI) for October point to a strong rebound in emerging markets. The India composite PMI rose to 58, the highest level since January 2012. Brazil's index rose to nearly 56, and the Chinese PMI was close to 55. While improving steadily, the mobility recovery in non-OECD countries appears

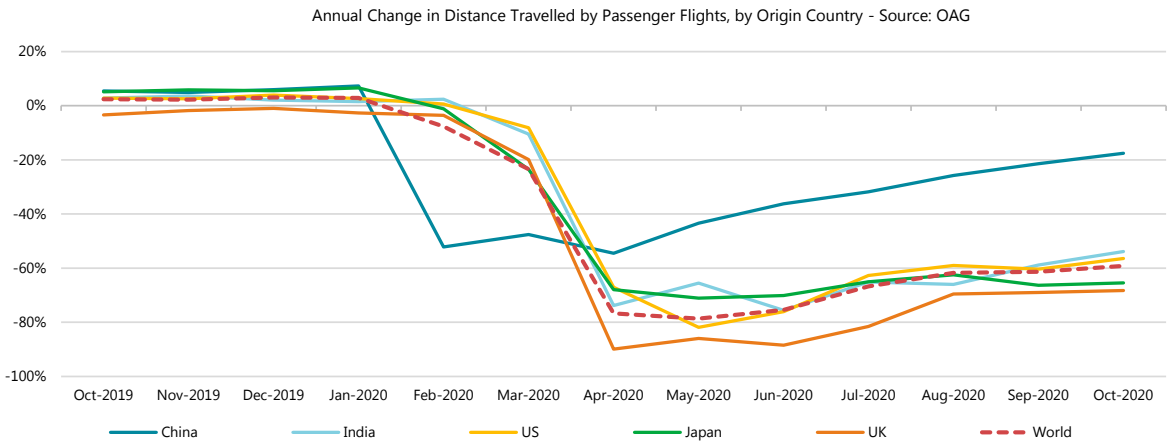
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to have slowed in recent weeks. China's economy grew by nearly 5% y-o-y in 3Q20 (2.7% q-o-q), boosted by strong state support, construction and higher industrial production. Now, retail sales and internal tourism are following suit. Retail sales grew y-o-y in September and external trade is also supporting growth. Chinese exports rose 11% y-o-y in October, its strongest growth in nearly two years, supported by sales of medical equipment and electronic products.



Source: computed from Google mobility data

The recovery seen in the aviation sector during the northern hemisphere summer has largely stalled. Globally, miles flown during October were down 59% on October 2019 levels, data from *OAG* showed. Aviation miles flown continued to recover for domestic flights in several non-OECD countries (e.g. China, India, Brazil, and South Africa), but this was partly offset by fewer miles in Europe (e.g. in Germany) and Russia. Given the recent lockdowns in Europe, this situation is likely to persist well into 1Q21. On the other hand, countries that have successfully contained Covid infections could open bi-lateral flight corridors. In September, the *International Air Transport Association* (IATA) revised down their 2020 aviation seat miles growth forecast by 3% points to -66%. They expect that airline revenues in 2021 will still be 46% below the pre-Covid level.



Overall, we anticipate for the coming months a continued divergence between the regions fighting against Covid in Europe and North America, and most of the rest of the world. Russia may be an exception, as it is also showing a strong increase in new Covid cases.

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OECD

OECD oil demand fell counter-seasonally by 300 kb/d m-o-m in August, the latest month for which full data is available. This was the first monthly decrease recorded in the region since April, showing that the Covid-19 pandemic is continuing to wreak havoc on OECD economies and their mobility patterns. The largest decline were in gasoil/diesel, followed by LPG/ethane. Gasoline and jet fuel/kerosene deliveries seasonally rose seasonally compared with July. In this *Report*, we have revised down our OECD demand forecasts by 720 kb/d for 3Q20, 1.5 mb/d for 4Q20 and 930 kb/d for 1Q21. Most of the downward adjustments occurred in the Americas and Europe, which have been hit harder by the virus than Asia Oceania. We now expect OECD consumption to decline by 5.5 mb/d in 2020, before recovering by 2.8 mb/d in 2021.

OECD Demand based on Adjusted Preliminary Submissions - September 2020

(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		LPG/Ethane		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas	**10.15**	**-7.7**	**1.08**	**-48.1**	**4.18**	**-9.1**	**3.87**	**5.6**	**0.54**	**-5.7**	**3.44**	**-1.2**	**23.25**	**-8.4**
US*	8.63	-6.8	0.93	-46.7	3.53	-8.8	3.02	6.8	0.39	3.3	2.46	0.0	18.96	-7.7
Canada	0.83	-7.9	0.06	-72.1	0.25	-5.5	0.41	2.1	0.03	78.7	0.69	-5.1	2.28	-10.5
Mexico	0.62	-18.6	0.07	-8.0	0.25	-24.0	0.38	1.4	0.10	-36.1	0.27	-3.2	1.70	-14.5
OECD Europe	**2.07**	**-1.6**	**0.68**	**-61.0**	**5.03**	**-2.1**	**1.04**	**-3.5**	**0.77**	**-4.1**	**3.53**	**-5.3**	**13.12**	**-10.1**
Germany	0.49	-1.9	0.07	-69.9	0.77	-0.2	0.11	-9.4	0.05	22.3	0.58	-13.1	2.08	-11.4
United Kingdom	0.28	-6.5	0.15	-56.6	0.48	-7.4	0.08	-3.7	0.02	11.4	0.29	-3.2	1.30	-17.0
France	0.21	4.0	0.08	-57.1	0.68	-0.5	0.10	-2.6	0.03	-30.0	0.36	-31.0	1.47	-16.2
Italy	0.21	1.2	0.04	-67.7	0.45	0.6	0.09	-3.6	0.07	-1.5	0.34	0.4	1.20	-7.1
Spain	0.12	-4.4	0.05	-72.3	0.45	-3.0	0.04	-30.2	0.11	-23.5	0.35	9.9	1.13	-12.8
OECD Asia & Oceania	**1.49**	**-3.8**	**0.44**	**-44.5**	**1.42**	**4.9**	**0.69**	**0.8**	**0.43**	**17.2**	**2.47**	**-9.5**	**6.94**	**-7.1**
Japan	0.84	-7.2	0.24	-38.0	0.41	-7.6	0.28	10.6	0.21	-7.6	1.17	-6.3	3.16	-9.0
Korea	0.24	19.5	0.11	-38.6	0.47	44.1	0.32	-7.8	0.20	69.6	1.06	-14.4	2.40	-0.5
Australia	0.30	-4.2	0.05	-70.7	0.48	-7.4	0.06	1.6	0.01	6.1	0.10	-1.6	1.00	-14.2
OECD Total	**13.71**	**-6.4**	**2.19**	**-52.4**	**10.63**	**-4.1**	**5.60**	**3.2**	**1.74**	**-0.1**	**9.44**	**-5.0**	**43.31**	**-8.7**

* Including US territories

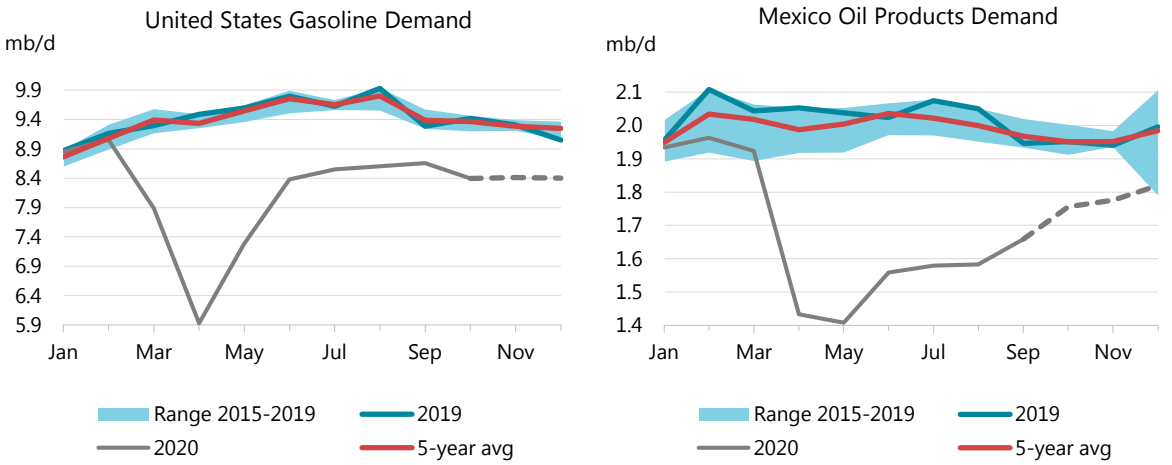
OECD Americas

Oil deliveries in the OECD Americas increased seasonally by 210 kb/d m-o-m in August, but declined 3.8 mb/d y-o-y. This was 1 mb/d below our estimates as a result of lower-than-expected transport fuel deliveries. Gasoline demand was up by just 20 kb/d and was down by a wider amount on an annual basis (1.7 mb/d) than in July, suggesting that consumption has suffered from the spread of the Covid pandemic. The downgrade came largely from the **US** and to a lesser extent **Canada**. Gasoil/diesel deliveries rose 130 kb/d m-o-m in August, but were down 530 kb/d y-o-y. This was deeper than July's 500 kb/d decrease. Finally, ethane and LPG deliveries also fell by 30 kb/d y-o-y due to lower operating rates of petrochemical plants.

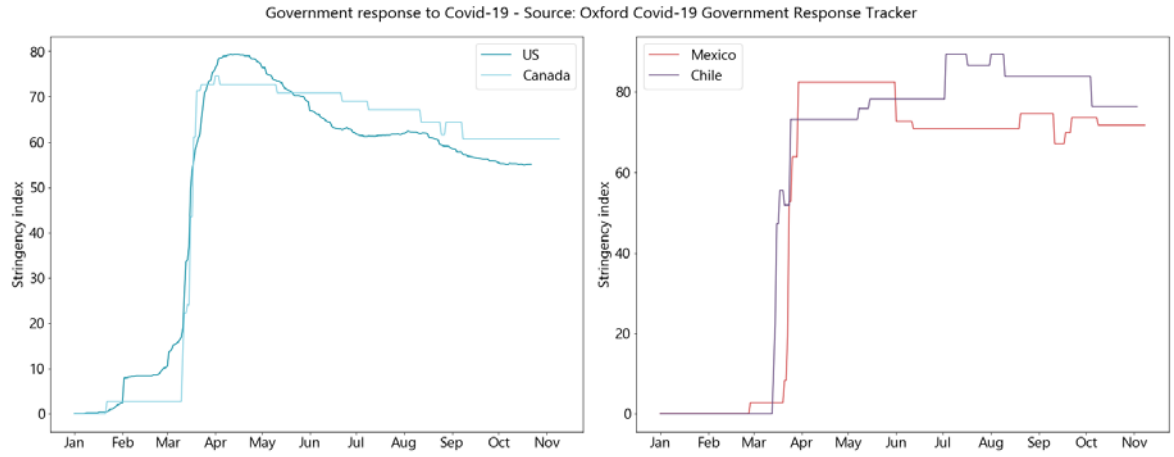
September oil deliveries increased counter-seasonally by 410 kb/d m-o-m (-2.1 mb/d y-o-y), helped by higher LPG/ethane and gasoline figures, provisional data showed. In **Mexico**, demand rose counter-seasonally, by 80 kb/d on the month. Half of the increase was from jet/kerosene, due to increased aviation activity. Mexican gasoline demand was still down 140 kb/d y-o-y, whereas jet/kerosene was almost back to year-ago levels. In the **US**, deliveries were up counter-seasonally, as gasoline consumption bucked the trend and increased moderately. Jet/kerosene demand fell back following the end of the summer holiday period and as international borders remained largely closed.

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Covid-19 cases have continued to increase rapidly in North America, thus incentivising people to stay at home. In addition, businesses have continued to suffer following the onset of the epidemic in March, thus dampening oil demand further. A third wave that is already higher than the previous two is now under way in the US, and cases and deaths are also expected to climb in Mexico over the next few weeks.



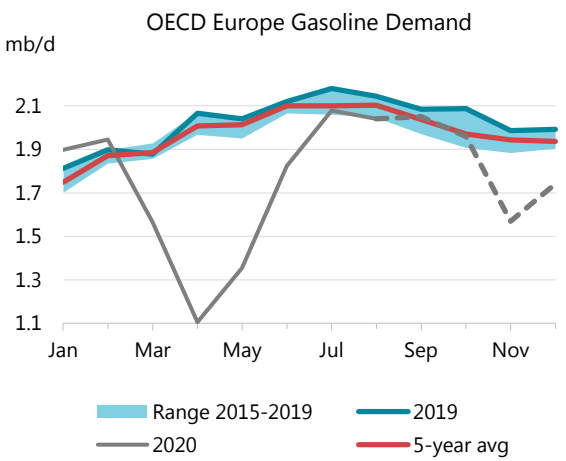
We expect North America oil demand to rise quarter-on-quarter by 660 kb/d in 4Q20. However, this is a much slower pace than we forecast in last month's *Report*. We have downgraded both gasoline and gasoil/diesel deliveries in our forecasts.

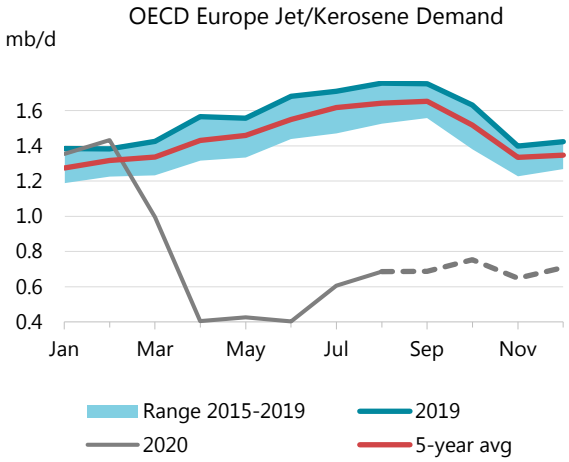


OECD Europe

Oil consumption in OECD Europe disappointed in August, falling by 525 kb/d m-o-m for the first time since April lockdown. While demand typically declines at this time of the year due to factory closures, the decrease was much larger than usual and the deficit with year-ago levels widened from 2 mb/d in July to 2.1 mb/d in August. Gasoline and diesel deliveries declined sharply, whereas jet fuel and kerosene demand increased by 80 kb/d on the month due to higher air travel during the summer holiday. **Germany**, **France** and **Italy** all saw large m-o-m oil product declines, whereas **UK** deliveries rose.

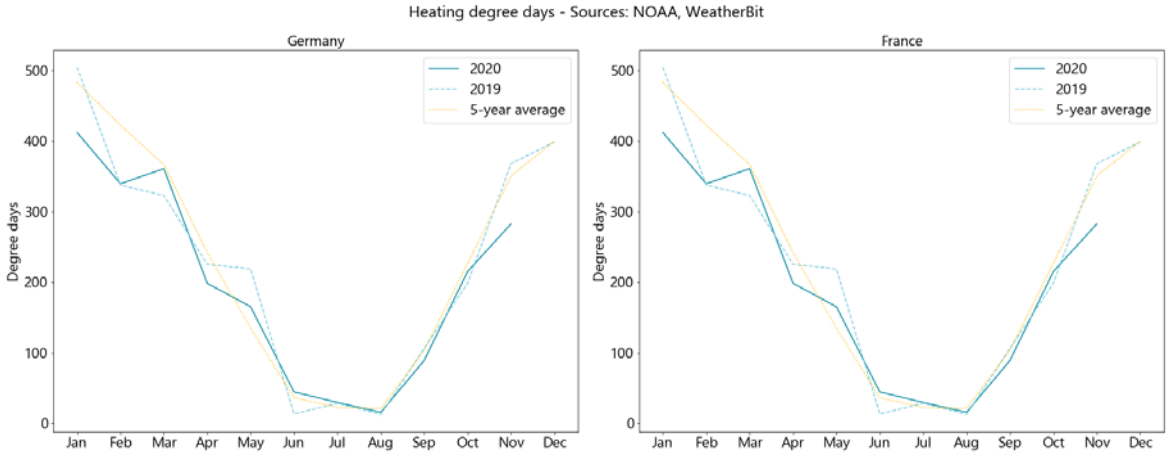
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In September, demand grew in all of these four countries, according to preliminary data, with much higher gasoil and diesel deliveries. Jet and kerosene demand gains stalled following the end of summer. OECD Europe gasoline demand was down 30 kb/d on September 2019 levels, gasoil/diesel was down 385 kb/d and jet/kerosene down 1.1 mb/d.

We expect oil consumption to fall 290 kb/d q-o-q in 4Q20, due to the additional restrictions imposed by governments following the resurgence of the coronavirus (See *What impact will Europe's second lockdown have on oil demand?*). Temperatures do not look likely to provide support to gasoil demand in November, with milder than usual weather expected in Europe's two biggest heating oil markets, Germany and France.



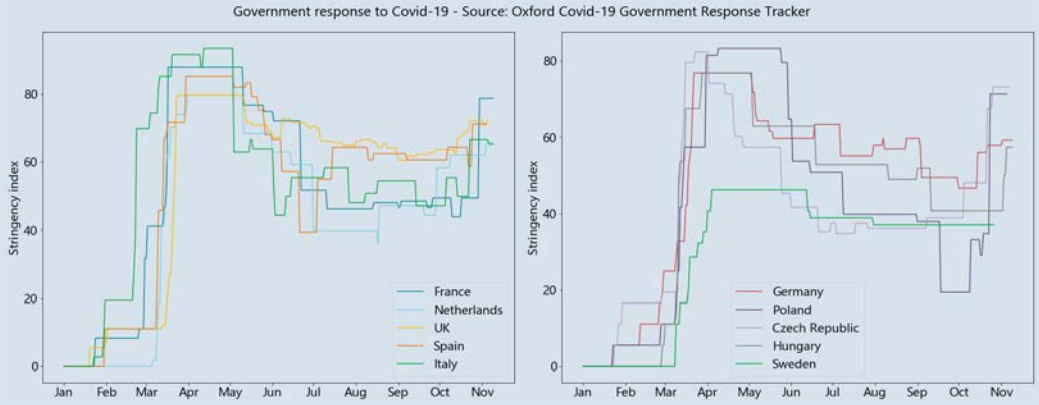
Box 1. What impact will Europe's second lockdown have on oil demand?

In October, the majority of European countries (Austria, Belgium, the Czech Republic, France, Germany, Italy, Greece, Hungary, Luxembourg, the Netherlands, Poland, Portugal, Spain, and the UK) applied new coronavirus counter-measures, as the epidemic surged with the advent of lower autumn temperatures.

These measures came with various degrees of stringency. For example, France, Greece and the UK went for national lockdowns, whereas Germany closed non-essential shops and Spain applied localised measures. Bars and restaurants have closed in most cases. However, there were also

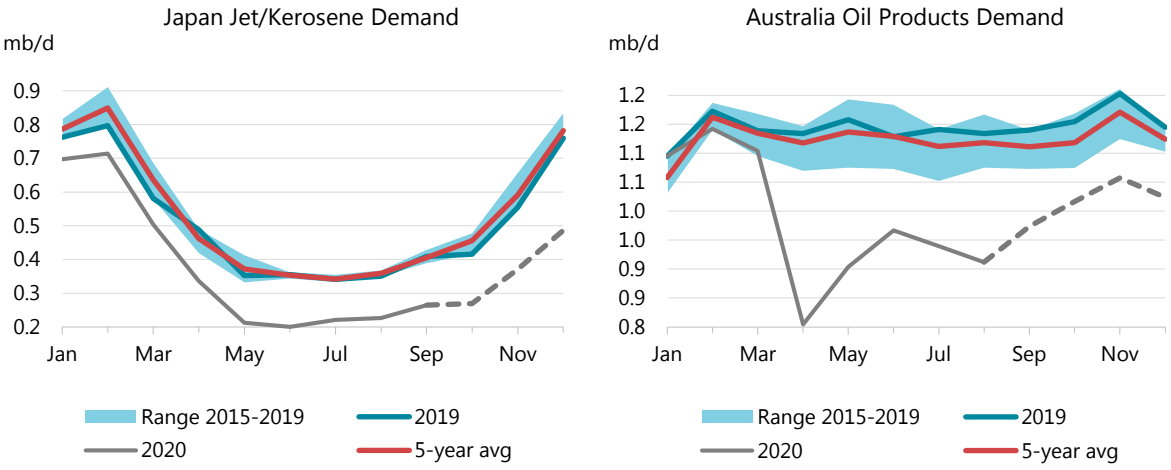
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many points of similarity. At the time of writing, schools remain mostly open across the continent (even if universities have closed in some countries) and a wider range of shops are open than in the spring. While workers are encouraged to telework, they can travel from home to work for industries where this is not possible.



As in the spring, it is difficult to gauge the loss of oil demand in the region resulting from these measures. We estimate the impact to be an additional demand loss of 150 kb/d for October and 1.2 mb/d for November. We now expect the region's demand to fall 2.1 mb/d y-o-y in November, compared with the 4.1 mb/d fall registered in April, during the first lockdown. Assuming these measures continue into December, the loss should be about 630 kb/d. On average, therefore, we estimate that OECD Europe's 4Q20 oil demand will be about 670 kb/d lower than in last month's *Report*.

OECD Asia Oceania

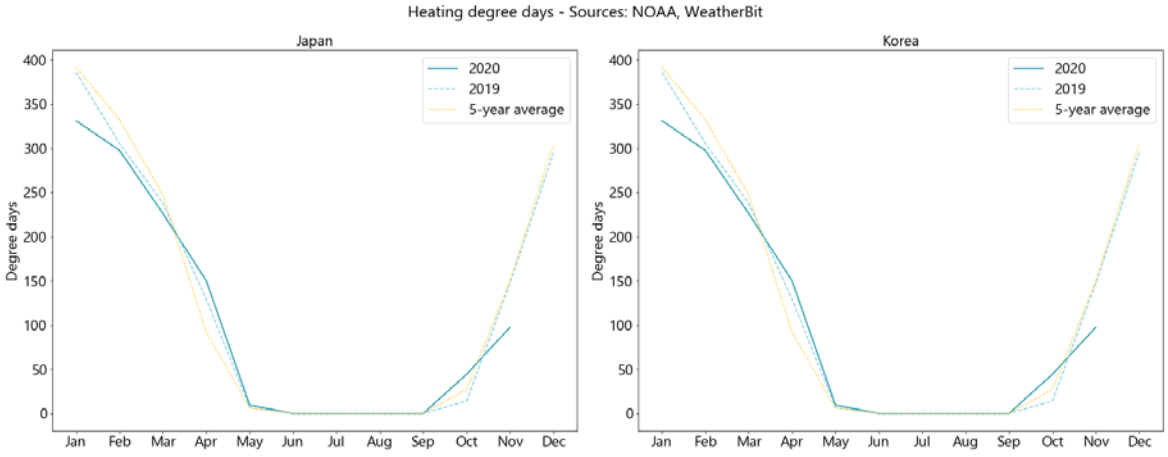


Oil demand in OECD Asia Oceania went up 20 kb/d m-o-m in August, the fourth consecutive monthly increase since April. However, the gain was less than implied by seasonal patterns as demand fell counter-seasonally in **Australia** and **New Zealand** due to reduced mobility. The city of Melbourne imposed a lockdown at the start of the month and New Zealand went into partial

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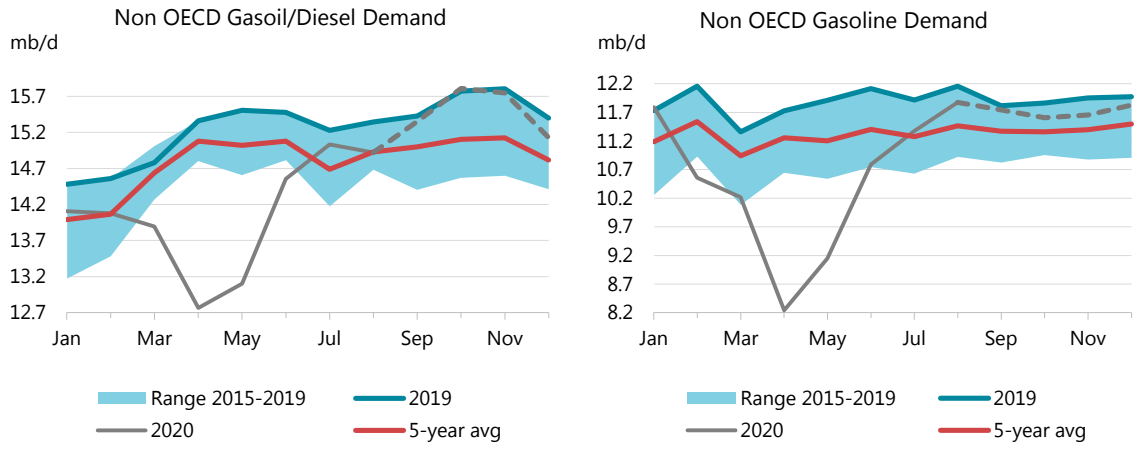
confinement from 12 August until 20 September to quell an early outbreak of Covid-19. In **Japan** and **Korea**, by contrast, oil deliveries went up, helped by higher transport fuel demand.

In September, preliminary oil data point to a robust m-o-m increase in demand of 120 kb/d in **Japan** with higher figures for gasoil/diesel (+50 kb/d), jet/kerosene (+40 kb/d) and LPG/ethane (+30 kb/d), but a fall in gasoline. Unlike in the Americas and Europe, the epidemic of Covid-19 has been controlled for now in Asia Oceania, thus enabling a stronger recovery in mobility and oil demand. In Japan, oil demand was 310 kb/d below year-ago levels in September with around half the decline linked to the shutdown of the international airline sector and the resulting loss in jet and kerosene deliveries. However, there is no guarantee that the Covid-19 pandemic will not return to Asia Oceania in the winter.



In November, kerosene demand is likely to be low due to higher than normal temperatures forecast for much of Japan and Korea. Despite this, we expect 4Q20 oil demand in the region to grow 600 kb/d from 3Q20, helped by higher jet/kerosene and naphtha deliveries. For the year 2020, demand will fall 700 kb/d y-o-y, the smallest decline in both absolute and relative terms of all OECD regions.

Non-OECD



Non-OECD oil demand fell to 42.7 mb/d in April and progressively increased to 51.3 mb/d in September, according to our estimates. It was less impacted by the first wave of the coronavirus than the OECD and has recovered faster in the last few months. As of September, OECD

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demand was still 4.1 mb/d (9%) below 2019 levels whereas non-OECD demand was down just 1.3 mb/d (3%). Non-OECD demand is projected to return to 2019 levels by the end of 1Q21, when OECD demand is likely to remain some 7% below 2019 levels.

China

Chinese oil demand increased by 220 kb/d m-o-m in September, the latest month for which data is available, and was up a significant 760 kb/d y-o-y. LPG/ethane deliveries rose by 60 kb/d y-o-y and naphtha climbed 120 kb/d y-o-y. The Chinese petrochemical industry has benefitted from strong domestic demand and exports of medical equipment to aid the fight against Covid-19.

China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2020	2021	2020	2021
LPG & Ethane	1 681	1 768	1 865	87	97	5.2	5.5
Naphtha	1 360	1 472	1 627	112	154	8.3	10.5
Motor Gasoline	3 203	3 293	3 511	91	218	2.8	6.6
Jet Fuel & Kerosene	792	617	712	- 174	94	-22.0	15.3
Gas/Diesel Oil	3 719	3 753	3 891	34	138	0.9	3.7
Residual Fuel Oil	427	455	515	29	60	6.7	13.1
Other Products	2 522	2 421	2 494	- 101	73	-4.0	3.0
Total Products	**13 703**	**13 780**	**14 614**	**77**	**834**	**0.6**	**6.1**

We estimate that gasoline deliveries were up 280 kb/d y-o-y and that gasoil/diesel demand was 190 kb/d higher y-o-y, showing an increase in transportation. These increases are at odds with recent indicators showing a stagnation in highway passenger traffic at 38% below last year in August and September. On the other hand, *Tomtom* traffic data shows that congestion is back to normal in major cities.

Jet and kerosene demand was down 60 kb/d y-o-y in 3Q20, a considerable improvement compared to the 280 kb/d decrease registered in 2Q20. China's transport indicators show air passenger traffic improving steadily, from -85% in February to -26% in September, led by domestic flights.

We expect China's oil demand to rise by 370 kb/d y-o-y in 4Q20, helped by much higher gasoline deliveries and good industrial demand. Overall, in 2020, demand should grow by 80 kb/d from 2019. In 2021, we expect demand to grow by 830 kb/d.

India

Indian oil consumption was impacted in recent months by the coronavirus as well as record monsoon floods during July-August. Total product demand contracted by 160 kb/d y-o-y in September and gasoil/diesel deliveries fell a significant 90 kb/d y-o-y. Gasoline demand was less affected and rose 20 kb/d y-o-y.

In October, according to preliminary indications, deliveries rose y-o-y for the first time since March. Total product demand increased by 60 kb/d y-o-y due to higher transportation activity. Gasoline demand was up 20 kb/d y-o-y. Gasoil/diesel deliveries increased by 140 kb/d y-o-y. Jet and kerosene deliveries declined 100 kb/d y-o-y.

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Indian activity bounced back as the country continued to re-open its economy in October in spite of Covid spreading. The home ministry allowed all schools to gradually open after 15 October, even if attendance will be voluntary. Cinemas were also allowed to re-open. The number of new Covid cases peaked in September and has stabilised in recent weeks. We expect India's oil consumption to remain 60 kb/d below last year in 4Q20. Demand should average 4.6 mb/d in 2020, a 460 kb/d fall on 2019. In 2021, we expect demand to rise by 370 kb/d.

India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2020	2021	2020	2021
LPG & Ethane	858	892	889	34	- 3	4.0	-0.3
Naphtha	332	337	368	5	31	1.6	9.3
Motor Gasoline	745	668	713	- 76	45	-10.2	6.7
Jet Fuel & Kerosene	237	132	190	- 104	57	-44.0	43.3
Gas/Diesel Oil	1 735	1 493	1 679	- 242	186	-13.9	12.5
Residual Fuel Oil	143	134	139	- 9	5	-6.4	3.4
Other Products	1 065	992	1 044	- 73	51	-6.8	5.2
Total Products	**5 114**	**4 650**	**5 023**	**- 464**	**373**	**-9.1**	**8.0**

Other Non-OECD

In **Africa**, oil demand is likely to have risen 570 kb/d in 3Q20 q-o-q, although data has yet to be finalised. In 4Q20, demand should rise another 210 kb/d, more than the seasonal trend, to a level around 170 kb/d below last year's level.

Consumption in **Latin America** is estimated to have risen by 880 kb/d q-o-q in 3Q20, despite the ongoing spread of Covid-19 on the continent. However, deliveries remained 520 kb/d below 2019 levels. In 4Q20, demand is likely to increase counter-seasonally by further 120 kb/d versus 3Q20. In Brazil, the number of new Covid cases peaked in August and indicators point to a continued improvement in mobility since April.

In the countries of the **Former Soviet Union**, overall demand rose 760 kb/d q-o-q in 3Q20 but remained 160 kb/d below year-ago levels. Booming new Covid cases in Russia could slow the recovery in oil demand in the next few months. Finally, in the **Middle East**, oil consumption increased by 1.1 mb/d in 3Q20 q-o-q. This increase was driven in part by seasonal factors and in part by a recovery in demand, as the y-o-y decline narrowed from 1.1 mb/d in 2Q20 to 590 kb/d in 3Q20.

Non-OECD: Demand by Region

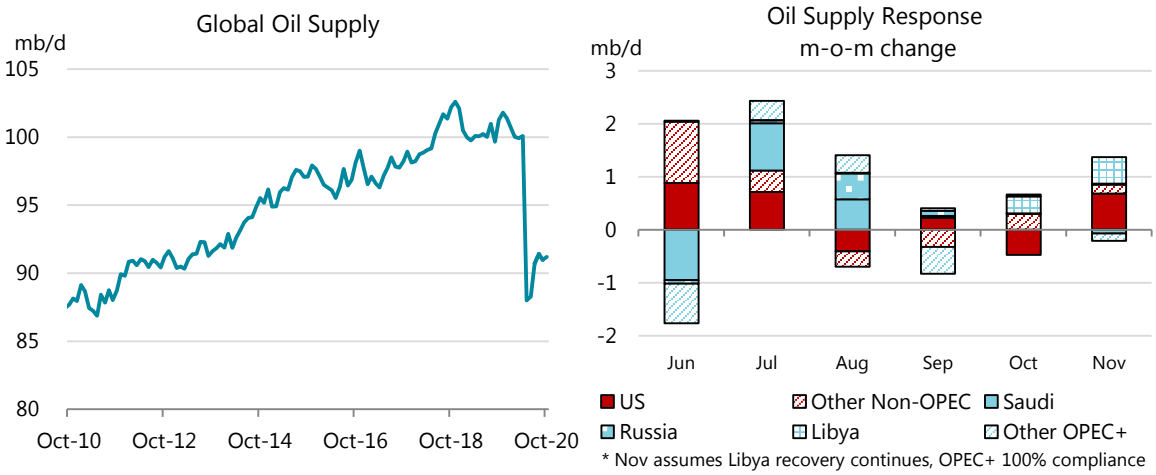
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	1Q20	2Q20	3Q20	2Q20	3Q20	2Q20	3Q20
Africa	4 228	3 338	3 903	- 980	- 265	-22.7	-6.4
Asia	25 506	25 544	27 319	-2 604	- 322	-9.3	-1.2
FSU	4 617	4 033	4 790	- 654	- 161	-14.0	-3.3
Latin America	5 738	4 874	5 755	-1 301	- 520	-21.1	-8.3
Middle East	7 775	7 004	8 133	-1 122	- 590	-13.8	-6.8
Non-OECD Europe	736	615	774	- 160	- 13	-20.6	-1.6
Total Products	**48 601**	**45 409**	**50 674**	**-6 822**	**-1 871**	**-13.1**	**-3.6**

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Supply

Global oil production could rise by more than 1 mb/d in November as the United States bounces back from hurricane shut-ins and if Libya continues to post strong gains (see *Libya's surprisingly swift rebound*). In October, a quicker-than-expected recovery in Libya and a rebound in the North Sea pushed up world oil supply to 91.2 mb/d. The increases more than offset hurricane losses in the US, further cuts to output from the United Arab Emirates and a drop in biofuels, leaving output up 0.2 mb/d month on month (m-o-m) and 10 mb/d below a year ago.



As for OPEC's 13 members, Libya, exempt from supply cuts, led the group's m-o-m increase in October with overall crude output rising 0.2 mb/d to 24.25 mb/d, down 5.2 mb/d year on year (y-o-y). Iraq turned up the taps, while the UAE made a further reduction, but output from other members taking part in OPEC+ supply curbs held broadly steady. Iran and Venezuela, spared from cuts, saw production ease.

With Libya rising fast, the stage is now set for fourth quarter 2020 oil output to increase by more than 1 mb/d versus the third quarter. Libyan output would account for more than 700 kb/d, while Saudi Arabia and Russia are expected to add over 400 kb/d between them. The US, however, could decline by about 80 kb/d.

This outlook of rising supply against a slowdown in demand as Covid-19 restrictions tighten throughout Europe, has led OPEC+ members to consider extending existing supply cuts. The current targets are due to increase by 2 mb/d at the start of next year. This may change, however, as OPEC+ is due to meet on 30 November-1 December to decide policy for 2021.

Participating countries will also assess the outlook for non-OPEC producers outside the OPEC+ agreement. We expect these countries to increase oil output by 240 kb/d in 2021 versus a decline of 1.3 mb/d this year. The US, which is the largest producer outside the OPEC+ group, is expected to see supply fall by 660 kb/d in 2021 following a decline of 600 kb/d this year.

The 2021 global supply outlook will also be influenced by the outcome of the US elections. It is too early to determine how the policies of the next administration will affect relations with Iran, Venezuela and, not least, the domestic energy sector.

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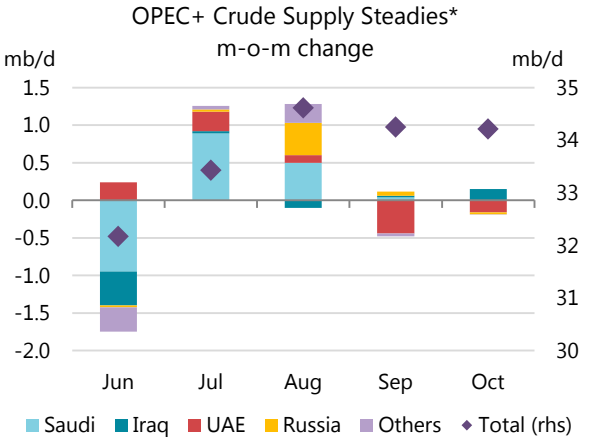
OPEC+ Crude Oil Production[1]
(million barrels per day)

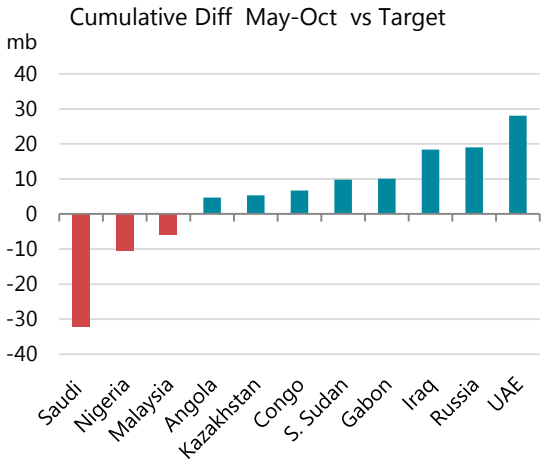
	Sep 2020 Supply	Oct 2020 Supply	Supply Baseline[2]	October Compliance	Average Compliance	May-July Target	Aug-Dec Target[5]	Jan 21-Apr 22 Target[5]
Algeria	0.86	0.86	1.06	102%	102%	0.82	0.86	0.91
Angola	1.22	1.20	1.53	118%	94%	1.18	1.25	1.32
Congo	0.30	0.27	0.33	93%	45%	0.25	0.27	0.28
Equatorial Guinea	0.10	0.11	0.13	74%	72%	0.10	0.10	0.11
Gabon	0.19	0.20	0.19	-38%	-42%	0.14	0.15	0.16
Iraq	3.67	3.82	4.65	98%	90%	3.59	3.80	4.02
Kuwait	2.30	2.30	2.81	99%	101%	2.17	2.30	2.43
Nigeria	1.35	1.35	1.83	143%	115%	1.41	1.50	1.58
Saudi Arabia	8.98	8.98	11.00	101%	108%	8.49	8.99	9.50
UAE	2.58	2.42	3.17	129%	77%	2.45	2.59	2.74
Total OPEC 10	**21.55**	**21.51**	**26.68**	**106%**	**98%**	**20.60**	**21.82**	**23.03**
Iran[3]	1.93	1.89						
Libya[3]	0.14	0.45						
Venezuela[3]	0.43	0.40						
Total OPEC	**24.05**	**24.25**						
Azerbaijan	0.59	0.59	0.72	100%	100%	0.55	0.59	0.62
Kazakhstan	1.39	1.40	1.71	100%	92%	1.32	1.40	1.48
Oman	0.72	0.72	0.88	101%	103%	0.68	0.72	0.76
Russia	9.11	9.08	11.00	95%	95%	8.49	8.99	9.50
Others[4]	0.89	0.91	1.11	97%	93%	0.85	0.90	0.96
Total Non-OPEC	**12.70**	**12.70**	**15.42**	**97%**	**94%**	**11.90**	**12.60**	**13.31**
Total OPEC+	**34.25**	**34.21**	**42.10**	**103%**	**96%**	**32.50**	**34.42**	**36.34**

1 Excludes condensates.
2 Based on Oct-2018, except for Saudi and Russia which each have an 11 mb/d baseline.
3 Iran, Libya, Venezuela exempt from cuts.
4 Bahrain, Brunei, Malaysia, Sudan and South Sudan.
5 Table excludes Mexico, who only cut production in May and June.

OPEC+ keeps up robust compliance

In October, OPEC+ compliance was a robust 103%. The 10 OPEC members taking part in cuts turned in a compliance rate of 106%, while non OPEC members delivered a rate of 97%. A hefty increase from Iraq offset a decrease from the UAE leaving October crude oil output at 34.2 mb/d, broadly steady on the September level.



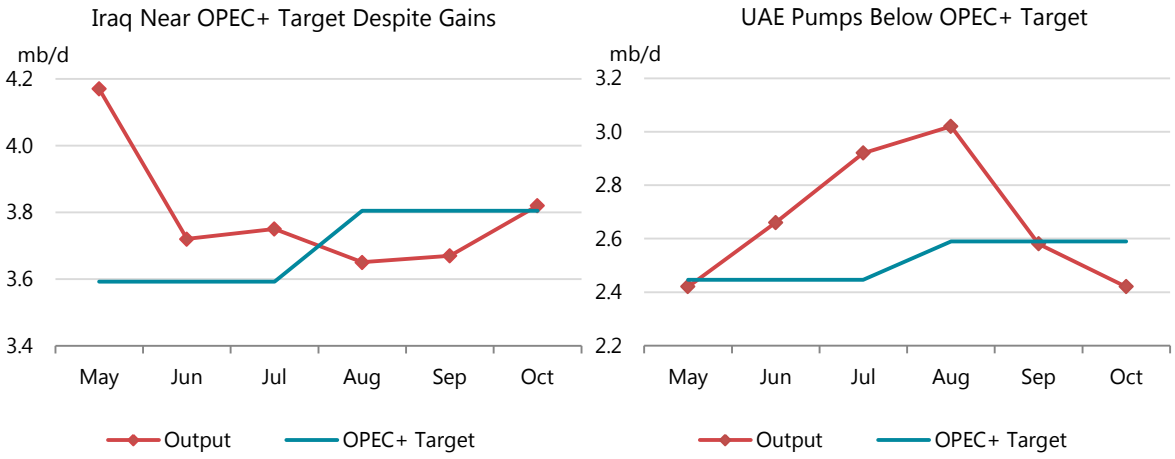


* Excludes Libya, Iran, Venezuela which are exempt from cuts

Compliance with the agreed targets has averaged 96% for the May-October period and countries that have over-produced have agreed to compensate by pumping less. Our calculations show that non-compliant producers have exceeded their targets by more than 100 mb. The largest excess volumes are in the UAE (28 mb), Russia (19 mb) and Iraq (18 mb).

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Iraq posted the biggest m-o-m increase in the OPEC+ countries during October, with output rising 150 kb/d to 3.82 mb/d, slightly above its target. Exports increased from its giant southern oil fields and a considerable amount of crude was drawn from inventories. Iraq plans to launch a third crude export grade, Basra Medium, early next year alongside its existing Basra Light and Basra Heavy streams. The new medium-sour crude will be created by splitting Basra Light into two grades. Basra Medium will have a gravity of about 29 degrees API, while Basra Light and Basra Heavy will be around 33 and 24 degrees API, respectively.



The **UAE's** output declined the most, falling 160 kb/d in October to 2.42 mb/d, far below its OPEC+ target of 2.59 mb/d. Net crude oil exports tumbled by nearly 0.3 mb/d m o-m to roughly 2.05 mb/d in October, according to *Kpler* data, after the Abu Dhabi National Oil Co (Adnoc) cut term contract volumes by 30%. It plans a 25% cut in November and a 20% reduction in December.

After the UAE and Israel signed a peace agreement in Washington in mid-September, Israel's Europe-Asia Pipeline Co (EAPC) sealed a deal with UAE-based MED-RED Land Bridge to ship oil from the UAE to the west and the other way round via pipelines connecting the Mediterranean to the Red Sea. EAPC's 600 kb/d Eilat-Ashkelon pipeline can provide an alternative to the Suez Canal, which limits tanker draft, and the SUMED pipeline in Egypt that only carries oil from the Red Sea to the Mediterranean. The UAE now sells most of its crude oil to Asia and the bulk of its products to Europe.

And in a bid to strengthen its ties with India, Adnoc is considering supplying more crude to the country's strategic petroleum reserves. The UAE was the third-largest crude supplier to India in the January-October period, with average shipments approaching 0.5 mb/d.

Output in neighbouring Gulf countries was steady in October compared to September. Supply in **Saudi Arabia** held at 8.98 mb/d, just a touch below its target. As Covid-19 stifles demand and pressures oil prices, Saudi Aramco reported a 45% drop in 3Q20 net income which fell to $11.8 billion. **Kuwaiti** production was 2.3 mb/d in October, 330 kb/d below a year ago. Crude oil output in **Oman** was steady at 720 kb/d, although condensate flows rose 20 kb/d to 220 kb/d.

Production from African countries taking part in the cuts was relatively steady m-o-m. Supply in **Nigeria** held at 1.35 mb/d, down 430 kb/d y-o-y and well below its OPEC+ target that includes Agbami condensate. We exclude the 160 kb/d stream from our crude oil production assessment. Output has just started from the shallow-water Anyala West oil fields in the Niger Delta, the

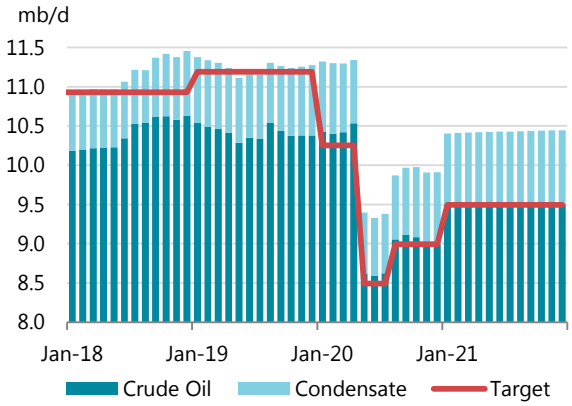
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first project to come onstream since the offshore Egina field in 2018. Production from the fields is expected to reach 60 kb/d when fully developed.

In **Angola**, output dipped to 1.2 mb/d, down 170 kb/d on a year ago. Total reportedly is seeking to sell its stake in offshore Block 14 that pumps around 40 kb/d of oil equivalent in order to focus on its larger oil and gas fields. Elsewhere in West Africa, supply in **Congo** eased to 270 kb/d in October putting it in sight of full compliance. Output inched up in **Equatorial Guinea** and **Gabon**, the only countries that remain some distance above their supply targets. In North Africa, **Algerian** output held steady at 860 kb/d, just below its OPEC+ target.

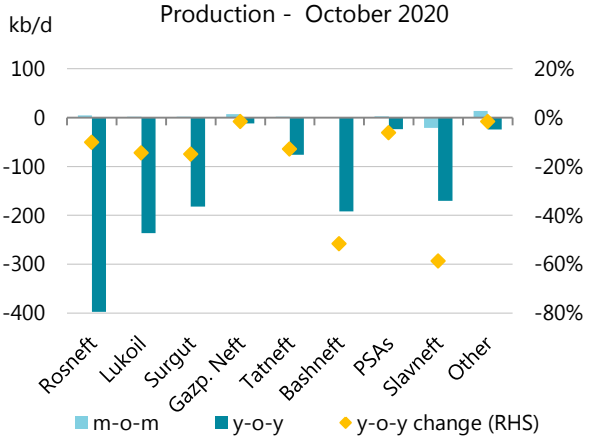
Russian crude and condensate production was largely unchanged in October compared with an upwardly revised September level. At 9.98 mb/d, output was nearly 1.3 mb/d lower than a year ago. Rosneft, followed by Lukoil, cut the most in absolute terms, but it is Bashneft (a Rosneft subsidiary) and Slavneft that saw the biggest percentage change with output less than half year-earlier levels during October. Excluding condensates, exempt from the OPEC+ deal, crude production fell 30 kb/d m-o-m to 9.08 mb/d, improving Russia's compliance rate with the deal to 95% from 94% in September.

Russia Crude and Condensate Supply



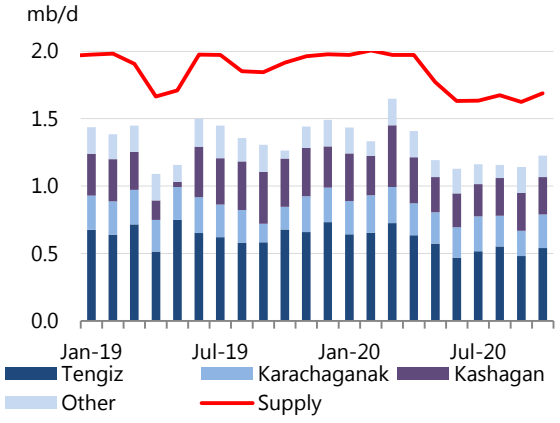
Source: CDU-Tek, IEA estimates. From 2020, target for crude. only.

Change in Russian Crude and Condensate Production - October 2020



Crude and condensate supply from **Kazakhstan** is estimated to have risen by 65 kb/d in October to 1.7 mb/d as condensate production from the Karachangak field rebounded. Crude oil production was steady at just shy of 1.4 mb/d – in line with its OPEC+ target. CPC loadings for October show shipments from Tengiz rebounding by 60 kb/d m-o-m to 540 kb/d. Karachaganak loadings rose by 60 kb/d m-o-m to 250 kb/d, while Kashagan was unchanged at around 280 kb/d.

CPC Loadings vs Kazakhstan Oil Supply*



*Includes condensate. October 2020, preliminary.

Azerbaijan's crude oil production held steady in October at 587 kb/d, in line with its agreed output target. The BP operated Azeri-Chirag-Gunashli fields contributed 461 kb/d, or 79% of the total, with Socar fields pumping the remaining 126 kb/d. Including condensates from the Shah Deniz gas field, production was 675 kb/d, a 20 kb/d increase on September when condensate production dropped to its lowest level in more than a year.

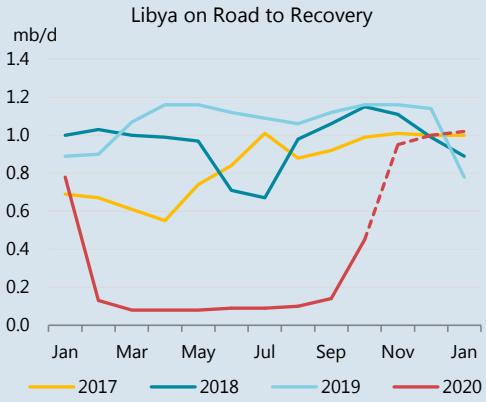
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Exempt from OPEC+ cuts

Squeezed by US sanctions, production in Venezuela and Iran fell by a combined 70 kb/d in October, while Libyan output rose by 310 kb/d. Output in **Iran** eased to 1.89 mb/d, down 250 kb/d on a year ago, after barrels were drawn out of storage. The volume of oil stored at sea slipped to 63 mb at the end of October compared to 65 mb the previous month. The US Treasury Department at the end of October slapped sanctions across Iran's entire oil sector, including the oil ministry, oil minister and state-owned oil and shipping companies. Iran's crude oil exports have already slowed to a trickle. In **Venezuela**, crude oil production eased to 400 kb/d in October, down 300 kb/d on a year ago. Crude oil exports fell as lifters sought to meet a US deadline to stop oil swaps that had previously been allowed. More than 100 kb/d was shifted into storage, according to data from *Kayrros*.

Box 2. Libya's surprisingly swift rebound

Defying expectations, Libyan output soared above 1 mb/d in early November as the oil sector rebounds from an eight-month blockade that cut flows below 100 kb/d. The recovery began in September following a cease-fire agreement, with production nearly trebling to 450 kb/d in October. If the 1 mb/d mark can be sustained, output in November could average around 950 kb/d. The National Oil Corp (NOC) itself had expected production to hit 1 mb/d by December.



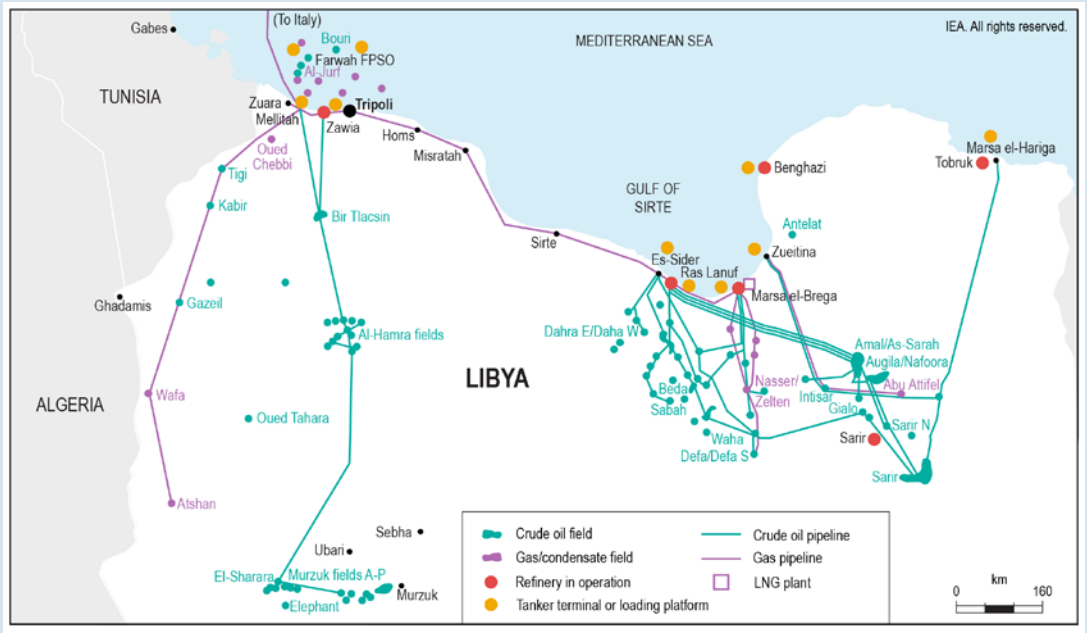
The recovery was underpinned by the signing of a UN-mediated truce, but volatility may lie ahead. Earlier cease-fires have seen NOC ramp up quickly only for the situation to deteriorate. For now, NOC moved quickly at the end of October to end *force majeure* on the last facilities closed by the blockade of oil shipments by eastern forces.

Core to the significant boost in flows is El Sharara, Libya's largest oil field. The southwestern field reportedly is pumping at least 160 kb/d and is ramping up towards full capacity of 300 kb/d. Sharara is crucial because it supplies the 120 kb/d Zawiya refinery and is a source of export revenue. The nearby Elephant field, which can produce up to 80 kb/d, has also restarted.

On the export front, the reopening of the eastern ports of Es Sider and Ras Lanuf, with combined capacity of around 560 kb/d, was crucial. Oil fields operated by the Waha Oil Co which feed the Es Sider terminal reportedly have resumed operations. Situated in the Sirte Basin, the fields can pump up to 300 kb/d.

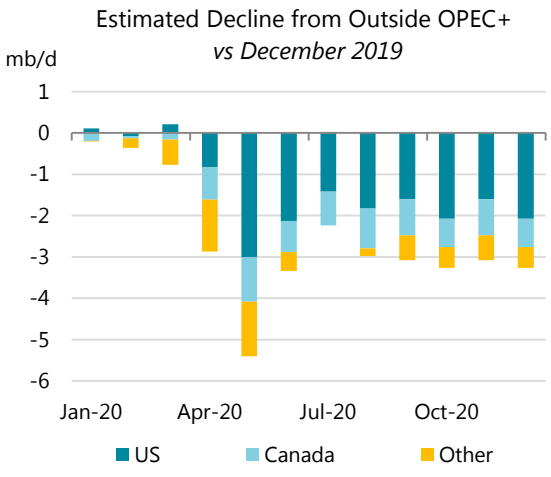
The Abu Attifel and Zueitina oil fields, each with capacity of around 70 kb/d reportedly have restarted. Abu Attifel crude is shipped via pipeline from the Zueitina terminal. Other oil fields in the east operated by Arabian Gulf Oil Co (Agoco) and Sirte Oil Co have been pumping since September. Agoco is said to be producing as much as 200 kb/d. It previously pumped 300 kb/d. Sirte Oil Co is producing around 80 kb/d. The offshore Bouri and Al Jurf fields, which were unaffected by the blockade, continued to pump 80 kb/d between them.

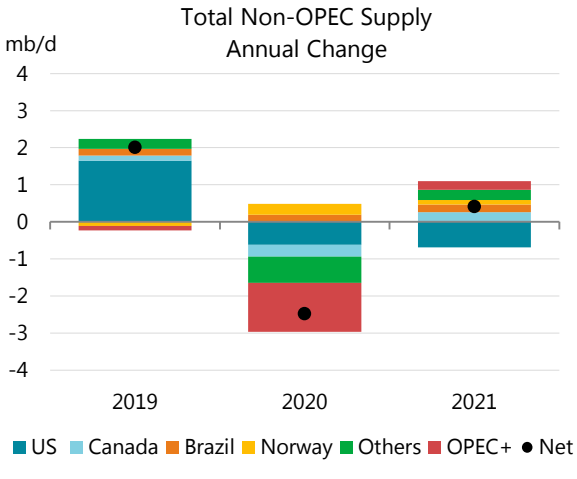
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Non-OPEC supply losses persist

Oil supply from producers outside of the OPEC+ pact, including Mexico, eased by 170 kb/d in October, to 47 mb/d. A rebound in North Sea output after seasonal maintenance during August and September, further gains in Canada and the US shale patch were offset by extensive losses in the Gulf of Mexico. Output was down 3.3 mb/d compared with end-2019 levels, with the US accounting for just over 2 mb/d.





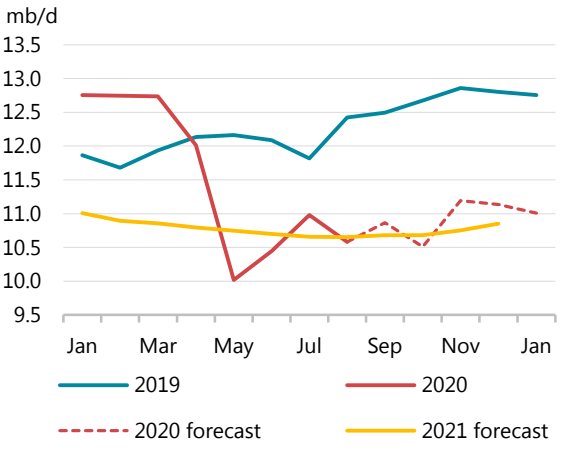
For 2020 as a whole, output from outside OPEC+ is set to fall by 1.3 mb/d on average, or roughly half the total non-OPEC decline. Total non-OPEC oil supply is expected to grow by only 480 kb/d in 2021 as OPEC+ output cuts remain in place and steep spending cuts take their toll elsewhere.

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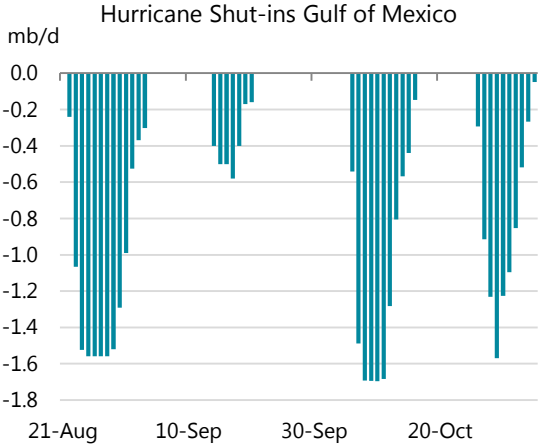
US crude oil production fell by an estimated 350 kb/d in October as sharply lower offshore production offset further gains in the shale patch. At 10.6 mb/d, US crude supply was down 2.1 mb/d on a year ago. Output is estimated to have increased by 340 kb/d in September following extensive shut-ins also in August.

Hurricanes Delta and Zeta forced massive precautionary shut-ins of offshore installations during October. Gulf of Mexico output dropped by more than 600 kb/d on average for the month, compared with shut-ins of 415 kb/d in August and 130 kb/d in September. In early November, the majority of production had been restored. Barring further storms, total US crude supplies are set for a sharp rebound before declines set in again towards year-end and into 2021.

United States Crude Oil Production



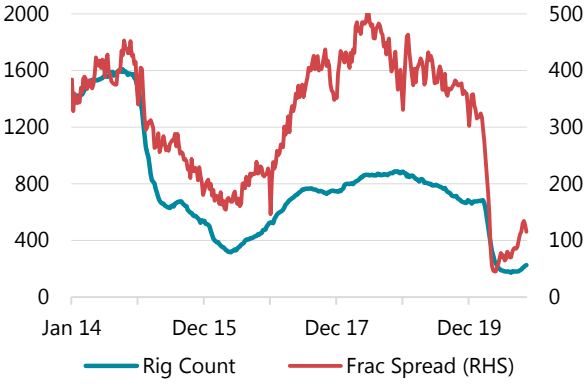
Hurricane Shut-ins Gulf of Mexico



Source: BSEE, IEA

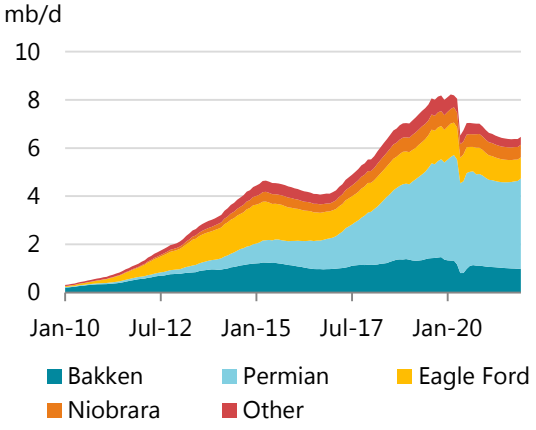
Onshore drilling and fracking activity continued to gain pace during October. By early November, operators had added oil and gas rigs for the eighth week in a row – the longest stretch of gains seen since mid-2018. According to Baker Hughes data, the oil rig count had recovered to 226, from a record low of 172 in August. Completion rates eased from mid-month, however, as oil prices temporarily tumbled below $35/bbl and due to seasonal factors. After rising steadily to a 28-week high of 134 in October, by early November the frac spread count had eased to 115.

US Oil Rig Count and Frac Spread



Source: Baker Hughes and Primary Vision

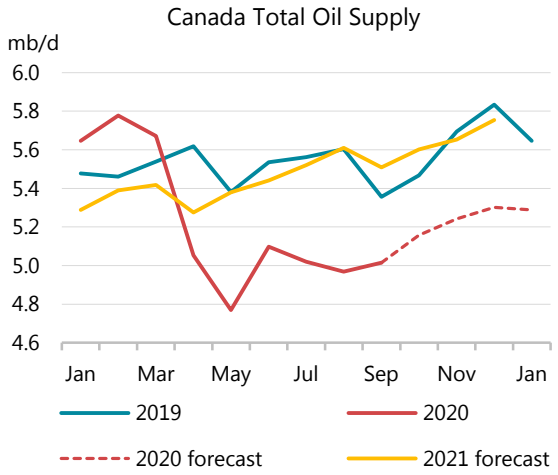
Estimated US LTO Production

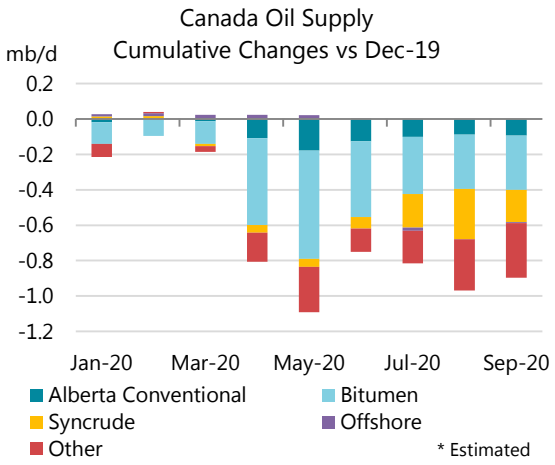


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US crude oil production is estimated to fall by roughly 0.9 mb/d in 2020 and by 0.5 mb/d in 2021 to average 11.3 mb/d and 10.8 mb/d, respectively. Including NGLs, total oil output is projected to ease by 0.6 mb/d this year and by 0.7 mb/d in 2021.

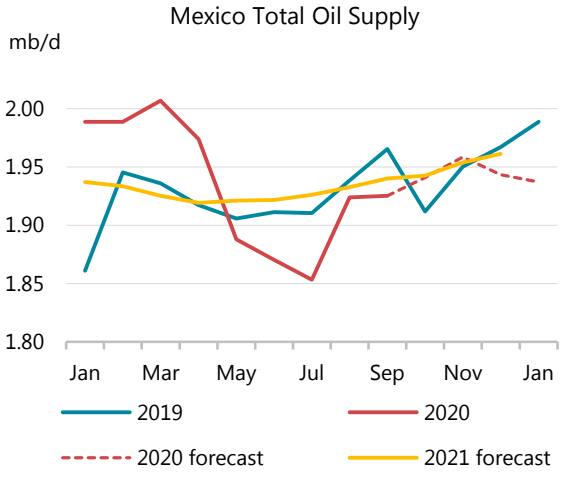
Canadian oil supply was slightly higher than expected in September, as Albertan bitumen production continued to recover and offshore production held steady. Announced outages during September had less impact than first thought, with raw bitumen supply holding steady at around 1.67 mb/d. Output of synthetic crude oil rose by 100 kb/d m-o-m to 990 kb/d, in line with expectations. Even so, provincial output was 650 kb/d lower than end-2019 levels, as current price differentials do not support rail shipments to the US market. Total Canadian supply was down 0.9 mb/d over the same period.





Weekly data from the Energy Information Administration show US crude oil imports from Canada averaging 3.2 mb/d in September and 3.3 mb/d in October - roughly 300 kb/d lower than over the same period last year. Production is set to rise further in October as Imperial Oil completes maintenance at its Firebag facility and Suncor ramps up the second train at its Fort Hills site. For the year as a whole, total Canadian oil supply is expected to decline by 340 kb/d followed by a 300 kb/d recovery next year.

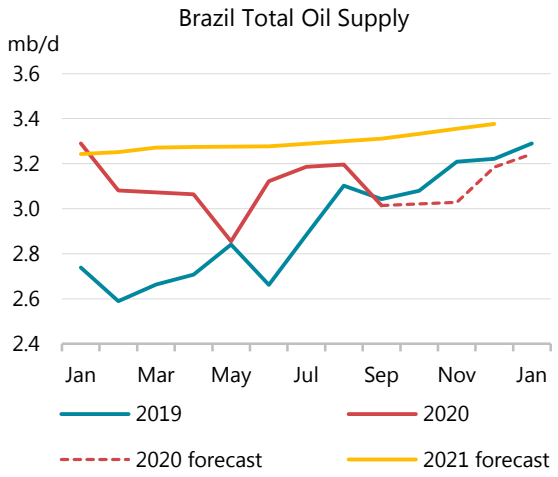
Mexico's total oil supply held steady at 1.925 mb/d in September, as further gains at priority fields offset m-o-m declines at mature assets. Pemex's 15 priority fields currently in operation pumped a combined 122 kb/d and further gains should been seen in the coming months. Total oil production was nevertheless 40 kb/d below a year ago, as Ku-Maloob-Zaap declined by 110 kb/d. Pemex has vowed to increase spending on its most prolific asset, in a bid to stem declines.

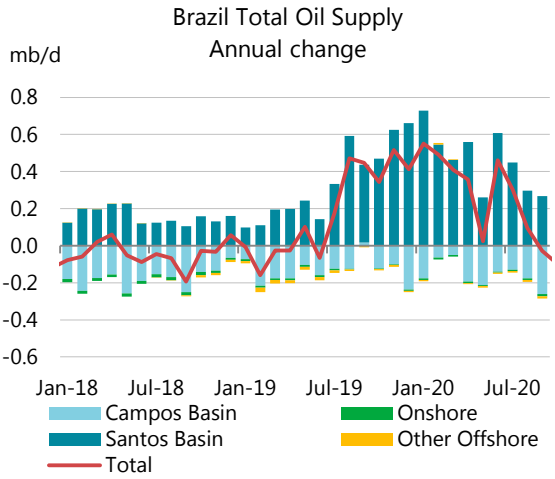


Despite gains at new fields, Mexico will likely struggle to reach its revised production goal of 1.8 mb/d this year. Over the first nine months of the year, crude and condensate production averaged 1.72 mb/d.

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Brazilian crude oil production slumped by 180 kb/d in September, to 2.9 mb/d, as planned maintenance finally got underway. Petrobras delayed scheduled work earlier in the year due to Covid restrictions, but had announced extensive shutdowns over the September-November period. While the m-o-m decline was slightly lower than expected, it caused output to fall below year-earlier levels for the first time since June 2019. Brazilian oil supply is estimated to have eased by a further 30 kb/d in October, based on preliminary daily data.





Production is nevertheless set to post gains of nearly 200 kb/d on average this year. A similar gain is expected in 2021 as recently commissioned units ramp up to capacity and three new production units start up. In its latest investor update, Petrobras announced it was nearing completion of two 180 kb/d floating production, storage and offloading vessels (FPSOs) to be deployed at the Sepia and Mero fields, with several wells already drilled. First oil at its Itapu field has also been advanced. Petrobras said the field is expected to start up in a year, providing a further boost to pre-salt output.

Elsewhere in Latin America, oil production has yet to recover to pre-crisis levels. **Ecuador** is the exception, as supply has rebounded from lows seen in April, when more than 300 kb/d of supply was lost as a natural disaster forced pipeline closures. However, by September crude oil output was still 35 kb/d lower than a year ago, at 510 kb/d. In neighbouring Argentina, Colombia, Peru and Trinidad and Tobago, production continues to lag year-earlier levels. **Argentinian** production held steady at around 470 kb/d in September, but was down 50 kb/d, or 9%, on a year earlier. Output is expected to see marginal gains towards year-end as drilling activity continues to improve.

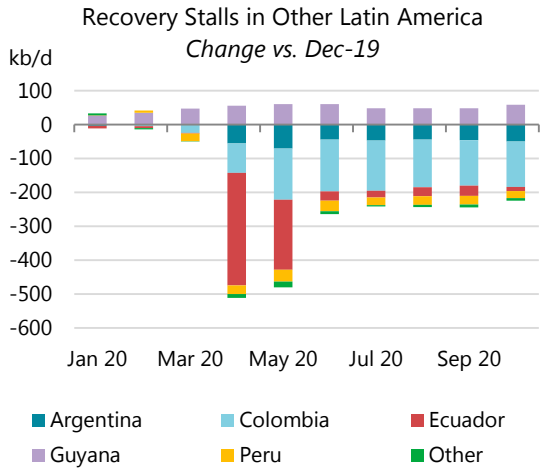
To lure investment and boost activity, especially in the Vaca Muerta shale region, the government has introduced several measures. These include a minimum domestic sale price of $45/bbl for as long as Brent remains below that level. It also eliminated the 8% export tax on crude oil and refined products for as long as the Brent price is below the $45/bbl threshold. For the longer term, Energy Secretary Dario Martinez has announced a four-year $5.1 billion subsidy programme to promote exploration and production in Vaca Muerta.

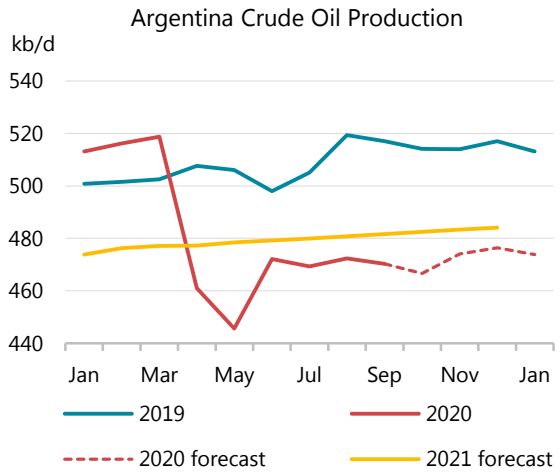
Crude oil production in **Colombia** averaged 750 kb/d in September, down 130 kb/d or 15% from a year earlier, according to the latest data from the energy ministry. Following revised guidance, the government sees 2020 production in a range of 820 kb/d to 850 kb/d, compared with 885 kb/d produced in 2019. In October there were 13 rigs drilling for oil and gas in

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Colombia, up from only 1 in May. Similarly, by September oil supply (including NGLs) in **Peru** and **Trinidad and Tobago** was 20% and 6% lower, respectively, than year earlier levels.

Based on updated financial reports from Hess and ExxonMobil, we have slightly lowered our estimates for production in **Guyana** for 3Q20. According to the consortium, production averaged 57 kb/d last quarter. Following the commissioning of a natural gas injection system, the Liza Destiny FPSO is expected to reach its capacity of 120 kb/d in the fourth quarter. Phase 2 of the development, which will utilise the 220 kb/d Liza Unity FPSO, remains on target to achieve first oil by early 2022.



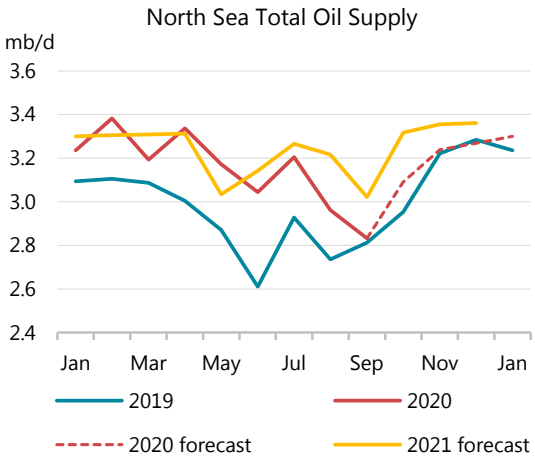


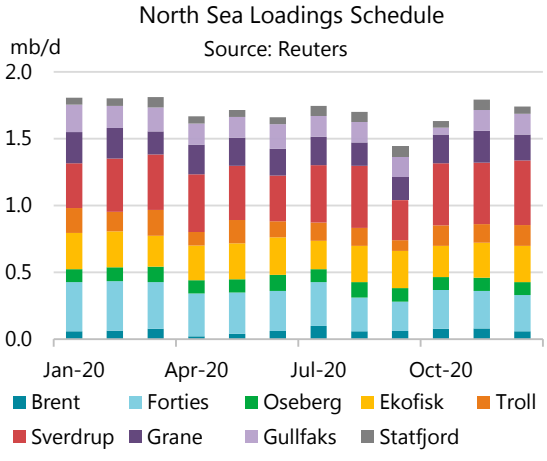
Following extensive maintenance over August and September, **North Sea** oil supply is estimated to have surged by 260 kb/d in October with further gains expected towards year-end. Loading schedules for 10 key grades increased by 185 kb/d in October and a further 180 kb/d in November before declining by a marginal 50 kb/d in December. Revised data show regional output dropped by 240 kb/d m-o-m in August and a further 130 kb/d in September to a 12-month low of 2.8 mb/d.

Norway led the increase in October, despite maintenance at the Gullfaks and Statfjord fields and the shutdown of some fields due to strikes. Output is estimated to have risen by nearly 180 kb/d, with most of the gains stemming from the Johan Sverdrup field following the completion of maintenance. Loading schedules suggest the Troll and Grane fields also pumped more. According to preliminary data from the Norwegian Petroleum Directorate (NPD), crude oil production slumped 250 kb/d in September to a one-year low of 1.5 mb/d. Lower production during September and October will allow supplies to rise above Norway's self-imposed target of 1.73 mb/d for the last two months of the year.

For the year as a whole, Norwegian oil production now looks on track to expand by 285 kb/d to 2.02 mb/d on average. Output is expected to grow by another 130 kb/d next year, as supply restrictions end and new projects come on line. NPD approved the start-up of the Tor development project and a ramp-up of Ærfugl phase 1 last month. Barring further delays, 2021 will also see the start-up of Repsol's Yme redevelopment project, the Snorre Expansion Project, Njord Future and the much delayed Martin Linge field. Equinor said in September that the production start-up would be stalled by at least six months from the third quarter of this year to the second or third quarter of 2021. The start-up of the Yme field was also delayed by more than a year to the end of 2021 due to Covid-19 and some technical issues.

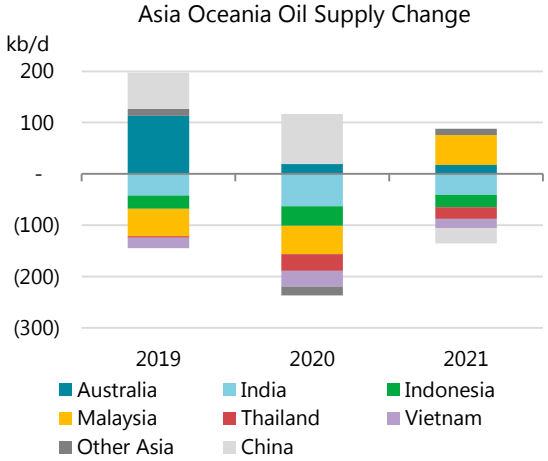
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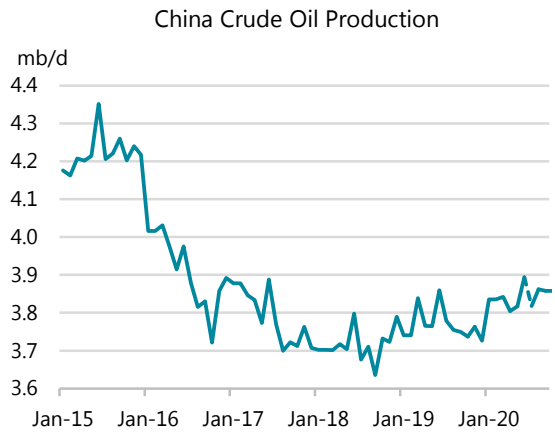




Revised data for the **UK** show total oil output dropping by a sharper than expected 200 kb/d in August, to a 32-month low of 870 kb/d. New JODI data show output rising in September, contrary to our earlier expectations of a significant m-o-m decline. Tanker tracking data from *Kpler* show shipments to world markets fell by 150 kb/d m-o-m to a six month low of 800 kb/d. The biggest decline came from Forties, which dropped by 100 kb/d to a three-year low of 130 kb/d. It is thus likely that reported production estimates for September are still too high and will be revised with subsequent updates. Following several months of disappointing data, the outlook for UK oil supply has been revised lower for the remainder of the forecast period, and is now seen declining by 70 kb/d in 2020 and a further 40 kb/d in 2021.

Oil production in **Asia** looks set to decline this year, as gains in China and Australia fail to offset declines elsewhere. While rising m-o-m, led by a recovery in Indonesian production, in October regional supply is estimated to have been 0.1 mb/d lower than a year ago. Production in India, Thailand, Vietnam and Indonesia was down by a combined 170 kb/d, while Australian output of crude, condensates and NGLs was 30 kb/d lower. Malaysia and Brunei, both part of the OPEC + deal had cut production by 70 kb/d in total. Malaysian production has been trending below its OPEC+ target, currently standing at 486 kb/d. Only China posted gains, of roughly 150 kb/d, including estimated coal-to-liquids volumes. In all, oil supply is expected to fall by 120 kb/d in 2020 and by 50 kb/d in 2021. Excluding China, however, the decline is 220 kb/d in 2020 and a lesser 20 kb/d next year when OPEC+ cuts ease.





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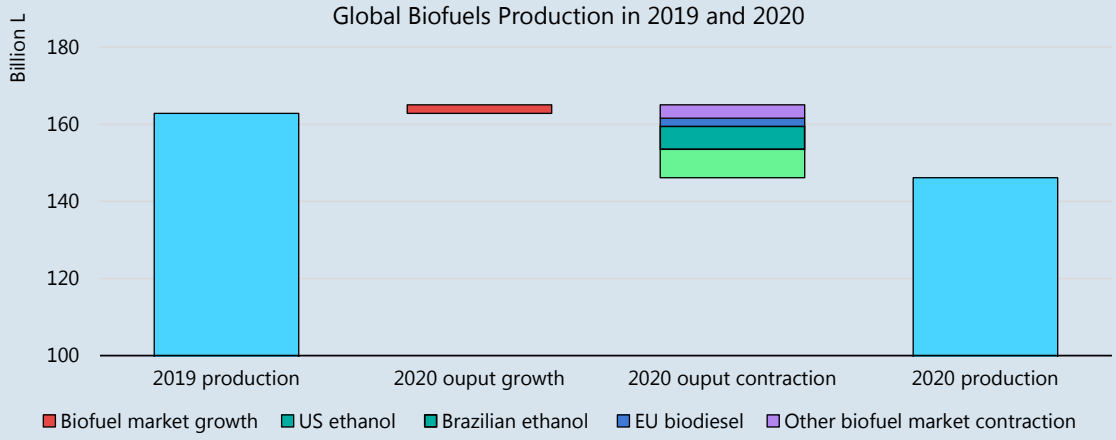
Box 3. Global biofuels set to shrink for the first time in two decades

The global response to the Covid-19 pandemic has had a strong impact on the biofuels industry. Global transport biofuel production is expected to decrease by 11.6% from 2019 levels to 146 billion litres (L), equivalent to 2.5 mb/d, in 2020. This is the first reduction in annual production in two decades. Pre-Covid-19, the IEA projected 3% growth from the sector.

Lower transport fuel demand resulting from the Covid-19 crisis reduces biofuel consumption in countries where policies mandate a set percentage of biofuels to be blended with fossil transport fuels. Overall, global gasoline demand is anticipated to contract by 10.6% and diesel/gasoil by 6% in 2020. Diesel is less affected, as a substantial share of its consumption is for the transport of goods, which the crisis has impacted less than personal mobility. In addition, lower crude oil prices since the start of the pandemic have made biofuels less competitive with fossil transport fuels.

The greatest y-o-y drops in output are for US ethanol (a 12% decline to 52 billion litres), Brazilian ethanol (a 16.5% decline to 30 billion litres), and European biodiesel (a 13.5% decline to 13.6 billion litres). In the US and European markets biofuel declines are closely linked to declines in gasoline and diesel use. However, Brazil's ethanol industry is facing multiple pressures including an 11% decline in gasoline consumption, low oil prices that reduce the relative competitiveness of ethanol and competition for sugarcane for sweeteners that are more profitable than ethanol in the current market context. Across all markets, biofuel production is expected to return to 2019 levels in 2021 if transport patterns return to those before Covid-19.

Aviation bailouts may also have been a missed opportunity for sustainable aviation fuels. Of the USD 76 billion provided only 4 billion were subject to 'green' conditions. Applying a 2% sustainable aviation fuel (SAF) blending requirement to all would have created demand more than 50 times the 2019 production levels, boosting SAF capacity investment.



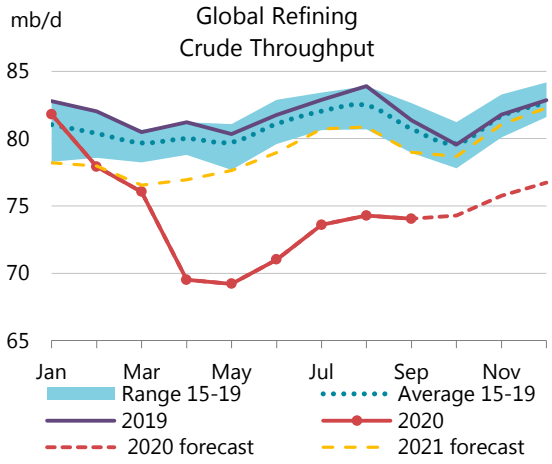
For more information on biofuels and other renewable fuels, please see the IEA's latest Renewables Market Report, https://www.iea.org/reports/renewables-2020

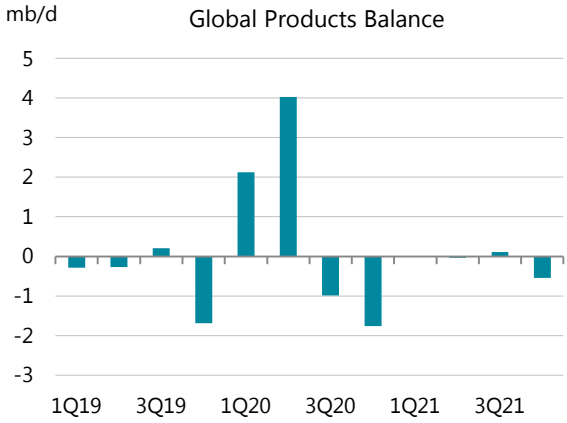
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Refining

Overview

New lockdowns in Europe and elsewhere have further complicated the already precarious outlook for many refiners. Nevertheless, despite downgrades, demand in the fourth quarter of 2020 for premium refined products (gasoline, kerosene and diesel) is still forecast to increase quarter-on-quarter (q-o-q), reflecting improving mobility and economic activity in India and other developing Asian countries. In 3Q20, refiners under-produced relative to demand, helping to ease some of the product stock overhang built up in the first half of the year.

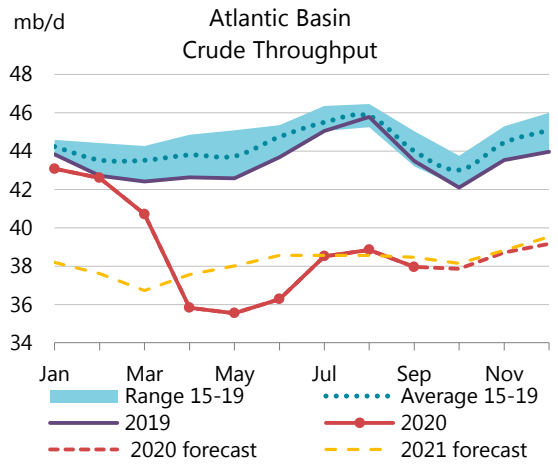


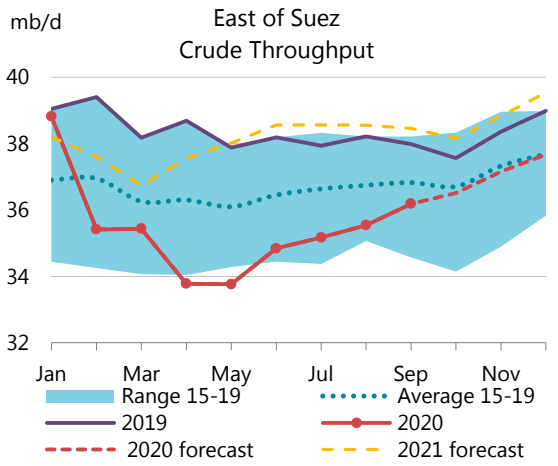


Product inventories are expected to continue drawing in 4Q20 even with the 1.6 mb/d q-o-q forecast increase in throughput. Still, global product markets will exit this year with almost 1 mb/d of implied product stock build due to oversupply in the first half of the year. Assuming China's crude oil residual balance (difference between total supply and total crude oil demand) continues to build at the same rate for the remaining two months of 2020, the global crude oil balance outside China will be flat on average for 2020. Thus, the overhang in global oil markets will be concentrated in products, rather than crude oil (excluding Chinese crude oil stocks). This casts a long shadow over refinery margins next year. In 2021, refining throughput is forecast to recover by some 4.6 mb/d, but this could be as much as 1 mb/d lower if refiners continue to under-produce relative to demand to absorb the 2020 product stock overhang. The main incentive will come from crude oil price developments which depend on inherently uncertain supply and, increasingly, Chinese crude oil buying behaviour.

Somewhat more certain are the diverging outlooks for the two hemispheres. Refining activity in the Atlantic Basin largely follows the seasonal pattern of a slowdown in September-October, often amplified by hurricane shutdowns in the US Gulf Coast. In the East of Suez, however, the recovery has been essentially uninterrupted, with the September runs estimate already above February levels, and 4Q20 throughput forecast to reach five-year average levels. In 2021, East of Suez refining activity is expected to be close to 2019 levels. By contrast, Atlantic Basin refining runs will remain at their lowest levels for two decades. Recently announced refinery shutdowns are largely concentrated in the Atlantic Basin (see *Refinery capacity changes in 2020-21*).

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Global Refinery Crude Throughput[1]

(million barrels per day)

	2019	1Q20	2Q20	Sep 20	3Q20	Oct 20	Nov 20	Dec 20	4Q20	2020	1Q21	2021
Americas	**19.1**	**18.3**	**15.3**	15.8	**16.2**	15.7	16.4	16.8	**16.3**	**16.5**	**17.3**	**17.9**
Europe	**12.2**	**11.7**	**9.9**	10.6	**10.6**	10.6	10.5	10.5	**10.5**	**10.7**	**10.8**	**10.8**
Asia Oceania	**6.8**	**6.7**	**5.5**	5.5	**5.5**	5.7	5.8	5.9	**5.8**	**5.9**	**5.9**	**5.9**
Total OECD	**38.0**	**36.6**	**30.7**	31.9	**32.3**	31.9	32.7	33.2	**32.6**	**33.1**	**34.1**	**34.7**
FSU	**6.8**	**6.9**	**6.1**	6.3	**6.4**	6.3	6.5	6.5	**6.4**	**6.4**	**6.7**	**6.7**
Non-OECD Europe	**0.6**	**0.5**	**0.4**	0.5	**0.4**	0.5	0.5	0.5	**0.5**	**0.5**	**0.5**	**0.5**
China	**13.0**	**11.9**	**13.5**	13.9	**14.0**	13.9	14.0	14.0	**14.0**	**13.3**	**13.8**	**14.0**
Other Asia	**10.3**	**10.6**	**8.6**	9.0	**8.7**	9.5	9.6	9.7	**9.6**	**9.4**	**9.9**	**10.2**
Latin America	**3.2**	**3.1**	**2.6**	3.1	**3.1**	3.1	3.1	3.1	**3.1**	**3.0**	**3.2**	**3.3**
Middle East	**7.7**	**6.9**	**6.1**	7.3	**7.0**	7.0	7.3	7.5	**7.3**	**6.8**	**7.3**	**7.6**
Africa	**2.0**	**2.1**	**1.7**	1.9	**2.0**	2.0	1.9	2.1	**2.0**	**1.9**	**2.0**	**2.0**
Total Non-OECD	**43.6**	**41.9**	**39.1**	42.0	**41.6**	42.3	42.9	43.4	**42.9**	**41.3**	**43.4**	**44.3**
Total	**81.6**	**78.5**	**69.8**	73.9	**73.9**	74.2	75.7	76.6	**75.5**	**74.4**	**77.5**	**79.0**
Year-on-year change	*-0.4*	*-3.1*	*-11.2*	*-7.3*	*-8.8*	*-5.3*	*-6.0*	*-6.1*	*-5.8*	*-7.2*	*-1.0*	*4.6*

[1] Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

Box 4. Refinery capacity changes in 2020-21

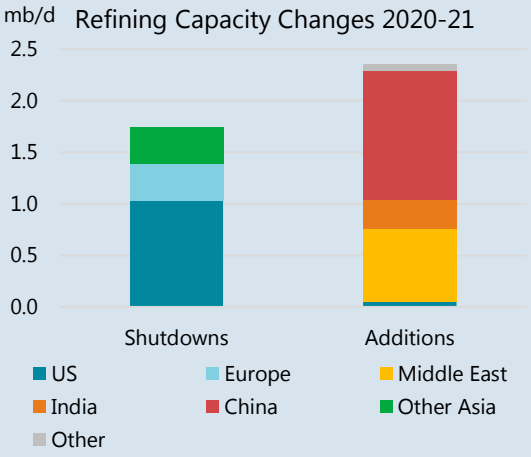
As expected, refinery closure announcements accelerated after third quarter corporate results, which saw the lowest margins in over a decade. There were capacity shutdowns planned for 2020-21 prior to Covid-19, but the bulk of the new announcements reflect the pessimism about refining economics in a world suffering from a temporary demand collapse and structural refining overcapacity. We estimate that there is about 102 mb/d of crude distillation capacity worldwide, catering for only 84 mb/d of demand for refined products in 2019, which shrunk to 76 mb/d in 2020 and 80 mb/d in 2021. The global refining industry carries a certain amount of spare capacity to compensate for accidents and maintenance shutdowns. However, with ongoing capacity additions and a slowdown in refined products demand growth, the capacity overhang is now well beyond the reasonable cushion.

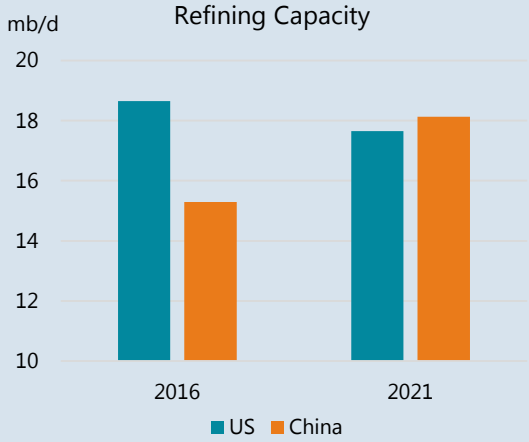
Over the last few months around a dozen new shutdowns have been announced, bringing total capacity closures planned for 2020-21 to 1.7 mb/d. This includes the 335 kb/d Philadelphia refinery

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in the US, which suffered a fire in 2019. The site was allocated to a real estate development project earlier this year. The shutdown figure excludes Canada's 130 kb/d Come by Chance refinery in Newfoundland in search of a buyer and the 135 kb/d Calcasieu Refining plant in Lake Charles, Louisiana, idled this year.

US closures account for the lion's share of the total. Just over 1 mb/d of capacity, some 5% of the country's current total, is slated for permanent closure or conversion to bio-refining. The rest is almost equally split between Europe and Asia. Several other countries have substantial capacity that has been idled for several years but has not yet been written off. For example, of the 2.3 mb/d of combined capacity in Venezuela, Nigeria and Ukraine, less than 400 kb/d has been utilised in recent years. In fact, prior to the Covid-19 impact, the largest unused capacity was in China, where the gap between total capacity and refinery throughput was around 4 mb/d, or more than 20%.

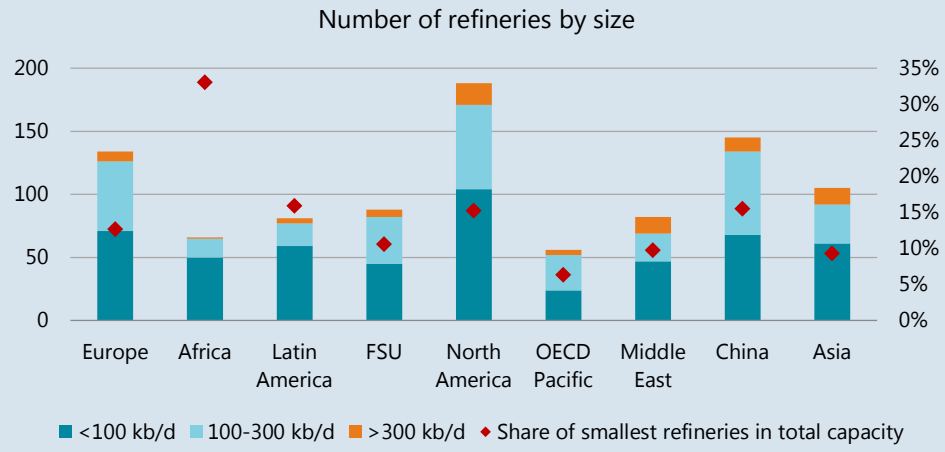




Meanwhile, capacity additions are accelerating. Two Chinese projects, originally expected in 2023, are now reportedly coming on stream by the end of 2021. These are the second 400 kb/d phase of Rongsheng Petrochemical's Zhejiang plant and the 325 kb/d Shenghong petrochemical refinery. Overall, global capacity additions in 2020-21 total 2.4 mb/d (including Saudi Arabia's 400 kb/d Jizan plant), with slightly more than half coming from China. Next year, China will overtake the US in terms of installed refining capacity.

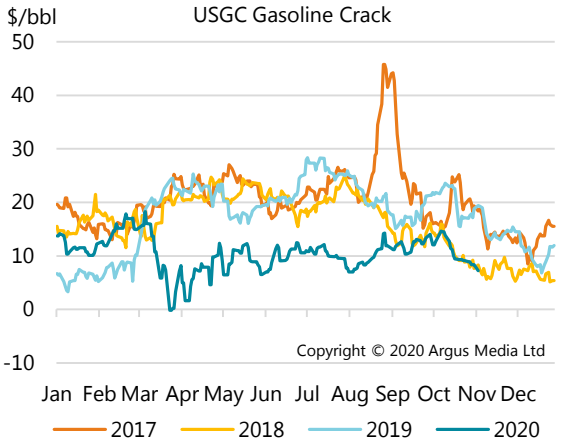
The net result would be an increase, rather than a decrease, in overcapacity unless further shutdowns are announced. Smaller and simpler refineries are widely thought to be the prime candidates. In the current wave of closures, the average asset size is around 100 kb/d. More than half of refineries worldwide are at or less than 100 kb/d capacity, accounting for only 13% of global capacity. Nevertheless, the size of the site is not always critical: depending on their location, some smaller refineries might be supported by captive landlocked markets, where crude supply logistics are cheaper than products, while coastal sites are more exposed to international competition. This is particularly true for the North American East Coast and Australian refineries that, despite a substantial local market size that is undersupplied by refined products and reliant on imports, are struggling for survival.

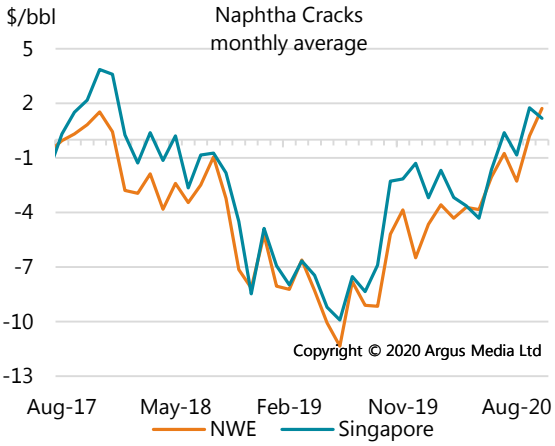
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Product prices and refinery margins

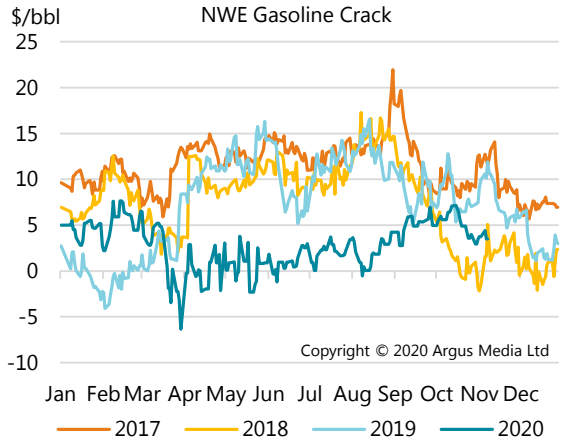
The modest fall in crude prices in October certainly contributed to stronger product cracks, but the increases in the latter exceeded crude price losses, indicating tighter product markets. The global implied product balance in October showed around 3 mb/d of draws, the largest since October 2019. However, not all products saw gains. Gasoline cracks were down in all regions, following the seasonal trend for demand. At the same time, they remain above diesel cracks in a sign of relative strength of the light distillates pool.

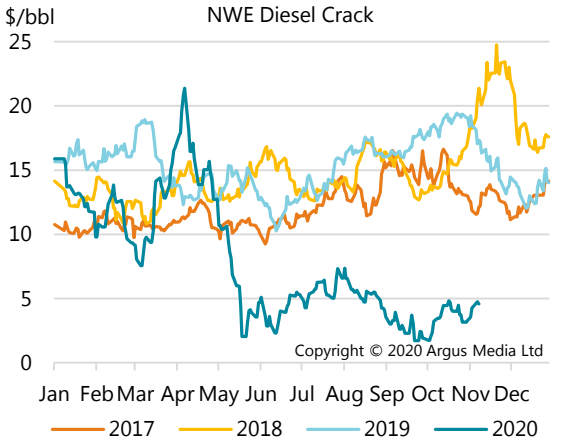




Gasoline's contribution to refinery margins, i.e. yield-adjusted cracks, remains on par (in Europe) or above diesel. Naphtha cracks in North West Europe surged to their highest level in four years, recording a rare premium to Singapore quotes, which fell on cracker maintenance in the region.

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Spot Product Prices

(monthly and weekly averages, $/bbl)

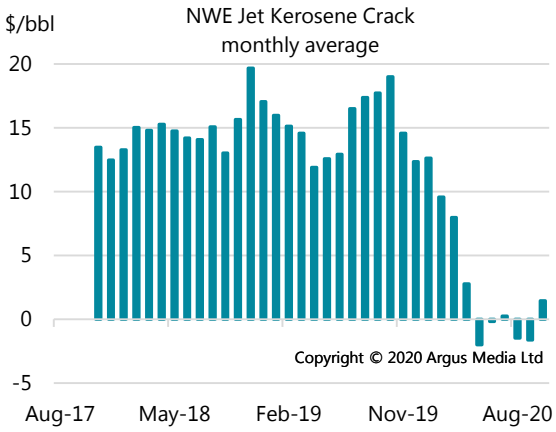
	Aug	Sep	Oct	Oct-Sep *Chg*	%	Week Ending 09 Oct	16 Oct	23 Oct	30 Oct	06 Nov	Aug	Sep	Oct	Chg
Rotterdam, Barges FOB											**Differential to North Sea Dated**			
Gasoline EBOB oxy	47.41	46.48	45.30	-1.18	-2.5	47.89	46.32	44.98	41.91	41.67	2.63	5.90	5.29	-0.61
Naphtha	42.42	40.78	41.72	0.94	2.3	43.80	42.75	41.84	38.85	38.62	-2.36	0.20	1.72	1.52
Jet/Kerosene	43.37	38.95	41.45	2.50	6.4	42.26	42.64	42.49	39.64	40.56	-1.41	-1.63	1.45	3.08
ULSD 10ppm	49.70	43.36	44.17	0.80	1.9	45.26	45.46	44.72	42.13	43.00	4.92	2.78	4.16	1.38
Gasoil 0.1%	48.12	42.19	43.34	1.15	2.7	44.35	44.62	43.83	41.47	42.33	3.34	1.61	3.33	1.73
VGO 2.0%	47.68	43.33	43.27	-0.06	-0.1	43.77	44.22	44.27	41.74	41.86	2.90	2.75	3.26	0.52
Fuel Oil 0.5%	48.07	45.32	47.07	1.74	3.8	47.48	48.39	48.12	45.17	46.15	3.29	4.74	7.06	2.32
LSFO 1%	43.09	40.11	42.48	2.38	5.9	42.26	43.64	43.99	41.18	42.19	-1.69	-0.48	2.48	2.95
HSFO 3.5%	40.86	37.37	38.25	0.89	2.4	37.03	38.77	40.54	38.00	38.61	-3.91	-3.22	-1.75	1.47
Mediterranean, FOB Cargoes											**Differential to Urals**			
Premium Unl 10 ppm	48.29	47.44	45.56	-1.88	-4.0	48.08	46.50	45.36	42.09	42.33	3.28	6.46	5.30	-1.16
Naphtha	41.49	39.21	41.07	1.86	4.8	43.15	42.16	41.23	38.15	37.92	-3.52	-1.77	0.81	2.58
Jet Aviation fuel	42.56	37.51	40.89	3.38	9.0	41.69	42.12	41.96	39.05	39.93	-2.45	-3.47	0.63	4.10
ULSD 10ppm	49.58	43.14	44.47	1.33	3.1	45.72	45.70	44.99	42.20	43.05	4.57	2.16	4.21	2.05
Gasoil 0.1%	48.26	42.28	43.78	1.50	3.5	45.14	45.33	44.13	41.22	42.04	3.25	1.30	3.52	2.22
LSFO 1%	44.03	40.89	43.63	2.73	6.7	43.49	44.71	45.12	42.32	43.23	-0.98	-0.09	3.37	3.45
HSFO 3.5%	39.10	35.74	36.95	1.21	3.4	35.84	37.57	39.22	36.41	36.80	-5.91	-5.25	-3.31	1.93
US Gulf, FOB Pipeline											**Differential to WTI Houston**			
Super Unleaded	53.59	53.04	51.35	-1.69	-3.2	55.53	52.17	50.60	46.88	46.44	10.39	12.63	11.18	-1.45
Jet/Kerosene	46.86	42.52	44.21	1.70	4.0	45.00	45.63	44.69	42.68	44.18	3.67	2.10	4.04	1.94
ULSD 10ppm	50.06	45.57	46.64	1.07	2.4	47.63	47.71	46.78	45.33	47.14	6.86	5.15	6.47	1.32
Heating Oil	43.88	40.34	42.36	2.03	5.0	43.20	43.49	42.93	40.64	41.16	0.68	-0.08	2.19	2.27
No. 6 3%*	40.08	35.99	37.37	1.39	3.9	36.86	38.58	39.11	36.04	36.40	-3.11	-4.43	-2.80	1.63
Singapore, FOB Cargoes											**Differential to Dubai**			
Premium Unleaded	48.18	47.27	45.96	-1.31	-2.8	47.76	46.33	45.78	43.40	42.98	4.28	5.82	5.26	-0.56
Naphtha	43.08	43.19	41.88	-1.31	-3.0	43.64	43.19	41.49	39.07	39.03	-0.82	1.74	1.18	-0.56
Jet/Kerosene	43.28	39.37	41.65	2.28	5.8	42.20	42.61	42.15	40.11	41.12	-0.62	-2.08	0.95	3.03
Gasoil 0.001%	49.46	44.19	43.92	-0.27	-0.6	44.65	45.21	44.33	41.87	42.44	5.56	2.74	3.22	0.48
Fuel Oil 0.5%	50.68	47.79	49.35	1.56	3.3	49.80	50.67	49.90	47.35	48.24	6.78	6.34	8.65	2.31
HSFO 180 CST	42.20	39.61	41.19	1.58	4.0	39.60	42.21	43.29	40.56	39.82	-1.70	-1.84	0.48	2.33
HSFO 380 CST 4%	41.26	38.59	39.53	0.93	2.4	38.0	40.4	41.5	39.0	39.5	-2.64	-2.85	-1.17	1.68

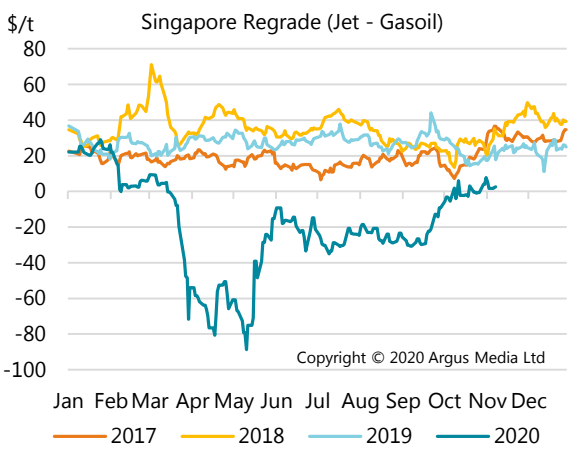
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Middle distillate cracks increased in October with higher demand and lower refinery supply. In North West Europe, the gains were made from a very low September base, when diesel cracks were at their lowest monthly level. Diesel cracks approached, but could not cross the $5/bbl mark. In the second half of October there were no product cracks in North West Europe pricing above $5/bbl.

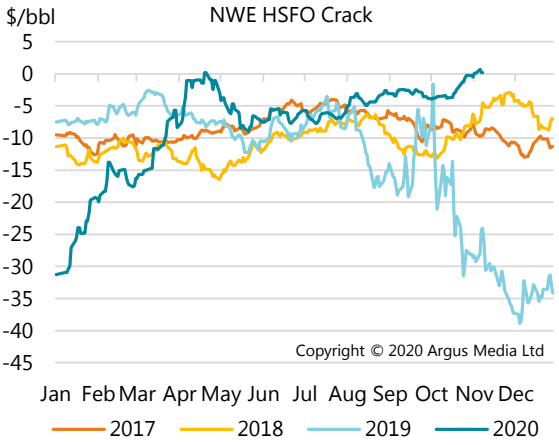
The largest m-o-m gains in Europe and Singapore went to jet cracks. In Europe, they turned positive for the first time since July. In Singapore, the regrade (differential between jet/kerosene and gasoil) surged to a positive value, for the first time since February.

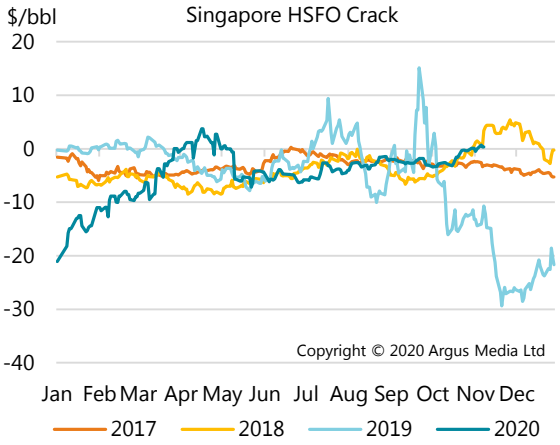
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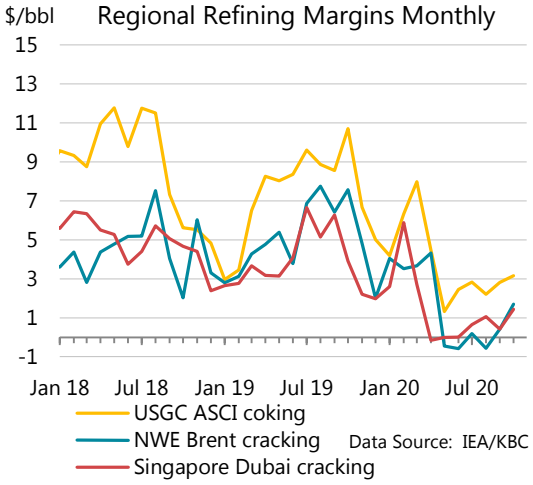
Fuel oil cracks increased in October and reached rare positive levels in Europe by the end of the month, helped by the slide in crude oil prices. Since August, fuel oil cracks have outperformed their seasonal range, thanks to low refining output, relatively robust demand from bunkers and secondary processing units, as well as rising LNG prices in Asia that piqued fuel demand for power generation in some countries.

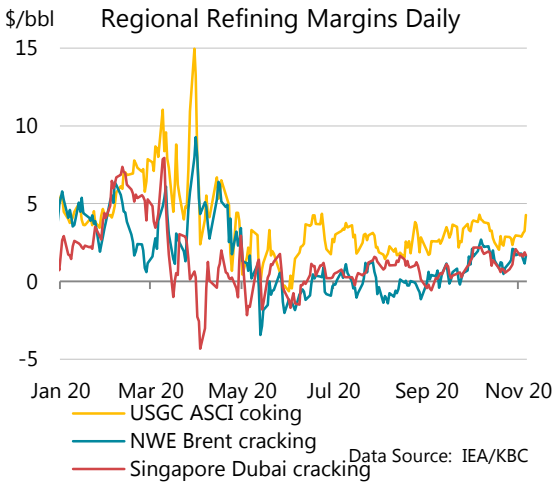




Refinery margins were generally higher in October, with the exception being the usual suspect – the US Midwest, where margins continued falling m-o-m. PADD 2 refining activity in October was close to seasonal highs, limiting product price increases. In the US Gulf Coast refining activity in September and October was at nine-year lows, due to the combined impact of storm shutdowns and economic run cuts. In Europe, better middle distillate and fuel oil cracks supported margins across the board. Brent hydroskimming margins turned positive for the first time since April. In Singapore, Dubai hydrocracking margins were the highest since March.

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IEA/KBC Global Indicator Refining Margins[1]

($/bbl)

	Monthly Average					Change	Average for week ending:				
	Jul 20	Aug 20	Sep 20	Oct 20		Oct-Sep	09 Oct	16 Oct	23 Oct	30 Oct	06 Nov
NW Europe											
Brent (Cracking)	0.18	-0.57	0.42	1.70	↑	1.28	2.32	1.79	0.93	1.69	1.56
Urals (Cracking)	-0.58	0.13	0.52	1.38	↑	0.86	2.06	1.33	0.65	1.38	1.50
Brent (Hydroskimming)	-0.81	-1.33	-0.52	1.21	↑	1.73	1.37	1.31	0.74	1.52	1.58
Urals (Hydroskimming)	-2.79	-1.42	-1.21	-0.15	↑	1.06	-0.21	-0.35	-0.36	0.45	0.67
Mediterranean											
Es Sider (Cracking)	1.29	0.41	1.01	2.35	↑	1.34	2.85	2.38	1.72	2.39	4.23
Urals (Cracking)	-0.38	-0.54	-0.28	1.22	↑	1.50	1.67	1.25	0.87	1.07	1.08
Es Sider (Hydroskimming)	0.30	-0.22	0.54	2.24	↑	1.69	2.44	2.26	1.81	2.48	4.37
Urals (Hydroskimming)	-2.85	-2.55	-2.09	-0.50	↑	1.58	-0.68	-0.59	-0.40	-0.21	-0.27
US Gulf Coast											
Mars (Cracking)	0.48	0.36	0.90	1.61	↑	0.70	1.98	1.60	1.45	1.32	1.56
50/50 HLS/LLS (Coking)	5.09	4.61	5.21	5.19	↓	-0.02	6.67	5.31	3.96	4.41	4.86
50/50 Maya/Mars (Coking)	2.53	1.54	2.34	3.00	↑	0.66	3.98	2.90	2.21	2.70	3.17
ASCI (Coking)	2.84	2.20	2.81	3.15	↑	0.34	3.97	3.11	2.51	2.74	3.28
US Midwest											
30/70 WCS/Bakken (Cracking	7.99	7.24	6.13	6.18	↑	0.06	5.40	4.70	6.49	7.21	8.07
Bakken (Cracking)	9.63	7.58	7.27	6.88	↓	-0.39	6.46	5.64	6.82	7.79	9.23
WTI (Coking)	9.16	7.65	6.47	5.91	↓	-0.56	5.56	4.70	5.87	6.80	8.08
30/70 WCS/Bakken (Coking)	9.41	8.17	7.29	7.20	↓	-0.08	6.62	5.51	7.26	8.31	9.48
Singapore											
Dubai (Hydroskimming)	-2.61	-2.17	-2.58	-1.30	↑	1.28	-1.65	-1.33	-1.30	-0.76	-0.44
Tapis (Hydroskimming)	-0.63	-0.81	3.02	3.82	↑	0.80	4.29	3.98	2.58	3.82	3.86
Dubai (Hydrocracking)	0.65	1.06	0.42	1.44	↑	1.02	2.06	1.48	0.72	1.34	1.72
Tapis (Hydrocracking)	-0.56	-1.24	2.59	3.03	↑	0.44	3.63	3.07	1.71	3.02	3.02

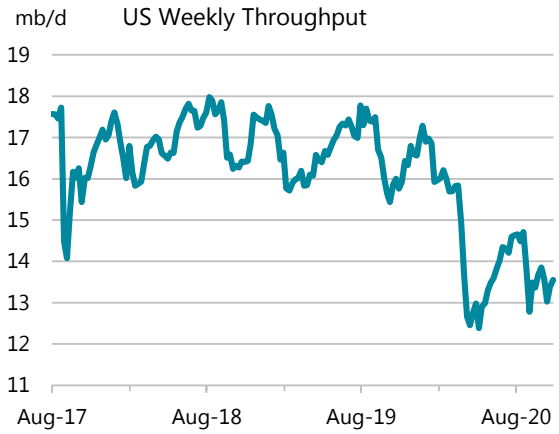
[1] Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

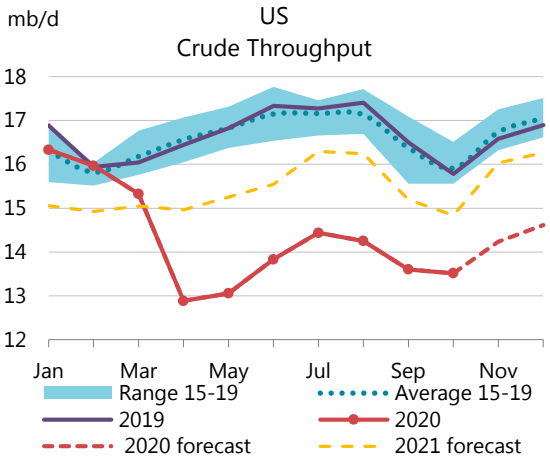
Source: IEA, KBC Advanced Technologies (KBC)

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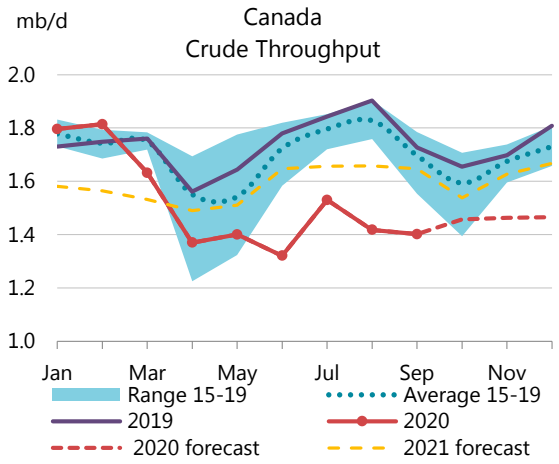
Regional refining outlook

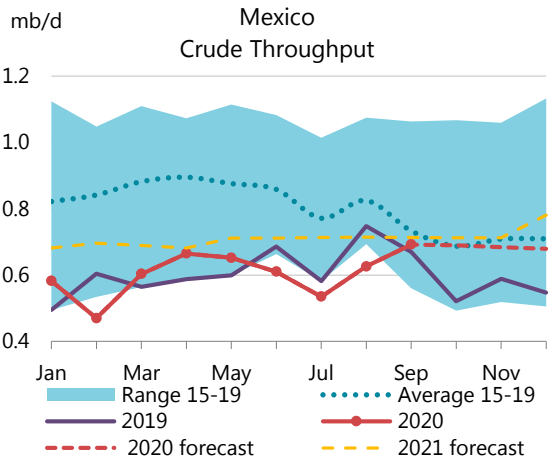
US refining throughputs fell in October for the third consecutive month, down by almost 1 mb/d from July. This is similar to seasonal trends in previous years. Our initial expectations minimised the role of seasonality in a situation where demand was projected to recover steadily from the Covid-19 impact, but the latest data are less supportive of this theory (see *Demand*). We have downgraded our November-December outlook by 370 kb/d and for 2021 by 255 kb/d. Four more refinery shutdowns were announced since our last *Report* amounting to a total capacity of 450 kb/d. The largest is Shell's 230 kb/d Convent, Louisiana, refinery, which had been for sale for the last two years.





Canadian throughput in August was revised lower by 125 kb/d lower to 1.4 mb/d. The sale of the idled Come by Chance refinery to Irving Oil fell apart, and a new prospective buyer is offering to convert the refinery to a waste oil processing site.





Mexican throughput increased in September to the highest year-to-date utilisation rate of 41%. The International Monetary Fund warned in a report issued early in November of the challenges that Pemex's refining strategy faces. The fund thinks that the advancement of the new 340 kb/d Dos Bocas plant will affect much-needed investments into upgrades at the existing refineries.

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Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

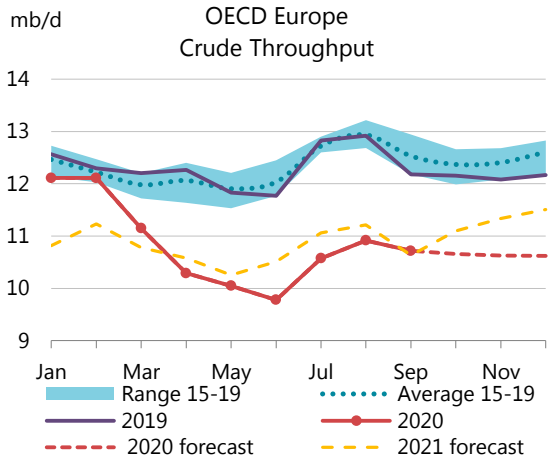
	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Change from Aug 20	Change from Sep 19	Utilisation rate [1] Sep 20	Utilisation rate [1] Sep 19
US[2]	12.79	12.96	13.73	14.34	14.15	13.51	-0.65	-2.90	71%	86%
Canada	1.36	1.39	1.31	1.52	1.41	1.39	-0.02	-0.33	69%	85%
Chile	0.15	0.13	0.10	0.10	0.12	0.18	0.06	-0.02	80%	91%
Mexico	0.66	0.64	0.60	0.53	0.62	0.68	0.07	0.02	41%	40%
OECD Americas[3]	**14.95**	**15.12**	**15.74**	**16.48**	**16.30**	**15.76**	**-0.53**	**-3.22**	**69%**	**83%**
France	0.50	0.55	0.69	0.77	0.71	0.79	0.08	-0.19	64%	79%
Germany	1.56	1.77	1.75	1.74	1.75	1.66	-0.09	-0.13	82%	89%
Italy	1.00	0.97	1.00	1.09	1.21	1.14	-0.07	-0.34	66%	86%
Netherlands	1.07	0.86	0.77	0.85	0.91	0.89	-0.01	-0.28	69%	91%
Spain	1.06	1.07	0.99	1.02	1.08	1.09	0.01	-0.20	77%	91%
United Kingdom	0.83	0.83	0.77	0.86	0.84	0.86	0.03	-0.18	68%	83%
Other OECD Europe	4.17	3.91	3.71	4.14	4.33	4.18	-0.14	-0.14	80%	83%
OECD Europe	**10.19**	**9.95**	**9.68**	**10.47**	**10.82**	**10.62**	**-0.20**	**-1.46**	**74%**	**84%**
Japan	2.57	2.07	2.06	2.11	2.34	2.35	0.00	-0.61	66%	83%
South Korea	2.63	2.63	2.69	2.67	2.67	2.57	-0.09	-0.34	73%	83%
Other Asia Oceania	0.70	0.61	0.62	0.58	0.60	0.63	0.02	-0.18	72%	92%
OECD Asia Oceania	**5.91**	**5.31**	**5.37**	**5.36**	**5.61**	**5.54**	**-0.07**	**-1.12**	**70%**	**84%**
OECD Total	**31.05**	**30.37**	**30.79**	**32.32**	**32.72**	**31.92**	**-0.80**	**-5.81**	**71%**	**83%**

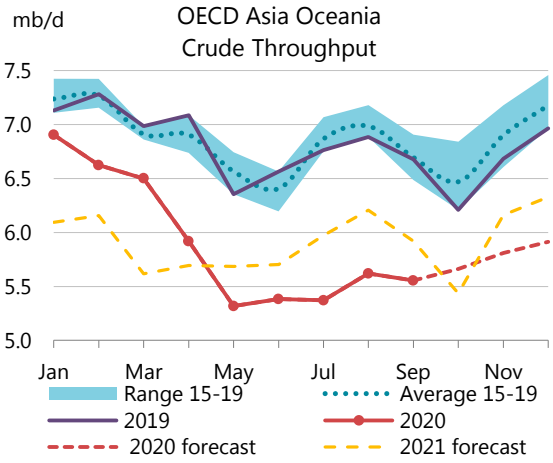
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

2 US50

3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

European runs were stable in September, in defiance of the normal seasonal slowdown trend. However, throughput is expected to fall in 4Q20 in-line with reduced demand resulting from new Covid-19 lockdowns, affecting a third of the region's population.

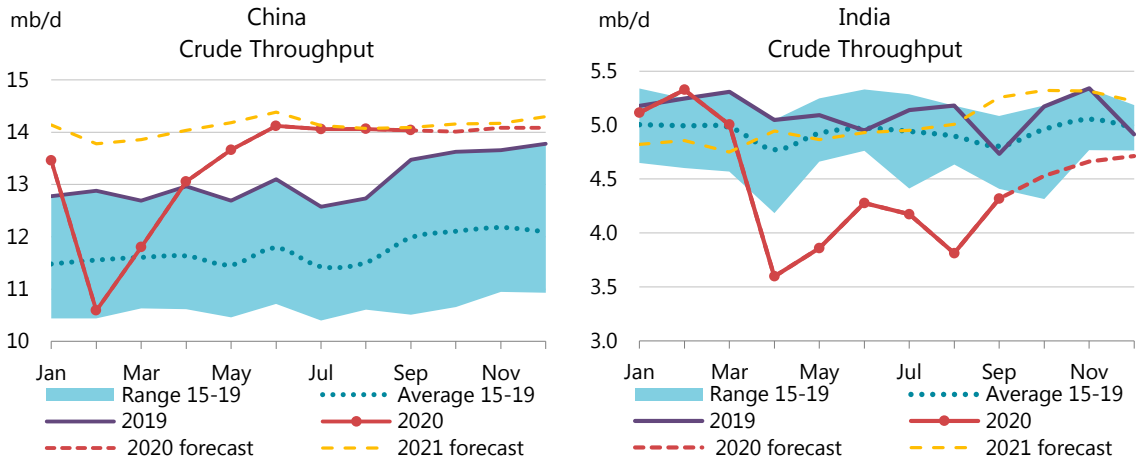




In OECD Asia, throughputs slipped month-on-month on declines in **Korea**. In **Japan**, Eneos Corp. finalised the permanent shutdown of the 115 kb/d Osaka refinery. BP announced the closure of the 140 kb/d Kwinana refinery in Australia in 2021, the largest among the country's four refineries. In 2015, the company closed the 100 kb/d Bulwer Island plant. This leaves **Australia** with only three operating refineries, two of which have been the subject of public announcements about their potential closure. Taken together, they could provide for only a third of the country's normal level of demand for oil products.

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Chinese throughputs in September were largely unchanged at just under 14 mb/d for the fourth consecutive month. The annual growth in 3Q20, at just over 1.1 mb/d, was the strongest in the last decade. For the first three quarters of 2020 runs increased by 340 kb/d y-o-y, having rebounded by 3.5 mb/d between February and June. Crude oil imports increased by 1.2 mb/d y-o-y, resulting in a large unaccounted for crude oil balance. The government announced an almost 1 mb/d increase to independent refinery crude import quotas next year, bringing the total to 5 mb/d. This would make the Chinese independent refiners the second largest group of crude purchasers in global oil markets, after the Chinese state-owned refiners and traders. The independents would be buying in more than India's total crude oil imports. It remains to be seen how much of the higher crude oil imports will be consumed as opposed to storage fill. Two large refinery-petrochemical integration projects are coming online earlier than expected. Zhejiang Petrochemical's 400 kb/d second phase and Shenghong petrochemical's 325 kb/d new plant are expected to come on stream before end-2021. Overall, Chinese refinery runs are forecast to increase by 670 kb/d next year.



September throughput in **India** jumped by 0.5 mb/d as demand improved after lockdowns were lifted. The state-owned Indian Oil company said they increased utilisation rates in October after surprisingly robust demand growth. In **Chinese Taipei,** August throughputs fell to a new 10 year low, just 600 kb/d, on refinery maintenance. Shell announced plans to cut its 465 kb/d Singapore refinery capacity by half over the coming years. Utilisation rates between January-October in Singapore are estimated at just 63% on average.

Russian throughput fell seasonally in October while domestic sales continued delivering better netbacks than exports. **Kazakhstan** reported stronger than expected July and August refining activity, with August runs at their highest level since November, helped by a ban on oil product imports.

Saudi Arabian throughputs surged 0.5 mb/d in August to an 11-month high, reaching the seasonal average levels. It remains to be seen whether this was a one-off improvement or signifies a return to their normal operating range. We expect runs to drift lower again on the absence of signs of a significant recovery in demand.

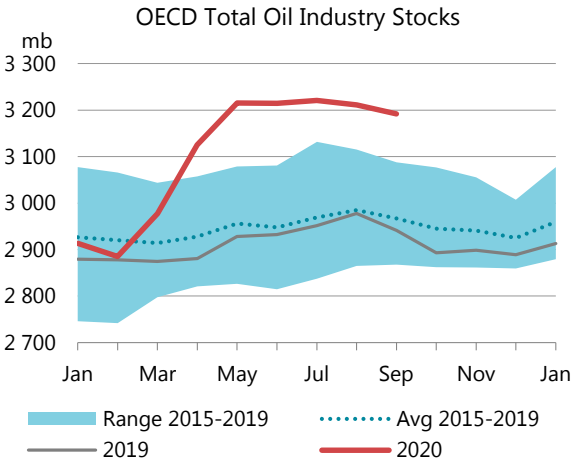
September throughputs in **Brazil** and **Argentina** fell m-o-m, for the first time since March. **Colombia** reported 3Q20 runs, which were up by 60 kb/d from 2Q20.

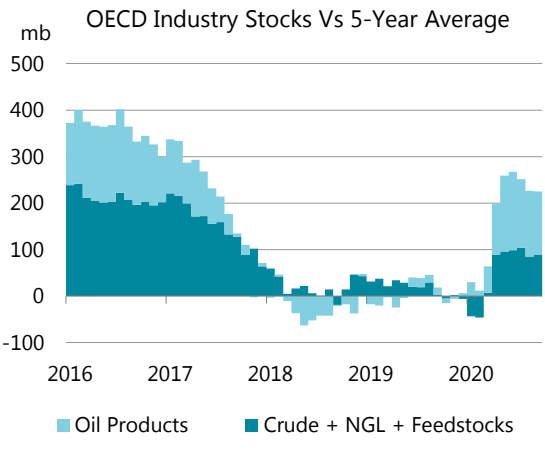
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Stocks

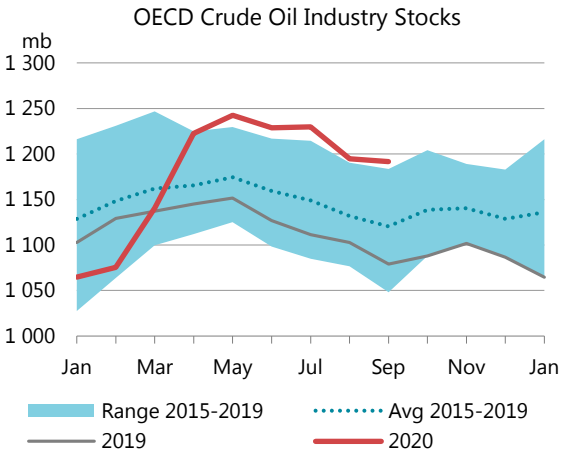
Overview

Total OECD industry stocks fell for the second consecutive month by 19.7 mb (0.66 mb/d) month-on-month (m-o-m) in September to 3 192 mb. Stocks were below 3.2 billion barrels for the first time since April. In 3Q20, total industry stocks drew by 22.7 mb or 245 kb/d. As the first half of the year showed a big stock build of 325 mb (1.79 mb/d), they remained 225 mb above their five-year average. In terms of forward demand, end-month industry stocks covered 71 days, a decrease of 1.2 days m-o-m but 8.7 days above the average.





OECD industry crude inventories drew in September by 3.1 mb to 1 192 mb. This was only 50.8 mb below the peak level seen in May and the average draw since then is approximately 0.42 mb/d. The OECD Americas region led the decrease in September with a fall of 6.8 mb, more than six times the usual monthly decrease due to lower crude imports and production cuts in the hurricane season. Asia Oceania also saw crude stocks fall, by 2.3 mb. Those in Europe rose counter-seasonally by 6.1 mb.



Oil product inventories drew by 12.2 mb (0.41 mb/d) to 1 642 mb in September. Middle distillate stocks decreased by 15 mb, notably in Europe (-6.6 mb). Gasoline inventories also drew counter-seasonally by 5.8 mb as stocks in the Americas fell by 6.1 mb. Fuel oil stocks decreased by 3.3 mb in total. On the other hand, other oil inventories rose by 11.8 mb as stocks in the Americas gained 15.6 mb.

In October, preliminary data show that crude stocks in the United States fell by 8.4 mb m-o-m, when they typically increase by 15.1 mb. Total product stocks in the US decreased significantly by 32.9 mb (1.06 mb/d), led by middle distillates (-19.6 mb) and other products (-13.3 mb, mainly

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propane). European crude stocks fell by 8.3 mb, notably in France (-6.2 mb). Total oil product stocks in Europe built by 0.5 mb. Japanese crude stocks fell counter-seasonally by 1.2 mb m-o-m and product stocks built by 1.7 mb.

Preliminary Industry Stock Change in September 2020 and Third Quarter 2020

	September 2020 (preliminary) (million barrels)				September 2020 (preliminary) (million barrels per day)				Third Quarter 2020 (million barrels per day)			
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
Crude Oil	**-6.8**	**6.1**	**-2.3**	**-3.1**	**-0.2**	**0.2**	**-0.1**	**-0.1**	**-0.4**	**0.0**	**0.1**	**-0.4**
Gasoline	-6.1	0.6	-0.3	-5.8	-0.2	0.0	0.0	-0.2	-0.3	0.0	0.0	-0.3
Middle Distillates	-4.0	-6.6	-4.4	-15.0	-0.1	-0.2	-0.1	-0.5	0.0	0.0	0.1	0.1
Residual Fuel Oil	-2.2	-1.7	0.7	-3.3	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.1
Other Products	15.6	-2.5	-1.3	11.8	0.5	-0.1	0.0	0.4	0.5	0.0	0.0	0.5
Total Products	**3.4**	**-10.2**	**-5.3**	**-12.2**	**0.1**	**-0.3**	**-0.2**	**-0.4**	**0.1**	**-0.1**	**0.1**	**0.1**
Other Oils[1]	-3.1	0.1	-1.4	-4.4	-0.1	0.0	0.0	-0.1	0.1	0.0	0.0	0.0
Total Oil	**-6.5**	**-4.1**	**-9.0**	**-19.7**	**-0.2**	**-0.1**	**-0.3**	**-0.7**	**-0.3**	**-0.1**	**0.2**	**-0.2**

[1] Other oils includes NGLs, feedstocks and other hydrocarbons.

In this *Report*, we have revised our preliminary 3Q20 estimate of crude and product stock changes and compared them to the IEA's implied oil balance (the difference between our supply and demand forecasts). We use revised OECD data for August, preliminary OECD data for September and available indicators for other regions and components.

Updated 1H20 and preliminary 3Q20 implied balance (mb/d)

	1Q20	2Q20	1H20	Jul-20	Aug-20	Sep-20	3Q20	*Oct-20**
OECD industry crude oil, NGLs and feedstocks	0.66	1.17	0.91	0.10	-1.01	-0.25	-0.39	*-0.63*
OECD industry product stocks	0.31	1.44	0.87	0.11	0.70	-0.41	0.14	*-0.99*
OECD government stocks	0.02	0.27	0.14	0.15	-0.27	-0.22	-0.11	*-0.10*
Non-OECD crude oil excl. China	0.45	0.00	0.22	-1.07	0.57	0.46	-0.02	*-1.00*
Independent product stocks (Fujairah and Singapore)	0.14	0.08	0.11	-0.10	-0.06	-0.11	-0.09	*-0.04*
Crude oil on water including floating storage	0.18	0.82	0.50	-0.74	-1.24	-2.63	-1.53	*-1.24*
Products on water including floating storage	0.32	-0.16	0.08	0.06	0.57	-0.58	0.03	*-0.13*
Total known stock change excluding China (as above)	2.08	3.61	2.84	-1.50	-0.75	-3.73	-1.97	*-4.12*
IEA estimate - Chinese crude balance	1.90	1.43	1.66	1.64	0.69	1.29	1.21	*0.94*
Total known and estimated stock change	**3.98**	**5.03**	**4.51**	**0.14**	**-0.06**	**-2.44**	**-0.77**	***-3.18***
Total stock change and misc. to balance**	**6.16**	**9.11**	**7.64**	**-1.72**	**-1.09**	**-3.57**	**-2.11**	***-4.14***
Unaccounted balance	2.18	4.08	3.13	-1.86	-1.03	-1.13	-1.34	*-0.96*

* OECD stocks are extrapolated using data from *Energy Information Administration*, *Euroilstock* and *Petroleum Association of Japan* for October.

** Assessed supply minus assessed demand from the IEA oil market balance.

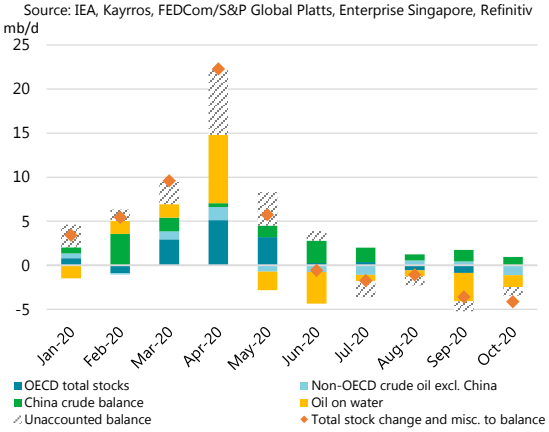
Crude oil and products on water, including floating storage, rose by a combined 105.3 mb (0.58 mb/d) in 1H20 but fell significantly by 138.2 mb (-1.5 mb/d) in 3Q20 according to tanker tracking data from *Refinitiv*. Since May, offshore stocks, the level of which is heavily dependent on the contango structure in futures prices, have drawn. Lower crude exports from major producers and reduced congestion at Chinese ports partly explain the large draw in crude oil on water in 3Q20. Preliminary data for October showed that oil on the water fell a further 42.2 mb (-1.36 mb/d).

In 3Q20, OECD industry crude stocks, including NGLs and feedstocks, decreased by 35.5 mb (-0.39 mb/d). The Americas saw the majority of the fall, accounting for 35.1 mb, or -0.38 mb/d. Those in Europe also fell, by 5.7 mb while in Asia Pacific they rose by 5.3 mb. OECD industry product stocks built by 12.8 mb. Product stocks in the Americas and Asia Pacific rose by 8.9 mb and 8.8 mb, respectively, while European product inventories fell by 4.8 mb.

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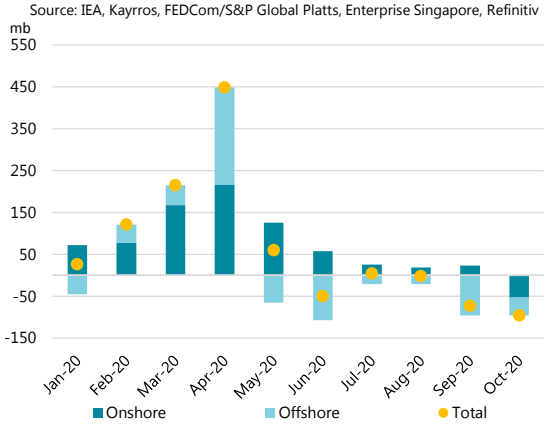
Stock changes by key components

Source: IEA, Kayrros, FEDCom/S&P Global Platts, Enterprise Singapore, Refinitiv



M-o-m total known stock changes by location

Source: IEA, Kayrros, FEDCom/S&P Global Platts, Enterprise Singapore, Refinitiv



OECD industrial total oil stocks in 3Q20 fell by 22.7 mb (-0.25 mb/d, combined crude and product stocks). However, compared with a large build for total oil stocks in 1H20 of more than 325 mb (1.79 mb/d), the slow de-stocking we are now seeing reflects a weak demand recovery that has reversed amid the resurgence of Covid-19 in Europe and the US.

For non-OECD economies, excluding China, crude oil inventories were largely unchanged in 3Q20, falling by only 1.8 mb. The implied crude stock change in China in the same period, as calculated by the IEA, was 111 mb (1.21 mb/d) amidst high net crude imports. On the contrary, although far more modestly, independent product stocks in Fujairah and Singapore fell by 7.4 mb and 1 mb, respectively.

Taking our various data sources together, our assessment shows 0.77 mb/d of *reported* oil stock draws in 3Q20. However, this accounts for less than half of the "total stock change and miscellaneous to balance" figure of -2.11 mb/d for the same period (assessed supply minus assessed demand from the IEA oil market balance). The share of unaccounted-for barrels in the implied stock draws ("missing barrels") amounts to -1.34 mb/d.

OECD stock data for August were revised up by 17.5 mb to 3 211 mb. The largest adjustment was for product inventories in Europe that increased by 13.1 mb, notably in middle distillate stocks (+14 mb). Total crude stocks in August were revised down by 5.1 mb mainly due to changes in Europe. July figures were revised up by 5 mb overall.

Revisions versus October 2020 Oil Market Report
(million barrels)

	Americas		Europe		Asia Oceania		OECD	
	Jul-20	Aug-20	Jul-20	Aug-20	Jul-20	Aug-20	Jul-20	Aug-20
Crude Oil	**0.3**	**1.9**	**4.4**	**-5.3**	**0.2**	**-1.6**	**4.9**	**-5.1**
Gasoline	-0.5	0.3	-0.2	0.3	0.0	0.0	-0.7	0.6
Middle Distillates	0.0	2.7	-0.4	14.0	0.0	2.0	-0.4	18.7
Residual Fuel Oil	0.0	-0.2	0.2	-2.4	0.0	-0.1	0.2	-2.7
Other Products	1.4	-6.0	0.1	1.2	0.0	1.1	1.5	-3.6
Total Products	**0.9**	**-3.2**	**-0.4**	**13.1**	**0.0**	**3.0**	**0.6**	**13.0**
Other Oils[1]	0.0	9.6	-0.5	-0.1	0.0	0.1	-0.5	9.5
Total Oil	**1.3**	**8.2**	**3.5**	**7.7**	**0.2**	**1.5**	**5.0**	**17.5**

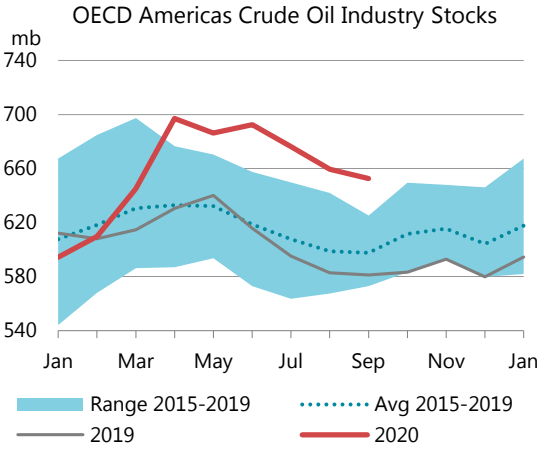
[1] Other oils includes NGLs, feedstocks and other hydrocarbons.

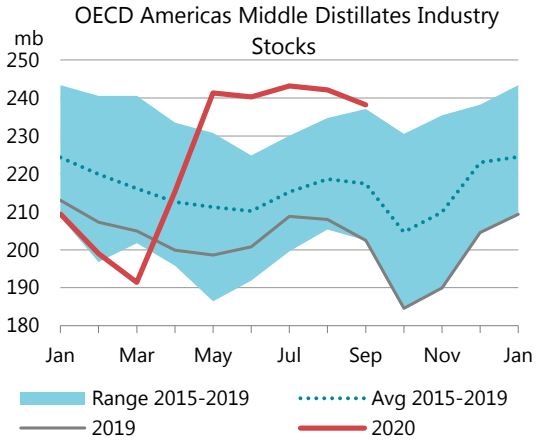
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Recent OECD industry stock changes

OECD Americas

Industry stocks in the OECD Americas region fell by 6.5 mb m-o-m in September to 1 687 mb, but remained 121.1 mb above the five-year average. The decrease was counter-seasonal (usually they build by 2.9 mb) due to larger than usual crude stock draws.





Crude oil inventories fell by 6.8 mb m-o-m and stood at 653 mb, 55.1 mb above the five-year average. The draw was larger than usual mainly due to lower crude imports into the US (-385 kb/d m-o-m in September to 5.2 mb/d) and a shutdown in offshore Gulf Coast production due to hurricanes.

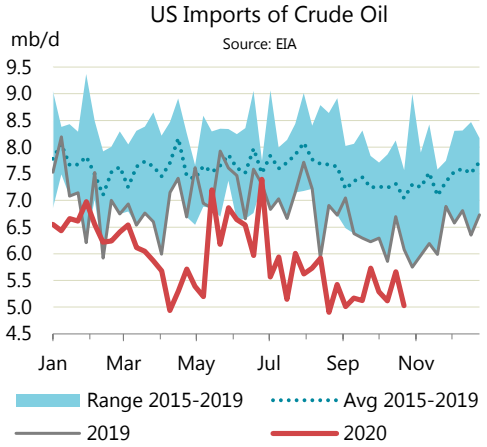
Oil product stocks built by 3.4 mb in line with the seasonal trend. Gasoline inventories drew counter-seasonally by 6.1 mb owing to a fall seen in refinery runs (-645 kb/d m-o-m in September). Middle distillate inventories fell by 4 mb but stood 20.8 mb above the five-year average and have fallen only modestly from the high levels seen earlier in the year. Fuel oil stocks also decreased counter-seasonally by 2.2 mb. On the contrary, other product stocks (mainly propane) rose 15.6 mb, offsetting the draws elsewhere.

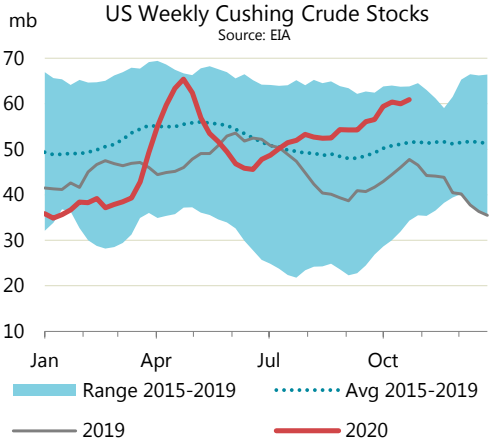
Weekly data from the *US Energy Information Administration* showed that crude oil stocks fell counter-seasonally by 8.4 mb in October. PADD 3 led the fall with 8.6 mb, partly due to a fall in imports of 185 kb/d m-o-m to 5 mb/d and production cuts amidst the hurricanes. By contrast, crude stocks in Cushing, Oklahoma, built by 4.5 mb to 60.9 mb, representing a capacity utilisation rate of 77%, the highest since April.

Stocks held in the US Strategic Petroleum Reserve fell by 3.1 mb m-o-m in October to 639.3 mb, utilising 90% of the 714 mb design capacity. In April, the Department of Energy offered SPR storage capacity to the private sector. By mid-July more than 20 mb of industry-owned crude oil was stored in the SPR, taking the total volume held by the facility to 656.1 mb, representing about 92% of the capacity.

Total product stocks fell by 32.9 mb (1.06 mb/d) in October, led by a 19.6 mb draw in middle distillate stocks. Other product (mainly propane) and residual fuel oil stocks also decreased by 13.3 mb and 0.5 mb, respectively. In contrast, gasoline inventories rose by 0.5 mb.

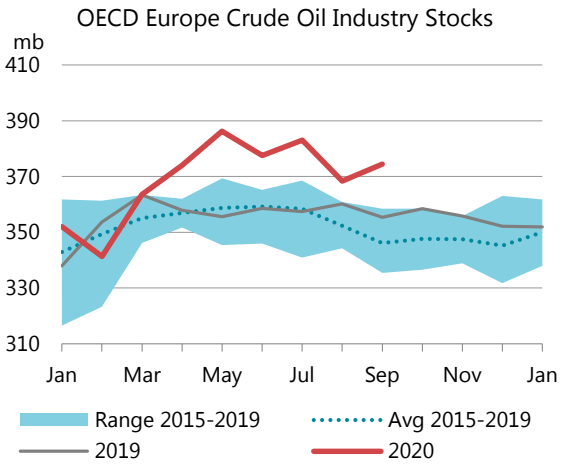
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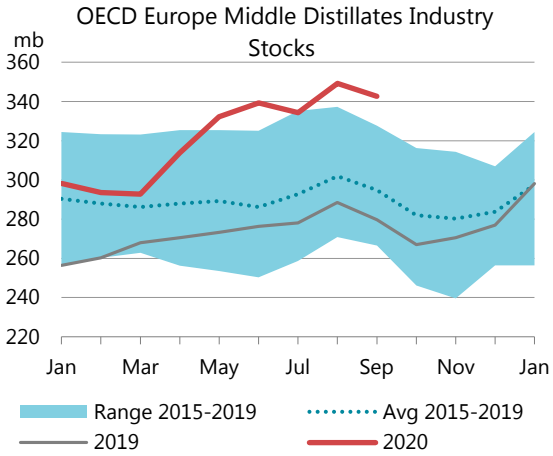




OECD Europe

In September, industry stocks in OECD Europe drew by 4.1 mb to 1 088 mb, which was 111.2 mb above the five-year average. The decrease was less than usual for the month due to counter-seasonal crude stock builds, which offset product stock draws.





Crude oil inventories built by 6.1 mb, in contrast with a normal fall of 6.2 mb for the month. They stood at 374 mb in September and were 28.4 mb above the five-year average. Crude stocks increased by 3.3 mb in Germany while those in the UK decreased by 3.1 mb.

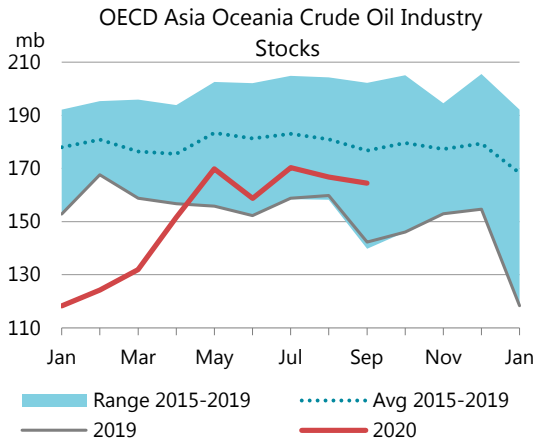
Total oil product stocks fell by 10.2 mb, largely in line with the seasonal pattern (they normally fall by 8.8 mb for the month). Middle distillate stocks led the decrease by 6.6 mb. Other refined product and fuel oil inventories also drew by 2.5 mb and 1.7 mb, respectively. Motor gasoline stocks rose counter-seasonally by 0.6 mb.

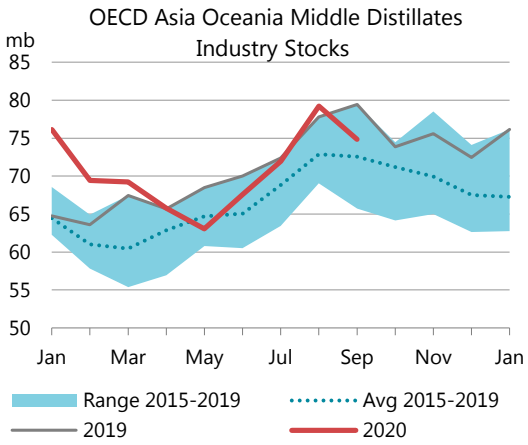
Preliminary October data from *Euroilstock* showed overall inventories falling by 7.8 mb. Crude oil stocks decreased by 8.3 mb, notably in France (-6.2 mb) and Italy (-1.8 mb) while those in Austria and the UK rose by 0.7 mb each. Total oil product stocks built by 0.5 mb. Gasoline led the increase by 1.5 mb. Middle distillate stocks also rose by 0.4 mb. Fuel oil and naphtha inventories fell by 0.8 mb and 0.6 mb, respectively.

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OECD Asia Oceania

Total industry stocks in the OECD Asia Oceania region drew by 9 mb in September to 416 mb. Crude stocks fell by 2.3 mb, less than the normal seasonal pattern (-4.2 mb) as crude inventories in Korea increased by a larger-than-usual 2.9 mb. Japanese crude oil stocks fell by 5.2 mb, in line with the five-year average.





Oil product stocks in the region drew by 5.3 mb in September. Middle distillate inventories, which typically decrease by 0.3 mb, fell by more than usual (4.4 mb). Gasoline and other oil stocks fell by 0.3 mb and 1.3 mb, respectively. In contrast, fuel oil inventories built by 0.7 mb.

Preliminary data for October from the *Petroleum Association of Japan* showed crude oil inventories falling by 1.2 mb m-o-m. The decrease was counter-seasonal for the month, which normally sees a build of 5.6 mb, partly due to year-on-year lower crude oil imports (-14.9 mb) according to tanker tracking data from *Kpler*. Total product stocks rose by 1.7 mb. Gasoline and middle distillate inventories rose counter-seasonally by 0.6 mb and 0.9 mb, respectively. Fuel oil and other product stocks, mainly naphtha, also built by a modest 0.1 mb each.

Other stock developments

Volumes of crude oil held in short-term floating storage fell by 17.8 mb to 156.3 mb in October according to data from *EA Gibson*. The Asia Pacific region led the decrease with 13.3 mb and stood at 68.5 mb as the congestion seen in Chinese ports in the last few months is gradually easing. Crude oil stored in the Middle East Gulf and West Africa fell by 3.3 mb and 2.2 mb, respectively. On the contrary, storage in North West Europe rose by 2.1 mb.

At end-October, 64 VLCCs and 16 Suezmaxes were used for floating storage globally. In Iran, 29 VLCCs and five Suezmax ships remained in use. The number of vessels utilised for floating storage fell consistently from August and stood below the level seen in April this year.

Volumes of oil on water (including floating storage), based on data from *Refinitiv*, fell significantly by 96.2 mb (3.2 mb/d) in September. These decreases include 78.9 mb for crude oil and 11.6 mb for fuel oil. Clean product volumes on water also fell, by 5.8 mb.

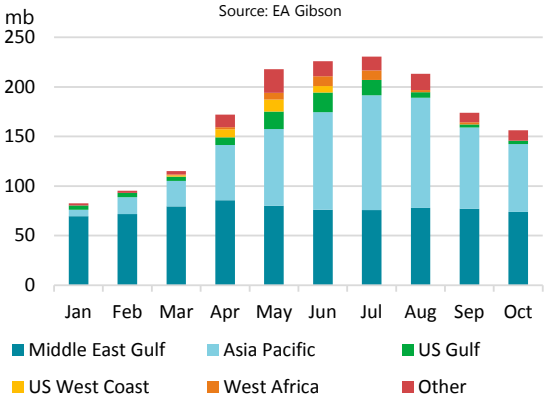
The large draws in crude oil on water are mainly attributable to discharging from tankers idled offshore China and lower crude exports from major producers. According to tanker tracking data from *Kpler*, seaborne crude oil exports from the UAE fell by 16.8 mb m-o-m in September.

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Mexico, Brazil and Oman also cut crude oil exports by more than 5 mb each. Preliminary October data show a further 40 mb decrease in oil on water volumes due to lower crude exports from major producers, notably Venezuela, the US and the UAE (combined -23.8 mb m-o-m in October according to *Kpler*).

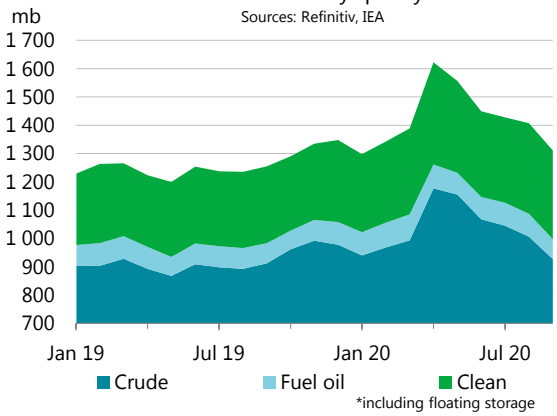
Global short-term crude in floating storage

Source: EA Gibson



Oil on water* by quality

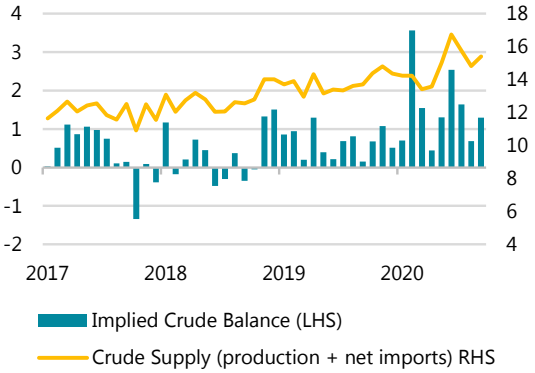
Sources: Refinitiv, IEA



In Fujairah, stocks fell in October by 1.2 mb m-o-m to 19.7 mb, the lowest level since December 2019, according to data from *FEDCom and S&P Global Platts*. Fuel oil stocks used in marine and power industries saw a fourth consecutive monthly draw of 0.6 mb. Light distillate inventories also fell, by 1.5 mb, while middle distillate stocks rose by 0.9 mb.

Inventories in Singapore, the world's largest bunkering hub, fell by 2.3 mb in October based on data from *Enterprise Singapore*. Total inventories stood at 50.6 mb, the lowest level since February, owing to draws in light distillates (-1.7 mb) and fuel oil inventories (-0.8 mb). Middle distillate stocks rose by 0.2 mb.

China Implied Crude Balance and Supply
(million barrels per day)



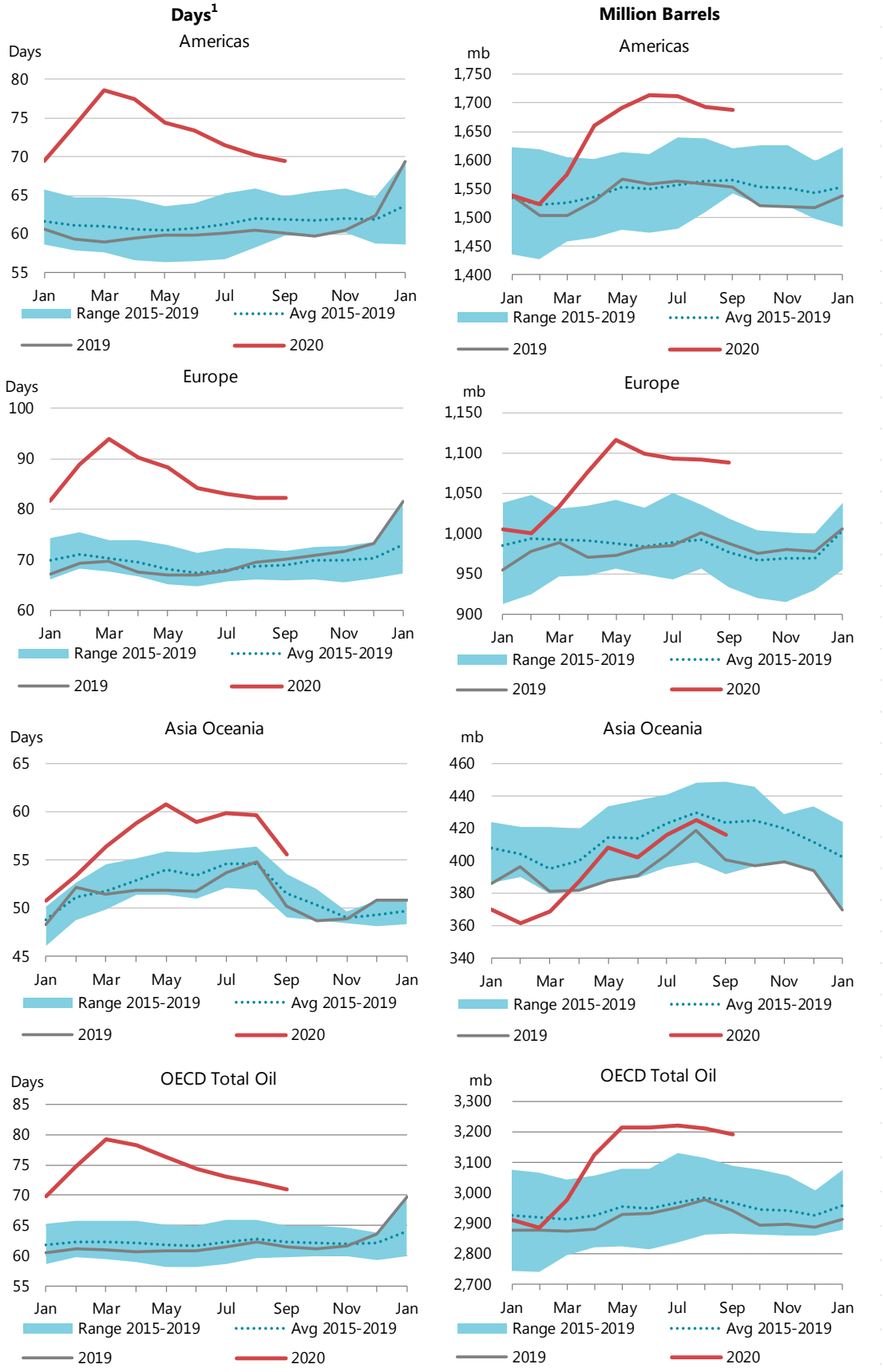
The Chinese implied crude balance rose by 38.9 mb (1.3 mb/d) in September, according to data derived from reported crude production, refinery runs and net crude imports. Refinery runs were largely unchanged at 13.9 mb/d. China's net crude imports rose by 0.6 mb/d m-o-m to 11.6 mb/d, pushing up the implied crude stocks build.

Total oil stocks in 17 non-OECD economies covered by the *JODI-Oil* database rose 4.3 mb m-o-m in August. Crude stocks in Nigeria and Iraq increased by 5.7 mb and 4.8 mb, respectively. Romania's stocks built by 0.8 mb. On the contrary, crude stocks in Saudi Arabia fell by 8.2 mb. For oil products, stocks increased by a combined 3.6 mb, led by Saudi Arabia (8.1 mb). Algeria increased its product stocks by 0.5 mb, while those in Nigeria and Chinese Taipei fell by 2.4 mb and 2.2 mb, respectively.

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Regional OECD End-of-Month Industry Stocks

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



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

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Prices

Overview

Crude prices suffered a volatile month, fluctuating in a 15% range, or $6/bbl. ICE Brent futures reached $43.43/bbl on 8 October boosted by supply-related concerns as Hurricane Delta bore down on the United States Gulf Coast and by favourable economic indicators. A week later, prices entered a decline that bottomed out at $37.46/bbl on 30 October. Factors driving the sell-off included: the accelerating spread of Covid-19 infections in the US and Europe; the rapid recovery in Libyan production; and slower Chinese buying through mid-month as prices rose above $40/bbl. Repeated USGC hurricanes failed to have a sustained impact on crude prices as stocks remain ample.

Early in November Brent futures prices fell below $36/bbl on an intraday basis before rallying to over $41/bbl in two days as markets looked beyond the US elections. Anticipation of US Presidential and Congressional election results and renewed EU monetary support lifted markets. Crude prices also received support from rumoured internal OPEC+ discussions surrounding a possible delay to planned first quarter 2021 production increases.

Throughout September and October, the crude price contango deepened markedly and the forward curves fell. By end-October, the futures curves had fallen below $50.00/bbl for ICE Brent and $47.00/bbl for NYMEX WTI through mid-2028, reflecting pessimism about the future strength of oil demand while at the same time being more optimistic about the prospects for supply.

Successfully containing Covid in China and other major Asian countries has prevented a second wave and its consequent economic damage. The region now benefits from a consolidation in its own economic activity as well as the abiding import requirements in Europe and North America. These drove a recovery of both industrial and services activities in Asia and a related recovery in oil demand. Consequently, rising Asian refining activity has supported Dubai and Oman crude prices over the month (as well as light, sweet Asian grades rich in naphtha used as petrochemical feedstocks).

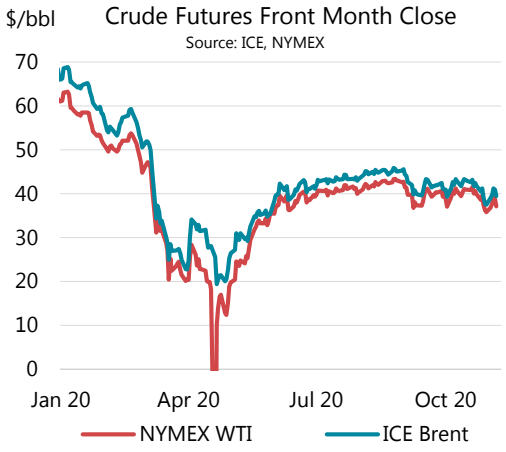
While the overhang in crude stocks persists and is falling more slowly than expected, it has not evolved in the same way across all regions. Incremental increases in US refinery activity and relatively stagnant or falling domestic crude production, including the impact of hurricanes over the past three months, has bolstered the North American crude balance versus Northwest Europe. In Northwest Europe, broadening lockdown measures that threaten demand have eased crude purchases. Consequently, the Brent premium to WTI has narrowed on the prompt contract, but it has also narrowed across the futures curves, highlighting greater uncertainty about the longer-term recovery in US crude production versus European demand.

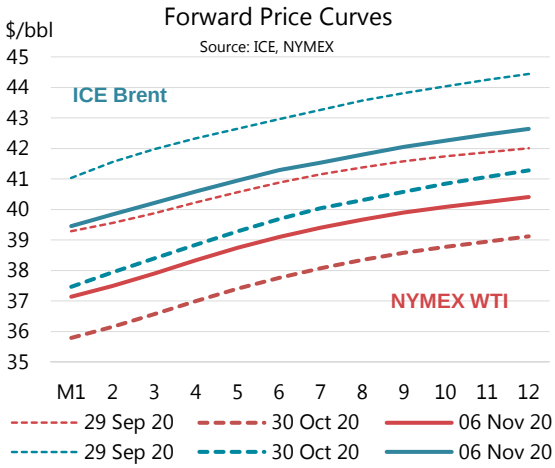
Spot North Sea Dated prices remain at sharp discounts to Brent futures and first to second month spreads remain in contango for all marker grades. The contango and discounts highlight the persistent onshore crude stock overhang and have deepened despite drawdowns in offshore stocks. Floating storage fell over the month in most other regions to levels below those seen in 4Q19 and only slightly above the levels in 4Q18.

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On the other hand, physical crude price differentials to marker grades had a more mixed evolution. Stronger fuel and naphtha values boosted some crudes and smaller loading programmes supported Urals, but others slid on weak refinery buying.

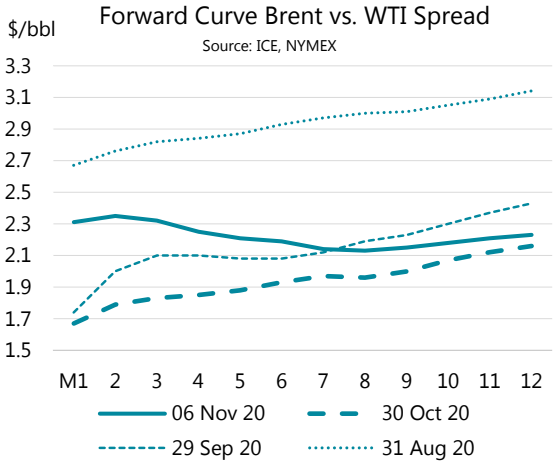
Futures markets

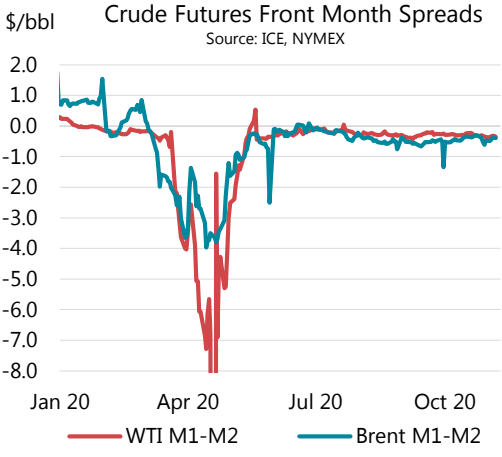




Crude futures prices fell steadily from end-August through end-October before a rebound in the first week of November retraced around half the losses of the previous two months.

Prompt prices lost around $3.50/bbl from end-August to end-October, falling to $37.46/bbl for ICE Brent and to $35.79/bbl for NYMEX WTI. Prices rebounded the following week, peaking on 4 November at $41.23/bbl for ICE Brent and at $39.15/bbl for NYMEX WTI. They ended the week at $39.45/bbl for ICE Brent and at $37.14/bbl for NYMEX WTI, showing net gains of $2.00/bbl and $1.35/bbl respectively versus 30 October. On a monthly average basis, ICE Brent prices fell $3.15/bbl in September and $0.35/bbl in October while NYMEX WTI prices fell $2.73/bbl in September and $0.08/bbl in October.





The changes mainly reflect physical market dynamics, though surges in financial market activity have had spillover effects on crude futures, as oil prices benefitted from the general buoyancy of financial markets in early November. However, as described above, falling crude prices throughout October reflect the realities of a well-supplied market faced with weaker demand

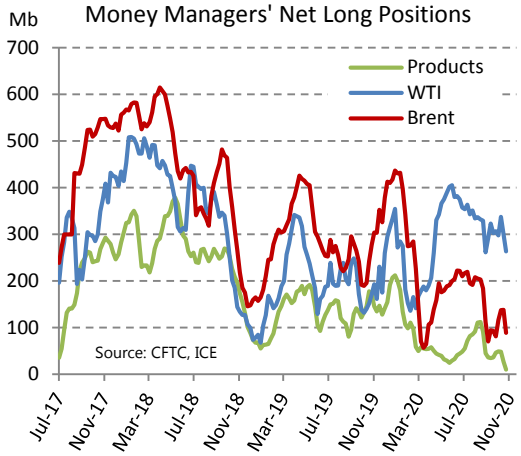
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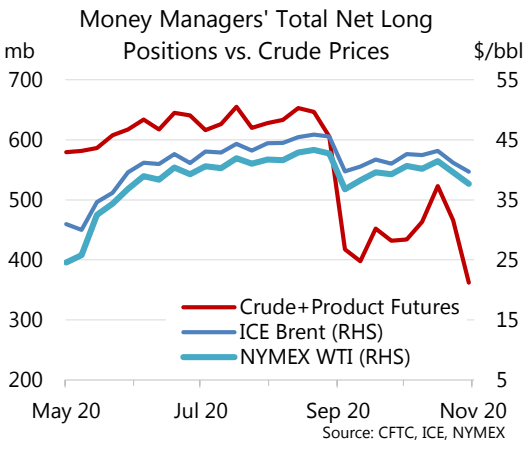
and rising supply. For demand, there is a consensus that slower economic growth and oil demand will accompany the second wave of Covid in Europe and the US. On the supply side, the recovery in Libyan output will also slow efforts to draw down the global oil inventory overhang. On the other hand, OPEC+ has endeavoured to lean against this weakness in the market. It has signalled an openness to consider delaying the increase in its production scheduled for 1 January 2021.

Forward price curves for ICE Brent and NYMEX WTI did not fall in parallel. ICE Brent fell faster than NYMEX WTI, steadily narrowing the spread between the two until end-October. The levels reached at the end of the month hampered the transatlantic arbitrage for US barrels; there was less than $2/bbl between them over six forward contract months. Weak ICE Brent prices versus WTI reflect ample crude supply in the international market and slow Atlantic Basin buying. The recovery in futures prices in the first week of November saw a faster rise in ICE Brent prices near the front of the curve versus NYMEX WTI, pushing the prompt spread out to over $2.30/bbl, improving the incentive to move more US barrels overseas to markets in Europe.

Forward price curves for both NYMEX WTI and ICE Brent remain in contango. The October prompt discount (first versus second contract) remained relatively steady for WTI versus September but widened by -$0.13/bbl for ICE Brent (reflecting a looser regional balance during the month). By the first week of November, the two curves had returned to comparable prompt discounts.

Middle distillate product futures rose on average from September to October for both ICE gasoil (by $0.36/bbl) and NYMEX ULSD (by $0.98/bbl) while NYMEX RBOB gasoline blendstock futures fell sharply (by $0.78/bbl). Middle distillates benefitted from the seasonal refinery maintenance period that peaked in October as well as economic activity indicators suggesting continued healthy performance for industry. On the other hand, gasoline prices were pressured by seasonally lower demand and the onset of the second Covid-19 wave that will depress mobility. In the first week of November, gasoline futures were roughly stable versus late October while middle distillate futures rebounded, notably for ICE gasoil.

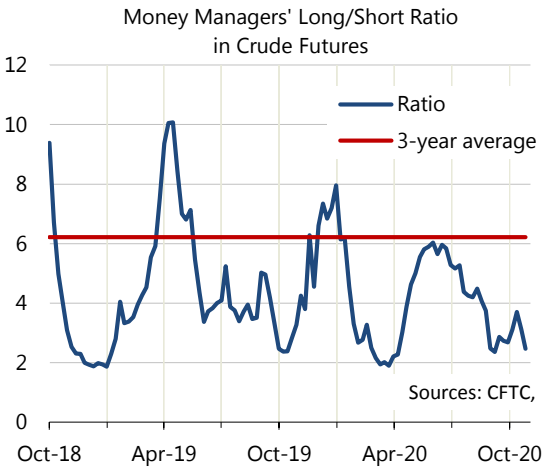




Money managers continued to cut their overall net long positions in crude from 29 October to 3 November. Positions were volatile over the month, with net longs for the combined crude contracts increasing overall by 20% from 29 September to 20 October, after which the combined net long position fell by 25% through 3 November. Traders reduced long positions on NYMEX WTI while they stagnated for ICE Brent, and both contracts saw increases in net short positions. The trend reflects the weaker market sentiments in the second half of October. For

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the combined crude futures contracts, the long-to-short ratio on 3 November was 2.46, or just 40% of its long-term average and down 10% on its level of 29 September.



Money managers also sharply cut net long positions overall on product futures during the month of October. From 29 September to 13 October, net long positions rose 35% before falling 80% to 3 November, for a net fall over the entire period of 72%. Short positions rose across all contracts, while long positions fell for ICE gasoil and NYMEX RBOB futures but rose slightly for NYMEX ULSD.

The low level of net long positions on both crude and products reflects a lack of confidence in the oil market balance. However, the low level of net positions relative to recent years also sets up the market for a potential sharp price recovery when more optimistic sentiments return. This could be the case with the recent announcement of Pfizer's and its partner BioNTech's Covid-19 vaccine.

Prompt Month Oil Futures Prices
(monthly and weekly averages, $/bbl)

	Aug	Sep	Oct	Oct-Sep Avg Chg	% Chg	Week Commencing: 28 Sep	05 Oct	12 Oct	19 Oct	26 Oct	02 Nov
NYMEX											
Light Sweet Crude Oil (WTI)	42.39	39.63	39.55	-0.08	-0.2	39.18	40.33	40.50	40.56	37.50	37.91
RBOB	53.33	49.40	48.62	-0.78	-1.6	49.77	50.95	49.60	48.62	45.67	45.67
ULSD	52.04	47.34	48.32	0.98	2.1	47.07	49.29	49.45	48.58	46.73	48.09
ULSD ($/mmbtu)	9.18	8.35	8.52	0.17	2.1	8.30	8.69	8.72	8.57	8.24	8.48
Henry Hub Natural Gas ($/mmbtu	2.34	2.28	2.84	0.56	24.4	2.43	2.62	2.78	2.94	3.14	3.04
ICE											
Brent	45.02	41.87	41.52	-0.35	-0.8	40.92	42.42	42.72	42.35	39.18	40.06
Gasoil	49.96	44.13	44.49	0.36	0.8	43.41	45.46	46.05	45.03	42.24	42.99
Prompt Month Differentials											
NYMEX WTI - ICE Brent	-2.63	-2.24	-1.97	0.27		-1.74	-2.09	-2.22	-1.79	-1.68	-2.15
NYMEX ULSD - WTI	9.65	7.71	8.77	1.06		7.89	8.96	8.95	8.02	9.23	10.18
NYMEX RBOB - WTI	10.94	9.77	9.07	-0.70		10.59	10.62	9.10	8.06	8.17	7.76
NYMEX 3-2-1 Crack (RBOB)	10.51	9.08	8.97	-0.11		9.69	10.06	9.05	8.04	8.53	8.57
NYMEX ULSD - Natural Gas ($/m	6.84	6.07	5.69	-0.38		5.87	6.07	5.94	5.63	5.10	5.45
ICE Gasoil - ICE Brent	4.94	2.26	2.97	0.71		2.49	3.04	3.33	2.68	3.06	2.93

Source: ICE, NYMEX.

Spot crude oil prices

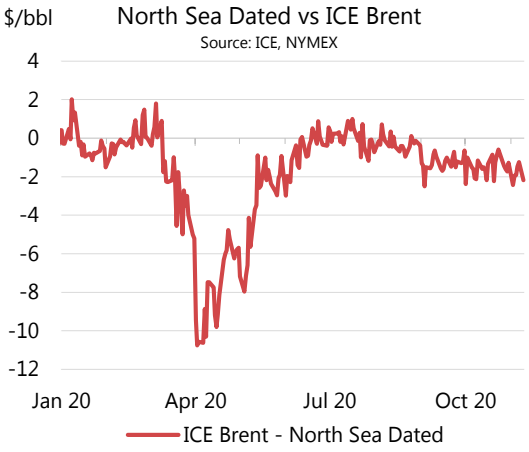
In a volatile month, the North Sea Dated differential to ICE Brent widened from -$1.29/bbl in September to -$1.51/bbl in October and -$1.81/bbl in the first week of November. Pressure focussed on the Atlantic Basin crude market where refinery activity remains afflicted by weak product demand, due to the second round of Covid lockdowns, and as Libyan production recovers boosting the regional supply overhang.

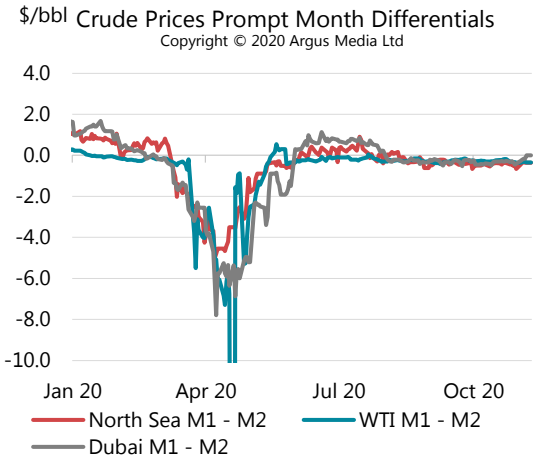
In physical forward markets, the first to second month time spreads remained in contango for all the marker grades (North Sea Dated, WTI, and Dubai). However, differentials fell marginally in October versus September.The WTI time-spread deteriorated in late October and early November (reflecting rising crude stocks in US PADD 2 at Cushing). In contrast, the time spreads for North Sea Dated and Dubai strengthened, reflecting a strong rise in Asian refinery

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activity as autumn maintenance programmes ended and improving diesel and petrochemical feedstock demand.

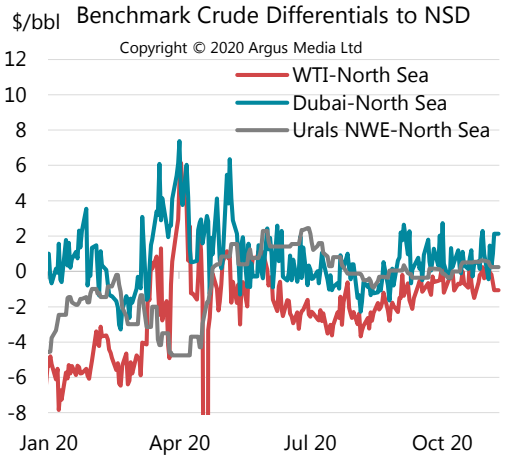
Average monthly North Sea Dated prices fell by $0.58/bbl to $40.01/bbl in October. They rose to their highest point on 19 October at $41.76/bbl before falling to their weakest at $35.92/bbl on 29 October. Prices recovered to average $38.25/bbl in the first week of November.

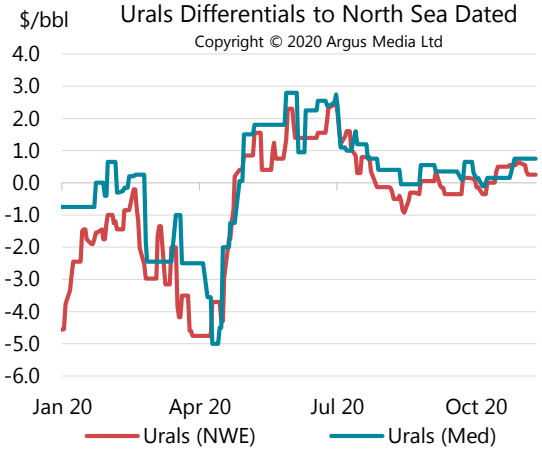




Dubai's monthly average prompt price fell $0.75/bbl month-on-month to $40.70/bbl in October and to $39.13/bbl in the first week of November. Dubai remained at a premium versus North Sea Dated in October, reflecting continuing strength in the sour crude markets and the markets East of Suez.

Prices for WTI at Cushing were relatively flat in October, falling just 7 cts/bbl m-o-m to $39.53/bbl. However, the slide continued at end-October and prices averaged $37.91/bbl in the first week of November. WTI at Houston swung from a discount to a premium versus North Sea Dated of 16 cts/bbl that rose to 30 cts/bbl in the first week of November. The shift reflects the weak North Sea crude balance as discussed above.

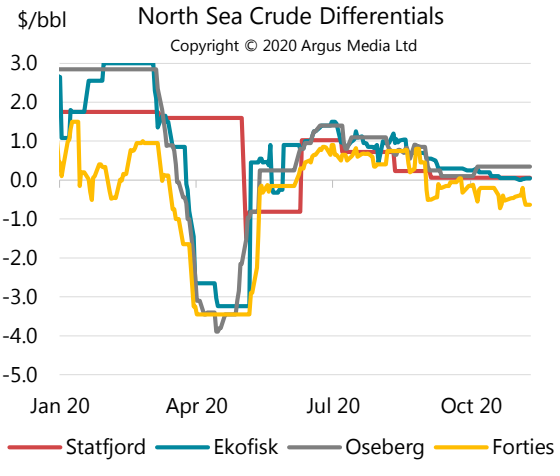


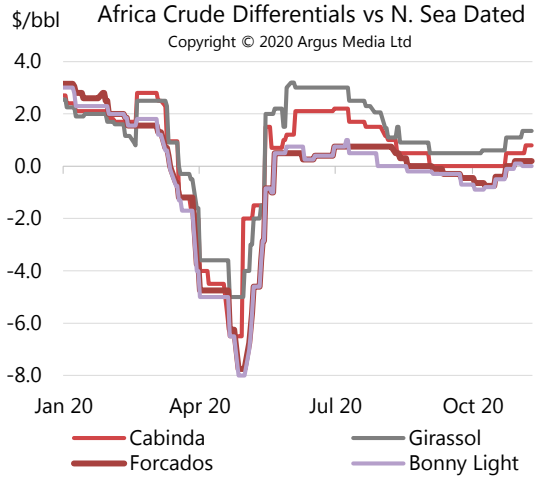


Urals in Northwest Europe swung from a discount to North Sea Dated of $0.08/bbl in September to a premium of $0.25/bbl in October and $0.33/bbl in the first week of November. Urals benefitted from continuing tensions in global sour crude markets as well as tighter loading programmes for the first half of November that increased competition for Urals barrels (a core part of European refinery inputs).

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Price differentials versus North Sea Dated for all the BFOE grades in the North Sea lost ground in October, with the exception of Oseberg. The supply overhang in Northwest Europe due to weak local refinery demand led to the chartering of floating storage capacity in BFOE grades during the month. Asian refiners picked up some of these floating barrels late in the month to meet rising regional demand. Forties differentials to North Sea Dated fell by $0.14/bbl to -$0.35/bbl m-o-m in October, Statfjord fell to $0.06/bbl, Ekofisk premiums fell $.022/bbl to $0.13/bbl, but Oseberg premiums rose $0.15/bbl to $0.33/bbl.



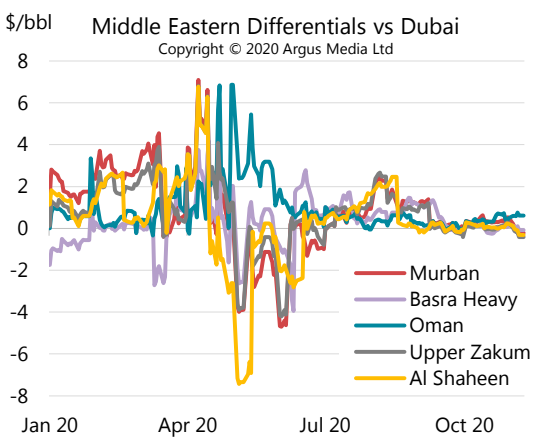


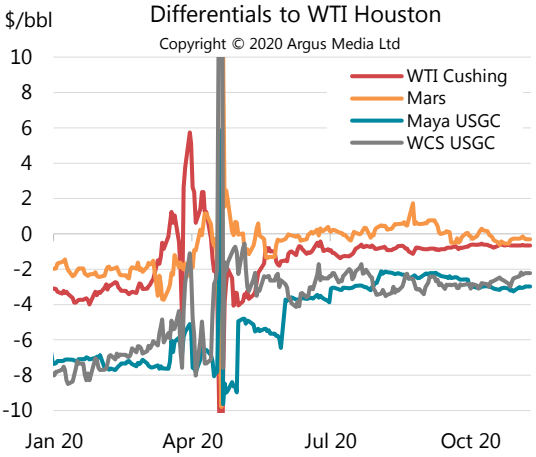
West African differentials in October saw heavy grades benefit from strong fuel oil premiums, while light sweet crude differentials recovered and flipped back to premiums at the end of the month. The initial pressure reflected the uncertainty created by the surge in competing Libyan crude exports. Asian buyers subsequently cleared the overhang in light, sweet West African barrels hoping to meet a surge in light product demand, notably for petrochemical feedstocks. Forcados discounts deepened by $0.16/bbl on average in October to $0.41/bbl and Bonny Light discounts widened by $0.15/bbl to $0.54/bbl in October. By the first week of November, both grades had returned to premiums ($0.20/bbl and $0.02/bbl, respectively). Angolan grades Girassol and Cabinda, rose versus North Sea Dated in October by $0.20/bbl and $0.11/bbl m-o-m to $0.72/bbl and $0.14/bbl, respectively.

Several bullish factors supported Middle East crude prices over the course of the month: strong fuel oil values, strong regional crude buying by one Chinese refiner to exhaust its import quotas, and reductions in UAE exports programmes in November and December. Oman premiums to Dubai rose $0.25/bbl to $0.41/bbl in October. However, other Middle East crude price differentials versus Dubai deteriorated, easing back toward more typical values.

North American sour crude references deteriorated in October, particularly in the second half of the month before recovering somewhat in the first week of November. Mars differentials to WTI at Houston fell $0.30/bbl and flipped to a discount of $0.21/bbl in October. Maya discounts to WTI at Houston widened by $0.63/bbl to $3.08/bbl. Canadian WCS discounts to WTI at Cushing widened by $0.69/bbl to $9.72/bbl in October, before recovering late in the month and into early November. Regional refinery maintenance helped ease sour crude tensions over the course of October.

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Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

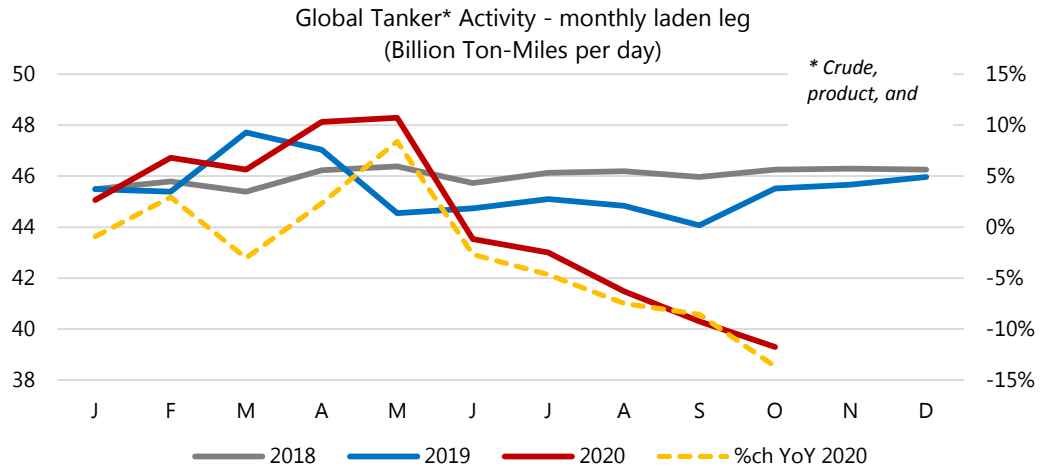
	Aug	Sep	Oct	Oct-Sep Avg Chg	% Chg	Week Commencing: 28 Sep	05 Oct	12 Oct	19 Oct	26 Oct	02 Nov
Crudes											
North Sea Dated	44.78	40.58	40.01	-0.58	-1.4	39.60	40.72	41.06	41.18	37.71	38.25
North Sea Mth 1	44.98	41.52	41.05	-0.48	-1.2	40.53	41.84	42.14	42.10	38.72	39.45
WTI (Cushing) Mth 1	42.36	39.60	39.53	-0.07	-0.2	39.18	40.33	40.50	40.45	37.50	37.91
WTI (Houston) Mth 1	43.19	40.41	40.17	-0.24	-0.6	39.84	40.92	41.21	41.08	38.14	38.56
Urals (NWE)	44.46	40.50	40.26	-0.24	-0.6	39.61	40.51	41.33	41.69	38.30	38.58
Urals (Mediterranean)	45.01	40.98	40.26	-0.72	-1.8	39.89	40.74	41.21	41.33	38.46	39.00
Dubai	43.90	41.45	40.70	-0.75	-1.8	40.75	40.99	41.60	41.63	38.88	39.13
Tapis (Dated)	46.30	39.48	39.15	-0.33	-0.8	38.39	39.51	39.99	40.68	37.21	37.75
Differentials to Futures											
North Sead Dated vs. ICE Brent	-0.24	-1.29	-1.51	-0.23		-1.32	-1.70	-1.66	-1.17	-1.47	-1.81
WTI (Cushing) Mth1 vs. NYMEX	-0.03	-0.03	-0.02	0.01		0.00	0.00	0.00	-0.11	0.00	0.00
Differential to North Sea Dated											
WTI (Houston)	-1.58	-0.17	0.16	0.34		0.24	0.20	0.15	-0.09	0.43	0.30
Urals (NWE)	-0.32	-0.08	0.25	0.33		0.01	-0.21	0.27	0.51	0.59	0.33
Urals (Mediterranean)	0.23	0.40	0.26	-0.14		0.29	0.02	0.15	0.15	0.75	0.75
Dubai	-0.88	0.87	0.70	-0.17		1.14	0.27	0.54	0.45	1.17	0.88
Tapis (Dated)	1.52	-1.10	-0.85	0.25		-1.21	-1.21	-1.07	-0.50	-0.50	-0.50
Prompt Month Differential											
Forward Cash Brent Mth1-Mth2	-0.15	-0.36	-0.46	-0.10		-0.48	-0.46	-0.44	-0.39	-0.51	-0.38
Forward WTI Cushing Mth1-Mth2	-0.25	-0.28	-0.28	0.00		-0.27	-0.28	-0.28	-0.21	-0.33	-0.34
Forward Dubai Mth1-Mth2	-0.28	-0.32	-0.36	-0.04		-0.31	-0.43	-0.37	-0.29	-0.36	-0.17

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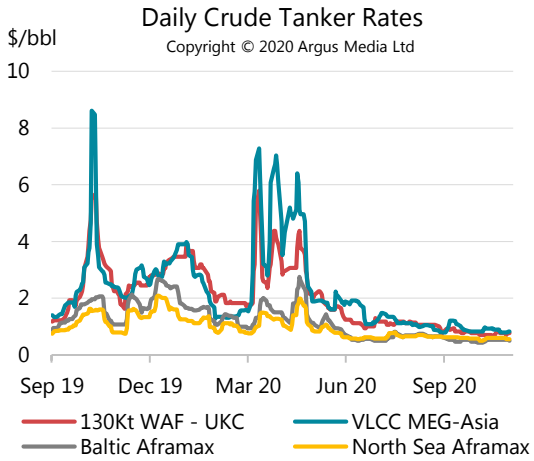
Freight

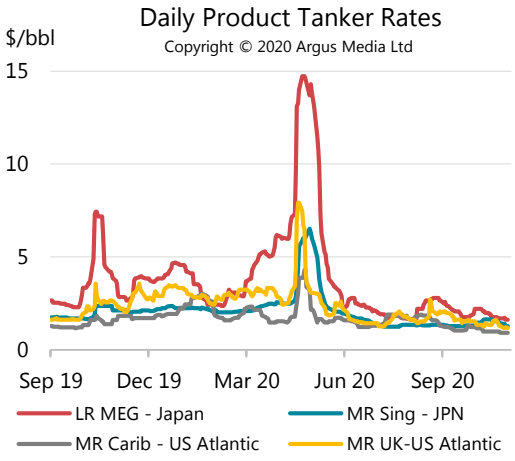
Tanker activity continued to decline throughout October falling nearly 14% below year-ago levels. This extremely depressed demand continues to compress freight rates which fell on average from September to October across all segments for crude tankers. Overall, rates today don't fully cover operating costs in most cases. In percentage terms, rates fell the most for 130 thousand tonne Suezmax vessels on the West Africa to UK Continent route, reflecting weak demand from European refiners and the competing supply of barrels from Libya. Lower volumes exported from the UAE also depressed rates for the Arab Gulf to Asia route.

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Rates for product tankers were more mixed. Rates for LR tankers on the Middle East to Japan route rose almost 10% on average over the month as strong Asian demand for naphtha pulled in barrels from the Middle East and Europe. Rates for MR tankers working the Caribbean to the United States East Coast voyage also rose on average over the month, likley linked to continued weakness in East Coast refinery activity in the US and Canada.





Freight Costs

(monthly and weekly averages, $/bbl)

				Oct-Sep		Week Ending				
	Aug	Sep	Oct	*Chg*	%	09 Oct	16 Oct	23 Oct	30 Oct	06 Nov
Crude Tankers										
VLCC MEG-Asia	1.04	0.96	0.87	-0.08	-8.7	0.83	0.93	0.90	0.80	0.83
130Kt WAF - UKC	1.09	0.86	0.75	-0.11	-13.0	0.77	0.71	0.69	0.77	0.77
Baltic Aframax	0.69	0.55	0.50	-0.05	-9.3	0.44	0.50	0.53	0.53	0.53
North Sea Aframax	0.67	0.62	0.58	-0.04	-5.8	0.58	0.58	0.60	0.60	0.56
Product Tankers										
LR MEG - Japan	60.58	54.93	60.25	5.32	9.7	56.00	63.00	62.00	64.00	61.00
MR Sing - JPN	2.22	2.21	1.95	-0.26	-11.8	2.21	2.06	1.77	1.69	1.62
MR Carib - US Atlantic	1.34	1.31	1.50	0.19	14.8	1.36	1.65	1.65	1.47	1.28
MR UK-US Atlantic	1.74	1.18	1.07	-0.11	-9.4	1.17	0.98	0.98	0.98	0.92

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Tables

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

	2017	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
OECD DEMAND																	
Americas	25.1	25.7	25.4	25.5	26.0	25.8	25.7	24.3	20.0	22.9	23.6	22.7	23.4	23.9	25.0	25.0	24.3
Europe	14.4	14.3	14.0	14.2	14.7	14.1	14.3	13.3	11.0	12.8	12.6	12.4	12.8	13.4	13.8	13.7	13.4
Asia Oceania	8.1	8.0	8.2	7.4	7.6	8.0	7.8	7.8	6.5	6.7	7.3	7.1	7.6	7.0	7.2	7.6	7.4
Total OECD	**47.7**	**48.0**	**47.7**	**47.1**	**48.3**	**47.9**	**47.7**	**45.4**	**37.6**	**42.5**	**43.5**	**42.2**	**43.8**	**44.2**	**46.0**	**46.3**	**45.1**
NON-OECD DEMAND																	
FSU	4.7	4.7	4.6	4.7	5.0	4.9	4.8	4.6	4.0	4.8	4.7	4.5	4.5	4.5	4.9	4.9	4.7
Europe	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8
China	12.5	13.0	13.1	13.8	13.8	14.1	13.7	11.9	14.2	14.6	14.5	13.8	14.3	14.7	14.6	14.8	14.6
Other Asia	13.7	14.0	14.5	14.4	13.8	14.4	14.3	13.7	11.4	12.7	13.7	12.9	13.9	13.9	13.5	14.2	13.9
Americas	6.4	6.2	6.1	6.2	6.3	6.2	6.2	5.7	4.9	5.8	5.9	5.6	5.8	5.8	6.1	6.1	6.0
Middle East	8.3	8.3	8.1	8.1	8.7	8.3	8.3	7.8	7.0	8.1	7.7	7.7	7.8	7.9	8.5	7.9	8.0
Africa	4.2	4.3	4.3	4.3	4.2	4.3	4.3	4.2	3.3	3.9	4.1	3.9	4.1	4.0	4.0	4.1	4.0
Total Non-OECD	**50.4**	**51.2**	**51.5**	**52.2**	**52.5**	**53.0**	**52.3**	**48.6**	**45.4**	**50.7**	**51.4**	**49.0**	**51.1**	**51.6**	**52.5**	**52.8**	**52.0**
Total Demand[1]	**98.1**	**99.2**	**99.2**	**99.3**	**100.8**	**100.9**	**100.1**	**94.0**	**83.0**	**93.2**	**94.9**	**91.3**	**94.9**	**95.8**	**98.4**	**99.1**	**97.1**
OECD SUPPLY																	
Americas	20.5	23.0	24.0	24.5	24.6	25.5	24.6	25.7	22.8	23.1	23.4	23.7	23.4	23.2	23.2	23.6	23.4
Europe	3.5	3.5	3.5	3.2	3.2	3.5	3.3	3.7	3.5	3.4	3.6	3.5	3.7	3.6	3.6	3.7	3.6
Asia Oceania	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6
Total OECD[4]	**24.4**	**26.9**	**27.9**	**28.2**	**28.4**	**29.6**	**28.5**	**29.8**	**26.8**	**27.1**	**27.5**	**27.8**	**27.7**	**27.3**	**27.4**	**27.9**	**27.6**
NON-OECD SUPPLY																	
FSU	14.3	14.6	14.8	14.4	14.6	14.7	14.6	14.8	13.2	12.8	13.0	13.5	13.6	13.7	13.7	13.7	13.7
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.9	3.8	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9
Other Asia	3.5	3.4	3.4	3.3	3.2	3.2	3.3	3.2	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0
Americas	5.1	5.1	5.1	5.2	5.5	5.6	5.3	5.6	5.1	5.4	5.4	5.4	5.6	5.6	5.6	5.7	5.6
Middle East	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
Africa	1.4	1.4	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.3
Total Non-OECD[4]	**31.5**	**31.7**	**32.0**	**31.6**	**31.9**	**32.2**	**31.9**	**32.3**	**30.0**	**29.7**	**30.0**	**30.5**	**30.9**	**30.9**	**30.8**	**30.8**	**30.8**
Processing gains[3]	2.3	2.4	2.3	2.4	2.4	2.3	2.4	2.3	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3
Global Biofuels	2.5	2.7	2.2	2.9	3.2	2.7	2.8	2.2	2.5	3.0	2.6	2.6	2.3	2.9	3.2	2.8	2.8
Total Non-OPEC Supply	**60.7**	**63.6**	**64.5**	**65.1**	**65.8**	**66.8**	**65.5**	**66.6**	**61.2**	**61.9**	**62.2**	**63.0**	**63.1**	**63.3**	**63.6**	**63.8**	**63.5**
OPEC[2]																	
Crude	31.5	31.4	30.1	29.6	29.0	29.3	29.5	28.2	25.6	24.1							
NGLs	5.4	5.5	5.5	5.5	5.4	5.4	5.4	5.4	5.2	5.1	5.2	5.2	5.3	5.3	5.3	5.3	5.3
Total OPEC	**36.9**	**36.9**	**35.6**	**35.1**	**34.4**	**34.7**	**34.9**	**33.6**	**30.8**	**29.2**							
Total Supply	**97.6**	**100.5**	**100.1**	**100.1**	**100.2**	**101.5**	**100.5**	**100.2**	**92.1**	**91.0**							
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.4	0.1	0.0	0.6	0.1	-0.6	0.0	0.9	2.6	-0.2							
Government	-0.1	-0.1	0.1	-0.1	0.0	-0.1	0.0	0.0	0.3	-0.1							
Total	**-0.5**	**0.0**	**0.1**	**0.5**	**0.1**	**-0.7**	**0.0**	**0.9**	**2.9**	**-0.4**							
Floating storage/Oil in transit	0.4	0.0	-0.3	-0.1	0.0	0.9	0.1	0.5	0.7	-1.5							
Miscellaneous to balance[5]	-0.4	1.2	1.2	0.3	-0.6	0.4	0.3	4.8	5.6	-0.2							
Total Stock Ch. & Misc	**-0.5**	**1.2**	**0.9**	**0.8**	**-0.6**	**0.6**	**0.4**	**6.2**	**9.1**	**-2.1**							
Memo items:																	
Call on OPEC crude + Stock ch.[6]	32.0	30.1	29.2	28.8	29.5	28.7	29.1	22.0	16.5	26.2	27.5	23.1	26.5	27.2	29.5	29.9	28.3

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply. Includes Biofuels.
2 OPEC data based on today's membership throughout the time series.
3 Net volumetric gains and losses in the refining process and marine transportation losses.
4 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.
5 Includes changes in non-reported stocks in OECD and non-OECD areas.
6 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

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Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2017	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-0.4	-0.7	-0.3	-0.6	-0.4	-	-0.1	-0.3
Europe	-	-	-	-	-	-	-	-	-	-0.2	-0.7	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-0.1	-0.2	-0.1	-0.2	-	-	-	-
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.7**	**-1.5**	**-0.6**	**-0.9**	**-0.5**	**-0.2**	**-0.1**	**-0.4**
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2
Other Asia	-	-	-	-	-	-	-	-	-	-	0.2	0.1	0.2	0.1	0.1	0.2	0.1
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.3**	**0.3**	**0.1**	**0.2**	**0.2**	**0.4**	**0.4**	**0.3**
Total Demand	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.4**	**-1.2**	**-0.4**	**-0.7**	**-0.3**	**0.2**	**0.3**	**-0.1**
OECD SUPPLY																	
Americas	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-	0.1	-	0.2	-	-0.1	0.2	0.1
Europe	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	**-**	**-**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**0.1**	**-**	**0.1**	**-**	**-0.1**	**0.1**	**-**
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**	**-**	**-**	**-**	**-**	**-**
Processing gains	-	0.1	-	-	-	-	-	-	-	-0.2	-0.2	-0.1	-0.1	-0.1	-	-	-0.1
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Total Non-OPEC Supply	**-**	**0.1**	**-0.1**	**-0.1**	**-**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.2**	**-**	**-0.1**	**-**	**-0.2**	**-0.1**	**0.1**	**-0.1**
OPEC																	
Crude[2]	-	-	-	-	-	-	-	-	-	-							
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**							
Total Supply	**-**	**0.1**	**-0.1**	**-0.1**	**-**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.2**							
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-								
Government	-	-	-	-	-	-	-	-	-								
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**								
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-								
Miscellaneous to balance	-	0.1	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1								
Total Stock Ch. & Misc	**-**	**0.1**	**-0.1**	**-0.1**	**-**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**0.2**							
Memo items:																	
Call on OPEC crude + Stock ch.	-	-0.1	0.1	0.1	-	0.1	0.1	0.1	-	-0.2	-1.3	-0.4	-0.7	-0.1	0.3	0.2	-0.1

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

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Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
Demand (mb/d)																
Americas	25.73	25.44	25.51	26.02	25.82	25.70	24.34	20.03	22.91	23.57	22.72	23.35	23.86	24.95	24.97	24.29
Europe	14.32	14.03	14.20	14.68	14.09	14.25	13.35	10.98	12.84	12.55	12.43	12.81	13.35	13.84	13.67	13.42
Asia Oceania	7.95	8.22	7.41	7.55	7.99	7.79	7.75	6.54	6.73	7.33	7.09	7.63	6.99	7.18	7.65	7.36
Total OECD	**47.99**	**47.70**	**47.12**	**48.25**	**47.90**	**47.75**	**45.44**	**37.56**	**42.48**	**43.46**	**42.24**	**43.80**	**44.21**	**45.97**	**46.29**	**45.07**
Asia	27.03	27.69	28.15	27.64	28.44	27.98	25.51	25.54	27.32	28.20	26.65	28.25	28.59	28.18	28.99	28.51
Middle East	8.29	8.06	8.13	8.72	8.33	8.31	7.78	7.00	8.13	7.71	7.66	7.77	7.93	8.46	7.86	8.01
Americas	6.22	6.09	6.18	6.27	6.23	6.19	5.74	4.87	5.76	5.87	5.56	5.77	5.82	6.11	6.13	5.96
FSU	4.68	4.55	4.69	4.95	4.90	4.78	4.62	4.03	4.79	4.75	4.55	4.48	4.52	4.93	4.90	4.71
Africa	4.25	4.33	4.32	4.17	4.29	4.28	4.23	3.34	3.90	4.12	3.90	4.11	4.01	3.98	4.10	4.05
Europe	0.76	0.74	0.77	0.79	0.78	0.77	0.74	0.62	0.77	0.77	0.73	0.75	0.74	0.80	0.80	0.77
Total Non-OECD	**51.23**	**51.47**	**52.23**	**52.55**	**52.97**	**52.31**	**48.60**	**45.41**	**50.67**	**51.42**	**49.04**	**51.12**	**51.62**	**52.47**	**52.78**	**52.01**
World	**99.22**	**99.17**	**99.35**	**100.80**	**100.88**	**100.05**	**94.04**	**82.97**	**93.16**	**94.88**	**91.28**	**94.92**	**95.83**	**98.43**	**99.07**	**97.08**
of which: US50	20.50	20.36	20.46	20.72	20.63	20.54	19.32	16.08	18.48	18.85	18.18	18.53	18.98	19.89	19.98	19.35
Europe 5*	8.23	8.13	8.13	8.32	8.03	8.15	7.63	5.90	7.05	6.89	6.87	7.28	7.54	7.75	7.71	7.57
China	13.00	13.15	13.75	13.82	14.08	13.70	11.85	14.15	14.65	14.45	13.78	14.32	14.70	14.64	14.78	14.61
Japan	3.79	4.05	3.39	3.43	3.74	3.65	3.69	2.89	3.06	3.46	3.27	3.67	3.14	3.25	3.62	3.42
India	4.96	5.24	5.18	4.88	5.16	5.11	5.06	4.03	4.41	5.10	4.65	5.15	5.09	4.74	5.11	5.02
Russia	3.50	3.43	3.50	3.74	3.63	3.58	3.53	3.09	3.62	3.51	3.44	3.35	3.40	3.71	3.63	3.52
Brazil	2.98	2.96	2.99	3.11	3.12	3.04	2.92	2.60	2.91	2.97	2.85	2.85	2.92	3.04	3.07	2.97
Saudi Arabia	3.06	2.90	2.99	3.42	3.03	3.08	2.90	2.73	3.27	2.91	2.95	2.85	3.06	3.33	2.92	3.04
Canada	2.53	2.30	2.31	2.57	2.49	2.42	2.33	1.88	2.15	2.24	2.15	2.25	2.27	2.46	2.37	2.34
Korea	2.57	2.58	2.43	2.54	2.63	2.55	2.51	2.42	2.34	2.41	2.42	2.50	2.43	2.46	2.48	2.47
Mexico	2.01	2.07	2.07	2.06	2.00	2.05	1.98	1.50	1.64	1.82	1.73	1.87	1.93	1.92	1.92	1.91
Iran	1.98	1.98	1.94	1.93	2.00	1.96	1.84	1.69	1.79	1.80	1.78	1.90	1.83	1.84	1.83	1.85
Total	**69.11**	**69.15**	**69.15**	**70.54**	**70.54**	**69.85**	**65.53**	**58.95**	**65.36**	**66.41**	**64.07**	**66.52**	**67.29**	**69.05**	**69.43**	**68.08**
% of World	**69.7%**	**69.7%**	**69.6%**	**70.0%**	**69.9%**	**69.8%**	**69.7%**	**71.1%**	**70.2%**	**70.0%**	**70.2%**	**70.1%**	**70.2%**	**70.1%**	**70.1%**	**70.1%**
Annual Change (% per annum)																
Americas	2.4	-0.3	-0.1	-0.1	0.1	-0.1	-4.3	-21.5	-12.0	-8.7	-11.6	-4.1	19.1	8.9	5.9	6.9
Europe	-0.7	-0.6	-0.6	-0.2	-0.4	-0.5	-4.9	-22.7	-12.5	-10.9	-12.8	-4.0	21.6	7.8	8.9	8.0
Asia Oceania	-2.4	-4.1	-2.7	-1.1	0.1	-2.0	-5.7	-11.7	-10.9	-8.2	-9.0	-1.5	6.9	6.6	4.3	3.9
Total OECD	**0.7**	**-1.1**	**-0.6**	**-0.3**	**-0.1**	**-0.5**	**-4.7**	**-20.3**	**-12.0**	**-9.3**	**-11.5**	**-3.6**	**17.7**	**8.2**	**6.5**	**6.7**
Asia	3.2	3.8	3.5	2.7	4.2	3.5	-7.9	-9.3	-1.2	-0.9	-4.8	10.8	11.9	3.2	2.8	7.0
Middle East	-0.1	0.1	-2.9	1.1	2.8	0.3	-3.6	-13.8	-6.8	-7.3	-7.9	-0.1	13.3	4.1	1.9	4.6
Americas	-2.3	-0.6	0.0	-0.5	-0.6	-0.4	-5.8	-21.1	-8.3	-5.8	-10.2	0.5	19.4	6.2	4.5	7.2
FSU	0.6	2.2	2.0	1.6	2.0	1.9	1.4	-14.0	-3.3	-3.2	-4.8	-2.9	12.2	2.9	3.1	3.5
Africa	2.3	0.6	1.2	0.6	0.2	0.6	-2.4	-22.7	-6.4	-4.0	-8.9	-2.9	20.2	1.9	-0.4	3.9
Europe	-0.7	1.6	4.8	2.4	-0.8	1.9	-0.6	-20.6	-1.6	-0.8	-5.9	1.8	20.3	3.6	2.9	6.5
Total Non-OECD	**1.6**	**2.2**	**1.7**	**1.7**	**2.8**	**2.1**	**-5.6**	**-13.1**	**-3.6**	**-2.9**	**-6.3**	**5.2**	**13.7**	**3.5**	**2.6**	**6.1**
World	**1.2**	**0.6**	**0.6**	**0.7**	**1.4**	**0.8**	**-5.2**	**-16.5**	**-7.6**	**-5.9**	**-8.8**	**0.9**	**15.5**	**5.7**	**4.4**	**6.4**
Annual Change (mb/d)																
Americas	0.61	-0.07	-0.02	-0.04	0.03	-0.02	-1.10	-5.48	-3.11	-2.25	-2.99	-0.99	3.82	2.04	1.40	1.57
Europe	-0.10	-0.09	-0.08	-0.03	-0.06	-0.07	-0.68	-3.22	-1.84	-1.54	-1.82	-0.54	2.37	1.00	1.11	0.99
Asia Oceania	-0.20	-0.36	-0.21	-0.08	0.00	-0.16	-0.47	-0.86	-0.82	-0.65	-0.70	-0.12	0.45	0.44	0.32	0.27
Total OECD	**0.32**	**-0.51**	**-0.31**	**-0.15**	**-0.03**	**-0.25**	**-2.26**	**-9.56**	**-5.77**	**-4.45**	**-5.51**	**-1.64**	**6.65**	**3.48**	**2.83**	**2.84**
Asia	0.85	1.00	0.94	0.71	1.15	0.95	-2.18	-2.60	-0.32	-0.25	-1.33	2.74	3.05	0.86	0.80	1.86
Middle East	-0.01	0.01	-0.24	0.10	0.23	0.02	-0.29	-1.12	-0.59	-0.61	-0.65	-0.01	0.93	0.33	0.15	0.35
Americas	-0.15	-0.04	0.00	-0.03	-0.04	-0.03	-0.35	-1.30	-0.52	-0.36	-0.63	0.03	0.95	0.36	0.26	0.40
FSU	0.03	0.10	0.09	0.08	0.10	0.09	0.06	-0.65	-0.16	-0.16	-0.23	-0.14	0.49	0.14	0.15	0.16
Africa	0.09	0.02	0.05	0.02	0.01	0.03	-0.11	-0.98	-0.27	-0.17	-0.38	-0.12	0.67	0.08	-0.02	0.15
Europe	-0.01	0.01	0.04	0.02	-0.01	0.01	0.00	-0.16	-0.01	-0.01	-0.05	0.01	0.13	0.03	0.02	0.05
Total Non-OECD	**0.81**	**1.11**	**0.88**	**0.90**	**1.44**	**1.08**	**-2.87**	**-6.82**	**-1.87**	**-1.55**	**-3.27**	**2.52**	**6.22**	**1.79**	**1.36**	**2.97**
World	**1.13**	**0.60**	**0.57**	**0.74**	**1.41**	**0.83**	**-5.13**	**-16.38**	**-7.64**	**-5.99**	**-8.78**	**0.88**	**12.86**	**5.28**	**4.19**	**5.80**
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.42	-0.70	-0.28	-0.58	-0.37	-0.03	-0.10	-0.27
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.21	-0.66	-0.23	-0.19	-0.06	-0.18	-0.05	-0.12
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.15	-0.06	-0.16	-0.02	0.02	0.02	-0.04
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**0.00**	**-0.03**	**-0.72**	**-1.52**	**-0.57**	**-0.93**	**-0.45**	**-0.19**	**-0.13**	**-0.42**
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.40	0.17	0.31	0.28	0.41	0.36	0.34
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	-0.01	0.00	-0.01	-0.01	0.04	-0.01	0.01
Americas	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.11	-0.04	-0.05	-0.04	-0.03	-0.03	-0.04
FSU	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.05	-0.01	0.01	0.00	-0.05	-0.01	0.06	0.00
Africa	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	0.00	0.02	0.00	0.00	-0.01	-0.01	-0.02	0.01	-0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.04**	**-0.02**	**0.32**	**0.27**	**0.13**	**0.24**	**0.17**	**0.41**	**0.40**	**0.30**
World	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.04**	**-0.05**	**-0.40**	**-1.25**	**-0.44**	**-0.69**	**-0.28**	**0.22**	**0.26**	**-0.12**
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	-0.02	0.00	-0.01	0.00	0.00	0.00	-0.03	-0.03	-0.39	-1.22	-0.42	-0.65	-0.23	0.63	1.51	0.32

* France, Germany, Italy, Spain and UK

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Table 2a
OECD REGIONAL OIL DEMAND[1]
(million barrels per day)

	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20 [2]	Latest month vs. Jul 20	Latest month vs. Aug 19
Americas											
LPG and ethane	3.70	3.84	3.58	4.10	4.13	3.50	3.36	3.62	3.48	-0.14	-0.03
Naphtha	0.32	0.24	0.26	0.22	0.25	0.21	0.22	0.24	0.24	-0.01	-0.02
Motor gasoline	11.17	11.09	11.37	10.99	10.16	8.38	9.77	9.97	10.00	0.02	-1.70
Jet and kerosene	2.03	2.09	2.19	2.08	1.87	0.79	0.92	1.12	1.17	0.06	-1.08
Gasoil/diesel oil	5.43	5.40	5.28	5.43	5.27	4.58	4.62	4.74	4.87	0.13	-0.53
Residual fuel oil	0.60	0.56	0.64	0.49	0.41	0.38	0.45	0.53	0.54	0.00	-0.13
Other products	2.48	2.48	2.71	2.51	2.25	2.20	2.39	2.41	2.55	0.14	-0.32
Total	**25.73**	**25.70**	**26.02**	**25.82**	**24.34**	**20.03**	**21.73**	**22.64**	**22.84**	**0.21**	**-3.81**
Europe											
LPG and ethane	1.19	1.17	1.15	1.12	1.22	0.97	1.02	1.11	1.11	0.00	-0.05
Naphtha	1.04	1.01	0.95	1.02	1.06	1.05	1.02	1.09	1.03	-0.06	0.05
Motor gasoline	2.00	2.04	2.16	2.04	1.82	1.45	1.84	2.10	2.06	-0.04	-0.10
Jet and kerosene	1.52	1.55	1.73	1.48	1.25	0.40	0.40	0.60	0.68	0.08	-1.07
Gasoil/diesel oil	6.45	6.45	6.58	6.53	6.22	5.35	5.76	6.11	5.70	-0.41	-0.70
Residual fuel oil	0.88	0.83	0.83	0.75	0.71	0.64	0.64	0.68	0.67	-0.01	-0.17
Other products	1.25	1.20	1.28	1.17	1.06	1.11	1.25	1.27	1.18	-0.10	-0.04
Total	**14.32**	**14.25**	**14.68**	**14.09**	**13.35**	**10.98**	**11.94**	**12.97**	**12.44**	**-0.53**	**-2.08**
Asia Oceania											
LPG and ethane	0.73	0.76	0.70	0.80	0.82	0.69	0.62	0.67	0.66	-0.02	-0.04
Naphtha	1.99	1.96	1.98	1.96	1.93	1.75	1.75	1.79	1.80	0.01	-0.21
Motor gasoline	1.55	1.53	1.59	1.52	1.40	1.25	1.42	1.45	1.51	0.06	-0.19
Jet and kerosene	0.92	0.91	0.74	1.00	0.99	0.40	0.35	0.37	0.36	-0.01	-0.35
Gasoil/diesel oil	1.90	1.92	1.86	1.96	1.83	1.78	1.84	1.77	1.71	-0.06	-0.21
Residual fuel oil	0.51	0.42	0.39	0.43	0.45	0.41	0.39	0.38	0.36	-0.03	-0.04
Other products	0.35	0.29	0.30	0.31	0.32	0.26	0.23	0.19	0.25	0.06	0.01
Total	**7.95**	**7.79**	**7.55**	**7.99**	**7.75**	**6.54**	**6.59**	**6.62**	**6.65**	**0.02**	**-1.03**
OECD											
LPG and ethane	5.62	5.77	5.43	6.02	6.18	5.16	5.01	5.41	5.25	-0.16	-0.12
Naphtha	3.34	3.21	3.18	3.20	3.25	3.02	3.00	3.12	3.07	-0.05	-0.18
Motor gasoline	14.71	14.66	15.12	14.55	13.38	11.08	13.03	13.52	13.57	0.04	-1.99
Jet and kerosene	4.47	4.55	4.66	4.56	4.11	1.59	1.66	2.08	2.21	0.13	-2.50
Gasoil/diesel oil	13.77	13.77	13.72	13.92	13.32	11.71	12.21	12.61	12.28	-0.33	-1.44
Residual fuel oil	1.99	1.81	1.85	1.66	1.57	1.43	1.48	1.60	1.57	-0.03	-0.34
Other products	4.08	3.98	4.29	3.98	3.63	3.57	3.87	3.88	3.98	0.10	-0.34
Total	**47.99**	**47.75**	**48.25**	**47.90**	**45.44**	**37.56**	**40.26**	**42.23**	**41.93**	**-0.30**	**-6.91**

1 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. Gasoil comprises diesel, light heating oil and other gasoils. North America comprises US 50 states, US territories, Mexico and Canada.
2 Latest official OECD submissions (MOS).

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Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES[1]
(million barrels per day)

	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20 [2]	Latest month vs. Jul 20	Latest month vs. Aug 19
United States[3]											
LPG and ethane	2.87	2.94	2.71	3.18	3.22	2.71	2.54	2.80	2.63	-0.17	0.02
Naphtha	0.23	0.21	0.22	0.19	0.20	0.16	0.19	0.20	0.20	0.00	-0.03
Motor gasoline	9.33	9.31	9.52	9.16	8.49	7.11	8.29	8.46	8.51	0.05	-1.33
Jet and kerosene	1.71	1.75	1.80	1.76	1.58	0.69	0.79	0.97	1.03	0.06	-0.82
Gasoil/diesel oil	4.15	4.10	3.96	4.12	3.96	3.51	3.49	3.61	3.66	0.05	-0.37
Residual fuel oil	0.32	0.28	0.33	0.27	0.17	0.15	0.23	0.34	0.31	-0.04	-0.02
Other products	1.89	1.96	2.19	1.95	1.70	1.75	1.92	1.95	2.11	0.16	-0.18
Total	**20.50**	**20.54**	**20.72**	**20.63**	**19.32**	**16.08**	**17.44**	**18.32**	**18.44**	**0.12**	**-2.72**
Japan											
LPG and ethane	0.37	0.35	0.28	0.36	0.40	0.31	0.26	0.28	0.26	-0.02	-0.01
Naphtha	0.73	0.73	0.70	0.76	0.70	0.62	0.61	0.63	0.68	0.05	-0.04
Motor gasoline	0.88	0.85	0.92	0.84	0.78	0.69	0.78	0.82	0.89	0.07	-0.08
Jet and kerosene	0.50	0.48	0.34	0.55	0.61	0.22	0.17	0.19	0.20	0.01	-0.12
Diesel	0.44	0.44	0.44	0.44	0.41	0.39	0.40	0.40	0.39	-0.01	-0.03
Other gasoil	0.34	0.33	0.30	0.34	0.34	0.29	0.28	0.29	0.26	-0.02	-0.03
Residual fuel oil	0.27	0.23	0.22	0.24	0.23	0.20	0.19	0.19	0.17	-0.03	-0.05
Other products	0.26	0.24	0.24	0.22	0.23	0.18	0.17	0.18	0.19	0.01	-0.02
Total	**3.79**	**3.65**	**3.43**	**3.74**	**3.69**	**2.89**	**2.86**	**2.98**	**3.04**	**0.06**	**-0.39**
Germany											
LPG and ethane	0.11	0.12	0.13	0.11	0.11	0.11	0.09	0.10	0.12	0.01	-0.01
Naphtha	0.27	0.27	0.23	0.30	0.29	0.27	0.26	0.30	0.28	-0.02	0.04
Motor gasoline	0.49	0.50	0.51	0.50	0.46	0.39	0.44	0.51	0.48	-0.03	-0.04
Jet and kerosene	0.22	0.22	0.23	0.21	0.18	0.06	0.07	0.09	0.07	-0.02	-0.18
Diesel	0.76	0.77	0.79	0.76	0.72	0.65	0.69	0.77	0.70	-0.07	-0.07
Other gasoil	0.31	0.35	0.35	0.33	0.44	0.44	0.36	0.29	0.20	-0.09	-0.15
Residual fuel oil	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.06	0.03	-0.02	-0.02
Other products	0.10	0.09	0.11	0.08	0.08	0.07	0.08	0.09	0.07	-0.02	-0.03
Total	**2.33**	**2.36**	**2.41**	**2.33**	**2.32**	**2.03**	**2.02**	**2.21**	**1.95**	**-0.26**	**-0.45**
Italy											
LPG and ethane	0.10	0.10	0.09	0.11	0.11	0.07	0.08	0.09	0.09	-0.01	0.00
Naphtha	0.13	0.10	0.10	0.10	0.08	0.09	0.11	0.11	0.11	0.00	0.00
Motor gasoline	0.18	0.18	0.19	0.19	0.15	0.13	0.18	0.20	0.19	-0.01	0.02
Jet and kerosene	0.11	0.11	0.14	0.11	0.07	0.03	0.04	0.05	0.06	0.01	-0.08
Diesel	0.47	0.44	0.44	0.45	0.36	0.27	0.38	0.44	0.37	-0.07	-0.03
Other gasoil	0.08	0.07	0.08	0.08	0.06	0.07	0.06	0.07	0.06	-0.01	-0.01
Residual fuel oil	0.07	0.06	0.07	0.06	0.06	0.05	0.06	0.06	0.06	-0.01	-0.01
Other products	0.14	0.14	0.15	0.14	0.12	0.12	0.14	0.16	0.13	-0.03	0.01
Total	**1.27**	**1.20**	**1.26**	**1.23**	**1.02**	**0.82**	**1.04**	**1.19**	**1.07**	**-0.12**	**-0.11**
France											
LPG and ethane	0.12	0.13	0.11	0.13	0.14	0.10	0.10	0.13	0.13	0.00	0.02
Naphtha	0.10	0.11	0.10	0.08	0.11	0.14	0.14	0.13	0.11	-0.02	0.00
Motor gasoline	0.19	0.20	0.22	0.20	0.18	0.13	0.20	0.24	0.22	-0.02	0.00
Jet and kerosene	0.17	0.17	0.19	0.16	0.14	0.04	0.04	0.07	0.09	0.01	-0.11
Diesel	0.69	0.68	0.69	0.69	0.65	0.54	0.72	0.80	0.68	-0.12	0.05
Other gasoil	0.24	0.23	0.24	0.23	0.22	0.16	0.10	0.07	0.06	0.00	-0.15
Residual fuel oil	0.05	0.05	0.05	0.03	0.03	0.02	0.03	0.03	0.03	0.00	-0.02
Other products	0.12	0.12	0.14	0.11	0.08	0.08	0.09	0.12	0.09	-0.03	-0.03
Total	**1.69**	**1.69**	**1.76**	**1.63**	**1.54**	**1.22**	**1.43**	**1.59**	**1.42**	**-0.17**	**-0.25**
United Kingdom											
LPG and ethane	0.15	0.14	0.12	0.10	0.15	0.13	0.12	0.14	0.12	-0.02	0.02
Naphtha	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.03	-0.01	0.01
Motor gasoline	0.28	0.29	0.29	0.29	0.27	0.14	0.19	0.21	0.25	0.04	-0.04
Jet and kerosene	0.33	0.33	0.34	0.33	0.32	0.11	0.08	0.10	0.13	0.03	-0.21
Diesel	0.52	0.51	0.51	0.51	0.49	0.31	0.35	0.39	0.45	0.05	-0.07
Other gasoil	0.14	0.14	0.15	0.14	0.12	0.11	0.10	0.10	0.12	0.02	-0.04
Residual fuel oil	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.00	-0.01
Other products	0.12	0.12	0.12	0.11	0.10	0.08	0.10	0.10	0.10	0.01	-0.01
Total	**1.61**	**1.57**	**1.57**	**1.52**	**1.52**	**0.95**	**0.98**	**1.09**	**1.22**	**0.13**	**-0.35**
Canada											
LPG and ethane	0.39	0.44	0.43	0.43	0.41	0.41	0.42	0.40	0.41	0.01	-0.04
Naphtha	0.05	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.00	-0.01
Motor gasoline	0.88	0.83	0.91	0.89	0.78	0.62	0.78	0.79	0.75	-0.04	-0.17
Jet and kerosene	0.16	0.18	0.23	0.17	0.14	0.04	0.06	0.07	0.07	0.00	-0.18
Diesel	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.26	0.26	0.00	0.01
Other gasoil	0.37	0.34	0.38	0.35	0.33	0.24	0.26	0.28	0.32	0.04	-0.08
Residual fuel oil	0.04	0.04	0.04	0.03	0.04	0.03	0.01	0.02	0.03	0.01	-0.03
Other products	0.37	0.31	0.30	0.34	0.34	0.25	0.26	0.28	0.25	-0.03	-0.10
Total	**2.53**	**2.42**	**2.57**	**2.49**	**2.33**	**1.88**	**2.08**	**2.10**	**2.09**	**-0.02**	**-0.61**

1 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. Gasoil comprises diesel, light heating oil and other gasoils.
2 Latest official OECD submissions (MOS).
3 US figures exclude US territories.

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Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2019	2020	2021	2Q20	3Q20	4Q20	1Q21	2Q21	Aug 20	Sep 20	Oct 20
OPEC											
Crude Oil											
Saudi Arabia	9.80			9.31	8.78				8.94	8.98	8.98
Iran	2.36			1.95	1.92				1.94	1.93	1.89
Iraq	4.71			4.13	3.69				3.65	3.67	3.82
UAE	3.18			2.87	2.84				3.02	2.58	2.42
Kuwait	2.68			2.45	2.25				2.27	2.30	2.30
Angola	1.39			1.26	1.24				1.26	1.22	1.20
Nigeria	1.73			1.57	1.37				1.37	1.35	1.35
Libya	1.09			0.08	0.11				0.10	0.14	0.45
Algeria	1.02			0.87	0.84				0.86	0.86	0.86
Congo	0.33			0.31	0.30				0.30	0.30	0.27
Gabon	0.21			0.21	0.19				0.19	0.19	0.20
Equatorial Guinea	0.11			0.11	0.11				0.12	0.10	0.11
Venezuela	0.87			0.52	0.40				0.39	0.43	0.40
Total Crude Oil	**29.49**			**25.63**	**24.06**				**24.41**	**24.05**	**24.25**
of which Neutral Zone [1]	*0.00*			*0.10*	*0.13*				*0.16*	*0.18*	*0.20*
Total NGLs [2]	**5.44**	**5.23**	**5.33**	**5.20**	**5.12**	**5.17**	**5.32**	**5.34**	**5.16**	**5.16**	**5.17**
Total OPEC [3]	**34.94**			**30.83**	**29.18**				**29.57**	**29.21**	**29.42**
NON-OPEC [4]											
OECD											
Americas	24.65	23.72	23.36	22.76	23.11	23.36	23.38	23.19	22.84	23.16	22.90
United States	17.16	16.56	15.91	15.87	16.26	16.17	16.08	15.91	16.05	16.27	15.80
Mexico	1.93	1.94	1.93	1.91	1.90	1.95	1.93	1.92	1.92	1.93	1.94
Canada	5.54	5.21	5.50	4.96	4.95	5.23	5.36	5.36	4.86	4.96	5.15
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.34	3.55	3.64	3.54	3.39	3.60	3.71	3.56	3.35	3.23	3.49
UK	1.13	1.07	1.02	1.12	0.97	1.04	1.05	0.97	0.87	0.96	1.04
Norway	1.74	2.02	2.15	2.00	1.96	2.09	2.18	2.12	2.02	1.80	1.98
Others	0.47	0.46	0.47	0.43	0.46	0.48	0.47	0.47	0.46	0.47	0.48
Asia Oceania	0.53	0.55	0.56	0.54	0.55	0.57	0.57	0.57	0.57	0.57	0.57
Australia	0.46	0.48	0.50	0.47	0.48	0.50	0.50	0.50	0.49	0.50	0.50
Others	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07
Total OECD	**28.51**	**27.81**	**27.56**	**26.83**	**27.05**	**27.53**	**27.66**	**27.32**	**26.76**	**26.96**	**26.96**
NON-OECD											
Former USSR	14.64	13.46	13.66	13.24	12.78	13.04	13.63	13.65	12.96	12.99	13.08
Russia	11.58	10.58	10.77	10.35	10.08	10.27	10.75	10.76	10.21	10.31	10.32
Azerbaijan	0.77	0.70	0.72	0.69	0.66	0.68	0.72	0.72	0.67	0.65	0.68
Kazakhstan	1.94	1.82	1.80	1.84	1.69	1.73	1.80	1.80	1.72	1.67	1.74
Others	0.35	0.36	0.36	0.36	0.36	0.35	0.36	0.36	0.36	0.36	0.35
Asia	7.16	7.02	6.96	6.98	6.95	7.00	7.05	7.02	6.99	6.92	7.00
China	3.88	3.98	3.95	3.97	3.99	3.99	3.99	4.00	4.00	4.00	4.00
Malaysia	0.67	0.61	0.67	0.56	0.58	0.64	0.68	0.67	0.59	0.58	0.62
India	0.80	0.74	0.70	0.74	0.74	0.71	0.71	0.70	0.72	0.72	0.72
Indonesia	0.77	0.73	0.71	0.74	0.72	0.73	0.72	0.71	0.73	0.69	0.73
Others	1.04	0.96	0.93	0.96	0.93	0.93	0.95	0.93	0.95	0.93	0.93
Europe	0.12	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Americas	5.33	5.38	5.63	5.11	5.40	5.38	5.61	5.62	5.46	5.28	5.28
Brazil	2.90	3.09	3.30	3.01	3.13	3.07	3.26	3.28	3.20	3.01	2.98
Argentina	0.64	0.61	0.61	0.59	0.60	0.60	0.61	0.61	0.60	0.60	0.60
Colombia	0.89	0.79	0.73	0.76	0.75	0.76	0.75	0.74	0.75	0.76	0.76
Ecuador	0.54	0.49	0.55	0.36	0.52	0.54	0.55	0.55	0.52	0.52	0.54
Others	0.36	0.40	0.45	0.39	0.39	0.42	0.46	0.45	0.39	0.39	0.40
Middle East	3.19	3.13	3.18	3.13	3.09	3.12	3.19	3.18	3.09	3.10	3.13
Oman	0.98	0.95	0.97	0.95	0.92	0.94	0.97	0.97	0.93	0.93	0.95
Qatar	1.91	1.89	1.92	1.89	1.90	1.90	1.93	1.93	1.90	1.90	1.90
Others	0.31	0.28	0.29	0.29	0.27	0.28	0.29	0.29	0.27	0.28	0.28
Africa	1.46	1.37	1.29	1.39	1.36	1.32	1.31	1.29	1.35	1.37	1.35
Egypt	0.63	0.60	0.57	0.61	0.60	0.59	0.58	0.58	0.60	0.60	0.59
Others	0.82	0.77	0.71	0.78	0.77	0.73	0.72	0.72	0.75	0.77	0.75
Total Non-OECD	**31.90**	**30.47**	**30.83**	**29.96**	**29.69**	**29.97**	**30.89**	**30.87**	**29.96**	**29.76**	**29.95**
Processing gains [5]	2.35	2.12	2.26	1.98	2.10	2.13	2.21	2.22	2.11	2.08	2.08
Global Biofuels	2.78	2.57	2.80	2.48	3.02	2.57	2.30	2.89	3.02	2.98	2.79
TOTAL NON-OPEC	**65.55**	**62.97**	**63.45**	**61.25**	**61.86**	**62.21**	**63.06**	**63.31**	**61.85**	**61.79**	**61.77**
TOTAL SUPPLY	**100.48**			**92.08**	**91.05**				**91.42**	**91.00**	**91.19**

1 Neutral Zone production is already included in Saudi Arabia and Kuwait production with their respective shares.
2 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. NGLs in Qatar and Nigeria and non-oil inputs to Saudi Arabian MTBE.
3 OPEC data based on today's membership throughout the time series.
4 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
5 Net volumetric gains and losses in refining and marine transportation losses.

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Table 3a
OIL SUPPLY IN OECD COUNTRIES[1]
(thousand of barrels per day)

	2019	2020	2021	2Q20	3Q20	4Q20	1Q21	2Q21	Aug 20	Sep 20	Oct 20
United States											
Alaska	466	449	436	409	444	465	462	442	444	443	463
California	455	409	380	413	394	390	386	382	388	395	391
Texas	5070	4894	4399	4734	4720	4725	4520	4390	4687	4737	4747
Federal Gulf of Mexico[2]	1897	1676	2008	1695	1446	1606	1920	1976	1196	1496	1134
Other US Lower 48	4360	3915	3599	3564	3821	3808	3680	3608	3865	3846	3827
NGLs[3]	4825	5105	4923	4956	5302	5036	4964	4940	5325	5208	5094
Other Hydrocarbons	92	116	164	101	130	144	150	170	142	143	140
Total	**17164**	**16563**	**15908**	**15872**	**16256**	**16174**	**16082**	**15908**	**16046**	**16269**	**15796**
Canada											
Alberta Light/Medium/Heavy	487	419	387	367	411	405	398	391	416	411	406
Alberta Bitumen	1837	1647	1838	1462	1662	1609	1586	1688	1667	1668	1727
Saskatchewan	487	443	489	385	414	480	499	492	421	422	460
Other Crude	489	494	489	504	465	489	486	484	467	472	492
NGLs	961	944	984	950	895	962	991	1026	868	844	920
Other Upgraders	172	169	177	174	148	172	188	171	138	153	154
Synthetic Crudes	1111	1090	1139	1122	952	1109	1209	1104	887	989	991
Total	**5544**	**5208**	**5503**	**4964**	**4947**	**5226**	**5357**	**5357**	**4863**	**4959**	**5149**
Mexico											
Crude	1705	1724	1736	1698	1690	1740	1728	1720	1707	1716	1733
NGLs	217	210	196	208	208	205	201	198	214	206	205
Total	**1926**	**1938**	**1935**	**1911**	**1901**	**1948**	**1932**	**1921**	**1924**	**1925**	**1941**
UK											
Brent Fields	44	33	26	40	28	28	30	29	37	22	21
Forties Fields	327	293	241	307	246	276	271	206	239	209	279
Ninian Fields	37	34	27	37	33	32	30	24	31	32	32
Flotta Fields	57	50	43	55	46	46	45	41	43	48	46
Other Fields	590	578	621	588	539	590	610	605	454	590	585
NGLs	79	77	65	90	74	68	66	65	63	60	73
Total	**1134**	**1065**	**1024**	**1116**	**966**	**1039**	**1053**	**971**	**868**	**961**	**1036**
Norway[5]											
Ekofisk-Ula Area	138	133	140	125	131	133	144	140	129	127	131
Oseberg-Troll Area	259	232	223	233	212	224	227	222	223	184	221
Statfjord-Gullfaks Area	237	243	246	244	257	235	250	246	256	251	199
Haltenbanken Area	283	270	290	266	256	271	281	286	266	251	266
Sleipner-Frigg Area	429	729	778	745	716	760	776	777	774	596	756
Other Fields	91	122	194	95	103	176	214	168	103	94	131
NGLs	299	292	277	287	287	287	290	283	270	294	276
Total	**1737**	**2022**	**2149**	**1996**	**1962**	**2086**	**2182**	**2122**	**2021**	**1798**	**1980**
Other OECD Europe											
Denmark	101	72	68	70	70	68	66	65	70	68	69
Italy	78	78	96	71	78	87	95	97	81	82	84
Turkey	58	61	62	61	62	62	62	62	63	62	62
Other	95	97	99	91	99	105	103	100	109	104	106
NGLs	8	7	6	6	6	6	6	6	6	6	6
Non-Conventional Oils	127	146	140	128	147	150	140	140	133	145	151
Total	**466**	**460**	**470**	**428**	**462**	**478**	**472**	**469**	**463**	**467**	**478**
Australia											
Gippsland Basin	9	9	9	9	9	9	9	9	9	9	9
Cooper-Eromanga Basin	34	36	33	36	35	34	34	33	35	35	35
Carnarvon Basin	72	108	121	110	118	124	123	122	114	125	124
Other Crude	246	209	210	202	197	209	213	211	205	207	206
NGLs	98	117	123	111	123	124	124	123	129	128	123
Total	**458**	**478**	**495**	**468**	**482**	**501**	**503**	**498**	**492**	**504**	**497**
Other OECD Asia Oceania											
New Zealand	24	19	19	18	18	20	19	19	18	20	20
Japan	4	4	5	4	5	5	5	5	5	5	5
NGLs	12	11	10	11	11	10	10	10	12	10	10
Non-Conventional Oils	28	36	36	36	36	36	36	36	42	34	36
Total	**69**	**70**	**69**	**70**	**70**	**71**	**70**	**70**	**77**	**69**	**70**
OECD											
Crude Oil	20469	19482	19313	18640	18727	19212	19273	19040	18523	18729	18769
NGLs	6508	6771	6591	6627	6913	6705	6661	6659	6896	6765	6714
Non-Conventional Oils[4]	1534	1560	1658	1566	1415	1614	1725	1625	1345	1467	1473
Total	**28511**	**27814**	**27563**	**26833**	**27055**	**27531**	**27659**	**27324**	**26764**	**26962**	**26957**

1 Subcategories refer to crude oil only unless otherwise noted.
2 Only production from Federal waters is included.
3 To the extent possible, condensates from natural gas processing plants are included with NGLs, while field condensates are counted as crude oil.
4 Does not include biofuels.
5 North Sea production is grouped by area including all fields being processed through the named field complex, ie, not just the field of that name.
6 Other North Sea NGLs is included.

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Table 4
OECD STOCKS AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	May2020	Jun2020	Jul2020	Aug2020	Sep2020*	Sep2017	Sep2018	Sep2019	4Q2019	1Q2020	2Q2020	3Q2020
OECD INDUSTRY-CONTROLLED STOCKS[1]												
OECD Americas												
Crude	686.3	692.5	676.4	659.5	652.7	625.2	572.9	581.1	-0.01	0.71	0.52	-0.43
Motor Gasoline	285.9	280.9	276.6	262.9	256.8	251.9	270.5	258.0	0.24	0.11	-0.10	-0.26
Middle Distillate	241.3	240.3	243.2	242.1	238.2	210.9	216.3	202.4	0.02	-0.14	0.54	-0.02
Residual Fuel Oil	46.3	46.7	43.1	41.4	39.1	40.4	35.3	35.9	0.00	0.04	0.07	-0.08
Total Products[3]	812.4	819.2	828.3	824.8	828.1	744.0	765.7	762.1	-0.14	-0.19	0.90	0.10
Total[4]	**1690.6**	**1713.3**	**1712.0**	**1693.6**	**1687.1**	**1571.0**	**1542.9**	**1552.6**	**-0.38**	**0.56**	**1.51**	**-0.28**
OECD Europe												
Crude	386.2	377.5	383.1	368.4	374.5	340.0	335.4	355.4	-0.04	0.13	0.15	-0.03
Motor Gasoline	101.7	99.8	94.4	95.1	95.8	87.4	84.5	85.9	0.06	0.09	0.00	-0.04
Middle Distillate	332.3	339.4	334.3	349.3	342.7	294.9	266.5	279.7	-0.03	0.17	0.51	0.04
Residual Fuel Oil	74.8	74.2	74.2	71.4	69.7	59.4	55.7	65.6	-0.07	0.13	0.04	-0.05
Total Products[3]	634.0	631.3	621.2	636.7	626.5	558.0	521.4	548.7	-0.03	0.44	0.50	-0.05
Total[4]	**1116.2**	**1098.9**	**1093.0**	**1092.5**	**1088.4**	**971.1**	**932.8**	**988.1**	**-0.11**	**0.61**	**0.72**	**-0.11**
OECD Asia Oceania												
Crude	169.9	158.8	170.3	166.8	164.5	198.2	139.8	142.3	0.13	-0.25	0.29	0.06
Motor Gasoline	28.6	26.9	27.4	27.8	27.5	22.7	25.3	26.9	0.00	0.01	-0.01	0.01
Middle Distillate	63.1	67.6	72.0	79.2	74.9	65.7	78.2	79.4	-0.08	-0.04	-0.02	0.08
Residual Fuel Oil	17.4	17.4	18.3	16.5	17.2	18.6	19.1	21.0	-0.04	0.02	-0.01	0.00
Total Products[3]	174.2	179.0	183.4	193.0	187.7	171.3	186.7	194.1	-0.20	0.00	0.04	0.10
Total[4]	**408.3**	**402.3**	**416.0**	**425.3**	**416.3**	**432.4**	**391.9**	**400.8**	**-0.08**	**-0.27**	**0.37**	**0.15**
Total OECD												
Crude	1242.5	1228.8	1229.8	1194.7	1191.7	1163.5	1048.1	1078.9	0.09	0.59	0.97	-0.40
Motor Gasoline	416.2	407.6	398.3	385.8	380.1	362.0	380.2	370.8	0.30	0.21	-0.11	-0.30
Middle Distillate	636.7	647.3	649.5	670.7	655.7	571.6	560.9	561.6	-0.08	0.00	1.03	0.09
Residual Fuel Oil	138.4	138.3	135.7	129.3	126.0	118.5	110.1	122.5	-0.10	0.18	0.09	-0.13
Total Products[3]	1620.5	1629.5	1632.9	1654.5	1642.3	1473.4	1473.8	1504.9	-0.37	0.26	1.44	0.14
Total[4]	**3215.2**	**3214.4**	**3221.0**	**3211.4**	**3191.7**	**2974.4**	**2867.6**	**2941.6**	**-0.57**	**0.89**	**2.61**	**-0.25**
OECD GOVERNMENT-CONTROLLED STOCKS[5]												
OECD Americas												
Crude	648.3	656.0	656.1	647.5	641.8	673.6	660.0	644.8	-0.11	0.00	0.23	-0.15
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	208.1	208.8	207.8	207.8	207.7	208.0	212.1	206.3	0.01	-0.01	0.02	-0.01
Products	276.5	276.5	281.5	281.4	280.6	268.5	271.3	274.3	-0.01	0.03	0.01	0.04
OECD Asia Oceania												
Crude	377.1	377.3	377.2	377.5	377.5	385.0	383.4	377.0	0.00	0.00	0.00	0.00
Products	39.0	39.0	39.4	39.4	39.4	38.3	38.7	38.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1233.6	1242.1	1241.2	1232.8	1227.1	1266.7	1255.4	1228.0	-0.09	-0.01	0.25	-0.16
Products	317.5	317.5	322.9	322.7	321.9	308.8	312.0	315.2	-0.01	0.03	0.01	0.05
Total[4]	**1553.1**	**1561.5**	**1566.1**	**1557.6**	**1551.0**	**1579.0**	**1570.1**	**1544.5**	**-0.10**	**0.02**	**0.27**	**-0.11**

* estimated

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

2 Closing stock levels.

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

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

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

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Table 4a
INDUSTRY STOCKS[1] ON LAND IN SELECTED COUNTRIES

(million barrels)

	April			May			June			July			August		
	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%
United States[2]															
Crude	469.8	529.2	12.6	481.1	521.0	8.3	463.4	531.9	14.8	441.6	519.3	17.6	430.1	504.0	17.2
Motor Gasoline	230.9	257.3	11.4	235.8	258.2	9.5	229.9	253.3	10.2	235.4	249.3	5.9	230.4	236.6	2.7
Middle Distillate	171.1	192.4	12.4	171.2	218.0	27.3	173.5	218.9	26.2	182.8	220.7	20.7	180.9	221.4	22.4
Residual Fuel Oil	28.9	36.5	26.3	30.2	39.4	30.5	30.5	39.6	29.8	30.7	36.3	18.2	28.8	34.8	20.8
Other Products	192.3	208.0	8.2	210.5	218.8	3.9	225.7	232.6	3.1	233.6	246.7	5.6	243.5	260.9	7.1
Total Products	623.2	694.2	11.4	647.7	734.4	13.4	659.6	744.4	12.9	682.5	753.0	10.3	683.6	753.7	10.3
Other[3]	170.6	174.1	2.1	178.2	170.1	-4.5	181.2	176.5	-2.6	185.0	178.7	-3.4	187.0	178.5	-4.5
Total	**1263.6**	**1397.5**	**10.6**	**1307.0**	**1425.5**	**9.1**	**1304.2**	**1452.8**	**11.4**	**1309.1**	**1451.0**	**10.8**	**1300.7**	**1436.2**	**10.4**
Japan															
Crude	94.1	97.4	3.5	97.2	98.6	1.4	91.9	91.0	-1.0	102.6	94.1	-8.3	96.5	94.2	-2.4
Motor Gasoline	9.7	13.1	35.1	9.8	12.5	27.6	9.5	11.5	21.1	9.6	11.9	24.0	10.0	12.1	21.0
Middle Distillate	25.8	29.0	12.4	27.4	30.5	11.3	28.2	31.9	13.1	31.0	33.0	6.5	35.8	37.1	3.6
Residual Fuel Oil	7.9	7.6	-3.8	8.0	7.6	-5.0	7.8	7.5	-3.8	7.7	7.4	-3.9	7.5	7.2	-4.0
Other Products	30.9	32.9	6.5	33.8	37.1	9.8	35.8	36.6	2.2	37.0	36.0	-2.7	42.0	38.4	-8.6
Total Products	74.3	82.6	11.2	79.0	87.7	11.0	81.3	87.5	7.6	85.3	88.3	3.5	95.3	94.8	-0.5
Other[3]	51.4	55.0	7.0	50.8	55.5	9.3	53.1	55.7	4.9	53.8	53.6	-0.4	56.7	56.1	-1.1
Total	**219.8**	**235.0**	**6.9**	**227.0**	**241.8**	**6.5**	**226.3**	**234.2**	**3.5**	**241.7**	**236.0**	**-2.4**	**248.5**	**245.1**	**-1.4**
Germany															
Crude	48.7	51.5	5.7	48.6	51.2	5.3	47.7	51.4	7.8	49.8	50.0	0.4	48.6	50.2	3.3
Motor Gasoline	9.2	9.8	6.5	10.1	10.1	0.0	11.9	9.6	-19.3	11.7	8.9	-23.9	10.1	10.0	-1.0
Middle Distillate	23.5	21.9	-6.8	22.7	26.1	15.0	24.8	25.3	2.0	23.8	25.5	7.1	24.4	27.7	13.5
Residual Fuel Oil	7.1	7.8	9.9	7.0	7.6	8.6	6.8	8.2	20.6	6.6	7.4	12.1	7.2	8.3	15.3
Other Products	10.3	9.5	-7.8	10.1	10.0	-1.0	10.4	9.3	-10.6	10.5	9.5	-9.5	10.5	9.6	-8.6
Total Products	50.1	49.0	-2.2	49.9	53.8	7.8	53.9	52.4	-2.8	52.6	51.3	-2.5	52.2	55.6	6.5
Other[3]	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	**98.8**	**100.5**	**1.7**	**98.5**	**105.0**	**6.6**	**101.6**	**103.8**	**2.2**	**102.4**	**101.3**	**-1.1**	**100.8**	**105.8**	**5.0**
Italy															
Crude	43.1	42.4	-1.6	40.4	39.8	-1.5	45.0	41.6	-7.6	42.2	43.2	2.4	41.6	40.8	-1.9
Motor Gasoline	11.1	14.1	27.0	11.0	12.9	17.3	11.3	13.0	15.0	11.5	11.5	0.0	11.5	11.4	-0.9
Middle Distillate	29.9	33.7	12.7	29.3	33.0	12.6	28.0	32.9	17.5	28.0	31.2	11.4	30.9	31.3	1.3
Residual Fuel Oil	8.7	9.5	9.2	8.6	9.0	4.7	8.7	9.2	5.7	8.9	8.0	-10.1	9.4	8.4	-10.6
Other Products	12.1	17.8	47.1	11.7	18.6	59.0	12.4	17.8	43.5	12.0	17.4	45.0	12.8	19.0	48.4
Total Products	61.8	75.1	21.5	60.6	73.5	21.3	60.4	72.9	20.7	60.4	68.1	12.7	64.6	70.1	8.5
Other[3]	14.8	17.8	20.3	16.2	16.6	2.5	13.8	17.5	26.8	15.1	17.8	17.9	15.1	17.6	16.6
Total	**119.7**	**135.3**	**13.0**	**117.2**	**129.9**	**10.8**	**119.2**	**132.0**	**10.7**	**117.7**	**129.1**	**9.7**	**121.3**	**128.5**	**5.9**
France															
Crude	12.9	11.5	-10.9	13.7	14.2	3.6	15.8	11.9	-24.7	13.5	14.0	3.7	14.0	11.6	-17.1
Motor Gasoline	3.8	5.3	39.5	4.5	4.5	0.0	5.9	4.9	-16.9	5.7	4.5	-21.1	5.5	5.0	-9.1
Middle Distillate	20.9	20.2	-3.3	21.7	20.1	-7.4	21.1	22.9	8.5	19.6	22.0	12.2	22.1	25.9	17.2
Residual Fuel Oil	0.9	1.2	33.3	0.8	0.9	12.5	0.9	1.6	77.8	1.2	1.6	33.3	1.6	1.5	-6.3
Other Products	4.0	4.8	20.0	3.9	4.7	20.5	4.3	4.1	-4.7	4.4	4.2	-4.5	4.4	4.1	-6.8
Total Products	29.6	31.5	6.4	30.9	30.2	-2.3	32.2	33.5	4.0	30.9	32.3	4.5	33.6	36.5	8.6
Other[3]	7.4	9.6	29.7	7.6	9.3	22.4	8.5	8.7	2.4	8.0	8.7	8.7	8.4	9.1	8.3
Total	**49.9**	**52.6**	**5.4**	**52.2**	**53.7**	**2.9**	**56.5**	**54.1**	**-4.2**	**52.4**	**55.0**	**5.0**	**56.0**	**57.2**	**2.1**
United Kingdom															
Crude	31.4	30.3	-3.5	29.2	30.0	2.7	31.1	32.1	3.2	26.9	31.8	18.2	27.8	28.4	2.2
Motor Gasoline	9.8	10.8	10.2	9.0	9.2	2.2	8.7	9.5	9.2	9.2	9.8	6.5	8.9	9.3	4.5
Middle Distillate	25.9	31.5	21.6	24.9	31.3	25.7	24.3	32.3	32.9	26.6	32.1	20.7	27.5	32.0	16.4
Residual Fuel Oil	1.4	1.5	7.1	1.3	1.3	0.0	1.4	1.8	28.6	1.1	1.5	36.4	1.3	1.8	38.5
Other Products	6.2	6.9	11.3	6.1	6.7	9.8	6.6	6.3	-4.5	6.4	7.1	10.9	7.2	7.2	0.0
Total Products	43.3	50.7	17.1	41.3	48.5	17.4	41.0	49.9	21.7	43.3	50.5	16.6	44.9	50.3	12.0
Other[3]	9.7	8.1	-16.5	8.8	7.6	-13.6	8.9	7.9	-11.2	9.5	7.8	-17.9	9.7	7.3	-24.7
Total	**84.4**	**89.1**	**5.6**	**79.3**	**86.1**	**8.6**	**81.0**	**89.9**	**11.0**	**79.7**	**90.1**	**13.0**	**82.4**	**86.0**	**4.4**
Canada[4]															
Crude	125.3	145.4	16.0	126.2	142.0	12.5	121.0	137.5	13.6	120.5	133.5	10.8	122.3	133.5	9.2
Motor Gasoline	14.6	15.6	6.8	14.4	15.0	4.2	13.9	15.6	12.2	14.2	15.0	5.6	14.7	14.2	-3.4
Middle Distillate	17.1	12.0	-29.8	15.5	12.6	-18.7	14.9	12.5	-16.1	15.9	13.1	-17.6	15.8	11.8	-25.3
Residual Fuel Oil	2.2	2.8	27.3	1.6	2.5	56.3	2.0	2.6	30.0	2.0	2.7	35.0	1.5	2.7	80.0
Other Products	11.4	10.6	-7.0	11.2	10.3	-8.0	9.6	9.4	-2.1	10.6	9.6	-9.4	10.0	8.8	-12.0
Total Products	45.3	41.0	-9.5	42.7	40.4	-5.4	40.4	40.1	-0.7	42.7	40.4	-5.4	42.0	37.5	-10.7
Other[3]	18.4	18.5	0.5	18.5	21.4	15.7	20.5	24.8	21.0	22.0	28.4	29.1	23.8	30.5	28.2
Total	**189.0**	**204.9**	**8.4**	**187.4**	**203.8**	**8.8**	**181.9**	**202.4**	**11.3**	**185.2**	**202.3**	**9.2**	**188.1**	**201.5**	**7.1**

1 Stocks are primary national territory stocks on land (excluding utilitity stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.
2 US figures exclude US territories.
3 Other includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.
4 Canadian stock information for recent months is the administration's best estimate. Data are usually finalised three months after first publication.

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Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES[1]
('millions of barrels' and 'days')

	End September 2019		End December 2019		End March 2020		End June 2020		End September 2020 [3]	
	Stock Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	185.6	75	181.3	78	197.6	105	202.3	-	-	-
Chile	12.3	33	11.5	30	11.9	43	12.4	-	-	-
Mexico	34.3	18	20.9	13	23.1	18	23.6	-	-	-
United States[4]	1945.2	94	1918.8	99	1957.7	122	2110.9	-	-	-
Total[4]	**2199.5**	**86**	**2154.7**	**90**	**2212.4**	**112**	**2371.3**	**104**	**2330.9**	**99**
OECD Asia Oceania										
Australia	44.8	37	42.6	37	42.7	46	41.3	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	551.6	147	551.9	150	534.9	185	553.8	-	-	-
Korea	210.2	80	206.3	82	196.5	81	213.4	-	-	-
New Zealand	10.1	53	9.2	52	11.0	95	10.1	-	-	-
Total	**816.6**	**102**	**810.0**	**105**	**785.1**	**120**	**818.6**	**122**	**833.2**	**114**
OECD Europe[5]										
Austria	20.9	79	22.0	89	24.2	111	22.7	-	-	-
Belgium	47.5	71	45.7	70	47.9	86	50.1	-	-	-
Czech Republic	21.4	101	22.3	117	24.0	148	23.2	-	-	-
Denmark	28.2	170	26.9	191	29.2	220	34.1	-	-	-
Estonia	2.7	90	3.9	131	2.6	99	4.4	-	-	-
Finland	39.2	192	36.4	172	38.7	194	39.7	-	-	-
France	160.4	99	158.6	103	162.5	134	165.5	-	-	-
Germany	276.6	118	277.0	119	278.5	137	281.2	-	-	-
Greece	32.0	107	29.4	107	35.7	147	38.3	-	-	-
Hungary	24.9	139	26.2	159	26.2	160	26.2	-	-	-
Ireland	8.8	54	9.7	61	10.3	95	12.3	-	-	-
Italy	134.9	109	128.3	126	145.2	177	142.3	-	-	-
Latvia	3.6	97	2.5	80	2.7	84	3.4	-	-	-
Lithuania	8.0	121	6.9	121	7.3	116	7.7	-	-	-
Luxembourg	0.6	10	0.6	11	0.7	16	0.7	-	-	-
Netherlands	149.1	162	145.6	153	147.1	176	174.4	-	-	-
Norway	27.1	162	23.8	131	28.5	160	27.3	-	-	-
Poland	79.3	113	81.2	127	83.2	137	82.3	-	-	-
Portugal	24.1	97	24.3	111	25.7	152	22.0	-	-	-
Slovak Republic	11.7	141	12.3	153	12.5	163	12.1	-	-	-
Slovenia	4.8	91	5.3	114	5.2	112	5.4	-	-	-
Spain	123.1	94	124.8	102	127.4	145	128.0	-	-	-
Sweden	42.8	157	44.5	174	46.1	205	72.4	-	-	-
Switzerland	32.1	139	32.3	149	33.4	182	34.4	-	-	-
Turkey	88.0	89	88.3	100	89.4	112	86.0	-	-	-
United Kingdom	78.3	51	81.2	54	83.1	88	89.8	-	-	-
Total	**1470.0**	**105**	**1460.0**	**109**	**1517.2**	**138**	**1586.0**	**124**	**1578.6**	**126**
Total OECD	**4486.1**	**94**	**4424.7**	**98**	**4514.8**	**121**	**4775.9**	**112**	**4742.7**	**109**
DAYS OF IEA Net Imports[6]	-	**214**	-	**212**	-	**217**	-	**259**	-	**-**

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End September 2020 forward demand figures are IEA Secretariat forecasts.
4 US figures exclude US territories. Total includes US territories.
5 Data not available for Iceland.
6 Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government[1] controlled	Industry	Total	Government[1] controlled	Industry
	Millions of Barrels			*Days of Fwd. Demand*[2]		
3Q2017	4553	1579	2974	94	33	62
4Q2017	4428	1569	2860	92	33	59
1Q2018	4395	1577	2818	93	33	59
2Q2018	4389	1575	2814	91	33	58
3Q2018	4438	1570	2868	93	33	60
4Q2018	4427	1552	2875	93	33	61
1Q2019	4432	1557	2875	94	33	61
2Q2019	4481	1549	2932	93	32	61
3Q2019	4486	1544	2942	94	32	62
4Q2019	4425	1535	2889	98	34	64
1Q2020	4515	1537	2978	121	41	80
2Q2020	4776	1561	3214	112	37	76
3Q2020	4743	1551	3192	109	36	73

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 3Q2020 (when latest forecasts are used).

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Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS[1]
(million barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier change
Saudi Light & Extra Light												
Americas	0.59	0.66	0.20	0.08	0.23	0.49	0.41	0.30	0.03	-	-	-
Europe	0.69	0.69	0.68	0.71	0.56	0.56	0.79	0.50	0.38	0.47	0.74	-0.27
Asia Oceania	1.56	1.45	1.42	1.33	1.32	1.41	1.36	1.29	1.61	1.24	1.35	-0.11
Saudi Medium												
Americas	0.33	0.30	0.12	0.10	0.06	0.06	0.39	0.55	-	0.08	0.05	0.03
Europe	0.01	0.01	0.02	0.04	0.02	0.05	0.03	0.00	-	0.02	0.06	-0.04
Asia Oceania	0.37	0.41	0.23	0.24	0.19	0.22	0.26	0.28	0.24	0.26	0.30	-0.04
Canada Heavy												
Americas	2.23	2.41	2.27	2.29	2.33	2.64	2.14	2.08	2.33	2.21	2.23	-0.02
Europe	0.02	0.04	0.04	0.05	0.04	0.04	0.02	0.00	0.02	0.06	0.07	-0.01
Asia Oceania	-	0.00	0.00	0.01	0.01	-	-	-	-	-	-	-
Iraqi Basrah Light[2]												
Americas	0.63	0.50	0.31	0.32	0.21	0.26	0.05	0.16	-	0.12	0.27	-0.15
Europe	0.76	0.76	0.85	0.96	0.59	0.62	0.60	0.48	0.48	0.41	1.02	-0.61
Asia Oceania	0.40	0.43	0.37	0.24	0.39	0.27	0.20	0.14	0.12	0.37	0.28	0.09
Kuwait Blend												
Americas	0.11	0.02	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.13	0.11	0.17	0.10	0.08	0.09	0.07	0.02	0.00	0.16	-0.16
Asia Oceania	0.68	0.66	0.61	0.64	0.57	0.63	0.67	0.62	0.38	0.44	0.70	-0.26
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.27	0.16	0.00	-	-	-	-	-	-	-	-	-
Asia Oceania	0.01	0.01	0.00	-	-	-	-	-	-	-	-	-
Iranian Heavy[3]												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.52	0.35	0.04	-	-	-	-	-	-	-	-	-
Asia Oceania	0.57	0.28	0.14	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.02	0.00	0.00	0.01	-	-	-	-	-	-	-	-
Europe	0.45	0.35	0.37	0.34	0.45	0.48	0.32	0.56	0.55	0.46	0.33	0.13
Asia Oceania	0.10	0.09	0.01	0.02	-	-	0.02	-	-	0.13	0.07	0.07
Kazakhstan												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.75	0.75	0.76	0.75	0.67	0.80	0.69	0.76	0.71	0.64	0.78	-0.14
Asia Oceania	0.10	0.19	0.18	0.22	0.15	0.10	0.07	0.04	0.03	0.10	0.20	-0.10
Venezuelan 22 API and heavier												
Americas	0.48	0.44	0.05	-	-	-	-	-	-	-	-	-
Europe	0.04	0.03	0.09	0.09	0.09	0.03	0.04	0.03	0.12	0.04	0.08	-0.03
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.58	0.63	0.51	0.52	0.46	0.55	0.53	0.51	0.52	0.47	0.64	-0.17
Europe	0.20	0.21	0.19	0.17	0.17	0.13	0.15	0.10	0.16	0.16	0.18	-0.02
Asia Oceania	0.07	0.08	0.13	0.13	0.14	0.14	0.10	0.13	0.12	0.10	0.13	-0.03
Russian Urals												
Americas	0.01	0.01	0.01	0.02	-	-	-	-	-	-	0.02	-
Europe	1.64	1.40	1.37	1.50	1.23	1.40	1.10	1.18	0.84	0.85	1.48	-0.64
Asia Oceania	0.01	0.00	-	-	-	-	-	-	-	-	-	-
Cabinda and Other Angola												
North America	0.07	0.06	0.01	-	-	-	0.03	-	-	-	-	-
Europe	0.11	0.14	0.15	0.20	0.13	0.18	0.11	0.10	0.05	0.12	0.17	-0.05
Pacific	0.01	0.01	0.00	-	0.01	-	-	-	-	-	-	-
Nigerian Light[4]												
Americas	0.04	0.01	0.03	0.05	-	-	-	-	-	-	0.16	-
Europe	0.39	0.53	0.51	0.48	0.50	0.50	0.39	0.48	0.53	0.61	0.63	-0.02
Asia Oceania	0.02	0.02	0.02	0.03	0.02	0.04	0.01	-	0.01	0.03	0.02	0.01
Libya Light and Medium												
Americas	0.02	-	0.00	-	-	-	-	-	-	-	-	-
Europe	0.54	0.62	0.67	0.73	0.70	0.20	0.03	0.04	0.02	0.04	0.77	-0.72
Asia Oceania	0.03	0.02	0.03	0.04	0.02	0.04	-	-	-	-	0.06	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report. IEA Americas includes United States and Canada. IEA Europe includes all countries in OECD Europe except Estonia, Hungary, Slovenia and Latvia. IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.
2 Iraqi Total minus Kirkuk.
3 Iranian Total minus Iranian Light.
4 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

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Table 7
REGIONAL OECD IMPORTS[1,2]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier % change
Crude Oil												
Americas	4361	3759	2698	2654	2292	2097	2134	2519	1864	1493	2854	-48%
Europe	9902	9814	9872	10309	9589	9309	7894	7337	8193	7921	10420	-24%
Asia Oceania	6849	6697	6542	6365	6520	6372	5298	4616	5291	5230	6687	-22%
Total OECD	**21112**	**20269**	**19111**	**19329**	**18401**	**17779**	**15326**	**14472**	**15348**	**14643**	**19961**	**-27%**
LPG												
Americas	20	22	26	21	28	31	28	21	38	25	18	34%
Europe	432	457	434	408	438	533	305	286	471	402	466	-14%
Asia Oceania	551	553	582	608	586	647	551	481	562	472	640	-26%
Total OECD	**1003**	**1032**	**1042**	**1037**	**1052**	**1210**	**884**	**788**	**1071**	**899**	**1124**	**-20%**
Naphtha												
Americas	19	8	5	5	5	7	7	12	7	20	5	295%
Europe	369	391	347	310	396	421	466	417	370	306	385	-21%
Asia Oceania	978	1021	993	1031	1061	1109	1044	1125	1022	1027	1130	-9%
Total OECD	**1366**	**1420**	**1345**	**1347**	**1462**	**1536**	**1518**	**1554**	**1400**	**1352**	**1520**	**-11%**
Gasoline[3]												
Americas	727	773	817	957	669	507	499	712	654	642	952	-33%
Europe	153	110	112	92	90	112	123	189	71	85	99	-14%
Asia Oceania	102	113	114	117	110	103	111	164	257	150	113	33%
Total OECD	**983**	**996**	**1043**	**1165**	**869**	**722**	**734**	**1065**	**983**	**878**	**1165**	**-25%**
Jet & Kerosene												
Americas	171	140	175	206	170	164	146	137	157	188	199	-5%
Europe	504	509	520	558	496	422	325	358	245	349	582	-40%
Asia Oceania	80	89	76	69	94	119	35	41	44	59	68	-13%
Total OECD	**755**	**738**	**771**	**832**	**760**	**704**	**506**	**537**	**446**	**596**	**849**	**-30%**
Gasoil/Diesel												
Americas	77	124	118	72	117	77	115	97	72	101	65	54%
Europe	1337	1339	1298	1276	1253	1263	1215	1357	1176	1276	1304	-2%
Asia Oceania	196	253	262	270	286	281	346	402	400	381	311	22%
Total OECD	**1610**	**1716**	**1678**	**1618**	**1656**	**1622**	**1676**	**1856**	**1648**	**1758**	**1681**	**5%**
Heavy Fuel Oil												
Americas	131	161	116	85	127	156	153	165	87	185	87	113%
Europe	233	197	223	240	206	283	267	249	432	311	253	23%
Asia Oceania	146	162	101	116	80	108	46	41	139	52	138	-63%
Total OECD	**510**	**520**	**440**	**441**	**413**	**546**	**466**	**455**	**658**	**548**	**477**	**15%**
Other Products												
Americas	717	679	713	792	809	704	542	587	646	598	799	-25%
Europe	1012	1011	865	830	723	665	601	528	529	578	858	-33%
Asia Oceania	263	263	268	260	273	288	215	221	202	223	223	0%
Total OECD	**1991**	**1952**	**1846**	**1882**	**1804**	**1656**	**1359**	**1335**	**1378**	**1399**	**1879**	**-26%**
Total Products												
Americas	1862	1908	1971	2138	1924	1645	1491	1731	1662	1758	2125	-17%
Europe	4040	4013	3798	3714	3602	3699	3303	3385	3294	3308	3948	-16%
Asia Oceania	2316	2454	2397	2470	2490	2654	2349	2476	2627	2363	2623	-10%
Total OECD	**8218**	**8374**	**8166**	**8323**	**8016**	**7997**	**7143**	**7592**	**7583**	**7429**	**8696**	**-15%**
Total Oil												
Americas	6223	5666	4669	4793	4216	3742	3625	4250	3526	3250	4979	-35%
Europe	13942	13827	13670	14023	13191	13008	11197	10722	11487	11229	14368	-22%
Asia Oceania	9164	9151	8939	8836	9010	9027	7647	7092	7919	7593	9309	-18%
Total OECD	**29330**	**28644**	**27278**	**27652**	**26418**	**25776**	**22469**	**22064**	**22932**	**22073**	**28657**	**-23%**

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

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Table 7a
REGIONAL OECD IMPORTS FROM NON-OECD COUNTRIES[1,2]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier % change
Crude Oil												
Americas	4235	3606	2553	2519	2203	2047	2048	2381	1837	1449	2744	-47%
Europe	9436	9088	8913	9383	8397	8026	6794	6604	7051	6696	9514	-30%
Asia Oceania	6553	6249	5914	5695	5795	5690	4799	4253	4997	4777	6022	-21%
Total OECD	**20224**	**18943**	**17380**	**17598**	**16395**	**15764**	**13640**	**13238**	**13885**	**12922**	**18279**	**-29%**
LPG												
Americas	16	15	23	21	25	25	22	18	33	19	18	4%
Europe	337	350	303	274	282	303	227	223	253	229	318	-28%
Asia Oceania	205	158	74	65	54	46	57	56	47	49	79	-37%
Total OECD	**557**	**523**	**400**	**360**	**362**	**373**	**306**	**297**	**334**	**297**	**415**	**-28%**
Naphtha												
Americas	16	4	2	3	2	1	2	0	0	3	1	83%
Europe	350	360	320	284	348	398	455	410	329	288	355	-19%
Asia Oceania	931	924	898	975	941	924	831	858	864	866	1089	-20%
Total OECD	**1297**	**1288**	**1220**	**1261**	**1291**	**1323**	**1288**	**1268**	**1193**	**1157**	**1446**	**-20%**
Gasoline[3]												
Americas	213	271	308	386	234	168	213	339	250	240	402	-40%
Europe	149	105	108	89	87	108	118	186	63	75	96	-22%
Asia Oceania	102	90	88	97	101	86	81	139	218	120	68	77%
Total OECD	**464**	**466**	**504**	**572**	**421**	**362**	**412**	**664**	**532**	**435**	**566**	**-23%**
Jet & Kerosene												
Americas	67	56	39	55	34	58	60	49	37	54	59	-9%
Europe	436	445	464	473	446	356	288	314	216	305	480	-36%
Asia Oceania	80	89	76	69	94	119	35	41	44	59	68	-13%
Total OECD	**583**	**590**	**579**	**596**	**573**	**533**	**383**	**404**	**297**	**418**	**606**	**-31%**
Gasoil/Diesel												
Americas	50	100	86	58	82	61	92	90	53	66	45	46%
Europe	1086	1160	1124	1026	1168	1148	1099	1168	1016	1028	1044	-2%
Asia Oceania	195	253	261	264	286	281	340	394	380	381	311	22%
Total OECD	**1331**	**1513**	**1471**	**1349**	**1537**	**1490**	**1532**	**1652**	**1449**	**1476**	**1401**	**5%**
Heavy Fuel Oil												
Americas	123	147	102	81	107	124	107	109	83	152	76	100%
Europe	218	185	202	210	191	268	253	235	416	305	217	41%
Asia Oceania	146	162	100	114	80	108	46	41	139	52	132	-61%
Total OECD	**487**	**493**	**404**	**405**	**378**	**500**	**406**	**386**	**638**	**509**	**425**	**20%**
Other Products												
Americas	542	522	542	615	646	611	453	497	568	507	652	-22%
Europe	731	702	629	615	510	365	374	330	381	383	602	-36%
Asia Oceania	186	182	184	175	198	199	144	156	127	133	165	-20%
Total OECD	**1459**	**1406**	**1355**	**1404**	**1354**	**1175**	**971**	**983**	**1076**	**1023**	**1420**	**-28%**
Total Products												
Americas	1026	1115	1103	1219	1129	1047	948	1103	1024	1040	1254	-17%
Europe	3307	3307	3150	2971	3031	2947	2814	2865	2675	2614	3111	-16%
Asia Oceania	1845	1857	1681	1758	1755	1762	1535	1686	1820	1660	1913	-13%
Total OECD	**6179**	**6279**	**5934**	**5948**	**5915**	**5757**	**5298**	**5655**	**5519**	**5314**	**6278**	**-15%**
Total Oil												
Americas	5261	4721	3656	3738	3332	3095	2996	3483	2861	2489	3998	-38%
Europe	12744	12395	12062	12354	11429	10973	9608	9469	9726	9309	12625	-26%
Asia Oceania	8398	8106	7595	7453	7550	7452	6334	5940	6818	6438	7934	-19%
Total OECD	**26403**	**25223**	**23314**	**23545**	**22310**	**21520**	**18938**	**18892**	**19404**	**18236**	**24557**	**-26%**

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

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Table 7b
INTER-REGIONAL OECD TRANSFERS[1,2]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier % change
Crude Oil												
Americas	126	153	145	135	89	50	86	139	26	44	110	-60%
Europe	466	726	959	926	1192	1283	1100	733	1143	1225	907	35%
Asia Oceania	296	448	628	670	725	682	499	363	294	453	665	-32%
Total OECD	**888**	**1326**	**1731**	**1731**	**2007**	**2015**	**1685**	**1234**	**1463**	**1722**	**1682**	**2%**
LPG												
Americas	4	7	3	0	3	6	6	3	6	6	0	na
Europe	95	107	131	134	156	230	78	63	218	173	148	17%
Asia Oceania	346	395	508	543	532	601	494	425	515	422	562	-25%
Total OECD	**445**	**508**	**642**	**678**	**690**	**837**	**578**	**491**	**738**	**601**	**710**	**-15%**
Naphtha												
Americas	3	4	3	3	3	6	5	12	7	17	4	377%
Europe	19	31	27	26	48	23	11	8	41	18	30	-41%
Asia Oceania	47	97	96	57	120	185	213	267	158	160	40	297%
Total OECD	**69**	**132**	**125**	**86**	**171**	**213**	**229**	**286**	**206**	**195**	**74**	**163%**
Gasoline[3]												
Americas	514	502	509	571	436	339	286	373	404	402	551	-27%
Europe	5	5	4	2	3	4	5	3	8	11	4	200%
Asia Oceania	0	23	26	20	9	17	30	25	39	30	45	-33%
Total OECD	**519**	**530**	**539**	**593**	**448**	**360**	**321**	**401**	**451**	**443**	**599**	**-26%**
Jet & Kerosene												
Americas	104	84	136	151	137	106	87	88	120	134	140	-4%
Europe	68	64	56	85	50	65	37	44	28	44	103	-57%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	**172**	**148**	**192**	**236**	**186**	**171**	**124**	**132**	**149**	**178**	**242**	**-26%**
Gasoil/Diesel												
Americas	28	25	32	14	35	16	22	7	19	34	20	71%
Europe	250	178	174	250	85	115	116	189	160	248	260	-5%
Asia Oceania	1	0	1	5	0	0	6	8	20	0	0	na
Total OECD	**279**	**203**	**207**	**269**	**120**	**132**	**144**	**204**	**198**	**282**	**280**	**1%**
Heavy Fuel Oil												
Americas	8	15	14	4	20	31	46	56	5	33	11	204%
Europe	15	12	21	30	15	15	15	14	16	6	36	-84%
Asia Oceania	0	0	1	2	0	0	0	0	0	0	6	-100%
Total OECD	**23**	**27**	**36**	**36**	**35**	**46**	**61**	**70**	**20**	**39**	**53**	**-26%**
Other Products												
Americas	175	157	171	177	163	93	90	89	78	90	146	-38%
Europe	280	308	236	216	213	299	228	198	149	195	256	-24%
Asia Oceania	77	81	83	85	75	89	70	65	75	90	57	58%
Total OECD	**532**	**546**	**490**	**477**	**451**	**481**	**388**	**352**	**302**	**376**	**459**	**-18%**
Total Products												
Americas	836	793	867	920	795	597	543	628	638	717	871	-18%
Europe	733	706	649	743	571	752	489	519	619	695	836	-17%
Asia Oceania	470	597	716	712	735	892	813	790	807	703	710	-1%
Total OECD	**2039**	**2095**	**2232**	**2375**	**2101**	**2241**	**1845**	**1937**	**2064**	**2115**	**2418**	**-13%**
Total Oil												
Americas	962	945	1012	1055	884	647	629	766	665	761	981	-22%
Europe	1199	1432	1608	1669	1763	2034	1589	1252	1762	1920	1743	10%
Asia Oceania	766	1044	1343	1382	1461	1574	1312	1153	1101	1156	1375	-16%
Total OECD	**2927**	**3421**	**3963**	**4107**	**4108**	**4256**	**3530**	**3171**	**3527**	**3837**	**4099**	**-6%**

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

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Table 8
REGIONAL OECD CRUDE IMPORTS BY SOURCE[1]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	change
OECD Americas												
Venezuela	618	506	81	-	-	-	-	-	-	-	-	-
Other Central & South America	928	795	867	888	849	823	625	618	776	743	995	-252
North Sea	124	150	143	135	89	50	83	139	26	44	110	-66
Other OECD Europe	-	1	2	-	-	-	4	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	121	145	189	209	143	146	42	75	87	68	240	-173
Saudi Arabia	1043	983	601	555	501	545	1015	1283	673	267	548	-281
Kuwait	144	78	45	22	26	37	-	-	67	-	46	-
Iran	-	-	-	-	-	-	-	-	-	-	-	-
Iraq	605	519	331	332	292	284	176	146	136	209	249	-40
Oman	14	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	20	5	3	11	-	-	9	28	5	-	-	-
Other Middle East	2	-	-	-	-	-	-	-	-	-	-	-
West Africa[2]	497	317	267	332	244	118	146	169	71	128	454	-325
Other Africa	214	196	137	127	92	56	24	25	9	34	182	-148
Asia	26	61	32	43	54	40	12	36	13	-	31	-
Other	4	3	0	-	0	-	-	-	-	-	-	-
Total	**4361**	**3759**	**2698**	**2654**	**2292**	**2097**	**2134**	**2519**	**1864**	**1493**	**2854**	**-1362**
of which Non-OECD	**4235**	**3606**	**2553**	**2519**	**2203**	**2047**	**2048**	**2381**	**1837**	**1449**	**2744**	**-1295**
OECD Europe												
Canada	45	81	60	73	65	115	67	28	82	103	146	-44
Mexico + USA	419	645	900	853	1127	1167	1033	705	1061	1122	760	362
Venezuela	67	57	106	102	104	33	40	38	129	51	88	-38
Other Central & South America	160	132	118	124	156	229	151	88	148	247	126	121
Non-OECD Europe	9	12	14	11	25	34	13	15	19	24	9	15
Former Soviet Union	4437	4149	4240	4410	4186	4131	3217	3434	3547	3238	4359	-1121
Saudi Arabia	750	818	792	868	624	716	1071	594	514	647	891	-244
Kuwait	201	137	97	143	53	90	64	55	92	89	121	-32
Iran	801	536	74	41	32	18	-	-	-	-	25	-
Iraq	995	962	1124	1189	862	828	847	769	909	526	1169	-643
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	6	2	2	-	7	-	-	-	-	-	-	-
Other Middle East	1	-	3	2	-	-	16	25	-	22	-	-
West Africa[2]	960	1115	1140	1179	1134	1317	876	989	1152	1180	1266	-86
Other Africa	1045	1161	1180	1301	1204	599	485	578	501	403	1420	-1018
Asia	2	-	-	-	-	-	-	-	-	-	-	-
Other	5	9	13	0	12	10	17	21	24	191	0	190
Total	**9903**	**9816**	**9863**	**10296**	**9590**	**9287**	**7897**	**7338**	**8176**	**7842**	**10381**	**-2539**
of which Non-OECD	**9436**	**9088**	**8913**	**9383**	**8397**	**8026**	**6794**	**6604**	**7051**	**6696**	**9514**	**-2818**
OECD Asia Oceania												
Canada	-	3	5	6	12	-	-	-	-	-	-	-
Mexico + USA	199	344	613	642	705	674	457	337	294	284	600	-316
Venezuela	8	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	35	35	48	51	23	79	96	45	77	69	54	14
North Sea	97	100	10	22	8	8	42	26	-	169	65	103
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	413	435	435	488	392	402	218	134	158	378	518	-140
Saudi Arabia	2166	2040	1878	1793	1751	1844	1790	1739	2171	1768	1920	-153
Kuwait	671	672	666	705	615	668	704	647	400	462	748	-287
Iran	543	274	137	-	-	-	-	-	-	-	-	-
Iraq	402	435	364	244	381	267	201	136	125	372	284	88
Oman	42	56	59	70	46	35	-	-	49	-	48	-
United Arab Emirates	1147	1098	1256	1257	1416	1434	1018	942	1093	873	1462	-589
Other Middle East	390	450	449	516	463	454	345	255	403	370	571	-201
West Africa[2]	66	95	56	29	45	96	46	53	31	91	37	54
Other Africa	92	105	90	96	108	79	26	21	51	48	76	-28
Non-OECD Asia	325	319	220	184	230	198	109	120	96	116	172	-57
Other	253	235	255	262	325	134	245	162	344	231	130	101
Total	**6849**	**6697**	**6542**	**6365**	**6520**	**6372**	**5298**	**4616**	**5291**	**5230**	**6687**	**-1457**
of which Non-OECD	**6553**	**6249**	**5914**	**5695**	**5795**	**5690**	**4799**	**4253**	**4997**	**4777**	**6022**	**-1244**
Total OECD Trade	**21113**	**20271**	**19103**	**19316**	**18402**	**17757**	**15329**	**14474**	**15332**	**14564**	**19922**	**-5358**
of which Non-OECD	**20224**	**18943**	**17380**	**17598**	**16395**	**15764**	**13640**	**13238**	**13885**	**12922**	**18279**	**-5358**

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes, and converted to barrels at 7.37 barrels per tonne. Data will differ from Table 6 which is based on submissions in barrels.
2 West Africa includes Angola, Nigeria, Gabon, Equatorial Guniea, Congo and Democratic Republic of Congo.

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Table 9
REGIONAL OECD GASOLINE IMPORTS BY SOURCE[1]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier change
OECD Americas												
Venezuela	18	23	4	-	-	-	-	-	-	-	-	-
Other Central & South America	42	64	83	105	61	28	65	96	52	45	109	-64
ARA (Belgium Germany Netherlands)	178	167	189	233	155	119	126	195	155	168	238	-69
Other Europe	326	323	293	309	267	201	131	165	248	211	285	-75
FSU	84	80	100	125	119	57	49	108	53	96	109	-14
Saudi Arabia	1	11	7	4	-	4	6	15	36	-	10	-
Algeria	-	1	-	-	-	10	2	7	4	10	-	-
Other Middle East & Africa	24	19	14	25	8	9	8	14	5	20	17	3
Singapore	10	8	5	12	-	-	2	7	-	10	19	-9
OECD Asia Oceania	10	13	28	29	14	21	30	13	1	25	28	-2
Non-OECD Asia (excl. Singapore)	63	84	116	135	77	63	88	108	100	81	142	-62
Other	3	0	0	0	0	-	-	-	-	-	1	-
Total[2]	**759**	**794**	**838**	**978**	**701**	**512**	**508**	**728**	**654**	**666**	**960**	**-294**
of which Non-OECD	**213**	**271**	**308**	**386**	**234**	**168**	**213**	**339**	**250**	**240**	**402**	**-162**
OECD Europe												
OECD Americas	4	4	3	1	3	2	4	3	7	9	1	8
Venezuela	-	0	0	0	-	-	1	-	-	-	-	-
Other Central & South America	3	5	3	2	4	7	1	0	-	1	0	0
Non-OECD Europe	15	11	18	23	18	21	15	23	31	19	21	-2
FSU	89	70	62	47	60	57	51	24	37	24	57	-33
Saudi Arabia	0	2	0	1	-	-	7	22	-	-	3	-
Algeria	1	0	0	-	1	-	3	8	-	-	-	-
Other Middle East & Africa	5	4	8	4	17	3	5	14	5	7	2	5
Singapore	2	2	3	2	2	2	1	2	2	2	2	0
OECD Asia Oceania	1	1	1	1	0	1	1	-	1	1	3	-1
Non-OECD Asia (excl. Singapore)	3	2	0	0	0	0	0	-	-	-	0	-
Other	41	20	21	17	-5	28	46	100	4	32	18	13
Total[2]	**163**	**122**	**121**	**100**	**101**	**122**	**134**	**197**	**88**	**95**	**107**	**-12**
of which Non-OECD	**149**	**105**	**108**	**89**	**87**	**108**	**118**	**186**	**63**	**75**	**96**	**-21**
OECD Asia Oceania												
OECD Americas	-	4	6	20	1	8	8	3	0	0	45	-45
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	0	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	13	14	-	9	9	1	-	14	4	-	-
Other Europe	-	7	5	-	-	1	22	21	25	26	-	-
FSU	-	1	0	-	-	1	7	1	-	-	-	-
Saudi Arabia	0	0	1	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	5	1	-	-	-	-	-	-	-	10	-	-
Singapore	52	49	46	49	63	49	40	94	122	55	38	17
Non-OECD Asia (excl. Singapore)	30	19	21	26	17	18	21	24	74	37	11	26
Other	15	20	21	22	21	20	20	20	19	19	19	0
Total[2]	**102**	**114**	**114**	**117**	**110**	**104**	**118**	**164**	**254**	**150**	**113**	**37**
of which Non-OECD	**102**	**90**	**88**	**97**	**101**	**86**	**81**	**139**	**218**	**120**	**68**	**52**
Total OECD Trade[2]	**1024**	**1029**	**1073**	**1194**	**912**	**738**	**760**	**1089**	**997**	**911**	**1180**	**-269**
of which Non-OECD	**464**	**466**	**504**	**572**	**421**	**362**	**412**	**664**	**532**	**435**	**566**	**-131**

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.
2 Total figure excludes intra-regional trade.

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Table 10
REGIONAL OECD GASOIL/DIESEL IMPORTS BY SOURCE[1]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier change
OECD Americas												
Venezuela	2	4	1	-	-	-	-	-	-	-	-	-
Other Central and South America	13	30	38	47	41	25	34	40	25	38	45	-7
ARA (Belgium Germany Netherlands)	7	6	5	2	18	7	-	-	-	-	-	-
Other Europe	3	3	2	2	1	1	11	3	3	-	-	-
FSU	6	16	6	3	11	1	22	-	-	-	-	-
Saudi Arabia	2	17	3	-	-	3	-	-	15	10	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	4	8	2	-	-	4	-	-	-	-	-	-
Singapore	0	1	0	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	18	15	24	10	16	8	11	4	16	34	20	14
Non-OECD Asia (excl. Singapore)	22	23	30	8	30	28	31	42	13	13	-	-
Other	0	-	7	-	-	-	6	8	-	5	-	-
Total[2]	**77**	**124**	**118**	**72**	**117**	**77**	**115**	**97**	**72**	**101**	**65**	**35**
of which Non-OECD	**50**	**100**	**86**	**58**	**82**	**61**	**92**	**90**	**53**	**66**	**45**	**21**
OECD Europe												
OECD Americas	222	154	138	214	54	89	84	154	138	208	230	-22
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	3	4	0	-	-	2	1	2	3	16	-	-
Non-OECD Europe	48	39	41	40	48	27	27	28	42	37	26	11
FSU	732	714	683	648	670	816	629	588	605	568	707	-138
Saudi Arabia	160	225	205	188	203	113	221	303	181	188	202	-15
Algeria	-	-	0	-	0	-	7	15	-	-	-	-
Other Middle East and Africa	72	76	83	70	77	79	65	92	57	41	86	-44
Singapore	15	14	27	39	34	16	29	17	15	7	42	-35
OECD Asia Oceania	28	25	36	36	31	27	32	35	21	40	30	10
Non-OECD Asia (excl. Singapore)	125	151	152	95	199	150	95	98	93	64	57	7
Other	21	12	10	16	8	-21	61	55	42	138	19	119
Total[2]	**1427**	**1413**	**1376**	**1347**	**1324**	**1297**	**1250**	**1386**	**1197**	**1307**	**1400**	**-92**
of which Non-OECD	**1086**	**1160**	**1124**	**1026**	**1168**	**1148**	**1099**	**1168**	**1016**	**1028**	**1044**	**-16**
OECD Asia Oceania												
OECD Americas	1	-	1	5	-	-	6	8	20	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	0	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	0	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	5	4	4	4	3	3	3	1	2	2	4	-2
Saudi Arabia	-	3	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	8	7	-	11	0	22	52	19	49	-	-
Singapore	87	141	111	96	133	78	96	93	95	116	104	11
Non-OECD Asia (excl. Singapore)	96	91	133	158	134	194	209	234	242	192	198	-6
Other	7	5	5	6	5	6	10	15	22	22	5	17
Total[2]	**196**	**253**	**262**	**270**	**286**	**281**	**346**	**402**	**400**	**381**	**311**	**70**
of which Non-OECD	**195**	**253**	**261**	**264**	**286**	**281**	**340**	**394**	**380**	**381**	**311**	**70**
Total OECD Trade[2]	**1701**	**1790**	**1756**	**1689**	**1727**	**1655**	**1711**	**1885**	**1669**	**1789**	**1776**	**12**
of which Non-OECD	**1331**	**1513**	**1471**	**1349**	**1537**	**1490**	**1532**	**1652**	**1449**	**1476**	**1401**	**75**

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.
2 Total figure excludes intra-regional trade.

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Table 11
REGIONAL OECD JET AND KEROSENE IMPORTS BY SOURCE[1]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier change
OECD Americas												
Venezuela	16	6	0	-	-	-	-	-	-	-	-	-
Other Central and South America	1	2	7	8	11	5	5	4	4	2	-	-
ARA (Belgium Germany Netherlands)	-	0	-	-	-	-	-	-	-	-	-	-
Other Europe	0	0	0	1	-	3	0	1	8	6	2	4
FSU	1	0	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	2	1	2	-	-	3	7	-	-	2	-	-
Algeria	0	-	-	-	-	1	1	-	-	-	-	-
Other Middle East and Africa	3	2	10	15	11	11	4	10	17	-	4	-
Singapore	2	6	3	4	-	13	1	3	-	10	10	0
OECD Asia Oceania	104	84	136	151	137	103	87	87	112	128	137	-9
Non-OECD Asia (excl. Singapore)	30	27	14	28	11	21	31	15	16	40	44	-4
Other	13	11	3	-	-	4	11	17	-	-	-	-
Total[2]	**171**	**140**	**175**	**206**	**170**	**164**	**146**	**137**	**157**	**188**	**199**	**-11**
of which Non-OECD	**67**	**56**	**39**	**55**	**34**	**58**	**60**	**49**	**37**	**54**	**59**	**-6**
OECD Europe												
OECD Americas	20	32	20	32	16	35	14	11	8	1	33	-32
Venezuela	5	1	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	2	1	-	0	0	-	-	-	-	-	-
Non-OECD Europe	3	6	2	1	-	-	-	-	3	-	-	-
FSU	33	40	45	53	32	33	17	16	20	25	52	-27
Saudi Arabia	94	98	105	106	115	54	47	53	15	56	112	-56
Algeria	12	9	11	17	14	12	13	16	10	8	16	-8
Other Middle East and Africa	207	197	199	172	196	174	128	162	135	117	122	-5
Singapore	28	25	29	36	34	21	6	15	32	41	51	-10
OECD Asia Oceania	48	32	36	53	34	31	23	33	21	43	70	-27
Non-OECD Asia (excl. Singapore)	53	69	73	89	51	67	40	34	33	32	130	-97
Other	1	1	2	3	5	-2	38	19	-30	28	-	-
Total[2]	**508**	**512**	**523**	**561**	**497**	**423**	**326**	**359**	**246**	**351**	**586**	**-235**
of which Non-OECD	**436**	**445**	**464**	**473**	**446**	**356**	**288**	**314**	**216**	**305**	**480**	**-174**
OECD Asia Oceania												
OECD Americas	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	1	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	1	-	-	-	-	-	-	-	-	-	-
Singapore	23	28	21	25	20	25	5	10	10	31	32	-1
Non-OECD Asia (excl. Singapore)	34	26	29	27	39	52	15	11	24	19	11	8
Other	22	33	26	17	35	42	16	20	10	8	24	-16
Total[2]	**80**	**89**	**76**	**69**	**94**	**119**	**35**	**41**	**44**	**59**	**68**	**-9**
of which Non-OECD	**80**	**89**	**76**	**69**	**94**	**119**	**35**	**41**	**44**	**59**	**68**	**-9**
Total OECD Trade[2]	**758**	**741**	**774**	**835**	**761**	**705**	**507**	**537**	**448**	**597**	**852**	**-255**
of which Non-OECD	**583**	**590**	**579**	**596**	**573**	**533**	**383**	**404**	**297**	**418**	**606**	**-189**

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.
2 Total figure excludes intra-regional trade.

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Table 12
REGIONAL OECD RESIDUAL FUEL OIL IMPORTS BY SOURCE[1]
(thousand barrels per day)

	2017	2018	2019	3Q19	4Q19	1Q20	2Q20	Jun 20	Jul 20	Aug 20	Year Earlier Aug 19	Year Earlier change
OECD Americas												
Venezuela	16	42	7	-	-	-	-	-	-	-	-	-
Other Central and South America	71	72	50	38	53	71	67	87	27	48	32	17
ARA (Belgium Germany Netherlands)	5	7	6	1	9	6	16	22	0	8	4	4
Other Europe	3	7	8	3	11	25	30	34	4	25	7	18
FSU	24	23	30	40	27	49	33	23	18	68	44	24
Saudi Arabia	-	-	2	-	-	-	-	-	21	-	-	-
Algeria	1	-	8	1	17	8	0	-	-	-	-	-
Other Middle East and Africa	9	7	5	2	14	1	3	-	18	36	-	-
Singapore	3	-	1	-	-	-	3	-	-	-	-	-
OECD Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	1	0	0	-	-	-	-	-	-	-	-	-
Other	0	2	-	-	-	-	-	-	-	-	-	-
Total[2]	**131**	**161**	**117**	**85**	**131**	**161**	**153**	**165**	**87**	**185**	**87**	**98**
of which Non-OECD	**123**	**147**	**102**	**81**	**107**	**124**	**107**	**109**	**83**	**152**	**76**	**76**
OECD Europe												
OECD Americas	6	4	7	14	4	9	10	10	14	5	16	-11
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	3	5	4	4	5	-	-	2	6	2	4
Non-OECD Europe	17	17	21	17	20	5	11	9	15	15	20	-5
FSU	195	154	154	167	145	152	145	130	201	102	162	-61
Saudi Arabia	0	1	-	-	-	-	7	20	-	-	-	-
Algeria	1	1	0	-	-	1	7	-	-	-	-	-
Other Middle East and Africa	23	15	19	27	17	14	13	22	8	5	31	-26
Singapore	-	-	1	2	2	1	4	5	2	-	5	-
OECD Asia Oceania	9	8	14	16	11	7	5	4	2	1	20	-19
Non-OECD Asia (excl. Singapore)	1	0	3	4	0	-	-	-	-	-	10	-
Other	-8	5	8	6	4	91	66	62	177	165	4	161
Total[2]	**246**	**208**	**232**	**256**	**208**	**285**	**268**	**263**	**421**	**298**	**270**	**28**
of which Non-OECD	**218**	**185**	**202**	**210**	**191**	**268**	**253**	**235**	**416**	**305**	**217**	**88**
OECD Asia Oceania												
OECD Americas	0	0	1	2	-	-	-	-	-	-	6	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	9	16	6	3	14	11	9	-	5	-	-	-
Saudi Arabia	-	-	1	3	-	-	-	-	-	-	-	-
Algeria	1	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	18	23	27	49	24	42	14	-	75	26	61	-35
Singapore	58	37	25	26	16	25	10	16	29	-	11	-
Non-OECD Asia (excl. Singapore)	59	85	40	33	26	30	13	25	31	25	60	-34
Other	0	0	1	0	-	-	-	-	-	-	0	-
Total[2]	**146**	**162**	**101**	**116**	**80**	**108**	**46**	**41**	**139**	**52**	**138**	**-86**
of which Non-OECD	**146**	**162**	**100**	**114**	**80**	**108**	**46**	**41**	**139**	**52**	**132**	**-80**
Total OECD Trade[2]	**523**	**531**	**450**	**457**	**419**	**553**	**467**	**469**	**647**	**534**	**494**	**40**
of which Non-OECD	**487**	**493**	**404**	**405**	**378**	**500**	**406**	**386**	**638**	**509**	**425**	**84**

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.

2 Total figure excludes intra-regional trade.

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Table 13
AVERAGE IEA CIF CRUDE COST AND SPOT CRUDE AND PRODUCT PRICES
($/bbl)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20
CRUDE OIL PRICES													
IEA CIF Average Import[1]													
IEA Americas	48.58	60.02	56.93	54.71	44.57	24.30		21.44	33.37	38.60	40.75		
IEA Europe	53.26	70.52	64.25	63.40	53.74	28.35		26.25	38.33	42.92	45.05		
IEA Asia Oceania	54.13	72.46	66.38	65.68	64.01	30.10		25.02	29.23	38.81	44.93		
IEA Total	**52.05**	**67.77**	**62.75**	**61.66**	**53.85**	**27.60**		**24.51**	**34.63**	**40.61**	**43.78**		
FOB Spot													
North Sea Dated	54.16	71.27	64.12	63.06	50.02	29.57	42.82	29.00	40.08	43.27	44.78	40.58	40.01
Brent (Asia) Mth 1	54.86	72.23	64.86	62.49	52.63	36.46	44.20	35.94	43.65	44.35	45.44	42.92	42.12
WTI (Cushing) Mth 1	50.78	65.20	57.03	56.88	45.57	27.95	40.90	28.57	38.30	40.76	42.36	39.60	39.53
Urals (Mediterranean)	53.26	70.17	64.31	63.40	48.97	30.29	43.39	30.84	42.36	44.28	45.01	40.98	40.26
Dubai (1st month)	53.15	69.65	63.49	62.00	50.41	31.17	42.80	30.98	40.71	43.18	43.90	41.45	40.70
Tapis (Dated)	63.43	73.69	69.16	70.08	56.06	28.66	43.69	26.40	40.78	45.61	46.30	39.48	39.15
PRODUCT PRICES													
Rotterdam, Barges FOB													
Premium Unl 10 ppm	65.80	78.78	71.35	69.21	53.77	30.56	46.58	29.59	41.59	45.95	47.41	46.48	45.30
Naphtha	54.19	68.70	56.27	57.90	45.86	26.52	41.90	25.02	38.01	42.51	42.42	40.78	41.72
Jet/Kerosene	65.92	86.39	79.24	78.51	60.06	29.76	41.92	26.88	39.90	43.50	43.37	38.95	41.45
ULSD 10ppm	66.28	86.22	79.45	78.96	62.85	37.55	47.49	34.10	44.56	49.53	49.70	43.36	44.17
Gasoil 0.1 %	64.68	84.28	77.73	76.91	61.41	36.43	45.99	33.19	43.92	47.76	48.12	42.19	43.34
LSFO 1%	48.72	63.22	62.21	62.83	52.84	30.10	41.34	27.74	37.67	40.99	43.09	40.11	42.48
HSFO 3.5%	45.63	61.13	50.31	33.35	33.39	24.05	38.33	21.56	33.55	37.06	40.86	37.37	38.25
Mediterranean, FOB Cargoes													
Premium Unl 10 ppm	65.83	79.41	71.31	70.45	54.91	31.91	47.45	31.10	42.98	46.72	48.29	47.44	45.56
Naphtha	52.74	66.08	54.43	55.36	43.27	23.72	40.74	22.73	36.60	41.56	41.49	39.21	41.07
Jet Aviation Fuel	65.04	85.37	77.76	76.48	58.08	27.43	40.88	25.01	38.62	42.64	42.56	37.51	40.89
ULSD 10ppm	66.20	86.03	79.05	78.23	61.86	36.15	47.45	33.60	44.84	49.73	49.58	43.14	44.47
Gasoil 0.1 %	64.60	84.74	77.70	76.72	60.94	34.06	46.32	30.48	43.78	48.49	48.26	42.28	43.78
LSFO 1%	49.91	64.31	63.90	65.32	54.94	31.39	42.26	29.02	38.68	42.02	44.03	40.89	43.63
HSFO 3.5%	47.22	62.06	52.17	37.35	35.67	24.32	37.23	22.22	33.44	37.03	39.10	35.74	36.95
US Gulf, FOB Pipeline													
Super Unleaded	73.82	85.71	79.24	75.52	60.05	39.80	52.55	40.66	49.85	51.99	53.59	51.53	50.83
Unleaded	67.98	80.10	72.28	68.37	54.57	34.95	49.24	35.09	46.05	48.51	50.50	48.10	47.68
Jet/Kerosene	65.40	85.12	78.81	77.90	58.25	32.58	45.02	31.07	41.64	45.65	46.86	42.52	44.21
ULSD 10 ppm	67.93	85.94	79.09	78.46	61.81	38.27	48.59	35.32	45.70	50.07	50.06	45.57	46.64
No. 6 3%[2]	46.03	60.20	52.57	39.32	35.91	24.69	37.70	23.88	32.77	37.06	40.08	35.99	37.37
Singapore, FOB Cargoes													
Premium Unleaded	67.96	80.21	72.55	75.03	56.85	33.23	47.32	33.44	45.21	46.56	48.18	47.27	45.96
Naphtha	53.99	67.50	57.15	60.13	47.72	28.05	43.29	26.49	39.06	43.60	43.08	43.19	41.88
Jet/Kerosene	65.28	85.05	77.26	75.99	58.88	30.73	42.13	28.94	41.16	43.92	43.28	39.37	41.65
Gasoil 0.05%	65.65	84.33	77.23	76.32	61.38	36.58	47.00	34.04	46.05	49.82	48.10	43.30	43.43
HSFO 180 CST	50.84	67.04	58.62	43.51	43.14	29.24	40.35	26.72	36.91	39.36	42.20	39.61	41.19
HSFO 380 CST 4%	50.01	66.01	57.57	42.63	41.71	27.95	39.59	25.33	35.22	39.06	41.26	38.59	39.53

1 IEA CIF Average Import price for August is an estimate.
IEA Americas includes United States and Canada.
IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.
IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.
2 Waterborne
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Table 14
MONTHLY AVERAGE END-USER PRICES FOR PETROLEUM PRODUCTS

October 2020

	NATIONAL CURRENCY *						US DOLLARS					
	Total Price	% change from Sep-20	% change from Oct-19	Ex-Tax Price	% change from Sep-20	% change from Oct-19	Total Price	% change from Sep-20	% change from Oct-19	Ex-Tax Price	% change from Sep-20	% change from Oct-19
GASOLINE [1] (per litre)												
France	1.333	0.2	- 11.1	0.420	0.7	-24.9	1.569	0.1	-5.4	0.494	0.6	-20.0
Germany	1.283	- 0.4	- 8.2	0.451	-0.9	-13.1	1.510	-0.5	-2.2	0.531	-1.0	-7.5
Italy	1.388	- 0.3	- 12.0	0.410	-0.7	-27.4	1.634	-0.4	-6.3	0.483	-0.8	-22.7
Spain	1.160	- 0.4	- 11.2	0.486	-0.8	-19.8	1.365	-0.5	-5.4	0.572	-0.9	-14.6
United Kingdom	1.133	- 0.1	- 10.5	0.364	-0.3	-23.4	1.471	0.2	-8.1	0.473	-0.0	-21.3
Japan	134.2	- 0.8	- 8.8	65.4	-1.5	-15.3	1.276	-0.5	-6.3	0.622	-1.2	-12.9
Canada	1.042	- 1.6	- 13.6	0.616	-2.5	-21.3	0.789	-1.5	-13.7	0.466	-2.5	-21.5
United States	0.570	- 1.2	- 17.9	0.443	-1.6	-21.9	0.570	-1.2	-17.9	0.443	-1.6	-21.9
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.201	- 0.3	- 16.7	0.392	-0.8	-33.8	1.414	-0.5	-11.3	0.461	-0.9	-29.5
Germany	1.046	- 0.5	- 16.8	0.432	-0.9	-26.3	1.231	-0.6	-11.4	0.508	-1.0	-21.5
Italy	1.260	- 0.9	- 14.5	0.416	-2.1	-29.5	1.483	-1.0	-8.9	0.490	-2.2	-24.9
Spain	1.029	- 1.0	- 15.3	0.471	-1.9	-24.6	1.211	-1.1	-9.8	0.554	-2.0	-19.8
United Kingdom	1.182	-	- 10.0	0.405	-	-21.5	1.535	0.2	-7.6	0.526	0.2	-19.4
Japan	114.9	- 0.8	- 10.0	72.5	-1.1	-13.8	1.092	-0.4	-7.5	0.689	-0.8	-11.4
Canada	0.987	1.0	- 20.9	0.615	1.7	-30.0	0.747	1.1	-21.0	0.466	1.7	-30.1
United States	0.631	- 1.1	- 21.8	0.483	-1.4	-26.7	0.631	-1.1	-21.8	0.483	-1.4	-26.7
DOMESTIC HEATING OIL (per litre)												
France	0.693	0.1	- 25.3	0.422	0.1	-31.7	0.816	-0.0	-20.4	0.496	0.0	-27.3
Germany	0.447	- 2.7	- 36.9	0.324	-3.2	-39.3	0.526	-2.8	-32.8	0.381	-3.3	-35.3
Italy	1.088	- 0.2	- 16.9	0.488	-0.4	-27.1	1.280	-0.3	-11.5	0.575	-0.5	-22.4
Spain	0.516	- 0.4	- 32.9	0.330	-0.5	-38.8	0.608	-0.5	-28.5	0.388	-0.6	-34.8
United Kingdom	0.432	0.0	- 26.5	0.300	0.0	-33.1	0.561	0.3	-24.5	0.390	0.3	-31.3
Japan [2]	80.3	- 0.8	- 11.6	70.2	-0.9	-12.0	0.764	-0.5	-9.2	0.668	-0.5	-9.6
Canada	0.870	0.1	- 24.1	0.761	0.9	-24.5	0.658	0.2	-24.2	0.576	0.9	-24.6
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY [3] (per kg)												
France	0.456	3.5	- 19.4	0.316	5.1	-25.8	0.536	3.3	-14.2	0.372	4.9	-21.0
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.365	3.9	- 23.3	0.334	4.3	-25.0	0.429	3.8	-18.4	0.393	4.2	-20.1
Spain	0.305	- 0.7	- 28.9	0.288	-0.7	-30.1	0.359	-0.8	-24.3	0.339	-0.9	-25.6
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-
Canada	-	-	-	-	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	-	-	-	-	-	-	-

1 Unleaded premium (95 RON) for France, Germany, Italy, Spain, UK; regular unleaded for Canada, Japan and the United States.
2 Kerosene for Japan.
3 VAT excluded from prices for low sulphur fuel oil when refunded to industry.

* Prices for France, Germany, Italy and Spain are in Euros; UK in British Pounds, Japan in Yen, Canada in Canadian Dollars.

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Table 15
IEA/KBC Global Indicator Refining Margins[1]
($/bbl)

	Monthly Average					Change	Average for week ending:				
	Jul 20	Aug 20	Sep 20	Oct 20		Oct-Sep	09 Oct	16 Oct	23 Oct	30 Oct	06 Nov
NW Europe											
Brent (Cracking)	0.18	-0.57	0.42	1.70	↑	1.28	2.32	1.79	0.93	1.69	1.56
Urals (Cracking)	-0.58	0.13	0.52	1.38	↑	0.86	2.06	1.33	0.65	1.38	1.50
Brent (Hydroskimming)	-0.81	-1.33	-0.52	1.21	↑	1.73	1.37	1.31	0.74	1.52	1.58
Urals (Hydroskimming)	-2.79	-1.42	-1.21	-0.15	↑	1.06	-0.21	-0.35	-0.36	0.45	0.67
Mediterranean											
Es Sider (Cracking)	1.29	0.41	1.01	2.35	↑	1.34	2.85	2.38	1.72	2.39	4.23
Urals (Cracking)	-0.38	-0.54	-0.28	1.22	↑	1.50	1.67	1.25	0.87	1.07	1.08
Es Sider (Hydroskimming)	0.30	-0.22	0.54	2.24	↑	1.69	2.44	2.26	1.81	2.48	4.37
Urals (Hydroskimming)	-2.85	-2.55	-2.09	-0.50	↑	1.58	-0.68	-0.59	-0.40	-0.21	-0.27
US Gulf Coast											
Mars (Cracking)	0.48	0.36	0.90	1.61	↑	0.70	1.98	1.60	1.45	1.32	1.56
50/50 HLS/LLS (Coking)	5.09	4.61	5.21	5.19	↓	-0.02	6.67	5.31	3.96	4.41	4.86
50/50 Maya/Mars (Coking)	2.53	1.54	2.34	3.00	↑	0.66	3.98	2.90	2.21	2.70	3.17
ASCI (Coking)	2.84	2.20	2.81	3.15	↑	0.34	3.97	3.11	2.51	2.74	3.28
US Midwest											
30/70 WCS/Bakken (Cracking)	7.99	7.24	6.13	6.18	↑	0.06	5.40	4.70	6.49	7.21	8.07
Bakken (Cracking)	9.63	7.58	7.27	6.88	↓	-0.39	6.46	5.64	6.82	7.79	9.23
WTI (Coking)	9.16	7.65	6.47	5.91	↓	-0.56	5.56	4.70	5.87	6.80	8.08
30/70 WCS/Bakken (Coking)	9.41	8.17	7.29	7.20	↓	-0.08	6.62	5.51	7.26	8.31	9.48
Singapore											
Dubai (Hydroskimming)	-2.61	-2.17	-2.58	-1.30	↑	1.28	-1.65	-1.33	-1.30	-0.76	-0.44
Tapis (Hydroskimming)	-0.63	-0.81	3.02	3.82	↑	0.80	4.29	3.98	2.58	3.82	3.86
Dubai (Hydrocracking)	0.65	1.06	0.42	1.44	↑	1.02	2.06	1.48	0.72	1.34	1.72
Tapis (Hydrocracking)	-0.56	-1.24	2.59	3.03	↑	0.44	3.63	3.07	1.71	3.02	3.02

1 Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.
Source: IEA, KBC Advanced Technologies (KBC)

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Table 16
REFINED PRODUCT YIELDS BASED ON TOTAL INPUT (%)[1]

	Jun-20	Jul-20	Aug-20	Aug-19	Aug 20 vs Previous Month	Aug 20 vs Previous Year	Aug 20 vs 5 Year Average	5 Year Average
OECD Americas								
Naphtha	1.3	1.4	1.3	1.4	0.0	0.0	-0.3	1.6
Motor gasoline	46.0	45.8	46.0	43.9	0.1	2.0	1.0	44.9
Jet/kerosene	4.7	5.1	5.3	9.9	0.2	-4.5	-4.2	9.5
Gasoil/diesel oil	30.6	30.8	30.8	28.1	0.0	2.7	2.7	28.1
Residual fuel oil	2.9	2.4	2.5	3.1	0.1	-0.6	-0.9	3.4
Petroleum coke	4.5	4.5	4.4	4.3	-0.1	0.1	-0.1	4.6
Other products	14.1	13.9	13.4	13.4	-0.5	0.0	0.4	13.0
OECD Europe								
Naphtha	8.5	8.6	8.6	7.7	-0.1	0.8	1.0	7.6
Motor gasoline	19.7	20.3	21.0	20.1	0.7	0.9	0.4	20.6
Jet/kerosene	4.2	4.4	4.9	10.1	0.5	-5.2	-4.1	9.0
Gasoil/diesel oil	43.6	44.1	43.2	39.5	-0.9	3.8	3.6	39.7
Residual fuel oil	7.5	6.8	6.9	8.7	0.1	-1.8	-2.3	9.2
Petroleum coke	1.5	1.5	1.4	1.5	0.0	-0.1	0.1	1.3
Other products	17.1	16.8	16.7	15.2	0.0	1.5	1.6	15.1
OECD Asia Oceania								
Naphtha	15.8	16.3	16.5	15.6	0.2	0.9	1.4	15.1
Motor gasoline	20.6	21.4	22.4	22.1	1.1	0.3	-0.3	22.7
Jet/kerosene	11.9	12.3	12.2	15.5	-0.1	-3.3	-3.1	15.2
Gasoil/diesel oil	32.7	31.9	31.3	29.0	-0.7	2.3	2.0	29.3
Residual fuel oil	7.8	7.1	6.0	6.5	-1.1	-0.5	-0.9	6.9
Petroleum coke	0.5	0.4	0.4	0.4	0.1	0.0	0.0	0.4
Other products	12.6	13.3	14.1	12.3	0.8	1.8	1.7	12.4
OECD Total								
Naphtha	6.1	6.3	6.3	5.9	0.1	0.5	0.4	5.9
Motor gasoline	33.2	33.4	33.7	32.5	0.3	1.2	0.6	33.1
Jet/kerosene	5.8	6.1	6.4	10.9	0.2	-4.5	-4.0	10.3
Gasoil/diesel oil	35.1	35.3	35.0	31.9	-0.3	3.1	2.9	32.1
Residual fuel oil	5.2	4.7	4.6	5.5	-0.1	-0.9	-1.3	5.9
Petroleum coke	2.8	2.8	2.8	2.7	-0.1	0.0	0.0	2.8
Other products	14.8	14.7	14.6	13.8	-0.1	0.8	1.0	13.6

1 Due to processing gains and losses, yields in % will not always add up to 100%

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Table 17
WORLD BIOFUELS PRODUCTION
(thousand barrels per day)

	2018	2019	2020	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20
ETHANOL									
OECD Americas[1]	**1078**	**1060**	**934**	**1050**	**728**	**950**	**942**	**958**	**978**
United States	1048	1029	909	1025	703	925	917	932	952
Other	31	31	25	25	25	25			
OECD Europe[2]	**96**	**96**	**86**	**99**	**72**	**99**	**114**	**74**	**74**
France	21	20	14	17	11	19	22	10	10
Germany	14	12	10	15	12	12	17	0	0
Spain	9	9	7	7	4	7	6	9	9
United Kingdom	9	4	5	7	3	8	15	0	0
Other	43	50	50	52	41	53			
OECD Asia Oceania[3]	**4**	**5**	**4**	**5**	**3**	**4**	**4**	**5**	**5**
Australia	4	4	3	4	3	3	3	3	3
Other	0	1	1	1	1	1			
Total OECD Ethanol	**1178**	**1161**	**1025**	**1154**	**804**	**1054**	**1060**	**1037**	**1057**
Total Non-OECD Ethanol	**729**	**813**	**760**	**274**	**894**	**1151**	**1135**	**1174**	**956**
Brazil	557	621	572	105	707	959	943	983	756
China	56	67	70	52	70	74			
Argentina	19	19	16	16	16	16			
Other	96	106	102	102	102	102	192	192	201
TOTAL ETHANOL	**1907**	**1974**	**1784**	**1428**	**1698**	**2205**	**2194**	**2211**	**2013**
BIODIESEL									
OECD Americas[1]	**126**	**119**	**118**	**113**	**121**	**124**	**129**	**113**	**113**
United States	121	113	112	109	117	118	125	102	102
Other	5	7	6	4	4	6			
OECD Europe[2]	**275**	**280**	**243**	**243**	**231**	**265**	**270**	**234**	**234**
France	52	42	41	43	39	44	43	36	36
Germany	65	66	55	53	54	61	65	52	52
Italy	15	18	26	25	25	28			
Spain	33	38	26	24	22	28	28	29	29
Other	110	115	96	98	92	103	109	91	91
OECD Asia Oceania[3]	**14**	**14**	**15**	**9**	**18**	**18**	**17**	**17**	**17**
Australia	1	1	1	1	1	1	1	2	2
Other	13	13	14	8	17	17			
Total OECD Biodiesel	**415**	**413**	**376**	**365**	**370**	**406**	**416**	**364**	**364**
Total Non-OECD Biodiesel	**345**	**388**	**408**	**405**	**409**	**409**	**409**	**409**	**409**
Brazil	92	102	108	104	100	124	126	124	104
Argentina*	47	42	24	24	24	24			
Other	205	245	276	277	285	261			
TOTAL BIODIESEL	**759**	**801**	**784**	**770**	**779**	**815**	**825**	**773**	**773**
GLOBAL BIOFUELS	**2666**	**2776**	**2569**	**2198**	**2478**	**3020**	**3020**	**2984**	**2786**

1 As of August 2012 OMR, OECD Americas includes Chile.
2 As of August 2012 OMR, OECD Europe includes Estonia and Slovenia.
3 As of August 2012 OMR, OECD Asia Oceania includes Israel.

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