International Energy Agency

Oil Market Report

14 May 2020

- Better than expected mobility in OECD countries and the gradual easing of lockdown measures led to an upward adjustment of 3.2 mb/d to our global 2Q20 demand number; but it is still sharply down on last year by 19.9 mb/d. Although 2H20 will be slightly weaker than previously forecast, our outlook for 2020 as a whole shows a demand fall of 8.6 mb/d, 0.7 mb/d more than in our previous *Report*. A resurgence of Covid-19 is a major risk factor for demand.

- Global oil supply is set to fall by a spectacular 12 mb/d in May to a nine-year low of 88 mb/d, as the OPEC+ agreement takes effect and production declines elsewhere. For some OPEC countries, e.g. Saudi Arabia, Kuwait and the UAE, lower May production is from record highs in April. Led by the United States and Canada, April supplies from countries outside of the deal were already 3 mb/d lower than at the start of the year.

- The peak decline for global refining activity has shifted to May as our April throughput estimate was revised up on new data and higher demand. In 2Q20, global runs are expected to fall by 13.4 mb/d y-o-y, with 2020 average throughput down by 6.2 mb/d. Signs of refinery storage bottlenecks started multiplying at the beginning of May, with several refineries in Europe, Asia and Africa reported to be closed for an indeterminate period.

- OECD data for March show that industry stocks rose by 68.2 mb (2.2 mb/d) to 2 961 mb. Total OECD stocks stood 46.7 mb above the five-year average and, due to the weak outlook, now provide an incredible 90 days of forward demand coverage. Preliminary data show that US crude stocks built by 53.7 mb in April (1.8 mb/d), and crude inventories in Europe and Japan also rose by 3.1 mb and 3 mb, respectively. In April, floating storage of crude oil increased by 9.9 mb to 123.8 mb.

- Oil prices fell in April on weak demand due to Covid-19 and record-high Middle Eastern exports. Negative oil futures prices were seen for the first time when NYMEX WTI settled at -$37/bbl the day before the May contract expired. Easing lockdown measures in some countries provided support to gasoline markets; however, jet cracks fell below zero as aviation activity remains depressed. Crude and product shipping costs rose as more vessels were chartered for floating storage.

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Markets force the issue

In last month's *Report*, the focus was on demand destruction on a historic scale, with little immediate relief expected from the supply side as the OPEC+ agreement was not due to come into effect until 1 May. Also, it was unclear when and by how much production would fall in other countries. This dark mood peaked in what the IEA Executive Director called "Black April," a month that saw the price of the May WTI futures contract plunge to almost minus $40 a barrel. Since then, the outlook has improved somewhat and prices, while still far below where they were before the start of the Covid-19 crisis, have rebounded from their April lows. There are two main reasons for this: the easing of lockdown measures and – more important – steep production declines in non-OPEC countries alongside the commitments made by the OPEC+ agreement.

The gradual relaxation of restrictions on movement is helping demand. We estimate that from a recent peak of 4 billion, the number of people living under some form of confinement at the end of May will drop to about 2.8 billion worldwide. Mobility still remains limited for many citizens, but businesses are starting to reopen gradually and people are returning to work, which will provide a boost to oil demand, albeit a modest one at first. Taking into account these developments as well as new mobility data from advanced economies that was stronger than in our previous forecast, we have raised our 2Q20 demand estimate. For 2020 as a whole, last month's forecast of a decline of 9.3 mb/d is improved to -8.6 mb/d.

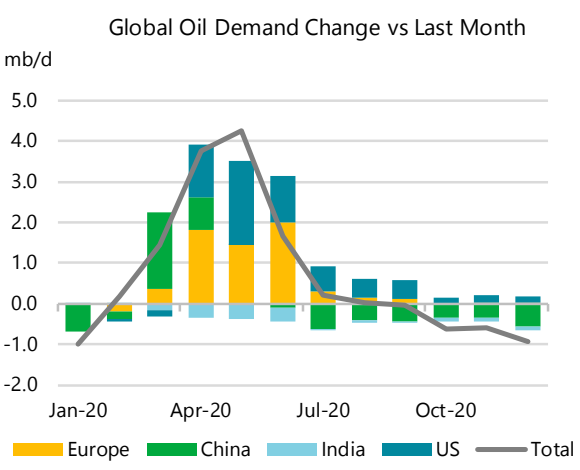
It is on the supply side where market forces have demonstrated their power and shown that the pain of lower prices affects all producers. We are seeing massive cuts in output from countries outside the OPEC+ agreement and faster than expected. This group, led by the United States and Canada, saw output in April 3 mb/d lower than at the start of the year. In June, that drop could reach 4 mb/d, with perhaps more to come. Now, the OPEC+ agreement has come into effect. Assuming full compliance, and factoring in declines in other countries, we estimate a reduction in global supply in May of 12 mb/d, month on month. For June, Saudi Arabia on Monday announced that it will reinforce the agreement by voluntarily cutting production by 1 mb/d more than required. The UAE and Kuwait have followed suit with extra cuts of their own. This means that Saudi production in June will be an extraordinary 4.4 mb/d below April's record level. By year-end, however, it is the United States that is the biggest contributor to global supply reductions compared with a year ago. US production could be 2.8 mb/d lower than at the end of 2019. For Saudi Arabia, the fall will be 0.9 mb/d assuming 100% compliance with the OPEC+ deal and that the extra voluntary cut applies only to June. OPEC+ producers will meet on 10 June to discuss the state of the market and the progress of the output agreement.

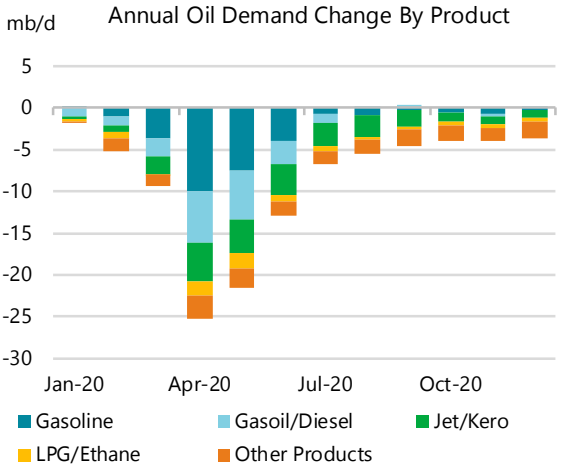
So, oil production is reacting in a big way to market forces and economic activity is beginning a gradual-but-fragile recovery. However, major uncertainties remain. The biggest is whether governments can ease the lockdown measures without sparking a resurgence of Covid-19 outbreaks. Another is whether a high level of compliance with the OPEC+ agreement will be achieved and maintained by all the major parties. These are big questions – and the answers we get in the coming weeks will have major consequences for the oil market.

Demand

Overview

In this *Report*, we raised our 2020 oil demand change estimate by 690 kb/d from the previous edition to 91.2 mb/d. Oil consumption will fall this year by the largest amount in history, 8.6 mb/d, although the estimated decline is a bit less than last month's estimate of 9.3 mb/d. Final demand data for March and April remain incomplete at the time of writing, but the available statistics, supplemented by mobility data, point to steep falls. We estimate that oil demand declined in April by around 25.2 mb/d year-on-year (y-o-y), as more than 4 billion people were subject to some form of confinement.





The fall should narrow to around 21.5 mb/d in May and to 13 mb/d in June, as governments progressively reopen their economies. We have raised our estimates for 2Q20 by circa 3.2 mb/d on evidence of stronger than expected mobility in some European countries and the US. We have also increased our Chinese demand figures for March and April. Together, these moves suggest that the decline in oil demand during 1H20 may not be as steep as first feared.

On the other hand, we have slightly revised down our expectations for the second half of 2020 and now expect demand to fall by 4.6 mb/d y-o-y, versus the 4.3 mb/d we saw last month. The downgrade was largely due to China, where the pace of economic recovery is slightly slower than expected. For the United States, we have raised our demand estimates. Our global 2H20 forecast assumes the virus is largely under control at the global level and that containment measures do not return on a significant scale.

It is clear that certain sectors, such as aviation, will continue to suffer through 2H20 and well beyond. Demand for jet fuel and kerosene will fall by 1.7 mb/d y-o-y each month between July and December. This is on average about 120 kb/d lower than forecast in last month's *Report*. Gasoline demand is expected to decrease by 550 kb/d per month and combined diesel and gasoil demand by 150 kb/d, although deliveries of the latter could grow y-o-y in some months.

Global Oil Demand (2018-2020) (million barrels per day)*	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
Africa	4.3	4.2	4.1	4.2	4.2	4.3	4.3	4.1	4.3	4.2	4.2	3.3	4.0	4.2	3.9
Americas	31.5	31.6	32.2	31.9	31.8	31.5	31.6	32.2	31.9	31.8	30.3	24.1	30.6	30.8	28.9
Asia/Pacific	35.5	35.0	34.6	35.3	35.1	35.8	35.6	35.2	36.5	35.8	33.0	30.5	33.7	35.2	33.1
Europe	14.8	15.0	15.4	14.9	15.0	14.7	14.9	15.3	14.8	14.9	13.8	10.9	13.9	14.2	13.2
FSU	4.4	4.5	4.8	4.7	4.6	4.5	4.6	4.9	4.8	4.7	4.6	3.7	4.6	4.7	4.4
Middle East	8.1	8.4	8.7	8.1	8.3	8.1	8.2	8.8	8.4	8.4	7.8	6.8	8.4	7.9	7.7
World	**98.5**	**98.7**	**99.8**	**99.3**	**99.1**	**98.9**	**99.2**	**100.5**	**100.7**	**99.9**	**93.5**	**79.3**	**95.1**	**96.9**	**91.2**
Annual Chg (%)	1.9	0.4	1.2	0.4	1.0	0.4	0.6	0.8	1.5	0.8	-5.4	-20.1	-5.4	-3.8	-8.6
Annual Chg (mb/d)	1.9	0.4	1.2	0.4	1.0	0.4	0.5	0.8	1.5	0.8	-5.4	-19.9	-5.5	-3.8	-8.6
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.2	0.1	-0.7	0.7

* Including biofuels

Fundamentals

Considerable uncertainty remains for this year's economic outlook. The direct impact of the lockdown measures is around 30% to 40% of GDP while they are applied. In France, for example, the National Institute of Statistics and Economic Studies expects a loss of about 35% of economic activity between the middle of March and the middle of May. Using this estimate as a rule of thumb, a one-month lockdown directly reduces annual GDP growth by roughly 3%. Most countries have implemented two months or more of confinement.

In practice, the severity of the lockdown, the structure of the economy and the policy applied to certain industrial sectors during confinement will all have a large impact. Unemployment has increased dramatically across the world. The US unemployment rate jumped from 4.4% in March to 14.7% in April, as more than 20 million people lost their jobs. Most countries have reported very weak GDP growth for 1Q20; in a y-o-y comparison China GDP fell by 6.8%, the euro area by 3.3% (France -5.4%, Spain -4.1%, Italy -4.8%) , and the US rose by only 0.3%. After this initial impact, the pace of economic activity remains very uncertain and will depend primarily on the containment of the virus and, longer term, the availability of a vaccine. In these forecasts, we assume that the outbreak of Covid-19 is under control in 2H20.

World economic growth will not return to its historical trend for some time. Domestic economies have suffered a huge shock, many businesses have collapsed and unemployment has jumped to a level not seen since the 1930s. The collapse in world trade, the disruptions to global supply chains, the flight to safety in financial markets and a sharp drop in consumer and business confidence are all expected to take their toll on future economic activity.

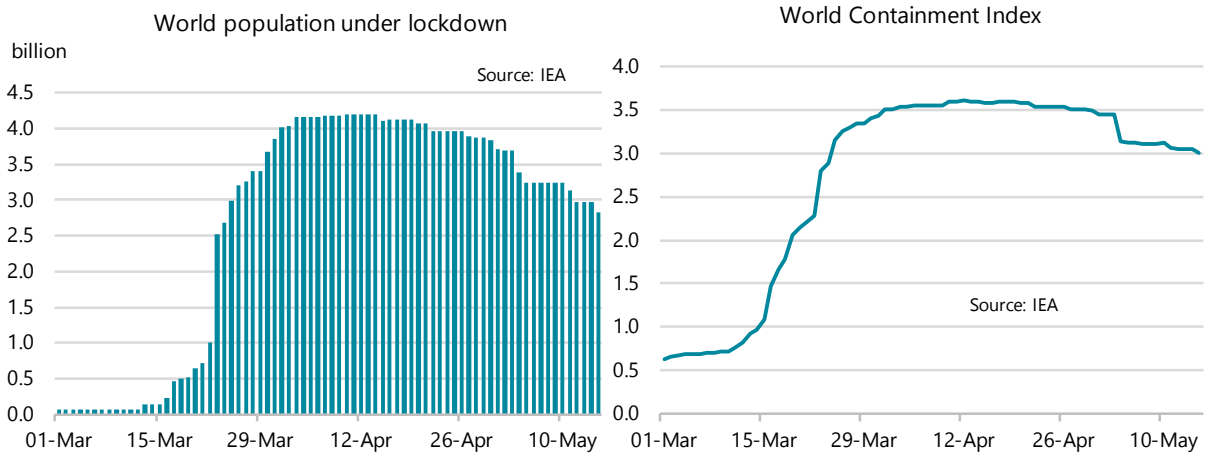
The *World Trade Organisation* (WTO) has two possible scenarios for trade developments in the coming months. The optimistic scenario foresees a drop of 13% in volumes in 2020, while the pessimistic one has a collapse of 32%. The GDP forecasts underpinning our oil demand projections are based on the *International Monetary Fund* (IMF)'s latest outlook, published in April, with adjustments to take into account more recent developments. Globally, we assume a drop in world GDP just above 4%, with particularly sharp contractions in Europe (-7.5 % for the euro area), the US (-6.1%), Japan (-5.2%) and Latin America (-5.2%).

The impact of lasting behavioural changes (at least until the end of 2020) on oil consumption is more difficult to quantify. Will teleworking continue, and to what extent, after the outbreak is brought under control? Will business trips be replaced for a large part by electronic conferences? Will people remain reluctant to use public transportation and instead drive more? Or, on the contrary, how much can city policies to boost cycling reduce car transport? Over

2020 it is likely that some behaviours adopted in a hurry to contain the virus in March will be maintained, slowing down the recovery of oil demand.

Another large uncertainty concerns the impact of very low prices on oil demand. Under normal circumstances, we estimate that oil price changes impact demand relatively swiftly. Under the current circumstances, however, the main factors driving transport fuel demand are no longer price or GDP changes, but restrictions to mobility, behavioural changes and confidence in transportation modes. Oil prices nevertheless do have an impact on heating oil demand, in particular in Europe where consumers are very responsive to prices. We recently observed a strong increase in French and German deliveries, presumably to restock while prices are low.

Globally, measures to contain Covid-19 reached a peak in coverage and severity in mid-April. Since then, restrictions have gradually eased in 65 countries as the virus' spread lowered and with governments keen to restart their economies A further 80 countries are set to follow in June. At the time of writing, around 2.8 billion people are considered to be under maximum lockdown (night or all-day curfew), compared to 4 billion in mid-April.



Note: In China, we have only included the province of Hubei in this chart.

We have built a containment index based on the stringency level of policy measures taken against the virus, ranging from 0 to 6. Population figures in each country are weighed against these stringency levels to form a weighted average worldwide index. The index reached a peak of 3.6 at the start of April, then fell to 3 by the middle of May, the lowest since 24 March. It will likely decline by another 27% in June. This suggests that virus counter-measures are being relaxed a little quicker than expected in last month's *Report*, which is bound to have a positive impact on fuel demand.

To assess the current level of oil demand we also use several prompt indicators. We built an index of mobility based on data released by *Google* with a value close to 100 before the outbreak of the virus (*Covid-19 Community Mobility Reports at google.com/covid19/mobility*). We also used the *Apple* Mobility Trends Reports (*apple.com/covid19/mobility*). For jet fuel demand we used data from airline consultants OAG (*https://www.oag.com/coronavirus-airline-schedules-data*) reporting y-o-y differences in scheduled flights on a weekly basis.

Box 1. Bunker fuel's immune system stronger than other fuels

As 90% of global trade is transported by sea, understanding this vital part of the global economy is essential for the bunker fuel outlook. However, world trade is usually measured on a value-added basis (particularly driven by high value-added container trade of manufactured goods), while bunkers reflect the tonne-miles of goods and commodities transported and hence are sensitive to low value-added high-volume commodity trade. The sector is opaque: consumption figures can be hard to obtain and are often delayed. But the data that has emerged so far points to a much less significant decline in deliveries than for other transport fuels.

For example; in Singapore, the world's biggest bunker hub, volumes went up 5% in 1Q20, despite the slowdown in the region's biggest economy, China, due to Covid-19. In March, the latest data point available, deliveries were up 6% y-o-y. In Rotterdam, also one of the world's largest demand centres, 1Q20 deliveries were up 3% y-o-y. In both cases, there is no official data for April, when the toughest containment measures were in place across the world.

We expect bunker fuel demand to fall 5% overall in 2020. The traditional method of forecasting consumption based on gross domestic product and oil prices does not apply during a pandemic. So we have devised another way, using the estimated historical consumption of fuel from each shipping segment and their likely consumption pattern during 2020.

	Bunker demand share	Year-on-year demand growth (%)			
		1Q20	2Q20	3Q20	4Q20
Oil/Chemicals	21%	2%	0%	0%	0%
Dry bulk	29%	-4%	-2%	-2%	0%
Containerships	14%	-11%	-12%	-8%	-4%
Cruise	6%	-17%	-90%	-83%	-60%
Others	31%	-4%	-8%	-2%	0%
All ships	**100%**	**-4%**	**-8%**	**-6%**	**-3%**

We have taken into account actual sailings for oil tankers, showing growth in the first four months of the year, as well as for dry bulk (-4% y-o-y in 1Q) and containers (-11%). Dry bulk and containerships have been affected by the slowdown in China's economy in 1Q20. We expect dry bulk movements to remain under pressure through the third quarter, while growth in container trade is likely to be negative, due to the global reduction in merchandise trade. But the most affected shipping segment by far is likely to be cruise ships, which came to a complete halt in April following the Covid-19 outbreak. We expect cruise sailings to fall by 90% in 2Q and 83% in 3Q, and to recover only moderately in 4Q, as consumers stay away.

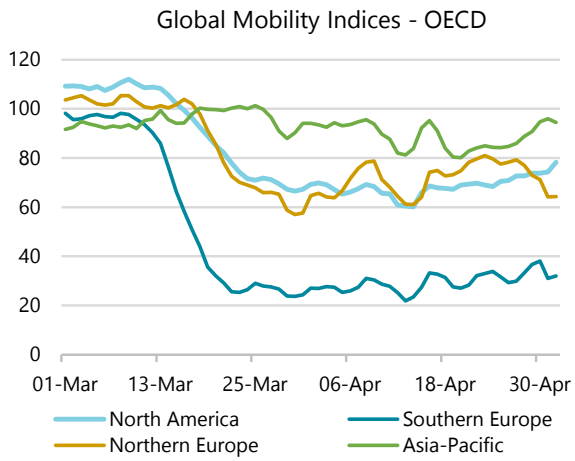
OECD

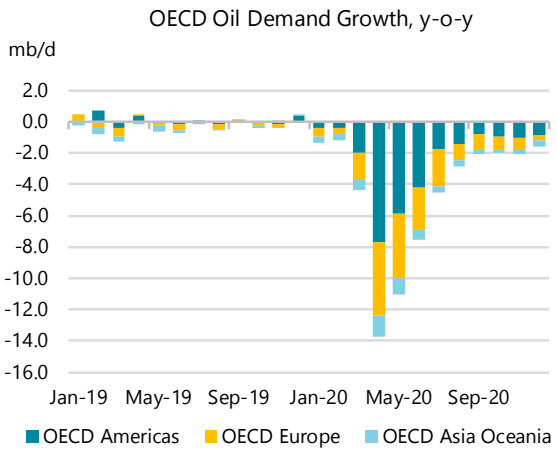
OECD oil consumption is set to decline by 4.5 mb/d in 2020. The largest y-o-y reduction will occur in 2Q20, when demand will fall 10.8 mb/d y-o-y. Gasoline will be the most affected, contracting by 1.3 mb/d in 2020 (and by 4.1 mb/d in 2Q20). Jet fuel demand is expected to contract by 1.2 mb/d in 2020, while diesel and gasoil deliveries will lose 1 mb/d.

Our OECD mobility index, computed from Google Mobility data, shows the impact of lockdowns in various regions. The index is based on observed changes in mobility in various countries, weighted by their share of regional oil demand.

Lockdowns have been more severe in southern Europe (France, Italy and Spain) than in northern Europe (Germany, Norway and Sweden), reducing global mobility by close to 70%

since the end of March. In North America, confinement has been less severe in Canada and the US than in Mexico, and has reduced mobility in the region by 30% on average.





OECD Demand based on Adjusted Preliminary Submissions - March 20

(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	**9.46**	**-13.2**	**1.64**	**-18.7**	**4.60**	**-5.2**	**3.95**	**2.2**	**0.56**	**-9.1**	**3.16**	**1.6**	**23.37**	**-7.9**
US*	8.10	-12.4	1.44	-18.2	3.90	-4.5	3.08	1.3	0.33	-15.1	2.08	-2.7	18.94	-8.4
Canada	0.64	-22.6	0.12	-20.5	0.24	-6.4	0.43	7.9	0.08	15.2	0.77	14.4	2.28	-4.0
Mexico	0.66	-10.6	0.06	-25.1	0.29	-12.7	0.39	3.2	0.14	-3.9	0.28	2.9	1.82	-6.5
OECD Europe	**1.45**	**-22.1**	**1.04**	**-25.7**	**3.81**	**-21.8**	**1.08**	**-1.3**	**0.67**	**-22.0**	**3.99**	**9.6**	**12.05**	**-12.3**
Germany	0.41	-14.6	0.17	-18.5	0.69	-7.1	0.11	-3.2	0.06	0.8	0.86	23.3	2.31	-0.1
United Kingdom	0.23	-12.2	0.30	-8.8	0.37	-20.3	0.14	-2.6	0.01	-40.2	0.28	5.0	1.33	-10.3
France	0.14	-21.4	0.10	-38.3	0.55	-19.9	0.14	2.3	0.03	-25.1	0.61	29.3	1.56	-6.4
Italy	0.06	-51.9	0.03	-66.2	0.26	-41.0	0.06	-15.5	0.04	-29.8	0.25	-12.2	0.70	-34.1
Spain	0.07	-40.6	0.09	-29.6	0.33	-30.4	0.09	19.0	0.12	-20.9	0.37	6.0	1.08	-17.4
OECD Asia & Oceania	**1.30**	**-12.0**	**0.78**	**-20.9**	**1.37**	**-4.2**	**0.79**	**0.4**	**0.46**	**-1.8**	**2.60**	**-7.9**	**7.29**	**-8.4**
Japan	0.75	-8.4	0.51	-7.2	0.47	-3.8	0.39	-8.9	0.22	-7.0	1.14	-14.0	3.48	-9.6
Korea	0.19	-15.6	0.12	-42.1	0.40	5.1	0.32	14.8	0.20	3.0	1.17	-3.1	2.40	-3.6
Australia	0.28	-10.7	0.09	-42.7	0.44	-11.1	0.05	-1.1	0.02	-8.1	0.14	-0.9	1.02	-13.6
OECD Total	**12.22**	**-14.2**	**3.46**	**-21.4**	**9.77**	**-12.3**	**5.81**	**1.3**	**1.69**	**-13.0**	**9.75**	**1.9**	**42.70**	**-9.2**

* Including US territories

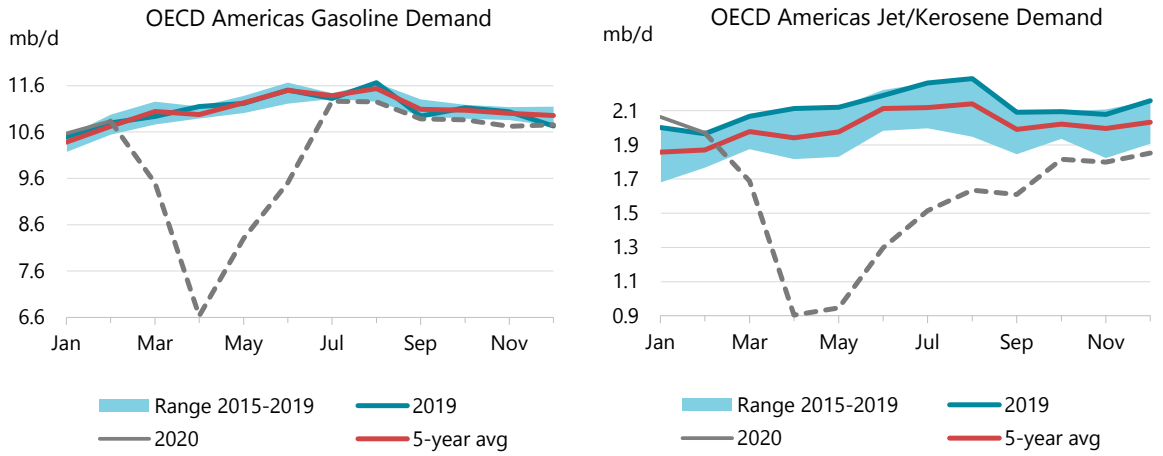
OECD Americas

In the US, oil demand is projected to fall by 1.9 mb/d in 2020 and as much as 4.9 mb/d in 2Q20. A weak economic recovery is likely to keep demand 1.1 mb/d below last year's level in 3Q20 and 0.85 mb/d lower in 4Q20.

Partial lockdowns in the US are estimated to have cut y-o-y gasoline demand by 12% in March and 40% in April. This is in line with Department of Energy weekly statistics, showing apparent four-week average gasoline demand down 39% in the week to 1 May. However, a significant rebound was observed in the latest data, and we expect gasoline demand to be only 25 % below last year's level in May and 15% lower in June. Demand returns to normal in 2H20, assuming no continued impact from confinement measures. Our mobility index shows a strong improvement in the US at the end of April, rising from around 70 to 85 in May. Apple mobility trends indicator show a comparable increase from less than 60 in early April to more than 80 at the start of May.

Jet and kerosene demand continues to be severely impacted. Demand is likely to have fallen 18% in March. The drop in consumption deepened to 60% in April and May and is projected to stay around 40% below normal levels in June. Jet fuel demand is forecast to remain 20% below

last year's level in 2H20. These assumptions are consistent with recent weekly DOE statistics showing a drop of 62% in estimated jet/kerosene demand in the four weeks to 1 May. OAG data show an average decline of 57% in scheduled flights in April.



Diesel demand in the US is estimated to have fallen by 19% in April. Weekly data point to a drop of 25% in the four weeks to 1 May. Diesel demand is expected to recover slightly in May and to remain 10% below last year in June and July. While trucking activity was supported in March by precautionary buying, the industry suffered in April. The rapid decline in US oil production seen in recent weeks has also significantly reduced the amount of diesel used in drilling and fracking activity.

Ethane-based petrochemical activity is also likely to suffer from a drop in plastic demand (in particular from the automobile industry). US petrochemical feedstock demand will be severely impacted in 2Q20 by the decline in global ethylene demand and losses of competitiveness. Rising natural gas prices pulled ethane prices higher while falling oil prices undermined naphtha prices. The recent collapse in oil prices has made Europe and Asia naphtha-based crackers more competitive versus US ethane-based plants. Overall, LPG/ethane demand is expected to contract by 220 kb/d in 2020.

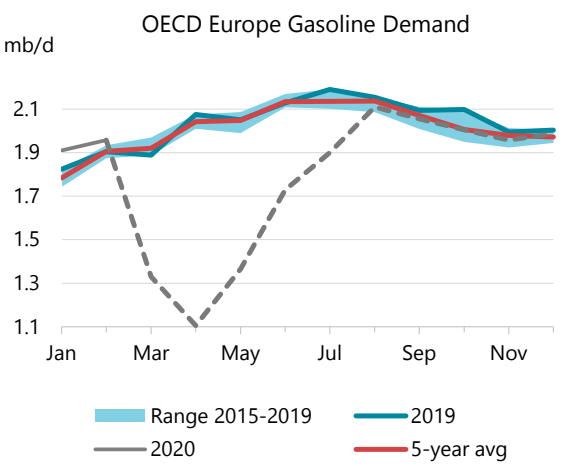
Mobility indices show a stronger impact of containment measures in Canada and Mexico than in the US. Both countries have closed schools and non-essential shops in response to the virus, and vast swathes of the population are staying at home. While Canadian mobility showed some improvement by the end of April, the Mexican index remains very low (close to 50). Globally, OECD Americas gasoline demand is expected to fall by 1 mb/d in 2020 and 3.1 mb/d in 2Q20. Jet and kerosene fuel demand will fall by 0.5 mb/d in 2Q20 and by 1.1 mb/d in 2020.

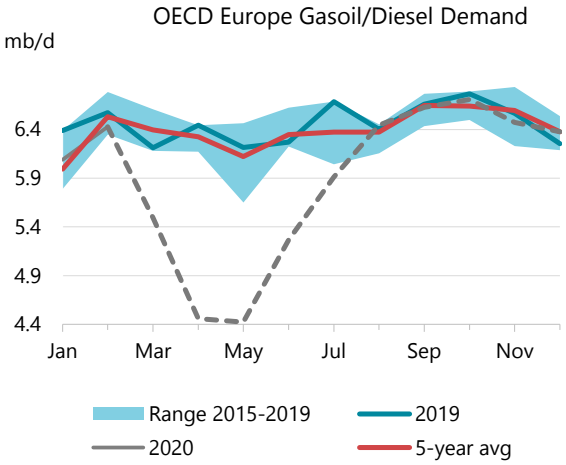
OECD Europe

In OECD Europe, total oil demand is set to fall by 1.7 mb/d in 2020. The decrease started in 1Q20, with a y-o-y fall of 950 kb/d y-o-y, accelerating to 3.85 mb/d in 2Q20, before slowing to 1.5 mb/d in 3Q20 and 0.6 mb/d in 4Q20.

Gasoline deliveries are set to drop by 0.7 mb/d in 2Q20 after a decline of 140 kb/d in 1Q20. Confinement measures have significantly cut gasoline demand in Europe in April and will continue to do so in May. The progressive lifting of lockdown measures will then result in smaller demand losses in June and July. Variations from one country to the other are likely to be quite large. Our index of mobility based on Google data shows a clear differentiation between

Northern and Southern Europe. The countries showing the least impact on mobility include Sweden, Norway, Denmark, Finland, the Netherlands and Germany. On the contrary, countries where mobility fell the most are Italy, Spain, Portugal and France. Preliminary data indicate that, since the introduction of confinement measures, gasoline deliveries are down by 70% in France. Gasoline deliveries in Europe are expected to decline by 680 kb/d y-o-y in 2Q20 and 240 kb/d on average in 2020 as a whole.





Diesel demand is less affected. In France, sales are reportedly down by 20% in March and 62% in April. In Germany, diesel deliveries are down 7% y-o-y in March. In both countries, low prices have triggered a very significant rebound in heating oil deliveries. Mobility restrictions have a strong impact on diesel demand, as a large share (42%) of European cars has diesel engines. Indeed, countries with the strictest lockdowns often have a large share of diesel in the total car fleet, e.g. France (60%), Italy (44%), Spain (60%) and Portugal (49%). A slowdown in trade and industrial production will also contribute to lower diesel consumption by trucks. Overall, diesel and gasoil demand is expected to contract by 1.6 mb/d in 2Q20, and 550 kb/d on average for the whole year.

According to the *International Air Transport Association* (IATA), European airlines will reduce seat capacity by 90% in 2Q20, 45% in 3Q20 and 10% in 4Q20. Prompt indicators support this; OAG data show a decline of 94% y-o-y in scheduled flights in Spain in April. Similar declines are reported in other European countries in April, e.g. 93% for Germany, 90% in France, and 87% in Sweden. In our forecasts, we assume that combined jet and kerosene demand will fall by 1.05 mb/d y-o-y in 2Q20 and 530 kb/d for the year as a whole.

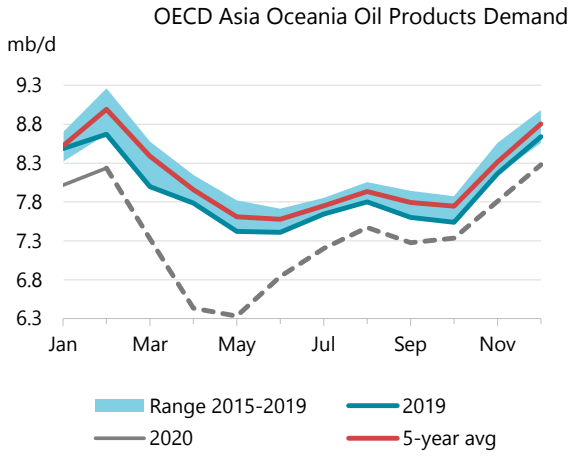
The Covid-19 crisis will also have a small impact on petrochemical feedstocks. In 2020, LPG/ethane and naphtha will post declines of 35 kb/d and 75 kb/d, respectively. Fuel oil (bunkers) will drop by 170 kb/d.

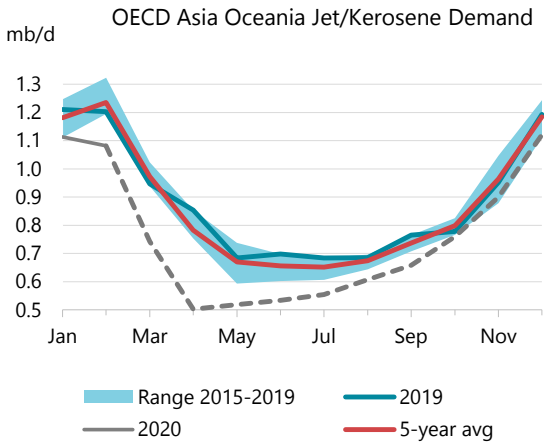
OECD Asia Oceania

In OECD Asia Oceania, total oil demand is set to fall by 550 kb/d in 2020. The fall started in 1Q20 (-520 kb/d y-o-y) and is set to accelerate in 2Q20 (-1 mb/d), before slowing to 370 kb/d in 3Q20 and 310 kb/d in 4Q20. Korea and Japan were impacted ahead of Europe by the outbreak of Covid-19 and mobility was less affected overall. However, new cases in Japan triggered more restrictive measures in April and there was a similar development in Korea in May. Our mobility index points to a small decline in mobility in Korea in February and March and a return to normal in April. In Japan, mobility has fallen since mid-April (with our index close to 75 on average), as

containment measures were applied. Mobility in Australia and New-Zealand declined sharply at the end of March. Australia has closed all schools and non-essential shops, while New Zealand went into total lockdown on 26 March to contain the virus. Both countries have started to relax containment at the time of writing.

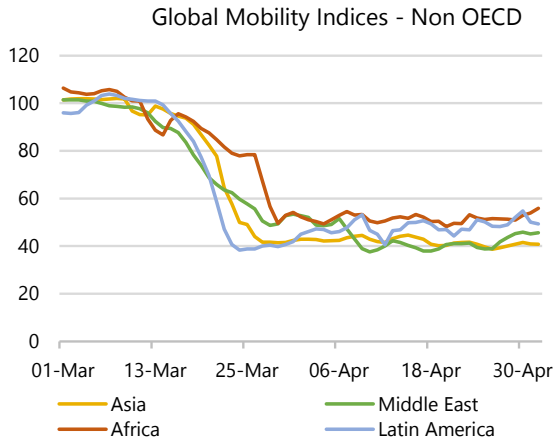
Gasoline deliveries are set to drop by 280 kb/d y-o-y in 2Q20 after a small drop of 110 kb/d in 1Q20. In Japan, gasoline demand is set to decline by 20% in 2Q20 due to containment measures. The progressive lifting of lockdown measures in the region will result in gasoline demand returning to normal in 2H20. As elsewhere, diesel demand is less affected but suffers from a slowdown in trade and industrial activity. In Japan, diesel sales will be down 10% in April and May before starting to return to normal in June. Overall, diesel and gasoil demand in OECD Asia is expected to fall by 120 kb/d in 2020.

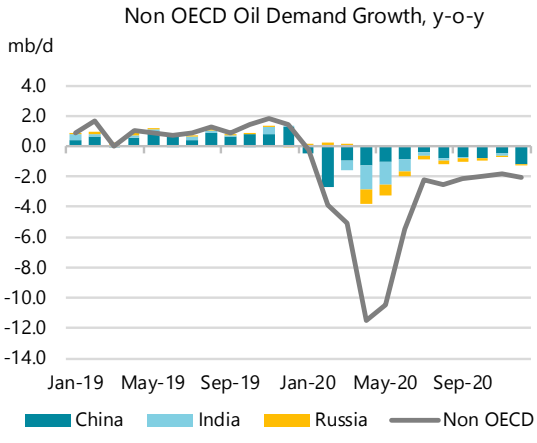




Jet and kerosene demand was impacted by warmer than normal weather in January and February and then in March and April by the collapse of the aviation industry. According to IATA, Asian airline capacity will decline by 50% in 2Q20, 25% in 3Q20 and 10% in 4Q20. Prompt indicators from OAG showed a 60% drop y-o-y in air traffic in Korea in April. In Japan, flights declined by 40% y-o-y. Jet/kerosene demand in the region is expected to decline by 130 kb/d in 2020.

Non-OECD





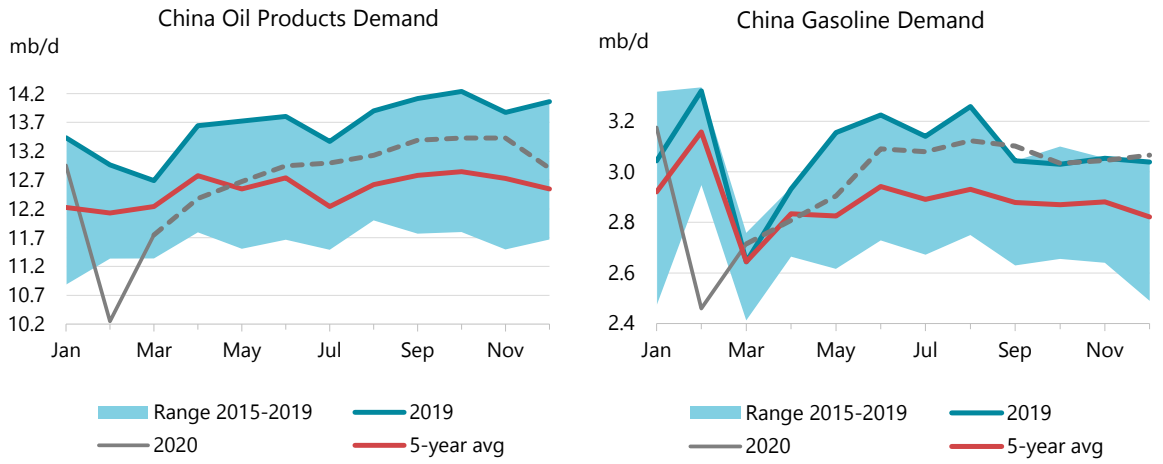
Non-OECD oil consumption will fall by 4.1 mb/d in 2020. This includes a steep fall of 9.1 mb/d y-o-y in 2Q20. Gasoline demand will be the most affected, contracting by 1.1 mb/d in 2020 and by 3 mb/d in 2Q20. Jet fuel and kerosene demand will contract by 970 kb/d in 2020, while gasoil and diesel demand will drop by 680 kb/d.

Non-OECD mobility indices, computed from Google Mobility data, point to very strong impacts of the lockdowns in most non-OECD countries.

Lockdowns have been the most severe in Latin America (Brazil, Argentina, Colombia and Ecuador). In Brazil, mobility has recently been reduced by 40% compared to its January level. There are also severe lockdowns in the Middle East (Saudi Arabia, Kuwait, and the UAE), reducing mobility by close to 60% since the end of March. Confinement in Asia has reduced mobility by 60% on average (Indonesia, Malaysia, India and the Philippines). In Africa, efforts to contain the outbreak of Covid-19 reduced mobility by 45% and 55% recently in South Africa.

China

From 13 mb/d in January, China's demand slumped to 10.2 mb/d in February. Data for March show a strong rebound to 11.7 mb/d. It remains, however, 940 kb/d below the year-ago level.



Gasoline demand in March is thought to have been boosted by the return to the major cities by people who had spent the lockdown in their home provinces in January and February. Confinement measures have now been eased and in April, according to data from *TomTom*, traffic in major cities is almost back to normal levels. For the year as a whole, gasoline demand in China is expected to contract by 105 kb/d.

Diesel and gasoil demand also increased in March, in line with normal seasonal patterns. It is estimated to have fallen by 340 kb/d in 2Q20 and 120 kb/d in 2020. The government's stimulus measures, some of which support energy intensive industries, are expected to support higher gasoil demand in 2H20, in spite of a subdued economic recovery. Jet fuel demand will decline by 270 kb/d in 2Q20 as the number of flights remains greatly reduced. OAG data show a decline of more than 40% y-o-y in scheduled flights in March and April.

After a y-o-y contraction of 1.35 mb/d in 1Q20, total oil demand in 2Q20 is estimated to have been 1.05 mb/d lower than last year. In 2H20, it will still be down by as much as 710 kb/d, as economic growth remains subdued.

China: Demand by Product (thousand barrels per day)	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2018	2019	2020	2019	2020	2019	2020
LPG & Ethane	1 620	1 717	1 454	97	- 263	6.0	-15.3
Naphtha	1 268	1 300	1 243	32	- 57	2.6	-4.4
Motor Gasoline	2 984	3 108	3 005	123	- 103	4.1	-3.3
Jet Fuel & Kerosene	812	857	655	45	- 202	5.5	-23.6
Gas/Diesel Oil	3 355	3 579	3 462	224	- 117	6.7	-3.3
Residual Fuel Oil	432	416	388	- 16	- 27	-3.8	-6.6
Other Products	2 503	2 675	2 486	172	- 190	6.9	-7.1
Total Products	**12 975**	**13 652**	**12 693**	**677**	**- 959**	**5.2**	**-7.0**

India

India went into full lockdown on 22 March, closing businesses and suspending air, road and rail transport systems. Our index of mobility points to a very strong impact, falling over 60% by the end of March.

India: Demand by Product (thousand barrels per day)	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2018	2019	2020	2019	2020	2019	2020
LPG & Ethane	782	848	835	66	- 13	8.5	-1.6
Naphtha	324	327	330	3	3	0.8	0.9
Motor Gasoline	676	732	641	56	- 91	8.3	-12.5
Jet Fuel & Kerosene	252	235	194	- 17	- 41	-6.8	-17.6
Gas/Diesel Oil	1 728	1 755	1 549	26	- 206	1.5	-11.7
Residual Fuel Oil	150	144	137	- 6	- 8	-3.9	-5.3
Other Products	949	971	912	22	- 60	2.3	-6.1
Total Products	**4 863**	**5 013**	**4 597**	**151**	**- 416**	**3.1**	**-8.3**

Indian gasoline demand is projected to fall by 350 kb/d in 2Q20, as mobility is extremely restrained. In both April and May, the y-o-y fall is estimated at almost 60%. Gasoil demand will contract by 690 kb/d in 2Q20. Jet and kerosene demand is projected to decline by almost 40% in April-May as roughly half of the kerosene demand is used as jet fuel and will be severely impacted by airline restrictions. OAG data show a drop of 83% y-o-y in scheduled flights in April.

We expect oil demand to fall by 180 kb/d y-o-y in 1Q20 and 1.3 mb/d in 2Q20. Consumption should return to year-ago levels by 4Q20. Overall, Indian demand is expected to drop by 415 kb/d in 2020. Gasoil/diesel and gasoline will be the most affected.

Other Non-OECD

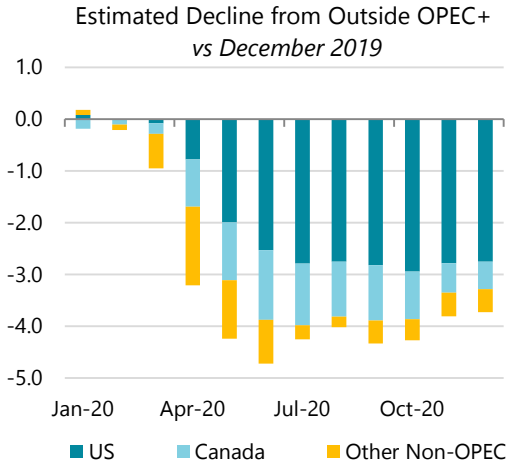
Almost all other non-OECD countries will be impacted by the Covid-19 outbreak and post a contraction in oil demand this year. In 2020, we expect declines of 8.3% in Africa, 9.7% in Latin America, 8.5% in non-OECD Asia, 5.4% in non-OECD Europe, 6.6% in the Former Soviet Union and 7.5% in the Middle East. In Asia, the highest impact on mobility has been in the Philippines, Malaysia, Pakistan and Sri Lanka. In Latin America very large drops are expected in Argentina, Bolivia, Ecuador and Colombia. In Africa, it is South Africa, Rwanda and Zimbabwe. In the Middle East, it is Kuwait and Saudi Arabia.

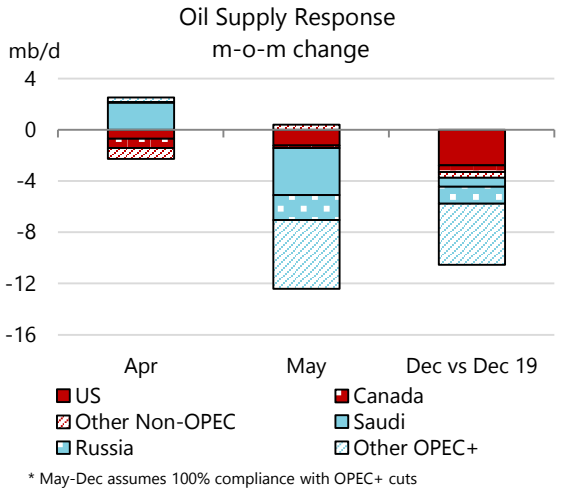
Supply

Overview

A collapse in demand and prices is forcing producers the world over to shut in supply faster than anyone had anticipated. By April, non-OPEC output was estimated to have fallen by more than 3 mb/d since the start of the year, led by large-scale shut-ins in the US and Canada. At the same time, Saudi Arabia, the UAE and Kuwait pumped at record levels. The Gulf producers' gain of 2.8 mb/d more than offset the loss from North America, Ecuador and elsewhere to leave global oil supply at 100.05 mb/d in April, up 260 kb/d month-on-month (m-o-m).

At 30.73 mb/d, OPEC crude oil output in April was up 2.38 mb/d m-o-m and 1 mb/d higher than in April 2019. By contrast, non-OPEC oil supply was down 1.1 mb/d year-on-year (y-o-y). Countries that ramped up output in April found an outlet in China, which emerged from Covid-19 confinement and loaded more than 11 mb/d of crude, based on vessel loadings – a record amount. Iraq, Saudi Arabia, Russia and Brazil all shipped at-or-near their highest ever.



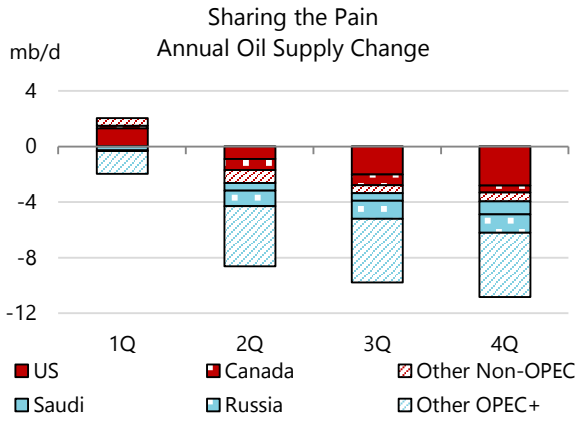


In May, the stage is set for a spectacular decline led by Saudi Arabia as a massive 9.7 mb/d OPEC+ cut takes effect. At the same time, output from the US, Canada and other producers is set to fall further. All-in-all, a historic decline of 12 mb/d is underway that could cut global supply to 88 mb/d, the lowest in nine years.

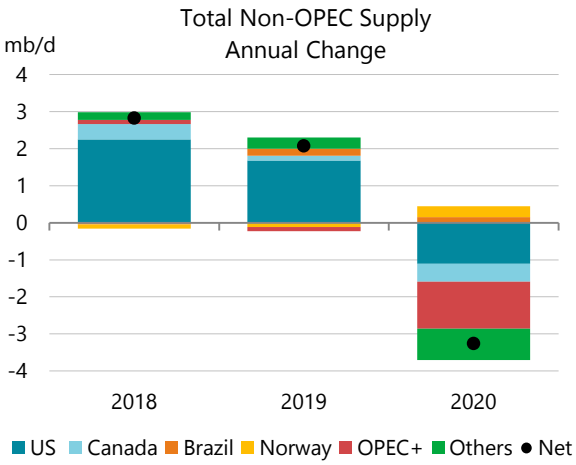
Saudi Arabia is on course to cut its crude supply by an eye-popping 3.4 mb/d in May and has announced an extra voluntary reduction of 1 mb/d for June. Further ahead, the picture looks rather different, with the US set to decline by more than any other leading producer. By the fourth quarter, US production could fall 2.8 mb/d below the end of 2019. On the other hand, Saudi output would be 0.9 mb/d lower assuming 100% compliance with the OPEC+ deal and that the additional voluntary cut applies only to June. The same comparison for Russia shows that output would be down 1.3 mb/d. OPEC+ producers will hold discussions on 10 June to monitor the progress of the OPEC+ agreement. As it now stands, cuts are set to ease by 2 mb/d from July through December. However, some producers reportedly favour extending deeper

May-June cuts through the end of the year. If that should prove the case, and if voluntary cuts were to be extended, Saudi production in 4Q20 could fall 2.5 mb/d below a year ago.

Taking non-OPEC as a whole, supply is set to fall by an unprecedented 6.7 mb/d from March through June, before ticking marginally higher through the rest of the year. For the year as a whole, supplies could decline by a record 3.3 mb/d. While countries taking part in OPEC+ cuts account for nearly 40% of the decline, the largest contribution is from the US where output could fall more than 1.1 mb/d for the year on average. Brazil and Norway have also shut in production, even though new projects are expected to keep output up y-o-y.



* May-Dec assumes 100% compliance with OPEC+ cuts and extra voluntary Saudi, UAE, Kuwait cuts apply only to June



OPEC / Non-OPEC Output[1]

(million barrels per day)

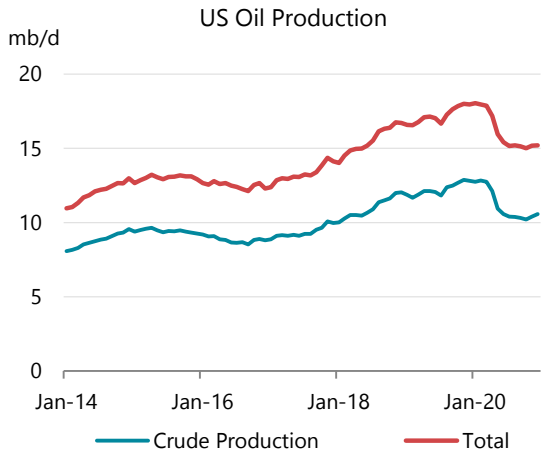
	Mar 2020 Supply	Apr 2020 Supply	Supply Baseline[2]	May/June Target	May/June Cut	May target vs. Apr prod	2H20 Target	Jan 21-Apr 22 Target
Algeria	1.03	1.00	1.06	0.82	0.24	-0.18	0.86	0.91
Angola	1.40	1.32	1.53	1.18	0.35	-0.14	1.25	1.32
Congo	0.31	0.33	0.33	0.25	0.07	-0.08	0.27	0.28
Equatorial Guinea	0.12	0.12	0.13	0.10	0.03	-0.02	0.10	0.11
Gabon	0.21	0.20	0.19	0.14	0.04	-0.06	0.15	0.16
Iraq	4.58	4.50	4.65	3.59	1.06	-0.91	3.80	4.02
Kuwait	2.84	3.05	2.81	2.17	0.64	-0.88	2.30	2.43
Nigeria	1.78	1.76	1.83	1.41	0.42	-0.35	1.50	1.58
Saudi Arabia	9.84	11.90	11.00	8.49	2.51	-3.41	8.99	9.50
UAE	3.50	3.85	3.17	2.45	0.72	-1.40	2.59	2.74
Total OPEC 10	**25.61**	**28.03**	**26.68**	**20.60**	**6.08**	**-7.43**	**21.82**	**23.03**
Iran[3]	1.99	1.99						
Libya[3]	0.08	0.08						
Venezuela[3]	0.67	0.63						
Total OPEC	**28.35**	**30.73**						
Azerbaijan	0.68	0.68	0.72	0.55	0.16	-0.13	0.59	0.62
Kazakhstan	1.67	1.58	1.71	1.32	0.39	-0.26	1.40	1.48
Mexico	1.75	1.75	1.75	1.65	0.10	-0.10	1.65	1.65
Oman	0.94	0.96	0.88	0.68	0.20	-0.28	0.72	0.76
Russia	10.40	10.44	11.00	8.49	2.51	-1.95	8.99	9.50
Others[4]	1.02	1.04	1.11	0.85	0.25	-0.18	0.90	0.96
Total Non-OPEC	**16.46**	**16.45**	**17.17**	**13.55**	**3.62**	**-2.89**	**14.26**	**14.96**
Total OPEC+	**42.07**	**44.48**	**43.85**	**34.15**	**9.70**	**-10.32**	**36.07**	**37.99**

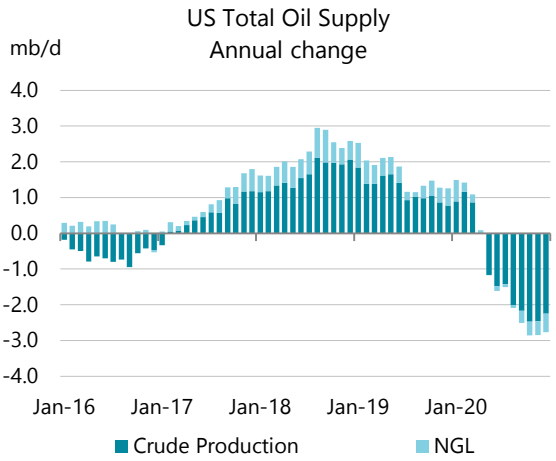
1 OPEC and non-OPEC figures are crude oil only; Apr OPEC supply is early indication.
2 Based on Oct-2018, except for Saudi and Russia which each have an 11 mb/d baseline.
3 Iran, Libya, Venezuela exempt from cuts.
4 Bahrain, Brunei, Malaysia, Sudan and South Sudan

Shut-ins accelerate in world's top producers

US oil production is falling faster than expected as companies race to shut in wells in response to slack demand and plummeting oil prices. Activity levels in the shale patch have dropped to record lows and nearly all operators have shut in uneconomic production. Crude oil output is estimated to have dropped by as much as 630 kb/d in April and a further 1.2 mb/d decline is expected in May. Total US oil supply is now seen falling by 2.8 mb/d by year-end and 1.1 mb/d on average for 2020 compared with 2019.

Shut-ins have been swift in North Dakota, which produced more than 1.4 mb/d of oil in 2019, making it the second-largest producing state after Texas. State officials said production had already dropped by about 300 kb/d in April. Continental Resources, North Dakota's largest producer, announced it had stopped all drilling in the state, shut in wells and issued a force majeure notice on contracted deliveries. Hess, which produced 190 kboe/d in the Bakken in 1Q20, has reduced its rig count from 6 to 1 and lowered its full year output target to 175 kboe/d.



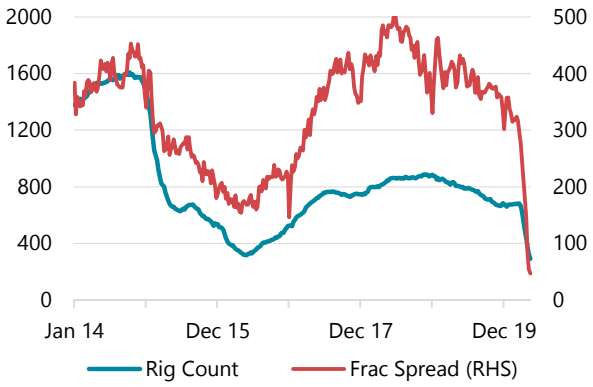


The largest declines are nevertheless expected to come from the Permian, which straddles the border between Texas and New Mexico. ExxonMobil announced plans to cut production by 400 kboe/d in 2Q20, of which 100 kboe/d will come from the Permian. The company estimated the impact of capex reductions on Permian production to be 15 kboe/d in 2020 and 100-150 kboe/d in 2021. Chevron said it plans to shut in a total of 200-300 kboe/d of output in May and up to 400 kboe/d in June. Roughly half the cuts, or 100-200 kb/d, will come from the US, with the Permian and other short-cycle projects bearing the brunt of domestic shut-ins. BP announced a $1 bln investment cut to its shale business, know as BPX, and said BPX output will drop by around 70 kboe/d in 2020, from 499 kboe/d in 2019. EOG will shut-in 125 kb/d of output in May but plans to produce slightly more in June.

ConocoPhillips said it expects to curtail oil production by about 265 kb/d in May and by around 460 kb/d gross in June. Cuts will come from the US and Canada and include a 100 kb/d reduction in Alaska from June. Conoco says it can bring the production back within a few weeks once market conditions improve. Occidental, Marathon, Diamondback, Noble, Parsley and others have also announced cuts. In all, we estimate more than 1 mb/d of US production will be shut in May and June.

While a portion of that production is expected to be brought back on line in the coming months, and assuming the price recovery holds, new drilling and completion activity has practically ground to a halt in the shale patch. The number of operating oil rigs has plunged 57% in just eight weeks to an 11-year low of 292 by early May. Completion rates have fallen even more sharply, as operators delay bringing on wells at a time of low prices. The frac spread count, a measure of hydraulic fracturing activity or completion rates, has fallen by 84% over the past two months to 47, its lowest since at least 2014 when the records start.

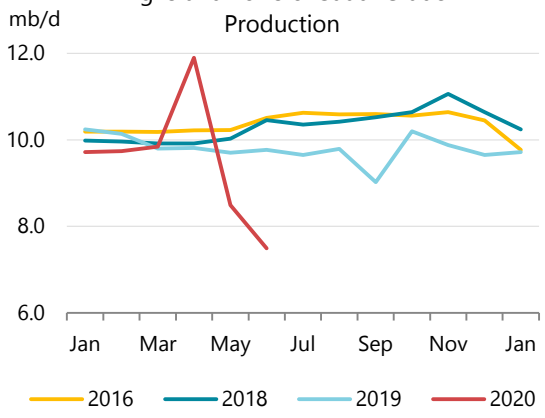
US Oil Rig Count and Frac Spread



Source: Baker Hughes and Primary Vision

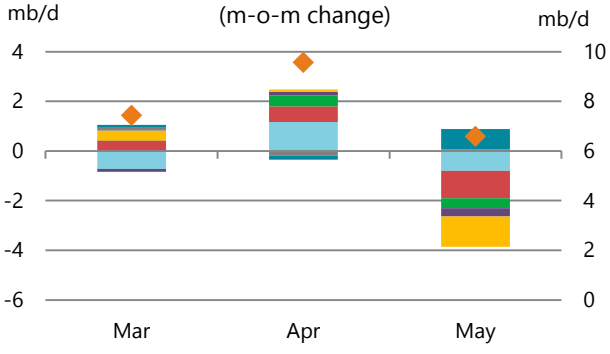
After seeing production soar at the beginning of April to its maximum capacity of 12 mb/d, **Saudi Arabia** throttled back towards the end of the month to ensure it would meet – or even drop below - its 8.49 mb/d OPEC+ target that took effect on 1 May. For April as a whole, crude oil production reached a record 11.9 mb/d, up 2.06 mb/d m-o-m, and to reach the May target it must plunge by more than 3 mb/d. To help speed the re-balancing effort, the Kingdom will voluntarily deepen its OPEC+ cut by 1 mb/d during June. Output would then fall to 7.492 mb/d, the lowest since early 2002. Massive anticipated cuts could allow Saudi Arabia to catch up on deferred maintenance as well as rebalance pressure and fluid distribution in its reservoirs. The cuts are expected to come mostly from low gas-to-oil ratio reservoirs that pump heavier oil.

Highs and Lows of Saudi Crude Production



* May assumes 100% OPEC+compliance, Jun assumes extra 1 mb/d cut

Record Saudi Exports Plunge in May (m-o-m change)



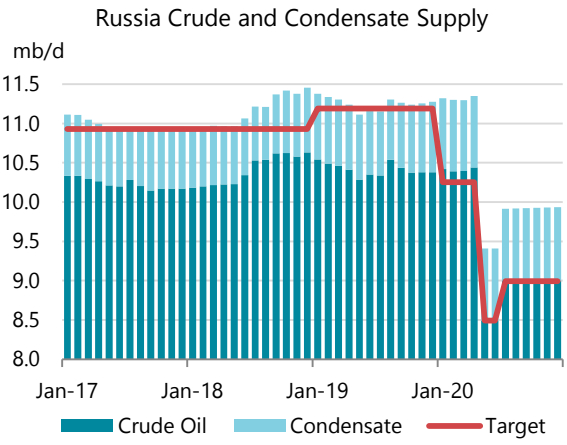
Source: Kpler

The record production allowed for crude oil shipments of 9.6 mb/d, the highest ever. Loadings of more than 2 mb/d for China and over 1 mb/d to India were at record levels, while shipments of more than 1 mb/d destined for the US were the highest since the end of 2016. Tanker tracking shows the Kingdom has sharply reduced shipments of crude so far in May and volumes could drop towards 6 mb/d.

In a bid to bolster its finances with oil below $30/bbl, Riyadh will treble state value added taxes and a cost of living allowance for state workers will be suspended. Oil revenue in 1Q20 fell 24% from a year ago to $34 billion. Although the government asked all ministries to cut their expenditure by 20-30%, this has yet to offset the revenue decline, and the quarterly budget fell

into a $9 billion deficit. Aramco meanwhile reported a 25% fall in 1Q20 net profit to 62.48 billion riyals ($16.64 billion) but its quarterly dividend was in line with a plan for a $75 billion payout for 2020.

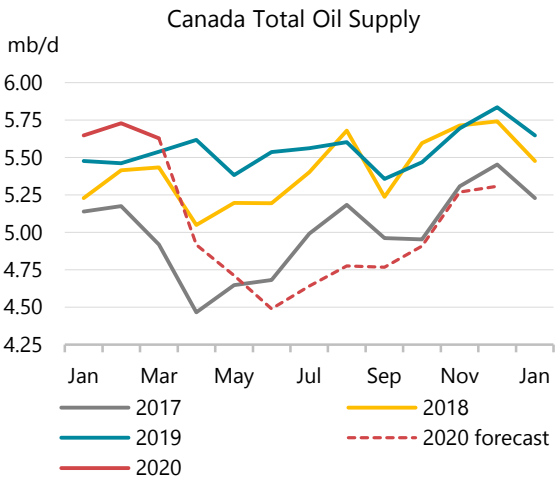
Preliminary daily production data along with crude export schedules suggest **Russia** is making good on its pledge to sharply cut supply starting this month. Crude and condensate production had reportedly dropped to 9.45 mb/d in early May, nearing the 8.5 mb/d target set under the OPEC+ agreement that excludes condensates. According to Ministry estimates, nearly 1 mb/d of domestic refinery capacity will be offline in May, while preliminary schedules suggest a drop of 0.8 mb/d in seaborne crude exports and shipments via the Druzbha pipeline system falling by roughly 20% m-o-m to 675 kb/d. Druzbha shipments already dropped 15% m-o-m in April on lower demand.

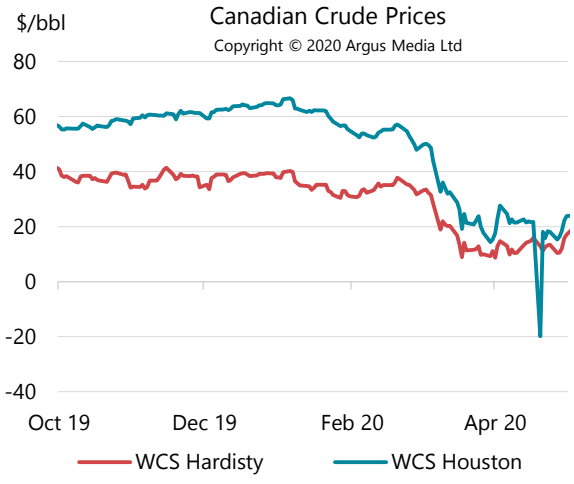


Source: CDU-Tek, IEA estimates. From 2020, target for crude only.

In April, crude and condensate production inched up to a 15-month high. At 11.35 mb/d, supplies were 50 kb/d higher than a month earlier and 110 kb/d above a year ago. Excluding condensates, estimated at around 900 kb/d, output was 1.95 mb/d higher than the agreed output level for May.

After setting a new production record of more than 5.8 mb/d in December 2019, total **Canadian** oil supply flowed at robust levels through 1Q20. At nearly 5.7 mb/d, 1Q20 supply was up 175 kb/d on a year ago, when production curtailments in Alberta first took effect. However, in April, output is estimated to have plunged by as much as 700 kb/d. Outright prices fell to a low of $9/bbl for heavy crude at Hardisty at one point and companies were quick to cut spending and shut-in production. With weak demand from both domestic and US refineries and high levels of crude in storage, supplies are expected to fall further in May and June.





Notably, Suncor has shut one of the two processing trains at its Fort Hills oil sands mine and plans to reduce rates at its Syncrude and Base Plant upgraders in 2Q20. ConocoPhillips has reduced output at its Surmont thermal oil sands facility by around 100 kb/d to 35 kb/d, the bare

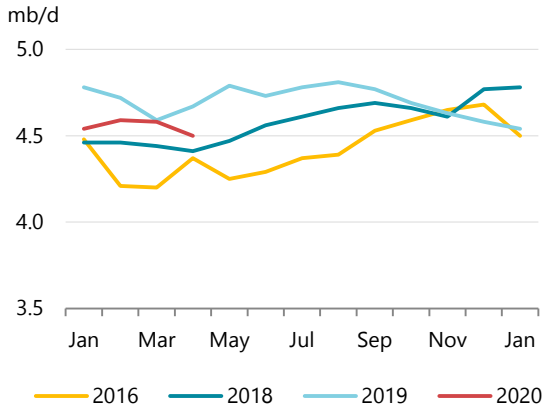
minimum the facility can produce without risking lasting damage to the reservoir. Imperial Oil, which is majority-owned by ExxonMobil, has cut rates at its Kearl oil sands project to 150 kb/d on average in 2Q20 compared with 248 kb/d in March. MEG has lowered production to minimum levels at its Christina Lake project. Husky has shut in about 80 kb/d of production, most of it heavy oil, while Cenovus has shut about 60 kb/d, although it says it could ramp down by a total of 100 kb/d. Finally, Canada Natural Resources Limited said it will shut 120 kb/d of output from May through a combination of closing thermal oil sands and conventional oil wells as well as maintenance shutdowns at certain facilities.

According to weekly data from the EIA, US imports of crude from Canada slumped to around 3.1 mb/d by early May, compared with 3.7 mb/d on average in January. Albertan oil sands operators have signaled they are ready to quickly restart oil sands production once the situation improves and we expect output to rebound during the second half of the year. Steep capex cuts of more than 30% across the sector will take their toll however and production is expected to trail year-earlier levels through to the end of the year.

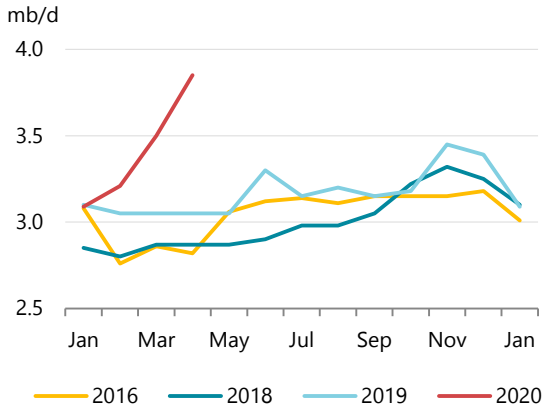
Within the Middle East, **Iraq** was the only country to post a m-o-m production decline in April. Crude oil output fell 80 kb/d to 4.5 mb/d as Covid-19 eroded domestic demand and sluggish fuel oil sales forced refinery run cuts. For May, Iraq has pledged to lower its output to 3.59 mb/d under the OPEC+ pact. However, Iraq reportedly is only reducing its output by around 700 kb/d. Baghdad is said to have agreed 300 kb/d of cuts from southern oil fields operated by BP (Rumaila), Eni (Zubair), Exxon Mobil (West Qurna-1) and Lukoil (West Qurna-2). Between them, these fields produce around 3 mb/d. Iraq will also cut output from other fields that it operates on its own, bringing the total federal government reduction in May to roughly 700 kb/d. The 100 kb/d Garraf field has been shut since March after operator Petronas evacuated its foreign staff to limit their exposure to Covid-19.

International partners in the southern oil fields have been asked to reduce their budgets by 30%. So far, Eni has said it is suspending some investment at Zubair and BP reportedly plans to cut drilling at Rumaila. Oil's collapse cut Baghdad's oil revenue to $1.4 billion in April, leaving it far short of its monthly public sector wage expenditure of around $4.1 billion. Oil revenue, the federal government's main source of income, had already tumbled in March to $2.98 billion.

Iraq Posts Sole Mid-East Decline in April



UAE Races to Record Ahead of Cut



The **UAE** ramped up by 350 kb/d to a record high of 3.85 mb/d in April, but has vowed to slash output in May down to its OPEC+ target of 2.45 mb/d. Joining Saudi Arabia and Kuwait, it announced a further 100 kb/d voluntary reduction for June. A substantial reduction is clearly on the way after Abu Dhabi National Oil Co notified term contract customers of sharply lower

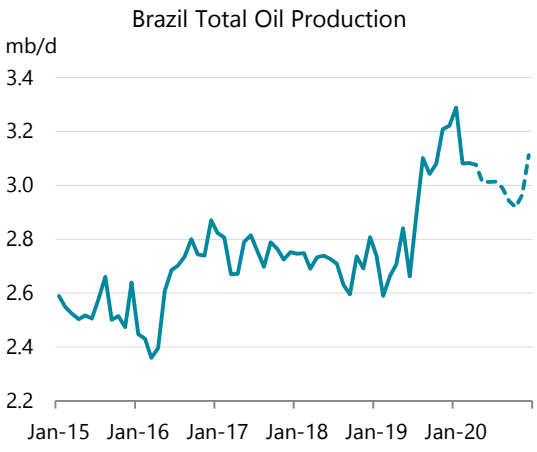
crude oil loadings. The oil price plunge has forced foreign partners to review their developments and Eni is suspending some of its investment. Eni has a 25% stake in the $20 billion-plus development of the Ghasha sour gas field in Abu Dhabi. It is set to deliver 1.5 billion cubic feet per day of gas and around 120 kb/d of oil and condensate by the mid-2020s.

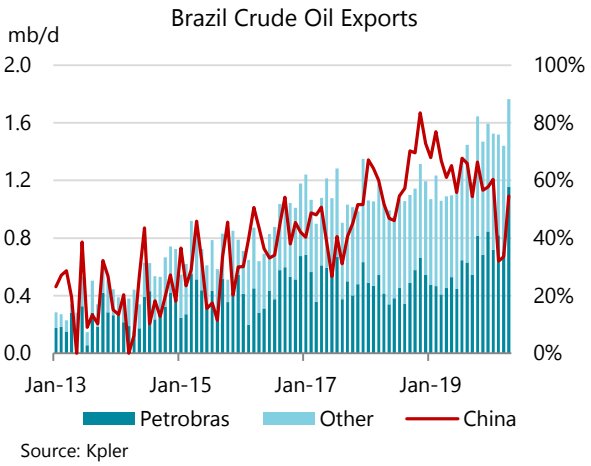
At around 3.8 mb/d in March, **China**'s crude oil output was steady on both a monthly and annual basis. Following hefty financial losses in 1Q20, the country's three largest producers, PetroChina, Sinopec and CNOOC, are expected to cut back on spending this year and shut in uneconomic wells. Crude oil production is expected to fall to 3.6 mb/d by year-end.

Production estimates for **Brazil** in April and 2Q20 have been revised up since last month's *Report*, after Petrobras said higher export demand and domestic refinery runs allowed it to cut output by less than previously expected. The company had announced a plan to produce 2.07 mb/d in April after shutting in 200 kb/d of supply following the dramatic collapse in demand. Record high crude exports and higher utilisation rates at domestic refineries led the company to raise that target to 2.26 mb/d.

Petrobras exported a record 1 mb/d in April, well ahead of the previous record of 771 kb/d in December, and 145% more than in the same month a year ago. Total Brazilian crude exports rose by 330 kb/d m-o-m to 1.8 mb/d according to tanker tracking data, which also show that 60% of shipments were destined for China.

Fresh oil supplies will also come from the Atapu field, which is on track to start up during the second quarter through the P-70 FPSO currently being hooked up. Output is expected to fall more sharply in 2H20, however, after maintenance was postponed due to safety measures put in place to limit the spread of Covid-19. With production still ramping up from newly commissioned units in the Buzios, Lula and soon the Atapu field, total Brazilian oil supply is expected to post gains of 150 kb/d on average in 2020. During 1Q20, total oil production fell from a record high of 3.3 mb/d in January to 3.08 mb/d in March (of which crude oil accounted for 2.97 mb/d), but was up 490 kb/d on average compared with a year earlier.





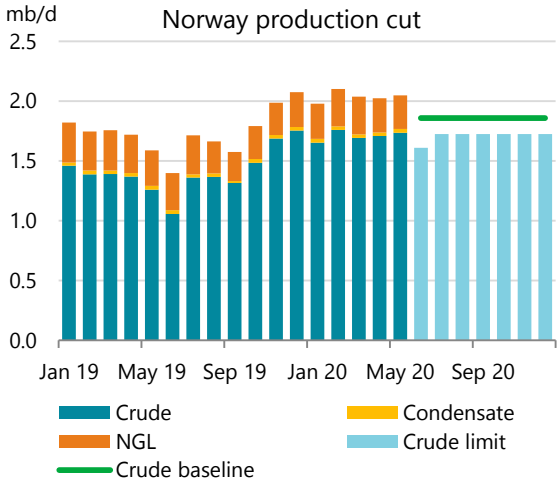
Source: Kpler

Crude supply from **Kuwait** rose 210 kb/d to a record 3.05 mb/d in April, boosted by higher flows from the Neutral Zone shared with Saudi Arabia and increased output from heavy oil fields in the north. Output was significantly higher at the start of the month, but Kuwait turned down the taps ahead of the May OPEC+ deal that has it targeting output of 2.17 mb/d. Kuwait has announced an additional voluntary 80 kb/d cut for June.

Hovering at a 30-year low, **Iran's** crude oil production held steady in April at 1.99 mb/d. Oil exports dropped to a mere 70 kb/d in April, down 216 kb/d m-o-m, but Iran appeared to be diverting around 200 kb/d into onland storage. The volumes of oil stored at sea decreased to an estimated 69 million barrels at the end of April (versus 71 mb the previous month). As for the upstream, Iran's Petropars is aiming to start drilling in June at Phase 11 of the South Pars gas field. The contractor, a wholly owned subsidiary of National Iranian Oil Co, is moving forward with the project after the withdrawal of Total and China National Petroleum Corp due to US sanctions.

Norway's production growth faltered in March for the first time since the commissioning of the giant Johan Sverdrup field in October 2019. Total output slipped 65 kb/d m-o-m but was still 280 kb/d above year ago levels, thanks largely to the impressive ramp up from Johan Sverdrup. Loading programmes for March and April suggest production at some fields, such as Troll, may have been disrupted by outages. However, these were offset as Johan Sverdrup reached its adjusted phase 1 plateau of 470 kb/d in April. Aker BP announced first oil from Ærfugl phase 2 on 22 April, three years ahead of the original schedule. Production from Ærfugl is tied-back to the Skarv FPSO and is expected to ramp up to 10 kb/d. An additional 20 kb/d will come from phase 1 of the project which is due online later this year.

In response to the global crude oversupply caused by the Covid-19 pandemic, the Norwegian Ministry of Petroleum and Energy announced that production cuts would be made to support efforts to stabilise markets. The stated cuts are 250 kb/d in June and 134 kb/d on average in 2H20, from a baseline of 1 859 kb/d, and apply to crude only. The baseline figure is the Ministry's production forecast for the June-December period, updated with the higher-than-anticipated Johan Sverdrup plateau rate, and is higher than the official crude production figures for 1Q20. Curtailments will be shared between fields and operators, and planned 2020 oil field start-ups will be pushed to next year. Based on the new targets, for 2020 as a whole Norwegian oil supply is still expected to increase by about 300 kb/d.



Crude oil production in **Nigeria** inched down to 1.76 mb/d in April, but from May it is expected to fall to 1.41 mb/d. Sharply lower demand in its core markets in Europe and India are making it difficult to place unsold barrels. A significant volume of May-loading crude has yet to be sold even after the Nigerian National Petroleum Corp slashed its official selling prices for Bonny Light and Qua Iboe to record discounts versus Dated Brent.

Kazakhstan's crude and condensate production is estimated to have dropped by 85 kb/d in April to 1.9 mb/d based on preliminary supply figures and crude loadings from the CPC terminal on the Black Sea. CPC loadings eased by 240 kb/d m-o-m from March's record high of 1.65 mb/d, with shipments from the Tengiz field flowing at 635 kb/d, Kashagan at 340 kb/d and Karachaganak at around 240 kb/d. Under the terms of the OPEC+ agreement, Kazakhstan has pledged to cut production by 390 kb/d in May and June. The cuts will be distributed evenly across the country's oil fields. Production cuts from the three big projects, Tengiz, Kashagan

and Karachaganak, which operate under production-sharing agreements and account for two-thirds of total output, are still under discussion.

Mexican crude oil production rose to 1.745 mb/d in March, up 20 kb/d on February and 60 kb/d higher than a year ago. Annual gains stemmed primarily from a rebound in the Xanab field (+54 kb/d y-o-y) and gains from Yaxche (+17 kb/d), Ayatsil (+15 kb/d), Mizton (+13 kb/d), Balam and Onel (+10 kb/d each). Output from Pemex's priority fields reached 46 kb/d by end-month. In early May, the company reported a massive loss of nearly $24 billion in the first quarter and announced a $1.9 billion cut in its investment budget to mitigate the effects of falling oil prices. Lower spending could impede efforts to stem production declines at mature fields and ramp up output from the priority fields to 190 kb/d by year-end. Mexico agreed to a 100 kb/d output cut from May as its contribution to the OPEC+ agreement. Energy minister Rocio Nahle said output would be cut only during May and June.

The collapse in oil and gas demand reportedly has led **Qatar** Petroleum (QP) to plan further cuts in spending and jobs. Oil output nonetheless inched up to 1.94 mb/d in April. QP is aiming to expand its LNG capacity from 77 million tonnes per year now to 126 million tonnes per year by the late 2020s.

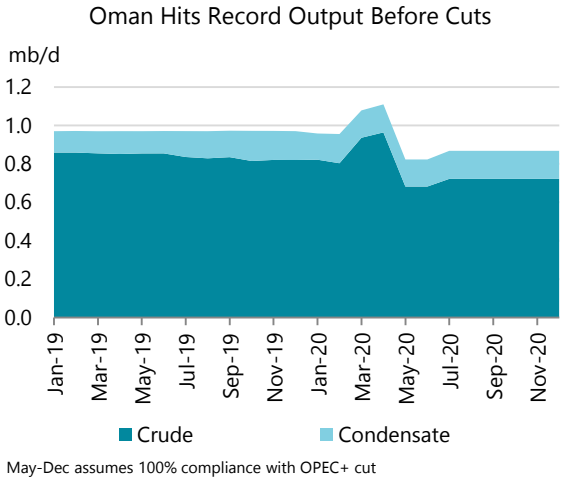
Crude oil supply in **Algeria** slipped to 1 mb/d in April and is expected to decrease to 0.82 mb/d from May in line with its OPEC+ target. Algeria has pledged to boost exploration activity in partnership with foreign companies and Sonatrach has already signed memoranda of understanding with ExxonMobil, Chevron, Zarubezhneft and TPAO to explore upstream possibilities. Talks have also started with Equinor, OMV, ConocoPhillips and GazpromNeft.

Production of crude oil in **Angola** fell to 1.32 mb/d in April, down 80 kb/d m-o-m, as exports fell. Shipments rose to China, its principal market, but declined elsewhere. Given the high production costs in Angola's deepwater fields, companies are reviewing their projects. Eni, for example, is "rephasing" its Cabaca North and Agogo projects.

Preliminary data for the **UK** suggests that in March total oil supply fell to 1.05 mb/d (-14% m-o-m). Reduced offshore manning levels have been implemented as a safety measure during the Covid-19 pandemic. As a result, planned drilling and well intervention activity has been minimised, reducing operators' ability to offset the steep production declines characteristic of the UK's mature acreage. In April, flows are thought to have held steady m-o-m, rather than rebounding, as the Buzzard field was shut in for one week due to a power outage. Reduced manning is likely to stay in place for some months, and the UK's production is expected to recover gradually as Equinor's Mariner and BP's Alligin projects ramp up. Furthermore, to minimise offshore personnel requirements, Ineos has delayed planned maintenance on the Forties pipeline system to 2021, and this will see lower shut-in volumes than had been anticipated. Overall, UK output will fall by 30 kb/d in 2020, reversing last year's gains thanks to production from Premier Oil's Catcher area and BP's Clair Ridge development.

While an oil price of $20/bbl is sufficient to cover most North Sea field operating costs, lower prices are likely to weigh on future growth prospects. The Oil and Gas Authority estimates that investment will drop by up to 40% this year. A number of delays to project sanctions have already been announced, including BP's Clair South, Shell's Jackdaw (gas) project and Siccar Point's Cambo development. In Norway, Aker BP has put the Valhall redevelopment on hold and DNO looks unlikely to proceed this year with its Brasse project.

Oil output in **Oman** reached a record 1.11 mb/d during April. Crude oil production rose 28 kb/d to 964 kb/d. From May, as its contribution to the OPEC+ agreement, it will target crude oil output of 682 kb/d. Most of the cut will come from Block 6, operated by Petroleum Development Oman.



Crude oil production in **Colombia** averaged 860 kb/d in March, down from 880 kb/ in February and 885 kb/d on average in 2019. State-run Ecopetrol, which produces a majority of Colombia's oil, in March cut its capex budget for 2020 by 30% to a new range of $2.5-$3 bln on top of a 25% cut announced in March. It also lowered its production guidance for the second quarter to 660-680 kboe/d, down from 735 kboe/d produced in 1Q20, and cut its full-year target by nearly 100 kb/d. The government expects total Colombian crude output this year to be in a range of 750-850 kb/d, down from earlier estimates of 900 kb/d.

Indian oil production continues to decline. In March, crude oil output rose by 30 kb/d m-o-m to 650 kb/d but was 14% below the government's target and 5.5% below a year ago. The country's largest producers cite increased water cuts and underperformance of wells at mature fields as key reasons for the shortfall. Restrictions on the movements of workers to onshore fields due to the Covid-19 lockdown was also a factor. We assume production will remain subdued in the coming months and expect a decline of 50 kb/d for the year on average to 750 kb/d, of which 625 kb/d is crude and condensates.

Azerbaijan has started cutting oil production in line with OPEC+ deal, according to the Energy Ministry. They said that cuts will be proportionately divided between oil and gas producing divisions of SOCAR and oil producers operating on the basis of production sharing agreements and similar oil contracts. Azerbaijan agreed to cut oil production (excluding condensate) by 160 kb/d from the October 2018 baseline of 718 kb/d. In April production rose to 771 kb/d with crude oil accounting for 680 kb/d, 125 kb/d above the May target.

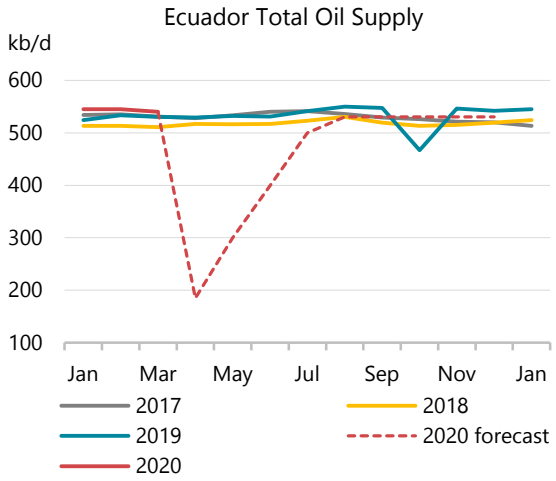
Venezuela's crude oil production eased 40 kb/d to 630 kb/d in April. Further losses are likely as Petroleos de Venezuela shuts in high cost wells. The company has proposed a restructuring that would boost the participation of private companies. The scheme, which does not have the National Assembly's approval, intends to attract foreign investment and raise output by 1 mb/d. Even if it were given the green light, US sanctions would temper the enthusiasm of international oil companies. Washington on 21 April gave Chevron, the last major US oil company in Venezuela, notice that must wind down operations by the end of the year.

Indonesian output declines are expected to accelerate in 2020, on reduced drilling and project delays. Pertamina, the largest producer, cut its capital expenditure budget for this year by 23% from its initial planned $7.8 billion and aims to curb operational costs by 30%. While production data is only available through February, upstream oil and gas regulator SKK Migas reported that oil liftings from January to March stood at just over 700 kb/d versus 746 kb/d in 2019, suggesting a sharp output decline in March. Crude oil output has been declining for years from a peak of more than 1.5 mb/d in the mid-1990s to 740 kb/d in 2019. Crude and condensate production is expected to fall to around 700 kb/d in 2020. According to SKK Migas, Indonesia's state gross

revenue outlook from the oil and gas sector has been cut by nearly half this year, from $32 billion to $19 billion.

Supply of **Malaysia**'s largest export grade, Kimanis, is expected to be halved in May and June as producers throttle back output to comply with agreed output cuts and plunging demand. Kimanis is produced from the deepwater fields of Gumusut-Kakap and Malikai fields operated by Royal Dutch Shell, and exports normally hover around 120 kb/d. Malaysia agreed to cut crude oil production to 459 kb/d from this month, from 515 kb/d in February, the latest month for which official data is available. Including condensates, NGLs and nonconventional supply, Malaysian production is set to decline by 27 kb/d on an average in 2020 to 640 kb/d, a smaller decline than the 50 kb/d registered in 2019.

Ecuador's crude oil production ground to a near-halt after a mud-slide on 7 April damaged its main pipelines. From 520 kb/d in March, output slumped to around 60 kb/d in early April and into May, resulting in a 355 kb/d m-o-m drop in output for April as a whole. Output had recovered to around 250 kb/d by 12 May, however, after pipeline flows and exports resumed.



Oil production at the Liza Phase 1 project in **Guyana** that started up in December reached 75 kb/d in early May, up from an average of 58 kb/d during 1Q20. According to the Liza consortium that includes ExxonMobil, Hess and CNOOC, full capacity of 120 kb/d is expected to be reached in June. Despite some pandemic-related delays, Liza Phase 2, which will have the capacity to produce up to 220 kb/d, remains on track for 2022. Some activities for the planned Payara development are being deferred pending government approval. This creates a potential delay in the production startup of 6-12 months. The 750 kb/d production target for Guyana has been pushed back by one year to 2026.

Government data show that in February **Australian** oil output fell to a nine month low of 430 kb/d as Cyclone Damian hampered activity in the offshore Browse and Carnarvon basins. In March, production is thought to have returned to growth. We have revised down our 2020 forecast as several operators, including Santos, BHP and Jadestone Energy, have flagged lower production guidance either due to reduced spending or operational disruptions caused by the Covid-19 pandemic. Nevertheless, total oil output is expected grow 40 kb/d in 2020 as crude flows from the Greater Enfield project ramp up, and on higher condensate associated with LNG projects in Western Australia.

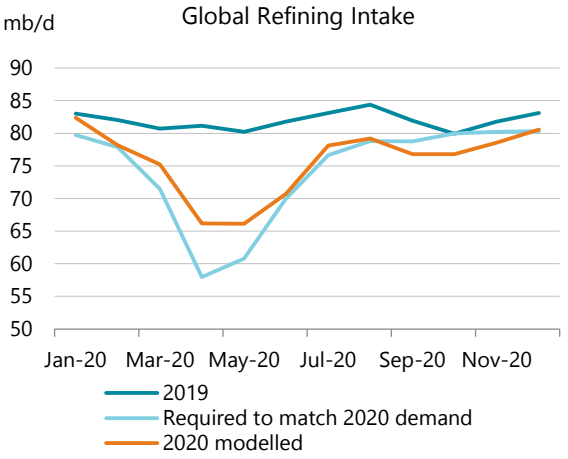
Weak gasoline consumption due to Covid-19 transport restrictions has weighed on **biofuels** demand causing producers around the world to shut in output. Data from the EIA show that by early May US ethanol production had fallen to 600 kb/d, just over half the January level. Low ethanol and gasoline prices will also see less ethanol produced from sugar cane in Brazil than previously expected. In March, ethanol production was 130 kb/d according to the Ministry of Agriculture, in line with seasonal trends. As the new harvest season gets underway, output will ramp up to average 860 kb/d in 3Q20. For 2020 as a whole, supply in Brazil is expected to dip 100 kb/d y-o-y to 520 kb/d. Total global biofuels supply in 2020 is now forecast to be 2.5 mb/d, having reached 2.8 mb/d in 2019.

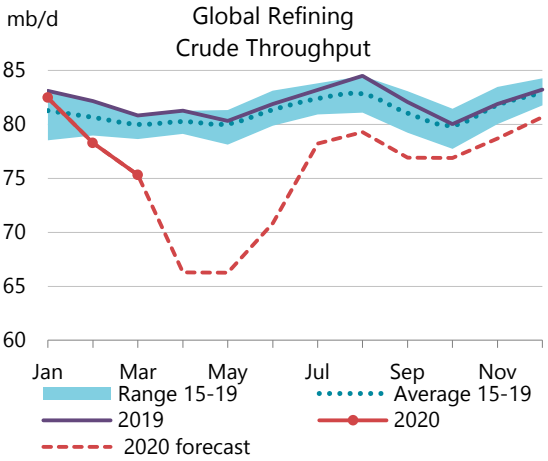
Refining

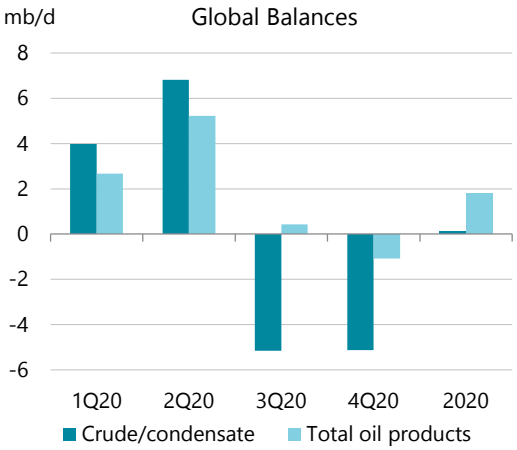
Overview

Attempts to make forecasts during these extraordinary times are best summed up by the Chinese expression "crossing the river by feeling the stones." Visibility is particularly limited as the unpredictability of Covid-19 is compounded by macroeconomic factors. On the front-line of the crisis, refiners must respond rapidly to huge swings in end-user product demand, crude supply, and margins. The refining outlook combines the uncertainties of both supply and demand forecasts, and adds its own inherent uncertainties.

Judging from March data for most countries, the initial reaction of refining to estimated demand declines outside China has been subdued, but still very significant. Throughput fell by 3 mb/d month-on-month (m-o-m), bringing the cumulative fall since December 2019 to 8 mb/d. US and preliminary Russian estimates for April also show lower than expected runcuts. Anecdotal evidence from elsewhere does not point to a refining slowdown big enough to match our estimated demand collapse. Based on this month's higher demand outlook, our 2Q20 throughput is now 67.7 mb/d, down by 13.4 mb/d year-on-year (y-o-y) fall. Peak decline is expected in April-May, with a gradual recovery starting in June and accelerating in 3Q20.







May is a crucial month for the demand recovery as several countries have ended strict lockdown rules. Our forecast from May onwards carries a great degree of uncertainty. It assumes the market manages surplus oil by channelling it through crude and product stocks (see Box *The logistics of oil product storage*). Several refiners were reported shut in May due to storage

bottlenecks. Refinery margins in Europe and the US remain relatively robust. If crude supply adjusts more quickly to the oversupply than forecast, this will support crude prices and depress refinery margins, resulting in lower refining throughput than anticipated. On the other hand, a quicker demand recovery could boost margins and accelerate a recovery in refining activity.

Overall, our 2020 outlook has been revised up by 1.5 mb/d, with runs forecast to fall by 6.2 mb/d y-o-y.

Global Refinery Crude Throughput[1]

(million barrels per day)

	2019	Jan 20	Feb 20	Mar 20	1Q20	Apr 20	May 20	Jun 20	2Q20	3Q20	4Q20	2020
Americas	**19.2**	19.2	18.5	17.4	**18.4**	14.7	16.3	17.1	**16.1**	**18.8**	**18.3**	**17.9**
Europe	**12.2**	12.0	12.0	11.1	**11.7**	8.6	7.6	8.9	**8.4**	**10.6**	**11.0**	**10.4**
Asia Oceania	**6.8**	6.9	6.6	6.5	**6.7**	5.8	5.2	5.6	**5.5**	**6.5**	**6.3**	**6.3**
Total OECD	**38.1**	38.1	37.1	35.1	**36.7**	29.1	29.2	31.6	**30.0**	**35.9**	**35.6**	**34.6**
FSU	**6.8**	6.8	6.9	6.9	**6.9**	6.3	5.6	6.1	**6.0**	**6.6**	**6.7**	**6.5**
Non-OECD Europe	**0.6**	0.5	0.5	0.5	**0.5**	0.4	0.4	0.4	**0.4**	**0.5**	**0.5**	**0.4**
China	**13.0**	13.4	10.5	11.7	**11.9**	12.8	12.8	13.0	**12.9**	**13.1**	**13.3**	**12.8**
Other Asia	**10.5**	10.8	10.9	9.7	**10.4**	7.1	7.7	8.3	**7.7**	**9.8**	**10.3**	**9.5**
Latin America	**3.2**	3.2	3.1	3.0	**3.1**	2.3	2.4	2.5	**2.4**	**2.8**	**3.1**	**2.8**
Middle East	**7.7**	7.4	7.1	6.4	**7.0**	6.3	6.6	7.0	**6.6**	**7.5**	**7.2**	**7.1**
Africa	**2.0**	2.2	2.2	2.0	**2.1**	1.8	1.6	1.8	**1.8**	**2.0**	**2.0**	**2.0**
Total Non-OECD	**43.8**	44.2	41.1	40.2	**41.8**	37.1	37.0	39.1	**37.7**	**42.1**	**43.0**	**41.2**
Total	**81.9**	82.4	78.2	75.2	**78.6**	66.2	66.2	70.7	**67.7**	**78.1**	**78.6**	**75.8**
Year-on-year change	**-0.4**	*-0.6*	*-3.9*	*-5.5*	*-3.3*	*-15.0*	*-14.1*	*-11.0*	*-13.4*	*-5.1*	*-3.0*	**-6.2**

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

Box 2. The logistics of oil product storage

To avoid shutting down refining units, which can be a complicated and costly exercise (see the *April Oil Market Report*), and to take advantage of reasonable margins and the market contango, refineries and commercial operators have continued building product stocks wherever they could. Most products can be stored several months and even years without major technical or quality issues, limited only by available tankage capacity. Refinery storage capacity plays a critical role in ensuring flexibility and reactivity: absorbing surges/delays in crude arrivals, balancing internal flows of unfinished product between units during planned or unplanned outages, and buffering flows of finished product to the market to meet changes in offtake. While large volume items such as transport fuels drive refinery margins, peripheral products like LPG can become a sudden bottleneck for operations if there is not enough tankage to store the unwanted excess. As a rule, storage is generally never too full and never too empty. Yet, refinery typically has at least some spare operational flexibility for storing final and intermediate products. When sales of final products slow down, they can compete with intermediate feedstocks for storage space.

To continue operating with full or nearly full storage carries certain risks when unexpected production issues result in a need to urgently house off-spec components. Technical risks are compounded by financial factors such as inventory price risk and increased working capital. But these are specific to each refiner's accounting methodology and balance sheet.

Naphtha and gasoline streams are stored in floating roof tanks, as is kerosene, due to a higher

content of volatile compounds (the roof floats at the liquid's surface limiting the accumulation of volatile vapours). Diesel and heavier distillates and residues are stored in fixed roof tanks. With appropriate additives and blanketing system (to reduce oxygen content in vapour and avoid combustion), it is easy to maintain the product quality.

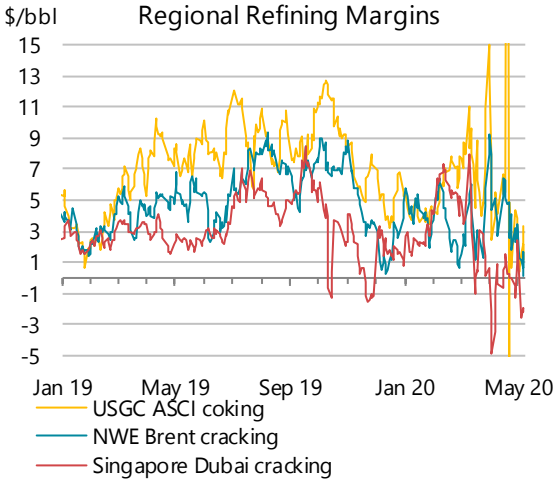
Storing petrochemical products is more complicated. Primary olefins (ethylene, propylene, butadiene) are stored in spherical tanks. Aromatics (benzene, toluene, xylene) are more likely to be stored in floating roof tanks. These require more rigorous safety precautions such as blanketing with inert gases, security valves, etc. Olefins may be prone to generating rubbers and other potential problematic compounds in lines and instrumentation. Polymers and other secondary chemicals require even greater care.

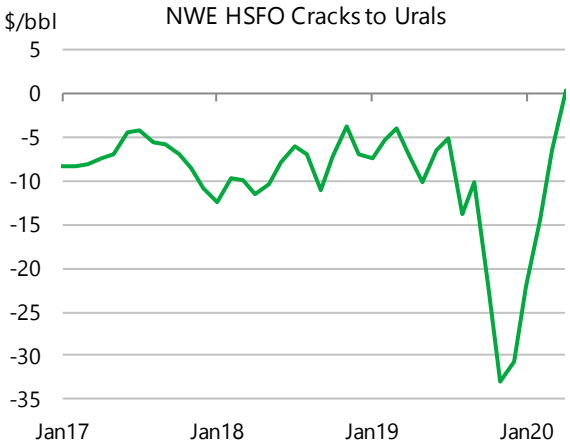
Global crude and product storage capacity, however, is not only operated by refiners. In the US, for example, tank farms operated by midstream companies and other commercial players outweigh refinery storage. Of 4.45 bln barrel crude storage capacity tracked by Kayrros, only 1.25 bln are operated by refiners. Of the roughly 290 mb global on-land crude stock build observed by Kayrros between end-December 2019 and end-April 2020, refineries only accounted for 65 mb. This represents an increase of roughly 5% in the use of refinery crude storage capacity, reflecting the constraints on refiners. We have less visibility and data availability on global product storage capacity, but it is likely that it follows the same pattern as crude, with midstream and wholesale logistics operating the larger share. They would generally face the same issues and constraints as refineries, with some variation related to the nature of their operations.

Margins

Refining margins in April continued showing diverging trends, with a clearer geographical divide. In Europe, both sweet and sour margins were higher m-o-m. Elsewhere, the trend was mostly downward. In Europe, the positive change largely came from the drop in crude prices which lowered refinery feedstock costs. Lower crude prices boosted fuel oil cracks, but cracks for premium transport fuels mostly fell m-o-m as prices for these products dropped faster than crude. Average European spot crude differentials in April were at an all-time low. The region's refining industry is expected to be the most affected globally.

In the second half of the month, in an unusual development, several major European crude grades fell below US Gulf Coast crude prices. Diesel cracks managed to stay in double-digits on a monthly average basis, but jet fuel cracks turned negative by end-month (see Box *Jet fuel cracks: hard landing*). Northwest Europe fuel oil cracks vs. Urals were positive on a monthly average basis for the first time, an altogether extraordinary situation given where the product was pricing just before the start of the International Maritime Organisation's new bunker fuel emission rules this year. Fuel demand, particularly as a conversion unit feedstock, remains robust.





IEA/KBC Global Indicator Refining Margins[1]

($/bbl)

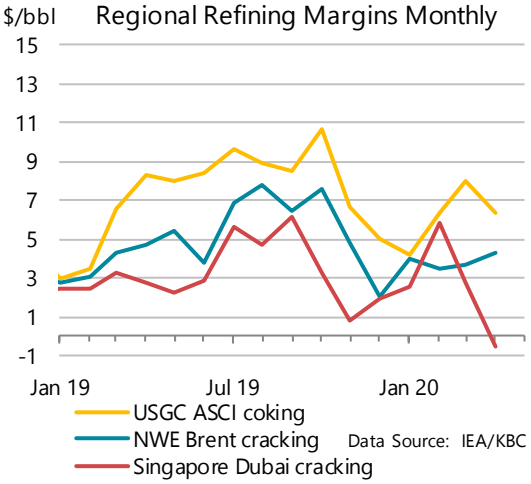
	Monthly Average				Change		Average for week ending:				
	Jan 20	Feb 20	Mar 20	Apr 20	Apr YY-Mar YY		10 Apr	17 Apr	24 Apr	01 May	08 May
NW Europe											
Brent (Cracking)	4.04	3.51	3.67	4.32	↑	0.65	4.07	5.76	3.61	2.53	0.93
Urals (Cracking)	2.38	2.80	6.56	7.58	↑	1.03	9.40	10.08	5.63	2.47	-0.02
Brent (Hydroskimming)	3.97	2.30	2.84	4.79	↑	1.95	4.88	6.19	4.05	2.71	0.82
Urals (Hydroskimming)	-4.99	-2.66	2.97	5.64	↑	2.67	8.04	8.27	3.52	0.07	-2.21
Mediterranean											
Es Sider (Cracking)	5.96	5.73	5.37	5.62	↑	0.25	6.02	7.09	4.63	3.27	1.57
Urals (Cracking)	2.81	3.35	7.25	7.83	↑	0.58	9.98	10.01	6.14	3.02	-0.20
Es Sider (Hydroskimming)	5.61	4.58	3.89	5.49	↑	1.60	5.96	7.01	4.59	3.15	1.27
Urals (Hydroskimming)	-5.02	-2.51	2.76	5.18	↑	2.42	7.74	7.57	3.19	0.33	-2.55
US Gulf Coast											
Mars (Cracking)	-2.40	2.22	2.95	2.54	↓	-0.41	0.58	1.83	7.08	0.34	-0.47
50/50 HLS/LLS (Coking)	6.60	8.27	9.22	6.42	↓	-2.80	8.06	6.85	5.48	2.91	2.53
50/50 Maya/Mars (Coking)	2.57	6.14	7.91	8.05	↑	0.13	5.76	7.78	12.62	5.38	2.75
ASCI (Coking)	4.19	6.33	7.97	6.36	↓	-1.61	4.49	6.02	10.81	3.06	2.06
US Midwest											
30/70 WCS/Bakken (Cracking	9.94	10.46	6.83	2.58	↓	-4.25	3.59	-1.30	-0.04	8.13	6.71
Bakken (Cracking)	12.08	11.52	8.41	4.35	↓	-4.06	4.55	-0.11	2.12	10.60	8.82
WTI (Coking)	6.99	10.54	6.73	4.38	↓	-2.35	-3.98	-1.27	13.72	13.64	12.85
30/70 WCS/Bakken (Coking)	13.69	13.12	9.45	4.03	↓	-5.42	4.68	-0.38	1.10	10.52	8.90
Singapore											
Dubai (Hydroskimming)	-6.49	-2.39	-2.80	-2.99	↓	-0.19	-2.51	-2.12	-2.98	-2.42	-5.88
Tapis (Hydroskimming)	-1.90	-1.37	4.85	7.57	↑	2.72	4.01	6.02	9.74	10.93	9.29
Dubai (Hydrocracking)	2.60	5.89	2.72	-0.47	↓	-3.19	-0.96	0.56	0.08	0.46	-2.24
Tapis (Hydrocracking)	-0.82	-1.31	3.93	6.47	↑	2.55	2.69	4.52	8.58	10.35	9.05

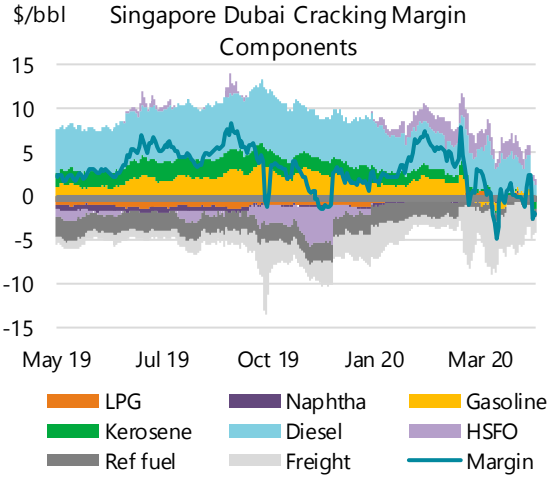
[1] Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should 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)

In the US, the pricing anomaly around the WTI May contract expiration, when the futures settled at -$37/bbl on 20 April, affected the monthly average refinery margins. Price reporting

agencies have different methodologies for assessing physical prices. While Platts did not propagate the event into physical crude prices, Argus, which is the source of price data used in this *Report*, did so. This resulted in abnormal swings in product cracks and distorted monthly average US Gulf Coast refinery margins. For example, the Mars cracking margin was assessed at $47/bbl on 20 April, but dropped to -$9/b the next day. Removing these two days from the margin series would further reduce April US Gulf Coast and Midwest margins. Similar trends affected other heavy sour crudes indexed to the ASCI on the US Gulf Coast.





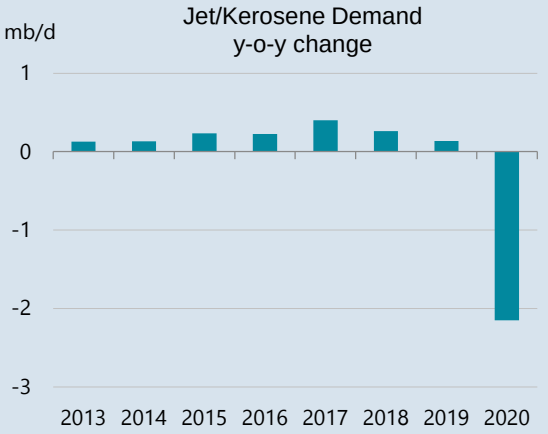
In Singapore, Dubai cracking margins were negative on a monthly average basis for the first time in our records. All product cracks except 0.5% fuel oil fell m-o-m, with the gasoline average monthly crack negative, and jet not much above zero. The highest priced product was 0.5% fuel oil. The surge in freight costs once again significantly undermined margins on long-haul crudes.

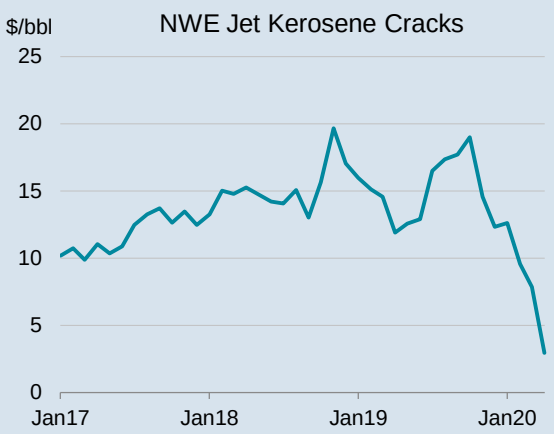
Box 3. Jet fuel cracks: hard landing

Before Covid-19, the rapid growth of air traffic, especially in developing countries, was driving increased jet fuel consumption, tamed only by progressive improvements in airplane engine and operational efficiencies. Jet/kerosene was frequently priced as the most expensive fuel. Kerosene is a "clean" distillate, with very good cold properties rendering it particularly suitable for the aviation sector where the utilisation of alternative fuels is extremely limited due to technical and regulatory reasons. Kerosene is also one of the rarer fractions to be obtained from crude distillation: compared to naphtha, gasoil and fuel oil, it typically has the lowest yield from most types of crude oil.

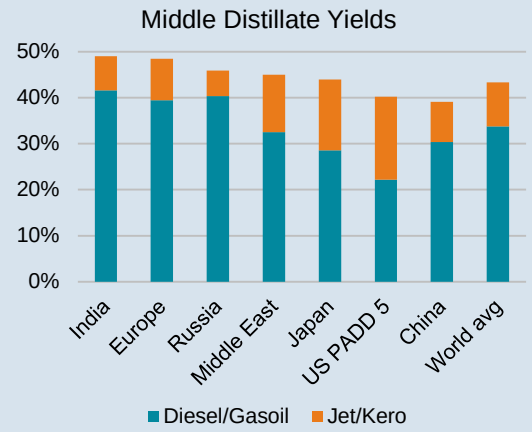
Kerosene also has particularly desirable qualities for refiners. Despite its relatively low quantities, it is situated in a sweet spot on the distillation curve, overlapping both naphtha (gasoline) and gasoil fractions. With a distillation range between 180-220°C, its initial cut point borders heavy naphtha and its final cut point borders light diesel. Consequently, kerosene molecules can be directed to either pool, to the extent that its final specifications for the aviation sector are respected (i.e. releasing light ends to the naphtha pool may require releasing heavier molecules to the diesel pool). Price differentials regulate the continuing arbitrage between the quantity and quality of naphtha and transport fuels produced. This offers refiners operating and blending flexibility depending on market conditions. In principle, the whole kerosene production can be blended with

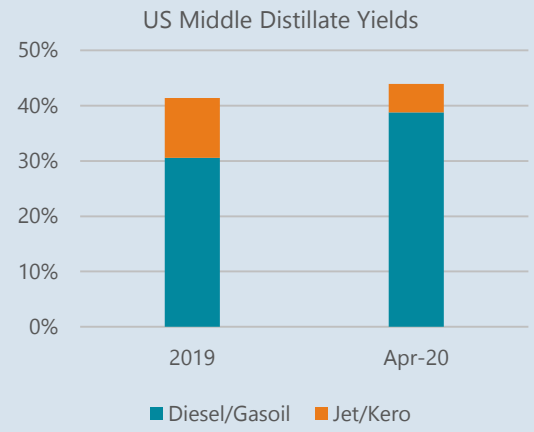
diesel as long as the diesel flash point or cetane index are not compromised. Kerosene improves not only cold properties (for winter grade diesel and especially Arctic diesel for northern countries), which are sometimes difficult to achieve with certain crude slates, but also density as well as the so-called blending curve. Kerosene is also occasionally used as a viscosity and density cutter in bunker fuel blending.





Typically, jet fuels yields vary a lot between regions, based on domestic or export demand. Russian yields are lower than the global average, with a substantial use of kerosene molecules in the diesel pool. In the US, yields are higher given its much larger jet fuel demand, and relatively lower share of diesel demand in consumption.



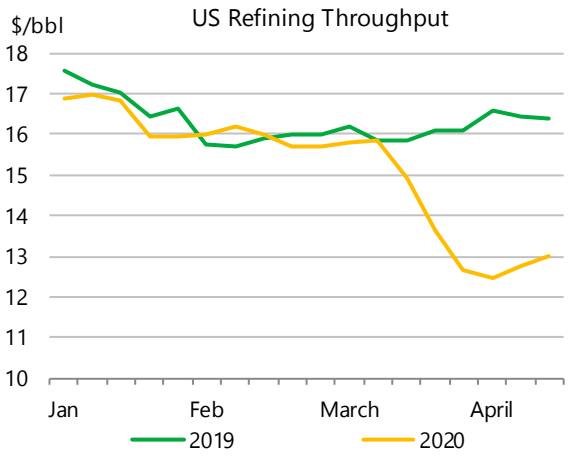


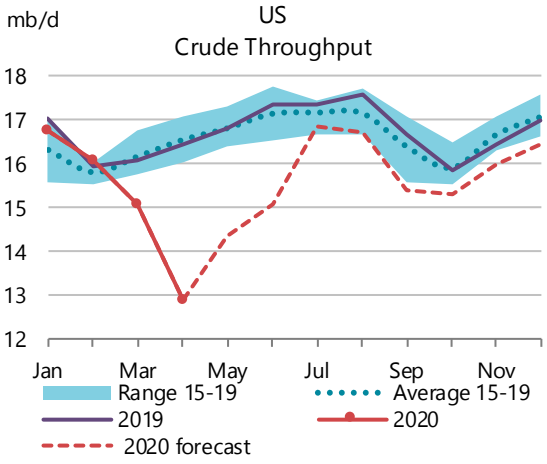
With air travel particularly hard hit by the pandemic containment measures, jet fuel cracks have fallen dramatically and have priced lower than crude oil in recent weeks. Most refiners have maximised diesel output at the expense of jet fuel. Weekly data for April from the US Energy Information Administration show a dramatic switch between jet and diesel yields. In 2019, refinery jet yields were just above 10%, but in April 2020 they halved, with the rest going into the diesel pool. Jet yields are particularly high in US PADD 5 (West Coast), where several large international airports are located. One of the first refineries to shut down in the US during the current Covid-19 crisis was Marathon Petroleum's 160 kb/d plant near San Francisco.

While kerosene consumption is expected to start recovering in the coming months, the longer-term trajectory of the jet fuel market remains uncertain and the Covid-19 induced slowdown in air traffic may persist. Jet fuel accounts for over 20% of the decline in oil demand in 2020, while its share in refinery yields is only around 10%. This means that refineries will have little choice but to continue maximising kerosene blending into the diesel pool, which will contribute to downward pressure on diesel cracks.

Regional refining outlook

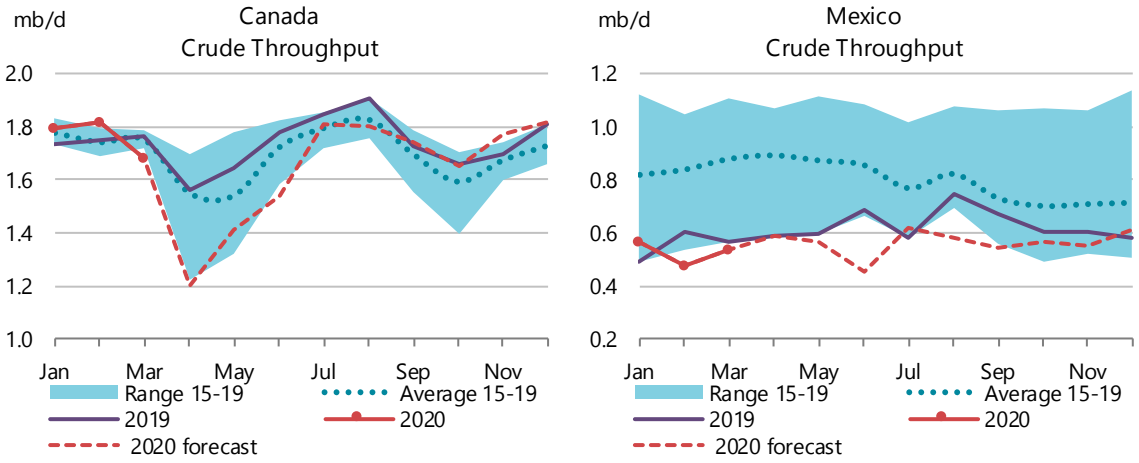
In the **US**, April refinery intake was 12.8 mb/d, almost 1 mb/d higher than forecast, but 3.5 mb/d lower y-o-y. Utilisation rates fell to 67%, the lowest monthly rate in the last 35 years. Runs outperformed our forecast in PADD 2 (Midwest) and PADD 5 (West Coast). At the same time, refined product stocks built by about 1 mb/d. Refinery runs dropped to a low of 12.5 mb/d during the second week of April but recovered to almost 13 mb/d by end-month.





It is not easy to tell whether the recovery will be sustained and if we have passed the peak in the decline, since the rate of product stock builds accelerated in the last week of April to 1.8 mb/d. Several US independent refiners announced during their quarterly earnings calls the possibility of 2Q20 runs dropping to about 65% of capacity or even lower. Nevertheless, we have significantly revised up our forecast for the rest of 2Q20 and the quarterly average is now 1.6 mb/d higher than in the previous *Report*, though down 2.8 mb/d y-o-y.

Canadian refiners also reacted strongly to falling demand by cutting throughput. Weekly data for April show a 500 kb/d decline m-o-m, to just 1.2 mb/d. Mexican refining activity in March showed a 50 kb/d m-o-m increase. At some point in April, runs reportedly reached 800 kb/d with the Mexican President mentioning 1 mb/d as a target for April.



Preliminary March data for OECD Europe were 415 kb/d higher than our estimate, but runs still declined 1 mb/d y-o-y. **France** was the worst performer, with March throughput plunging below 500 kb/d, and utilisation rates dropping to just 38%, a level not seen in the last 35 years. This was due to a combination of planned and unplanned maintenance and, most likely, economic run cuts, as the country entered into confinement in mid-March. In **Spain** and **Italy**, where lockdowns started a week earlier, y-o-y declines were much smaller, around 160 kb/d and 120 kb/d respectively. Runs were higher y-o-y, albeit only modestly, in **Portugal**, **Turkey** and **Sweden**, but refiners in the first two countries announced shutdowns and run cuts in April-May due to product storage bottlenecks.

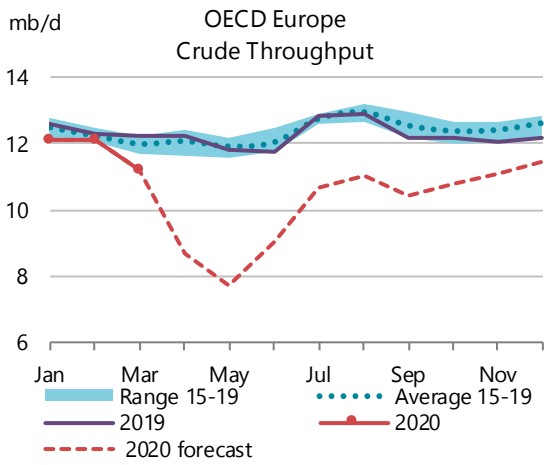
Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

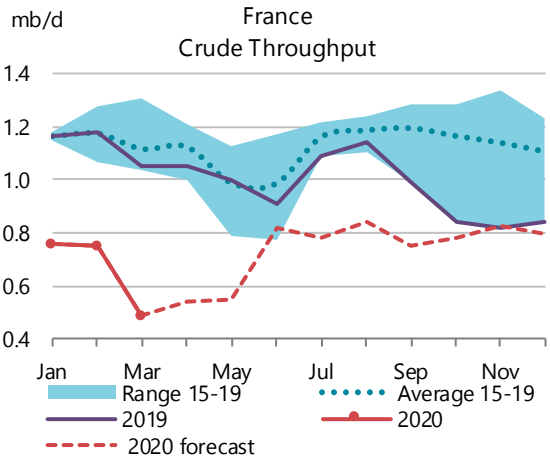
							Change from		Utilisation rate [1]	
	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	*Mar 20*	*Apr 19*	Apr 20	Apr 19
US[2]	16.36	16.87	16.68	15.98	15.00	12.80	-2.20	-3.53	67%	86%
Canada	1.69	1.80	1.79	1.81	1.67	1.20	-0.48	-0.36	59%	77%
Chile	0.20	0.21	0.21	0.21	0.20	0.15	-0.05	-0.05	64%	88%
Mexico	0.59	0.57	0.56	0.47	0.53	0.58	0.05	0.00	35%	35%
OECD Americas[3]	**18.84**	**19.45**	**19.23**	**18.47**	**17.40**	**14.72**	**-2.68**	**-3.94**	**64%**	**81%**
France	0.81	0.84	0.75	0.74	0.48	0.53	0.06	-0.51	43%	84%
Germany	1.82	1.84	1.85	1.88	1.72	1.52	-0.21	-0.20	75%	85%
Italy	1.35	1.30	1.31	1.24	1.12	0.87	-0.25	-0.43	50%	75%
Netherlands	1.10	1.15	1.22	1.14	1.03	0.62	-0.40	-0.46	48%	84%
Spain	1.17	1.29	1.26	1.22	1.21	0.94	-0.27	-0.44	67%	98%
United Kingdom	1.13	1.16	1.18	1.12	1.02	0.75	-0.27	-0.33	59%	86%
Other OECD Europe	4.61	4.49	4.44	4.67	4.54	3.35	-1.19	-1.21	0%	87%
OECD Europe	**11.98**	**12.07**	**12.01**	**12.00**	**11.11**	**8.58**	**-2.53**	**-3.58**	**59%**	**84%**
Japan	2.99	3.13	3.08	2.90	2.89	2.48	-0.41	-0.60	70%	87%
South Korea	2.88	2.98	2.97	2.85	2.85	2.61	-0.24	-0.54	76%	93%
Other Asia Oceania	0.86	0.93	0.86	0.85	0.81	0.70	-0.10	-0.12	0%	94%
OECD Asia Oceania	**6.74**	**7.03**	**6.90**	**6.60**	**6.55**	**5.80**	**-0.75**	**-1.26**	**74%**	**90%**
OECD Total	**37.56**	**38.55**	**38.15**	**37.07**	**35.05**	**29.10**	**-5.96**	**-8.78**	**64%**	**84%**

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

2 US50

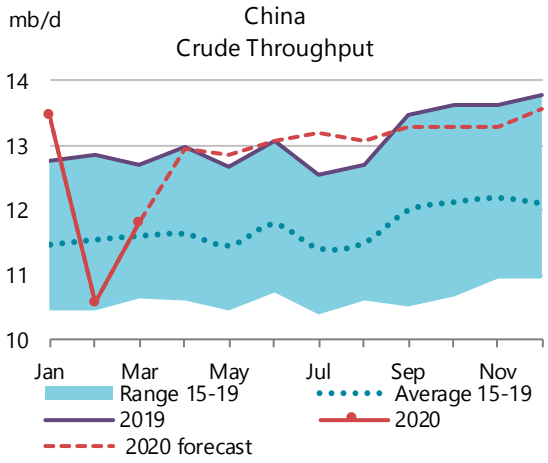
3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

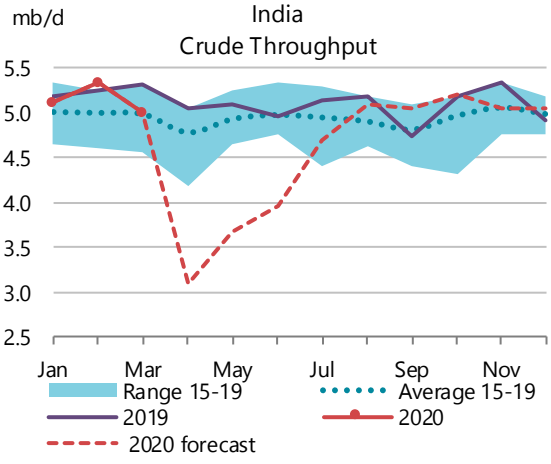




OECD Asia also reported stronger than expected preliminary results for March, essentially flat from February. The combined throughputs of **South Korea** and **Japan** were 425 kb/d higher than our estimate. Runs are expected to decline in April and May, before rebounding in June. We revised up our 2Q20 forecast by 165 kb/d, but the y-o-y decline is still expected to be more than 1 mb/d.

Chinese refining throughput in March finalised at 11.7 mb/d, 1.2 mb/d higher m-o-m. Surveys by consultant SCI indicate a similar growth trend for April, with runs estimated at 12.9 mb/d, essentially flat y-o-y. The higher estimate for April throughput was indirectly confirmed by record product exports, reaching over 2 mb/d. We have revised up our outlook for 3Q20 but lowered our forecast for 4Q20. For 2020 as a whole, refining activity is expected to fall 190 kb/d. The ministry of commerce issued this year's second batch of crude oil import quotas two months earlier than expected. Volumes imported by independent refineries since the start of the year implied that quotas in the first batch were fully consumed while international oil prices remained attractive. At the same time, independent refineries once again were bypassed in product export quotas when the second batch was issued in early May. State-owned refineries will continue to enjoy their product export monopoly for the time being.



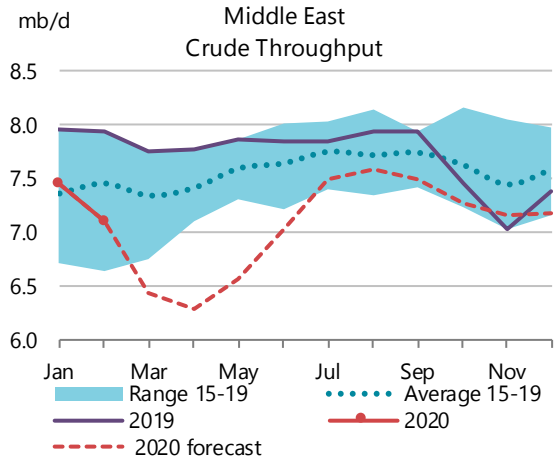


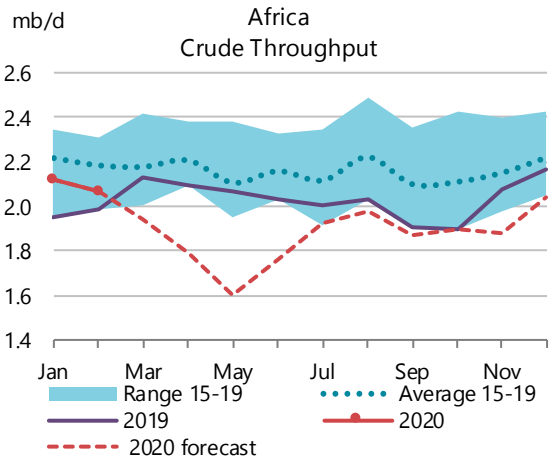
India throughputs in March fell 370 kb/d less than expected, to 5 mb/d. Based on steeper demand declines in April and announcements by state-owned refiners of cutting run rates to below 50%, we see runs falling faster in April but starting to improve in May. Reliance, the larger

of the two private refiners, with 1.2 mb/d total capacity, has claimed its capacity utilisation rates have been close to normal. It is an export-oriented refiner.

Elsewhere in Asia, anecdotal evidence indicated run cuts and refinery closures due to pandemic-related demand declines. Several refineries in **Indonesia**, **Philippines** and **Pakistan** reportedly closed indefinitely, awaiting an improvement in market conditions. In **Vietnam**, a large product importer, refiners were also considering closures with stocks reaching operational limits.

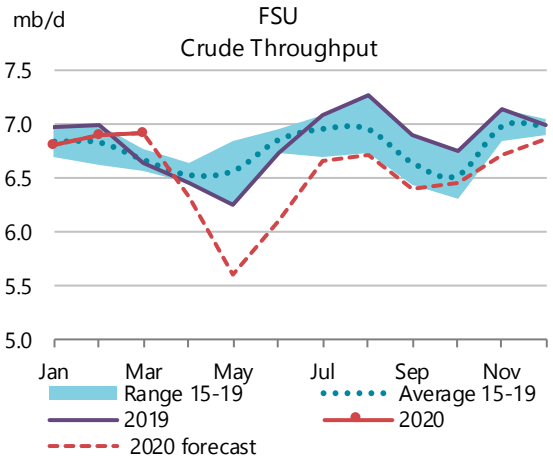
In the Middle East, 1Q20 refining activity was more affected by an exceptionally large maintenance programme than by the demand decline due to Covid-19 lockdowns. February data confirmed the 845 kb/d y-o-y decline in throughputs. We estimate runs in March fell 1.3 mb/d y-o-y. **Saudi Arabia's** throughputs will fall to the lowest level in over five years, at just under 1.9 mb/d. With April runs estimated to be flat m-o-m, refining activity in the region is forecast to start recovering in May. Overall in 2020, runs are expected to average 640 kb/d less y-o-y.



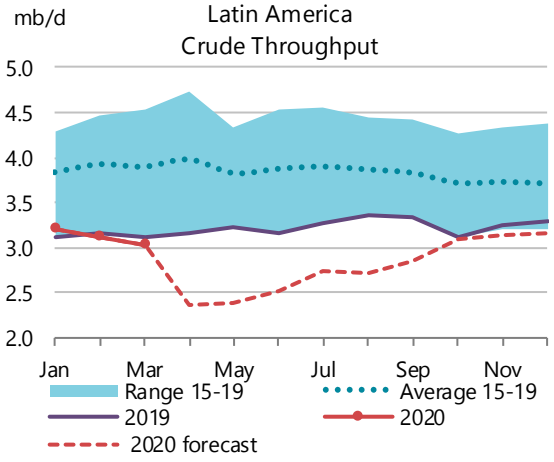


In **South Africa**, declining demand and planned maintenance at a key oil port will result in almost all of the country's refineries shutting during May. **Algeria** and **Egypt** reported steady y-o-y increases in runs in February, but we estimate that their activity has declined since then.

April data for **Russia** were 540 kb/d higher than expected. We revised the outlook slightly higher for the rest of the year. **Belarus** reported January throughput data, its most recent, showing a steep 100 kb/d decline m-o-m to just 230 kb/d, due to crude oil supply dispute with Russia. Poland reportedly agreed to provide 25 kb/d of reverse capacity on the Druzhba system to enable seaborne imports to reach Belarus.



March throughputs in **Brazil** slightly rose y-o-y, with not much evidence of run cuts. Petrobras initially announced its intention to cut runs to 60% of capacity in April, vs. the usual 80-85%, but later indicated an increase of activity to respond to higher than expected demand. In **Argentina**, runs actually increased by a 20 kb/d in March, but in April, two refineries were reported shut due to falling demand. **Venezuela**, perhaps the only country currently experiencing fuel shortages, was reportedly airlifting refinery equipment and instrumentation from Iran to repair the decaying Amuay and Cardon refineries, which comprise the once mighty 940 kb/d Paraguana complex.



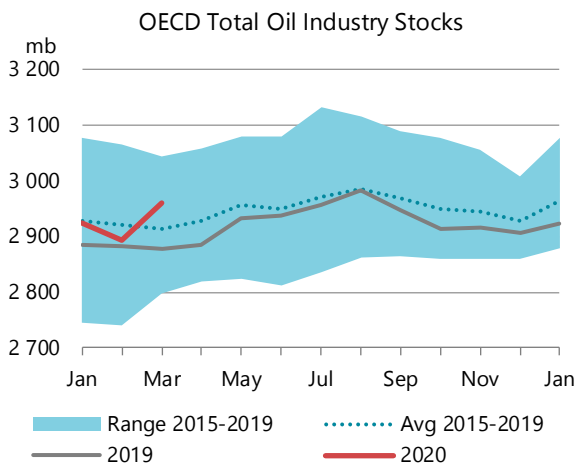
Stocks

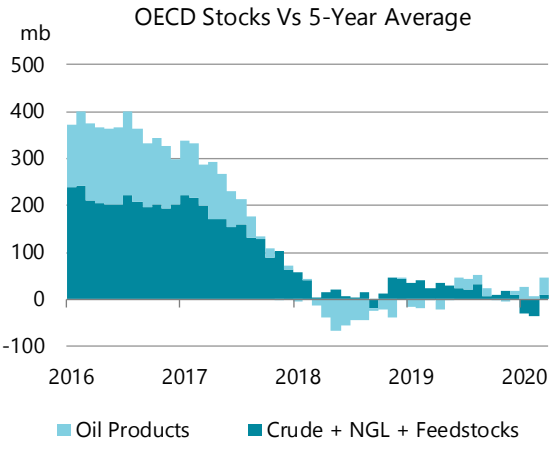
Overview

With plunging oil demand and high levels of supply, oil stocks built rapidly in the early part of the year. Based on new and revised data we estimate that global crude stocks accelerated in 2Q20.

In this *Report*, we have updated our crude storage capacity assessment with the most recent complete official data up to February, supplemented by various sources to capture the recent developments in March and April. On this basis, the 6.7 billion bbls of global crude oil storage capacity held 4.6 billion bbls at the end of April, representing a utilisation rate of 69%. We assume that 80% of the nameplate capacity is the maximum operational level +/- 5%. Therefore around 240 mb of spare capacity remained available at end-April. This should go a long way to absorbing the global crude stock build in the coming months, despite the substantial uncertainty surrounding the outlook (see *Storage capacity assessment*).

In March, OECD total industry stocks rose by 68.2 mb (2.2 mb/d) month-on-month (m-o-m) to 2 961 mb, mainly driven by crude. At end-month, total inventories stood 46.7 mb above the five-year average. In terms of forward demand, reflecting the collapse we have seen in the early months of the year, industry stock covered 90 days, an increase of 8.3 days m-o-m and 27.6 days above the five-year average.





OECD crude stocks rose in March at more than four times the usual rate, or 61.3 mb (2 mb/d) to 1 147 mb, with all three regions showing an increase. Crude stocks in the Americas built by 33.8 mb (1.1 mb/d), amid lower refinery runs in the US (-980 kb/d m-o-m in March). European crude inventories rose by 18 mb as refinery throughput fell by 890 kb/d m-o-m. Crude inventories in Asia Oceania also increased, by 9.5 mb.

Oil product inventories rose counter-seasonally by 6.5 mb to 1 477 mb in March due to lower demand, notably for transport fuels. Motor gasoline and fuel oil stocks built counter-seasonally by 7.7 mb and 5.6 mb, respectively. Other oil inventories also rose by 3.9 mb in line with seasonal trends. Middle distillate stocks, by contrast, fell by 10.8 mb.

Preliminary April data showed crude oil and product stocks building in all three regions. US crude stocks rose by a large 53.7 mb (1.8 mb/d) due to lower refinery intake (-2.2 mb/d m-o-m). Total US product inventories also built by 46.1 mb (1.5 mb/d), led by a 28.7 mb increase for middle distillates. Crude stocks in Europe built more modestly by 3.1 mb, notably in France (4.4 mb). European product stocks rose 0.2 mb owing to a build in gasoline (0.8 mb) and middle distillate inventories (0.4 mb). Japanese crude stocks rose 3 mb, larger than the usual increase of 1.9 mb. Total product stocks in Japan built by 2.6 mb in line with the five-year average.

Preliminary Industry Stock Change in March 2020 and First Quarter 2020

	March 2020 (preliminary) (million barrels)				March 2020 (preliminary) (million barrels per day)				First Quarter 2020 (million barrels per day)			
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
Crude Oil	**33.8**	**18.0**	**9.5**	**61.3**	**1.1**	**0.6**	**0.3**	**2.0**	**0.7**	**0.1**	**-0.2**	**0.5**
Gasoline	3.7	3.9	0.1	7.7	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.1
Middle Distillates	-13.5	2.7	0.0	-10.8	-0.4	0.1	0.0	-0.3	-0.2	0.2	0.0	-0.1
Residual Fuel Oil	4.7	1.8	-0.9	5.6	0.2	0.1	0.0	0.2	0.1	0.1	0.0	0.2
Other Products	3.1	0.3	0.5	3.9	0.1	0.0	0.0	0.1	-0.2	0.0	0.0	-0.2
Total Products	**-2.0**	**8.7**	**-0.3**	**6.5**	**-0.1**	**0.3**	**0.0**	**0.2**	**-0.4**	**0.4**	**0.0**	**0.0**
Other Oils[1]	2.2	-1.5	-0.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Oil	**33.9**	**25.3**	**9.0**	**68.2**	**1.1**	**0.8**	**0.3**	**2.2**	**0.3**	**0.5**	**-0.3**	**0.6**

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

In this *Report*, we have endeavoured to provide as complete an assessment as possible of 1Q20 stock changes, using preliminary OECD data for March as well as higher frequency data for the coverage of other regions. We compare this assessment of stocks to the balance arising from our supply and demand estimates.

1Q20 v 4Q19 Implied Balance

	mb	mb/d
OECD Americas crude + NGL and feedstock	62.5	0.69
OECD Americas total products	-34.0	-0.37
OECD Europe crude + NGL and feedstock	9.8	0.11
OECD Europe total products	38.6	0.42
OECD Asia Oceania crude + NGL and feedstock	-23.1	-0.25
OECD Asia Oceania total products	-0.5	-0.01
Total OECD Commercial Stocks	**53.3**	**0.59**
of which total OECD commercial crude + NGL and feeds	49.2	0.54
of which total OECD commercial products	4.1	0.04
OECD Government crude + NGL and feedstock	0.1	0.00
OECD Government total products	3.8	0.04
Non-OECD crude oil stocks excl. China (Kayrros)	19.4	0.21
Fujairah (FEDCom/S&P Global Platts)	4.1	0.05
Singapore (Enterprise Singapore)	8.6	0.09
Crude oil in transit (Kpler)	-1.0	-0.01
Crude oil floating storage (EA Gibson)	41.1	0.45
Products on water incl. floating storage (Refinitiv)	-8.7	-0.10
Total excl. China Balance	**120.7**	**1.33**
China crude balance	173.0	1.90
Total Accounted Balance	**293.7**	**3.23**
of which total crude balance	281.8	3.10
of which total products balance	11.9	0.13
IEA Global Oil Balance	**602.1**	**6.62**
of which crude balance	362.2	3.98
of which products balance	240.0	2.64
Unaccounted Balance	**308.5**	**3.39**
of which crude oil balance	80.4	0.88
of which products incl. biofuels balance	228.1	2.51

In 1Q20, OECD industry stocks rose by 53.3 mb (0.6 mb/d) from 4Q19. Crude + NGL and feedstock change explained the majority of the balance led by the Americas (62.5 mb or 0.7 mb/d). European product stocks built by 38.6 mb, with Italy and the Netherlands increasing by 9.9 mb and 5.7 mb, respectively. OECD government stocks built by 3.8 mb in total.

For 47 non-OECD economies excluding China, crude oil inventories rose by 19.4 mb according to satellite pictures analysed by *Kayrros*. The implied crude stock build in China in 1Q20 calculated by the IEA was 173 mb (1.9 mb/d) based on continuing high imports (10.2 mb/d on average in 1Q20) and plummeting refinery runs due to the Covid-19 pandemic. Independent product stocks in Fujairah and Singapore rose by 4.1 mb and 8.6 mb, respectively. Seaborne crude oil in transit

fell slightly by 1 mb in 1Q20 compared to very high transit volumes at end-December. Crude oil in floating storage reported by *EA Gibson* showed a large increase of 41.1 mb (0.45 mb/d) in 1Q20. Overall, our assessment accounts for 3.2mb/d of oil stock builds in 1Q20, of which 3.1 mb/d in crude stocks.

Based on the IEA's global oil supply and demand balance and refining throughputs analysis, 1Q20 showed a relatively large "total stock change and miscellaneous to balance" figure of 602.1 mb (6.6 mb/d). Enormous swings in demand, supply and refining activity we have seen in 2020, and the lags in obtaining finalised data, have led to such a large outstanding volume. Using as many data sources as possible we have accounted for nearly half (293.7 mb or 3.2 mb/d) of this implied item to balance. As new data is received, the gap will close further.

Revisions versus April 2020 Oil Market Report
(million barrels)

	Americas		Europe		Asia Oceania		OECD	
	Jan-20	Feb-20	Jan-20	Feb-20	Jan-20	Feb-20	Jan-20	Feb-20
Crude Oil	**6.9**	**7.7**	**3.3**	**-4.3**	**0.2**	**5.1**	**10.3**	**8.6**
Gasoline	0.7	-2.5	0.6	0.7	1.1	1.1	2.4	-0.7
Middle Distillates	0.2	1.4	1.4	-1.4	0.8	-0.3	2.4	-0.3
Residual Fuel Oil	0.2	1.3	-0.5	-0.6	0.0	0.0	-0.3	0.7
Other Products	0.0	9.2	-0.1	5.3	0.0	0.0	-0.1	14.6
Total Products	**1.1**	**9.4**	**1.4**	**4.1**	**1.9**	**0.8**	**4.4**	**14.3**
Other Oils[1]	-4.5	-11.4	0.0	3.1	0.0	0.2	-4.5	-8.2
Total Oil	**3.5**	**5.7**	**4.7**	**2.9**	**2.1**	**6.1**	**10.2**	**14.7**

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

Data for February show that total OECD stocks were revised up by 14.7 mb to 2 893 mb. The largest adjustment was for total product inventories in the Americas, which rose 9.4 mb, led by other products (9.2 mb). Revisions also lifted crude oil stocks in the Americas by 7.7 mb and in Asia Oceania by 5.1 mb, but reduced those in Europe (-4.3 mb). January figures were revised up by 10.2 mb, notably for crude stocks in OECD Americas.

Storage capacity assessment

Our crude oil balance, derived from production, refinery runs and direct burn, suggests that global crude stocks could build at a rate of around 7 mb/d in 2Q20. Steep production cuts and a recovery in refinery runs should ease the pressure in 2H20.

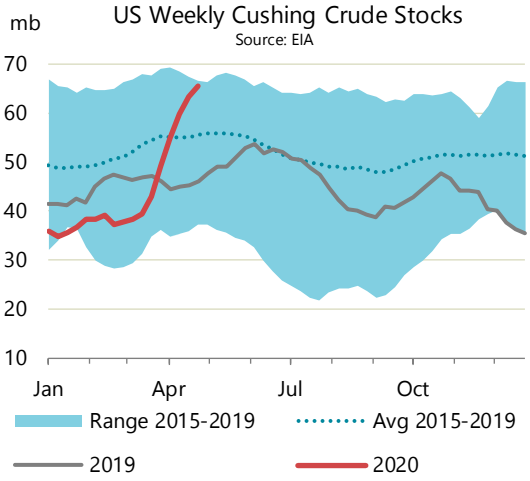
As we noted in last month's *Report*, there is only limited and incomplete publicly available data covering the capacity of onshore storage tanks, underground storage caverns and tankers, as well as their availability and current level of use. Our analysis suggests that there is onshore storage capacity for both commercial and government use (including stocks held underground) of 6.7 billion bbls in 78 countries.

The key sources for our assessment are the IEA's *Monthly Oil Data Service (MODS)* for OECD countries; *Kayrros*, which provides satellite images of storage tanks; and *JODI-Oil* mainly for non-OECD countries. We have a complete data set for February for OECD countries from *MODS* and for non-OECD economies which reported their stock developments in February to *JODI-Oil*. We have incorporated March and April crude stock changes using *Kayrros* data to capture as much of the stock developments as possible. However, observed builds in these two months are still lower than we estimated in our crude oil balance.

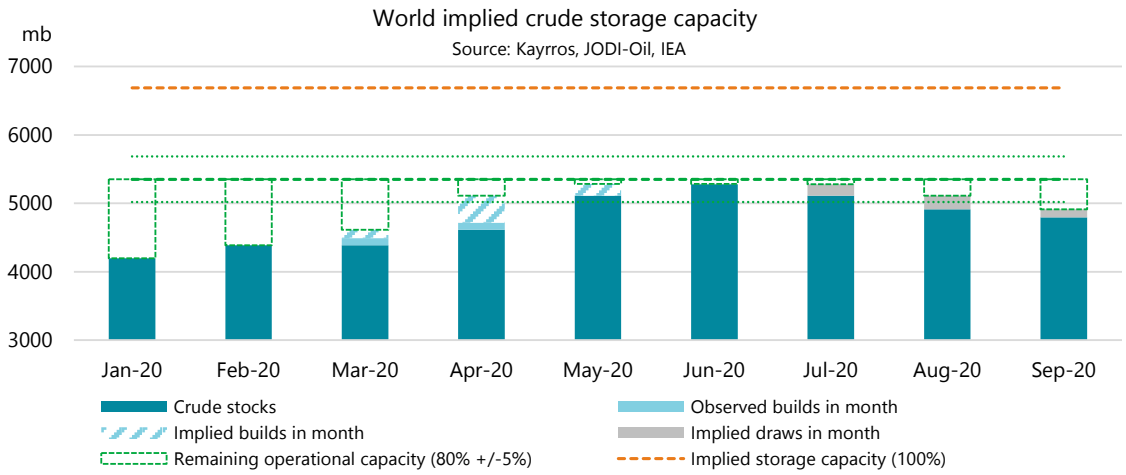
Combining these inputs, available data shows that global crude storage level at the end of April was 4.6 billion bbls, representing a capacity utilisation rate of 69%. We assume a maximum operational capacity of 80% +/-5% (5.0-5.7 billion bbls range). On this basis, there was around 240 mb of available storage capacity unfilled globally at end-April. Based on the supply and demand assumptions in this report, estimated crude stock builds for 1H20 would lift combined global crude stocks close to operational storage capacity limits by mid-year globally.

However, there are different situations in individual countries.

In the **US**, crude stocks at Cushing in Oklahoma, where NYMEX crude futures are physically settled, increased by 18.7 mb m-o-m to 65.2 mb at end-April. Net stocks (63.1 mb: total stocks less pipeline fill and stocks in transit) utilised 82.9% of crude storage capacity (76.1 mb), according to the *Energy Information Administration (EIA)*. For the US as a whole, 403.7 mb net crude stocks utilised 61.8% of 653.4 mb storage capacity at the end of April. In the Gulf Coast (PADD 3) and Midwest (PADD 2, including Cushing), storage capacity utilisation stood at 60.3% and 65.3%, respectively.



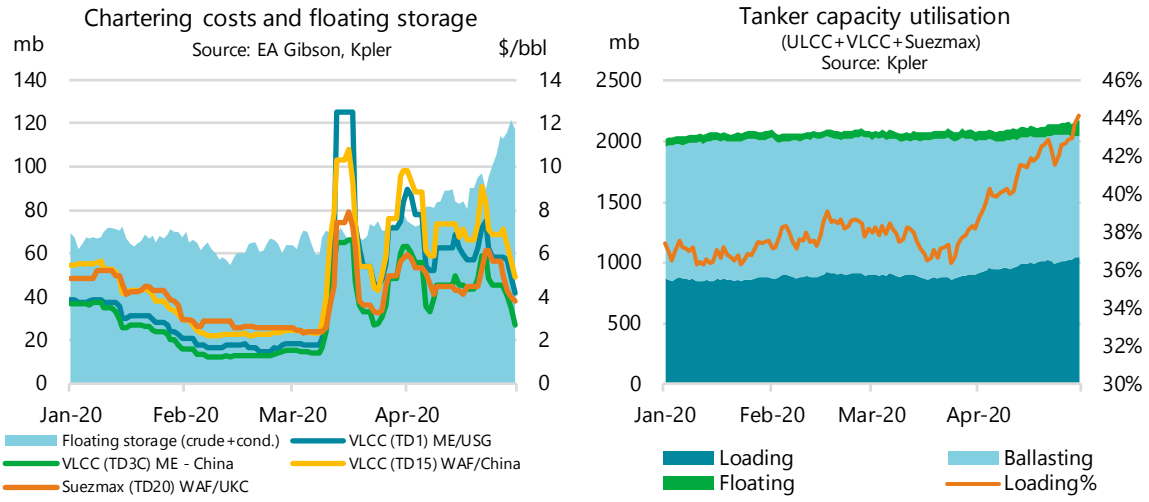
In **India**, it has been reported that all of its available crude storage capacity, including commercial and strategic petroleum reserve (SPR) facilities, has been filled, and that India holds around 50 mb of floating storage. The government increased the size of its strategic reserves taking advantage of low oil prices, and enhanced security of supply.



On top of the onshore storage facilities, large oil tankers can be chartered with options for storage over several months (rather than a single voyage) depending on market conditions. Spot chartering costs for major tanker routes surged in the middle of March due to the chartering of 25 VLCCs by Saudi Aramco's shipping arm. Costs remained relatively high in April amid surging exports by Middle East Gulf producers and increased floating storage demand. At end-April, 5.1% of large crude carriers' capacity were utilised for floating storage and held

121 mb of stocks, according to *Kpler*. Ship broker *EA Gibson* showed a similar picture: 123.8 mb of crude oil stored at sea in April.

Based on tanker tracking data from *Kpler*, and assuming end-April loading and ballasting capacity utilisation rates at 44% and 42%, respectively, we estimate that 86% of shipping capacity is employed. Another 7-8% of the capacity is unavailable due to maintenance, or economic reasons. This implies that 6-7% of global shipping capacity (130-155 mb) could be available for floating storage if economic conditions are met. The expected fall in global oil production of 12 mb/d in May, will ease the pressure on available capacity, both on-shore and floating.



Higher loading rates for total tanker capacity may also reflect "slow steaming" as well as an eventual accumulation of discharging delays. Based on tanker tracking data from *Refinitiv*, some major routes showed longer than average journeys in April, notably for tankers arriving in India from the Middle East Gulf. Voyages departing from Iraq and the UAE to India took eight days longer than the usual 10 days. The Saudi Arabia – India route also took more than two days longer than the usual nine days. Other major Asian buyers China and Japan received cargos from Saudi Arabia with one additional day of delay.

Recent OECD industry stock changes

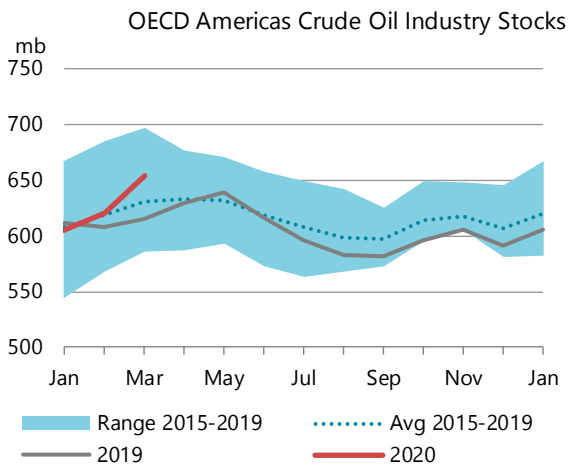
OECD Americas

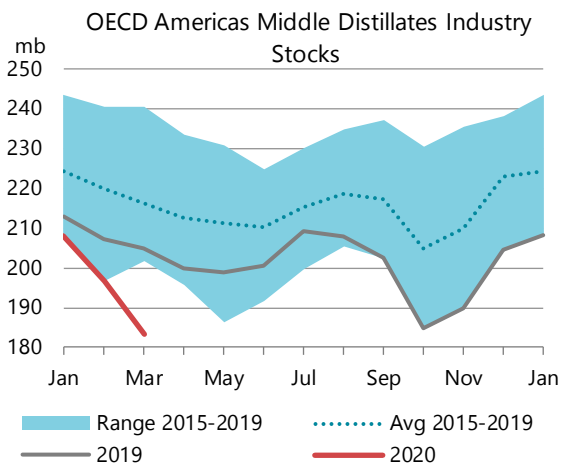
Industry stocks in the OECD Americas rose by 33.9 mb m-o-m in March to 1 567 mb, 39.9 mb above the five-year average. The build was greater than a seasonal trend of 3.8 mb for the month due to a large increase in crude oil stocks while product inventories fell.

Crude oil inventories rose 33.8 mb m-o-m (1.1 mb/d) and stood at 654 mb, 23.3 mb above the five-year average. The increase was higher than the usual level of 12.6 mb due to lower refinery runs in the US (-980 kb/d m-o-m in March). US crude production, remained high at 13 mb/d in March according to the *EIA*, and this also helped increase crude stocks.

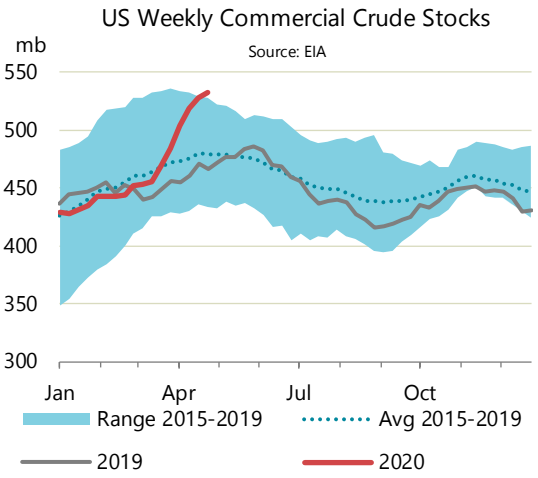
Oil product stocks fell by 2 mb, less than usual decrease of 11.4 mb, owing to counter-seasonal builds seen in motor gasoline stocks (3.7 mb vs five-year average draw of 12.5 mb) as demand plunged. Middle distillate stocks drew by 13.5 mb, more than three times the usual fall of

3.8 mb. Fuel oil and other oil stocks built largely in line with the seasonal patterns by 4.7 mb and 3.1 mb, respectively.





Preliminary *EIA* data for the US showed a large crude oil inventory build of 53.7 mb m-o-m (1.8 mb/d) in April. The increase was more than seven times the five-year average of 6.9 mb as refinery utilisation fell sharply (-2.2 mb/d m-o-m in April). Total product stocks also rose, by 46.1 mb (1.5 mb/d). Gasoline and fuel oil stocks rose counter-seasonally by 4.1 mb and 1.6 mb, respectively. With lower demand and refiners rebalancing yields toward gasoil, middle distillate inventories built by a large 28.7 mb. Other refined product stocks built by 11.7 mb in line with the seasonal pattern.

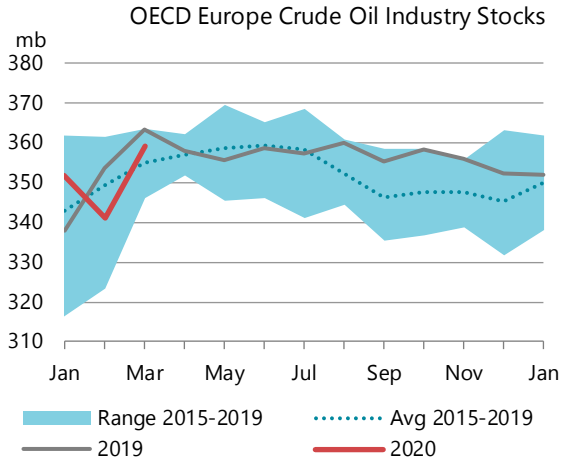


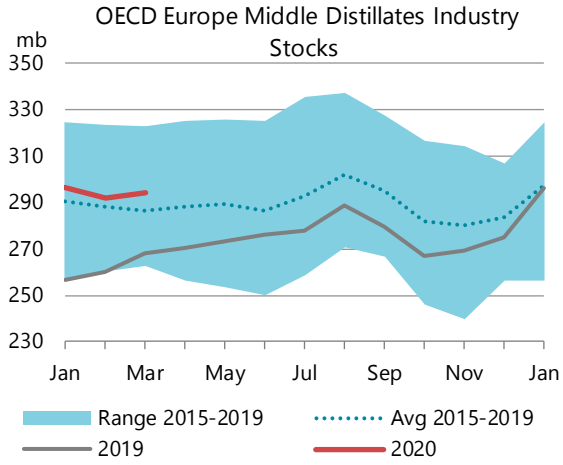
OECD Europe

In March, commercial stocks in OECD Europe built by 25.3 mb (0.8 mb/d) to 1 024 mb, 31.4 mb above the five-year average. The counter-seasonal increase reflected a build in both crude and product stocks.

Crude oil inventories in Europe rose more than triple the usual build by 18 mb (0.6 mb/d) to 359 mb, 4.2 mb above the five-year average. The build was attributable to lower refinery runs in the region (-890 kb/d m-o-m in March). Crude stocks built more than usual in Italy (4.2 mb), France (3.5 mb), Germany (2.3 mb) and the Netherlands (2.2 mb).

Oil product stocks increased counter-seasonally by 8.7 mb, of which 3.9 mb for gasoline, 2.7 mb for middle distillates and 1.8 mb for fuel oil. Other oil stocks built by 0.3 mb in line with the seasonal trend.

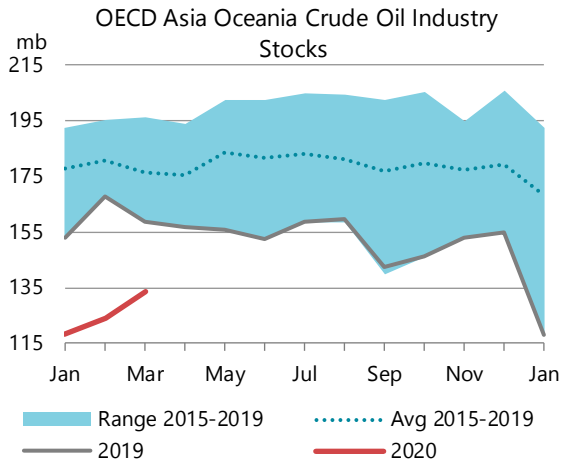


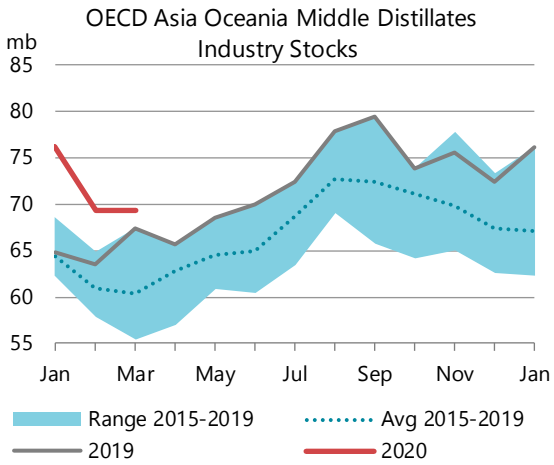


Preliminary April data from *Euroilstock* showed overall inventories building by a surprisingly low 3.3 mb. Crude oil stocks built 3.1 mb, notably in France (4.4 mb) and Germany (0.7 mb) while Italy drew their crude inventories (-2.6 mb). Total oil product stocks rose 0.2 mb, of which gasoline and middle distillate built by 0.8 mb and 0.4 mb respectively, while fuel oil and naphtha stocks drew by 0.7 mb and 0.3 mb, respectively.

OECD Asia Oceania

Total commercial stocks in the Asia Oceania region rose by 9 mb in March to 370 mb, remaining 24.5 mb below the five-year average. The build was counter-seasonal for the month.





Crude stocks rose by 9.5 mb, when they typically fall 4.5 mb for the month. Crude inventories in Japan built counter-seasonally by 8.4 mb amid low refinery throughput (-250 kb/d year-on-year). Korean crude stocks also rose, by 1.1 mb.

By contrast, total product stocks in the region fell 0.3 mb. The draw was less than the usual fall of 3 mb for the month. Fuel oil stocks drew by 0.9 mb. Gasoline and other oil stocks built counter-seasonally by a modest 0.1 mb and 0.5 mb, respectively. Middle distillate stocks were unchanged.

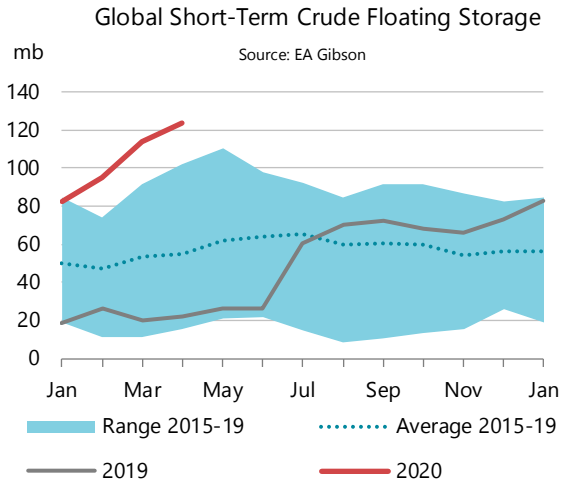
Preliminary data for April (available for the week ending 25 April) from the *Petroleum Association of Japan* showed crude oil inventories increasing by 3 mb m-o-m, larger than the

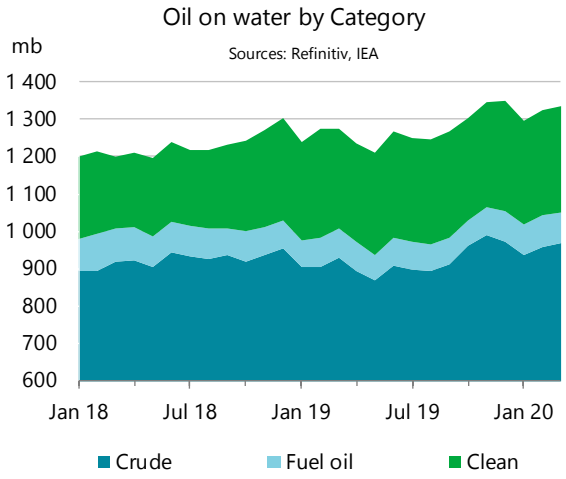
five-year average build of 1.9 mb. Total product stocks rose by 2.6 mb. Gasoline, middle distillate and residual fuel oil inventories built by 1.4 mb, 0.2 mb and 1.4 mb, respectively. Other oil products, mainly naphtha, fell by 0.4 mb.

Other stock developments

Short-term floating storage of crude oil built 9.9 mb in April to 123.8 mb, 68.7 mb above the five-year average according to data from *EA Gibson*. Storage in the Asia Pacific region rose 2.4 mb to 28 mb, the highest since August 2017. Floating storage in North West Europe rose by 2.1 mb. The US Gulf and West Coast increased by a combined 2.2 mb. Crude oil stored in the Middle East Gulf was largely unchanged at 79.4 mb.

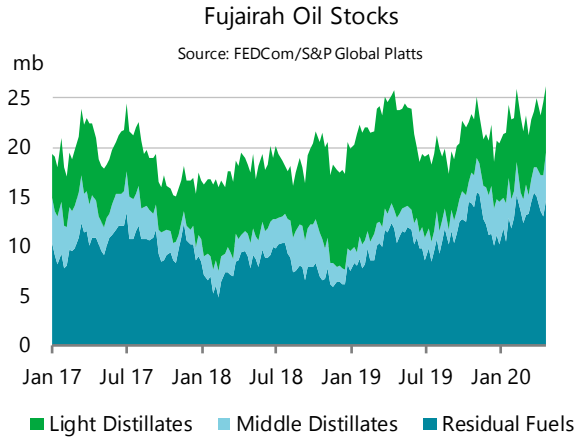
The number of Iranian VLCCs used for storage fell by one to 31. Together with Suezmax fleets (unchanged at seven), the total numbers of vessels thought to store Iranian crude oil is now 38. Globally, 50 VLCCs and 7 Suezmaxes are used for floating storage.

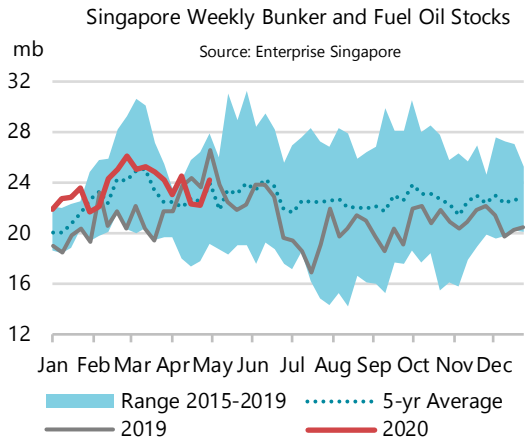




Oil-on-water volumes, based on data from *Refinitiv*, rose by 11.9 mb in March due to a m-o-m increase in crude oil (9.9 mb) and clean products (2.7 mb). Seaborne crude oil exports from Saudi Arabia and Russia rose 20.4 mb (0.7 mb/d) and 17.5 mb (0.6 mb/d), respectively, according to *Kpler* data. The UAE also increased exports, by 9 mb (0.3 mb/d). Fuel oil volumes on-the-water fell by 0.8 mb.

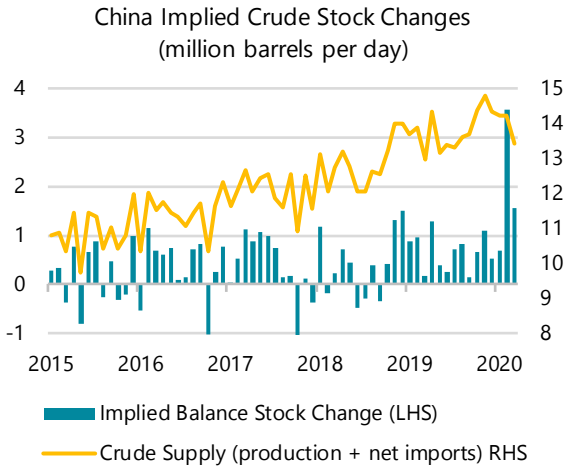
In Fujairah, stocks rose in April by 2.3 mb m-o-m to 25.3 mb, according to data from *FEDCom and S&P Global Platts*. Light and middle distillate inventories increased by 1.1 mb and 2.1 mb, respectively. Residual fuel stocks fell by 0.9 mb. Inventories in Singapore, the world's largest bunkering hub, rose by 1.4 mb during the month based on data from *Enterprise Singapore*. Total inventories stood at 52.9 mb, the highest since July 2016. Light and middle distillate stocks were the main contributors and rose by 1.5 mb and 1.8 mb, respectively. Residual fuel oil inventories, on the contrary, fell by 1.8 mb. The draws on fuel oil stocks reflect its tighter supply demand balance, as outlined in the refining section.





Total oil stocks in 16 non-OECD economies covered by the *JODI-Oil* database fell by 3.6 mb m-o-m in February. Crude stocks in Nigeria fell by 1 mb. Gabon and Saudi Arabia drew their crude stocks by 0.8 mb and 0.7 mb, respectively. By contrast, crude stocks in Croatia built by 1.1 mb. For oil products, Brazil drew stocks by 3.4 mb. Nigeria also drew product stocks, by 1.3 mb. Product stocks in Algeria and Saudi Arabia rose by 1.3 mb and 1 mb, respectively.

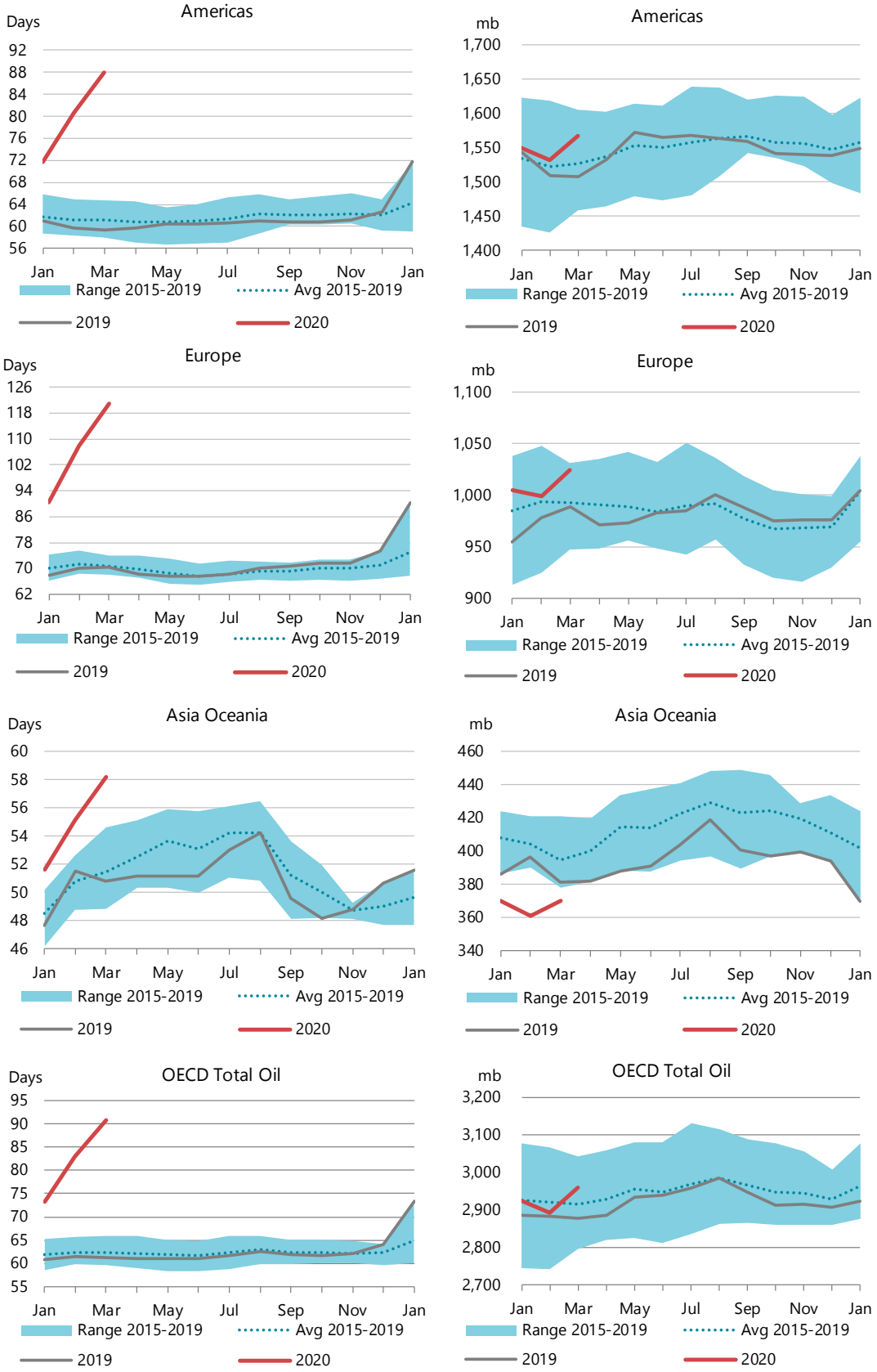
Chinese implied crude stocks built by 48 mb (1.5 mb/d) in March, according to data derived from reported crude production, refinery runs and net crude imports. Refinery runs rose 1.2 mb/d m-o-m from 10.5 mb/d in February to 11.7 mb/d. Crude net imports were 9.6 mb/d, 820 kb/d lower m-o-m. In 1Q20, implied crude stocks built by a large 173 mb (1.9 mb/d) due to lower refinery runs in January-February and continuing high crude imports.



Regional OECD End-of-Month Industry Stocks

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

Days[1] **Million Barrels**



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

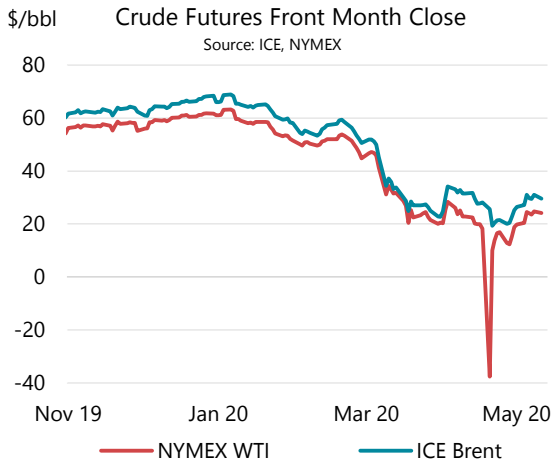
Prices

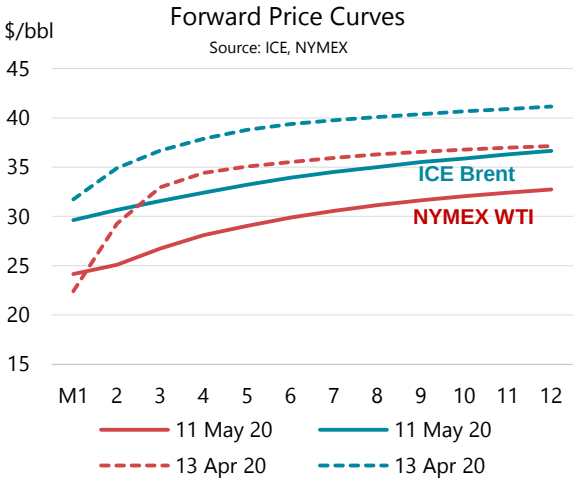
Overview

Benchmark oil prices continued to fall in April as global oil demand weakened due to Covid-19 and measures implemented to contain its spread and as Middle East producers pumped at record rates. On 12 April, OPEC+ members announced that they had reached agreement to cut supplies by an unprecedented 9.7 mb/d from 1 May. However, prices continued to fall in the following days as the demand loss is even greater. In a first for oil futures prices, on 20 April NYMEX WTI settled below zero at -$37.63/bbl. The following day, ICE Brent hit an 18-year low of $19.33/bbl. Prices for physical Brent cargoes were significantly weaker, with North Sea Dated trading at one point at an unprecedented $10/bbl below the futures conract.

In early May, prices ticked up as more countries began to ease lockdown measures, the new OPEC+ deal came into effect and as producers elsewhere shut in flows for economic or logistical reasons. As this report is published ICE Brent is $29/bbl (up 50% since mid-April) and NYMEX WTI is $25/bbl.

Product markets continued to suffer in April. In particular, jet fuel cracks fell into negative territory as more flight cancellations were announced making a near-term rebound in aviation activity look unlikely. Diesel cracks fell sharply, as industrial activity faltered and clean product stocks continued to build. Freight rates rose month-on-month (m-o-m), for both crude and product tankers, thanks largely to demand for floating storage but also high exports from the Middle East. Crude freight rates eased in early May as shipments are expected to fall due to falling production.





Futures markets

Crude oil futures fell m-o-m in April, however, less dramatically than they had in March (in absolute terms). ICE Brent slipped $7.10/bbl m-o-m, to average $26.63/bbl, while NYMEX WTI declined $13.75/bbl to average $16.70/bbl. On 20 April, the day before the expiry of the May contract, NYMEX WTI futures plunged to settle at -$37.63/bbl. This is the first time in history

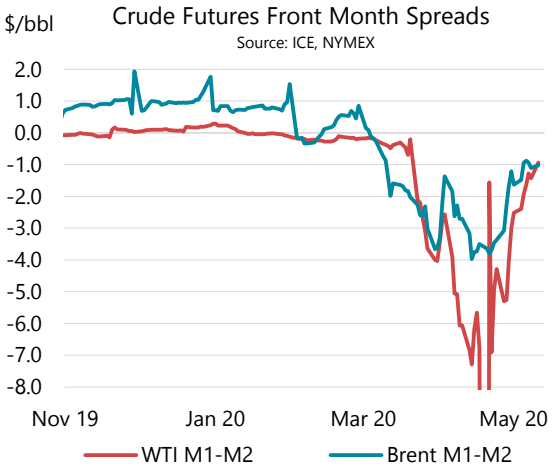
that oil futures prices have turned negative (see Box – Negative oil futures prices). Amidst global market oversupply, concerns regarding crude storage capacity in the US midcontinent at Cushing (the delivery point for the NYMEX WTI contract) caused WTI to fall faster than Brent and the Brent-WTI spread widened to average $9.93/bbl.

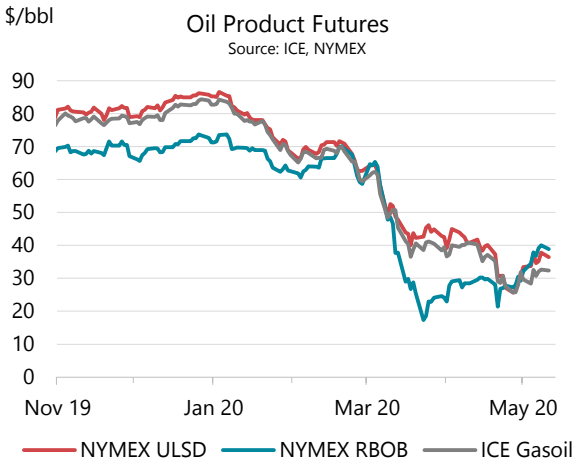
Futures forward curves remained in steep contango, particularly for WTI. Prompt US prices came under extreme pressure due to very weak demand for crude and acute storage constraints. The discount of the WTI prompt contract (M1) to the July contract (M3) exceeded $11/bbl in mid-April, the widest contango seen since 2009 (on 20 April, when WTI settled at -$37.63, the M1-M3 contango was a record $63.91/bbl). For both Brent and WTI, the contango was steepest at the front of the curve indicating that the market is expected to tighten later in the year. In early May, the contango on futures forwards curves narrowed as prompt prices strengthened.

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

	Feb	Mar	Apr	Apr-Mar Avg Chg	% Chg	Week Commencing: 06 Apr	13 Apr	20 Apr	27 Apr	04 May
NYMEX										
Light Sweet Crude Oil	50.54	30.45	16.70	-13.75	-45.2	24.39	20.11	3.92	15.76	23.21
RBOB	64.56	37.70	28.06	-9.64	-25.6	28.40	29.90	26.22	29.46	37.49
ULSD	68.16	49.34	36.41	-12.93	-26.2	42.59	39.94	31.31	29.10	35.26
ULSD ($/mmbtu)	12.02	8.70	6.42	-2.28	-26.2	7.51	7.04	5.52	5.13	6.22
Henry Hub Natural Gas ($/mmbtu)	1.84	1.73	1.76	0.03	1.6	1.78	1.68	1.85	1.86	1.97
ICE										
Brent	55.48	33.73	26.63	-7.10	-21.0	32.31	28.99	21.61	22.94	29.66
Gasoil	66.36	46.41	34.34	-12.07	-26.0	40.01	37.19	30.13	28.12	31.28
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-4.94	-3.28	-9.93	-6.65		-7.92	-8.88	-17.69	-7.18	-6.46
NYMEX ULSD - WTI	17.62	18.89	19.71	0.82		18.20	19.83	27.39	13.34	12.05
NYMEX RBOB - WTI	14.02	7.25	11.36	4.11		4.01	9.79	22.30	13.70	14.28
NYMEX 3-2-1 Crack (RBOB)	15.22	11.13	14.14	3.01		8.74	13.14	24.00	13.58	13.53
NYMEX ULSD - Natural Gas ($/mmbtu	10.18	6.97	4.66	-2.31		5.74	5.36	3.67	3.27	4.25
ICE Gasoil - ICE Brent	10.88	12.68	7.71	-4.97		7.70	8.20	8.52	5.18	1.62

Source: ICE, NYMEX.





Containment measures to stop the spread of Covid-19 halted car travel and hammered gasoline demand. NYMEX RBOB fell $4.11/bbl vs WTI in April. Outright RBOB prices recovered from a 14-year low of $17.30/bbl on 23 March to over $30/bbl at end-April as regions of the US began to deconfine and traffic rose. Industrial and agricultural activity, along with trucking demand, had

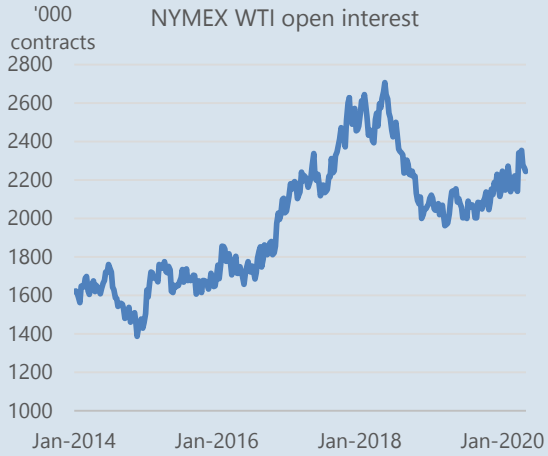
supported diesel and gasoil futures but these sectors weakened in April. NYMEX ultra low sulphur diesel (ULSD) gained modestly by $0.82/bbl vs WTI m-o-m and ICE gasoil fell $4.97/bbl vs Brent m-o-m. In late April, gasoline and diesel futures prices had converged, and NYMEX USLD prices fell below RBOB on several occasions.

Box 4. Negative oil futures prices

April was an extraordinary month for oil markets with Covid-19 demand destruction leaving the market massively oversupplied. The turmoil was reflected in price movements and on 20 April WTI futures prices plunged $55.90/bbl to settle at -$37.63/bbl. Oil futures markets have never before seen negative prices, although they are occasionally observed in physical crude markets and more regularly in gas and electricity markets. WTI prices rebounded on 21 April to settle at $10.01/bbl.

Why did it happen?

WTI crude futures prices fell below zero on the day before the CME-NYMEX May 2020 contract expired. The contract is physically settled meaning that, upon expiry, contract holders must accept physical delivery of crude at Cushing, Oklahoma. The oil may be sold or stored but in April, there was little refinery demand and storage and pipeline capacity at the hub was fully booked, although not necessarily utilised. The negative prices resulted as holders of the expiring May contract without access to storage, but liable to take delivery, were forced to pay parties that could receive physical delivery of the volumes to take them.



The logistical challenges of the physical settlement of the WTI futures contract are usually eased by the high storage and pipeline capacity at Cushing. Under normal circumstances this ensures that market participants have sufficient flexibility regarding their options at contract expiry to allow this to occur in an orderly fashion (i.e. without extreme price movements). Along with the lack of spare capacity in Cushing, open interest (i.e. the number of open contracts) was unusually high on 20 April. Typically, those without the ability to accept delivery of oil would have closed their positions several days ahead of contract expiry. The high volume of open contracts implied a larger-than-usual volume of oil would be delivered to Cushing at a time when logistical constraints were high.

While there appear to be clear fundamental causes for the negative prices we saw, the Commodity Futures Trading Commission (CFTC) is investigating the possibility of market manipulation. It has also been suggested that the extreme price drop may have been exacerbated by panic amongst inexperienced market participants, although it is difficult to see how this can be prevented.

What does it mean for sellers / buyers?

NYMEX WTI is an important benchmark and is used by Price Reporting Agencies (PRAs) to determine the price of several physical crude grades. These are set as differentials reflecting crude quality and/or market specifics. The functioning of this system is challenged when prices move as

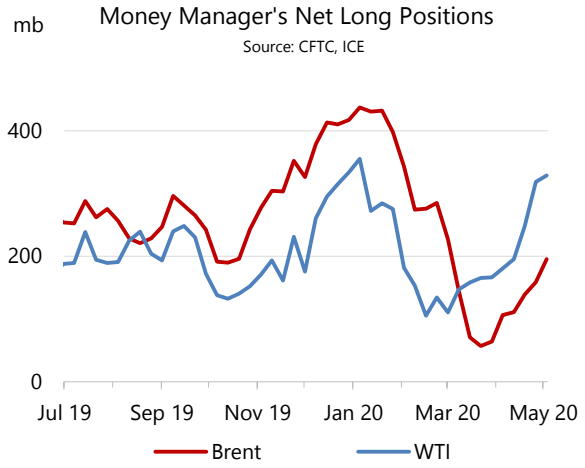
they did on 20 April. For example, NYMEX WTI is the underlying price for the Argus Sour Crude Index (ASCI) which is used by some Middle Eastern producers to price their crude in US markets. On April 20, ASCI was assessed below zero and Middle Eastern sellers had to include the negative value in the sales price calculation for their crude. This could be seen as a failure of the benchmark as the negative prices reflected market fundementals at Cushing, not those for the Middle East exports, which had alternative market/storage options. This incident may cause PRAs to consider alternative methods of price determination and could damage WTI's status as a reliable global benchmark.

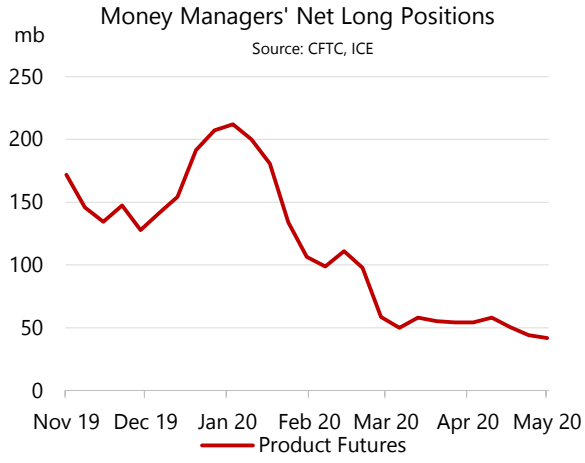
Both the CME and ICE exchanges have introduced options on futures with negative prices and implemented systems that allow them to function smoothly should prices fall below zero again.

Will it happen again?

The underlying cause of negative WTI prices, i.e. extreme market oversupply, was still evident in early May. However, a large amount of US production has been shut in and, as this *Report* is published, open interest in the NYMEX WTI June contract is well below the level it was one month ago. While the threat of volatility persists, these factors should facilitate a more orderly expiry of the June contract that takes place on 19 May.

The ICE Brent June futures contract expired on 30 April without any significant upheaval. There had been little concern that Brent futures would fall into negative territory as the contract is cash settled and based on the price of crude loading from several terminals in the North Sea. As opposed to the landlocked Cushing hub, infrastructure constraints are less likely to occur as long as ships are able to load crude.

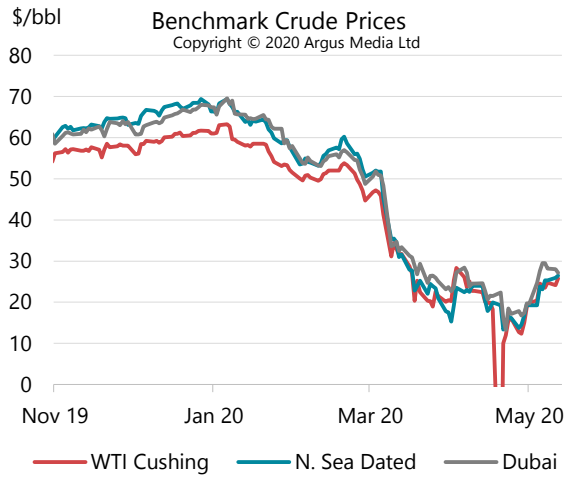


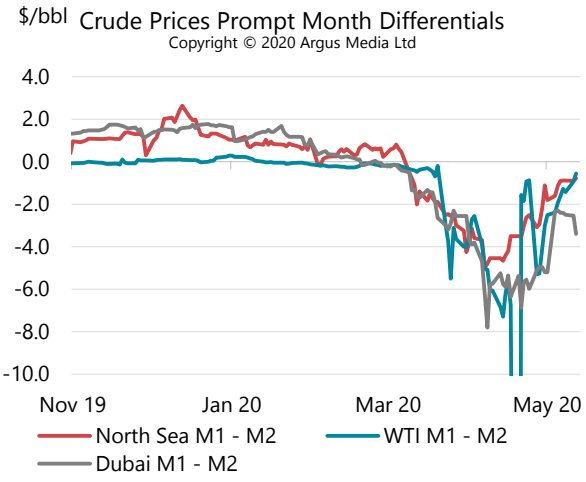


In the last week of April, hedge funds increased their net long holdings of WTI futures to 318 mb, the highest since early January, suggesting that more market participants see an upside to prices. This view is likely supported by data indicating production shut-ins and less development activity in the US. Net length in Brent futures recovered from its lowest recorded level of 57 mb in mid-March, to 158 mb at end-April. Combined net length gained throughout April and stood at 477 mb at end-month, over 300 mb below the level seen at the start of the year. Net length in oil product futures remained depressed in April at 52 mb. In 2019, net length in product futures averaged 136 mb.

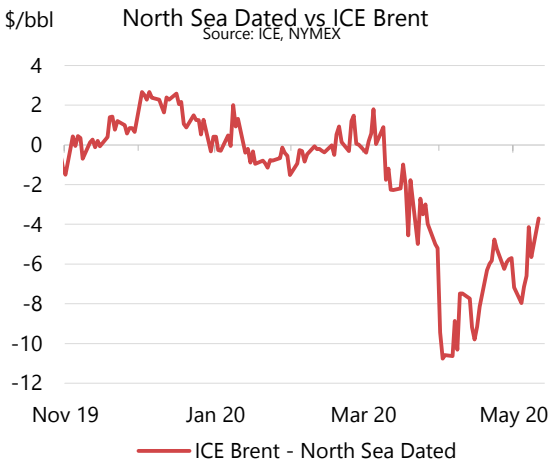
Spot crude oil prices

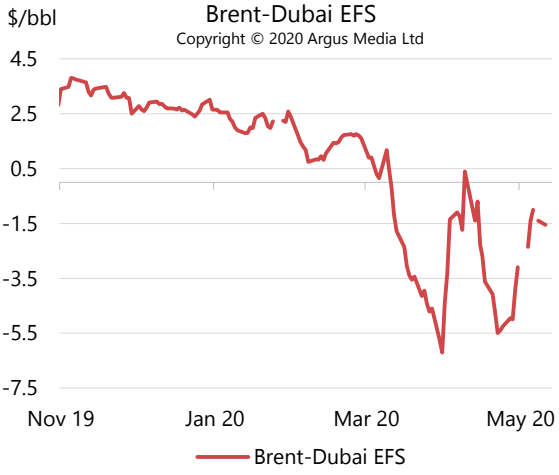
Physical crude markets continued to display extreme weakness in April due to Covid-19 related demand destruction and as global oil supplies increased at the end of the previous OPEC+ deal. North Sea Dated and WTI fell by over $13/bbl m-o-m to their lowest in over 20 years. Dubai fell by slightly less ($12.45/bbl) as the new OPEC+ deal was agreed which is expected to cause a sharp drop in Middle Eastern supplies from May, tightening overall sour crude availability. Contango in the North Sea Dated, WTI and Dubai forward curves steepened m-o-m in April but the discount of prompt prices had narrowed significantly by end-month.





The price of North Sea Dated averaged $7.79/bbl below Brent futures in April, well outside the range of ±$2/bbl usually observed. This is a sign of the extreme near-term oversupply, with refiners not willing to buy crude even at steep discounts. North Sea Dated reflects the cost of crude delivered up to one month ahead, a much prompter timeframe than ICE Brent.





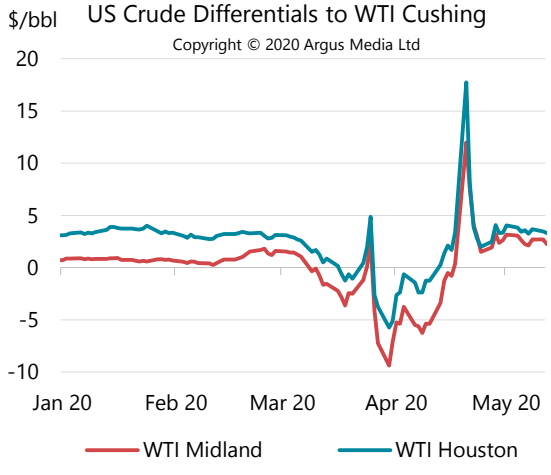
The Brent-Dubai exchange of futures for swaps (EFS) averaged -$3.11/bbl (-$0.92/bbl m-o-m) as the global market oversupply weighed heavily on Brent. Relatively speaking, Dubai prices saw a modest boost in anticipation of reduced exports from the Middle East. Furthermore, plummeting cracks for transport fuels such as gasoline and jet fuel due to mobility restrictions

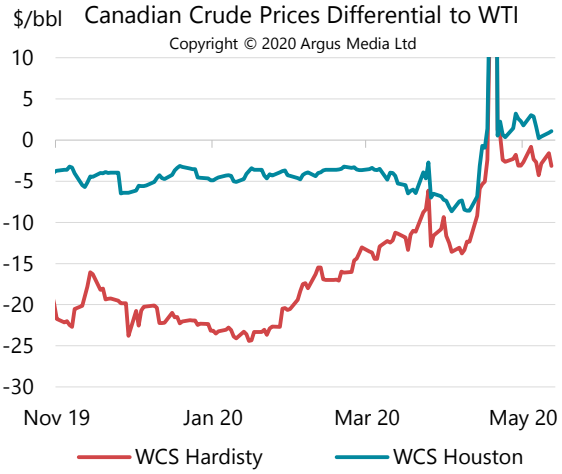
pressured Brent. Meanwhile, Dubai held up better thanks to comparative strength in demand for diesel and fuel oil.

Spot Crude Oil Prices and Differentials
(monthly and weekly averages, $/bbl)

	Feb	Mar	Apr	Apr-Mar Avg Chg	% Chg	Week Commencing: 06 Apr	13 Apr	20 Apr	27 Apr	04 May
Crudes										
North Sea Dated	55.45	31.71	18.57	-13.14	-41.4	22.99	19.23	15.98	16.78	22.88
Brent (Asia) Mth 1	56.76	36.47	29.37	-7.10	-19.5	36.01	32.33	24.96	23.60	32.18
WTI (Cushing) Mth 1	50.53	29.89	16.52	-13.36	-44.7	24.39	20.11	3.19	15.76	23.45
Urals (Mediterranean)	55.11	29.51	16.50	-13.02	-44.1	19.08	15.98	14.58	17.41	24.45
Dubai	54.25	33.78	21.33	-12.45	-36.8	26.01	22.23	17.50	17.96	27.52
Tapis (Dated)	62.67	35.38	17.91	-17.46	-49.4	24.69	21.38	12.88	10.76	17.12
Differential to North Sea Dated										
WTI (Cushing)	-4.93	-1.83	-2.05	-0.22		1.40	0.88	-12.79	-1.02	0.57
Urals (Mediterranean)	-0.34	-2.20	-2.08	0.13		-3.91	-3.25	-1.40	0.63	1.58
Dubai	-1.21	2.07	2.76	0.70		3.02	3.00	1.52	1.18	4.64
Tapis (Dated)	7.22	3.66	-0.66	-4.32		1.70	2.16	-3.10	-6.02	-5.76
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	0.41	-1.45	-3.50	-2.04		-4.50	-4.20	-3.05	-2.22	-1.13
Forward WTI Cushing Mth1-Mth2	-0.19	-1.45	-6.78	-5.33		-5.03	-6.55	-12.66	-4.03	-1.73
Forward Dubai Mth1-Mth2	0.16	-1.62	-5.44	-3.82		-6.14	-5.72	-5.89	-5.06	-2.39

On 20 April, when the May NYMEX WTI futures contract expired and futures prices settled below zero, several other US crudes such as WTI Houston, WTI Midland, West Texas Sour and Mars were also assessed at negative prices. Price reporting agencies use NYMEX WTI to determine the price of several US crudes, but it has been suggested that negative prices did not appropriately reflect market fundamentals in locations other than Cushing, OK on 20 April (see Box – Negative oil futures prices).

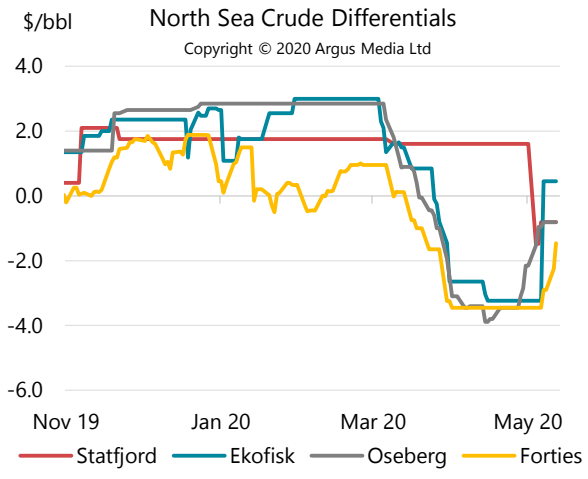


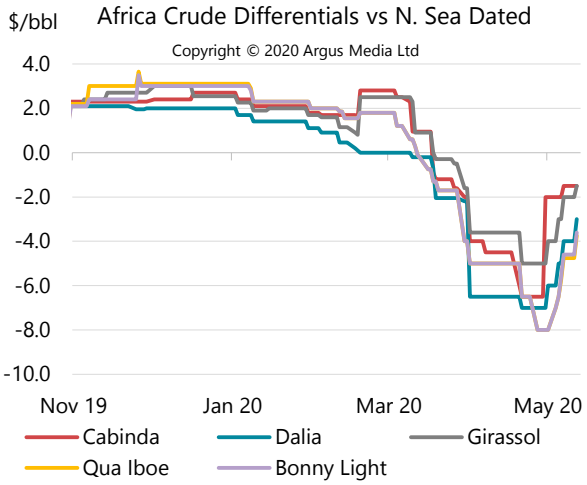


WTI priced in Houston and the Permian rose vs WTI Cushing in April. Early in the month, weak export and domestic refinery demand saw WTI Houston and WTI Midland priced well below WTI Cushing, by $2.63/bbl and $6.25/bbl, respectively. This drew crude to the Cushing hub and as storage there rose towards capacity the differentials flipped back. By end-month, WTI Houston and WTI Midland were trading at close to parity, at around $3/bbl above WTI Cushing supported by a modest increase in US refining activity. Reduced supplies from the Permian as operators shut in output also boosted WTI Midland in April which gained by $1.14/bbl m-o-m vs WTI Cushing.

On 1 April, LLS plunged to a $3.10/bbl discount to Mars due to weak US gasoline demand caused by travel restrictions. As the month progressed, the easing of travel restrictions in some markets supported gasoline consumption and production shut-ins reduced supplies of sweet crude. This caused LLS to recover to a premium of $1.51/bbl vs sour Mars by end-April.

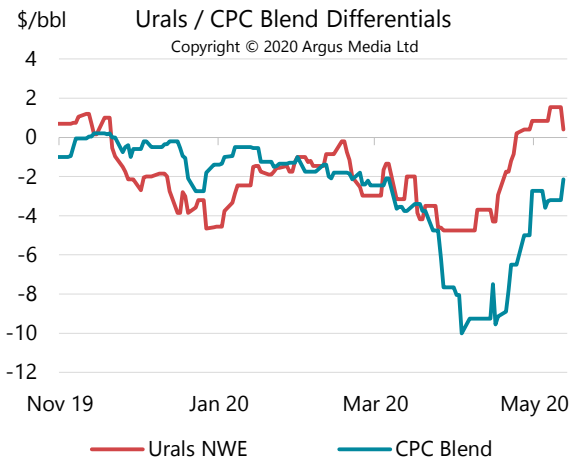
Western Canadian Select (WCS) prices in Hardisty rose vs WTI Cushing by $7.74/bbl m-o-m in April as Canadian producers shut in supplies. However, the severe decline in refinery runs in PADD 2, which is the largest buyer of Canadian exports, caused the WCS differential to widen to -$3.10/bbl by end-month. The differential between WCS in Hardisty and Houston narrowed further in April to average $4/bbl. This level is not sufficient to cover the cost of exporting crude by pipeline (around $10/bbl) or by rail (around $15/bbl).

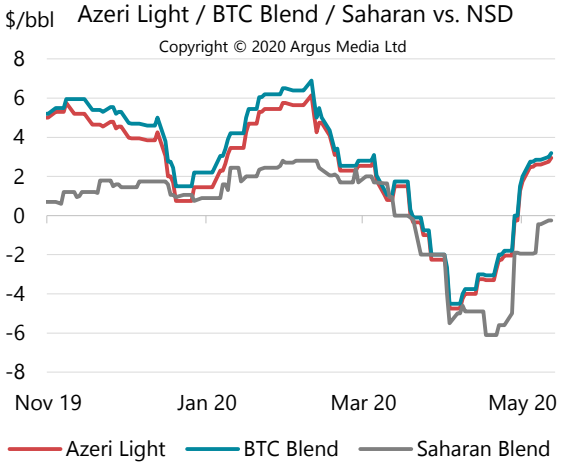




Weak demand, oversupply of regional crude and high freight rates caused the prices of crudes that underpin the North Sea Dated benchmark to plummet in April. Floating supplies of crude were reported to be building in the North Sea. The Forties differential fell by $2.81/bbl vs North Sea Dated m-o-m, to a record $3.45/bbl below the benchmark. Oseberg and Ekofisk fell by $4/bbl and $3.95/bbl vs North Sea Dated m-o-m, respectively, also to record discounts. Oseberg recovered slightly at end-month on some limited demand for May supplies and as easing freight rates supported grades sold on an FOB basis.

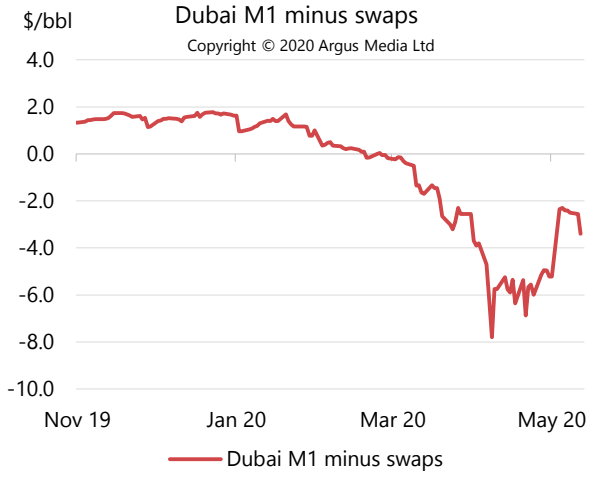
Slow demand, evidenced by the failure to clear loading programmes, caused a dramatic fall in West African crude differentials in April. High freight rates also pressured prices as other supplies, for example from the Middle East, were better located to meet the slow recovery in Asia Pacific demand. Nigerian supplies that are generally suited to producing transport fuels were hit hard, particularly due to the lockdown measures imposed by regular buyers (Europe and India). Bonny Light and Qua Iboe both fell vs North Sea Dated by $5.27/bbl. The differentials for key Angolan grades also fell sharply in April. Cabinda was down $5.37/bbl vs North Sea Dated m-o-m but recovered somewhat at end-month on the expectation that supplies will decline as the OPEC+ deal comes into effect.

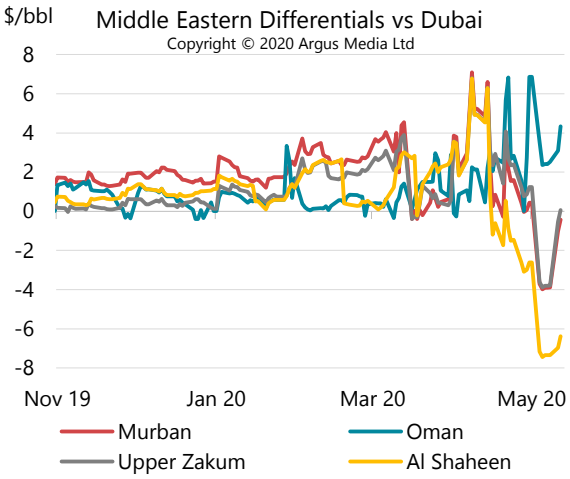




An anticipated reduction to crude exports from Russia from 1 May boosted the price of Urals. In North West Europe, its differential to North Sea Dated rose to positive territory by end-month (up $0.78/bbl m-o-m) having also drawn support from stronger fuel oil margins and the easing of lockdown measures. Kazakhstan is also party to the OPEC+ agreement and loading programmes were revised down sharply in light of the new deal. CPC Blend recovered by $4.93/bbl vs North Sea Dated during April. Due to the relative strength of diesel and fuel oil vs gasoline and jet fuel, the spread between Urals and CPC widened to average $5.09/bbl in April. This incentivised Kazak producers to direct more output into Russia (via pipeline) where it can be sold as Urals Blend.

Azeri Light and BTC Blend fell to almost $5/bbl below North Sea Dated in mid-April, and Saharan Blend slipped to $6/bbl below the benchmark due to very weak demand from Mediterranean refiners. An uptick in Asia Pacific buying helped differentials return to positive territory at end-month.



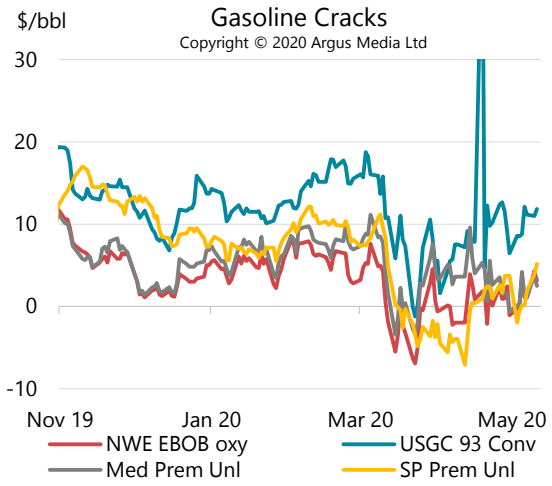


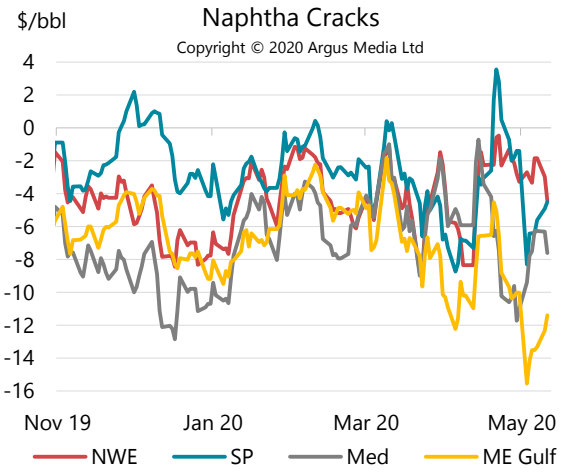
Weak demand for physical supplies, amidst increased regional output, caused the price of prompt Dubai to fall by $3.82/bbl vs swaps in April. However, with the majority of OPEC cuts to come from Middle East producers, Dubai prices held up slightly better than did North Sea Dated and WTI. Regional spot price differentials were highly volatile. Upper Zakum and Murban rose by $1.48/bbl and $0.78/bbl vs Dubai m-o-m, respectively, as Adnoc announced reduced supplies to term buyers and Chinese demand returned. Al-Shaheen fell $0.62/bbl m-o-m to $3/bbl below

Dubai on weak refinery demand and as discounts were offered for competing May supplies from Saudi Arabia.

Spot product prices

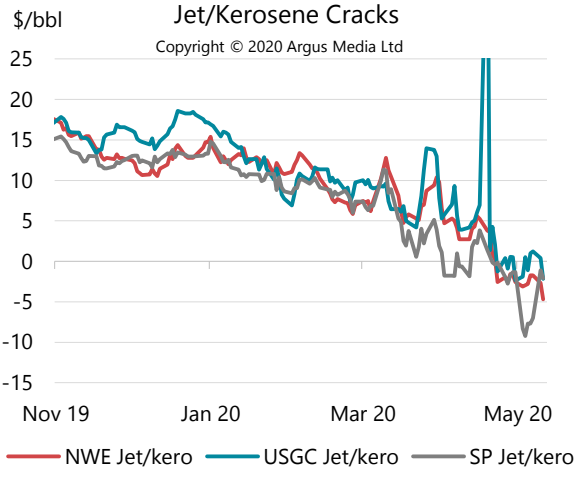
Very weak demand in Europe caused gasoline cracks to remain depressed in April although they recovered slightly from the negative levels seen early in the month. In Rotterdam, barge quotes for EBOB (oxy) averaged only $0.78/bbl above North Sea Dated while, in the Mediterranean, premium unleaded prices averaged $4.03/bbl vs Urals. The very modest improvement on March cracks came as refiners cut runs and on easing lockdown measures in some parts of Europe. On the US Gulf Coast, super unleaded gasoline cracks recovered from the low of -$1.23/bbl on 24 March to $8.99/bbl by end-April. Data suggested that implied demand is recovering and the market was also supported by run cuts and demand from Asia Pacific. In Singapore, premium unleaded cracks started April at -$3.76/bbl vs. Dubai and by the end of the month, cracks had risen to $3.75/bbl. Regional demand was recovering due to the easing of travel restrictions, e.g. in China and Vietnam.

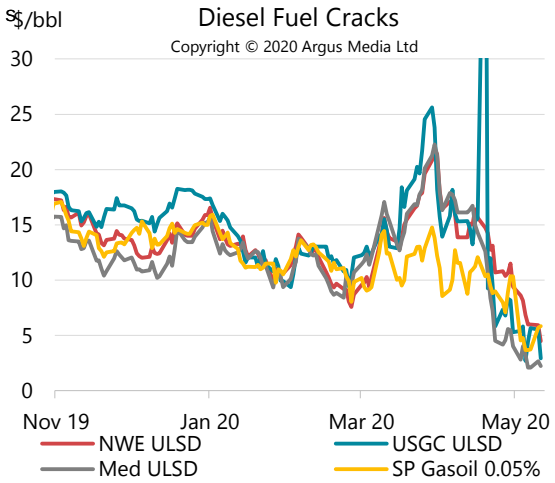




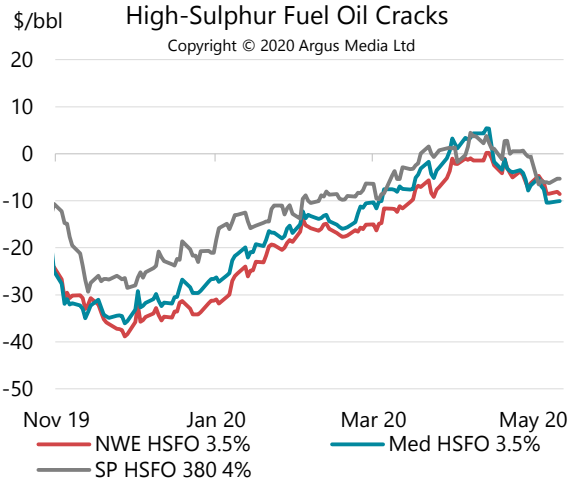
In Singapore, naphtha cracks (vs. Dubai) were highly volatile in April. From an eight month low of -$8.74/bbl on 6 April, cracks spiked to $3.55/bbl later in the month. Support came from healthy petrochemical demand and as rival feedstock propane prices rose due to higher Indian LPG use during the lockdown. Furthermore, reduced refining activity has hampered naphtha supplies. The strength in Asia Pacific markets also boosted cracks in North West Europe where naphtha prices rose by $1.07/bbl vs North Sea Dated m-o-m in April. High exports of European naphtha to Asia Pacific eased market tightness and in early May cracks in Singapore fell to -$8/bbl.

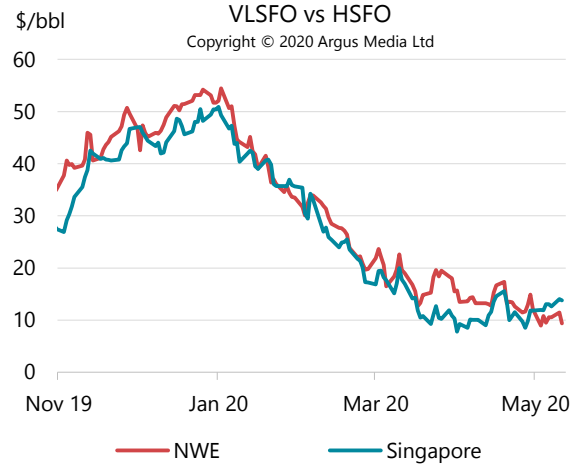
Travel restrictions to halt the spread of Covid-19 saw airlines announce more flight cancellations in May and June. Jet/kerosene cracks in all regions fell into negative territory with prices in North West Europe hitting a 20 year low vs North Sea Dated. Despite the resumption of some domestic flights in China, regional aviation activity remained subdued, and in Singapore cracks fell $5.60/bbl m-o-m vs Dubai. On 5 May, jet/kerosene in Singapore fell to a record low of -$9.23/bbl vs Dubai. Most of Europe and North America remained under lockdown in April and jet/kerosene cracks in Rotterdam and on the US Gulf Coast fell by $5.18/bbl (vs North Sea Dated) and $2.68/bbl (vs WTI Houston), respectively, m-o-m.





Diesel cracks fell in all regions in April, having risen in March on agricultural demand, stockpiling and demand for the transportation of essential goods. However, in April markets were pressured by clean product stock levels rising towards capacity and as surplus kerosene was spiked into the diesel pool, increasing supply. In North West Europe, cracks for ultra-low sulphur diesel (ULSD) fell only $0.09/bbl vs North Sea Dated m-o-m. Weak demand was offset by reduced regional refinery output, the expectation that Russian exports will fall in May and the easing of Germany's lockdown measures. On the US Gulf Coast, ULSD cracks fell $2.07/bbl vs WTI Houston m-o-m as demand to export diesel to Mexico and the Caribbean stalled. In Singapore, gasoil (0.001%) fell $1.59/bbl vs Dubai m-o-m. Cracks hit a record low of $3.68/bbl on 6 May as India increased exports amidst weak domestic demand.





Fuel oil markets strengthened in April. In particular, high sulphur fuel oil (HSFO) prices were supported by falling supplies due to refinery run cuts (and as refiners adjust to the new International Monetary Organisation regulations) as wells as demand from US refiners to use HSFO as feedstock. In North West Europe, HSFO cracks rose by $7.35/bbl vs North Sea Dated and in Singapore, HSFO was up by $4.49/bbl vs Dubai m-o-m. Low sulphur fuel oil (LSFO) cracks also rose in April but did not match the gains made by HSFO, and very low sulphur fuel oil (VLSFO) cracks rose even more modestly. As a result, in April the spread between HSFO and VLSFO narrowed to average $13.88/bbl in North West Europe and $10.77/bbl in Singapore. This challenges the economics of costly scrubber retrofitting and a number of ship owners have reportedly delayed or cancelled their plans to install scrubbers.

Spot Product Prices

(monthly and weekly averages, $/bbl)

	Feb	Mar	Apr	Apr-Mar *Chg*	%	Week Commencing: 06 Apr	13 Apr	20 Apr	27 Apr	04 May	Feb	Mar	Apr	Chg
Rotterdam, Barges FOB											**Differential to North Sea Dated**			
Gasoline EBOB oxy	61.57	32.32	19.35	-12.96	-40.1	21.98	21.38	16.91	17.90	23.98	6.11	0.60	0.78	0.18
Naphtha	51.88	27.39	15.31	-12.08	-44.1	16.21	16.62	14.42	14.49	20.15	-3.58	-4.33	-3.26	1.07
Jet/Kerosene	65.03	39.68	21.35	-18.33	-46.2	27.28	24.01	17.18	14.71	20.24	9.57	7.96	2.78	-5.18
ULSD 10ppm	66.45	46.36	33.12	-13.23	-28.5	39.00	34.79	29.09	27.33	30.28	11.00	14.64	14.55	-0.09
Gasoil 0.1%	64.94	45.01	31.27	-13.74	-30.5	36.78	32.67	27.44	26.40	28.78	9.49	13.30	12.70	-0.60
VGO 2.0%	62.76	36.42	24.86	-11.56	-31.8	29.97	27.35	20.63	21.86	27.29	7.30	4.71	6.29	1.58
Fuel Oil 0.5%	67.05	40.15	29.91	-10.23	-25.5	35.67	32.91	26.53	23.81	26.63	11.60	8.43	11.34	2.91
LSFO 1%	56.86	31.80	24.01	-7.79	-24.5	28.75	25.89	21.21	19.88	23.54	1.40	0.09	5.44	5.35
HSFO 3.5%	39.38	21.76	15.97	-5.79	-26.6	21.81	18.49	12.50	11.22	16.70	-16.07	-9.95	-2.60	7.35
Mediterranean, FOB Cargoes											**Differential to Urals**			
Premium Unl 10 ppr	63.14	33.29	20.52	-12.77	-38.3	23.17	22.46	18.32	18.94	25.94	8.03	3.78	4.03	0.25
Naphtha	49.46	24.88	10.50	-14.38	-57.8	13.57	13.89	7.64	6.76	16.72	-5.65	-4.63	-6.00	-1.37
Jet Aviation fuel	63.27	37.76	17.43	-20.34	-53.9	24.94	21.54	11.68	8.74	17.22	8.16	8.25	0.93	-7.32
ULSD 10ppm	65.94	45.03	29.00	-16.02	-35.6	36.32	31.59	23.26	22.17	27.51	10.83	15.52	12.51	-3.01
Gasoil 0.1%	64.76	44.29	26.77	-17.52	-39.6	33.47	28.21	21.58	20.46	25.53	9.66	14.78	10.28	-4.50
LSFO 1%	59.30	33.66	25.62	-8.04	-23.9	30.51	27.48	22.60	21.55	24.50	4.19	4.15	9.13	4.97
HSFO 3.5%	41.42	23.47	16.27	-7.20	-30.7	22.62	18.67	11.52	11.91	16.96	-13.68	-6.04	-0.23	5.82
US Gulf, FOB Pipeline											**Differential to WTI Houston**			
Super Unleaded	68.85	40.21	28.44	-11.77	-29.3	28.31	30.00	27.15	29.62	36.83	15.25	10.02	9.84	-0.18
Unleaded	63.61	35.05	23.20	-11.86	-33.8	22.96	24.65	21.80	24.96	32.13	10.01	4.86	4.60	-0.26
Jet/Kerosene	63.32	38.81	24.53	-14.27	-36.8	29.01	27.30	20.51	18.86	26.95	9.73	8.61	5.93	-2.68
ULSD 10ppm	65.29	46.97	33.30	-13.67	-29.1	38.85	36.71	28.24	26.41	31.81	11.70	16.77	14.70	-2.07
Heating Oil	60.68	40.96	24.51	-16.45	-40.2	30.31	27.01	18.79	17.39	21.58	7.08	10.77	5.91	-4.85
No. 6 3%*	43.49	23.84	17.02	-6.82	-28.6	21.60	18.68	13.07	14.66	20.31	-10.11	-6.36	-1.58	4.78
Singapore, FOB Cargoes											**Differential to Dubai**			
Premium Unleaded	64.34	36.42	20.49	-15.93	-43.7	21.70	20.10	19.25	20.89	27.40	10.09	2.64	-0.84	-3.48
Naphtha	52.56	30.60	17.86	-12.74	-41.6	18.37	17.84	18.69	16.48	20.83	-1.69	-3.19	-3.48	-0.29
Jet/Kerosene	63.05	39.39	21.35	-18.05	-45.8	25.21	23.94	17.77	16.03	19.46	8.80	5.61	0.01	-5.60
Gasoil 0.001%	65.96	45.45	31.41	-14.03	-30.9	36.88	32.98	27.13	26.55	31.70	11.71	11.67	10.08	-1.59
Fuel Oil 0.5%	70.96	44.92	33.39	-11.53	-25.7	38.06	36.28	30.74	28.07	33.77	16.71	11.14	12.06	0.92
LSWR Cracked	65.52	46.83	31.51	-15.32	-32.7	35.30	34.63	29.07	26.54	30.87	11.28	13.05	10.17	-2.88
HSFO 180 CST	46.66	31.45	23.36	-8.09	-25.7	29.66	24.89	19.02	18.82	22.23	-7.59	-2.33	2.02	4.35
HSFO 380 CST 4%	45.07	30.55	22.59	-7.96	-26.0	28.38	24.36	18.47	18.10	21.38	-9.18	-3.23	1.26	4.49

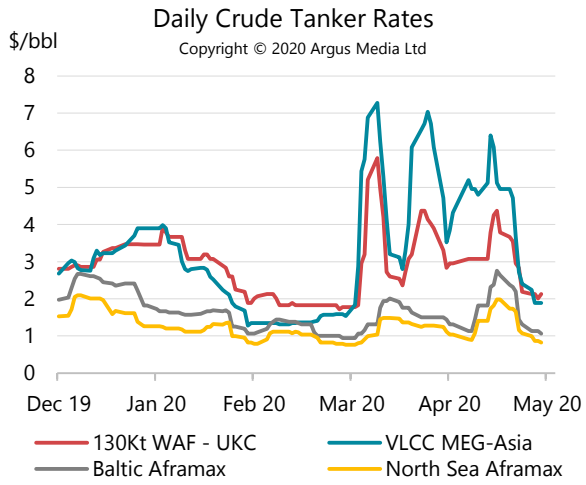
 * Waterborne

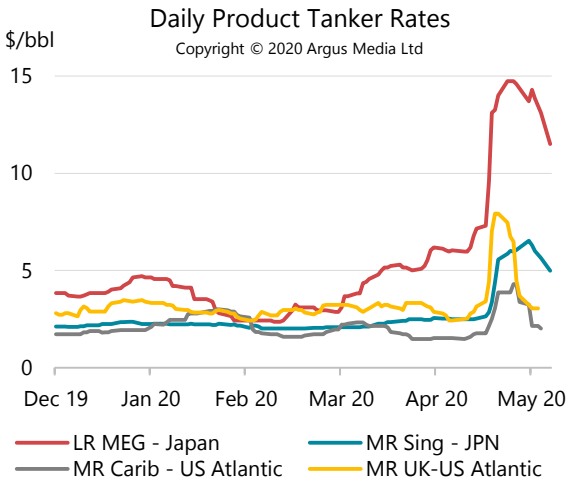
Freight

In March, the cost of shipping crude surged as several countries announced plans to increase exports following the expiry of the OPEC+ deal. Furthermore, weak demand for prompt supplies had seen an increasing number of tankers booked for floating storage. In April, the same factors caused crude freight rates to make further gains m-o-m. However, by end-month rates eased as May loading programmes were revised down following the new OPEC+ agreement and as operators shut in production.

Rates for Very Large Crude Carriers (VLCCs) travelling between the Middle East and Asia were volatile in April. Overall, rates gained to average $5.11/bbl (+$0.80/bbl m-o-m) with ship availability reduced at times as Covid-related port restrictions caused discharging delays. Tight VLCC availability caused increased Suezmax chartering interest. Rates for Suezmaxes travelling between Europe and West Africa firmed by $0.31/bbl m-o-m.

High Russian exports and discharging delays boosted Aframax rates in April. Rates for Baltic Aframaxes rose by $0.35/bbl m-o-m while North Sea Aframax rates rose $0.25/bbl m-o-m. At end-month, falling demand pressured rates with lower Russian exports expected in May.





In clean freight markets, demand for floating storage caused shipping rates to soar in April. Rates for long range (LR) vessels travelling between the Middle East and Japan rose $4.13/bbl m-o-m, to a record high of $14.74/bbl at end-month. While increased demand for floating storage was the largest factor in higher shipping rates, LR markets were also boosted by high naphtha exports from Europe to Asia Pacific. Furthermore, in recent months a number of LRs have switched to transport crude, reducing availability for clean shipments. In light of the sky-high LR rates, an increasing number of dirty tanker owners have enquired about cleaning their ships so they can transport clean products. This process is more complicated, time consuming and expensive than switching from clean product to crude shipping.

Rates for medium range (MR) vessels in the Atlantic basin rose $1.16/bbl m-o-m thanks to floating storage demand. However, weak product demand from West Africa saw rates fall to $4.50/bbl at end-month from a peak of $7.92/bbl on 23 April.

Tables

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

	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
OECD DEMAND																	
Americas	24.9	25.1	25.3	25.3	25.9	25.6	25.5	25.4	25.4	25.9	25.6	25.6	24.5	19.5	24.6	24.7	23.3
Europe	14.0	14.4	14.1	14.2	14.7	14.1	14.3	13.9	14.1	14.6	14.0	14.1	13.0	10.2	13.1	13.4	12.4
Asia Oceania	8.1	8.2	8.7	7.7	7.8	8.1	8.1	8.3	7.5	7.6	8.1	7.9	7.8	6.5	7.3	7.8	7.3
Total OECD	**47.1**	**47.6**	**48.0**	**47.3**	**48.3**	**47.8**	**47.9**	**47.6**	**47.0**	**48.1**	**47.7**	**47.6**	**45.3**	**36.2**	**44.9**	**45.8**	**43.1**
NON-OECD DEMAND																	
FSU	4.4	4.5	4.4	4.5	4.8	4.7	4.6	4.5	4.6	4.9	4.8	4.7	4.6	3.7	4.6	4.7	4.4
Europe	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.8	0.8	0.7
China	12.0	12.5	12.7	13.0	13.1	13.1	13.0	13.0	13.7	13.8	14.1	13.7	11.7	12.7	13.2	13.2	12.7
Other Asia	13.1	13.8	14.1	14.3	13.7	14.1	14.0	14.5	14.4	13.8	14.4	14.3	13.5	11.3	13.2	14.2	13.1
Americas	6.4	6.3	6.2	6.2	6.4	6.3	6.3	6.1	6.2	6.3	6.3	6.2	5.9	4.6	6.0	6.1	5.6
Middle East	8.3	8.4	8.1	8.4	8.7	8.1	8.3	8.1	8.2	8.8	8.4	8.4	7.8	6.8	8.4	7.9	7.7
Africa	4.2	4.3	4.3	4.2	4.1	4.2	4.2	4.3	4.3	4.1	4.3	4.2	4.2	3.3	4.0	4.2	3.9
Total Non-OECD	**49.3**	**50.5**	**50.5**	**51.4**	**51.5**	**51.5**	**51.2**	**51.3**	**52.2**	**52.5**	**53.0**	**52.3**	**48.2**	**43.1**	**50.2**	**51.1**	**48.2**
Total Demand[1]	**96.3**	**98.1**	**98.5**	**98.7**	**99.8**	**99.3**	**99.1**	**98.9**	**99.2**	**100.5**	**100.7**	**99.9**	**93.5**	**79.3**	**95.1**	**96.9**	**91.2**
OECD SUPPLY																	
Americas	19.6	20.5	22.0	22.3	23.5	24.3	23.0	24.1	24.5	24.6	25.6	24.7	25.6	22.8	21.9	22.2	23.1
Europe	3.5	3.5	3.6	3.4	3.3	3.5	3.5	3.5	3.2	3.2	3.5	3.3	3.6	3.5	3.6	3.7	3.6
Asia Oceania	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6
Total OECD[4]	**23.5**	**24.4**	**26.0**	**26.1**	**27.3**	**28.2**	**26.9**	**28.0**	**28.2**	**28.4**	**29.7**	**28.6**	**29.8**	**26.9**	**26.0**	**26.5**	**27.3**
NON-OECD SUPPLY																	
FSU	14.2	14.3	14.4	14.4	14.6	14.8	14.6	14.8	14.4	14.6	14.7	14.6	14.8	13.2	13.0	13.0	13.5
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.0	3.9	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	4.0	3.9	3.9	3.8	3.9
Other Asia	3.6	3.5	3.5	3.4	3.3	3.3	3.4	3.3	3.3	3.1	3.2	3.2	3.1	3.0	3.0	3.0	3.0
Americas	5.1	5.1	5.0	5.1	5.0	5.1	5.1	5.1	5.1	5.4	5.5	5.3	5.6	5.2	5.3	5.3	5.3
Middle East	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1
Africa	1.4	1.4	1.4	1.5	1.5	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3
Total Non-OECD[4]	**31.6**	**31.5**	**31.4**	**31.5**	**31.5**	**32.0**	**31.6**	**31.9**	**31.5**	**31.8**	**32.1**	**31.8**	**32.2**	**29.8**	**29.7**	**29.6**	**30.3**
Processing gains[3]	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	2.3	2.3	2.2
Global Biofuels	2.4	2.5	2.1	2.8	3.1	2.5	2.6	2.3	3.0	3.2	2.7	2.8	2.2	2.3	2.7	2.6	2.5
Total Non-OPEC Supply	**59.8**	**60.6**	**61.9**	**62.8**	**64.1**	**65.1**	**63.5**	**64.5**	**65.1**	**65.8**	**66.8**	**65.5**	**66.5**	**61.0**	**60.7**	**60.9**	**62.3**
OPEC[2]																	
Crude	31.8	31.5	31.2	31.0	31.5	31.7	31.4	30.1	29.6	29.0	29.3	29.5	28.2				
NGLs	5.3	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.4	5.4	5.4	5.4	5.2	5.2	5.2	5.2
Total OPEC	**37.1**	**36.9**	**36.7**	**36.5**	**37.0**	**37.2**	**36.9**	**35.6**	**35.1**	**34.4**	**34.7**	**34.9**	**33.6**				
Total Supply	**96.9**	**97.5**	**98.6**	**99.3**	**101.2**	**102.2**	**100.3**	**100.1**	**100.1**	**100.2**	**101.5**	**100.5**	**100.2**				
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.0	-0.4	-0.3	0.0	0.6	0.1	0.1	0.1	0.7	0.1	-0.4	0.1	0.6				
Government	0.0	-0.1	0.0	0.0	0.0	-0.2	-0.1	0.1	-0.1	0.0	-0.1	0.0	0.0				
Total	**0.0**	**-0.5**	**-0.2**	**-0.1**	**0.5**	**-0.1**	**0.0**	**0.1**	**0.6**	**0.1**	**-0.5**	**0.1**	**0.6**				
Floating storage/Oil in transit	0.2	0.4	-1.0	0.3	-0.3	0.6	0.0	-0.3	-0.1	0.0	0.9	0.1	-0.2				
Miscellaneous to balance[5]	0.4	-0.4	1.3	0.4	1.1	2.5	1.3	1.4	0.4	-0.4	0.4	0.4	6.1				
Total Stock Ch. & Misc	**0.6**	**-0.6**	**0.0**	**0.6**	**1.4**	**3.0**	**1.3**	**1.2**	**0.9**	**-0.4**	**0.8**	**0.6**	**6.6**				
Memo items:																	
Call on OPEC crude + Stock ch.[6]	31.2	32.1	31.2	30.4	30.1	28.7	30.1	29.0	28.7	29.3	28.5	28.9	21.6	13.1	29.2	30.8	23.7

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply. 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.

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

	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	1.7	0.6	0.2	0.6
Europe	-	-	-	-	-	-	-	-	-	-	-	-	0.1	1.8	0.2	-	0.5
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.5**	**0.9**	**0.3**	**1.2**
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.2	-0.5	-0.4	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-0.4	-0.2	-0.2	-0.3
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.1	-0.1
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.1	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.2**	**-0.3**	**-0.8**	**-1.0**	**-0.5**
Total Demand	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.2**	**3.2**	**0.1**	**-0.7**	**0.7**
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-1.0	-1.4	-0.8	-0.8
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	0.1	0.1	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.1**	**-1.2**	**-1.3**	**-0.8**	**-0.8**
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-
Americas[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	0.2	0.2	0.2	0.1
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-0.4	-0.1	-0.2
Total Non-OPEC Supply	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.2**	**-1.4**	**-1.5**	**-0.7**	**-1.0**
OPEC																	
Crude[2]	-	-	-	-	-	-	-	-	-	-	-	-	-0.1				
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.1**				
Total Supply	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.3**				
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-					
Government	-	-	-	-	-	-	-	-	-	-	-	-					
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.6**				
Floating storage/Oil in transit	-	-	-	-	-	-	-	-0.1	0.4	-	0.2	0.1					
Miscellaneous to balance	-	-	-	-	-	-	-	0.1	-0.4	-0.1	-0.2	-0.1					
Total Stock Ch. & Misc	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.5**				
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	-	-	-	-	0.4	4.7	1.5	-	1.6

1 When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.
2 Ecuador left OPEC on 1 January 2020, and its production will from this Report be accounted for in Non-OECD Americas.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
Demand (mb/d)																
Americas	25.07	25.31	25.33	25.86	25.60	25.53	25.40	25.41	25.87	25.65	25.58	24.46	19.48	24.56	24.69	23.30
Europe	14.38	14.07	14.23	14.66	14.11	14.27	13.90	14.07	14.55	13.98	14.13	13.04	10.22	13.07	13.37	12.43
Asia Oceania	8.15	8.66	7.74	7.76	8.10	8.06	8.34	7.50	7.65	8.08	7.89	7.82	6.50	7.28	7.77	7.34
Total OECD	**47.61**	**48.04**	**47.30**	**48.28**	**47.81**	**47.86**	**47.64**	**46.98**	**48.06**	**47.70**	**47.60**	**45.31**	**36.20**	**44.91**	**45.83**	**43.08**
Asia	26.26	26.79	27.26	26.81	27.24	27.02	27.50	28.14	27.57	28.46	27.92	25.15	23.97	26.41	27.46	25.75
Middle East	8.39	8.08	8.41	8.67	8.15	8.33	8.10	8.18	8.78	8.40	8.37	7.75	6.85	8.43	7.93	7.74
Americas	6.33	6.20	6.22	6.36	6.32	6.28	6.13	6.23	6.32	6.29	6.24	5.85	4.61	6.00	6.07	5.63
FSU	4.50	4.39	4.51	4.79	4.72	4.60	4.49	4.62	4.86	4.82	4.70	4.57	3.72	4.58	4.67	4.39
Africa	4.25	4.27	4.22	4.09	4.24	4.21	4.31	4.29	4.14	4.26	4.25	4.16	3.30	3.97	4.17	3.90
Europe	0.76	0.73	0.74	0.77	0.79	0.76	0.75	0.78	0.80	0.79	0.78	0.74	0.65	0.78	0.79	0.74
Total Non-OECD	**50.48**	**50.46**	**51.37**	**51.49**	**51.46**	**51.20**	**51.29**	**52.24**	**52.47**	**53.03**	**52.26**	**48.23**	**43.09**	**50.17**	**51.09**	**48.16**
World	**98.08**	**98.50**	**98.67**	**99.77**	**99.27**	**99.06**	**98.93**	**99.22**	**100.54**	**100.74**	**99.86**	**93.54**	**79.29**	**95.08**	**96.92**	**91.23**
of which: US50	19.96	20.35	20.36	20.71	20.59	20.50	20.31	20.35	20.68	20.55	20.47	19.43	15.52	19.57	19.71	18.56
Europe 5*	8.32	8.22	8.24	8.34	8.17	8.24	8.09	8.08	8.27	7.98	8.11	7.56	5.79	7.38	7.64	7.09
China	12.49	12.70	12.96	13.14	13.09	12.97	13.03	13.72	13.79	14.06	13.65	11.68	12.66	13.17	13.25	12.69
Japan	3.92	4.31	3.46	3.56	3.92	3.81	4.09	3.41	3.44	3.76	3.67	3.72	2.99	3.30	3.66	3.42
India	4.66	4.91	5.03	4.62	4.89	4.86	5.14	5.08	4.78	5.06	5.01	4.96	3.78	4.60	5.04	4.60
Russia	3.39	3.32	3.39	3.64	3.56	3.48	3.41	3.49	3.71	3.61	3.56	3.53	2.83	3.47	3.50	3.34
Brazil	3.03	2.97	2.94	3.10	3.11	3.03	3.01	3.05	3.16	3.17	3.10	2.97	2.24	3.02	3.08	2.83
Saudi Arabia	3.30	2.96	3.21	3.35	2.99	3.13	2.96	3.05	3.48	3.09	3.15	2.93	2.74	3.42	2.97	3.02
Canada	2.42	2.34	2.37	2.58	2.51	2.45	2.45	2.44	2.57	2.54	2.50	2.52	1.98	2.53	2.50	2.38
Korea	2.63	2.73	2.64	2.58	2.53	2.62	2.63	2.48	2.58	2.67	2.59	2.56	2.22	2.44	2.51	2.43
Mexico	2.02	1.91	1.94	1.89	1.80	1.89	1.93	1.94	1.93	1.86	1.92	1.83	1.47	1.82	1.79	1.73
Iran	1.92	1.98	1.98	1.98	1.98	1.98	2.00	1.96	1.95	2.03	1.99	1.91	1.72	1.92	1.93	1.87
Total	**68.07**	**68.70**	**68.52**	**69.50**	**69.16**	**68.97**	**69.04**	**69.06**	**70.36**	**70.38**	**69.72**	**65.59**	**55.95**	**66.64**	**67.58**	**63.96**
% of World	**69.4%**	**69.7%**	**69.4%**	**69.7%**	**69.7%**	**69.6%**	**69.8%**	**69.6%**	**70.0%**	**69.9%**	**69.8%**	**70.1%**	**70.6%**	**70.1%**	**69.7%**	**70.1%**
Annual Change (% per annum)																
Americas	0.7	2.8	0.8	2.8	1.0	1.8	0.4	0.3	0.0	0.2	0.2	-3.7	-23.3	-5.1	-3.8	-8.9
Europe	2.5	1.2	-0.8	-0.9	-2.5	-0.8	-1.2	-1.1	-0.8	-0.9	-1.0	-6.2	-27.4	-10.2	-4.3	-12.0
Asia Oceania	0.2	1.2	-0.4	-1.6	-3.7	-1.1	-3.7	-3.1	-1.4	-0.3	-2.1	-6.3	-13.4	-4.8	-3.8	-6.9
Total OECD	**1.2**	**2.0**	**0.1**	**0.9**	**-0.9**	**0.5**	**-0.8**	**-0.7**	**-0.4**	**-0.2**	**-0.5**	**-4.9**	**-22.9**	**-6.6**	**-3.9**	**-9.5**
Asia	4.5	3.3	2.3	3.6	2.5	2.9	2.7	3.3	2.9	4.5	3.3	-8.6	-14.9	-4.2	-3.5	-7.8
Middle East	0.6	-0.4	-1.6	-0.9	0.3	-0.7	0.3	-2.8	1.2	3.1	0.5	-4.3	-16.3	-4.0	-5.7	-7.5
Americas	-1.7	0.2	-1.3	-1.5	-0.5	-0.8	-1.2	0.1	-0.6	-0.5	-0.5	-4.6	-26.0	-5.1	-3.5	-9.7
FSU	1.2	3.0	0.8	1.7	3.8	2.3	2.3	2.3	1.6	2.2	2.1	1.9	-19.3	-5.7	-3.1	-6.6
Africa	1.3	-1.5	-1.1	-1.7	0.0	-1.0	0.9	1.5	1.1	0.6	1.0	-3.5	-23.0	-4.2	-2.3	-8.3
Europe	5.1	0.4	-2.8	-0.4	2.6	-0.1	2.4	5.4	3.0	-0.1	2.6	-1.3	-17.4	-2.3	-0.6	-5.4
Total Non-OECD	**2.5**	**1.8**	**0.7**	**1.5**	**1.7**	**1.4**	**1.6**	**1.7**	**1.9**	**3.1**	**2.1**	**-6.0**	**-17.5**	**-4.4**	**-3.7**	**-7.9**
World	**1.8**	**1.9**	**0.4**	**1.2**	**0.4**	**1.0**	**0.4**	**0.6**	**0.8**	**1.5**	**0.8**	**-5.4**	**-20.1**	**-5.4**	**-3.8**	**-8.6**
Annual Change (mb/d)																
Americas	0.18	0.69	0.20	0.70	0.25	0.46	0.09	0.08	0.01	0.05	0.06	-0.94	-5.92	-1.31	-0.96	-2.28
Europe	0.35	0.17	-0.12	-0.14	-0.37	-0.11	-0.17	-0.16	-0.11	-0.13	-0.14	-0.86	-3.85	-1.48	-0.60	-1.70
Asia Oceania	0.01	0.10	-0.03	-0.12	-0.31	-0.09	-0.32	-0.24	-0.11	-0.02	-0.17	-0.52	-1.00	-0.37	-0.31	-0.55
Total OECD	**0.54**	**0.96**	**0.05**	**0.44**	**-0.43**	**0.25**	**-0.40**	**-0.32**	**-0.22**	**-0.11**	**-0.26**	**-2.33**	**-10.78**	**-3.15**	**-1.87**	**-4.52**
Asia	1.13	0.85	0.62	0.93	0.66	0.77	0.71	0.89	0.77	1.23	0.90	-2.36	-4.18	-1.16	-1.00	-2.17
Middle East	0.05	-0.03	-0.14	-0.08	0.03	-0.06	0.03	-0.23	0.11	0.25	0.04	-0.35	-1.33	-0.36	-0.48	-0.63
Americas	-0.11	0.01	-0.09	-0.09	-0.03	-0.05	-0.07	0.01	-0.04	-0.03	-0.03	-0.28	-1.62	-0.32	-0.22	-0.61
FSU	0.05	0.13	0.04	0.08	0.17	0.10	0.10	0.10	0.08	0.10	0.10	0.09	-0.89	-0.28	-0.15	-0.31
Africa	0.05	-0.06	-0.05	-0.07	0.00	-0.04	0.04	0.06	0.04	0.02	0.04	-0.15	-0.99	-0.17	-0.10	-0.35
Europe	0.04	0.00	-0.02	0.00	0.02	0.00	0.02	0.04	0.02	0.00	0.02	-0.01	-0.14	-0.02	0.00	-0.04
Total Non-OECD	**1.21**	**0.90**	**0.37**	**0.76**	**0.85**	**0.72**	**0.83**	**0.87**	**0.98**	**1.57**	**1.06**	**-3.06**	**-9.14**	**-2.31**	**-1.95**	**-4.11**
World	**1.76**	**1.86**	**0.42**	**1.20**	**0.43**	**0.97**	**0.42**	**0.54**	**0.77**	**1.47**	**0.80**	**-5.39**	**-19.92**	**-5.46**	**-3.82**	**-8.63**
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	0.00	0.00	0.00	-0.13	1.66	0.63	0.20	0.59
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.01	0.00	0.00	0.07	1.75	0.18	0.03	0.50
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.13	0.05	0.05	0.07
Total OECD	**-**	**-**	**-**	**-**	**-0.00**	**-0.00**	**0.01**	**-0.00**	**-0.01**	**-0.00**	**-0.00**	**-0.02**	**3.54**	**0.85**	**0.28**	**1.16**
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	0.06	-0.21	-0.67	-0.65	-0.37
Middle East	0.03	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.09	-0.01	-0.07	0.01
Americas	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.03	-0.27	-0.11	-0.13	-0.14
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.21	0.04	0.04	-0.09	0.05
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	0.04	-0.05	-0.06	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.01	0.00
Total Non-OECD	**0.03**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.02**	**0.02**	**0.22**	**-0.31**	**-0.79**	**-1.01**	**-0.47**
World	**0.03**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.01**	**0.02**	**0.01**	**0.01**	**0.21**	**3.23**	**0.06**	**-0.73**	**0.69**
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	-0.02	-0.02	-0.02	-0.02	-0.02	0.01	0.00	0.01	0.01	0.01	0.19	3.22	0.04	-0.74	0.67

* France, Germany, Italy, Spain and UK

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

	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20 [2]	Latest month vs. Jan 20	Latest month vs. Feb 19
Americas											
LPG and ethane	3.69	3.78	4.17	3.40	3.54	4.00	4.15	4.09	4.11	0.02	-0.19
Naphtha	0.31	0.27	0.30	0.28	0.27	0.24	0.28	0.31	0.27	-0.04	-0.03
Motor gasoline	11.09	11.04	10.71	11.26	11.28	10.93	10.69	10.54	10.80	0.27	0.04
Jet and kerosene	2.03	2.08	1.97	2.10	2.17	2.07	2.12	2.02	1.93	-0.09	0.00
Gasoil/diesel oil	5.32	5.25	5.47	5.17	5.14	5.25	5.01	5.17	5.20	0.03	-0.34
Residual fuel oil	0.61	0.59	0.62	0.60	0.64	0.50	0.46	0.51	0.39	-0.12	-0.24
Other products	2.48	2.57	2.18	2.61	2.83	2.67	2.65	2.35	2.34	-0.02	0.39
Total	**25.53**	**25.58**	**25.40**	**25.41**	**25.87**	**25.65**	**25.36**	**25.00**	**25.05**	**0.04**	**-0.37**
Europe											
LPG and ethane	1.16	1.09	1.13	1.10	1.07	1.04	1.09	1.15	1.17	0.01	0.03
Naphtha	1.03	0.98	1.14	0.88	0.93	0.99	1.02	1.06	1.06	0.00	-0.09
Motor gasoline	1.99	2.01	1.85	2.06	2.13	2.01	1.98	1.89	1.94	0.05	0.05
Jet and kerosene	1.51	1.53	1.37	1.58	1.72	1.46	1.40	1.33	1.41	0.07	0.05
Gasoil/diesel oil	6.44	6.46	6.39	6.32	6.59	6.54	6.26	6.10	6.44	0.34	-0.15
Residual fuel oil	0.86	0.83	0.88	0.85	0.82	0.75	0.75	0.72	0.70	-0.03	-0.21
Other products	1.28	1.22	1.13	1.28	1.30	1.19	1.08	1.08	1.08	0.00	-0.09
Total	**14.27**	**14.13**	**13.90**	**14.07**	**14.55**	**13.98**	**13.58**	**13.33**	**13.78**	**0.45**	**-0.40**
Asia Oceania											
LPG and ethane	0.75	0.77	0.85	0.72	0.71	0.81	0.89	0.87	0.82	-0.05	-0.07
Naphtha	2.04	2.01	2.10	1.91	2.03	2.01	2.11	2.09	2.06	-0.03	-0.12
Motor gasoline	1.53	1.50	1.47	1.47	1.57	1.50	1.55	1.36	1.44	0.09	-0.07
Jet and kerosene	0.93	0.92	1.15	0.78	0.74	1.01	1.23	1.15	1.11	-0.03	-0.12
Gasoil/diesel oil	1.89	1.90	1.94	1.88	1.86	1.95	1.98	1.69	1.92	0.23	-0.06
Residual fuel oil	0.53	0.44	0.50	0.41	0.40	0.45	0.49	0.45	0.50	0.05	-0.02
Other products	0.40	0.34	0.32	0.34	0.34	0.36	0.36	0.38	0.35	-0.03	0.02
Total	**8.06**	**7.89**	**8.34**	**7.50**	**7.65**	**8.08**	**8.60**	**7.98**	**8.20**	**0.22**	**-0.44**
OECD											
LPG and ethane	5.60	5.63	6.15	5.22	5.32	5.84	6.13	6.12	6.10	-0.02	-0.22
Naphtha	3.39	3.27	3.54	3.07	3.22	3.25	3.41	3.46	3.40	-0.07	-0.24
Motor gasoline	14.61	14.56	14.03	14.79	14.97	14.44	14.22	13.78	14.18	0.40	0.02
Jet and kerosene	4.46	4.53	4.49	4.45	4.63	4.54	4.74	4.50	4.45	-0.05	-0.07
Gasoil/diesel oil	13.65	13.62	13.80	13.36	13.58	13.73	13.25	12.96	13.55	0.59	-0.54
Residual fuel oil	2.00	1.85	1.99	1.86	1.87	1.69	1.70	1.69	1.59	-0.10	-0.47
Other products	4.16	4.14	3.64	4.23	4.47	4.21	4.09	3.81	3.76	-0.05	0.31
Total	**47.86**	**47.60**	**47.64**	**46.98**	**48.06**	**47.70**	**47.54**	**46.31**	**47.03**	**0.71**	**-1.20**

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).

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

	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20 [2]	Latest month vs. Jan 20	Latest month vs. Feb 19
United States[3]											
LPG and ethane	2.87	2.93	3.29	2.60	2.71	3.13	3.27	3.31	3.22	-0.09	-0.17
Naphtha	0.23	0.21	0.21	0.21	0.22	0.19	0.24	0.22	0.17	-0.05	-0.04
Motor gasoline	9.33	9.27	8.96	9.48	9.49	9.16	8.95	8.76	8.97	0.21	0.00
Jet and kerosene	1.71	1.75	1.66	1.78	1.80	1.75	1.80	1.70	1.66	-0.04	0.04
Gasoil/diesel oil	4.15	4.08	4.28	4.01	3.94	4.10	3.90	4.02	4.01	-0.01	-0.32
Residual fuel oil	0.32	0.29	0.29	0.26	0.32	0.27	0.27	0.26	0.15	-0.11	-0.15
Other products	1.89	1.95	1.62	2.02	2.20	1.95	1.87	1.66	1.66	0.00	0.28
Total	**20.50**	**20.47**	**20.31**	**20.35**	**20.68**	**20.55**	**20.29**	**19.93**	**19.84**	**-0.09**	**-0.36**
Japan											
LPG and ethane	0.40	0.37	0.47	0.35	0.29	0.37	0.43	0.40	0.43	0.04	-0.08
Naphtha	0.74	0.74	0.80	0.69	0.71	0.76	0.80	0.75	0.76	0.02	-0.07
Motor gasoline	0.86	0.84	0.81	0.81	0.90	0.83	0.87	0.74	0.80	0.06	-0.03
Jet and kerosene	0.50	0.49	0.69	0.37	0.34	0.55	0.73	0.67	0.69	0.02	-0.08
Diesel	0.46	0.47	0.47	0.45	0.47	0.47	0.49	0.39	0.47	0.08	-0.02
Other gasoil	0.32	0.30	0.35	0.28	0.27	0.31	0.35	0.28	0.35	0.06	-0.02
Residual fuel oil	0.28	0.24	0.26	0.21	0.23	0.25	0.25	0.23	0.25	0.02	-0.04
Other products	0.26	0.23	0.25	0.23	0.24	0.22	0.24	0.26	0.20	-0.06	-0.04
Total	**3.81**	**3.67**	**4.09**	**3.41**	**3.44**	**3.76**	**4.16**	**3.72**	**3.96**	**0.23**	**-0.38**
Germany											
LPG and ethane	0.11	0.12	0.12	0.13	0.13	0.11	0.11	0.11	0.11	0.00	-0.02
Naphtha	0.27	0.27	0.33	0.22	0.23	0.30	0.33	0.29	0.30	0.01	-0.05
Motor gasoline	0.49	0.50	0.47	0.50	0.51	0.50	0.49	0.48	0.49	0.00	0.01
Jet and kerosene	0.22	0.22	0.20	0.23	0.23	0.21	0.20	0.20	0.21	0.02	0.00
Diesel	0.76	0.77	0.75	0.78	0.79	0.77	0.70	0.70	0.74	0.03	-0.05
Other gasoil	0.32	0.35	0.41	0.29	0.35	0.33	0.31	0.35	0.43	0.07	0.01
Residual fuel oil	0.06	0.05	0.06	0.05	0.05	0.04	0.05	0.03	0.07	0.03	0.01
Other products	0.11	0.10	0.08	0.10	0.12	0.09	0.08	0.10	0.07	-0.03	-0.02
Total	**2.35**	**2.38**	**2.43**	**2.31**	**2.42**	**2.35**	**2.26**	**2.27**	**2.42**	**0.14**	**-0.11**
Italy											
LPG and ethane	0.10	0.08	0.09	0.07	0.07	0.08	0.09	0.10	0.09	-0.01	-0.01
Naphtha	0.13	0.08	0.08	0.08	0.09	0.09	0.07	0.07	0.07	0.00	0.00
Motor gasoline	0.17	0.14	0.11	0.14	0.16	0.16	0.15	0.14	0.14	0.00	0.03
Jet and kerosene	0.11	0.11	0.08	0.11	0.13	0.10	0.10	0.09	0.08	0.00	0.00
Diesel	0.46	0.45	0.45	0.45	0.45	0.46	0.45	0.43	0.44	0.01	0.00
Other gasoil	0.08	0.07	0.06	0.06	0.07	0.08	0.07	0.05	0.06	0.01	0.00
Residual fuel oil	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.06	0.00	0.01
Other products	0.16	0.15	0.14	0.16	0.16	0.15	0.16	0.14	0.15	0.01	-0.01
Total	**1.27**	**1.15**	**1.08**	**1.14**	**1.20**	**1.18**	**1.15**	**1.08**	**1.09**	**0.01**	**0.02**
France											
LPG and ethane	0.13	0.13	0.15	0.12	0.11	0.13	0.14	0.13	0.14	0.01	-0.02
Naphtha	0.10	0.11	0.14	0.11	0.11	0.09	0.09	0.10	0.12	0.02	-0.02
Motor gasoline	0.19	0.20	0.18	0.21	0.22	0.20	0.21	0.19	0.19	0.00	0.01
Jet and kerosene	0.17	0.17	0.16	0.18	0.19	0.16	0.16	0.16	0.17	0.01	0.01
Diesel	0.71	0.70	0.68	0.71	0.71	0.71	0.70	0.66	0.74	0.08	0.04
Other gasoil	0.24	0.23	0.26	0.20	0.24	0.22	0.21	0.25	0.17	-0.08	-0.11
Residual fuel oil	0.05	0.04	0.05	0.05	0.05	0.03	0.02	0.03	0.03	0.00	-0.02
Other products	0.12	0.12	0.10	0.12	0.14	0.11	0.08	0.10	0.07	-0.03	-0.02
Total	**1.71**	**1.71**	**1.72**	**1.71**	**1.78**	**1.65**	**1.60**	**1.63**	**1.64**	**0.01**	**-0.12**
United Kingdom											
LPG and ethane	0.14	0.12	0.15	0.15	0.10	0.09	0.11	0.14	0.15	0.01	0.00
Naphtha	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.04	0.04	0.00	0.02
Motor gasoline	0.28	0.29	0.28	0.29	0.29	0.29	0.28	0.27	0.29	0.02	-0.01
Jet and kerosene	0.32	0.32	0.33	0.32	0.33	0.32	0.33	0.31	0.35	0.04	0.03
Diesel	0.52	0.51	0.49	0.52	0.51	0.51	0.51	0.46	0.54	0.08	0.00
Other gasoil	0.14	0.13	0.12	0.13	0.14	0.13	0.13	0.10	0.12	0.02	-0.02
Residual fuel oil	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	-0.01
Other products	0.11	0.11	0.12	0.11	0.11	0.11	0.11	0.10	0.10	-0.01	-0.02
Total	**1.57**	**1.53**	**1.53**	**1.59**	**1.53**	**1.49**	**1.52**	**1.43**	**1.61**	**0.17**	**-0.01**
Canada											
LPG and ethane	0.39	0.42	0.42	0.42	0.42	0.42	0.43	0.32	0.40	0.08	-0.02
Naphtha	0.05	0.03	0.05	0.03	0.01	0.02	0.01	0.06	0.07	0.01	0.01
Motor gasoline	0.88	0.88	0.85	0.89	0.91	0.89	0.86	0.95	0.99	0.05	0.09
Jet and kerosene	0.16	0.18	0.16	0.17	0.23	0.17	0.17	0.17	0.13	-0.04	-0.03
Diesel	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.26	0.28	0.02	0.00
Other gasoil	0.29	0.28	0.29	0.25	0.30	0.28	0.27	0.30	0.31	0.01	0.04
Residual fuel oil	0.05	0.06	0.07	0.06	0.05	0.04	0.03	0.08	0.08	0.00	-0.02
Other products	0.38	0.39	0.34	0.37	0.39	0.47	0.54	0.46	0.44	-0.02	0.10
Total	**2.45**	**2.50**	**2.45**	**2.44**	**2.57**	**2.54**	**2.56**	**2.59**	**2.70**	**0.11**	**0.17**

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.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2018	2019	2020	4Q19	1Q20	2Q20	3Q20	4Q20	Feb 20	Mar 20	Apr 20
OPEC											
Crude Oil											
Saudi Arabia	10.33	9.80		9.91	9.77				9.74	9.84	11.90
Iran	3.58	2.36		2.11	2.02				2.02	1.99	1.99
Iraq	4.57	4.71		4.63	4.57				4.59	4.58	4.50
UAE	3.00	3.18		3.34	3.27				3.21	3.50	3.85
Kuwait	2.75	2.68		2.68	2.73				2.67	2.84	3.05
Neutral Zone[1]	0.00	0.00		0.00	0.01				0.00	0.02	0.14
Angola	1.49	1.39		1.35	1.39				1.38	1.40	1.32
Nigeria	1.60	1.73		1.70	1.73				1.74	1.78	1.76
Libya	0.97	1.09		1.15	0.33				0.13	0.08	0.08
Algeria	1.04	1.02		1.02	1.02				1.01	1.03	1.00
Congo	0.32	0.33		0.31	0.30				0.30	0.31	0.33
Gabon	0.19	0.21		0.21	0.19				0.19	0.21	0.20
Equatorial Guinea	0.12	0.11		0.11	0.12				0.12	0.12	0.12
Venezuela	1.40	0.87		0.78	0.77				0.80	0.67	0.63
Total Crude Oil	**31.36**	**29.49**		**29.31**	**28.21**				**27.90**	**28.35**	**30.73**
Total NGLs[2]	**5.50**	**5.45**	**5.23**	**5.38**	**5.43**	**5.17**	**5.16**	**5.16**	**5.43**	**5.39**	**5.52**
Total OPEC[3]	**36.86**	**34.94**		**34.69**	**33.64**				**33.33**	**33.74**	**36.25**
NON-OPEC[4]											
OECD											
Americas	23.03	24.70	23.14	25.57	25.63	22.84	21.88	22.24	25.68	25.52	24.12
United States	15.54	17.21	16.10	17.94	17.96	16.19	15.17	15.13	17.95	17.88	17.18
Mexico	2.07	1.93	1.96	1.95	2.00	1.94	1.97	1.94	1.99	2.01	2.01
Canada	5.41	5.54	5.06	5.67	5.67	4.71	4.73	5.16	5.73	5.63	4.92
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.46	3.34	3.59	3.51	3.64	3.50	3.56	3.67	3.80	3.53	3.51
UK	1.11	1.13	1.11	1.12	1.14	1.05	1.08	1.16	1.21	1.04	1.03
Norway	1.85	1.74	2.03	1.95	2.04	2.00	2.03	2.06	2.10	2.04	2.02
Others	0.50	0.46	0.45	0.44	0.47	0.45	0.45	0.45	0.49	0.45	0.45
Asia Oceania	0.41	0.53	0.57	0.58	0.52	0.55	0.59	0.60	0.50	0.53	0.54
Australia	0.35	0.46	0.50	0.52	0.45	0.48	0.52	0.53	0.43	0.46	0.47
Others	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Total OECD	**26.90**	**28.56**	**27.30**	**29.66**	**29.79**	**26.89**	**26.03**	**26.51**	**29.98**	**29.58**	**28.16**
NON-OECD											
Former USSR	14.56	14.63	13.49	14.69	14.78	13.17	13.01	13.02	14.79	14.77	14.74
Russia	11.49	11.58	10.64	11.59	11.64	10.38	10.26	10.27	11.64	11.63	11.69
Azerbaijan	0.79	0.77	0.69	0.76	0.76	0.68	0.66	0.66	0.75	0.76	0.77
Kazakhstan	1.93	1.93	1.81	1.99	2.02	1.75	1.74	1.74	2.04	2.01	1.92
Others	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.35	0.36	0.36	0.36
Asia	7.18	7.11	6.91	7.05	7.08	6.93	6.86	6.77	7.09	7.02	7.01
China	3.81	3.88	3.88	3.86	3.97	3.94	3.85	3.78	3.96	3.97	3.95
Malaysia	0.72	0.67	0.64	0.68	0.68	0.63	0.63	0.63	0.67	0.67	0.67
India	0.84	0.80	0.75	0.78	0.77	0.75	0.74	0.74	0.75	0.78	0.76
Indonesia	0.80	0.77	0.73	0.76	0.72	0.70	0.74	0.73	0.76	0.67	0.70
Others	1.01	0.99	0.91	0.97	0.95	0.91	0.90	0.88	0.95	0.94	0.94
Europe	0.12	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.12	0.12	0.12
Americas	5.05	5.28	5.34	5.55	5.59	5.15	5.32	5.31	5.54	5.50	5.10
Brazil	2.71	2.90	3.05	3.17	3.15	3.04	2.99	3.01	3.08	3.08	3.08
Argentina	0.58	0.60	0.58	0.61	0.61	0.58	0.57	0.56	0.61	0.61	0.59
Colombia	0.87	0.89	0.81	0.89	0.88	0.83	0.78	0.74	0.88	0.86	0.84
Ecuador	0.52	0.53	0.47	0.52	0.54	0.30	0.52	0.53	0.55	0.54	0.19
Others	0.37	0.36	0.43	0.37	0.41	0.40	0.45	0.47	0.42	0.40	0.40
Middle East	3.25	3.24	3.12	3.24	3.22	3.13	3.07	3.07	3.20	3.30	3.35
Oman	0.99	0.98	0.92	0.98	1.01	0.93	0.88	0.88	0.96	1.09	1.12
Qatar	1.97	1.96	1.93	1.96	1.93	1.94	1.93	1.93	1.94	1.91	1.94
Others	0.30	0.30	0.27	0.30	0.28	0.26	0.26	0.26	0.30	0.30	0.29
Africa	1.45	1.45	1.32	1.44	1.41	1.32	1.29	1.28	1.41	1.38	1.36
Egypt	0.65	0.63	0.60	0.62	0.62	0.60	0.59	0.59	0.62	0.60	0.60
Others	0.80	0.81	0.72	0.82	0.79	0.72	0.70	0.69	0.79	0.78	0.75
Total Non-OECD	**31.62**	**31.83**	**30.31**	**32.10**	**32.20**	**29.81**	**29.67**	**29.57**	**32.14**	**32.09**	**31.68**
Processing gains[5]	2.32	2.35	2.21	2.35	2.28	1.97	2.29	2.28	2.27	2.18	1.90
Global Biofuels	2.63	2.80	2.46	2.74	2.25	2.33	2.69	2.56	2.27	2.20	2.07
TOTAL NON-OPEC	**63.46**	**65.54**	**62.27**	**66.84**	**66.52**	**61.00**	**60.68**	**60.92**	**66.66**	**66.05**	**63.81**
TOTAL SUPPLY	**100.32**	**100.48**		**101.53**	**100.15**				**100.00**	**99.79**	**100.05**

1 Neutral Zone production is also 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.

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

	2018	2019	2020	4Q19	1Q20	2Q20	3Q20	4Q20	Feb 20	Mar 20	Apr 20
United States											
Alaska	479	466	418	480	477	412	344	442	477	472	459
California	477	455	431	441	438	434	429	425	439	436	435
Texas	4408	5069	4975	5321	5379	5111	4776	4642	5400	5332	5286
Federal Gulf of Mexico[2]	1758	1883	1985	1940	2003	1996	1968	1975	2023	2007	2016
Other US Lower 48	3869	4360	3371	4602	4480	3264	2846	2903	4495	4509	3932
NGLs[3]	4369	4813	4749	4988	5023	4785	4629	4561	4965	4954	4867
Other Hydrocarbons	178	169	174	167	156	186	176	179	156	168	184
Total	**15537**	**17215**	**16104**	**17939**	**17955**	**16187**	**15167**	**15127**	**17954**	**17877**	**17178**
Canada											
Alberta Light/Medium/Heavy	489	487	495	495	495	496	496	496	505	493	495
Alberta Bitumen	1856	1837	1468	1974	1857	1265	1233	1520	1878	1844	1540
Saskatchewan	488	487	474	500	484	477	471	465	471	486	479
Other Crude	449	489	493	540	498	480	497	497	512	475	470
NGLs	904	961	933	962	967	914	918	933	987	981	939
Other Upgraders	164	172	161	160	183	144	150	168	185	181	134
Synthetic Crudes	1056	1111	1039	1033	1182	931	964	1082	1190	1167	861
Total	**5408**	**5545**	**5065**	**5665**	**5666**	**4706**	**4728**	**5161**	**5728**	**5627**	**4917**
Mexico											
Crude	1831	1705	1745	1722	1770	1719	1756	1734	1766	1783	1787
NGLs	236	220	214	229	222	216	211	206	221	220	218
Total	**2073**	**1929**	**1962**	**1954**	**1995**	**1939**	**1971**	**1944**	**1990**	**2006**	**2009**
UK											
Brent Fields	45	44	32	41	36	35	27	29	36	36	35
Forties Fields	355	327	307	324	342	293	287	306	349	315	285
Ninian Fields	34	37	31	37	33	32	31	30	32	33	32
Flotta Fields	65	57	52	60	54	50	53	52	54	55	54
Other Fields	519	590	606	591	596	559	604	666	657	525	550
NGLs	89	79	78	66	78	79	78	77	85	81	77
Total	**1108**	**1134**	**1107**	**1119**	**1140**	**1047**	**1079**	**1160**	**1213**	**1045**	**1034**
Norway[5]											
Ekofisk-Ula Area	145	138	141	141	141	138	134	152	142	137	142
Oseberg-Troll Area	251	260	265	267	271	247	265	275	270	269	220
Statfjord-Gullfaks Area	305	237	231	228	237	227	227	232	251	237	221
Haltenbanken Area	331	287	312	312	304	314	311	320	299	308	313
Sleipner-Frigg Area	403	429	781	622	714	787	809	815	736	756	755
Other Fields	79	86	10	102	63	3	2	-28	92	15	89
NGLs	335	299	292	278	307	286	287	289	311	316	285
Total	**1850**	**1737**	**2033**	**1950**	**2037**	**2002**	**2034**	**2056**	**2102**	**2037**	**2024**
Other OECD Europe											
Denmark	114	101	76	80	79	77	75	73	80	75	78
Italy	89	78	92	74	90	85	92	100	95	90	84
Turkey	55	58	58	58	58	58	58	58	59	58	58
Other	117	95	102	90	97	106	103	101	88	106	106
NGLs	11	8	7	7	7	7	7	7	8	7	7
Non-Conventional Oils	112	125	119	129	134	114	114	114	156	114	115
Total	**499**	**465**	**454**	**438**	**467**	**447**	**449**	**453**	**485**	**451**	**449**
Australia											
Gippsland Basin	13	9	13	14	14	13	13	13	14	14	13
Cooper-Eromanga Basin	30	34	34	35	34	34	33	33	34	34	34
Carnarvon Basin	60	76	123	114	122	119	123	129	121	128	116
Other Crude	180	241	215	237	168	207	241	245	152	167	191
NGLs	62	99	111	116	112	111	111	110	110	114	111
Total	**345**	**460**	**497**	**516**	**450**	**485**	**521**	**530**	**431**	**456**	**466**
Other OECD Asia Oceania											
New Zealand	24	24	20	21	21	21	20	20	21	21	21
Japan	3	4	4	4	4	4	4	4	4	4	4
NGLs	13	12	11	11	12	11	11	11	12	12	11
Non-Conventional Oils	29	28	33	25	34	33	33	33	32	32	34
Total	**69**	**69**	**70**	**61**	**71**	**70**	**69**	**68**	**69**	**69**	**71**
OECD											
Crude Oil	19328	20454	19365	21471	21362	19063	18328	18727	21554	21220	20303
NGLs	6026	6500	6404	6667	6738	6419	6261	6203	6707	6694	6526
Non-Conventional Oils[4]	1544	1610	1531	1518	1693	1412	1440	1580	1722	1665	1331
Total	**26898**	**28564**	**27301**	**29656**	**29793**	**26893**	**26029**	**26510**	**29983**	**29578**	**28159**

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.

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			
	Nov2019	Dec2019	Jan2020	Feb2020	Mar2020*	Mar2017	Mar2018	Mar2019	2Q2019	3Q2019	4Q2019	1Q2020
OECD INDUSTRY-CONTROLLED STOCKS[1]												
OECD Americas												
Crude	605.5	591.4	605.4	620.4	654.1	697.4	586.4	615.2	0.01	-0.37	0.10	0.69
Motor Gasoline	259.5	280.9	292.2	278.3	282.1	271.6	273.0	266.4	-0.07	-0.02	0.25	0.01
Middle Distillate	189.7	204.4	208.2	196.9	183.4	227.4	205.9	205.1	-0.05	0.02	0.02	-0.23
Residual Fuel Oil	40.3	37.7	37.9	38.3	43.0	44.8	40.8	34.1	0.02	0.00	0.02	0.06
Total Products[3]	732.9	756.0	757.2	724.0	722.0	731.7	704.1	709.6	0.37	0.23	-0.10	-0.37
Total[4]	**1540.9**	**1538.4**	**1549.4**	**1532.9**	**1566.9**	**1605.5**	**1470.8**	**1508.3**	**0.62**	**-0.06**	**-0.22**	**0.31**
OECD Europe												
Crude	355.9	352.3	351.9	341.2	359.2	361.5	352.2	363.5	-0.05	-0.03	-0.03	0.08
Motor Gasoline	89.9	91.8	96.8	98.4	102.3	101.2	96.6	98.7	-0.10	-0.04	0.06	0.12
Middle Distillate	269.1	275.0	296.5	291.6	294.4	312.6	264.5	268.0	0.09	0.04	-0.05	0.21
Residual Fuel Oil	65.1	59.6	66.5	66.5	68.3	70.1	59.0	59.4	0.00	0.07	-0.07	0.10
Total Products[3]	537.5	541.9	570.2	571.8	580.5	594.6	535.1	540.9	0.01	0.07	-0.07	0.42
Total[4]	**976.1**	**975.5**	**1004.5**	**998.7**	**1023.9**	**1027.7**	**967.6**	**988.9**	**-0.07**	**0.06**	**-0.14**	**0.53**
OECD Asia Oceania												
Crude	153.0	154.7	118.3	124.2	133.7	188.1	161.3	158.8	-0.07	-0.11	0.13	-0.23
Motor Gasoline	25.7	26.8	28.7	27.6	27.7	22.9	23.8	26.7	-0.01	0.01	0.00	0.01
Middle Distillate	75.6	72.5	76.1	69.3	69.3	58.8	61.7	67.4	0.03	0.10	-0.08	-0.03
Residual Fuel Oil	19.1	17.4	20.0	20.0	19.1	17.8	17.4	19.3	0.00	0.01	-0.04	0.02
Total Products[3]	181.2	175.3	186.5	175.1	174.9	154.7	161.0	166.2	0.10	0.20	-0.20	-0.01
Total[4]	**399.2**	**393.8**	**369.8**	**361.2**	**370.2**	**402.3**	**377.9**	**381.3**	**0.11**	**0.11**	**-0.08**	**-0.26**
Total OECD												
Crude	1114.4	1098.5	1075.6	1085.8	1147.0	1247.0	1099.8	1137.5	-0.11	-0.52	0.20	0.53
Motor Gasoline	375.1	399.4	417.7	404.3	412.0	395.7	393.4	391.8	-0.18	-0.05	0.31	0.14
Middle Distillate	534.4	551.9	580.8	557.8	547.0	598.8	532.1	540.5	0.07	0.16	-0.10	-0.05
Residual Fuel Oil	124.5	114.7	124.3	124.8	130.4	132.7	117.1	112.7	0.02	0.08	-0.08	0.17
Total Products[3]	1451.6	1473.3	1513.9	1470.9	1477.3	1480.9	1400.1	1416.6	0.49	0.51	-0.38	0.04
Total[4]	**2916.2**	**2907.7**	**2923.7**	**2892.7**	**2961.0**	**3035.5**	**2816.2**	**2878.4**	**0.66**	**0.10**	**-0.44**	**0.59**
OECD GOVERNMENT-CONTROLLED STOCKS[5]												
OECD Americas												
Crude	635.0	635.0	635.0	635.0	635.0	691.5	665.5	649.1	-0.05	0.00	-0.11	0.00
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	209.3	207.5	206.1	207.1	207.3	205.3	209.8	208.9	-0.02	-0.01	0.01	0.00
Products	273.7	273.0	275.1	276.1	276.8	276.2	274.2	276.5	-0.01	-0.02	-0.01	0.04
OECD Asia Oceania												
Crude	377.4	377.3	377.4	377.4	377.4	384.1	383.4	378.6	0.00	-0.02	0.00	0.00
Products	38.9	38.9	38.9	38.9	38.9	38.0	38.7	38.8	0.00	0.00	0.00	0.00
Total OECD												
Crude	1221.6	1219.7	1218.4	1219.5	1219.7	1280.9	1258.7	1236.6	-0.07	-0.03	-0.09	0.00
Products	314.6	313.9	316.0	317.0	317.7	316.2	314.9	317.3	-0.01	-0.01	-0.01	0.04
Total[4]	**1537.9**	**1535.3**	**1536.2**	**1538.2**	**1539.2**	**1600.7**	**1576.9**	**1556.9**	**-0.09**	**-0.05**	**-0.10**	**0.04**

* estimated

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

2 Closing stock levels.

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

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

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

Table 4a
INDUSTRY STOCKS[1] ON LAND IN SELECTED COUNTRIES
(million barrels)

	October			November			December			January			February		
	2018	2019	%	2018	2019	%	2018	2019	%	2019	2020	%	2019	2020	%
United States[2]															
Crude	433.8	444.2	2.4	449.4	446.9	-0.6	442.5	432.9	-2.2	448.8	442.8	-1.3	451.7	454.2	0.6
Motor Gasoline	232.7	224.7	-3.4	230.2	233.7	1.5	246.5	253.8	3.0	261.3	264.2	1.1	251.4	251.7	0.1
Middle Distillate	169.5	162.5	-4.1	168.4	169.8	0.8	184.4	183.3	-0.6	183.5	189.4	3.2	180.1	177.3	-1.6
Residual Fuel Oil	29.2	29.6	1.4	29.8	32.5	9.1	28.3	30.9	9.2	29.4	30.7	4.4	27.8	31.2	12.2
Other Products	220.5	240.1	8.9	209.9	225.2	7.3	197.8	215.0	8.7	182.8	200.1	9.5	176.1	191.3	8.6
Total Products	651.9	656.9	0.8	638.3	661.2	3.6	657.0	683.0	4.0	657.0	684.4	4.2	635.4	651.5	2.5
Other[3]	178.1	191.5	7.5	174.5	182.5	4.6	164.6	173.1	5.2	164.7	171.4	4.1	166.2	173.6	4.5
Total	**1263.8**	**1292.6**	**2.3**	**1262.2**	**1290.6**	**2.3**	**1264.1**	**1289.0**	**2.0**	**1270.5**	**1298.6**	**2.2**	**1253.3**	**1279.3**	**2.1**
Japan															
Crude	98.8	88.9	-10.0	100.7	86.9	-13.7	95.8	92.1	-3.9	90.5	75.6	-16.5	95.1	79.6	-16.3
Motor Gasoline	10.4	10.1	-2.9	11.0	10.4	-5.5	9.6	10.8	12.5	10.6	11.9	12.3	10.1	11.2	10.9
Middle Distillate	35.9	36.2	0.8	39.3	37.1	-5.6	34.7	33.1	-4.6	31.3	34.0	8.6	28.1	28.5	1.4
Residual Fuel Oil	8.1	8.1	0.0	8.2	8.5	3.7	8.6	7.2	-16.3	8.8	7.8	-11.4	8.0	7.3	-8.8
Other Products	38.5	39.0	1.3	37.9	36.3	-4.2	37.7	35.8	-5.0	35.9	37.5	4.5	36.2	32.8	-9.4
Total Products	92.9	93.4	0.5	96.4	92.3	-4.3	90.6	86.9	-4.1	86.6	91.2	5.3	82.4	79.8	-3.2
Other[3]	55.3	56.0	1.3	57.0	54.4	-4.6	54.7	53.1	-2.9	53.6	54.5	1.7	49.2	51.8	5.3
Total	**247.0**	**238.3**	**-3.5**	**254.1**	**233.6**	**-8.1**	**241.1**	**232.1**	**-3.7**	**230.7**	**221.3**	**-4.1**	**226.7**	**211.2**	**-6.8**
Germany															
Crude	48.1	47.6	-1.0	46.0	47.4	3.0	43.2	47.5	10.0	46.8	44.5	-4.9	47.8	47.8	0.0
Motor Gasoline	9.6	10.9	13.5	9.8	11.3	15.3	11.3	11.4	0.9	12.1	11.5	-5.0	12.3	11.5	-6.5
Middle Distillate	21.4	22.9	7.0	22.1	22.7	2.7	25.5	24.8	-2.7	25.6	28.3	10.5	22.9	26.4	15.3
Residual Fuel Oil	7.2	7.0	-2.8	7.9	8.0	1.3	7.8	7.0	-10.3	7.9	7.3	-7.6	7.9	6.8	-13.9
Other Products	9.9	10.2	3.0	10.2	9.7	-4.9	10.3	10.2	-1.0	10.3	9.5	-7.8	10.3	9.9	-3.9
Total Products	48.1	51.0	6.0	50.0	51.7	3.4	54.9	53.4	-2.7	55.9	56.6	1.3	53.4	54.6	2.2
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	**96.2**	**98.6**	**2.5**	**96.0**	**99.1**	**3.2**	**98.1**	**100.9**	**2.9**	**102.7**	**101.1**	**-1.6**	**101.2**	**102.4**	**1.2**
Italy															
Crude	40.1	44.0	9.7	38.5	35.9	-6.8	40.5	39.4	-2.7	35.3	42.0	19.0	38.4	37.9	-1.3
Motor Gasoline	13.0	13.1	0.8	12.8	12.5	-2.3	12.6	12.9	2.4	13.7	12.3	-10.2	13.6	12.8	-5.9
Middle Distillate	27.1	29.1	7.4	27.9	29.0	3.9	27.7	28.1	1.4	28.8	29.2	1.4	31.2	29.6	-5.1
Residual Fuel Oil	8.4	9.1	8.3	8.8	8.9	1.1	8.6	8.9	3.5	9.5	9.0	-5.3	9.5	9.4	-1.1
Other Products	12.3	13.8	12.2	11.9	14.1	18.5	12.4	13.9	12.1	12.6	14.8	17.5	12.6	16.0	27.0
Total Products	60.8	65.1	7.1	61.4	64.5	5.0	61.3	63.8	4.1	64.6	65.3	1.1	66.9	67.8	1.3
Other[3]	15.3	15.2	-0.7	14.8	14.5	-2.0	14.2	14.9	4.9	15.1	15.6	3.3	15.0	16.2	8.0
Total	**116.2**	**124.3**	**7.0**	**114.7**	**114.9**	**0.2**	**116.0**	**118.1**	**1.8**	**115.0**	**122.9**	**6.9**	**120.3**	**121.9**	**1.3**
France															
Crude	12.9	16.8	30.2	11.3	17.3	53.1	8.9	11.9	33.7	10.3	10.2	-1.0	11.4	9.9	-13.2
Motor Gasoline	3.6	4.7	30.6	4.2	3.8	-9.5	4.5	3.8	-15.6	5.1	4.9	-3.9	4.5	5.3	17.8
Middle Distillate	16.5	19.3	17.0	17.0	19.3	13.5	21.5	21.5	0.0	20.0	20.6	3.0	20.5	20.6	0.5
Residual Fuel Oil	1.0	1.2	20.0	1.0	1.5	50.0	0.8	1.5	87.5	1.3	1.7	30.8	1.2	1.1	-8.3
Other Products	4.0	4.0	0.0	4.6	3.9	-15.2	4.4	4.3	-2.3	3.4	4.2	23.5	4.3	4.5	4.7
Total Products	25.1	29.2	16.3	26.8	28.5	6.3	31.2	31.1	-0.3	29.8	31.4	5.4	30.5	31.5	3.3
Other[3]	7.9	7.4	-6.3	7.5	7.8	4.0	7.9	7.7	-2.5	7.7	7.9	2.6	8.3	9.0	8.4
Total	**45.9**	**53.4**	**16.3**	**45.6**	**53.6**	**17.5**	**48.0**	**50.7**	**5.6**	**47.8**	**49.5**	**3.6**	**50.2**	**50.4**	**0.4**
United Kingdom															
Crude	28.9	28.6	-1.0	27.2	27.6	1.5	27.3	28.7	5.1	30.3	28.3	-6.6	29.1	27.7	-4.8
Motor Gasoline	9.5	9.4	-1.1	9.4	9.2	-2.1	10.3	9.1	-11.7	10.0	10.9	9.0	10.5	10.9	3.8
Middle Distillate	23.4	25.9	10.7	22.4	28.3	26.3	23.9	27.3	14.2	25.0	29.0	16.0	24.8	27.4	10.5
Residual Fuel Oil	1.0	1.4	40.0	0.9	1.3	44.4	1.1	1.3	18.2	1.1	1.3	18.2	0.9	2.1	133.3
Other Products	5.8	7.1	22.4	5.4	6.7	24.1	5.2	7.0	34.6	4.9	6.2	26.5	4.9	6.5	32.7
Total Products	39.7	43.8	10.3	38.1	45.5	19.4	40.5	44.7	10.4	41.0	47.4	15.6	41.1	46.9	14.1
Other[3]	8.1	9.0	11.1	8.4	8.7	3.6	8.6	7.9	-8.1	8.3	8.2	-1.2	8.8	7.6	-13.6
Total	**76.7**	**81.4**	**6.1**	**73.7**	**81.8**	**11.0**	**76.4**	**81.3**	**6.4**	**79.6**	**83.9**	**5.4**	**79.0**	**82.2**	**4.1**
Canada[4]															
Crude	120.5	119.0	-1.2	118.9	125.5	5.6	118.4	125.3	5.8	117.8	129.5	9.9	120.9	132.6	9.7
Motor Gasoline	16.4	14.7	-10.4	16.2	14.8	-8.6	15.9	15.3	-3.8	16.7	16.2	-3.0	14.9	15.1	1.3
Middle Distillate	17.3	12.9	-25.4	16.8	11.5	-31.5	18.9	12.0	-36.5	16.4	11.4	-30.5	16.4	11.9	-27.4
Residual Fuel Oil	2.1	1.7	-19.0	2.0	1.9	-5.0	2.4	2.4	0.0	4.0	2.6	-35.0	2.7	2.4	-11.1
Other Products	12.0	9.4	-21.7	12.9	9.4	-27.1	12.8	9.0	-29.7	11.0	9.7	-11.8	11.7	10.1	-13.7
Total Products	47.8	38.7	-19.0	47.9	37.6	-21.5	50.0	38.7	-22.6	48.1	39.9	-17.0	45.7	39.5	-13.6
Other[3]	25.2	22.6	-10.3	23.5	19.6	-16.6	23.9	17.4	-27.2	21.1	15.1	-28.4	18.8	14.6	-22.3
Total	**193.5**	**180.3**	**-6.8**	**190.3**	**182.7**	**-4.0**	**192.3**	**181.4**	**-5.7**	**187.0**	**184.5**	**-1.3**	**185.4**	**186.7**	**0.7**

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.

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

	End March 2019		End June 2019		End September 2019		End December 2019		End March 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	186.1	78	182.0	69	185.6	73	181.3	-	-	-
Chile	10.5	28	11.0	31	12.3	32	11.5	-	-	-
Mexico	40.5	21	39.6	24	34.3	21	34.4	-	-	-
United States[4]	1900.2	93	1956.9	95	1951.4	95	1926.0	-	-	-
Total[4]	**2159.4**	**85**	**2211.6**	**86**	**2205.6**	**87**	**2175.3**	**89**	**2203.8**	**113**
OECD Asia Oceania										
Australia	44.0	37	45.8	39	44.8	37	42.6	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	539.7	158	547.7	159	551.6	147	551.9	-	-	-
Korea	205.1	83	204.4	79	210.2	79	206.3	-	-	-
New Zealand	9.8	56	10.4	59	10.1	52	9.2	-	-	-
Total	**798.6**	**107**	**808.4**	**106**	**816.6**	**101**	**810.0**	**104**	**786.5**	**121**
OECD Europe[5]										
Austria	23.0	80	21.4	71	20.9	77	22.0	-	-	-
Belgium	45.8	78	49.1	81	47.5	76	45.7	-	-	-
Czech Republic	23.0	100	20.4	86	21.4	100	22.3	-	-	-
Denmark	22.2	124	24.7	152	28.2	170	26.8	-	-	-
Estonia	2.6	88	2.7	87	2.7	84	3.9	-	-	-
Finland	38.5	197	38.9	191	39.2	195	36.4	-	-	-
France	169.0	99	169.2	95	160.4	97	158.6	-	-	-
Germany	274.0	119	278.7	115	276.6	118	277.2	-	-	-
Greece	35.3	116	29.0	85	32.0	108	29.4	-	-	-
Hungary	25.8	147	23.8	133	24.9	145	26.2	-	-	-
Ireland	10.8	68	9.8	62	8.8	54	9.7	-	-	-
Italy	130.5	114	129.4	107	134.9	114	128.3	-	-	-
Latvia	4.0	98	3.9	90	3.6	95	2.5	-	-	-
Lithuania	7.5	107	6.2	85	8.0	121	6.9	-	-	-
Luxembourg	0.5	8	0.6	10	0.6	10	0.6	-	-	-
Netherlands	151.2	179	147.0	176	149.1	166	145.6	-	-	-
Norway	27.2	165	26.6	151	27.1	194	24.4	-	-	-
Poland	80.6	116	77.8	106	79.3	112	81.2	-	-	-
Portugal	26.4	105	24.8	99	24.1	100	24.3	-	-	-
Slovak Republic	12.0	141	11.2	125	11.7	139	12.3	-	-	-
Slovenia	4.9	93	5.1	90	4.8	94	5.3	-	-	-
Spain	124.2	93	126.0	95	123.1	94	124.8	-	-	-
Sweden	38.3	114	41.9	116	42.8	138	41.5	-	-	-
Switzerland	31.6	148	30.7	136	32.1	143	32.3	-	-	-
Turkey	87.7	90	87.0	78	88.0	90	88.3	-	-	-
United Kingdom	80.8	51	81.1	53	78.3	53	81.2	-	-	-
Total	**1477.3**	**105**	**1467.1**	**101**	**1470.0**	**105**	**1457.7**	**112**	**1509.9**	**148**
Total OECD	**4435.4**	**95**	**4487.1**	**94**	**4492.2**	**95**	**4443.0**	**98**	**4500.2**	**124**
DAYS OF IEA Net Imports[6]	-	**191**	-	**215**	-	**214**	-	**213**	-	**-**

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End March 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]		
1Q2017	4636	1601	3035	98	34	64
2Q2017	4614	1590	3024	96	33	63
3Q2017	4553	1579	2974	94	33	62
4Q2017	4428	1569	2860	92	33	60
1Q2018	4393	1577	2816	93	33	60
2Q2018	4387	1575	2812	91	33	58
3Q2018	4435	1570	2865	93	33	60
4Q2018	4425	1552	2873	93	33	61
1Q2019	4435	1557	2878	95	33	61
2Q2019	4487	1549	2938	94	32	62
3Q2019	4492	1544	2948	95	33	62
4Q2019	4443	1535	2908	98	34	64
1Q2020	4500	1539	2961	124	43	82

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 1Q2020 (when latest forecasts are used).

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier change
Saudi Light & Extra Light												
Americas	0.59	0.66	0.20	0.35	0.15	0.08	0.23	0.43	0.44	0.48	0.33	0.15
Europe	0.69	0.69	0.68	0.70	0.75	0.71	0.56	0.54	0.49	0.59	0.69	-0.10
Asia Oceania	1.56	1.45	1.42	1.62	1.41	1.33	1.32	1.36	1.43	1.30	1.62	-0.32
Saudi Medium												
Americas	0.33	0.30	0.12	0.13	0.21	0.10	0.06	-	0.03	0.11	-	-
Europe	0.01	0.01	0.02	-	0.01	0.04	0.02	0.02	0.04	0.04	-	-
Asia Oceania	0.37	0.41	0.23	0.24	0.23	0.24	0.19	0.15	0.19	0.28	0.34	-0.05
Canada Heavy												
Americas	2.23	2.41	2.27	2.29	2.19	2.29	2.33	2.59	2.64	2.67	2.07	0.60
Europe	0.02	0.04	0.04	0.03	0.05	0.05	0.04	0.08	0.06	0.02	0.04	-0.02
Asia Oceania	-	0.00	0.00	-	-	0.01	0.01	-	-	-	-	-
Iraqi Basrah Light[2]												
Americas	0.63	0.50	0.31	0.46	0.24	0.32	0.21	0.36	0.28	0.22	0.38	-0.16
Europe	0.76	0.76	0.85	0.89	0.96	0.96	0.59	0.56	0.50	0.43	0.85	-0.42
Asia Oceania	0.40	0.43	0.37	0.45	0.39	0.24	0.39	0.44	0.31	0.27	0.41	-0.14
Kuwait Blend												
Americas	0.11	0.02	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.13	0.11	0.04	0.11	0.17	0.10	0.13	0.07	0.03	0.02	0.01
Asia Oceania	0.68	0.66	0.61	0.63	0.62	0.64	0.57	0.57	0.59	0.71	0.69	0.02
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.27	0.16	0.00	0.01	-	-	-	-	-	-	-	-
Asia Oceania	0.01	0.01	0.00	0.01	-	-	-	-	-	-	-	-
Iranian Heavy[3]												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.52	0.35	0.04	0.09	0.07	-	-	-	-	-	0.09	-
Asia Oceania	0.57	0.28	0.14	0.36	0.18	-	-	-	-	-	0.44	-
BFOE												
Americas	0.02	0.00	0.00	-	-	0.01	-	-	-	-	-	-
Europe	0.45	0.35	0.37	0.39	0.31	0.34	0.45	0.57	0.48	0.52	0.29	0.23
Asia Oceania	0.10	0.09	0.01	-	0.01	0.02	-	-	-	-	-	-
Kazakhstan												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.75	0.75	0.76	0.86	0.78	0.75	0.67	0.66	0.80	0.74	0.92	-0.18
Asia Oceania	0.10	0.19	0.18	0.17	0.17	0.22	0.15	0.14	0.10	0.10	0.15	-0.05
Venezuelan 22 API and heavier												
Americas	0.48	0.44	0.05	0.19	-	-	-	-	-	-	0.10	-
Europe	0.04	0.03	0.09	0.10	0.06	0.09	0.09	0.08	0.02	0.05	0.08	-0.03
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.58	0.63	0.51	0.54	0.51	0.52	0.46	0.52	0.59	0.56	0.59	-0.02
Europe	0.20	0.21	0.19	0.21	0.21	0.17	0.17	0.19	0.13	0.10	0.25	-0.14
Asia Oceania	0.07	0.08	0.13	0.12	0.14	0.13	0.14	0.15	0.16	0.14	0.10	0.03
Russian Urals												
Americas	0.01	0.01	0.01	0.04	-	0.02	-	-	-	-	0.03	-
Europe	1.64	1.40	1.37	1.38	1.37	1.50	1.23	1.12	1.30	1.25	1.19	0.06
Asia Oceania	0.01	0.00	-	-	-	-	-	-	-	-	-	-
Cabinda and Other Angola												
North America	0.07	0.06	0.01	-	0.04	-	-	-	-	-	-	-
Europe	0.11	0.14	0.15	0.17	0.10	0.20	0.13	0.11	0.27	0.13	0.20	-0.07
Pacific	0.01	0.01	0.00	-	-	-	0.01	-	-	-	-	-
Nigerian Light[4]												
Americas	0.04	0.01	0.03	-	0.07	0.05	-	-	-	-	-	-
Europe	0.39	0.53	0.51	0.47	0.58	0.48	0.50	0.38	0.51	0.52	0.51	0.01
Asia Oceania	0.02	0.02	0.02	0.03	0.00	0.03	0.02	0.05	0.06	0.07	0.04	0.03
Libya Light and Medium												
Americas	0.02	-	0.00	-	0.01	-	-	-	-	-	-	-
Europe	0.54	0.62	0.67	0.54	0.72	0.73	0.70	0.75	0.47	0.10	0.45	-0.35
Asia Oceania	0.03	0.02	0.03	0.04	0.03	0.04	0.02	-	0.06	0.04	0.03	0.01

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report. IEA 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).

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier % change
Crude Oil												
Americas	4361	3759	2698	2891	2961	2654	2292	2435	2126	2115	2592	-18%
Europe	9902	9814	9872	10015	9575	10309	9589	9290	9505	9197	10222	-10%
Asia Oceania	6849	6657	6486	6852	6323	6310	6465	6834	6062	6489	7467	-13%
Total OECD	**21112**	**20230**	**19056**	**19758**	**18858**	**19274**	**18346**	**18559**	**17693**	**17801**	**20281**	**-12%**
LPG												
Americas	20	22	76	35	21	21	225	224	248	206	30	579%
Europe	432	457	434	480	410	408	438	410	483	549	559	-2%
Asia Oceania	551	556	586	587	554	612	590	687	704	639	675	-5%
Total OECD	**1003**	**1035**	**1096**	**1102**	**985**	**1041**	**1253**	**1321**	**1435**	**1393**	**1265**	**10%**
Naphtha												
Americas	19	8	9	5	4	5	20	12	29	23	5	395%
Europe	369	391	347	349	334	310	396	453	336	410	413	-1%
Asia Oceania	978	1018	990	918	955	1029	1058	1125	1241	1065	918	16%
Total OECD	**1366**	**1417**	**1346**	**1271**	**1293**	**1344**	**1474**	**1590**	**1606**	**1498**	**1336**	**12%**
Gasoline[3]												
Americas	727	773	948	595	1045	957	1188	1157	908	945	521	81%
Europe	153	110	112	118	148	92	90	86	166	101	77	31%
Asia Oceania	102	108	110	110	111	113	106	105	108	93	65	44%
Total OECD	**983**	**992**	**1169**	**822**	**1305**	**1161**	**1383**	**1348**	**1182**	**1140**	**663**	**72%**
Jet & Kerosene												
Americas	171	140	190	138	185	206	229	249	223	246	162	52%
Europe	504	509	520	455	571	558	496	404	505	325	446	-27%
Asia Oceania	80	89	76	82	60	68	94	102	117	153	110	39%
Total OECD	**755**	**738**	**786**	**675**	**816**	**832**	**819**	**755**	**845**	**724**	**717**	**1%**
Gasoil/Diesel												
Americas	77	124	183	204	81	72	373	427	328	292	286	2%
Europe	1337	1339	1298	1380	1285	1276	1253	1097	1431	1209	1530	-21%
Asia Oceania	196	253	263	233	259	270	287	267	320	297	168	77%
Total OECD	**1610**	**1716**	**1743**	**1817**	**1625**	**1618**	**1913**	**1791**	**2079**	**1798**	**1984**	**-9%**
Heavy Fuel Oil												
Americas	131	161	122	149	104	85	152	137	178	125	172	-27%
Europe	233	197	223	217	229	240	206	217	205	319	295	8%
Asia Oceania	146	162	101	103	106	116	80	141	112	129	121	7%
Total OECD	**510**	**520**	**447**	**469**	**439**	**441**	**438**	**495**	**495**	**574**	**588**	**-2%**
Other Products												
Americas	717	679	713	520	730	792	809	807	769	691	373	85%
Europe	1012	1011	865	1007	902	830	722	674	702	688	1043	-34%
Asia Oceania	259	282	281	273	292	273	286	305	326	286	272	5%
Total OECD	**1987**	**1972**	**1859**	**1799**	**1924**	**1895**	**1817**	**1786**	**1797**	**1666**	**1687**	**-1%**
Total Products												
Americas	1862	1908	2241	1645	2171	2138	2995	3015	2684	2528	1549	63%
Europe	4040	4013	3798	4004	3879	3714	3602	3339	3828	3602	4363	-17%
Asia Oceania	2312	2470	2407	2306	2338	2480	2500	2732	2926	2663	2328	14%
Total OECD	**8214**	**8390**	**8446**	**7954**	**8387**	**8332**	**9097**	**9086**	**9438**	**8793**	**8241**	**7%**
Total Oil												
Americas	6223	5666	4939	4536	5131	4793	5288	5449	4810	4644	4141	12%
Europe	13942	13827	13670	14018	13453	14023	13191	12630	13333	12798	14586	-12%
Asia Oceania	9160	9127	8893	9158	8661	8790	8965	9567	8988	9152	9795	-7%
Total OECD	**29326**	**28620**	**27502**	**27713**	**27246**	**27606**	**27443**	**27645**	**27131**	**26593**	**28522**	**-7%**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier % change
Crude Oil												
Americas	4235	3606	2553	2790	2707	2519	2203	2330	2093	2042	2534	-19%
Europe	9436	9088	8913	9100	8773	9383	8397	7918	8168	8116	9287	-13%
Asia Oceania	6553	6210	5859	6311	5753	5640	5740	6029	5382	5815	6827	-15%
Total OECD	**20224**	**18904**	**17325**	**18201**	**17233**	**17542**	**16340**	**16277**	**15643**	**15974**	**18648**	**-14%**
LPG												
Americas	16	15	73	27	21	21	223	216	241	206	22	852%
Europe	337	350	303	352	305	274	282	266	297	322	393	-18%
Asia Oceania	205	161	77	85	99	69	58	84	67	52	105	-51%
Total OECD	**557**	**527**	**454**	**463**	**425**	**363**	**563**	**566**	**605**	**580**	**519**	**12%**
Naphtha												
Americas	16	4	6	1	1	3	17	9	27	21	1	1589%
Europe	350	360	320	328	321	284	348	398	320	381	373	2%
Asia Oceania	931	921	895	801	865	972	938	964	1040	881	835	6%
Total OECD	**1297**	**1286**	**1221**	**1130**	**1188**	**1259**	**1303**	**1371**	**1387**	**1282**	**1208**	**6%**
Gasoline[3]												
Americas	213	271	447	244	367	386	787	781	643	668	235	185%
Europe	149	105	108	114	142	89	87	83	164	97	73	33%
Asia Oceania	102	85	84	91	56	92	96	82	83	70	65	7%
Total OECD	**464**	**461**	**639**	**449**	**565**	**568**	**970**	**945**	**890**	**835**	**372**	**124%**
Jet & Kerosene												
Americas	67	56	54	45	24	55	93	117	139	112	44	158%
Europe	436	445	464	414	521	473	446	353	418	278	413	-33%
Asia Oceania	80	89	76	82	60	68	94	102	117	153	110	39%
Total OECD	**583**	**590**	**594**	**541**	**605**	**596**	**632**	**573**	**675**	**544**	**566**	**-4%**
Gasoil/Diesel												
Americas	50	100	152	167	40	58	341	376	302	281	236	19%
Europe	1086	1160	1124	1213	1091	1026	1168	1002	1335	1095	1365	-20%
Asia Oceania	195	253	261	233	259	265	287	267	320	297	168	77%
Total OECD	**1331**	**1513**	**1537**	**1613**	**1390**	**1349**	**1797**	**1645**	**1956**	**1674**	**1768**	**-5%**
Heavy Fuel Oil												
Americas	123	147	108	123	97	81	132	129	134	109	136	-20%
Europe	218	185	202	206	201	210	191	215	180	318	282	13%
Asia Oceania	146	162	100	101	106	114	80	141	112	129	121	7%
Total OECD	**487**	**493**	**411**	**430**	**405**	**405**	**403**	**485**	**426**	**556**	**539**	**3%**
Other Products												
Americas	542	522	542	345	560	615	646	654	656	611	220	178%
Europe	731	702	629	737	656	615	509	437	398	343	793	-57%
Asia Oceania	182	201	197	191	200	188	211	218	199	212	185	15%
Total OECD	**1455**	**1425**	**1369**	**1273**	**1416**	**1417**	**1366**	**1310**	**1253**	**1166**	**1198**	**-3%**
Total Products												
Americas	1026	1115	1383	952	1110	1219	2239	2283	2142	2008	893	125%
Europe	3307	3307	3150	3364	3238	2971	3031	2755	3113	2834	3691	-23%
Asia Oceania	1841	1873	1691	1584	1645	1768	1764	1858	1937	1794	1588	13%
Total OECD	**6175**	**6295**	**6224**	**5900**	**5993**	**5957**	**7034**	**6896**	**7192**	**6636**	**6172**	**8%**
Total Oil												
Americas	5261	4721	3936	3742	3818	3738	4442	4612	4235	4050	3427	18%
Europe	12744	12395	12062	12464	12011	12354	11428	10674	11281	10951	12978	-16%
Asia Oceania	8394	8082	7550	7895	7397	7408	7504	7887	7319	7609	8415	-10%
Total OECD	**26399**	**25199**	**23548**	**24101**	**23226**	**23500**	**23374**	**23173**	**22835**	**22610**	**24820**	**-9%**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier % change
Crude Oil												
Americas	126	153	145	101	253	135	89	105	33	73	58	27%
Europe	466	726	959	914	802	926	1192	1372	1337	1080	936	15%
Asia Oceania	296	448	628	542	570	670	725	805	680	673	640	5%
Total OECD	**888**	**1326**	**1731**	**1557**	**1625**	**1731**	**2007**	**2282**	**2050**	**1827**	**1633**	**12%**
LPG												
Americas	4	7	3	8	0	0	3	8	7	0	9	-100%
Europe	95	107	131	128	105	134	156	144	186	227	167	36%
Asia Oceania	346	395	508	502	455	543	532	604	637	587	570	3%
Total OECD	**445**	**508**	**642**	**639**	**560**	**678**	**690**	**755**	**830**	**814**	**746**	**9%**
Naphtha												
Americas	3	4	3	4	3	3	3	3	2	2	3	-39%
Europe	19	31	27	20	12	26	48	54	16	29	40	-27%
Asia Oceania	47	97	96	117	90	57	120	161	201	184	83	121%
Total OECD	**69**	**132**	**125**	**140**	**105**	**86**	**171**	**219**	**218**	**216**	**127**	**70%**
Gasoline[3]												
Americas	514	502	500	351	678	571	400	377	265	277	287	-3%
Europe	5	5	4	4	6	2	3	3	2	4	4	-2%
Asia Oceania	0	23	26	19	56	20	9	23	25	24	0	na
Total OECD	**519**	**530**	**530**	**373**	**740**	**593**	**413**	**403**	**292**	**305**	**291**	**5%**
Jet & Kerosene												
Americas	104	84	136	93	161	151	137	132	83	133	118	13%
Europe	68	64	56	40	50	85	50	50	86	47	33	42%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	**172**	**148**	**192**	**134**	**211**	**236**	**186**	**182**	**170**	**180**	**151**	**19%**
Gasoil/Diesel												
Americas	28	25	31	37	42	14	31	51	26	11	50	-78%
Europe	250	178	174	167	193	250	85	95	96	114	166	-31%
Asia Oceania	1	0	1	0	0	5	0	0	0	0	0	na
Total OECD	**279**	**203**	**206**	**203**	**235**	**269**	**116**	**146**	**123**	**125**	**216**	**-42%**
Heavy Fuel Oil												
Americas	8	15	14	26	6	4	20	8	44	16	36	-55%
Europe	15	12	21	10	28	30	15	1	25	2	13	-88%
Asia Oceania	0	0	1	2	0	2	0	0	0	0	0	na
Total OECD	**23**	**27**	**36**	**39**	**35**	**36**	**35**	**10**	**70**	**18**	**49**	**-64%**
Other Products												
Americas	175	157	171	174	170	177	163	153	113	81	153	-47%
Europe	280	308	236	270	246	216	213	237	304	345	249	39%
Asia Oceania	77	81	83	82	92	85	75	87	127	74	86	-15%
Total OECD	**532**	**546**	**490**	**527**	**508**	**477**	**451**	**476**	**543**	**499**	**489**	**2%**
Total Products												
Americas	836	793	858	693	1060	920	756	732	542	520	657	-21%
Europe	733	706	649	640	641	743	571	584	715	767	672	14%
Asia Oceania	470	597	716	722	693	712	735	874	989	869	740	17%
Total OECD	**2039**	**2095**	**2222**	**2055**	**2394**	**2375**	**2062**	**2190**	**2246**	**2157**	**2069**	**4%**
Total Oil												
Americas	962	945	1002	794	1314	1055	846	837	575	593	714	-17%
Europe	1199	1432	1608	1554	1442	1669	1763	1956	2052	1848	1608	15%
Asia Oceania	766	1044	1343	1264	1264	1382	1461	1679	1670	1542	1380	12%
Total OECD	**2927**	**3421**	**3953**	**3612**	**4020**	**4107**	**4069**	**4472**	**4296**	**3983**	**3702**	**8%**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	change
OECD Americas												
Venezuela	618	506	81	285	41	-	-	-	-	-	242	-
Other Central & South America	928	795	867	850	882	888	849	850	819	868	781	87
North Sea	124	150	143	101	246	135	89	105	33	73	58	16
Other OECD Europe	-	1	2	-	7	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	121	145	189	151	253	209	143	169	129	114	132	-18
Saudi Arabia	1043	983	601	745	607	555	501	520	501	560	652	-92
Kuwait	144	78	45	84	48	22	26	38	44	46	106	-60
Iran	-	-	-	-	-	-	-	-	-	-	-	-
Iraq	605	519	331	374	329	332	292	386	299	262	422	-161
Oman	14	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	20	5	3	-	-	11	-	-	-	-	-	-
Other Middle East	2	-	-	-	-	-	-	-	-	-	-	-
West Africa[2]	497	317	267	165	324	332	244	216	140	131	30	101
Other Africa	214	196	137	121	208	127	92	54	113	43	154	-110
Asia	26	61	32	16	16	43	54	96	48	17	15	3
Other	4	3	0	-	-	-	1	1	-	-	-	-
Total	**4361**	**3759**	**2698**	**2891**	**2961**	**2654**	**2292**	**2435**	**2126**	**2115**	**2592**	**-476**
of which Non-OECD	**4235**	**3606**	**2553**	**2790**	**2707**	**2519**	**2203**	**2330**	**2093**	**2042**	**2534**	**-492**
OECD Europe												
Canada	45	81	60	66	34	73	65	128	140	89	72	16
Mexico + USA	419	645	900	848	768	853	1127	1244	1197	992	863	128
Venezuela	67	57	106	145	73	102	104	87	19	54	126	-72
Other Central & South America	160	132	118	117	76	124	156	191	191	194	169	25
Non-OECD Europe	9	12	14	11	11	11	25	29	36	23	10	13
Former Soviet Union	4437	4149	4240	4348	4019	4410	4186	3765	4366	4142	4410	-268
Saudi Arabia	750	818	792	825	852	868	624	614	595	838	870	-32
Kuwait	201	137	97	85	105	143	53	82	110	31	92	-61
Iran	801	536	74	148	77	41	32	-	41	3	152	-149
Iraq	995	962	1124	1180	1269	1189	862	845	750	707	1158	-451
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	6	2	2	-	-	-	7	-	-	-	-	-
Other Middle East	1	-	3	2	8	2	-	-	-	-	-	-
West Africa[2]	960	1115	1140	1147	1099	1179	1134	1007	1162	1543	1252	290
Other Africa	1045	1161	1180	1063	1149	1301	1204	1262	899	513	1048	-535
Asia	2	-	-	-	-	-	-	-	-	-	-	-
Other	5	9	13	18	24	0	12	35	-	-	-	-
Total	**9903**	**9816**	**9863**	**10004**	**9563**	**10296**	**9590**	**9290**	**9506**	**9127**	**10222**	**-1095**
of which Non-OECD	**9436**	**9088**	**8913**	**9100**	**8773**	**9383**	**8397**	**7918**	**8168**	**8116**	**9287**	**-1170**
OECD Asia Oceania												
Canada	-	3	5	-	-	6	12	-	-	-	-	-
Mexico + USA	199	344	613	542	559	642	705	781	680	648	640	8
Venezuela	8	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	35	35	48	51	67	51	23	49	31	42	76	-33
North Sea	97	100	10	-	11	22	8	24	-	26	-	-
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	413	435	435	458	402	488	392	402	336	460	427	33
Saudi Arabia	2166	2040	1878	2108	1868	1793	1751	1768	1862	1756	2218	-462
Kuwait	671	672	666	680	665	705	615	622	647	744	744	0
Iran	543	274	137	368	184	-	-	-	-	-	437	-
Iraq	402	435	364	446	388	244	381	444	311	267	409	-142
Oman	42	56	59	54	66	70	46	43	87	17	53	-36
United Arab Emirates	1147	1098	1256	1108	1240	1257	1416	1412	1336	1412	1207	204
Other Middle East	390	450	449	430	387	516	463	577	545	412	396	16
West Africa[2]	66	95	56	73	77	29	45	71	147	51	73	-21
Other Africa	92	105	90	85	72	96	108	136	76	98	83	14
Non-OECD Asia	325	319	220	264	205	184	230	208	202	177	255	-78
Other	253	196	199	185	133	207	270	298	-199	379	450	-71
Total	**6849**	**6657**	**6486**	**6852**	**6323**	**6310**	**6465**	**6834**	**6062**	**6489**	**7467**	**-979**
of which Non-OECD	**6553**	**6210**	**5859**	**6311**	**5753**	**5640**	**5740**	**6029**	**5382**	**5815**	**6827**	**-1012**
Total OECD Trade	**21113**	**20232**	**19048**	**19748**	**18847**	**19261**	**18347**	**18559**	**17694**	**17731**	**20281**	**-2550**
of which Non-OECD	**20224**	**18904**	**17325**	**18201**	**17233**	**17542**	**16340**	**16277**	**15643**	**15974**	**18648**	**-2674**

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.

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier change
OECD Americas												
Venezuela	18	23	4	15	-	-	-	-	-	-	19	-
Other Central & South America	42	64	82	81	86	105	54	41	18	13	53	-40
ARA (Belgium Germany Netherlands)	178	167	180	95	270	233	121	94	57	70	107	-36
Other Europe	326	323	293	232	365	309	267	283	198	184	167	17
FSU	84	80	100	66	88	125	119	100	34	50	73	-22
Saudi Arabia	1	11	7	19	7	4	-	-	7	4	48	-44
Algeria	-	1	-	-	-	-	-	-	-	19	-	-
Other Middle East & Africa	24	19	14	10	11	25	8	7	10	10	10	0
Singapore	10	8	5	-	6	12	-	-	-	-	-	-
OECD Asia Oceania	10	13	28	26	42	29	13	-	10	23	22	2
Non-OECD Asia (excl. Singapore)	63	84	108	71	180	135	47	37	49	22	55	-33
Other	3	0	149	-	-	0	591	628	536	551	-	-
Total[2]	**759**	**794**	**968**	**614**	**1056**	**978**	**1220**	**1190**	**919**	**947**	**553**	**394**
of which Non-OECD	**213**	**271**	**447**	**244**	**367**	**386**	**787**	**781**	**643**	**668**	**235**	**434**
OECD Europe												
OECD Americas	4	4	3	3	5	1	3	2	1	2	2	0
Venezuela	-	0	0	-	-	0	-	-	-	-	-	-
Other Central & South America	3	5	3	6	2	2	4	0	-	11	-	-
Non-OECD Europe	15	11	18	11	21	23	18	14	22	21	5	16
FSU	89	70	62	67	76	47	60	50	101	26	33	-7
Saudi Arabia	0	2	0	1	-	1	-	-	-	-	2	-
Algeria	1	0	0	0	0	-	1	-	-	-	-	-
Other Middle East & Africa	5	4	8	6	4	4	17	13	6	2	11	-9
Singapore	2	2	3	2	4	2	2	2	2	3	2	1
OECD Asia Oceania	1	1	1	1	1	1	0	1	1	2	2	0
Non-OECD Asia (excl. Singapore)	3	2	0	0	0	0	0	0	0	-	0	-
Other	41	20	21	30	43	17	-5	13	39	45	27	18
Total[2]	**163**	**122**	**121**	**126**	**157**	**100**	**101**	**96**	**173**	**111**	**84**	**27**
of which Non-OECD	**149**	**105**	**108**	**114**	**142**	**89**	**87**	**83**	**164**	**97**	**73**	**24**
OECD Asia Oceania												
OECD Americas	-	4	6	5	-	20	1	-	0	24	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	0	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	13	14	8	40	-	9	23	25	-	-	-
Other Europe	-	7	5	6	15	-	-	-	-	-	-	-
FSU	-	1	0	-	1	-	-	-	-	-	-	-
Saudi Arabia	0	0	1	3	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	5	1	-	-	-	-	-	-	-	-	-	-
Singapore	52	49	46	43	29	49	63	44	42	50	35	15
Non-OECD Asia (excl. Singapore)	30	19	21	29	11	26	17	23	26	4	13	-9
Other	15	15	16	17	15	17	17	15	15	16	16	-1
Total[2]	**102**	**109**	**110**	**110**	**111**	**113**	**106**	**105**	**108**	**93**	**65**	**29**
of which Non-OECD	**102**	**85**	**84**	**91**	**56**	**92**	**96**	**82**	**83**	**70**	**65**	**5**
Total OECD Trade[2]	**1024**	**1025**	**1199**	**850**	**1324**	**1190**	**1426**	**1391**	**1199**	**1152**	**702**	**450**
of which Non-OECD	**464**	**461**	**639**	**449**	**565**	**568**	**970**	**945**	**890**	**835**	**372**	**462**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier change
OECD Americas												
Venezuela	2	4	1	3	-	-	-	-	-	-	-	-
Other Central and South America	13	30	38	29	35	47	41	39	22	29	31	-2
ARA (Belgium Germany Netherlands)	7	6	5	-	1	2	18	43	10	11	-	-
Other Europe	3	3	2	2	4	2	1	3	3	-	-	-
FSU	6	16	6	7	2	3	11	22	-	4	10	-6
Saudi Arabia	2	17	3	13	-	-	-	-	2	3	18	-15
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	4	8	2	8	-	-	-	-	11	-	18	-
Singapore	0	1	0	0	-	-	-	-	-	-	1	-
OECD Asia Oceania	18	15	23	35	36	10	12	5	13	0	50	-50
Non-OECD Asia (excl. Singapore)	22	23	29	78	3	8	27	51	36	21	128	-107
Other	0	-	73	28	-	-	263	264	231	225	30	194
Total[2]	**77**	**124**	**183**	**204**	**81**	**72**	**373**	**427**	**328**	**292**	**286**	**6**
of which Non-OECD	**50**	**100**	**152**	**167**	**40**	**58**	**341**	**376**	**302**	**281**	**236**	**45**
OECD Europe												
OECD Americas	222	154	138	126	159	214	54	65	79	80	93	-12
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	3	4	0	-	0	-	-	-	-	1	-	-
Non-OECD Europe	48	39	41	41	37	40	48	36	27	49	44	4
FSU	732	714	683	758	657	648	670	641	776	818	782	35
Saudi Arabia	160	225	205	208	222	188	203	161	280	56	255	-199
Algeria	-	-	0	-	-	-	0	-	-	-	-	-
Other Middle East and Africa	72	76	83	95	89	70	77	61	84	68	104	-36
Singapore	15	14	27	8	27	39	34	17	16	22	6	16
OECD Asia Oceania	28	25	36	41	34	36	31	30	18	33	73	-40
Non-OECD Asia (excl. Singapore)	125	151	152	181	134	95	199	147	158	164	219	-55
Other	21	12	10	6	8	16	8	8	19	-37	2	-38
Total[2]	**1427**	**1413**	**1375**	**1464**	**1368**	**1347**	**1324**	**1165**	**1457**	**1255**	**1578**	**-324**
of which Non-OECD	**1086**	**1160**	**1124**	**1213**	**1091**	**1026**	**1168**	**1002**	**1335**	**1095**	**1365**	**-270**
OECD Asia Oceania												
OECD Americas	1	-	1	-	-	5	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	0	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	5	4	4	5	4	4	3	5	4	5	3	2
Saudi Arabia	-	3	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	8	7	10	9	-	11	24	-	2	-	-
Singapore	87	141	111	93	121	96	133	94	75	98	66	32
Non-OECD Asia (excl. Singapore)	96	91	133	119	121	158	134	139	234	187	92	94
Other	7	6	6	6	6	6	6	6	7	6	6	0
Total[2]	**196**	**253**	**263**	**233**	**259**	**270**	**287**	**267**	**320**	**297**	**168**	**129**
of which Non-OECD	**195**	**253**	**261**	**233**	**259**	**265**	**287**	**267**	**320**	**297**	**168**	**129**
Total OECD Trade[2]	**1701**	**1791**	**1821**	**1901**	**1709**	**1690**	**1983**	**1859**	**2105**	**1844**	**2032**	**-188**
of which Non-OECD	**1331**	**1513**	**1537**	**1613**	**1390**	**1349**	**1797**	**1645**	**1956**	**1674**	**1768**	**-95**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier change
OECD Americas												
Venezuela	16	6	0	1	0	-	-	-	-	-	-	-
Other Central and South America	1	2	7	6	1	8	11	21	10	1	9	-8
ARA (Belgium Germany Netherlands)	-	0	-	-	-	-	-	-	-	-	-	-
Other Europe	0	0	0	-	-	1	-	-	-	8	-	-
FSU	1	0	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	2	1	2	9	1	-	-	-	-	7	1	7
Algeria	0	-	-	-	-	-	-	-	-	3	-	-
Other Middle East and Africa	3	2	10	4	9	15	11	17	3	22	-	-
Singapore	2	6	3	3	6	4	-	-	10	11	5	6
OECD Asia Oceania	104	84	136	93	161	151	137	132	83	125	118	7
Non-OECD Asia (excl. Singapore)	30	27	14	12	6	28	11	10	47	2	17	-15
Other	13	11	18	11	-	-	59	69	70	67	12	54
Total[2]	**171**	**140**	**190**	**138**	**185**	**206**	**229**	**249**	**223**	**246**	**162**	**84**
of which Non-OECD	**67**	**56**	**54**	**45**	**24**	**55**	**93**	**117**	**139**	**112**	**44**	**69**
OECD Europe												
OECD Americas	20	32	20	19	13	32	16	5	24	47	23	24
Venezuela	5	1	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	2	1	3	-	-	0	-	-	-	4	-
Non-OECD Europe	3	6	2	-	6	1	-	-	-	-	-	-
FSU	33	40	45	38	56	53	32	28	24	45	37	8
Saudi Arabia	94	98	105	88	112	106	115	56	58	39	45	-6
Algeria	12	9	11	12	-	17	14	8	16	20	9	11
Other Middle East and Africa	207	197	199	193	237	172	196	184	235	112	217	-105
Singapore	28	25	29	11	33	36	34	38	30	3	9	-6
OECD Asia Oceania	48	32	36	21	37	53	34	46	63	-	10	-
Non-OECD Asia (excl. Singapore)	53	69	73	74	80	89	51	22	56	62	93	-30
Other	1	1	2	0	0	3	5	18	-	-2	1	-3
Total[2]	**508**	**512**	**523**	**459**	**574**	**561**	**497**	**404**	**506**	**325**	**448**	**-122**
of which Non-OECD	**436**	**445**	**464**	**414**	**521**	**473**	**446**	**353**	**418**	**278**	**413**	**-134**
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	22	19	25	20	17	36	17	15	2
Non-OECD Asia (excl. Singapore)	34	26	29	27	21	27	39	48	40	77	35	41
Other	22	33	26	33	19	17	35	38	42	59	59	0
Total[2]	**80**	**89**	**76**	**82**	**60**	**68**	**94**	**102**	**117**	**153**	**110**	**43**
of which Non-OECD	**80**	**89**	**76**	**82**	**60**	**68**	**94**	**102**	**117**	**153**	**110**	**43**
Total OECD Trade[2]	**758**	**741**	**789**	**679**	**819**	**835**	**820**	**756**	**846**	**724**	**719**	**5**
of which Non-OECD	**583**	**590**	**594**	**541**	**605**	**596**	**632**	**573**	**675**	**544**	**566**	**-22**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Dec 19	Jan 20	Feb 20	Year Earlier Feb 19	Year Earlier change
OECD Americas												
Venezuela	16	42	7	27	-	-	-	-	-	-	28	-
Other Central and South America	71	72	49	56	51	38	51	39	17	50	77	-28
ARA (Belgium Germany Netherlands)	5	7	6	12	1	1	9	5	18	-	14	-
Other Europe	3	7	8	14	5	3	11	3	26	16	22	-6
FSU	24	23	30	16	39	40	27	24	71	59	24	36
Saudi Arabia	-	-	2	8	-	-	-	-	-	-	6	-
Algeria	1	-	8	10	5	1	17	17	22	-	-	-
Other Middle East and Africa	9	7	5	3	2	2	14	11	3	-	1	-
Singapore	3	-	1	4	-	-	-	-	-	-	-	-
OECD Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	1	0	0	-	0	-	-	-	-	-	-	-
Other	0	2	7	-	-	-	27	37	36	-	-	-
Total[2]	**131**	**161**	**124**	**149**	**104**	**85**	**156**	**137**	**193**	**125**	**172**	**-47**
of which Non-OECD	**123**	**147**	**108**	**123**	**97**	**81**	**132**	**129**	**134**	**109**	**136**	**-27**
OECD Europe												
OECD Americas	6	4	7	1	8	14	4	0	10	0	1	-1
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	3	5	6	4	4	4	4	4	10	13	-3
Non-OECD Europe	17	17	21	16	29	17	20	17	11	3	10	-8
FSU	195	154	154	158	148	167	145	164	158	105	199	-94
Saudi Arabia	0	1	-	-	-	-	-	-	-	-	-	-
Algeria	1	1	0	1	-	-	-	-	1	2	-	-
Other Middle East and Africa	23	15	19	12	20	27	17	23	10	18	28	-10
Singapore	-	-	1	-	-	2	2	-	-	-	-	-
OECD Asia Oceania	9	8	14	10	21	16	11	1	15	1	12	-11
Non-OECD Asia (excl. Singapore)	1	0	3	7	1	4	0	1	-	-	6	-
Other	-8	5	8	14	10	6	4	4	2	180	40	140
Total[2]	**246**	**208**	**232**	**223**	**240**	**256**	**208**	**215**	**210**	**319**	**310**	**9**
of which Non-OECD	**218**	**185**	**202**	**206**	**201**	**210**	**191**	**215**	**180**	**318**	**282**	**36**
OECD Asia Oceania												
OECD Americas	0	0	1	2	-	2	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	9	16	6	7	0	3	14	20	9	10	11	-1
Saudi Arabia	-	-	1	-	-	3	-	-	-	-	-	-
Algeria	1	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	18	23	27	9	27	49	24	71	-	78	15	63
Singapore	58	37	25	36	21	26	16	29	47	21	48	-28
Non-OECD Asia (excl. Singapore)	59	85	40	48	53	33	26	21	56	21	47	-27
Other	0	0	1	0	5	0	-	-	-	-	-	-
Total[2]	**146**	**162**	**101**	**103**	**106**	**116**	**80**	**141**	**112**	**129**	**121**	**8**
of which Non-OECD	**146**	**162**	**100**	**101**	**106**	**114**	**80**	**141**	**112**	**129**	**121**	**8**
Total OECD Trade[2]	**523**	**531**	**457**	**475**	**450**	**457**	**444**	**493**	**514**	**574**	**603**	**-29**
of which Non-OECD	**487**	**493**	**411**	**430**	**405**	**405**	**403**	**485**	**426**	**556**	**539**	**17**

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

2 Total figure excludes intra-regional trade.

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

	2017	2018	2019	2Q19	3Q19	4Q19	1Q20	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20
CRUDE OIL PRICES													
IEA CIF Average Import[1]													
IEA Americas	48.58	60.02	56.93	62.53	56.63	54.71		54.59	55.19	54.25	47.74		
IEA Europe	53.26	70.52	64.25	69.11	62.31	63.40		63.18	66.34	65.86	58.20		
IEA Asia Oceania	54.13	72.46	66.37	70.75	65.40	65.65		64.73	67.40	70.21	67.08		
IEA Total	**52.05**	**67.77**	**62.75**	**67.62**	**61.51**	**61.65**		**61.30**	**63.47**	**63.71**	**57.54**		
FOB Spot													
North Sea Dated	54.16	71.27	64.12	68.74	61.84	63.06	50.02	63.11	66.83	63.38	55.45	31.71	18.57
Brent (Asia) Mth 1	54.86	72.23	64.86	70.17	62.38	62.49	52.63	62.48	65.79	65.63	56.76	36.47	29.37
WTI (Cushing) Mth 1	50.78	65.20	57.03	59.89	56.40	56.88	45.57	57.16	59.81	57.52	50.53	29.89	16.52
Urals (Mediterranean)	53.26	70.17	64.31	68.77	61.84	63.40	48.97	64.44	67.06	62.86	55.11	29.51	16.50
Dubai (1st month)	53.15	69.65	63.49	67.52	61.23	62.00	50.41	61.91	64.86	64.19	54.25	33.78	21.33
Tapis (Dated)	55.53	73.69	69.16	72.91	66.63	70.08	56.06	70.21	74.22	71.42	62.67	35.38	17.91
PRODUCT PRICES													
Rotterdam, Barges FOB													
Premium Unl 10 ppm	65.80	78.78	71.35	79.58	72.78	69.21	53.77	70.17	69.30	68.14	61.57	32.32	19.35
Naphtha	54.19	64.48	0.00	58.79	53.18	57.90	45.86	59.25	60.37	58.87	51.88	27.39	15.31
Jet/Kerosene	65.92	86.39	79.24	81.19	79.03	78.51	60.06	77.67	79.12	75.92	65.03	39.68	21.35
ULSD 10ppm	66.28	86.22	79.45	81.87	77.92	78.96	62.85	78.14	80.37	76.07	66.45	46.36	33.12
Gasoil 0.1 %	64.68	84.28	77.73	80.14	76.53	76.91	61.41	76.04	78.70	74.59	64.94	45.01	31.27
LSFO 1%	48.72	63.22	62.21	64.33	61.60	62.83	52.84	60.71	67.23	70.22	56.86	31.80	24.01
HSFO 3.5%	45.63	61.13	50.31	60.06	51.20	33.35	33.39	30.22	33.14	39.57	39.38	21.76	15.97
Mediterranean, FOB Cargoes													
Premium Unl 10 ppm	65.83	79.41	71.31	77.58	72.12	70.45	54.91	71.75	70.31	69.05	63.14	33.29	20.52
Naphtha	52.74	66.08	54.43	57.08	51.94	55.36	43.27	56.62	56.98	56.03	49.46	24.88	10.50
Jet Aviation Fuel	65.04	85.37	77.76	79.75	77.97	76.48	58.08	75.46	76.42	73.68	63.27	37.76	17.43
ULSD 10ppm	66.20	86.03	79.05	81.24	77.73	78.23	61.86	77.35	79.23	74.98	65.94	45.03	29.00
Gasoil 0.1 %	64.60	84.74	77.70	79.68	76.99	76.72	60.94	75.87	77.96	74.10	64.76	44.29	26.77
LSFO 1%	49.91	64.31	63.90	65.04	62.73	65.32	54.94	63.16	70.27	72.26	59.30	33.66	25.62
HSFO 3.5%	47.22	62.06	52.17	60.65	52.70	37.35	35.67	32.88	36.85	42.64	41.42	23.47	16.27
US Gulf, FOB Pipeline													
Super Unleaded	73.82	85.71	79.24	87.04	81.48	75.52	60.05	75.62	73.85	72.87	68.85	40.21	28.44
Unleaded	67.98	80.10	72.28	80.84	74.00	68.37	54.57	68.42	68.40	66.83	63.61	35.05	23.20
Jet/Kerosene	65.40	85.12	78.81	80.80	78.19	77.90	58.25	76.38	79.37	74.03	63.32	38.81	24.53
ULSD 10 ppm	67.93	85.94	79.09	81.32	77.78	78.46	61.81	77.00	79.61	74.19	65.29	46.97	33.30
No. 6 3%[3]	46.03	60.20	52.57	60.32	50.83	39.32	35.91	35.94	39.09	41.70	43.49	23.84	17.02
Singapore, FOB Cargoes													
Premium Unleaded	67.96	80.21	72.55	75.06	72.76	75.03	56.85	76.11	74.82	71.13	64.34	36.42	20.49
Naphtha	53.99	67.50	57.15	58.68	53.64	60.13	47.72	59.76	63.62	61.06	52.56	30.60	17.86
Jet/Kerosene	65.28	85.05	77.26	79.77	77.00	75.99	58.88	74.89	77.75	75.34	63.05	39.39	21.35
Gasoil 0.05%	65.65	84.33	77.23	79.92	76.61	76.32	61.38	75.22	78.24	76.03	64.66	44.42	28.85
LSWR Cracked	52.47	67.44	64.61	71.34	66.74	54.62	60.33	52.49	58.60	69.52	65.52	46.83	31.51
HSFO 180 CST	50.84	67.04	58.62	65.23	62.33	43.51	43.14	39.34	43.23	52.04	46.66	31.45	23.36
HSFO 380 CST 4%	50.01	66.01	57.57	63.40	61.43	42.63	41.71	38.81	41.87	50.21	45.07	30.55	22.59

1 IEA CIF Average Import price for February 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.

3 Waterborne

Table 14
MONTHLY AVERAGE END-USER PRICES FOR PETROLEUM PRODUCTS

April 2020

	NATIONAL CURRENCY *						US DOLLARS					
	Total Price	% change from Mar-20	% change from Apr-19	Ex-Tax Price	% change from Mar-20	% change from Apr-19	Total Price	% change from Mar-20	% change from Apr-19	Ex-Tax Price	% change from Mar-20	% change from Apr-19
GASOLINE [1] (per litre)												
France	1.267	- 9.4	- 18.7	0.365	-23.0	-40.0	1.378	-10.7	-21.4	0.397	-24.2	-41.9
Germany	1.202	- 8.2	- 17.6	0.356	-20.0	-37.5	1.307	-9.6	-20.2	0.387	-21.2	-39.6
Italy	1.415	- 5.5	- 11.7	0.432	-13.6	-26.3	1.538	-7.0	-14.6	0.470	-14.9	-28.7
Spain	1.110	- 9.5	- 16.4	0.444	-17.8	-28.8	1.207	-10.8	-19.1	0.483	-19.0	-31.1
United Kingdom	1.091	- 8.7	- 12.2	0.329	-20.9	-27.9	1.355	-8.2	-16.4	0.409	-20.4	-31.3
Japan	131.4	- 7.9	- 10.6	65.1	-13.8	-18.1	1.219	-8.2	-7.4	0.604	-14.0	-15.2
Canada	0.800	- 14.4	- 40.0	0.396	-25.4	-55.5	0.569	-15.1	-42.9	0.282	-26.0	-57.6
United States	0.486	- 17.6	- 34.2	0.359	-22.5	-41.6	0.486	-17.6	-34.2	0.359	-22.5	-41.6
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.216	- 7.2	- 17.3	0.404	-16.4	-34.4	1.322	-8.6	-20.0	0.439	-17.6	-36.5
Germany	1.082	- 6.0	- 14.9	0.439	-11.7	-26.7	1.176	-7.4	-17.7	0.477	-13.0	-29.1
Italy	1.309	- 5.8	- 13.2	0.456	-12.6	-26.3	1.423	-7.3	-16.0	0.496	-14.0	-28.7
Spain	1.022	- 9.3	- 17.8	0.466	-15.6	-28.2	1.111	-10.7	-20.5	0.507	-16.9	-30.5
United Kingdom	1.160	- 6.3	- 12.9	0.387	-14.6	-27.0	1.440	-5.7	-17.0	0.481	-14.1	-30.4
Japan	112.7	- 8.7	- 11.7	71.8	-12.1	-16.2	1.045	-8.9	-8.6	0.666	-12.4	-13.2
Canada	0.965	- 11.0	- 24.0	0.594	-17.4	-32.8	0.687	-11.6	-27.6	0.423	-18.0	-36.1
United States	0.659	- 8.6	- 20.0	0.511	-10.8	-24.7	0.659	-8.6	-20.0	0.511	-10.8	-24.7
DOMESTIC HEATING OIL (per litre)												
France	0.738	- 9.2	- 22.6	0.458	-12.0	-28.1	0.802	-10.6	-25.1	0.498	-13.3	-30.5
Germany	0.505	- 12.4	- 31.5	0.363	-14.2	-34.9	0.549	-13.7	-33.7	0.394	-15.5	-37.0
Italy	1.095	- 8.2	- 17.4	0.494	-13.9	-27.6	1.190	-9.5	-20.1	0.537	-15.2	-30.0
Spain	0.502	- 17.7	- 36.7	0.318	-21.9	-43.1	0.546	-18.9	-38.8	0.346	-23.0	-44.9
United Kingdom	0.407	- 14.8	- 31.7	0.276	-19.6	-39.5	0.505	-14.3	-35.0	0.343	-19.1	-42.3
Japan [2]	80.9	- 9.1	- 10.1	72.1	-9.4	-10.4	0.751	-9.4	-6.9	0.669	-9.7	-7.2
Canada	0.902	- 10.0	- 22.7	0.785	-10.7	-24.7	0.642	-10.6	-26.5	0.558	-11.4	-28.3
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY [3] (per kg)												
France	0.360	- 17.6	- 39.0	0.220	-25.8	-51.1	0.391	-18.8	-41.0	0.240	-26.9	-52.7
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.288	- 23.6	- 42.5	0.257	-25.8	-45.4	0.313	-24.8	-44.4	0.279	-26.9	-47.1
Spain	0.311	- 25.3	- 29.7	0.294	-26.4	-30.9	0.338	-26.4	-32.0	0.320	-27.5	-33.1
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.

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

	Monthly Average					Change	Average for week ending:				
	Jan 20	Feb 20	Mar 20	Apr 20		Apr 20-Mar 20	10 Apr	17 Apr	24 Apr	01 May	08 May
NW Europe											
Brent (Cracking)	4.04	3.51	3.67	4.32	↑	0.65	4.07	5.76	3.61	2.53	0.93
Urals (Cracking)	2.38	2.80	6.56	7.58	↑	1.03	9.40	10.08	5.63	2.47	-0.02
Brent (Hydroskimming)	3.97	2.30	2.84	4.79	↑	1.95	4.88	6.19	4.05	2.71	0.82
Urals (Hydroskimming)	-4.99	-2.66	2.97	5.64	↑	2.67	8.04	8.27	3.52	0.07	-2.21
Mediterranean											
Es Sider (Cracking)	5.96	5.73	5.37	5.62	↑	0.25	6.02	7.09	4.63	3.27	1.57
Urals (Cracking)	2.81	3.35	7.25	7.83	↑	0.58	9.98	10.01	6.14	3.02	-0.20
Es Sider (Hydroskimming)	5.61	4.58	3.89	5.49	↑	1.60	5.96	7.01	4.59	3.15	1.27
Urals (Hydroskimming)	-5.02	-2.51	2.76	5.18	↑	2.42	7.74	7.57	3.19	0.33	-2.55
US Gulf Coast											
Mars (Cracking)	-2.40	2.22	2.95	2.54	↓	-0.41	0.58	1.83	7.08	0.34	-0.47
50/50 HLS/LLS (Coking)	6.60	8.27	9.22	6.42	↓	-2.80	8.06	6.85	5.48	2.91	2.53
50/50 Maya/Mars (Coking)	2.57	6.14	7.91	8.05	↑	0.13	5.76	7.78	12.62	5.38	2.75
ASCI (Coking)	4.19	6.33	7.97	6.36	↓	-1.61	4.49	6.02	10.81	3.06	2.06
US Midwest											
30/70 WCS/Bakken (Cracking)	9.94	10.46	6.83	2.58	↓	-4.25	3.59	-1.30	-0.04	8.13	6.71
Bakken (Cracking)	12.08	11.52	8.41	4.35	↓	-4.06	4.55	-0.11	2.12	10.60	8.82
WTI (Coking)	6.99	10.54	6.73	4.38	↓	-2.35	-3.98	-1.27	13.72	13.64	12.85
30/70 WCS/Bakken (Coking)	13.69	13.12	9.45	4.03	↓	-5.42	4.68	-0.38	1.10	10.52	8.90
Singapore											
Dubai (Hydroskimming)	-6.49	-2.39	-2.80	-2.99	↓	-0.19	-2.51	-2.12	-2.98	-2.42	-5.88
Tapis (Hydroskimming)	-1.90	-1.37	4.85	7.57	↑	2.72	4.01	6.02	9.74	10.93	9.29
Dubai (Hydrocracking)	2.60	5.89	2.72	-0.47	↓	-3.19	-0.96	0.56	0.08	0.46	-2.24
Tapis (Hydrocracking)	-0.82	-1.31	3.93	6.47	↑	2.55	2.69	4.52	8.58	10.35	9.05

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)

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

	Dec-19	Jan-20	Feb-20	Feb-19	Feb 20 vs Previous Month	Feb 20 vs Previous Year	Feb 20 vs 5 Year Average	5 Year Average
OECD Americas								
Naphtha	1.4	1.4	1.3	1.4	-0.1	-0.1	-0.3	1.6
Motor gasoline	46.9	46.8	45.8	45.9	-1.0	-0.1	-1.1	46.9
Jet fuel	9.6	9.7	9.3	9.4	-0.5	-0.1	0.2	9.0
Other kerosene	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Gasoil/diesel oil	28.4	28.9	28.4	28.6	-0.4	-0.1	0.2	28.2
Residual fuel oil	2.2	2.1	2.2	2.9	0.1	-0.7	-1.4	3.7
Petroleum coke	4.5	4.8	4.8	4.3	0.0	0.5	0.2	4.6
Other products	11.1	10.8	11.1	11.3	0.3	-0.2	0.5	10.6
OECD Europe								
Naphtha	8.4	8.3	8.7	8.3	0.3	0.4	0.4	8.2
Motor gasoline	21.0	21.2	19.9	20.3	-1.4	-0.4	-1.0	20.9
Jet fuel	9.1	9.5	8.8	8.5	-0.7	0.3	0.8	8.0
Other kerosene	2.4	2.4	2.4	2.1	0.0	0.3	0.2	2.2
Gasoil/diesel oil	41.0	40.7	40.5	39.4	-0.2	1.1	0.6	39.9
Residual fuel oil	7.9	9.1	8.8	10.4	-0.3	-1.6	-1.9	10.7
Petroleum coke	1.5	1.6	1.5	1.5	-0.1	0.0	0.2	1.3
Other products	13.6	13.6	14.1	14.1	0.5	0.0	0.7	13.4
OECD Asia Oceania								
Naphtha	15.6	16.0	14.6	16.4	-1.4	-1.8	-1.0	15.6
Motor gasoline	22.5	20.8	20.9	21.0	0.2	-0.1	-0.5	21.4
Jet fuel	16.0	16.3	15.7	16.3	-0.6	-0.6	-0.7	16.4
Other kerosene	6.1	6.0	4.9	5.7	-1.1	-0.8	-1.7	6.7
Gasoil/diesel oil	29.4	29.3	29.6	29.8	0.3	-0.2	0.8	28.7
Residual fuel oil	6.4	7.2	8.3	6.2	1.0	2.0	0.8	7.5
Petroleum coke	0.4	0.4	0.3	0.5	-0.1	-0.1	-0.1	0.4
Other products	11.6	11.6	11.7	12.2	0.1	-0.4	-0.2	11.9
OECD Total								
Naphtha	6.2	6.3	6.1	6.5	-0.1	-0.4	-0.3	6.5
Motor gasoline	34.4	33.9	32.8	32.8	-1.1	0.0	-0.7	33.5
Jet fuel	10.6	10.9	10.3	10.4	-0.5	-0.1	0.2	10.1
Other kerosene	1.9	1.9	1.7	1.8	-0.1	-0.1	-0.3	2.0
Gasoil/diesel oil	32.5	32.7	32.5	32.3	-0.2	0.2	0.4	32.1
Residual fuel oil	4.7	5.3	5.5	6.0	0.2	-0.5	-1.2	6.7
Petroleum coke	2.8	3.0	2.9	2.7	0.0	0.2	0.2	2.7
Other products	12.0	11.8	12.2	12.4	0.4	-0.2	0.4	11.8

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

Table 17
WORLD BIOFUELS PRODUCTION
(thousand barrels per day)

	2018	2019	2020	3Q19	4Q19	1Q20	Feb 20	Mar 20	Apr 20
ETHANOL									
OECD Americas[1]	**1078**	**1064**	**851**	**1053**	**1073**	**1068**	**1084**	**1014**	**619**
United States	1048	1029	818	1018	1039	1036	1052	981	586
Other	30	35	33	35	35	32			
OECD Europe[2]	**96**	**85**	**74**	**90**	**94**	**97**	**117**	**67**	**67**
France	21	15	12	17	16	17	22	10	10
Germany	14	12	11	12	13	19	24	8	8
Spain	9	9	7	9	9	6	6	7	7
United Kingdom	9	4	4	5	5	9	14	2	2
Other	43	45	41	46	51	46			
OECD Asia Oceania[3]	**5**	**5**	**6**	**5**	**5**	**5**	**5**	**6**	**6**
Australia	4	4	4	4	4	4	4	4	4
Other	1	1	1	1	1	1			
Total OECD Ethanol	**1179**	**1154**	**931**	**1148**	**1173**	**1170**	**1206**	**1087**	**691**
Total Non-OECD Ethanol	**718**	**814**	**722**	**1226**	**747**	**284**	**259**	**309**	**573**
Brazil	547	621	525	1035	550	105	80	130	374
China	56	69	75	67	73	58			
Argentina	19	19	16	19	19	16			
Other	95	105	105	105	105	105	179	179	199
TOTAL ETHANOL	**1897**	**1968**	**1653**	**2374**	**1920**	**1454**	**1464**	**1395**	**1265**
BIODIESEL									
OECD Americas[1]	**126**	**119**	**117**	**125**	**111**	**110**	**109**	**119**	**119**
United States	121	113	111	118	105	108	108	112	112
Other	5	6	6	6	6	3			
OECD Europe[2]	**275**	**290**	**260**	**301**	**290**	**259**	**272**	**260**	**260**
France	52	52	45	52	54	48	52	44	44
Germany	65	66	56	68	65	56	61	55	55
Italy	15	18	30	18	22	28			
Spain	33	40	30	39	39	26	24	31	31
Other	110	115	99	123	110	101	106	99	99
OECD Asia Oceania[3]	**12**	**16**	**15**	**19**	**13**	**11**	**9**	**16**	**16**
Australia	1	1	1	1	1	1	0	1	1
Other	12	15	14	18	12	11			
Total OECD Biodiesel	**413**	**425**	**392**	**445**	**413**	**381**	**389**	**396**	**396**
Total Non-OECD Biodiesel	**315**	**402**	**413**	**403**	**403**	**413**	**413**	**413**	**413**
Brazil	92	102	104	106	112	104	105	111	102
Argentina*	47	43	31	37	37	31			
Other	176	258	277	260	254	278			
TOTAL BIODIESEL	**728**	**827**	**805**	**848**	**816**	**794**	**802**	**809**	**809**
GLOBAL BIOFUELS	**2625**	**2796**	**2458**	**3221**	**2736**	**2248**	**2266**	**2204**	**2073**

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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