International Energy Agency

Oil Market Report

12 September 2019

- Our 2019 and 2020 global oil demand growth forecasts are unchanged at 1.1 mb/d and 1.3 mb/d, respectively. Growth was 0.5 mb/d in 1H19 and fell as low as 0.2 mb/d in June. For 2H19, we assume no further deterioration in the economic climate and in trade disputes. Oil demand growth will be significantly higher helped by a comparison versus a low base in 2H18, lower oil prices versus a year ago and additions to petrochemicals capacity. July data show y-o-y growth of 1.3 mb/d.

- A post-hurricane rebound in the US raised global oil supply by 530 kb/d in August to 100.7 mb/d. US expansion, plus big gains from Norway and Brazil, is set to boost non-OPEC growth from 1.9 mb/d this year to 2.3 mb/d in 2020. The non-OPEC surge will cut the need for OPEC crude to 28.3 mb/d in 1H20, 1.4 mb/d below the group's August output. Compliance with the OPEC+ agreement fell to 116% in August. In June, the US overtook Saudi Arabia to become the world's top oil exporter.

- The recent fall in global refining activity bottomed out in July, and throughput is set to return to y-o-y growth in 4Q19. Increased activity may depress refining margins from their current levels which are the highest for 2019. Preparations for the International Maritime Organisation's new fuel emission standards are likely to offer support through stronger pricing for compliant fuels. We believe that, overall, the IMO regulations will be introduced with relatively little disruption.

- OECD commercial stocks increased by 1.5 mb in July to 2 931 mb, and stood 19.7 mb above the five-year average. Stocks in terms of days of forward demand rose by 0.1 days to 60.5 days, which is 1 day below the average. Preliminary data for August show inventories falling in US, while stocks increased in Europe and Japan. Floating storage of crude oil rose by 7.9 mb in August to 66.1 mb due to an increase of numbers of tankers storing crude oil in Iran.

- ICE Brent and NYMEX WTI are currently trading at $61/bbl and $56/bbl, respectively, having risen from seven month lows in early August. They are both about 20% below year-ago levels. US prices were boosted as new pipelines to transport crude from the Permian Basin came online and contributed to a narrowing of the WTI-Brent differential. Middle distillate cracks have strengthened ahead of the new IMO shipping fuel regulations.

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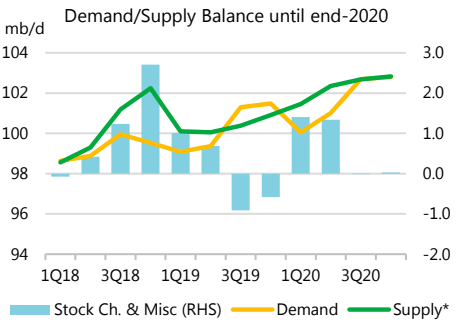
Taking a breather

The oil market focus recently has been on demand as growth weakens amidst uncertainty around the global economy, and particularly trade. In this *Report*, we maintain our growth estimate for 2019 at 1.1 mb/d, even though June data show that demand increased year-on-year by less than 0.2 mb/d. For the second half of 2019 we retain the view that with oil prices currently about 20% lower than a year ago there will be support for consumers. Early data for July suggest that global demand grew by 1.3 mb/d y-o-y.

In recent weeks, tensions in the Middle East Gulf have eased and oil industry operations appear to be normal. The major political event that has taken place is a personnel change in Saudi Arabia with the appointment as energy minister of Prince Abdulaziz bin Salman, who is a well-known and experienced figure. An early event for him is a meeting of the OPEC+ agreement monitoring committee that takes place in Abu Dhabi as we publish this *Report.* To date, support for the agreement rate has been high, but ahead of the meeting data for August show the compliance rate slipping to 116 per cent. In August, three major countries Russia, Nigeria and Iraq, produced 0.6 mb/d more than their allocations. Saudi Arabia, on the other hand, produced 0.6 mb/d less than allowed, and it is clearly the lynchpin of the whole deal. A reminder to the producers that competition for market share is getting tougher comes from preliminary data showing that in June the US momentarily overtook Saudi Arabia and Russia as the world's number one gross oil exporter.



*OPEC crude output held steady at 29.7 mb/d from August 2019.

Our balances for 2H19 imply a stock draw of 0.8 mb/d, based on the assumption of flat OPEC production, stronger demand growth and weaker non-OPEC supply growth. However, this is only really a breather: the 2H19 non-OPEC growth, although modest by recent standards at "only" 1.3 mb/d, is measured against the high base set by the enormous production surge seen this time last year. So far in 2019, US crude oil production growth has stalled with June output only 45 kb/d higher than in December. Even so, output is still growing strongly on an annual basis, rising this year by 1.25 mb/d, with 1 mb/d of growth to come in 2020. In Norway, long-awaited projects are coming on stream earlier than expected and may ramp up to peak production ahead of schedule. Oil production in Brazil is growing fast, reaching 3 mb/d in August, 0.4 mb/d higher than just two months earlier.

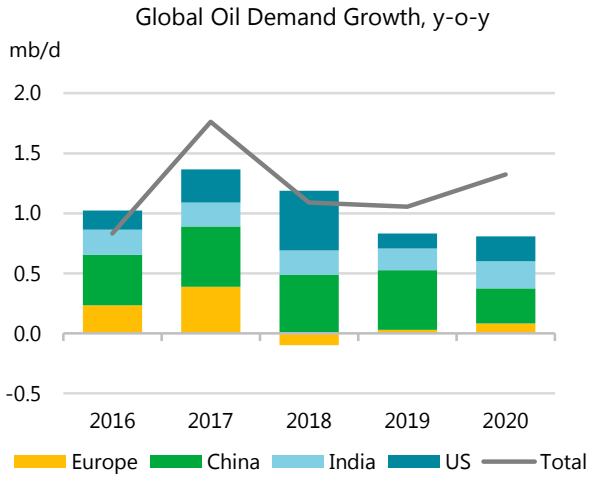
While the relentless stock builds we have seen since early 2018 have halted, this is temporary. Soon, the OPEC+ producers will once again see surging non-OPEC oil production with the implied market balance returning to a signifcant surplus and placing pressure on prices. The challenge of market management remains a daunting one well into 2020.

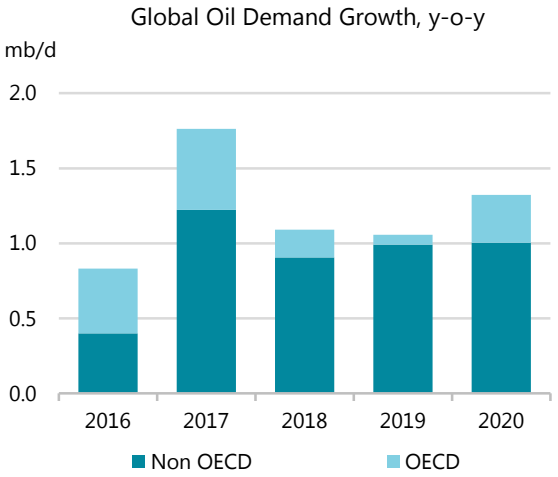
Finally, in January the International Maritime Organisation's new marine fuel regulations are being introduced. In *Oil-2019: Analysis and Forecast to 2024*, published in March, we concluded that markets will be generally prepared for the shift, assuming a certain initial level of non-compliance. In this *Report*, we have looked at the latest developments in demand and refining and we reaffirm our view of a relatively smooth start for the new rules. In line with this view, markets are not currently signalling significant increases in diesel prices, but this is an issue that will be monitored closely.

Demand

Overview

In this *Report*, we have left unchanged our oil demand growth forecasts for 2019 and 2020 at 1.1 mb/d and 1.3 mb/d, respectively. Within the overall picture, May demand figures were revised up 135 kb/d compared with last month's *Report*. Data for June showed very low growth but data for July showed a robust picture. Crude oil prices in August were about 15-20% below the year-ago levels and this will provide support to consumption later in the year and into 2020.





Global oil demand reached 99.9 mb/d in June, only 155 kb/d higher than last year. The increase was the third lowest year-on-year (y-o-y) growth figure seen since the start of the year. Consumption fell in the OECD, by 510 kb/d, and rose by 665 kb/d in non-OECD countries. Demand was lower in Europe, Latin America, the Middle East and India. Reduced deliveries of naphtha and fuel oil were particularly noticeable. By contrast, demand growth was robust in China (+750 kb/d), Russia (+95 kb/d) and in parts of Africa.

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	4.3	4.2	4.3	4.3	4.2	4.3	4.3	4.4	4.4	4.3	4.4	4.4
Americas	31.5	31.6	32.3	32.0	31.9	31.5	31.8	32.5	32.3	32.0	31.5	32.1	32.8	32.6	32.3
Asia/Pacific	35.5	35.0	34.6	35.4	35.1	35.8	35.5	35.4	36.6	35.8	36.7	36.4	36.2	37.5	36.7
Europe	14.8	14.9	15.4	14.9	15.0	14.7	14.8	15.6	15.1	15.0	14.8	14.9	15.5	15.2	15.1
FSU	4.5	4.6	4.9	4.8	4.7	4.6	4.8	5.1	5.0	4.9	4.7	4.9	5.1	5.0	4.9
Middle East	8.1	8.4	8.7	8.2	8.3	8.1	8.2	8.6	8.1	8.3	8.0	8.3	8.7	8.1	8.3
World	**98.6**	**98.9**	**100.0**	**99.5**	**99.3**	**99.1**	**99.4**	**101.3**	**101.5**	**100.3**	**100.1**	**101.0**	**102.7**	**102.8**	**101.6**
Annual Chg (%)	2.0	0.5	1.3	0.6	1.1	0.5	0.5	1.3	2.0	1.1	1.0	1.7	1.4	1.3	1.3
Annual Chg (mb/d)	1.9	0.5	1.3	0.6	1.1	0.4	0.5	1.3	2.0	1.1	1.0	1.6	1.4	1.3	1.3
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	0.1	0.1	0.0	0.0	-0.1	-0.1	0.1	0.0

* Including biofuels

Preliminary figures for July point to stronger global demand growth of 1.3 mb/d y-o-y. There was a rebound in India (+155 kb/d), continuing strong deliveries in Russia (+300 kb/d) and higher demand in several other large economies. On the downside, growth in China was lower than

seen recently (+300 kb/d). Total OECD consumption rose 170 kb/d y-o-y, with booming demand for LPG/ethane in the US a key factor.

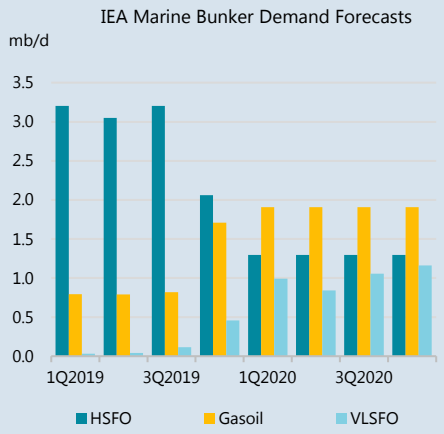
In 1H19, global oil demand increased by 485 kb/d. In 2H19 we forecast an acceleration to 1.65 mb/d, helped by a weak base of demand in the second half of 2018, significantly lower oil prices y-o-y and robust petrochemical plant additions.

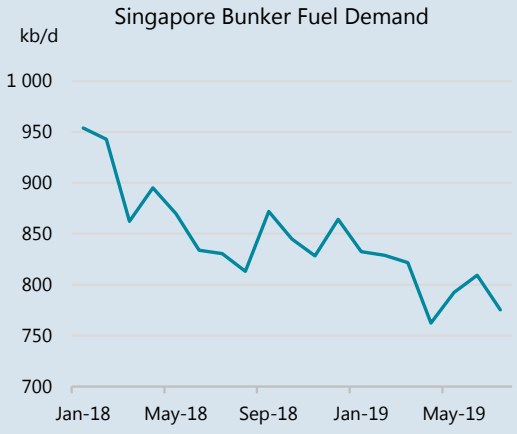
Global Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	3Q18	4Q18	1Q19	4Q18	1Q19	4Q18	1Q19
LPG & Ethane	12 129	12 465	13 077	300	203	2.5	1.6
Naphtha	6 475	6 608	6 811	- 133	67	-2.0	1.0
Motor Gasoline	26 632	26 259	25 658	365	94	1.4	0.4
Jet Fuel & Kerosene	8 091	7 825	7 973	126	133	1.6	1.7
Gas/Diesel Oil	28 288	28 862	28 295	100	296	0.3	1.1
Residual Fuel Oil	6 760	6 523	6 601	- 180	- 164	-2.7	-2.4
Other Products	11 579	10 984	10 672	43	- 180	0.4	-1.7
Total Products	**99 953**	**99 526**	**99 086**	**621**	**448**	**0.6**	**0.5**

Box 1. Trade slowdown weighs on fuel oil demand and helps IMO 2020 fuel switching

The International Maritime Organisation's decision to reduce sulphur emissions from bunker fuel led many analysts to warn about possible fuel shortages in 2020. Our report *Oil 2019 – Analysis and Forecast to 2024*, published in March, concluded that gasoil markets could face moderate shortages of 200-300 kb/d in 2020 and that prices could increase by about 20%. With fewer than four months left before the rule kicks in, we believe that the oil market is likely to be better supplied than we thought (See the *Refining* section for an analysis on bunker fuels supply).





Compared to our view in March that oil demand would grow by 1.4 mb/d this year, we now see growth of 1.1 mb/d. For 2020, our estimate has been reduced from 1.4 mb/d to 1.3 mb/d. In the first seven months of 2019, global fuel oil demand fell by 225 kb/d y-o-y, the biggest fall for any oil product. The worsening economic outlook and weaker trade growth are key factors. The decline was seen in bunker hubs such as China (-30 kb/d), Singapore (-75 kb/d), Korea (-50 kb/d), and the Netherlands (-10 kb/d) as well as in countries that consume fuel oil for power generation.

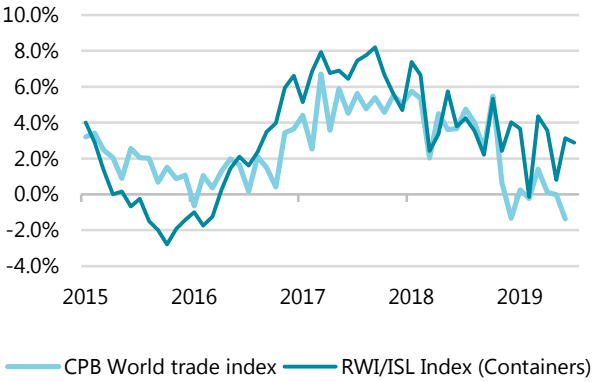
We now expect that overall bunker fuel demand will grow by just 0.4% in 2019 and 3.7% in 2020. The expected recovery next year is mainly due to the lower density of gasoil relative to fuel oil, meaning that more fuel will be needed to produce the same amount of energy. So, most of the growth in 2020 will come from this volumetric expansion rather than an underlying increase in transport demand and "real" bunker fuel demand is expected to remain sluggish.

Our fuel switching assumptions remain little changed from the *Oil 2019* report. We forecast marine gasoil sales to increase by 900 kb/d y-o-y in 4Q19 as shippers begin to transition away from fuel oil and by another 1.1 mb/d in 1Q20. High sulphur fuel oil (HSFO) demand will fall 1.2 mb/d in 4Q19 and 1.9 mb/d in 1Q20, whereas very low sulphur fuel oil demand will grow by 150 kb/d in 4Q19 and 200 kb/d in 1Q20. Scrubber installations are proceeding as we forecast and will help maintain some HSFO demand. We expect 2 500 scrubbers to have been installed by the end of 2019 and nearly 4 000 by end-2020, consuming a total of 510 kb/d and 820 kb/d of HSFO, respectively.

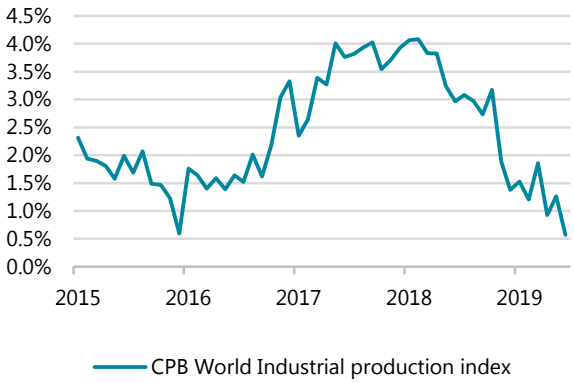
Fundamentals

The economic forecasts used in this *Report* remain largely unchanged. International trade relations have further deteriorated in the past few weeks, but US and Chinese officials announced that they would resume trade negotiations in early October. Trade disputes and rising uncertainty about the impact of the UK's possible exit from the European Union are reducing global growth through lower business and consumer confidence, supply chain re-assessments, declining investment and direct reduction of trade. While container trade has remained quite buoyant, the CPB Netherlands Bureau for Economic Policy Analysis shows that the volume of world trade contracted by 0.3% y-o-y in 1Q19 and 0.7% in 2Q19.

Evolution in Global Trade Indices



World Industrial Production Index



World industrial production growth slowed sharply, from 4.1% at the start of 2018 to 0.6% in June. It has been impacted by rising uncertainty, forcing companies to hold their hiring and investment plans in order to reduce risk. A resolution of trade disputes could have a quick and strong impact on economic activity.

China's advanced indicators were mixed in August. The Caixin industrial PMI rose to 50.4 from 49.9 in July, whereas China's NBS PMI contracted to 49.5 from 49.7 in July. The NBS PMI is

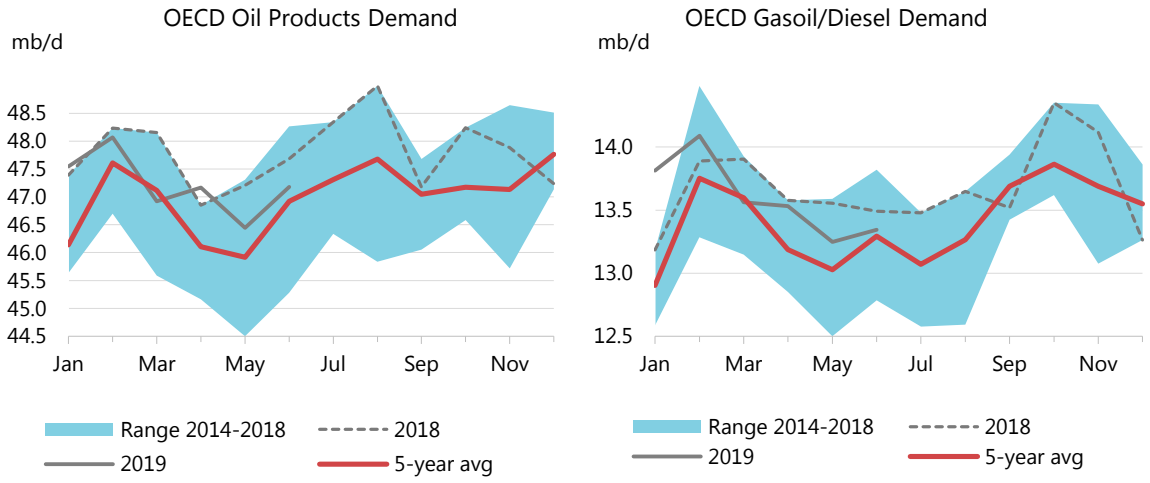
more oriented toward big companies and state-owned enterprises, while the Caixin PMI has a larger coverage of small and medium size companies. The Caixin services PMI rose to a three month high of 52.1 in August. Trade data are not encouraging, however, with China's exports showing a decline of 1% y-o-y in August and imports lower by 5.6%. The Central Bank announced at the start of September that it was providing $125 billion more credit to banks.

The US economy is not immune to the global downturn. Industrial production growth has fallen steadily since its peak of 5.4% in September 2018, and was only 0.5% in July. Advanced indicators are not encouraging and the US Institute for Supply Management (ISM) manufacturing index fell to 49.1 in August, its lowest level since January 2016. Export dependent economies in Europe are also suffering. The German manufacturing sector continues to show signs of weakness, with factory production dropping by 0.6% m-o-m in July. Manufacturing orders fell 2.7% m-o-m in July. Orders from non-Eurozone countries dropped by 7%. German GDP contracted by 0.1% q-o-q in 2Q19 on weak exports and could decline again in 3Q19.

India is another country where growth appears to be slowing rapidly. GDP growth fell to 5% in 2Q19 after a disappointing 5.8% in 1Q19. This compares with y-o-y growth of 8% in 2Q18. Private consumption growth fell to 3.1% y-o-y in 2Q19 from 7% y-o-y in 1Q19. The automotive sector illustrates the sharp slowdown in demand, with car sales falling by more than 30% y-o-y in July and 40% in August.

Our oil price assumption for 2019 is slightly lower in this *Report* at $62.8/bbl, reflecting future prices that are 11.5% below the 2018 average of $71/bbl. While the oil price -being relatively close to last year's level- had little impact on demand in the first half of the year, significantly lower y-o-y prices from June provide support to our 2H19 forecast.

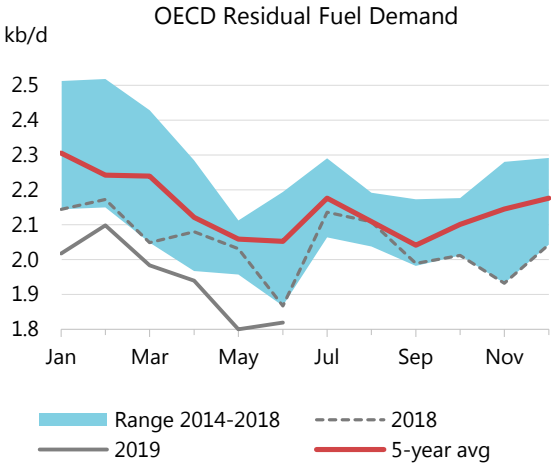
OECD

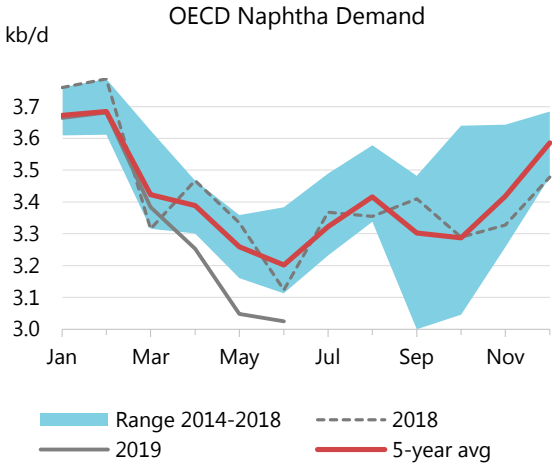


OECD oil demand remained weak in June, posting a 510 kb/d y-o-y decline after a drop of 730 kb/d in May. For July, provisional data point to growth of 170 kb/d. Gasoil demand has been particularly impacted by slowing economic activity, declining by 165 kb/d y-o-y in 2Q19.

Residual fuel oil demand posted a sharp y-o-y decline in 2Q19 (140 kb/d), possibly reflecting bunker retailers' preparations for the IMO 2020 switch and also because of lower trade activity.

Naphtha demand remained subdued in 2Q19 because of spring maintenance at several petrochemical facilities and competition from US LPG and ethane.





OECD Demand based on Adjusted Preliminary Submissions - July 19

(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		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	mb/d	% pa
OECD Americas	**11.36**	**-0.3**	**2.19**	**3.4**	**4.47**	**-3.7**	**0.50**	**3.6**	**3.66**	**4.9**	**0.62**	**-7.4**	**3.11**	**5.0**	**25.91**	**0.6**
US*	9.65	-0.5	1.89	4.3	3.76	-3.3	0.14	3.0	2.83	6.1	0.38	-8.8	2.39	4.2	21.05	0.6
Canada	0.91	0.6	0.18	-4.1	0.26	2.5	0.29	-2.2	0.41	1.0	0.05	10.4	0.48	1.8	2.58	0.6
Mexico	0.71	0.6	0.09	0.0	0.28	-19.6	0.06	45.0	0.36	0.4	0.17	-9.5	0.21	23.2	1.89	-1.0
OECD Europe	**2.07**	**-0.4**	**1.68**	**0.0**	**5.32**	**0.3**	**1.33**	**13.8**	**1.18**	**1.7**	**0.89**	**-3.8**	**2.48**	**-0.6**	**14.96**	**0.9**
Germany	0.49	-2.8	0.24	-2.4	0.81	2.7	0.35	46.9	0.12	3.2	0.06	-8.1	0.37	-6.4	2.44	3.6
United Kingdom	0.28	-0.2	0.30	-3.9	0.51	-1.3	0.15	10.4	0.14	5.3	0.02	2.7	0.15	9.0	1.56	1.0
France	0.23	10.1	0.19	-1.9	0.76	2.3	0.23	9.7	0.12	3.1	0.05	-11.6	0.30	3.9	1.87	3.5
Italy	0.15	-18.1	0.14	0.0	0.49	0.8	0.09	6.2	0.09	1.3	0.08	1.1	0.30	1.5	1.32	-1.4
Spain	0.14	5.0	0.18	3.5	0.53	3.7	0.13	-1.5	0.06	-19.7	0.15	-1.6	0.19	7.3	1.38	1.9
OECD Asia & Oceania	**1.52**	**-4.2**	**0.72**	**2.4**	**1.41**	**0.5**	**0.44**	**-1.8**	**0.73**	**3.2**	**0.44**	**-11.5**	**2.38**	**-1.4**	**7.64**	**-1.6**
Japan	0.86	-7.2	0.31	0.0	0.47	1.9	0.26	-3.0	0.32	-11.4	0.26	-4.5	0.95	1.3	3.43	-3.0
Korea	0.22	-4.5	0.17	8.4	0.37	-1.3	0.12	4.8	0.33	23.5	0.15	-24.2	1.22	-4.0	2.57	-1.2
Australia	0.32	3.3	0.17	0.7	0.50	0.3	0.00	-142.9	0.07	1.2	0.01	13.9	0.13	3.2	1.20	1.9
OECD Total	**14.95**	**-0.7**	**4.59**	**2.0**	**11.20**	**-1.3**	**2.27**	**8.2**	**5.57**	**4.0**	**1.95**	**-6.8**	**7.97**	**1.2**	**48.51**	**0.4**

* Including US territories

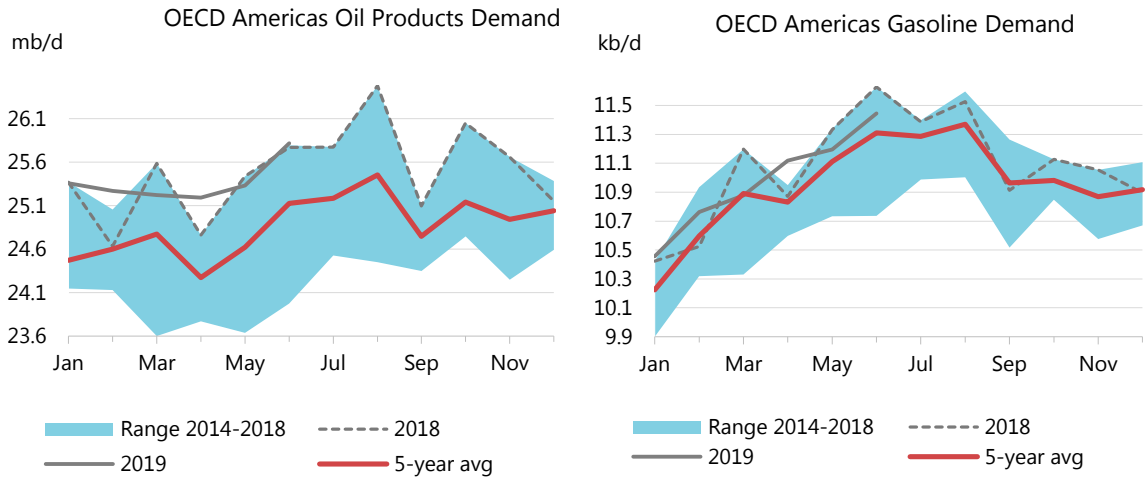
OECD Americas

June **US** data were unavailable at the time of publication and are therefore estimated, based on weekly Department of Energy statistics. We estimate that US gasoline demand was 150 kb/d lower than last year. This figure is more or less in line with vehicle miles travelled (VMT) for June which fell 0.3% y-o-y, as reported by the Office of Highway Policy Information. It is likely that lower gasoline prices from June onwards supported travel in July and August.

Gasoil demand, by contrast, rose 70 kb/d y-o-y in June, but this was from a weak base in June 2018. Consumption remained low in July and August. US industrial production growth has weakened reducing diesel demand. However, the American Trucking Association truck tonnage index rose by 7.3% y-o-y in July, the largest gain since April. Jet and kerosene demand was 45 kb/d lower. US revenue passenger kilometres (RPK) growth declined from 4.7% in May to 3.1% in June.

LPG/ethane demand growth is set to accelerate in the second half of 2019 to 105 kb/d y-o-y, as several petrochemical projects start or ramp up production. These include the Indorama ethane

cracker (420 kt/y) which started operations in May, the Lotte/Westlake cracker (1 000 kt/y), which delayed its start-up to July, as well as the Shintech (500 kt/y), Sasol (1 550 kt/y) and Formosa (1 250 kt/y) projects expected in 2H19.



Canadian data showed an increase of 35 kb/d in total oil demand in June, supported by strong LPG deliveries. Gasoil demand was, however, reported to be 50 kb/d below last year's level. Canada's industrial production growth slowed to 1.4% y-o-y in June, from 2.9% in May.

Mexico also reported weak gasoil demand in July, down by 45 kb/d y-o-y during the month. Gasoline demand was up 5 kb/d.

Overall, OECD Americas demand is expected to grow by 195 kb/d in 2019, roughly half the growth seen in 2018. LPG/ethane demand will be supported by petrochemical projects coming on stream in the US in 2H19. Demand growth in 2020 is projected at a similar level of 195 kb/d, of which 170 kb/d will be LPG/ethane.

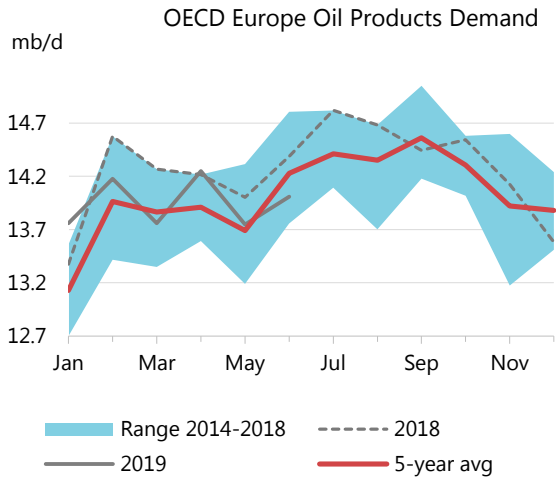
OECD Europe

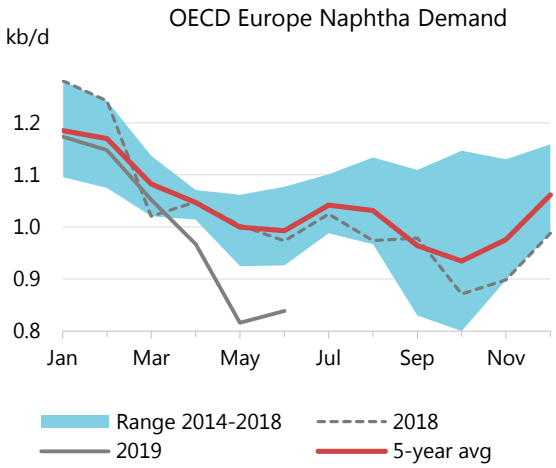
OECD Europe demand fell 380 kb/d y-o-y in June, the continuation of several months of weak performance. Diesel, the mainstay of Europe's consumption, was particularly weak, falling 210 kb/d y-o-y as a result of slowing industrial activity and the disaffection of European drivers for diesel cars. Naphtha demand declined by 135 kb/d y-o-y in June. However, provisional data pointed to a rebound in July for total demand of 140 kb/d. Naphtha demand is set to increase following the end of the spring turnaround season.

German oil demand declined by 25 kb/d in June but grew by 85 kb/d in July, according to provisional data. Very strong y-o-y increases in heating oil deliveries (from a very weak 2018 base) supported gasoil in both months. Lower oil prices are likely to further support heating fuel deliveries in 2H19.

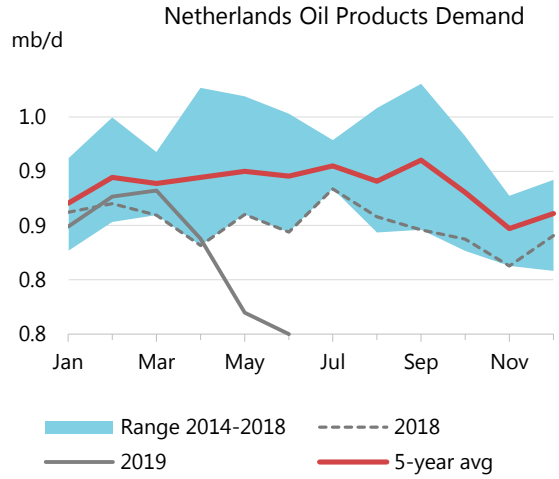
Oil demand in the **Netherlands** declined sharply in June. Naphtha demand fell as some crackers were slow to restart after the spring maintenance (Shell Moerdijk) and others experienced unplanned outages (Sabic Geleen). In addition, sales of bunker fuel oil fell sharply in both May and June, possibly reflecting suppliers' preparation ahead of the IMO 2020 switch and the trade slowdown.

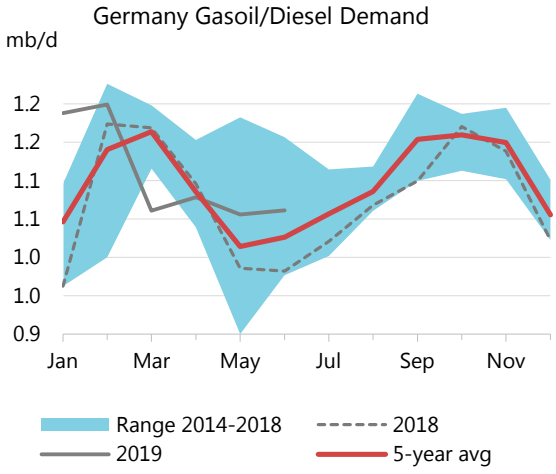
French oil demand was flat y-o-y in June but rose by 65 kb/d y-o-y in July, according to provisional data. Diesel consumption fell by 35 kb/d in June but growth bounced back to 20 kb/d in July, supported by demand for transport during the summer holidays.





OECD Europe demand is likely to decline by just 10 kb/d in 2019, and increase by 60 kb/d in 2020, supported by lower prices and a small rebound in economic activity.



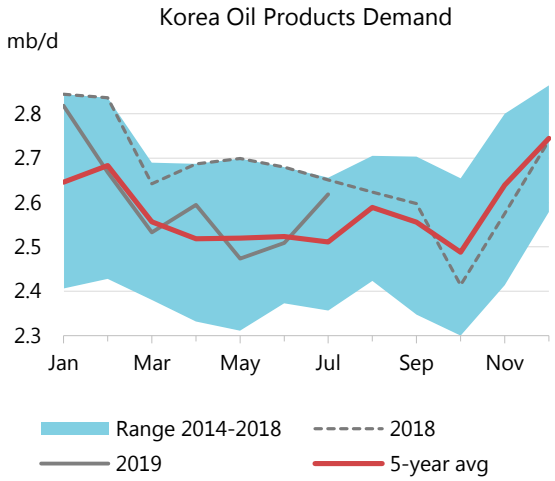


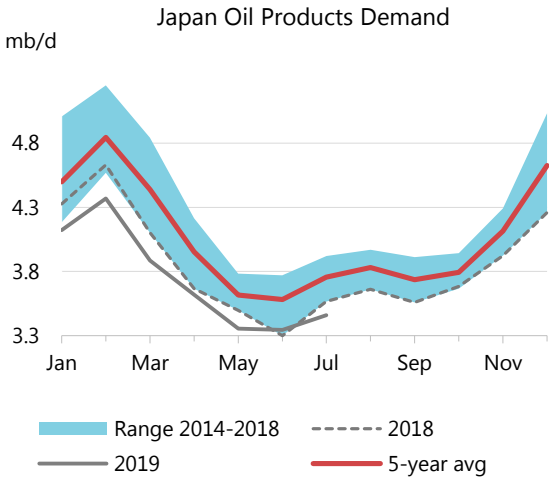
OECD Asia Oceania

After a fall of 400 kb/d y-o-y in May and 180 kb/d in June, demand in OECD Asia Oceania dropped by a further 120 kb/d, according to provisional data. Naphtha returned to growth following the end of cracker maintenance and diesel deliveries increased, but gasoline consumption declined.

Korean oil product demand showed some improvement in July. It fell by 30 kb/d y-o-y after a drop of 170 kb/d in June. Naphtha demand rose by 25 kb/d y-o-y and LPG demand by 60 kb/d.

Japan's oil demand rose by 45 kb/d y-o-y in June but declined by 105 kb/d in July. Revised data show that consumption fell by 230 kb/d in 1Q19 (of which 50 kb/d was due to lower kerosene demand caused by high temperatures) and 50 kb/d y-o-y in 2Q19. Growth in June was supported by strong naphtha demand after the completion of plant maintenance.

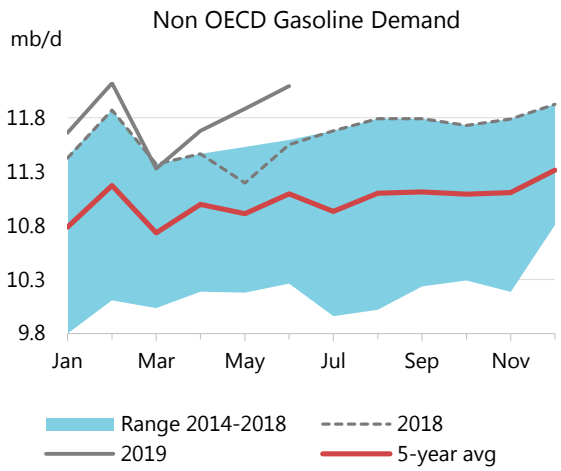


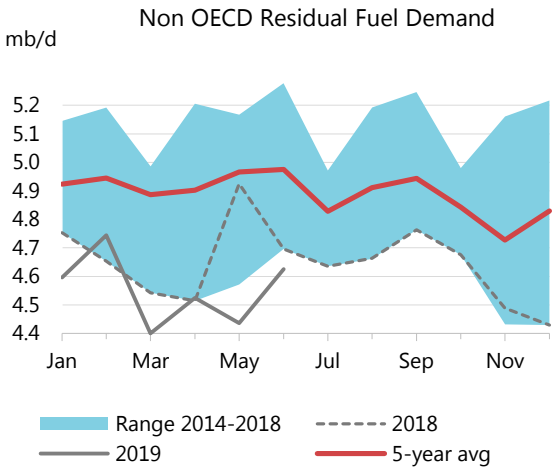


OECD Asia Oceania oil demand is expected to decline by 110 kb/d in 2019. In the first half of the year, warmer than usual weather and slowing economic activity resulted in a 285 kb/d decline in demand in 1H19. Looking ahead to 2020, demand is expected to grow by 65 kb/d.

Non-OECD

Oil demand in non-OECD countries increased by 665 kb/d y-o-y in June and was up 845 kb/d on average in the first half of 2019. Consumption grew faster in 1H19 than during the same period in 2018, due to increased demand in China (+545 kb/d versus 255 kb/d in 1H18), despite a notable slowdown in India (+135 kb/d versus 310 kb/d in 1H18). Demand growth in Latin America, the Former Soviet Union and the Middle East was more or less the same in 1H19. On a product basis, transport fuels such as gasoil/diesel (+260 kb/d y-o-y) and gasoline (+315 kb/d y-o-y) continued to grow at a steady pace, but LPG/ethane, naphtha and fuel oil fared less well.

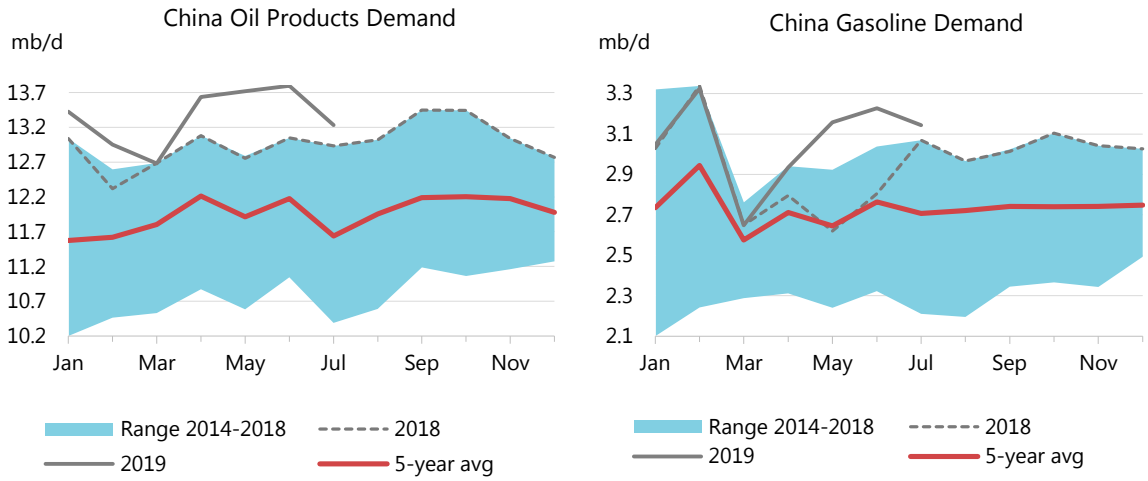




Demand figures for June were 240 kb/d lower than published in last month's *Report*, due to revised data from Saudi Arabia, Chinese Taipei and Hong Kong, and several others. In July, non-OECD oil demand growth accelerated to 1.1 mb/d y-o-y, the fastest rate seen for five months, on the back of higher demand in Brazil, China, India, Indonesia and Russia. Even so, consumption growth in both China and India disappointed, according to preliminary figures.

Non-OECD oil demand is expected to grow by a robust 1 mb/d y-o-y in 3Q19 and 1.3 mb/d in 4Q19, with 2019 as a whole seeing growth of 990 kb/d. This will represent nearly 93% of total global growth.

China



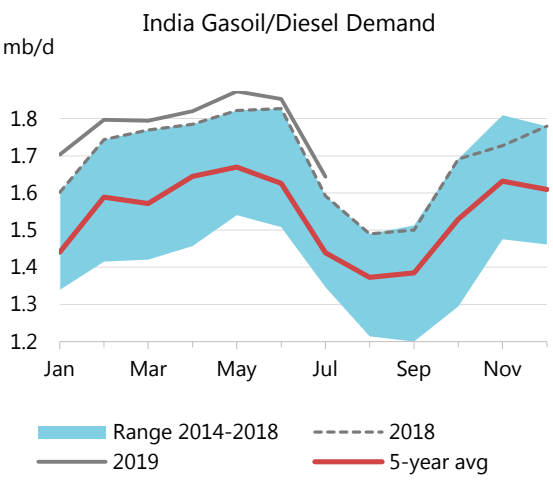
Chinese apparent oil demand, an estimate based on refinery output, trade flows and oil stocks in the absence of recorded deliveries, rose 300 kb/d y-o-y in July, the latest month for which figures are available. The largest gains were seen for gasoil/diesel (+200 kb/d y-o-y) and LPG/ethane (+185 kb/d y-o-y), whereas naphtha (-80 kb/d y-o-y) and fuel oil consumption (-155 kb/d y-o-y) declined. Naphtha and fuel oil both underperformed, a phenomenon also seen elsewhere. Apparent gasoline demand was up 75 kb/d y-o-y during the month, despite much higher exports (+75%) y-o-y.

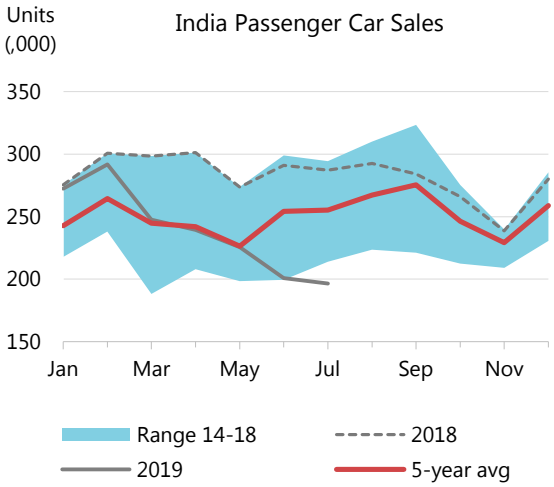
China: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2018	2019	2020	2019	2020	2019	2020
LPG & Ethane	1 620	1 700	1 795	80	95	4.9	5.6
Naphtha	1 268	1 308	1 372	40	64	3.2	4.9
Motor Gasoline	2 984	3 130	3 187	146	57	4.9	1.8
Jet Fuel & Kerosene	812	867	930	54	64	6.7	7.4
Gas/Diesel Oil	3 355	3 447	3 514	91	68	2.7	2.0
Residual Fuel Oil	432	391	341	- 41	- 50	-9.6	-12.8
Other Products	2 503	2 626	2 629	123	3	4.9	0.1
Total Products	**12 975**	**13 468**	**13 768**	**493**	**301**	**3.8**	**2.2**

Despite ongoing speculation about the health of its economy, China's apparent oil demand increased 545 kb/d in the first half of 2019, higher than the 255 kb/d y-o-y rate registered in 1H18. Consumption is forecast to rise by 450 kb/d y-o-y during 2H19, although less than in 2H18. Overall, we expect an average increase in oil deliveries of 500 kb/d in 2019, on a par with the level seen in 2018.

India





Indian oil demand increased by 155 kb/d y-o-y in July, recovering from an 80 kb/d y-o-y decline in June. Transport fuels such as diesel (+50 kb/d y-o-y) and gasoline (+55 kb/d) showed increases, and naphtha, which has been on a downward trend in recent months, saw demand fall once again, by 20 kb/d. The overall rate of growth is down from last year, when Indian consumption rose 200 kb/d on average. Total oil demand rose 135 kb/d during 1H19, less than half the rate seen in 1H18.

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	824	859	42	34	5.4	4.2
Naphtha	324	318	333	- 6	14	-1.9	4.5
Motor Gasoline	676	727	761	50	34	7.4	4.7
Jet Fuel & Kerosene	252	254	271	2	17	0.7	6.8
Gas/Diesel Oil	1 728	1 793	1 871	64	78	3.7	4.4
Residual Fuel Oil	150	148	146	- 3	- 1	-1.8	-0.9
Other Products	949	979	1 030	30	51	3.2	5.2
Total Products	**4 863**	**5 042**	**5 271**	**180**	**228**	**3.7**	**4.5**

Indian vehicle sales fell by 31% y-o-y in July – the ninth consecutive monthly decrease – and by an even steeper 41% in August. Diesel demand growth slowed to 50 kb/d in 1H19, down from 105 kb/d in 1H18. Gasoline consumption, meanwhile, rose by 60 kb/d y-o-y in 1H19, on a par with the growth seen in 1H18.

Indian oil consumption is forecast to increase by 225 kb/d in the second half of 2019, a slight acceleration from 1H19. Growth will average 180 kb/d in 2019, down from the 200 kb/d pace seen in both 2017 and 2018.

Other Non-OECD

Oil demand in the **Middle East** fell in July by 140 kb/d y-o-y, the fifth consecutive monthly decrease, with reductions seen in Iran and Saudi Arabia. During the first half of the year, demand decreased by 75 kb/d, and it is expected to decline by 60 kb/d overall in 2019.

Saudi Arabia saw consumption fall by 25 kb/d y-o-y in June, with falls in gasoil/diesel, gasoline and other products after a drop of 420 kb/d in May. Total oil demand will fall 50 kb/d y-o-y on average in 2019. The region's economy has suffered this year from lower oil prices. In the case of **Iran**, US sanctions on oil exports have damaged the economy with oil demand falling 55 kb/d y-o-y in July and by 10 kb/d on average in 1H19.

Consumption in **Latin America** was up 55 kb/d y-o-y in July, a rare increase following the average 40 kb/d decline seen in 1H19. The July figure was boosted by strong growth in **Brazil** (+155 kb/d), which saw much higher demand for transport fuels such as gasoline and gasoil/diesel. By contrast, demand is likely to have fallen heavily in **Venezuela** as the economic situation continued to deteriorate, although no official figures have been published. We forecast that oil products demand will decline by an average 130 kb/d in 2019.

Non-OECD: Demand by Product
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	3Q18	4Q18	1Q19	4Q18	1Q19	4Q18	1Q19
LPG & Ethane	6 781	6 820	6 960	156	204	2.3	3.0
Naphtha	3 135	3 280	3 275	158	110	5.1	3.5
Motor Gasoline	11 706	11 767	11 641	399	144	3.5	1.2
Jet Fuel & Kerosene	3 543	3 354	3 477	145	144	4.5	4.3
Gas/Diesel Oil	14 766	14 981	14 510	86	135	0.6	0.9
Residual Fuel Oil	4 721	4 566	4 609	- 25	- 75	-0.5	-1.6
Other Products	7 118	6 967	7 118	140	210	2.1	3.0
Total Products	**51 770**	**51 735**	**51 589**	**1 060**	**871**	**2.1**	**1.7**

Russia's oil demand continued to surprise to the upside in July, rising by 300 kb/d y-o-y with gains across all major products. Demand increased by 115 kb/d in the first half of 2019 and is forecast to rise by the same amount for the year as a whole. If realised, this would be Russia's fastest demand growth since 2014.

In **Singapore**, oil consumption fell 10 kb/d y-o-y in July and was down 45 kb/d in the first half of 2019 as a result of reduced bunker fuel sales. Lower fuel oil demand has not been offset by higher deliveries of marine gasoil, suggesting that trade, rather the upcoming International Maritime Organisation regulation on sulphur, is responsible. GDP growth is expected to slow dramatically in 2019 due to the wider slowdown in trade and rising trade tariffs between China and the US.

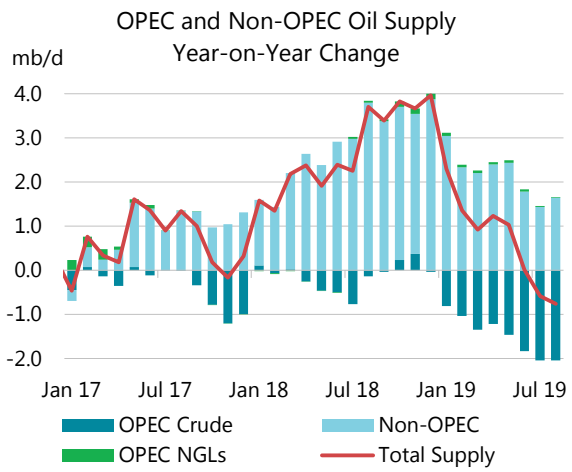
Supply

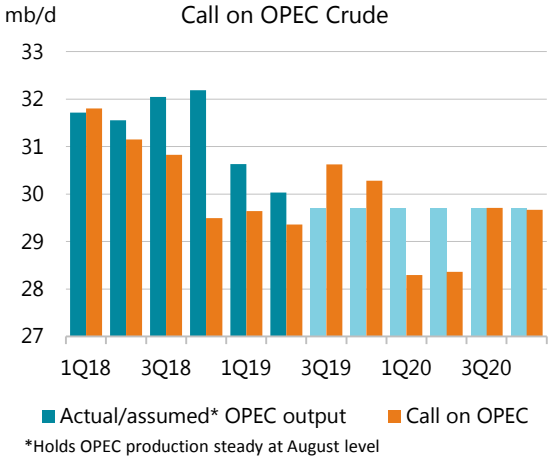
Overview

A post-hurricane rebound in the US raised global oil supply by 530 kb/d in August, the fourth straight month with production topping the 100 mb/d mark. At 100.7 mb/d, output was nonetheless down nearly 800 kb/d on a year ago due to sharp reductions linked to sanctions and OPEC+ cuts. OPEC oil output during August was 2.4 mb/d lower than the previous year, while non-OPEC supply was up 1.6 mb/d year-on-year (y-o-y).

During August, the US turned in the biggest increase with supply up 520 kb/d month-on-month (m-o-m). Russia and Saudi Arabia delivered combined gains of 240 kb/d. Strong growth in the US is enabling it to challenge Saudi Arabia and Russia for the rank as the world's biggest oil exporter (see *US vies with Saudi for top oil exporter spot*).

The US expansion, along with big gains from Norway and Brazil, is expected to boost non-OPEC growth from 1.9 mb/d this year to nearly 2.3 mb/d in 2020. As for OPEC, newly appointed Saudi Energy Minister Prince Abdulaziz bin Salman assured markets there would be no radical change in oil policy (see *Saudi surprises with energy reshuffle*). During August, higher Saudi production, record Iraqi flows and increased supply from Nigeria lifted OPEC's crude oil output by 50 kb/d to 29.74 mb/d.





Despite the m-o-m increase, Saudi Arabia continues to cut far more than promised under the OPEC+ pact and August marked the sixth month in a row of outperformance. Compliance, however, eased to 116% during August from 130% the previous month with Iraq, Nigeria and Russia producing 650 kb/d above their allocations.

Our current balances show the market is tightening in 2H19 with the call on OPEC crude averaging 30.5 mb/d, which is higher than current production. However, due to an expected surge in non-OPEC production at the end of this year and into 2020, the requirement for OPEC crude will plunge in 1H20 to 28.3 mb/d - 1.4 mb/d below what the group produced during August.

OPEC / Non-OPEC Output[1]

(million barrels per day)

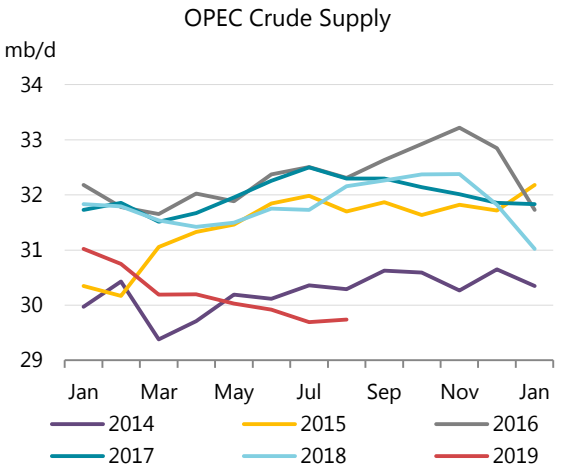
	Jul 2019 Supply	Aug 2019 Supply	Supply Baseline[2]	Agreed Cut	August Compliance	Average Compliance	Sustainable Production Capacity[5]	Spare Capacity vs Aug Supply[6]
Algeria	1.03	1.02	1.06	0.032	116%	104%	1.05	0.03
Angola	1.34	1.35	1.53	0.047	379%	254%	1.50	0.15
Congo	0.34	0.34	0.33	0.010	-150%	-175%	0.35	0.01
Ecuador	0.54	0.54	0.52	0.016	-100%	-45%	0.54	0.00
Equatorial Guinea	0.12	0.12	0.13	0.004	175%	394%	0.12	0.00
Gabon	0.22	0.22	0.19	0.006	-550%	-529%	0.20	-0.02
Iraq	4.78	4.81	4.65	0.141	-111%	-57%	4.90	0.09
Kuwait	2.67	2.64	2.81	0.085	199%	141%	2.93	0.29
Nigeria[3]	1.80	1.84	1.65	0.053	-358%	-160%	1.79	-0.05
Saudi Arabia	9.65	9.75	10.63	0.322	274%	241%	12.02	2.27
UAE	3.07	3.06	3.17	0.096	113%	116%	3.39	0.33
Total OPEC 11	**25.56**	**25.69**	**26.66**	**0.812**	**120%**	**117%**		
Iran[4]	2.23	2.19					3.85	-
Libya[4]	1.09	1.06					1.10	0.04
Venezuela[4]	0.81	0.80					0.80	0.00
Total OPEC	**29.69**	**29.74**					**34.54**	**3.21**
Azerbaijan	0.78	0.75	0.80	0.020	235%	136%		
Kazakhstan	2.01	1.90	2.03	0.040	329%	273%		
Mexico	1.91	1.90	1.99	0.040	234%	202%		
Oman	0.98	0.98	1.00	0.025	98%	99%		
Russia	11.49	11.63	11.75	0.230	53%	74%		
Others[7]	1.19	1.22	1.23	0.028	7%	-31%		
Total Non-OPEC	**18.34**	**18.37**	**18.79**	**0.383**	**110%**	**105%**		
Total OPEC+	**43.90**	**44.06**	**45.46**	**1.195**	**116%**	**114%**		

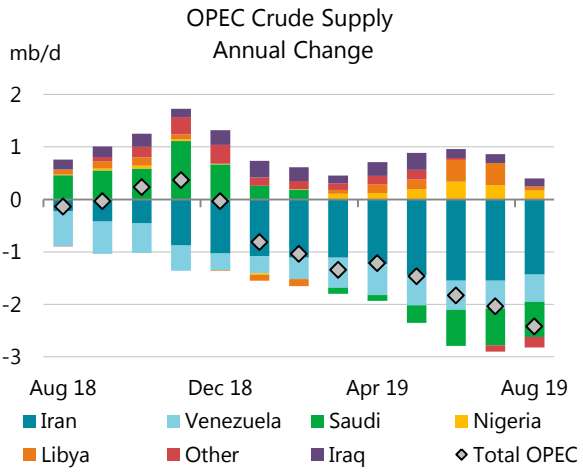
1 OPEC figures are crude oil only, Non-OPEC figures are total oil supply (including NGLs).
2 Based on Oct-2018 production, except for Azerbaijan and Kuwait based on Sept-2018 and Kazakhstan Nov-2018. Non-OPEC supply baseline based on IEA estimates
3 Nigeria supply based on IEA estimates, which exclude Akpo and Agbami condensates.
4 Iran, Libya, Venezuela exempt from cuts.
5 Capacity can be reached in 90 days and sustained for extended period.
6 Spare capacity excludes Iranian crude offline due to sanctions.
7 Bahrain, Brunei, Malaysia, Sudan and South Sudan

OPEC crude oil supply

OPEC crude output edged up from a five-year low to reach 29.74 mb/d in August, as Saudi Arabia pumped more, Iraq hit a new record high and Nigeria increased output. Despite the 50 kb/d m-o-m increase, members of the OPEC+ supply deal cut more than agreed for the sixth month running. Although Iraq and Nigeria produced far more than promised, compliance in August remained robust because Saudi Arabia continued to cut much more than agreed. That strong commitment is expected to be upheld by newly appointed Energy Minister Prince Abdulaziz.

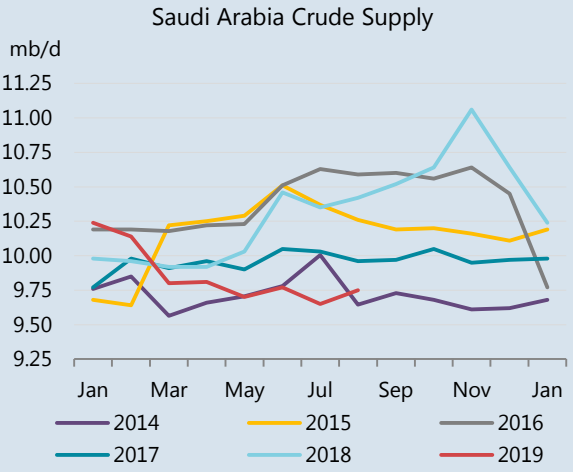
Saudi Arabia's outperformance, combined with losses in Iran and Venezuela due to sanctions, left OPEC crude oil output in August trailing 2.4 mb/d below the previous year. Iranian production eased further in August, with supply down 1.4 mb/d on a year ago. Output in Venezuela, relatively steady m-o-m, was 520 kb/d below a year ago. Supply from Saudi Arabia was running 670 kb/d lower than August 2018. Nigeria, Iraq and Libya between them pumped 400 kb/d more than the previous year. OPEC's effective spare capacity in August was 3.2 mb/d, with Saudi Arabia holding 2.3 mb/d, or 71%.





Box 2. Saudi surprises with energy reshuffle

Saudi King Salman appointed his son Prince Abdulaziz as energy minister in early September, placing a member of the ruling Al Saud family in charge of oil policy for the first time. The prince, a veteran energy ministry official, replaces Khalid al-Falih, who was removed as chairman of Saudi Aramco and stripped of his supervisory role in industrial development the previous week. Half-brother to Crown Prince Mohammed bin Salman, the prince most recently served as minister of state for energy affairs. He is a longstanding member of the Saudi delegation to OPEC, having joined the oil ministry in the 1980s.



Prince Abdulaziz, who helped forge the existing OPEC+ deal, has said there will be no drastic change in Saudi oil policy. Its commitment to the OPEC+ agreement has seen Saudi Arabia cut production below 10 mb/d. During August, Saudi Arabia turned in the largest output increase within OPEC with crude supply rising 100 kb/d to 9.75 mb/d. Despite the higher flows, output was still 560 kb/d below its target. The kingdom had previously signaled its intention to keep production under 10 mb/d and exports below 7 mb/d through September to help draw down inventories. Saudi Aramco shipped 6.6 mb/d of crude to world markets during August, up 100 kb/d m-o-m, according to *Kpler* data.

As Saudi Arabia gears up to sell shares in Aramco, it named Yasir al-Rumayyan, head of the sovereign wealth fund, as chairman of Aramco in place of al-Falih. The previous ministry structure has been reformed: Prince Abdulaziz heads the Ministry of Energy and Bandar Al-Khorayef, an investor and industrialist, was appointed as head of the new Ministry for Industry and Mineral Resources.

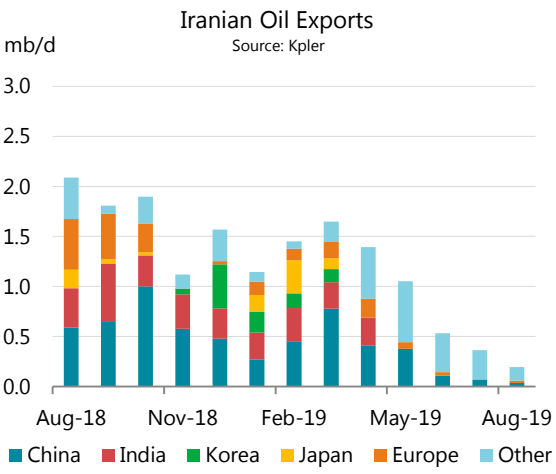
Elsewhere in the Gulf, supply from the **UAE** dipped 10 kb/d to 3.06 mb/d but was up 80 kb/d on a year ago. As part of its effort to boost capacity, the Abu Dhabi National Oil Co has ordered $3.6 billion worth of wells and drilling material as part of a broader $15 billion drilling-related spending plan over the next five years. Production in **Kuwait** eased 30 kb/d to 2.64 mb/d – the lowest in eight years. To help raise capacity, the Ratqa oil field is due to start pumping heavy crude in February 2020 with production gradually ramping up to around 75 kb/d.

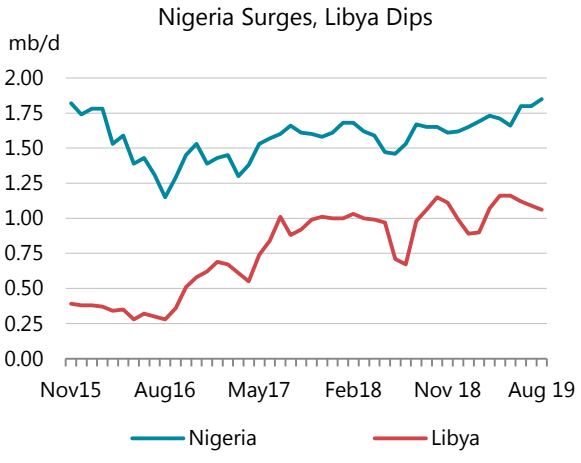
Iraq hit a fresh record in August as production rose 30 kb/d m-o-m to 4.81 mb/d, including the Kurdistan Regional Government (KRG). Output from the core southern oil fields edged up, supporting higher shipments of Basra crude. Total exports were relatively steady at just above 4 mb/d. Exports from the south increased by 35 kb/d to 3.5 mb/d. Oil sales from the north via Kurdistan eased by 30 kb/d to around 530 kb/d. Iraq has resumed the delivery of oil to Jordan by truck, with volumes set to rise gradually to 10 kb/d. Trucking had ceased in 2014 after the situation in western Iraq grew increasingly insecure.

Iraq is negotiating a subsea pipeline project with Eni and BP that is needed to rehabilitate its ageing southern export system. The project, estimated to be worth around $400 million, involves building a new 1 mb/d pipeline connecting the main storage depot at Fao to the offshore Basra Oil Terminal and replacing an idled pipeline that ships crude to the Khor al-Amaya terminal.

Crude production in **Iran** fell a further 40 kb/d in August to 2.19 mb/d, hovering at a 30-year low. As the US seeks to eliminate oil exports, shipments fell 170 kb/d m-o-m to 200 kb/d. By comparison, exports were running at 2.1 mb/d in August 2018.

To put further pressure on exports, the US has sanctioned vessels, companies and individuals it claims are facilitating Iranian oil trade and warned the global maritime industry to avoid doing business with them. In the three months since the US ended waivers to eight of Iran's major customers, China and Turkey appear to be the only remaining buyers. Iran was reported to be storing oil on 26 tankers at the end of August, up from 23 at the end of July, according to EA Gibson data. That is nearing an historic high of 28 vessels in 2016.





Production in **Nigeria** rose 40 kb/d during August to reach 1.84 mb/d, the highest level since October 2015. Despite the risk of renewed violence, production has risen steadily since the start of the year after the offshore Egina oil field came online and ramped up to its 200 kb/d plateau rate. President Muhammadu Buhari has meanwhile appointed Timipre Sylva as minister of

state for petroleum in a new cabinet that marks his second term. Sylva, a former governor of Bayelsa state in the Niger Delta oil heartland, replaces Emmanuel Kachikwu.

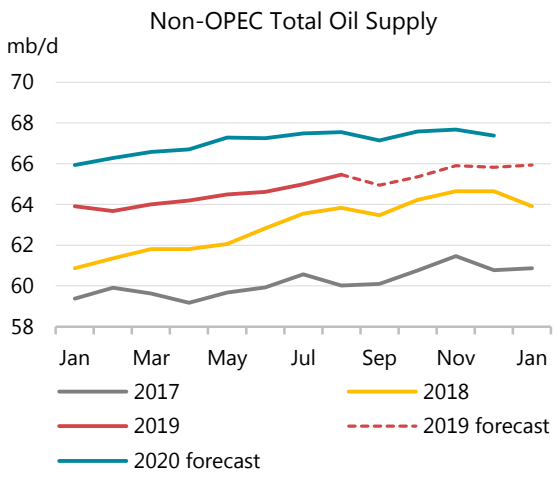
Crude supply in **Libya** edged 30 kb/d lower to 1.06 mb/d after the El Sharara field remained offline until 8 August due to sabotage. Output at the 300 kb/d field has been disrupted by civil unrest since July. Production in **Algeria** dipped to 1.02 mb/d during August.

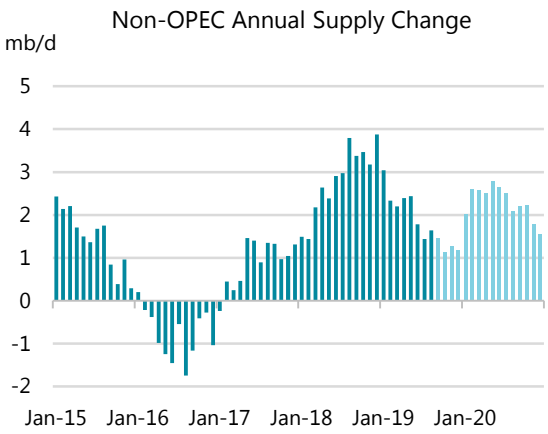
Supply in **Angola** crept up 10 kb/d in August to 1.35 mb/d, 120 kb/d below a year ago. The country hopes to attract interest in 10 blocks that will be offered in a new licensing round scheduled for 3 October. Supply in **Congo** held at 340 kb/d, flat on a year ago. A new giant onshore oil discovery could boost production to record highs. A consortium of SARPD-Oil and Petroleum Exploration & Production Africa said that a find in the Cuvette basin could produce close to 1 mb/d. Production has climbed in the past two years after the ramp up of the offshore Moho Nord project. Production in **Gabon** was steady at 220 kb/d, while output in **Equatorial Guinea** held at 120 kb/d in August.

Supply in **Venezuela** inched 10 kb/d lower in August to 800 kb/d. Exports appeared to stabilise during August after a sharp m-o-m fall in July. A PDVSA joint venture with China National Petroleum Corp, Sinovensa, has started a project to raise production from 110 kb/d to 165 kb/d. Sinovensa produces extra-heavy Orinoco crude and blends it with lighter oil to produce medium-grade Merey. PDVSA said a second phase of the project would take capacity to 230 kb/d. Production in **Ecuador** was steady at 540 kb/d in August.

Non-OPEC supply

Following July's 375 kb/d monthly increase, non-OPEC oil supply rose a further 480 kb/d in August to 65.5 mb/d. A recovery in US oil supply, following the passing of Hurricane Barry, record output in Brazil and higher Russian flows led the gains. Seasonal declines in the North Sea, Kazakhstan and Brazilian biofuels provided a partial offset.





Annual non-OPEC supply gains of 1.6 mb/d in August were slightly higher than in July but substantially lower than the 2.4 mb/d growth recorded in 1H19 and the 3.4 mb/d seen in 2H18. In August, the US accounted for 83% of the increase, or 1.4 mb/d. Brazilian oil production stood 420 kb/d above a year ago while smaller increases came from Russia and Australia.

A 140 kb/d m-o-m increase in Russian production in August, saw compliance by non-OPEC countries participating in the OPEC+ deal slip to 110%, from 118% in July and 105% on average so far this year. Russia's compliance dropped to 53% in August from 114% in July, when output was restrained by contamination along the Druzhba pipeline. Overall production from the 10 non-OPEC countries participating in the deal stood 420 kb/d below the agreed baseline but 50 kb/d higher than a year ago.

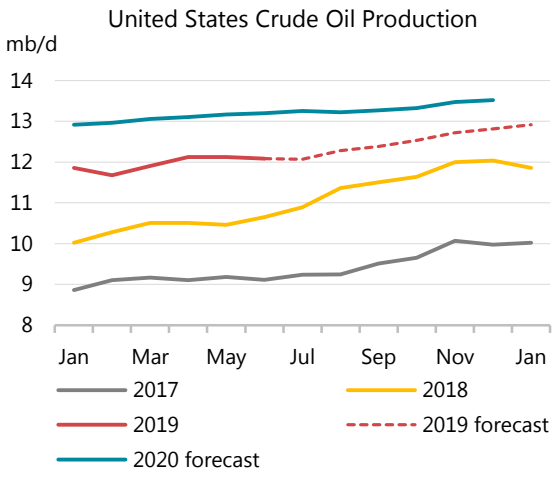
For the year as whole, non-OPEC supply growth is largely unchanged since last month's *Report* at 1.9 mb/d. Growth accelerates to 2.3 mb/d in 2020 as Brazil picks up speed and new projects start up in Norway and Guyana. The US nevertheless remains the largest source of growth, contributing 1.7 mb/d in 2019 and 1.3 mb/d in 2020.

Non-OPEC Supply

(million barrels per day)

	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
Americas	22.98	24.01	24.49	24.69	25.32	24.63	25.60	25.85	26.05	26.38	25.97
Europe	3.47	3.47	3.17	3.16	3.47	3.32	3.66	3.70	3.67	3.85	3.72
Asia Oceania	0.41	0.43	0.48	0.49	0.52	0.48	0.54	0.56	0.57	0.56	0.56
Total OECD	**26.9**	**27.9**	**28.1**	**28.3**	**29.3**	**28.4**	**29.8**	**30.1**	**30.3**	**30.8**	**30.3**
Former USSR	14.56	14.80	14.40	14.54	14.55	14.57	14.65	14.63	14.56	14.61	14.61
Europe	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11
China	3.85	3.92	3.95	3.91	3.88	3.92	3.89	3.89	3.86	3.85	3.88
Other Asia	3.36	3.33	3.26	3.22	3.22	3.26	3.21	3.17	3.15	3.11	3.16
Latin America	4.52	4.51	4.58	4.85	4.97	4.73	5.02	5.08	5.10	5.12	5.08
Middle East	3.27	3.26	3.27	3.26	3.26	3.26	3.27	3.27	3.27	3.27	3.27
Africa	1.45	1.44	1.45	1.45	1.45	1.45	1.47	1.48	1.48	1.48	1.48
Total Non-OECD	**31.1**	**31.4**	**31.0**	**31.3**	**31.5**	**31.3**	**31.6**	**31.6**	**31.5**	**31.5**	**31.6**
Processing Gains	2.32	2.35	2.35	2.35	2.35	2.35	2.38	2.38	2.38	2.38	2.38
Global Biofuels	2.62	2.21	2.90	3.10	2.56	2.69	2.36	2.93	3.20	2.82	2.83
Total Non-OPEC	**62.9**	**63.9**	**64.4**	**65.1**	**65.7**	**64.8**	**66.2**	**67.1**	**67.4**	**67.5**	**67.0**
Annual Chg (mb/d)	2.82	2.53	2.21	1.52	1.17	1.85	2.31	2.62	2.26	1.87	2.26
Changes from last OMR (mb/d)	0.01	-0.01	-0.08	0.06	-0.04	0.01	0.07	0.16	0.05	-0.08	0.01

US crude and condensate production dropped unexpectedly in June, as a 60 kb/d decline in Oklahoma and smaller declines in Alaska (-19 kb/d) and New Mexico (-14 kb/d) offset marginal gains in Texas and North Dakota and as Gulf of Mexico production held steady. As such, June output was only 45 kb/d higher than end-2018 levels. At 12.1 mb/d, production was nevertheless 1.4 mb/d higher than a year earlier. Crude oil output is estimated to have eased further in July as Hurricane Barry shut in roughly 300 kb/d of offshore production. A sharp rebound is projected for August however, as offshore output recovered and onshore supply posted further gains.

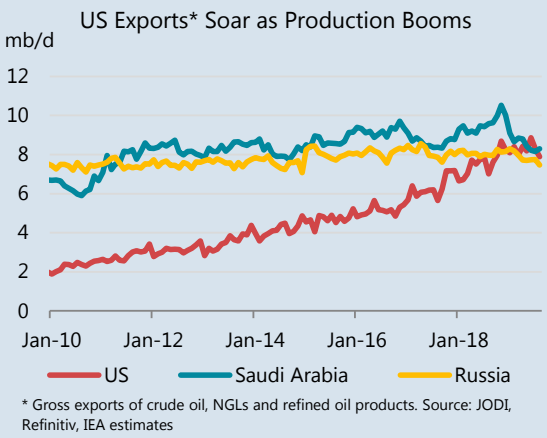


The imminent start-up of more than 2 mb/d of new pipeline capacity in the Permian, and an uptick in fracking activity in June and July, is expected to spur further growth in output and exports from the Gulf Coast. However, producers are being cautious, with few signs of acceleration in drilling activity. During August, operators reduced the number of rigs targeting oil by a further 26, so that in early September there were 738 rigs in

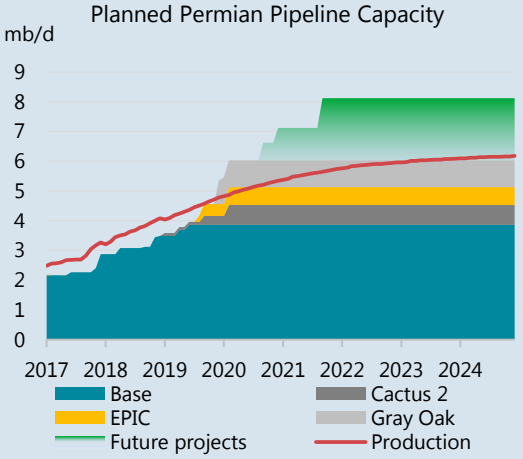
operation, 122 less than a year ago. Companies are reporting they are able to drill more wells using fewer rigs. Capital discipline remains in focus, supporting our view of slowing US supply growth during 2H19 and in 2020. Our forecast for US oil supply is largely unchanged since last month's *Report*. Crude oil production is forecast to increase by 1.3 mb/d this year and a further 1 mb/d in 2020, while total oil supply rise 1.7 mb/d and 1.3 mb/d in 2019 and 2020, respectively.

Box 3. US vies with Saudi for top oil exporter spot

Booming shale production has allowed the US to close in on, and briefly overtake, Saudi Arabia as the world's top oil exporter. The installation of the necessary pipelines and terminals is continuing apace, which will ensure that the trend continues. The US momentarily claimed the no. 1 rank in June, after crude exports surged above 3 mb/d, lifting total exports of crude and products to nearly 9 mb/d. At the same time, Saudi Arabia cut back on both crude and refined product exports while Russian flows were constrained due to the Druzhba pipeline problem.



* Gross exports of crude oil, NGLs and refined oil products. Source: JODI, Refinitiv, IEA estimates



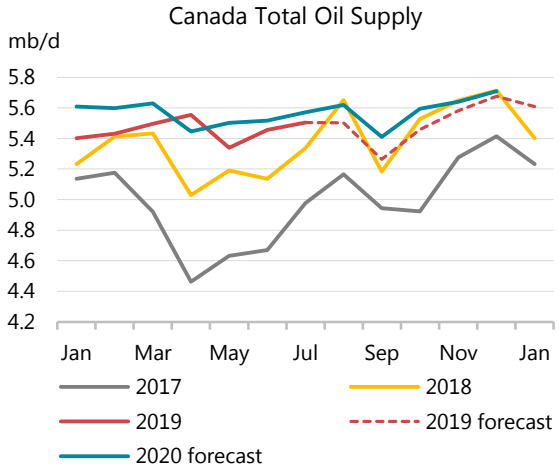
However, the kingdom reclaimed the top spot in July and August, as US production was affected by hurricane disruptions. The US trade dispute with China has also made it more difficult for shale shipments to find markets.

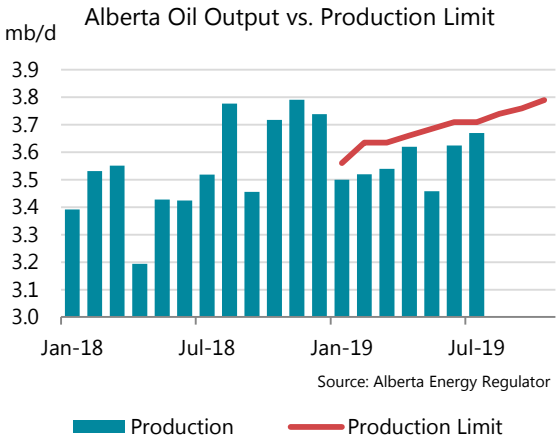
The fourth quarter is expected to see a further build out of export infrastructure that should allow for up to 4 mb/d in crude exports. Indeed, the price spread between WTI Midland and WTI Houston has narrowed sharply to reflect the easing pipeline constraints (see *Prices*). With production expanding strongly, the question is can sellers of US crude price exports attractively enough to capture international markets.

Canadian oil production rose another 50 kb/d in July, to surpass 5.5 mb/d, as a 100 kb/d increase in output of synthetic crude oil was partly offset by a fall in raw bitumen and offshore production. Alberta's upgraders produced 1.25 mb/d in July, 235 kb/d more than a year earlier. In contrast, un-upgraded supply fell by 60 kb/d m-o-m, to 1.77 mb/d, 125 kb/d less than a year ago.

In all, Albertan oil production subject to curtailment limits (including conventional crude oil, mined and in-situ bitumen) rose to 3.67 mb/din July, an increase of 45 kb/d from June and

40 kb/d below the allowed level. The allowance regime permits an additional 25 kb/d increase in output in August, 25 kb/d in September and 25 kb/d in October when it will stand at 3.79 mb/d. Output is nevertheless expected to ease in September due to seasonal maintenance.



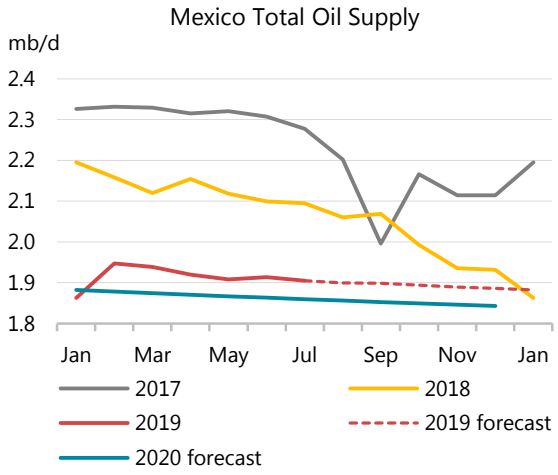


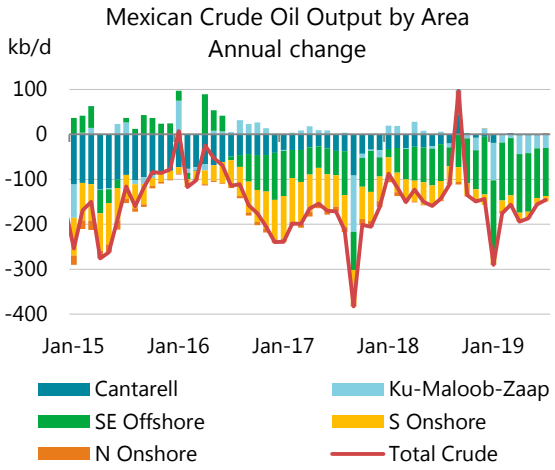
On 20 August, the Albertan government announced that because of the continuing pipeline delays, including to Enbridge Line 3, the oil production limit has been extended to 31 December 2020, albeit with an earlier termination possible. The government adjusted the policy to give industry more flexibility, including providing companies with more notice of changes to production limits and doubling the base limit for curtailment from 10 kb/d to 20 kb/d. The latter change means that only 16 of more than 300 producers in Alberta will be subject to the updated production limits. Increasing the base deduction and adjusting the curtailment formula accordingly, resulted in an overall increase of about 25 kb/d to the allowed production limit for October. Monthly production limits for raw crude and bitumen are set at: 3.74 mb/d for August, 3.76 mb/d for September and 3.79 mb/d for October. These changes will take effect in October 2019.

Total Canadian production is expected to increase by 95 kb/d on average this year and a further 100 kb/d next year, when output reaches 5.6 mb/d.

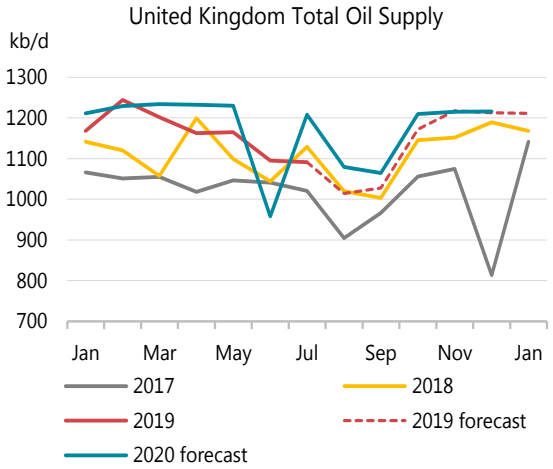
Mexican oil supply held largely steady in July at around 1.9 mb/d, down 190 kb/d on a year earlier. Crude production was just shy of 1.7 mb/d, 150 kb/d lower than a year earlier, led by declines from the Xanab shallow water field (-85 kb/d) field and from Ku-Maloob-Zaap (-58 kb/d). A rebound in output from the extra-heavy Ayatsil (+28 kb/d) field and Balam (+15 kb/d) provided a partial offset. In 2018, Pemex launched a $6.6 billion refurbishment plan for the shallow water Ek-Balam cluster intended to boost the field's production to 100 kboe/d by 2022. In July, production was 46 kb/d. The start-up of Eni's Mitzon 2 field on 30 June also provided some support.

In 2019, Mexican production is expected to decline by 170 kb/d y-o-y. The decline eases to 40 kb/d next year as reform efforts bear fruit.





Revisions to official data show that **UK** oil production growth was slightly lower than previously indicated in 1H19 at 60 kb/d y-o-y. This is likely due to a slower ramp up in production from projects commissioned in 2017 and 2018, such as Clair Ridge and Schiehallion. In August, seasonal maintenance saw output dip 75 kb/d m-o-m to 1.01 mb/d. Workovers took place at a number of small fields that feed the Forties pipeline system and flows were temporarily restricted on 15-16 August due to "integrity" issues. In September, the system's largest contributing field, Buzzard, is expected to go offline for maintenance for around one week and preliminary loading programmes suggest flows from the Brent system will also be reduced.

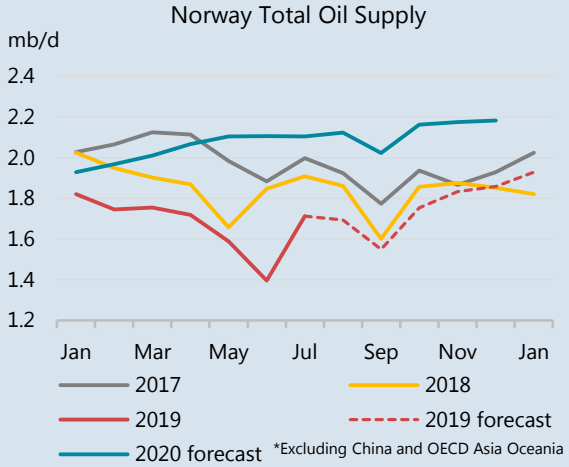


Further ahead, modest y-o-y growth of 40 kb/d is expected for 4Q19, thanks to new production from Equinor's Mariner field that started up mid-August and also Hurricane Energy's Lancaster field that has exceeded expectations since first oil was achieved in June. Initially expected to come online in 2018, Mariner will add 55 kb/d of crude on average when it reaches its plateau. For 2019 as a whole, the UK's total oil supply will grow by 40 kb/d, slowing to 25 kb/d in 2020 and, further ahead, could return to decline in the absence of new project approvals.

Preliminary production data from the Petroleum Directorate show that **Norway's** oil output rebounded by 320 kb/d m-o-m in July as field maintenance was completed. At 1.7 mb/d in July, flows were 200 kb/d below year ago levels. In August, Equinor was given regulatory approval to start production from the Utgard gas-condensate field and first output is expected in September. Around 10 kb/d of Utgard condensate will be transported to the Sleipner processing facilities and exported as part of the Gudrun oil blend. For 2019, Norwegian liquids output is expected to slip by 150 kb/d y-o-y. However, in 2020 Norway is expected to grow by 380 kb/d as the ramp up in output from the Johan Sverdrup field provides a major boost. We have revised up our production estimates on the announcement that Johan Sverdrups's start-up has been brought forward to October. A loading programme was published in September.

Box 4. Johan Sverdrup start-up to reverse Norwegian decline

A lack of investment in new oil projects following the downturn in 2015 has put Norwegian output on a declining trend since 2017. However, the looming start-up of Equinor's Johan Sverdrup project, by far the largest North Sea field to be commissioned since Troll in 1995, will return Norway to growth in 2020.



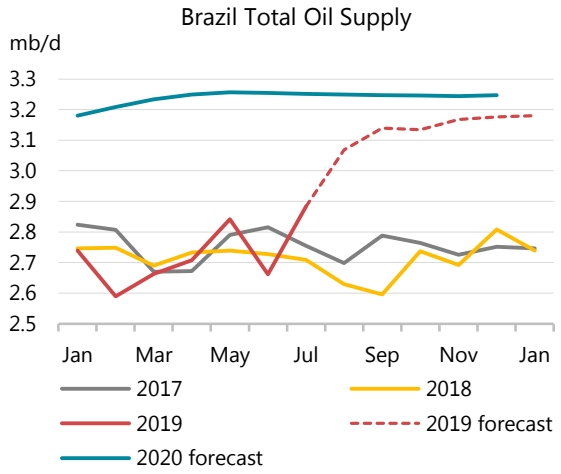
On 5 September, just days after the Norwegian Petroleum Directorate approved the project's start-up, Equinor announced that first oil would come even earlier, in October 2019. Preliminary loading programmes show offtakes of an incredible 225 kb/d in the first month of production and, while some of these volumes may come from storage or testing operations, it seems that the ramp-up will be unprecedented. Equinor expects the first phase production plateau of 440 kb/d to be achieved by mid-2020 and be supplemented by an additional 220 kb/d when phase 2 comes online in late 2022. Achieving this would see Johan Sverdrup account for up to a third of Norway's crude production and put it on a par with Brazil's pre-salt Búzios field.

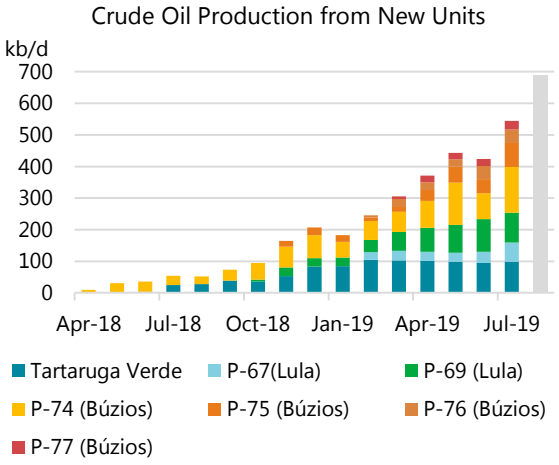
Equinor has also been touting the project's impressive metrics: capital expenditure was reportedly 30% lower than expected and reserves are higher at 2.7 billion boe. For Norway, this is welcome news, coming on the heels of first oil from Equinor's delayed and over-budget Mariner project in the UK North Sea. Its success suggests that, with strict project management, large offshore projects have a place in the global supply portfolio. With an API gravity of 28, medium sour Johan Sverdrup crude is relatively heavy for the North Sea and small amounts of condensate and NGLs are also expected.

Brazil's oil expansion continues apace. According to Petrobras, its oil and gas output surged to 3 mboe/d in August, compared with 2.76 mboe/d a month earlier. In a press statement, the company said output from the seven new production units started up since 2018 reached 690 kb/d compared with 530 kb/d in July and only 50 kb/d a year ago. Total oil production is estimated at a record 3.05 m/d, up 420 kb/d on August 2018.

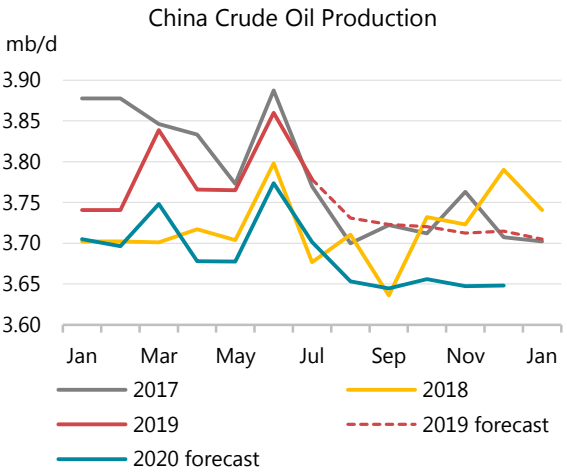
In July, the latest month for which official statistics are available, oil production, including NGLs, reached 2.9 mb/d an increase of 220 kb/d from June and 175 kb/d higher than a year ago. The increase came primarily from new production units in the Lula and Búzios fields. Notably, output at Lula, Brazil's largest oil producing field, rose by 130 kb/d m-o-m to 980kb/d – a new record and 100 kb/d higher than a year ago. Petrobras has started up two new units at the field over the past year, including the P-69 that started up at the Lula Extreme South last October and the P-67 that was installed at Lula North in February. Production from the Búzios field increased by 100 kb/d, to 290 kb/d, with output from four FPSOs. In contrast, production from the more mature Campos basin held steady m-o-m at around 1 mb/d. Output declines slowed to

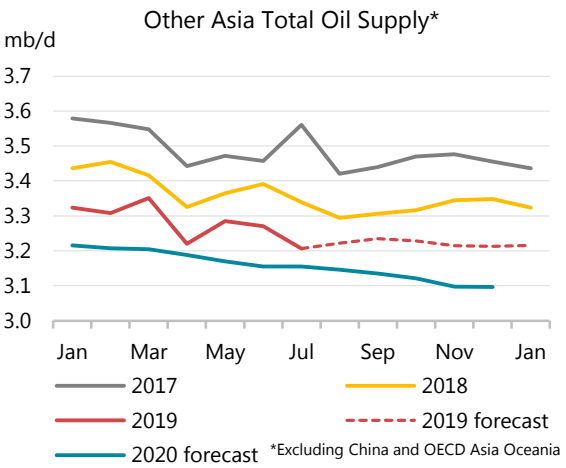
125 kb/d, helped by the start-up of the Tartaruga Verde field in June last year. The forecast for Brazilian oil production has been largely unchanged since last month's *Report*, with growth of 175 kb/d expected this year followed by a 330 kb/d increase in 2020.





Chinese crude oil production slumped by 80 kb/d m-o-m in July, in line with expectations and seasonal trends. At 3.78 mb/d, crude oil output was nevertheless 100 kb/d higher than a year earlier, albeit compared with a weak July performance last year. Higher output this year boosted earnings of China's three largest producers. PetroChina reported its 1H19 net profits rose 3.6% from a year earlier, as crude oil production increased by 3.2% over the same period to 2.5 mb/d. Sinopec, meanwhile, reported upstream revenue rising 18% y-o-y during 1H19, as higher y-o-y gas production offset marginally lower overseas oil output. The company's domestic crude oil production rose by 0.3% y-o-y to 650 kb/d. Lastly, CNOOC reported a 19% rise in first half profits as oil and gas sales rose 4.4% over the period. CNOOC said six new projects will start operation this year.





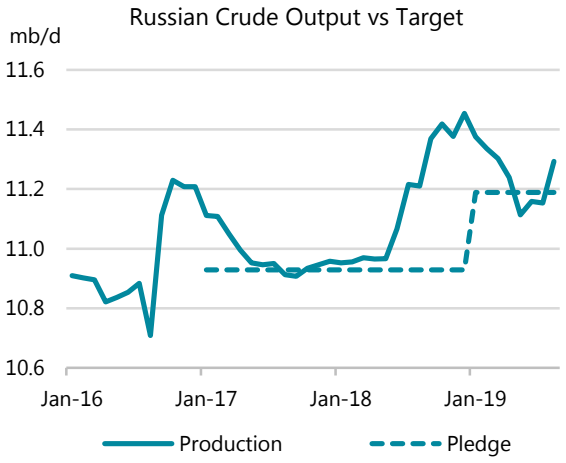
Total oil supply from other Asian countries eased by 65 kb/d in July, to 3.2 mb/d, some 130 kb/d below a year ago. The biggest decline stemmed from **Malaysia**, where oil production is estimated to have fallen by 45 kb/d m-o-m, to 650 kb/d. Royal Dutch Shell said earlier this year that it planned to carry out maintenance at the Gumusut-Kakap field lasting 27 days in July. Exports of Kimanis crude fell to three cargoes in July, down from eight cargoes in June. The maintenance includes development work that is expected to raise capacity at the field by 50 kb/d. Output from Gumusut-Kakap likely rebounded in August when works were completed

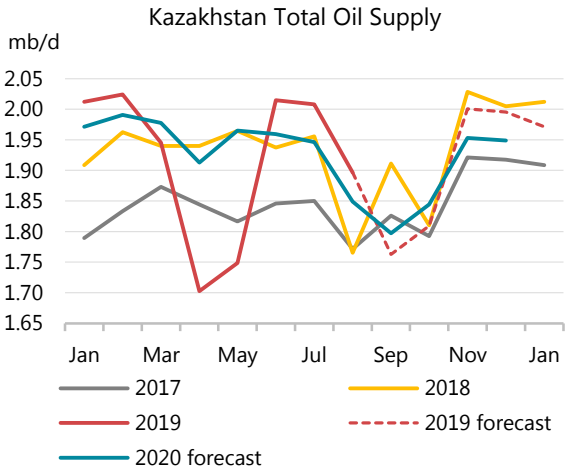
and as phase 2 started up. In addition to Gumusut-Kakap, the Kimani crude grade includes oil from the nearby Malikai oilfield, with total output at around 190 kb/d. Elsewhere, **Vietnam**'s oil output dropped 17 kb/d in July while **Indian** and **Indonesian** supplies held largely steady.

In contrast, **Australian** oil production is on the rise. In June, supply rose to 430 kb/d, up 40 kb/d m-o-m and 100 kb/d higher than a year ago. New condensate and NGL supply from the Ichthys and Wheatstone projects underpins the increase.

Russian crude oil production surged by 140 kb/d in August, to 11.3 mb/d, as issues related to the Druzhbha contamination incident were mostly resolved. Rosneft propelled the increase reporting an increase of 184 kb/d m-o-m. Indeed the bulk of the increase came from the company's largest subsidiary Yuganskneftegas, which had been forced to shut in output in July. Yugansk production rose by 170 kb/d m-o-m to a new record high of 1.44 mb/d, more than reversing July's 70 kb/d drop. Production sharing agreements increased production by 35 kb/d m-o-m to 390 kb/d, on higher volumes from the Exxon Neftegas Sakhalin 1 project after maintenance had curbed output in June and July. Lukoil, GazpromNeft, and Tatneft posted m-o-m declines of 12 kb/d, 35 kb/d and 24 kb/d, respectively. In August, GazpromNeft's 65 kb/d Prirazlomnoye field went offline for a four-week turnaround.

Overall, production was 80 kb/d higher than a year ago and 125 kb/d below the October 2018 level, implying a 53% compliance rate with agreed cuts. It is likely that production will fall back in September and we have held Russian crude and condensate production steady at around 11.2 mb/d through the end of 2020. Including NGLs, supply averages close to 11.6 mb/d for both 2019 and 2020.



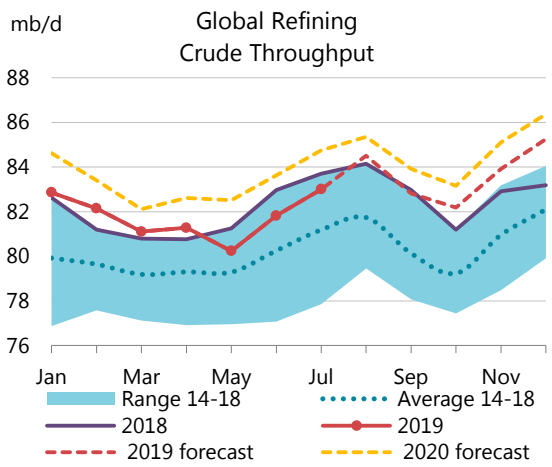


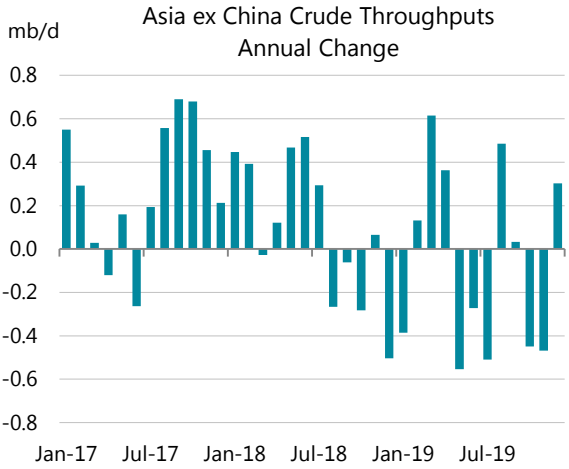
Oil production in **Kazakhstan** dropped by 110 kb/d in August, to just shy of 1.9 mb/d. The decline was in line with expectations as maintenance at Tengiz had been flagged. CPC loadings eased by 70 kb/d in August, to 1.36 mb/d, with lower shipments from Tengiz (-50 kb/d) and other producers (-70 kb/d). Karachaganak and Kashagan shipments held steady. Output is expected to remain constrained through September as Tengiz maintenance continues and as scheduled work at the Karachaganak field commences. **Azerbaijan**'s crude and condensate production dropped by 30 kb/d in August, to 750 kb/d. The bulk of the decline stemmed from lower condensate supply from the Shah Deniz gas field. So far this year, oil output has averaged 769 kb/d, 7 kb/d lower than Azerbaijan's OPEC+ output commitment.

Refining

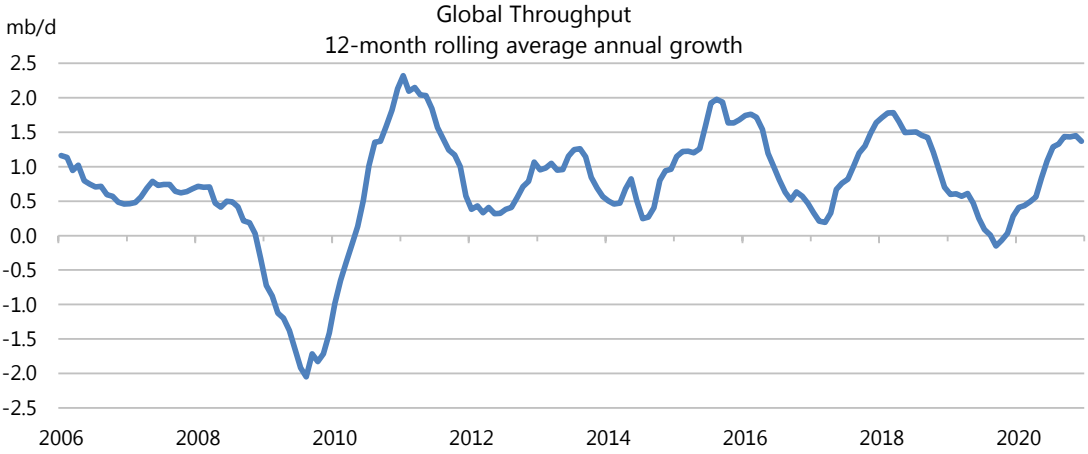
Overview

Global refining throughput in July was down year-on-year (y-o-y) for the third consecutive month even as the annual decline slowed from May-June's average 1.1 mb/d to 0.7 mb/d. The only significant y-o-y growth was observed in China. The rest of Asia continued to decline annually, partly under pressure from Chinese product exports, which have soared by 350 kb/d, or 40%, or over the last two years.





In 4Q19, global runs are forecast 340 kb/d higher quarter-on-quarter (q-o-q) and 1.4 mb/d higher y-o-y. This particularly strong growth, compared to declines in 2Q19-3Q19, is partially due to the base year effect, as in 4Q18 global throughput declined by 380 kb/d y-o-y, but also stems from higher expected demand growth in 4Q19. In 2020, annual growth is expected to remain robust, at 1.4 mb/d. Our throughput forecast to December 2020 fits into a 30-month cycle of refining activity, clearly observed since the recovery from the 2007-08 financial crisis. Production of compliant fuels to meet the International Maritime Organisation's (IMO) new sulphur rules is also expected to support this growth rate.

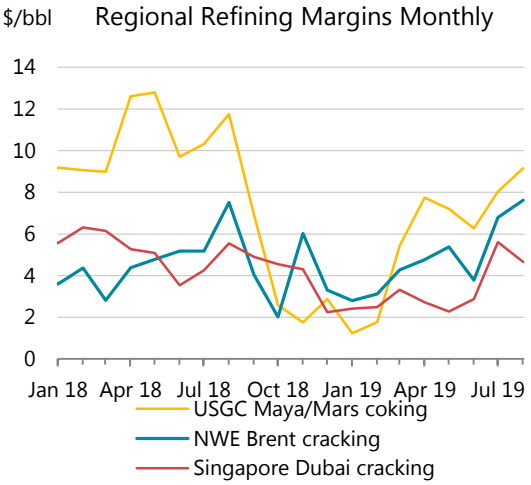


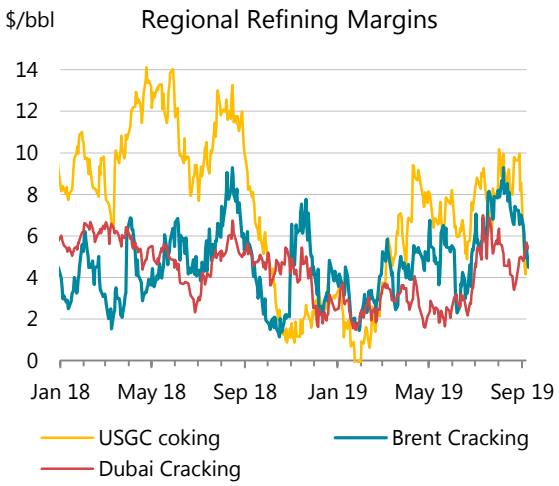
Global Refinery Crude Throughput[1] (million barrels per day)											
	2018	1Q19	2Q19	Jul 19	Aug 19	Sep 19	3Q19	Oct 19	4Q19	2019	2020
Americas	**19.4**	**18.7**	**19.2**	19.8	20.1	19.4	**19.8**	19.5	**19.8**	**19.4**	**19.7**
Europe	**12.2**	**12.3**	**11.9**	12.4	12.9	12.3	**12.5**	12.3	**12.6**	**12.3**	**12.3**
Asia Oceania	**7.0**	**7.1**	**6.6**	6.7	7.2	6.9	**7.0**	6.6	**6.9**	**6.9**	**6.9**
Total OECD	**38.6**	**38.1**	**37.8**	38.9	40.2	38.6	**39.3**	38.4	**39.2**	**38.6**	**39.0**
FSU	**6.8**	**6.8**	**6.5**	7.0	7.0	6.7	**6.9**	6.6	**6.8**	**6.7**	**6.8**
Non-OECD Europe	**0.6**	**0.5**	**0.6**	0.6	0.6	0.7	**0.6**	0.6	**0.6**	**0.6**	**0.6**
China	**12.1**	**12.7**	**12.8**	12.4	12.6	12.7	**12.6**	12.9	**12.9**	**12.7**	**13.0**
Other Asia	**10.6**	**10.9**	**10.5**	10.6	10.8	10.6	**10.7**	10.3	**10.6**	**10.7**	**11.1**
Latin America	**3.5**	**3.1**	**3.2**	3.2	3.1	3.3	**3.2**	3.2	**3.2**	**3.2**	**3.1**
Middle East	**7.8**	**7.9**	**7.8**	8.1	8.0	8.0	**8.0**	8.0	**8.2**	**8.0**	**8.3**
Africa	**2.1**	**2.0**	**2.0**	2.0	2.1	2.1	**2.1**	2.1	**2.1**	**2.0**	**2.0**
Total Non-OECD	**43.6**	**43.9**	**43.3**	44.0	44.2	44.1	**44.1**	43.7	**44.5**	**43.9**	**44.9**
Total	**82.2**	**81.9**	**81.0**	82.9	84.4	82.7	**83.3**	82.1	**83.7**	**82.5**	**83.9**
Year-on-year change	*0.7*	*0.5*	*-0.6*	*-0.7*	*0.3*	*-0.2*	*-0.2*	*1.0*	*1.4*	*0.3*	*1.4*

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

Margins

Refining margins were mixed in August. Lower crude prices should have been supportive, but product cracks were likely under pressure from increased refining activity. Runs in August are estimated to have been 1.5 mb/d higher m-o-m and 0.3 mb/d higher y-o-y. However, in 3Q19 refined product markets are expected to be balanced, which will not allow the seasonal stockbuilds. This is because demand for refined products will increase by 1.8 mb/d q-o-q.





Sour crude refining economics in Europe deteriorated on stronger Urals differentials and a sharp decline in high-sulphur fuel oil (HSFO) cracks, which fell back to their lowest level since March 2018. This could be due to the double effect of a recovery in refining activity and the preparations to meet the new IMO regulations. The preparations include emptying storage tanks to make room for compliant fuels and blendstocks. The crack for low-sulphur fuel oil (LSFO), which is not compatible with the new IMO rules, turned negative again after pricing in positive territory and at historical highs in July.

In the US Gulf Coast, some sour crude margins made modest gains, as differentials to sweet grades narrowed. In the US Midwest, refining margins tumbled by $6-8/bbl m-o-m as runs reached record monthly rates. In Singapore, HSFO cracks flipped from a positive $3.35/bbl to

negative $4.8/bbl, pushing sour margins lower. LSFO cracks against benchmark Dubai fell from $13/bbl into negative territory.

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

	Monthly Average				Change	Average for week ending:				
	May 19	Jun 19	Jul 19	Aug 19	Aug 19-Jul 19	09 Aug	16 Aug	23 Aug	30 Aug	06 Sep
NW Europe										
Brent (Cracking)	5.38	3.78	6.79	7.62	0.83	8.49	7.94	6.92	6.84	5.69
Urals (Cracking)	4.50	4.67	6.55	5.64	-0.92	6.37	5.92	5.06	5.12	5.35
Brent (Hydroskimming)	1.41	1.52	4.18	4.40	0.21	5.12	4.36	4.07	3.75	2.90
Urals (Hydroskimming)	-0.70	0.81	2.46	-0.60	-3.06	0.66	-0.87	-1.44	-1.31	-0.86
Mediterranean										
Es Sider (Cracking)	4.54	4.58	7.93	8.26	0.33	9.14	8.74	7.53	7.23	6.44
Urals (Cracking)	3.18	4.97	6.62	5.00	-1.62	5.73	4.93	4.27	4.75	5.38
Es Sider (Hydroskimming)	1.28	2.44	5.62	5.35	-0.27	6.27	5.49	4.85	4.29	3.57
Urals (Hydroskimming)	-1.94	0.69	2.30	-1.65	-3.95	-0.25	-2.42	-2.76	-2.11	-1.93
US Gulf Coast										
Mars (Cracking)	4.11	4.65	6.01	2.49	-3.52	3.62	0.53	1.40	2.61	1.53
50/50 HLS/LLS (Coking)	10.64	11.12	13.73	11.60	-2.13	11.76	10.23	11.80	11.38	9.30
50/50 Maya/Mars (Coking)	7.21	6.27	8.03	9.16	1.13	9.35	8.63	9.19	9.09	4.70
ASCI (Coking)	8.03	8.36	9.59	8.86	-0.73	8.89	7.42	8.77	9.81	7.77
US Midwest										
30/70 WCS/Bakken (Cracking	23.27	18.87	18.76	11.04	-7.71	11.63	9.78	10.28	11.19	10.22
Bakken (Cracking)	25.34	20.50	20.40	13.97	-6.43	13.55	13.47	13.48	14.82	12.79
WTI (Coking)	24.97	21.12	21.01	14.38	-6.63	15.71	13.80	13.60	12.86	11.27
30/70 WCS/Bakken (Coking)	26.22	21.07	20.86	14.79	-6.08	15.18	13.96	14.51	14.82	12.95
Singapore										
Dubai (Hydroskimming)	-1.57	-0.07	3.56	0.29	-3.27	1.11	-1.22	-1.36	1.30	1.09
Tapis (Hydroskimming)	-0.93	-0.62	3.78	2.10	-1.69	3.49	1.74	1.10	1.11	-0.72
Dubai (Hydrocracking)	2.28	2.87	5.61	4.66	-0.95	5.14	4.57	3.66	4.86	5.18
Tapis (Hydrocracking)	0.60	-0.55	3.48	4.70	1.22	5.82	5.39	4.22	3.61	2.09

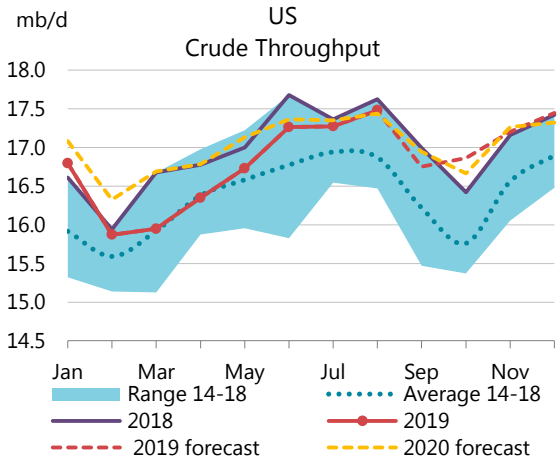
[1] Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should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

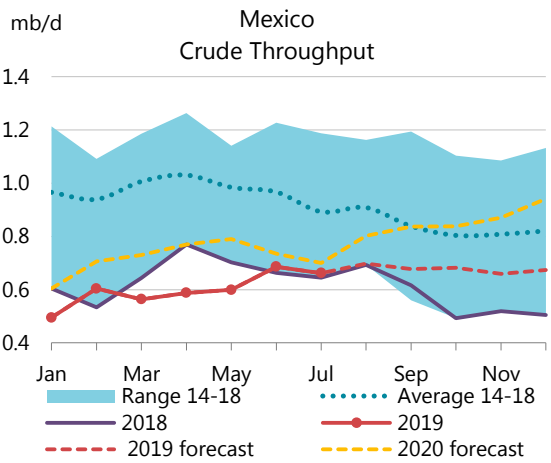
Source: IEA, KBC Advanced Technologies (KBC)

OECD refinery throughput

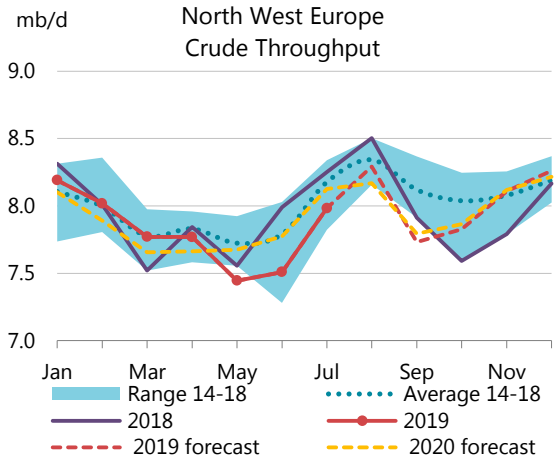
Preliminary July data for the OECD came in below expectations, with runs down y-o-y in all regions, by a total 0.7 mb/d. In North America, with Mexico's runs stabilised, US refiners are the main source of annual declines, with runs remaining shy of the 2018 record seasonal levels. European refinery issues and apparent run cuts in Korea were also major factors in July.

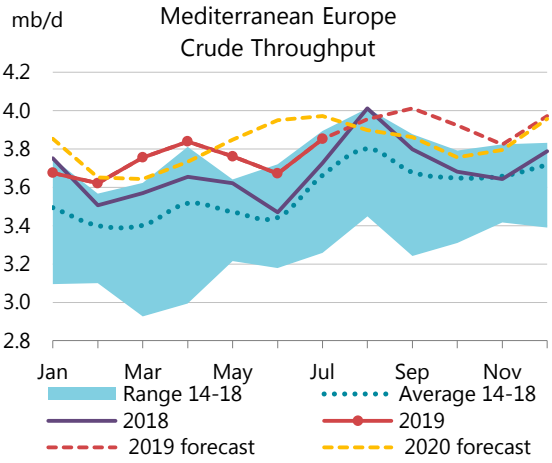
US throughput in August continued to trail behind year-ago levels. However, excluding the impact of the closure of the PES refinery in Philadelphia, runs would have been up y-o-y. PADD 2 (US Midwest) was the best performer with throughput surging to record high levels of 4.1 mb/d. In PADD 3 throughput was lower by 205 kb/d from the near-record year-ago levels. Meanwhile, a takeover plan of the PES refinery may yet see the plant restart operations, but there are major financial and legal challenges.



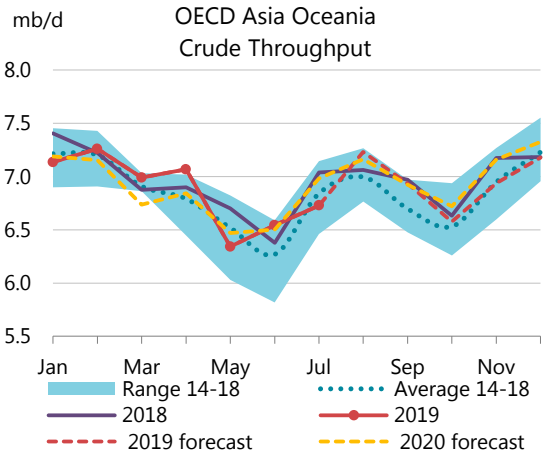


In North West Europe overall performance in July was affected by the heavyweights **Germany** and **France**, which were down y-o-y by a combined 175 kb/d even as French throughput gained 185 kb/d m-o-m. With just over three months before the new IMO rules are implemented, France remains the largest middle distillates importer in the world, with average volumes above 500 kb/d. In Mediterranean Europe, higher **Italian** activity supported regional runs, even as the growth in **Turkey** came to an abrupt halt.





In OECD Asia, **Korean** throughput continues to underwhelm, with year-to-date throughput down 60 kb/d y-o-y. Runs were up 115 kb/d m-o-m, possibly in response to stronger July margins. **Japanese** throughput has so far been almost flat this year, compared to a 125 kb/d decline in the same period of last year. **Australian** runs have been flat year-to-date, after seeing a 55 kb/d growth in 2018. Meanwhile, the country has turned into the second largest middle distillates importer in the world.



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

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Change from Jun 19	Change from Jul 18	Utilisation rate [1] Jul 19	Utilisation rate [1] Jul 18
US[2]	15.86	15.94	16.34	16.72	17.25	17.26	0.01	-0.09	91%	91%
Canada	1.74	1.75	1.55	1.63	1.77	1.69	-0.08	-0.08	84%	88%
Chile	0.20	0.19	0.20	0.22	0.20	0.20	-0.01	0.02	87%	79%
Mexico	0.59	0.55	0.58	0.59	0.68	0.65	-0.02	0.02	40%	38%
OECD Americas[3]	**18.40**	**18.43**	**18.67**	**19.16**	**19.90**	**19.81**	**-0.10**	**-0.14**	**86%**	**87%**
France	1.17	1.04	1.04	0.99	0.90	1.08	0.19	-0.10	88%	96%
Germany	1.74	1.73	1.71	1.65	1.75	1.83	0.08	-0.08	91%	94%
Italy	1.20	1.24	1.30	1.33	1.37	1.46	0.09	0.13	84%	76%
Netherlands	1.12	1.16	1.09	1.04	0.96	1.03	0.07	-0.04	80%	82%
Spain	1.29	1.37	1.38	1.29	1.21	1.30	0.08	0.00	92%	92%
United Kingdom	1.09	1.02	1.08	1.03	0.98	1.07	0.09	-0.02	84%	86%
Other OECD Europe	4.59	4.54	4.56	4.40	4.57	4.64	0.08	-0.09	89%	94%
OECD Europe	**12.20**	**12.10**	**12.16**	**11.73**	**11.73**	**12.40**	**0.67**	**-0.20**	**86%**	**89%**
Japan	3.19	3.14	3.08	2.72	2.87	2.89	0.03	-0.08	81%	84%
South Korea	3.20	2.97	3.15	2.82	2.82	2.93	0.11	-0.22	86%	96%
Other Asia Oceania	0.86	0.86	0.82	0.79	0.85	0.89	0.04	-0.01	102%	104%
OECD Asia Oceania	**7.25**	**6.98**	**7.06**	**6.33**	**6.53**	**6.72**	**0.19**	**-0.31**	**86%**	**91%**
OECD Total	**37.84**	**37.52**	**37.89**	**37.22**	**38.17**	**38.93**	**0.76**	**-0.66**	**86%**	**88%**

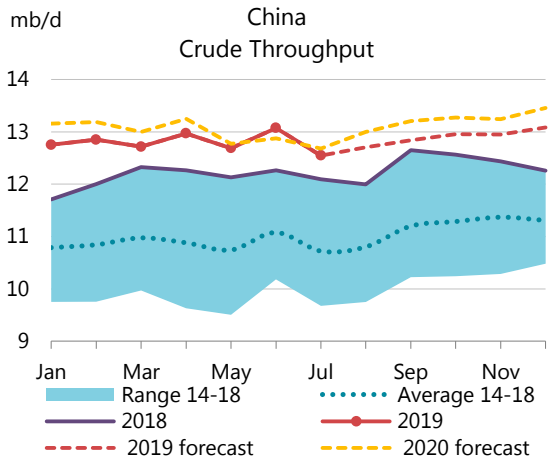
1 Expressed as a percentage, based on crude throughput and current operable refining capacity

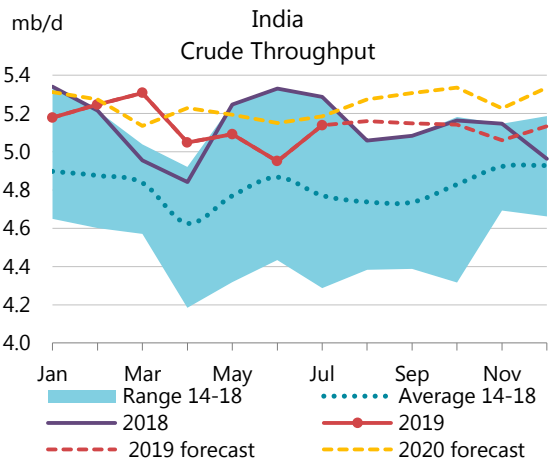
2 US50

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

Non-OECD refinery throughput

The July estimate for non-OECD throughput has been revised down on new Chinese data. In 4Q19 runs are forecast 335 kb/d lower due to increased maintenance. This year's growth forecast, at just under 300 kb/d, would be the lowest in our records dating back to 2004.



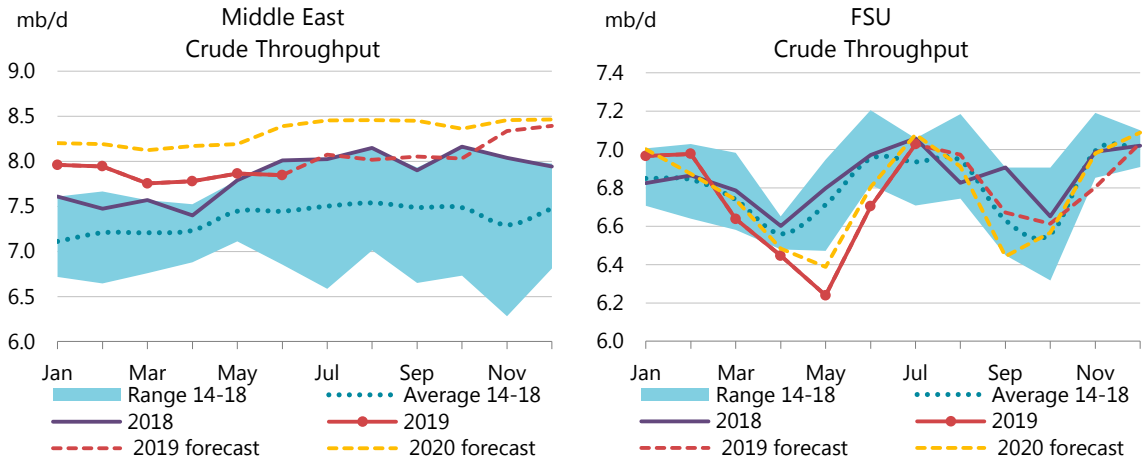


Chinese throughput slumped 530 kb/d from June's record high to 12.5 mb/d. The Shandong province accounted for the bulk of the slowdown as runs fell to 2.2 mb/d, the lowest in two years. This could be a cyclical issue, related to a local product stocks overhang, given the export controls. Or, this could be the start of the structural pressures arising from the large-scale independent refineries looking for market share for their transport fuel output. For August, runs

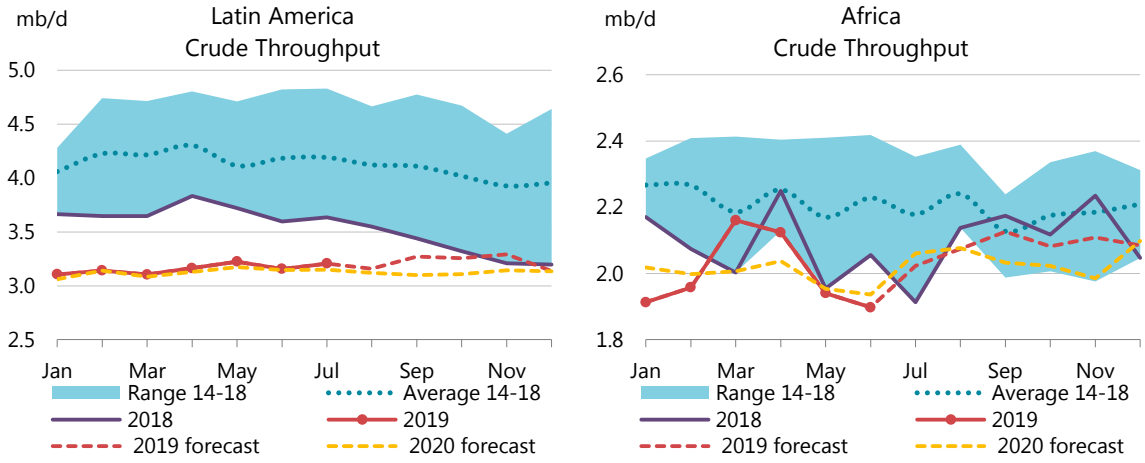
are estimated 160 kb/d higher m-o-m despite temporary shutdowns in several refineries in Shandong and Jiangsu provinces caused by the deadly typhoon Lekima.

Refining runs in **India** were up 190 kb/d m-o-m in July, to 5.1 mb/d, but remained well below last year's levels. Runs were down m-o-m in Thailand on refinery maintenance, while in **Chinese Taipei** throughput remained largely flat. The **Philippines** has not reported official data since March, but Petron said it had restarted its 180 kb/d Limay refinery in mid-August after a four-month shutdown caused by an earthquake.

In the Middle East, throughput declined y-o-y in June for the first time this year. This was due to **Saudi Arabian** runs falling by 290 kb/d y-o-y. There has been no recent news on a possible start-up date for the 400 kb/d Jazan refinery, which was initially scheduled for a 2016 launch.



Russian refining activity was stable in August from July levels, but finally showed a y-o-y increase of 210 kb/d, after five months of declines. **Belarus** reported May throughput numbers for the first time, showing a lower impact from the Druzhba shutdown than expected. From 380 kb/d, runs were down only 50 kb/d to 330 kb/d.



In Latin America, throughput remains anaemic, with runs fluctuating at just above 3 mb/d, having lost 1.6 mb/d in the last five years and with little prospects for growth in the near future. **Colombian** 2Q19 data were updated following Ecopetrol's financial results release, and were some 20 kb/d higher than our initial estimate.

Sparse data updates for Africa put June estimates at 160 kb/d lower y-o-y and remaining below the 2 mb/d threshold, which has been the case for most time this year. **Nigeria** is set to receive Dangote refinery's crude distillation tower, the single largest such unit ever built, according to the manufacturer Sinopec that shipped it at the end of July from its Ningbo base, but operations are not expected to start before 2022.

Box 5. IMO for refiners: it is more of an opportunity than a challenge

The International Maritime Organisation adopted new marine bunker sulphur emission rules in October 2016. Our first forecast published after their adoption, in March 2017, envisaged a possible 2 mb/d shortage of compliant fuels in 2020 based on forecast refinery capacity, crude oil output, diesel demand, bunker fuel demand and assumptions for scrubber uptake. By the time we published *Oil 2019 – Analysis and Forecast to 2024* last March, several key parameters had moved: onshore diesel demand forecast for 2020 was about 0.8 mb/d lower; the US light tight oil production forecast was about 3 mb/d higher; refining capacity forecast was 2.8 mb/d higher; scrubbers were estimated to consume 250 kb/d more high-sulphur fuel oil.

The significance of the US LTO forecast is twofold: first, it is a low-sulphur and low-residue grade that can be processed by simple refineries, which tend to be constrained by residue upgrading and desulphurisation capacity and thus are the marginal refiners. Most shale grades can yield IMO 2020-compliant fuel oil without additional processing needs; second, a side effect of LTO growth has been the revival of OPEC output cuts, which tend to affect predominantly medium-heavy high sulphur crude oil output.

With these changes, the compliant bunker fuel deficit narrowed to 0.9 mb/d in our March 2019 forecast, of which non-compliance, mostly for logistical reasons, accounted for 0.7 mb/d. This would result in a 0.2 mb/d gasoil stock draw, or a total of 70 mb for the year, which is about 10% of OECD total middle distillate stocks as of July 2019. In principle, this level of stock draws seems possible without major implications for prices. Moreover, compliant fuel and blendstocks in floating storage accumulated by industry players amounted to about 35 mb in early September, with volumes likely to rise further before January.

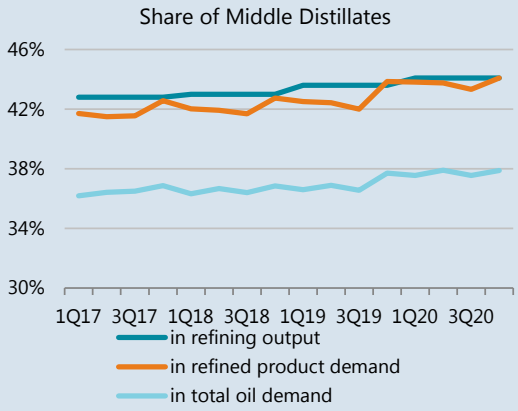
Starting in the June edition of this *Report*, we have published a monthly forecast for 2020. Our product supply model does not have monthly granularity, however, hence we are not able to provide a monthly view of diesel and bunker fuel balances in 2020. However, several developments in the last six months now point at the likelihood of an even smoother start to the implementation.

Refining capacity in 2020 is now expected 0.3 mb/d higher than forecast in March. However, refinery throughput is forecast 0.5 mb/d lower. This is because overall oil demand is 300 kb/d lower, while refined product demand is 550 kb/d lower than forecast in Oil 2019. Lower runs mean that the average complexity of operating refining assets should be higher, as there is less need for marginal, simple refineries. For the moment, plans to restart several units at two previously mothballed refineries, St Croix in the Virgin Islands and Wilhelmshaven in Germany, to cater specifically for the low-sulphur marine bunkers market, are going ahead. At the same time, two new projects have been announced for the same purpose. The UAE-based Brooge Petroleum and Gas Investment Company is working on a 250 kb/d project at Fujairah, to be built in several phases. In the US Gulf Coast, bunker supplier GCC Bunkers has partnered with Texas International Terminals for a 50 kb/d distillation project aimed at supplying the bunker market.

Bunker demand is now lower due to the ongoing contraction in global trade (see *Demand*).

US crude oil output forecast is also higher, by about 300 kb/d. In general, crude balances are expected to be less tight in 2020 than forecast at the start of this year. Refineries, especially in Asia, but also in Europe, are increasingly choosing US grades with the specific purpose of producing very low sulphur (VLSFO) bunker fuels.

These factors are the most visible and their impact is reasonably easy to quantify. The less visible aspect of preparations, and something that will vary greatly between individual refineries, is the ability to switch yields between other products and compliant marine fuels. Over the last few months several major refiners have announced their readiness to provide VLSFO to the bunker market starting either in 4Q19 or 1Q20. What is not clear is whether the nomenclature is being used consistently. VLSFO could mean mostly a marine distillate-based product, or de-sulphurised/straight-run residue, or a blend of any material of a range between HSFO and diesel. Therefore, it is not possible to compare the declared availabilities of VLSFO with our forecast of 1 mb/d published in *Oil 2019*, most of which was a fuel oil material, rather than a blend. Marine gasoil is still expected to account for the largest share in the switch at the start of the implementation period. We reviewed compliant fuel availability in terms of middle distillates supply and demand.



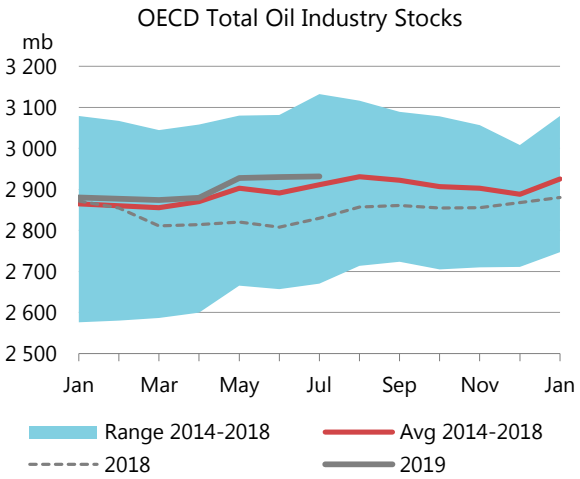
Middle distillates, a collective term for jet/kerosene, gasoil and heating oils, are the backbone of global oil demand and refinery margins. They account for about 36.7% of total oil demand, and this share is set to jump to 37.7 % with the implementation of the new IMO rules. However, since they have relatively few alternative sources (compared to LPG or gasoline), the share of refinery-produced diesel in total demand for refined products is significantly higher: 42.2% currently and increasing to 43.8% in 2020. This new, higher level is reasonably within the expected refinery yields. The levels of diesel cracks observed in recent years indirectly confirm that in principle middle distillate production capacity is far from stretched, and likely there is spare capacity, before factoring in new units coming online.

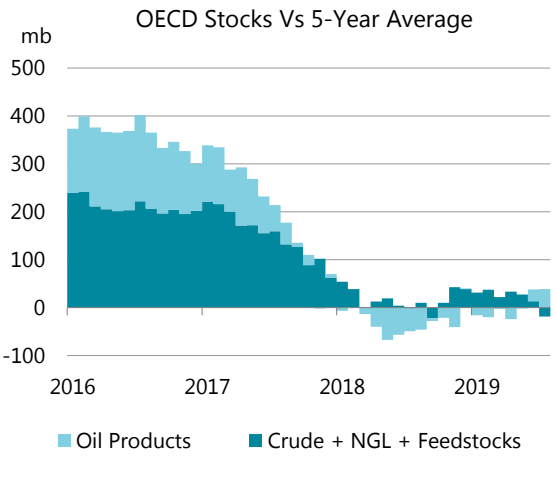
Naturally, refining throughput fluctuations will affect the total supply of middle distillates. Given the seasonality of refining activity, an interesting picture emerges for 2020 based on our current forecast of refinery throughput. In 1Q20, refined product balances, as runs increase 1.3 mb/d y-o-y, imply a 2 mb/d total product stock build, a significant portion of which should be middle distillates, especially as their demand seasonally declines by 0.6 mb/d. Thus, the start of the IMO 2020 implementation could well be much smoother than expected. This may not only allow the market to meet the incremental bunker demand, but also to store fuel or components. On the contrary, the availability will be very stretched in 2Q20 as demand increases by 0.6 mb/d q-o-q while runs decline by as much seasonally. Thus, the possibility of a supply crunch shifts to 1 April 2020 from 1 January. In the second half of the year, middle distillates balances will likely stabilise again with the expected growth in supply.

Stocks

Overview

OECD total commercial stocks increased by 1.5 mb month-on-month (m-o-m) in July to 2 931 mb, the fourth straight monthly increase. They reached the highest level since September 2017 and are 19.7 mb above the five-year average. The gain was less than the average of 20.1 mb for the month as crude oil showed a large draw. Stocks in terms of days of forward demand rose by 0.1 days to 60.5 days, which is 1 day below the average.





Crude oil inventories fell by a large 36.7 mb to 1 086 mb, more than three times the usual decrease for the month. OECD Americas showed a large contraction of 24.9 mb due to higher refinery runs and lower crude imports. Crude stocks in Europe and Asia Oceania fell by 8.2 mb and 3.6 mb, respectively. Oil product stocks rose by 37.8 mb, attributable to a large build in middle distillates and other products and counter-seasonal gains in gasoline and fuel oil inventories.

Preliminary data for August showed stocks falling in the US, while inventories gained in Europe and Japan. US oil stocks decreased by 6.7 mb as an increase in other products (13.6 mb) was offset by large draws in crude oil (-15.3 mb) and distillates. European oil inventories rose by 8.1 mb owing to increases in middle distillates (6.8 mb) and gasoline (1.8 mb). Crude stocks fell by 0.2 mb. Japanese preliminary data showed a 3 mb increase in total stocks. Middle distillates gained by 4.5 mb, while crude inventories fell by 4.2 mb.

2Q19 v 1Q19 Stock Estimate (Revised)

	mb	mb/d
OECD Americas	52.8	0.6
OECD Europe	-5.5	-0.1
OECD Asia Oceania	8.2	0.1
Total OECD Commercial Stocks	**55.4**	**0.6**
OECD Government Stocks	-8.1	-0.1
Oil in Transit incl. Floating Storage (Refinitiv)	-44.8	-0.5
Non-OECD Crude + NGL (JODI)	-18.5	-0.2
Non-OECD Products (JODI)	8.5	0.1
Fujairah (FEDCom/S&P Global Platts)	-4.6	-0.1
Singapore (Enterprise Singapore)	-4.0	0.0
Total excl. China Balance	**-16.1**	**-0.2**
China Crude Balance	58.4	0.6
Total	**42.3**	**0.5**

In this *Report*, we have amended our 2Q19 stock changes as OECD data for June were revised down. In 2Q19, OECD industry stocks increased by 55.4 mb (610 kb/d) from 1Q19 levels due to higher LPG production in the US which boosted inventories. Elsewhere, crude stocks including NGLs in 15 non-OECD economies (excluding China) fell by 18.5 mb (205 kb/d) according to *JODI* data. The implied crude stocks build in China in 2Q19 was 58.4 mb (640 kb/d). Seaborne oil in transit decreased by 44.8 mb in 2Q19 due to lower exports by OPEC countries and the increasing impact of sanctions against Iran and Venezuela.

Preliminary Industry Stock Change in July 2019 and Second Quarter 2019

	July 2019 (preliminary) (million barrels)				July 2019 (preliminary) (million barrels per day)				Second Quarter 2019 (million barrels per day)			
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
Crude Oil	**-24.9**	**-8.2**	**-3.6**	**-36.7**	**-0.8**	**-0.3**	**-0.1**	**-1.2**	**0.0**	**-0.1**	**-0.1**	**-0.2**
Gasoline	0.3	-0.4	1.8	1.7	0.0	0.0	0.1	0.1	-0.1	-0.1	0.0	-0.2
Middle Distillates	9.6	2.1	3.7	15.4	0.3	0.1	0.1	0.5	-0.1	0.1	0.0	0.1
Residual Fuel Oil	2.9	0.6	-0.5	3.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Other Products	13.0	3.0	1.8	17.8	0.4	0.1	0.1	0.6	0.5	0.0	0.1	0.6
Total Products	**25.7**	**5.2**	**6.9**	**37.8**	**0.8**	**0.2**	**0.2**	**1.2**	**0.4**	**0.0**	**0.1**	**0.5**
Other Oils[1]	-3.7	3.5	0.6	0.4	-0.1	0.1	0.0	0.0	0.2	0.0	0.1	0.2
Total Oil	**-2.8**	**0.5**	**3.9**	**1.5**	**-0.1**	**0.0**	**0.1**	**0.0**	**0.6**	**-0.1**	**0.1**	**0.6**

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

Revisions versus the previous *Report* were relatively large. OECD stocks were revised down by 31.1 mb in June due to the Americas region, where both crude oil and total product inventories decreased by 12.6 mb and 20.4 mb, respectively. European crude inventories in June were revised up (+11.5 mb) and partly offset by a decrease in oil products (-6.5 mb). May stock figures were also changed, mainly in Europe.

Revisions versus August 2019 Oil Market Report

(million barrels)

	Americas		Europe		Asia Oceania		OECD	
	May-19	Jun-19	May-19	Jun-19	May-19	Jun-19	May-19	Jun-19
Crude Oil	**-1.0**	**-12.6**	**14.5**	**11.5**	**0.0**	**-3.1**	**13.5**	**-4.2**
Gasoline	-0.2	-3.6	-2.4	-0.1	0.0	-0.3	-2.6	-4.0
Middle Distillates	-0.1	-4.1	-4.2	-0.2	0.0	0.3	-4.2	-4.1
Residual Fuel Oil	0.0	-0.1	-3.4	-6.0	0.0	0.4	-3.4	-5.6
Other Products	0.0	-12.6	-2.2	-0.3	0.0	-0.6	-2.2	-13.4
Total Products	**-0.2**	**-20.4**	**-12.2**	**-6.5**	**0.0**	**-0.2**	**-12.4**	**-27.1**
Other Oils[1]	0.0	3.3	-2.4	-3.5	0.0	0.4	-2.3	0.2
Total Oil	**-1.2**	**-29.7**	**-0.1**	**1.4**	**0.0**	**-2.9**	**-1.3**	**-31.1**

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

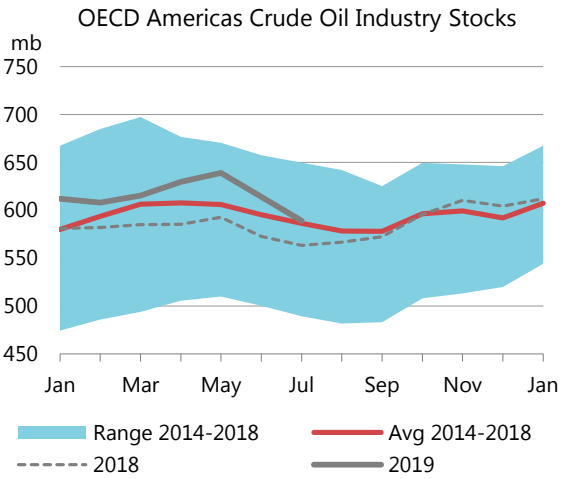
Recent OECD industry stock changes

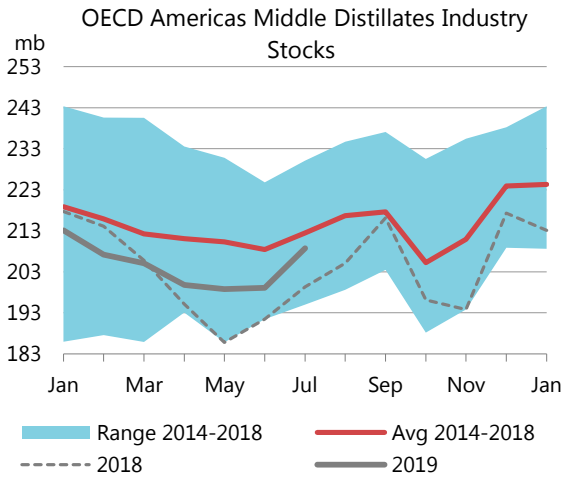
OECD Americas

Industry stocks in the OECD Americas region decreased by 2.8 mb m-o-m in July to 1 558 mb, which is 40.7 mb above the five-year average. By the forward demand metric, they were 0.7 days below the average. The fall was counter-seasonal for the month (usually total oil inventories gain by 9.2 mb) due to large crude oil inventory draws in the US.

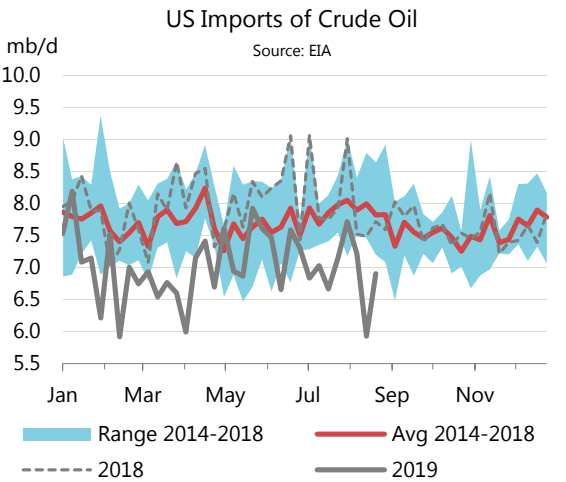
Crude oil inventories fell by 24.9 mb and stood at 589 mb. M-o-m higher refinery throughput in the US and lower crude imports (-335 kb/d to 7 mb/d on average in July according to the *Energy Information Administration*) helped deplete stocks. Lower crude oil production in the Gulf of Mexico caused by Hurricane Barry was also a factor.

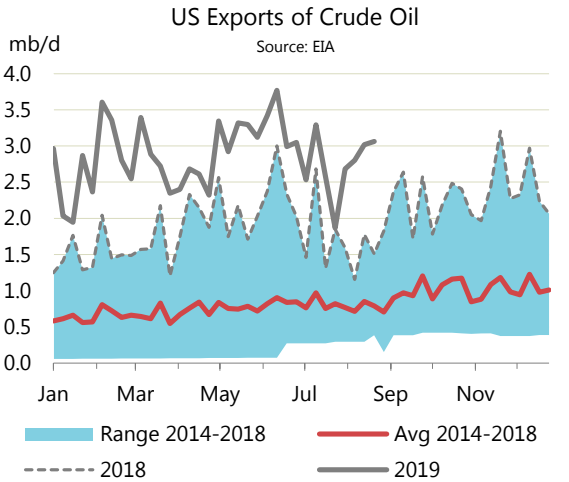
For oil products, total stocks increased by 25.7 mb, which is more than double the five-year average of 11.6 mb. Gasoline inventories gained counter-seasonally by 0.3 mb, amidst m-o-m higher US gasoline prices. Fuel oil also showed a counter-seasonal increase of 2.9 mb. Middle distillates rose by 9.6 mb, larger than the usual increase of 4.1 mb for the month. These changes in distillate products could be attributable to slowing trade and economic activities. Other products gained by 13 mb, which was in line with the usual increase.





Preliminary August data from the *EIA* show a crude stock decrease of 15.3 mb due to higher m-o-m crude exports. The fall was more than double the usual decrease of 7.1 mb. By contrast, total oil products inventories increased by 4.8 mb. Other products gained by 13.6 mb (mainly LPG inventories). Middle distillates and residual fuel oil fell counter-seasonally by 3.4 mb and 1.1 mb, respectively. Gasoline stocks also declined, by 4.3 mb.

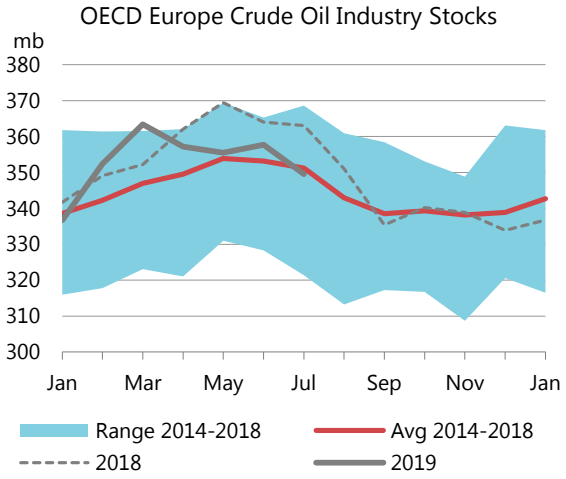


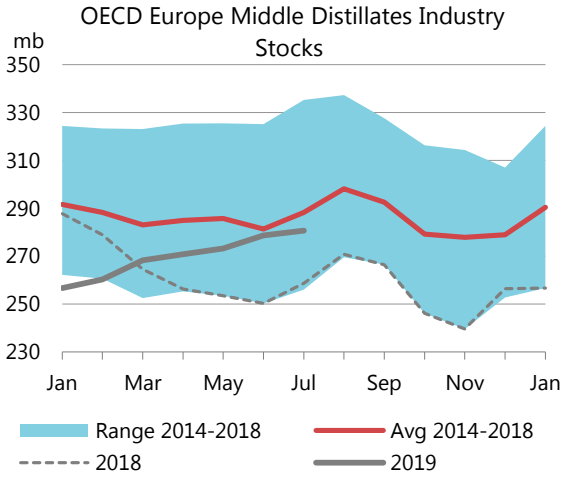


OECD Europe

In July, total commercial stocks in OECD Europe rose by 0.5 mb to 981 mb, which is 11.8 mb above the five-year average. Crude runs in Europe were higher by 670 kb/d m-o-m in July, and crude oil inventories fell by 8.2 mb versus the usual decline of 2 mb. Crude stocks in France and Italy decreased by 2.3 mb and 1.8 mb, respectively.

For products, total inventories increased by 5.2 mb in line with the usual gain. Middle distillate and other oil categories rose by 2.1 mb and 3 mb, respectively. Fuel oil increased counter-seasonally by 0.6 mb. Gasoline stocks fell by 0.4 mb.



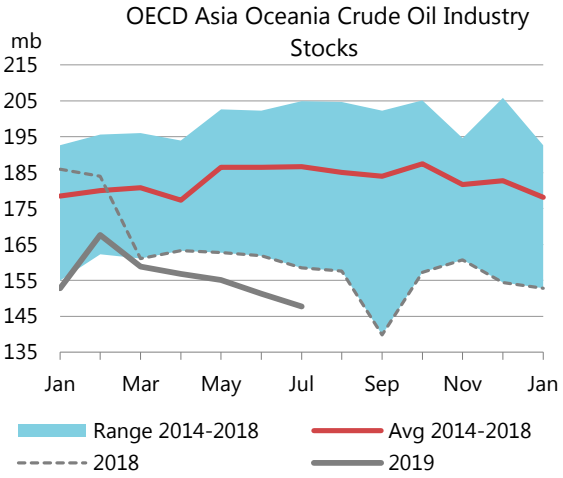


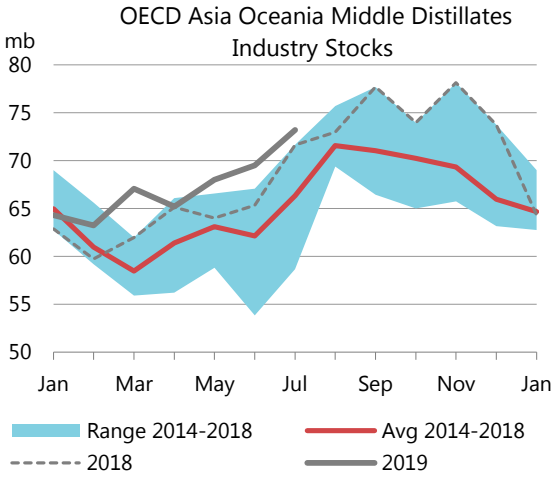
Preliminary data from *Euroilstock* showed inventories increaseing by 8.1 mb m-o-m in August owing to gains in product stocks. Middle distillate (+6.8 mb), gasoline (+1.8 mb) and fuel oil (+0.3 mb) stocks showed an increase, while naphtha (-0.4 mb) stockpiles fell. Crude inventories drew by 0.2 mb.

OECD Asia Oceania

Total industry stocks in the Asia Oceania region increased in July by 3.9 mb to 392 mb, which is 32.8 mb below the five-year average. The gain was lower than the average level of 7.7 mb as crude oil inventories fell counter-seasonally (-3.6 mb). Korean crude oil stocks fell by 5.1 mb, possibly due to higher m-o-m refinery runs (+115 kb/d). Gasoline stocks increased counter-seasonally by 1.8 mb. Middle distillates and other oil inventories also rose by 3.7 mb and 1.8 mb, respectively. Fuel oil stocks fell by 0.5 mb.

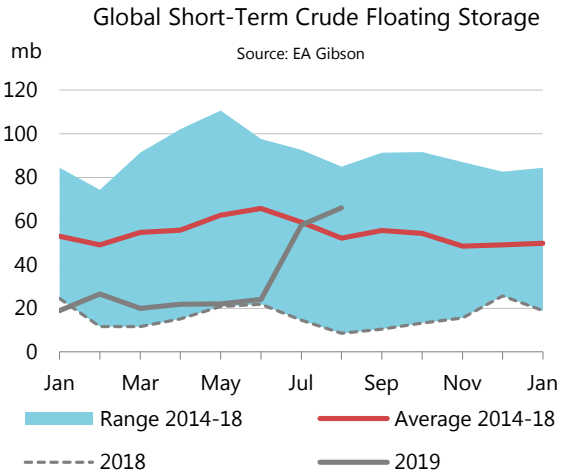
Preliminary data for August from the *Petroleum Association of Japan* show total inventories increasing by 3 mb m-o-m, which is lower than the five-year average gain of 5.5 mb. Crude oil stocks decreased by 4.2 mb, larger than the usual fall of 2.6 mb. Total products increased by 3.8 mb with gains in middle distillates (4.5 mb). Residual fuel and other products stocks fell counter-seasonally by 0.1 mb and 0.5 mb, respectively. Gasoline inventories also decreased by 0.1 mb.

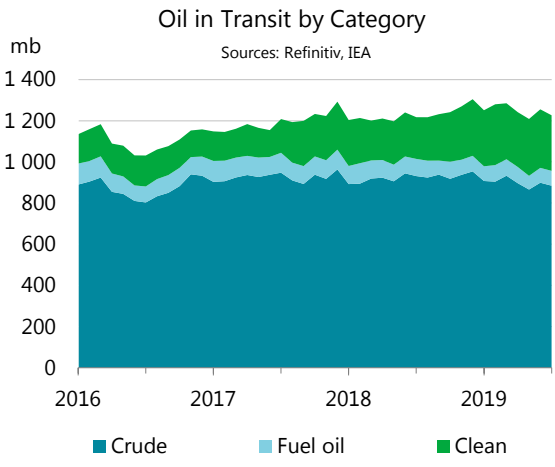




Other stock developments

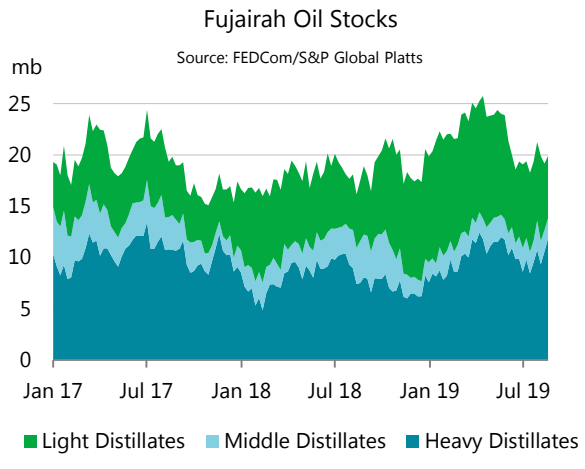
Short-term floating storage of crude oil rose by 7.9 mb in August to 66.1 mb, according to *EA Gibson* data. Storage in the Middle East Gulf increased by 8.1 mb to 57.9 mb as the number of Iranian VLCCs used for storage increased by 3 to 26. Together with Suezmax fleets, the total numbers of vessels thought to store Iranian crude oil is 29.

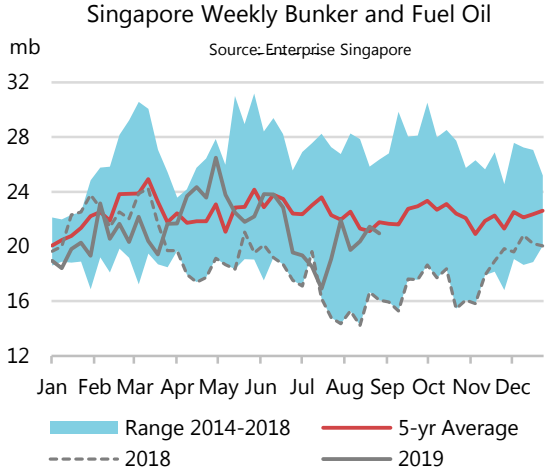




Seaborne oil in transit volumes, based on data from *Refinitiv*, fell by 28.9 mb in July as all categories showed a m-o-m decrease. Due to lower crude exports from OPEC+ producers and the impact of sanctions against Iran and Venezuela, crude oil in transit decreased by 14.3 mb. Clean products also fell by 14.5 mb. Fuel oil decreased by a modest 0.1 mb during the month.

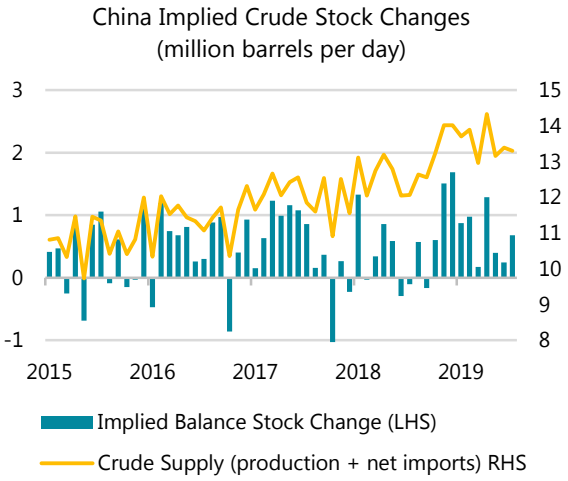
Oil stocks in major bunkering hubs rose in August after three straight months of decreases. In Fujairah, they increased by 1.1 mb m-o-m according to data from *FEDCom and S&P Global Platts*. Heavy distillates inventories gained by 2.7 mb while both light and middle distillates fell by 1.5 mb and 0.1 mb, respectively, during the month. Fuel stocks in Singapore, the world's largest bunkering hub, rose by 4.1 mb in the month based on data from *Enterprise Singapore*. Residual fuel oil stocks increased by 2.2 mb from the lowest level since November 2018. Light and middle distillate inventories also gained by 1.3 mb and 0.7 mb, respectively.





Chinese implied crude stocks built by 21.1 mb (680 kb/d) in July according to figures derived from reported crude production, refinery runs and crude import data. M-o-m higher crude oil import (9.6 mb/d) and lower refinery throughputs compared with their record high in June (-525 kb/d from 13 mb/d in June) could explain the increase for the month.

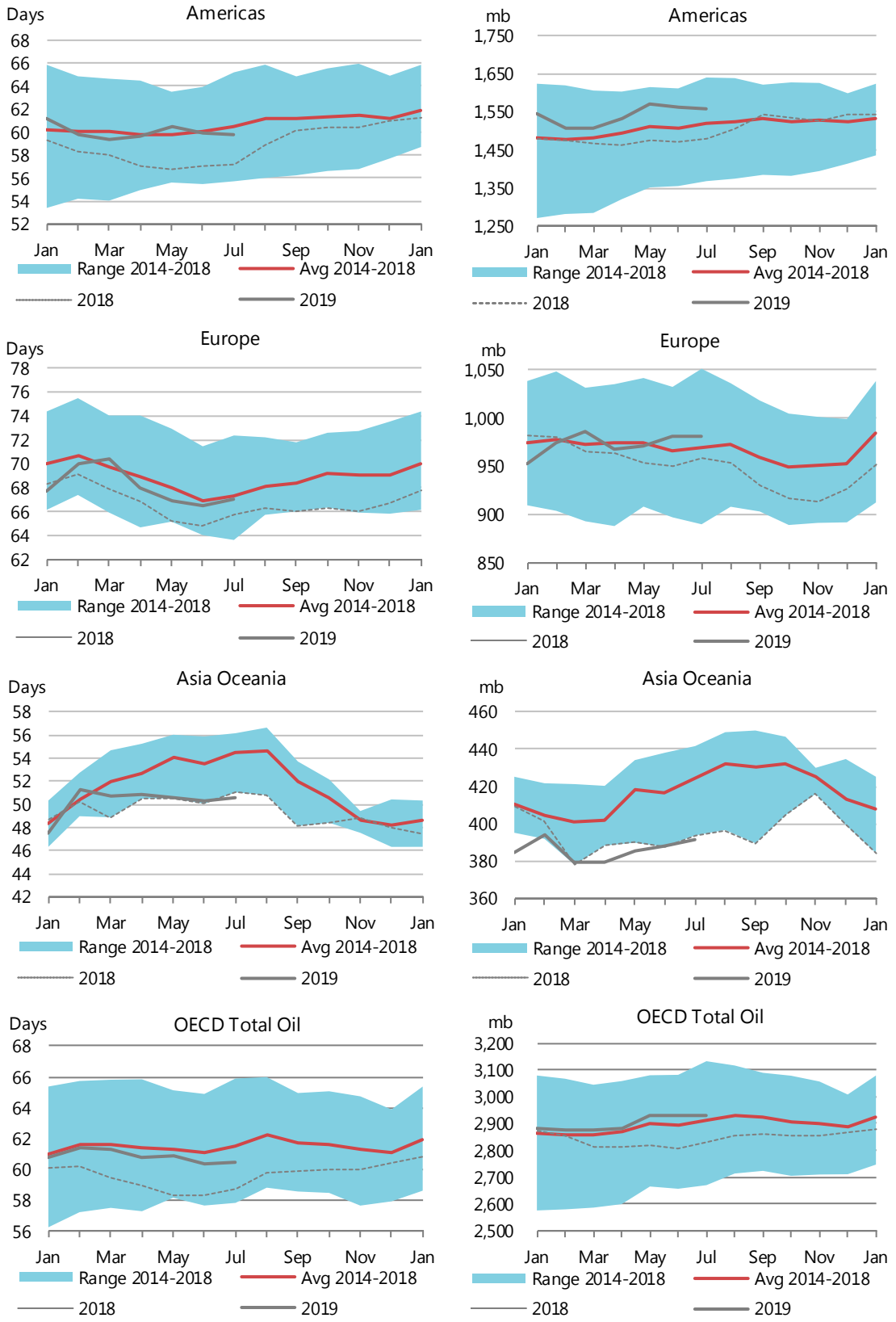
Stockpiles in the 18 non-OECD economies covered by JODI database gained by 6.8 mb m-o-m in June to 573 mb. Crude stocks in Nigeria and Brazil gained by 4.9 mb and 1.8 mb, respectively. By contrast, Chinese Taipei drew their inventories by 3.5 mb. Gabon also decreased crude stockpiles by 1 mb. For oil products, Chinese Taipei and Nigeria increased by 1.2 mb and 1.1 mb, respectively.



Regional OECD End-of-Month Industry Stocks

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

Days[1] **Million Barrels**

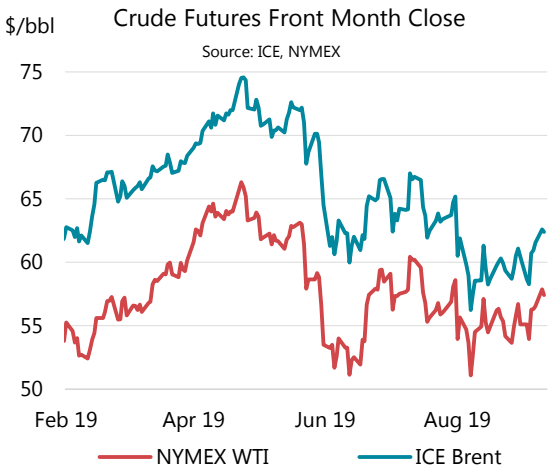


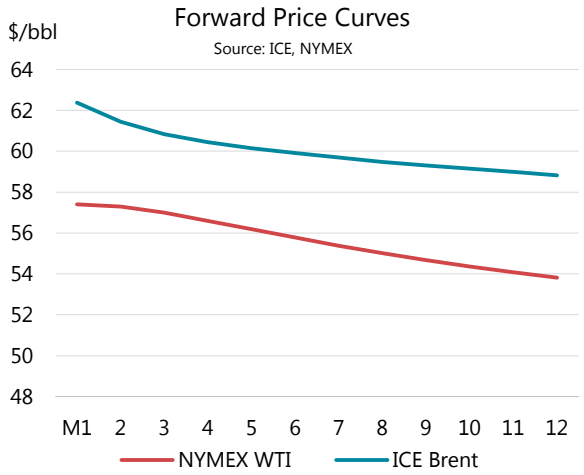
1 Days of forward demand are based on average demand over the next three months

Prices

Overview

Oil prices declined modestly month-on-month (m-o-m) in August. While prices have risen or fallen by up to $3/bbl in a single day they mostly traded in a fairly narrow band at around $60/bbl for ICE Brent and $55/bbl for NYMEX WTI. Increasingly backwardated futures curves indicate that prompt markets are tight despite ongoing concerns about slowing demand growth. There are clear signs that market participants are preparing for the International Maritime Organisations's (IMO) changes to shipping fuel specifications that will come into effect in January 2020. These include stronger differentials for middle distillate-rich crude grades and high volatility of fuel oil cracks.



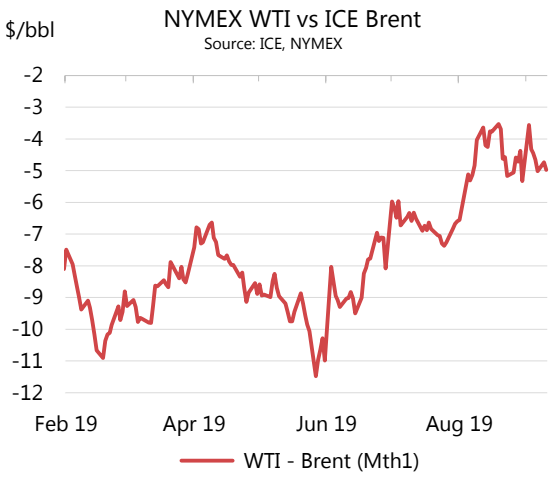


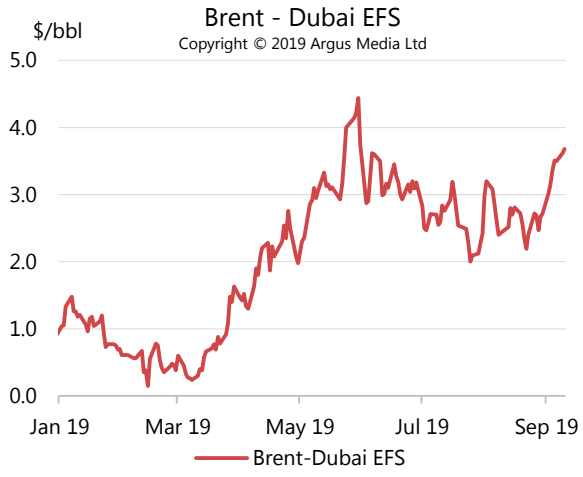
Futures markets

Benchmark crude futures fell to seven month lows on 7 August with ICE Brent at $56.23/bbl and NYMEX WTI at $51.09/bbl. They subsequently recovered but were on average lower m-o-m by $4.71/bbl and $2.71/bbl, respectively. Headline prices are responding to developments in US-China trade negotiations and indicators that suggest slowing economic growth. On the other hand, there are signs that the physical crude market is tightening as refining activity picks up and on ongoing strong compliance with output cuts made by OPEC+ members.

The Brent and Dubai futures curves have been in backwardation for several months and in August the WTI curve flipped from contango to backwardation. WTI for delivery in October 2019 is priced at a premium of $0.40/bbl and $3.58/bbl above contracts three and twelve months out, respectively. The relative strength of prompt WTI came as two new pipelines that connect the Permian Basin to the US Gulf Coast began operations and as US refining activity ticked up. Meanwhile, oil demand growth uncertainty is pressuring contracts further out. For the same reasons, WTI's discount to Brent narrowed for the third consecutive month in August, hitting $3.53bbl on 19 August, a 13 month low.

With sanctions and output curbs mainly limiting the supply of sour grades, the Dubai forward curve steepened in August. At the same time, the elevated Brent-Dubai Exchange of Futures for Swaps (EFS) provided evidence of robust global demand for sweet crude. Consumption of sweet crudes is expected to increase as the new IMO regulations draw near as they yield lower sulphur products. In early September the Brent-Dubai EFS rose to a three month high of $3.68/bbl.





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

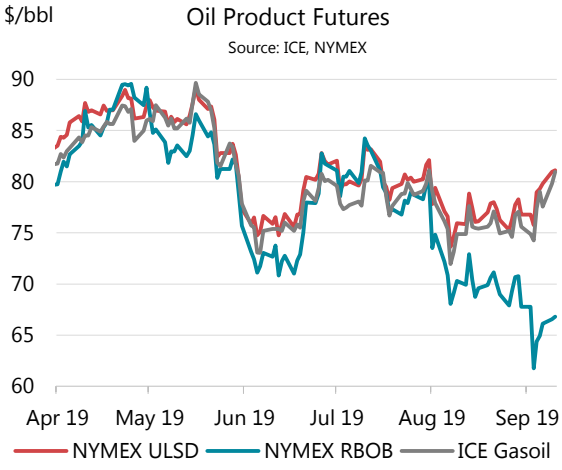
	Jun	Jul	Aug	Aug-Jul Avg Chg	% Chg	Week Commencing: 05 Aug	12 Aug	19 Aug	26 Aug	02 Sep
NYMEX										
Light Sweet Crude Oil	54.71	57.55	54.84	-2.71	-4.7	53.29	55.32	55.55	55.23	55.76
RBOB	74.78	79.77	70.34	-9.43	-11.8	70.10	70.31	70.14	69.27	64.30
ULSD	77.75	80.68	76.83	-3.85	-4.8	75.58	76.86	77.29	76.87	78.46
ULSD ($/mmbtu)	13.71	14.23	13.55	-0.68	-4.8	13.33	13.56	13.63	13.56	13.84
Henry Hub Natural Gas ($/mmbtu)	2.33	2.30	2.17	-0.13	-5.6	2.10	2.17	2.18	2.25	2.43
ICE										
Brent	63.04	64.21	59.50	-4.71	-7.3	58.18	59.24	59.87	60.04	60.02
Gasoil	76.30	78.71	75.43	-3.27	-4.2	73.99	75.49	75.64	75.54	76.30
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-8.33	-6.66	-4.66	2.00		-4.89	-3.92	-4.32	-4.81	-4.26
NYMEX ULSD - WTI	23.04	23.13	21.99	-1.14		22.29	21.54	21.74	21.64	22.70
NYMEX RBOB - WTI	20.07	22.22	15.50	-6.72		16.81	14.99	14.59	14.04	8.54
NYMEX 3-2-1 Crack (RBOB)	21.06	22.52	17.66	-4.86		18.64	17.18	16.97	16.58	13.26
NYMEX ULSD - Natural Gas ($/mmbtu)	11.38	11.93	11.38	-0.55		11.23	11.39	11.45	11.30	11.40
ICE Gasoil - ICE Brent	13.26	14.50	15.93	1.44		15.81	16.25	15.77	15.50	16.28

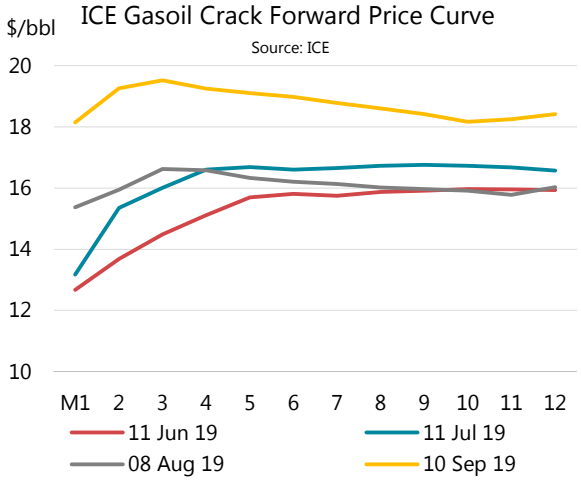
Source: ICE, NYMEX.

NYMEX ultra-low sulphur diesel (ULSD) futures and ICE gasoil futures declined $3.85/bbl and $3.27/bbl m-o-m, respectively, in August. The ICE gasoil crack forward curve is in contango in the run up to the 2020 IMO switch suggesting that the gasoil market will tighten in the next three months as declining high sulphur fuel oil (HSFO) demand is offset by higher gasoil consumption. NYMEX RBOB prices were down 12% in August as the upcoming switch to winter grades, which are cheaper, weighed on sentiment.

In August, money managers' net length in oil futures remained flat at around 430 mb. Concerns that demand growth is stalling seemed to deter hedge funds from betting that oil prices will rise. Net length in product futures (ICE gasoil, NYMEX ULSD and NYMEX RBOB) fell by 32% in

August to 109 mb. Bets by hedge funds that product futures will rise have been on a declining trend since May.





Spot crude oil prices

In August, differentials for sweet crude gained as refiners stepped up efforts to adjust to the higher demand for middle distillates that will come with the new IMO regulations. Meanwhile, differentials for sour crudes were underpinned by healthy demand as refiners return from maintenance and as supplies continued to be constrained by output cuts and sanctions. The price of crude at various locations in the US adjusted as WTI began to move on new pipeline infrastructure. These pipelines, and further additions expected to start-up later in the year, will allow US export capacity to catch up with the growth in production.

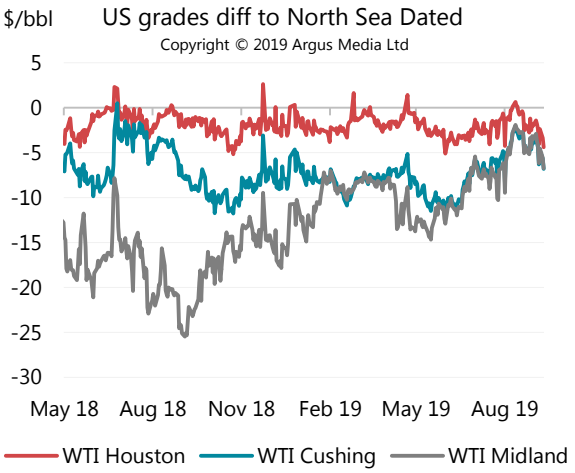
Box 6. Finding a way out

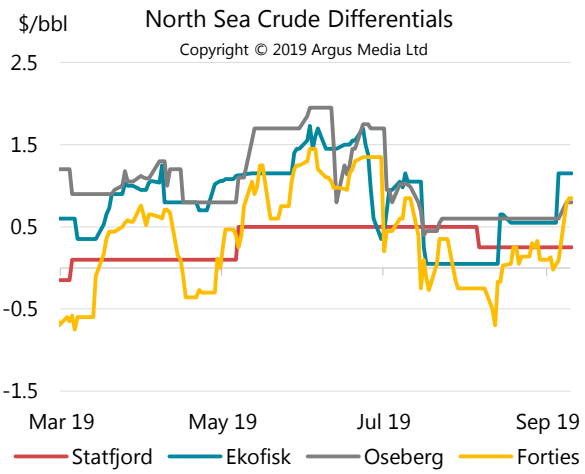
In recent years, the ramp up in light tight oil (LTO) production from the Permian Basin has run ahead of infrastructure capacity to transport the liquids to market. As a result, WTI Midland was priced at up to $18/bbl below the price in Cushing and $24/bbl below Houston. Spreads have narrowed in recent months in anticipation of new pipelines coming online. In August, two major new lines from the Permian to the US Gulf Coast started operations, Trafigura's Cactus 2 and EPIC's crude pipeline, with combined nameplate capacity of over 1.2 mb/d. WTI Midland gained $3.46/bbl m-o-m against North Sea Dated and is currently sitting at around parity with WTI Cushing. The narrowing of WTI Midland and WTI Cushing's differential to WTI Houston to -$2.80/bbl on average suggests that output is no longer running against capacity constraints with the modest discount reflecting transportation costs and quality differences. In *Oil 2019* we predicted that pipeline constraints in the Permian would be alleviated from September 2019 and we have updated this analysis based on recent company announcements and our US LTO output forecast. This shows that, depending on how quickly the recently commissioned pipelines ramp up, there may be minor bottlenecks in coming months but these should be entirely alleviated when Philips 66's 900 kb/d Gray Oak line begins operations at the end of the year (see Supply: *US vies with Saudi for top oil exporter spot*). As a result, differentials for WTI Houston, Cushing and Midland

are expected to remain slim. The new infrastructure will direct flows to the Gulf Coast and allow the US to further boost its exports. However, prices at the coast strengthened relative to Brent making US crude less competitive. In August, WTI Houston was briefly priced at a premium to Brent for the first time since April and, according to tanker tracking data from *Kpler*, US exports have come down from record levels seen in June. WTI Houston prices have since eased to $4/bbl below North Sea Dated as additional volumes reach the Gulf Coast.

West Canadian Select prices in Hardisty gained $0.77/bbl m-o-m against Cushing on the announcement that production caps in Alberta will probably be extended to the end of 2020. Growing output and insufficient export infrastructure saw differentials blow out to -$50/bbl in 2018. Since the production curbs were enforced in January 2019, the discount has averaged around $12/bbl.

Price differentials for North Sea grades, including Forties, Brent, Oseberg and Ekofisk, weakened against North Sea Dated m-o-m in August. However, prices rallied over the course of the month as the narrowing of Brent's premium to WTI made Brent-linked crude more attractive and stirred demand from Asia Pacific. On 14-15 August, flows on the Forties Pipeline System were restricted due to "integrity issues" and the Forties differential dived to a five month low of $0.70/bbl below North Sea Dated. The resumption of normal operations and healthy demand for Forties in China saw the price recover to a premium of $0.10/bbl by end-August.

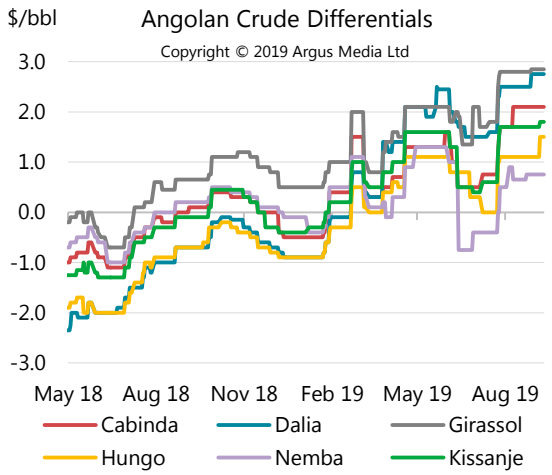


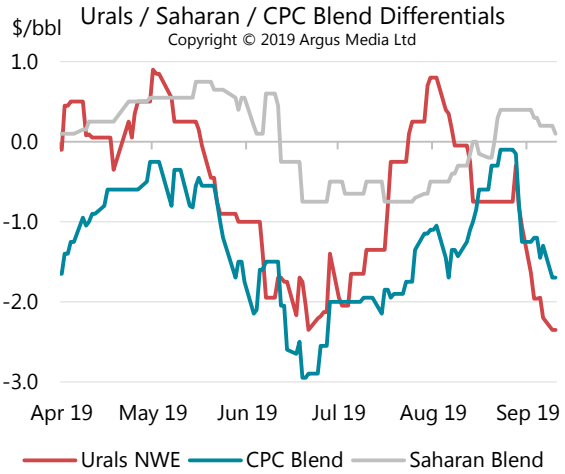


Weaker naphtha markets and competition from US exports pressured Nigerian grades in August. The premia of both Qua Iboe and Bonny Light held relatively flat, narrowing by only $0.05/bbl and $0.11/bbl m-o-m, respectively, against North Sea Dated. Meanwhile, the premium enjoyed by Angolan grades to North Sea Dated rose for the third consecutive month to reach new record highs. Heavy sweet crudes, such as Dalia (+$0.76/bbl m-o-m against North Sea Dated) and Girassol (+$0.74/bbl m-o-m), are best-suited for producing middle distillates and demand is picking up ahead of the new IMO regulations. Further support came from preliminary loading programmes that indicate a fall in Angolan exports in October.

Urals prices have been volatile since the suspension of flows on the Druzhba pipeline in April due to contamination. In early August, prices rose to a three month high of $0.80/bbl above

North Sea Dated as Urals exports were disrupted by ongoing efforts to manage crude contamination. The differential subsequently crashed by $1.86/bbl over the course of the month as supplies returned to the market and on loading programmes which showed that exports will rise further in September. CPC Blend rose by $0.97/bbl m-o-m against North Sea Dated on the back of healthy Chinese demand. Competing Saharan Blend gained $0.58/bbl against North Sea Dated, boosted also as rival WTI became relatively more expensive. Es Sider's differential to North Sea Dated climbed to a seven year high of $0.40/bbl on 21 August thanks to healthier middle distillate margins in the Mediterranean and as the September loading programme was revised down.





Spot crude oil prices and differentials

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The price of several crudes from the Middle East strengthened against Dubai in August. Global demand for sour crudes was robust, particularly from China as refinery maintenance wound down, and steeper backwardation of the Dubai futures curve indicated prompt market tightness. Light sour Murban's differential rose by $0.26/bbl over the month, boosted by stronger jet fuel and diesel cracks. The improvement in middle distillate margins also stirred demand for Basra Light which gained by $0.26/bbl m-o-m against Dubai. Conversely, Basra Heavy prices lost $0.51/bbl m-o-m against Dubai as fuel oil cracks tumbled.

Spot product prices

Cracks for super unleaded and unleaded gasoline on the US Gulf Coast declined by $5.07/bbl and $3.69/bbl m-o-m, respectively, as refining activity picked up providing additional supplies. Downward pressure on prices also came as the summer travel season in the western hemisphere drew to a close and with the upcoming switch to cheaper winter specification gasoline. In Rotterdam, barge quotes for premium unleaded fell by $4.82/bbl over August, with less demand to ship gasoline to the US also weighing on markets. Transatlantic flows had picked up following a refinery fire and closure in Philadelphia in June. In Singapore, unleaded gasoline cracks rose by $0.58/bbl m-o-m and the prompt swap prices averaged $1.48/bbl above contracts for delivery one month later. The market tightened due to healthy demand, in particular from India and Indonesia, amidst ongoing and imminent regional refinery maintenance.

Spot product prices

Table Unavailable

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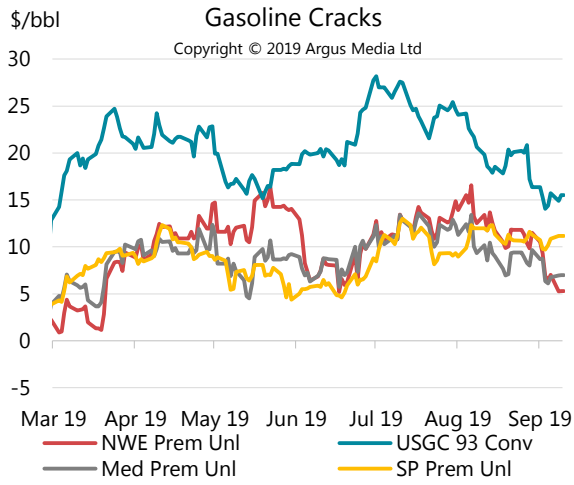
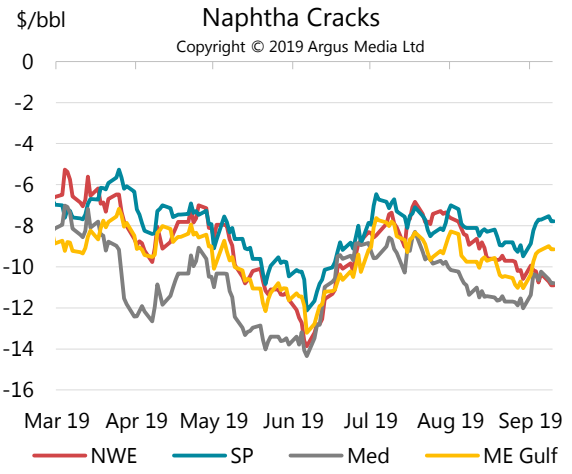
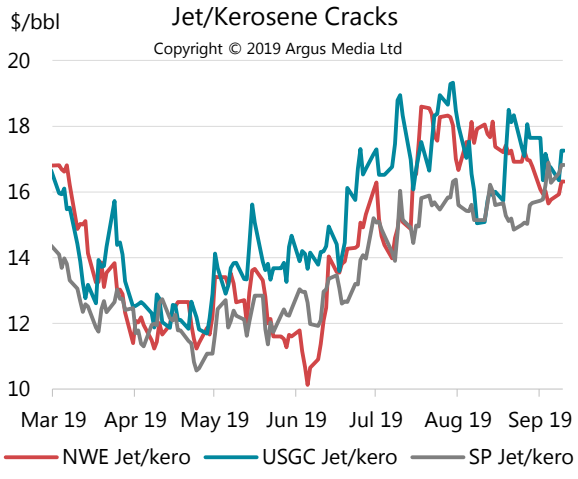
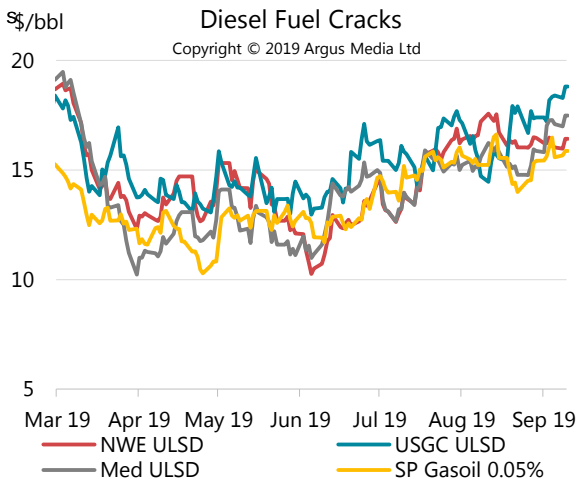
Global naphtha markets stumbled in August. In Rotterdam and the Mediterranean, cracks slipped $1.28/bbl and $1.91/bbl, respectively, against benchmark crude due to weak demand from petrochemical facilities and the anticipation that blending demand will ease. In Singapore, prices fell by 9% over the month as Malaysian supplies returned following maintenance and as petrochemical facilities favoured rival feedstock LPG. Heading into winter, demand for LPG as a heating fuel should pick up and this should make it less price competitive against naphtha.





Cracks for jet fuel remained elevated in August in the middle of the peak US and European travel season. It is likely that prices also gained traction as demand for middle distillates is set to jump ahead of the new IMO regulations. In Rotterdam, cracks rose by $0.88/bbl m-o-m although market tightness eased towards the end of the month with higher imports to the region. In Singapore, cracks rose by a modest $0.25/bbl m-o-m.

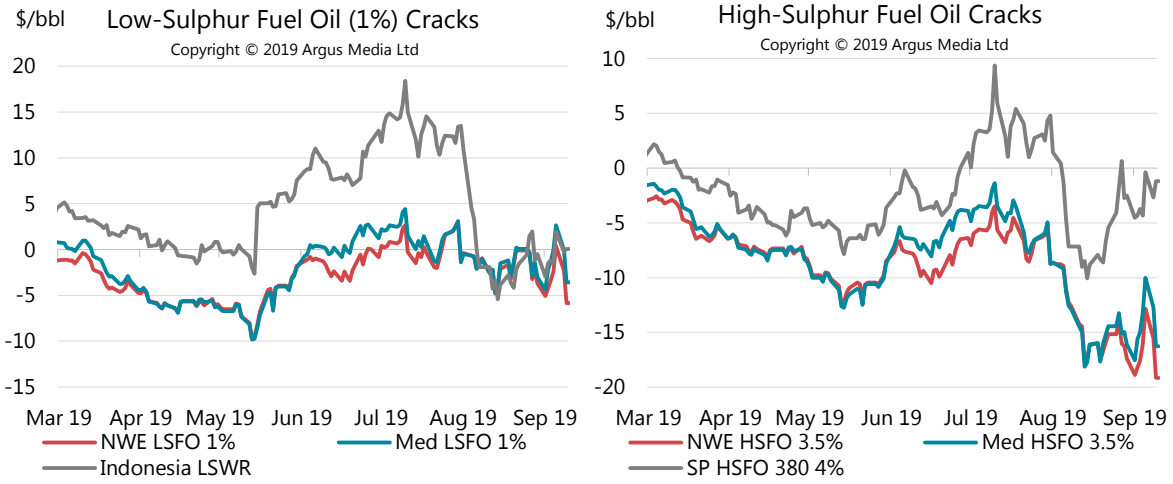




Diesel drew strength as markets showed signs of transitioning to the new IMO regulations. In North West Europe and the Mediterranean ultra-low sulphur diesel cracks gained $1.97/bbl and $0.97/bbl m-o-m, respectively, while in Singapore, 0.05% gasoil was up $0.38/bbl. Singapore is a centre point for IMO preparations and it seems that, as more diesel is used as a blending component to produce compliant fuel, exports from the region are easing. Furthermore, demand picked up in China as the seasonal fishing ban was partially lifted and some supplies are hampered due to maintenance.

With only months to go before the new IMO regulations come into effect, fuel oil markets are increasingly volatile. Despite expectations that demand for HSFO will decline by 2 mb/d, cracks in the major bunkering hub of Singapore rose to $4.82 on 1 August. Less processing of sour crude and logistical preparations for the IMO switch had tightened supply while demand, particularly in the Middle East for power generation was robust. In the first two week of August, prices fell dramatically, by around $15/bbl in all regions, as demand from the Middle East declined seasonally. In North West Europe and the Mediterranean, cracks are at three year lows of $17/bbl below North Sea Dated and Urals, respectively. However, the market in Singapore

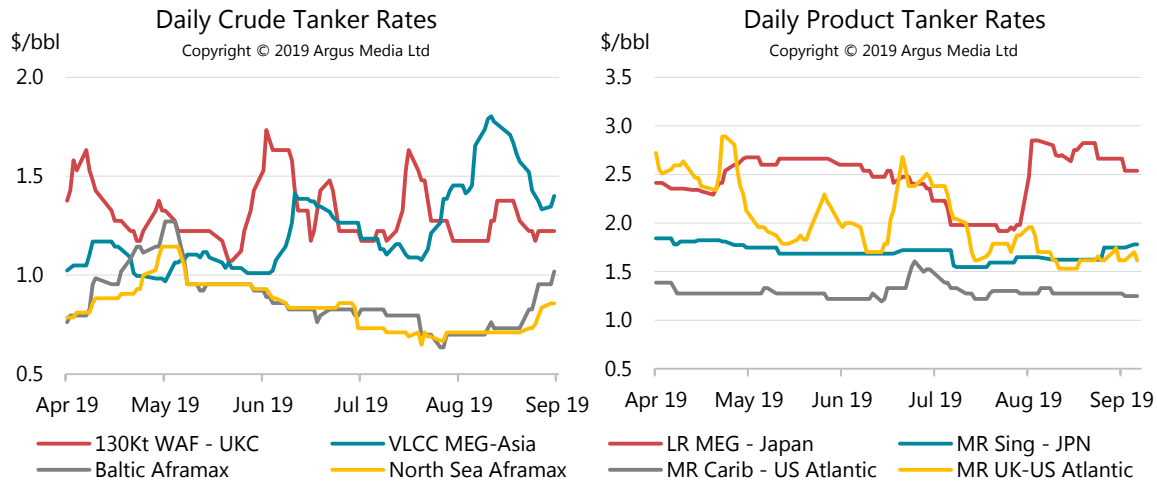
bounced and HSFO cracks there rose to around $15/bbl above those elsewhere. It is likely that low fuel oil stocks in Singapore are causing prices to be particularly volatile. At the same time, some shippers are favouring the port over Fujairah due to security concerns.



Freight

In August, higher demand to ship crude on Very Large Crude Carriers (VLCCs) boosted rates for vessels travelling between the Middle East Gulf (MEG) and Asia Pacific by $0.34/bbl m-o-m. Delays caused by storms in East Asia were also supportive. Rates for Suezmaxes travelling between the UK-Continent and West Africa declined slightly, by $0.06/bbl m-o-m, on continued weak demand. Aframax rates, both in the North Sea and the Baltic, were flat m-o-m.

For clean product tankers, the decline in demand for transatlantic gasoline shipments was evident in the falling rates for Medium Range (MR) vessels travelling between the UK-Continent and US Atlantic Coast. These declined by $0.32/bbl m-o-m. Rates for Long Range (LR) tankers transporting products between the MEG and Japan were supported by strong Asia Pacific demand. They rose to $2.82/bbl on 23 August, the highest since March.



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	25.2	25.3	25.8	25.6	25.5	25.3	25.4	26.0	25.9	25.7	25.2	25.7	26.3	26.1	25.9
Europe	14.0	14.4	14.1	14.2	14.7	14.1	14.3	13.9	14.0	14.8	14.3	14.2	14.0	14.2	14.7	14.4	14.3
Asia Oceania	8.1	8.1	8.7	7.7	7.8	8.1	8.1	8.3	7.5	7.7	8.3	7.9	8.4	7.5	7.8	8.3	8.0
Total OECD	**47.1**	**47.6**	**47.9**	**47.3**	**48.2**	**47.8**	**47.8**	**47.5**	**46.9**	**48.5**	**48.5**	**47.9**	**47.6**	**47.5**	**48.9**	**48.8**	**48.2**
NON-OECD DEMAND																	
FSU	4.4	4.5	4.5	4.6	4.9	4.8	4.7	4.6	4.8	5.1	5.0	4.9	4.7	4.9	5.1	5.0	4.9
Europe	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
China	12.0	12.5	12.7	13.0	13.1	13.1	13.0	13.0	13.7	13.5	13.6	13.5	13.3	14.0	13.9	13.9	13.8
Other Asia	13.2	13.7	14.1	14.3	13.7	14.2	14.1	14.5	14.3	14.1	14.7	14.4	15.0	14.8	14.5	15.2	14.9
Americas	6.5	6.4	6.3	6.3	6.5	6.4	6.4	6.2	6.3	6.5	6.4	6.4	6.3	6.4	6.5	6.5	6.4
Middle East	8.4	8.4	8.1	8.4	8.7	8.2	8.3	8.1	8.2	8.6	8.1	8.3	8.0	8.3	8.7	8.1	8.3
Africa	4.2	4.2	4.3	4.2	4.1	4.3	4.2	4.3	4.3	4.2	4.3	4.3	4.4	4.4	4.3	4.4	4.4
Total Non-OECD	**49.3**	**50.6**	**50.7**	**51.6**	**51.8**	**51.7**	**51.5**	**51.6**	**52.4**	**52.8**	**53.0**	**52.5**	**52.5**	**53.6**	**53.8**	**54.0**	**53.5**
Total Demand[1]	**96.4**	**98.2**	**98.6**	**98.9**	**100.0**	**99.5**	**99.3**	**99.1**	**99.4**	**101.3**	**101.5**	**100.3**	**100.1**	**101.0**	**102.7**	**102.8**	**101.6**
OECD SUPPLY																	
Americas	19.6	20.5	22.0	22.3	23.4	24.2	23.0	24.0	24.5	24.7	25.3	24.6	25.6	25.8	26.1	26.4	26.0
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	3.7	3.7	3.8	3.7
Asia Oceania	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Total OECD[4]	**23.5**	**24.4**	**25.9**	**26.1**	**27.2**	**28.2**	**26.9**	**27.9**	**28.1**	**28.3**	**29.3**	**28.4**	**29.8**	**30.1**	**30.3**	**30.8**	**30.3**
NON-OECD SUPPLY																	
FSU	14.2	14.3	14.4	14.4	14.6	14.8	14.6	14.8	14.4	14.5	14.6	14.6	14.7	14.6	14.6	14.6	14.6
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.0	3.9	3.8	3.9	3.8	3.9	3.8	3.9	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Other Asia	3.6	3.5	3.4	3.4	3.3	3.3	3.4	3.3	3.3	3.2	3.2	3.3	3.2	3.2	3.1	3.1	3.2
Americas	4.5	4.6	4.5	4.6	4.4	4.6	4.5	4.5	4.6	4.8	5.0	4.7	5.0	5.1	5.1	5.1	5.1
Middle East	3.3	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Africa	1.4	1.4	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.5	1.5
Total Non-OECD[4]	**31.0**	**31.0**	**30.9**	**31.1**	**31.0**	**31.5**	**31.1**	**31.4**	**31.0**	**31.3**	**31.5**	**31.3**	**31.6**	**31.6**	**31.5**	**31.5**	**31.6**
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	2.4	2.4	2.4	2.4
Global Biofuels	2.4	2.5	2.1	2.8	3.1	2.5	2.6	2.2	2.9	3.1	2.6	2.7	2.4	2.9	3.2	2.8	2.8
Total Non-OPEC Supply	**59.2**	**60.1**	**61.3**	**62.2**	**63.6**	**64.5**	**62.9**	**63.9**	**64.4**	**65.1**	**65.7**	**64.8**	**66.2**	**67.1**	**67.4**	**67.5**	**67.0**
OPEC[2]																	
Crude	32.4	32.0	31.7	31.6	32.0	32.2	31.9	30.7	30.0								
NGLs	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.6	5.5	5.5	5.6	5.6	5.6	5.6	5.6	5.6
Total OPEC	**37.8**	**37.5**	**37.2**	**37.1**	**37.6**	**37.7**	**37.4**	**36.2**	**35.6**								
Total Supply	**97.0**	**97.6**	**98.6**	**99.3**	**101.2**	**102.2**	**100.3**	**100.1**	**100.1**								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.0	-0.4	-0.3	0.0	0.6	0.1	0.1	0.1	0.6								
Government	0.0	-0.1	0.0	0.0	0.0	-0.2	-0.1	0.1	-0.1								
Total	**0.0**	**-0.5**	**-0.2**	**-0.1**	**0.5**	**-0.1**	**0.0**	**0.2**	**0.5**								
Floating storage/Oil in transit	0.2	0.4	-1.0	0.3	-0.3	0.6	0.0	-0.3	-0.5								
Miscellaneous to balance[5]	0.4	-0.4	1.2	0.2	1.0	2.2	1.1	1.1	0.7								
Total Stock Ch. & Misc	**0.6**	**-0.6**	**-0.1**	**0.4**	**1.2**	**2.7**	**1.1**	**1.0**	**0.7**								
Memo items:																	
Call on OPEC crude + Stock ch.[6]	31.8	32.6	31.8	31.1	30.8	29.5	30.8	29.6	29.4	30.6	30.3	30.0	28.3	28.4	29.7	29.7	29.0

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

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

	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-	-0.1
Europe	-	-	-	-	-	-	-	-	-0.2	0.1	-	-	-	-0.1	-0.1	-	-0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
Total OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.1**	**-0.3**	**0.1**	**0.1**	**-**	**-0.1**	**-0.2**	**-0.2**	**-**	**-0.1**
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**	**-**	**-**
Total Demand	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.3**	**0.1**	**0.1**	**-**	**-**	**-0.1**	**-0.1**	**0.1**	**-**
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-0.1	-	-	0.1	0.1	-	-	0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.1**	**0.0**	**0.0**	**0.1**	**0.2**	**0.0**	**-0.1**	**0.0**
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	0.1	-0.1	-	-	-	-	-	-
Total Non-OPEC Supply	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.1**	**0.1**	**-**	**-**	**0.1**	**0.2**	**0.1**	**-0.1**	**0.1**
OPEC																	
Crude	-	-	-	-	-	-	-	-	-								
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	**-**	**0.0**	**0.0**	**-**	**0.0**	**-**	**0.0**	**0.0**	**-**								
Total Supply	**-**	**0.0**	**0.0**	**-**	**0.0**	**-**	**0.0**	**0.0**	**-0.1**								
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	0.2	-	-	-	-	-	-0.3								
Government	-	-	-	-	-	-	-	-	-								
Total	**-**	**-**	**0.1**	**-**	**-**	**-**	**-**	**0.1**	**-0.3**								
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-								
Miscellaneous to balance	-	-	-0.1	0.1	-	-	-	-	0.5								
Total Stock Ch. & Misc	**-**	**-**	**-**	**0.1**	**-**	**-**	**-**	**-**	**0.2**								
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-0.1	-	-	-	-	-0.2	-	0.1	-	-0.1	-0.3	-0.2	0.2	-0.1

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

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
Demand (mb/d)																
Americas	25.07	25.20	25.31	25.78	25.61	25.48	25.27	25.43	26.03	25.93	25.67	25.21	25.74	26.34	26.15	25.86
Europe	14.38	14.06	14.20	14.66	14.09	14.25	13.89	14.01	14.77	14.30	14.25	13.96	14.16	14.74	14.36	14.31
Asia Oceania	8.15	8.66	7.73	7.75	8.10	8.06	8.33	7.49	7.71	8.26	7.95	8.41	7.55	7.78	8.32	8.01
Total OECD	**47.6**	**47.9**	**47.3**	**48.2**	**47.8**	**47.8**	**47.5**	**46.9**	**48.5**	**48.5**	**47.9**	**47.6**	**47.5**	**48.9**	**48.8**	**48.2**
Asia	26.20	26.80	27.26	26.83	27.26	27.04	27.49	28.02	27.64	28.32	27.87	28.26	28.80	28.43	29.14	28.66
Middle East	8.38	8.08	8.42	8.69	8.16	8.34	8.13	8.21	8.63	8.14	8.28	8.02	8.31	8.70	8.12	8.29
Americas	6.45	6.32	6.34	6.48	6.44	6.39	6.24	6.33	6.46	6.41	6.36	6.27	6.38	6.50	6.47	6.41
FSU	4.55	4.50	4.62	4.89	4.82	4.71	4.63	4.75	5.05	4.97	4.85	4.73	4.87	5.13	4.99	4.93
Africa	4.23	4.29	4.24	4.11	4.26	4.23	4.31	4.33	4.21	4.35	4.30	4.39	4.40	4.28	4.42	4.37
Europe	0.75	0.73	0.74	0.77	0.80	0.76	0.80	0.78	0.79	0.81	0.80	0.82	0.78	0.80	0.84	0.81
Total Non-OECD	**50.6**	**50.7**	**51.6**	**51.8**	**51.7**	**51.5**	**51.6**	**52.4**	**52.8**	**53.0**	**52.5**	**52.5**	**53.6**	**53.8**	**54.0**	**53.5**
World	**98.2**	**98.6**	**98.9**	**100.0**	**99.5**	**99.3**	**99.1**	**99.4**	**101.3**	**101.5**	**100.3**	**100.1**	**101.0**	**102.7**	**102.8**	**101.6**
of which: US50	19.96	20.24	20.33	20.63	20.60	20.45	20.31	20.39	20.83	20.77	20.57	20.25	20.72	21.15	20.98	20.78
Europe 5*	8.32	8.22	8.24	8.34	8.17	8.24	8.10	8.08	8.38	8.22	8.19	8.06	8.10	8.33	8.22	8.18
China	12.49	12.70	12.96	13.14	13.09	12.97	13.03	13.72	13.49	13.64	13.47	13.29	13.96	13.89	13.91	13.76
Japan	3.92	4.31	3.46	3.56	3.92	3.81	4.09	3.41	3.52	3.93	3.73	4.04	3.37	3.53	3.92	3.71
India	4.66	4.91	5.03	4.62	4.89	4.86	5.14	5.07	4.82	5.14	5.04	5.35	5.32	5.01	5.40	5.27
Russia	3.39	3.36	3.43	3.68	3.60	3.52	3.47	3.55	3.83	3.68	3.63	3.53	3.63	3.86	3.69	3.68
Brazil	3.03	2.97	2.94	3.10	3.11	3.03	3.01	3.05	3.19	3.18	3.11	3.06	3.12	3.22	3.22	3.15
Saudi Arabia	3.30	2.96	3.21	3.35	2.99	3.13	2.96	3.05	3.27	3.01	3.07	2.79	3.04	3.24	2.88	2.99
Canada	2.42	2.34	2.37	2.58	2.51	2.45	2.37	2.41	2.61	2.59	2.50	2.37	2.40	2.61	2.57	2.49
Korea	2.63	2.73	2.64	2.58	2.53	2.62	2.63	2.48	2.56	2.66	2.58	2.73	2.54	2.60	2.72	2.65
Mexico	2.02	1.91	1.94	1.89	1.80	1.89	1.88	1.95	1.90	1.87	1.90	1.86	1.92	1.89	1.88	1.89
Iran	1.92	1.98	1.98	1.98	1.98	1.98	1.99	1.95	1.94	1.93	1.95	2.01	1.96	1.95	1.93	1.96
Total	**68.07**	**68.63**	**68.54**	**69.46**	**69.21**	**68.96**	**68.97**	**69.09**	**70.35**	**70.60**	**69.76**	**69.37**	**70.08**	**71.27**	**71.32**	**70.52**
% of World	**0.69**	**0.70**	**0.69**	**0.69**	**0.70**	**0.69**	**0.70**	**0.70**	**0.69**	**0.70**	**0.70**	**0.69**	**0.69**	**0.69**	**0.69**	**0.69**
Annual Change (% per annum)																
Americas	0.7	2.3	0.7	2.4	1.0	1.6	0.3	0.5	1.0	1.3	0.8	-0.2	1.2	1.2	0.8	0.8
Europe	2.5	1.2	-1.0	-1.0	-2.7	-0.9	-1.2	-1.3	0.7	1.5	-0.1	0.5	1.1	-0.2	0.5	0.4
Asia Oceania	0.1	1.2	-0.4	-1.6	-3.6	-1.1	-3.7	-3.2	-0.5	2.0	-1.4	1.0	0.7	0.9	0.7	0.9
Total OECD	**1.1**	**1.8**	**0.0**	**0.7**	**-0.9**	**0.4**	**-0.9**	**-0.7**	**0.7**	**1.4**	**0.2**	**0.2**	**1.1**	**0.7**	**0.7**	**0.7**
Asia	4.1	3.5	2.6	3.9	2.8	3.2	2.6	2.8	3.0	3.9	3.1	2.8	2.8	2.8	2.9	2.8
Middle East	0.1	-0.2	-1.5	-0.7	0.6	-0.5	0.6	-2.5	-0.7	-0.3	-0.7	-1.4	1.2	0.8	-0.3	0.1
Americas	-0.3	0.1	-1.6	-1.5	-0.5	-0.9	-1.3	-0.1	-0.2	-0.4	-0.5	0.5	0.8	0.6	0.8	0.7
FSU	2.5	4.1	2.1	2.9	5.0	3.5	2.9	3.0	3.4	3.1	3.1	2.1	2.4	1.5	0.6	1.6
Africa	1.5	-0.6	-0.2	-0.8	0.9	-0.2	0.4	2.1	2.5	2.0	1.7	1.9	1.6	1.5	1.7	1.7
Europe	3.2	2.4	-1.0	1.3	5.2	2.0	9.5	4.3	2.7	2.2	4.6	1.5	0.9	0.8	2.7	1.5
Total Non-OECD	**2.5**	**2.2**	**1.1**	**1.9**	**2.1**	**1.8**	**1.7**	**1.5**	**2.0**	**2.4**	**1.9**	**1.7**	**2.1**	**2.0**	**1.8**	**1.9**
World	**1.8**	**2.0**	**0.5**	**1.3**	**0.6**	**1.1**	**0.5**	**0.5**	**1.3**	**2.0**	**1.1**	**1.0**	**1.7**	**1.4**	**1.3**	**1.3**
Annual Change (mb/d)																
Americas	0.18	0.58	0.18	0.61	0.25	0.41	0.07	0.12	0.25	0.32	0.19	-0.06	0.31	0.31	0.22	0.19
Europe	0.35	0.16	-0.15	-0.14	-0.39	-0.13	-0.17	-0.19	0.11	0.21	-0.01	0.06	0.15	-0.02	0.06	0.06
Asia Oceania	0.01	0.10	-0.03	-0.13	-0.31	-0.09	-0.32	-0.24	-0.04	0.16	-0.11	0.08	0.06	0.07	0.06	0.07
Total OECD	**0.5**	**0.8**	**0.0**	**0.3**	**-0.4**	**0.2**	**-0.4**	**-0.3**	**0.3**	**0.7**	**0.1**	**0.1**	**0.5**	**0.4**	**0.3**	**0.3**
Asia	1.04	0.91	0.68	1.01	0.74	0.84	0.68	0.75	0.81	1.06	0.83	0.77	0.79	0.79	0.82	0.79
Middle East	0.01	-0.02	-0.12	-0.06	0.05	-0.04	0.05	-0.21	-0.06	-0.02	-0.06	-0.11	0.10	0.07	-0.02	0.01
Americas	-0.02	0.01	-0.10	-0.10	-0.03	-0.06	-0.08	0.00	-0.01	-0.02	-0.03	0.03	0.05	0.04	0.05	0.04
FSU	0.11	0.18	0.10	0.14	0.23	0.16	0.13	0.14	0.16	0.15	0.15	0.10	0.11	0.07	0.03	0.08
Africa	0.06	-0.03	-0.01	-0.04	0.04	-0.01	0.02	0.09	0.10	0.09	0.07	0.08	0.07	0.07	0.08	0.07
Europe	0.02	0.02	-0.01	0.01	0.04	0.01	0.07	0.03	0.02	0.02	0.03	0.01	0.01	0.01	0.02	0.01
Total Non-OECD	**1.2**	**1.1**	**0.5**	**1.0**	**1.1**	**0.9**	**0.9**	**0.8**	**1.0**	**1.3**	**1.0**	**0.9**	**1.1**	**1.0**	**1.0**	**1.0**
World	**1.8**	**1.9**	**0.5**	**1.3**	**0.6**	**1.1**	**0.4**	**0.5**	**1.3**	**2.0**	**1.1**	**1.0**	**1.6**	**1.4**	**1.3**	**1.3**
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	-0.04	0.01	0.02	-0.01	-0.11	-0.05	-0.13	-0.04	-0.08
Europe	0.00	0.00	-0.05	-0.03	-0.02	-0.02	-0.02	-0.23	0.05	0.02	-0.05	0.01	-0.15	-0.08	0.02	-0.05
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.03	0.03	0.01	0.03	0.03	0.07	0.06	0.05
Total OECD	**-**	**-0.0**	**-0.0**	**-0.0**	**-0.0**	**-0.0**	**-0.1**	**-0.3**	**0.1**	**0.1**	**-0.0**	**-0.1**	**-0.2**	**-0.2**	**0.0**	**-0.1**
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.02	-0.09	-0.03	-0.02	0.02	0.01	-0.06	-0.01	-0.01
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05	-0.02	-0.02	-0.02	-0.03	-0.04	0.00	0.01	-0.02
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.02	0.03	0.03	0.03	0.03	0.03
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.01	0.02	0.00	0.03	0.07	0.00	0.03
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	**-**	**-0.0**	**-0.0**	**-0.0**	**0.0**	**-0.0**	**0.0**	**-0.0**	**0.0**	**-0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**
World	**-**	**-0.0**	**-0.0**	**-0.0**	**-0.0**	**-0.0**	**-0.0**	**-0.3**	**0.1**	**0.1**	**-0.0**	**-0.0**	**-0.1**	**-0.1**	**0.1**	**-0.0**
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	-0.05	-0.03	-0.02	-0.03	-0.02	-0.25	0.13	0.09	-0.01	-0.02	0.19	-0.21	0.01	-0.01

* France, Germany, Italy, Spain and UK

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

	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19 [2]	Latest month vs. May 19	Latest month vs. Jun 18
Americas											
LPG and ethane	3.39	3.67	3.51	3.81	4.15	3.51	3.62	3.36	3.55	0.19	0.32
Naphtha	0.31	0.30	0.32	0.33	0.30	0.28	0.30	0.27	0.26	-0.01	-0.02
Motor gasoline	11.08	11.08	11.28	11.03	10.70	11.26	11.12	11.20	11.45	0.25	-0.18
Jet and kerosene	1.98	2.03	2.12	2.01	1.97	2.10	2.07	2.08	2.15	0.07	-0.02
Gasoil/diesel oil	5.15	5.31	5.23	5.39	5.44	5.16	5.11	5.22	5.14	-0.08	-0.03
Residual fuel oil	0.66	0.62	0.66	0.61	0.62	0.55	0.56	0.52	0.57	0.05	0.03
Other products	2.51	2.47	2.66	2.43	2.10	2.58	2.40	2.67	2.68	0.01	-0.05
Total	**25.1**	**25.5**	**25.8**	**25.6**	**25.3**	**25.4**	**25.2**	**25.3**	**25.8**	**0.5**	**0.0**
Europe											
LPG and ethane	1.15	1.16	1.15	1.11	1.12	1.07	1.08	1.05	1.07	0.02	-0.03
Naphtha	1.13	1.03	1.00	0.93	1.13	0.88	0.98	0.83	0.85	0.02	-0.13
Motor gasoline	1.99	1.97	2.05	1.94	1.84	2.04	2.04	2.01	2.08	0.06	-0.04
Jet and kerosene	1.45	1.51	1.69	1.44	1.38	1.57	1.55	1.53	1.64	0.11	0.06
Gasoil/diesel oil	6.48	6.44	6.45	6.57	6.41	6.32	6.45	6.20	6.31	0.10	-0.09
Residual fuel oil	0.89	0.86	0.88	0.84	0.88	0.85	0.90	0.85	0.81	-0.04	-0.05
Other products	1.29	1.28	1.42	1.26	1.13	1.28	1.27	1.31	1.26	-0.05	-0.10
Total	**14.4**	**14.3**	**14.7**	**14.1**	**13.9**	**14.0**	**14.3**	**13.8**	**14.0**	**0.2**	**-0.4**
Asia Oceania											
LPG and ethane	0.76	0.75	0.68	0.73	0.85	0.72	0.76	0.73	0.65	-0.08	-0.07
Naphtha	2.08	2.04	2.02	2.07	2.10	1.91	1.94	1.91	1.88	-0.04	0.05
Motor gasoline	1.54	1.53	1.59	1.52	1.47	1.47	1.51	1.43	1.47	0.04	-0.05
Jet and kerosene	0.93	0.93	0.74	1.02	1.15	0.78	0.89	0.72	0.73	0.01	0.03
Gasoil/diesel oil	1.89	1.89	1.84	1.92	1.94	1.87	1.95	1.80	1.87	0.08	-0.03
Residual fuel oil	0.54	0.53	0.50	0.51	0.50	0.41	0.44	0.39	0.40	0.01	-0.03
Other products	0.40	0.40	0.39	0.33	0.32	0.34	0.26	0.40	0.36	-0.04	-0.09
Total	**8.1**	**8.1**	**7.8**	**8.1**	**8.3**	**7.5**	**7.7**	**7.4**	**7.4**	**-0.0**	**-0.2**
OECD											
LPG and ethane	5.30	5.58	5.35	5.64	6.12	5.29	5.46	5.14	5.28	0.13	0.23
Naphtha	3.52	3.38	3.34	3.33	3.54	3.07	3.22	3.01	2.99	-0.02	-0.10
Motor gasoline	14.62	14.58	14.93	14.49	14.02	14.76	14.67	14.64	14.99	0.36	-0.27
Jet and kerosene	4.35	4.46	4.55	4.47	4.50	4.45	4.50	4.33	4.53	0.20	0.07
Gasoil/diesel oil	13.53	13.64	13.52	13.88	13.79	13.35	13.51	13.22	13.32	0.09	-0.15
Residual fuel oil	2.09	2.01	2.04	1.96	1.99	1.81	1.90	1.76	1.78	0.02	-0.05
Other products	4.20	4.14	4.46	4.02	3.55	4.20	3.93	4.37	4.30	-0.07	-0.24
Total	**47.6**	**47.8**	**48.2**	**47.8**	**47.5**	**46.9**	**47.2**	**46.5**	**47.2**	**0.7**	**-0.5**

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

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

	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19 [2]	Latest month vs. May 19	Latest month vs. Jun 18
United States[3]											
LPG and ethane	2.54	2.85	2.68	3.04	3.29	2.66	2.71	2.57	2.72	0.15	0.18
Naphtha	0.23	0.23	0.24	0.24	0.21	0.21	0.22	0.21	0.21	0.01	0.01
Motor gasoline	9.33	9.32	9.51	9.25	8.96	9.47	9.36	9.40	9.65	0.25	-0.15
Jet and kerosene	1.69	1.72	1.78	1.70	1.66	1.78	1.75	1.78	1.81	0.03	-0.05
Gasoil/diesel oil	3.93	4.13	4.05	4.18	4.28	4.02	3.98	4.04	4.03	-0.02	0.07
Residual fuel oil	0.34	0.32	0.34	0.34	0.29	0.23	0.26	0.20	0.24	0.04	-0.01
Other products	1.90	1.88	2.04	1.85	1.62	2.02	1.92	2.07	2.05	-0.01	-0.05
Total	**20.0**	**20.5**	**20.6**	**20.6**	**20.3**	**20.4**	**20.2**	**20.3**	**20.7**	**0.4**	**-0.0**
Japan											
LPG and ethane	0.41	0.40	0.34	0.39	0.47	0.35	0.39	0.37	0.30	-0.08	-0.06
Naphtha	0.78	0.74	0.70	0.80	0.80	0.69	0.72	0.67	0.69	0.02	0.15
Motor gasoline	0.87	0.86	0.92	0.85	0.81	0.81	0.84	0.80	0.80	0.00	-0.05
Jet and kerosene	0.52	0.50	0.33	0.57	0.69	0.37	0.46	0.33	0.33	0.00	0.01
Diesel	0.44	0.46	0.47	0.49	0.47	0.45	0.46	0.43	0.47	0.03	-0.01
Other gasoil	0.34	0.32	0.27	0.32	0.35	0.28	0.32	0.26	0.27	0.01	0.00
Residual fuel oil	0.28	0.28	0.26	0.27	0.26	0.21	0.22	0.20	0.21	0.01	0.01
Other products	0.28	0.26	0.26	0.23	0.25	0.23	0.18	0.26	0.25	-0.01	0.00
Total	**3.9**	**3.8**	**3.6**	**3.9**	**4.1**	**3.4**	**3.6**	**3.3**	**3.3**	**-0.0**	**0.0**
Germany											
LPG and ethane	0.13	0.11	0.11	0.09	0.12	0.13	0.13	0.12	0.13	0.01	-0.01
Naphtha	0.30	0.27	0.24	0.23	0.33	0.22	0.22	0.23	0.21	-0.03	-0.02
Motor gasoline	0.50	0.49	0.50	0.48	0.47	0.50	0.49	0.51	0.50	-0.01	-0.02
Jet and kerosene	0.22	0.22	0.25	0.22	0.20	0.23	0.25	0.22	0.24	0.02	-0.01
Diesel	0.78	0.76	0.79	0.77	0.75	0.78	0.80	0.79	0.75	-0.03	-0.04
Other gasoil	0.35	0.32	0.28	0.35	0.41	0.29	0.28	0.28	0.32	0.04	0.12
Residual fuel oil	0.07	0.06	0.06	0.05	0.06	0.05	0.06	0.04	0.06	0.01	-0.01
Other products	0.10	0.11	0.14	0.13	0.08	0.10	0.10	0.09	0.10	0.00	-0.03
Total	**2.5**	**2.4**	**2.4**	**2.3**	**2.4**	**2.3**	**2.3**	**2.3**	**2.3**	**0.0**	**-0.0**
Italy											
LPG and ethane	0.10	0.10	0.08	0.10	0.09	0.07	0.08	0.07	0.05	-0.01	-0.02
Naphtha	0.12	0.13	0.13	0.11	0.08	0.08	0.08	0.08	0.09	0.02	-0.02
Motor gasoline	0.17	0.17	0.18	0.16	0.12	0.14	0.15	0.13	0.15	0.01	-0.04
Jet and kerosene	0.10	0.11	0.13	0.10	0.08	0.11	0.10	0.11	0.12	0.01	0.01
Diesel	0.45	0.46	0.46	0.47	0.45	0.45	0.46	0.45	0.45	0.00	-0.03
Other gasoil	0.08	0.08	0.08	0.08	0.06	0.06	0.06	0.05	0.08	0.02	0.00
Residual fuel oil	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.00	-0.01
Other products	0.15	0.16	0.17	0.17	0.14	0.16	0.15	0.16	0.17	0.01	0.01
Total	**1.2**	**1.3**	**1.3**	**1.3**	**1.1**	**1.1**	**1.1**	**1.1**	**1.2**	**0.1**	**-0.1**
France											
LPG and ethane	0.12	0.13	0.11	0.12	0.15	0.12	0.13	0.12	0.11	-0.01	0.00
Naphtha	0.12	0.10	0.12	0.07	0.14	0.11	0.13	0.11	0.11	0.00	0.00
Motor gasoline	0.18	0.19	0.20	0.19	0.18	0.21	0.21	0.20	0.21	0.01	0.01
Jet and kerosene	0.16	0.17	0.19	0.16	0.16	0.18	0.18	0.17	0.18	0.01	0.01
Diesel	0.72	0.71	0.71	0.72	0.68	0.71	0.74	0.70	0.70	0.00	-0.04
Other gasoil	0.25	0.24	0.23	0.25	0.26	0.20	0.22	0.18	0.20	0.02	0.01
Residual fuel oil	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05	-0.01	0.01
Other products	0.12	0.12	0.14	0.13	0.10	0.12	0.12	0.11	0.14	0.03	-0.01
Total	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.8**	**1.6**	**1.7**	**0.1**	**0.0**
United Kingdom											
LPG and ethane	0.14	0.14	0.13	0.14	0.14	0.13	0.12	0.16	0.12	-0.04	-0.03
Naphtha	0.03	0.03	0.02	0.03	0.02	0.04	0.04	0.04	0.03	-0.01	0.01
Motor gasoline	0.29	0.28	0.29	0.28	0.29	0.29	0.29	0.28	0.29	0.01	-0.02
Jet and kerosene	0.32	0.32	0.33	0.31	0.33	0.32	0.34	0.31	0.30	-0.01	0.01
Diesel	0.52	0.52	0.52	0.52	0.51	0.53	0.54	0.49	0.57	0.08	0.03
Other gasoil	0.14	0.14	0.16	0.14	0.12	0.14	0.13	0.13	0.15	0.02	-0.01
Residual fuel oil	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00
Other products	0.12	0.11	0.12	0.11	0.11	0.11	0.12	0.12	0.10	-0.02	-0.02
Total	**1.6**	**1.6**	**1.6**	**1.6**	**1.5**	**1.6**	**1.6**	**1.6**	**1.6**	**0.0**	**-0.0**
Canada											
LPG and ethane	0.40	0.39	0.41	0.35	0.42	0.41	0.46	0.38	0.40	0.02	0.13
Naphtha	0.05	0.05	0.05	0.05	0.05	0.03	0.05	0.02	0.01	-0.01	-0.04
Motor gasoline	0.84	0.88	0.92	0.91	0.85	0.87	0.87	0.87	0.88	0.01	0.00
Jet and kerosene	0.14	0.16	0.19	0.16	0.16	0.17	0.17	0.15	0.20	0.05	0.03
Diesel	0.29	0.26	0.26	0.26	0.27	0.26	0.27	0.26	0.27	0.01	0.00
Other gasoil	0.27	0.29	0.31	0.33	0.29	0.24	0.25	0.25	0.23	-0.03	-0.05
Residual fuel oil	0.05	0.05	0.04	0.06	0.07	0.06	0.07	0.07	0.05	-0.01	-0.02
Other products	0.37	0.38	0.40	0.38	0.26	0.35	0.27	0.38	0.39	0.01	-0.02
Total	**2.4**	**2.5**	**2.6**	**2.5**	**2.4**	**2.4**	**2.4**	**2.4**	**2.4**	**0.0**	**0.0**

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

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2018	2019	2020	1Q19	2Q19	3Q19	4Q19	1Q20	Jun 19	Jul 19	Aug 19
OPEC											
Crude Oil											
Saudi Arabia	10.33			10.06	9.76				9.77	9.65	9.75
Iran	3.58			2.73	2.43				2.28	2.23	2.19
Iraq	4.57			4.70	4.73				4.73	4.78	4.81
UAE	3.00			3.06	3.05				3.05	3.07	3.06
Kuwait	2.75			2.71	2.69				2.66	2.67	2.64
Neutral Zone	0.00			0.00	0.00				0.00	0.00	0.00
Angola	1.49			1.43	1.43				1.42	1.34	1.35
Nigeria	1.60			1.69	1.72				1.80	1.80	1.84
Libya	0.97			0.96	1.15				1.12	1.09	1.06
Algeria	1.04			1.03	1.02				1.01	1.03	1.02
Congo	0.32			0.34	0.35				0.34	0.34	0.34
Gabon	0.19			0.21	0.22				0.23	0.22	0.22
Equatorial Guinea	0.12			0.11	0.11				0.11	0.12	0.12
Ecuador	0.52			0.53	0.53				0.53	0.54	0.54
Venezuela	1.40			1.11	0.86				0.87	0.81	0.80
Total Crude Oil	**31.88**			**30.65**	**30.05**				**29.92**	**29.69**	**29.74**
Total NGLs[1]	**5.53**	**5.56**	**5.59**	**5.58**	**5.57**	**5.54**	**5.53**	**5.59**	**5.57**	**5.54**	**5.54**
Total OPEC[2]	**37.40**			**36.23**	**35.62**				**35.49**	**35.23**	**35.28**
NON-OPEC[3]											
OECD											
Americas	22.98	24.63	25.97	24.01	24.49	24.69	25.32	25.60	24.53	24.39	24.90
United States	15.52	17.25	18.53	16.64	17.12	17.36	17.85	18.10	17.15	16.96	17.48
Mexico	2.08	1.90	1.86	1.92	1.91	1.90	1.89	1.88	1.91	1.91	1.90
Canada	5.38	5.47	5.57	5.44	5.45	5.42	5.57	5.61	5.46	5.50	5.50
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.47	3.32	3.72	3.47	3.17	3.16	3.47	3.66	2.95	3.26	3.17
UK	1.11	1.15	1.17	1.20	1.14	1.04	1.20	1.22	1.10	1.09	1.01
Norway	1.85	1.70	2.08	1.77	1.57	1.65	1.81	1.97	1.40	1.71	1.69
Others	0.51	0.47	0.46	0.49	0.46	0.46	0.46	0.46	0.46	0.45	0.46
Asia Oceania	0.41	0.48	0.56	0.43	0.48	0.49	0.52	0.54	0.50	0.48	0.49
Australia	0.34	0.41	0.49	0.37	0.41	0.42	0.44	0.47	0.43	0.41	0.42
Others	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Total OECD	**26.86**	**28.43**	**30.25**	**27.91**	**28.15**	**28.34**	**29.31**	**29.80**	**27.99**	**28.12**	**28.56**
NON-OECD											
Former USSR	14.56	14.57	14.61	14.80	14.40	14.54	14.55	14.65	14.61	14.61	14.61
Russia	11.49	11.56	11.58	11.67	11.50	11.55	11.54	11.57	11.49	11.49	11.63
Others	3.07	3.01	3.04	3.13	2.90	2.99	3.01	3.09	3.12	3.12	2.98
Asia	7.21	7.17	7.03	7.25	7.21	7.13	7.10	7.10	7.29	7.15	7.11
China	3.85	3.92	3.88	3.92	3.95	3.91	3.88	3.89	4.02	3.94	3.89
Malaysia	0.71	0.69	0.70	0.71	0.69	0.67	0.70	0.71	0.69	0.65	0.67
India	0.84	0.81	0.79	0.82	0.80	0.80	0.80	0.80	0.79	0.80	0.81
Indonesia	0.80	0.77	0.74	0.79	0.77	0.77	0.76	0.75	0.78	0.78	0.77
Others	1.01	0.98	0.93	1.00	1.00	0.97	0.96	0.95	1.00	0.97	0.97
Europe	0.12	0.12	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Americas	4.52	4.73	5.08	4.51	4.58	4.85	4.97	5.02	4.50	4.72	4.89
Brazil	2.71	2.89	3.22	2.67	2.74	3.01	3.14	3.19	2.66	2.88	3.05
Argentina	0.58	0.60	0.60	0.59	0.60	0.59	0.60	0.60	0.59	0.60	0.59
Colombia	0.87	0.90	0.88	0.90	0.90	0.90	0.89	0.89	0.90	0.90	0.90
Others	0.36	0.35	0.38	0.36	0.35	0.35	0.34	0.34	0.35	0.34	0.35
Middle East	3.27	3.26	3.27	3.26	3.27	3.26	3.26	3.27	3.26	3.26	3.26
Oman	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Qatar	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.01
Syria	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Yemen	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Others	0.21	0.21	0.21	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	1.45	1.45	1.48	1.44	1.45	1.45	1.45	1.47	1.44	1.44	1.45
Egypt	0.65	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Others	0.80	0.81	0.84	0.80	0.81	0.81	0.81	0.84	0.80	0.80	0.82
Total Non-OECD	**31.13**	**31.31**	**31.59**	**31.39**	**31.03**	**31.34**	**31.45**	**31.63**	**31.23**	**31.30**	**31.45**
Processing gains[4]	2.32	2.35	2.38	2.35	2.35	2.35	2.35	2.38	2.35	2.35	2.35
Global Biofuels	2.62	2.69	2.83	2.21	2.90	3.10	2.56	2.36	3.05	3.21	3.11
TOTAL NON-OPEC	**62.93**	**64.78**	**67.04**	**63.87**	**64.43**	**65.13**	**65.67**	**66.17**	**64.61**	**64.98**	**65.46**
TOTAL SUPPLY	**100.33**			**100.09**	**100.06**				**100.10**	**100.22**	**100.75**

1 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.
2 OPEC data based on today's membership throughout the time series.
3 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
4 Net volumetric gains and losses in refining and marine transportation losses.

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

	2018	2019	2020	1Q19	2Q19	3Q19	4Q19	1Q20	Jun 19	Jul 19	Aug 19
United States											
Alaska	479	459	444	488	468	404	475	472	455	436	361
California	477	462	449	469	464	460	457	453	459	462	461
Texas	4409	5118	5797	4850	4967	5225	5424	5583	4982	5160	5226
Federal Gulf of Mexico[2]	1758	1878	1975	1848	1933	1823	1907	1984	1909	1667	1900
Other US Lower 48	3869	4329	4602	4159	4278	4382	4494	4538	4278	4340	4388
NGLs[3]	4349	4831	5091	4658	4839	4897	4925	4916	4891	4737	4986
Other Hydrocarbons	178	168	174	168	172	164	167	156	175	163	163
Total	**15518**	**17245**	**18531**	**16642**	**17120**	**17356**	**17848**	**18102**	**17149**	**16965**	**17485**
Canada											
Alberta Light/Medium/Heavy	489	482	478	486	486	479	478	478	477	480	479
Alberta Bitumen	1857	1800	1930	1683	1833	1813	1869	1913	1830	1770	1826
Saskatchewan	489	492	482	493	494	491	488	486	494	492	491
Other Crude	575	617	593	615	636	591	625	565	651	625	572
NGLs	909	938	942	983	916	898	954	988	857	891	908
Synthetic Crudes	1056	1144	1144	1183	1084	1154	1157	1183	1147	1246	1227
Total	**5376**	**5472**	**5571**	**5443**	**5449**	**5425**	**5571**	**5612**	**5456**	**5504**	**5503**
Mexico											
Crude	1833	1686	1655	1690	1690	1687	1677	1668	1693	1697	1682
NGLs	238	214	202	221	220	209	208	206	217	204	213
Total	**2077**	**1905**	**1861**	**1915**	**1913**	**1900**	**1890**	**1878**	**1914**	**1905**	**1899**
UK Offshore[5]											
Brent Fields	38	37	33	39	40	32	35	37	40	39	29
Forties Fields	365	350	304	374	345	336	347	338	346	343	316
Ninian Fields	36	37	34	37	36	39	37	36	35	41	39
Flotta Fields	20	22	19	25	22	18	21	20	23	12	21
Other Fields	527	575	667	599	566	497	639	673	541	534	486
NGLs	89	97	92	102	97	95	95	94	83	95	96
Total	**1075**	**1118**	**1149**	**1177**	**1106**	**1018**	**1174**	**1199**	**1068**	**1064**	**987**
Norway[5]											
Ekofisk-Ula Area	193	176	200	199	137	190	180	194	21	192	190
Oseberg-Troll Area	247	253	272	257	247	246	260	265	257	253	254
Statfjord-Gullfaks Area	311	238	169	281	217	236	219	187	173	273	230
Haltenbanken Area	331	282	284	290	271	275	291	298	276	288	295
Sleipner-Frigg Area	403	394	745	387	355	349	483	628	328	356	360
NGLs	365	343	335	361	339	335	337	335	340	351	336
Total	**1850**	**1702**	**2080**	**1775**	**1568**	**1652**	**1815**	**1969**	**1396**	**1712**	**1693**
Other OECD Europe											
Other N Sea Crude/NGLs[6]	129	123	106	129	129	120	114	110	131	116	122
UK Onshore	18	17	15	18	17	16	16	16	17	17	16
Italy	90	84	107	86	78	82	90	98	75	80	82
Turkey	55	57	58	54	58	58	58	58	60	58	58
Other	117	109	99	117	109	107	104	102	100	109	107
NGLs (excl. North Sea)	10	9	7	9	7	9	9	8	6	9	9
Non-Conventional Oils	89	65	65	72	61	63	63	66	69	60	64
Total	**509**	**463**	**458**	**485**	**459**	**455**	**455**	**457**	**458**	**449**	**458**
Australia											
Gippsland Basin	32	20	19	21	21	20	20	19	20	20	20
Cooper-Eromanga Basin	35	38	35	39	38	38	37	36	38	38	38
Carnarvon Basin	205	196	219	201	195	193	197	207	194	193	192
Other Crude	4	12	12	9	17	12	12	12	32	12	12
NGLs	59	64	92	49	59	69	77	87	67	65	69
Total	**342**	**410**	**489**	**368**	**407**	**418**	**445**	**471**	**429**	**410**	**418**
Other OECD Asia Oceania											
New Zealand	25	25	23	25	26	25	25	24	26	25	25
Japan	3	4	4	4	4	4	4	4	4	4	4
NGLs	13	12	11	14	11	11	11	11	11	11	11
Synthetic Fuels	29	29	31	24	32	31	31	31	30	31	31
Total	**70**	**70**	**69**	**67**	**73**	**71**	**71**	**70**	**71**	**71**	**71**
OECD											
Crude Oil	19294	20323	21871	19877	20113	20210	21078	21522	19912	20041	20238
NGLs	6010	6487	6751	6378	6468	6502	6597	6624	6452	6347	6606
Non-Conventional Oils[4]	1557	1621	1629	1657	1567	1627	1635	1654	1622	1735	1713
Total	**26862**	**28431**	**30251**	**27912**	**28148**	**28339**	**29310**	**29800**	**27986**	**28123**	**28557**

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

Table 4
OECD STOCKS AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Mar2019	Apr2019	May2019	Jun2019	Jul2019*	Jul2016	Jul2017	Jul2018	3Q2018	4Q2018	1Q2019	2Q2019
OECD INDUSTRY-CONTROLLED STOCKS[1]												
OECD Americas												
Crude	615.2	629.6	639.2	613.9	589.0	649.7	643.3	563.2	0.00	0.35	0.12	-0.01
Motor Gasoline	266.4	260.7	265.1	261.6	261.8	272.8	262.2	264.7	0.04	0.09	-0.13	-0.05
Middle Distillate	205.1	199.8	198.8	199.1	208.7	230.1	222.2	199.3	0.27	0.01	-0.12	-0.07
Residual Fuel Oil	34.1	33.5	35.0	35.4	38.3	45.0	36.9	34.7	0.00	-0.01	-0.01	0.01
Total Products[3]	709.6	710.7	733.0	745.5	771.3	794.9	751.8	723.2	0.61	-0.17	-0.41	0.39
Total[4]	**1508.3**	**1532.5**	**1571.9**	**1561.1**	**1558.3**	**1639.7**	**1588.0**	**1478.3**	**0.76**	**0.01**	**-0.34**	**0.58**
OECD Europe												
Crude	363.4	357.2	355.5	357.7	349.5	368.6	362.1	363.0	-0.31	-0.02	0.33	-0.06
Motor Gasoline	99.0	88.7	88.3	89.8	89.4	97.5	90.1	82.1	0.01	0.10	0.06	-0.10
Middle Distillate	268.3	270.8	273.2	278.6	280.7	335.3	305.6	258.7	0.18	-0.11	0.13	0.11
Residual Fuel Oil	59.3	59.0	60.7	59.2	59.8	76.0	63.8	58.7	-0.02	-0.02	0.06	0.00
Total Products[3]	541.4	530.1	534.3	544.0	549.3	611.6	568.8	516.0	0.16	-0.06	0.28	0.03
Total[4]	**986.5**	**967.5**	**970.4**	**980.9**	**981.4**	**1051.0**	**1006.6**	**957.9**	**-0.21**	**-0.03**	**0.66**	**-0.06**
OECD Asia Oceania												
Crude	158.9	156.8	155.1	151.3	147.7	196.2	197.0	158.5	-0.24	0.16	0.05	-0.08
Motor Gasoline	25.9	25.1	26.5	24.6	26.4	24.9	22.8	24.7	0.00	0.00	0.02	-0.01
Middle Distillate	67.1	65.2	68.0	69.5	73.2	71.7	64.1	71.6	0.13	-0.04	-0.07	0.03
Residual Fuel Oil	19.7	20.5	20.3	20.1	19.6	19.4	21.6	19.7	-0.01	0.01	-0.01	0.00
Total Products[3]	164.4	161.7	170.1	173.1	180.0	184.2	175.6	172.0	0.22	-0.04	-0.18	0.10
Total[4]	**379.7**	**379.8**	**385.6**	**387.9**	**391.8**	**441.6**	**436.5**	**393.8**	**0.02**	**0.11**	**-0.22**	**0.09**
Total OECD												
Crude	1137.4	1143.5	1149.8	1122.9	1086.2	1214.5	1202.4	1084.7	-0.55	0.49	0.50	-0.16
Motor Gasoline	391.3	374.5	379.8	376.0	377.7	395.2	375.1	371.5	0.04	0.19	-0.06	-0.17
Middle Distillate	540.4	535.8	540.0	547.3	562.6	637.0	591.7	529.7	0.58	-0.14	-0.06	0.08
Residual Fuel Oil	113.2	113.0	116.1	114.8	117.8	140.4	122.3	113.2	-0.04	-0.02	0.04	0.02
Total Products[3]	1415.4	1402.4	1437.3	1462.6	1500.5	1590.7	1496.2	1411.2	0.98	-0.27	-0.30	0.52
Total[4]	**2874.4**	**2879.8**	**2927.9**	**2929.9**	**2931.4**	**3132.3**	**3031.2**	**2830.0**	**0.57**	**0.08**	**0.11**	**0.61**
OECD GOVERNMENT-CONTROLLED STOCKS[5]												
OECD Americas												
Crude	649.1	648.6	644.8	644.8	644.8	695.1	678.9	660.0	0.00	-0.12	0.00	-0.05
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	208.9	209.4	206.3	207.0	206.2	205.7	208.3	211.0	0.01	-0.01	-0.02	-0.02
Products	276.6	277.9	277.2	275.7	276.0	269.9	269.7	277.2	-0.05	-0.04	0.10	-0.01
OECD Asia Oceania												
Crude	378.6	378.6	378.6	378.6	378.6	385.4	385.0	383.3	0.00	-0.02	-0.03	0.00
Products	38.8	38.8	38.8	38.8	38.9	35.5	38.0	38.7	0.00	0.00	0.00	0.00
Total OECD												
Crude	1236.6	1236.6	1229.7	1230.4	1229.7	1286.2	1272.2	1254.3	0.01	-0.16	-0.05	-0.07
Products	317.3	318.6	318.0	316.5	316.8	307.4	309.7	318.0	-0.05	-0.04	0.10	-0.01
Total[4]	**1556.9**	**1557.5**	**1549.8**	**1548.8**	**1548.3**	**1596.1**	**1585.2**	**1575.5**	**-0.05**	**-0.20**	**0.06**	**-0.09**

* estimated

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

2 Closing stock levels.

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

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

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

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

(million barrels)

	February			March			April			May			June		
	2018	2019	%	2018	2019	%	2018	2019	%	2018	2019	%	2018	2019	%
United States[2]															
Crude	423.5	451.7	6.7	423.4	459.3	8.5	435.1	468.8	7.7	433.3	480.2	10.8	414.8	461.0	11.1
Motor Gasoline	252.6	251.4	-0.5	239.6	236.1	-1.5	239.9	230.2	-4.0	242.2	235.7	-2.7	240.3	231.5	-3.7
Middle Distillate	183.2	180.1	-1.7	172.4	175.7	1.9	162.9	171.1	5.0	157.9	171.4	8.5	162.5	171.8	5.7
Residual Fuel Oil	32.8	27.8	-15.2	35.0	28.7	-18.0	32.3	27.9	-13.6	31.9	30.0	-6.0	30.0	30.3	1.0
Other Products	160.6	176.1	9.7	162.1	183.7	13.3	168.9	195.6	15.8	180.8	214.0	18.4	193.0	230.6	19.5
Total Products	629.2	635.4	1.0	609.1	624.2	2.5	604.0	624.8	3.4	612.8	651.1	6.3	625.8	664.2	6.1
Other[3]	157.5	166.2	5.5	163.7	165.5	1.1	161.1	173.7	7.8	164.3	181.0	10.2	166.5	180.8	8.6
Total	**1210.2**	**1253.3**	**3.6**	**1196.2**	**1249.0**	**4.4**	**1200.2**	**1267.3**	**5.6**	**1210.4**	**1312.3**	**8.4**	**1207.1**	**1306.0**	**8.2**
Japan															
Crude	95.9	95.1	-0.8	87.3	95.5	9.4	93.4	94.1	0.7	97.5	97.2	-0.3	92.6	91.9	-0.8
Motor Gasoline	10.4	10.1	-2.9	10.1	10.3	2.0	10.7	9.7	-9.3	11.5	9.8	-14.8	9.9	9.5	-4.0
Middle Distillate	25.1	28.1	12.0	27.8	26.9	-3.2	29.8	25.8	-13.4	29.4	27.4	-6.8	28.4	28.2	-0.7
Residual Fuel Oil	7.1	8.0	12.7	7.2	8.0	11.1	7.7	7.9	2.6	8.3	8.0	-3.6	8.0	7.8	-2.5
Other Products	32.9	36.2	10.0	33.8	30.6	-9.5	34.2	30.9	-9.6	33.1	33.8	2.1	32.5	35.8	10.2
Total Products	75.5	82.4	9.1	78.9	75.8	-3.9	82.4	74.3	-9.8	82.3	79.0	-4.0	78.8	81.3	3.2
Other[3]	47.6	49.2	3.4	46.0	47.1	2.4	50.9	51.4	1.0	52.9	50.8	-4.0	51.7	53.1	2.7
Total	**219.0**	**226.7**	**3.5**	**212.2**	**218.4**	**2.9**	**226.7**	**219.8**	**-3.0**	**232.7**	**227.0**	**-2.4**	**223.1**	**226.3**	**1.4**
Germany															
Crude	47.6	47.8	0.4	50.8	47.8	-5.9	48.0	48.7	1.5	48.9	48.6	-0.6	49.4	47.9	-3.0
Motor Gasoline	11.3	12.3	8.8	10.7	10.9	1.9	10.0	9.5	-5.0	9.5	10.0	5.3	9.4	11.9	26.6
Middle Distillate	24.5	22.9	-6.5	24.3	23.8	-2.1	26.5	23.7	-10.6	25.6	22.7	-11.3	25.2	25.2	0.0
Residual Fuel Oil	8.2	7.9	-3.7	8.1	7.0	-13.6	8.1	7.1	-12.3	8.3	7.0	-15.7	7.8	6.8	-12.8
Other Products	10.9	10.3	-5.5	10.8	10.9	0.9	10.9	10.3	-5.5	10.6	10.1	-4.7	10.8	10.4	-3.7
Total Products	54.9	53.4	-2.7	53.9	52.6	-2.4	55.5	50.6	-8.8	54.0	49.8	-7.8	53.2	54.3	2.1
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	**102.5**	**101.2**	**-1.3**	**104.7**	**100.4**	**-4.1**	**103.5**	**99.3**	**-4.1**	**102.9**	**98.4**	**-4.4**	**102.6**	**102.2**	**-0.4**
Italy															
Crude	38.7	38.4	-0.8	36.4	42.2	15.9	42.0	43.1	2.6	40.9	40.4	-1.2	39.7	45.0	13.4
Motor Gasoline	13.8	13.6	-1.4	13.2	13.0	-1.5	11.8	11.1	-5.9	10.3	11.0	6.8	10.9	11.3	3.7
Middle Distillate	30.1	31.2	3.7	30.3	30.3	0.0	27.5	29.9	8.7	28.2	29.3	3.9	27.4	28.0	2.2
Residual Fuel Oil	10.3	9.5	-7.8	9.6	8.4	-12.5	10.2	8.7	-14.7	10.4	8.6	-17.3	9.8	8.7	-11.2
Other Products	13.6	12.6	-7.4	13.7	12.7	-7.3	12.9	12.1	-6.2	13.4	11.7	-12.7	12.9	12.4	-3.9
Total Products	67.8	66.9	-1.3	66.8	64.4	-3.6	62.4	61.8	-1.0	62.3	60.6	-2.7	61.0	60.4	-1.0
Other[3]	15.9	15.0	-5.7	15.1	14.7	-2.6	15.2	14.8	-2.6	16.1	16.2	0.6	15.6	13.8	-11.5
Total	**122.4**	**120.3**	**-1.7**	**118.3**	**121.3**	**2.5**	**119.6**	**119.7**	**0.1**	**119.3**	**117.2**	**-1.8**	**116.3**	**119.2**	**2.5**
France															
Crude	12.5	11.4	-8.8	14.3	14.9	4.2	13.6	12.9	-5.1	15.2	13.7	-9.9	15.8	15.8	0.0
Motor Gasoline	4.5	4.5	0.0	3.5	4.5	28.6	3.4	3.8	11.8	3.3	4.5	36.4	4.1	5.9	43.9
Middle Distillate	18.9	20.5	8.5	17.5	20.4	16.6	20.1	20.9	4.0	18.9	21.7	14.8	18.1	21.1	16.6
Residual Fuel Oil	1.4	1.2	-14.3	1.2	1.4	16.7	1.0	0.9	-10.0	0.9	0.8	-11.1	0.8	0.9	12.5
Other Products	4.0	4.3	7.5	3.7	4.5	21.6	3.5	4.0	14.3	3.4	3.9	14.7	3.4	4.3	26.5
Total Products	28.8	30.5	5.9	25.9	30.8	18.9	28.0	29.6	5.7	26.5	30.9	16.6	26.4	32.2	22.0
Other[3]	8.1	8.3	2.5	8.6	8.0	-7.0	8.8	7.4	-15.9	9.0	7.6	-15.6	9.3	8.5	-8.6
Total	**49.4**	**50.2**	**1.6**	**48.8**	**53.7**	**10.0**	**50.4**	**49.9**	**-1.0**	**50.7**	**52.2**	**3.0**	**51.5**	**56.5**	**9.7**
United Kingdom															
Crude	27.8	27.9	0.4	27.8	31.3	12.6	30.3	30.6	1.0	32.7	29.1	-11.0	34.2	30.0	-12.3
Motor Gasoline	11.0	10.5	-4.5	11.2	10.3	-8.0	10.5	9.8	-6.7	9.4	9.0	-4.3	9.9	8.7	-12.1
Middle Distillate	24.8	24.8	0.0	23.7	24.2	2.1	23.7	25.9	9.3	23.8	24.9	4.6	23.0	24.3	5.7
Residual Fuel Oil	1.6	0.9	-43.8	1.4	1.3	-7.1	1.2	1.4	16.7	1.2	1.3	8.3	1.3	1.4	7.7
Other Products	5.6	4.9	-12.5	5.3	5.1	-3.8	5.3	6.2	17.0	4.7	6.1	29.8	5.2	6.6	26.9
Total Products	43.0	41.1	-4.4	41.6	40.9	-1.7	40.7	43.3	6.4	39.1	41.3	5.6	39.4	41.0	4.1
Other[3]	8.7	8.8	1.1	8.4	8.6	2.4	7.6	9.7	27.6	8.5	8.8	3.5	8.4	8.9	6.0
Total	**79.5**	**77.8**	**-2.1**	**77.8**	**80.8**	**3.9**	**78.6**	**83.6**	**6.4**	**80.3**	**79.2**	**-1.4**	**82.0**	**79.9**	**-2.6**
Canada[4]															
Crude	117.0	120.9	3.3	120.3	122.8	2.1	115.7	125.3	8.3	123.6	126.2	2.1	120.9	121.6	0.6
Motor Gasoline	18.0	14.9	-17.2	18.9	14.8	-21.7	16.8	14.6	-13.1	14.0	14.4	2.9	14.3	13.9	-2.8
Middle Distillate	19.7	16.4	-16.8	21.7	16.9	-22.1	20.1	17.1	-14.9	16.1	15.5	-3.7	17.0	14.9	-12.4
Residual Fuel Oil	2.4	2.7	12.5	2.1	2.4	14.3	2.4	2.2	-8.3	2.1	1.6	-23.8	2.3	2.0	-13.0
Other Products	11.3	11.7	3.5	12.6	11.6	-7.9	12.9	11.4	-11.6	13.7	11.2	-18.2	12.8	9.6	-25.0
Total Products	51.4	45.7	-11.1	55.3	45.7	-17.4	52.2	45.3	-13.2	45.9	42.7	-7.0	46.4	40.4	-12.9
Other[3]	15.8	18.8	19.0	16.2	17.7	9.3	18.0	18.4	2.2	20.6	18.5	-10.2	23.0	20.5	-10.9
Total	**184.2**	**185.4**	**0.7**	**191.8**	**186.2**	**-2.9**	**185.9**	**189.0**	**1.7**	**190.1**	**187.4**	**-1.4**	**190.3**	**182.5**	**-4.1**

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

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

	End June 2018		End September 2018		End December 2018		End March 2019		End June 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	190.3	74	195.5	78	192.3	81	186.1	79	182.5	-
Chile	12.3	34	11.6	32	10.4	28	10.5	27	11.0	-
Mexico	39.1	21	40.6	22	54.7	29	40.5	21	39.6	-
United States[4]	1869.2	91	1933.6	94	1913.5	94	1900.2	94	1952.7	-
Total[4]	**2133.1**	**83**	**2203.3**	**86**	**2193.0**	**87**	**2159.4**	**85**	**2207.9**	**85**
OECD Asia Oceania										
Australia	42.4	36	42.6	35	40.7	35	44.0	37	45.5	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	549.4	154	561.2	143	564.8	138	539.7	158	547.7	-
Korea	209.6	81	200.0	79	205.8	78	205.1	83	204.4	-
New Zealand	8.4	48	7.8	41	7.9	41	8.2	48	7.6	-
Total	**809.8**	**104**	**811.6**	**100**	**819.2**	**98**	**797.0**	**106**	**805.3**	**104**
OECD Europe[5]										
Austria	21.2	73	20.2	73	20.9	80	23.0	80	21.5	-
Belgium	43.3	69	44.0	68	42.0	63	45.8	78	49.1	-
Czech Republic	21.4	96	21.5	97	22.8	110	23.0	100	20.4	-
Denmark	22.8	142	20.6	126	20.3	133	22.1	135	24.4	-
Estonia	2.6	82	2.6	84	2.9	87	2.6	88	2.7	-
Finland	40.8	193	40.0	196	39.9	198	38.5	197	38.9	-
France	168.5	97	164.6	97	160.8	94	169.0	99	169.2	-
Germany	278.3	118	272.6	118	271.0	112	274.5	119	279.4	-
Greece	32.1	99	34.4	113	32.1	110	35.3	116	29.0	-
Hungary	25.2	142	25.6	147	25.6	158	25.8	147	23.8	-
Ireland	10.0	65	9.9	61	10.2	65	10.8	69	9.8	-
Italy	125.4	97	124.5	99	125.1	116	130.5	114	129.4	-
Latvia	3.6	91	2.3	70	2.4	67	4.0	98	3.9	-
Lithuania	7.1	93	6.8	103	6.6	113	7.5	107	6.2	-
Luxembourg	0.4	7	0.5	8	0.5	8	0.5	8	0.6	-
Netherlands	133.4	148	136.0	156	133.3	147	151.2	183	147.0	-
Norway	26.4	105	24.1	121	26.7	161	27.2	165	26.6	-
Poland	75.7	105	74.1	108	76.8	118	77.8	112	75.0	-
Portugal	23.8	97	23.5	102	24.6	107	26.4	105	24.8	-
Slovak Republic	11.6	127	12.0	124	11.8	135	12.0	141	11.2	-
Slovenia	4.9	85	4.8	89	5.0	107	4.9	93	5.1	-
Spain	117.9	88	119.7	89	115.9	87	124.2	93	126.0	-
Sweden	37.7	119	34.5	108	35.8	118	38.3	114	43.9	-
Switzerland	33.6	158	33.0	141	30.8	137	31.6	148	30.7	-
Turkey	90.1	81	87.0	102	87.6	101	87.7	90	87.0	-
United Kingdom	82.1	51	77.5	50	76.4	49	80.7	51	79.9	-
Total	**1439.9**	**98**	**1416.2**	**101**	**1407.8**	**101**	**1474.9**	**105**	**1465.5**	**99**
Total OECD	**4382.8**	**91**	**4431.1**	**93**	**4420.0**	**93**	**4431.4**	**95**	**4478.6**	**92**
DAYS OF IEA Net Imports[6]	-	**188**	-	**190**	-	**189**	-	**191**	-	**215**

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End June 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]		
2Q2016	4675	1594	3081	98	34	65
3Q2016	4686	1597	3089	99	34	65
4Q2016	4609	1601	3008	98	34	64
1Q2017	4638	1601	3037	98	34	64
2Q2017	4615	1590	3025	96	33	63
3Q2017	4554	1579	2975	94	33	62
4Q2017	4428	1569	2859	92	33	60
1Q2018	4388	1577	2811	93	33	60
2Q2018	4383	1575	2808	91	33	58
3Q2018	4431	1570	2861	93	33	60
4Q2018	4420	1552	2868	93	33	60
1Q2019	4431	1557	2874	95	33	61
2Q2019	4479	1549	2930	92	32	60

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 2Q2019 (when latest forecasts are used).

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	Year Earlier change
Saudi Light & Extra Light												
Americas	0.69	0.59	0.66	0.64	0.66	0.35	0.15	0.29	0.04	0.12	0.97	-0.84
Europe	0.79	0.69	0.69	0.76	0.73	0.70	0.75	0.70	0.79	0.75	0.80	-0.05
Asia Oceania	1.40	1.56	1.45	1.36	1.50	1.62	1.41	1.50	1.40	1.34	1.40	-0.06
Saudi Medium												
Americas	0.44	0.33	0.30	0.37	0.33	0.13	0.21	0.29	0.02	0.32	0.26	0.06
Europe	0.01	0.01	0.01	0.01	0.01	-	0.01	0.01	0.01	0.01	-	-
Asia Oceania	0.41	0.37	0.41	0.41	0.39	0.24	0.23	0.24	0.22	0.23	0.42	-0.19
Canada Heavy												
Americas	2.04	2.23	2.41	2.39	2.43	2.29	2.17	2.16	2.07	2.29	2.61	-0.32
Europe	0.01	0.02	0.04	0.05	0.02	0.03	0.05	0.03	0.06	0.08	0.02	0.06
Asia Oceania	-	-	0.00	-	0.01	-	-	-	-	-	-	-
Iraqi Basrah Light[2]												
Americas	0.42	0.63	0.50	0.41	0.32	0.46	0.24	0.14	0.18	0.40	0.39	0.01
Europe	0.81	0.76	0.76	0.87	0.92	0.89	0.96	0.74	1.21	0.93	0.67	0.26
Asia Oceania	0.46	0.40	0.43	0.42	0.42	0.45	0.39	0.53	0.31	0.32	0.53	-0.21
Kuwait Blend												
Americas	0.14	0.11	0.02	-	-	-	-	-	-	-	0.11	-
Europe	0.19	0.20	0.13	0.17	0.13	0.04	0.11	0.08	0.10	0.16	0.10	0.05
Asia Oceania	0.66	0.68	0.66	0.67	0.62	0.63	0.62	0.67	0.67	0.51	0.58	-0.06
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.21	0.27	0.16	0.13	0.03	0.01	-	-	-	-	0.26	-
Asia Oceania	0.01	0.01	0.01	0.01	-	0.01	-	-	-	-	0.01	-
Iranian Heavy[3]												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.21	0.52	0.35	0.41	0.11	0.09	0.07	0.10	0.09	0.00	0.39	-0.38
Asia Oceania	0.52	0.57	0.28	0.24	0.02	0.36	0.18	0.56	-	-	0.32	-
BFOE												
Americas	0.02	0.02	0.00	0.00	-	-	-	-	-	-	-	-
Europe	0.44	0.45	0.35	0.43	0.31	0.39	0.31	0.29	0.39	0.24	0.33	-0.09
Asia Oceania	0.05	0.10	0.09	0.07	0.10	-	0.01	-	0.03	-	0.07	-
Kazakhstan												
Americas	0.01	-	-	-	-	-	-	-	-	-	-	-
Europe	0.70	0.75	0.75	0.70	0.71	0.86	0.78	0.82	0.75	0.77	0.68	0.09
Asia Oceania	0.03	0.10	0.19	0.21	0.22	0.17	0.17	0.11	0.15	0.25	0.18	0.07
Venezuelan 22 API and heavier												
Americas	0.63	0.48	0.44	0.45	0.45	0.19	-	-	-	-	0.46	-
Europe	0.05	0.04	0.03	0.03	0.06	0.10	0.06	0.07	0.06	0.06	0.03	0.03
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.53	0.58	0.63	0.75	0.51	0.54	0.51	0.58	0.44	0.50	0.81	-0.31
Europe	0.17	0.20	0.21	0.17	0.17	0.21	0.21	0.24	0.15	0.23	0.14	0.09
Asia Oceania	0.05	0.07	0.08	0.08	0.09	0.12	0.14	0.20	0.09	0.13	0.09	0.04
Russian Urals												
Americas	-	0.01	0.01	-	0.02	0.04	-	-	-	-	-	-
Europe	1.72	1.64	1.40	1.37	1.38	1.38	1.38	1.54	1.06	1.55	1.36	0.19
Asia Oceania	-	0.01	0.00	-	-	-	-	-	-	-	-	-
Cabinda and Other Angola												
North America	0.16	0.07	0.06	0.11	0.02	-	0.04	-	-	0.11	0.15	-0.04
Europe	0.27	0.11	0.14	0.22	0.08	0.17	0.10	0.09	0.14	0.06	0.06	0.00
Pacific	0.01	0.01	0.01	-	0.03	-	-	-	-	-	0.01	-
Nigerian Light[4]												
Americas	0.07	0.04	0.01	-	-	-	0.07	-	0.16	0.06	-	-
Europe	0.39	0.39	0.53	0.54	0.63	0.47	0.58	0.42	0.60	0.72	0.38	0.34
Asia Oceania	0.01	0.02	0.02	0.01	0.02	0.03	0.00	0.01	-	-	0.02	-
Libya Light and Medium												
Americas	-	0.02	-	-	-	-	0.01	-	-	0.03	-	-
Europe	0.20	0.54	0.62	0.55	0.65	0.54	0.72	0.72	0.77	0.66	0.62	0.04
Asia Oceania	0.02	0.03	0.02	0.02	0.02	0.04	0.03	-	0.03	0.05	-	-

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

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	Year Earlier % change
Crude Oil												
Americas	4542	4361	3759	3905	3223	2891	3020	2691	3137	3228	4050	-20%
Europe	9437	9902	9814	10046	9664	10014	9574	9964	9198	9575	9537	0%
Asia Oceania	6659	6846	6658	6473	6821	6860	6304	6749	6082	6087	6232	-2%
Total OECD	**20639**	**21109**	**20230**	**20425**	**19708**	**19766**	**18898**	**19403**	**18417**	**18890**	**19820**	**-5%**
LPG												
Americas	20	20	22	17	24	35	19	24	17	17	12	44%
Europe	441	432	457	404	470	482	411	425	365	445	486	-8%
Asia Oceania	567	550	556	504	556	587	553	504	563	592	584	1%
Total OECD	**1028**	**1002**	**1035**	**925**	**1050**	**1105**	**984**	**953**	**945**	**1054**	**1082**	**-3%**
Naphtha												
Americas	10	19	8	6	11	5	4	6	3	3	3	10%
Europe	348	369	391	376	364	348	334	397	274	333	421	-21%
Asia Oceania	908	978	1018	1004	1085	918	955	978	943	945	880	7%
Total OECD	**1266**	**1366**	**1417**	**1386**	**1461**	**1271**	**1293**	**1380**	**1220**	**1281**	**1304**	**-2%**
Gasoline[3]												
Americas	735	727	773	968	504	595	1048	1036	1250	850	1084	-22%
Europe	91	153	110	83	77	118	148	158	169	116	92	25%
Asia Oceania	87	101	107	91	94	108	110	123	117	90	105	-14%
Total OECD	**913**	**981**	**991**	**1142**	**676**	**821**	**1305**	**1317**	**1536**	**1056**	**1281**	**-18%**
Jet & Kerosene												
Americas	169	171	140	178	115	138	179	198	172	169	175	-3%
Europe	502	504	509	591	476	455	567	568	558	575	490	17%
Asia Oceania	73	80	88	55	120	81	60	72	74	33	41	-20%
Total OECD	**744**	**755**	**737**	**825**	**711**	**674**	**806**	**838**	**804**	**776**	**706**	**10%**
Gasoil/Diesel												
Americas	67	77	124	130	125	204	77	69	85	77	31	152%
Europe	1304	1337	1339	1397	1224	1396	1299	1320	1176	1405	1408	0%
Asia Oceania	196	195	254	232	313	231	260	287	262	229	215	6%
Total OECD	**1566**	**1610**	**1717**	**1758**	**1663**	**1830**	**1636**	**1677**	**1523**	**1711**	**1654**	**3%**
Heavy Fuel Oil												
Americas	149	131	161	195	130	149	105	116	115	82	143	-42%
Europe	461	233	197	172	208	217	224	209	239	226	151	50%
Asia Oceania	153	146	162	151	149	103	107	52	130	138	152	-9%
Total OECD	**762**	**510**	**520**	**518**	**488**	**469**	**436**	**376**	**483**	**447**	**445**	**0%**
Other Products												
Americas	652	717	679	699	637	520	742	798	703	727	657	11%
Europe	783	1012	1008	1056	937	1006	902	929	951	823	989	-17%
Asia Oceania	348	258	281	271	294	274	292	262	337	276	281	-2%
Total OECD	**1783**	**1987**	**1968**	**2026**	**1869**	**1800**	**1936**	**1988**	**1991**	**1826**	**1927**	**-5%**
Total Products												
Americas	1802	1862	1908	2194	1547	1645	2174	2246	2345	1925	2104	-8%
Europe	3930	4040	4011	4078	3756	4022	3885	4007	3731	3924	4037	-3%
Asia Oceania	2332	2309	2466	2308	2613	2302	2336	2277	2426	2302	2257	2%
Total OECD	**8063**	**8211**	**8385**	**8580**	**7916**	**7969**	**8395**	**8530**	**8502**	**8150**	**8398**	**-3%**
Total Oil												
Americas	6344	6223	5666	6100	4770	4536	5194	4936	5482	5153	6154	-16%
Europe	13367	13942	13825	14124	13420	14036	13460	13970	12928	13498	13575	-1%
Asia Oceania	8991	9154	9124	8781	9434	9162	8640	9026	8509	8389	8489	-1%
Total OECD	**28702**	**29320**	**28615**	**29005**	**27624**	**27734**	**27293**	**27933**	**26919**	**27041**	**28218**	**-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.

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	% change
Crude Oil												
Americas	4428	4235	3606	3749	3051	2790	2747	2486	2830	2922	3894	-25%
Europe	9051	9436	9093	9380	8926	9100	8773	9261	8423	8646	8858	-2%
Asia Oceania	6429	6550	6210	6004	6175	6318	5733	6148	5489	5571	5852	-5%
Total OECD	**19909**	**20221**	**18910**	**19133**	**18152**	**18208**	**17253**	**17895**	**16741**	**17139**	**18603**	**-8%**
LPG												
Americas	16	16	15	14	16	27	19	24	17	17	8	115%
Europe	329	337	350	320	349	354	307	337	278	306	350	-13%
Asia Oceania	342	205	161	111	143	85	99	77	115	105	163	-36%
Total OECD	**687**	**557**	**527**	**445**	**508**	**466**	**425**	**438**	**410**	**427**	**521**	**-18%**
Naphtha												
Americas	5	16	4	2	8	1	0	1	0	0	0	na
Europe	329	350	360	355	305	328	322	389	264	314	396	-21%
Asia Oceania	856	931	921	906	1002	801	865	858	851	887	851	4%
Total OECD	**1189**	**1297**	**1286**	**1263**	**1315**	**1130**	**1187**	**1248**	**1115**	**1202**	**1247**	**-4%**
Gasoline[3]												
Americas	246	213	271	344	210	244	337	394	369	247	338	-27%
Europe	89	149	105	80	73	114	142	154	160	111	84	33%
Asia Oceania	86	101	84	77	84	89	54	61	53	49	56	-13%
Total OECD	**422**	**463**	**460**	**501**	**368**	**447**	**533**	**608**	**582**	**406**	**478**	**-15%**
Jet & Kerosene												
Americas	72	67	56	49	37	45	18	23	17	14	78	-82%
Europe	409	436	445	491	425	414	518	539	519	495	435	14%
Asia Oceania	73	80	88	55	120	81	60	72	74	33	41	-20%
Total OECD	**554**	**583**	**589**	**594**	**582**	**540**	**596**	**634**	**610**	**542**	**554**	**-2%**
Gasoil/Diesel												
Americas	37	50	100	105	114	167	32	38	38	19	25	-23%
Europe	988	1086	1160	1154	1070	1228	1105	1126	1008	1185	1175	1%
Asia Oceania	194	194	254	232	313	231	260	287	262	229	215	6%
Total OECD	**1220**	**1331**	**1514**	**1491**	**1497**	**1626**	**1396**	**1451**	**1308**	**1433**	**1415**	**1%**
Heavy Fuel Oil												
Americas	130	123	147	186	117	123	98	106	109	79	133	-41%
Europe	436	218	185	153	190	206	196	188	212	188	143	31%
Asia Oceania	152	146	162	151	148	101	107	52	130	138	152	-9%
Total OECD	**718**	**487**	**493**	**490**	**454**	**430**	**401**	**346**	**450**	**405**	**429**	**-6%**
Other Products												
Americas	526	542	522	541	481	345	558	590	534	552	511	8%
Europe	516	731	710	781	630	736	655	679	692	592	716	-17%
Asia Oceania	268	181	200	192	206	192	199	192	239	165	186	-11%
Total OECD	**1310**	**1454**	**1432**	**1514**	**1317**	**1273**	**1412**	**1461**	**1465**	**1309**	**1413**	**-7%**
Total Products												
Americas	1031	1026	1115	1241	982	952	1062	1176	1083	927	1094	-15%
Europe	3097	3307	3314	3333	3042	3382	3244	3412	3133	3191	3300	-3%
Asia Oceania	1970	1838	1870	1724	2016	1579	1644	1599	1724	1606	1664	-4%
Total OECD	**6099**	**6171**	**6299**	**6298**	**6041**	**5913**	**5950**	**6186**	**5940**	**5724**	**6058**	**-6%**
Total Oil												
Americas	5460	5261	4721	4990	4033	3742	3809	3662	3913	3849	4987	-23%
Europe	12149	12744	12408	12714	11968	12482	12017	12673	11556	11837	12158	-3%
Asia Oceania	8400	8388	8080	7728	8192	7897	7377	7746	7213	7177	7516	-5%
Total OECD	**26008**	**26393**	**25209**	**25431**	**24193**	**24122**	**23203**	**24082**	**22681**	**22864**	**24661**	**-7%**

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

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	Year Earlier % change
Crude Oil												
Americas	114	126	153	157	172	101	273	204	307	306	157	95%
Europe	386	466	721	666	738	914	802	702	775	929	680	37%
Asia Oceania	230	296	448	469	645	542	570	601	594	516	380	36%
Total OECD	**730**	**888**	**1321**	**1292**	**1555**	**1557**	**1645**	**1508**	**1676**	**1751**	**1216**	**44%**
LPG												
Americas	4	4	7	4	8	8	0	0	0	0	4	-100%
Europe	112	95	107	84	120	128	105	88	87	140	136	3%
Asia Oceania	225	346	395	393	413	502	454	427	449	487	420	16%
Total OECD	**342**	**445**	**508**	**480**	**542**	**639**	**559**	**515**	**535**	**626**	**560**	**12%**
Naphtha												
Americas	5	3	4	5	4	4	3	4	3	3	3	10%
Europe	19	19	31	21	58	20	12	8	10	19	25	-23%
Asia Oceania	52	47	97	98	83	117	90	120	92	58	29	99%
Total OECD	**77**	**69**	**132**	**123**	**145**	**140**	**106**	**132**	**105**	**80**	**56**	**41%**
Gasoline[3]												
Americas	489	514	502	624	294	351	711	642	881	603	746	-19%
Europe	2	5	5	3	4	4	6	5	8	5	9	-44%
Asia Oceania	0	0	23	14	10	19	56	63	64	41	49	-16%
Total OECD	**491**	**519**	**530**	**641**	**308**	**373**	**772**	**709**	**953**	**649**	**803**	**-19%**
Jet & Kerosene												
Americas	97	104	84	130	78	93	161	174	155	155	97	60%
Europe	93	68	64	100	51	40	49	29	38	79	55	44%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	**190**	**172**	**148**	**230**	**129**	**134**	**210**	**204**	**194**	**234**	**152**	**54%**
Gasoil/Diesel												
Americas	30	28	25	24	12	37	46	31	48	58	6	916%
Europe	315	250	179	243	155	167	194	194	168	221	233	-5%
Asia Oceania	2	1	0	0	0	0	0	0	0	0	0	na
Total OECD	**347**	**279**	**204**	**267**	**166**	**204**	**240**	**225**	**215**	**278**	**239**	**17%**
Heavy Fuel Oil												
Americas	19	8	15	9	14	26	7	10	6	4	9	-59%
Europe	25	15	12	19	18	10	28	20	27	38	7	430%
Asia Oceania	1	0	0	0	2	2	0	0	0	0	0	na
Total OECD	**45**	**23**	**27**	**28**	**33**	**39**	**35**	**31**	**33**	**41**	**16**	**156%**
Other Products												
Americas	126	175	157	158	156	174	184	208	169	175	146	20%
Europe	266	280	298	275	307	270	247	250	259	231	273	-15%
Asia Oceania	81	77	81	79	88	82	93	69	98	111	95	16%
Total OECD	**473**	**532**	**536**	**512**	**552**	**527**	**523**	**527**	**526**	**517**	**513**	**1%**
Total Products												
Americas	770	836	793	953	565	693	1112	1070	1262	998	1010	-1%
Europe	833	733	696	745	714	640	641	595	598	732	737	-1%
Asia Oceania	361	471	597	584	597	722	692	679	702	696	593	17%
Total OECD	**1964**	**2040**	**2085**	**2282**	**1876**	**2055**	**2445**	**2343**	**2562**	**2426**	**2340**	**4%**
Total Oil												
Americas	884	962	945	1110	737	794	1385	1274	1569	1304	1167	12%
Europe	1219	1199	1417	1411	1452	1554	1443	1297	1373	1661	1417	17%
Asia Oceania	591	766	1044	1053	1242	1264	1263	1280	1296	1212	973	25%
Total OECD	**2694**	**2927**	**3406**	**3574**	**3431**	**3612**	**4090**	**3851**	**4238**	**4177**	**3557**	**17%**

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

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	Year Earlier change
OECD Americas												
Venezuela	741	618	506	538	506	285	45	114	11	12	552	-541
Other Central & South America	1023	928	795	791	655	850	964	807	998	1084	823	261
North Sea	109	124	150	151	172	101	258	204	285	283	157	126
Other OECD Europe	1	-	1	-	-	-	15	-	22	23	-	-
Non-OECD Europe	7	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	75	121	145	217	94	151	256	293	249	226	238	-12
Saudi Arabia	1185	1043	983	1084	1037	745	581	603	585	554	973	-419
Kuwait	209	144	78	60	38	84	59	60	57	60	92	-32
Iran	-	-	-	-	-	-	-	-	-	-	-	-
Iraq	418	605	519	459	331	374	340	265	366	390	421	-31
Oman	30	14	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	11	20	5	10	-	-	-	-	-	-	35	-
Other Middle East	-	2	-	-	-	-	-	-	-	-	-	-
West Africa[2]	451	497	317	232	222	165	310	184	380	364	495	-130
Other Africa	223	214	196	260	134	121	179	160	166	211	199	11
Asia	46	26	61	103	34	16	13	-	19	20	66	-45
Other	13	4	3	-	-	-	-	-	-	-	-	-
Total	**4542**	**4361**	**3759**	**3905**	**3223**	**2891**	**3020**	**2691**	**3137**	**3228**	**4050**	**-822**
of which Non-OECD	**4428**	**4235**	**3606**	**3749**	**3051**	**2790**	**2747**	**2486**	**2830**	**2922**	**3894**	**-971**
OECD Europe												
Canada	32	45	81	94	44	66	34	40	9	54	84	-30
Mexico + USA	354	419	640	572	694	848	768	662	766	875	595	280
Venezuela	74	67	57	55	92	145	73	86	68	65	44	21
Other Central & South America	170	160	132	142	134	117	76	52	102	73	97	-24
Non-OECD Europe	11	9	12	9	11	11	11	9	14	10	10	0
Former Soviet Union	4427	4437	4154	4024	4084	4347	4018	4547	3533	3991	4216	-225
Saudi Arabia	861	750	818	921	883	825	852	810	926	818	838	-19
Kuwait	194	201	137	157	116	85	105	130	82	103	100	3
Iran	436	801	536	598	159	148	77	107	93	31	687	-656
Iraq	1000	995	962	1060	1060	1180	1269	1142	1341	1322	884	437
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	12	6	2	-	10	-	-	-	-	-	-	-
Other Middle East	12	1	-	-	-	2	8	12	-	13	-	-
West Africa[2]	1095	960	1115	1269	1143	1146	1099	1115	1034	1150	849	301
Other Africa	738	1045	1161	1149	1234	1074	1160	1250	1162	1070	1134	-65
Asia	-	2	-	-	-	-	-	-	-	-	-	-
Other	21	5	9	-	-	18	24	-	69	0	0	0
Total	**9438**	**9903**	**9816**	**10051**	**9665**	**10015**	**9575**	**9964**	**9199**	**9575**	**9539**	**36**
of which Non-OECD	**9051**	**9436**	**9093**	**9380**	**8926**	**9100**	**8773**	**9261**	**8423**	**8646**	**8858**	**-212**
OECD Asia Oceania												
Canada	-	-	3	-	7	-	-	-	-	-	-	-
Mexico + USA	179	199	344	384	522	542	559	601	561	516	285	231
Venezuela	3	8	-	-	-	-	-	-	-	-	-	-
Other Central & South America	27	35	35	35	42	51	67	40	49	111	34	77
North Sea	51	97	100	85	117	-	11	-	32	-	95	-
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	341	413	437	445	465	458	405	335	415	466	361	105
Saudi Arabia	2078	2163	2042	1879	2148	2108	1868	1965	1799	1842	1995	-153
Kuwait	661	671	672	695	671	680	665	713	709	572	579	-7
Iran	469	543	274	244	11	368	184	557	-	-	332	-
Iraq	456	402	435	416	422	446	388	533	308	325	533	-209
Oman	86	41	56	68	43	54	66	46	82	68	51	17
United Arab Emirates	1154	1148	1094	1148	1119	1116	1224	1117	1354	1196	884	312
Other Middle East	475	391	450	464	454	430	387	277	415	468	371	96
West Africa[2]	74	66	95	76	99	73	77	75	43	115	203	-88
Other Africa	62	92	105	99	122	85	72	54	95	66	41	25
Non-OECD Asia	340	324	320	296	321	263	198	200	185	209	271	-63
Other	205	253	196	140	257	185	133	234	35	135	197	-62
Total	**6659**	**6846**	**6658**	**6473**	**6821**	**6860**	**6304**	**6749**	**6082**	**6087**	**6232**	**-145**
of which Non-OECD	**6429**	**6550**	**6210**	**6004**	**6175**	**6318**	**5733**	**6148**	**5489**	**5571**	**5852**	**-281**
Total OECD Trade	**20640**	**21110**	**20232**	**20429**	**19709**	**19767**	**18899**	**19403**	**18418**	**18890**	**19821**	**-931**
of which Non-OECD	**19909**	**20221**	**18910**	**19133**	**18152**	**18208**	**17253**	**17895**	**16741**	**17139**	**18603**	**-1464**

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

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	Year Earlier change
OECD Americas												
Venezuela	15	18	23	26	23	15	-	-	-	-	32	-
Other Central & South America	69	42	64	83	58	81	65	88	70	36	34	2
ARA (Belgium Germany Netherlands)	155	178	167	200	91	95	302	218	379	306	267	39
Other Europe	328	326	323	420	203	232	368	364	462	275	458	-183
FSU	90	84	80	86	52	66	78	79	102	54	106	-52
Saudi Arabia	-	1	11	14	28	19	9	11	10	7	-	-
Algeria	1	-	1	1	-	-	-	-	-	-	-	-
Other Middle East & Africa	32	24	19	22	12	10	7	8	9	6	4	2
Singapore	6	10	8	16	4	-	8	-	19	6	10	-5
OECD Asia Oceania	6	10	13	7	-	26	41	60	41	22	20	1
Non-OECD Asia (excl. Singapore)	64	63	84	114	48	71	183	209	187	152	167	-15
Other	3	3	0	-	0	-	-	-	-	-	-	-
Total[2]	**769**	**759**	**794**	**988**	**518**	**614**	**1061**	**1036**	**1278**	**863**	**1098**	**-235**
of which Non-OECD	**246**	**213**	**271**	**344**	**210**	**244**	**337**	**394**	**369**	**247**	**338**	**-92**
OECD Europe												
OECD Americas	1	4	4	3	4	3	5	4	7	4	8	-4
Venezuela	0	-	0	0	-	-	-	-	-	-	-	-
Other Central & South America	1	3	5	2	9	6	2	4	1	1	2	-2
Non-OECD Europe	15	15	11	17	9	11	20	16	27	17	14	4
FSU	84	89	70	48	64	67	76	73	63	93	62	31
Saudi Arabia	0	0	2	3	0	1	-	-	-	-	10	-
Algeria	1	1	0	-	1	0	0	-	0	-	-	-
Other Middle East & Africa	2	5	4	4	5	6	4	3	1	8	3	6
Singapore	1	2	2	2	2	2	4	9	2	3	2	1
OECD Asia Oceania	1	1	1	0	-	1	1	1	2	1	0	1
Non-OECD Asia (excl. Singapore)	1	3	2	0	6	0	-	-	-	-	-	-
Other	-3	41	20	14	-9	30	44	56	75	-2	5	-7
Total[2]	**104**	**163**	**122**	**93**	**90**	**126**	**156**	**165**	**179**	**124**	**106**	**18**
of which Non-OECD	**89**	**149**	**105**	**80**	**73**	**114**	**142**	**154**	**160**	**111**	**84**	**27**
OECD Asia Oceania												
OECD Americas	0	-	4	5	-	5	-	-	-	-	17	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	-	0	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	13	9	10	8	40	49	49	23	23	0
Other Europe	-	-	7	-	-	6	15	13	15	18	8	9
FSU	-	-	1	-	-	-	1	-	2	-	-	-
Saudi Arabia	0	0	0	-	2	3	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	-	5	1	5	-	-	-	-	-	-	-	-
Singapore	44	50	47	36	47	41	27	26	31	25	35	-10
Non-OECD Asia (excl. Singapore)	27	30	19	20	21	29	11	19	6	9	6	3
Other	16	15	15	15	15	17	15	15	15	15	15	0
Total[2]	**87**	**101**	**108**	**91**	**94**	**108**	**110**	**123**	**117**	**90**	**105**	**-15**
of which Non-OECD	**86**	**101**	**84**	**77**	**84**	**89**	**54**	**61**	**53**	**49**	**56**	**-7**
Total OECD Trade[2]	**960**	**1023**	**1024**	**1172**	**702**	**849**	**1328**	**1324**	**1574**	**1077**	**1309**	**-231**
of which Non-OECD	**422**	**463**	**460**	**501**	**368**	**447**	**533**	**608**	**582**	**406**	**478**	**-72**

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

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	Year Earlier change
OECD Americas												
Venezuela	0	2	4	8	7	3	-	-	-	-	-	-
Other Central and South America	10	13	30	25	46	29	28	38	28	19	20	-1
ARA (Belgium Germany Netherlands)	3	7	6	4	-	-	2	-	4	3	0	3
Other Europe	9	3	3	-	-	2	4	-	-	13	1	12
FSU	15	6	16	31	7	7	-	-	-	-	-	-
Saudi Arabia	1	2	17	20	24	13	-	-	-	-	1	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	3	4	8	10	4	8	-	-	-	-	-	-
Singapore	1	0	1	-	3	0	-	-	-	-	-	-
OECD Asia Oceania	18	18	15	21	12	35	39	31	43	42	4	37
Non-OECD Asia (excl. Singapore)	9	22	23	11	22	78	3	-	10	-	4	-
Other	0	0	-	-	-	28	-	-	-	-	-	-
Total[2]	**68**	**77**	**124**	**130**	**125**	**204**	**77**	**69**	**85**	**77**	**31**	**47**
of which Non-OECD	**37**	**50**	**100**	**105**	**114**	**167**	**32**	**38**	**38**	**19**	**25**	**-6**
OECD Europe												
OECD Americas	276	222	154	227	128	126	160	150	131	199	206	-7
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	3	3	4	1	1	-	0	1	-	-	16	-
Non-OECD Europe	48	48	39	44	41	41	37	38	39	35	44	-9
FSU	663	732	714	684	641	770	661	707	623	653	690	-36
Saudi Arabia	130	160	225	205	196	208	223	189	193	286	265	21
Algeria	1	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	70	72	76	90	94	94	90	77	117	75	51	24
Singapore	20	15	14	13	20	8	27	34	16	32	15	17
OECD Asia Oceania	40	28	25	16	27	41	34	44	37	22	27	-6
Non-OECD Asia (excl. Singapore)	172	125	151	171	128	188	138	173	97	146	144	1
Other	-18	21	12	12	16	6	13	1	6	32	0	32
Total[2]	**1404**	**1427**	**1414**	**1463**	**1293**	**1482**	**1383**	**1413**	**1260**	**1480**	**1459**	**21**
of which Non-OECD	**988**	**1086**	**1160**	**1154**	**1070**	**1228**	**1105**	**1126**	**1008**	**1185**	**1175**	**10**
OECD Asia Oceania												
OECD Americas	2	1	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	0	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	5	5	4	4	5	5	4	4	4	3	5	-2
Saudi Arabia	1	-	3	-	9	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	2	1	8	1	32	10	9	26	-	-	-	-
Singapore	86	86	141	101	174	91	122	155	100	111	82	29
Non-OECD Asia (excl. Singapore)	95	96	91	120	88	119	120	96	153	110	123	-13
Other	6	7	6	6	6	6	6	6	6	6	6	0
Total[2]	**196**	**195**	**254**	**232**	**313**	**231**	**260**	**287**	**262**	**229**	**215**	**14**
of which Non-OECD	**194**	**194**	**254**	**232**	**313**	**231**	**260**	**287**	**262**	**229**	**215**	**14**
Total OECD Trade[2]	**1669**	**1700**	**1792**	**1825**	**1731**	**1917**	**1720**	**1770**	**1607**	**1786**	**1705**	**81**
of which Non-OECD	**1220**	**1331**	**1514**	**1491**	**1497**	**1626**	**1396**	**1451**	**1308**	**1433**	**1415**	**18**

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

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	change
OECD Americas												
Venezuela	11	16	6	2	1	1	-	-	-	-	20	-
Other Central and South America	0	1	2	1	7	6	1	3	-	-	-	-
ARA (Belgium Germany Netherlands)	0	-	0	1	-	-	-	-	-	-	-	-
Other Europe	-	0	0	-	-	-	-	-	-	-	-	-
FSU	0	1	0	-	-	-	-	-	-	-	0	-
Saudi Arabia	1	2	1	-	2	9	1	2	-	-	0	-
Algeria	-	0	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	3	2	1	0	4	10	-	17	14	-	-
Singapore	0	2	6	5	8	3	1	4	-	-	19	-
OECD Asia Oceania	97	104	84	129	78	93	161	174	155	155	97	58
Non-OECD Asia (excl. Singapore)	55	30	27	28	9	12	5	15	-	-	19	-
Other	3	13	11	12	11	11	-	-	-	-	20	-
Total[2]	**169**	**171**	**140**	**178**	**115**	**138**	**179**	**198**	**172**	**169**	**175**	**-6**
of which Non-OECD	**72**	**67**	**56**	**49**	**37**	**45**	**18**	**23**	**17**	**14**	**78**	**-64**
OECD Europe												
OECD Americas	38	20	32	30	30	19	13	5	3	31	40	-9
Venezuela	6	5	1	1	0	-	-	-	-	-	1	-
Other Central and South America	1	2	2	2	1	3	-	-	-	-	-	-
Non-OECD Europe	4	3	6	17	6	-	6	-	9	9	-	-
FSU	44	33	40	54	37	38	55	45	61	60	42	18
Saudi Arabia	112	94	98	109	102	88	111	142	125	65	95	-30
Algeria	14	12	9	8	8	12	-	-	-	-	1	-
Other Middle East and Africa	178	207	197	201	172	193	236	203	216	290	247	43
Singapore	14	28	25	39	27	11	33	23	34	41	7	34
OECD Asia Oceania	55	48	32	70	21	21	36	24	35	48	15	33
Non-OECD Asia (excl. Singapore)	51	53	69	62	73	74	80	127	77	36	45	-9
Other	-7	1	1	2	0	0	0	0	0	-	1	-
Total[2]	**509**	**508**	**512**	**595**	**478**	**459**	**570**	**571**	**561**	**580**	**495**	**85**
of which Non-OECD	**409**	**436**	**445**	**491**	**425**	**414**	**518**	**539**	**519**	**495**	**435**	**61**
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	-	5	-	-	-	-	-	-	-
Singapore	24	23	27	36	19	21	19	16	23	18	11	7
Non-OECD Asia (excl. Singapore)	36	34	26	6	42	27	21	41	23	-	15	-
Other	13	22	33	13	54	33	19	15	28	15	14	0
Total[2]	**73**	**80**	**88**	**55**	**120**	**81**	**60**	**72**	**74**	**33**	**41**	**-8**
of which Non-OECD	**73**	**80**	**88**	**55**	**120**	**81**	**60**	**72**	**74**	**33**	**41**	**-8**
Total OECD Trade[2]	**751**	**758**	**740**	**829**	**713**	**678**	**810**	**840**	**807**	**782**	**711**	**71**
of which Non-OECD	**554**	**583**	**589**	**594**	**582**	**540**	**596**	**634**	**610**	**542**	**554**	**-12**

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

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

	2016	2017	2018	3Q18	4Q18	1Q19	2Q19	Apr 19	May 19	Jun 19	Year Earlier Jun 18	Year Earlier change
OECD Americas												
Venezuela	17	16	42	65	27	27	-	-	-	-	46	-
Other Central and South America	49	71	72	80	63	56	57	46	70	54	40	14
ARA (Belgium Germany Netherlands)	12	5	7	3	12	12	0	1	-	-	0	-
Other Europe	7	3	7	7	2	14	7	10	6	4	9	-5
FSU	49	24	23	31	15	16	37	50	36	23	46	-23
Saudi Arabia	0	-	-	-	-	8	-	-	-	-	-	-
Algeria	4	1	-	-	-	10	4	8	3	2	-	-
Other Middle East and Africa	10	9	7	12	11	3	0	1	-	-	1	-
Singapore	1	3	-	-	-	4	-	-	-	-	-	-
OECD Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	-	1	0	-	1	-	0	0	-	-	-	-
Other	0	0	2	0	-	-	-	-	-	-	-	-
Total[2]	**149**	**131**	**161**	**197**	**130**	**149**	**105**	**116**	**115**	**82**	**143**	**-60**
of which Non-OECD	**130**	**123**	**147**	**186**	**117**	**123**	**98**	**106**	**109**	**79**	**133**	**-55**
OECD Europe												
OECD Americas	15	6	4	11	5	1	8	3	-	20	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	5	2	3	-	-	6	4	-	8	4	4	0
Non-OECD Europe	15	17	17	18	16	16	29	22	21	46	34	12
FSU	448	195	154	130	155	158	146	120	165	151	121	31
Saudi Arabia	-	0	1	-	-	-	-	-	-	-	-	-
Algeria	3	1	1	2	-	1	-	-	-	-	-	-
Other Middle East and Africa	16	23	15	10	19	12	17	27	10	15	9	6
Singapore	0	-	-	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	10	9	8	8	12	10	21	18	27	17	7	10
Non-OECD Asia (excl. Singapore)	0	1	0	-	0	7	1	1	-	1	-	-
Other	-18	-8	5	8	4	14	10	18	7	3	4	-1
Total[2]	**496**	**246**	**208**	**188**	**212**	**223**	**235**	**209**	**239**	**258**	**179**	**79**
of which Non-OECD	**436**	**218**	**185**	**153**	**190**	**206**	**196**	**188**	**212**	**188**	**143**	**45**
OECD Asia Oceania												
OECD Americas	-	0	0	-	2	2	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	1	-	-	-	-	-	-	-	-	-	-	-
FSU	4	9	16	24	19	7	0	-	-	0	24	-23
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	1	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	5	18	23	23	16	9	27	-	49	32	30	2
Singapore	73	58	37	29	24	36	21	19	15	29	37	-8
Non-OECD Asia (excl. Singapore)	69	59	85	75	88	48	54	32	58	71	61	10
Other	1	0	0	0	1	0	5	1	8	5	-	-
Total[2]	**153**	**146**	**162**	**151**	**149**	**103**	**107**	**52**	**130**	**138**	**152**	**-14**
of which Non-OECD	**152**	**146**	**162**	**151**	**148**	**101**	**107**	**52**	**130**	**138**	**152**	**-14**
Total OECD Trade[2]	**798**	**523**	**531**	**535**	**492**	**475**	**446**	**376**	**483**	**479**	**473**	**5**
of which Non-OECD	**718**	**487**	**493**	**490**	**454**	**430**	**401**	**346**	**450**	**405**	**429**	**-24**

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

Table 13

AVERAGE IEA CIF CRUDE COST AND SPOT CRUDE AND PRODUCT PRICES

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Table 14
MONTHLY AVERAGE END-USER PRICES FOR PETROLEUM PRODUCTS

August 2019

	NATIONAL CURRENCY *						US DOLLARS					
	Total Price	% change from Jul-19	% change from Aug-18	Ex-Tax Price	% change from Jul-19	% change from Aug-18	Total Price	% change from Jul-19	% change from Aug-18	Ex-Tax Price	% change from Jul-19	% change from Aug-18
GASOLINE [1] (per litre)												
France	1.502	- 0.8	- 2.8	0.561	-1.8	-6.0	1.671	-1.6	-6.4	0.624	-2.5	-9.5
Germany	1.427	- 2.3	- 3.7	0.544	-4.9	-7.8	1.588	-3.0	-7.2	0.605	-5.7	-11.2
Italy	1.577	- 1.0	- 3.2	0.565	-2.2	-6.9	1.754	-1.8	-6.7	0.629	-3.0	-10.3
Spain	1.319	- 0.1	- 0.6	0.617	-0.2	-3.0	1.467	-0.9	-4.3	0.686	-1.0	-6.6
United Kingdom	1.284	0.9	- 0.2	0.490	1.9	-0.4	1.561	-1.6	-5.8	0.596	-0.7	-6.0
Japan	144.6	- 0.8	- 4.9	77.3	-1.3	-8.1	1.360	1.0	-0.6	0.727	0.5	-4.0
Canada	1.205	- 5.0	- 10.1	0.811	-7.0	-13.7	0.908	-6.3	-11.7	0.611	-8.2	-15.3
United States	0.692	- 4.4	- 7.6	0.568	-5.3	-9.3	0.692	-4.4	-7.6	0.568	-5.3	-9.3
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.415	- 0.4	- 2.4	0.570	-0.7	-4.7	1.574	-1.1	-6.0	0.634	-1.5	-8.2
Germany	1.234	- 1.1	- 4.3	0.567	-2.1	-7.5	1.373	-1.9	-7.8	0.631	-2.9	-10.9
Italy	1.465	- 1.1	- 2.7	0.584	-2.2	-5.3	1.630	-1.9	-6.2	0.650	-3.0	-8.8
Spain	1.206	- 0.2	- 1.8	0.618	-0.3	-4.6	1.342	-1.0	-5.4	0.688	-1.1	-8.1
United Kingdom	1.326	0.5	- 0.2	0.525	1.0	-0.4	1.612	-2.0	-5.8	0.638	-1.5	-6.0
Japan	125.8	- 0.7	- 3.7	84.0	-0.9	-5.1	1.183	1.1	0.5	0.790	0.8	-0.9
Canada	1.184	- 0.8	- 7.9	0.876	-1.0	-9.9	0.892	-2.1	-9.5	0.660	-2.3	-11.5
United States	0.794	- 1.2	- 6.6	0.649	-1.5	-8.3	0.794	-1.2	-6.6	0.649	-1.5	-8.3
DOMESTIC HEATING OIL (per litre)												
France	0.906	- 0.7	- 0.6	0.599	-0.9	-0.8	1.008	-1.5	-4.3	0.666	-1.7	-4.5
Germany	0.700	- 0.5	- 5.1	0.527	-0.5	-5.6	0.779	-1.3	-8.5	0.586	-1.3	-9.1
Italy	1.295	- 0.3	0.6	0.658	-0.5	0.9	1.440	-1.1	-3.1	0.732	-1.3	-2.8
Spain	0.769	- 0.3	- 1.8	0.539	-0.4	-3.1	0.856	-1.1	-5.4	0.599	-1.2	-6.6
United Kingdom	0.591	- 0.1	- 4.1	0.452	-0.1	-5.1	0.719	-2.6	-9.5	0.549	-2.6	-10.4
Japan [2]	90.1	- 0.2	- 1.7	80.6	-0.3	-1.8	0.847	1.5	2.7	0.758	1.5	2.6
Canada	1.118	- 1.0	- 2.3	1.004	-1.0	-2.4	0.842	-2.3	-4.0	0.756	-2.3	-4.2
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY [3] (per kg)												
France	0.557	- 4.5	- 4.2	0.418	-6.0	-5.5	0.620	-5.3	-7.7	0.465	-6.7	-9.0
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.466	- 6.0	0.9	0.435	-6.4	1.0	0.519	-6.7	-2.8	0.484	-7.1	-2.7
Spain	0.439	- 1.3	- 2.0	0.422	-1.3	-2.2	0.488	-2.1	-5.6	0.469	-2.1	-5.8
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-
Canada	-	-	-	-	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	-	-	-	-	-	-	-

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

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

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

	Monthly Average					Change	Average for week ending:				
	May 19	Jun 19	Jul 19	Aug 19		Aug 19-Jul 19	09 Aug	16 Aug	23 Aug	30 Aug	06 Sep
NW Europe											
Brent (Cracking)	5.38	3.78	6.79	7.62	↑	0.83	8.49	7.94	6.92	6.84	5.69
Urals (Cracking)	4.50	4.67	6.55	5.64	↓	-0.92	6.37	5.92	5.06	5.12	5.35
Brent (Hydroskimming)	1.41	1.52	4.18	4.40	↑	0.21	5.12	4.36	4.07	3.75	2.90
Urals (Hydroskimming)	-0.70	0.81	2.46	-0.60	↓	-3.06	0.66	-0.87	-1.44	-1.31	-0.86
Mediterranean											
Es Sider (Cracking)	4.54	4.58	7.93	8.26	↑	0.33	9.14	8.74	7.53	7.23	6.44
Urals (Cracking)	3.18	4.97	6.62	5.00	↓	-1.62	5.73	4.93	4.27	4.75	5.38
Es Sider (Hydroskimming)	1.28	2.44	5.62	5.35	↓	-0.27	6.27	5.49	4.85	4.29	3.57
Urals (Hydroskimming)	-1.94	0.69	2.30	-1.65	↓	-3.95	-0.25	-2.42	-2.76	-2.11	-1.93
US Gulf Coast											
Mars (Cracking)	4.11	4.65	6.01	2.49	↓	-3.52	3.62	0.53	1.40	2.61	1.53
50/50 HLS/LLS (Coking)	10.64	11.12	13.73	11.60	↓	-2.13	11.76	10.23	11.80	11.38	9.30
50/50 Maya/Mars (Coking)	7.21	6.27	8.03	9.16	↑	1.13	9.35	8.63	9.19	9.09	4.70
ASCI (Coking)	8.03	8.36	9.59	8.86	↓	-0.73	8.89	7.42	8.77	9.81	7.77
US Midwest											
30/70 WCS/Bakken (Cracking)	23.27	18.87	18.76	11.04	↓	-7.71	11.63	9.78	10.28	11.19	10.22
Bakken (Cracking)	25.34	20.50	20.40	13.97	↓	-6.43	13.55	13.47	13.48	14.82	12.79
WTI (Coking)	24.97	21.12	21.01	14.38	↓	-6.63	15.71	13.80	13.60	12.86	11.27
30/70 WCS/Bakken (Coking)	26.22	21.07	20.86	14.79	↓	-6.08	15.18	13.96	14.51	14.82	12.95
Singapore											
Dubai (Hydroskimming)	-1.57	-0.07	3.56	0.29	↓	-3.27	1.11	-1.22	-1.36	1.30	1.09
Tapis (Hydroskimming)	-0.93	-0.62	3.78	2.10	↓	-1.69	3.49	1.74	1.10	1.11	-0.72
Dubai (Hydrocracking)	2.28	2.87	5.61	4.66	↓	-0.95	5.14	4.57	3.66	4.86	5.18
Tapis (Hydrocracking)	0.60	-0.55	3.48	4.70	↑	1.22	5.82	5.39	4.22	3.61	2.09

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

Source: IEA, KBC Advanced Technologies (KBC)

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

	Apr-19	May-19	Jun-19	Jun-18	Jun 19 vs Previous Month	Jun 19 vs Previous Year	Jun 19 vs 5 Year Average	5 Year Average
OECD Americas								
Naphtha	1.4	1.4	1.4	1.4	0.0	0.1	-0.1	1.6
Motor gasoline	44.6	44.3	43.2	44.1	-1.0	-0.8	-2.0	45.2
Jet fuel	9.5	9.3	9.6	9.7	0.4	0.0	0.7	9.0
Other kerosene	0.1	0.1	0.1	0.1	0.0	-0.1	-0.1	0.1
Gasoil/diesel oil	28.7	28.8	28.2	28.2	-0.5	0.0	-0.1	28.3
Residual fuel oil	3.4	3.1	3.3	3.2	0.2	0.2	-0.2	3.6
Petroleum coke	4.3	4.0	4.0	4.4	0.0	-0.4	-0.6	4.6
Other products	12.8	13.1	13.3	13.0	0.2	0.3	0.1	13.1
OECD Europe								
Naphtha	8.4	8.3	7.8	8.2	-0.5	-0.4	0.1	7.6
Motor gasoline	20.0	20.3	20.9	20.6	0.6	0.3	0.3	20.6
Jet fuel	8.9	9.0	8.9	9.1	-0.1	-0.2	0.3	8.5
Other kerosene	2.2	2.1	1.9	1.7	-0.2	0.2	0.1	1.8
Gasoil/diesel oil	40.2	40.3	39.5	38.3	-0.7	1.2	0.1	39.4
Residual fuel oil	9.2	8.3	8.5	9.7	0.2	-1.2	-0.5	9.0
Petroleum coke	1.3	1.4	1.4	1.3	0.0	0.1	0.1	1.3
Other products	14.9	15.1	15.9	15.3	0.8	0.6	0.1	15.8
OECD Asia Oceania								
Naphtha	16.2	16.4	16.6	14.9	0.3	1.7	2.1	14.5
Motor gasoline	20.6	21.6	21.6	21.8	0.0	-0.3	-0.9	22.5
Jet fuel	14.8	15.3	15.7	15.0	0.3	0.7	1.3	14.3
Other kerosene	2.8	2.8	2.1	1.6	-0.6	0.5	-0.1	2.2
Gasoil/diesel oil	29.6	30.9	30.5	30.1	-0.4	0.3	0.1	30.3
Residual fuel oil	6.5	5.7	5.4	7.0	-0.3	-1.6	-1.9	7.3
Petroleum coke	0.5	0.4	0.5	0.5	0.1	0.0	0.0	0.5
Other products	12.9	12.9	12.7	12.8	-0.2	-0.1	0.2	12.5
OECD Total								
Naphtha	6.4	6.2	6.0	5.8	-0.2	0.2	0.3	5.7
Motor gasoline	32.2	32.7	32.6	32.9	-0.1	-0.3	-1.0	33.6
Jet fuel	10.3	10.2	10.4	10.4	0.2	0.1	0.7	9.7
Other kerosene	1.3	1.2	1.0	0.9	-0.2	0.1	0.0	1.0
Gasoil/diesel oil	32.6	32.8	32.1	31.7	-0.7	0.4	-0.1	32.2
Residual fuel oil	5.8	5.2	5.3	5.9	0.1	-0.6	-0.6	5.9
Petroleum coke	2.6	2.6	2.6	2.8	0.0	-0.2	-0.2	2.8
Other products	13.5	13.7	14.0	13.7	0.3	0.3	0.1	13.9

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

Table 17
WORLD BIOFUELS PRODUCTION
(thousand barrels per day)

	2017	2018	2019	4Q18	1Q19	2Q19	Jun 19	Jul 19	Aug 19
ETHANOL									
OECD Americas[1]	**1062**	**1081**	**1064**	**1073**	**1048**	**1072**	**1067**	**1067**	**1067**
United States	1032	1048	1028	1040	1012	1037	1031	1031	1031
Other	30	33	36	33	36	36			
OECD Europe[2]	**88**	**93**	**93**	**91**	**96**	**102**	**110**	**87**	**87**
France	13	16	15	17	16	19	21	12	12
Germany	14	16	16	14	19	22	23	12	12
Spain	7	9	9	9	7	7	7	11	11
United Kingdom	11	9	8	9	11	9	10	5	5
Other	42	43	46	42	43	45			
OECD Asia Oceania[3]	**3**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
Australia	3	4	4	4	5	4	4	4	4
Other	0	1	1	1	1	1			
Total OECD Ethanol	**1153**	**1179**	**1162**	**1169**	**1149**	**1179**	**1181**	**1160**	**1160**
Total Non-OECD Ethanol	**627**	**713**	**734**	**618**	**331**	**943**	**1068**	**1211**	**1109**
Brazil	478	547	540	453	138	751	876	1020	918
China	71	70	69	77	69	67			
Argentina	15	19	19	19	19	19			
Other	64	77	105	70	105	105	192	192	192
TOTAL ETHANOL	**1780**	**1892**	**1896**	**1788**	**1480**	**2122**	**2248**	**2372**	**2270**
BIODIESEL									
OECD Americas[1]	**111**	**128**	**148**	**137**	**114**	**136**	**163**	**170**	**170**
United States	104	121	140	129	110	132	159	159	159
Other	7	7	8	7	4	4			
OECD Europe[2]	**265**	**257**	**275**	**247**	**246**	**270**	**258**	**291**	**291**
France	47	48	51	49	49	54	54	51	51
Germany	62	58	58	52	50	57	58	63	63
Italy	13	14	26	14	29	25			
Spain	34	36	35	36	30	30	30	40	40
Other	108	101	104	95	88	104	100	112	112
OECD Asia Oceania[3]	**12**	**14**	**15**	**11**	**10**	**17**	**18**	**17**	**17**
Australia	1	1	1	1	0	0	0	1	1
Other	11	13	14	10	10	17			
Total OECD Biodiesel	**388**	**399**	**438**	**394**	**370**	**423**	**439**	**478**	**478**
Total Non-OECD Biodiesel	**293**	**325**	**360**	**326**	**360**	**359**	**359**	**360**	**360**
Brazil	74	92	94	100	93	95	97	101	93
Argentina*	56	51	53	51	53	53			
Other	163	182	213	175	215	211			
TOTAL BIODIESEL	**680**	**725**	**798**	**720**	**730**	**783**	**798**	**839**	**839**
GLOBAL BIOFUELS	**2460**	**2616**	**2694**	**2508**	**2210**	**2904**	**3046**	**3211**	**3109**

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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