International Energy Agency

Oil Market Report

Corrigendum

15 April 2020

- Global oil demand is expected to fall by a record 9.3 mb/d year-on-year in 2020. The impact of containment measures in 187 countries and territories has been to bring mobility almost to a halt. Demand in April is estimated to be 29 mb/d lower than a year ago, down to a level last seen in 1995. For 2Q20, demand is expected to be 23.1 mb/d below year-ago levels. The recovery in 2H20 will be gradual; in December demand will still be down 2.7 mb/d y-o-y.

- Global oil supply is set to plunge by a record 12 mb/d in May, after OPEC+ forged a historic output deal to cut production by 9.7 mb/d from an agreed baseline level. As April production was high, the effective cut is 10.7 mb/d. Additional reductions are set to come from other countries with the US and Canada seeing the largest declines. Total non-OPEC output falls could reach 5.2 mb/d in 4Q20, and for the year as a whole output may be 2.3 mb/d lower than last year.

- Refining throughput in 2020 is forecast to fall 7.6 mb/d y-o-y to 74.3 mb/d on sharply reduced demand for fuels. Global refinery intake is expected to plummet by 16 mb/d y-o-y in 2Q20, with widespread run cuts and shutdowns in all regions. Although refinery runs are falling, product stocks are still expected to build by 6 mb/d. In 2H20, refining activity will slowly recover as the global market moves into deficit.

- Early data show China's implied stock build in 1Q20 at 2.1 mb/d, and US stocks increased by 0.5 mb/d. OECD data show that industry stocks in February fell by 35.4 mb to 2 878 mb as a draw for products more than offset a build in crude. Total OECD oil stocks stood 42.4 mb below the five-year average and, due to the weak outlook, now provide 79.2 days of forward demand coverage. In March, floating storage of crude oil increased by 22.9 mb (0.7 mb/d) to 103.1 mb.

- Twin demand and supply shocks caused oil futures prices to fall by 40% in March. Brent has recovered modestly from an 18-year low as producers reached agreement to curtail output and is trading at $31/bbl. Weak demand pushed prices for crude grades such as WTI Midland and West Canadian Select below $10/bbl. Cracks for gasoline and jet fuel continued to suffer as containment measures were introduced.



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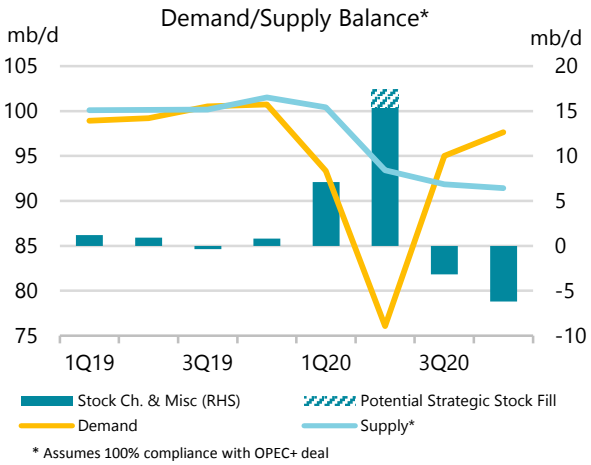
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Back from the brink?

Around the world billions of people are affected by one of the worst health crises of the past century. The global economy is under pressure in ways not seen since the Great Depression in the 1930s; businesses are failing and unemployment is surging. Confinement measures are in place in 187 countries and territories, and although they vary in scope, activity in the transportation sector has fallen dramatically almost everywhere. Even assuming that travel restrictions are eased in the second half of the year, we expect that global oil demand in 2020 will fall by 9.3 million barrels a day (mb/d) versus 2019, erasing almost a decade of growth.

Against this bleak background, policy makers are responding with radical steps. Governments have introduced massive emergency fiscal plans to support workers and businesses. Central banks have embarked on huge monetary stimulus programmes. We are also seeing measures being taken to tackle the oil market crisis, with two major events taking place over the past week.



On Sunday, oil producers in the OPEC+ group agreed to cut output by an initial 9.7 mb/d versus their agreed baseline, effective 1 May. In light of the unprecedented depth of the crisis, the IEA has urged major consumers and producers to work together through the forum of the G20 to mitigate the impact on market stability, and an extraordinary meeting of energy ministers from G20 and other countries took place on Friday 10 April. Those present offered their support for the efforts of the OPEC+ countries to stabilise the oil market and, in some cases, discussed output cuts that would take place immediately or over time.

The measures announced by OPEC+ and the G20 countries won't rebalance the market immediately. But by lowering the peak of the supply overhang and flattening the curve of the build-up in stocks, they help a complex system absorb the worst of this crisis, whose consequences for the oil market remain very uncertain in the short term. We forecast a drop in demand in April of as much as 29 mb/d year-on-year, followed by another significant year-on-year fall of 26 mb/d in May. In June, the gradual recovery likely begins to gain traction, although demand will still be 15 mb/d lower than a year ago. There is no feasible agreement that could cut supply by enough to offset such near-term demand losses. However, the past week's achievements are a solid start and have the potential to start to reverse the build-up in stocks as we move into the second half of the year.

The OPEC+ and G20 initiatives will impact the oil market in three ways. First, the OPEC+ production cut in May to reach the baseline will actually be 10.7 mb/d and not 9.7 mb/d, as April production was high. This will provide some immediate relief from the supply surplus in the coming weeks, lowering the peak of the build-up of stocks. Second, four countries (China, India, Korea and the United States) have either offered their strategic storage capacity to industry to

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temporarily park unwanted barrels or are considering increasing their strategic stocks to take advantage of lower prices. This will create extra headroom for the impending stock build-up, helping the market get past the hump. Third, other producers, with the United States and Canada likely to be the largest contributors, could see output fall by around 3.5 mb/d in the coming months due to the impact of lower prices, according to IEA estimates. The loss of this supply combined with the OPEC+ cuts will shift the market into a deficit in the second half of 2020, ensuring an end to the build-up of stocks and a return to more normal market conditions. At the time of publication, we were still waiting for more details on some planned production cuts and proposals to use strategic storage. If the transfers into strategic stocks, which might be as much as 200 mb, were to take place in the next three months or so, they could represent about 2 mb/d of supply withdrawn from the market.

If production does fall sharply, some oil goes into strategic stocks, and demand begins to recover, the second half of 2020 will see demand exceed supply. This will enable the market to start reducing the massive stock overhang that is building up in the first half of the year. Indeed, our current demand and supply estimates imply a stock *draw* of 4.7 mb/d in the second half.

The historic decisions taken by OPEC+ and the G20 should help bring the oil industry back from the brink of an even more serious situation than it currently faces. Even so, the implied stock build-up of 12 mb/d in the first half of the year still threatens to overwhelm the logistics of the oil industry – ships, pipelines and storage tanks – in the coming weeks. In this *Report*, we estimate that available capacity could be saturated in mid-year, based on our market balances. However, this is a very broad-brush assumption and the situation varies from place to place. There are already bottlenecks in other parts of the logistics chain, such as competition to buy space on pipeline systems that transport oil. There are also quality issues: it is not possible to accommodate different qualities of crude oil at many sites, and special tanks are required for some products. Floating storage is becoming more expensive as traders compete for ships. Chartering costs for Very Large Crude Carriers have more than doubled since February. Never before has the oil industry come this close to testing its logistics capacity to the limit.

Looking beyond the immediate imbalances in the market, the IEA pointed out to the G20 energy ministers that although low prices might appear to be attractive to consumers, they are of little benefit to the approximately 4 billion people living under some form of Covid-19 lockdown. Also, low prices impact the livelihood of millions of people employed along the oil industry's extensive value chain, and they damage the economies of weaker producing countries where social stability is already fragile.

Low prices threaten the stability of an industry that will remain central to the functioning of the global economy. Even with demand falling by a record amount this year, oil companies still face the challenges of investing to offset natural production declines and to meet future growth. Global capital expenditure by exploration and production companies in 2020 is forecast to drop by about 32% versus 2019 to $335 billion, the lowest level for 13 years. This reduction of financial resources also undermines the ability of the oil industry to develop some of the technologies needed for clean energy transitions around the world.

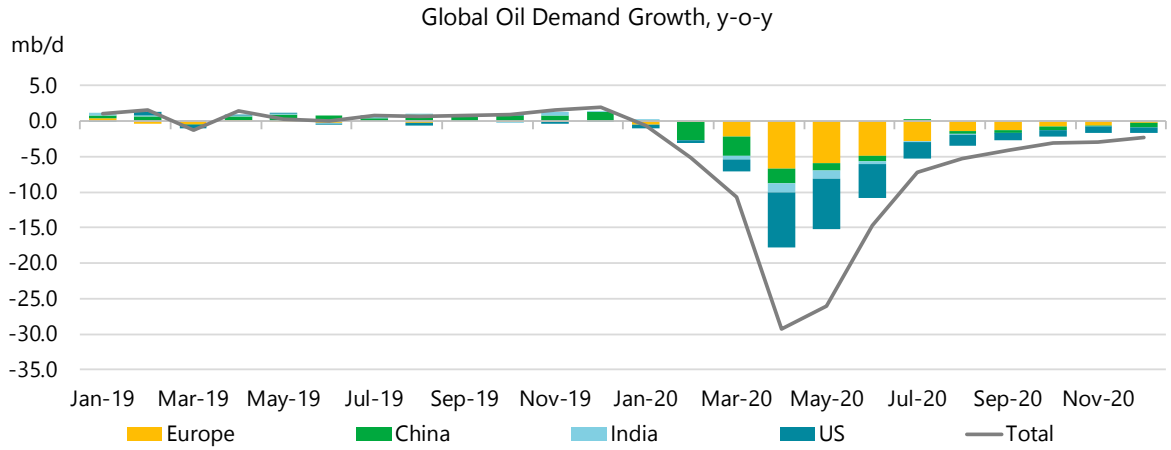
There is clearly a long way to go before we can put the Covid-19 crisis behind us. However, we are encouraged by the solidarity shown by policy makers from producing and consuming countries working together to meet this historic challenge of bringing stability to the oil market.

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Demand

Overview

The damage done by Covid-19 to global oil demand has become wider and deeper since March, as a growing number of countries have imposed strict containment measures. Following the early example of China, 187 countries and territories have implemented such policies at the time of writing, of which 98 have asked their citizens to stay at home. In total, over 4 billion people are under containment as we publish this *Report*.



Greatly reduced mobility has seen fuel demand plummet by a record 10.8 mb/d year-on-year (y-o-y) in March. We estimate that the situation becomes even worse in April, with demand falling by a massive 29 mb/d, returning to a level (70.4 mb/d) last seen in 1995.

We cannot emphasise enough that current estimates are fraught with uncertainties. Data for aircraft and car traffic are more widely available than ever, but they are incomplete. It remains to be seen how they correlate with actual fuel demand. Also, some countries apply stricter versions of containment than others. In addition, uptake of LPG, ethane and naphtha are less transparent when they are used as intermediate products used by petrochemical companies to produce plastics and other goods. However, with the collapse in car manufacturing due to the virus, demand for plastics has also suffered a hit.

Most importantly of all, there is no certainty that the spread of the virus can be brought under control after two months of quarantine (and several more weeks of more limited containment measures) which is the current assumption in our models. For now, we assume that the virus will be largely contained by June or July at the global level, even if the economic outlook is likely to remain clouded for a much longer period. Of course, we cannot rule out more waves of the coronavirus over the coming 18 months, with the accompanying containment measures that would follow.

In our forecast, even though the worst of the damage is seen in April, oil demand remains under tremendous pressure in May (-25.8 mb/d y-o-y) as most countries apply containment measures. It then starts to recover from June (-14.6 mb/d). We do not expect demand to be higher than

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year-ago levels in any month this year. The recovery will be gradual; in December demand will still be 2.7 mb/d below 2019 levels.

For 2020 as a whole, global oil demand will be 90.6 mb/d which represents a fall of 9.3 mb/d versus 2019, the largest in history. Oil consumption will have returned to its 2012 level.

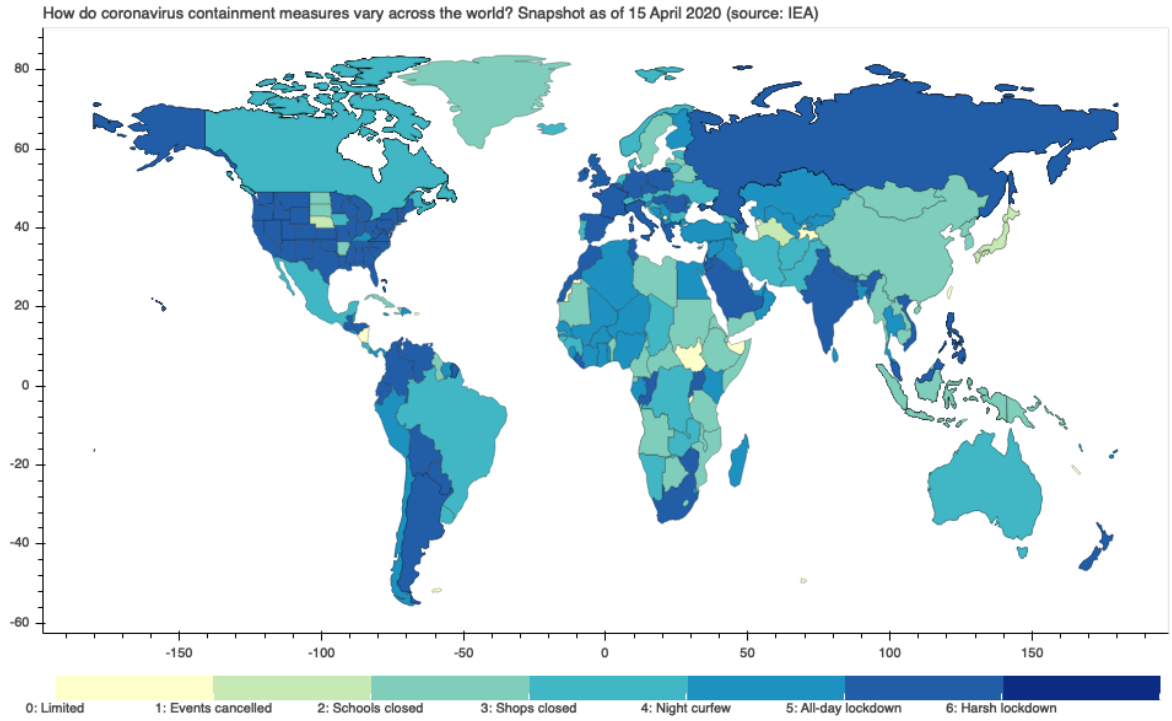
Global Oil Demand (2018-2020)

(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	4.3	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	30.5	22.7	30.0	30.7	28.5
Asia/Pacific	35.5	35.0	34.6	35.3	35.1	35.8	35.6	35.2	36.6	35.8	32.9	30.5	34.3	35.8	33.4
Europe	14.8	15.0	15.4	14.9	15.0	14.6	14.9	15.4	14.8	14.9	13.7	9.1	13.7	14.1	12.7
FSU	4.4	4.5	4.8	4.7	4.6	4.5	4.6	4.9	4.8	4.7	4.4	3.7	4.5	4.8	4.3
Middle East	8.1	8.4	8.7	8.1	8.3	8.1	8.2	8.8	8.4	8.3	7.7	6.8	8.4	8.0	7.7
World	**98.5**	**98.7**	**99.8**	**99.3**	**99.1**	**98.9**	**99.2**	**100.5**	**100.7**	**99.8**	**93.3**	**76.1**	**95.0**	**97.6**	**90.5**
Annual Chg (%)	1.9	0.5	1.2	0.5	1.0	0.4	0.5	0.8	1.5	0.8	-5.6	-23.3	-5.5	-3.1	-9.3
Annual Chg (mb/d)	1.9	0.4	1.2	0.4	1.0	0.4	0.5	0.8	1.5	0.8	-5.6	-23.1	-5.5	-3.1	-9.3
Changes from last OMR (mb/d)	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	0.0	-0.1	-0.2	-0.1	-3.3	-23.1	-7.0	-4.0	-9.4

* Including biofuels

Coronavirus goes global

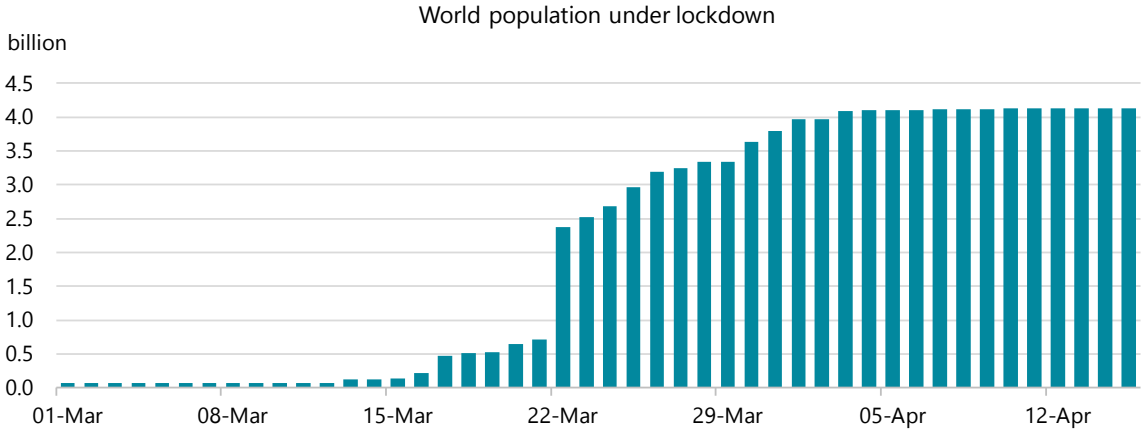


Covid-19 spread round the globe between January and April, following its discovery in the Chinese city of Wuhan. At the time of writing, 210 countries and territories had reported cases of the virus and a substantial number of these have said local transmission is taking place. The death toll exceeds 120 000 people at the time of writing.

Countries responded with strong policy measures in order to curb the rate of transmission and preserve the capacity of hospitals to treat the sick – lowering the peak and spreading the curve. At the time of publication of our last *Report* on 9 March, China was the only country to have

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taken sweeping containment measures against the virus, including closures of schools, restaurants, and non-essential commerce, as well as bans on leaving home in most major cities. Elsewhere, as many of us have experienced, partial measures had been taken, but as March progressed and turned into April these were extended and vast swathes of the world economy were shut down. At the time of writing, over 4 billion people had been advised or ordered by their government to stay at home. These measures have already severely impacted mobility and activity in the industrial and commercial sectors. However, there were also some steps taken to ease the containment. China is the most prominent example.



Note: In China, we have only included the province of Hubei in this chart. Lockdown can be for part of the day or all-day long.

Impact on fuel demand

The impact of virus containment measures on global demand has been severe. In March, global demand is estimated to have fallen by 10.8 mb/d y-o-y, impacting both the OECD (-4.3 mb/d) and non-OECD (-6.5 mb/d). China suffered the largest fall (-2.8 mb/d) as its manufacturing sector remained largely shut and severe curbs on mobility remained in place. The US (-1.6 mb/d) was the next most affected, where several states issued orders to stay home, thus curbing transport fuel demand. Most countries around the world saw declines in oil deliveries.

In April, y-o-y declines have almost certainly accelerated. Our analysis suggests a record 29 mb/d fall y-o-y in April consumption. The fall persists in May, down 25.8 mb/d. We currently assume that from June onwards, demand will start a long slow rebound towards year-ago levels, as containment measures are progressively lifted. But oil demand will likely remain depressed until the end of the year, and beyond, due to the poor state of the global economy and as travel restrictions will tend to persist while uncertainties endure about the contagion.

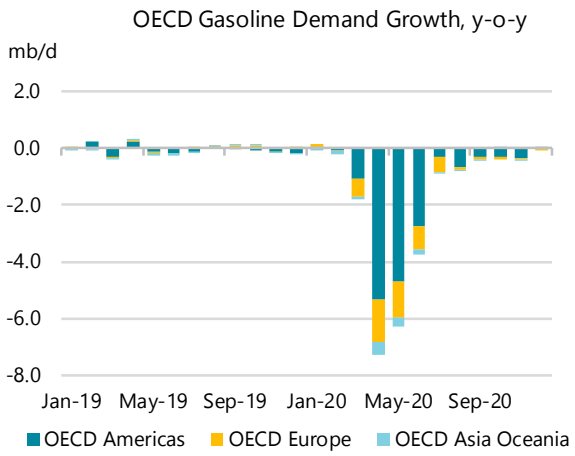
The impact of Covid-19 on oil demand results mainly from (1) measures taken by different countries to contain the spread of the virus reducing sharply mobility and therefore transport demand and (2) the secondary impact of these measures on economic activity. World economic growth will continue to be impacted by the virus in 2H20. In our models, we assume a drop in world GDP of 3.3% y-o-y in 2H20 and 4.8% for the whole year.

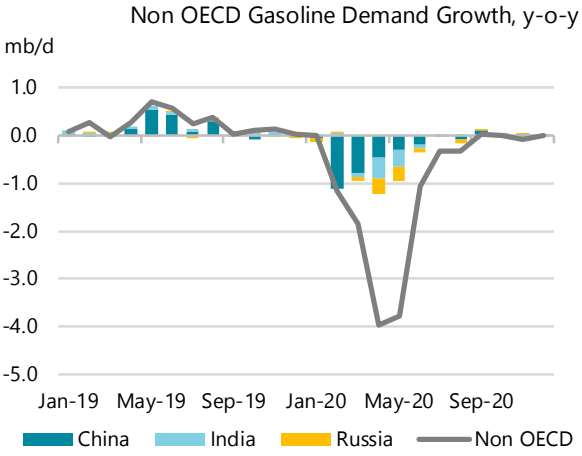
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Gasoline

The impact of containment measures on gasoline demand, when measured on a volumetric basis, is likely to be the highest of all products. In January, demand increased by a modest 50 kb/d y-o-y, but in February the picture reversed dramatically. Global gasoline deliveries declined by 1.4 mb/d mainly due to the significant curbs on mobility applied in China. In March, the decline accelerated to 3.7 mb/d, as containment measures spread globally. In April, the situation worsened very steeply. We now estimate gasoline demand will fall 11.2 mb/d y-o-y, the largest monthly decrease ever recorded. In May, a modest improvement in demand will slow the fall to 10 mb/d y-o-y.

In the days following the implementation of containment measures, peak road traffic activity fell sharply in the world's largest cities; typically by 50-60% in places as varied as Istanbul, Los Angeles, Mexico City, Mumbai, New York, Paris, Sao Paulo, Rio de Janeiro and Toronto, according to data supplied by TomTom. In cities with fewer containment measures in place, such as London and Tokyo, it was down around 20%.





The table below shows our assumptions on the expected reduction in gasoline demand in a range of selected countries in 1H20. These figures are a percentage reduction compared to normal levels, and not a year-on-year change:

Country	Jan	Feb	Mar	Apr	May	Jun
Brazil	0%	0%	-20%	-20%	-40%	-5%
China	-5%	-40%	-30%	-15%	-5%	-5%
France	0%	0%	-35%	-70%	-60%	-35%
Germany	0%	0%	-35%	-70%	-60%	-35%
India	0%	0%	-10%	-55%	-40%	-5%
Japan	0%	-10%	-10%	-30%	-30%	-20%
Korea	0%	0%	-15%	-20%	-10%	0%
Russia	0%	0%	-10%	-40%	-40%	-5%
Saudi Arabia	0%	0%	-5%	-50%	-40%	-5%
UK	0%	0%	-35%	-70%	-60%	-35%
US	0%	0%	-10%	-45%	-40%	-20%

We expect gasoline demand to remain under pressure in the second half of 2020, falling by 590 kb/d on average, due to the cancellation or deferral of certain large events (such as the

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Tokyo Olympics) and as containment measures are bound to stay in place in some countries. Also, tough economic conditions and lower employment, which are strongly correlated with gasoline usage, will weigh on overall demand. For 2020 as a whole, we forecast gasoline consumption to decline by 2.9 mb/d, or 11%.

Gasoil and diesel

The same factors are likely to weigh on diesel fuel consumption, but not to the same extent. A substantial share of diesel demand is used in trucks and ships to transport goods, or in the manufacturing sector, rather than in passenger cars. While demand has no doubt been affected by containment, owing to the closure of shops, several basic activities and industries have remained open, thus providing a demand floor.

In addition, these activities are expected to bounce back relatively fast, with governments in Europe already mulling the reopening of important industries. The International Maritime Organisation's (IMO) sulphur regulations on bunker fuel, which took effect at the start of the year, have boosted diesel demand in the shipping sector. By contrast, the warm temperatures across the northern hemisphere during winter failed to support heating demand.

We expect gasoil and diesel demand decreased by 3.7 mb/d y-o-y in March, following from February's 680 kb/d decline. Falls will accelerate over April (-8.6 mb/d) and remain significant in May (-7.8 mb/d). Demand is expected to recover above year-ago levels by August. Diesel use in road transport is likely to remain negative but will be offset by the impact of IMO rules on bunkers. Overall, for 2020, consumption will fall by 2 mb/d, or 7%.

Jet fuel and kerosene

Jet fuel has been most impacted by the coronavirus on a relative basis. We estimate that combined jet fuel and kerosene deliveries in January and February fell by 310 kb/d (-4%) y-o-y and 1.1 mb/d (-14%) respectively. This happened as domestic travel in China, the world's largest aviation market, collapsed and as global airlines curbed traffic to/from the wider Asia region. Demand likely fell by 2.1 mb/d, or 27%, in March following the widespread implementation of travel bans and the grounding of a large proportion of the world's aircraft fleet from around the middle of the month. The full effect of these measures is likely to be seen in April, when demand will fall by 4.6 mb/d (-59%), a historic record. Heating and cooking account for 15% of overall jet/kerosene consumption and will undergo little or no contraction.

The International Air Transport Association (IATA) said that global passenger traffic (measured in revenue passenger kilometres) fell by 14% in February. However, this includes a 41% decline in Asia Pacific, whereas traffic in other regions was up slightly. IATA expects flight capacity utilisation to fall 65% y-o-y in 2Q, 40% in 3Q and 10% in 4Q. Data show that global flight numbers were down 70% y-o-y at the start of April.

The table below displays a non-exhaustive list of measures taken by the world's largest airlines in the face of Covid-19:

Airline	Measure
Air France - KLM	70% to 90% cut in capacity over the coming months
American Airlines	60% y-o-y cut in international peak summer capacity.
Delta Air Lines	80% y-o-y cut in April capacity.

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Airline	Measure
United Airlines	80% y-o-y cut in April capacity, likely more in May.
Emirates	Suspended all flights from 25 March, limited service from 6 April.
Southwest Airlines	40% y-o-y cut in April capacity, likely more (50%) in May.
China Southern	73% y-o-y cut in passenger capacity in February.
Ryanair	March traffic down 48% y-o-y, 'minimal if any' traffic in April-May.
China Eastern	73% y-o-y cut in passenger capacity in February.
Air China	68% y-o-y cut in passenger capacity in February.
Lufthansa	95% capacity cut from 19 March.

Looking ahead to the rest of 2020, we expect demand for jet fuel and kerosene to decrease 20% y-o-y in the second half of the year, as traffic only progressively returns to normal. For 2020 as a whole, demand is likely to fall by 2.1 mb/d on average, or 26%.

Other oil products

Other oil products, such as LPG, ethane, naphtha and residual fuel, will see reduced demand because of coronavirus containment measures, however the impact is likely to be less acute than for gasoline, diesel and jet fuel.

Consumption of LPG/ethane will dive by 1.7 mb/d in both April and May due to lower utilisation at petrochemical plants and on reduced demand for downstream products. Naphtha demand declined 110 kb/d in February and 520 kb/d in March, and will decrease further in April-May. While some sectors have been less affected by the coronavirus (e.g. food packaging), others have seen increased demand (e.g. plastics used in the healthcare sector). Plastics used in the automotive and construction sectors have been badly affected. The net effect is to reduce overall demand for petrochemicals. It is likely that some cracker expansion projects will be frozen or cancelled altogether, and we no longer expect to see a big rise in LPG and ethane demand at the end of 2020 on a y-o-y basis.

Residual fuel oil demand has declined in some shipping segments, e.g. container ships, due to reduced trade, particularly to and from Asia. However, the oil and dry bulk sectors have seen relatively stable activity, according to data from Kpler. Bunker fuel demand in China reportedly fell by around half in February and bunker sales in Fujairah and Singapore were down about 20-30%. We forecast residual fuel oil demand to fall by 620 kb/d on average in 2020. April is likely to see a steep fall in demand of 975 kb/d y-o-y as trade stutters. Some portion of these declines come from switch to diesel to comply with the new IMO regulations.

OECD

OECD oil consumption will fall by 5.7 mb/d in 2020. This includes a massive y-o-y reduction of 14.3 mb/d in 2Q20. Gasoline demand will be the most affected, contracting by 1.8 mb/d in 2020 (and by 5.8 mb/d in 2Q20). Jet fuel demand is expected to contract by 1.2 mb/d in 2020, while gasoil and diesel deliveries will contract by 1.5 mb/d.

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OECD Demand based on Adjusted Preliminary Submissions - February 20

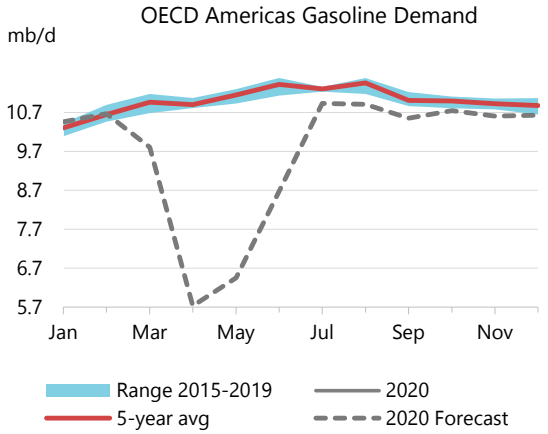
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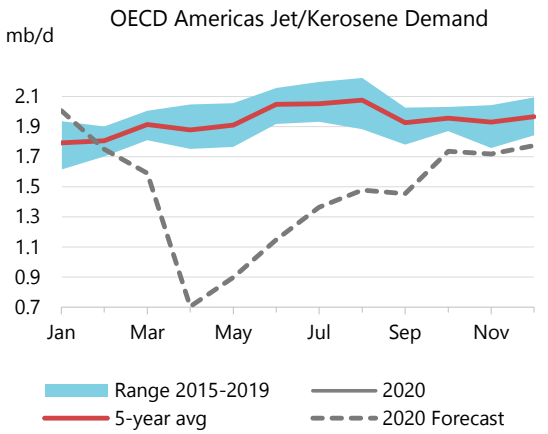
	Gasoline		Jet/Kerosene		Diesel		LPG/Ethane		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas	**10.71**	**-0.5**	**1.77**	**-7.9**	**4.64**	**-8.5**	**4.27**	**-0.7**	**0.52**	**-18.0**	**3.07**	**12.7**	**24.98**	**-1.7**
US*	9.07	0.5	1.52	-8.2	3.89	-9.1	3.37	-0.7	0.35	-9.5	2.00	13.5	20.21	-1.5
Canada	0.85	-5.5	0.15	-4.0	0.28	-1.5	0.42	0.9	0.08	-21.0	0.77	16.1	2.55	1.2
Mexico	0.69	-7.4	0.08	-3.6	0.29	-9.1	0.44	-2.6	0.08	-42.5	0.26	-1.2	1.84	-8.1
OECD Europe	**1.88**	**-0.3**	**1.29**	**-4.9**	**4.81**	**-2.6**	**1.14**	**0.3**	**0.76**	**-15.8**	**4.13**	**4.4**	**14.00**	**-1.2**
Germany	0.47	-1.3	0.19	-11.1	0.75	-4.1	0.12	-9.9	0.05	-10.2	0.87	0.5	2.45	-3.0
United Kingdom	0.30	0.1	0.31	-3.1	0.55	3.3	0.15	0.8	0.01	-46.1	0.28	1.7	1.61	0.1
France	0.19	5.0	0.14	-10.4	0.67	-3.8	0.13	-16.3	0.05	-17.2	0.51	1.7	1.70	-3.4
Italy	0.11	-1.0	0.07	-9.5	0.44	-1.6	0.10	-3.4	0.05	-11.5	0.29	0.2	1.05	-2.4
Spain	0.12	-3.3	0.12	-5.3	0.47	-1.9	0.10	9.8	0.14	-8.1	0.41	9.3	1.35	0.9
OECD Asia & Oceania	**1.34**	**-11.1**	**1.07**	**-13.3**	**1.38**	**-3.4**	**0.81**	**-7.8**	**0.49**	**-6.5**	**2.85**	**-6.9**	**7.94**	**-8.0**
Japan	0.72	-13.5	0.66	-14.7	0.43	-11.6	0.43	-16.0	0.24	-17.1	1.28	-10.9	3.77	-13.2
Korea	0.20	-8.7	0.21	-8.9	0.41	10.5	0.31	4.1	0.20	9.7	1.27	-4.0	2.60	-0.9
Australia	0.29	-9.4	0.14	-16.2	0.48	-4.8	0.06	1.1	0.02	-8.9	0.15	-2.1	1.13	-7.1
OECD Total	**13.93**	**-1.6**	**4.14**	**-8.5**	**10.83**	**-5.3**	**6.22**	**-1.5**	**1.77**	**-14.2**	**10.04**	**3.2**	**46.92**	**-2.7**

* Including US territories

OECD Americas

In the US, oil demand will fall by 2.46 mb/d in 2020 and as much as 6.4 mb/d in 2Q20. A weak economic recovery is likely to maintain demand 1.65 mb/d below last year in 3Q20 and 1 mb/d below last year in 4Q20.





We assume that confinement and social distancing will cut gasoline demand in the US by 45% in April and 40% in May. This is more or less in line with the latest Department of Energy weekly statistics, showing apparent gasoline demand down to 5 mb/d (-47%) in the week to 3 April. The impact of confinement on gasoline demand is expected to nearly taper-off by the end of June. A total of 46 US states have asked their citizens to stay at home and schools have been closed throughout the country since the middle of March.

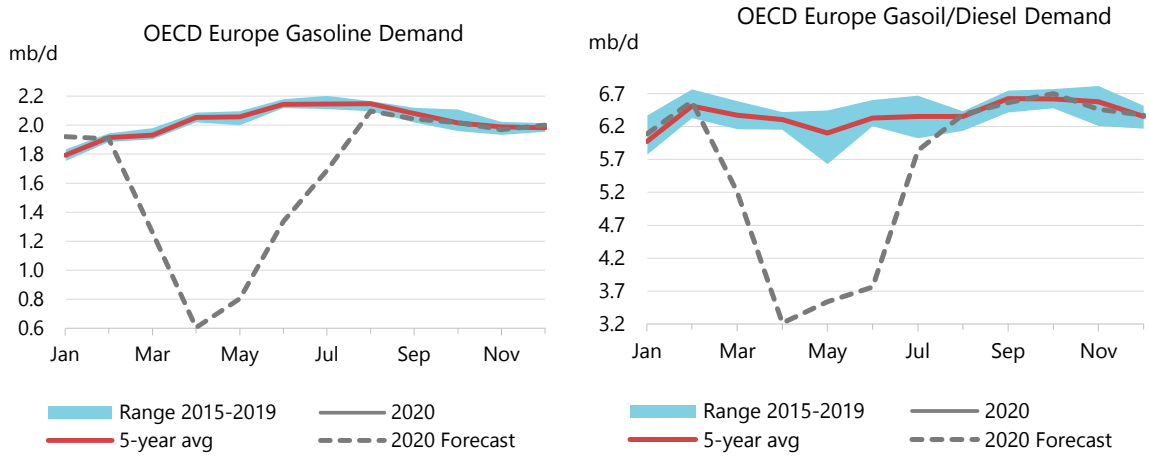
Jet/kerosene will be the most impacted fuel. Demand is likely to have fallen 20% in March. The drop in consumption will deepen to 60% in April and stay around 50% below normal levels until the end of June. These assumptions are based on IATA forecasts, showing a drop of 50% in airline capacity in North America in 2Q20. In addition, the latest weekly US DOE statistics showed a drop of 56% in estimated jet/kerosene demand in the week to 3 April. Demand will fall by 30 % in 3Q20 and 10% in 4Q20.

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The impact of confinement measures on Canada and Mexico are expected to be similar to 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. Globally, OECD Americas gasoline demand is expected to fall by 1.3 mb/d in 2020 and 4.25 mb/d in 2Q20. Jet/kerosene fuel demand will fall by 1.16 mb/d in 2Q20 and 590 kb/d in 2020.

OECD Europe

In OECD Europe, total oil demand is set to fall by 2.2 mb/d in 2020. The decrease started in 1Q20, by 930 kb/d y-o-y, and is set to accelerate in 2Q20, to 5.6 mb/d, slowing to 1.66 mb/d in 3Q20 and 640 kb/d in 4Q20.



Gasoline deliveries are set to drop by 1.2 mb/d in 2Q20 after a decline of 190 kb/d in 1Q20. We assume that confinement measures will cut gasoline demand in Europe by 70% in April and 60% in May. The progressive lifting of lockdown measures will then result in cuts in gasoline demand of 35% in June and 20% in July. Preliminary data and anecdotal evidence indicate that, since the introduction of confinement measures, gasoline deliveries are down by 75% in France and by more than 80 % in the UK.

Diesel demand is less affected. In both the UK and France, sales are reportedly down by 60%. These forecasts assume that demand in Europe will be cut by 60% in April and 50 % in both May and June. Deliveries start to return to normal thereafter. Overall, gasoil/diesel demand in OECD Europe is expected to fall by 870 kb/d in 2020.

According to the IATA, European airlines will reduce capacity by 90% in 2Q20, 45% in 3Q20 and 10% in 4Q20. In our forecasts, we assume that jet kerosene demand will fall by 85% in April, 75% in May and 70% in June. Overall, demand is expected to decline by 540 kb/d in 2020.

The Covid-19 crisis will also impact other oil products and in particular petrochemical feedstocks. In 2020, LPG/ethane and naphtha will post declines of 45 kb/d and 115 kb/d, respectively. Fuel oil (bunkers) will drop by 135 kb/d.

OECD Asia Oceania

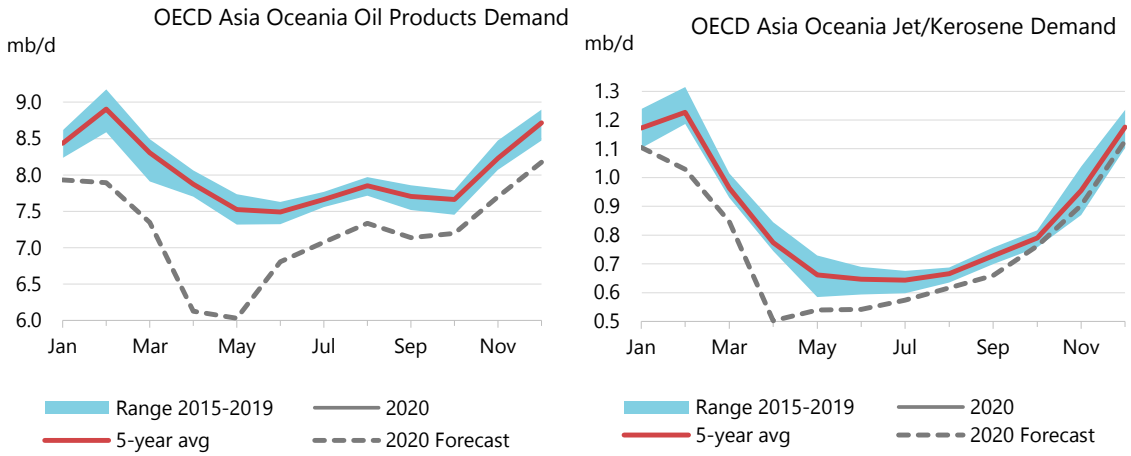
In OECD Asia Oceania, total oil demand is set to fall by 620 kb/d in 2020. The fall in demand started in 1Q20 (-570 kb/d y-o-y), and is set to accelerate in 2Q20 (-1.13 mb/d), before slowing to 415 kb/d in 3Q20 and 360 kb/d in 4Q20. Korea and Japan were impacted before Europe by the outbreak of Covid-19. Despite containment measures that have been less extensive than

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European countries until now, Korea has been successful in containment with the widespread use of testing, while Japan only declared an emergency on 7 April because of a recent surge in new cases. Australia has closed all schools and non-essential shops, while New Zealand went into total lockdown on 26 March to contain the virus.

Gasoline deliveries are set to drop by 320 kb/d y-o-y in 2Q20 after a small drop of 120 kb/d in 1Q20. Assumptions supporting these forecasts are that confinement measures will cut gasoline demand in Japan by 30% in April and May and 20% in June. In Korea, where the number of cases appears stabilised, gasoline demand is cut by 20% in April and 10% in June. The progressive lifting of lockdown measures will result in gasoline demand returning to normal in 2H20.

As in other regions, diesel demand is less affected by containment measures but suffers from a slowdown in trade and industrial activity. In both Japan and Korea, diesel sales will be down 30% in April and May before starting to return to normal in June. Overall, gasoil/diesel demand in OECD Asia is expected to fall by 130 kb/d in 2020.



Jet and kerosene demand will be penalised by a drop in aviation activity in March and April after suffering from a warm winter in January and February. According to IATA, Asian airline capacity will decline by 50% in 2Q20, 25% in 3Q20 and 10% in 4Q20. Jet/kerosene demand is therefore expected to decline by 110 kb/d in 2020.

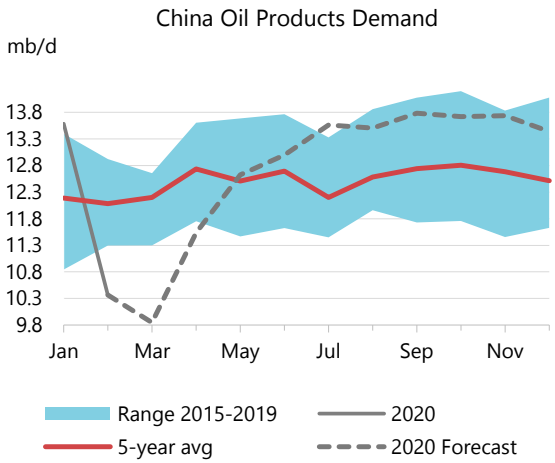
Non-OECD

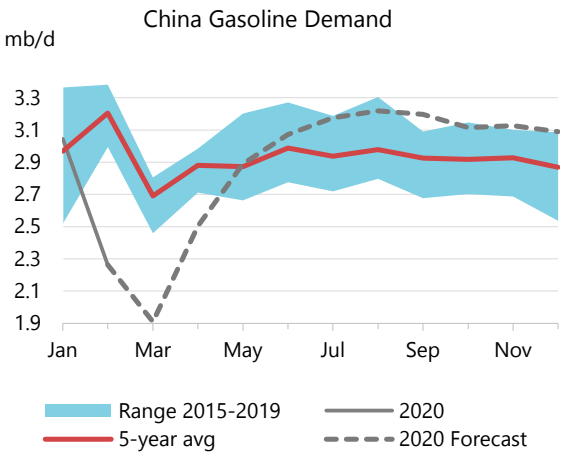
Non-OECD oil consumption will fall by 3.6 mb/d in 2020. This includes a steep fall of 8.8 mb/d y-o-y in 2Q20. Gasoline demand will be the most affected, contracting by 1 mb/d in 2020 (and 2.9 mb/d in 2Q20). Jet fuel and kerosene demand will contract by 870 kb/d in 2020, while gasoil and diesel demand will drop by 525 kb/d.

China

China is one of the few countries for which real data on what happened during the virus outbreak is available. The National Bureau of Statistics and the Customs departments published combined data on refinery production and trade for the months of January and February. Assuming that January was a more or less "normal" month (as the first virus containment measures occurred at the end), the combined data point to a sharp decline in demand in February. Total oil demand is likely to have dropped by 2.55 mb/d in February, largely due to gasoline (-1.1 mb/d).

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The fall in oil demand is estimated to have accelerated to 2.8 mb/d in March as lockdown measures were extended. We assume that in April and May the impact of the virus on oil demand will be significantly reduced. Demand recovery will lack strength in 2H20 due to the weak global economic outlook.

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	1 722	1 520	102	- 201	6.3	-11.7
Naphtha	1 268	1 300	1 208	32	- 92	2.6	-7.1
Motor Gasoline	2 984	3 108	2 875	123	- 233	4.1	-7.5
Jet Fuel & Kerosene	812	857	710	45	- 148	5.5	-17.2
Gas/Diesel Oil	3 355	3 579	3 488	224	- 91	6.7	-2.5
Residual Fuel Oil	432	416	383	- 16	- 33	-3.8	-7.8
Other Products	2 503	2 676	2 589	173	- 87	6.9	-3.3
Total Products	**12 975**	**13 657**	**12 772**	**682**	**- 885**	**5.3**	**-6.5**

India

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	833	66	- 16	8.5	-1.8
Naphtha	324	327	326	3	- 2	0.8	-0.5
Motor Gasoline	676	732	667	56	- 66	8.3	-9.0
Jet Fuel & Kerosene	252	235	204	- 17	- 31	-6.8	-13.3
Gas/Diesel Oil	1 728	1 755	1 647	26	- 108	1.5	-6.1
Residual Fuel Oil	150	144	137	- 6	- 7	-3.9	-4.8
Other Products	949	971	920	22	- 51	2.3	-5.3
Total Products	**4 863**	**5 013**	**4 733**	**151**	**- 280**	**3.1**	**-5.6**

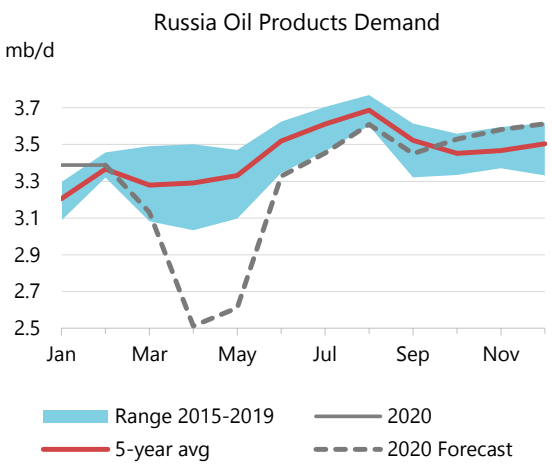
India went into full lockdown on 24 March, closing businesses and suspending air, road and rail transport systems. We expect oil demand to fall by 120 kb/d y-o-y in 1Q20 and 950 kb/d in 2Q20. Demand should return to year-ago levels by 4Q20. Overall, Indian demand is expected to

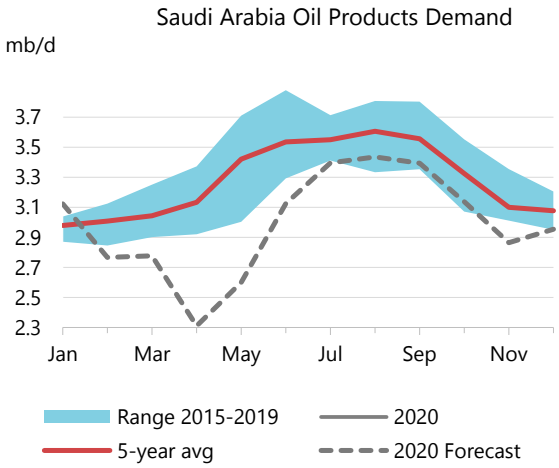
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drop by 280 kb/d in 2020. Gasoil and gasoline will be the most affected, declining by 110 kb/d and 65 kb/d, respectively.

Other Non-OECD

Almost all other non-OECD countries will be impacted by the Covid-19 outbreak and post some contraction in oil demand this year. In addition to China and India, we expect large declines in Russia (240 kb/d), Brazil (185 kb/d), Saudi Arabia (175 kb/d), the UAE (180 kb/d), Indonesia (170 kb/d), Egypt (85 kb/d), Chinese Taipei (80 kb/d) and Singapore (70 kb/d).





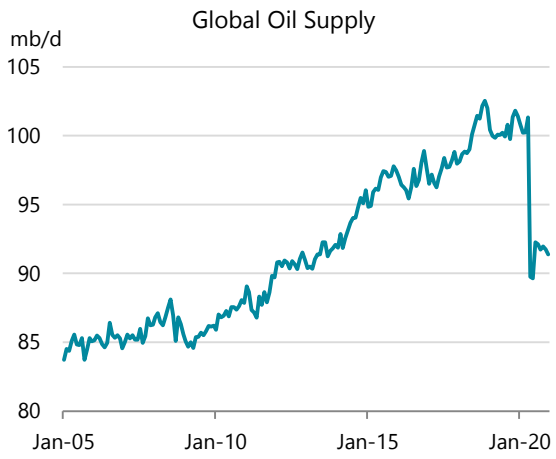
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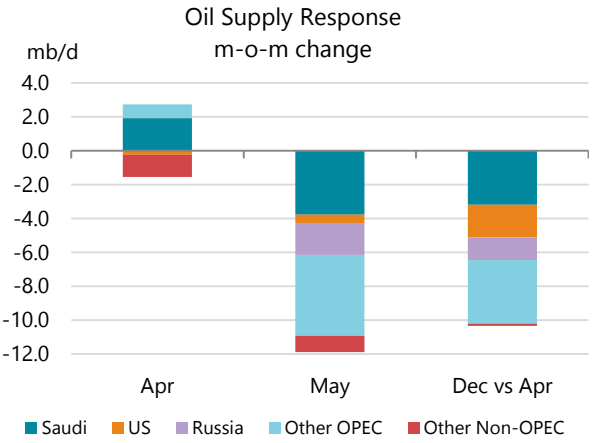
Supply

Overview

These are extraordinary times for oil supply. Saudi Arabia is set to lead a massive overall decline of 12 mb/d in May compared with April, assuming OPEC+ adheres to its new targets and production falls elsewhere. Global oil supply could tumble below 90 mb/d in the next few months, a level not seen since 2011.

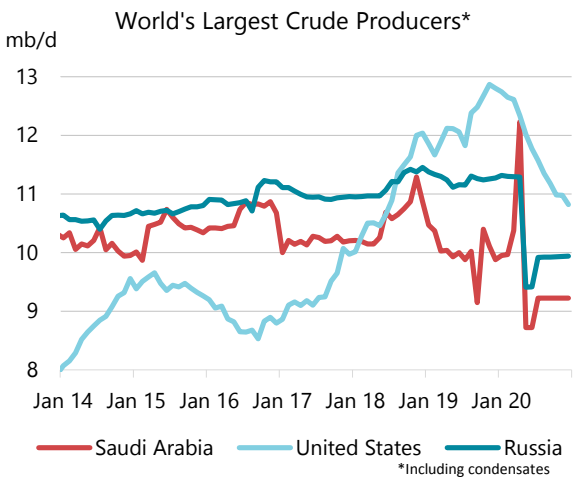
With global oil demand falling at an astonishing rate and storage tanks filling up fast, Saudi Arabia and Russia set aside their differences and on 12 April OPEC+ producers struck an agreement unprecedented in its scale and duration. The 23 nations agreed to slash crude supply by 9.7 mb/d for May and June, by 7.7 mb/d during 2H20 and by 5.8 mb/d from January 2021 through April 2022. G20 energy ministers have committed to take all necessary and immediate measures to ensure energy market stability, with several non-OPEC countries outside of the OPEC+ pact indicating their output would fall.





*Apr is early indication; May/Dec assumes 100% compliance with OPEC+ cuts

However, demand will fall by far more and the supply chain will be challenged to absorb excess barrels. Producers in the US, Canada and Brazil were already cutting output in April. In stark contrast, Saudi Arabia and the UAE targeted maximum production after the collapse of coordinated OPEC+ supply cuts. Saudi Arabia's announced output of 12 mb/d would tie it briefly with the US for the rank of the world's no. 1 crude producer. The Saudi boost, along with the UAE's surge, could push world oil supply up by 1.2 mb/d in April vs March to more than 101 mb/d. Their record-setting output rates will come to an abrupt halt in May when OPEC+ cuts take effect: Saudi Arabia could slash

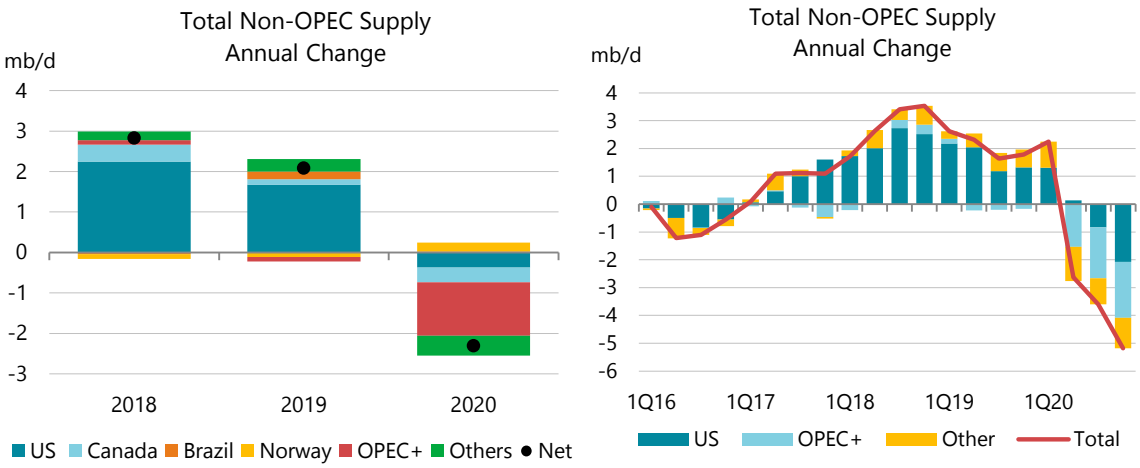


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crude oil production by 3.5 mb/d, Russia by 1.9 mb/d, the UAE by 1.6 mb/d and Kuwait and Iraq by 1 mb/d each.

Dramatic declines are also on the way from producers outside of the OPEC+ agreement. US companies have slashed budgets and drilling plans at record speed. In only four weeks, a quarter of all rigs were set aside, and further reductions are to come. As a result, US oil supply is expected to decline by more than 2 mb/d by year-end. In the near-term, production is forecast to fall particularly sharply in Canada, as the sudden drop in demand and lack of storage capacity could force large-scale shut-ins. Supply is estimated to fall by as much as 0.6 mb/d in April and a further 0.2 mb/d in May. In Brazil, Petrobras has announced it will curb output by 0.2 mb/d, effective from April. Norway, which has announced it would make unilateral cuts if the OPEC+ deal was finalised, has yet to announce volumes or timing of any reduction. In this *Report*, we assume production will fall by roughly 0.2 mb/d from May. Declines from these four countries are estimated at around 1 mb/d in April and a further 0.95 mb/d in May. Output will fall even more as US declines accelerate.

As a result, total non-OPEC oil production is set to fall by 2.3 mb/d during 2020. That is not only a sharp reversal of the recent growth trend, but also of our earlier forecast that envisaged gains of more than 2 mb/d this year. Those taking part in the OPEC+ deal account for 1.3 mb/d of the 2020 reduction, but declines from the US and others accelerate through the year so that by 4Q20 total non-OPEC output could be 5.2 mb/d below the 4Q19 level.

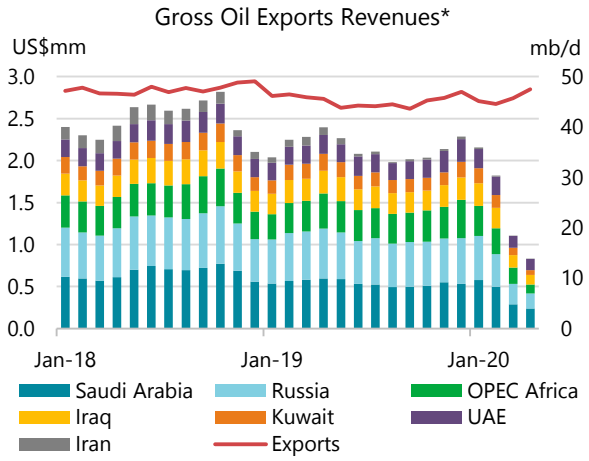


Producer revenue has plummeted along with the price of oil, although some countries will be able to ride it out better than others. Record export levels in early April from Saudi Arabia and the UAE are supporting their revenue, while countries such as Nigeria and Iraq have seen large declines m-o-m. Since December, gross oil export revenues for OPEC's African and Middle East producers along with Russia have plummeted from nearly $2.3 billion a day to a $1.1 billion a day in March. Revenues are estimated to be lower in April, even as Saudi Arabia and the UAE ship more oil than ever.

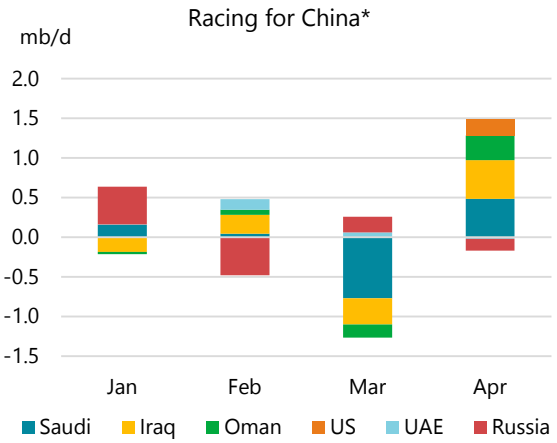
In some countries, large-scale production and exports of oil and gas provide vital income to finance their national budgets, which means volatility in global energy markets can translate almost instantly into macroeconomic pressure. When prices fall, these countries usually respond by cutting salaries for public sector employees, reducing essential services to their populations and axing or delaying large capital projects. Even among the richer Gulf countries, fiscal deficits are now projected to reach 10%-12% of GDP this year, implying additional financing needs of around $150 billion to $170 billion. As well as the likely widening of fiscal

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deficits, the countries' decreased export revenues will impact trade balances, leading to downward pressure on their currencies.



* IEA estimate for selected countries based on crude and product exports



** Seaborne crude exports (m-o-m change in loadings); Source: Kpler*

In response to the demand collapse, refiners in nearly all countries are cutting runs, but in China, the recovery from Covid-19 is underway and producers are shipping as much oil there as possible. Saudi Arabia and Iraq are leading the race so far, with exports in April up 0.5 mb/d m-o-m. Oman has boosted shipments by 0.3 mb/d and the US has managed to ship 0.2 mb/d so far in April.

OPEC / Non-OPEC Output[1]

(million barrels per day)

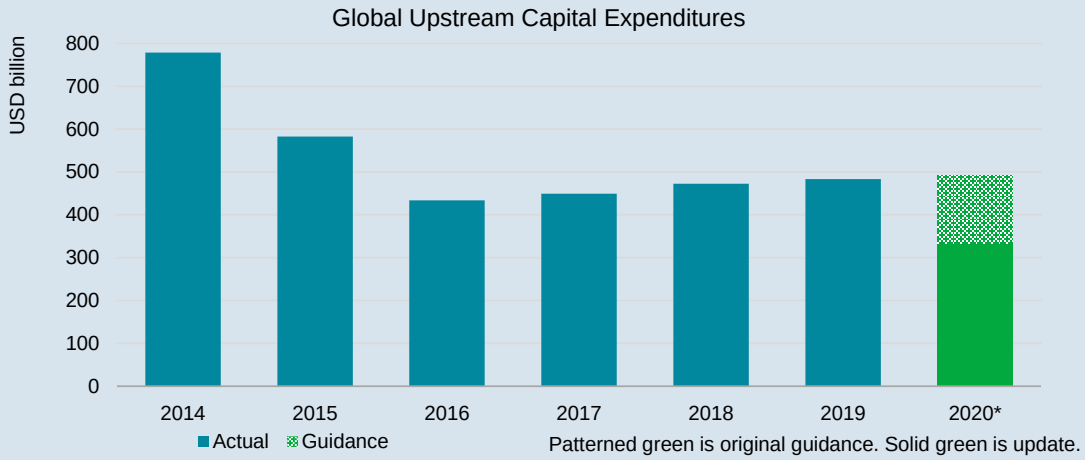
	Mar 2020 Supply	Apr 2020 Supply	Supply Baseline[2]	May/June Target	May/June Cut	May target vs. Apr prod	2H20 Target	Jan 21-Apr 22 Target
Algeria	1.03	1.05	1.06	0.82	0.24	-0.23	0.86	0.91
Angola	1.40	1.40	1.53	1.18	0.35	-0.22	1.25	1.32
Congo	0.30	0.30	0.33	0.25	0.07	-0.05	0.27	0.28
Equatorial Guinea	0.12	0.12	0.13	0.10	0.03	-0.02	0.10	0.11
Gabon	0.21	0.21	0.19	0.14	0.04	-0.07	0.15	0.16
Iraq	4.59	4.60	4.65	3.59	1.06	-1.01	3.80	4.02
Kuwait	2.80	3.15	2.81	2.17	0.64	-0.98	2.30	2.43
Nigeria	1.76	1.76	1.83	1.41	0.42	-0.35	1.50	1.58
Saudi Arabia	10.15	12.00	11.00	8.49	2.51	-3.51	8.99	9.50
UAE	3.50	4.00	3.17	2.45	0.72	-1.55	2.59	2.74
Total OPEC 10	**25.86**	**28.59**	**26.68**	**20.60**	**6.08**	**-7.99**	**21.82**	**23.03**
Iran[3]	1.97	1.93						
Libya[3]	0.08	0.08						
Venezuela[3]	0.67	0.60						
Total OPEC	**28.58**	**31.20**						
Azerbaijan	0.68	0.68	0.72	0.55	0.16	-0.12	0.59	0.62
Kazakhstan	1.70	1.62	1.71	1.32	0.39	-0.30	1.40	1.48
Mexico	1.75	1.75	1.75	1.65	0.10	-0.10	1.65	1.65
Oman	0.82	0.82	0.88	0.68	0.20	-0.14	0.72	0.76
Russia	10.38	10.38	11.00	8.49	2.51	-1.89	8.99	9.50
Others[4]	1.02	1.01	1.11	0.85	0.25	-0.16	0.90	0.96
Total Non-OPEC	**16.35**	**16.25**	**17.17**	**13.55**	**3.62**	**-2.70**	**14.26**	**14.96**
Total OPEC+	**42.21**	**44.84**	**43.85**	**34.15**	**9.70**	**-10.69**	**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

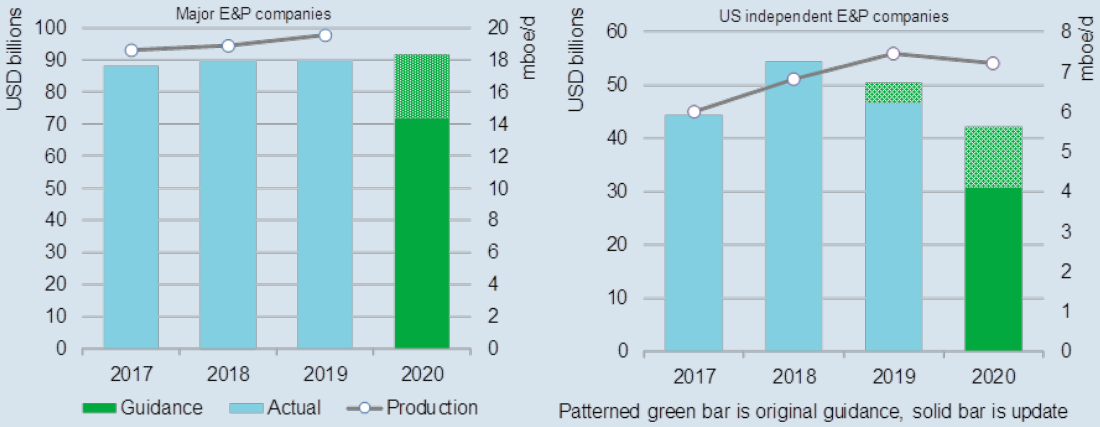
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Box 1. Global upstream investment set to fall 32% in 2020

Within days of oil prices falling below $30/bbl on 16 March, oil companies were announcing sharp reductions in their 2020 spending plans. Previous guidance had indicated that global oil and gas upstream investment would be $490 bn in 2020 (+1.5% year-on-year). Spending is now expected to fall 32% y-o-y to $335 bn. Savings are set to come from reduced activity levels, delays to the sanctioning of new projects and an even greater focus on cost control. However, the scope for the latter may be limited given that upstream costs are estimated to already be 25% below 2014 levels.



Firms in the US and Canada were amongst the first to respond to lower prices. Heavily indebted independent US upstream companies had already signalled a 10% y-o-y cut in investments but it is now likely that spending will fall by 30%-40% to free up cash for service repayments. Some firms, such as EOG and Pioneer Natural Resources, made significant downward revisions to their 2020 production guidance due to reduced drilling activity. Others, such as Occidental, are hoping to maintain their earlier output guidance and make savings by cutting upstream costs, wages and personnel. Canadian producers have made capital cuts that are even more aggressive, over 60% in some cases. Operating costs for Canada's oil sands production are amongst the highest in the world so operators may target savings by shutting in production, even if this is technically challenging.



The majors have also been quick to lower spending. While they have fewer concerns regarding

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borrowing and debt repayments, they are keen to uphold their reputation with shareholders as reliable long term investments by maintaining their dividend payments. In the past few years, the majors have increased their presence in US shale and this sector will be an immediate source of savings. ExxonMobil will cut its Permian rig count by 20%, while Chevron will reduce spending in the Permian by close to $2 bn (half of its global spending cut). Elsewhere, projects in higher cost environments that were due to be sanctioned look likely to be pushed back (see Table). None of the majors has flagged reduced dividend payments but some (Eni, Shell and Total) have cancelled plans to return cash to investors via share buybacks. For the group as a whole, 2020 upstream investment will fall 20% y-o-y, rather than holding steady.

Selected major oil projects at risk of delay

Country	Project	Operator	Peak Capacity (kb/d)	Breakeven $/bbl (Rystad)	Status
Guyana	Payara	ExxonMobil	180	51	Entered FEED[1] in late 2019
Brazil	Bacalhau	Equinor	160	56	Entered FEED January 2020
Mexico	Zama	Talos Energy	125	33	Schedule and cost under review
Canada	Bay du Nord	Equinor	120	43	Schedule and cost under review
Ghana	Pecan	Aker Energy	100	48	Delayed due to Covid-related travel/logistics restrictions.
Senegal	Sangomar	Woodside	100	51	Sanctioned but schedule and cost under review. Partner financing issues.
Nigeria	Bonga South-West	Shell	100	59	ITT[2] issued early 2020
US	Whale	Shell	80	39	FPU contract awarded
US	North Platte	Total	60	51	EPC bid process on hold
UK	Cambo	Siccar Point	60	35	FID delayed from 3Q20 to 2H21
UK	Penguins	Shell	45	29	Sanctioned. Possible FPSO construction delay in China.

[1]Front-end engineering and design [2]Invitation to tender

National oil companies (NOCs) may not be subject to the same investor pressures but are important contributors to their country's fiscal revenues. Saudi Aramco has flagged a $5 bn y-o-y cut to spending. Other NOCs in the Middle East have asked firms operating in their country to cut budgets, postpone project sanctions and delay payments to contractors and service companies. Chinese state-owned firms are also adapting to lower prices, albeit more modestly. In Brazil, previously expected supply gains will be wiped out as Petrobras implements a range of cost-saving measures. While Mexico reiterated its commitment to oil production and investment plans, the downgrading of Pemex' credit rating by ratings agencies may hamper its ability to achieve these goals. In Colombia, Ecopetrol hopes to shave $1.2 bn (31%) off its original budget through austerity measures that will not impact production.

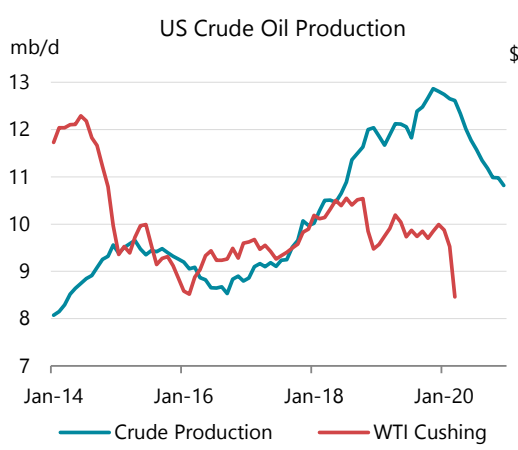
The sharp drop in investment is not expected to have a significant immediate impact on oil supply, outside of the unconventional plays that decline fast without continuous drilling. Given project lead-times and field declines, today's lower investment plans will put future supply at risk and this could lead to ongoing oil price volatility even after the Covid-19 crisis is resolved and demand recovers.

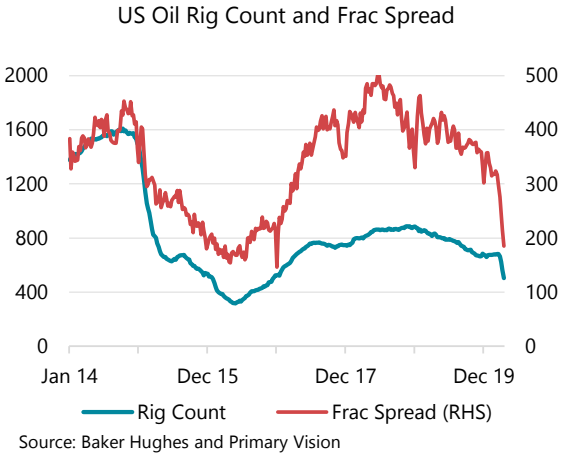
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World's top producers react to plunging demand

As the spread of coronavirus forces an historic collapse in demand, producers have made a virtue out of necessity by announcing output cuts through the formal OPEC+ pact and otherwise, helping to lower the peak in the supply surplus. Although in April the response varies widely, with Middle East producers committed to increased production while others cut back, there are dramatic reductions on the way in May. Below, we detail the reaction of the world's top 25 producers.

The collapse in oil prices and brimming inventories will see an unprecedented sharp decline in **US** oil supply. Producers, already planning to cut spending in 2020, have been quick to axe upstream budgets. Independent upstream companies have already cut spending by around 30%-40%. Major oil companies with a large footprint in the shale patch such as ExxonMobil, Chevron and BP have made similar adjustments while simultaneously slashing US production guidance for the year. Further downward adjustments are likely to come.

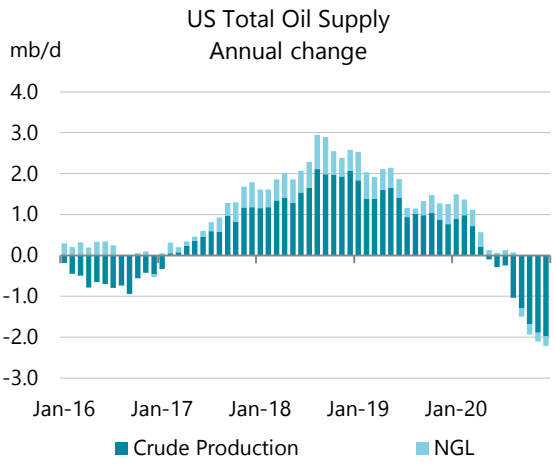




Source: Baker Hughes and Primary Vision

While in the past, it has taken four to five months for a decline in prices to impact new drilling and a further five to six months for output to start declining, the speed at which the industry adjusts this time has been much faster. Over the past four weeks, producers idled 179, or 26%, of active oil rigs, bringing the total count down to 504. That compares with the current all-time low of 404 rigs during May 2016, according to Baker Hughes data. The frac spread has fallen even more sharply, by 38% over the same period, suggesting new well completions are coming to an abrupt halt.

With domestic refinery and export demand falling, storage and pipeline capacity is filling up. Producers may also be forced to shut already producing wells. Faced with this reality, some companies in Texas have asked the Texas Railroad Commission to consider curtailing the state's output for the first time in nearly 50 years. A group of Oklahoma oil producers has also filed a request calling on regulators to impose production curbs.

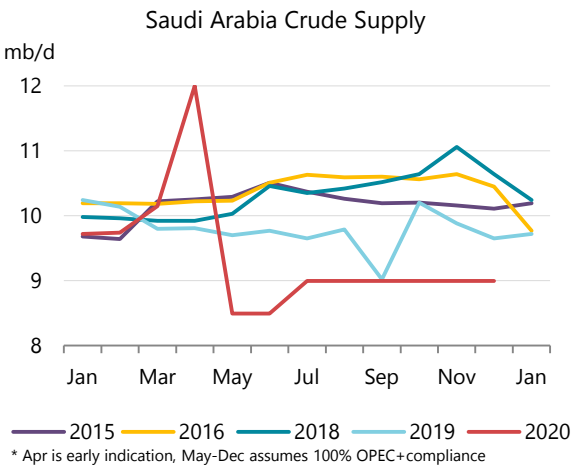


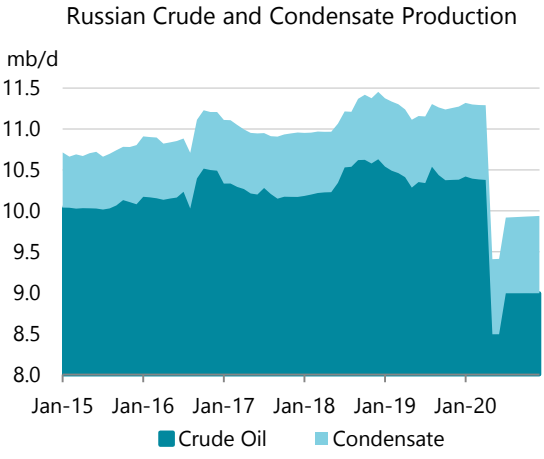
Analysis suggests that more than 2.2 mb/d of US oil production does not cover its

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operating costs with WTI priced at $20/bbl, including 1.2 mb/d of conventional output and around 1 mb/d of tight oil. A further 1.3 mb/d decline could come from the reduction in new wells drilled, as output from tight oil wells falls sharply in its first year of operation. Of course, it is not automatic that all production that is uneconomic will be shut in. Conversely, some production that is economic at these price levels may nonetheless need to halt because of logistical constraints. For now, we expect US crude oil production in December to be 2 mb/d lower than at the end of 2019. NGL output is also likely to fall so that total US oil supply declines by 375 kb/d for the year on average, to 15.7 mb/d by year-end.

Saudi Arabia targeted maximum capacity of 12 mb/d in early April after the earlier OPEC+ deal expired. The new agreement calls for production of 8.49 mb/d in May. The first weeks of April have seen record export volumes of around 10 mb/d. Much of this extra volume was originally destined for the Atlantic Basin. However, it has grown more challenging for producers to place their additional barrels as demand plunges and freight rates soar. Saudi Arabia also announced plans to boost production capacity to 13 mb/d, the first increase in over a decade, although the timeframe is unclear. The budget for the expansion would be separate from its reduced capex plan of $25 billion-$30 billion for 2020, down from $32.8 billion in 2019. The capacity boost, which could cost at least $20 billion, may focus on ramping up output from offshore fields such as Berri, Zuluf and Marjan. Saudi Arabia has foreign exchange reserves of about $500 billion to draw on to address budget shortfalls and Aramco has said it is "very comfortable" with oil prices at $30/bbl. It has the lowest production costs in the industry: the 2019 lifting cost was $2.8/boe and capex was $4.7/boe.





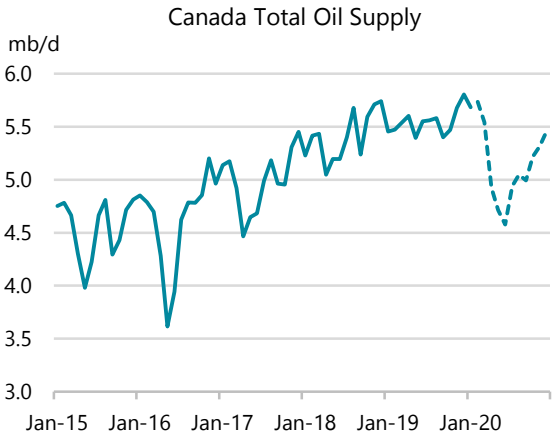
Just a month after walking away from a deal to deepen production cuts into 2Q20, **Russia** came back to the negotiating table in April and agreed to cut its crude oil production by 2.5 mb/d from a baseline of 11 mb/d. If implemented fully and without delay, Russian crude oil production would fall from 10.4 mb/d in March to a 16-year low of 8.5 mb/d in May and June and just under 9 mb/d during 2H2020. Russia produces an additional 900 kb/d of condensate, included in official crude oil production statistics, but excluded from the new targets and output cuts.

Boasting some of the lowest production costs in the world, Russia had originally announced plans to increase output rapidly by 200-300 kb/d after the deal expired at the end of March and by up to 500 kb/d in the longer term. As global crude oil demand and prices plummeted these plans were quickly revised. European refiners have already cut back on deliveries through the Druzbha pipeline system. Preliminary seaborne export data shows higher loadings in April, but a

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steep decline in domestic refinery runs (to an estimated 5.1 mb/d in April/May from 5.9 mb/d in February and 5.6 mb/d in March) suggest that domestic storage could be filling up fast.

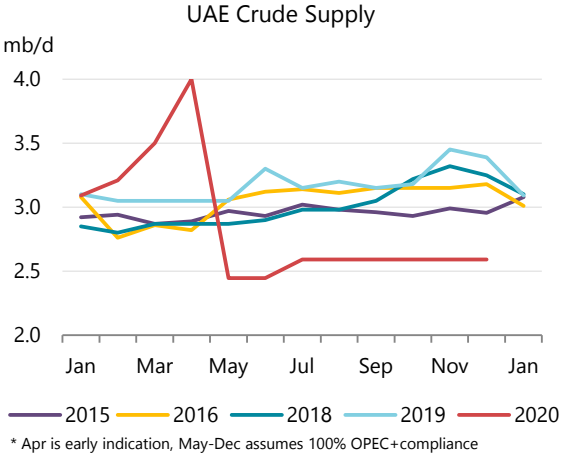
Canada's oil producers are expected to be particularly hard-hit by the collapse in global oil demand. With both domestic and US refiners slashing runs, and with limited spare storage capacity in Alberta, the price of heavy Canadian crude fell below $10/bbl in March, for the first time ever. With operating costs ranging from around $10.70/bbl for bitumen from steam-assisted gravity drainage, $27.70/bbl for mined bitumen and $35-40/bbl for synthetic crude, companies have axed upstream spending plans. In the space of weeks, 24 companies reduced capital expenditure plans by a combined $6.7 bn, or 30%, to just over $15 bn. The largest producers Suncor, Canadian Natural Resources, Imperial Oil, Husky Energy and Cenovus Energy cut their budget by $1 billion (26%), $750 million (27%), $360 million (30%), $640 million (27%) and $430 million (43%), respectively. The delay to planned maintenance at a number of sites adds to the current oversupply.



As much as 20-25% of Western Canada's production is at risk of shutting in during the second quarter. This was a factor in Canada agreeing during the meeting of G20 energy ministers on 10 April to the need for oil market stability. No specific production cut was announced with curtailment decisions to be taken by provincial governments.

Canada produced an estimated 5.5 mb/d in March, but cuts of around 100 kb/d have already been announced. Oil sands producer Cenovus Energy has reduced output at its Christina Lake oil sands operation by 40-45 kb/d. Athabasca Oil Corp has curtailed output at its Hangingstone operations. Other producers are thought to have reduced operating rates and output is forecast to fall to 4.9 mb/d in April. Steeper cuts are expected in May and June. Total Canadian oil supply is expected to fall to a low of 4.6 mb/d in June, a reduction of more than 1.2 mb/d from end-2019 levels. Assuming that regional demand and refinery runs recover, production is expected to rebound during 2H20.

For **Iraq**, the oil price collapse comes at a time of increasing instability due to the spillover of the US-Iran conflict and the coronavirus. Oil production in early April was broadly steady versus March levels at 4.59 mb/d. Under the terms of the new OPEC+ agreement, production is to be cut to 3.59 mb/d from May. Tanker tracking data show early April exports of southern Basra crude holding steady at around 3.3 mb/d, with shipments from the north falling by about 200 kb/d m-o-m.



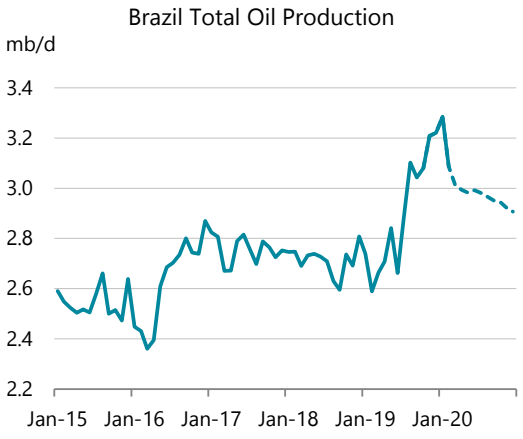
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International partners in the southern oil fields have been asked to reduce their budgets by 30% and the government is seeking to defer payments for 1H20. Between them, BP, Eni, ExxonMobil and Lukoil operate roughly 3 mb/d at Rumaila, Zubair, West Qurna-1 and West Qurna-2, respectively. They are developing these projects under service contracts in which they receive a set fee per volume produced. The Kurdistan Regional Government is also suffering from lower oil revenues and has been unable to pay foreign firms working there.

The **UAE** raised crude oil production towards a record 4 mb/d in early April but has committed to a drastically lower target of 2.45 mb/d for May. Even as its crude output surged, the Abu Dhabi National Oil Co notified contractors and suppliers that it would review existing deals to cut costs by around 30%. Foreign partners such as Eni are reviewing their projects. 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.

China's crude oil production continued its upward trend in early 2020, rising from 3.72 mb/d in December to an average of 3.84 mb/d in January and February (+95 kb/d y-o-y). However, output is expected to resume annual declines during 2H20 as the largest producers cut back spending. In response to the government's call to raise domestic production to boost the security of supply, the country's three largest producers, PetroChina, Sinopec and CNOOC increased upstream spending by a combined 23% in 2019 and production rose by 50 kb/d. Investments are set to fall this year, however, with CNOOC and Sinopec both cutting budgets and PetroChina likely to follow suit. CNOOC will trim annual investment by 10% to 15%. Sinopec plans to cut its overall capex by 2.5%, although the cuts will primarily come from the company's refining unit. China's mostly mature fields have a high water cut and require continued investment and drilling to stem declines. Nevertheless, PetroChina, Sinopec and CNOOC report relatively low average operating costs in 2019 of $12.11/bbl, $15.3/bbl and $7.39/bbl, respectively.

Growth prospects are also dimming in **Brazil**, with output already falling sharply from recent record highs. In its latest update, Petrobras announced that its domestic oil production will fall to 2.07 mb/d in April, a decline of more than 0.3 mb/d compared with 4Q19 levels. The company, which accounts for more than 70% of Brazil's oil output, had already announced it would reduce oil supply by 200 kb/d in view of the huge global overhang.



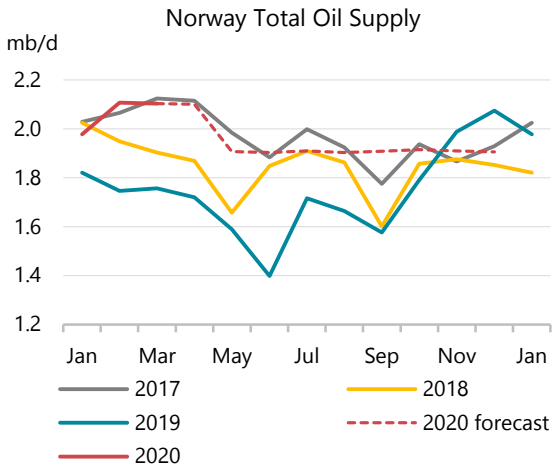
Petrobras saw overall cash breakeven costs of $16/bbl in 2019, with lifting costs ranging from $5.6/bbl for pre-salt production and $30.3/bbl for shallow water assets. For 2020, capital expenditure is to be cut by 29% to $8.5 bn and expansion plans are being re-evaluated. In February, production dropped by 0.2 mb/d m-o-m, to 3.1 mb/d, due to announced maintenance shutdowns at pre-salt fields. Output was nevertheless up nearly 0.5 mb/d on a year earlier. Based on the new announcements, we have reduced our outlook for the remainder of the year and now see output for the year holding steady compared with 2019, compared with gains of 0.3 mb/d expected earlier.

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Crude supply from **Kuwait** rose above 3 mb/d in early April, bolstered by flows from the Neutral Zone shared with Saudi Arabia, but from May it is targeting output of 2.17 mb/d. Saudi Arabia and Kuwait started trial production from jointly operated Neutral Zone fields in February, after agreeing at the end of 2019 to end a five-year dispute. In early April, Kuwait shipped its first cargo of 1 million barrels from the offshore al-Khafji oil field. Output was expected to rise to 70 kb/d in April. While ramping up production, Kuwait is seeking to cut costs. Kuwait Petroleum Corp has ordered all units to reduce capital and operating spending this year.

The double blow of sanctions and the coronavirus knocked 50 kb/d off **Iran's** crude oil production in March as exports and refinery throughput fell. Crude oil production of 1.97 mb/d, the lowest since February 1987, was down 810 kb/d on the March 2019 level. Shipments of oil, already at historic lows, fell 90 kb/d to just 120 kb/d in March, massively lower than the 1.6 mb/d shipped in March 2019. The volumes of oil stored at sea increased to an estimated 71 million barrels at the end of March (versus 64 mb the previous month).

In **Norway**, oil production rose in February to 2.1 mb/d, the highest level since early 2017, according to the Norwegian Petroleum Directorate. Supplies from Johan Sverdrup returned to growth after output faltered in January due to technical issues. Equinor announced that production had already reached 430 kb/d in April and it will exceed the previous guidance and reach 470 kb/d in May. Loading programmes and ship tracking data suggest that Norway's output will plateau in March and fall slightly in April.



At the 10 April G20 meeting Norway agreed in principle to production cuts. As this report is published the timing and volume of curtailments has not been specified. We assume that Norwegian output will drop to 1.9 mb/d from May to December (equivalent to a cut of around 200 kb/d). Even so, Norway becomes the largest non-OPEC contributor to global supply growth in 2020, with flows up 225 kb/d y-o-y. This is almost entirely dependent on Johan Sverdrup that is positioned to perform well in a low price environment with operating costs below $2/bbl.

So far, Covid-19 has had little impact on current production but cases were reported at offshore Norwegian platforms, including Martin Linge. Development work at the platform was temporarily suspended which may cause first oil to be pushed back into 2021. A coronavirus-related delay will likely postpone the start-up of Repsol's Yme redevelopment by 12 months from 4Q20. Operators Equinor, Aker BP and Wintershall Dea have reduced their 2020 spending plans in response to lower prices but this is not expected to affect production this year. Savings come from delaying new projects and cutting back on exploration.

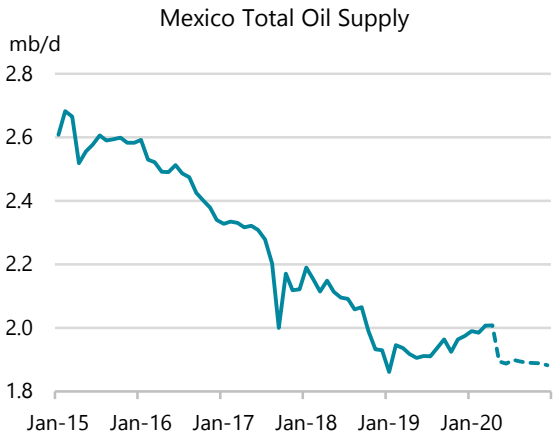
Crude oil production in **Nigeria** hovered around 1.76 mb/d in early April, but sellers struggled to place remaining unsold barrels due to a rapid decline in demand. From May, Nigeria is expected to cut production to 1.41 mb/d. Official selling prices were cut to record lows in April to stay competitive, but many April-loading cargoes were still unsold at the time of writing. With average costs estimated at around $40/bbl, some production looks uneconomic. The price collapse, in addition to the increase in deepwater royalties announced late last year, may

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prompt international oil companies to review long-delayed deepwater projects such as Bonga Southwest that are awaiting final investment decisions.

As part of the new OPEC+ deal, **Kazakhstan** agreed to cut its crude oil production by 390 kb/d in May and June and 312 kb/d for the second half of the year from a November 2018 baseline. Crude and condensate production in May is set to fall to 1.6 mb/d (of which crude accounts for 1.3 mb/d). While exports from the CPC terminal surged by nearly 320 kb/d in March to a record 1.65 mb/d, preliminary data show production fell marginally from February's record high of more than 2 mb/d. In early April, the price of CPC Blend crude oil dropped to a record low and was trading with a very large discount of $10/bbl to North Sea Dated. Scheduled loadings for April were revised down by 90 kb/d from the preliminary schedule and down 250 kb/d on March's high. Meanwhile, a major turnaround at the Tengiz field has been postponed until 2021 due to the Covid-19 outbreak.

Mexican oil production is finally on the rise, but the timing could not be worse. In March, crude oil output rose to 1.78 mb/ according to officials. The OPEC+ deal proposed 9 April anticipated Mexico cutting its production by 400 kb/d versus the October baseline to 1.35 mb/d. This was refused by the government and in the end a reduction of 100 kb/d was agreed with the United States reportedly offering to cut 250 kb/d on its behalf.



The government argued that "a global crash in oil markets will be short lived and does not merit a change in strategy". It said it was not planning to cut production and Pemex will continue with its investment plans. With the average price for Mexican crude falling recently to around $18/bbl, the development prospects for new fields are reduced and production declines are likely to resume. Pemex might struggle to maintain its upstream budget, which envisaged a 20% increase in spending in 2020 to $10 billion. In 2019, Pemex's average production cost was US$14.2/bbl, although some fields, such as Teekit, Ixachi and Mulach, boast operating costs as low as $4.8/bbl. Pemex has hedged around 15% of its 2020 crude production at $49/bbl (Maya), while the federal government has hedged more than 40% of production at the same strike price.

Oil output in **Qatar** is expected to hover around 1.96 mb/d in April. The price collapse has led Qatar Petroleum (QP) to delay its giant LNG expansion with just two-thirds of the 48 million tonnes per year of expected capacity reportedly on offer. Foreign partners were expected to be chosen by the end of 1Q20. When finished in the late 2020s, the expansion would boost LNG capacity to 126 million tonnes per year. QP originally had targeted the trains to come on stream from late 2024.

Crude oil supply in **Algeria** edged above 1.03 mb/d in early April, but is expected to decrease to 0.82 mb/d from May in line with its OPEC+ target. The economy is being hit hard by low oil prices and President Abdelmadjid Tebboune, who has called for a 30% reduction in public spending, has asked Sonatrach to cut its planned 2020 budget by 50% to $7 billion.

Shipments rose to **Angola's** principal market China during early April, which kept crude output broadly steady at around 1.4 mb/d. It is due to cut output to 1.18 mb/d from May. Given the high

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cost of production at Angola's deepwater fields and breakeven estimated at around $40/bbl, companies may be reviewing their projects.

Government data puts total **UK** production at 1.2 mb/d in February, 50 kb/d below year ago levels. Growth from new fields, including Equinor's Mariner and Hurricane Energy's Lancaster, failed to offset declines and weak performance in the West of Shetlands region. Covid-19 cases have been reported offshore and operators have responded by reducing platform manning levels and halting discretionary activity. The Oil and Gas Authority (OGA) advised that under minimal manning conditions output could be maintained at current levels for up to 24 months. UK production will take a modest hit due to a coronavirus-related temporary shut in of the Chestnut field that produced 9 kb/d in 2019. Furthermore, EnQuest announced that, due to lower prices, it would not restart flows from fields linked to the Heather platform or the Thistle Alpha facility that have been offline since 4Q19. They produced 5 kb/d in 2019.

Forties pipeline owner INEOS announced that a planned three week maintenance shutdown will be delayed from June 2020 to spring 2021 to reduce personnel requirements during the health crisis. The pipeline transports over 300 kb/d of oil from around 70 North Sea fields, the largest of which is Buzzard. Other operators may also reschedule planned maintenance to cut operating costs and maximise production. This could see output higher than currently anticipated, particularly in August and September when maintenance normally peaks. CNOOC announced that it would reduce its 2020 investment and output plans, but did not specify if this would affect Buzzard phase 2 that is due to start up in 2H20.

With less production offline during maintenance, UK production will gain 40 kb/d in 2020, assuming that the West of Shetland area returns to growth. Average operating costs in the North Sea have halved to around $15/bbl since 2014 according to the OGA. However, the regulator predicted that the UK industry would operate at a loss in 2020 and its long-run survival was at risk from a lack of investment.

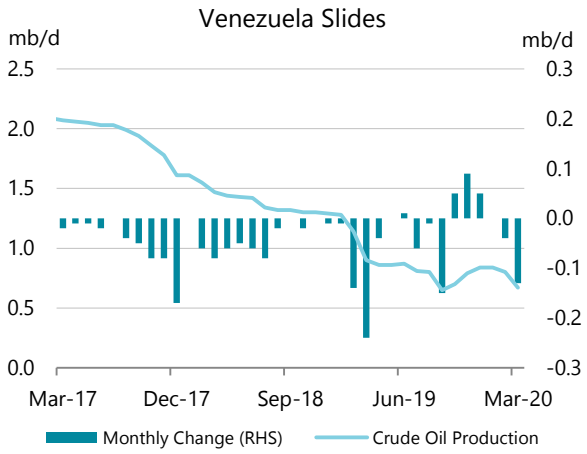
Oman held oil output steady at around 980 kb/d in early April, with crude production at 820 kb/d. It will target crude supply of 682 kb/d from May. Projects with a breakeven cost of more than $30/bbl are being reviewed. BP's Khazzan tight gas project is reportedly still economic; 35 kb/d of liquids are produced and output is expected to rise to 50 kb/d after a further phase of development, the Ghazeer project, starts up in 2021.

Colombian crude oil production was 880 kb/d in February, a decline of 2% from a year earlier. Ecopetrol, the largest producer, said its average operating costs which were $8.2/bbl in 2019, still below market prices, so no fields have been shut in. Even so, the company cut its planned investment for 2020 by $1.2 billion to a range between $3.3 and 4.3 billion. It also aims to reduce operating costs by about $500 million. It maintained its output target of 745-760 kboe/d for the year, up from 725 kb/d in 2019. Another Colombia-focused oil producer, Frontera Energy, has announced a 60% reduction in capital expenditures for 2020.

Indian crude and condensate production fell to 620 kb/d in February, the lowest in more than a decade. Major plant maintenance at the onshore Rajasthan oil field added to declines from mature producing assets. While production likely rebounded in March, declines are set to resume thereafter. For the year as a whole, total Indian oil supply is expected to fall by roughly 50 kb/d to 750 kb/d, of which 630 kb/d is crude.

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Azerbaijan agreed to reduce its crude production by 164 kb/d during May and June to 554 kb/d. The target rises to 587 kb/d during the second half of the year. Crude and condensate production was 764 kb/d in March, of which 684 kb/d was crude oil. Crude oil production has been on a declining trend since its 2009 peak above 1 mb/d. Output fell by 50 kb/d last year, on lower volumes from the giant Azeri-Chirag-Deepwater Gunashli (ACG) complex. BP spent $567 million in operating expenditure and $1.5 billion in capital expenditure on ACG activities last year. However, in view of its decision to cut its global 2020 capital expenditure budget by 25% to $12 bn, investments in Azerbaijan will doubtless be reviewed.



After months of relative stability, **Venezuela's** crude oil production fell to 670 kb/d in March, down 130 kb/d m-o-m. Further declines seem inevitable as Petroleos de Venezuela shuts in high cost wells. Its flagship Merey crude is selling for under $10/bbl and lifting costs are reportedly around $11/bbl. Also at risk is extra heavy crude from Orinoco Belt joint ventures that has to be upgraded.

Indonesia produced an average of 740 kb/d of crude and condensates in 2019, a drop of 30 kb/d or 4% from a year earlier. A similar decline is expected for 2020.

Malaysia's contribution to the new OPEC+ agreement is 136 kb/d for May/June and 109 kb/d from July through December from a baseline of 595 kb/d. Assuming Malaysia cuts to the reported new target, crude supply will fall to 459 kb/d in May from 531 kb/d in January. Condensate production added another 94 kb/d in January.

Other changes and developments

In **Australia**, historical NGL production has been revised upwards. Previously, data did not fully capture all liquids associated with large LNG projects that have been ramping up in the Northern Territory since late 2018. Total oil production in 2019 was 460 kb/d, up 110 kb/d on 2018 and 40 kb/d higher than reported earlier. In 2020, output will rise by 70 kb/d on higher crude production from the Greater Enfield project and rising condensate and NGLs output associated with the Prelude and Ichthys LNG projects.

Ecuador declared force majeure on oil exports on 10 April after two pipelines burst. According to the Energy Minister oil output fell by 205 kb/d. The state-run SOTE pipeline is expected to be repaired in two to three weeks, while the privately held Heavy Crude Pipeline (OCP) could take three to four weeks to repair. Ecuador produced 540 kb/d in December 2019, the last month for which monthly statistics are available.

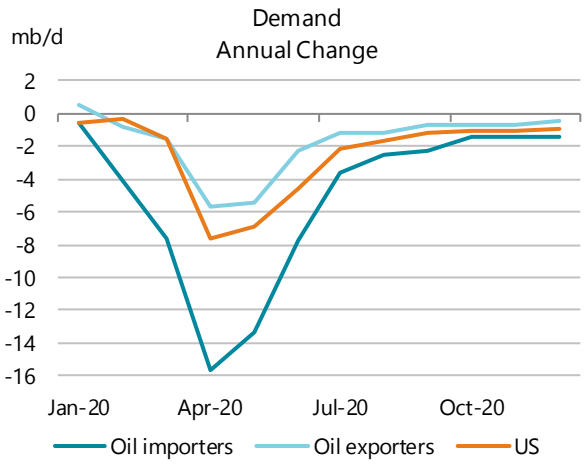
Biofuels: By end-March, several US ethanol producers had reduced production and idled plants, according to the Renewable Fuels Association. The economics of producing ethanol has been hammered by low oil prices and weak gasoline blending demand. We have revised down our 2020 forecast for US ethanol production by 200 kb/d to 830 kb/d. Overall, total global biofuels (ethanol and biodiesel) production in 2020 is estimated to be 2.7 mb/d, down 110 kb/d y-o-y.

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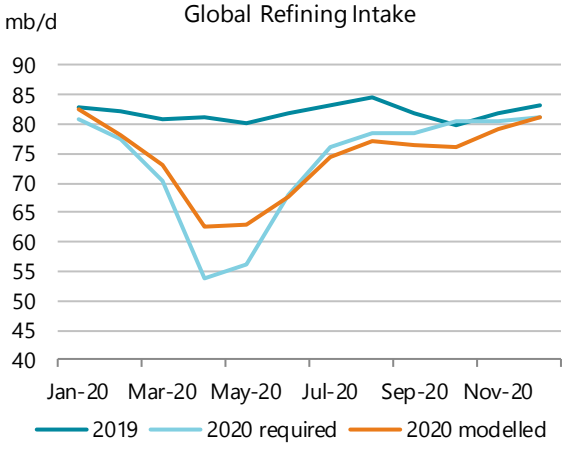
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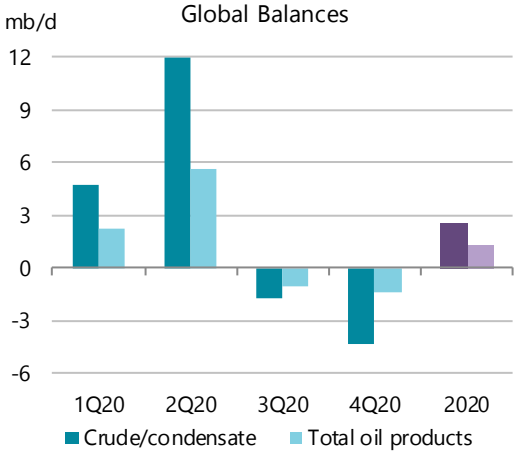
Overview

Due to Covid-19 containment measures, oil demand in 2020 is forecast to drop by 9.3 mb/d year-on-year (y-o-y), of which refined products account for 8.5 mb/d. Global refining throughput is forecast to fall by 7.6 mb/d to 74.3 mb/d, a level last observed in 2010. We have adapted our methodology of forecasting global refining activity to estimate the impact of the extraordinary demand shock in 2020. Our forecast is based on the OPEC+ agreement concluded on 12 April and on production falls in other non-OPEC countries (see *Supply*) and assumptions about crude and product stock builds. In oil importing countries demand decline amounts to 15.2 mb/d, with the exporters and the US combined responsible for the rest.



To avoid product inventory builds, refinery runs in 2Q20 would need to drop below 60 mb/d, or 20 mb/d down y-o-y. This would result in more than 16 mb/d crude stock build, which does not seem logistically feasible. Instead, our 2Q20 refinery throughput forecast is 17 mb/d lower y-o-y, reducing the expected crude stockbuild to 12 mb/d and implying close to 6 mb/d product stock build. Availability of product storage space is not easy to estimate. In the US there was 250 mb of storage space available for refined products as of early April and it is possible that there could be as much storage capacity available in the rest of the world to house the expected 2Q20 build-up.





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Another factor is timing. April is expected to be the worst-hit month for demand, with May not far behind, yet anecdotal evidence at the beginning of the month did not imply the scale of run cuts that the market balancing would require. It takes time to significantly reduce or shut down refining units (see Box *Stop and go: how do refiners adapt to demand swings?)*

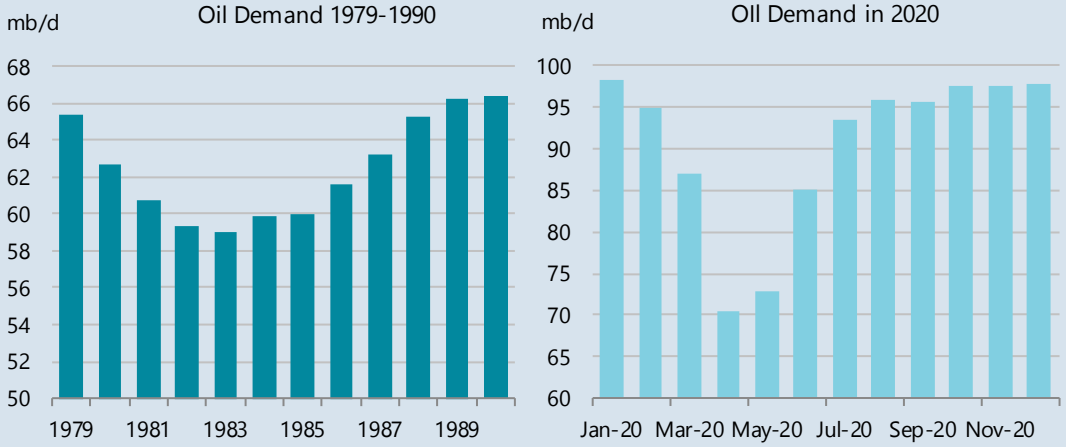
By contrast, our forecast for 2H20 runs are lower than the demand levels, assuming destocking from the 2Q20 product overhang. As it stands, our forecast implies hitherto unseen crude and product inventory swings. However, a balanced refined product market would result in even more extreme changes in the crude market. Our forecast, therefore, is an attempt to model a compromise against the background of these extremely unpredictable market fundamentals.

The events unfolding in 2020 are truly unprecedented. However, oil markets previously witnessed a somewhat similar development in the early 1980s, albeit played out in much slower motion. It had profound and long-lasting consequences for the refining sector and the oil industry in general (see Box *Historical parallels*).

Box 2. Historical parallels

Oil market developments in 2020 resemble an accelerated version of events in the early 1980s. Then, oil demand fell by 6.3 mb/d, or 10%, between 1979 and 1983. Cyclical factors played a role (a global economic recession in early 1980s), but structural changes had a more significant impact: fuel oil in power generation was being replaced by natural gas and nuclear. It took 10 years for oil demand to return to pre-shock levels.

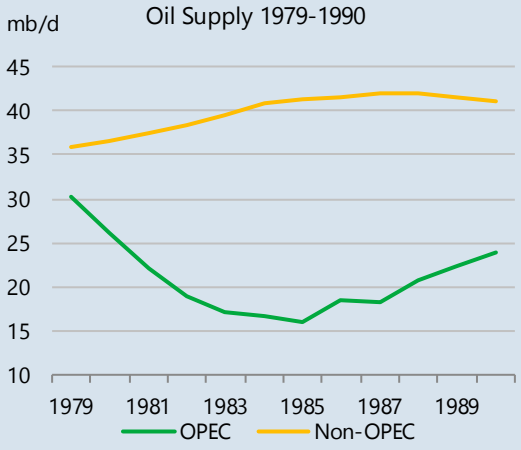
The Covid-19 related demand shock is much faster and more profound. The demand loss is close to 30% at its peak in April but a much swifter recovery is expected (see *Demand*). It is a temporary structural shock affecting mostly transport fuel demand through mobility restrictions, an especially difficult situation for refiners that mostly rely on these fuels for their margins as other products tend to be priced at a discount or only a small premium to crude oil prices

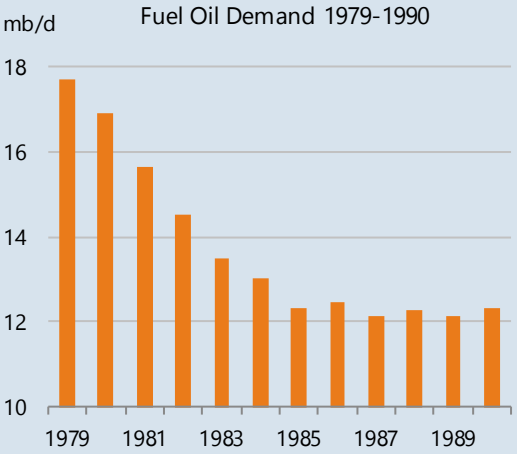


Refining margins in March, however, were mostly positive, if extremely volatile, due to a lack of response from the supply side. Political considerations aside, supply is more difficult to cut back than demand as mobility restrictions can be mandated overnight and enforced. In early 1980s, most of the supply response came from OPEC (and declining production in some non-OPEC

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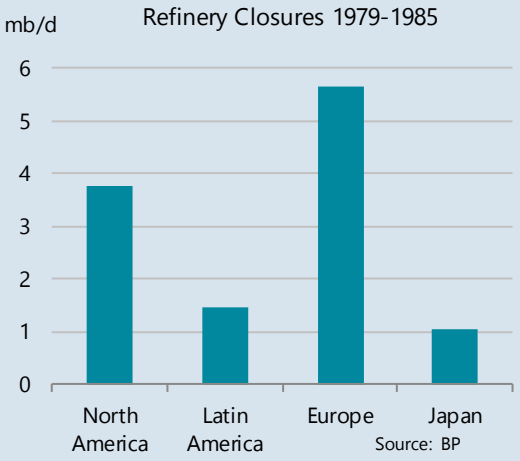
countries). This was also a result of the 4.3 mb/d decline in fuel oil consumption from 1979-85, which lowered demand for medium-heavy crude grades. OPEC's pre-crisis output levels returned in 2000s.





The oil demand shock of the 1980s resulted in 12 mb/d of refinery shutdown worldwide. In most cases, these were refineries specifically built for production of fuel oil for power generation and some had only operated for a limited period. Fuel oil demand not only stopped growing, but also went into a long-term decline.

The 2020 demand shock is different in nature, and its relatively short duration poses tricky challenges for refinery operations management. Temporary closures and deep run cuts are needed to balance product markets, but this crisis could also trigger some permanent shutdowns. It is fair to say there is a certain amount of excess capacity waiting for an additional impetus to get written off. Covid-19 could yet deliver the coup de grace for these assets.



Margins

In March, monthly average refining margins improved in the seaborne hubs of the Atlantic Basin on support from lower crude prices. Singapore Dubai margins and landlocked US Midwest margins were lower m-o-m. Average monthly values, however, mask a notably high volatility in daily margins, reflecting the chaotic state of both crude and refined products markets. End-month spot crude prices were barely above a third of the values at which they started the month. A disconnect emerged between physical and futures markets. A striking example was the North Sea Dated differential to ICE Brent futures falling to -$12/bbl from its normal range of

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±$2/bbl. The relatively less-traded Shanghai crude oil futures market also experienced a similar dislocation, pricing well above the delivered spot price of a grade of its underlying basket.

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

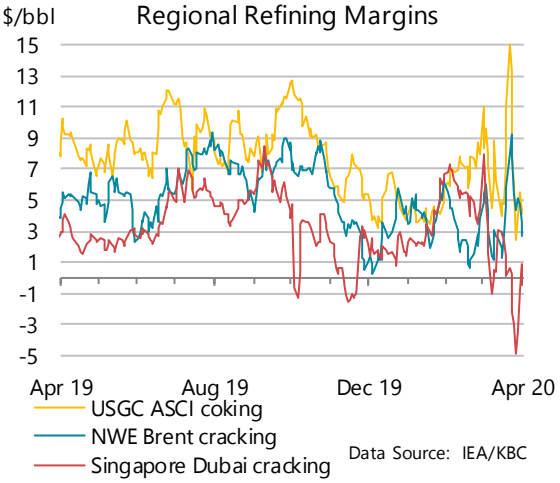
	Monthly Average				Change		Average for week ending:				
	Dec 19	Jan 20	Feb 20	Mar 20	Mar YY-Feb YY		13 Mar	20 Mar	27 Mar	03 Apr	10 Apr
NW Europe											
Brent (Cracking)	2.01	4.04	3.51	3.67	↑	0.15	4.73	2.17	3.27	6.98	4.07
Urals (Cracking)	0.77	2.38	2.80	6.56	↑	3.75	6.49	6.09	7.99	12.14	9.40
Brent (Hydroskimming)	0.82	3.97	2.30	2.84	↑	0.55	3.16	2.03	3.39	7.23	4.88
Urals (Hydroskimming)	-8.69	-4.99	-2.66	2.97	↑	5.63	2.19	3.44	5.38	9.67	8.04
Mediterranean											
Es Sider (Cracking)	3.76	5.96	5.73	5.37	↓	-0.36	6.24	4.10	5.26	8.64	6.02
Urals (Cracking)	0.11	2.81	3.35	7.25	↑	3.90	7.99	5.74	8.27	11.49	9.98
Es Sider (Hydroskimming)	2.39	5.61	4.58	3.89	↓	-0.69	4.23	2.93	4.02	7.89	5.96
Urals (Hydroskimming)	-10.01	-5.02	-2.51	2.76	↑	5.28	2.75	1.94	4.33	8.08	7.74
US Gulf Coast											
Mars (Cracking)	-3.45	-2.40	2.22	2.95	↑	0.73	3.42	2.12	1.42	2.98	0.58
50/50 HLS/LLS (Coking)	7.31	6.60	8.27	9.22	↑	0.95	8.83	7.15	8.82	11.16	8.06
50/50 Maya/Mars (Coking)	4.05	2.57	6.14	7.91	↑	1.78	8.78	6.68	6.51	8.38	5.76
ASCI (Coking)	5.01	4.19	6.33	7.97	↑	1.65	8.84	6.28	6.33	8.87	4.49
US Midwest											
30/70 WCS/Bakken (Cracking	6.18	9.94	10.46	6.83	↓	-3.63	9.50	6.84	2.38	4.08	4.99
Bakken (Cracking)	8.71	12.08	11.52	8.41	↓	-3.10	12.07	8.58	3.07	6.28	6.06
WTI (Coking)	7.99	6.99	10.54	6.73	↓	-3.81	11.40	4.16	1.69	-1.30	-3.21
30/70 WCS/Bakken (Coking)	11.35	13.69	13.12	9.45	↓	-3.67	13.26	8.87	4.12	6.49	6.14
Singapore											
Dubai (Hydroskimming)	-9.53	-6.49	-2.39	-2.80	↓	-0.41	-2.06	-4.13	-1.52	-4.57	-2.51
Tapis (Hydroskimming)	-5.14	-1.90	-1.37	4.85	↑	6.21	4.74	6.46	5.17	7.93	4.01
Dubai (Hydrocracking)	1.98	2.60	5.89	2.72	↓	-3.17	5.12	0.61	1.98	-1.83	-0.96
Tapis (Hydrocracking)	-1.45	-0.82	-1.31	3.93	↑	5.24	4.20	5.01	4.06	7.10	2.69

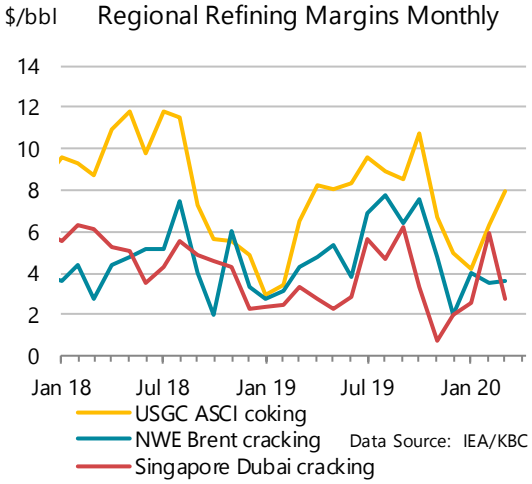
[1] Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should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

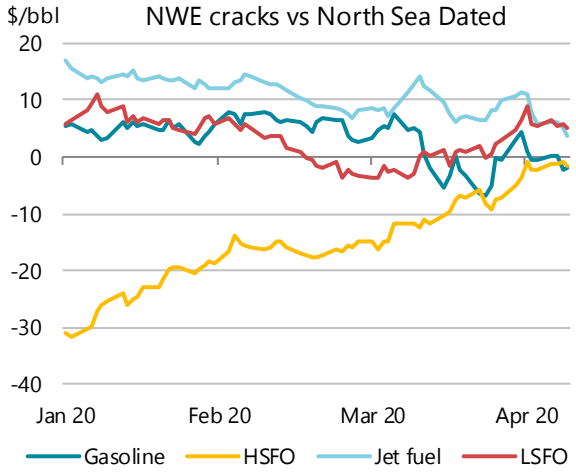
In product markets, mobility restrictions affected premium transport fuels. After a relatively robust performance during the off-peak winter season, gasoline cracks fell below zero in most regions. In Europe, a gasoline exporting region, they were below high sulphur fuel oil (HSFO). Jet fuel cracks, usually the highest-priced among oil products, fell to low single-digits, below low sulphur fuel oil (LSFO) values. Jet fuel demand will suffer throughout most of this year.

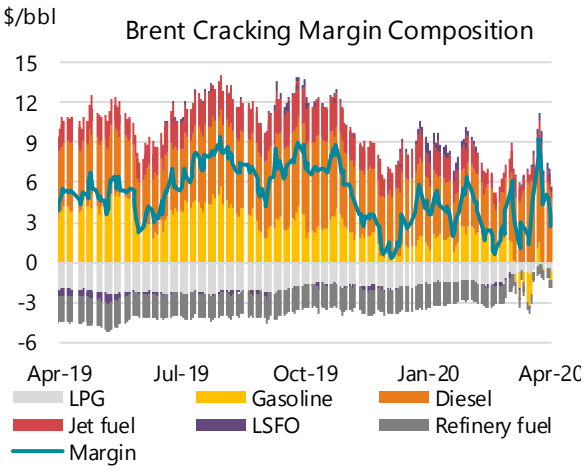
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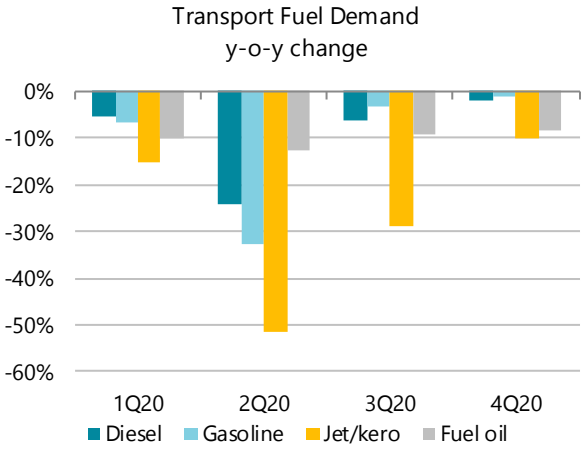
Diesel solidified its position as the main supporter of margins, compensating refiners for losses on the rest of the barrel. This was true for European and US margins, but the added twist in Singapore was that 0.5% sulphur fuel oil cracks surged above diesel in early April. Diesel cracks gained $3/bbl on average in March. It may seem counterintuitive that any product pricing should improve at a time when all products experience outsized year-on-year demand losses. But the logic is that among the premium transport fuels, diesel should see a relatively smaller decline in percentage terms and will benefit from the fact that it is easier to store than most other products. Even during the period of peak demand loss in April and May, more than half of global refining capacity will need to be running, requiring at least some positive product cracks.

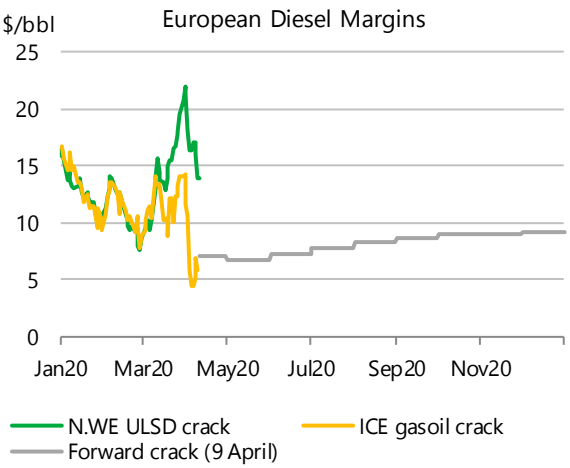




Nevertheless, ICE gasoil cracks remain in contango as a result of the current oversupply. The disconnect between physical and futures markets is also evident here, with the futures crack just half of the spot crack. This has certain implications for refinery margins, hedging and storage economics. This Report does not attempt to forecast refinery margins, but two things can be stated with a degree of certainty. First, unusual cross-product pricing relationships will continue emerging over the coming months, and second, the refinery margin volatility will remain elevated until demand returns to its normal pattern.

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Global Refinery Crude Throughput[1]

(million barrels per day)

	2019	Jan 20	Feb 20	Mar 20	1Q20	Apr 20	May 20	2Q20	3Q20	4Q20	2020
Americas	**19.2**	19.2	18.4	17.3	**18.3**	13.5	13.8	**14.4**	**17.9**	**18.3**	**17.2**
Europe	**12.2**	12.0	12.2	10.7	**11.6**	7.3	6.9	**7.1**	**10.6**	**11.0**	**10.1**
Asia Oceania	**6.8**	6.9	6.7	6.1	**6.5**	5.2	5.2	**5.4**	**5.9**	**6.2**	**6.0**
Total OECD	**38.1**	38.1	37.2	34.1	**36.4**	25.9	25.9	**26.8**	**34.4**	**35.5**	**33.3**
FSU	**6.8**	6.8	6.9	6.6	**6.8**	5.8	5.6	**5.9**	**6.5**	**6.5**	**6.4**
Non-OECD Europe	**0.6**	0.5	0.5	0.5	**0.5**	0.4	0.5	**0.4**	**0.5**	**0.5**	**0.5**
China	**13.0**	13.4	10.5	11.3	**11.8**	12.1	12.4	**12.4**	**12.9**	**13.4**	**12.6**
Other Asia	**10.5**	10.8	10.7	9.4	**10.3**	7.4	7.6	**7.7**	**9.6**	**10.2**	**9.5**
Latin America	**3.2**	3.2	3.1	2.8	**3.0**	2.5	2.5	**2.5**	**2.7**	**3.1**	**2.8**
Middle East	**7.7**	7.8	7.0	6.6	**7.1**	6.7	6.8	**6.8**	**7.5**	**7.5**	**7.3**
Africa	**2.0**	2.1	2.1	1.9	**2.0**	1.7	1.7	**1.7**	**1.9**	**2.0**	**1.9**
Total Non-OECD	**43.8**	44.5	40.9	39.1	**41.5**	36.6	37.0	**37.5**	**41.6**	**43.3**	**41.0**
Total	**81.9**	82.6	78.0	73.2	**78.0**	62.5	62.9	**64.3**	**76.0**	**78.8**	**74.3**
Year-on-year change	**-0.4**	*-0.4*	*-4.0*	*-7.5*	*-4.0*	*-18.6*	*-17.3*	*-16.7*	*-7.2*	*-2.8*	**-7.6**

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

Box 3. Stop and go: how do refiners adapt to demand swings?

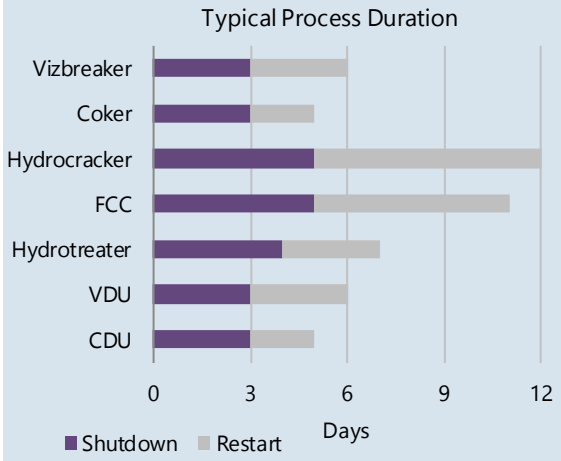
The unprecedented and abrupt demand loss in 2Q20 is posing a unique challenge for the refining industry. It is not possible to manage the situation without severe activity declines in most refineries, and shutdowns in others. Circumstances are different for each refinery, depending on location and configuration. Even refineries in regions where demand is least affected, are likely to face bottlenecks in some part of their processes. Initially, refineries will try to maintain run rates, despite weak margins, especially if they have crude deliveries that they cannot defer. This strategy may fill-up their product storage and weigh on future utilisation rates.

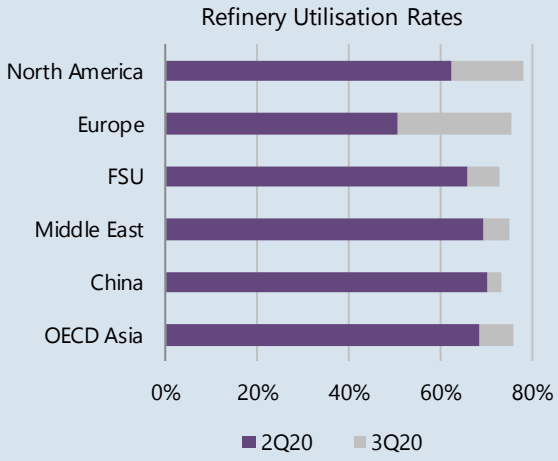
Reduced utilisation rates are the first option for dealing with a shrinking market, but when run rates drop below minimum levels required for safety and operational purposes and product storage is full, the only possibility is to shut down units or entire sites. That is not an easy decision. Fully adjusting to the demand changes would require global utilisation rates to drop significantly below

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the 65% threshold in 2Q20, signifying uneconomic or unsafe operations. For short periods of shutdown, refinery units can be put into a hot or cold circulation mode, when fluids circulate through the system, but fuel is not produced. In hot circulation, mechanical equipment is working, as well as furnaces and utilities, to supply steam, resulting in sizeable non-productive energy consumption. Typically, this is the case for units dealing with heavy residues, to prevent clogging the lines. Cold circulation is practiced for units that work with high pressure (hydrocrackers, hydrotreaters, etc).

Shutdowns for longer durations imply complete stoppage of producing equipment. Shutting down refinery units is not as simple as pushing a button or pulling a plug. The more complex the unit, the longer the process takes. CDU or hydrotreatment units are relatively simple to stop and restart, but FCC and hydrocrackers require more time. Many industrial accidents occur during the restart phase, if precautions were not observed during the shutdown. In general, mothballing requires emptying and draining the vessels and lines, close surveillance of lines and equipment to detect corrosion, and good maintenance of the instrumentation devices to avoid measuring errors later. Some mechanical equipment, such as big centrifugal compressors, need to be well controlled to avoid mechanical damage like axis deformation or seal leaks. Slops emptied from the vessels need to be stored for future processing or waste treatment.





Most countries that have introduced lockdowns treat refining as an essential activity and exempt the sector's employees from mobility restrictions. However, external technical consultants may be required to assist in mothballing and the general epidemiological situation could affect the accessibility of the site. Refineries also need to foresee the duration of the shutdown to plan procedures accordingly. This is relatively easy to do for maintenance outages, but forecasting the duration of demand loss due to Covid-19 and the dynamics of destocking is extremely difficult.

Regional refining developments

The **US** is one of the few countries where refiners have experience with abrupt falls in refining activity, particularly in the hurricane-prone regions of the Gulf Coast. Data from the Energy Information Administration (EIA) show runs falling to 13.6 mb/d for the week ending 3 April,

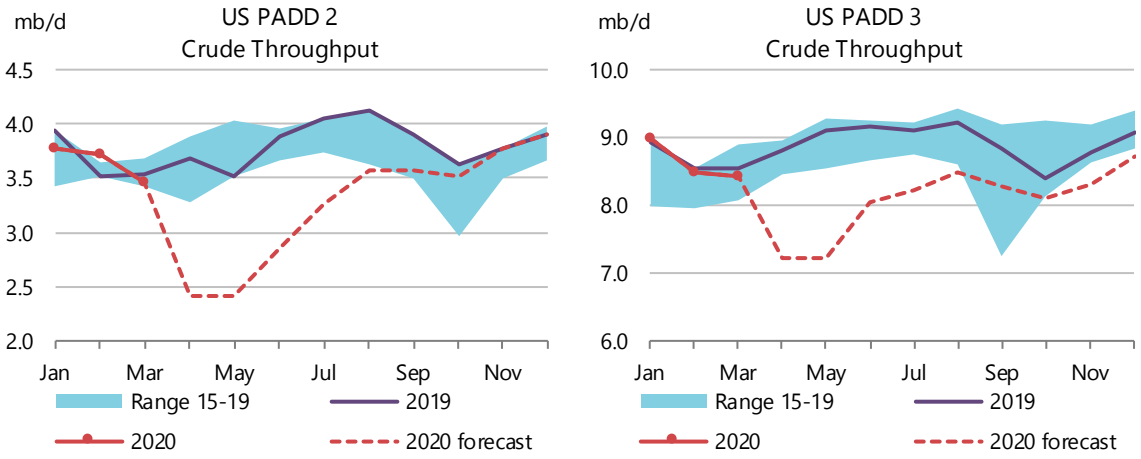
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down 2 mb/d from four weeks earlier. This is the lowest weekly run rate since hurricane Ike in September 2008. Over the next two months runs are forecast to decline further.

Due to the size of the US, as well as the geographical and geological diversity, the oil market situation varies greatly from one region to the next. For statistical purposes, the EIA splits the country into five Petroleum Administration for Defence Districts (PADD). We attempted to forecast refining activity at the PADD level in order to take into account specific regional supply and logistical constraints. Demand was derived from our total US forecast, proportionate to population.

PADD 1, the Atlantic Coast, is the largest demand region (and second in the world after China) but it is the second smallest refiner in the US. Local production covers only 10-15% of demand. Even at peak demand loss the region still needs to import close to 2 mb/d of products. Local refineries, however, are still expected to reduce throughput by 200 kb/d, or 25%, on the expectation of lower profitability. A similar development is expected in the most sparsely populated PADD 4, the smallest refining region.

PADD 2, the Midwest, covers the second-largest demand and refining region, relying on Canadian imports and local production. Its activity levels are vital for Canadian extra-heavy oil producers, as it processes 2.5 mb/d of imports, mostly diluted bitumen. It also processes 1.2 mb/d of domestic crude, from North Dakota and elsewhere. The product market is largely balanced by export flows to PADD 1 and supplies from PADD 3. As it is landlocked, it cannot export to international markets. On the expectation of favourable pricing for Canadian grades, we have maximised the possible intake for April-May in our forecast, but available product storage runs out at some point in June.



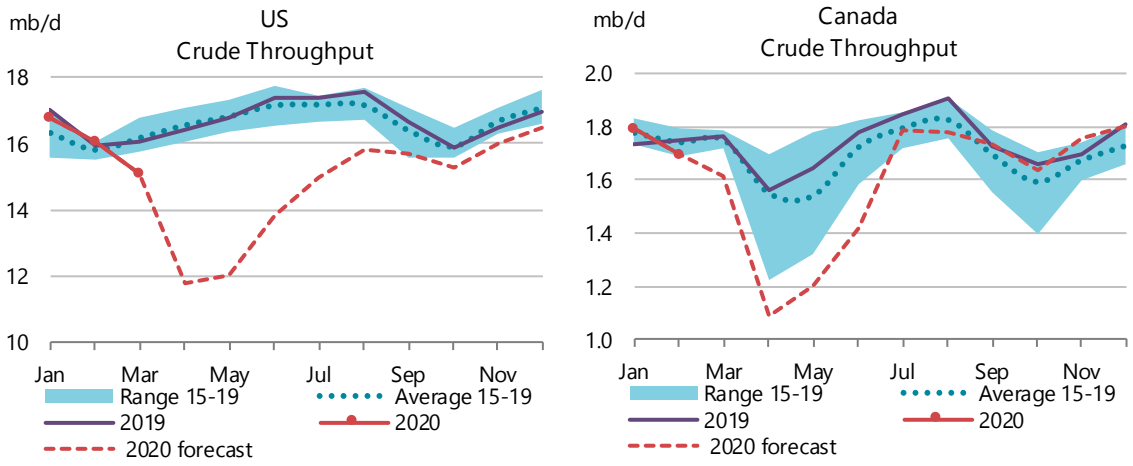
PADD 3, the Gulf Coast, is the second largest refining region outside China. It is the biggest user of US domestic crude, including both the light tight oil and production from the Gulf of Mexico. Refining is export-oriented, with one third of output typically sent to PADD 1 and another third exported, primarily to Mexico and Latin America. The product import requirements of its main overseas customers are expected to fall sharply due to demand losses, and it is difficult to increase outflows to PADD 1 due to inland infrastructure restrictions (seaborne shipments require Jones Act-compatible vessels), but also the fall in demand in PADD 1. Even with run rates falling to September 2017's hurricane Harvey-affected level, massive builds in product stocks (over 100 mb in April-May) are expected. As of early April, available product storage was around 180 mb, significantly more than commercial crude storage (estimated at 100 mb).

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PADD 5, the US West Coast, relies on domestic crude production from Alaska and California for about a third of its average 2.4 mb/d intake and imports the rest. It is also a net product importer from overseas. PADD 5 is likely to balance falling demand by reducing product imports and cutting utilisation rates. In 2Q20, runs are forecast to fall by 0.7 mb/d y-o-y.

Overall, US runs are forecast to fall 4.3 mb/d y-o-y in 2Q20 and 1.7 mb/d for 2020 as a whole.

Canadian refining activity is expected to largely follow our demand reduction and rebound pattern. In the last week of March, run rates fell 300 kb/d versus February, to just 1.4 mb/d. The 130 kb/d Come By Chance refinery on the Atlantic Coast shut at the end of March due to the collapse in demand and is expected to remain closed for several months

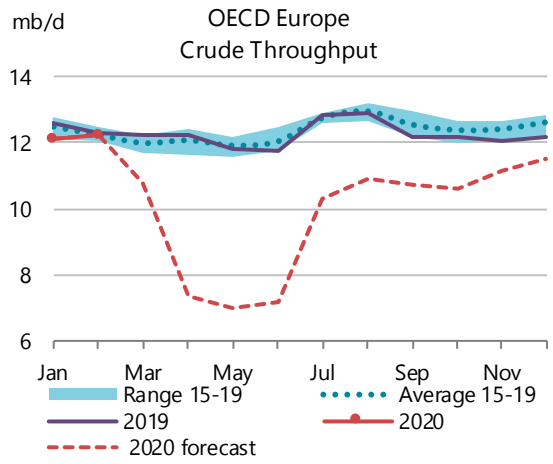


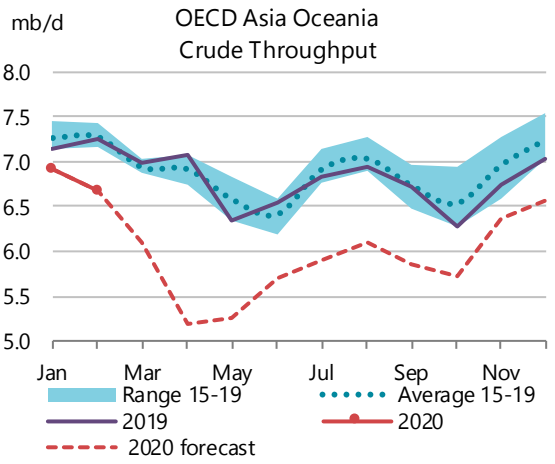
We have revised lower our **Mexican** refining forecast largely on poor February performance when runs fell 100 kb/d m-o-m to 465 kb/d, implying 28% utilisation rate. The country remains a net product importer even with the demand loss in 2Q20.

OECD Europe is expected to be one of the worst hit regions in terms of refining activity. Throughput has declined for two consecutive years in the face of increasing international competition. A skewed product demand barrel means that a third of gasoline production has to be exported. Combined demand for gasoline/diesel and jet fuel is expected to drop by more than half in April and May. Thus, 2Q20 utilisation rates are forecast to drop to 50%, the lowest regional rate globally, resulting in a 4.8 mb/d y-o-y loss. While some refineries have brought forward spring maintenance programmes in many others these are delayed due to logistical obstacles for personnel access and equipment supply. This means a potential backlog of repairs after the normalisation starts, depressing utilisation rates for the rest of the year. For 2020 as a whole, we forecast a 2.1 mb/d decline in runs.

OECD Asia is expected to boast the highest utilisation rates anywhere in 2Q20, with demand affected to a slightly less extent and most constituent countries short of refined products in normal circumstances. Nevertheless, runs will be 1.3 mb/d lower y-o-y in 2Q20 and down 0.8 mb/d in 2020.

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Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

							Change from		Utilisation rate [1]	
	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	*Jan 20*	*Feb 19*	Feb 20	Feb 19
US[2]	16.55	15.75	16.36	16.87	16.68	15.98	-0.69	0.12	84%	83%
Canada	1.72	1.65	1.69	1.80	1.78	1.69	-0.10	-0.05	84%	86%
Chile	0.21	0.20	0.20	0.21	0.21	0.22	0.01	0.02	97%	89%
Mexico	0.66	0.60	0.59	0.57	0.56	0.47	-0.10	-0.13	28%	36%
OECD Americas[3]	**19.14**	**18.20**	**18.84**	**19.45**	**19.23**	**18.36**	**-0.88**	**-0.04**	**80%**	**80%**
France	0.98	0.83	0.81	0.84	0.75	0.81	0.06	-0.36	65%	95%
Germany	1.80	1.85	1.82	1.84	1.85	1.97	0.12	0.24	98%	86%
Italy	1.49	1.35	1.35	1.30	1.31	1.24	-0.07	0.04	71%	69%
Netherlands	1.17	1.19	1.10	1.15	1.22	1.16	-0.07	0.04	90%	87%
Spain	1.28	1.35	1.17	1.29	1.26	1.22	-0.04	-0.08	86%	92%
United Kingdom	1.05	1.12	1.13	1.16	1.18	1.12	-0.06	0.03	88%	86%
Other OECD Europe	4.32	4.37	4.61	4.49	4.44	4.65	0.21	0.06	85%	88%
OECD Europe	**12.08**	**12.06**	**11.98**	**12.07**	**12.01**	**12.15**	**0.14**	**-0.04**	**84%**	**85%**
Japan	2.95	2.78	2.99	3.13	3.08	2.94	-0.14	-0.25	83%	90%
South Korea	2.91	2.64	2.88	2.98	2.97	2.85	-0.12	-0.35	84%	95%
Other Asia Oceania	0.86	0.85	0.86	0.93	0.86	0.87	0.02	0.02	100%	98%
OECD Asia Oceania	**6.72**	**6.27**	**6.74**	**7.03**	**6.90**	**6.66**	**-0.24**	**-0.59**	**85%**	**93%**
OECD Total	**37.94**	**36.52**	**37.56**	**38.55**	**38.15**	**37.17**	**-0.97**	**-0.67**	**82%**	**84%**

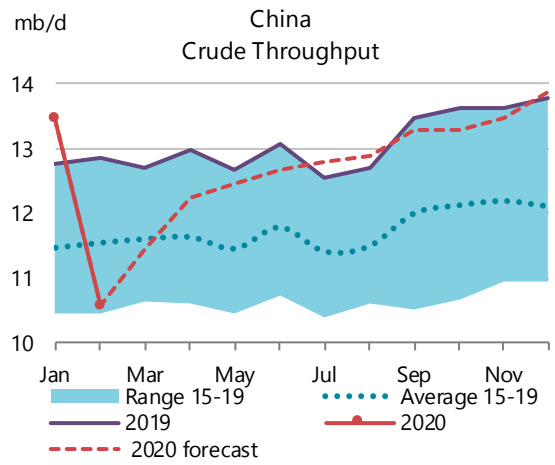
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

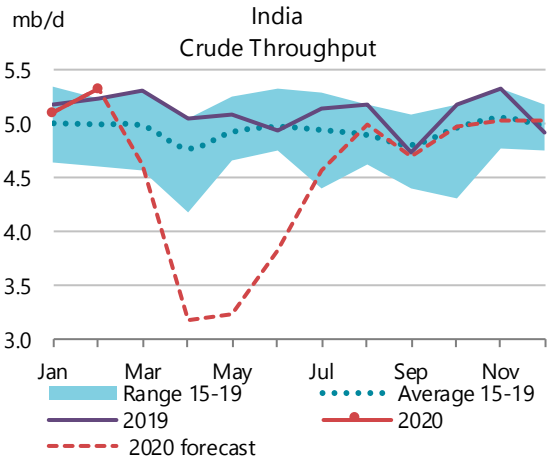
2 US50

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

China is the only region where we have revised 1Q20 throughput higher based on January-February data reported by the National Bureau of Statistics and consultancy SCI's survey of March operating rates. Throughput is estimated to have recovered 0.9 mb/ m-o-m in March, but was down 1.3 mb/d y-o-y. The 0.3 mb/d upward revision in 1Q20 was more than offset by downward revisions for the rest of the year, prompted by the lower demand outlook in China and elsewhere. Thanks to the formula used in setting domestic regulated wholesale fuel prices, where an international crude price floor of $40/bbl is used, Chinese refiners are in a position to effectively subsidize exports from domestic revenues. In theory, the windfall needs to be paid into a state fund, even if historically no payments have been made on this account. Overall, 2020 throughput is forecast to decline by 0.4 mb/d y-o-y.

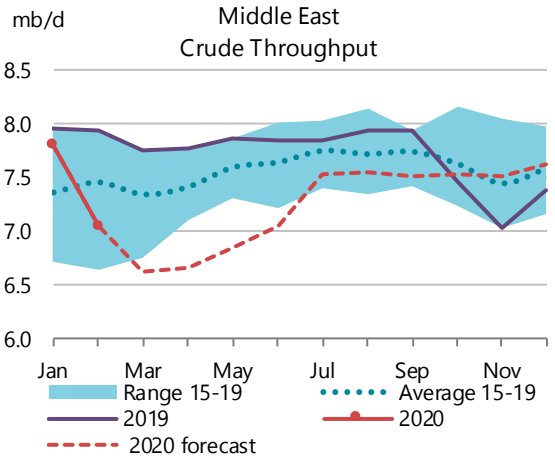
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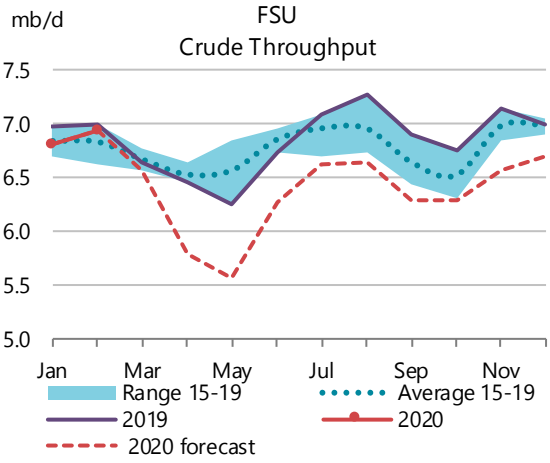




Indian state-owned refiners have already announced widespread run cuts to counter the steep fall in demand. Activity started to fall in March and runs in April are estimated to be 1.8 mb/d lower than recent monthly average level. A recovery in demand in 3Q20 drives stronger utilisation rates. Elsewhere in Asia, refiners in net product importing countries (e.g. **Pakistan, Vietnam**), are asking their governments for outright bans on product imports Two refineries in Pakistan were reportedly closed due to full product storage tanks, accounting for half of total capacity.

Demand destruction is also affecting **Middle Eastern** countries, where 1Q20 refinery runs were already very low due to major maintenance work. In 4Q20, runs are forecast to increase y-o-y, but remain below historical highs. For 2020 as a whole, throughput declines by 0.5 mb/d.

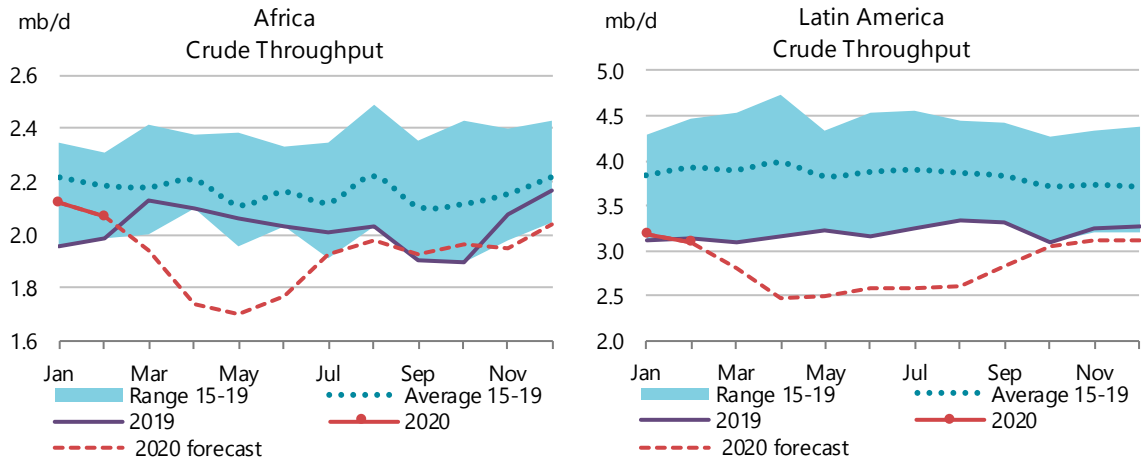




Russia is not only a major crude oil exporter but also a major product exporter, primarily supplying diesel to European markets and fuel oil globally. With export markets in turmoil, the domestic market is also reeling from product oversupply as local demand falls, complicated by relatively full storage. Transneft's storage capacity (150Mb for crude and products) as well as most refinery storage capacity is generally only available for logistical and operational purposes. At least some of the contaminated Urals crude from the Druzhba pipeline incident in 2019 is still being stored in Russia. Oil companies have reportedly turned to storing crude oil in railcars. Oversupply will worsen when refineries start reducing operating rates in earnest. Refiners elsewhere in the FSU are also expected to cut rates in 2Q20.

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The African continent is the largest net product importing region, but demand losses are also felt by its refineries. Three refineries in **South Africa** have either already shut or are expected to close within the coming weeks. There were reports that **Egypt** and **Nigeria**, both gasoline importers, were trying to resell excess gasoline cargoes.



In **Brazil**, Petrobras announced a reduction in refinery utilisation rates to 60% from 75%, and froze its refinery divestment programme. We expect a lower impact on the refining activity in the Pacific coast countries of Latin America, which are mostly net product importers.

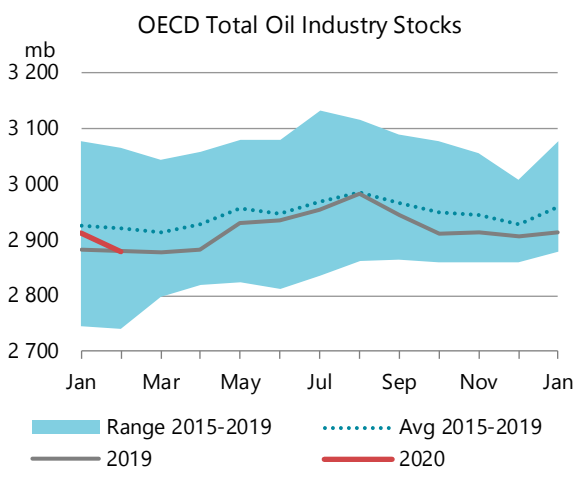
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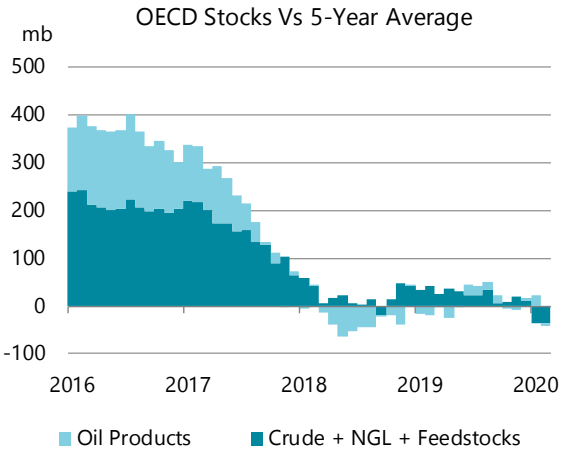
Stocks

Overview

Plunging oil demand and high levels of supply in the early part of the year suggest that global stocks are building significantly. While final supply, demand, and stock data could change currently estimated builds significantly, based on the assumptions in this outlook, global crude stocks could rise by as much as 11.9 mb/d in 2Q20, with the rest of the build of 17.4 mb/d accumulating in products. With such high stock builds, the highest in history, the availability of storage is a key issue and the subject of much current debate. We have analysed the crude storage infrastructure and the most recent complete data suggest that at the end of January the 6.7 billion bbls of global crude oil storage capacity was holding 4.2 billion bbls, representing a utilisation rate of 63%. We assume that 80% of this nameplate capacity is the maximum operational level; this means that there was about 1.2 billion bbls of spare capacity at end-January. Based on the assumptions for the crude balance in 1H20, stocks could approach this operational capacity limit by mid-year (see *Storage capacity assessment*).

Meanwhile, in February OECD commercial stocks fell by a large 35.4 mb month-on-month (m-o-m) to 2 878 mb. This was much larger than the five-year average draw of 6.2 mb and it was due to a product stock draw in the Americas. At end-month, total inventories stood 42.4 mb below the five-year average. In terms of forward demand, they covered 79.2 days, an increase of 8.5 days m-o-m and 16.8 days above the five-year average. The big increase in forward coverage is of course due to collapsing demand.





OECD crude stocks rose less than usual by 11.9 mb to 1 077 mb in February. Crude stocks in the Americas built by 14.1 mb, amid lower refinery runs in the US (-690 kb/d m-o-m in February). European crude inventories fell counter-seasonally by 3.2 mb due to increased refinery throughput (+140 kb/d m-o-m). Crude inventories in Asia Oceania built by 1 mb largely in-line with seasonal trends.

Oil product stocks fell by 53 mb to 1 457 mb in February. The draw was more than double the usual fall of 22.5 mb and was led by a large draw for middle distillates (-20.2 mb) and motor

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gasoline (-10.4 mb). Other oil inventories also fell in February, by 21.8 mb. Fuel oil stocks drew counter-seasonally by a modest 0.6 mb.

Preliminary data for March showed inventories increasing as crude stock builds in all three regions offset product stock draws. This divergence in stocks reflects the sharp fall in refinery throughputs from January to February (see Refining). US crude stocks rose by a large 32.7 mb (1.1 mb/d) due to lower refinery intake. Total US product inventories fell 6.7 mb, led by a 14.5 mb fall for middle distillate stocks. Crude stocks in Europe built 10.6 mb (0.3 mb/d), notably in Italy (6.2 mb). European product stocks fell 2.1 mb owing to a fall in middle distillate inventories (-1.7 mb). Japanese crude stocks rose 9.2 mb, larger than the usual increase of 1.7 mb. Total product stocks in Japan fell by 1.5 mb in line with the five-year average.

Preliminary Industry Stock Change in February 2020 and Fourth Quarter 2019

	February 2020 (preliminary) (million barrels)				February 2020 (preliminary) (million barrels per day)				Fourth Quarter 2019 (million barrels per day)			
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
Crude Oil	**14.1**	**-3.2**	**1.0**	**11.9**	**0.5**	**-0.1**	**0.0**	**0.4**	**0.1**	**0.0**	**0.1**	**0.2**
Gasoline	-10.6	1.4	-1.1	-10.4	-0.4	0.0	0.0	-0.4	0.3	0.1	0.0	0.3
Middle Distillates	-12.5	-2.0	-5.7	-20.2	-0.4	-0.1	-0.2	-0.7	0.0	-0.1	-0.1	-0.1
Residual Fuel Oil	-0.6	0.1	0.0	-0.6	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1
Other Products	-17.8	-0.6	-3.5	-21.8	-0.6	0.0	-0.1	-0.8	-0.4	0.0	-0.1	-0.5
Total Products	**-41.5**	**-1.1**	**-10.3**	**-53.0**	**-1.4**	**0.0**	**-0.4**	**-1.8**	**-0.1**	**-0.1**	**-0.2**	**-0.4**
Other Oils[1]	8.6	0.3	-3.3	5.6	0.3	0.0	-0.1	0.2	-0.2	0.0	0.0	-0.3
Total Oil	**-18.8**	**-4.0**	**-12.7**	**-35.4**	**-0.6**	**-0.1**	**-0.4**	**-1.2**	**-0.2**	**-0.1**	**-0.1**	**-0.4**

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

Data for January show that total OECD stocks were revised down by 16.1 mb to 2 930 mb. The largest adjustment was for crude oil inventories in Asia Oceania, which fell by 32.1 mb. Product stocks in the Americas also fell, by 13.4 mb, led by middle distillates (-6.3 mb). European crude and total product stocks were revised up by 9.7 mb and 7.5 mb, respectively. December figures were revised up by 4.1 mb, notably crude stocks in Europe (2.2 mb).

Revisions versus March 2020 Oil Market Report
(million barrels)

	Americas		Europe		Asia Oceania		OECD	
	Dec-19	Jan-20	Dec-19	Jan-20	Dec-19	Jan-20	Dec-19	Jan-20
Crude Oil	**0.0**	**5.7**	**2.2**	**9.7**	**0.1**	**-32.1**	**2.2**	**-16.7**
Gasoline	0.0	-1.6	0.0	-0.5	0.0	1.2	0.0	-1.0
Middle Distillates	0.0	-6.3	0.1	12.3	0.3	2.9	0.4	9.0
Residual Fuel Oil	0.0	-2.7	0.9	4.5	0.0	2.0	0.9	3.8
Other Products	0.0	-2.7	0.6	-8.8	0.0	1.4	0.6	-10.1
Total Products	**0.0**	**-13.4**	**1.6**	**7.5**	**0.3**	**7.6**	**1.9**	**1.6**
Other Oils[1]	0.0	-2.2	0.0	1.4	0.0	-0.3	0.0	-1.1
Total Oil	**0.0**	**-9.9**	**3.8**	**18.6**	**0.4**	**-24.8**	**4.1**	**-16.1**

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

Storage capacity assessment

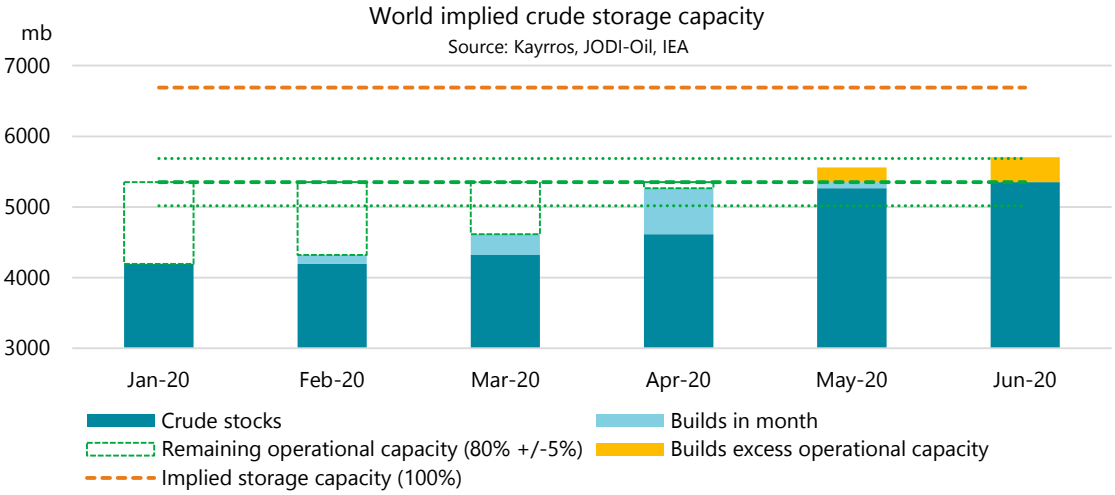
Our crude oil balance, derived from crude oil production, refinery runs and direct burn, suggests that global stocks could build at a rate of 11.9 mb/d in 2Q20.This raises the issue of how much storage capacity is available for crude oil. There is only limited and incomplete publicly available data covering onshore tanks, underground cavern storage and capacity on tankers as well as their availability and current level of use.

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In this *Report*, for onshore storage, both commercial and government (including stocks held underground), we have estimated implied storage capacity as of end-January 2020 using *Kayrros*, which provides satellite images of storage tanks; *JODI-Oil* mainly for non-OECD countries; and the IEA's *Monthly Oil Data Service (MODS)* for OECD countries; for floating storage and oil in transit figures, active tanker capacity data from ship brokers *EA Gibson*, loading and ballasting data from *Kpler* and tanker trade flow data from *Refinitive* are used.

Combining these inputs, which provide useful data for 78 countries, we estimate that there is 6.7 billion bbls of crude oil storage capacity. At the end of January, it was filled with 4.2 billion bbls, representing a capacity utilisation rate of 63%. For operational reasons, tanks have a maximum capacity around 80% +/-5% (5.0-5.7 billion bbls range), which is assumed as a maximum operational capacity for our analysis. On this basis, there was 1.2 billion bbls of available storage capacity unfilled at end-January.

Accordingly, our estimated stock builds for 1H20 would lift combined crude stocks to within their operational capacity limits by mid-year.



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). When anticipated, this option can be used under "contango", (when the price of oil on futures contracts is higher than the prompt barrels today), such that the difference (locked in using the futures market) pays for the cost of chartering the ship to store the oil (purchased today) over an extended period. Alternatively, tankers might become de facto storage vessels if a ship is unable to discharge its cargo because land-based storage is full or a buyer cannot be found (e.g. as has sometimes been the case with Iranian and Venezuelan cargoes following the imposition of US sanctions).

According to data from *EA Gibson*, more than 1 300 large crude tankers (800 VLCCs and 590 Suezmaxes) are active for trading. If we assume that a VLCC carries 2 mb of crude oil and a Suezmax holds 1 mb, nearly 2.2 billion bbls of crude oil can, in theory be carried by ships. In fact, at end-January, more than 900 mb crude oil was in transit based on IEA calculations using *Refinitive* data. Based on tanker tracking data from *Kpler*, assuming end-January loading and ballasting capacity percentage at 37% and 49%, respectively, we estimate that 86% of shipping capacity is employed, nearly 1.9 billion bbls). Another 10-12% of the capacity is unavailable due to maintenance, or economic reasons etc. This implies 2-4% of global shipping capacity (45-90 mb) could be available for floating storage.

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Given the circumstances today, with a sharp slowdown in refining activity and falling crude exports (linked to the OPEC+ agreement), available shipping capacity for storage could rise as capacity in-transit and ballasting both fall. If 10-15% of the crude shipping capacity is additionally available for floating storage, 220-330 mb could be stored at sea. Since the end of January, short term floating storage reported by *EA Gibson* has increased by nearly 25 mb. We may see a significant increase in floating storage in the coming few months as oil surpluses mount. This demand for storage could sustain chartering rates for ships that surged following the decision by Saudi Arabia, UAE and others to sharply increase exports after the collapse of the OPEC+ agreement in March.

Storage capacity availability is critical to today's oil market where huge surpluses in 2Q20 imply enduring high stock levels for the whole of 2020, even after the new OPEC+ and G20 measures are implemented.

The foregoing numbers give a very high-level estimate of world storage capacity. However, not all this storage capacity is readily available to all producers or anyone wishing to store oil. In addition to geographic limitations, any disorderly filling of stocks that may be occurring in the current urgent circumstances could lead to sub-optimal fill levels. The closer the overall level of tank fill approaches to its maximum, the harder it will be to optimize storage, and leading to progressively higher storage costs for the marginal barrel stored. This will deepen the price contango as a result.

As well, the maximum rate of fill for some storage facilities may be below that required to balance markets locally or internationally. Where this occurs internationally, the ships themselves pick-up the slack while their discharging is delayed. Where this occurs locally, production must be reduced to match the level of physical up-take in storage.

Quality restrictions may limit the use of tanks for crude and product storage. Heavy crudes require heated storage. Ideally, one does not want to mix two different crudes in the same tank (high vs. low sulphur, heavy vs. light, etc.) as there could be a loss of value for the crude of superior quality. This can also lead to suboptimal use of storage capacity. Similarly, for products, one can more easily store middle distillates over extended periods than gasoline components (due to volatility) or heavy fuel oil (which must be heated).

Storage capacity may saturate locally before it reaches tank-tops internationally. This is particularly the case in land-locked regions such as North America or Russia. In both cases, crude and products will back-up in local storage in the absence of demand. Once local storage is saturated, if there is no means to directly access international markets, production must stop. Western Canadian crude producers as well as some stripper well producers and shale oil producers in the US are also confronting these constraints today.

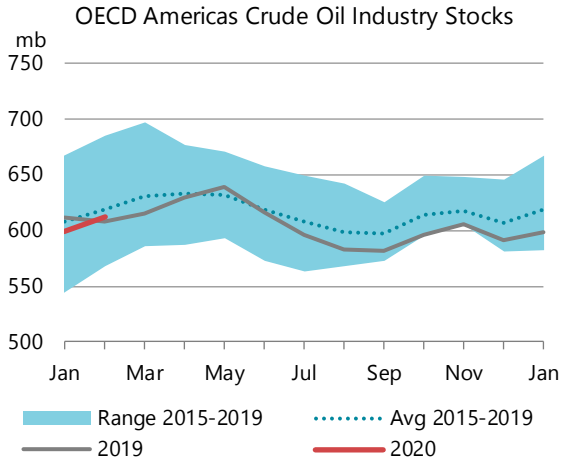
Recent OECD industry stock changes

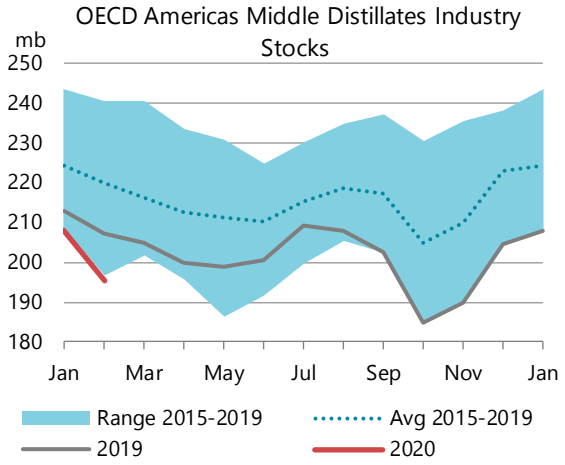
OECD Americas

Commercial stocks in the OECD Americas drew by 18.8 mb m-o-m in February to 1 527 mb, 4 mb above the five-year average. The fall was larger than the seasonal draws due to a large decrease in oil products while crude stocks rose in line with the five-year average.

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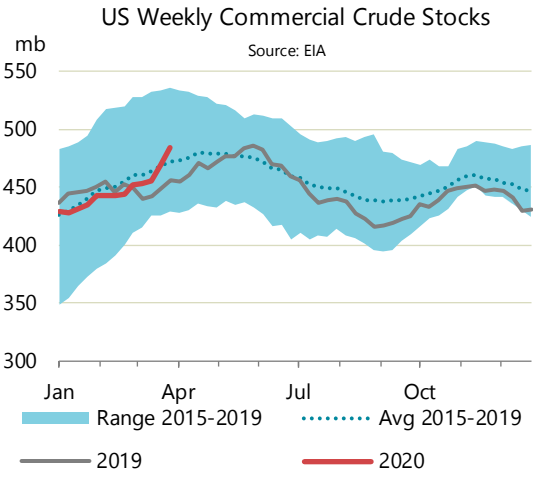
Crude oil inventories rose 14.1 mb m-o-m and stood at 613 mb, 5.6 mb below the five-year average. The increase was larger than the usual level of 10.6 mb due to lower refinery runs in the US (-690 kb/d m-o-m in February). US crude production, remained high at 13 mb/d in February according to the *Energy Information Administration (EIA)*, and this also helped increase crude stocks.





Oil product stocks fell by 41.5 mb, more than double the usual decrease of 18.8 mb, owing to lower refinery throughputs and higher product exports (+160 kb/d in February according to the *EIA*). Draws concerned middle distillates (-12.5 mb) and motor gasoline (-10.6 mb). Fuel oil inventories fell 0.6 mb, largely in line with the seasonal patterns. Other oil stocks drew by 17.8 mb.

Preliminary EIA data for the US showed a large crude oil inventory build of 32.7 mb m-o-m in March. The increase was almost triple the five-year average of 12.3 mb as refinery utilisation fell sharply (-980 kb/d m-o-m in March). Total product stocks fell by 6.7 mb. Middle distillate inventories drew by 14.5 mb. With lower demand, gasoline stocks rose counter-seasonally by 1.5 mb (typically drawing 13.5 mb). Residual fuel oil and other refined product stocks built by 4.6 mb and 1.7 mb, respectively.

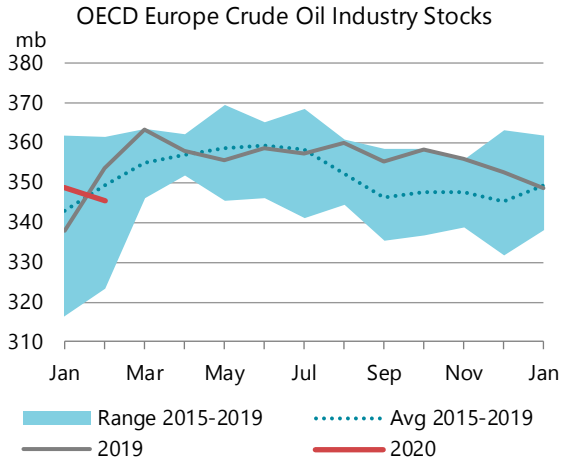


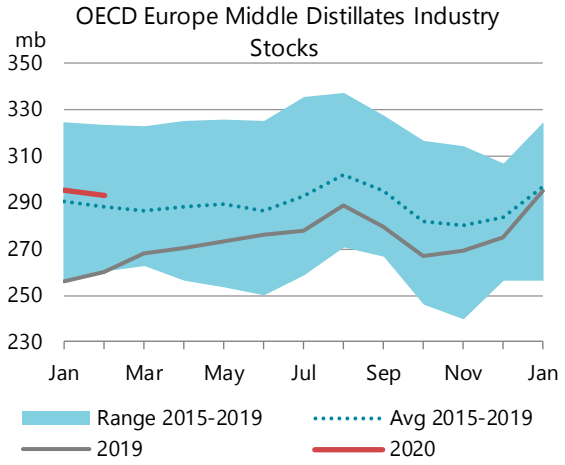
OECD Europe

In February, industry stocks in OECD Europe fell by 4 mb to 996 mb, 2.2 mb above the five-year average. The counter-seasonal fall reflected a draw in crude oil stocks.

Crude oil inventories in Europe drew counter-seasonally by 3.2 mb to 345 mb, 3.9 mb below the five-year average. The draw was attributable to higher refinery runs in the region (+140 kb/d m-o-m). Crude stocks drew counter seasonally in Italy and the Netherlands by 3.3 mb and 2.6 mb, respectively.

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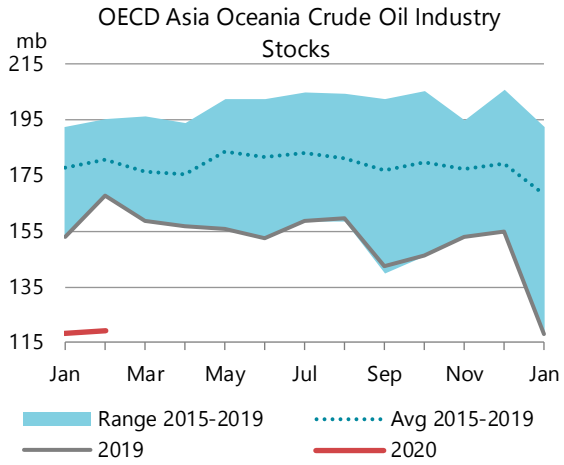


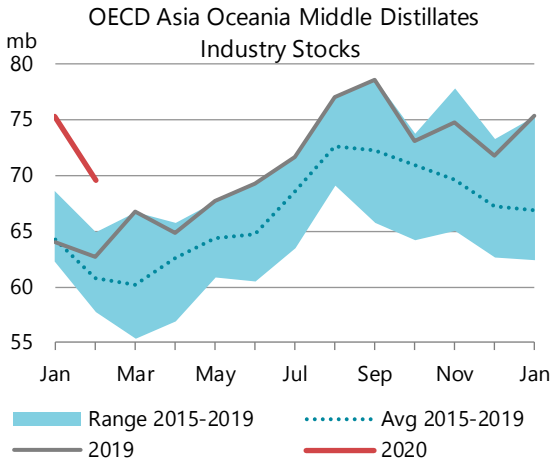
Oil product stocks fell by 1.1 mb, in line with the seasonal pattern. Gasoline and fuel oil inventories built by 1.4 mb and 0.1 mb, respectively. By contrast, middle distillate stocks fell by 2 mb. Other oil stocks also drew by 0.6 mb.

Preliminary March data from *Euroilstock* showed overall inventories building by 8.5 mb. Crude oil stocks built 10.6 mb, notably in Italy (+6.2 mb), France (+3.7 mb) and the Netherlands (+2.2 mb). Total oil product stocks fell 2.1 mb. Middle distillate and gasoline inventories drew by 1.7 mb and 0.5 mb, respectively. Fuel oil stocks rose by a modest 0.1 mb. Naphtha stocks were unchanged.

OECD Asia Oceania

Total commercial stocks in the Asia Oceania region fell by 12.7 mb in February to 355 mb, 48.6 mb below the five-year average. The fall was larger than the five-year average draw of 3.6 mb.





Crude stocks rose by 1 mb, less than the usual build of 2.9 mb. Crude inventories in Korea built by 2.1 mb, half the usual build for the month. Japanese crude stocks fell by 1.1 mb in line with the seasonal pattern.

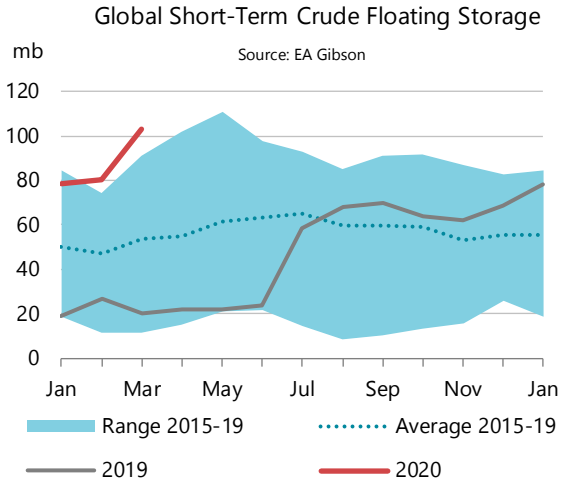
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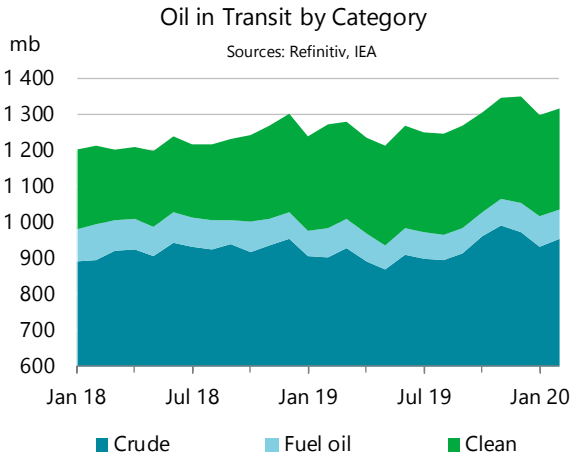
By contrast, total product stocks in the region fell 10.3 mb. The draw was larger than the usual fall of 3.8 mb. Other oil inventories fell counter-seasonally by 3.5 mb. Middle distillate and gasoline stocks also drew by 5.7 mb and 1.1 mb, respectively. Fuel oil stocks were unchanged.

Preliminary data for March from the *Petroleum Association of Japan* showed crude oil inventories increasing by 9.2 mb m-o-m, larger than the five-year average build of 1.7 mb. Total product stocks fell by 1.5 mb. Middle distillate and residual fuel oil drew by 1.1 mb and 0.6 mb, respectively. Other oil products, mainly naphtha, also fell by 0.2 mb. Gasoline stocks rose 0.4 mb.

Other stock developments

Short-term floating storage of crude oil built 22.9 mb in March to 103.1 mb, according to data from *EA Gibson*. Storage in the Middle East Gulf rose 7.8 mb to 79.5 mb as the number of Iranian VLCCs used for floating storage increased by three to 32, a new record high. The total number of vessels thought to hold Iranian crude oil is 39, including seven Suezmax ships. Crude oil stored in the Asia Pacific region also showed a large increase of 15.1 mb. Ten VLCCs mainly holding Venezuelan crude oil are floating offshore Singapore and struggling to find a destination.

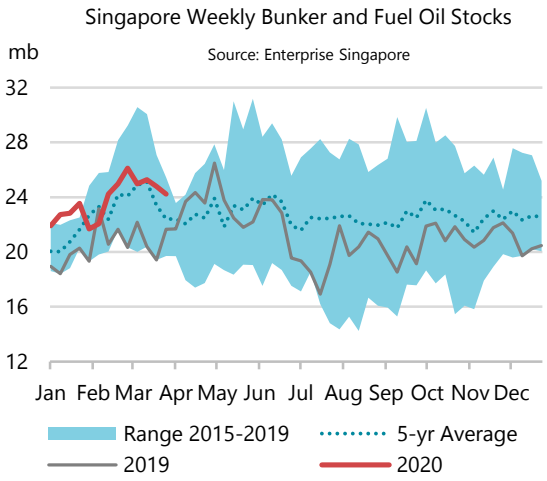


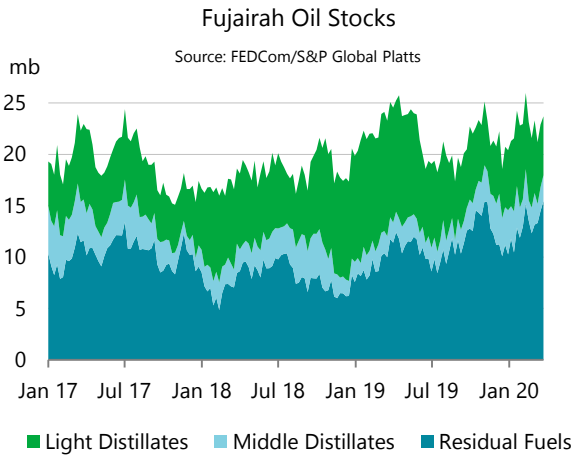


Seaborne oil in transit volumes, based on data from *Refinitive*, rose by 18 mb in February due to a m-o-m increase in crude oil (20 mb). Crude oil exports from Qatar and Norway increased by more than 5 mb (0.2 mb/d) each. The UAE also increased its crude exports by 4 mb (0.1 mb/d) according to *Kpler* data. On the contrary, clean products and fuel oil on-the-water fell by 1.4 mb and 0.5 mb, respectively.

In Fujairah, stocks fell by 0.9 mb m-o-m in March according to data from *FEDCom and S&P Global Platts*. Light and middle distillate inventories decreased by 1.5 mb and 0.1 mb, respectively. Residual fuel stocks built by 0.6 mb. Inventories in Singapore, the world's largest bunkering hub, rose by 1 mb during the month based on data from *Enterprise Singapore*. Light and middle distillate stocks were the main contributors and rose by 0.8 mb and 1.3 mb, respectively. Residual fuel oil inventories, on the contrary, fell by 1.2 mb.

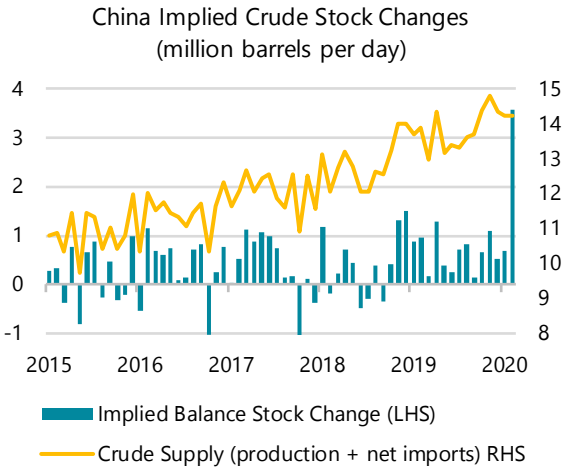
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Total oil stocks in 19 non-OECD economies covered by the JODI database fell by 13.2 mb m-o-m (0.4 mb/d) in January. They stood at 586 mb, 100 mb lower than a year ago. Crude stocks in Brazil fell by 2.9 mb. Chinese Taipei and Saudi Arabia also drew by 1.9 mb and 1.2 mb, respectively. By contrast, crude stocks in Iraq built by 4.6 mb, more than offsetting their 2.4 mb draw in the previous month. For oil products, Argentina drew stocks by a large 20.1 mb. Iraq also drew product stocks, by 2.1 mb. Product stocks in Brazil and Saudi Arabia rose by 1.9 mb and 1.6 mb, respectively.

Chinese implied crude stocks built by 125 mb in January and February (2.1 mb/d) according to data derived from reported crude production, refinery runs and net crude imports. Refinery runs fell 2.9 mb/d in February due to lower demand for products amid the Covid-19 pandemic. However, crude imports in January and February remained high at 10.4 mb/d, an increase of 5.2% year-on-year.

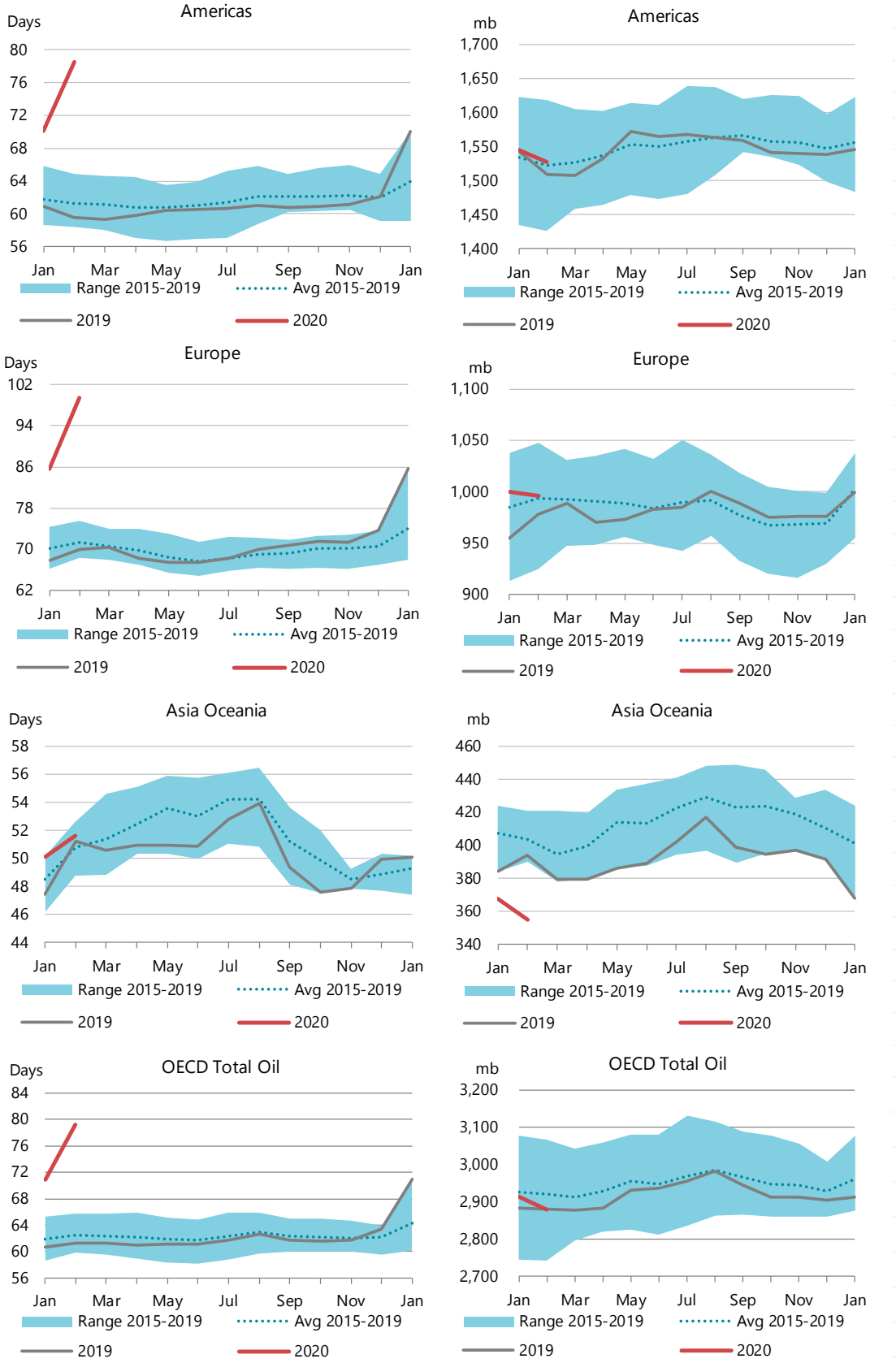


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Regional OECD End-of-Month Industry Stocks

(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.

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Prices

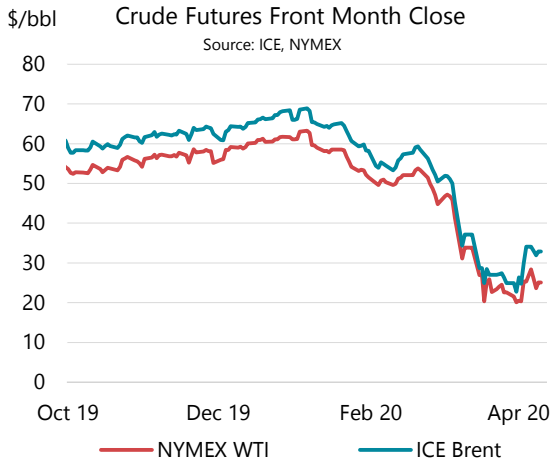
Overview

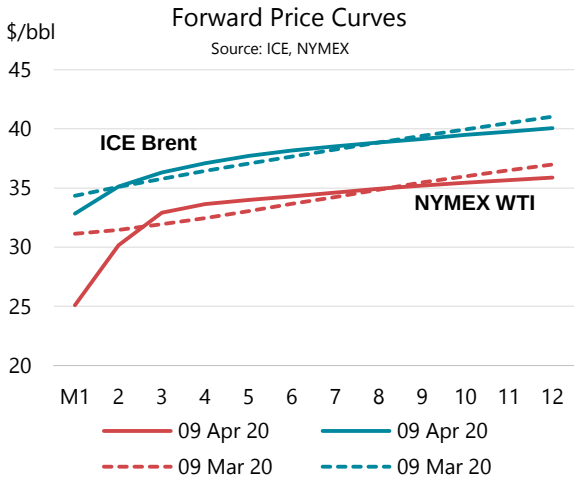
Benchmark crude oil prices fell by over $20/bbl month-on-month (m-o-m) in March, having already declined by $7/bbl in February. The impact of Covid-19 and the measures implemented to contain its spread have had an unprecedented negative impact on global oil demand.

In early March, prices were holding steady with Brent at around $50/bbl on speculation that OPEC+ would make additional production cuts. In the event, no agreement was reached and consequently several countries, most notably Saudi Arabia, the UAE and Russia, announced that they would increase crude exports and/or cut official sales prices. In the week beginning 9 March, benchmark crude oil prices fell $20/bbl as market participants adjusted to the twin supply and demand shocks.

The price of Brent crude remained below $30/bbl for the rest of the month, with WTI occasionally trading at close to $20/bbl. Despite announcements by many governments of huge programmes of support for businesses and individuals and monetary stimulus by central banks, the introduction and strengthening of confinement measures in more and more countries continued to hammer oil demand.

A meeting of OPEC+ countries was held on 9 April and, in anticipation of a new agreement, the price of Brent crude oil briefly rose above $36/bbl. By 12 April, OPEC+ had agreed to reduce output by 9.7 mb/d. At a G20 meeting on 10 April other non-OPEC countries outlined supply reductions. As we publish this *Report*, ICE Brent is trading at $31/bbl and NYMEX WTI at $23/bbl.





Futures markets

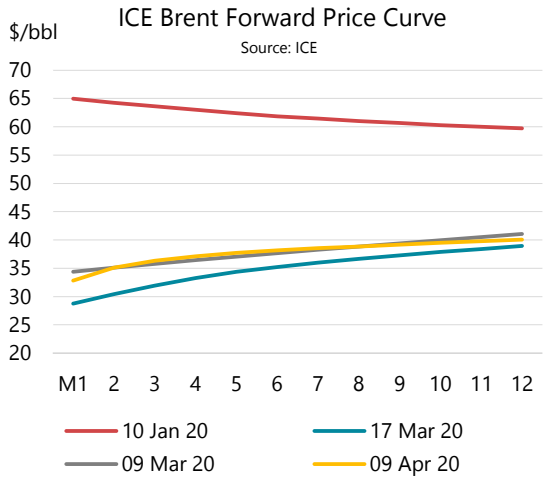
ICE Brent and NYMEX WTI suffered their biggest ever monthly falls in March, each declining by 40%. At end-month, prices reached 17-year lows of $22.74/bbl and $20.09/bbl, respectively. The price of Brent slipped below $20/bbl in intraday trading at times during the month.

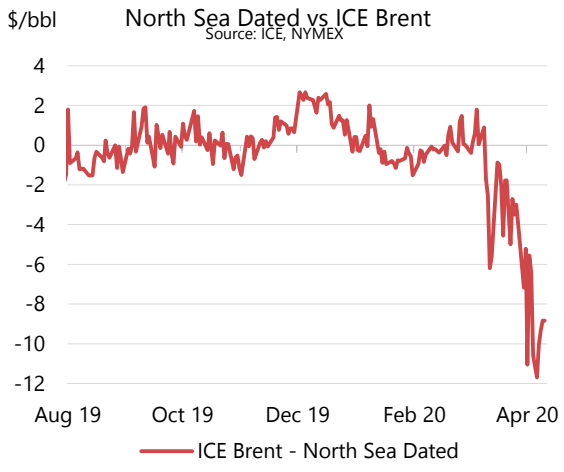
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Prompt Month Oil Futures Prices (monthly and weekly averages, $/bbl)	Jan	Feb	Mar	Mar-Feb Avg Chg	% Chg	Week Commencing: 02 Mar	09 Mar	16 Mar	23 Mar	30 Mar
NYMEX										
Light Sweet Crude Oil	57.53	50.54	30.48	-20.06	-39.7	46.16	33.27	24.67	23.41	22.17
RBOB	67.85	64.56	38.52	-26.04	-40.3	63.94	49.33	24.06	20.92	25.37
ULSD	77.82	68.16	49.60	-18.55	-27.2	63.23	52.06	42.81	44.48	42.08
ULSD ($/mmbtu)	13.73	12.02	8.75	-3.27	-27.2	11.15	9.18	7.55	7.84	7.42
Henry Hub Natural Gas ($/mmbtu)	2.03	1.84	1.68	-0.16	-8.9	1.78	1.87	1.46	1.65	1.62
ICE										
Brent	63.67	55.48	33.85	-21.63	-39.0	50.63	36.61	27.46	26.57	27.14
Gasoil	76.25	66.36	45.80	-20.56	-31.0	60.85	50.14	38.16	38.98	37.33
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-6.14	-4.94	-3.37	1.57		-4.47	-3.33	-2.79	-3.16	-4.97
NYMEX ULSD - WTI	20.29	17.62	19.13	1.51		17.07	18.79	18.14	21.06	19.91
NYMEX RBOB - WTI	10.32	14.02	8.05	-5.98		17.78	16.06	-0.62	-2.50	3.20
NYMEX 3-2-1 Crack (RBOB)	13.65	15.22	11.74	-3.48		17.55	16.97	5.63	5.36	8.77
NYMEX ULSD - Natural Gas ($/mmbtu	11.70	10.18	7.07	-3.11		9.37	7.31	6.09	6.20	5.81
ICE Gasoil - ICE Brent	12.58	10.88	11.95	1.07		10.22	13.53	10.69	12.41	10.19

Source: ICE, NYMEX.

The weak demand for prompt crude deliveries pushed the futures forward curves into a steep contango. On 30 March, the Brent M1-M3 price spread blew out to $7.02/bbl, the widest since 2004. For the month as a whole, the premium of contracts for delivery in July (M3) to those for May (M1) was on average $2.90/bbl for ICE Brent and $2.37/bbl for NYMEX WTI. The contango structure signalled that the storage of crude had become economic in the expectation that barrels can be sold at a higher price in coming months.





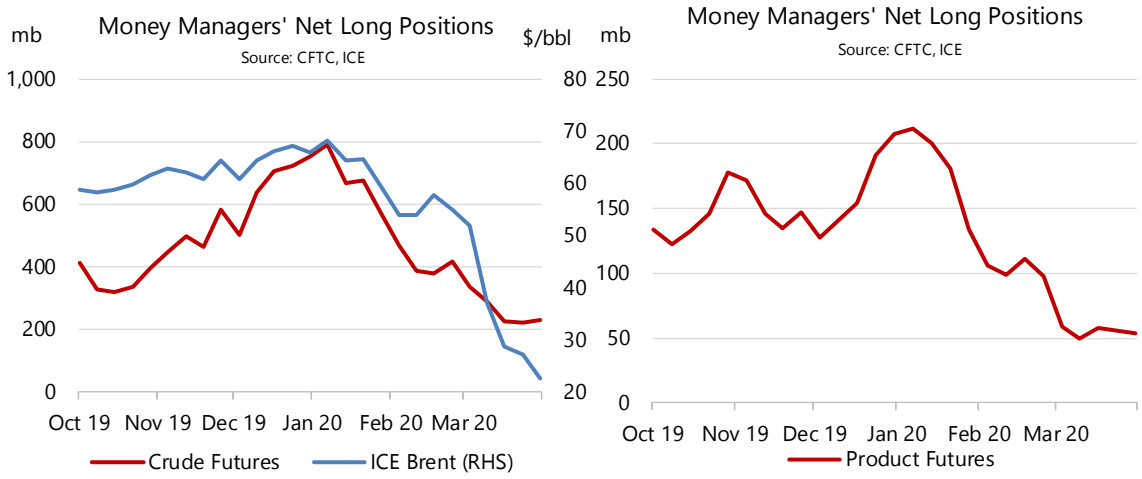
For storing oil to generate returns to traders, costs e.g. leasing of tanks, ships or pipeline space, must not exceed the revenue differential between prompt and later month deliveries. In March, large amounts of both crude and products went into storage (see *Stocks*). However, as prompt futures prices rose in early April the Brent contango flattened. At the same time, freight rates had risen to such a level that the cost of storing crude on ships offshore was less likely to be offset by the price differential (see *Freight*).

In March, the steep fall in Brent prices caused the differential versus WTI to narrow to $3.37/bbl on average. This made US crude exports less competitive. Due to very weak demand for prompt physical supplies of crude, North Sea Dated fell to a discount of almost $12/bbl to ICE Brent

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futures in early April. For 2019, the spread averaged zero. Physical prices came under downward pressure as buyers dried up and floating storage costs increased.

In March, NYMEX RBOB gasoline futures fell by 40% to $38.52/bbl. The expansion of containment measures to stop the spread of Covid-19 halted car travel and caused a huge decline in gasoline demand. In early-April, RBOB futures recovered modestly as refiners cut production. Middle distillate futures held up slightly better with NYMEX ultra-low sulphur diesel (ULSD) and ICE gasoil down 27% and 31% m-o-m, respectively. Although Covid-19 and the containment measures caused demand to drop, markets were supported by ongoing heavy duty vehicle movements, agricultural activity and an assumption that economic stimulus packages will be supportive for diesel demand later in the year.



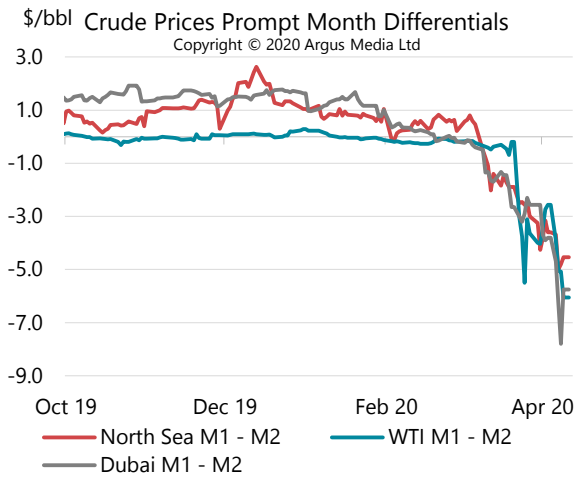
Money managers' net length in crude oil futures fell sharply (-45%) in the first half of March to 228 mb, the lowest in four years, before plateauing. Hedge funds' outright long positions are barely double that of outright shorts, well below the long-run average ratio of 6:1. Net length in product futures had fallen to 54 mb by end-March, dragged down as hedge funds shed their net length in NYMEX RBOB futures. Net length in ICE gasoil and NYMEX ULSD gained slightly in March but overall remained subdued.

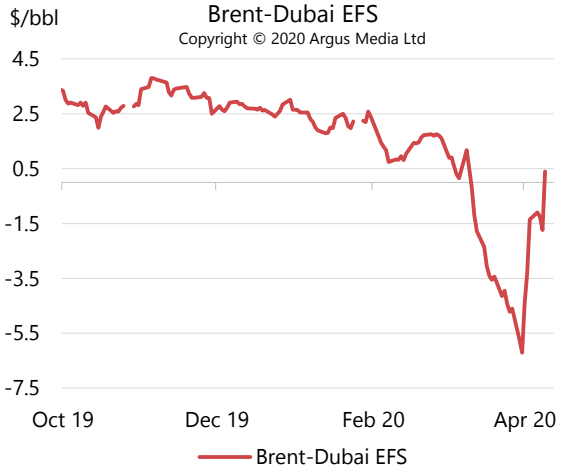
Spot crude oil prices

Physical spot crude prices fell even more than futures prices in March. North Sea Dated fell to $15.29/bbl on 1 April, the lowest in over 20 years. WTI and Dubai also plunged to levels not seen since 2002. North Sea Dated declined well below sour Dubai, as producers from the Middle East targeted European markets by cutting official prices. The Brent-Dubai Exchange of Futures for Swaps (EFS) fell into negative territory following the OPEC+ meeting on 6 March. By end-month, it had reached a record low of -$6.20/bbl, eroding the competitiveness of Dubai-linked crude in Asia Pacific markets.

Forward curves for the key physical crude benchmarks moved to steep contango in March. By end-month, prompt prices for North Sea Dated, WTI and Dubai were below M2 prices by $4.26/bbl, $4.03/bbl and $2.56/bbl, respectively.

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Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

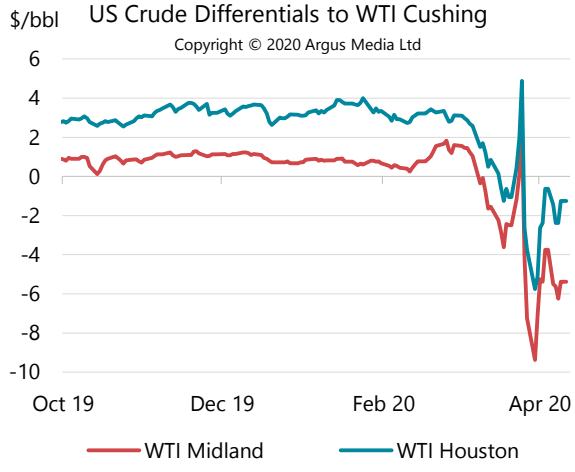
	Jan	Feb	Mar	Mar-Feb Avg Chg	% Chg	Week Commencing: 02 Mar	09 Mar	16 Mar	23 Mar	30 Mar
Crudes										
North Sea Dated	63.38	55.45	31.71	-23.74	-42.8	50.47	33.57	25.51	22.93	18.66
Brent (Asia) Mth 1	65.63	56.76	36.47	-20.30	-35.8	52.41	36.99	31.58	29.66	28.19
WTI (Cushing) Mth 1	57.52	50.53	29.89	-20.64	-40.8	45.58	32.34	24.73	20.74	22.91
Urals (Mediterranean)	62.86	55.11	29.51	-25.60	-46.4	48.02	31.12	24.21	20.43	16.16
Dubai	64.19	54.25	33.78	-20.47	-37.7	50.48	33.63	29.45	25.71	24.08
Tapis (Dated)	71.42	62.67	35.38	-27.29	-43.5	55.37	38.37	28.51	25.67	20.36
Differential to North Sea Dated										
WTI (Cushing)	-5.87	-4.93	-1.83	3.10		-4.89	-1.23	-0.77	-2.19	4.25
Urals (Mediterranean)	-0.52	-0.34	-2.20	-1.86		-2.45	-2.45	-1.30	-2.50	-2.50
Dubai	0.81	-1.21	2.07	3.27		0.01	0.06	3.94	2.77	5.42
Tapis (Dated)	8.04	7.22	3.66	-3.55		4.90	4.80	3.00	2.74	1.70
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	0.83	0.41	-1.45	-1.86		0.62	-1.16	-1.76	-2.59	-3.62
Forward WTI Cushing Mth1-Mth2	0.02	-0.19	-1.45	-1.27		-0.18	-0.40	-0.41	-3.80	-3.35
Forward Dubai Mth1-Mth2	1.20	0.16	-1.62	-1.78		-0.24	-1.31	-1.76	-2.79	-3.30

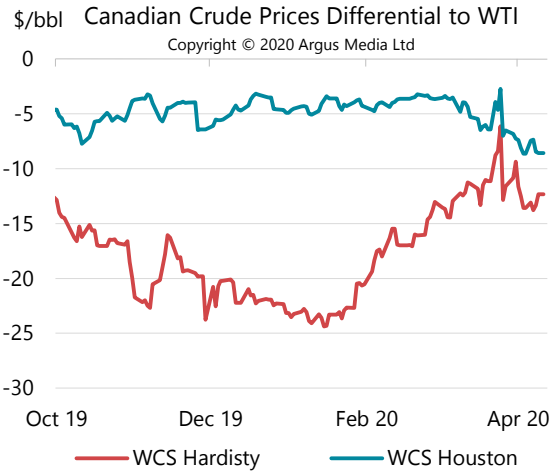
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Falling global oil demand, the collapse on 6 March of the OPEC+ agreement, rising freight costs and the narrower Brent-WTI spread have hammered the attractiveness of US exports. WTI priced in Houston rose by $0.34/bbl vs. North Sea Dated m-o-m in March, but fell vs. ICE Brent futures by $1.65/bbl m-o-m. The differentials for WTI Midland and WTI Houston flipped from a premium to WTI Cushing to a steep discount due to the lack of export demand and refinery run cuts on the US Gulf Coast. This changed the dynamic seen for most of 2019 that incentivised traders to export crude. Currently, it makes more sense to store it inland at Cushing, Texas. In late March, demand for Mars picked up, particularly from independent Chinese buyers, boosted by rising diesel cracks. This caused Mars to rise to a premium vs. WTI Houston of almost $1/bbl.

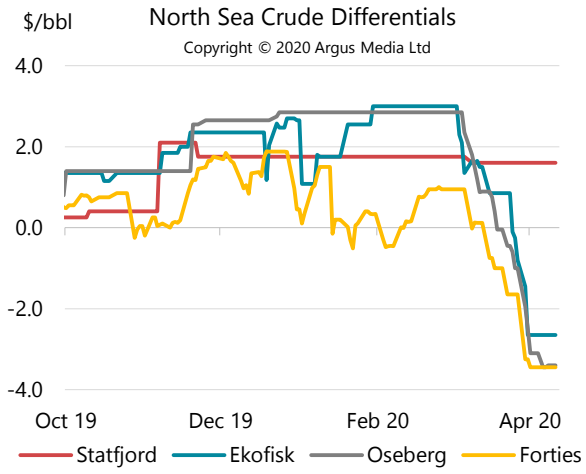
The outright price of a number of US crude grades, including WTI Midland, Bakken and West Texas Sour, fell close to $10/bbl in March. At this level, the economic case for continuing production is severely challenged. In Alberta, the price for West Canadian Select (WCS) fell to a record low of $8.68/bbl in early April. The spread between the price of WCS in Canada and on the US Gulf Coast narrowed to $6.63/bbl on average in March. This level is not sufficient to cover the cost of exporting crude by pipeline (around $10/bbl) or by rail (around $15/bbl).

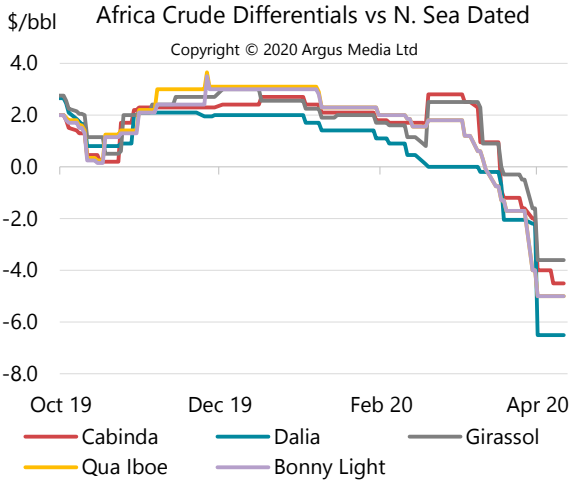
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As the impact of Covid-19 spread to Europe, demand for light sweet crude from the North Sea collapsed. Differentials for Forties, Ekofisk and Oseberg declined by $1.00/bbl, $2.08/bbl and $2.21/bbl m-o-m vs. North Sea Dated, respectively. In early April, Forties fell to a record low of $3.45/bbl below North Sea Dated even as the Chinese market began to recover. High freight rates deterred buyers.



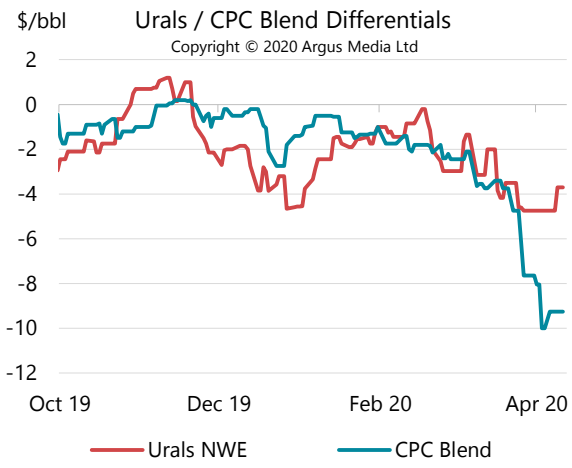


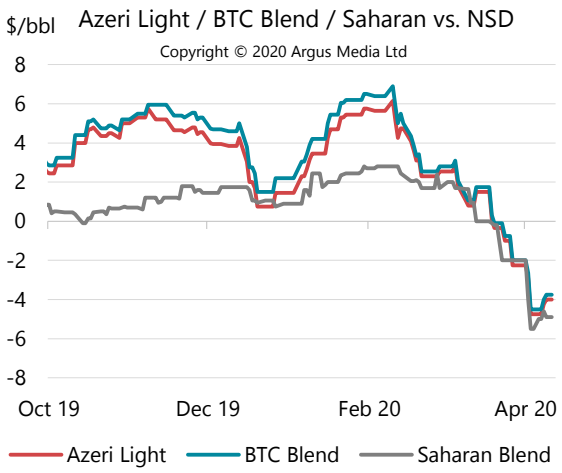
In March, prices for key Nigerian and Angolan grades fell below North Sea Dated. Indian and European refinery demand dried up, and Chinese demand remained limited. Travel bans in place to stop the spread of Covid-19 have weakened demand for transport fuels (gasoline and jet/kerosene), weighing on the price of light sweet crudes such as Bonny Light and Qua Iboe. The differentials for both fell by $2.45/bbl vs North Sea Dated m-o-m. The higher availability, and lower price, of Saudi crude in Europe also pressured prices in West Africa. In Asia Pacific markets, buyers preferred to take sourer barrels from the Middle East, as they are better suited to their refineries, and incur lower shipping costs. Cabinda and Dalia slipped $1.82/bbl and $1.32/bbl m-o-m vs. North Sea Dated, respectively.

Higher supplies of competing Arab Light and an anticipated rise in exports amid weak demand caused the price of Urals in North West Europe to drop to $4.75/bbl below North Sea Dated by end-March. The return of Chinese buyers boosted ESPO delivered to the eastern Siberian port of Kozmino. ESPO rose by $3.90/bbl vs. North Sea Dated m-o-m. Kozmino's proximity to China meant that demand did not suffer due to rising freight rates. Higher production from the Tengiz and Kashagan fields saw exports from Kazakhstan hit a record high level in March and, amidst

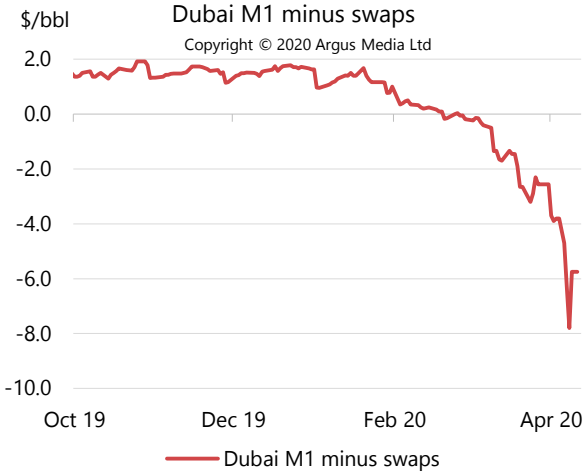
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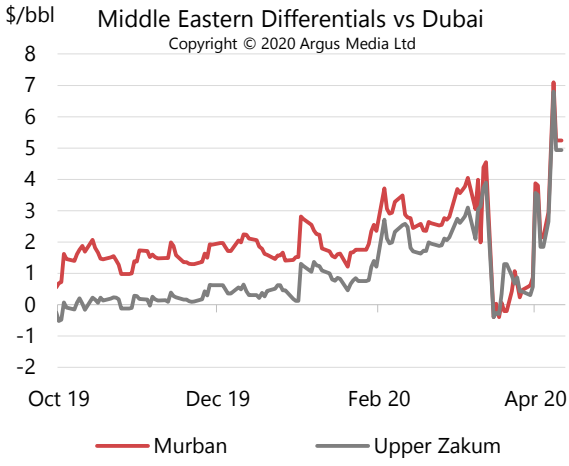
weak European demand, the price of CPC Blend fell to $10/bbl below North Sea Dated, the lowest on record.





Differentials for Azeri Light, BTC Blend and Saharan Blend, fell to multi-year lows vs North Sea Dated in March due to the weak demand environment and lower prices for competing crudes such as WTI in Europe. In early April, these three grades were priced at a discount of around $5/bbl to North Sea Dated. As recently as February Azeri Light and BTC Blend traded at a $6/bbl premia to North Sea Dated as disruptions to Libyan production boosted competing grades.



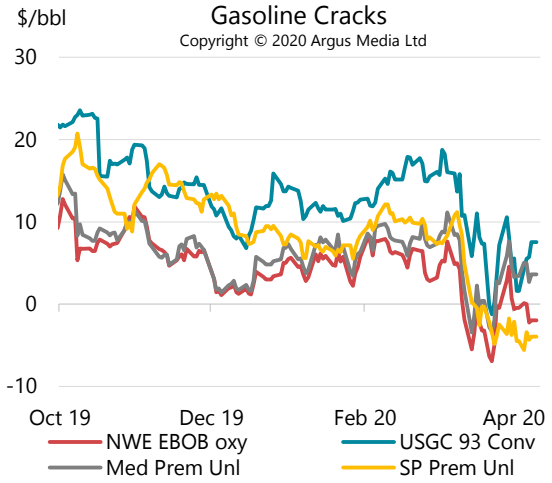


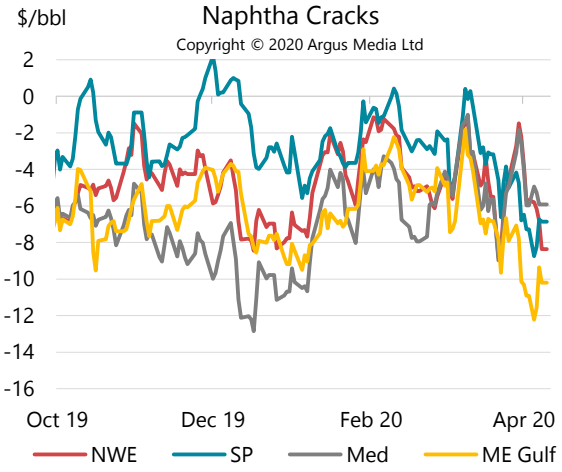
In early March, some Middle East producers, notably Saudi Arabia and the UAE, announced that they would increase output. Consequently, prompt prices in the region weakened dramatically. Lower demand from refiners in countries such as Thailand and Taiwan caused the price of prompt Dubai to slump to a $7.80/bbl discount to swaps in early April, the lowest since 2006. The falling Brent-Dubai EFS, along with lower refining activity, weighed on Middle Eastern crudes. In March, Murban, Upper Zakkum and Basra Light fell vs. Dubai by $0.98/bbl, $0.49/bbl and $1.19/bbl m-o-m, respectively.

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Spot product prices

In mid-March, the introduction of travel restrictions to slow the spread of Covid-19 pushed gasoline cracks in all regions into negative territory. In Europe, containment measures were introduced in all the main economies. The price of EBOB (oxy) fell $5.51/bbl vs. North Sea Dated m-o-m and hit a record discount of $6.91/bbl below North Sea Dated on 24 March. In the US, cracks held up for longer than elsewhere, but on 23 March, the price of super unleaded on the Gulf Coast fell by $7.55/bbl vs. WTI Houston as containment measures were extended. In Singapore, cracks for premium unleaded gasoline fell by $7.46/bbl vs Dubai m-o-m and remained below zero into early-April. The Asia Pacific market continued to suffer from weak demand while regional supplies increased as Chinese refining activity ticked up.



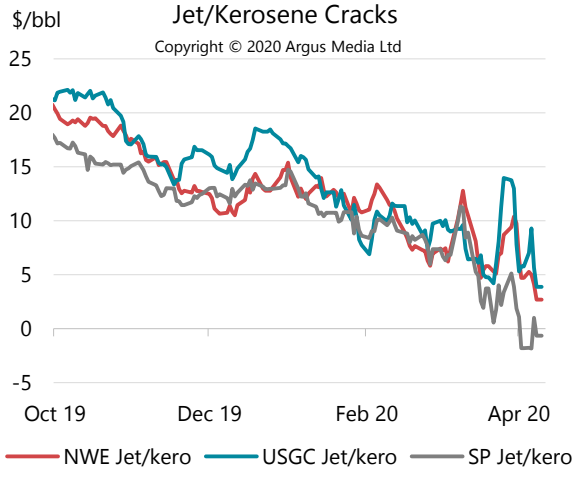


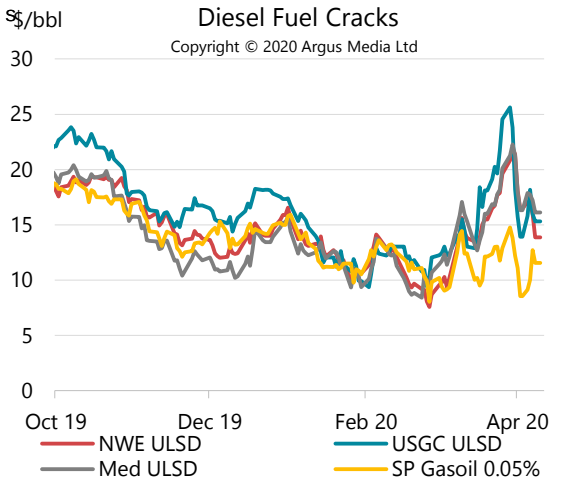
In March, slow gasoline demand meant that less naphtha was required for blending. In North West Europe, naphtha cracks fell by $0.75/bbl vs. North Sea Dated m-o-m. The return of supplies from Middle Eastern refineries following maintenance also pressured prices. Asia Pacific saw lower petrochemical demand due to the shutdown of a Korean ethylene cracker. Prices in Singapore fell by $1.50/bbl vs Dubai m-o-m. Support for markets came in early April on the expectation that petrochemical demand will rebound, and as low prices allowed naphtha to compete with LPG.

The huge reduction in air travel due to Covid-19 containment measures pushed jet fuel cracks to multi-year lows. In North West Europe, the price of jet/kerosene fell by $1.61/bbl vs. North Sea Dated m-o-m. In early April cracks stood at $3.10/bbl, the lowest in 17 years. Due to widespread flight cancellations, the Asian market was the worst hit with the price of fuel in Singapore down $3.19/bbl vs. Dubai m-o-m. In early April, cracks in Singapore fell below zero.

In March, diesel markets provided a rare bright spot for refiners in Europe and the US. In both regions logistics demand related to goods delivery was supportive. In North West Europe and the Mediterranean, cracks for ULSD rose by $3.64/bbl and $4.69/bbl m-o-m, respectively. European agricultural activity supported demand and low prices incentivised heating oil stockpiling in Germany. On the US Gulf Coast, ULSD gained by $5.08/bbl vs. WTI Houston m-o-m, with some storage demand and as refiners cut output.

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Spot Product Prices

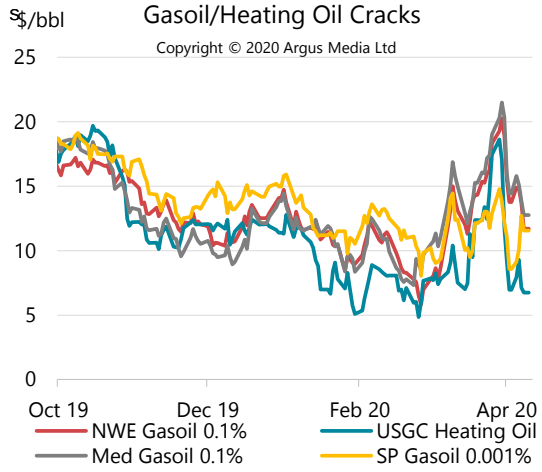
(monthly and weekly averages, $/bbl)

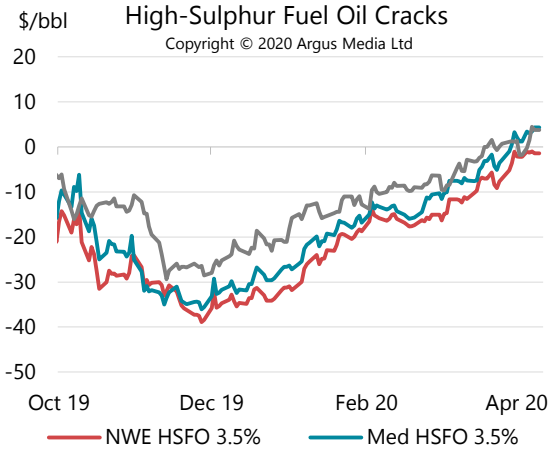
	Jan	Feb	Mar	Mar-Feb Chg	%	Week Commencing: 02 Mar	09 Mar	16 Mar	23 Mar	30 Mar	Jan	Feb	Mar	Chg
Rotterdam, Barges FOB											**Differential to North Sea Dated**			
Gasoline EBOB oxy	68.14	61.57	32.32	-29.25	-47.5	55.69	36.12	22.67	19.16	20.08	4.76	6.11	0.60	-5.51
Naphtha	58.87	51.88	27.39	-24.49	-47.2	45.66	31.40	20.90	16.31	15.48	-4.51	-3.58	-4.33	-0.75
Jet/Kerosene	75.92	65.03	39.68	-25.35	-39.0	57.64	44.81	31.58	29.53	26.83	12.54	9.57	7.96	-1.61
ULSD 10ppm	76.07	66.45	46.36	-20.09	-30.2	60.32	47.77	39.65	40.62	38.39	12.68	11.00	14.64	3.64
Gasoil 0.1%	74.59	64.94	45.01	-19.92	-30.7	58.66	47.00	38.27	39.16	36.22	11.20	9.49	13.30	3.81
VGO 2.0%	71.88	62.76	36.42	-26.33	-42.0	54.36	38.80	29.71	27.81	25.58	8.50	7.30	4.71	-2.60
Fuel Oil 0.5%	81.30	67.05	40.15	-26.90	-40.1	56.89	41.73	31.89	33.56	32.04	17.92	11.60	8.43	-3.17
LSFO 1%	70.22	56.86	31.80	-25.05	-44.1	47.73	32.43	26.03	24.44	24.93	6.84	1.40	0.09	-1.32
HSFO 3.5%	39.57	39.38	21.76	-17.62	-44.7	35.96	21.87	17.26	15.36	15.83	-23.82	-16.07	-9.95	6.12
Mediterranean, FOB Cargoes											**Differential to Urals**			
Premium Unl 10 ppr	69.05	63.14	33.29	-29.85	-47.3	56.89	37.20	23.75	19.88	21.12	6.18	8.03	3.78	-4.25
Naphtha	56.03	49.46	24.88	-24.58	-49.7	43.39	29.12	18.43	13.47	12.65	-6.84	-5.65	-4.63	1.02
Jet Aviation fuel	73.68	63.27	37.76	-25.51	-40.3	55.81	43.13	29.80	27.33	24.50	10.82	8.16	8.25	0.09
ULSD 10ppm	74.98	65.94	45.03	-20.91	-31.7	59.83	46.96	38.19	38.38	35.98	12.11	10.83	15.52	4.69
Gasoil 0.1%	74.10	64.76	44.29	-20.47	-31.6	58.82	46.45	37.62	37.57	34.67	11.24	9.66	14.78	5.12
LSFO 1%	72.26	59.30	33.66	-25.64	-43.2	50.54	34.45	27.50	25.72	26.54	9.40	4.19	4.15	-0.04
HSFO 3.5%	42.64	41.42	23.47	-17.96	-43.4	38.10	23.59	18.67	16.91	17.41	-20.23	-13.68	-6.04	7.64
US Gulf, FOB Pipeline											**Differential to WTI Houston**			
Super Unleaded	72.87	68.85	40.21	-28.63	-41.6	65.39	46.90	32.18	22.78	25.78	11.83	15.25	10.02	-5.23
Unleaded	66.83	63.61	35.05	-28.55	-44.9	60.81	41.20	25.77	18.49	20.84	5.79	10.01	4.86	-5.15
Jet/Kerosene	74.03	63.32	38.81	-24.52	-38.7	57.99	41.90	29.91	29.66	28.74	13.00	9.73	8.61	-1.12
ULSD 10ppm	74.19	65.29	46.97	-18.32	-28.1	60.90	47.74	40.21	41.99	39.08	13.16	11.70	16.77	5.08
Heating Oil	70.22	60.68	40.96	-19.71	-32.5	56.23	42.36	33.60	34.98	32.34	9.18	7.08	10.77	3.69
No. 6 3%*	41.70	43.49	23.84	-19.65	-45.2	38.94	23.12	18.81	18.08	17.04	-19.34	-10.11	-6.36	3.75
Singapore, FOB Cargoes											**Differential to Dubai**			
Premium Unleaded	71.13	64.34	36.42	-27.92	-43.4	58.18	42.60	28.81	22.34	20.94	6.94	10.09	2.64	-7.46
Naphtha	61.06	52.56	30.60	-21.96	-41.8	46.60	33.41	26.28	20.75	18.19	-3.13	-1.69	-3.19	-1.50
Jet/Kerosene	75.34	63.05	39.39	-23.65	-37.5	57.31	43.60	33.14	28.10	26.13	11.15	8.80	5.61	-3.19
Gasoil 0.001%	76.48	65.96	45.45	-20.51	-31.1	59.92	46.80	39.83	38.32	36.17	12.30	11.71	11.67	-0.05
Fuel Oil 0.5%	91.39	70.96	44.92	-26.04	-36.7	60.29	46.62	39.57	36.77	34.74	27.20	16.71	11.14	-5.57
LSWR Cracked	69.52	65.52	46.83	-18.69	-28.5	62.37	48.68	43.21	37.60	33.35	5.33	11.28	13.05	1.78
HSFO 180 CST	52.04	46.66	31.45	-15.20	-32.6	43.07	30.27	28.19	26.72	25.56	-12.15	-7.59	-2.33	5.26
HSFO 380 CST 4%	50.21	45.07	30.55	-14.52	-32.2	41.98	29.24	27.27	26.04	24.73	-13.97	-9.18	-3.23	5.95

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High sulphur fuel oil (HSFO) markets gained in March. Cracks in North West Europe, the Mediterranean and Singapore increased by over $5/bbl m-o-m. Supplies were tight due to lower Russian exports and lower production from refineries in response to the new International Maritime Organisation regulations. Demand for HSFO is expected to be boosted in the Middle East as air conditioning usage increases during Ramadan, which starts later in April.

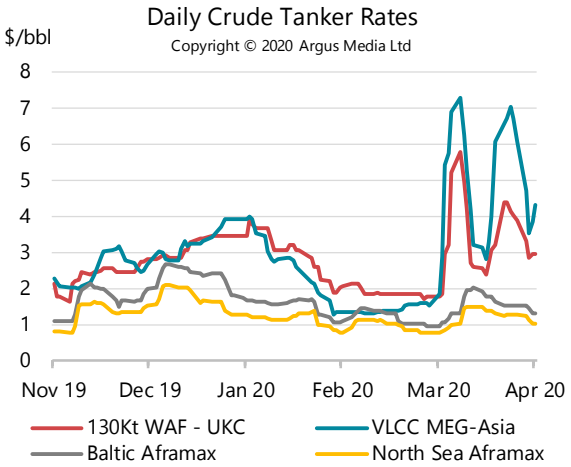
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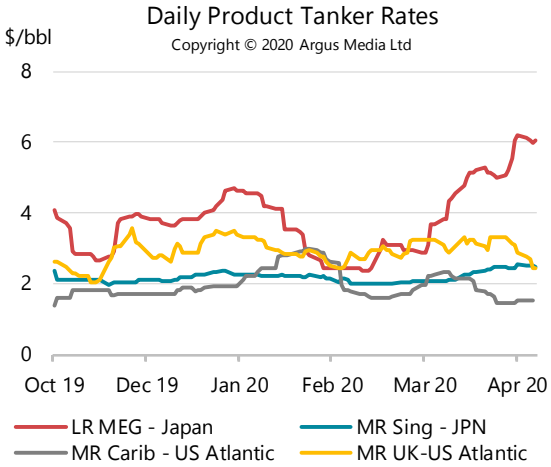




Freight

Freight rates to ship crude rose in March. Saudi Arabia had indicated that it would massively increase exports in April following the expiry of the OPEC+ deal. Rates for Very Large Crude Carriers (VLCCs) surged to $7.28/bbl on 16 March when Saudi Aramco's shipping arm chartered 25 VLCCs (and potentially an additional 15) on the spot market. Rates then fell back on concerns that shipping demand would suffer in the event of a global recession but by end-month had risen back to $7/bbl as an increasing number of vessels were booked to store crude at sea (see *Futures markets* section). Along with incentivising storage, the contango market structure encourages slow steaming. This increases voyage times, further tightens the availability of vessels and pushes rates up. For March, rates to ship crude on VLCCs between the Middle East Gulf and China rose by $2.68/bbl m-o-m.





Suezmax rates rose $2.01/bbl on 13 March but fell back with weaker demand for crude in Europe pressuring rates. Overall, healthy demand to charter ships for floating storage caused rates to rise by $1.10/bbl m-o-m. Some floating storage demand also boosted rates for Aframaxes; in the Baltic region rates increased by $0.20/bbl m-o-m while in the North Sea rates rose by $0.14/bbl.

In product freight markets rates gained on demand to book ships for storage purposes. Rates for long range (LR) vessels travelling between the Middle East Gulf and Japan gained steadily

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during March (+$1.76/bbl m-o-m) to the highest level in five months. Lower domestic demand for products in the Middle East saw an increase in exports. Rates for medium range (MR) vessels travelling in the Atlantic Basin rose by $0.35/bbl m-o-m as buyers in West Africa increased imports due to lower prices.

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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	24.6	17.8	23.9	24.5	22.7
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	8.5	12.9	13.3	11.9
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	6.4	7.2	7.7	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**	**32.7**	**44.1**	**45.5**	**41.9**
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	4.4	3.7	4.5	4.8	4.3
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	11.3	12.4	13.7	13.7	12.8
Other Asia	13.1	13.8	14.1	14.3	13.7	14.1	14.1	14.5	14.4	13.8	14.4	14.3	13.8	11.7	13.4	14.4	13.3
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	4.9	6.1	6.2	5.8
Middle East	8.3	8.4	8.1	8.4	8.7	8.1	8.3	8.1	8.2	8.8	8.4	8.3	7.7	6.8	8.4	8.0	7.7
Africa	4.2	4.2	4.3	4.2	4.1	4.2	4.2	4.3	4.3	4.1	4.3	4.3	4.2	3.3	4.0	4.2	3.9
Total Non-OECD	**49.2**	**50.5**	**50.5**	**51.4**	**51.5**	**51.5**	**51.2**	**51.3**	**52.2**	**52.4**	**53.0**	**52.2**	**48.0**	**43.4**	**51.0**	**52.1**	**48.6**
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**	**99.8**	**93.3**	**76.1**	**95.0**	**97.6**	**90.5**
OECD SUPPLY																	
Americas	19.6	20.5	22.0	22.3	23.5	24.3	23.0	24.1	24.5	24.7	25.6	24.7	25.6	23.9	23.2	23.1	24.0
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	3.7	3.6	3.5	3.6	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	0.6	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**	**29.9**	**28.1**	**27.3**	**27.3**	**28.1**
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	3.9	3.9	3.8	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	3.2	3.1	3.0	3.0	3.1
Americas	5.1	5.1	5.0	5.1	5.0	5.1	5.0	5.0	5.1	5.4	5.6	5.3	5.6	5.2	5.3	5.3	5.4
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	2.4	1.8	2.1	2.1	2.1
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	2.3	2.8	3.1	2.7	2.7
Total Non-OPEC Supply	**59.8**	**60.6**	**61.9**	**62.7**	**64.1**	**65.0**	**63.5**	**64.5**	**65.1**	**65.8**	**66.8**	**65.5**	**66.7**	**62.4**	**62.2**	**61.7**	**63.2**
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	28.3				
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**	**33.7**				
Total Supply	**96.9**	**97.5**	**98.5**	**99.3**	**101.2**	**102.2**	**100.3**	**100.1**	**100.1**	**100.2**	**101.5**	**100.5**	**100.4**				
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					
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					
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**					
Floating storage/Oil in transit	0.2	0.4	-1.0	0.3	-0.3	0.6	0.0	-0.3	-0.5	-0.1	0.7	0.1					
Miscellaneous to balance[5]	0.4	-0.4	1.3	0.4	1.1	2.5	1.3	1.3	0.8	-0.4	0.6	0.5					
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**	**7.1**				
Memo items:																	
Call on OPEC crude + Stock ch.[6]	31.2	32.0	31.2	30.4	30.1	28.7	30.1	29.0	28.7	29.3	28.5	28.9	21.2	8.5	27.7	30.8	22.1

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

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

	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-7.6	-2.3	-1.4	-3.0
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-0.7	-5.2	-1.5	-0.6	-2.0
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-0.9	-0.4	-0.4	-0.5
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-1.6**	**-13.7**	**-4.2**	**-2.4**	**-5.4**
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-1.0	-0.4	-0.1	-0.5
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-	-	-0.1
China	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.4	-0.6	-0.6	-0.6
Other Asia	-	-	-	-	-	-	-	-0.1	0.1	-	-	-	-0.9	-2.8	-0.7	-0.4	-1.2
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-1.4	-0.3	-0.2	-0.5
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-1.6	-0.6	-0.2	-0.6
Africa	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-1.1	-0.2	-0.2	-0.4
Total Non-OECD	**-**	**-**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.2**	**-**	**-0.1**	**-0.2**	**-0.1**	**-1.8**	**-9.4**	**-2.8**	**-1.6**	**-3.9**
Total Demand	**-**	**-**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.2**	**-**	**-0.1**	**-0.2**	**-0.1**	**-3.3**	**-23.1**	**-7.0**	**-4.0**	**-9.4**
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.7	-2.8	-3.4	-2.0
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.2	-0.3	-0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	0.1	-	-	0.1	-	-	-
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**	**0.1**	**-1.8**	**-3.0**	**-3.7**	**-2.1**
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-1.5	-1.6	-1.6	-1.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-0.1	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1
Americas[2]	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.2	0.2
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.2	-0.2	-0.2	-0.1
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1
Total Non-OECD	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**-1.7**	**-1.9**	**-2.0**	**-1.3**
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.6	-0.3	-0.3	-0.3
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.2	-0.2	-0.2	-0.2
Total Non-OPEC Supply	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.6**	**0.6**	**0.5**	**0.6**	**-4.3**	**-5.4**	**-6.1**	**-3.8**
OPEC																	
Crude[2]	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5					
NGLs	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.3	-0.4	-0.4	-0.3
Total OPEC	**-0.5**	**-0.5**	**-0.5**	**-0.5**	**-0.5**	**-0.5**	**-0.5**	**-0.5**	**-0.6**	**-0.6**	**-0.6**	**-0.6**					
Total Supply	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.1**	**-**					
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-					
Government	-	-	-	-	-	-	-	-	-	-	-	-					
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**					
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-					
Miscellaneous to balance	-	-	0.1	0.1	0.1	0.1	0.1	0.2	-	0.1	-	0.1					
Total Stock Ch. & Misc	**-**	**-**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**	**0.1**	**0.1**	**0.1**	**0.1**					
Memo items:																	
Call on OPEC crude + Stock ch.	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.7	-0.6	-0.7	-0.6	-0.6	-3.8	-18.5	-1.2	2.5	-5.2

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.

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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	24.59	17.83	23.93	24.49	22.72
Europe	14.38	14.07	14.23	14.66	14.11	14.27	13.89	14.07	14.56	13.98	14.13	12.97	8.47	12.90	13.34	11.93
Asia Oceania	8.15	8.66	7.74	7.76	8.10	8.06	8.34	7.50	7.65	8.08	7.89	7.77	6.37	7.23	7.72	7.27
Total OECD	**47.61**	**48.04**	**47.30**	**48.28**	**47.81**	**47.86**	**47.64**	**46.98**	**48.07**	**47.71**	**47.60**	**45.33**	**32.66**	**44.06**	**45.55**	**41.91**
Asia	26.26	26.79	27.26	26.81	27.24	27.03	27.51	28.15	27.58	28.48	27.93	25.08	24.17	27.08	28.12	26.12
Middle East	8.35	8.06	8.40	8.66	8.14	8.32	8.08	8.16	8.76	8.38	8.35	7.74	6.76	8.43	8.00	7.73
Americas	6.33	6.21	6.23	6.36	6.33	6.28	6.14	6.23	6.33	6.30	6.25	5.88	4.88	6.11	6.20	5.77
FSU	4.50	4.39	4.51	4.79	4.72	4.60	4.49	4.62	4.85	4.80	4.69	4.36	3.68	4.54	4.76	4.34
Africa	4.25	4.27	4.22	4.09	4.24	4.20	4.31	4.29	4.14	4.27	4.25	4.19	3.27	4.01	4.22	3.92
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	0.64	0.78	0.79	0.74
Total Non-OECD	**50.45**	**50.46**	**51.36**	**51.48**	**51.45**	**51.19**	**51.27**	**52.23**	**52.45**	**53.02**	**52.25**	**48.00**	**43.40**	**50.96**	**52.10**	**48.63**
World	**98.06**	**98.50**	**98.67**	**99.76**	**99.26**	**99.05**	**98.91**	**99.21**	**100.52**	**100.72**	**99.85**	**93.33**	**76.06**	**95.02**	**97.64**	**90.55**
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	19.50	14.02	19.05	19.55	18.04
Europe 5*	8.32	8.22	8.24	8.34	8.17	8.24	8.08	8.09	8.28	7.99	8.11	7.51	4.83	7.30	7.65	6.83
China	12.49	12.70	12.96	13.14	13.09	12.97	13.03	13.72	13.79	14.08	13.66	11.32	12.42	13.65	13.67	12.77
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	2.88	3.28	3.64	3.38
India	4.66	4.91	5.03	4.62	4.89	4.86	5.14	5.08	4.78	5.06	5.01	5.02	4.13	4.65	5.13	4.73
Russia	3.39	3.32	3.39	3.64	3.56	3.48	3.41	3.49	3.70	3.59	3.55	3.31	2.85	3.51	3.58	3.31
Brazil	3.03	2.97	2.94	3.10	3.11	3.03	3.01	3.05	3.16	3.17	3.10	2.93	2.49	3.08	3.15	2.91
Saudi Arabia	3.30	2.96	3.21	3.35	2.99	3.13	2.96	3.05	3.48	3.09	3.15	2.87	2.66	3.39	2.97	2.97
Canada	2.42	2.34	2.37	2.58	2.51	2.45	2.45	2.44	2.57	2.54	2.50	2.56	1.89	2.48	2.49	2.36
Korea	2.63	2.73	2.64	2.58	2.53	2.62	2.63	2.48	2.58	2.67	2.59	2.51	2.14	2.38	2.46	2.37
Mexico	2.02	1.91	1.94	1.89	1.80	1.89	1.93	1.94	1.93	1.86	1.92	1.84	1.41	1.77	1.77	1.70
Iran	1.92	1.98	1.98	1.98	1.98	1.98	1.99	1.94	1.94	2.01	1.97	1.93	1.77	1.94	1.96	1.90
Total	**68.07**	**68.70**	**68.52**	**69.50**	**69.16**	**68.97**	**69.03**	**69.05**	**70.34**	**70.37**	**69.70**	**65.00**	**53.50**	**66.50**	**68.00**	**63.27**
% of World	**69.4%**	**69.8%**	**69.4%**	**69.7%**	**69.7%**	**69.6%**	**69.8%**	**69.6%**	**70.0%**	**69.9%**	**69.8%**	**69.6%**	**70.3%**	**70.0%**	**69.6%**	**69.9%**
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	-3.2	-29.8	-7.5	-4.5	-11.2
Europe	2.5	1.2	-0.8	-0.9	-2.5	-0.8	-1.3	-1.1	-0.7	-0.9	-1.0	-6.7	-39.8	-11.4	-4.6	-15.6
Asia Oceania	0.2	1.2	-0.4	-1.6	-3.7	-1.1	-3.7	-3.1	-1.4	-0.3	-2.1	-6.8	-15.1	-5.5	-4.4	-7.8
Total OECD	**1.2**	**2.0**	**0.1**	**0.9**	**-0.9**	**0.5**	**-0.8**	**-0.7**	**-0.4**	**-0.2**	**-0.5**	**-4.8**	**-30.5**	**-8.3**	**-4.5**	**-11.9**
Asia	4.5	3.3	2.3	3.6	2.5	2.9	2.7	3.3	2.9	4.6	3.3	-8.8	-14.1	-1.8	-1.3	-6.5
Middle East	0.4	-0.1	-1.4	-0.7	0.6	-0.4	0.2	-2.9	1.1	3.0	0.4	-4.2	-17.2	-3.8	-4.6	-7.3
Americas	-1.5	0.2	-1.4	-1.5	-0.5	-0.8	-1.2	0.1	-0.6	-0.5	-0.6	-4.1	-21.7	-3.4	-1.5	-7.6
FSU	1.2	2.9	0.8	1.7	3.8	2.3	2.3	2.3	1.4	1.7	1.9	-2.8	-20.2	-6.4	-0.7	-7.5
Africa	1.2	-1.5	-1.1	-1.7	0.0	-1.0	1.0	1.6	1.2	0.7	1.1	-2.8	-23.9	-3.1	-1.0	-7.7
Europe	5.1	0.3	-2.8	-0.4	2.6	-0.1	2.4	5.4	3.0	-0.1	2.6	-1.3	-18.1	-2.1	0.2	-5.3
Total Non-OECD	**2.5**	**1.9**	**0.8**	**1.5**	**1.7**	**1.5**	**1.6**	**1.7**	**1.9**	**3.0**	**2.1**	**-6.4**	**-16.9**	**-2.8**	**-1.7**	**-6.9**
World	**1.8**	**1.9**	**0.5**	**1.2**	**0.5**	**1.0**	**0.4**	**0.5**	**0.8**	**1.5**	**0.8**	**-5.6**	**-23.3**	**-5.5**	**-3.1**	**-9.3**
Annual Change (mb/d)																
Americas	0.18	0.69	0.20	0.70	0.25	0.46	0.09	0.07	0.01	0.05	0.06	-0.81	-7.58	-1.93	-1.16	-2.87
Europe	0.35	0.17	-0.12	-0.14	-0.37	-0.11	-0.18	-0.16	-0.10	-0.13	-0.14	-0.93	-5.61	-1.66	-0.64	-2.20
Asia Oceania	0.01	0.10	-0.03	-0.12	-0.31	-0.09	-0.32	-0.24	-0.11	-0.02	-0.17	-0.57	-1.13	-0.42	-0.36	-0.62
Total OECD	**0.54**	**0.96**	**0.05**	**0.44**	**-0.43**	**0.25**	**-0.41**	**-0.32**	**-0.21**	**-0.10**	**-0.26**	**-2.31**	**-14.32**	**-4.01**	**-2.16**	**-5.69**
Asia	1.13	0.85	0.62	0.93	0.66	0.77	0.71	0.89	0.77	1.24	0.90	-2.42	-3.98	-0.49	-0.37	-1.81
Middle East	0.04	-0.01	-0.12	-0.06	0.05	-0.04	0.02	-0.24	0.10	0.25	0.03	-0.34	-1.40	-0.33	-0.39	-0.61
Americas	-0.10	0.01	-0.09	-0.10	-0.03	-0.05	-0.07	0.01	-0.04	-0.03	-0.03	-0.25	-1.35	-0.21	-0.09	-0.48
FSU	0.05	0.13	0.04	0.08	0.17	0.10	0.10	0.11	0.07	0.08	0.09	-0.12	-0.93	-0.31	-0.03	-0.35
Africa	0.05	-0.06	-0.05	-0.07	0.00	-0.04	0.04	0.07	0.05	0.03	0.05	-0.12	-1.02	-0.13	-0.04	-0.33
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**	**0.92**	**0.39**	**0.78**	**0.87**	**0.74**	**0.82**	**0.86**	**0.97**	**1.56**	**1.05**	**-3.27**	**-8.83**	**-1.49**	**-0.92**	**-3.62**
World	**1.75**	**1.88**	**0.44**	**1.22**	**0.45**	**0.99**	**0.41**	**0.54**	**0.76**	**1.46**	**0.80**	**-5.58**	**-23.15**	**-5.50**	**-3.08**	**-9.30**
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	-0.52	-7.59	-2.29	-1.44	-2.96
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.01	0.00	0.00	-0.70	-5.22	-1.53	-0.59	-2.00
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.33	-0.88	-0.37	-0.37	-0.49
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-0.00**	**0.01**	**-0.01**	**0.00**	**0.00**	**-1.55**	**-13.69**	**-4.19**	**-2.40**	**-5.45**
Asia	0.00	-0.03	-0.03	-0.03	-0.03	-0.03	-0.11	0.08	0.00	0.01	0.00	-0.79	-4.16	-1.27	-0.97	-1.79
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.24	-1.59	-0.57	-0.17	-0.64
Americas	0.00	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03	-0.03	-0.05	-0.03	-0.26	-1.38	-0.25	-0.16	-0.51
FSU	0.00	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03	-0.03	-0.04	-0.03	-0.25	-1.03	-0.44	-0.14	-0.46
Africa	-0.01	-0.03	-0.03	-0.03	-0.03	-0.03	-0.05	-0.05	-0.05	-0.07	-0.06	-0.20	-1.12	-0.22	-0.16	-0.43
Europe	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.01	-0.04	-0.16	-0.05	-0.03	-0.07
Total Non-OECD	**-0.01**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.23**	**-0.05**	**-0.13**	**-0.16**	**-0.14**	**-1.78**	**-9.45**	**-2.80**	**-1.64**	**-3.90**
World	**-0.01**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.10**	**-0.23**	**-0.03**	**-0.13**	**-0.15**	**-0.14**	**-3.33**	**-23.14**	**-6.99**	**-4.04**	**-9.35**
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	-0.01	-0.08	-0.09	-0.08	-0.09	-0.09	-0.14	0.07	-0.04	-0.05	-0.04	-3.09	-23.11	-6.85	-3.88	-9.21

* France, Germany, Italy, Spain and UK

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

	2018	2019	1Q19	2Q19	3Q19	4Q19	Latest month vs. Nov 19	Dec 19	Jan 20 [2]	Dec 19	Jan 19
Americas											
LPG and ethane	3.69	3.78	4.17	3.40	3.54	4.00	4.02	4.15	4.18	0.02	-0.17
Naphtha	0.31	0.27	0.30	0.28	0.27	0.24	0.24	0.28	0.31	0.02	0.01
Motor gasoline	11.09	11.04	10.71	11.26	11.28	10.93	11.00	10.69	10.50	-0.19	0.04
Jet and kerosene	2.03	2.08	1.97	2.10	2.17	2.07	2.03	2.12	2.03	-0.09	0.07
Gasoil/diesel oil	5.32	5.25	5.47	5.17	5.14	5.25	5.32	5.01	5.21	0.20	-0.26
Residual fuel oil	0.61	0.59	0.62	0.60	0.64	0.50	0.43	0.46	0.52	0.06	-0.09
Other products	2.48	2.57	2.18	2.61	2.83	2.67	2.63	2.65	2.38	-0.26	0.09
Total	**25.53**	**25.58**	**25.40**	**25.41**	**25.87**	**25.65**	**25.66**	**25.36**	**25.13**	**-0.23**	**-0.31**
Europe											
LPG and ethane	1.16	1.09	1.13	1.10	1.07	1.04	1.04	1.09	1.15	0.07	-0.02
Naphtha	1.03	0.98	1.14	0.88	0.93	0.99	1.05	1.02	1.06	0.04	-0.13
Motor gasoline	1.99	2.01	1.85	2.06	2.13	2.01	1.98	1.98	1.89	-0.09	0.09
Jet and kerosene	1.51	1.53	1.38	1.58	1.72	1.46	1.37	1.40	1.32	-0.08	-0.05
Gasoil/diesel oil	6.44	6.46	6.39	6.32	6.59	6.54	6.58	6.26	6.12	-0.14	-0.28
Residual fuel oil	0.86	0.83	0.88	0.85	0.83	0.75	0.75	0.75	0.73	-0.02	-0.14
Other products	1.28	1.22	1.13	1.28	1.30	1.19	1.19	1.08	1.07	-0.01	0.06
Total	**14.27**	**14.13**	**13.89**	**14.07**	**14.56**	**13.98**	**13.96**	**13.58**	**13.33**	**-0.24**	**-0.47**
Asia Oceania											
LPG and ethane	0.75	0.77	0.85	0.72	0.71	0.81	0.80	0.89	0.87	-0.02	-0.01
Naphtha	2.04	2.01	2.10	1.91	2.03	2.01	2.05	2.11	2.09	-0.02	-0.06
Motor gasoline	1.53	1.50	1.47	1.47	1.57	1.50	1.51	1.55	1.36	-0.19	-0.08
Jet and kerosene	0.93	0.92	1.15	0.78	0.74	1.01	0.99	1.23	1.15	-0.08	-0.10
Gasoil/diesel oil	1.89	1.90	1.94	1.88	1.86	1.95	1.97	1.98	1.69	-0.29	-0.23
Residual fuel oil	0.53	0.44	0.50	0.41	0.40	0.45	0.43	0.49	0.45	-0.04	-0.05
Other products	0.40	0.34	0.32	0.34	0.34	0.36	0.38	0.36	0.38	0.02	0.06
Total	**8.06**	**7.89**	**8.34**	**7.50**	**7.65**	**8.08**	**8.13**	**8.60**	**7.98**	**-0.62**	**-0.47**
OECD											
LPG and ethane	5.60	5.63	6.15	5.22	5.32	5.84	5.86	6.13	6.20	0.06	-0.20
Naphtha	3.39	3.27	3.54	3.07	3.22	3.25	3.34	3.40	3.45	0.05	-0.18
Motor gasoline	14.61	14.56	14.03	14.79	14.97	14.44	14.48	14.22	13.75	-0.47	0.05
Jet and kerosene	4.46	4.53	4.50	4.45	4.63	4.54	4.39	4.74	4.49	-0.25	-0.07
Gasoil/diesel oil	13.65	13.62	13.80	13.36	13.58	13.73	13.87	13.25	13.02	-0.23	-0.77
Residual fuel oil	2.00	1.85	1.99	1.86	1.87	1.69	1.61	1.70	1.70	0.00	-0.28
Other products	4.16	4.14	3.63	4.23	4.47	4.21	4.20	4.09	3.83	-0.25	0.20
Total	**47.86**	**47.60**	**47.64**	**46.98**	**48.07**	**47.70**	**47.76**	**47.54**	**46.44**	**-1.10**	**-1.25**

1 Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils. North America comprises US 50 states, US territories, Mexico and Canada.
2 Latest official OECD submissions (MOS).

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

	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20 [2]	Latest month vs. Dec 19	Latest month vs. Jan 19
United States[3]											
LPG and ethane	2.87	2.93	3.29	2.60	2.71	3.13	3.12	3.27	3.31	0.04	-0.14
Naphtha	0.23	0.21	0.21	0.21	0.22	0.19	0.18	0.24	0.22	-0.02	0.02
Motor gasoline	9.33	9.27	8.96	9.48	9.49	9.16	9.20	8.95	8.76	-0.18	0.02
Jet and kerosene	1.71	1.75	1.66	1.78	1.80	1.75	1.72	1.80	1.70	-0.10	0.04
Gasoil/diesel oil	4.15	4.08	4.28	4.01	3.94	4.10	4.19	3.90	4.02	0.12	-0.34
Residual fuel oil	0.32	0.29	0.29	0.26	0.32	0.27	0.22	0.27	0.26	-0.01	-0.05
Other products	1.89	1.95	1.62	2.02	2.20	1.95	1.96	1.87	1.66	-0.21	-0.08
Total	**20.50**	**20.47**	**20.31**	**20.35**	**20.68**	**20.55**	**20.59**	**20.29**	**19.93**	**-0.36**	**-0.53**
Japan											
LPG and ethane	0.40	0.37	0.47	0.35	0.29	0.37	0.37	0.43	0.40	-0.04	-0.08
Naphtha	0.74	0.74	0.80	0.69	0.71	0.76	0.77	0.80	0.75	-0.05	-0.06
Motor gasoline	0.86	0.84	0.81	0.81	0.90	0.83	0.83	0.87	0.74	-0.13	-0.04
Jet and kerosene	0.50	0.49	0.69	0.37	0.34	0.55	0.53	0.73	0.67	-0.06	-0.07
Diesel	0.46	0.47	0.47	0.45	0.47	0.47	0.47	0.49	0.39	-0.09	-0.04
Other gasoil	0.32	0.30	0.35	0.28	0.27	0.31	0.30	0.35	0.28	-0.06	-0.06
Residual fuel oil	0.28	0.24	0.26	0.21	0.23	0.25	0.25	0.25	0.23	-0.02	-0.01
Other products	0.26	0.23	0.25	0.23	0.24	0.22	0.23	0.24	0.26	0.02	0.00
Total	**3.81**	**3.67**	**4.09**	**3.41**	**3.44**	**3.76**	**3.75**	**4.16**	**3.72**	**-0.44**	**-0.37**
Germany											
LPG and ethane	0.11	0.12	0.12	0.13	0.13	0.11	0.11	0.11	0.11	0.01	0.01
Naphtha	0.27	0.27	0.33	0.22	0.23	0.30	0.29	0.33	0.29	-0.03	-0.06
Motor gasoline	0.49	0.50	0.47	0.50	0.51	0.50	0.49	0.49	0.48	0.00	0.03
Jet and kerosene	0.22	0.22	0.20	0.23	0.23	0.21	0.20	0.19	0.20	0.00	0.00
Diesel	0.76	0.77	0.74	0.78	0.79	0.77	0.79	0.70	0.71	0.00	0.00
Other gasoil	0.32	0.35	0.41	0.29	0.36	0.33	0.35	0.31	0.36	0.04	-0.13
Residual fuel oil	0.06	0.05	0.06	0.05	0.05	0.05	0.04	0.05	0.04	-0.01	-0.03
Other products	0.11	0.10	0.08	0.10	0.12	0.09	0.10	0.08	0.10	0.02	0.03
Total	**2.35**	**2.38**	**2.42**	**2.31**	**2.43**	**2.35**	**2.37**	**2.26**	**2.28**	**0.03**	**-0.16**
Italy											
LPG and ethane	0.10	0.08	0.09	0.07	0.07	0.08	0.07	0.09	0.10	0.01	-0.01
Naphtha	0.13	0.08	0.08	0.08	0.09	0.09	0.09	0.07	0.07	0.00	-0.01
Motor gasoline	0.17	0.14	0.11	0.14	0.16	0.16	0.15	0.15	0.14	-0.01	0.03
Jet and kerosene	0.11	0.11	0.08	0.11	0.13	0.10	0.09	0.10	0.09	-0.01	0.00
Diesel	0.46	0.45	0.45	0.45	0.45	0.46	0.45	0.45	0.43	-0.02	-0.02
Other gasoil	0.08	0.07	0.06	0.06	0.07	0.08	0.07	0.07	0.05	-0.02	-0.01
Residual fuel oil	0.07	0.07	0.06	0.07	0.07	0.07	0.06	0.07	0.07	0.00	0.00
Other products	0.16	0.15	0.14	0.16	0.16	0.15	0.14	0.16	0.14	-0.02	0.00
Total	**1.27**	**1.15**	**1.08**	**1.14**	**1.20**	**1.18**	**1.12**	**1.15**	**1.08**	**-0.07**	**-0.01**
France											
LPG and ethane	0.13	0.13	0.15	0.12	0.11	0.13	0.15	0.14	0.13	-0.01	-0.02
Naphtha	0.10	0.11	0.14	0.11	0.11	0.09	0.10	0.09	0.10	0.02	-0.03
Motor gasoline	0.19	0.20	0.18	0.21	0.22	0.20	0.19	0.21	0.19	-0.02	0.02
Jet and kerosene	0.17	0.17	0.16	0.18	0.19	0.16	0.16	0.16	0.16	0.00	0.00
Diesel	0.71	0.70	0.68	0.71	0.71	0.71	0.69	0.70	0.66	-0.04	0.00
Other gasoil	0.24	0.23	0.26	0.20	0.24	0.22	0.22	0.21	0.25	0.05	-0.04
Residual fuel oil	0.05	0.04	0.05	0.05	0.05	0.03	0.03	0.02	0.03	0.01	-0.02
Other products	0.12	0.12	0.10	0.12	0.14	0.11	0.12	0.08	0.10	0.02	0.00
Total	**1.71**	**1.71**	**1.72**	**1.71**	**1.78**	**1.65**	**1.65**	**1.60**	**1.63**	**0.02**	**-0.10**
United Kingdom											
LPG and ethane	0.14	0.12	0.15	0.15	0.10	0.09	0.09	0.11	0.14	0.03	-0.02
Naphtha	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.04	0.01	0.01
Motor gasoline	0.28	0.29	0.28	0.29	0.29	0.29	0.30	0.28	0.27	-0.01	-0.01
Jet and kerosene	0.32	0.32	0.33	0.32	0.33	0.32	0.31	0.33	0.31	-0.02	-0.02
Diesel	0.52	0.51	0.49	0.52	0.51	0.51	0.53	0.51	0.46	-0.06	-0.02
Other gasoil	0.14	0.13	0.12	0.13	0.14	0.13	0.13	0.13	0.10	-0.04	0.00
Residual fuel oil	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00
Other products	0.11	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.10	-0.01	-0.01
Total	**1.57**	**1.53**	**1.53**	**1.59**	**1.53**	**1.49**	**1.50**	**1.52**	**1.43**	**-0.09**	**-0.08**
Canada											
LPG and ethane	0.39	0.42	0.42	0.42	0.42	0.42	0.42	0.43	0.40	-0.02	-0.03
Naphtha	0.05	0.03	0.05	0.03	0.01	0.02	0.01	0.01	0.06	0.04	0.00
Motor gasoline	0.88	0.88	0.85	0.89	0.91	0.89	0.94	0.86	0.90	0.04	0.08
Jet and kerosene	0.16	0.18	0.16	0.17	0.23	0.17	0.16	0.17	0.19	0.02	0.03
Diesel	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.00	0.00
Other gasoil	0.29	0.28	0.29	0.25	0.30	0.28	0.25	0.27	0.35	0.08	0.03
Residual fuel oil	0.05	0.06	0.07	0.06	0.05	0.04	0.04	0.03	0.07	0.04	0.01
Other products	0.38	0.39	0.34	0.37	0.39	0.47	0.43	0.54	0.47	-0.07	0.12
Total	**2.45**	**2.50**	**2.45**	**2.44**	**2.57**	**2.54**	**2.51**	**2.56**	**2.70**	**0.13**	**0.24**

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

2 Latest official OECD submissions (MOS).

3 US figures exclude US territories.

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Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2018	2019	2020	4Q19	1Q20	2Q20	3Q20	4Q20	Jan 20	Feb 20	Mar 20
OPEC											
Crude Oil											
Saudi Arabia	10.33	9.80		9.91	9.87				9.72	9.74	10.15
Iran	3.58	2.36		2.11	2.02				2.06	2.02	1.97
Iraq	4.57	4.71		4.63	4.57				4.54	4.59	4.59
UAE	3.00	3.18		3.34	3.27				3.09	3.21	3.50
Kuwait	2.75	2.68		2.68	2.71				2.67	2.67	2.80
Neutral Zone[1]	0.00	0.00		0.00	0.01				0.00	0.00	0.02
Angola	1.49	1.39		1.35	1.39				1.38	1.38	1.40
Nigeria	1.60	1.73		1.70	1.73				1.68	1.74	1.76
Libya	0.97	1.09		1.15	0.33				0.78	0.13	0.08
Algeria	1.04	1.02		1.02	1.02				1.01	1.01	1.03
Congo	0.32	0.33		0.31	0.30				0.30	0.30	0.30
Gabon	0.19	0.21		0.21	0.19				0.17	0.19	0.21
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				0.84	0.80	0.67
Total Crude Oil	**31.36**	**29.49**		**29.31**	**28.29**				**28.36**	**27.90**	**28.58**
Total NGLs[2]	**5.50**	**5.45**	**5.23**	**5.38**	**5.43**	**5.17**	**5.16**	**5.16**	**5.45**	**5.43**	**5.39**
Total OPEC[3]	**36.86**	**34.94**		**34.69**	**33.71**				**33.81**	**33.33**	**33.97**
NON-OPEC[4]											
OECD											
Americas	23.03	24.70	23.95	25.55	25.60	23.89	23.25	23.09	25.72	25.63	25.47
United States	15.54	17.21	16.84	17.94	17.95	17.21	16.35	15.86	18.03	17.89	17.91
Mexico	2.07	1.93	1.93	1.95	1.99	1.93	1.89	1.89	1.99	1.99	2.01
Canada	5.41	5.54	5.18	5.65	5.65	4.74	4.99	5.33	5.69	5.74	5.54
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	3.58	3.52	3.69	3.58	3.48	3.57	3.61	3.75	3.72
UK	1.11	1.15	1.18	1.13	1.19	1.18	1.14	1.23	1.18	1.20	1.18
Norway	1.85	1.74	1.96	1.95	2.06	1.97	1.91	1.91	1.98	2.11	2.10
Others	0.50	0.46	0.44	0.44	0.44	0.43	0.43	0.44	0.45	0.44	0.44
Asia Oceania	0.41	0.53	0.60	0.58	0.57	0.60	0.61	0.62	0.54	0.57	0.60
Australia	0.35	0.46	0.53	0.52	0.50	0.53	0.54	0.55	0.46	0.50	0.53
Others	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.08	0.07	0.07
Total OECD	**26.90**	**28.57**	**28.13**	**29.65**	**29.86**	**28.08**	**27.33**	**27.28**	**29.87**	**29.95**	**29.78**
NON-OECD											
Former USSR	14.56	14.63	13.50	14.69	14.78	13.15	13.02	13.04	14.79	14.79	14.77
Russia	11.49	11.58	10.63	11.59	11.64	10.37	10.26	10.27	11.65	11.63	11.63
Azerbaijan	0.79	0.77	0.70	0.76	0.76	0.68	0.68	0.68	0.77	0.75	0.76
Kazakhstan	1.93	1.93	1.81	1.99	2.02	1.75	1.73	1.72	2.01	2.04	2.02
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	6.92	7.05	7.10	6.97	6.85	6.75	7.12	7.11	7.07
China	3.81	3.88	3.86	3.86	3.95	3.91	3.83	3.76	3.96	3.96	3.92
Malaysia	0.72	0.67	0.65	0.68	0.69	0.64	0.64	0.64	0.69	0.69	0.69
India	0.84	0.80	0.75	0.78	0.76	0.76	0.75	0.74	0.78	0.75	0.77
Indonesia	0.80	0.77	0.74	0.76	0.75	0.74	0.74	0.73	0.75	0.75	0.75
Others	1.01	0.99	0.91	0.97	0.95	0.92	0.90	0.88	0.95	0.96	0.95
Europe	0.12	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.12	0.12	0.12
Americas	5.04	5.28	5.35	5.55	5.59	5.18	5.30	5.35	5.74	5.56	5.47
Brazil	2.71	2.90	2.92	3.17	3.13	2.81	2.83	2.89	3.29	3.09	3.01
Argentina	0.58	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Colombia	0.87	0.89	0.87	0.89	0.89	0.87	0.86	0.84	0.89	0.88	0.88
Ecuador	0.52	0.53	0.52	0.52	0.55	0.43	0.55	0.55	0.55	0.55	0.55
Others	0.36	0.36	0.45	0.37	0.42	0.45	0.46	0.46	0.41	0.44	0.42
Middle East	3.25	3.24	3.12	3.24	3.20	3.10	3.09	3.09	3.19	3.22	3.19
Oman	0.99	0.98	0.90	0.98	0.98	0.88	0.88	0.88	0.98	0.98	0.98
Qatar	1.97	1.96	1.95	1.96	1.95	1.95	1.95	1.95	1.97	1.96	1.93
Others	0.30	0.30	0.26	0.31	0.27	0.26	0.26	0.26	0.25	0.28	0.27
Africa	1.45	1.44	1.32	1.44	1.39	1.31	1.29	1.27	1.42	1.39	1.37
Egypt	0.65	0.63	0.61	0.62	0.62	0.61	0.60	0.59	0.62	0.62	0.62
Others	0.80	0.81	0.71	0.82	0.78	0.70	0.69	0.68	0.80	0.77	0.76
Total Non-OECD	**31.61**	**31.82**	**30.32**	**32.10**	**32.18**	**29.83**	**29.66**	**29.61**	**32.39**	**32.19**	**31.97**
Processing gains[5]	2.32	2.35	2.09	2.35	2.38	1.76	2.11	2.11	2.38	2.38	2.38
Global Biofuels	2.63	2.80	2.69	2.74	2.28	2.76	3.05	2.65	2.35	2.36	2.13
TOTAL NON-OPEC	**63.45**	**65.54**	**63.23**	**66.83**	**66.71**	**62.42**	**62.16**	**61.66**	**66.98**	**66.87**	**66.27**
TOTAL SUPPLY	**100.31**	**100.48**		**101.52**	**100.42**				**100.79**	**100.21**	**100.24**

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.

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

	2018	2019	2020	4Q19	1Q20	2Q20	3Q20	4Q20	Jan 20	Feb 20	Mar 20
United States											
Alaska	479	466	447	480	478	453	397	462	482	481	472
California	477	455	430	441	436	432	428	424	438	436	435
Texas	4408	5069	5094	5319	5283	5183	5045	4867	5393	5220	5231
Federal Gulf of Mexico[2]	1758	1883	1964	1940	1990	1969	1951	1947	1983	1996	1991
Other US Lower 48	3869	4359	3813	4601	4480	4005	3549	3228	4447	4516	4480
NGLs[3]	4369	4813	4915	4988	5122	4986	4798	4757	5145	5090	5128
Other Hydrocarbons	178	169	174	167	156	186	176	179	144	156	168
Total	**15537**	**17214**	**16838**	**17936**	**17946**	**17213**	**16345**	**15863**	**18034**	**17895**	**17905**
Canada											
Alberta Light/Medium/Heavy	489	487	499	495	497	499	499	499	487	507	499
Alberta Bitumen	1856	1837	1516	1974	1879	1231	1317	1638	1850	1876	1909
Saskatchewan	488	483	488	492	498	491	485	479	505	496	494
Other Crude	449	490	489	542	488	477	495	495	507	493	465
NGLs	904	963	936	954	971	920	930	925	962	989	962
Other Upgraders	164	172	168	160	177	150	170	174	185	185	163
Synthetic Crudes	1056	1111	1082	1033	1142	969	1098	1119	1190	1190	1049
Total	**5408**	**5544**	**5178**	**5651**	**5652**	**4737**	**4994**	**5329**	**5685**	**5735**	**5542**
Mexico											
Crude	1831	1705	1707	1722	1767	1708	1678	1675	1761	1758	1781
NGLs	236	220	216	229	224	218	213	208	225	224	223
Total	**2073**	**1929**	**1926**	**1954**	**1994**	**1930**	**1895**	**1886**	**1989**	**1985**	**2007**
UK											
Brent Fields	45	44	32	41	36	35	27	29	36	37	36
Forties Fields	355	327	319	324	343	311	302	321	365	351	315
Ninian Fields	34	37	33	37	35	33	32	31	35	35	34
Flotta Fields	65	57	53	60	55	51	54	53	52	56	56
Other Fields	519	582	651	578	620	656	628	700	598	623	640
NGLs	89	99	95	94	96	95	94	93	94	101	94
Total	**1108**	**1146**	**1183**	**1135**	**1186**	**1182**	**1137**	**1227**	**1180**	**1203**	**1176**
Norway[5]											
Ekofisk-Ula Area	145	138	140	141	139	137	133	151	145	138	136
Oseberg-Troll Area	251	260	271	267	273	265	269	280	275	270	274
Statfjord-Gullfaks Area	305	237	219	228	227	215	215	220	224	227	229
Haltenbanken Area	331	287	317	312	309	318	309	331	304	309	313
Sleipner-Frigg Area	403	429	768	622	702	773	794	803	652	705	751
Other Fields	79	86	-54	102	101	-43	-104	-168	85	127	93
NGLs	335	299	300	278	310	305	291	293	294	330	308
Total	**1850**	**1737**	**1961**	**1950**	**2061**	**1969**	**1907**	**1909**	**1978**	**2106**	**2103**
Other OECD Europe											
Denmark	114	101	75	80	78	76	74	72	78	77	78
Italy	89	78	91	74	89	84	91	100	85	94	89
Turkey	55	58	58	58	58	58	58	58	58	58	58
Other	117	95	104	90	104	106	103	101	97	108	107
NGLs	11	8	7	7	7	7	7	6	7	7	7
Non-Conventional Oils	112	123	102	126	109	100	100	100	128	98	99
Total	**499**	**462**	**437**	**435**	**445**	**431**	**433**	**437**	**455**	**442**	**438**
Australia											
Gippsland Basin	13	9	13	14	14	13	13	13	14	14	14
Cooper-Eromanga Basin	30	34	34	35	34	34	33	33	35	34	34
Carnarvon Basin	60	76	123	114	122	119	123	129	117	121	128
Other Crude	180	241	245	237	212	249	257	262	183	213	240
NGLs	62	99	115	116	116	116	115	114	113	118	117
Total	**345**	**460**	**530**	**516**	**498**	**531**	**542**	**551**	**461**	**500**	**532**
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	13	11	11
Non-Conventional Oils	29	28	34	25	34	34	33	33	38	32	32
Total	**69**	**69**	**70**	**61**	**72**	**70**	**69**	**68**	**76**	**69**	**69**
OECD											
Crude Oil	19328	20442	19967	21450	21377	19965	19284	19257	21318	21403	21410
NGLs	6026	6522	6604	6687	6866	6667	6468	6416	6863	6879	6859
Non-Conventional Oils[4]	1544	1607	1564	1515	1621	1443	1581	1609	1688	1664	1514
Total	**26898**	**28571**	**28134**	**29651**	**29864**	**28075**	**27333**	**27282**	**29870**	**29946**	**29783**

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

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Table 4
OECD STOCKS AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Oct2019	Nov2019	Dec2019	Jan2020	Feb2020*	Feb2017	Feb2018	Feb2019	1Q2019	2Q2019	3Q2019	4Q2019
OECD INDUSTRY-CONTROLLED STOCKS[1]												
OECD Americas												
Crude	595.8	605.5	591.4	598.5	612.6	684.9	582.2	608.1	0.11	0.01	-0.37	0.10
Motor Gasoline	250.5	259.5	280.9	291.4	280.8	286.4	285.1	278.3	-0.14	-0.07	-0.02	0.25
Middle Distillate	184.9	189.7	204.4	208.0	195.5	240.4	214.8	207.2	-0.12	-0.05	0.02	0.02
Residual Fuel Oil	37.9	40.3	37.7	37.7	37.1	43.3	38.7	33.5	-0.01	0.02	0.00	0.02
Total Products[3]	731.8	732.9	756.0	756.1	714.6	760.7	721.0	715.5	-0.41	0.37	0.23	-0.10
Total[4]	**1542.2**	**1540.9**	**1538.4**	**1546.0**	**1527.2**	**1619.1**	**1476.8**	**1508.9**	**-0.35**	**0.62**	**-0.06**	**-0.22**
OECD Europe												
Crude	358.4	355.9	352.6	348.6	345.5	361.4	349.1	353.6	0.33	-0.05	-0.03	-0.03
Motor Gasoline	87.3	89.9	91.8	96.3	97.6	105.7	102.8	104.8	0.05	-0.10	-0.04	0.06
Middle Distillate	267.0	269.1	275.1	295.0	293.0	316.7	278.9	260.2	0.13	0.09	0.04	-0.05
Residual Fuel Oil	66.4	65.1	59.6	67.0	67.1	71.8	61.1	59.4	0.06	0.00	0.07	-0.07
Total Products[3]	532.3	537.6	542.0	568.8	567.7	600.7	555.8	540.6	0.28	0.01	0.07	-0.07
Total[4]	**974.9**	**976.2**	**975.9**	**999.8**	**995.8**	**1035.2**	**982.7**	**977.7**	**0.66**	**-0.07**	**0.06**	**-0.13**
OECD Asia Oceania												
Crude	146.1	153.0	154.7	118.1	119.1	184.9	184.0	167.6	0.04	-0.07	-0.11	0.13
Motor Gasoline	24.8	24.3	25.4	27.6	26.5	24.5	23.7	25.3	0.02	-0.01	0.01	0.00
Middle Distillate	73.1	74.8	71.7	75.3	69.6	64.9	59.4	62.7	-0.07	0.03	0.10	-0.08
Residual Fuel Oil	20.1	19.1	17.4	20.0	19.9	18.6	18.4	20.8	-0.01	0.00	0.01	-0.04
Total Products[3]	182.0	179.0	173.2	184.6	174.3	165.5	159.6	168.0	-0.18	0.10	0.20	-0.20
Total[4]	**394.7**	**397.0**	**391.6**	**367.7**	**355.1**	**411.5**	**401.2**	**394.2**	**-0.23**	**0.10**	**0.10**	**-0.08**
Total OECD												
Crude	1100.3	1114.4	1098.7	1065.3	1077.2	1231.1	1115.3	1129.3	0.49	-0.11	-0.52	0.21
Motor Gasoline	362.7	373.7	398.0	415.3	405.0	416.6	411.6	408.4	-0.06	-0.18	-0.05	0.31
Middle Distillate	524.9	533.6	551.2	578.3	558.1	622.0	553.1	530.1	-0.06	0.07	0.16	-0.10
Residual Fuel Oil	124.3	124.5	114.7	124.6	124.1	133.7	118.3	113.6	0.04	0.02	0.08	-0.08
Total Products[3]	1446.1	1449.5	1471.2	1509.5	1456.6	1526.8	1436.5	1424.1	-0.32	0.48	0.51	-0.37
Total[4]	**2911.8**	**2914.1**	**2905.8**	**2913.5**	**2878.0**	**3065.7**	**2860.7**	**2880.8**	**0.08**	**0.65**	**0.10**	**-0.43**
OECD GOVERNMENT-CONTROLLED STOCKS[5]												
OECD Americas												
Crude	641.2	635.0	635.0	635.0	635.0	694.8	665.5	649.1	0.00	-0.05	0.00	-0.11
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	207.9	209.3	207.5	206.1	206.7	205.7	206.3	208.4	-0.02	-0.02	-0.01	0.01
Products	273.6	273.7	273.0	275.1	276.6	276.2	274.9	276.0	0.10	-0.01	-0.02	-0.01
OECD Asia Oceania												
Crude	377.4	377.4	377.3	377.4	377.4	384.1	383.4	379.9	-0.03	0.00	-0.02	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	1226.5	1221.6	1219.7	1218.4	1219.0	1284.6	1255.1	1237.4	-0.05	-0.07	-0.03	-0.09
Products	314.5	314.6	313.9	316.0	317.4	316.1	315.5	316.8	0.10	-0.01	-0.01	-0.01
Total[4]	**1542.5**	**1537.9**	**1535.3**	**1536.2**	**1538.1**	**1604.0**	**1573.6**	**1557.1**	**0.06**	**-0.09**	**-0.05**	**-0.10**

* estimated

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

2 Closing stock levels.

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

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

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

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

(million barrels)

	September			October			November			December			January		
	2018	2019	%	2018	2019	%	2018	2019	%	2018	2019	%	2019	2020	%
United States[2]															
Crude	416.7	426.5	2.4	433.8	444.2	2.4	449.4	446.9	-0.6	442.5	432.9	-2.2	448.8	442.8	-1.3
Motor Gasoline	240.0	231.9	-3.4	232.7	224.7	-3.4	230.2	233.7	1.5	246.5	253.8	3.0	261.3	264.2	1.1
Middle Distillate	186.6	178.1	-4.6	169.5	162.5	-4.1	168.4	169.8	0.8	184.4	183.3	-0.6	183.5	189.4	3.2
Residual Fuel Oil	28.7	29.9	4.2	29.2	29.6	1.4	29.8	32.5	9.1	28.3	30.9	9.2	29.4	30.7	4.4
Other Products	222.6	249.5	12.1	220.5	240.1	8.9	209.9	225.2	7.3	197.8	215.0	8.7	182.8	200.1	9.5
Total Products	677.9	689.4	1.7	651.9	656.9	0.8	638.3	661.2	3.6	657.0	683.0	4.0	657.0	684.4	4.2
Other[3]	178.7	188.7	5.6	178.1	191.5	7.5	174.5	182.5	4.6	164.6	173.1	5.2	164.7	171.4	4.1
Total	**1273.3**	**1304.6**	**2.5**	**1263.8**	**1292.6**	**2.3**	**1262.2**	**1290.6**	**2.3**	**1264.1**	**1289.0**	**2.0**	**1270.5**	**1298.6**	**2.2**
Japan															
Crude	84.5	86.3	2.1	98.8	88.9	-10.0	100.7	86.9	-13.7	95.8	92.1	-3.9	90.5	75.6	-16.5
Motor Gasoline	10.3	9.5	-7.8	10.4	10.1	-2.9	11.0	10.4	-5.5	9.6	10.8	12.5	10.6	11.9	12.3
Middle Distillate	35.9	34.6	-3.6	35.9	36.2	0.8	39.3	37.1	-5.6	34.7	33.1	-4.6	31.3	34.0	8.6
Residual Fuel Oil	8.1	7.9	-2.5	8.1	8.1	0.0	8.2	8.5	3.7	8.6	7.2	-16.3	8.8	7.8	-11.4
Other Products	39.6	39.4	-0.5	38.5	39.0	1.3	37.9	36.3	-4.2	37.7	35.8	-5.0	35.9	37.5	4.5
Total Products	93.9	91.4	-2.7	92.9	93.4	0.5	96.4	92.3	-4.3	90.6	86.9	-4.1	86.6	91.2	5.3
Other[3]	56.5	54.2	-4.1	55.3	56.0	1.3	57.0	54.4	-4.6	54.7	53.1	-2.9	53.6	54.5	1.7
Total	**234.9**	**231.9**	**-1.3**	**247.0**	**238.3**	**-3.5**	**254.1**	**233.6**	**-8.1**	**241.1**	**232.1**	**-3.7**	**230.7**	**221.3**	**-4.1**
Germany															
Crude	46.5	47.1	1.3	48.1	47.6	-1.0	46.0	47.4	3.0	43.2	47.8	10.6	46.8	44.5	-4.9
Motor Gasoline	9.8	10.6	8.2	9.6	10.9	13.5	9.8	11.3	15.3	11.3	11.4	0.9	12.0	11.5	-4.2
Middle Distillate	23.4	24.1	3.0	21.4	22.9	7.0	22.1	22.7	2.7	25.5	24.9	-2.4	25.4	28.3	11.4
Residual Fuel Oil	7.1	7.4	4.2	7.2	7.0	-2.8	7.9	8.0	1.3	7.8	7.0	-10.3	8.0	7.3	-8.8
Other Products	10.8	10.3	-4.6	9.9	10.2	3.0	10.2	9.8	-3.9	10.3	10.2	-1.0	10.4	9.5	-8.7
Total Products	51.1	52.4	2.5	48.1	51.0	6.0	50.0	51.8	3.6	54.9	53.5	-2.6	55.8	56.6	1.4
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	**97.6**	**99.5**	**1.9**	**96.2**	**98.6**	**2.5**	**96.0**	**99.2**	**3.3**	**98.1**	**101.3**	**3.3**	**102.6**	**101.1**	**-1.5**
Italy															
Crude	39.6	42.7	7.8	40.1	44.0	9.7	38.5	35.9	-6.8	40.5	39.4	-2.7	35.3	42.0	19.0
Motor Gasoline	11.6	12.5	7.8	13.0	13.1	0.8	12.8	12.5	-2.3	12.6	12.9	2.4	13.7	12.3	-10.2
Middle Distillate	27.8	31.1	11.9	27.1	29.1	7.4	27.9	29.0	3.9	27.7	28.1	1.4	28.8	29.2	1.4
Residual Fuel Oil	8.8	8.8	0.0	8.4	9.1	8.3	8.8	8.9	1.1	8.6	8.9	3.5	9.5	9.0	-5.3
Other Products	12.4	13.8	11.3	12.3	13.8	12.2	11.9	14.1	18.5	12.4	13.9	12.1	12.6	14.8	17.5
Total Products	60.6	66.2	9.2	60.8	65.1	7.1	61.4	64.5	5.0	61.3	63.8	4.1	64.6	65.3	1.1
Other[3]	15.3	15.7	2.6	15.3	15.2	-0.7	14.8	14.5	-2.0	14.2	14.9	4.9	15.1	15.6	3.3
Total	**115.5**	**124.6**	**7.9**	**116.2**	**124.3**	**7.0**	**114.7**	**114.9**	**0.2**	**116.0**	**118.1**	**1.8**	**115.0**	**122.9**	**6.9**
France															
Crude	10.8	11.0	1.9	12.9	16.8	30.2	11.3	17.3	53.1	8.9	11.9	33.7	10.3	10.2	-1.0
Motor Gasoline	4.7	4.9	4.3	3.6	4.7	30.6	4.2	3.8	-9.5	4.5	3.8	-15.6	5.1	4.9	-3.9
Middle Distillate	19.6	20.1	2.6	16.5	19.3	17.0	17.0	19.3	13.5	21.5	21.5	0.0	20.0	20.6	3.0
Residual Fuel Oil	1.2	0.6	-50.0	1.0	1.2	20.0	1.0	1.5	50.0	0.8	1.5	87.5	1.3	1.7	30.8
Other Products	4.2	4.1	-2.4	4.0	4.0	0.0	4.6	3.9	-15.2	4.4	4.3	-2.3	3.4	4.2	23.5
Total Products	29.7	29.7	0.0	25.1	29.2	16.3	26.8	28.5	6.3	31.2	31.1	-0.3	29.8	31.4	5.4
Other[3]	7.9	7.5	-5.1	7.9	7.4	-6.3	7.5	7.8	4.0	7.9	7.7	-2.5	7.7	7.9	2.6
Total	**48.4**	**48.2**	**-0.4**	**45.9**	**53.4**	**16.3**	**45.6**	**53.6**	**17.5**	**48.0**	**50.7**	**5.6**	**47.8**	**49.5**	**3.6**
United Kingdom															
Crude	28.6	26.2	-8.4	28.9	28.6	-1.0	27.2	27.6	1.5	27.3	28.7	5.1	30.3	28.3	-6.6
Motor Gasoline	9.6	9.3	-3.1	9.5	9.4	-1.1	9.4	9.2	-2.1	10.3	9.1	-11.7	10.0	10.9	9.0
Middle Distillate	24.8	25.3	2.0	23.4	25.9	10.7	22.4	28.3	26.3	23.9	27.3	14.2	25.0	29.0	16.0
Residual Fuel Oil	1.2	1.4	16.7	1.0	1.4	40.0	0.9	1.3	44.4	1.1	1.3	18.2	1.1	1.3	18.2
Other Products	5.2	7.0	34.6	5.8	7.1	22.4	5.4	6.7	24.1	5.2	7.0	34.6	4.9	6.2	26.5
Total Products	40.8	43.0	5.4	39.7	43.8	10.3	38.1	45.5	19.4	40.5	44.7	10.4	41.0	47.4	15.6
Other[3]	8.3	9.0	8.4	8.1	9.0	11.1	8.4	8.7	3.6	8.6	7.9	-8.1	8.3	8.2	-1.2
Total	**77.7**	**78.2**	**0.6**	**76.7**	**81.4**	**6.1**	**73.7**	**81.8**	**11.0**	**76.4**	**81.3**	**6.4**	**79.6**	**83.9**	**5.4**
Canada[4]															
Crude	120.6	122.2	1.3	120.5	119.0	-1.2	118.9	125.5	5.6	118.4	125.3	5.8	117.8	122.6	4.1
Motor Gasoline	16.5	14.5	-12.1	16.4	14.7	-10.4	16.2	14.8	-8.6	15.9	15.3	-3.8	16.7	15.5	-7.2
Middle Distillate	18.3	14.4	-21.3	17.3	12.9	-25.4	16.8	11.5	-31.5	18.9	12.0	-36.5	16.4	11.2	-31.7
Residual Fuel Oil	2.3	1.8	-21.7	2.1	1.7	-19.0	2.0	1.9	-5.0	2.4	2.4	0.0	4.0	2.4	-40.0
Other Products	12.5	9.8	-21.6	12.0	9.4	-21.7	12.9	9.4	-27.1	12.8	9.0	-29.7	11.0	9.7	-11.8
Total Products	49.6	40.5	-18.3	47.8	38.7	-19.0	47.9	37.6	-21.5	50.0	38.7	-22.6	48.1	38.8	-19.3
Other[3]	25.3	22.8	-9.9	25.2	22.6	-10.3	23.5	19.6	-16.6	23.9	17.4	-27.2	21.1	19.7	-6.6
Total	**195.5**	**185.5**	**-5.1**	**193.5**	**180.3**	**-6.8**	**190.3**	**182.7**	**-4.0**	**192.3**	**181.4**	**-5.7**	**187.0**	**181.1**	**-3.2**

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

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

	End December 2018		End March 2019		End June 2019		End September 2019		End December 2019 [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	192.3	81	186.1	78	182.0	69	185.6	73	181.3	-
Chile	10.4	28	10.5	28	11.0	31	12.3	32	11.5	-
Mexico	54.7	29	40.5	21	39.6	24	34.3	21	34.4	-
United States[4]	1915.3	94	1900.2	93	1956.9	95	1951.4	95	1926.0	-
Total[4]	**2194.7**	**87**	**2159.4**	**85**	**2211.6**	**86**	**2205.6**	**87**	**2175.3**	**88**
OECD Asia Oceania										
Australia	40.7	35	44.0	37	45.8	39	44.8	37	42.6	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	564.8	138	539.7	158	547.7	159	551.6	147	551.9	-
Korea	205.8	78	205.1	83	204.4	79	210.2	79	206.3	-
New Zealand	8.3	43	8.0	45	8.4	47	7.8	41	7.0	-
Total	**819.6**	**98**	**796.8**	**106**	**806.3**	**106**	**814.4**	**101**	**807.8**	**104**
OECD Europe[5]										
Austria	20.9	80	23.0	80	21.4	71	20.9	77	22.0	-
Belgium	42.0	63	45.8	78	49.1	81	47.5	76	45.7	-
Czech Republic	22.8	110	23.0	100	20.4	86	21.4	100	22.3	-
Denmark	20.3	135	22.2	124	24.7	152	28.2	170	26.8	-
Estonia	2.9	87	2.6	88	2.7	87	2.7	84	3.9	-
Finland	39.9	198	38.5	197	38.9	191	39.2	195	36.4	-
France	160.8	94	169.0	99	169.2	95	160.4	97	158.6	-
Germany	271.0	112	274.0	119	278.7	115	276.6	118	277.6	-
Greece	32.1	110	35.3	116	29.0	85	32.0	108	29.4	-
Hungary	25.6	158	25.8	147	23.8	134	24.9	145	26.2	-
Ireland	10.2	65	10.8	68	9.8	62	8.8	54	9.7	-
Italy	125.1	116	130.5	114	129.4	107	134.9	114	128.3	-
Latvia	2.4	67	4.0	98	3.9	90	3.6	95	2.5	-
Lithuania	6.6	113	7.5	107	6.2	85	8.0	121	6.9	-
Luxembourg	0.5	8	0.5	8	0.6	10	0.6	10	0.6	-
Netherlands	133.3	144	151.2	179	147.0	176	149.1	166	145.6	-
Norway	26.7	161	27.2	165	26.6	151	27.1	194	24.4	-
Poland	79.5	123	80.6	116	77.8	106	79.3	112	81.2	-
Portugal	24.6	107	26.4	105	24.8	99	24.1	100	24.3	-
Slovak Republic	11.8	135	12.0	141	11.2	125	11.7	139	12.3	-
Slovenia	5.0	107	4.9	93	5.1	90	4.8	94	5.3	-
Spain	115.9	87	124.2	93	126.0	95	123.1	94	124.8	-
Sweden	35.8	118	38.3	114	41.9	116	42.8	138	41.5	-
Switzerland	30.8	137	31.6	148	30.7	136	32.1	143	32.3	-
Turkey	87.6	101	87.7	90	87.0	78	88.0	90	88.3	-
United Kingdom	76.4	50	80.8	51	81.1	53	78.3	53	81.2	-
Total	**1410.5**	**102**	**1477.3**	**105**	**1467.1**	**101**	**1470.0**	**105**	**1458.0**	**112**
Total OECD	**4424.9**	**93**	**4433.6**	**95**	**4485.0**	**94**	**4490.0**	**95**	**4441.2**	**98**
DAYS OF IEA Net Imports[6]	**-**	**189**	**-**	**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 December 2019 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]*		
4Q2016	4608	1601	3007	98	34	64
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	4434	1557	2877	95	33	61
2Q2019	4485	1549	2936	94	32	61
3Q2019	4490	1544	2946	95	33	62
4Q2019	4441	1535	2906	98	34	64

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 4Q2019 (when latest forecasts are used).

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier change
Saudi Light & Extra Light												
Americas	0.59	0.66	0.20	0.35	0.15	0.08	0.23	0.27	0.43	0.44	0.37	0.07
Europe	0.69	0.69	0.68	0.70	0.75	0.71	0.56	0.69	0.54	0.49	0.77	-0.28
Asia Oceania	1.56	1.45	1.42	1.62	1.41	1.33	1.32	1.53	1.36	1.43	1.65	-0.21
Saudi Medium												
Americas	0.33	0.30	0.12	0.13	0.21	0.10	0.06	0.12	-	0.03	-	-
Europe	0.01	0.01	0.02	-	0.01	0.04	0.02	0.00	0.02	0.04	-	-
Asia Oceania	0.37	0.41	0.23	0.24	0.23	0.24	0.19	0.10	0.15	0.19	0.28	-0.09
Canada Heavy												
Americas	2.23	2.41	2.27	2.29	2.19	2.29	2.33	2.30	2.59	2.63	2.31	0.32
Europe	0.02	0.04	0.04	0.03	0.05	0.05	0.04	0.03	0.08	0.06	0.03	0.03
Asia Oceania	-	0.00	0.00	-	-	0.01	0.01	0.02	-	-	-	-
Iraqi Basrah Light[2]												
Americas	0.63	0.50	0.31	0.46	0.24	0.32	0.21	0.28	0.36	0.28	0.52	-0.24
Europe	0.76	0.76	0.85	0.89	0.96	0.96	0.59	0.50	0.56	0.50	0.90	-0.40
Asia Oceania	0.40	0.43	0.37	0.45	0.39	0.24	0.39	0.48	0.44	0.31	0.50	-0.19
Kuwait Blend												
Americas	0.11	0.02	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.13	0.11	0.04	0.11	0.17	0.10	0.08	0.13	0.07	0.09	-0.03
Asia Oceania	0.68	0.66	0.61	0.63	0.62	0.64	0.57	0.66	0.57	0.59	0.66	-0.07
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.27	0.16	0.00	0.01	-	-	-	-	-	-	0.03	-
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	-	-	-	-	-	0.06	-
Asia Oceania	0.57	0.28	0.14	0.36	0.18	-	-	-	-	-	0.06	-
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	0.47	0.57	0.48	0.57	-0.10
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	0.67	0.66	0.80	0.77	0.03
Asia Oceania	0.10	0.19	0.18	0.17	0.17	0.22	0.15	0.11	0.14	0.10	0.16	-0.06
Venezuelan 22 API and heavier												
Americas	0.48	0.44	0.05	0.19	-	-	-	-	-	-	0.48	-
Europe	0.04	0.03	0.09	0.10	0.06	0.09	0.09	0.11	0.08	0.02	0.13	-0.11
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.58	0.63	0.51	0.54	0.51	0.52	0.46	0.52	0.52	0.59	0.47	0.12
Europe	0.20	0.21	0.19	0.21	0.21	0.17	0.17	0.16	0.19	0.13	0.18	-0.05
Asia Oceania	0.07	0.08	0.13	0.12	0.14	0.13	0.14	0.10	0.15	-	0.13	-
Russian Urals												
Americas	0.01	0.01	0.01	0.04	-	0.02	-	-	-	-	0.09	-
Europe	1.64	1.40	1.37	1.38	1.37	1.50	1.23	1.34	1.12	1.30	1.32	-0.02
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	0.10	0.11	0.27	0.12	0.15
Pacific	0.01	0.01	0.00	-	-	-	0.01	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	0.56	0.38	0.51	0.44	0.07
Asia Oceania	0.02	0.02	0.02	0.03	0.00	0.03	0.02	-	0.05	0.06	0.01	0.05
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	0.62	0.75	0.47	0.62	-0.14
Asia Oceania	0.03	0.02	0.03	0.04	0.03	0.04	0.02	0.04	-	0.06	0.05	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).

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier % change
Crude Oil												
Americas	4361	3759	2698	2891	2961	2654	2292	2168	2435	2118	3391	-38%
Europe	9902	9814	9872	10014	9574	10309	9589	9581	9290	9403	9992	-6%
Asia Oceania	6849	6657	6486	6852	6323	6310	6465	6477	6834	6062	6657	-9%
Total OECD	**21112**	**20230**	**19056**	**19758**	**18858**	**19274**	**18346**	**18225**	**18559**	**17583**	**20040**	**-12%**
LPG												
Americas	20	22	76	35	21	21	225	223	224	248	52	376%
Europe	432	457	434	480	410	408	438	462	410	483	467	3%
Asia Oceania	551	556	586	587	554	612	590	596	687	704	679	4%
Total OECD	**1003**	**1035**	**1096**	**1102**	**985**	**1041**	**1253**	**1282**	**1321**	**1435**	**1199**	**20%**
Naphtha												
Americas	19	8	9	5	4	5	20	19	12	29	4	613%
Europe	369	391	347	348	334	310	396	382	453	336	384	-13%
Asia Oceania	978	1018	990	918	955	1029	1058	1045	1125	1241	956	30%
Total OECD	**1366**	**1417**	**1346**	**1271**	**1293**	**1344**	**1474**	**1446**	**1590**	**1606**	**1344**	**19%**
Gasoline[3]												
Americas	727	773	948	595	1045	957	1188	1127	1157	947	605	57%
Europe	153	110	112	118	148	92	90	39	86	174	176	-1%
Asia Oceania	102	108	110	110	111	113	106	98	105	107	126	-15%
Total OECD	**983**	**992**	**1169**	**822**	**1305**	**1161**	**1383**	**1264**	**1348**	**1228**	**907**	**35%**
Jet & Kerosene												
Americas	171	140	190	138	185	206	229	218	249	233	106	120%
Europe	504	509	520	455	571	558	496	585	404	505	447	13%
Asia Oceania	80	89	76	82	60	68	94	78	102	120	56	112%
Total OECD	**755**	**738**	**786**	**675**	**816**	**832**	**819**	**881**	**755**	**857**	**609**	**41%**
Gasoil/Diesel												
Americas	77	124	183	204	81	72	373	355	427	318	273	17%
Europe	1337	1339	1297	1377	1285	1276	1254	1288	1097	1433	1354	6%
Asia Oceania	196	253	263	233	259	270	287	299	267	312	248	26%
Total OECD	**1610**	**1716**	**1743**	**1814**	**1625**	**1618**	**1913**	**1942**	**1791**	**2063**	**1875**	**10%**
Heavy Fuel Oil												
Americas	131	161	122	149	104	85	152	184	137	178	157	13%
Europe	233	197	223	217	229	240	206	215	217	238	175	36%
Asia Oceania	146	162	101	103	106	116	80	32	141	112	127	-12%
Total OECD	**510**	**520**	**446**	**469**	**438**	**441**	**438**	**431**	**495**	**528**	**460**	**15%**
Other Products												
Americas	717	679	713	520	730	792	809	782	807	771	633	22%
Europe	1012	1011	864	1006	902	830	722	714	674	706	1017	-31%
Asia Oceania	259	282	281	273	292	273	286	294	305	326	280	16%
Total OECD	**1987**	**1972**	**1859**	**1799**	**1924**	**1894**	**1817**	**1791**	**1786**	**1803**	**1929**	**-7%**
Total Products												
Americas	1862	1908	2241	1645	2171	2138	2995	2909	3015	2724	1829	49%
Europe	4040	4013	3797	4001	3877	3714	3602	3684	3339	3876	4020	-4%
Asia Oceania	2312	2470	2407	2306	2338	2480	2500	2443	2732	2921	2473	18%
Total OECD	**8214**	**8390**	**8444**	**7952**	**8386**	**8332**	**9097**	**9036**	**9086**	**9521**	**8323**	**14%**
Total Oil												
Americas	6223	5666	4939	4536	5131	4793	5288	5076	5449	4843	5221	-7%
Europe	13942	13827	13669	14015	13452	14023	13191	13265	12629	13278	14012	-5%
Asia Oceania	9160	9127	8893	9158	8661	8790	8965	8919	9566	8983	9130	-2%
Total OECD	**29326**	**28620**	**27500**	**27710**	**27244**	**27606**	**27443**	**27261**	**27645**	**27104**	**28363**	**-4%**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier % change
Crude Oil												
Americas	4235	3606	2553	2790	2707	2519	2203	2041	2330	2029	3296	-38%
Europe	9436	9088	8913	9100	8773	9383	8397	8447	7918	8088	9103	-11%
Asia Oceania	6553	6210	5859	6311	5753	5640	5740	5791	6029	5382	6123	-12%
Total OECD	**20224**	**18904**	**17325**	**18201**	**17233**	**17542**	**16340**	**16278**	**16277**	**15499**	**18522**	**-16%**
LPG												
Americas	16	15	73	27	21	21	223	223	216	241	36	569%
Europe	337	350	303	352	305	274	282	290	266	297	330	-10%
Asia Oceania	205	161	77	85	99	69	58	49	84	67	76	-12%
Total OECD	**557**	**527**	**454**	**463**	**425**	**363**	**563**	**562**	**566**	**605**	**442**	**37%**
Naphtha												
Americas	16	4	6	1	1	3	17	14	9	27	1	2372%
Europe	350	360	320	328	321	284	348	328	398	320	371	-14%
Asia Oceania	931	921	895	801	865	972	938	919	964	1040	808	29%
Total OECD	**1297**	**1286**	**1221**	**1130**	**1188**	**1258**	**1304**	**1262**	**1371**	**1387**	**1181**	**18%**
Gasoline[3]												
Americas	213	271	447	244	367	386	787	722	781	669	261	157%
Europe	149	105	108	114	142	89	87	34	83	173	171	1%
Asia Oceania	102	85	84	91	56	92	96	95	82	82	126	-35%
Total OECD	**464**	**461**	**639**	**449**	**565**	**568**	**970**	**851**	**945**	**924**	**558**	**66%**
Jet & Kerosene												
Americas	67	56	54	45	24	55	93	88	117	139	42	232%
Europe	436	445	464	414	521	473	446	560	353	418	429	-2%
Asia Oceania	80	89	76	82	60	68	94	78	102	120	56	112%
Total OECD	**583**	**590**	**594**	**541**	**605**	**596**	**632**	**726**	**573**	**677**	**527**	**28%**
Gasoil/Diesel												
Americas	50	100	152	167	40	58	341	328	376	292	233	25%
Europe	1086	1160	1124	1210	1091	1026	1168	1203	1002	1337	1198	12%
Asia Oceania	195	253	261	233	259	265	287	299	267	312	248	26%
Total OECD	**1331**	**1513**	**1537**	**1611**	**1390**	**1349**	**1797**	**1830**	**1645**	**1941**	**1680**	**16%**
Heavy Fuel Oil												
Americas	123	147	108	123	97	81	132	135	129	134	131	2%
Europe	218	185	202	206	200	210	191	203	215	220	171	29%
Asia Oceania	146	162	100	101	106	114	80	32	141	112	122	-8%
Total OECD	**487**	**493**	**410**	**430**	**404**	**405**	**403**	**370**	**485**	**465**	**424**	**10%**
Other Products												
Americas	542	522	542	345	560	615	646	640	654	656	407	61%
Europe	731	702	628	736	656	615	509	491	437	415	703	-41%
Asia Oceania	182	201	197	191	200	188	211	216	218	199	184	8%
Total OECD	**1455**	**1425**	**1368**	**1273**	**1416**	**1417**	**1366**	**1347**	**1310**	**1270**	**1294**	**-2%**
Total Products												
Americas	1026	1115	1383	952	1110	1219	2239	2151	2283	2159	1111	94%
Europe	3307	3307	3149	3361	3237	2971	3031	3109	2755	3180	3374	-6%
Asia Oceania	1841	1873	1691	1584	1645	1767	1764	1688	1858	1932	1621	19%
Total OECD	**6175**	**6295**	**6222**	**5897**	**5992**	**5957**	**7035**	**6948**	**6895**	**7270**	**6106**	**19%**
Total Oil												
Americas	5261	4721	3936	3742	3818	3738	4442	4191	4612	4187	4408	-5%
Europe	12744	12395	12061	12461	12010	12354	11428	11555	10673	11268	12477	-10%
Asia Oceania	8394	8082	7549	7895	7397	7408	7504	7479	7887	7314	7743	-6%
Total OECD	**26399**	**25199**	**23547**	**24098**	**23225**	**23499**	**23374**	**23226**	**23172**	**22769**	**24627**	**-8%**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier % change
Crude Oil												
Americas	126	153	145	101	253	135	89	127	105	89	95	-6%
Europe	466	726	959	914	802	926	1192	1134	1372	1315	889	48%
Asia Oceania	296	448	628	542	570	670	725	686	805	680	534	27%
Total OECD	**888**	**1326**	**1731**	**1557**	**1625**	**1731**	**2007**	**1947**	**2282**	**2084**	**1519**	**37%**
LPG												
Americas	4	7	3	8	0	0	3	0	8	7	16	-56%
Europe	95	107	131	128	105	134	156	173	144	186	137	36%
Asia Oceania	346	395	508	502	455	543	532	547	604	637	604	6%
Total OECD	**445**	**508**	**642**	**639**	**560**	**678**	**690**	**720**	**755**	**830**	**757**	**10%**
Naphtha												
Americas	3	4	3	4	3	3	3	5	3	2	3	-27%
Europe	19	31	27	20	12	26	48	53	54	16	13	20%
Asia Oceania	47	97	96	117	90	57	120	126	161	201	148	36%
Total OECD	**69**	**132**	**125**	**140**	**105**	**86**	**170**	**184**	**219**	**218**	**164**	**33%**
Gasoline[3]												
Americas	514	502	500	351	678	571	400	405	377	278	344	-19%
Europe	5	5	4	4	6	2	3	5	3	2	5	-63%
Asia Oceania	0	23	26	19	56	20	9	3	23	25	0	na
Total OECD	**519**	**530**	**530**	**373**	**740**	**593**	**413**	**412**	**403**	**304**	**349**	**-13%**
Jet & Kerosene												
Americas	104	84	136	93	161	151	137	130	132	93	64	47%
Europe	68	64	56	40	50	85	50	24	50	86	18	386%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	**172**	**148**	**192**	**134**	**211**	**236**	**186**	**154**	**182**	**180**	**81**	**121%**
Gasoil/Diesel												
Americas	28	25	31	37	42	14	31	28	51	26	40	-34%
Europe	250	178	174	167	193	250	85	85	95	96	156	-38%
Asia Oceania	1	0	1	0	0	5	0	0	0	0	0	na
Total OECD	**279**	**203**	**206**	**204**	**235**	**269**	**116**	**112**	**146**	**123**	**195**	**-37%**
Heavy Fuel Oil												
Americas	8	15	14	26	6	4	20	49	8	44	26	70%
Europe	15	12	21	10	28	30	15	12	1	18	4	323%
Asia Oceania	0	0	1	2	0	2	0	0	0	0	6	-100%
Total OECD	**23**	**27**	**36**	**39**	**35**	**36**	**35**	**61**	**10**	**63**	**36**	**73%**
Other Products												
Americas	175	157	171	174	170	177	163	142	153	115	225	-49%
Europe	280	308	236	270	246	216	213	223	237	291	314	-7%
Asia Oceania	77	81	83	82	92	85	75	78	87	127	95	33%
Total OECD	**532**	**546**	**490**	**526**	**508**	**477**	**451**	**444**	**476**	**533**	**635**	**-16%**
Total Products												
Americas	836	793	858	693	1060	920	756	758	732	566	718	-21%
Europe	733	706	648	640	640	743	571	576	584	696	646	8%
Asia Oceania	470	597	716	722	693	712	735	754	874	989	853	16%
Total OECD	**2039**	**2095**	**2222**	**2055**	**2394**	**2375**	**2062**	**2088**	**2190**	**2251**	**2217**	**2%**
Total Oil												
Americas	962	945	1002	794	1314	1055	846	885	837	655	813	-19%
Europe	1199	1432	1608	1554	1442	1669	1762	1710	1956	2010	1536	31%
Asia Oceania	766	1044	1343	1264	1264	1382	1461	1440	1679	1670	1387	20%
Total OECD	**2927**	**3421**	**3953**	**3612**	**4019**	**4106**	**4069**	**4035**	**4472**	**4335**	**3736**	**16%**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier change
OECD Americas												
Venezuela	618	506	81	285	41	-	-	-	-	-	561	-
Other Central & South America	928	795	867	850	882	888	849	760	850	819	962	-143
North Sea	124	150	143	101	246	135	89	127	105	89	95	-6
Other OECD Europe	-	1	2	-	7	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	121	145	189	151	253	209	143	105	169	129	129	1
Saudi Arabia	1043	983	601	745	607	555	501	459	520	468	835	-366
Kuwait	144	78	45	84	48	22	26	41	38	44	18	26
Iran	-	-	-	-	-	-	-	-	-	-	-	-
Iraq	605	519	331	374	329	332	292	236	386	299	428	-129
Oman	14	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	20	5	3	-	-	11	-	-	-	-	-	-
Other Middle East	2	-	-	-	-	-	-	-	-	-	-	-
West Africa[2]	497	317	267	165	324	332	244	300	216	109	244	-135
Other Africa	214	196	137	121	208	127	92	105	54	113	119	-6
Asia	26	61	32	16	16	43	54	33	96	48	-	-
Other	4	3	0	-	-	-	1	1	1	-	-	-
Total	**4361**	**3759**	**2698**	**2891**	**2961**	**2654**	**2292**	**2168**	**2435**	**2118**	**3391**	**-1273**
of which Non-OECD	**4235**	**3606**	**2553**	**2790**	**2707**	**2519**	**2203**	**2041**	**2330**	**2029**	**3296**	**-1268**
OECD Europe												
Canada	45	81	60	66	34	73	65	59	128	140	80	59
Mexico + USA	419	645	900	848	768	853	1127	1076	1245	1175	809	366
Venezuela	67	57	106	145	73	102	104	123	87	19	208	-188
Other Central & South America	160	132	118	117	76	124	156	170	191	191	132	59
Non-OECD Europe	9	12	14	11	11	11	25	25	29	36	14	22
Former Soviet Union	4437	4149	4240	4347	4018	4410	4186	4157	3765	4068	4362	-295
Saudi Arabia	750	818	792	825	852	868	624	752	614	575	854	-279
Kuwait	201	137	97	85	105	143	53	25	82	110	99	11
Iran	801	536	74	148	77	41	32	22	-	41	135	-93
Iraq	995	962	1124	1180	1269	1189	862	825	845	605	1115	-510
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	6	2	2	-	-	-	7	21	-	-	-	-
Other Middle East	1	-	3	2	8	2	-	-	-	-	-	-
West Africa[2]	960	1115	1139	1146	1099	1179	1134	1086	1007	1162	1062	100
Other Africa	1045	1161	1189	1074	1160	1315	1205	1241	1263	853	1124	-270
Asia	2	-	-	-	-	-	-	-	-	-	-	-
Other	5	9	13	18	24	0	12	-	35	429	-	-
Total	**9903**	**9816**	**9873**	**10015**	**9575**	**10310**	**9590**	**9583**	**9290**	**9404**	**9994**	**-589**
of which Non-OECD	**9436**	**9088**	**8913**	**9100**	**8773**	**9383**	**8397**	**8447**	**7918**	**8088**	**9103**	**-1015**
OECD Asia Oceania												
Canada	-	3	5	-	-	6	12	20	-	-	-	-
Mexico + USA	199	344	613	542	559	642	705	666	781	680	534	146
Venezuela	8	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	35	35	48	51	67	51	23	-	49	31	55	-24
North Sea	97	100	10	-	11	22	8	-	24	-	-	-
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	413	435	435	458	402	488	392	406	402	336	427	-91
Saudi Arabia	2166	2040	1878	2108	1868	1793	1751	1886	1768	1862	2204	-342
Kuwait	671	672	666	680	665	705	615	725	622	647	697	-49
Iran	543	274	137	368	184	-	-	-	-	-	63	-
Iraq	402	435	364	446	388	244	381	483	444	311	499	-187
Oman	42	56	59	54	66	70	46	50	43	87	48	39
United Arab Emirates	1147	1098	1256	1108	1240	1257	1416	1278	1412	1336	1136	200
Other Middle East	390	450	449	430	387	516	463	460	577	545	467	78
West Africa[2]	66	95	56	73	77	29	45	46	71	147	94	52
Other Africa	92	105	90	85	72	96	108	58	136	76	93	-16
Non-OECD Asia	325	319	220	264	205	184	230	193	208	202	322	-120
Other	253	196	199	185	133	207	270	204	298	-199	17	-217
Total	**6849**	**6657**	**6486**	**6852**	**6323**	**6310**	**6465**	**6477**	**6834**	**6062**	**6657**	**-594**
of which Non-OECD	**6553**	**6210**	**5859**	**6311**	**5753**	**5640**	**5740**	**5791**	**6029**	**5382**	**6123**	**-741**
Total OECD Trade	**21113**	**20232**	**19057**	**19759**	**18859**	**19275**	**18347**	**18227**	**18559**	**17585**	**20042**	**-2457**
of which Non-OECD	**20224**	**18904**	**17325**	**18201**	**17233**	**17542**	**16340**	**16278**	**16277**	**15499**	**18522**	**-3023**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier change
OECD Americas												
Venezuela	18	23	4	15	-	-	-	-	-	-	24	-
Other Central & South America	42	64	82	81	86	105	54	61	41	18	97	-78
ARA (Belgium Germany Netherlands)	178	167	180	95	270	233	121	103	94	65	76	-11
Other Europe	326	323	293	232	365	309	267	292	283	202	248	-46
FSU	84	80	100	66	88	125	119	132	100	48	50	-2
Saudi Arabia	1	11	7	19	7	4	-	-	-	7	12	-5
Algeria	-	1	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	24	19	14	10	11	25	8	2	7	10	18	-9
Singapore	10	8	5	-	6	12	-	-	-	-	-	-
OECD Asia Oceania	10	13	28	26	42	29	13	10	-	10	20	-10
Non-OECD Asia (excl. Singapore)	63	84	108	71	180	135	47	40	37	65	86	-21
Other	3	0	149	-	-	0	591	533	628	536	-	-
Total[2]	**759**	**794**	**968**	**614**	**1056**	**978**	**1220**	**1173**	**1190**	**962**	**630**	**332**
of which Non-OECD	**213**	**271**	**447**	**244**	**367**	**386**	**787**	**722**	**781**	**669**	**261**	**409**
OECD Europe												
OECD Americas	4	4	3	3	5	1	3	5	2	1	5	-4
Venezuela	-	0	0	-	-	0	-	-	-	-	-	-
Other Central & South America	3	5	3	6	2	2	4	6	0	-	3	-
Non-OECD Europe	15	11	18	11	21	23	18	25	14	9	14	-5
FSU	89	70	62	67	76	47	60	41	50	101	108	-7
Saudi Arabia	0	2	0	1	-	1	-	-	-	-	-	-
Algeria	1	0	0	0	0	-	1	3	-	-	1	-
Other Middle East & Africa	5	4	8	6	4	4	17	13	13	5	5	0
Singapore	2	2	3	2	4	2	2	3	2	2	2	0
OECD Asia Oceania	1	1	1	1	1	1	0	-	1	1	0	1
Non-OECD Asia (excl. Singapore)	3	2	0	0	-	0	0	-	0	0	1	0
Other	41	20	21	30	43	17	-5	-50	13	61	44	18
Total[2]	**163**	**122**	**121**	**126**	**157**	**100**	**101**	**45**	**96**	**181**	**183**	**-2**
of which Non-OECD	**149**	**105**	**108**	**114**	**142**	**89**	**87**	**34**	**83**	**173**	**171**	**1**
OECD Asia Oceania												
OECD Americas	-	4	6	5	-	20	1	-	-	0	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	0	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	13	14	8	40	-	9	3	23	25	-	-
Other Europe	-	7	5	6	15	-	-	-	-	-	-	-
FSU	-	1	0	-	1	-	-	-	-	-	-	-
Saudi Arabia	0	0	1	3	-	-	-	-	-	-	8	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	5	1	-	-	-	-	-	-	-	-	-	-
Singapore	52	49	46	43	29	49	63	69	44	42	55	-13
Non-OECD Asia (excl. Singapore)	30	19	21	29	11	26	17	11	23	26	44	-18
Other	15	15	16	17	15	17	17	15	15	15	19	-4
Total[2]	**102**	**109**	**110**	**110**	**111**	**113**	**106**	**98**	**105**	**107**	**126**	**-19**
of which Non-OECD	**102**	**85**	**84**	**91**	**56**	**92**	**96**	**95**	**82**	**82**	**126**	**-44**
Total OECD Trade[2]	**1024**	**1025**	**1199**	**850**	**1324**	**1190**	**1426**	**1317**	**1391**	**1250**	**939**	**311**
of which Non-OECD	**464**	**461**	**639**	**449**	**565**	**568**	**970**	**851**	**945**	**924**	**558**	**366**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier change
OECD Americas												
Venezuela	2	4	1	3	-	-	-	-	-	-	9	-
Other Central and South America	13	30	38	29	35	47	41	28	39	22	48	-26
ARA (Belgium Germany Netherlands)	7	6	5	-	1	2	18	9	43	10	-	-
Other Europe	3	3	2	2	4	2	1	-	3	3	3	0
FSU	6	16	6	7	2	3	11	11	22	-	12	-
Saudi Arabia	2	17	3	13	-	-	-	-	-	2	22	-20
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	4	8	2	8	-	-	-	-	-	11	6	4
Singapore	0	1	0	0	-	-	-	-	-	-	-	-
OECD Asia Oceania	18	15	23	35	36	10	12	19	5	13	37	-24
Non-OECD Asia (excl. Singapore)	22	23	29	78	3	8	27	26	51	26	93	-67
Other	0	-	73	28	-	-	263	262	264	231	43	189
Total[2]	**77**	**124**	**183**	**204**	**81**	**72**	**373**	**355**	**427**	**318**	**273**	**45**
of which Non-OECD	**50**	**100**	**152**	**167**	**40**	**58**	**341**	**328**	**376**	**292**	**233**	**58**
OECD Europe												
OECD Americas	222	154	138	126	159	214	54	53	65	79	136	-57
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	3	4	0	-	0	-	-	-	-	-	-	-
Non-OECD Europe	48	39	41	41	37	40	48	70	36	26	50	-24
FSU	732	714	683	758	657	648	670	664	641	745	701	44
Saudi Arabia	160	225	205	208	222	189	203	275	161	280	246	34
Algeria	-	-	0	-	-	-	0	1	-	-	-	-
Other Middle East and Africa	72	76	83	93	90	70	77	85	61	77	103	-26
Singapore	15	14	27	8	27	39	34	40	17	16	6	10
OECD Asia Oceania	28	25	36	41	34	36	31	31	30	18	20	-2
Non-OECD Asia (excl. Singapore)	125	151	152	181	134	95	199	174	147	158	121	37
Other	21	12	10	6	8	16	8	7	8	61	14	46
Total[2]	**1427**	**1413**	**1375**	**1461**	**1368**	**1347**	**1324**	**1400**	**1165**	**1459**	**1397**	**62**
of which Non-OECD	**1086**	**1160**	**1124**	**1210**	**1091**	**1026**	**1168**	**1203**	**1002**	**1337**	**1198**	**139**
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	3	5	4	6	-2
Saudi Arabia	-	3	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	8	7	10	9	-	11	9	24	-	-	-
Singapore	87	141	111	93	121	96	133	120	94	67	110	-42
Non-OECD Asia (excl. Singapore)	96	91	133	119	121	158	134	161	139	233	125	109
Other	7	6	6	6	6	6	6	6	6	7	7	0
Total[2]	**196**	**253**	**263**	**233**	**259**	**270**	**287**	**299**	**267**	**312**	**248**	**64**
of which Non-OECD	**195**	**253**	**261**	**233**	**259**	**265**	**287**	**299**	**267**	**312**	**248**	**64**
Total OECD Trade[2]	**1701**	**1791**	**1820**	**1898**	**1709**	**1690**	**1983**	**2055**	**1860**	**2089**	**1918**	**171**
of which Non-OECD	**1331**	**1513**	**1537**	**1611**	**1390**	**1349**	**1797**	**1830**	**1645**	**1941**	**1680**	**261**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier change
OECD Americas												
Venezuela	16	6	0	1	0	-	-	-	-	-	3	-
Other Central and South America	1	2	7	6	1	8	11	3	21	10	0	10
ARA (Belgium Germany Netherlands)	-	0	-	-	-	-	-	-	-	-	-	-
Other Europe	0	0	0	-	-	1	-	-	-	-	-	-
FSU	1	0	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	2	1	2	9	1	-	-	-	-	-	5	-
Algeria	0	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	3	2	10	4	9	15	11	8	17	3	10	-8
Singapore	2	6	3	3	6	4	-	-	-	10	5	6
OECD Asia Oceania	104	84	136	93	161	151	137	130	132	93	64	30
Non-OECD Asia (excl. Singapore)	30	27	14	12	6	28	11	14	10	47	13	33
Other	13	11	18	11	-	-	59	62	69	70	5	64
Total[2]	**171**	**140**	**190**	**138**	**185**	**206**	**229**	**218**	**249**	**233**	**106**	**127**
of which Non-OECD	**67**	**56**	**54**	**45**	**24**	**55**	**93**	**88**	**117**	**139**	**42**	**98**
OECD Europe												
OECD Americas	20	32	20	19	13	32	16	24	5	24	18	6
Venezuela	5	1	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	2	1	3	-	-	0	1	-	-	4	-
Non-OECD Europe	3	6	2	-	6	1	-	-	-	-	-	-
FSU	33	40	45	38	56	53	32	26	28	24	38	-14
Saudi Arabia	94	98	105	88	112	106	115	186	56	58	96	-37
Algeria	12	9	11	12	-	17	14	17	8	16	18	-2
Other Middle East and Africa	207	197	199	193	237	172	196	214	184	235	193	42
Singapore	28	25	29	11	33	36	34	42	38	30	20	11
OECD Asia Oceania	48	32	36	21	37	53	34	-	46	63	-	-
Non-OECD Asia (excl. Singapore)	53	69	73	74	80	89	51	76	22	56	64	-7
Other	1	1	2	0	0	3	5	-1	18	-	-	-
Total[2]	**508**	**512**	**523**	**459**	**574**	**561**	**497**	**585**	**404**	**506**	**450**	**56**
of which Non-OECD	**436**	**445**	**464**	**414**	**521**	**473**	**446**	**560**	**353**	**418**	**429**	**-11**
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	13	17	38	24	14
Non-OECD Asia (excl. Singapore)	34	26	29	27	21	27	39	37	48	40	14	26
Other	22	33	26	33	19	17	35	29	38	42	19	23
Total[2]	**80**	**89**	**76**	**82**	**60**	**68**	**94**	**78**	**102**	**120**	**56**	**63**
of which Non-OECD	**80**	**89**	**76**	**82**	**60**	**68**	**94**	**78**	**102**	**120**	**56**	**63**
Total OECD Trade[2]	**758**	**741**	**789**	**679**	**819**	**835**	**820**	**881**	**756**	**858**	**612**	**247**
of which Non-OECD	**583**	**590**	**594**	**541**	**605**	**596**	**632**	**726**	**573**	**677**	**527**	**150**

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

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Nov 19	Dec 19	Jan 20	Year Earlier Jan 19	Year Earlier change
OECD Americas												
Venezuela	16	42	7	27	-	-	-	-	-	-	31	-
Other Central and South America	71	72	49	56	51	38	51	65	39	17	51	-34
ARA (Belgium Germany Netherlands)	5	7	6	12	1	1	9	19	5	18	23	-5
Other Europe	3	7	8	14	5	3	11	30	3	26	4	23
FSU	24	23	30	16	39	40	27	43	24	71	12	59
Saudi Arabia	-	-	2	8	-	-	-	-	-	-	16	-
Algeria	1	-	8	10	5	1	17	10	17	22	4	18
Other Middle East and Africa	9	7	5	3	2	2	14	11	11	3	7	-4
Singapore	3	-	1	4	-	-	-	-	-	-	11	-
OECD Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	1	0	0	-	0	-	-	-	-	-	-	-
Other	0	2	7	-	-	-	27	20	37	36	-	-
Total[2]	**131**	**161**	**124**	**149**	**104**	**85**	**156**	**198**	**137**	**193**	**157**	**35**
of which Non-OECD	**123**	**147**	**108**	**123**	**97**	**81**	**132**	**135**	**129**	**134**	**131**	**3**
OECD Europe												
OECD Americas	6	4	7	1	8	14	4	-	0	10	2	9
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	3	5	6	4	4	4	4	4	4	4	0
Non-OECD Europe	17	17	21	16	29	17	20	22	17	11	15	-4
FSU	195	154	154	158	148	167	145	156	164	158	145	13
Saudi Arabia	0	1	-	-	-	-	-	-	-	-	-	-
Algeria	1	1	0	1	-	-	-	-	-	1	2	-2
Other Middle East and Africa	23	15	19	12	19	27	17	11	23	10	5	4
Singapore	-	-	1	-	-	2	2	8	-	-	-	-
OECD Asia Oceania	9	8	14	10	21	16	11	12	1	8	3	5
Non-OECD Asia (excl. Singapore)	1	0	3	7	1	4	0	-	1	-	3	-
Other	-8	5	8	14	10	6	4	6	4	41	2	39
Total[2]	**246**	**208**	**232**	**223**	**239**	**256**	**208**	**218**	**215**	**242**	**181**	**62**
of which Non-OECD	**218**	**185**	**202**	**206**	**200**	**210**	**191**	**203**	**215**	**220**	**171**	**49**
OECD Asia Oceania												
OECD Americas	0	0	1	2	-	2	-	-	-	-	6	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	9	16	6	7	0	3	14	10	20	9	5	4
Saudi Arabia	-	-	1	-	-	3	-	-	-	-	-	-
Algeria	1	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	18	23	27	9	27	49	24	-	71	-	13	-
Singapore	58	37	25	36	21	26	16	19	29	47	45	2
Non-OECD Asia (excl. Singapore)	59	85	40	48	53	33	26	3	21	56	58	-2
Other	0	0	1	0	5	0	-	-	-	-	1	-
Total[2]	**146**	**162**	**101**	**103**	**106**	**116**	**80**	**32**	**141**	**112**	**127**	**-15**
of which Non-OECD	**146**	**162**	**100**	**101**	**106**	**114**	**80**	**32**	**141**	**112**	**122**	**-10**
Total OECD Trade[2]	**523**	**531**	**456**	**475**	**449**	**457**	**444**	**447**	**493**	**547**	**465**	**82**
of which Non-OECD	**487**	**493**	**410**	**430**	**404**	**405**	**403**	**370**	**485**	**465**	**424**	**42**

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

2 Total figure excludes intra-regional trade.

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

	2017	2018	2019	2Q19	3Q19	4Q19	1Q20	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20
CRUDE OIL PRICES													
IEA CIF Average Import[1]													
IEA Americas	48.58	60.02	56.92	62.53	56.63	54.67		54.29	54.59	55.07	54.18		
IEA Europe	53.26	70.52	64.25	69.11	62.31	63.40		60.70	63.18	66.34	65.87		
IEA Asia Oceania	54.13	72.46	66.37	70.75	65.40	65.65		64.68	64.73	67.40	70.21		
IEA Total	**52.05**	**67.77**	**62.75**	**67.62**	**61.51**	**61.64**		**60.06**	**61.30**	**63.44**	**63.72**		
FOB Spot													
North Sea Dated	54.16	71.27	64.12	68.74	61.84	63.06	50.02	59.73	63.11	66.83	63.38	55.45	31.71
Brent (Asia) Mth 1	54.86	72.23	64.86	70.17	62.38	62.49	52.63	59.36	62.48	65.79	65.63	56.76	36.47
WTI (Cushing) Mth 1	50.78	65.20	57.03	59.89	56.40	56.88	45.57	53.98	57.16	59.81	57.52	50.53	29.89
Urals (Mediterranean)	53.26	70.17	64.31	68.77	61.84	63.40	48.97	59.28	64.44	67.06	62.86	55.11	29.51
Dubai (1st month)	53.15	69.65	63.49	67.52	61.23	62.00	50.41	59.36	61.91	64.86	64.19	54.25	33.78
Tapis (Dated)	54.05	73.69	69.16	72.91	66.63	70.08	56.06	66.01	70.21	74.22	71.42	62.67	35.38
PRODUCT PRICES													
Rotterdam, Barges FOB													
Premium Unl 10 ppm	65.80	78.78	71.35	79.58	72.78	69.21	53.77	68.25	70.17	69.30	68.14	61.57	32.32
Naphtha	54.19	64.48	0.00	58.79	53.18	57.90	45.86	54.53	59.25	60.37	58.87	51.88	27.39
Jet/Kerosene	65.92	86.39	79.24	81.19	79.03	78.51	60.06	78.74	77.67	79.12	75.92	65.03	39.68
ULSD 10ppm	66.28	86.22	79.45	81.87	77.92	78.96	62.85	78.47	78.14	80.37	76.07	66.45	46.36
Gasoil 0.1 %	64.68	84.28	77.73	80.14	76.53	76.91	61.41	76.15	76.04	78.70	74.59	64.94	45.01
LSFO 1%	48.72	63.22	62.21	64.33	61.60	62.83	52.84	60.94	60.71	67.23	70.22	56.86	31.80
HSFO 3.5%	45.63	61.13	50.31	60.06	51.20	33.35	33.39	36.40	30.22	33.14	39.57	39.38	21.76
Mediterranean, FOB Cargoes													
Premium Unl 10 ppm	65.83	79.41	71.31	77.58	72.12	70.45	54.91	69.38	71.75	70.31	69.05	63.14	33.29
Naphtha	52.74	66.08	54.43	57.08	51.94	55.36	43.27	52.79	56.62	56.98	56.03	49.46	24.88
Jet Aviation Fuel	65.04	85.37	77.76	79.75	77.97	76.48	58.08	77.45	75.46	76.42	73.68	63.27	37.76
ULSD 10ppm	66.20	86.03	79.05	81.24	77.73	78.23	61.86	78.17	77.35	79.23	74.98	65.94	45.03
Gasoil 0.1 %	64.60	84.74	77.70	79.68	76.99	76.72	60.94	76.42	75.87	77.96	74.10	64.76	44.29
LSFO 1%	49.91	64.31	63.90	65.04	62.73	65.32	54.94	62.98	63.16	70.27	72.26	59.30	33.66
HSFO 3.5%	47.22	62.06	52.17	60.65	52.70	37.35	35.67	41.86	32.88	36.85	42.64	41.42	23.47
US Gulf, FOB Pipeline													
Super Unleaded	73.82	85.71	79.24	87.04	81.48	75.52	60.05	76.96	75.62	73.85	72.87	68.85	40.21
Unleaded	67.98	80.10	72.28	80.84	74.00	68.37	54.57	68.31	68.42	68.40	66.83	63.61	35.05
Jet/Kerosene	65.40	85.12	78.81	80.80	78.19	77.90	58.25	77.81	76.38	79.37	74.03	63.32	38.81
ULSD 10 ppm	67.93	85.94	79.09	81.32	77.78	78.46	61.81	78.61	77.00	79.61	74.19	65.29	46.97
No. 6 3%[3]	46.03	60.20	52.57	60.32	50.83	39.32	35.91	42.32	35.94	39.09	41.70	43.49	23.84
Singapore, FOB Cargoes													
Premium Unleaded	67.96	80.21	72.55	75.06	72.76	75.03	56.85	74.19	76.11	74.82	71.13	64.34	36.42
Naphtha	53.99	67.50	57.15	58.68	53.64	60.13	47.72	57.14	59.76	63.62	61.06	52.56	30.60
Jet/Kerosene	65.28	85.05	77.26	79.77	77.00	75.99	58.88	75.38	74.89	77.75	75.34	63.05	39.39
Gasoil 0.05%	65.65	84.33	77.23	79.92	76.61	76.32	61.38	75.55	75.22	78.24	76.03	64.66	44.42
LSWR Cracked	52.47	67.44	64.61	71.34	66.74	54.62	60.33	52.85	52.49	58.60	69.52	65.52	46.83
HSFO 180 CST	50.84	67.04	58.62	65.23	62.33	43.51	43.14	47.75	39.34	43.23	52.04	46.66	31.45
HSFO 380 CST 4%	50.01	66.01	57.57	63.40	61.43	42.63	41.71	47.00	38.81	41.87	50.21	45.07	30.55

1 IEA CIF Average Import price for January 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

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Table 14
MONTHLY AVERAGE END-USER PRICES FOR PETROLEUM PRODUCTS

March 2020

	NATIONAL CURRENCY *						US DOLLARS					
	Total Price	% change from Feb-20	% change from Mar-19	Ex-Tax Price	% change from Feb-20	% change from Mar-19	Total Price	% change from Feb-20	% change from Mar-19	Ex-Tax Price	% change from Feb-20	% change from Mar-19
GASOLINE [1] (per litre)												
France	1.398	- 6.7	- 5.6	0.474	-15.1	-12.7	1.543	-5.6	-7.8	0.523	-14.0	-14.7
Germany	1.309	- 6.6	- 3.8	0.445	-15.1	-8.8	1.445	-5.5	-5.9	0.491	-14.0	-10.9
Italy	1.498	- 3.6	- 3.5	0.500	-8.4	-8.1	1.654	-2.4	-5.7	0.552	-7.3	-10.2
Spain	1.226	- 5.8	- 3.2	0.540	-10.3	-5.9	1.353	-4.6	-5.4	0.596	-9.2	-8.1
United Kingdom	1.195	- 4.1	- 0.6	0.416	-9.2	-1.7	1.475	-8.6	-6.8	0.513	-13.5	-7.8
Japan	142.7	- 4.5	- 1.7	75.5	-7.6	-3.0	1.328	-2.2	1.7	0.702	-5.4	0.4
Canada	0.935	- 19.0	- 23.2	0.531	-27.2	-34.3	0.670	-22.9	-26.4	0.381	-30.7	-37.0
United States	0.590	- 8.5	- 11.3	0.463	-10.6	-14.4	0.590	-8.5	-11.3	0.463	-10.6	-14.4
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.310	- 7.0	- 10.3	0.483	-14.5	-20.6	1.446	-5.9	-12.3	0.533	-13.5	-22.4
Germany	1.151	- 7.3	- 8.7	0.497	-13.3	-15.6	1.271	-6.1	-10.7	0.549	-12.2	-17.5
Italy	1.390	- 4.1	- 6.9	0.522	-8.6	-14.0	1.534	-2.9	-9.0	0.576	-7.5	-16.0
Spain	1.127	- 6.7	- 8.2	0.552	-10.8	-13.2	1.244	-5.6	-10.3	0.609	-9.7	-15.2
United Kingdom	1.238	- 4.2	- 5.4	0.453	-9.0	-11.2	1.528	-8.7	-11.3	0.559	-13.3	-16.7
Japan	123.4	- 4.9	- 2.1	81.7	-6.7	-3.0	1.148	-2.6	1.3	0.760	-4.5	0.4
Canada	1.084	- 10.8	- 12.0	0.719	-14.3	-18.3	0.777	-15.1	-15.7	0.515	-18.4	-21.7
United States	0.721	- 6.2	- 11.3	0.573	-7.7	-14.2	0.721	-6.2	-11.3	0.573	-7.7	-14.2
DOMESTIC HEATING OIL (per litre)												
France	0.812	- 9.0	- 14.4	0.521	-11.3	-17.9	0.897	-7.8	-16.3	0.575	-10.3	-19.8
Germany	0.576	- 10.5	- 20.0	0.423	-11.8	-22.3	0.636	-9.4	-21.8	0.467	-10.7	-24.1
Italy	1.192	- 7.6	- 8.9	0.574	-12.2	-14.3	1.316	-6.4	-11.0	0.633	-11.2	-16.3
Spain	0.610	- 15.1	- 21.4	0.407	-18.1	-25.1	0.673	-14.1	-23.1	0.450	-17.1	-26.9
United Kingdom	0.478	- 11.5	- 18.3	0.344	-14.7	-22.9	0.590	-15.7	-23.4	0.424	-18.7	-27.7
Japan [2]	89.1	- 4.9	0.2	79.7	-5.0	0.2	0.828	-2.6	3.7	0.741	-2.8	3.7
Canada	1.002	- 9.8	- 11.9	0.879	-10.2	-14.2	0.718	-14.2	-15.6	0.630	-14.5	-17.8
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY [3] (per kg)												
France	0.436	- 24.4	- 24.6	0.297	-32.2	-32.5	0.482	-23.5	-26.4	0.328	-31.4	-34.0
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.377	- 24.3	- 22.9	0.346	-26.0	-24.5	0.416	-23.4	-24.7	0.382	-25.1	-26.2
Spain	0.417	- 11.1	- 3.9	0.400	-11.5	-4.0	0.460	-10.0	-6.0	0.441	-10.4	-6.2
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-
Canada	-	-	-	-	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	-	-	-	-	-	-	-

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

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

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

	Monthly Average					Change	Average for week ending:			
	Dec 19	Jan 20	Feb 20	Mar 20		Mar 20-Feb 20	13 Mar	20 Mar	27 Mar	03 Apr
NW Europe										
Brent (Cracking)	2.01	4.04	3.51	3.67	↑	0.15	4.73	2.17	3.27	6.98
Urals (Cracking)	0.77	2.38	2.80	6.56	↑	3.75	6.49	6.09	7.99	12.14
Brent (Hydroskimming)	0.82	3.97	2.30	2.84	↑	0.55	3.16	2.03	3.39	7.23
Urals (Hydroskimming)	-8.69	-4.99	-2.66	2.97	↑	5.63	2.19	3.44	5.38	9.67
Mediterranean										
Es Sider (Cracking)	3.76	5.96	5.73	5.37	↓	-0.36	6.24	4.10	5.26	8.64
Urals (Cracking)	0.11	2.81	3.35	7.25	↑	3.90	7.99	5.74	8.27	11.49
Es Sider (Hydroskimming)	2.39	5.61	4.58	3.89	↓	-0.69	4.23	2.93	4.02	7.89
Urals (Hydroskimming)	-10.01	-5.02	-2.51	2.76	↑	5.28	2.75	1.94	4.33	8.08
US Gulf Coast										
Mars (Cracking)	-3.45	-2.40	2.22	2.95	↑	0.73	3.42	2.12	1.42	2.98
50/50 HLS/LLS (Coking)	7.31	6.60	8.27	9.22	↑	0.95	8.83	7.15	8.82	11.16
50/50 Maya/Mars (Coking)	4.05	2.57	6.14	7.91	↑	1.78	8.78	6.68	6.51	8.38
ASCI (Coking)	5.01	4.19	6.33	7.97	↑	1.65	8.84	6.28	6.33	8.87
US Midwest										
30/70 WCS/Bakken (Cracking)	6.18	9.94	10.46	6.83	↓	-3.63	9.50	6.84	2.38	4.08
Bakken (Cracking)	8.71	12.08	11.52	8.41	↓	-3.10	12.07	8.58	3.07	6.28
WTI (Coking)	7.99	6.99	10.54	6.73	↓	-3.81	11.40	4.16	1.69	-1.30
30/70 WCS/Bakken (Coking)	11.35	13.69	13.12	9.45	↓	-3.67	13.26	8.87	4.12	6.49
Singapore										
Dubai (Hydroskimming)	-9.53	-6.49	-2.39	-2.80	↓	-0.41	-2.06	-4.13	-1.52	-4.57
Tapis (Hydroskimming)	-5.14	-1.90	-1.37	4.85	↑	6.21	4.74	6.46	5.17	7.93
Dubai (Hydrocracking)	1.98	2.60	5.89	2.72	↓	-3.17	5.12	0.61	1.98	-1.83
Tapis (Hydrocracking)	-1.45	-0.82	-1.31	3.93	↑	5.24	4.20	5.01	4.06	7.10

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 give refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

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

	Nov-19	Dec-19	Jan-20	Jan-19	Jan 20 vs Previous Month	Jan 20 vs Previous Year	Jan 20 vs 5 Year Average	5 Year Average
OECD Americas								
Naphtha	1.3	1.4	1.4	1.3	0.0	0.1	-0.3	1.7
Motor gasoline	47.5	46.9	46.4	46.3	-0.5	0.2	-1.3	47.8
Jet fuel	9.5	9.6	9.8	9.3	0.2	0.5	0.8	9.0
Other kerosene	0.1	0.1	0.0	0.1	-0.1	0.0	-0.1	0.2
Gasoil/diesel oil	28.6	28.4	28.6	28.7	0.2	0.0	0.3	28.3
Residual fuel oil	2.6	2.2	2.2	3.2	0.0	-1.0	-1.4	3.6
Petroleum coke	4.4	4.5	4.7	4.4	0.2	0.4	0.1	4.6
Other products	10.3	11.1	11.1	10.9	0.0	0.3	1.0	10.2
OECD Europe								
Naphtha	8.0	8.4	8.3	8.8	-0.1	-0.5	-0.3	8.6
Motor gasoline	21.1	21.0	21.2	21.3	0.2	-0.1	-0.3	21.5
Jet fuel	9.3	9.1	9.5	9.0	0.4	0.5	1.5	8.1
Other kerosene	2.2	2.4	2.4	2.4	0.0	0.0	0.2	2.2
Gasoil/diesel oil	40.0	41.0	40.7	39.5	-0.4	1.2	0.6	40.1
Residual fuel oil	8.4	7.9	9.0	10.4	1.2	-1.4	-1.4	10.4
Petroleum coke	1.5	1.5	1.6	1.5	0.0	0.1	0.3	1.3
Other products	14.9	13.6	13.7	12.7	0.1	1.1	1.1	12.6
OECD Asia Oceania								
Naphtha	16.1	15.6	16.0	16.7	0.3	-0.7	0.4	15.5
Motor gasoline	21.6	22.5	20.8	21.1	-1.8	-0.4	-0.8	21.5
Jet fuel	15.7	16.0	16.3	16.5	0.3	-0.2	-0.2	16.5
Other kerosene	4.5	6.1	6.0	6.8	-0.1	-0.8	-1.2	7.2
Gasoil/diesel oil	30.1	29.4	29.3	29.4	-0.1	-0.1	0.8	28.5
Residual fuel oil	6.8	6.4	7.2	6.5	0.9	0.7	-0.1	7.3
Petroleum coke	0.4	0.4	0.4	0.5	0.0	-0.1	0.0	0.4
Other products	11.7	11.6	11.6	12.1	0.0	-0.5	-0.1	11.7
OECD Total								
Naphtha	6.0	6.2	6.2	6.5	0.1	-0.3	-0.3	6.5
Motor gasoline	34.6	34.4	33.7	33.6	-0.7	0.1	-0.6	34.4
Jet fuel	10.5	10.6	10.9	10.6	0.3	0.4	0.8	10.1
Other kerosene	1.6	1.9	1.9	2.1	0.0	-0.2	-0.3	2.1
Gasoil/diesel oil	32.5	32.5	32.6	32.3	0.1	0.3	0.4	32.2
Residual fuel oil	5.2	4.7	5.3	6.1	0.6	-0.8	-1.2	6.5
Petroleum coke	2.8	2.8	2.9	2.7	0.1	0.2	0.2	2.8
Other products	12.0	12.0	12.1	11.7	0.0	0.4	0.8	11.3

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

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Table 17
WORLD BIOFUELS PRODUCTION
(thousand barrels per day)

	2018	2019	2020	3Q19	4Q19	1Q20	Jan 20	Feb 20	Mar 20
ETHANOL									
OECD Americas[1]	**1078**	**1064**	**868**	**1053**	**1073**	**996**	**1111**	**1066**	**816**
United States	1048	1029	832	1018	1039	960	1076	1030	780
Other	30	35	36	35	35	36			
OECD Europe[2]	**96**	**87**	**90**	**91**	**96**	**96**	**112**	**88**	**88**
France	21	15	15	17	16	17	21	14	14
Germany	14	13	15	13	14	18	26	15	15
Spain	9	9	9	9	9	8	6	9	9
United Kingdom	9	4	5	5	5	7	12	4	4
Other	43	45	46	46	52	46			
OECD Asia Oceania[3]	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
Australia	4	4	4	4	4	4	4	4	4
Other	1	1	1	1	1	1			
Total OECD Ethanol	**1178**	**1156**	**964**	**1149**	**1174**	**1097**	**1227**	**1159**	**909**
Total Non-OECD Ethanol	**718**	**818**	**826**	**1230**	**751**	**310**	**318**	**294**	**319**
Brazil	547	621	598	1035	550	96	103	80	105
China	56	69	86	67	73	72			
Argentina	19	19	19	19	19	19			
Other	95	109	123	109	109	123	214	214	214
TOTAL ETHANOL	**1897**	**1974**	**1789**	**2379**	**1926**	**1408**	**1545**	**1453**	**1228**
BIODIESEL									
OECD Americas[1]	**126**	**119**	**140**	**125**	**111**	**130**	**104**	**143**	**143**
United States	121	113	132	118	105	124	103	135	135
Other	5	6	8	6	6	6			
OECD Europe[2]	**275**	**286**	**302**	**297**	**286**	**289**	**254**	**307**	**307**
France	52	52	50	52	54	50	50	50	50
Germany	65	66	67	68	65	63	55	68	68
Italy	15	18	28	18	22	26			
Spain	33	35	35	34	34	31	22	36	36
Other	110	117	123	125	111	118	105	125	125
OECD Asia Oceania[3]	**12**	**16**	**17**	**19**	**13**	**15**	**8**	**18**	**18**
Australia	1	1	2	1	1	1	0	2	2
Other	12	15	15	18	12	13			
Total OECD Biodiesel	**413**	**421**	**459**	**441**	**410**	**434**	**367**	**468**	**468**
Total Non-OECD Biodiesel	**315**	**401**	**438**	**401**	**401**	**438**	**438**	**438**	**438**
Brazil	92	102	104	106	112	101	95	102	105
Argentina*	47	43	43	43	43	43			
Other	176	257	291	252	246	294			
TOTAL BIODIESEL	**728**	**822**	**898**	**842**	**811**	**872**	**805**	**906**	**906**
GLOBAL BIOFUELS	**2625**	**2796**	**2687**	**3221**	**2737**	**2279**	**2350**	**2359**	**2134**

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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