

Oil Market Report

14 September 2021

- Global oil demand is estimated to have declined for three straight months due to a resurgence of Covid-19 cases in Asia. As a result, 3Q21 has been revised down by 200 kb/d since last month's *Report*. Already signs are emerging of Covid cases abating with demand now expected to rebound by a sharp 1.6 mb/d in October, and continuing to grow until end-year. Global oil demand is now expected to rise by 5.2 mb/d this year and by 3.2 mb/d in 2022.
- World oil supply fell 540 kb/d m-o-m in August to 96.1 mb/d and is expected to hold steady in September as unplanned outages offset increases from OPEC+. Hurricane Ida shut in 1.7 mb/d of oil production along the US Gulf Coast at end-August, with potential supply losses from the storm approaching 30 mb. An uptrend in supply should resume in October as OPEC+ continues to unwind cuts, outages are resolved and as other producers increase.
- A steep fall in China's refinery activity in July, followed by Hurricane Ida's impact on US refining in August and September resulted in an 830 kb/d revision to the 3Q21 global refining throughput, which now stands at 78.5 mb/d, up 1.5 mb/d from 2Q21. In August, the first significant decline in crude prices since September 2020 boosted product cracks and refinery margins across the board.
- OECD total industry stocks drew by 34.4 mb in July and stood at 2 850 mb, 185.7 mb lower than the 2016-2020 average and 120.3 mb below the pre-Covid five-year average. Preliminary data for the US, Europe and Japan show industry stocks decreased by a further 31.1 mb while crude oil held in short-term floating storage decreased by 20.3 mb to 101.7 mb in August.
- Prices fell on average in August, trading in a wide \$8-9/bbl range, and the forward price curve flattened substantially. The drop reflects concerns about economic growth, inflation prospects and weaker oil demand linked to rising Covid infections. By early September, supply losses from Hurricane Ida lifted prices almost back to early July levels. North Sea Dated prices lost \$4.24/bbl in August to \$70.75/bbl and WTI at Cushing fell \$4.73/bbl m-o-m to \$67.73/bbl.



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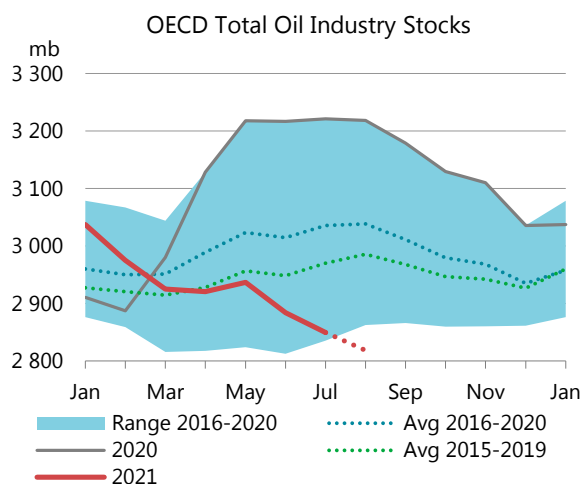
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After the storm

Unexpected outages during August forced a decline in supply for the first time in five months and extended the sharp drawdown in global oil stocks. The most severe by far was Hurricane Ida, which wreaked havoc on the key US Gulf Coast oil producing region at the end of August, knocking 1.7 mb/d offline. Concerns over the impact of rising Covid-19 cases on oil demand kept a lid on prices, however, with benchmark crudes falling month-on-month before edging marginally higher in early September. At the time of writing, Brent futures traded at around \$73.80/bbl and WTI at \$70.70/bbl.

Hurricane Ida is still causing problems for US and global markets. Offshore installations and refineries have been slow to restart due to the severity of the storm, forcing massive stock draws of both crude and products in key markets. The biggest impact on supply will be seen in September, with total supply losses estimated at around 30 mb.



Already in August, production outages led to further sharp declines in inventories. Preliminary data show OECD oil stocks falling by more than 30 mb last month, extending steep losses over June and July. By the end of July, OECD total industry stocks stood 185.7 mb below the most recent five-year average. With nearly 900 kb/d of crude output and 700 kb/d of refinery capacity offline at the time of writing, hefty draws are expected to continue through September.

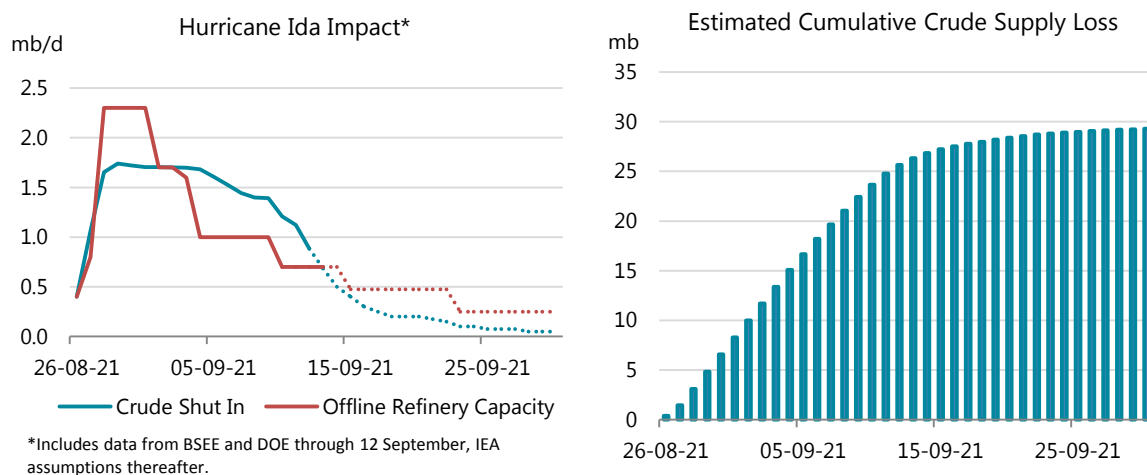
The US Department of Energy announced on 23 August a sale of up to 20 mb from its Strategic Petroleum Reserve (SPR) as part of its programme to use the SPR to finance spending. The deliveries will take place between 1 October and 15 December and could offset some of the losses from Hurricane Ida. The US government is also loaning barrels from the SPR to the region's refiners to help offset crude shortfalls. China, too, is tapping into its strategic reserves. For the first time ever, it will sell oil from state-owned tanks in an effort to dampen domestic oil prices and inflationary pressures. It is unclear how many barrels will be made available to the market.

At the same time, demand growth in China and elsewhere in Asia is under pressure from resurgent Covid cases. We have revised down our world oil demand forecast for August and September by nearly 600 kb/d as China and a number of other South East Asian countries enforce more mobility restrictions. Strong pent-up demand and continued progress in vaccination programmes should underpin a robust rebound from 4Q21. Our annual growth forecast is revised marginally lower since last month's *Report* for 2021 (-110 kb/d) to 5.2 mb/d while 2022 growth is slightly higher, at 3.2 mb/d.

The market should shift closer to balance starting from October if OPEC+ continues to unwind production cuts. Even so, it is only by early 2022 that supply will be high enough to allow oil stocks to be replenished. In the meantime, strategic oil stocks from the US and China may go some way to help plug the gap.

Special Focus: Hurricane Ida update

Hurricane Ida, which slammed into the Louisiana coast on 29 August as a category 4 hurricane, is still causing havoc for US and global oil markets. Weeks after making landfall, damage to oil production facilities in the US Gulf of Mexico (GoM) has kept a significant share of offshore supply offline. Onshore power outages, logistical issues and staff shortages related to Covid protocols have complicated efforts to restart production. Up until now, the supply loss has largely been matched with a reduction in demand from the region’s refiners, also battered by the storm. But in contrast with previous storm recoveries, refining activity picked up faster than supply, leaving operators having to tap into Strategic Petroleum Reserves (SPR) for feedstocks.



Offshore production outages

Hurricane Ida initially shut-in 1.7 mb/d of crude oil production along the US Gulf Coast at end-August. Following losses of around 270 kb/d on average in August, GoM crude oil supply is expected to be down as much by as 650 kb/d this month. According to the offshore regulator Bureau of Safety and Environmental Enforcement, 880 kb/d of crude output (48.6% of GoM total) and 1.2 bcf/d of natural gas production (54.4% of total) remained suspended as of 12 September. Based on our calculations, the extended shutdown could result in a total crude supply loss of up to 30 mb. Ida is the worst storm to hit the Gulf Coast region since Hurricanes Katrina and Rita in 2005, which triggered a coordinated IEA stock release.

The speed of the production recovery will depend on how quickly repairs can be made. Initial assessments by operators indicated minimal damage to offshore facilities, with Shell’s West Delta-143 transfer hub a significant exception. Damage to onshore facilities at Port Fourchon, the main receiving point for GoM production and a key hub in the industry’s logistics for staff in carrying out inspections and repairs, could see shut-ins last for several more weeks.

Refinery shutdowns

US Gulf Coast refiners came back faster than oil production, in contrast to previous storm recoveries. As of 12 September, three refineries with 700 kb/d of combined capacity remained completely shut, down from nine plants with a capacity of 2.3 mb/d offline at the end of August. The three refineries not yet restarted are expected to resume crude processing in the coming weeks. Valero is already preparing to restart its St. Charles refinery and Shell plans to start up in the next few weeks, after finally receiving limited power. The hardest hit refinery, Phillips 66’s

Alliance plant in Belle Chasse, faces months of repairs. Following a 170 kb/d m-o-m decline in August, US runs are forecast to fall by 400 kb/d in September.

Demand losses

The Gulf Coast is also home to the largest concentration of petrochemical capacity in the US. Five crackers with 5.5 mt of total ethylene capacity were shut in Louisiana, with an average estimated duration of two weeks. US ethane demand is forecast 170 kb/d lower in September as a result, with some impact persisting into October. Transport fuel demand was affected by circulation difficulties and our mobility index for Louisiana dropped 22% in wake of the hurricane landfall. At the same time, diesel use in off-grid power generation will have surged, with more than 1 million people left without power in the first few days of the storm and 264 000 people still without grid power on 13 September.

Inventories

US crude and refined product inventories were on a declining trend well before the hurricane affected the oil industry operations. With the oil production recovery lagging and logistics disruptions affecting usual crude supply to refineries, the US Secretary of Energy authorised the release of a total of 3.3 mb crude oil from the US SPR in a swap agreement with ExxonMobil's 520 kb/d Baton Rouge and Placid Refining's 75 kb/d Port Allen refineries.

US gasoline stocks seasonally decline in summer months, and the pace this year has not been particularly fast compared to normal trends. However, the absolute level of stocks has fallen below the five-year average as gasoline inventories effectively did not recover from the impact of the winter storm Uri. This, amongst other factors, has helped keep gasoline cracks at elevated levels this year (see *Breaking down gasoline cracks*).

Crude and product markets

US Gulf Coast shutdowns are reverberating in global crude markets, with *force majeure* being invoked on export crude loadings and tightening differentials for sour crudes. Unlike US shale, most GoM output is of medium-sour quality and buyers are scrambling to replace those volumes with spot sour grades from Russia and the Middle East. Compared with average loadings in the weeks prior to the storm of around 15 mb, US Gulf Coast export bookings were down to 4 mb in the first week of September. The reopening of the Louisiana Offshore Oil Port (LOOP) on 10 September could allow for loadings to gradually resume.

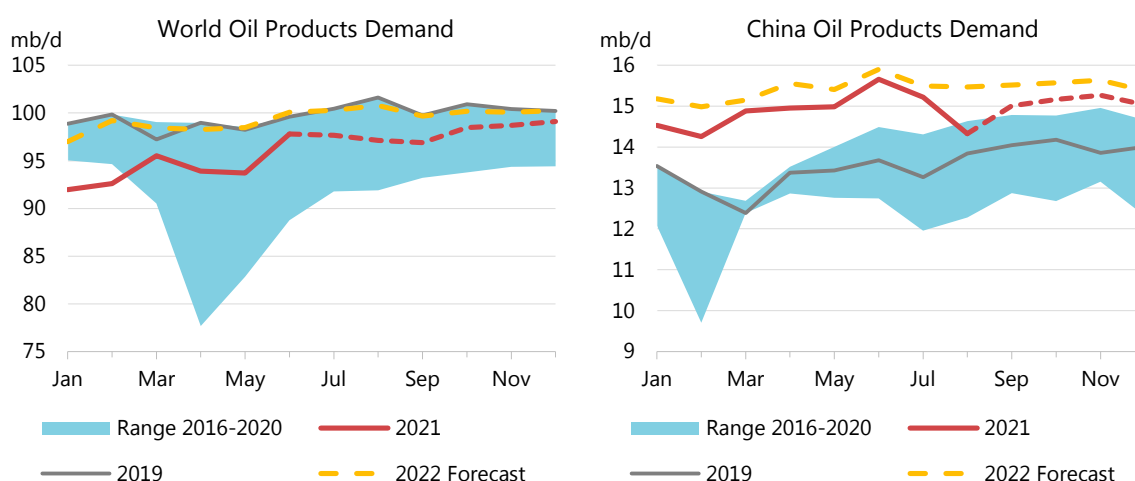
The US Gulf Coast has the biggest refining concentration in the world, with 9.6 mb/d of capacity that is geared towards producing gasoline and low sulphur diesel. Through the Colonial refined products conduit and several smaller pipelines, Gulf Coast refiners supply more than half of oil products consumed in PADD 1, home to almost 40% of the US population, and almost half of diesel and gasoline consumed in Mexico and other Central American countries. Thus, large-scale refinery outages have repercussions for the global product markets. We estimate gasoline output losses at 200 kb/d in September (6 mb) and diesel at 140 kb/d (4.2 mb). In the week following the storm, Padd 3 refined product export loadings fell by almost 1 mb/d to 1.6 mb/d.

In principle, the end of the summer driving season in the US and in Europe and the switch to winter grade gasoline, as well as a general lull in demand before the Northern Hemisphere heating season, mitigate somewhat the impact on product markets. However, lower levels of both crude and product inventories offer a limited cushion against further disruptions in the months to come.

Demand

Overview

Global oil demand remains under pressure from the virulent Covid-19 Delta variant in key consuming regions, especially in parts of Asia. Following a strong rebound in June, we estimate that through September global oil consumption will contract by 310 kb/d per month on average. Even so, oil demand in 3Q21 is forecast to rise by 2.1 mb/d from 2Q21 and reach 97.2 mb/d on the back of strong pent-up demand for travel.



Following a sharp month-on-month (m-o-m) increase in June of 4.1 mb/d, the growth trajectory reversed course in July, with demand falling by 130 kb/d. China led the decline at -440 kb/d, with Indonesia at -190 kb/d and Malaysia at -120 kb/d.

Global Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	12 650	12 671	13 199	13 649	529	449	4.2	3.4
Naphtha	6 306	6 334	6 723	6 816	389	93	6.1	1.4
Motor Gasoline	26 663	23 504	25 385	26 180	1 880	795	8.0	3.1
Jet Fuel & Kerosene	7 942	4 665	5 270	6 664	605	1 394	13.0	26.4
Gas/Diesel Oil	28 258	26 419	27 476	27 964	1 057	488	4.0	1.8
Residual Fuel Oil	6 177	5 739	6 076	6 174	337	99	5.9	1.6
Other Products	11 681	11 582	12 017	11 947	435	-70	3.8	-0.6
Total Products	99 678	90 913	96 146	99 394	5 233	3 248	5.8	3.4

By August, global oil demand is estimated to have declined by a sharper 530 kb/d m-o-m. Measures put in place by Chinese authorities to stem the latest Covid outbreak curbed mobility by roughly one-third, reducing consumption by a steep 890 kb/d. From September, we expect demand in China and several other Asian countries to recover, but seasonally lower demand for travel in the OECD will push overall global deliveries down by another 260 kb/d.

Despite the weak 3Q21 demand, the latest news on the Covid front is more optimistic, with global cases falling in recent weeks, continued progress in vaccine manufacturing and inoculations, and less restrictive social distancing measures in many countries. We therefore expect global oil demand to rebound with an above-seasonal increase in October of 1.6 mb/d, and to continue growing until end-year, albeit at a much smaller monthly growth rate (November +250 kb/d and December +390 kb/d). By the end of 2021, oil consumption will reach 99.1 mb/d, around 4.7 mb/d higher than at the end of 2020, but still 1.1 mb/d lower than at the end of 2019.

Our 2021 growth estimate is marginally lower (-105 kb/d) in this *Report*, at 5.2 mb/d, due to the worsening pandemic in 3Q21. Our 2022 growth estimate is slightly higher (+85 kb/d) at 3.2 mb/d.

Global Oil Demand (2020-2022)																
(million barrels per day)*																
	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Africa	4.2	4.1	3.4	3.7	3.9	3.8	4.1	3.9	3.8	4.0	4.0	4.1	4.0	3.9	4.1	4.0
Americas	31.9	30.3	25.0	28.5	29.0	28.2	28.6	30.2	31.3	31.1	30.3	30.4	31.2	31.8	31.3	31.2
Asia/Pacific	35.5	33.2	31.9	33.6	35.5	33.5	35.8	35.2	34.5	36.9	35.6	37.3	36.9	36.5	37.7	37.1
Europe	15.1	14.1	11.7	13.6	13.3	13.2	12.6	13.3	14.3	14.1	13.6	13.8	14.1	14.4	14.0	14.1
FSU	4.7	4.6	4.1	4.7	4.7	4.5	4.5	4.7	4.8	4.9	4.7	4.7	4.7	5.0	5.1	4.9
Middle East	8.2	7.9	7.1	8.2	7.8	7.7	7.7	7.8	8.4	7.9	8.0	7.9	8.0	8.5	8.0	8.1
World	99.7	94.1	83.1	92.3	94.2	90.9	93.4	95.1	97.2	98.8	96.1	98.2	98.9	100.3	100.2	99.4
Annual Chg (%)	4.5	-4.6	-16.0	-8.3	-6.3	-8.8	-0.7	14.5	5.4	4.9	5.8	5.1	4.0	3.1	1.4	3.4
Annual Chg (mb/d)	0.7	-4.6	-15.8	-8.3	-6.3	-8.8	-0.7	12.0	4.9	4.6	5.2	4.8	3.8	3.0	1.4	3.2
Changes from last OMR (mb/d)	-0.1	0.3	0.0	0.1	0.0	0.1	0.0	0.3	-0.2	-0.1	0.0	0.1	0.1	0.2	-0.1	0.1

* Including biofuels

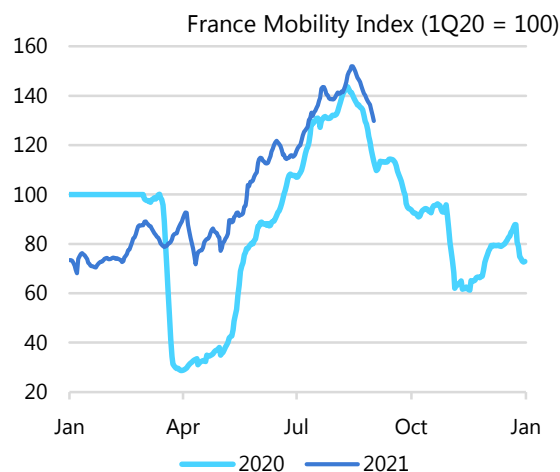
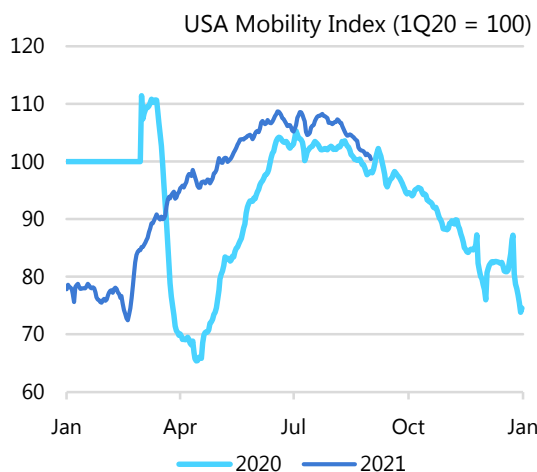
Fundamentals

World GDP growth is now expected to average 5.9% in 2021 and 4.9% in 2022, as a new wave of Covid in some regions forced a slight downward revision to our economic growth assumptions for 2021. Prompt indicators show varying economic environments across regions. Growth remained strong in Europe, but decelerated in most of Asia, and appears to be weaker than expected in the US. Mobility indices reflect measures taken to restrict the spreading of the virus and the seasonality of discretionary travel.

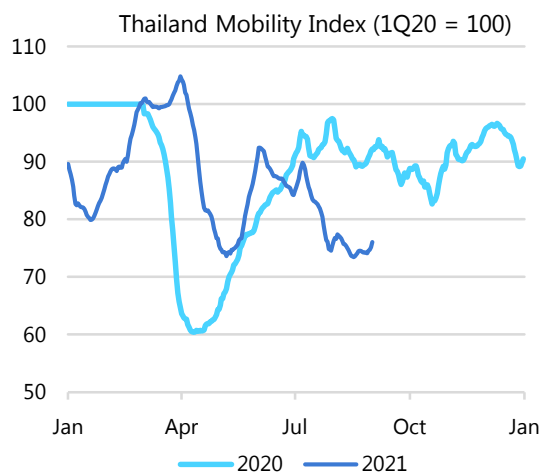
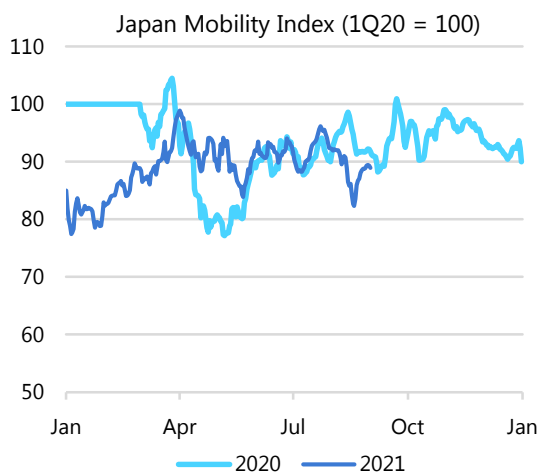
US GDP is forecast to rise by roughly 6% in 2021 and 4.8% in 2022, lower than what was expected last month for 2021 but slightly higher in 2022. The sharp rebound in Covid cases in July and August is taking its toll on economic activity despite high vaccination rates while the positive impact on growth of fiscal support to households is disappearing. Some 73% of the US population over 12-years-old have received at least one dose of vaccine and 62% of these are fully vaccinated. While the Institute for Supply Management (ISM) Purchasing Managers' Index (PMI) remains positive (increasing to 59.9 in August from 59.5 in July), the latest *Non-Farm Payroll* report was disappointing (235 000 jobs were created in August, roughly one-third of what analysts expected). The spreading of the Covid-19 Delta variant has reduced job creation in leisure and hospitality activities. After a significant jump at the start of the summer, US mobility declined towards last year's levels at the end of August. Seasonal factors should continue to reduce US transport fuel demand from September.

In Europe, pent-up demand, large household savings and the closure of many borders for air travel have contributed to a strong rebound in domestic road transportation during the summer holiday period, although a seasonal decline is observed at the end of August. Economic activity

remains strong, with IHS Markit’s Eurozone Manufacturing PMI remaining close to record high levels after a slight decline, from 62.8 in July to 61.4 in August. Hard economic data has confirmed the prompt indicators. German industrial production rose in July after three months of consecutive declines. In the European Union, 70% of the population above 16-years-old are fully vaccinated (and 80% in the UK).



Asia was particularly concerned by the resurgence of Covid cases. In China, the Caixin manufacturing PMI fell into contractionary territory, slowing from 50.3 in July to 49.2 in August, dragged down by containment measures, supply bottlenecks, and surging costs for raw materials. China’s vaccination campaign is progressing fast with two-thirds of the population fully vaccinated. Widespread cases of the Delta variant nevertheless triggered localised lockdowns and mobility restrictions. China’s GDP is expected to grow by 8.4% in 2021, before slowing to 5.8% in 2022.

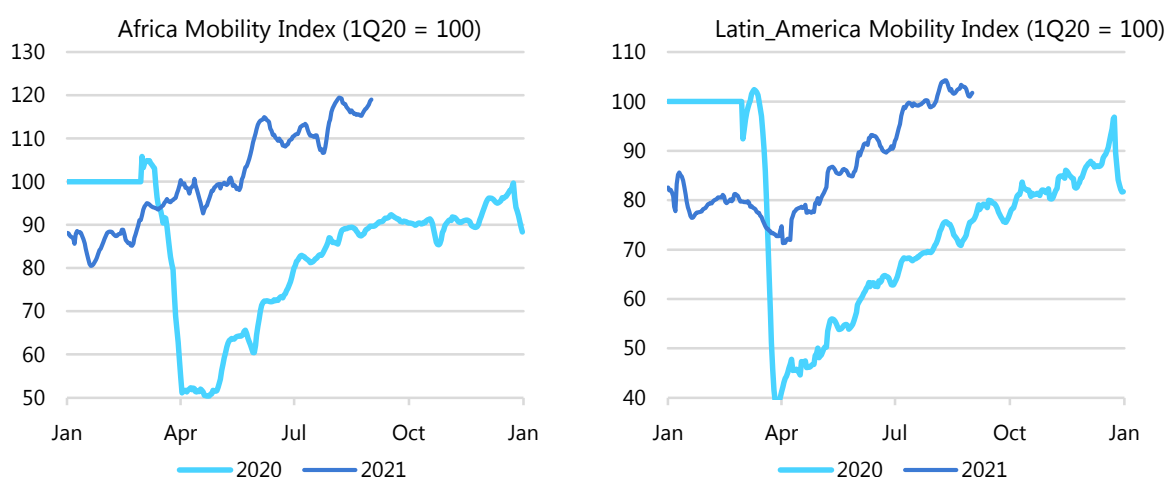


Several ASEAN economies suffered from new waves of Covid and the measures taken to contain the virus. The IHS Manufacturing PMI for these countries fell sharply in July and August. Indonesia was impacted early, with its Manufacturing PMI dropping from 54 in June to 40.1 in July and 43.7 in August as Covid restrictions weighed on economic/industrial activity. The number of new Covid cases fell sharply during the second half of August, however, and mobility should slowly return to normal in September. In Malaysia, where the number of cases is still surging, the Manufacturing PMI dropped from 54 in June to 40.1 in July and 43.4 in August. In

Vietnam, the index declined from 54 in May to 40.2 in August as lockdowns were implemented and restrictions were put in place on travel and business. Mobility and oil demand were severely impacted in July and August in South East Asia, and will take time to recover.

The OECD Asia and Oceania region was also significantly affected by the renewed spread of Covid. The Japan Manufacturing PMI slowed to 52.7 in August from 53 in July, penalised by a new Covid wave and restrictions put in place in certain locations under the state of emergency. The service sector was more impacted, with the Services PMI reported at 42.9 in August versus 47.4 in July. Australia's Manufacturing PMI fell from 56.9 in July to 51.7 in August, a 14-month low, as the country reintroduced severe lockdown measures.

Africa and Latin America appear to be doing better. Recent data show a surge in mobility since April and the number of Covid cases is declining in South Africa (although recent data show a small rebound), Brazil and Argentina. Economic activity is picking up strongly in these countries and Brazilian GDP growth in 2021 is expected to reach 5.7% while growth in Argentina should average 7.6%.



The oil price assumptions used in this month's forecast are roughly unchanged from last month's *Report* (Brent at \$69/bbl in 2021, up 66% from 2020, and \$68/bbl in 2022). We also took into account the steady increase in natural gas prices in recent months. As a result of expensive natural gas and LNG, several countries are likely to use more fuel oil (or crude oil) in their power sectors in 3Q21 and 4Q21 and at the start of 2022. We have increased our demand assumption for crude and fuel oil used for power generation in several countries likely to benefit from a switch to oil from natural gas. These include several Middle Eastern countries, Indonesia, Pakistan, and Bangladesh, amongst others. We assume 150 kb/d to 200 kb/d of additional fuel/crude demand from 3Q21 to 1Q22 across these countries.

OECD

OECD oil demand rose by 2 mb/d m-o-m in June (the last month for which complete data is available), more than twice as much as the usual seasonal increase. A surge in travel boosted demand in Europe by a sharp 1.2 mb/d m-o-m, by 530 kb/d in North America, and by 245 kb/d in Asia Pacific. The m-o-m growth in oil product demand in OECD countries is estimated to have slowed sharply to 430 kb/d in July and 520 kb/d in August. While oil demand is forecast to increase by around 900 kb/d each in Europe and North America in 3Q21, roughly double the

historical seasonal rise, it remained stagnant in Asia Oceania (versus growth of 100-150 kb/d under normal circumstances). The spreading of the Covid-19 Delta variant in Japan, Australia and Korea forced these countries to re-impose social distancing measures, reducing mobility.

OECD Demand based on Adjusted Preliminary Submissions - July 21														
(million barrels per day)														
	Gasoline		Jet/Kerosene		Diesel		LPG/Ethane		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas	11.14	11.5	1.76	58.7	4.36	3.5	3.45	5.8	0.63	14.7	3.88	9.8	25.23	11.3
US*	9.52	11.7	1.56	54.9	3.68	4.4	2.74	6.7	0.42	-3.1	2.91	10.2	20.82	11.4
Canada	0.92	12.9	0.11	85.9	0.26	-2.5	0.36	-2.6	0.05	77.3	0.71	7.5	2.40	9.6
Mexico	0.63	3.2	0.07	136.0	0.26	-8.5	0.30	10.8	0.16	81.9	0.24	9.8	1.66	10.5
OECD Europe	2.13	2.3	0.95	65.9	5.17	0.6	1.09	-3.3	0.78	12.8	3.45	1.6	13.56	4.3
Germany	0.49	-4.9	0.15	90.6	0.72	-7.2	0.11	-11.2	0.06	-5.9	0.61	-10.5	2.15	-4.4
United Kingdom	0.24	16.8	0.21	99.1	0.43	7.6	0.10	-26.1	0.02	-0.4	0.25	7.4	1.24	13.6
France	0.25	5.7	0.12	70.3	0.81	0.4	0.12	0.2	0.03	3.4	0.35	13.3	1.69	7.0
Italy	0.20	9.9	0.06	67.4	0.54	7.2	0.09	-2.9	0.06	-3.3	0.37	6.6	1.31	7.9
Spain	0.14	3.3	0.09	98.6	0.49	6.5	0.04	-1.7	0.12	17.3	0.36	-1.2	1.24	8.1
OECD Asia & Oceania	1.42	1.4	0.39	7.4	1.31	1.2	0.77	6.0	0.44	13.1	2.66	6.0	6.99	4.6
Japan	0.78	-0.5	0.17	-8.9	0.39	1.1	0.38	6.3	0.23	17.2	1.09	-1.8	3.04	0.7
Korea	0.23	1.9	0.12	4.5	0.36	5.0	0.33	9.1	0.18	4.4	1.34	13.7	2.56	9.6
Australia	0.29	8.9	0.09	111.5	0.49	-0.9	0.05	-14.6	0.01	43.0	0.11	5.2	1.04	7.1
OECD Total	14.69	9.0	3.11	51.6	10.83	1.8	5.30	3.8	1.85	13.5	9.99	5.9	45.78	8.1

* Including US territories

OECD Americas

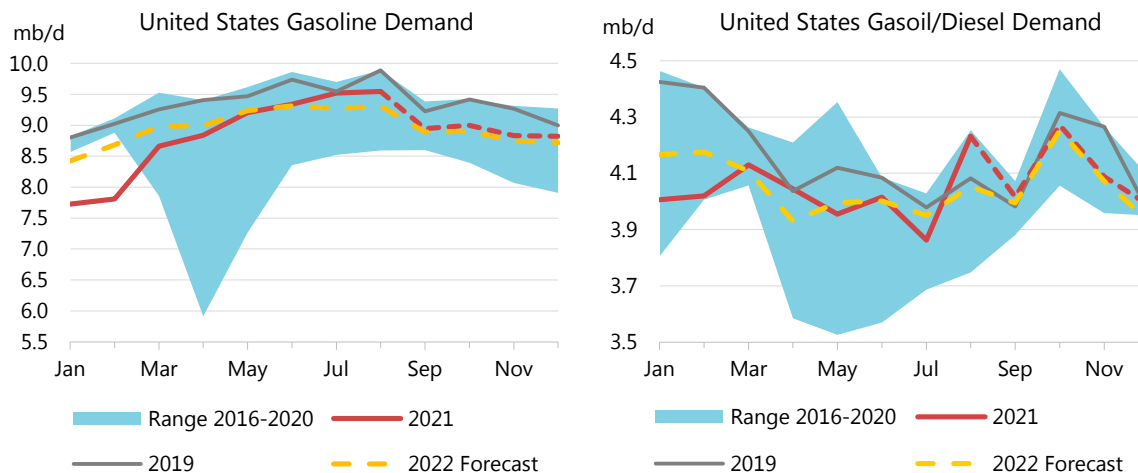
Oil consumption rose by 1.5 mb/d q-o-q in the OECD Americas in 2Q21 and is estimated to have increased by 915 kb/d in 3Q21. Oil demand surged by 1.5 mb/d in 2Q21 in the US, with growth slowing to 475 kb/d in 3Q21. Canada and Chile posted small q-o-q declines in oil demand in 2Q21 before rebounding marginally in 3Q21. In Mexico, oil demand is estimated to have increased by 10 kb/d q-o-q in 2Q21 and 90 kb/d in 3Q21.

In the US, final data are available through June and demand for July and August is estimated, based on weekly data. At the end of August (and in September) demand was reduced by the onset of Hurricane Ida, halting in particular several petrochemical facilities. The petrochemical facility outages reduced ethane demand in September by an estimated 170 kb/d, with some lingering problems likely to continue into October. Other fuels were also affected as the hurricane reduced mobility. Additional demand related to reconstruction and cleaning work, as well as some additional oil used to generate electricity in areas suffering from outages, likely offset lower transport fuel demand.

Recent data point to a strong m-o-m increase in gasoline demand in the US in June and July, up by 130 kb/d and 180 kb/d, respectively. In August gains fell to 30 kb/d m-o-m. This evolution is in line with mobility data and also reflects the seasonal slowdown in travel at the end of August and into September. While these data indicate a relatively strong recovery in transport fuel demand with the progress of vaccinations and support from pent-up demand, gasoline deliveries in August are still estimated to be 340 kb/d below pre-pandemic levels. Steep gasoline prices may have taken their toll on demand as they are currently at their highest level since 2014 and up 40% on a year ago.

Teleworking will also reduce gasoline demand in the next few months. A total of 20.6 million Americans worked from home because of the pandemic at one point in August, or 13.4% of the workforce, according to figures from the US Bureau of Labour Statistics. This was up from

20.3 million in July, and marks the first increase in the share of employee teleworking since the end of 2020, during a previous surge in Covid cases.



OECD Americas jet/kerosene deliveries gained 110 kb/d m-o-m in June and plateaued at a level 170 kb/d higher near 1.8 mb/d in July and August, according to preliminary data. OAG data that show scheduled airline seats indicate that US air traffic was unchanged from July to August and still 16% lower than the pre-pandemic levels.

Diesel deliveries were relatively weak in June-July but bounced back to the top of their historical range in August, according to provisional data. Demand was likely supported by good manufacturing activity. The ISM Manufacturing PMI rose to 59.9 in August, from 59.5 in July. Canadian and Mexican deliveries remained subdued in June, at 360 kb/d and 450 kb/d below pre-pandemic levels, respectively.

We forecast rapid demand growth in the Americas of 915 kb/d q-o-q in 3Q21, before a seasonal dip of 200 kb/d in 4Q21. Demand should grow by 1.7 mb/d in 2021, the most out of all OECD regions, with growth slowing to 780 kb/d in 2022.

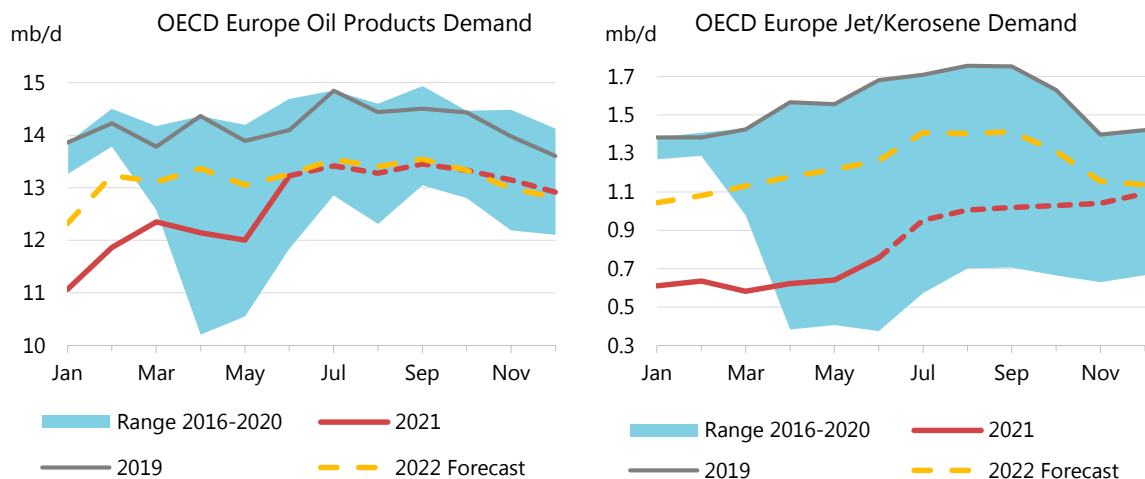
OECD Europe

European oil demand rose a further 190 kb/d in July to 13.6 mb/d, its highest level since the start of the pandemic. This follows a steep rise of 1.2 mb/d in June as drivers took advantage of the lifting of most Covid restrictions and pent up demand supported mobility. While a rebound in the number of Covid cases led to new restrictions and social distancing measures in some countries, transportation demand remained supported by summer vacation travel.

Jet-kerosene demand increased by 120 kb/d in June and a further 195 kb/d m-o-m in July, to 950 kb/d. In July, seat passenger capacity rose by 60% m-o-m in France, 62% in Germany and 56% in the UK, data from OAG showed. In August, seat passenger capacity growth slowed to 6-8% in most of Europe, with the exception of the UK that registered a 31% increase. European jet-kerosene demand is expected to increase by 320 kb/d q-o-q in 3Q21 to 990 kb/d, still some 490 kb/d below pre-Covid levels.

Gasoline demand jumped by 280 kb/d m-o-m in June. Demand increased by 350 kb/d q-o-q in 2Q21 and is expected to gain an additional 150 kb/d in 3Q21. Most of the growth in gasoline demand in 2Q21 occurred in June when it rose by 280 kb/d m-o-m with the relaxation of Covid

restrictions. Fear of using public transportation, and limited availability of overseas air transport also supported gasoline demand during the summer. After the holiday period, teleworking, relatively high gasoline prices, and a fast penetration of electric vehicles and other modes of transportation (bicycles) are likely to slow the growth in gasoline consumption.



Gasoil demand took a dive in April and May as lockdowns were put in place to contain the spread of Covid. As for gasoline, demand rebounded very strongly in June, increasing by 750 kb/d m-o-m. Overall, gasoil consumption grew by 420 kb/d in 2Q21 and is expected to expand by 190 kb/d in 3Q21. European manufacturing indicators are very positive and should support gasoil growth for the remainder of the year.

European oil demand is now projected to rise by 930 kb/d q-o-q in 3Q21. Demand should then decline seasonally by 250 kb/d q-o-q in 4Q21. For 2021 as a whole, we forecast oil demand to increase by 395 kb/d. In 2022, consumption should rise by a further 475 kb/d.

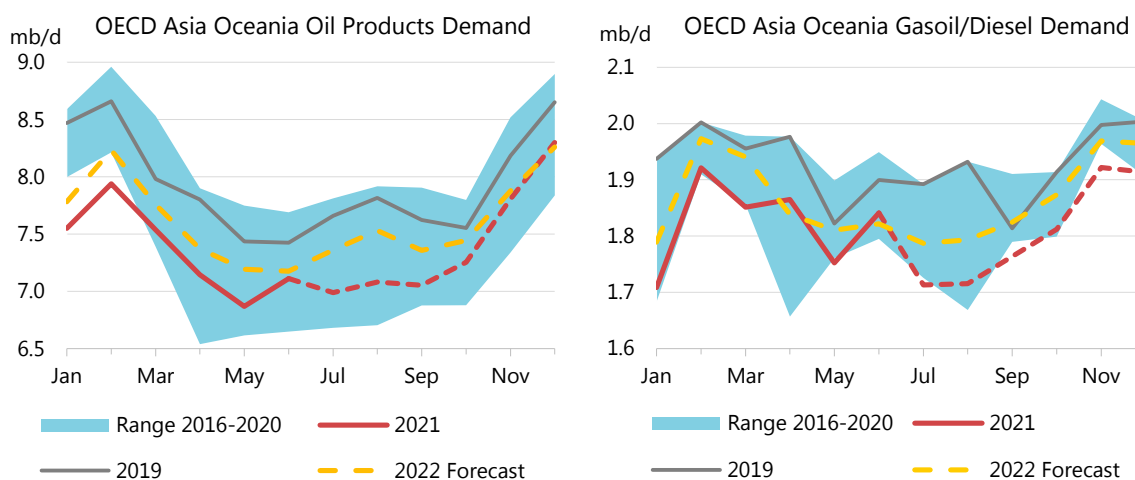
OECD Asia Oceania

Asia Oceania oil deliveries rose by 245 kb/d m-o-m in June, after three consecutive months of declines. Demand rose 135 kb/d in both Japan and Korea but fell in Australia (-20 kb/d m-o-m) and New Zealand (-40 kb/d). New Covid-19 cases in the region rose in recent months, leading authorities to put in place severe Covid restrictions.

Preliminary data for Japan point to a counter-seasonal drop of 25 kb/d m-o-m in July, explained by gasoil/diesel (-45 kb/d m-o-m) and jet fuel (-40 kb/d m-o-m). Demand is unlikely to recover significantly in August as efforts to contain the latest Covid wave reduced mobility. Covid-19 cases in Japan reached an all-time high at the end of August but have been in decline since then. Nineteen prefectures are currently under a state of emergency with people asked to avoid crowded areas and restaurants forced to halt alcohol sales and close by 8 pm.

Japan's government extended the state of emergency measures in these areas until the end of September. About 45% of Japan's population is fully vaccinated and the country aims to fully vaccinate its population by October or November. In spite of the Covid crisis, Japan's flight seating capacity rose by 21% m-o-m in July, according to OAG, and by 12% in August. They remained 49% below August 2019 levels, however. Japan's oil demand declined by 650 kb/d q-o-q in 2Q21 (close to normal seasonal patterns) and is expected to remain stagnant in 3Q21, versus a typical seasonal demand increase of 100-150 kb/d.

In Korea, new Covid cases rose through August but are now plateauing. The country extended social distancing measures to 3 October, limiting both the number of people allowed at social gatherings and the opening hours of restaurants, while boosting vaccination rates. South Korea expects to have 80% of its adult population vaccinated by October. Korean oil demand declined by 50 kb/d in July. Following a 40 kb/d q-o-q decline in 2Q21, Korean oil demand is expected to increase by 70 kb/d in 3Q21 (not far off from historical seasonality).



In Australia, the number of cases started to rise in July and reached an all-time high at the start of September, with no signs of abating. Many states are under lockdowns, with strict travel restrictions. Some 65% of the population over 16 have received at least one dose of vaccine while 40% are fully vaccinated. The government plans to ease restrictions when 70% of the population is fully vaccinated. Australian oil demand rose slightly q-o-q in 2Q21 (60 kb/d) to 1.1 mb/d and is expected to decline (-50 kb/d) in 3Q21.

For OECD Asia Oceania as a whole, we expect demand to remain flat q-o-q in 3Q21. Demand should then climb by a sharp 760 kb/d q-o-q in 4Q21, assuming Covid comes under control. Demand is forecast to rise by 250 kb/d y-o-y in 2021 and 230 kb/d in 2022.

Non-OECD

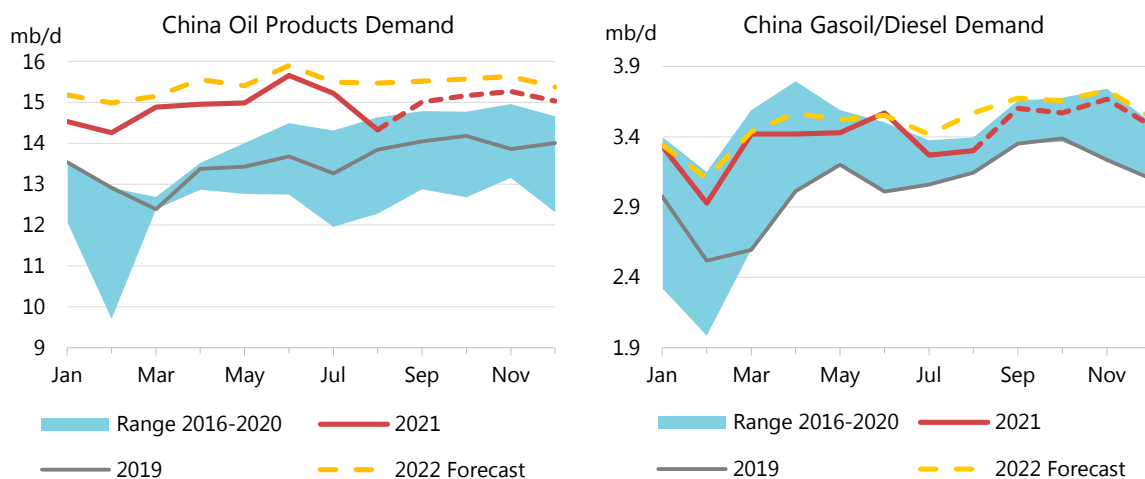
Non-OECD oil demand declined seasonally in July, by 560 kb/d m-o-m, compared with an average drop of 430 kb/d over the last five years. A large portion of the fall was in China (-440 kb/d m-o-m), where authorities imposed mobility restrictions from the middle of the month in response to a sudden Covid-19 outbreak. We estimate that demand also fell sharply in Indonesia (-190 kb/d m-o-m), Malaysia (-120 kb/d m-o-m) and Pakistan (-110 kb/d m-o-m). As highlighted over the past few months, the Covid Delta variant remains a key downside risk for non-OECD countries. In this *Report*, we downgrade our non-OECD oil demand outlook by 280 kb/d per month over the August-December period, in response to the latest Covid-19 wave.

China

Chinese oil demand posted a notable slowdown in July (-440 kb/d m-o-m) and August (-890 kb/d m-o-m) because of the Covid-19 Delta variant. We estimate that gasoil/diesel deliveries fell by 300 kb/d m-o-m in July, before recovering by 30 kb/d in August. Gasoline demand was up 90 kb/d m-o-m in July, but it fell by an estimated 570 kb/d in August because of

the significant decline in travel. Jet/kerosene deliveries rose by 70 kb/d m-o-m in July, but decreased by 130 kb/d in August.

A cluster of Covid cases was first identified at the Nanjing airport in mid-July and quickly spread to several cities. Because of the country's zero-tolerance Covid policy, this led authorities to curtail movement to and from affected areas and, in some cases, ask people to stay home. Personal mobility in and out of Nanjing fell by nearly 20% in July compared to June, and by a further 65% in August, data from search engine Baidu showed. Overall intercity mobility in China rose by 8% in July, helped by strong gains in the country's south, but it fell by a significant 30% in August as restrictions increased.



In the large cities of Beijing and Shanghai, intercity travel fell by 49% and 42% m-o-m, respectively, in August. Travel also declined, but by lesser amounts, in the southern cities of Guangzhou (-8%) and Shenzhen (-4%). In addition, airline traffic fell by around 25% during the month, data from OAG showed, as people cancelled planned trips. August plane travel was also down 23% on August 2019 levels and 15% below a year ago.

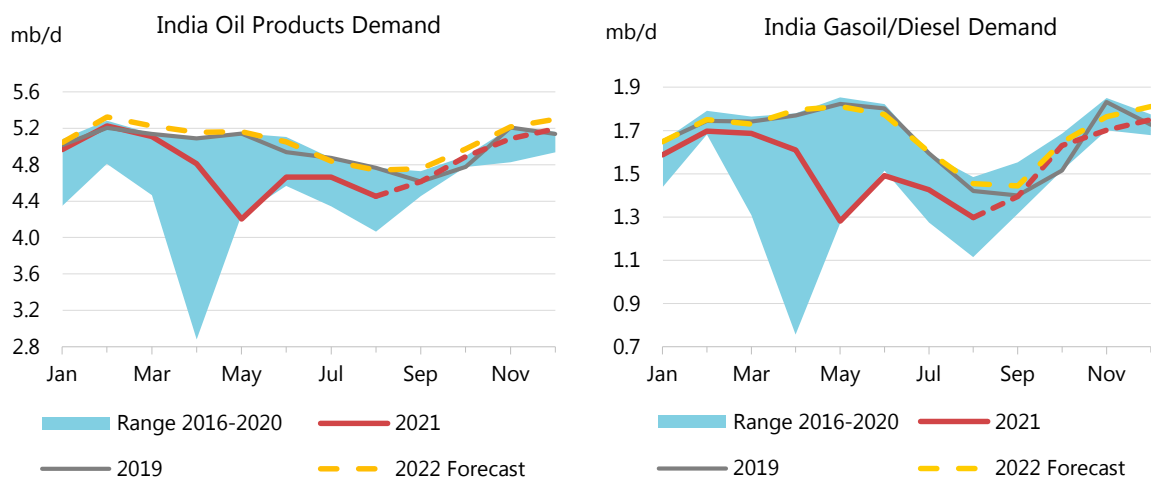
China: Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	1 737	1 837	2 106	2 182	268	76	14.6	3.6
Naphtha	1 338	1 444	1 594	1 670	150	76	10.4	4.8
Motor Gasoline	3 248	3 195	3 393	3 566	198	173	6.2	5.1
Jet Fuel & Kerosene	857	702	768	844	66	76	9.3	9.9
Gas/Diesel Oil	3 052	3 150	3 418	3 511	268	93	8.5	2.7
Residual Fuel Oil	432	433	457	478	23	22	5.4	4.7
Other Products	2 881	3 042	3 209	3 190	167	- 19	5.5	-0.6
Total Products	13 546	13 803	14 944	15 440	1 141	496	8.3	3.3

The latest Covid-19 outbreak was largely under control at the time of writing and vaccinations have progressed well, with two billion doses administered and around 900 million people now fully inoculated. The country's National Health Commission estimates around 1.1 billion people will have been vaccinated by the end of October.

Overall, we estimate that Chinese demand is likely to fall by 350 kb/d q-o-q in 3Q21, however it will still be up 275 kb/d from the same quarter in 2020. Demand is likely to recover nearly all its losses in 4Q21 (+305 kb/d q-o-q) and finish the year up 1.1 mb/d.

India

Indian oil deliveries were roughly unchanged in July following June's significant growth. They then fell seasonally by 210 kb/d m-o-m in August because of the Monsoon season. High rainfall curbed transportation across vast swathes of the country, but allowed farmers to use less gasoil to irrigate their fields. Diesel and gasoil deliveries fell 130 kb/d on the month, the second monthly decline in a row. By contrast, gasoline demand growth remained positive, rising by 20 kb/d m-o-m. Jet and kerosene demand also rose (+20 kb/d m-o-m). Overall, Indian demand remained some 310 kb/d below 2019 levels in August.



New Covid-19 cases in India have remained relatively low at around 40 000 per day in recent weeks, enabling a return to normal life for most Indians. In August, an average trip through major cities took 31% longer than it would have during the baseline uncongested conditions, the highest figure since February, data from *TomTom* showed. However, this was 27% less than during August 2019, highlighting the impact that Covid-19 continues to have on the country's transportation demand. In early September, congestion increased further in Indian cities, pointing to robust fuel demand.

India: Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	837	871	895	922	24	27	2.7	3.1
Naphtha	308	319	314	286	- 5	- 28	-1.4	-9.0
Motor Gasoline	734	667	736	752	69	16	10.4	2.1
Jet Fuel & Kerosene	225	120	134	191	14	57	11.3	42.8
Gas/Diesel Oil	1 667	1 414	1 545	1 685	131	140	9.3	9.0
Residual Fuel Oil	145	138	145	151	7	6	5.2	4.2
Other Products	1 076	1 008	1 052	1 077	44	25	4.3	2.4
Total Products	4 991	4 536	4 820	5 063	284	243	6.3	5.0

We expect Indian oil deliveries to rise by 20 kb/d q-o-q in 3Q21, a small gain compared with the 540 kb/d q-o-q loss during 2Q21 caused by the second wave of the pandemic. Growth should be much more robust in 4Q21 (+480 kb/d q-o-q), helped by booming transportation. We forecast growth of just 280 kb/d in 2021, up from a 450 kb/d loss in 2020. Indian oil demand is expected to increase by 240 kb/d in 2022.

Other Non-OECD

Oil deliveries in **Argentina** rose by 40 kb/d m-o-m in July with the continued recovery in diesel/gasoil and gasoline as Covid cases decline. The country's oil demand is now back to pre-pandemic levels. We expect Argentinian demand to rise by 65 kb/d in 2021.

In **Brazil**, oil consumption rose by a significant 130 kb/d m-o-m in July, the second such increase in a row. Deliveries were boosted by transport fuels. As in the rest of Latin America, new Covid cases have fallen sharply. We expect demand to increase by 120 kb/d in 2021, offsetting most of the 150 kb/d fall in 2020.

Non-OECD: Demand by Region								
(thousand barrels per day)								
	3Q19	Demand			Annual Chg (kb/d)		Annual Chg (%)	
		1Q21	2Q21	3Q21	2Q21	3Q21	2Q21	3Q21
Africa	4 136	4 068	3 932	3 814	522	94	15.3	2.5
Asia	27 267	28 159	28 183	27 480	2 920	637	11.6	2.4
FSU	4 902	4 541	4 660	4 832	608	178	15.0	3.8
Latin America	6 384	5 843	5 897	6 144	910	446	18.3	7.8
Middle East	8 659	7 698	7 823	8 433	737	255	10.4	3.1
Non-OECD Europe	797	743	739	796	59	30	8.7	3.9
Total Products	52 144	51 052	51 234	51 499	5 757	1 641	12.7	3.3

Pakistani oil demand rose by 100 kb/d m-o-m in June, the highest monthly growth seen in more than a year. It was boosted by surging gasoline sales (+50 kb/d m-o-m) linked to increased transportation, as well as strong growth in fuel oil demand (+40 kb/d m-o-m). The global rise in natural gas prices could prompt Pakistan to use more fuel oil in its power sector. We forecast the country's demand to increase by 40 kb/d in 2021, more than offsetting 2020's fall.

Saudi Arabia's oil demand rose sharply (+180 kb/d m-o-m) in June, as very hot weather caused crude oil use in the power sector to rise (+150 kb/d m-o-m). We estimate that oil products demand rose by a further 150 kb/d in July. The country's demand is expected to increase by 60 kb/d in 2021, or around half the volume lost in 2020. In 2022, Saudi Arabia demand growth is likely to be reduced by a switch to natural gas and renewables in the power sector.

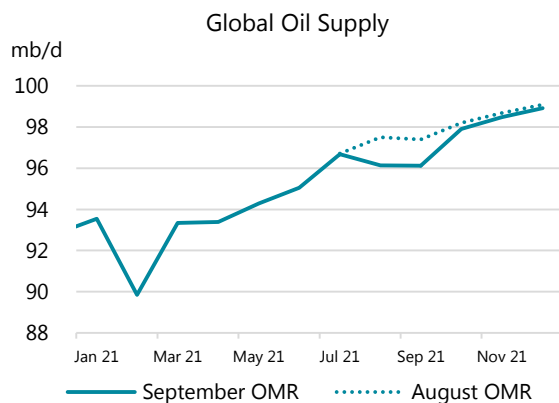
In **Africa**, given the low level of vaccination, some countries are likely to experience another episode of Covid restrictions in 2022, reducing oil demand growth. We expect total growth in oil demand of 165 kb/d in 2021, slowing to roughly 80 kb/d in 2022.

Supply

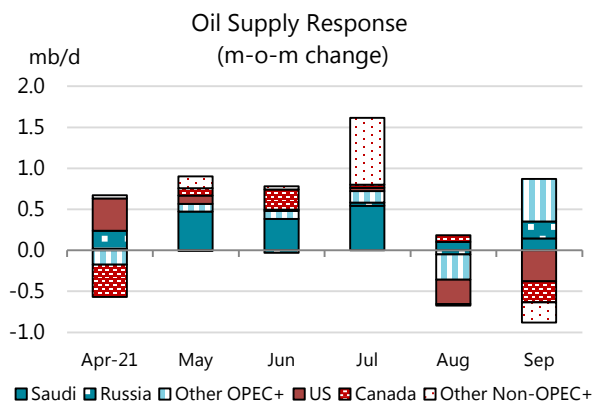
Overview

Unplanned production outages have temporarily halted an uptrend in world oil supply that began in March but growth is set to resume in October. In the US, hurricane Ida shut-in a steep 1.7 mb/d along the Gulf Coast at the end of August, causing the most severe damage to the region's oil infrastructure in more than 15 years. The biggest impact on supply will be seen in September (see *Special Focus: Hurricane Ida Update*). In addition, fires at oil facilities in Mexico and Russia and operational issues in Nigeria and Libya during August forced a combined loss of 600 kb/d that, together with hefty Kazakh maintenance, far offset higher flows from major Middle East OPEC+ nations. As a result, global oil production fell 540 kb/d month-on-month (m-o-m) in August to 96.1 mb/d, still up 4.6 mb/d on the previous year.

Had all gone to plan, there would have been solid gains for the month. From August, OPEC+ began to target a monthly 400 kb/d increase in crude oil to phase out the remainder of its historic cut and those outside the bloc (non-OPEC+) were expected to pump more. In the event, total oil supply (including condensates and NGLs) from OPEC+ fell 300 kb/d m-o-m in August, while non-OPEC+ output declined by 240 kb/d.



* Assumes from Aug-Dec OPEC+ aims for 400 kb/d monthly increase. Iran remains under sanctions.



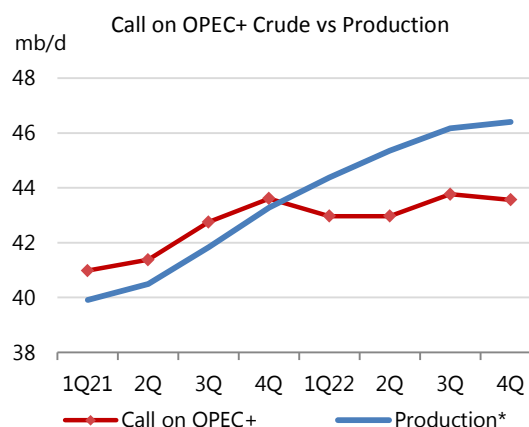
* Assumes from Aug-Dec OPEC+ aims for 400 kb/d monthly increase. Iran remains under sanctions.

For September, total oil supply looks likely to hold broadly steady, with protracted US hurricane losses and maintenance in Canada expected to offset anticipated increases from OPEC+ thanks to recoveries in Mexico and Russia and Kazakh maintenance winding down. October should mark the resumption of supply's upward trajectory, especially if the weather cooperates. That would be a timely return to growth given the strong demand recovery expected during the fourth quarter.

A robust demand outlook led OPEC+ ministers on 1 September to agree to stick with their policy to fully unwind cuts by September 2022 and to reconfirm their monthly 400 kb/d increase for October 2021. They are due to gather again on 4 October. Barring any unanticipated disruptions, OPEC+ oil production is projected to ramp up by 2.4 mb/d between August and the end of 2021. At the same time, output from non-OPEC+ is due to rise by roughly 400 kb/d. Total

oil output for 2021 is now set to expand by an average 1 mb/d for OPEC+ and 450 kb/d for non-OPEC+ compared to declines of 5.5 mb/d and 1.3 mb/d, respectively, in 2020.

Supply outages have inevitably tightened our 3Q21 balances significantly, with OPEC+ now expected to pump about 900 kb/d below the call on its crude during the quarter. The market should shift closer to balance during the last three months of the year when OPEC+ is projected to produce about 300 kb/d below the call on its crude. If OPEC+ continues to unwind its cuts by the planned 400 kb/d per month, the bloc could pump 1.4 mb/d above the call on its crude in 1Q22, assuming Iran remains under sanctions. By 2Q22, OPEC+ crude oil output could rise to 2.4 mb/d above the call. These possible stock builds in 2022 could offset the extended period of inventory draws expected to last until the end of 2021.

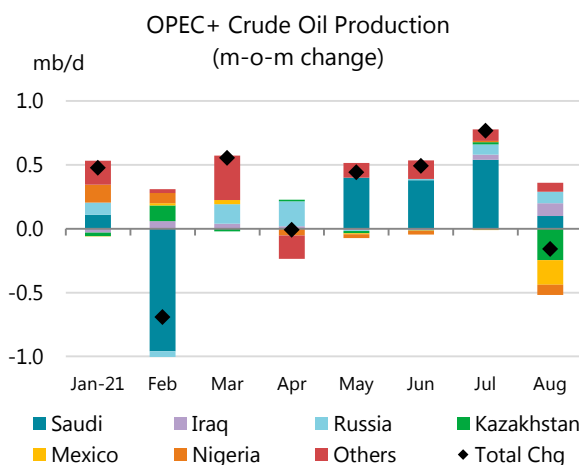


* Assumes OPEC+ unwinds cuts by September 2022, Iran under sanctions.

As for non-OPEC+, we expect oil supply to expand by 1.8 mb/d next year, with the US accounting for 56% of the overall gains. Canada, Brazil and Norway will also post increases as output is restored and new projects ramp up.

Outages wipe out OPEC+ crude oil boost

OPEC+ crude oil supply fell 150 kb/d in August to 41.58 mb/d, as losses from Kazakhstan, Mexico and Nigeria far offset increases driven by Saudi Arabia, Iraq and Russia. Other Gulf countries pumped slightly more as did Angola. Overall compliance with the output pact rose to 116% from 109% the previous month, due to Kazakh maintenance and Nigerian operational issues. Nigeria, Angola and Malaysia continue to struggle with capacity declines and remain far below their targets.



Output of crude from the OPEC members of the bloc rose 210 kb/d in August to 26.89 mb/d, with Saudi Arabia and Iraq leading the increase. Crude flows from the group's non-OPEC countries (including Russia) fell 360 kb/d to 14.69 mb/d. During September, curbs from OPEC+ producers are due to ease a further 400 kb/d in line with their new agreement. At that point, cuts versus baseline production will stand at 5 mb/d compared to the record 9.7 mb/d when they were first enforced in May 2020.

In August, **Saudi Arabia** pumped 9.56 mb/d (+100 kb/d m-o-m), up 620 kb/d on the previous year and a touch below its higher August output quota. Saudi crude exports to world markets

eased from 6.5 mb/d to 6.35 mb/d, according to *Kpler* data, so domestic uptake appears to have risen m-o-m notably as volumes of crude oil burned in power plants increased seasonally. As per the new OPEC+ deal, the kingdom's supply target in September will rise to 9.7 mb/d. Saudi Aramco meanwhile is striving to boost capacity close to 12.6 mb/d by 2025 as it works towards a target of 13 mb/d. Current capacity, which excludes the Neutral Zone shared with Kuwait, is 12 mb/d. Engineering work is in the final stages to expand output at the Marjan and Berri fields, which are expected to add 300 kb/d and 250 kb/d, respectively, by 2025.

OPEC+ Crude Oil Production ¹								
(million barrels per day)								
	Jul 2021	Aug 2021	August	Aug 2021	Sep 2021	Oct 2021	Sustainable	Spare Cap
	Supply	Supply	Compliance	Target	Target	Target	Capacity ²	vs Aug
Algeria	0.91	0.92	101%	0.92	0.93	0.94	1.01	0.09
Angola	1.10	1.13	204%	1.33	1.35	1.36	1.21	0.08
Congo	0.25	0.26	159%	0.28	0.29	0.29	0.31	0.05
Equatorial Guinea	0.10	0.10	169%	0.11	0.11	0.11	0.12	0.02
Gabon	0.18	0.19	-13%	0.16	0.17	0.17	0.21	0.02
Iraq	3.97	4.07	98%	4.06	4.11	4.15	4.92	0.85
Kuwait	2.42	2.44	103%	2.45	2.48	2.51	2.94	0.50
Nigeria	1.32	1.24	253%	1.60	1.61	1.63	1.73	0.49
Saudi Arabia	9.46	9.56	103%	9.60	9.70	9.81	12.14	2.58
UAE	2.72	2.77	99%	2.77	2.80	2.83	3.83	1.06
Total OPEC-10	22.43	22.68	118%	23.29	23.54	23.79	28.41	5.73
Iran ³	2.50	2.50					3.80	1.30
Libya ³	1.18	1.14					1.18	0.04
Venezuela ³	0.57	0.57					0.58	0.01
Total OPEC	26.68	26.89					33.97	7.08
Azerbaijan	0.61	0.60	134%	0.63	0.63	0.64	0.63	0.03
Kazakhstan	1.53	1.28	196%	1.49	1.51	1.52	1.65	0.37
Mexico ⁴	1.68	1.48		1.75	1.75	1.75	1.68	0.20
Oman	0.75	0.76	113%	0.77	0.78	0.79	0.87	0.11
Russia	9.62	9.71	92%	9.60	9.70	9.81	10.35	0.64
Others ⁵	0.87	0.86	172%	0.97	0.98	0.99	0.94	0.09
Total Non-OPEC	15.05	14.69	112%	15.20	15.35	15.50	16.12	1.43
OPEC-10 + Non-OPEC⁶	37.48	37.37	116%	38.49	38.89	39.29	44.53	7.17
Total OPEC+	41.73	41.58					50.09	8.52

1 Excludes condensates.

2 Capacity levels can be reached within 90 days and sustained for an extended period.

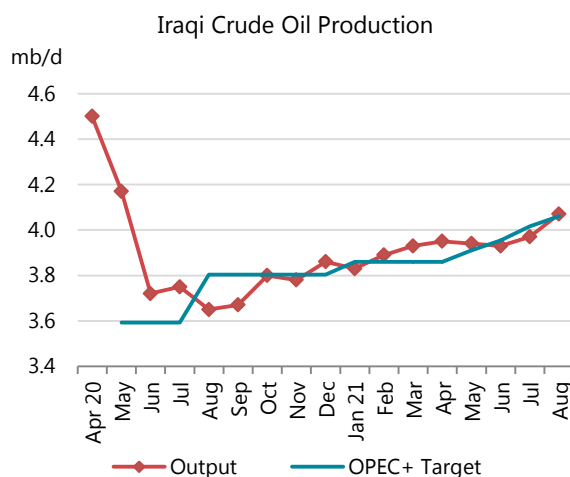
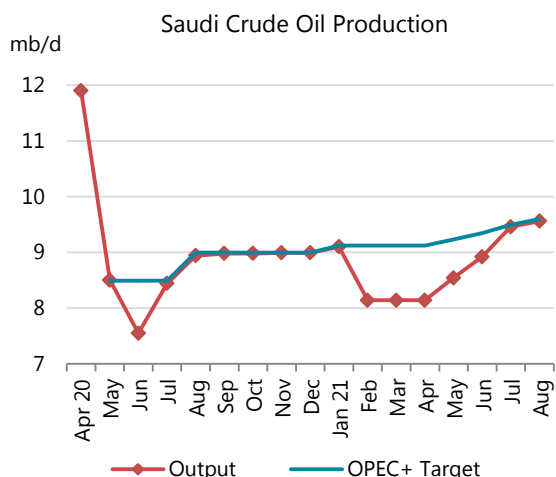
3 Iran, Libya, Venezuela exempt from cuts.

4 Mexico excluded from OPEC+ compliance. Only cut in May, June 2020.

5 Bahrain, Brunei, Malaysia, Sudan and South Sudan.

Elsewhere in the Gulf, crude oil production also rose during August. **Kuwaiti** output edged up 20 kb/d to 2.44 mb/d, a gain of 170 kb/d year-on-year (y-o-y). Production in the **UAE** increased by 50 kb/d m-o-m to reach 2.77 mb/d. The UAE is on a capacity-building drive and to that end, the Abu Dhabi National Oil Co (Adnoc) plans to spend \$187 million to raise capacity at its onshore Al-Nouf oil field to 175 kb/d by 2024 from 160 kb/d now. It also awarded exploration rights for Offshore Block 5 to a consortium of four Pakistani companies in its second competitive block bid round. The consortium led by Pakistan Petroleum Ltd (PPL) is expected to invest up to \$304.7 million, including a participation fee. The award to the PPL-led consortium concludes Adnoc's second bid round for onshore and offshore blocks.

Supply from **Iraq**, including the Kurdistan Regional Government, rose 100 kb/d to 4.07 mb/d (+420 kb/d y o y) – slightly above its August quota. Total Iraqi shipments of crude increased 90 kb/d to 3.38 mb/d, the highest since May 2020, and more crude was burned in domestic power plants. The federal government's upstream sector got a boost with TotalEnergies poised to build four major energy projects in southern Iraq under a deal estimated at \$27 billion. Engineering work is due to start immediately. The first phase includes a \$3 billion investment in a project to inject 5 mb/d of treated sea water into oil fields to sustain pressure at vital southern oil fields. Total will also spend \$2 billion to build a processing plant for gas produced at the southern fields of West Qurna-2, Majnoon, Ratawi, Tuba and Luhais. The company will also raise output at Ratawi from 85 kb/d to 210 kb/d and build a large solar power plant.

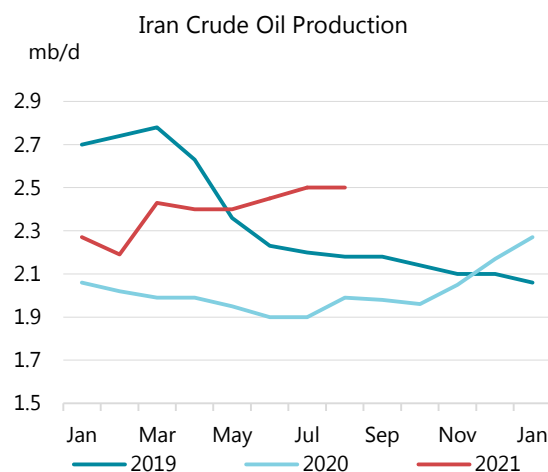


Lukoil, operator of West Qurna-2, is also seeking to boost the field’s capacity. Production from the Mishrif formation reached its current capacity of 400 kb/d in 2Q21. It now aims to raise output to 450 kb/d in 2022. Lukoil had mulled leaving the project because of its commercial terms, but Iraq refused its request to sell part of its stake. Baghdad has meanwhile approved plans to create a new company to finance the southern Rumaila oil field currently operated by BP, as the UK major seeks to shift focus to low-carbon investments. The new company, Basrah Energy Ltd, would hold BP’s interest in Rumaila and be jointly owned by China National Petroleum Corp, one of BP’s partners. Rumaila produced around 1.5 mb/d in 2020, roughly one-third of the federal government’s production.

Crude output in **Oman** rose marginally to 760 kb/d while production from **Bahrain** held broadly steady at 180 kb/d.

Supply from **Iran**, exempt from supply cuts, held steady m-o-m at 2.5 mb/d in August, and was up 510 kb/d on a year ago. Iran’s parliament on 25 August confirmed Javad Owji as the country’s new oil minister. He succeeds veteran oil minister Bijan Zanganeh.

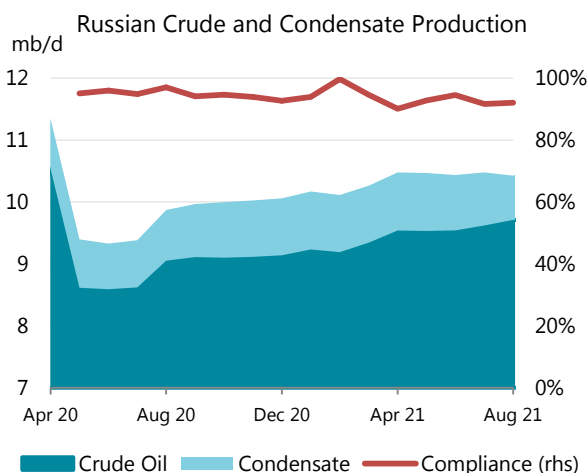
Talks to revive the Joint Comprehensive Plan of Action have stalled since Iran’s presidential election in June, holding back the country’s return to world markets. An eventual agreement would pave the way for significantly higher Iranian production, likely after a period of two to six months. If sanctions are eased, we believe Iran will be able to ramp up swiftly towards sustainable production capacity of 3.8 mb/d. Iran also has about 59 mb of crude and condensate stored on tankers along with around 78 mb stored on land and it will seek to shift that overhang as swiftly as possible.



Crude supply from **Russia** rose 90 kb/d in August to 9.71 mb/d, with compliance slipping to 92% - the lowest rate among major OPEC+ producers. Slavneft, Rosneft and Bashneft drove the increase in crude production. Total oil supply, including condensates and NGLs, declined by 50 kb/d m-o-m in August to 10.77 mb/d after a fire at a Gazprom processing plant in West

Siberia forced the company to curb condensate output. Total condensate production for August fell 140 kb/d m-o-m to 710 kb/d.

Under the new OPEC+ deal, the crude oil supply targets of Russia and Saudi Arabia are due to rise by roughly 100 kb/d per month. Russia will have to trim crude oil supply in September to meet its target of 9.7 mb/d. The country's major oil producers are gearing up to pump more in the months ahead by ramping up drilling efforts. For now, Rosneft, the largest company, can tap roughly 200 kb/d of spare capacity, while Lukoil, the second biggest producer, can bring on about 100 kb/d in short order. Gazpromneft can increase by up to 50 kb/d.



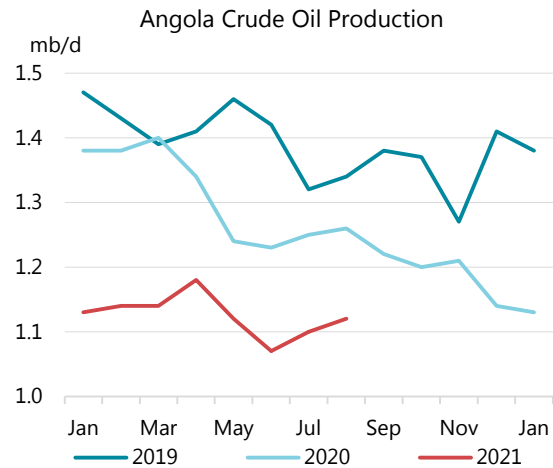
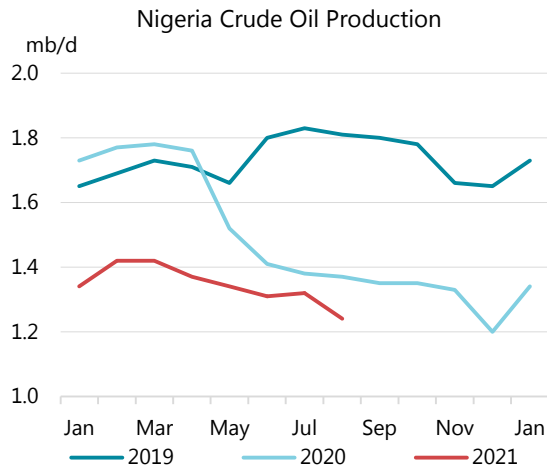
Kazakh output tumbled 250 kb/d in August due to maintenance and, at 1.28 mb/d, was 210 kb/d below its slightly higher August OPEC+ quota. Scheduled work at the Tengiz oil field began on 1 August and was set to finish on 10 September. As it seeks to develop its oil and gas reserves with the help of foreign investors, Kazakhstan plans to hold its third licensing round on 19 November. Supply from **Azerbaijan** dipped to 600 kb/d, lifting its compliance to 134%. Azeri output has been declining for years, but BP is on track to deliver oil from the \$6 billion Azeri-Chirag-Guneshli (ACG) expansion project by 2023. Operator BP expects to produce an extra 100 kb/d from the Azeri Central East platform. After reaching an annual average peak of roughly 840 kb/d in 2009, ACG pumped an average 465 kb/d during the first eight months of this year.

In Asia, extensive maintenance in **Malaysia** saw crude oil supply ease to 380 kb/d in August, down 70 kb/d y-o-y. The country's crude oil output has declined steadily m-o-m from a rate of 445 kb/d during May. In **Brunei**, crude supply edged up 20 kb/d m-o-m to 90 kb/d.

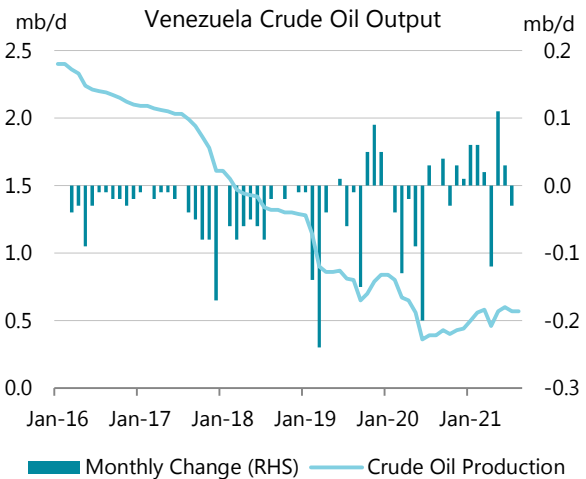
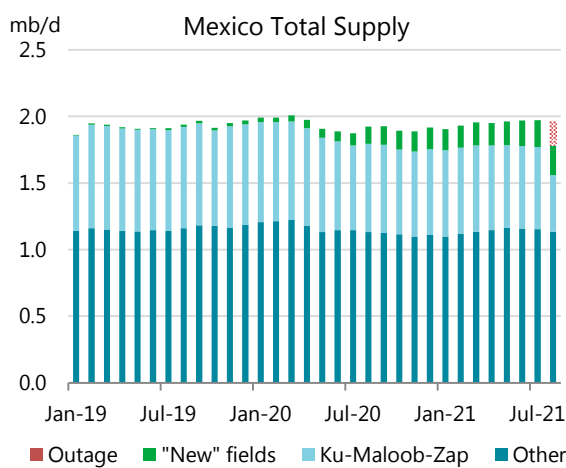
Combined production from African members of OPEC+ dropped during August. **Nigeria** posted the biggest decline, with supply falling 80 kb/d m-o-m mainly due to operational issues at the Forcados export terminal that led to *force majeure*. At 1.24 mb/d, output was down 130 kb/d on a year ago. But supply this month looks set to recover after *force majeure* was lifted on 9 September following the completion of repairs around the loading buoy. Apart from Forcados, other major crude streams such as Qua Iboe and Escravos have been battling against technical and operational issues. But the country's upstream sector could finally get a lift after President Muhammadu Buhari signed the Petroleum Industry Bill (PIB) into law last month. Foreign investment has all but stalled and some of the inertia had been blamed on lingering uncertainty around the passage of the PIB, which had been under negotiation for more than a decade. The new law calls for a sweeping transformation of the oil ministry, regulatory agencies and the Nigeria National Petroleum Corp. It also lays out a fiscal structure to cut taxes on onshore and on shallow water fields as well as a new schedule of royalties.

In **Angola**, crude oil output edged up to 1.13 mb/d, still 130 kb/d below a year ago and 200 kb/d lower than its supply target. Production has been hovering around 17-year lows due to operational issues and lack of investment. But there are some bright spots in the upstream. Eni has started production from Cuica on Block 15/06. It took just four months to take the field from

discovery to production. Its output of 10 kb/d will be routed to the Olombendo floating production, storage and offloading (FPSO) vessel in the block's eastern hub. Crude oil supply inched up in **Algeria, Congo** and **Gabon** and held steady in **Equatorial Guinea** and **Sudan**. **South Sudan** saw output dip slightly during August.



In **Libya**, spared from official OPEC+ cuts, output decreased by 40 kb/d m-o-m to 1.14 mb/d, but was still up 1.04 mb/d on a year ago. The decline in August was due to issues at the oil pipelines that link the Waha oil fields to the Es Sider terminal. Now there is a rising threat of politically driven outages – making the country's production recovery look increasingly fragile. Libya's energy sector has been hit hard by a prolonged civil war, militant attacks, a lack of maintenance and chronic underinvestment.



For Latin American members, exempt from OPEC+ curbs, Mexican flows plummeted while Venezuela saw production hold steady. A deadly fire on a platform of the Ku-Maloob-Zaap oil system cut crude production in **Mexico** by 190 kb/d in August to 1.48 mb/d. The blast occurred on 22 August and shut in around 420 kb/d. Production from Ku-Maloob-Zaap, which accounts for over 30% of Mexican supply, was fully restored nine days later. Mexican flows should rise modestly in 4Q21. Support will come from the Ichalkil-Pokoch development, which is on track for first oil in September, and will ramp up to 30 kb/d. Ichalkil-Pokoch is only the third major offshore development operated by a private firm in Mexico. Overall, total oil supply will remain

steady at 1.9 mb/d in 2021. Growth of 60 kb/d is forecast in 2022, when Eni plans to increase output from the Area 1 development.

Crude oil supply in **Venezuela** was unchanged m-o-m at 570 kb/d, up 180 kb/d on a year ago. Petroleos de Venezuela (PDVSA) is hoping to ramp up production by reopening wells and carrying out maintenance in its vast Orinoco Belt, but a lack of diluent for crude blending appears to be thwarting the effort.

Box 1. Regrouping global oil supply

For some time, this Supply section has divided the world between the 23 nations that make up OPEC+ and those outside the group (non-OPEC+). As a result, we have been calculating the call on OPEC+ crude oil. To clearly reflect these changes, from this month on, two new tables will be included at the end of the *Oil Market Report*: “Table 1b – World Oil Supply and Demand (Including OPEC+ based on current agreement)” and “Table 3b – World Oil Production (Including OPEC+ based on current agreement”.

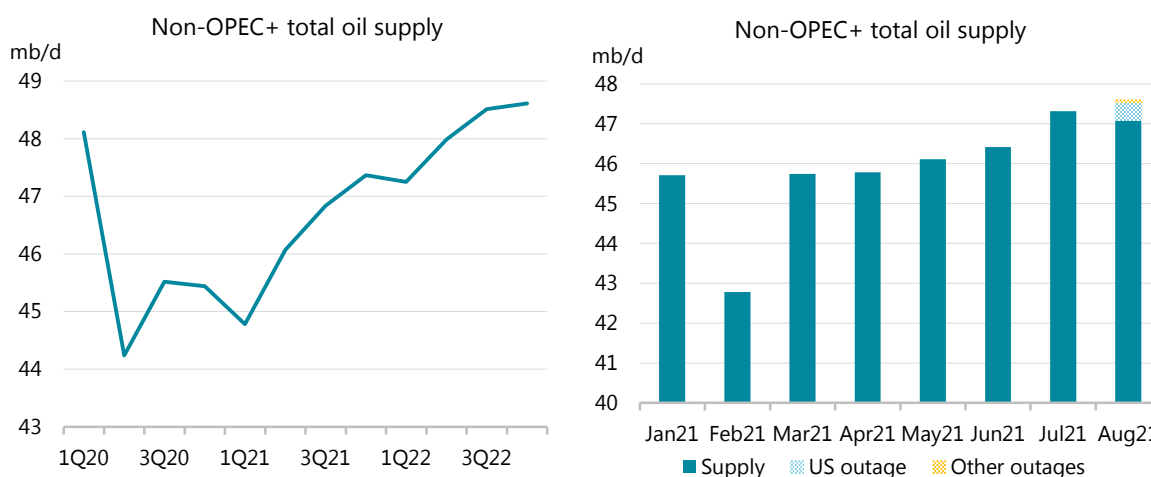
Table 1b
WORLD OIL SUPPLY AND DEMAND (Including OPEC+ based on current agreement)
(million barrels per day)

	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Total Demand	90.9	93.4	95.1	97.2	98.8	96.1	98.2	98.9	100.3	100.2	99.4
OECD Supply(non-OPEC+)	26.0	25.4	25.8	26.0	26.9	26.1	27.1	27.2	27.4	27.9	27.4
Non-OECD Supply (non-OPEC+)	15.1	15.1	15.1	15.2	15.3	15.2	15.3	15.3	15.3	15.3	15.3
Processing Gains	2.1	2.1	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Global Biofuels	2.6	2.1	2.9	3.3	2.9	2.8	2.5	3.2	3.5	3.0	3.0
Total Non-OPEC+	45.9	44.8	46.1	46.9	47.4	46.3	47.3	48.0	48.5	48.7	48.1
OPEC+ Crude	40.6	39.9	40.5	41.8	43.3	41.4	44.4	45.4	46.2	46.4	45.6
OPEC+ NGLs & Condensate	7.3	7.5	7.5	7.5	7.6	7.5	7.8	7.8	7.8	7.8	7.8
OPEC+ Nonconventionals	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total OPEC+	48.0	47.5	48.1	49.4	51.0	49.0	52.3	53.3	54.1	54.4	53.5
Total Supply	93.9	92.3	94.2	96.3	98.4	95.3	99.6	101.3	102.7	103.0	101.7
Memo items:											
Call on OPEC+ crude + Stock ch	37.6	41.0	41.4	42.8	43.6	42.2	43.0	43.0	43.8	43.6	43.3

Table 1b will include a scenario for OPEC+ production that follows the evolution of the bloc’s existing output agreement. The current deal sees remaining cuts ease by 400 kb/d each month until they are fully unwound in September 2022. For those countries that have the production capacity to produce at their targets, we assume 100% compliance with the cuts. For those that can’t produce at their target levels – namely Angola, Nigeria and Malaysia in the near-term – we adjust based on our estimates of their individual sustainable production capacity. As for Russia, we have pegged output at our estimated capacity levels starting in April 2022, provided the cuts continue to be unwound. As things stand, we expect Russia to return to its 2019 crude production capacity of around 10.5 mb/d in 4Q22. It is unlikely that Russia will be able to produce anywhere close to its 11 mb/d crude oil baseline in 2022. For Iran, Libya and Venezuela – all exempt from supply cuts – the most recent level of production is held through the end of 2022.

Non-OPEC+ supply dips due to Ida

Production from countries outside the OPEC+ supply group (“non-OPEC+”) edged lower in August, falling an estimated 240 kb/d m-o-m, to 47.1 mb/d (+1.7 mb/d y-o-y). US flows were hampered in late August by Hurricane Ida, which triggered Gulf of Mexico (GoM) shut-ins of over 1.7 mb/d. However, the impact on total August supplies was marginal given the storm hit at the end of the month, with Ida expected to have an even greater effect on September supply, with 880 kb/d of oil production still offline as this *Report* is published. Preliminary reports suggest that GoM supplies may not fully return before the end of September due to extensive damage to onshore and offshore transmission infrastructure. The repairs and restart of facilities are also being hampered by Covid-related regulations and staff shortages. As a result, it is expected that Ida will end up causing exceptionally large supply losses, given the high volumes still offline compared to the aftermath of other recent hurricanes (see *Special Focus: Hurricane Ida Update*).



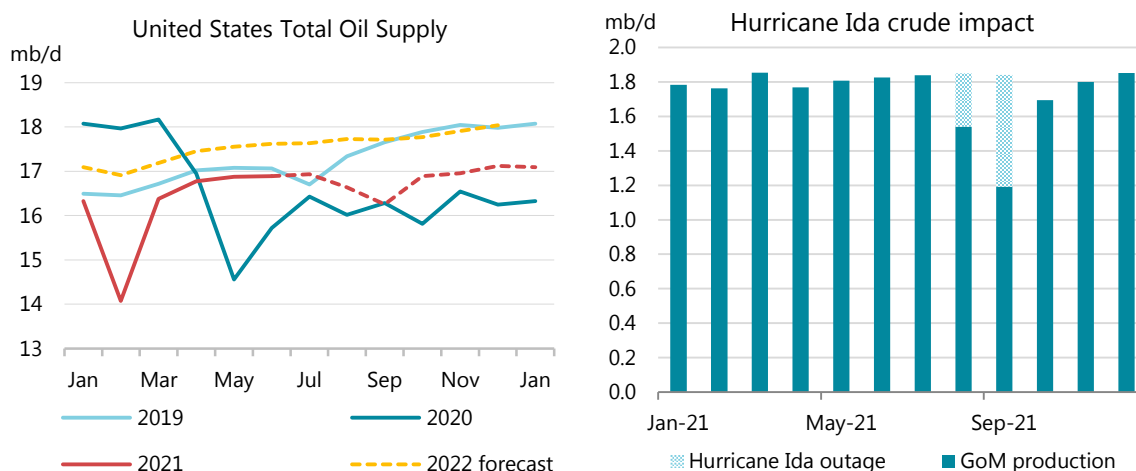
Unexpected weather events did not fully explain August’s disappointing production. It is becoming increasingly clear that weak investment, triggered by the pandemic and the uncertain path of future oil demand growth, is already impacting global supply. Certainly, new procedures introduced to stop the spread of Covid-19 have created staff shortages and increased workover duration, meaning more production downtime. In some countries, notably the UK, base production is declining rapidly due to a lack of infill drilling. In Brazil, and also the North Sea, high levels of unplanned outages have been observed, in part because Covid-19 mitigation measures have restricted maintenance.

Despite these challenges, non-OPEC+ supply is expected to rise further in 4Q21, boosted by new projects coming online in Brazil and Norway. Production is forecast to average 46.3 mb/d in 2021, up 450 kb/d y-o-y. Next year, strong growth in US light tight oil output (LTO) will underpin non-OPEC+ gains of 1.8 mb/d.

US supply fell by a net 300 kb/d m-o-m in August (+620 kb/d y-o-y), with hurricane losses partially offset by gains in Alaska and the Permian Basin. Hurricane Ida passed through the Gulf of Mexico (GoM) and made landfall in Louisiana on 29 August, knocking over 90% of GoM output offline in the last five days of the month (~1.7 mb/d). As a result, August GoM crude flows were down by 300 kb/d on average, as operators shut in wells and evacuated facilities to

minimise safety risks. This loss was partially mitigated by a rebound in production in Alaska (+60 kb/d m-o-m) following maintenance and modest gains in LTO (+75 kb/d m-o-m).

Steep GoM outages continue into September, averaging 90% in the first week and were reported to be 49% as this *Report* was published, according to the US Bureau of Safety and Environmental Enforcement. The speed of the production recovery will depend on the extent of damage caused by the hurricane and how quickly repairs can be made. Initial assessments by operators indicated minimal damage to offshore facilities, with Shell’s West Delta-143 (WD-143) transfer hub a significant exception. WD-143 is a transfer station for hydrocarbon production from the Mars, Ursa and Olympus platforms that together typically produce around 180 kb/d of liquids. Furthermore, severe damage to onshore facilities at Port Fourchon, the main receiving point for GoM production, could see production shut-ins last for several weeks. We anticipate that in September GoM crude flows will be reduced by 650 kb/d on average due to Ida.



The shuttering of GoM gas production due to Ida also negatively impacted NGLs, with supply estimated lower by 130 kb/d for August and 60 kb/d for September. Furthermore, several petrochemical facilities were shut down during the storm, and outages are ongoing, due to flooding and power cuts.

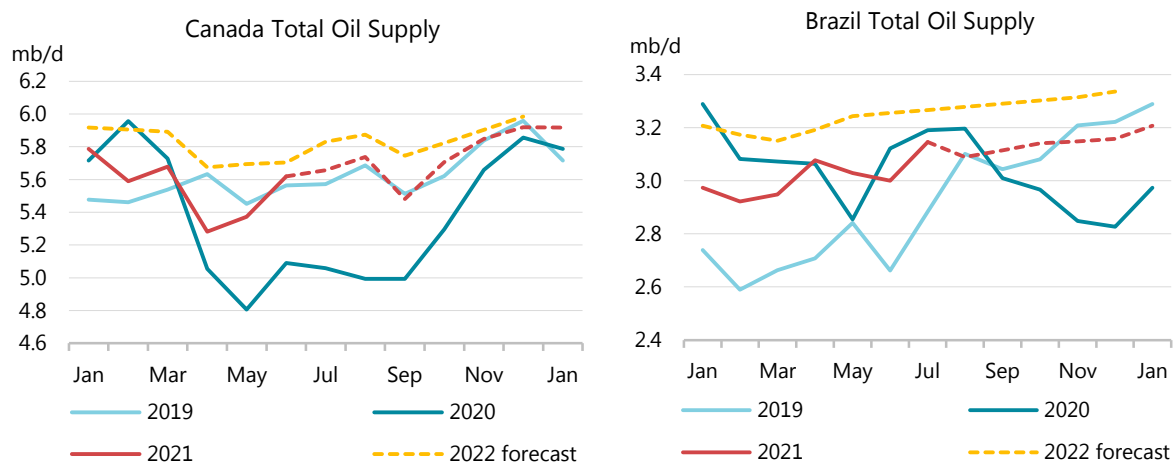
Data from the Department of Revenue show Alaskan supplies rebounding in August following the return of the 50 kb/d Alpine field, which had been offline for most of July due to central processing facility maintenance. Alaska’s output is expected to average 440 kb/d in 2021 but should get a boost in 2022 as ConocoPhillips commissions Fiord West (capacity 20 kb/d) and GMT-2 (capacity 35 kb/d). The firm’s larger Willow project (capacity 150 kb/d) is on hold, however, after a conservation group successfully lobbied a federal district judge to block permits. To proceed, Willow’s environmental studies will be reviewed to ensure that they fully capture the emissions and accurately assess the impact of the development on wildlife. ConocoPhillips had hoped to sanction Willow this year, and see first oil in 2025, but the ruling may push this back by two years or permanently. In the GoM, private equity backed Beacon Offshore Energy sanctioned Shenandoah, an 80 kboe/d ultra-high pressure, high temperature development due online in 2025.

The latest data from the *Petroleum Supply Monthly* for June showed US output flat m-o-m at 16.9 mb/d. In recent 2Q21 results presentations, the major US LTO operators touted impressive performance in the shale patch. Amongst them, ExxonMobil, Occidental and Diamondback reported higher output per rig, record drilling and completion times and cost savings. This is in part due to more completions of previously drilled uncompleted wells (DUCs) but also thanks to

efficiency gains from automation and reducing crew sizes and downtime. US LTO supply is forecast to rise a further 100 kb/d to 7.6 mb/d by end-2021. Services companies have increased their expectations for rig demand later in the year, and LTO growth is expected to accelerate in 2022 with an exit rate of 8.2 mb/d.

In 2021, total US supply is expected to dip slightly to 16.5 mb/d (-30 kb/d). Strong growth of 1 mb/d is forecast to return in 2022, as LTO activity picks up in response to the supportive price environment and NGL supplies increase to meet demand from new ethane crackers coming online.

Canadian supply is estimated to have increased modestly in August, to around 5.7 mb/d, but was up 750 kb/d y-o-y as production at oil sands upgraders made a full return from 2Q21 maintenance. Output is expected to rise above 5.9 mb/d by year-end, a new record, with several operators lifting their guidance for 4Q21. Higher flows will be supported by the Enbridge Line 3 replacement pipeline that is scheduled to be commissioned in 4Q21. This will increase Canada's export capacity by 380 kb/d, and reduce operators' reliance on rail to send barrels to the US. Growth of 290 kb/d takes Canadian supply to 5.6 mb/d on average in 2021; gains will slow to 190 kb/d in 2022.

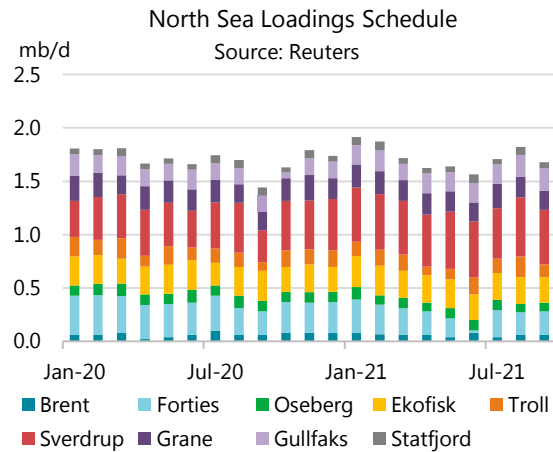
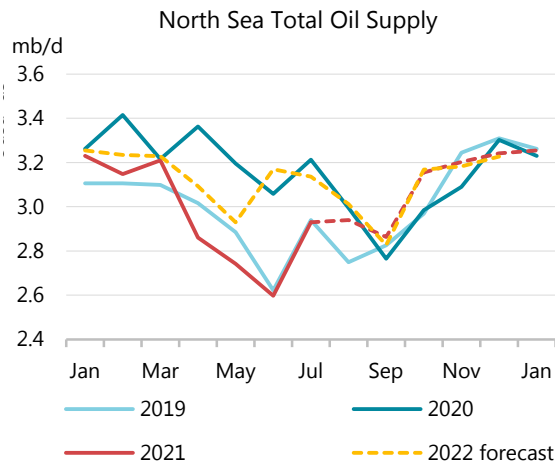


In **Brazil**, supply undershot the forecast once again as Covid-19 continue to complicate operations. Heavier-than-expected maintenance and unplanned outages caused output to dip to 3.1 mb/d in August (-60 kb/d m-o-m and -110 kb/d y-o-y), on lower flows from the Tupi and Buzios fields. Data from the Agencia Nacional do Petroleo (ANP) show that many offshore platforms, including those in the Lula and Iara fields of the Santos basin, have operated below capacity for several months and, given the difficult operating environment, this is likely to continue.

Positive news for the outlook came as Petrobras produced first oil from the Sepia field in August, with flows expected to ramp up gradually to 180 kb/d. This will contribute to Brazilian supply growth of 190 kb/d in 2022, along with rising output from the Atapu field, which came online in June 2020, and reached 120 kb/d a year later. Furthermore, Petrobras is planning to commission the Mero field in 1Q22, which will eventually add a further 180 kb/d of capacity. This follows a disappointing 2021, with output expected to average 3.1 mb/d, only 20 kb/d above the 2020 level.

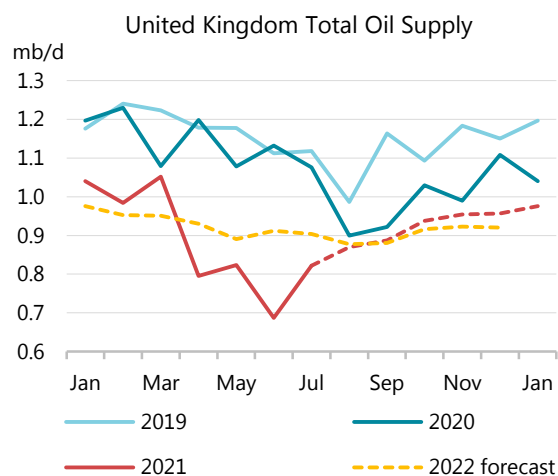
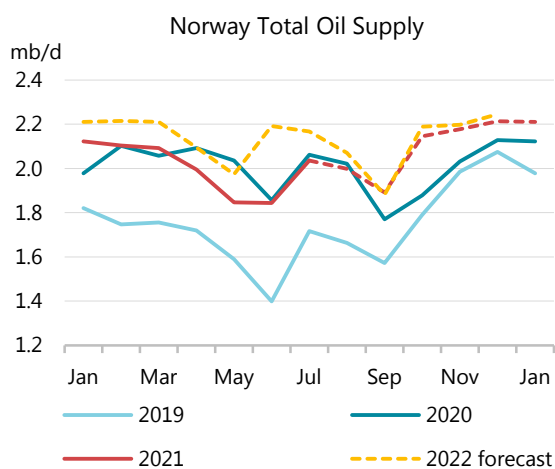
Supply from the North Sea held at around 2.9 mb/d in August (+ 10 kb/d m-o-m and -60 kb/d y-o-y), having made a strong recovery of 330 kb/d in July following heavy maintenance in May

and June. The impact of weak investment, triggered by volatile and low prices in 2020, is already apparent in the region and output has been beset with technical challenges, protracted maintenance and unplanned outages. Preliminary loading programmes suggest that production will be lower in September, in line with seasonal patterns, as planned maintenance gets underway in Norway.



Data from the **Norwegian** Petroleum Directorate show that output rebounded by 10% in July, following two months where maintenance weighed on supply. To July, flows have averaged 2 mb/d, reflecting zero annual supply growth; however, a handful of field start-ups should help production rise above 2.2 mb/d by year-end. Neptune Energy brought the Duva field online in August (capacity 30 kb/d) and Repsol was authorised to commission Yme (capacity 35 kb/d) in 4Q21. Equinor’s Martin Linge field, which came online in July, continued to ramp up towards capacity of 40 kb/d.

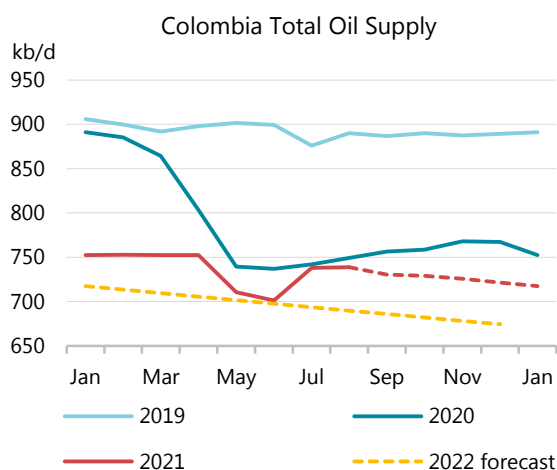
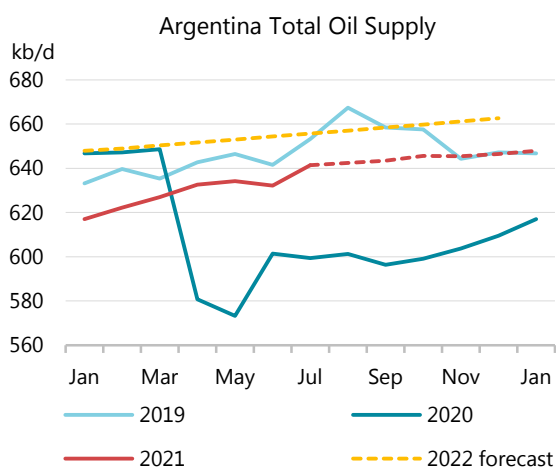
Overall, gains of 40 kb/d in 2021 will more than double to 100 kb/d in 2022, pushing production to an average 2.1 mb/d and reaching levels not seen in over a decade. Equinor’s Johan Sverdrup field, which started up in 2019, is the main reason for Norway’s recovery. Supply from Phase 1 is expected to average 520 kb/d in 2021, 25% of the country’s total output.



UK supply rebounded in July, to 820 kb/d (+140 kb/d m-o-m), after maintenance ended on the Forties Pipeline System (FPS) having caused the closure of fields feeding the system for most of June. This included the UK's largest producing field, Buzzard, where output fell to zero in June. However, unplanned maintenance continues to blight operations and supply is expected to remain below year-ago levels to end-2021. Some disruptions to Forties flows continued into August and Ithaca Energy flagged that maintenance at its Captain field would take place in September. Enquest unveiled a production enhancement programme for the Magnus field following poor performance, but new wells will not be drilled until 2022.

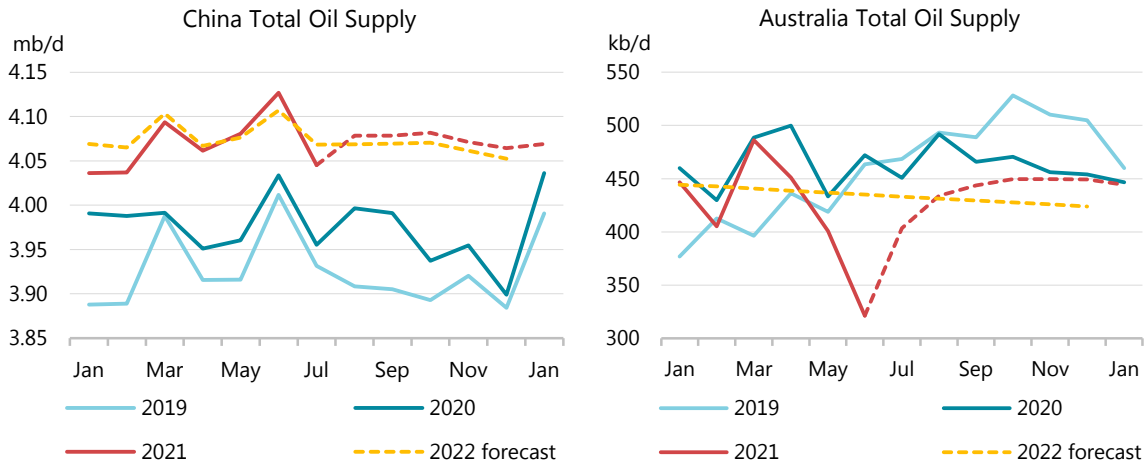
In 2021, output is expected to fall to a seven-year low of 900 kb/d due largely to the heavy Forties maintenance outage. Despite less workovers planned for 2022, the weak level of investment, lack of new projects and low rate of infill drilling to sustain base production mean that supply is expected to recover by only 20 kb/d. Industry body OGUK warned that more upstream investment would be needed to avoid supply falling off a "cliff edge" that is inconsistent with a smooth energy transition. Spending fell 35% in 2020, to a 46-year low, and is expected to recover by only 20% in 2021, according to *Rystad Energy*.

Higher oil prices and stronger domestic demand are supporting a recovery in **Argentina's** oil supply. Output is estimated to have crept above 640 kb/d in August (+40 kb/d y-o-y) led by higher LTO from the Vaca Muerta shale play. According to service company NCS Multistage, 20 fracking rigs are operating in the oil window, with the number of fracking operations holding close to 1 000 for several months now. Government data shows LTO supply rose 6% m-o-m in July, to a record 170 kb/d, and the recent activity should sustain healthy growth in coming months. However, while state-owned YFP confirmed that activity will continue to rise, lagging local prices, infrastructure constraints and declining conventional flows will put a cap on gains. Total supply is estimated to climb by 30 kb/d in 2021, to 640 kb/d, and a further 20 kb/d increase is expected in 2022.



At around 740 kb/d in August, **Colombian** supply continued to hold 140 kb/d below pre-pandemic levels. Flows have however recovered by 40 kb/d since protests and Covid-19 difficulties forced operators to shut in fields in May and June. Despite the disruptions, higher oil prices helped Ecopetrol to achieve its "best ever" results in 2Q21. The company, which produces over 80% of Colombian supply, reconfirmed its 2021 production target of 695 kb/d (-0.3% y-o-y). However, Ministry of Mines and Energy data for July show Colombian output slightly below our forecast, as has been the case for several months. Total supply is expected to fall 50 kb/d y-o-y to 730 kb/d in 2021, and drop a further 40 kb/d in 2022.

In line with seasonal trends, **Chinese** supply fell 80 kb/d m-o-m in July, according to the National Bureau of Statistics. Output is estimated to have risen 30 kb/d to 4.1 mb/d in August and will likely hold at around this level to end 2021 and in 2022. Supply in India and Indonesia continued to sit below year ago levels. August output was estimated to be 730 kb/d (-20 kb/d y-o-y) and 670 kb/d (-60 kb/d y-o-y), respectively.



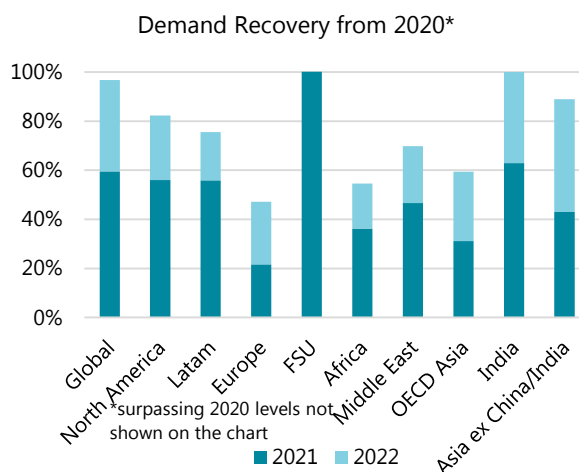
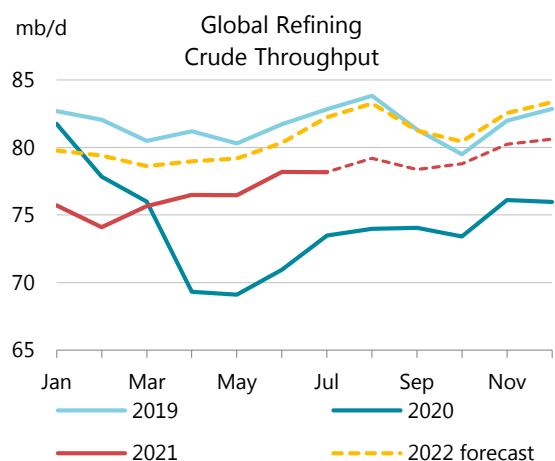
Data from the Department of Industry, Science, Energy and Resources show **Australian** supply diving to 320 kb/d in June (-20% m-o-m) due to “maintenance and weather events”. The government agency stated that output likely returned to normal levels in July. Advisory firm EnergyQuest noted that cyclones and unplanned outages had negatively impacted crude flows in 2Q21, while condensate production was hampered by ongoing equipment issues at Gorgon LNG. The poor performance is also likely due to low investment levels, with capex having fallen to a 12-year-low in the year to end-June. In 2021, supply will fall 40 kb/d to average 430 kb/d and hold around this level in 2022.

Refining

Overview

For the first time since 2009, global refining throughput failed to ramp up in July, which typically marks the start of strong activity in the third quarter. The surprisingly large month-on-month (m-o-m) fall in China in July more than offset an otherwise solid increase in run rates for the rest of the world. In August, hurricane outages in the US reduced refinery activity m-o-m. A partial recovery in China and a seasonal increase in Europe are nevertheless estimated to have pushed global refining throughput 1 mb/d higher, to 79.1 mb/d. Planned maintenance and the hurricane impact in the US, however, are likely to see September runs falling again. As a result, the 3Q21 ramp-up was revised down to just 1.5 mb/d, compared to the 1.8 mb/d quarter-on-quarter (q-o-q) increase in 2Q21. Lower crude oil prices in August helped refinery margins surge to multi-month highs. However, this is unlikely to trigger opportunistic increases in crude processing.

Like US independent shale producers, refiners globally seem more financially disciplined this year and less eager to ramp up runs when demand growth is periodically set back by pandemic control measures. And the demand recovery itself is uneven across both regions and products (see *Breaking down gasoline cracks*). In China (excluded from the chart below), demand did not only post a rare increase in 2020, but its 2021 growth rate is expected to average 1.1 mb/d, the highest ever, helping sustain 810 kb/d growth in domestic refining activity this year. Indian demand growth in 2021 is forecast to be limited to just two-thirds of the volume lost in 2020. Stricter lockdowns in the rest of Asia this year compared to 2020 will result in demand regaining just 43% of last year's loss, with full recovery not expected in 2022. In Europe, a mere 40% recovery will be achieved next year. In the FSU and India, demand is forecast to reach or surpass pre-Covid levels in 2022.



Refiners cannot avoid taking cues from their regional demand developments. Product markets are global, but the share of international trade is lower than in crude oil. Less than a third of global refinery output is traded internationally, according to fleet metrics data from *Kpler*, and half of this is fuel oil, naphtha and other feedstocks, traditionally priced at a discount to crude oil. The regional pattern of the rebound in refining activity in 2021 has been quite consistent

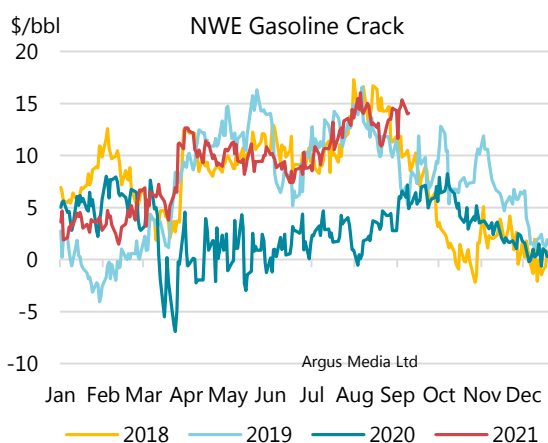
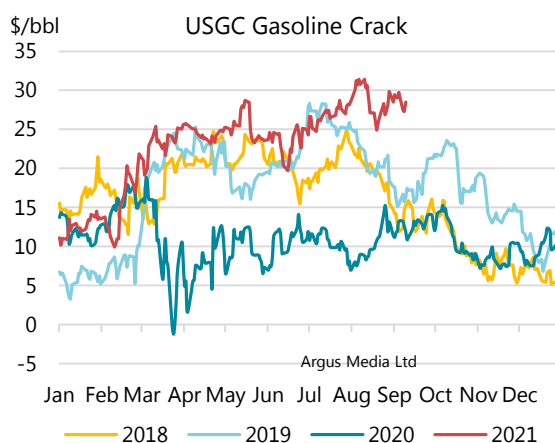
with domestic demand developments, and our forecast for 2022 follows a similar trend, with limited recovery expected for Europe, OECD Asia and the US.

Global Refinery Crude Throughput ¹														
(million barrels per day)														
	2019	2020	1Q21	Jun-21	2Q21	Jul-21	Aug-21	Sep-21	3Q21	Oct-21	Nov-21	4Q21	2021	2022
Americas	19.1	16.5	16.5	18.8	18.1	18.6	18.3	17.6	18.2	17.8	18.8	18.5	17.8	18.8
Europe	12.2	10.7	10.2	10.7	10.7	11.2	11.4	11.3	11.3	10.9	11.1	11.0	10.8	11.1
Asia Oceania	6.8	5.9	5.8	5.4	5.5	5.5	5.7	5.7	5.6	5.8	6.0	6.0	5.7	5.8
Total OECD	38.0	33.1	32.5	34.8	34.2	35.3	35.5	34.5	35.1	34.6	35.8	35.5	34.4	35.6
FSU	6.8	6.4	6.6	6.4	6.5	6.5	6.8	6.5	6.6	6.5	6.7	6.7	6.6	6.8
Non-OECD Europe	0.5	0.4	0.4	0.5	0.5	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4
China	13.0	13.4	14.0	14.7	14.3	13.9	14.2	14.2	14.1	14.3	14.3	14.3	14.2	14.4
Other Asia	10.3	9.2	9.5	9.4	9.4	9.6	9.7	10.0	9.8	10.1	10.0	10.0	9.7	10.1
Latin America	3.2	3.0	3.2	3.3	3.1	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3
Middle East	7.8	6.8	7.1	7.2	7.1	7.4	7.5	7.6	7.5	7.7	7.7	7.7	7.4	7.9
Africa	2.0	1.9	1.8	1.8	1.7	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.8	2.0
Total Non-OECD	43.6	41.1	42.6	43.3	42.7	42.8	43.6	43.7	43.4	44.1	44.3	44.3	43.2	45.1
Total	81.6	74.2	75.1	78.1	76.9	78.1	79.1	78.3	78.5	78.7	80.1	79.8	77.6	80.7
Year-on-year change	-0.5	-7.4	-3.3	7.2	7.3	4.7	5.2	4.3	4.7	5.4	4.1	4.7	3.4	3.1

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

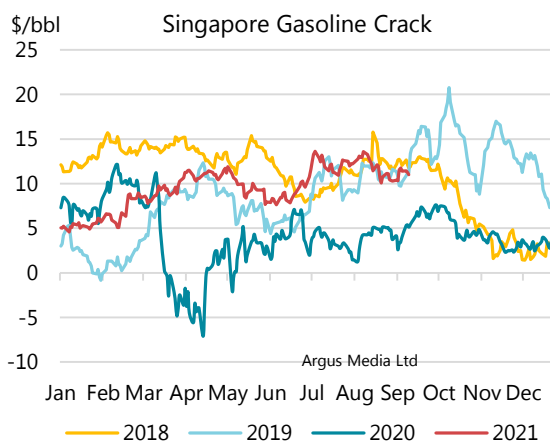
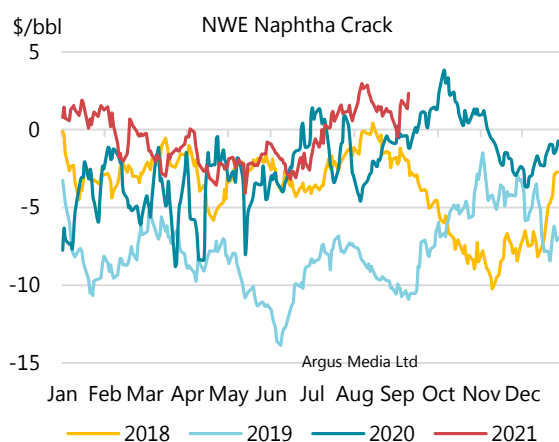
Product cracks and refinery margins

The first substantial month-on-month (m-o-m) fall in crude prices since last September resulted in strong gains in product cracks and refinery margins in August. However, most product cracks increased by less than the \$4/bbl average fall in crude prices, pointing to a lack of demand-driven factors. August is usually one of the strongest months for premium product consumption (gasoline, jet fuel and diesel), but rolling lockdowns and restrictions on international travel in several regions this year resulted in lower demand compared to July.



US Gulf Coast gasoline cracks edged higher to \$28.60/bbl. Although renewable volume obligation (RVO) costs increased by \$0.50/bbl on average m-o-m, they started falling mid-month on expectations that the US Environmental Protection Agency submission for the 2021 and 2022 blending mandates to the White House may contain a backdated provision to reduce volumes for 2020. This would help merchant refiners to decrease their required RINs purchases. European gasoline cracks surged to their highest in three years, maintaining an almost 100% premium over diesel cracks (see *Breaking down gasoline cracks*). Naphtha cracks in Northwest

Europe strengthened to a 10-month high, with flat prices rising to a premium to Singapore quotes.



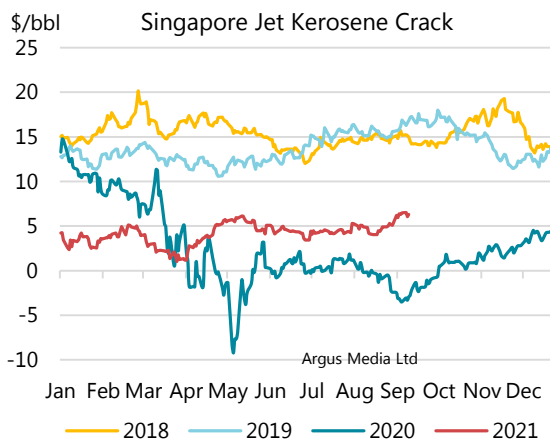
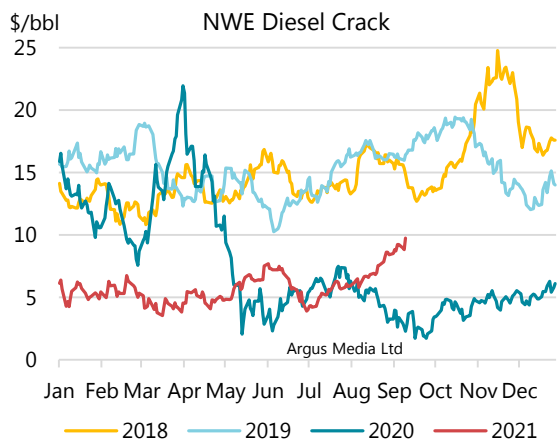
Spot Product Prices															
(monthly and weekly averages, \$/bbl)															
	Jun	Jul	Aug	Aug-Jul	%	Week Ending					Jun	Jul	Aug	Chg	
				Chg		13 Aug	20 Aug	27 Aug	03 Sep	10 Sep					
Rotterdam, Barges FOB															
						Differential to North Sea Dated									
Gasoline EBOB oxy	81.96	86.22	84.32	-1.90	-2.2	85.36	81.03	83.04	86.55	86.56	9.00	11.23	13.57	2.35	
Naphtha	70.92	75.26	72.43	-2.83	-3.8	73.58	69.93	71.91	72.89	73.78	-2.04	0.27	1.68	1.41	
Jet/Kerosene	76.88	78.49	75.92	-2.57	-3.3	75.60	73.39	76.79	79.23	79.02	3.92	3.50	5.17	1.67	
ULSD 10ppm	79.34	80.29	77.67	-2.62	-3.3	77.37	75.26	78.68	81.46	81.26	6.38	5.29	6.92	1.63	
Gasoil 0.1%	78.21	79.15	76.03	-3.12	-3.9	75.79	73.57	76.91	79.88	79.79	5.25	4.16	5.28	1.12	
VGO 2.0%	76.55	77.57	73.52	-4.05	-5.2	73.32	71.14	73.75	75.81	75.87	3.59	2.58	2.77	0.19	
Fuel Oil 0.5%	79.47	80.97	76.51	-4.46	-5.5	76.37	73.90	77.12	79.26	79.25	6.51	5.98	5.76	-0.22	
LSFO 1%	69.73	72.02	69.35	-2.67	-3.7	69.54	66.99	69.82	72.19	72.51	-3.23	-2.97	-1.40	1.58	
HSFO 3.5%	63.31	63.99	61.71	-2.28	-3.6	62.05	59.46	62.16	63.76	64.07	-9.65	-11.00	-9.03	1.96	
Mediterranean, FOB Cargoes															
						Differential to Urals									
Premium Unl 10 ppm	81.40	86.87	84.87	-2.00	-2.3	85.99	81.87	83.41	87.25	88.51	9.83	13.78	16.79	3.02	
Naphtha	69.56	74.03	71.28	-2.75	-3.7	72.43	68.78	70.76	71.79	72.74	-2.01	0.93	3.20	2.27	
Jet Aviation fuel	75.73	77.48	75.05	-2.44	-3.1	74.80	72.49	75.84	78.45	78.22	4.16	4.39	6.97	2.58	
ULSD 10ppm	78.85	80.19	77.54	-2.64	-3.3	77.25	75.23	78.51	81.12	80.98	7.28	7.09	9.47	2.37	
Gasoil 0.1%	77.86	79.20	76.65	-2.56	-3.2	76.40	74.27	77.64	79.98	79.62	6.29	6.11	8.57	2.46	
LSFO 1%	70.56	72.71	70.60	-2.11	-2.9	70.86	68.30	71.00	73.24	73.47	-1.01	-0.38	2.52	2.90	
HSFO 3.5%	61.34	62.36	60.35	-2.00	-3.2	60.66	58.12	60.91	62.75	63.29	-10.23	-10.74	-7.72	3.01	
US Gulf, FOB Pipeline															
						Differential to WTI Houston									
Super Unleaded	95.27	99.52	96.96	-2.56	-2.6	99.67	92.51	95.42	98.92	98.05	23.34	26.79	28.64	1.84	
Jet/Kerosene	77.94	79.25	76.45	-2.80	-3.5	76.39	73.24	77.57	81.09	80.39	6.00	6.53	8.13	1.60	
ULSD 10ppm	86.89	87.04	84.70	-2.34	-2.7	84.99	81.47	85.08	88.47	87.68	14.95	14.32	16.38	2.07	
Heating Oil	73.83	74.65	72.05	-2.60	-3.5	72.45	68.84	72.10	74.96	74.32	1.89	1.93	3.73	1.81	
No. 6 3%*	60.55	60.93	60.92	-0.01	0.0	60.53	58.33	62.80	64.32	63.66	-11.39	-11.79	-7.39	4.40	
Singapore, FOB Cargoes															
						Differential to Dubai									
Premium Unleaded	80.31	85.14	81.13	-4.01	-4.7	82.70	78.90	79.56	81.13	81.56	8.80	12.26	11.81	-0.45	
Naphtha	70.64	75.57	71.01	-4.55	-6.0	72.79	67.74	69.30	71.63	72.80	-0.86	2.69	1.70	-0.99	
Jet/Kerosene	75.91	77.25	74.05	-3.19	-4.1	74.14	71.47	73.80	76.30	76.53	4.40	4.36	4.74	0.37	
Gasoil 0.001%	78.81	79.88	76.53	-3.34	-4.2	76.64	74.04	76.31	79.24	79.87	7.30	6.99	7.22	0.22	
Fuel Oil 0.5%	81.05	82.77	79.12	-3.65	-4.4	79.12	76.48	78.90	81.53	82.31	9.54	9.89	9.81	-0.09	
HSFO 180 CST	64.79	66.22	65.07	-1.15	-1.7	64.06	61.97	66.17	69.33	72.28	-6.72	-6.66	-4.24	2.42	
HSFO 380 CST 4%	63.64	64.56	63.34	-1.22	-1.9	62.63	60.45	64.09	67.17	68.95	-7.87	-8.32	-5.98	2.35	

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* Waterborne

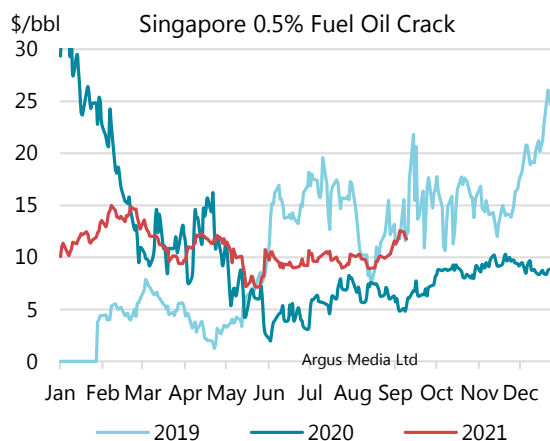
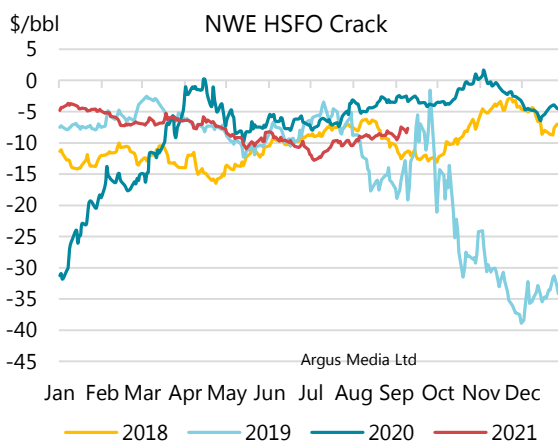
Singapore gasoline cracks were lower m-o-m, reflecting an uncertain outlook for regional demand due to widespread mobility restrictions. While Indian demand seems to be recovering, anecdotal evidence suggests the opposite picture for South East Asian markets. China issuing the second batch of product export quotas for 2021 was also seen as a bearish sign. Singapore naphtha cracks were very volatile in August, with the daily assessments falling steeply from the highest year-to-date registered in mid-August to a discount to crude several days later. Lower

ethylene margins reportedly induced sporadic cracker run-cuts in the second half of the month, with some crackers postponing their restart after maintenance concluded earlier in the month. Naphtha cracks fell on average in August by \$1/bbl to \$1.80/bbl.



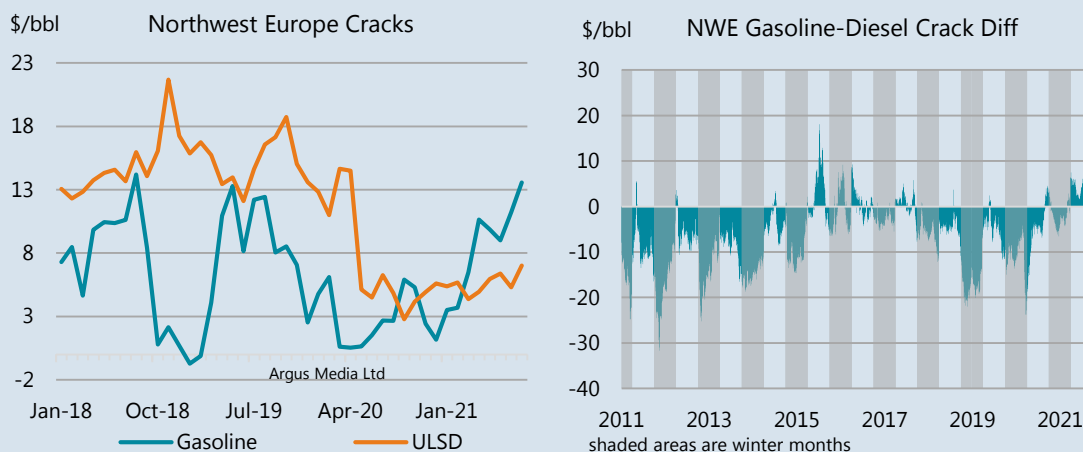
Middle distillates cracks rose across all regions, but with a clear divide between the west and east. European and US diesel and jet cracks reached their highest values since March-April 2020. Nevertheless, European diesel cracks remained at just half the levels of gasoline cracks. In Singapore, middle distillate cracks saw modest gains, with falling crude prices the only supporting factor. Improving air travel demand in Europe and the US and continuing severe restrictions on international mobility in Asia were the reasons for the divergence. Seat capacity on flights originating in China and Korea fell below year-earlier levels in August, in contrast to a robust pace of growth in Europe and the US.

The fuel oil complex also benefitted from the fall in crude oil prices, with traditional fuel oil grade cracks higher by \$1.50-2.50/bbl, while the 0.5% sulphur marine bunker fuel oil remained flat m-o-m. Asian importers traditionally ramp up fuel oil purchases in August and September, according to cargo tracking data, but this year additional interest comes from record-high LNG prices, which started pricing above fuel oil on energy content basis even in European hubs.



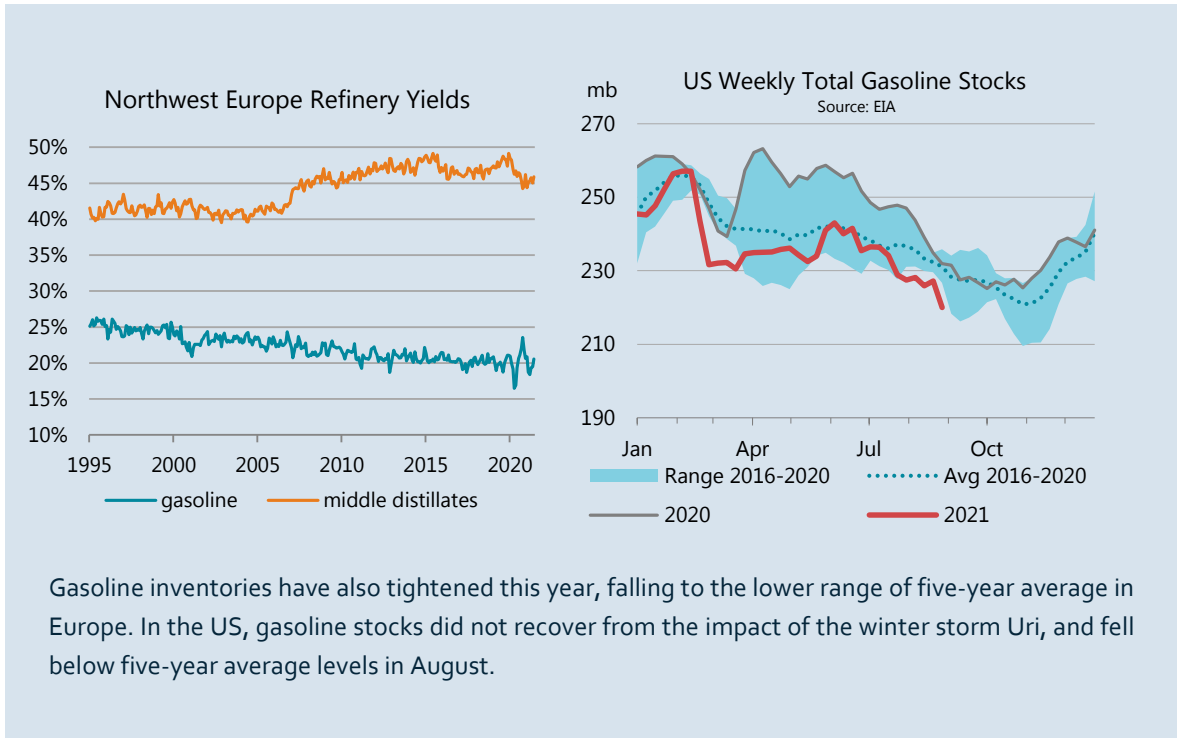
Box 2. Breaking down gasoline cracks

Since March, Northwest Europe gasoline cracks have maintained a strong premium over ultra-low sulphur diesel (ULSD). In Europe, where middle distillates (diesel and jet/kero) account for over half of oil demand and gasoline less than 15%, gasoline cracks are traditionally lower than diesel cracks, with few exceptions. This year we have seen the longest-sustained gasoline premium in two decades. Seasonally higher demand and more expensive summer grades are major drivers for higher cracks. However, there is more to the gasoline cracks strength than seasonal factors.

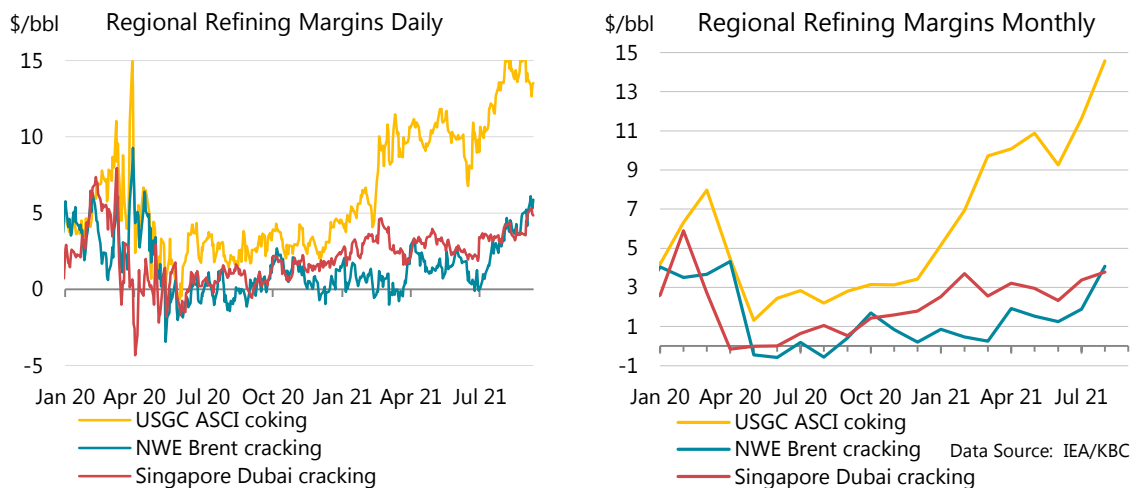


Just before the Covid-19 pandemic, demand trends for the two products diverged. In 2019, European gasoline demand reached its highest since 2011, after declines in 2012-16, while diesel use for road transport had remained flat since 2017 due to policy measures following the “diesalgate” scandal and as more competitive gasoline and EV models became available. In 2020, the combined demand for middle distillates fell by 16% y-o-y, compared to a smaller 13% decline for gasoline. Year-to-date, middle distillates demand in Europe has rebounded by 1.5%, while gasoline is up by 5%.

Even though gasoline remains an excess product in Europe, overall supply patterns have also played in favour of stronger gasoline cracks. For European refiners it is difficult to adjust yields between light and middle distillates, given two decades of investments to increase middle distillate output at the expense of, among others, gasoline. Combined refinery throughputs in the main gasoline-exporting countries in Northwest Europe (Belgium, France, Germany, Netherlands, the UK and Nordic countries,) are forecast to fall for a fourth consecutive year in 2021. Since 2017, refinery throughputs in these countries have declined by about 1.2 mb/d. With another 400 kb/d of throughput decline from US and Canadian east coast refineries, gasoline supply in the North Atlantic, world’s most active region for gasoline trade, is certainly experiencing tighter supplies. Some of this is reversible, but about 1 mb/d of refining capacity has been permanently shut in this region.



Refinery margins increased in August due to the favourable dynamics in feedstock costs and even as demand for products likely fell m-o-m. European margins nearly doubled from a modest base, with Brent cracking surging to the highest level in almost two years and above Dubai cracking margins in Singapore for the first time since October 2020. Hydroskimming margins in Europe also flipped into a positive territory. Developments in Singapore were generally more subdued, with small increases in cracking margins.



US margins posted the biggest gains in absolute terms. They reached peak daily values on the days preceding Hurricane Ida's landfall, but retreated in the first week of September as Gulf of Mexico supply outages boosted local crude differentials. A significant portion of the sour crude in the US Gulf Coast refinery diet comes from the Gulf of Mexico. In Europe and Singapore, however, refinery margins strengthened in the first week of September on higher gasoline and middle distillate cracks, responding to seaborne product shortages from Gulf Coast exporters.

IEA/KBC Global Indicator Refining Margins ¹											
(\$/bbl)											
	Monthly Average				Change	Average for week ending:					
	May 21	Jun 21	Jul 21	Aug 21		Aug-Jul	13 Aug	20 Aug	27 Aug	03 Sep	10 Sep
NW Europe											
Brent (Cracking)	1.53	1.25	1.89	4.09	↑	2.19	4.09	3.88	4.26	4.89	5.69
Urals (Cracking)	2.35	1.94	3.07	4.85	↑	1.78	4.87	4.97	5.13	5.16	5.29
Brent (Hydroskimming)	-0.75	-1.13	-0.79	1.23	↑	2.02	1.14	1.12	1.62	2.07	2.95
Urals (Hydroskimming)	-1.64	-2.02	-1.53	0.17	↑	1.71	0.14	0.41	0.64	0.31	0.51
Mediterranean											
Es Sider (Cracking)	3.05	2.47	3.42	5.48	↑	2.07	5.64	5.46	5.31	6.09	7.10
Urals (Cracking)	0.80	0.94	1.77	4.69	↑	2.92	4.55	4.95	5.24	5.20	5.32
Es Sider (Hydroskimming)	1.65	0.88	1.70	3.78	↑	2.08	3.99	3.80	3.59	4.27	5.29
Urals (Hydroskimming)	-3.19	-3.19	-2.74	0.24	↑	2.98	0.18	0.55	0.81	0.55	0.77
US Gulf Coast											
Mars (Cracking)	5.60	4.22	6.32	9.86	↑	3.55	9.76	9.46	10.78	9.51	8.14
50/50 HLS/LLS (Coking)	13.97	12.41	14.47	17.31	↑	2.84	17.71	16.39	17.65	17.36	16.71
50/50 Maya/Mars (Coking)	9.21	7.66	9.34	12.64	↑	3.29	13.05	12.10	12.75	12.89	11.89
ASCI (Coking)	10.88	9.26	11.64	14.57	↑	2.94	14.79	13.94	14.97	14.20	13.24
US Midwest											
30/70 WCS/Bakken (Cracking)	16.64	14.84	14.80	16.90	↑	2.11	17.79	16.28	16.36	16.02	15.55
Bakken (Cracking)	19.55	17.36	17.33	19.23	↑	1.90	20.55	18.51	18.20	18.25	17.91
WTI (Coking)	20.02	17.24	17.82	20.00	↑	2.18	21.36	19.26	19.07	19.02	18.90
30/70 WCS/Bakken (Coking)	20.53	18.34	18.44	20.13	↑	1.69	21.32	19.40	19.17	18.97	18.56
Singapore											
Dubai (Hydroskimming)	-3.48	-4.01	-3.58	-2.34	↑	1.23	-2.59	-2.77	-1.87	-0.93	0.37
Tapis (Hydroskimming)	0.77	0.78	-0.34	1.45	↑	1.79	1.44	1.51	1.07	1.28	2.48
Dubai (Hydrocracking)	2.95	2.33	3.38	3.78	↑	0.40	3.94	3.50	3.66	4.40	5.12
Tapis (Hydrocracking)	0.61	0.33	-0.42	1.53	↑	1.94	1.66	1.66	1.02	1.11	2.25

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.

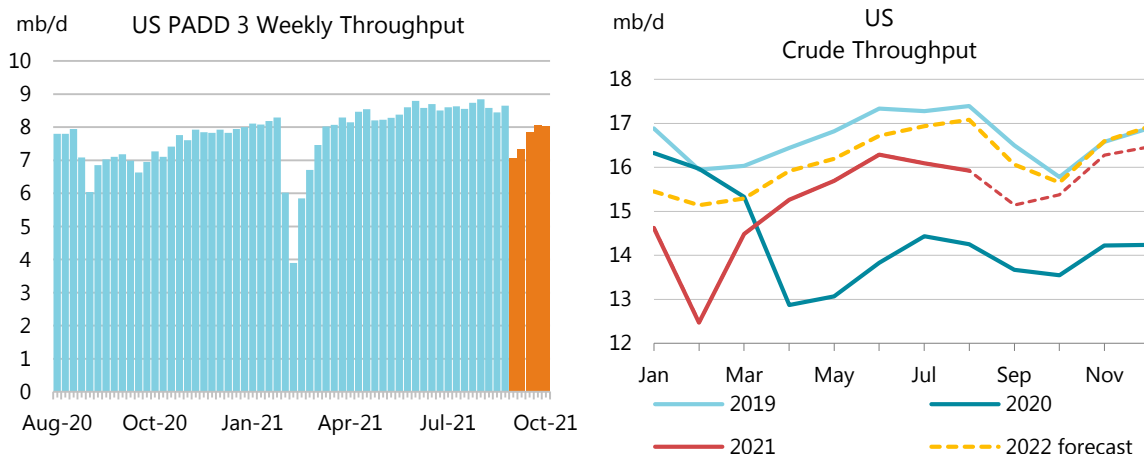
Source: IEA, KBC Advanced Technologies (KBC)

Regional refining developments

US refining throughputs in the first four weeks of August edged up slightly m-o-m, but hurricane outages in the last four days of the month resulted in a 170 kb/d fall in monthly average runs. In the weeks before the landfall, PADD 3 (US Gulf Coast) refiners were operating at 90% utilization rates. Maximum daily shutdowns reached 2.3 mb/d of capacity. PADD 3 crude inputs in the week ending 3 September, following the Hurricane Ida's landfall on 29 August, were down by 1.6 mb/d w-o-w.

Hurricane Ida's impact was similar to Hurricane Laura's in September 2020, but affected fewer sites than Hurricane Harvey in 2017 or winter storm Uri this year. Even if the plants and equipment sustain no damages in storms (and they are mostly built to do so), outages can last a week to ten days. Around two-three days are usually required for each stage of the outage, including precautionary shutdown before the landfall, aerial surveys and physical site inspection after the landfall and restoration of utility and feedstock supply. Most of the refineries affected by Ida reported minimal physical damage, but several of them have had issues with electricity

and feedstock deliveries. Entergy, a major utility company operating in the region, estimated that Hurricane Ida was the most disruptive on record for the power grid, having damaged 30 000 utility poles, almost double that of Katrina. In the oil sector, Hurricane Ida's impact was also initially skewed towards the upstream, with offshore GoM production taking longer to restart than in previous hurricanes. A total of 3.3 mb of crude oil from the US Strategic Petroleum Reserve has been released so far in an exchange agreement with ExxonMobil's 520 kb/d Baton Rouge and Placid Refining's 75 kb/d Port Allen refinery.



As of 12 September, three refineries with 700 kb/d of combined capacity remained shut and are likely to take another two-three weeks to come back online. September throughput is expected to fall 780 kb/d m-o-m. With the restoration of electricity expected by end-September to all affected areas, hurricane outages are unlikely to last beyond the beginning of October. Overall, US runs are forecast to increase in October, as the capacity returning from the storm outages is expected to offset maintenance shutdowns. Refining throughput is expected to continue increasing in November and December.

Meanwhile, two more refineries were announced for sale in the US Gulf Coast. Phillips 66's 250 kb/d Alliance refinery in Louisiana, which was shut during the latest hurricane, was put up for sale days before the landfall. However the plant suffered damages likely to require several months of repairs. LyondellBasel's 265 kb/d Houston refinery is also for sale. In contrast with Asia and the Middle East, where petrochemical and refining industries move towards wider integration, Gulf Coast refinery-petrochemical links are relatively weak, as most of the feedstock comes from natural gas liquids rather than refinery-produced naphtha.

Preliminary data for **Canadian** refinery throughput in July showed runs hitting 1.8 mb/d, the highest since August 2019, and up 330 kb/d y-o-y. 2Q21 runs rebounded 225 kb/d y-o-y. July refinery intake in **Mexico** fell 35 kb/d m-o-m to 640 kb/d. Yet another large refinery, the 330 kb/d Salina Cruz plant, suffered from a fire in early August, which is likely to have caused a temporary outage. We have revised down the throughput forecast by 90 kb/d for the rest of the year. Construction of the new 340 kb/d Dos Bocas refinery project is reportedly 33% completed, but more than half of the project cost has already been spent. The budget is likely to overrun by 50% from the original \$8 bn estimate.

In Europe, June refinery intake was finalised slightly lower than preliminary numbers, with a large downward adjustment for **Germany**. Nevertheless, regional runs rose by 1 mb/d from the June 2020 multi-decade low. Preliminary data for July show runs up 460 kb/d m-o-m, the largest

monthly gain in the past year. Among the continent's major refiners, only **France** and **Italy** still have utilisation rates below 75%, with the regional average at 82%.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Change from		Utilisation rate	
							Jun 21	Jul 20	Jul 21	Jul 20
US ¹	12.37	14.38	15.16	15.59	16.19	15.99	-0.20	1.66	89%	78%
Canada	1.61	1.69	1.55	1.44	1.75	1.85	0.10	0.33	92%	76%
Chile	0.23	0.20	0.17	0.17	0.18	0.15	-0.03	0.05	66%	44%
Mexico	0.71	0.82	0.63	0.69	0.67	0.64	-0.03	0.11	39%	32%
OECD Americas¹	15.03	17.17	17.58	17.93	18.79	18.63	-0.16	2.14	85%	74%
France	0.57	0.61	0.62	0.62	0.72	0.79	0.07	0.02	69%	62%
Germany	1.60	1.54	1.72	1.66	1.58	1.71	0.12	-0.04	84%	86%
Italy	0.96	1.18	1.22	1.21	1.31	1.21	-0.10	0.12	75%	63%
Netherlands	1.15	1.12	1.04	1.08	0.98	0.99	0.01	0.14	82%	70%
Spain	1.11	1.06	1.09	1.11	1.04	1.17	0.13	0.15	83%	72%
United Kingdom	0.69	0.70	0.90	0.94	0.96	1.01	0.05	0.15	85%	72%
Other OECD Europe ²	4.04	4.04	4.02	4.05	4.10	4.28	0.18	0.13	85%	81%
OECD Europe	10.13	10.26	10.62	10.67	10.69	11.15	0.46	0.68	82%	74%
Japan	2.52	2.45	2.41	2.13	2.12	2.24	0.11	0.12	65%	59%
South Korea	2.64	2.53	2.59	2.66	2.56	2.63	0.07	-0.04	75%	76%
Other Asia Oceania ³	0.70	0.61	0.67	0.65	0.67	0.64	-0.02	0.07	124%	66%
OECD Asia Oceania	5.87	5.58	5.67	5.45	5.35	5.51	0.16	0.15	74%	67%
OECD Total	31.03	33.01	33.88	34.04	34.83	35.29	0.46	2.97	82%	73%

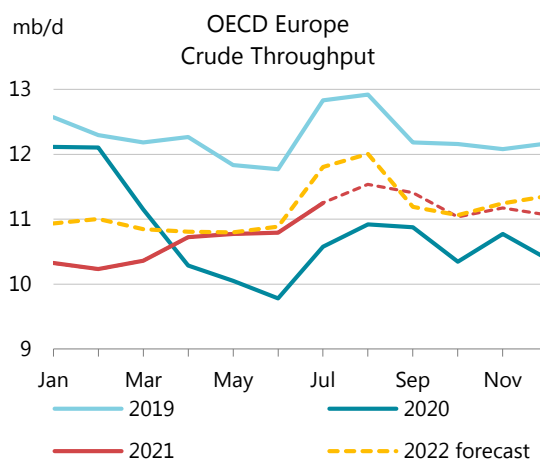
1 US includes US50, OECD Americas include Chile and US territories

2 Includes Lithuania

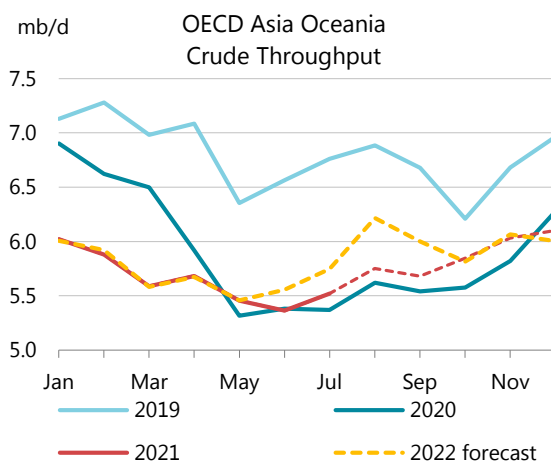
3 Includes Israel

European runs are expected to slow from a seasonal peak in August. Even with a product supply gap in the Atlantic Basin, left by Hurricane Ida, European run rates are likely to fall in September, given the start of the maintenance season. In September 2017, when Hurricane Harvey shut in more than 1 mb/d of capacity, European runs fell by 150 kb/d, compared to 400-500 kb/d seasonal declines. On the other hand, European premium product demand (gasoline, diesel and jet fuel) is also set to fall seasonally in 4Q21, albeit less steeply than usual, due to continued

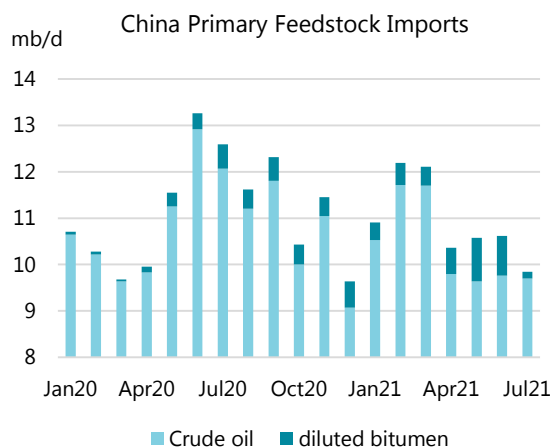
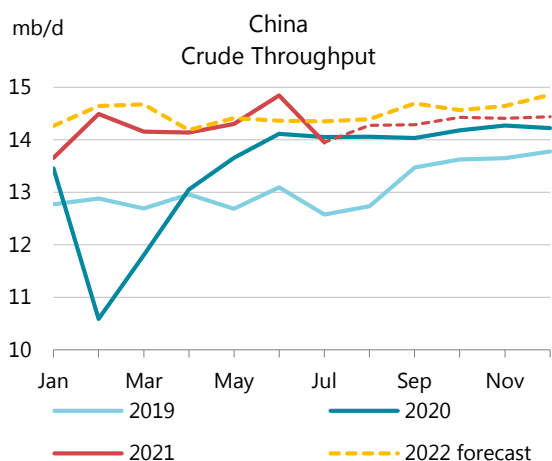
post-Covid recovery, notably in aviation demand. After a 1.5 mb/d fall in 2020, European refinery intake is forecast to recover by only 120 kb/d this year, reflecting a similarly lacklustre trend in demand, which fell by 1.9 mb/d in 2020 and will rebound by only 400 kb/d in 2021.



In OECD Asia, 2Q21 runs fell slightly y-o-y, the only other region outside Africa with a negative y-o-y change. The fall came mostly from Korea’s export-oriented refiners that were hard placed to compete with Chinese exporters. In July, **Japanese** runs were up 120 kb/d m-o-m and y-o-y, but utilisation rates were at just 65%. **Korean** runs increased slightly m-o-m, but remained below y-o-y levels for the second consecutive month. Regional throughput is forecast to ramp up in 4Q21, but the seasonal increase will be slightly offset by the eventual shutdown of the 90 kb/d Altona refinery in **Australia**. The owners and customers of **New Zealand’s** sole refinery agreed for the site to cease processing operations in 2022, turning it into an import terminal.



Chinese throughput in July fell by 900 kb/d, the largest monthly fall excluding the Covid-19 impact. At 13.9 mb/d, refinery intake was the lowest recorded since May 2020, and 110 kb/d below the year-earlier level. Runs in Shandong, which has the largest concentration of traditional independent refiners, fell by 300 kb/d m-o-m. Liaoning and Zhejiang provinces, home to the two big independent petrochemical refiners, reduced crude processing by 360 kb/d combined. Gasoline and diesel exports almost halved in July, but this was largely the result of a dramatic fall in mixed aromatics and light cycle oil imports that were widely used as blendstocks for transport fuels, before the imposition of prohibitive import taxes in June. Imports of diluted bitumen, largely regarded as a crude-grade feedstock, but labelled differently to avoid import quotas, also fell by 80% m-o-m.

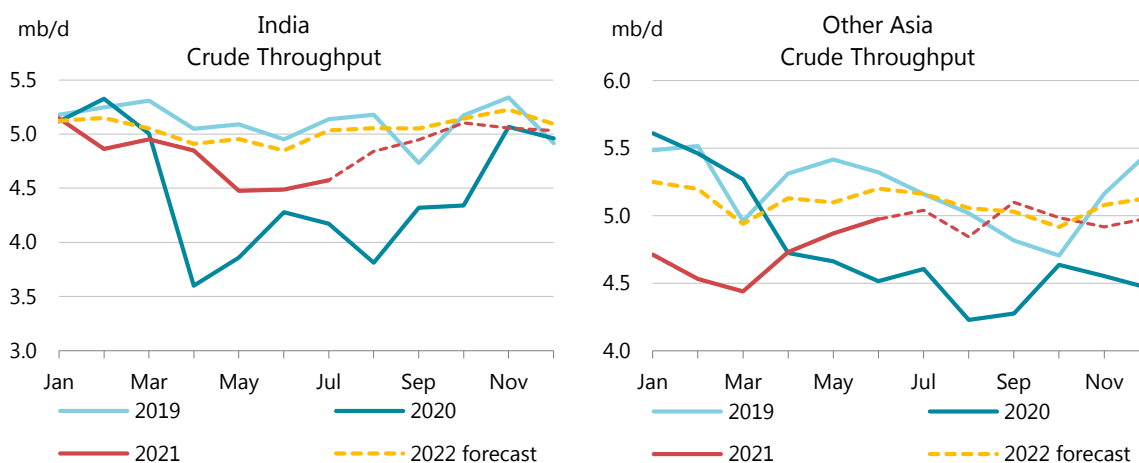


Preliminary data for August show crude imports rebounded to 10.5 mb/d after four months of sub-10 mb/d arrivals. Overall, crude oil imports fell by 500 kb/d y-o-y over the January-August period, partly offset by a 330 kb/d increase in diluted bitumen imports. The three batches of crude oil import quotas issued so far in 2021 have amounted to an equivalent of 3.2 mb/d, compared to 3.6 mb/d in 2020 and 3.3 mb/d in 2019. The sector is expecting an exceptional fourth batch to be issued later this year, which will mainly top up the allocations for the three independent petrochemical refineries, including Shenghong Petrochemical. The latter has

finalised construction of the 320 kb/d refinery and is waiting for crude import quotas to start commissioning the units.

Overall, Chinese throughput has likely rebounded to levels above 14 mb/d, and while runs are not expected to reach record June rates until later next year, they are still forecast to increase by 810 kb/d this year.

Indian throughput in July edged up by a modest 90 kb/d m-o-m to 4.6 mb/d as demand stayed flat m-o-m. Like China, India is a net product exporter, but its net outflows are two-to-three times higher than China's. A sustained increase in refinery throughputs will be dependent on both domestic and international demand. In 2021, Indian demand is forecast to recover two thirds of the volume lost last year, with runs forecast to rise by 380 kb/d, or some 60% of the losses in 2020. The Indian government is reportedly considering replacing the 1.2 mb/d Ratnagiri mega-refinery project by several smaller refineries given difficulties and local opposition in acquiring sufficient land for the project.



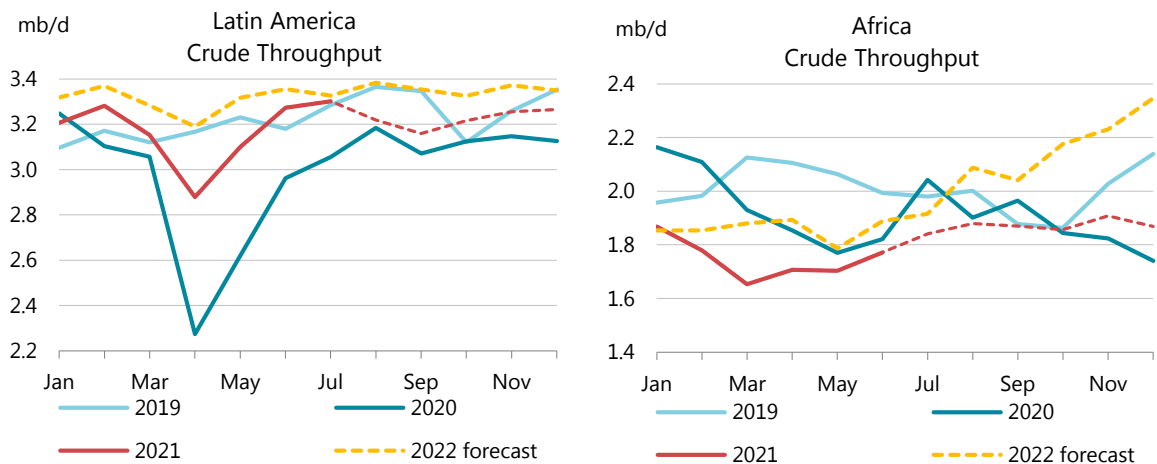
In the rest of Asia, refinery runs increased in June and July, reaching 5 mb/d, the highest since April 2020. In August, however, estimates based on net crude inflows imply a fall in processing rates, most notably in **Singapore** and **Viet Nam**. With strict lockdowns, the two refineries in Viet Nam report product storage near full capacity, with run-cuts possible if the demand situation does not improve.

Middle East refinery throughput was estimated slightly higher in June, with **Iraqi** runs up by 120 kb/d m-o-m. Total Middle East activity in 2Q21 was up 1.1 mb/d y-o-y.

Russian refiners ramped up crude intake by 280 kb/d to 5.8 mb/d in August, the highest since March 2020, despite heavier than usual planned maintenance for the month and the shutdown of a condensate refinery in August due to feedstock shortages. Russian refiners have been under pressure to boost domestic gasoline supply.

Refinery throughput in **Brazil** inched up to 1.9 mb/d in July. Petrobras secured a sales agreement for one of its smaller downstream assets, the 46 kb/d REMAN refinery, which will be acquired by a local fuel distributor. On the other hand, the sale of the 165 kb/d RNEST refinery, the company's newest, commissioned in 2014, fell through as all bidders withdrew from the process. **Venezuelan** refining suffered another setback with the 300 kb/d Cordon refinery reportedly shut due to feedstock shortage. With the Amuay refinery reportedly operating at just 10%, runs have fallen again below 100 kb/d. In **Colombia**, a fire at the 165 kb/d Cartagena

refinery in August resulted in gasoline shortages, which increased the call on US Gulf Coast exports.



Latest reported data for African countries for June and estimates for the remaining countries show 2Q21 runs falling by 90 kb/d y-o-y, despite the demand recovery. The decline came mostly on the account of **South African** refining, where runs dropped to just 24% utilisation rates due to maintenance shutdowns and long-term outages. The country may soon lose yet another refinery. A Sasol and TotalEnergies joint venture, the 110 kb/d Natref refinery was put up for sale, and could be converted to a terminal if no buyer is found. With the 105 kb/d Engen refinery in Durban closing soon, and the 110 kb/d Astron refinery not expected to restart until next year, this could leave the country with only one operating refinery.

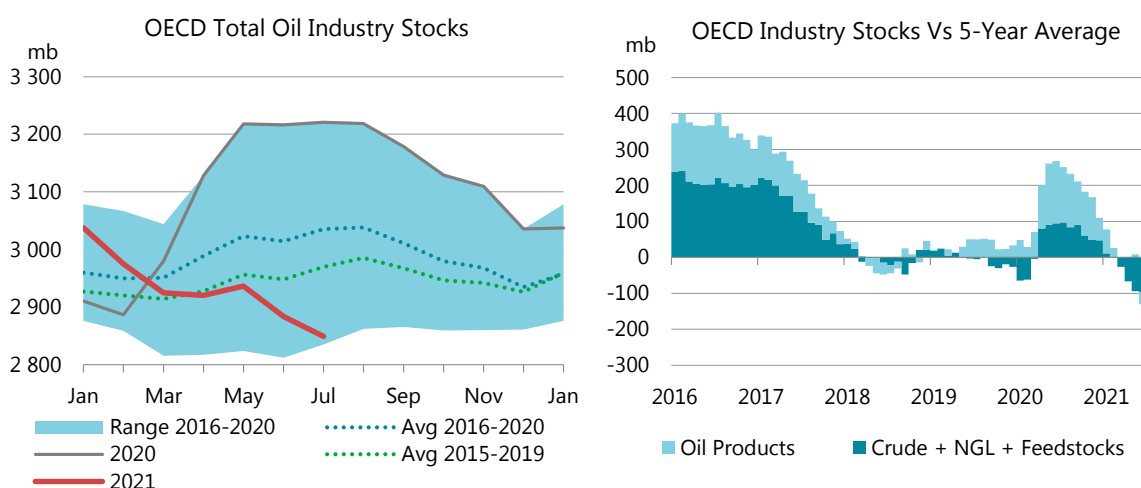
Elsewhere on the continent, there is not enough operable refining capacity to fill the gap for now. As much as 1 mb/d of new and restored capacity could be starting in **Nigeria** over the next years, if the upgrades go ahead as planned. The Dangote refinery announced a 300 kb/d crude supply deal with Nigerian National Petroleum Corp (NNPC), which also acquired a 20% stake in the refinery in a partial cash deal. NNPC will finance the rest of the sum through a discount on crude supply and with its share of the refinery's profit.

Stocks

Overview

OECD total industry stocks posted a large decline for the second consecutive month in July, down 34.4 mb, or 1.1 mb/d, with crude inventories falling by more than normal and as product stocks drew counter-seasonally. By end-month, total oil stocks stood at 2 850 mb, 185.7 mb lower than the 2016-2020 average and 120.3 mb below the pre-Covid 2015-2019 average.

Preliminary data show July was followed by another substantial draw in August of 31.1 mb. Crude oil, NGLs and feedstock inventories fell 28.3 mb in total and product dropped by a combined 2.7 mb. If confirmed by more definitive data, the draws in August would put OECD industry stocks at an exceptionally tight level below the lower bound of their five-year range. While crude stocks in both OECD Europe and OECD Asia Pacific were already well below the five-year range at end-July, those in the OECD Americas were near the middle of the range. In terms of forward demand, OECD industry stocks covered 62.3 days at end-July, a decrease of 0.8 days month-on-month (m-o-m) and 2.7 days lower than the 2016-2020 five-year average.



OECD industry crude inventories fell by 14.8 mb in July. At 1 072 mb, they were 171.3 mb below their peak reached in May last year, representing an average draw of 400 kb/d since then. Crude stocks in the OECD Asia Pacific declined by a counter-seasonal 10.8 mb due to a larger than usual draw in Korea (-6.7 mb). Crude inventories in the OECD Americas also fell, by 7.4 mb, but less than the seasonal trend. By contrast, Europe saw industry crude stocks rise by 3.4 mb.

In July, OECD oil product inventories fell counter-seasonally by 16.1 mb, to 1 475 mb, when they typically build by 24.2 mb. Motor gasoline stocks led the decrease, drawing 14.4 mb, which was nearly three times the usual decline of 4.9 mb. Middle distillate and fuel oil stocks also fell, by 11.5 mb and 5.7 mb, respectively, while other oil stocks built by 15.5 mb, in line with the seasonal norm.

Preliminary oil industry data for August showed stocks falling in the US and Europe while building in Japan. Crude oil, NGLs and feedstock inventories were down by 28.3 mb in total. Product inventories fell by a combined 2.7 mb. US crude oil holdings declined by 14.6 mb, in line

with the usual fall of 13.4 mb. Product stocks in the US drew counter-seasonally by 9.3 mb, led by gasoline and middle distillate inventories. European crude stocks fell 10.8 mb in August with Italy and the United Kingdom showing decreases of over 2 mb. Product inventories in Europe rose by 3 mb, with gasoline stocks posting the largest gains (2.6 mb). Japanese crude oil stocks held broadly steady while total products rose by 3.6 mb, led by middle distillate stocks (2.6 mb).

Preliminary Industry Stock Change in July 2021 and Second Quarter 2021												
	July 2021 (preliminary)								Second Quarter 2021			
	(million barrels)				(million barrels per day)				(million barrels per day)			
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
Crude Oil	-7.4	3.4	-10.8	-14.8	-0.2	0.1	-0.3	-0.5	0.2	-0.2	-0.2	-0.2
Gasoline	-7.9	-2.1	-4.5	-14.4	-0.3	-0.1	-0.1	-0.5	-0.1	-0.1	0.0	-0.1
Middle Distillates	-1.1	-10.2	-0.2	-11.5	0.0	-0.3	0.0	-0.4	-0.1	0.0	0.0	-0.1
Residual Fuel Oil	-2.5	-4.2	1.0	-5.7	-0.1	-0.1	0.0	-0.2	0.0	0.0	0.0	0.0
Other Products	15.4	-0.7	0.8	15.5	0.5	0.0	0.0	0.5	-0.4	-0.1	0.0	-0.5
Total Products	3.9	-17.2	-2.9	-16.1	0.1	-0.6	-0.1	-0.5	-0.6	-0.1	0.0	-0.7
Other Oils ¹	1.2	-3.8	-0.9	-3.6	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0	-0.1
Total Oil	-2.2	-17.6	-14.6	-34.4	-0.1	-0.6	-0.5	-1.1	-0.4	-0.2	-0.3	-1.0

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD stock data for June were revised up by 2.4 mb to 2 884 mb. Crude oil inventories in the Americas were adjusted higher by 4.8 mb. Product stocks in the Americas showed large revisions due to re-categorisation of other products and other oils. May figures were also revised up following the submission of more complete data (4.9 mb combined, to 2 937 mb).

Revisions versus August 2021 Oil Market Report								
	Americas		Europe		Asia Oceania		OECD	
	May-21	Jun-21	May-21	Jun-21	May-21	Jun-21	May-21	Jun-21
	Crude Oil	0.8	4.8	0.7	-1.1	-0.1	1.7	1.5
Gasoline	0.0	-0.3	2.0	-1.3	0.0	0.6	2.0	-1.1
Middle Distillates	0.0	-1.9	-0.1	-0.6	0.0	1.6	-0.1	-1.0
Residual Fuel Oil	0.0	-0.4	0.5	-0.1	0.0	0.3	0.5	-0.2
Other Products	24.8	21.3	0.3	0.7	0.1	-0.8	25.1	21.3
Total Products	24.8	18.7	2.7	-1.4	0.1	1.6	27.6	18.9
Other Oils ¹	-24.2	-22.1	0.0	-0.3	0.0	0.4	-24.2	-22.0
Total Oil	1.4	1.3	3.5	-2.7	0.1	3.8	4.9	2.4

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Implied balance

The global supply and demand balance shows implied stock draws of 1 mb/d in July, based on preliminary supply and demand data for the OECD countries and the latest available data for other locations. Stock data available to date for July show an even larger decline, of 1.6 mb/d in total. OECD industry crude stocks, including NGLs and feedstocks, led the way with a 590 kb/d draw, notably in Asia Pacific (-380 kb/d). Product stocks in the three OECD regions fell by a combined 520 kb/d, led by Europe (-555 kb/d). Non-OECD crude oil inventories, excluding China, drew by 875 kb/d according to satellite data from *Kayrros* and *Kpler*. By contrast, crude oil on water, including floating storage, increased by 820 kb/d. Products on water rose by 285 kb/d, based on shipping data from *Refinitiv*.

In 2Q21, the total stock change and miscellaneous to balance item, calculated using reported supply and demand data, shows a stock draw of 890 kb/d, less than the 1.06 mb/d decline in 1Q21. Reported and assessed 2Q21 stock draws show much larger declines of 2.8 mb/d,

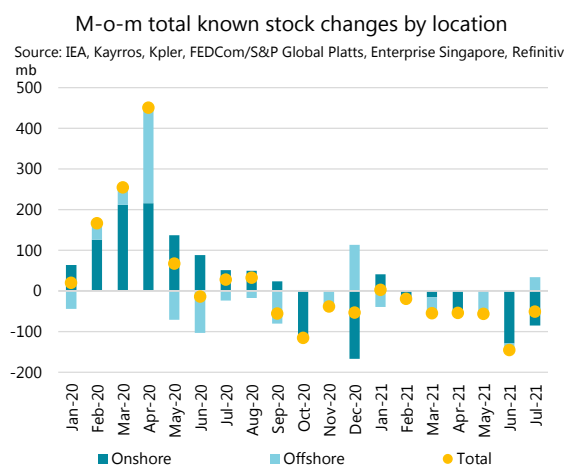
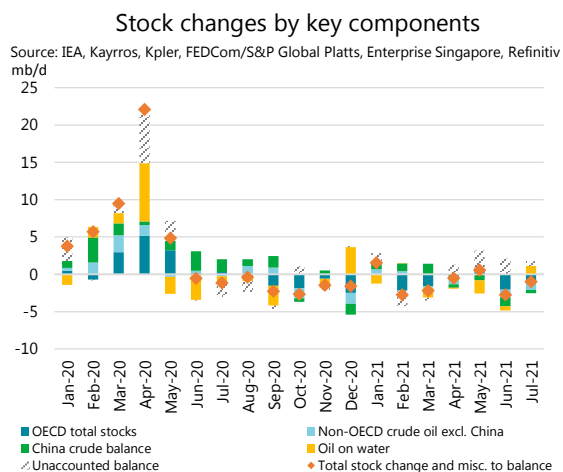
suggesting unreported stock builds in some regions, higher demand, lower supplies or a combination of the above. Increased refinery runs ahead of the Northern Hemisphere summer season pushed crude oil demand higher and helped lower inventories in both OECD (-595 kb/d) and non-OECD economies excluding China (-490 kb/d). Crude oil and products on water showed a steady decline in 2Q21, falling by a combined 830 kb/d. The Chinese crude balance, derived from reported crude production, refinery runs and net crude imports, registered three consecutive months of decline in 2Q21 amid high refinery throughputs and low imports.

Implied total oil balance (mb/d)											
	Jan-21	Feb-21	Mar-21	1Q21	Apr-21	May-21	Jun-21	2Q21	1H21	Jul-21	Aug-21*
OECD industry crude oil, NGLs and feedstocks	-0.81	0.12	-0.27	-0.34	-0.50	-0.42	-0.86	-0.59	-0.46	-0.59	-0.91
OECD industry product stocks	0.87	-2.35	-1.34	-0.90	0.35	0.95	-0.90	0.14	-0.37	-0.52	-0.09
OECD government stocks	0.05	0.05	0.05	0.05	-0.24	-0.19	-0.30	-0.24	-0.10	-0.13	0.00
Non-OECD crude oil excluding China	0.58	0.44	-0.25	0.25	-0.91	0.45	-1.03	-0.49	-0.12	-0.87	-0.87
Independent product stocks (Fujairah and Singapore)	-0.04	-0.01	-0.09	-0.05	0.13	-0.03	-0.02	0.03	-0.01	-0.20	-0.20
Crude oil on water including floating storage	-0.19	-0.89	-1.41	-0.83	0.03	-1.15	-0.84	-0.66	-0.74	0.82	
Products on water including floating storage	-1.06	0.91	0.11	-0.04	-0.15	-0.62	0.29	-0.17	-0.11	0.28	
Total known stock change excluding China (as above)	-0.60	-1.73	-3.20	-1.85	-1.30	-1.01	-3.67	-1.98	-1.91	-1.21	
IEA estimate - Chinese crude balance	0.69	1.04	1.42	1.05	-0.50	-0.80	-1.18	-0.83	0.10	-0.43	
Total known and estimated stock change	0.08	-0.69	-1.78	-0.80	-1.80	-1.81	-4.85	-2.81	-1.81	-1.64	
Total stock change and misc. to balance**	1.56	-2.74	-2.17	-1.06	-0.53	0.57	-2.75	-0.89	-0.98	-1.00	
Unaccounted balance	1.48	-2.05	-0.39	-0.26	1.27	2.38	2.10	1.92	0.84	0.64	

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

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

Source: IEA, EIA, PAJ, EuroIstock, Kayrros, Kpler, FEDCom/S&P Global Platts, Enterprise Singapore, Refinitiv



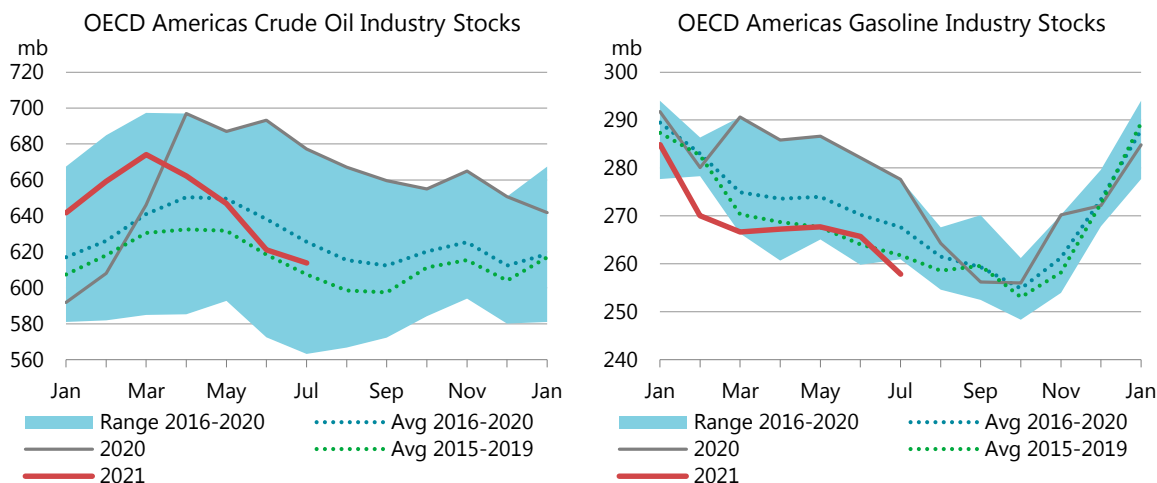
Recent OECD industry stock changes

OECD Americas

Industry stocks in the OECD Americas region fell by 2.2 mb to 1 547 mb in July. The decrease was counter-seasonal for the month (5.7 mb) and due to larger than usual draws in motor gasoline stocks. The end-month inventory level was 51.3 mb lower than the latest five-year average and 11 mb below the pre-pandemic 2015-2019 average.

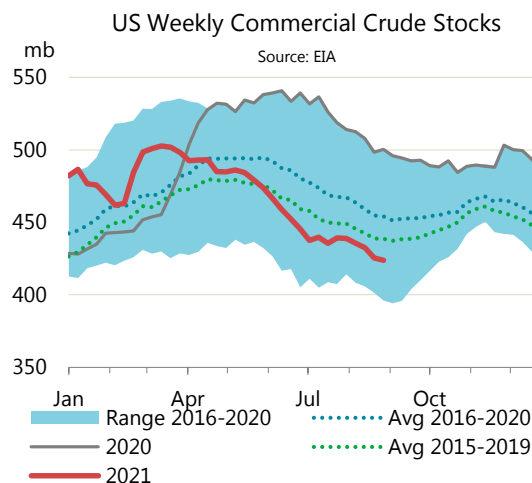
Crude oil stocks drew by 7.4 mb m-o-m, whereas they typically fall by 12.6 mb, largely due to decreased refinery runs in the US (-200 kb/d m-o-m in July). Lower US crude oil exports also played a role in restraining the draw from more typical levels (-510 kb/d m-o-m in July according to the US Energy Information Administration (EIA)). By end-month, crude oil inventories stood at 613.8 mb, 11.8 mb below the most recent five-year average.

Oil product stocks rose by 3.9 mb in July, less than the typical seasonal increase of 15 mb. Motor gasoline stocks fell 7.9 mb, more than three times the usual draw of 2.6 mb amid higher demand (+185 kb/d m-o-m) and lower refinery throughputs in the US. End-month gasoline stocks stood at 257.9 mb, 9.8 mb below the five-year average and covering 23.8 days of forward demand. Fuel oil and middle distillate stocks also drew by 2.5 mb and 1.1 mb, respectively. Other oil stocks rose 15.4 mb, in line with the seasonal pattern.



Weekly EIA data show that crude oil stocks fell by 14.6 mb in August. Crude stocks in PADD 3 (Gulf Coast) led the decline with a draw of 12.8 mb. PADD 2 (Midcontinent) also drew crude inventories by 1.9 mb largely in line with the seasonal pattern. Crude oil stored in the US Strategic Petroleum Reserve (SPR) held steady in August at 621.3 mb, utilising 87.1% of its design capacity of 713.5 mb. On 23 August, the US Department of Energy announced a notice of sale of up to 20 mb from the SPR to fulfil the requirements of several existing legislative initiatives adopted for using the SPR to finance spending. The deliveries will take place between 1 October and 15 December this year.

Total product stocks fell counter-seasonally by 9.3 mb in August. Gasoline inventories led the way with a 5.6 mb draw. Middle distillate stocks also fell by 5.3 mb amid lower refinery runs (-170 kb/d m-o-m in August). Other refined product stocks built 1.6 mb, less than the usual increase of 16.7 mb for the month. Residual fuel oil inventories were unchanged.

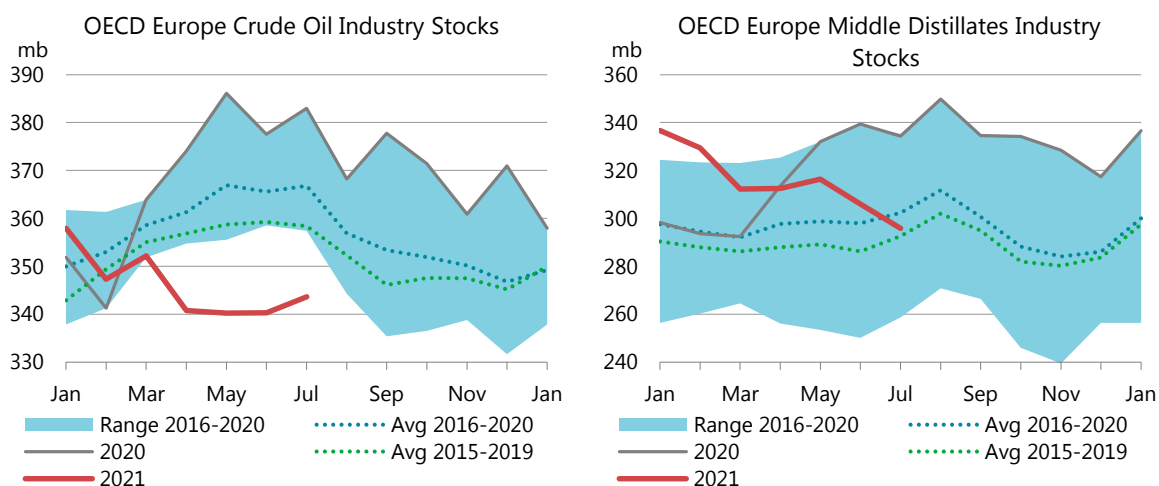


OECD Europe

In July, industry stocks in OECD Europe drew by 17.6 mb to 960 mb, which was 58.9 mb below the five-year average. The decrease was counter-seasonal for the month as product inventories showed a large draw of 17.2 mb or 555 kb/d.

Crude oil stocks built by 3.4 mb, when they typically increase by 1.2 mb. They stood at 344 mb, 23.1 mb below the five-year average and covering 25.5 days of forward demand. Crude stocks rose in Germany by 4.9 mb, while those in Italy drew 5.2 mb.

Total oil product stocks declined counter-seasonally, by 17.2 mb or 555 kb/d, in July, when they typically build by 2.4 mb. Middle distillate inventories led the decrease with a 10.2 mb fall. Fuel oil and 'other oil' inventories drew by 4.2 mb and 0.7 mb, respectively. Gasoline inventories fell 2.1 mb, in line with the seasonal norm.



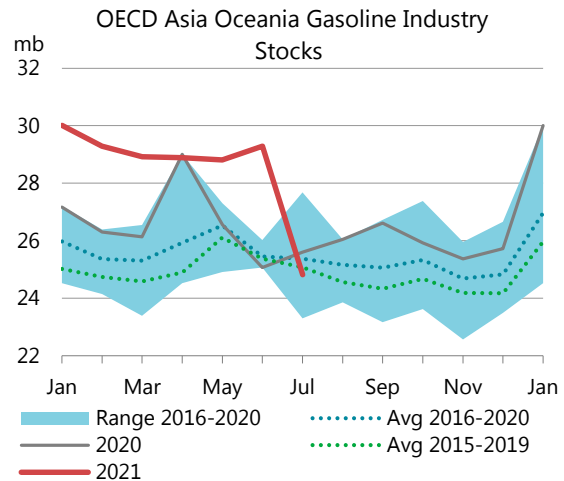
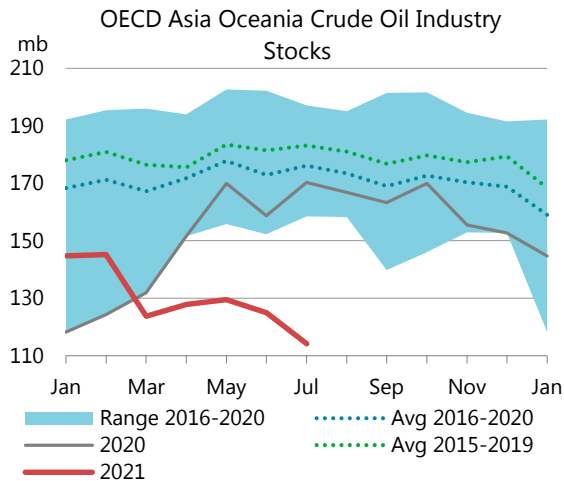
Preliminary August data from *Euroilstock* showed overall inventories falling by 7.8 mb. Crude oil stocks drew by 10.8 mb, notably in Italy (-2.9 mb) and the United Kingdom (-2.2 mb). Total oil product stocks built by 3 mb. Gasoline stocks led the increase at 2.6 mb and middle distillate inventories rose by 0.6 mb. Naphtha stocks edged up by 0.2 mb, while fuel oil fell by 0.5 mb.

OECD Asia Oceania

Total industry stocks in the OECD Asia Oceania region declined by 14.6 mb to 343 mb in July. Crude stocks drew counter-seasonally by 10.8 mb. Japanese crude inventories fell by 4.1 mb, when they typically build 4.2 mb, as refinery runs increased 115 kb/d m-o-m in July. Crude stocks in Korea decreased by a larger than usual 6.7 mb amid lower seaborne crude oil imports for the month (-6.1 mb m-o-m according to *Kpler*).

Among the three OECD regions, the Asia Pacific has the lowest relative industry stock levels. End-July crude inventories in the region stood at 114 mb, 61.9 mb below the latest five-year average (and 68.9 mb below the pre-pandemic average). In terms of forward demand, they covered 16 days (7.2 days below the five-year average).

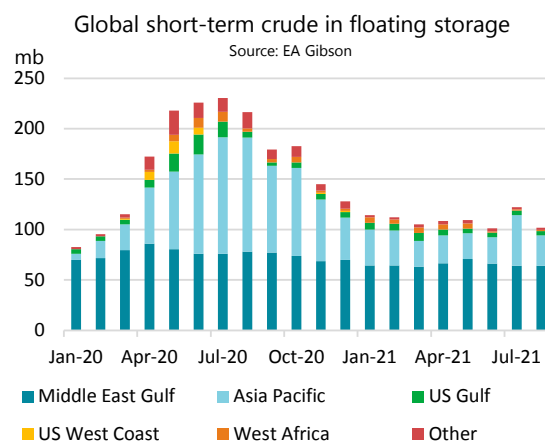
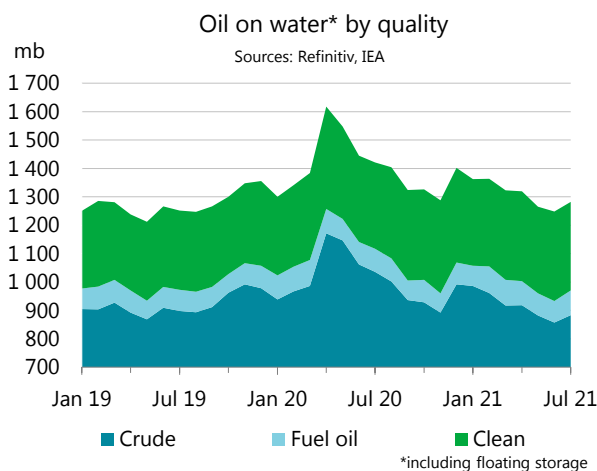
Oil product stocks drew counter-seasonally by 2.9 mb in July. Motor gasoline inventories led the way with a decrease of 4.5 mb, of which 4.4 mb was in Japan. Middle distillate stocks fell counter-seasonally by 0.2 mb (typically build by 3.7 mb for the month). By contrast, fuel oil and other oil product stocks built by 1 mb and 0.8 mb, respectively.



Preliminary data from the Petroleum Association of Japan show crude oil inventories were largely unchanged in August (+0.1 mb m-o-m, when they typically fall by 1.2 mb). Total product stocks increased by 3.6 mb. Middle distillate stocks led the build by 2.6 mb. Other oil product and residual fuel oil inventories rose by 0.6 mb and 0.3 mb, respectively. Gasoline stocks were unchanged from end-July levels.

Other stock developments

In July, volumes of oil on water (including floating storage) rose by 34.3 mb, according to data from *Refinitiv*. The increase in oil on water was led by crude, which rose 25.5 mb m-o-m as seaborne crude oil exports from Saudi Arabia increased by 30.2 mb m-o-m according to *Kpler*. Fuel oil volumes on water also rose by 11.4 mb, while clean products fell by 2.6 mb.

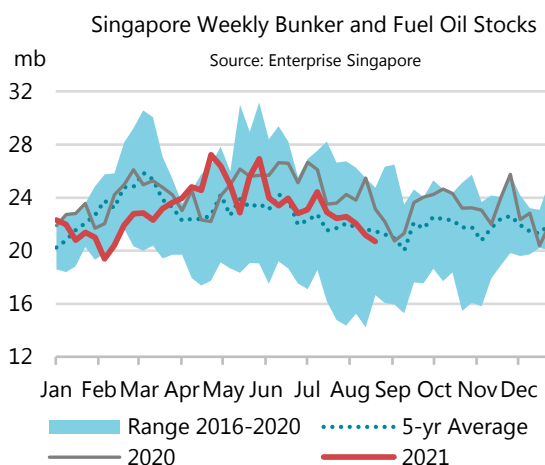
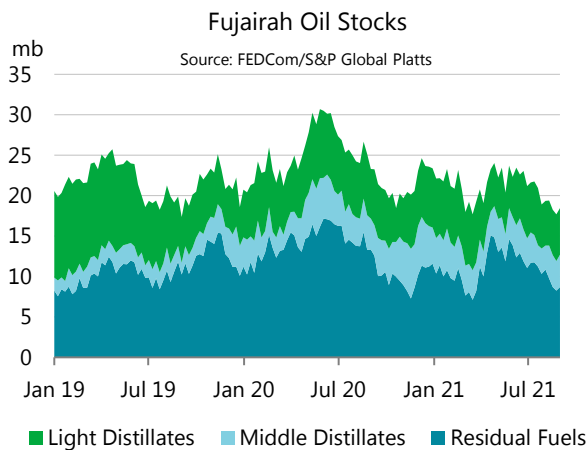


Crude oil held in short-term floating storage fell by 20.3 mb to 102 mb in August, according to data from *EA Gibson*. The Asia Pacific region led the decrease at 20.4 mb as congestion in Chinese ports eased. At end-August, 41 VLCCs and 12 Suezmaxes were used for floating storage globally. In Iran, 28 VLCCs and three Suezmaxes remained in use (unchanged from end-July).

In Fujairah, independent product stocks fell for a fourth consecutive month by 1.7 mb in August according to data from *FEDCom* and *S&P Global Platts*. Residual fuel oil inventories plunged by

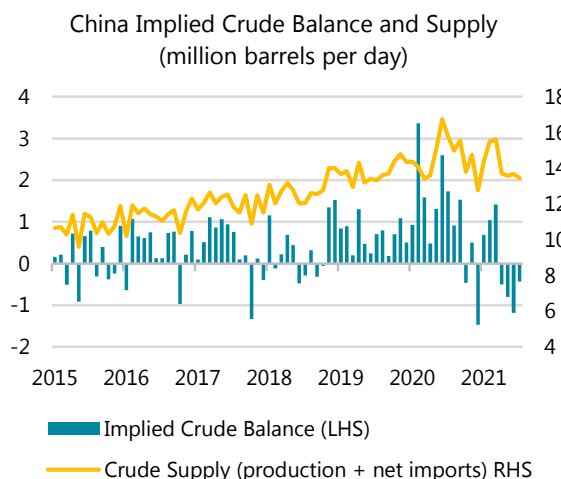
a large 2.3 mb m-o-m as increased air conditioning use boosted summer power demand. Bunker fuel demand has also been strengthening across many ports as economies recover from the pandemic. Light distillate stocks decreased by 0.2 mb while middle distillate stocks rose 0.7 mb.

Independent product stocks in Singapore, the world's largest bunkering hub, fell by 2 mb in August, according to data from *Enterprise Singapore*. Residual fuel oil inventories led the way with a 1.9 mb draw. This is partly attributable to increased fuel oil exports to China driven by a rise in purchases from independent refineries. Light distillate stocks also fell by 0.5 mb. By contrast, middle distillate stocks built by 0.4 mb.



The Chinese implied crude balance fell for a fourth consecutive month, by 13.3 mb or 430 kb/d in July, according to data derived from reported crude production, refinery runs and net crude imports. The fall was less than the previous month as refinery runs fell 0.9 mb/d m-o-m to 13.9 mb/d, the lowest since January 2021.

Total oil stocks in 16 non-OECD economies reported to the *JODI-Oil* database drew 16.4 mb m-o-m in June, led by a decrease in crude and NGL inventories (combined 11.4 mb). Crude stocks fell in Chinese Taipei (-4.3 mb), Nigeria (-1.9 mb) and Iraq (-1.6 mb). By contrast, crude oil inventories increased in by 0.8 mb in Croatia and 0.3 mb in Brunei. Oil product stocks fell by 5.1 mb in total, led by Angola (-3.4 mb), Hong Kong China (-1 mb) and Iraq (-0.8 mb). Chinese Taipei and Romania built their product stocks by 2.1 mb and 0.2 mb, respectively.

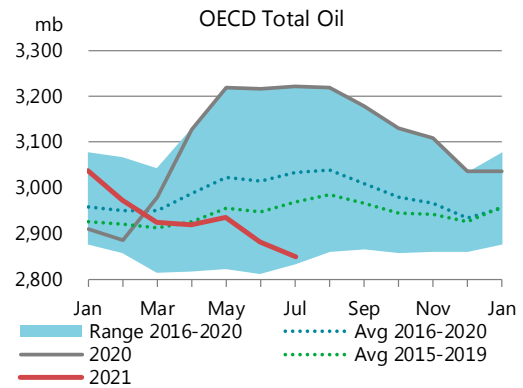
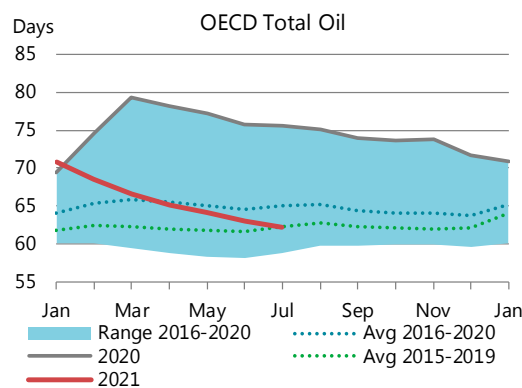
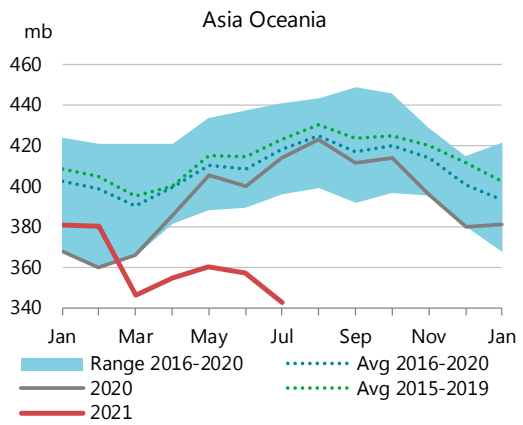
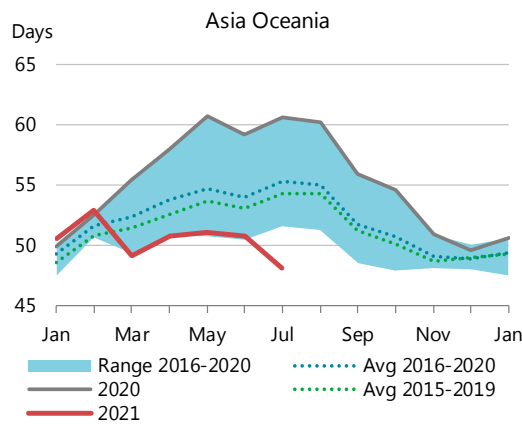
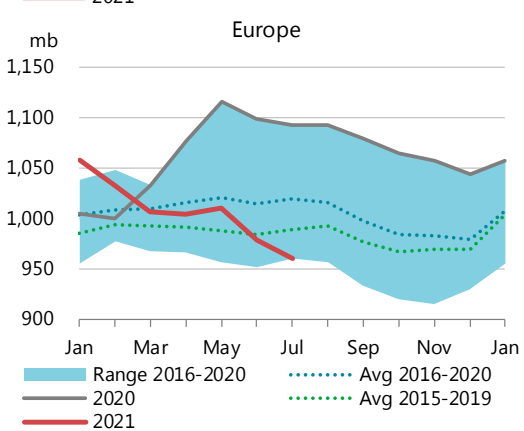
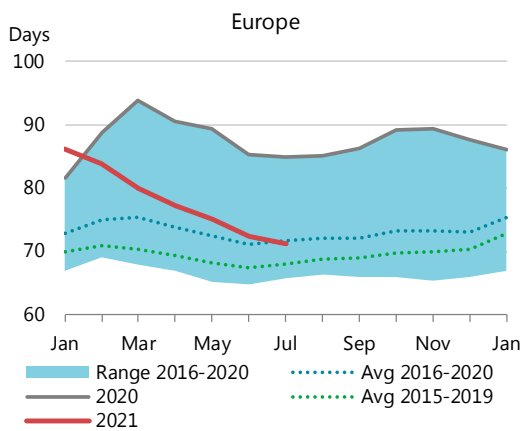
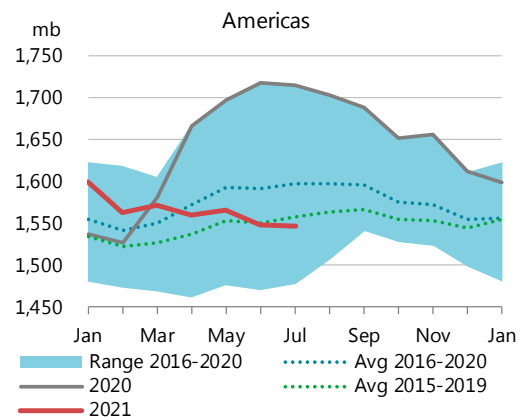
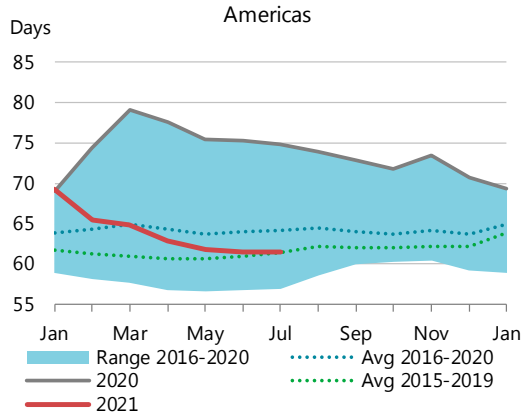


Regional OECD End-of-Month Industry Stocks

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

Days¹

Million Barrels

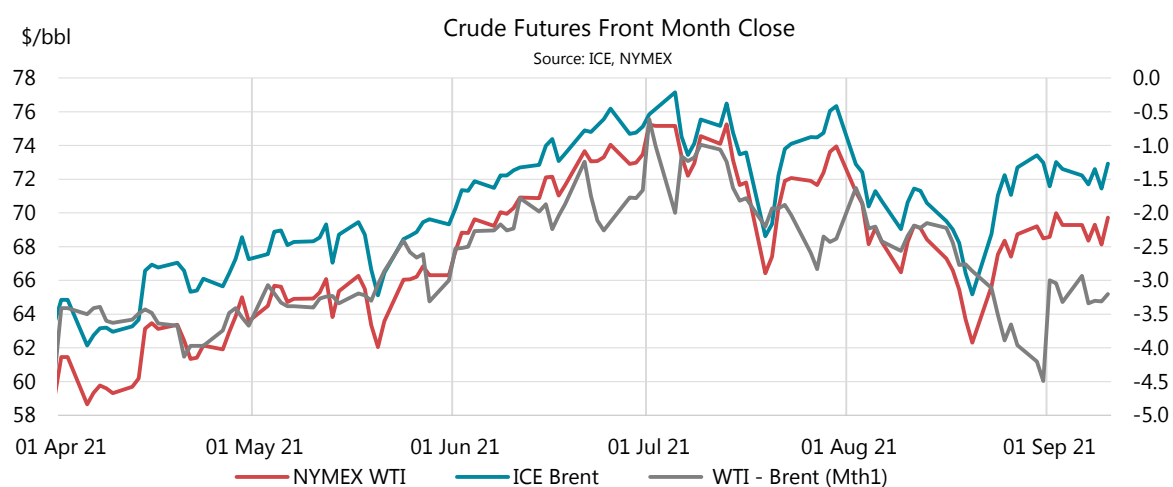


¹ Days of forward demand are based on average OECD demand over the next three months.

Prices

Overview

Crude price volatility persisted in August, trading in a wide \$8-9/bbl range. Against a backdrop of surging Covid cases in the US, China, Japan, and elsewhere, prices were pressured lower by market concerns focussed on risks to economic growth, inflation prospects and worries over weaker oil demand. At the same time, prices were lifted higher by tighter supply amid multiple production outages over the course of the month, especially in the US where historic hurricane activity battered oil operations on the country's Gulf and East coasts.



Crude futures prices opened the month on a steeply declining trend that lasted through 20 August before reversing sharply to rebound in the last 10 days of the month. On a monthly average basis, the volatility drove prices substantially lower, with NYMEX WTI falling \$4.72/bbl to \$67.71/bbl and ICE Brent falling \$3.78/bbl to \$70.51/bbl. By 30 August, the price rebound had lifted NYMEX WTI to \$69.21/bbl and ICE Brent to \$73.41/bbl which was the widest spread since early May 2020. In the first 10 days of September, NYMEX WTI averaged \$69.10/bbl and ICE Brent averaged \$72.26/bbl, below the levels seen in July despite the hurricane-related supply losses.

Investors have positioned their trades in oil futures to benefit from the recovery in economic activity and oil demand as well as to partially hedge themselves against inflation risks. However, in August rising Covid cases slowed economic activity due to renewed government lockdowns and consumer efforts to duck exposure by avoiding restaurants, cinemas and other entertainment venues, opting instead to stay home. Economic indicators published in early September, notably PMI data, confirmed this slowdown, particularly in the service sector.

As economic growth moves past its peak rate, it reduces the risk of higher inflation. The deliberations of the US Federal Reserve (voiced during the month by some representatives of the bank in addition to the very clear presentation by the chairman at the prominent Jackson Hole conference on 27 August) suggest they could cut liquidity injections to the US economy beginning late 4Q21 while an interest rate increase is possible after mid-2022. This comes after

South Korea lifted its own interest rates during August and China indicated that it would not offset the impact of the recent Covid wave with stimulus.

The new Covid wave directly hit the oil demand recovery, notably in the US and China for jet fuel and to a lesser extent for diesel and gasoline. The slowdown in demand growth aggravated an overall sense of looser markets. In particular, lacklustre Chinese crude buying since April due to tighter crude import quotas combined with a parallel drawdown of crude stocks built up since the pandemic started. On the other hand, OPEC+ crude exports fell by 1.1 mb/d in August (according to *Kpler*) as some members suffered lower production (due to outages in several countries) or boosted their refinery runs, crude burning and crude storage.

Prices reversed rapidly after 20 August as the uptick in Covid infections eased in China and the US and as the US Food and Drug Administration announced full approval of the Pfizer Covid vaccine. The resulting recovery in market optimism and in perspectives for oil demand caught off-guard some short position holders in the crude market, explaining the sudden surge in prices. The rebound found further support in Hurricane Ida's imminent arrival and subsequent landfall on 29 August. The notice of sale on 23 August of 20 mb crude from the US SPR for delivery in 4Q21 did not dampen the rally in prices.

Since Hurricane Ida's passage, crude futures have idled near their end-August levels as the market weighs information about the storm's impact on oil supply, the outcome of 1 September OPEC+ meeting, and the economic drivers fuelling oil demand. Volume-wise, hurricane-related crude supply losses could exceed refinery throughput outages, the latter returning faster than the former. Lost crude supply mainly concerns heavier sour crudes, notably Mars (300 kb/d) for which some 12-15 mb of exports had already been booked for loading in September (destined mainly for Asia). Gulf of Mexico crude supply losses of around 20 mb appear balanced by the announced US SPR crude sale. A first delivery will take place in September through an exchange for prompt barrels with refineries that would otherwise have to cut throughputs while further deliveries will take place from October and possibly extend into mid-December. China's recently announced release of SPR crude barrels will also help alleviate any post-Hurricane Ida price tensions.

The +400 kb/d m-o-m production increases confirmed by OPEC+ at their 1 September meeting will help relieve potential crude supply uncertainties. On the other hand, lost US refinery runs and product exports will contribute to tighter global oil product markets in the coming weeks due to the recent dip in product exports from Chinese refineries. In addition to a sharp tax hike on product blending component imports (that provided a large source of finished product exports), the Chinese authorities restricted crude import quotas for several weeks to independent refineries under investigation for tax fraud, impacting refinery throughputs.

Futures markets

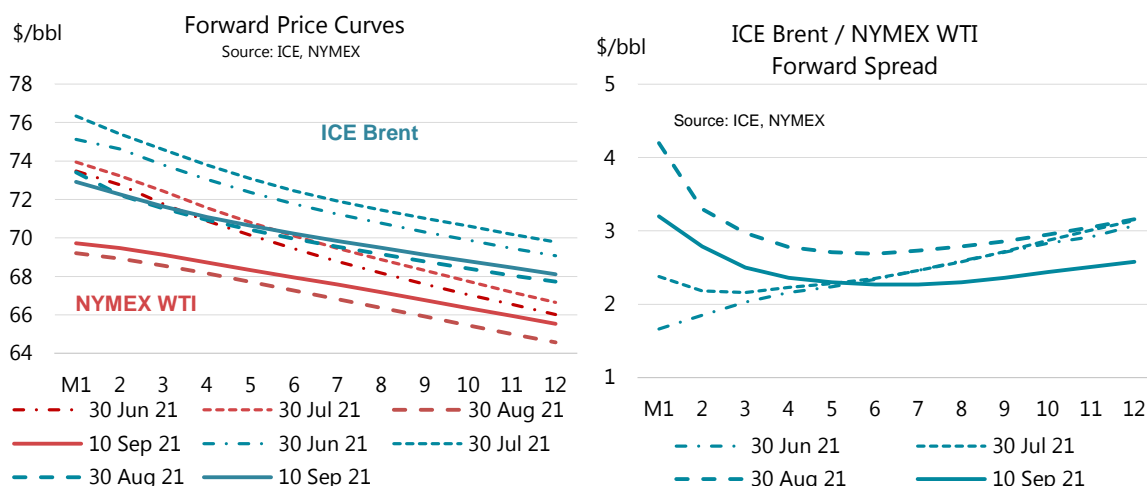
Crude futures prices fell on average in August and the forward price curve flattened substantially. The easing of market pressures reflects immediate concerns about the impact of rising Covid infections on economic growth and oil demand. Recurring Covid lockdowns and mobility restrictions in some Asian countries have slowed economic activity. The fall in futures prices may also reflect a shift by some investors from viewing the market as very deficient in supply to moderately deficient and possibly closer to balanced in 2022 as the economic drivers behind oil demand cool down and reverse.

Futures opened the month on a declining trend and at their highest level for August (NYMEX WTI \$71.26/bbl, ICE Brent \$72.89/bbl). They fell relatively steadily through their 20 August low point at around \$8/bbl below where they started. However, prices rebounded with the approach of Hurricane Ida before stabilising. At the time of writing NYMEX WTI traded around \$70.70/bbl and ICE Brent at \$73.80/bbl.

The backwardation in crude futures dropped sharply between end-July and end-August, despite the rebound in prompt prices from their mid-month lows. As futures are by their nature forward-looking, the fall may reflect an expected narrowing of the deficit of supply versus demand in 4Q21, which would lead to lower inventory draws than those seen since the first quarter this year. Crude supply is increasing as OPEC+ continues to ease cuts and non-OPEC+ production progresses while demand growth has become more uncertain.

The expected easing of tensions in the supply-demand balance in the coming months also supported a narrowing of the NYMEX WTI discount to ICE Brent over the length of the forward curve. In the US market, the continued financial discipline of shale producers has maintained oil production levels but capped a further rebound in 2021 just as refinery throughputs pick up. Progress on Covid vaccines and the revival of economic activity are driving the recovery in US oil product demand, albeit at a faltering pace due to recurring pandemic outbreaks. Accelerating US crude production in 2022 could pressure the NYMEX crude price structure versus ICE Brent.

Between 30 July and 30 August, the backwardation on the first-to-twelfth month contract fell significantly for both NYMEX WTI and ICE Brent (from \$7.30/bbl to \$4.65/bbl and \$6.54/bbl to \$5.69/bbl, respectively). Most of this decline occurred ahead of the 20 August low point. However, the deeper decline for NYMEX WTI resulted in a sharp increase in the ICE Brent premium to NYMEX WTI, reflecting the uncertainty surrounding US crude export availability following the passage of Hurricane Ida. By 10 September, the ICE Brent backwardation had fallen further as the post-hurricane clean-up progressed and the US port of LOOP reopened for imports and exports. This narrowed the spread again.

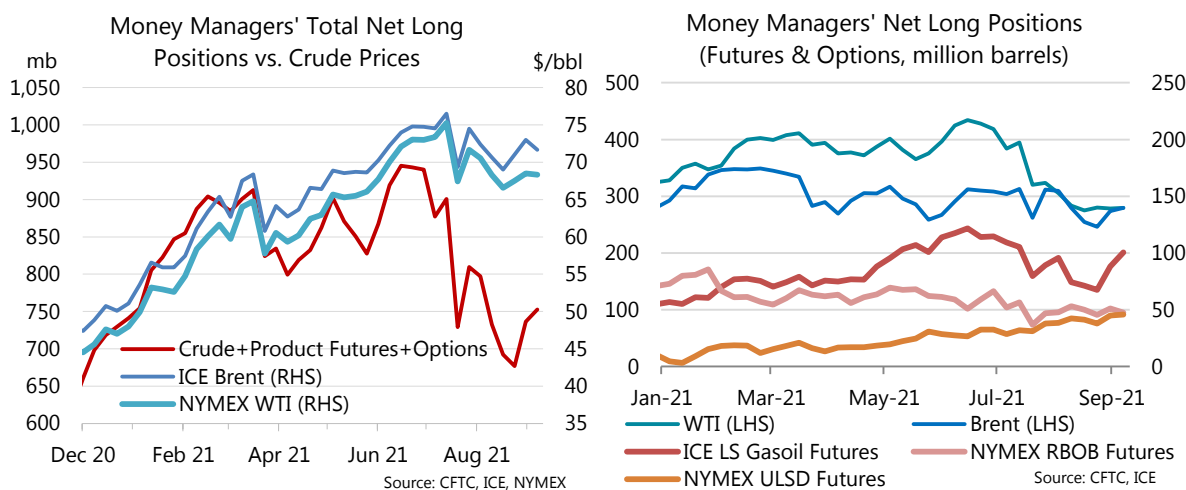


Prompt NYMEX RBOB futures fell \$1.61/bbl in August, lagging the fall in NYMEX WTI. This boosted the RBOB crack by \$3.11/bbl to a very healthy \$25.91/bbl and contributed to the steady improvement in US refinery margins. US driving indicators approached their highest levels since end-2019, while US refining activity continues to lag pre-pandemic rates. Prompt NYMEX ULSD futures fell \$2.40/bbl in August, substantially less than NYMEX WTI, which allowed the NYMEX ULSD crack to rise by \$2.32/bbl to \$19.29/bbl. The crack rose steadily through August to average \$20.86/bbl in the first two weeks of September. Prompt ICE gasoil futures fell in August

by \$2.61/bbl, lagging the fall in ICE Brent and boosting the ICE gasoil crack by \$1.17/bbl to \$7.28/bbl on average in August. The crack reached \$9.36/bbl in the second week of September. The middle distillate balance continued to tighten as stronger summer air travel and freight transport requirements outpaced refinery activity leading to a draw on middle distillate stocks. The premium for NYMEX ULSD contracts versus ICE gasoil contracts partly reflects the cost of meeting the Renewable Volume Obligation (RVO) with credits that have reached historically high levels.

Prompt Month Oil Futures Prices												
(monthly and weekly averages, \$/bbl)												
	Aug-20	Jun-21	Jul-21	Aug-21	Aug-21		Week Commencing:					
					m-o-m Chg	y-o-y Chg	02 Aug	09 Aug	16 Aug	23 Aug	30 Aug	06 Sep
NYMEX												
Light Sweet Crude Oil (WTI)	42.39	71.35	72.43	67.71	-4.72	25.32	69.47	68.31	65.07	67.54	69.12	68.96
RBOB	53.33	92.64	95.23	93.62	-1.61	40.29	95.31	95.28	89.20	93.53	92.60	89.63
ULSD	52.04	89.06	89.40	87.00	-2.40	34.96	88.43	87.44	83.86	87.21	90.11	89.69
ULSD (\$/mmbtu)	9.18	15.71	15.77	15.34	-0.42	6.17	2.11	2.08	2.00	2.08	2.15	2.14
Henry Hub Natural Gas (\$/mmbtu)	2.34	3.27	3.82	4.03	0.22	1.69	4.08	4.00	3.86	4.06	4.53	4.83
ICE												
Brent	45.02	73.41	74.29	70.51	-3.78	25.49	71.53	70.60	67.68	71.16	72.73	72.18
Gasoil	49.96	79.43	80.41	77.79	-2.61	27.83	79.10	77.49	75.63	78.98	81.68	81.54
Prompt Month Differentials												
NYMEX WTI - ICE Brent	-2.63	-2.06	-1.86	-2.80	-0.94	-0.17	-2.07	-2.29	-2.61	-3.62	-3.61	-3.22
NYMEX ULSD - WTI	9.65	17.71	16.97	19.29	2.32	9.64	18.96	19.13	18.79	19.67	20.99	20.73
NYMEX RBOB - WTI	10.94	21.29	22.80	25.91	3.11	14.97	25.84	26.97	24.13	25.99	23.48	20.67
NYMEX 3-2-1 Crack (RBOB)	10.51	20.09	20.85	23.70	2.85	13.19	23.55	24.36	22.35	23.88	22.65	20.69
NYMEX ULSD - Natural Gas (\$/mmbtu)	6.84	12.43	11.95	11.31	-0.64	4.48	-1.97	-1.92	-1.87	-1.98	-2.38	-2.70
ICE Gasoil - ICE Brent	4.94	6.02	6.12	7.28	1.17	2.34	7.57	6.89	7.95	7.81	8.95	9.36

Source: ICE, NYMEX.



Money managers cut net long positions on crude and product futures and options through the third week of August, reaching the lowest level since December 2020. In the final week of the month, overall positions recovered slightly as investors piled into mainly ICE Gasoil and ICE Brent long positions and significantly reduced short positions built-up since end-July.

Net long positions on crude futures contracted by 10% overall in August, slightly more on ICE Brent than on WTI. The recovery in the last week of the month was entirely led by ICE Brent with NYMEX WTI positions flat. Net long positions on product futures were stagnant overall in August. NYMEX ULSD futures rose 17% and NYMEX RBOB futures 7%, offsetting an 8% decline in ICE Gasoil. However, net long positions on ICE Gasoil contracted by almost 30% through the third week of August before rebounding by 30% w-o-w in the last week of the month. On the other hand, those for the NYMEX product futures were relatively stable through the first 3 weeks of the months before rising 18% w-o-w for ULSD futures and 13% w-o-w for RBOB.

With the end of the driving season, the tension around gasoline cracks should ease in the coming weeks and with it the interest for investors to extend these positions. On the other hand, the onset of winter and the persistent strength of industrial activity favouring higher gasoil price could contribute to drive a build in those positions in the coming months.

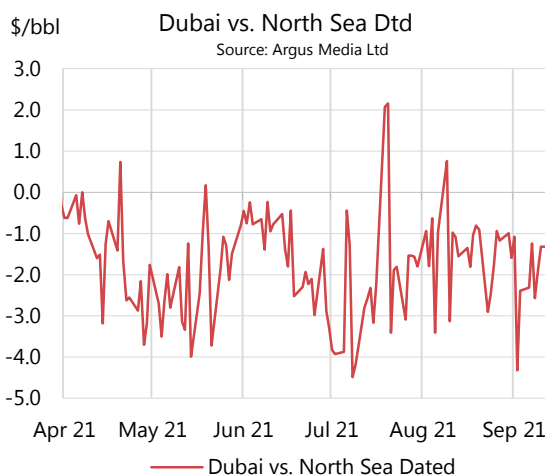
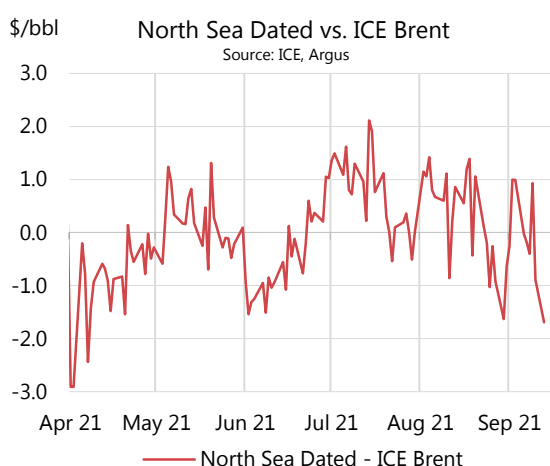
Spot crude oil prices

Tensions in the North Sea market eased over the course of August and North Sea Dated moved back to a discount versus ICE Brent futures in the last ten days of the month before briefly returning to a premium in early September. The drop in Dubai prices lagged that for North Sea Dated, narrowing the discount for Dubai in the first half of August before it widened again. Prompt WTI prices at Cushing fell in line with futures over the month, increasing their discount versus North Sea Dated.

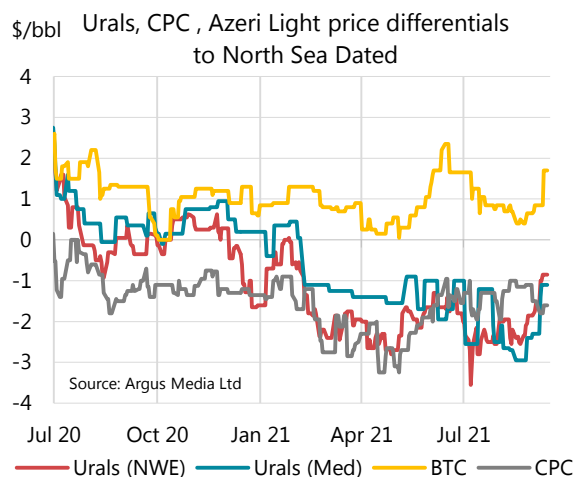
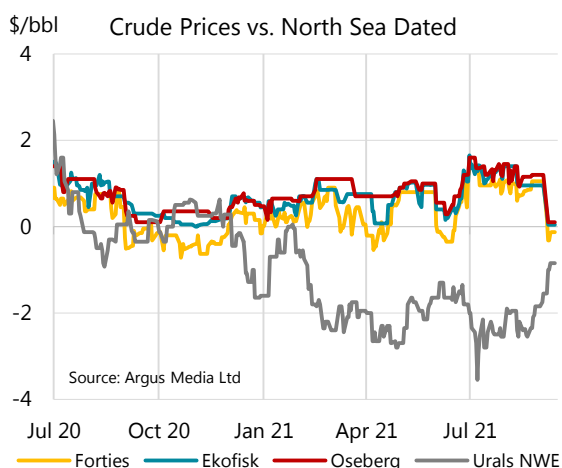
On average for the month, the North Sea Dated versus ICE Brent spread fell $-\$0.46/\text{bbl}$ to $\$0.26/\text{bbl}$ with North Sea Dated averaging $\$70.75/\text{bbl}$. Easing North Sea crude price tightness reflects the onset of European refinery maintenance and increased arrivals of crude from the US and West Africa. The wider Brent premium to WTI in early August favoured US crude exports to Europe while weak Asian demand for West African crudes left unsold September cargoes to be picked up by European refiners in mid-month.

WTI at Cushing fell $\$4.73/\text{bbl}$ m-o-m in August to $\$67.73/\text{bbl}$ while WTI at Houston fell $\$4.41/\text{bbl}$ to $\$68.32/\text{bbl}$. Importantly, this widened the Cushing discount to Houston over the month from barely $\$0.30/\text{bbl}$ in the first week to over $\$0.80/\text{bbl}$ in the final week and to almost $\$1.0/\text{bbl}$ in the second week of September. The widening spread highlights an improving Midcontinent surplus allowing producers to pump more crude to US Gulf Coast for refining or export. Pressure on Midcontinent prices rose as western Canadian output ramped up with the end of maintenance at Alberta's oil sand upgraders and as regional refiners planned autumn refinery maintenance. The WTI Houston discount to North Sea Dated widened slightly on average in August by $\$0.16/\text{bbl}$ to $-\$2.43/\text{bbl}$, but remained volatile.

Prompt Dubai prices fell $\$3.57/\text{bbl}$ m-o-m to $\$69.32/\text{bbl}$ on average in August, remaining below $\$70/\text{bbl}$ on average during 9-28 August. However, the Dubai discount to North Sea Dated narrowed by $\$0.68/\text{bbl}$ to $\$1.43/\text{bbl}$ in August, before widening again starting late August.



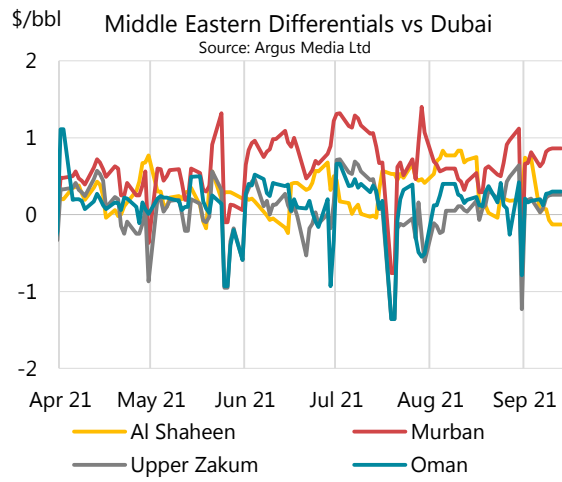
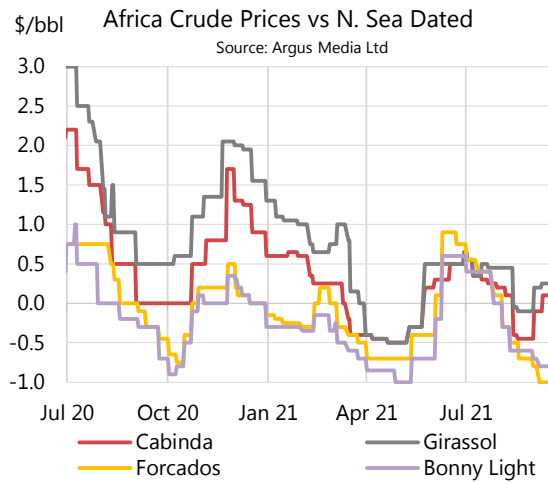
The premiums for North Sea grades versus the marker eased in August in line with weaker North Sea Dated values. Ekofisk and Oseberg premiums to North Sea Dated slipped by \$0.14/bbl to a still robust \$1.10/bbl and \$1.20/bbl, respectively. The differentials remain at their highest levels since late 2019. Several reasons explain the strength of European refiner preference for lighter and sweeter grades that are close to their market. The backwardation increases the cost of shipping. The record CO₂ and natural gas prices increase the cost of processing heavier crudes which require more processing and more conversion, hence more energy. Furthermore, record high natural gas prices have significantly boosted the cost of hydrogen production that adds around \$0.10-0.20/bbl to the marginal cost of processing high sulphur crudes versus sweet grades.



The Urals discount to North Sea Dated in Northwest Europe narrowed slightly by \$0.37/bbl to -\$2.17/bbl, putting the price at \$68.58/bbl in August (-\$3.87/bbl m-o-m). The discount narrowed particularly in the last week of the month as refiners sought barrels to replace the expected delay in exports of Mars crude due to the impending arrival of Hurricane Ida in the US Gulf of Mexico. Discounts to North Sea Dated for Urals in the Mediterranean widened by \$0.77/bbl over the month to -\$2.67/bbl, putting prices in August at \$68.08/bbl. The faster decline in Mediterranean Urals prices pushed them to an exceptional -\$0.50/bbl discount to Urals prices in Northwest Europe. A return of Asian buyers (including some Chinese refiners) for Urals in both locations helped lift demand in mid-month as the Dubai discount to North Sea Dated narrowed. CPC Blend discounts narrowed over the month by \$0.22/bbl to -\$1.24/bbl as platform maintenance reduced Kazakh exports. BTC premiums narrowed over the month after spiking higher in July due to Azeri outages.

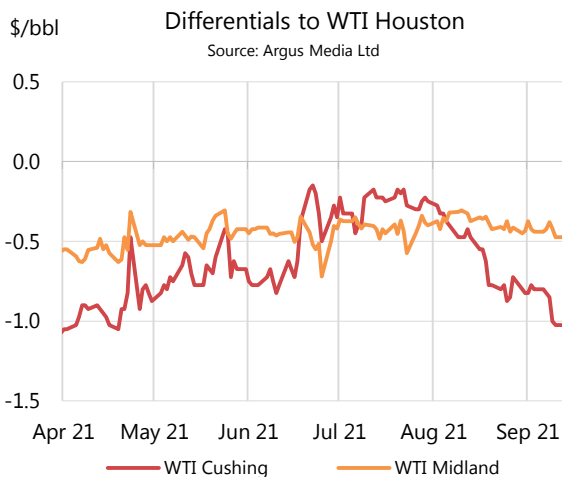
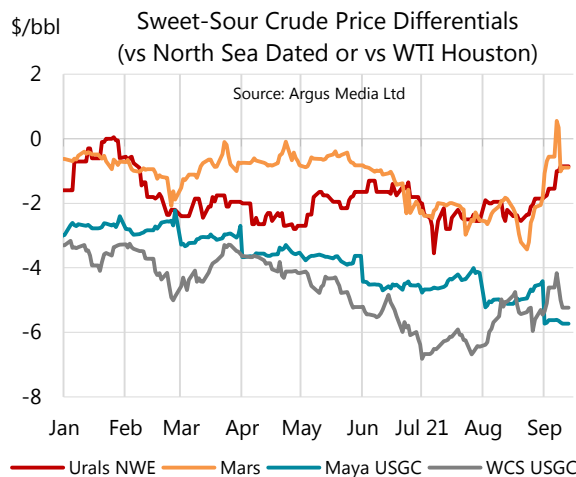
West African grade differentials versus North Sea Dated deteriorated throughout much of August as the absence of Chinese and Indian buying slowed the sale of September loading barrels. Much of the September loading programmes remained unsold by mid-month when the October loading programmes were published, gathering pressure on differentials that slid into discounts to attract buyers. The discounts reached in the third decade of August drew refiners in China, Europe, and India. Chinese buying was also boosted by anticipation of the imminent release of new crude import quotas.

Overall, Nigerian Bonny Light premiums to North Sea Dated lost \$0.81/bbl and flipped to a discount of -\$0.50/bbl in August. Forcados premiums fell \$0.89/bbl and moved to a discount of -\$0.51/bbl. The Angolan differential fell less, with Cabinda dropping \$0.53/bbl to a discount of -\$0.19/bbl and Girassol down \$0.31/bbl to \$0.14/bbl.



Middle East crudes suffered from the dip in Chinese crude purchases but benefitted from a marginal preference for spot grades as term-price crudes were more expensive by comparison. As well, the narrower Dubai discount to North Sea Dated boosted Asian interest in European sour and West African grades. Murban premiums to Dubai fell \$0.36/bbl m-o-m to \$0.52/bbl while Upper Zakum premiums lost \$0.08/bbl to \$0.06/bbl in August. On the other hand, Oman premiums rose \$0.06/bbl m-o-m to \$0.16/bbl in August.

Tightness in the US Midcontinent crude market eased in August heading into the end of the driving season, with the onset of autumn refinery maintenance programmes, and with rising Western Canadian output. The end of oil sands upgrader maintenance in Western Canada and the early start-up of the line 3 expansion (now potentially coming in October) contributed to a sense of easing supply-demand tensions in the region. WTI Midland gained \$0.36/bbl m-o-m and moved back to a premium versus Cushing by the second week of August. WTI Houston rose \$0.33/bbl m-o-m to \$0.59/bbl with the premium to Cushing exceeding \$0.80/bbl by end-month. Wider differentials allowed more crude to move west to Midland and south to Houston from the Midcontinent.



Discounts for Western Canadian Select (WCS) at Hardisty, Alberta versus WTI at Cushing narrowed by \$1.05/bbl to -\$13.74/bbl. Despite a recovery in production, offtake from local refineries and pipelines eased a local supply overhang. The WCS discount to WTI at Houston narrowed by \$0.93/bbl m-o-m to -\$5.44/bbl. It benefitted from an increase in sour crude exports from the US Gulf Coast (USGC) that forced refiners to turn to other grades. It also benefitted

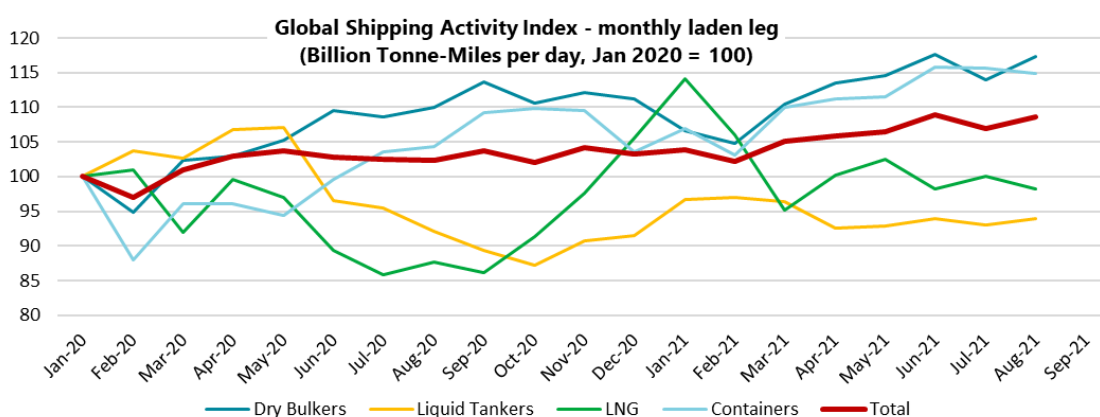
from disruptions to Mexican production in mid-month and losses to US offshore output late in the month with the arrival of Hurricane Ida. The destruction caused by Ida prolonged losses in the US Gulf of Mexico and boosted Mars differentials to WTI at Houston sharply in the final days of the month. The Mars discounts to WTI at Houston dipped \$0.14/bbl m-o-m in August to -\$2.40/bbl, but it jumped to -\$1.65/bbl in the last week of the month. The hurricane-driven export uncertainties and the impact on Mars prices pulled up spot sour crude prices elsewhere, notably Russian Urals.

Spot Crude Oil Prices and Differentials (monthly and weekly averages, \$/bbl)												
	Aug-20	Jun-21	Jul-21	Aug-21	Aug-21		Week Commencing:					
					m-o-m Chg	y-o-y Chg	02 Aug	09 Aug	16 Aug	23 Aug	30 Aug	06 Sep
Crudes												
North Sea Dated	44.78	72.96	74.99	70.75	-4.24	25.97	72.55	70.99	68.43	70.70	72.83	72.06
North Sea Mth 1	44.98	74.12	75.03	70.96	-4.07	25.98	72.48	70.96	68.63	71.32	73.29	73.40
WTI (Cushing) Mth 1	42.36	71.38	72.46	67.73	-4.73	25.36	69.47	68.31	65.07	67.61	69.12	68.88
WTI (Houston) Mth 1	43.19	71.93	72.72	68.32	-4.41	25.12	69.81	68.78	65.73	68.42	69.92	69.80
Urals (NWE)	44.46	71.34	72.45	68.58	-3.87	24.11	70.59	68.78	65.99	68.56	71.09	71.01
Urals (Mediterranean)	45.01	71.57	73.09	68.08	-5.02	23.07	70.15	68.31	65.48	67.97	70.53	70.66
Dubai (1st month)	43.90	71.50	72.88	69.32	-3.57	25.42	71.01	69.64	67.25	68.85	70.55	70.20
Tapis (Dated)	46.30	74.00	77.33	72.22	-5.11	25.92	73.90	72.67	69.78	72.08	74.11	73.56
Differential to North Sea Dated												
WTI (Houston)	-1.58	-1.02	-2.27	-2.43	-0.16	-0.85	-2.75	-2.21	-2.71	-2.28	-2.91	-2.26
Urals (NWE)	-0.32	-1.62	-2.55	-2.17	0.37	-1.86	-1.96	-2.21	-2.44	-2.14	-1.74	-1.05
Urals (Mediterranean)	0.23	-1.39	-1.90	-2.67	-0.77	-2.90	-2.40	-2.68	-2.95	-2.73	-2.30	-1.40
Dubai	-0.88	-1.45	-2.11	-1.43	0.68	-0.55	-1.55	-1.35	-1.18	-1.85	-2.28	-1.86
Tapis (Dated)	1.52	1.05	2.34	1.47	-0.87	-0.05	1.35	1.69	1.35	1.38	1.28	1.50
Prompt Month Differential												
North Sea Dated vs. ICE Brent	-0.24	-0.45	0.70	0.24	-0.46	0.48	1.02	0.38	0.75	-0.46	0.10	-0.12
Forward Cash Brent Mth1-Mth2	-0.15	0.71	0.76	0.43	-0.34	0.58	0.59	0.41	0.38	0.21	0.84	0.86
Forward WTI Cushing Mth1-Mth2	-0.25	0.30	0.52	0.26	-0.26	0.51	0.41	0.21	0.22	0.19	0.25	0.23
Forward Dubai Mth1-Mth2	-0.28	0.95	1.23	1.29	0.06	1.57	1.29	1.29	1.31	1.26	0.92	0.52

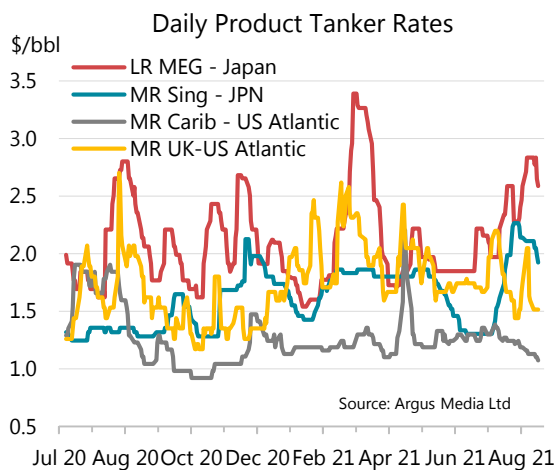
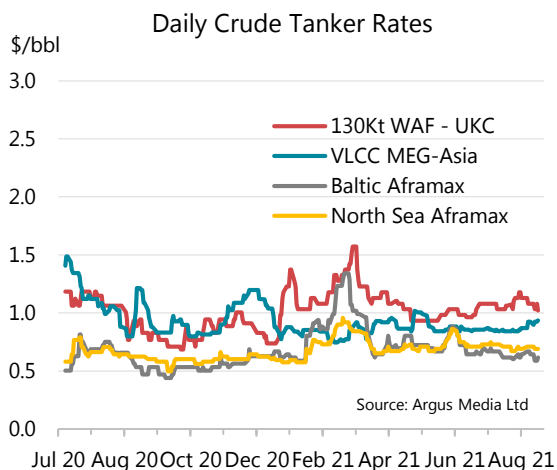
Source: Argus Media Ltd, ICE

Freight

Global shipping activity continued to increase in August, with y-o-y growth over the month of 6%. Shipping activity stood around 4% above its level of August 2019. Dry bulk, up +6.6% y-o-y, was the main driver of growth in August while most other sectors were relatively flat.



Tanker activity shifted to y-o-y growth (+2.0%) for the first time since May 2020, but was still 5.6% below its level of August 2019. With the continued preference for short-haul crudes due to the steep price backwardation and the slow ramp-up in OPEC+ crude exports, the overhang in tanker capacity has not diminished significantly. Scrapping continues to lag deliveries of new tankers.



In August, crude tanker freight rates stagnated on most routes, with the exception of a modest increase on the West Africa to UK Continent route. Aframax rates ticked higher with a pick-up in fuel oil purchases, Mediterranean crude exports to Asia, and European refiner interest in West African cargoes.

Product tanker rates rose on Asian routes as Chinese product exports declined following restrictions on independent refinery crude runs. Northeast Asian markets consequently imported product from further afield, notably Singapore and the Middle East Gulf.

Freight Costs												
(monthly and weekly averages, \$/bbl)												
	Aug-21						Week Commencing					
	Aug-20	Jun-21	Jul-21	Aug-21	m-o-m chg	y-o-y chg	02-Aug	09-Aug	16-Aug	23-Aug	30-Aug	06-Sep
Crude Tankers												
VLCC MEG-Asia	1.04	0.87	0.86	0.85	-0.01	-0.2	0.85	0.85	0.85	0.85	0.89	0.92
130Kt WAF - UKC	1.09	0.98	1.03	1.08	0.06	0.0	1.06	1.04	1.07	1.14	1.11	1.06
Baltic Aframax	0.69	0.75	0.67	0.63	-0.04	-0.1	0.67	0.63	0.61	0.62	0.66	0.62
North Sea Aframax	0.67	0.74	0.72	0.70	-0.02	0.0	0.73	0.72	0.69	0.69	0.70	0.70
Product Tankers												
LR MEG - Japan	2.22	1.88	1.99	2.37	0.38	0.1	1.97	2.27	2.52	2.34	2.71	2.79
MR Sing - JPN	1.34	1.65	1.31	1.96	0.65	0.6	1.44	1.74	2.09	2.22	2.12	2.07
MR Carib - US Atlantic	1.74	1.25	1.30	1.25	-0.04	-0.5	1.34	1.28	1.25	1.22	1.16	1.12
MR UK-US Atlantic	1.76	1.76	1.77	1.78	0.00	0.0	2.14	1.88	1.63	1.53	1.83	1.55

Source: Argus Media Ltd

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

	2018	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
OECD DEMAND																	
Americas	25.6	25.6	24.5	20.0	22.8	23.1	22.6	22.8	24.3	25.2	25.0	24.3	24.5	25.1	25.6	25.1	25.1
Europe	14.3	14.3	13.3	11.0	12.9	12.5	12.4	11.9	12.6	13.5	13.3	12.8	13.0	13.4	13.6	13.2	13.3
Asia Oceania	8.0	7.9	7.9	6.6	6.8	7.4	7.1	7.7	7.0	7.0	7.8	7.4	7.9	7.2	7.4	7.9	7.6
Total OECD	47.9	47.9	45.7	37.6	42.4	43.0	42.2	42.3	43.9	45.7	46.0	44.5	45.4	45.7	46.6	46.2	46.0
NON-OECD DEMAND																	
FSU	4.7	4.7	4.6	4.1	4.7	4.7	4.5	4.5	4.7	4.8	4.9	4.7	4.7	4.7	5.0	5.1	4.9
Europe	0.8	0.8	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8
China	13.0	13.5	11.8	14.0	14.6	14.8	13.8	14.6	15.2	14.8	15.2	14.9	15.1	15.6	15.5	15.5	15.4
Other Asia	14.0	14.0	13.5	11.3	12.3	13.4	12.6	13.6	13.0	12.6	13.9	13.3	14.3	14.1	13.6	14.3	14.1
Americas	6.3	6.3	5.8	5.0	5.7	5.9	5.6	5.8	5.9	6.1	6.1	6.0	5.9	6.1	6.3	6.2	6.1
Middle East	8.2	8.2	7.9	7.1	8.2	7.8	7.7	7.7	7.8	8.4	7.9	8.0	7.9	8.0	8.5	8.0	8.1
Africa	4.2	4.2	4.1	3.4	3.7	3.9	3.8	4.1	3.9	3.8	4.0	4.0	4.1	4.0	3.9	4.1	4.0
Total Non-OECD	51.1	51.8	48.4	45.5	49.9	51.2	48.7	51.1	51.2	51.5	52.7	51.6	52.8	53.2	53.6	54.0	53.4
Total Demand¹	99.0	99.7	94.1	83.1	92.3	94.2	90.9	93.4	95.1	97.2	98.8	96.1	98.2	98.9	100.3	100.2	99.4
OECD SUPPLY																	
Americas	23.0	24.8	25.9	22.6	23.2	23.7	23.8	23.3	24.2	24.2	24.8	24.1	25.0	25.2	25.5	25.8	25.4
Europe	3.5	3.3	3.7	3.6	3.4	3.5	3.6	3.6	3.1	3.3	3.6	3.4	3.6	3.4	3.4	3.6	3.5
Asia Oceania	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD⁴	26.9	28.6	30.1	26.8	27.1	27.8	27.9	27.4	27.8	28.0	28.9	28.0	29.1	29.2	29.4	29.9	29.4
NON-OECD SUPPLY																	
FSU	14.6	14.6	14.8	13.2	12.8	13.2	13.5	13.4	13.7	13.6	14.2	13.7	14.5	14.8	14.8	14.8	14.7
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.9	4.0	4.0	4.0	3.9	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Other Asia	3.4	3.3	3.2	3.0	2.9	3.0	3.0	3.0	2.9	2.8	2.9	2.9	2.8	2.8	2.8	2.8	2.8
Americas	5.1	5.3	5.6	5.1	5.4	5.2	5.3	5.3	5.3	5.5	5.5	5.4	5.5	5.6	5.6	5.7	5.6
Middle East	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.2	3.2	3.1	3.3	3.3	3.3	3.3	3.3
Africa	1.5	1.5	1.4	1.4	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Total Non-OECD⁴	31.6	31.8	32.2	29.9	29.6	29.8	30.4	30.2	30.5	30.5	31.2	30.6	31.6	31.9	32.0	32.0	31.9
Processing gains ³	2.4	2.4	2.3	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Global Biofuels	2.7	2.8	2.2	2.5	3.1	2.6	2.6	2.1	2.9	3.3	2.9	2.8	2.5	3.2	3.5	3.0	3.0
Total Non-OPEC Supply	63.5	65.6	66.8	61.1	61.9	62.2	63.0	61.9	63.5	64.1	65.3	63.7	65.6	66.6	67.2	67.3	66.7
OPEC²																	
Crude	31.4	29.6	28.2	25.6	24.1	24.9	25.7	25.3	25.5								
NGLs	5.5	5.4	5.4	5.1	5.1	5.1	5.2	5.2	5.3	5.3	5.3	5.3	5.5	5.5	5.5	5.5	5.5
Total OPEC	36.8	35.0	33.6	30.7	29.1	30.0	30.9	30.4	30.8								
Total Supply	100.4	100.6	100.4	91.8	91.0	92.3	93.9	92.3	94.2								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.1	1.0	2.6	-0.4	-1.6	0.4	-1.2	-0.4								
Government	-0.1	0.0	0.0	0.3	-0.1	-0.1	0.0	0.0	-0.2								
Total	0.0	0.0	1.0	2.9	-0.5	-1.7	0.4	-1.2	-0.7								
Floating storage/Oil in transit	0.0	0.1	0.4	0.7	-1.3	0.8	0.2	-0.9	-0.8								
Miscellaneous to balance ⁵	1.4	0.8	4.9	5.2	0.6	-1.1	2.4	1.0	0.6								
Total Stock Ch. & Misc	1.4	1.0	6.3	8.7	-1.3	-1.9	3.0	-1.1	-0.9								
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	30.0	28.7	21.9	16.8	25.4	26.8	22.7	26.3	26.4	27.8	28.2	27.2	27.1	26.9	27.6	27.3	27.2

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)

	2018	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
OECD DEMAND																	
Americas	-0.1	-0.1	0.2	-	0.1	-	0.1	-	-	-	-	-	0.1	0.1	-	-	0.1
Europe	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-0.2	-	-	-	-	-	-	-
Total OECD	-0.1	-0.1	0.2	-	0.1	-	0.1	-	0.1	-0.1	-	-	0.2	0.1	0.1	0.1	0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-0.1	-	-	-	-0.1	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	0.1	-	-	0.1	-	-	0.1	-0.1	-	-	-	0.1	-	-0.2	-
Other Asia	-	-	-	-	-	-	-	-	-	-0.4	-	-0.1	-	-0.1	-	-	-
Americas	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	-	0.1	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	0.1	-	0.1	-	-	-	0.2	-0.1	-0.1	-	-	-	0.1	-0.1	-
Total Demand	-0.1	-0.1	0.3	-	0.1	-	0.1	-	0.3	-0.2	-0.1	-	0.1	0.1	0.2	-0.1	0.1
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	0.1	-0.4	-	-0.1	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	0.1	-0.4	-	-0.1	-	-	-	-	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-0.1	-0.1	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	-0.6	-0.1	-0.2	-	-0.1	-0.1	-0.1	-0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-
Miscellaneous to balance	-	0.1	-0.3	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-	0.1	-0.3	-	-0.2	-	-0.1	-	-0.2	-	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	-0.1	0.3	-	0.2	-	0.1	-	0.2	0.4	-	0.2	0.2	0.2	0.2	-	0.2

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

Table 1b
WORLD OIL SUPPLY AND DEMAND (Including OPEC+ based on current agreement¹)
(million barrels per day)

	2018	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Total Demand	99.0	99.7	94.1	83.1	92.3	94.2	90.9	93.4	95.1	97.2	98.8	96.1	98.2	98.9	100.3	100.2	99.4
OECD SUPPLY																	
Americas ²	20.9	22.8	23.9	20.7	21.3	21.8	21.9	21.3	22.3	22.2	22.8	22.2	23.0	23.2	23.5	23.8	23.4
Europe	3.5	3.3	3.7	3.6	3.4	3.5	3.6	3.6	3.1	3.3	3.6	3.4	3.6	3.4	3.4	3.6	3.5
Asia Oceania	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD (non-OPEC+)	24.8	26.7	28.1	24.8	25.2	25.9	26.0	25.4	25.8	26.0	26.9	26.1	27.1	27.2	27.4	27.9	27.4
NON-OECD SUPPLY																	
FSU ³	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.9	4.0	4.0	4.0	3.9	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Other Asia ⁴	2.6	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1
Latin America	5.1	5.3	5.6	5.1	5.4	5.2	5.3	5.3	5.3	5.5	5.5	5.4	5.5	5.6	5.6	5.7	5.6
Middle East ⁵	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Africa ⁶	1.3	1.2	1.2	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1
Total Non-OECD (non-OPEC+)	15.2	15.3	15.6	15.0	15.2	14.9	15.1	15.1	15.1	15.2	15.3	15.2	15.3	15.3	15.3	15.3	15.3
Processing Gains	2.4	2.4	2.3	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Global Biofuels	2.7	2.8	2.2	2.5	3.1	2.6	2.6	2.1	2.9	3.3	2.9	2.8	2.5	3.2	3.5	3.0	3.0
Total Non-OPEC+	45.0	47.2	48.2	44.3	45.5	45.5	45.9	44.8	46.1	46.9	47.4	46.3	47.3	48.0	48.5	48.7	48.1
OPEC+ CRUDE																	
Algeria	1.0	1.0	1.0	0.9	0.8	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.0
Angola	1.5	1.4	1.4	1.3	1.2	1.2	1.3	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.1	1.2
Azerbaijan	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Brunei	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
Congo	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Equatorial Guinea	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
Gabon	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Iran	3.6	2.4	2.0	1.9	2.0	2.1	2.0	2.3	2.4	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5
Iraq	4.6	4.7	4.6	4.1	3.7	3.8	4.0	3.9	3.9	4.0	4.2	4.0	4.3	4.5	4.6	4.7	4.5
Kazakhstan	1.6	1.6	1.7	1.5	1.4	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.6
Kuwait	2.7	2.7	2.7	2.4	2.2	2.3	2.4	2.3	2.4	2.4	2.5	2.4	2.6	2.7	2.8	2.8	2.7
Libya	1.0	1.1	0.3	0.1	0.1	0.9	0.4	1.2	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1
Malaysia	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Mexico	1.8	1.7	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Nigeria	1.6	1.7	1.8	1.6	1.4	1.3	1.5	1.4	1.3	1.4	1.3	1.5	1.5	1.6	1.6	1.6	1.5
Oman	0.9	0.8	0.9	0.8	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9
Russia	10.4	10.4	10.4	9.2	8.9	9.1	9.4	9.3	9.5	9.7	9.9	9.6	10.2	10.4	10.4	10.5	10.4
Saudi Arabia	10.3	9.9	9.8	9.3	8.8	9.0	9.2	8.5	8.5	9.6	9.9	9.1	10.2	10.6	10.9	11.0	10.7
South Sudan	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Sudan	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
UAE	3.0	3.2	3.2	2.9	2.8	2.5	2.9	2.6	2.6	2.8	2.9	2.7	2.9	3.0	3.1	3.2	3.1
Venezuela	1.4	0.9	0.8	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
OPEC+ Crude	47.8	45.9	44.6	40.2	38.2	39.3	40.6	39.9	40.5	41.8	43.3	41.4	44.4	45.4	46.2	46.4	45.6
OPEC+ NGLs & Condensate	7.5	7.5	7.5	7.2	7.2	7.4	7.3	7.5	7.5	7.5	7.6	7.5	7.8	7.8	7.8	7.8	7.8
OPEC+ Nonconventionals	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
Total OPEC+	55.4	53.5	52.2	47.6	45.5	46.8	48.0	47.5	48.1	49.4	51.0	49.0	52.3	53.3	54.1	54.4	53.5
Total Supply Oil	100.4	100.6	100.4	91.8	91.0	92.3	93.9	92.3	94.2	96.3	98.4	95.3	99.6	101.3	102.7	103.0	101.7
Memo items:																	
Call on OPEC+ crude + Stock ch	46.4	44.9	38.2	31.5	39.5	41.2	37.6	41.0	41.4	42.8	43.6	42.2	43.0	43.0	43.8	43.6	43.3

¹ From Sept 2021 OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libya, Iran, Venezuela held at most recent level through 2022.

² OECD Americas excludes Mexico

³ FSU excludes Russia, Kazakhstan, Azerbaijan

⁴ Other Asia excludes Brunei, Malaysia

⁵ Middle East excludes Oman, Bahrain

⁶ Africa excludes Sudan, South Sudan

**Table 2
SUMMARY OF GLOBAL OIL DEMAND**

	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Demand (mb/d)																
Americas	25.61	24.48	20.00	22.79	23.14	22.61	22.77	24.26	25.17	24.97	24.30	24.50	25.11	25.56	25.12	25.08
Europe	14.31	13.34	11.01	12.88	12.51	12.44	11.90	12.60	13.52	13.28	12.83	13.02	13.37	13.64	13.19	13.31
Asia Oceania	7.93	7.86	6.60	6.75	7.35	7.14	7.67	7.04	7.04	7.79	7.38	7.91	7.25	7.42	7.86	7.61
Total OECD	47.86	45.68	37.61	42.43	43.01	42.18	42.34	43.89	45.74	46.04	44.51	45.43	45.72	46.62	46.17	45.99
Asia	27.54	25.32	25.26	26.84	28.15	26.40	28.16	28.18	27.48	29.09	28.23	29.38	29.69	29.12	29.83	29.50
Middle East	8.24	7.85	7.09	8.18	7.78	7.72	7.70	7.82	8.43	7.91	7.97	7.86	7.96	8.53	7.99	8.09
Americas	6.29	5.77	4.99	5.70	5.90	5.59	5.84	5.90	6.14	6.08	5.99	5.93	6.08	6.25	6.23	6.12
FSU	4.72	4.57	4.05	4.65	4.67	4.49	4.54	4.66	4.83	4.85	4.72	4.72	4.69	5.02	5.08	4.88
Africa	4.24	4.12	3.41	3.72	3.91	3.79	4.07	3.93	3.81	4.01	3.95	4.12	4.03	3.92	4.09	4.04
Europe	0.78	0.74	0.68	0.77	0.77	0.74	0.74	0.74	0.80	0.78	0.77	0.75	0.76	0.80	0.79	0.77
Total Non-OECD	51.82	48.38	45.48	49.86	51.17	48.73	51.05	51.23	51.50	52.73	51.63	52.75	53.21	53.63	53.99	53.40
World	99.68	94.05	83.09	92.28	94.18	90.91	93.39	95.13	97.23	98.76	96.15	98.19	98.94	100.25	100.17	99.39
of which:																
US50	20.46	19.50	16.07	18.45	18.72	18.19	18.34	19.90	20.37	20.08	19.68	19.65	20.19	20.49	20.19	20.13
Europe 5*	8.20	7.62	5.93	7.11	7.03	6.92	6.67	7.02	7.55	7.54	7.20	7.44	7.51	7.58	7.45	7.50
China	13.55	11.82	14.00	14.57	14.80	13.80	14.57	15.20	14.85	15.15	14.94	15.11	15.62	15.50	15.53	15.44
Japan	3.74	3.78	2.93	3.06	3.53	3.33	3.73	3.08	3.07	3.66	3.39	3.83	3.21	3.36	3.71	3.53
India	4.99	4.94	3.90	4.28	5.02	4.54	5.10	4.56	4.58	5.06	4.82	5.19	5.12	4.78	5.16	5.06
Russia	3.57	3.52	3.08	3.58	3.50	3.42	3.49	3.59	3.71	3.64	3.61	3.64	3.57	3.87	3.86	3.73
Brazil	3.08	2.95	2.64	2.99	3.13	2.93	2.97	2.98	3.14	3.10	3.05	2.97	3.01	3.14	3.16	3.07
Saudi Arabia	3.12	2.93	2.77	3.30	3.01	3.00	2.77	3.07	3.38	3.04	3.07	2.78	2.92	3.26	2.95	2.98
Canada	2.51	2.42	1.97	2.25	2.14	2.19	2.12	2.10	2.43	2.43	2.27	2.35	2.33	2.54	2.46	2.42
Korea	2.60	2.53	2.45	2.36	2.40	2.44	2.55	2.50	2.57	2.66	2.57	2.62	2.57	2.60	2.63	2.61
Mexico	1.96	1.85	1.40	1.50	1.58	1.58	1.62	1.63	1.72	1.79	1.69	1.79	1.93	1.89	1.79	1.85
Iran	1.93	1.97	1.78	1.89	1.88	1.88	1.97	1.78	1.86	1.89	1.87	1.99	1.89	1.91	1.91	1.92
Total	69.70	65.82	58.90	65.36	66.75	64.22	65.90	67.41	69.23	70.04	68.16	69.37	69.87	70.91	70.80	70.24
% of World	69.9%	70.0%	70.9%	70.8%	70.9%	70.6%	70.6%	70.9%	71.2%	70.9%	70.9%	70.7%	70.6%	70.7%	70.7%	70.7%
Annual Change (% per annum)																
Americas	0.1	-2.8	-21.4	-12.4	-10.2	-11.7	-7.0	21.3	10.4	7.9	7.5	7.6	3.5	1.6	0.6	3.2
Europe	0.0	-5.3	-22.8	-12.6	-11.6	-13.1	-10.8	14.4	5.0	6.1	3.2	9.4	6.1	0.9	-0.7	3.7
Asia Oceania	-1.0	-6.0	-12.6	-12.3	-9.6	-10.0	-2.5	6.7	4.3	5.9	3.4	3.2	2.9	5.3	1.0	3.1
Total OECD	-0.1	-4.1	-20.4	-12.5	-10.5	-11.9	-7.3	16.7	7.8	7.0	5.5	7.3	4.2	1.9	0.3	3.3
Asia	2.0	-7.0	-8.5	-1.6	0.4	-4.1	11.2	11.6	2.4	3.3	6.9	4.3	5.3	6.0	2.5	4.5
Middle East	0.2	-2.1	-12.2	-5.6	-5.3	-6.3	-2.0	10.4	3.1	1.7	3.2	2.1	1.8	1.1	1.0	1.5
Americas	0.6	-6.5	-20.5	-10.7	-6.8	-11.1	1.2	18.3	7.8	3.0	7.2	1.5	3.0	1.7	2.4	2.2
FSU	0.8	1.6	-12.6	-5.1	-3.7	-5.0	-0.7	15.0	3.8	4.0	5.2	3.9	0.8	3.8	4.6	3.3
Africa	0.7	-4.3	-20.4	-10.1	-8.1	-10.7	-1.3	15.3	2.5	2.5	4.3	1.2	2.4	2.8	2.0	2.1
Europe	3.4	-1.8	-13.4	-4.0	-3.1	-5.6	0.6	8.7	3.9	2.4	3.8	0.6	3.2	0.1	0.1	1.0
Total Non-OECD	1.4	-5.1	-12.0	-4.4	-2.5	-6.0	5.5	12.7	3.3	3.0	6.0	3.3	3.9	4.1	2.4	3.4
World	0.7	-4.6	-16.0	-8.3	-6.3	-8.8	-0.7	14.5	5.4	4.9	5.8	5.1	4.0	3.1	1.4	3.4
Annual Change (mb/d)																
Americas	0.02	-0.70	-5.45	-3.24	-2.62	-3.00	-1.71	4.26	2.38	1.83	1.69	1.73	0.85	0.39	0.15	0.78
Europe	0.00	-0.75	-3.25	-1.86	-1.64	-1.88	-1.44	1.59	0.65	0.77	0.40	1.12	0.77	0.12	-0.09	0.48
Asia Oceania	-0.08	-0.50	-0.95	-0.95	-0.78	-0.79	-0.19	0.44	0.29	0.44	0.24	0.25	0.21	0.38	0.07	0.23
Total OECD	-0.05	-1.96	-9.66	-6.05	-5.04	-5.67	-3.34	6.28	3.31	3.03	2.33	3.10	1.83	0.89	0.13	1.48
Asia	0.55	-1.91	-2.35	-0.42	0.11	-1.14	2.84	2.92	0.64	0.94	1.83	1.22	1.51	1.64	0.74	1.28
Middle East	0.02	-0.17	-0.99	-0.48	-0.43	-0.52	-0.15	0.74	0.26	0.13	0.24	0.16	0.14	0.09	0.08	0.12
Americas	0.04	-0.40	-1.29	-0.69	-0.43	-0.70	0.07	0.91	0.45	0.17	0.40	0.09	0.18	0.11	0.15	0.13
FSU	0.04	0.07	-0.59	-0.25	-0.18	-0.24	-0.03	0.61	0.18	0.19	0.24	0.18	0.04	0.18	0.22	0.16
Africa	0.03	-0.18	-0.87	-0.42	-0.34	-0.45	-0.05	0.52	0.09	0.10	0.16	0.05	0.10	0.11	0.08	0.08
Europe	0.03	-0.01	-0.11	-0.03	-0.02	-0.04	0.00	0.06	0.03	0.02	0.03	0.00	0.02	0.00	0.00	0.01
Total Non-OECD	0.70	-2.61	-6.18	-2.29	-1.30	-3.09	2.68	5.76	1.64	1.55	2.90	1.70	1.98	2.13	1.27	1.77
World	0.65	-4.56	-15.84	-8.34	-6.34	-8.76	-0.66	12.04	4.95	4.58	5.23	4.80	3.81	3.02	1.40	3.25
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	-0.08	0.17	-0.01	0.09	0.01	0.07	0.00	0.02	-0.02	-0.03	-0.01	0.14	0.06	0.05	0.05	0.07
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.12	0.04	0.05	0.03	0.02	0.02	0.01	0.02
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.17	0.01	-0.04	-0.01	-0.02	0.02	0.01	0.00
Total OECD	-0.08	0.17	-0.01	0.09	0.01	0.07	-0.00	0.06	-0.07	0.03	0.00	0.16	0.07	0.09	0.06	0.09
Asia	0.00	0.12	-0.05	0.05	0.05	0.04	0.05	0.11	-0.33	-0.14	-0.08	-0.01	-0.01	-0.08	-0.22	-0.08
Middle East	0.00	0.01	0.01	0.01	0.02	0.01	0.02	0.06	0.05	0.01	0.04	0.02	0.04	0.09	0.04	0.05
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.11	0.03	0.05	0.01	0.02	0.02	0.01	0.02
FSU	0.00	0.00	0.00	-0.01	-0.10	-0.03	-0.03	-0.02	0.02	-0.06	-0.02	-0.04	-0.01	0.04	0.02	0.00
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	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	-0.01	0.00	0.00	0.00	0.00	-0.02	-0.02	-0.01	-0.01
Total Non-OECD	0.00	0.14	-0.04	0.05	-0.03	0.03	0.04	0.21	-0.14	-0.15	-0.01	-0.01	0.03	0.07	-0.14	-0.01
World	-0.08	0.31	-0.05	0.15	-0.02	0.10	0.03	0.27	-0.21	-0.12	-0.01	0.14	0.10	0.16	-0.08	0.08
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	-0.03	0.39	0.09	0.18	0.06	0.18	-0.28	0.32	-0.36	-0.10	-0.11	0.11	-0.17	0.36	0.04	0.09

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21 ²	Latest month vs.	
										May 21	Jun 20
Americas											
LPG and ethane	3.40	3.46	3.16	3.75	3.66	3.48	3.29	3.60	3.53	-0.06	0.45
Naphtha	0.25	0.25	0.25	0.26	0.23	0.27	0.28	0.27	0.25	-0.02	0.01
Motor gasoline	11.07	9.56	10.05	9.58	9.41	10.58	10.24	10.63	10.88	0.25	1.09
Jet and kerosene	2.07	1.25	1.12	1.26	1.30	1.50	1.43	1.48	1.59	0.11	0.69
Gasoil/diesel oil	5.40	4.96	4.83	5.12	5.12	5.04	5.11	5.01	5.01	0.00	0.39
Residual fuel oil	0.58	0.45	0.54	0.46	0.58	0.54	0.42	0.57	0.64	0.07	0.20
Other products	2.84	2.68	2.84	2.73	2.47	2.84	2.81	2.77	2.96	0.19	0.19
Total	25.61	22.61	22.79	23.14	22.77	24.25	23.57	24.33	24.86	0.53	3.02
Europe											
LPG and ethane	1.20	1.08	1.10	1.06	1.12	1.07	1.09	1.00	1.11	0.11	0.09
Naphtha	1.02	1.07	1.03	1.16	1.22	0.99	1.05	1.00	0.93	-0.07	-0.09
Motor gasoline	2.04	1.75	2.05	1.72	1.57	1.92	1.74	1.88	2.15	0.28	0.31
Jet and kerosene	1.56	0.73	0.66	0.65	0.61	0.67	0.62	0.64	0.76	0.12	0.38
Gasoil/diesel oil	6.46	5.96	6.09	6.07	5.70	6.12	6.01	5.81	6.56	0.75	0.72
Residual fuel oil	0.84	0.68	0.69	0.68	0.69	0.69	0.69	0.68	0.70	0.01	0.05
Other products	1.20	1.15	1.26	1.17	1.00	1.13	1.08	1.14	1.17	0.03	-0.08
Total	14.31	12.44	12.88	12.51	11.90	12.60	12.29	12.15	13.37	1.23	1.39
Asia Oceania											
LPG and ethane	0.82	0.78	0.72	0.79	0.86	0.77	0.78	0.72	0.81	0.09	0.13
Naphtha	1.98	1.82	1.82	1.75	1.97	1.86	1.85	1.88	1.85	-0.03	0.08
Motor gasoline	1.52	1.35	1.42	1.42	1.32	1.37	1.39	1.33	1.39	0.06	0.02
Jet and kerosene	0.89	0.61	0.37	0.69	0.82	0.47	0.50	0.46	0.44	-0.02	0.09
Gasoil/diesel oil	1.93	1.79	1.73	1.89	1.82	1.82	1.87	1.75	1.84	0.09	0.05
Residual fuel oil	0.43	0.43	0.39	0.44	0.50	0.41	0.42	0.39	0.41	0.02	0.02
Other products	0.37	0.35	0.30	0.38	0.37	0.35	0.33	0.34	0.37	0.03	0.07
Total	7.93	7.14	6.75	7.35	7.67	7.04	7.15	6.87	7.11	0.25	0.46
OECD											
LPG and ethane	5.41	5.32	4.98	5.60	5.64	5.32	5.17	5.32	5.46	0.14	0.68
Naphtha	3.26	3.15	3.10	3.16	3.42	3.12	3.18	3.15	3.03	-0.12	0.00
Motor gasoline	14.62	12.67	13.52	12.72	12.31	13.87	13.37	13.83	14.42	0.58	1.42
Jet and kerosene	4.51	2.59	2.14	2.60	2.72	2.64	2.55	2.58	2.79	0.21	1.16
Gasoil/diesel oil	13.79	12.71	12.65	13.08	12.64	12.98	12.98	12.57	13.40	0.83	1.16
Residual fuel oil	1.85	1.55	1.62	1.58	1.77	1.64	1.52	1.64	1.75	0.11	0.27
Other products	4.42	4.19	4.41	4.28	3.83	4.33	4.23	4.25	4.50	0.25	0.18
Total	47.86	42.18	42.43	43.01	42.34	43.89	43.00	43.35	45.35	2.00	4.88

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, Canada and Chile.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21 ²	Latest month vs.	
										May 21	Jun 20
United States³											
LPG and ethane	2.63	2.74	2.48	3.01	2.85	2.76	2.57	2.90	2.81	-0.08	0.43
Naphtha	0.21	0.18	0.19	0.19	0.16	0.21	0.21	0.21	0.20	-0.01	0.02
Motor gasoline	9.27	8.05	8.51	8.06	8.00	9.07	8.79	9.14	9.27	0.14	0.98
Jet and kerosene	1.75	1.08	0.97	1.10	1.14	1.34	1.29	1.32	1.43	0.11	0.64
Gasoil/diesel oil	4.08	3.78	3.70	3.94	3.97	3.93	3.99	3.87	3.94	0.07	0.45
Residual fuel oil	0.27	0.21	0.32	0.22	0.26	0.25	0.14	0.26	0.34	0.08	0.13
Other products	2.24	2.13	2.28	2.21	1.95	2.34	2.35	2.26	2.42	0.16	0.19
Total	20.46	18.19	18.45	18.72	18.34	19.90	19.34	19.96	20.41	0.46	2.83
Japan											
LPG and ethane	0.43	0.41	0.35	0.42	0.50	0.40	0.44	0.35	0.41	0.05	0.07
Naphtha	0.74	0.68	0.67	0.71	0.74	0.68	0.70	0.69	0.65	-0.04	0.03
Motor gasoline	0.85	0.76	0.81	0.78	0.71	0.71	0.74	0.68	0.73	0.05	-0.01
Jet and kerosene	0.47	0.36	0.19	0.44	0.55	0.24	0.27	0.23	0.21	-0.01	0.04
Diesel	0.44	0.40	0.39	0.42	0.41	0.39	0.41	0.35	0.40	0.06	0.01
Other gasoil	0.33	0.30	0.27	0.33	0.35	0.28	0.30	0.26	0.28	0.02	0.00
Residual fuel oil	0.23	0.21	0.19	0.23	0.27	0.21	0.22	0.19	0.22	0.03	0.02
Other products	0.24	0.20	0.19	0.20	0.20	0.18	0.18	0.20	0.17	-0.03	0.00
Total	3.74	3.33	3.06	3.53	3.73	3.08	3.26	2.93	3.06	0.14	0.16
Germany											
LPG and ethane	0.12	0.11	0.11	0.10	0.11	0.13	0.13	0.12	0.13	0.01	0.03
Naphtha	0.27	0.29	0.28	0.32	0.35	0.28	0.30	0.31	0.23	-0.08	-0.04
Motor gasoline	0.50	0.45	0.49	0.44	0.40	0.44	0.42	0.43	0.48	0.05	0.02
Jet and kerosene	0.22	0.10	0.09	0.08	0.09	0.12	0.10	0.13	0.12	0.00	0.07
Diesel	0.76	0.71	0.75	0.71	0.60	0.70	0.69	0.65	0.76	0.11	0.07
Other gasoil	0.34	0.36	0.25	0.33	0.22	0.26	0.27	0.25	0.25	0.00	-0.11
Residual fuel oil	0.06	0.05	0.05	0.05	0.05	0.04	0.05	0.04	0.04	0.00	-0.01
Other products	0.08	0.08	0.09	0.07	0.05	0.06	0.05	0.07	0.06	0.00	-0.01
Total	2.35	2.15	2.12	2.11	1.88	2.02	2.01	1.99	2.07	0.08	0.02
Italy											
LPG and ethane	0.10	0.09	0.09	0.10	0.11	0.09	0.09	0.08	0.09	0.01	0.01
Naphtha	0.11	0.10	0.11	0.12	0.11	0.10	0.12	0.11	0.08	-0.03	-0.03
Motor gasoline	0.18	0.14	0.17	0.14	0.13	0.17	0.15	0.17	0.19	0.02	0.04
Jet and kerosene	0.11	0.04	0.04	0.04	0.02	0.04	0.03	0.03	0.05	0.02	0.03
Diesel	0.47	0.42	0.48	0.45	0.44	0.49	0.46	0.48	0.53	0.05	0.08
Other gasoil	0.07	0.06	0.06	0.07	0.05	0.06	0.05	0.05	0.07	0.02	0.02
Residual fuel oil	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.06	0.01	0.01
Other products	0.15	0.14	0.15	0.15	0.14	0.16	0.15	0.16	0.16	0.00	0.01
Total	1.26	1.05	1.17	1.13	1.04	1.15	1.09	1.13	1.24	0.11	0.18
France											
LPG and ethane	0.14	0.11	0.12	0.11	0.12	0.13	0.13	0.13	0.12	-0.01	0.03
Naphtha	0.11	0.12	0.11	0.14	0.15	0.12	0.13	0.11	0.11	0.00	-0.03
Motor gasoline	0.20	0.17	0.22	0.17	0.18	0.20	0.17	0.19	0.24	0.05	0.04
Jet and kerosene	0.17	0.09	0.08	0.08	0.08	0.07	0.06	0.07	0.08	0.02	0.04
Diesel	0.76	0.67	0.76	0.69	0.68	0.72	0.68	0.67	0.81	0.14	0.09
Other gasoil	0.14	0.14	0.06	0.13	0.17	0.09	0.11	0.08	0.08	-0.01	-0.02
Residual fuel oil	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.00
Other products	0.11	0.09	0.11	0.09	0.07	0.09	0.06	0.09	0.13	0.05	0.04
Total	1.69	1.42	1.51	1.44	1.47	1.45	1.38	1.37	1.61	0.23	0.19
United Kingdom											
LPG and ethane	0.13	0.13	0.12	0.12	0.13	0.08	0.10	0.07	0.08	0.01	-0.04
Naphtha	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	-0.02
Motor gasoline	0.29	0.22	0.24	0.23	0.20	0.26	0.23	0.26	0.28	0.02	0.09
Jet and kerosene	0.34	0.19	0.13	0.17	0.17	0.14	0.16	0.14	0.13	-0.01	0.04
Diesel	0.52	0.43	0.44	0.46	0.42	0.50	0.47	0.48	0.55	0.07	0.20
Other gasoil	0.14	0.11	0.13	0.11	0.11	0.14	0.14	0.14	0.14	0.00	0.04
Residual fuel oil	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.00	0.00
Other products	0.12	0.10	0.10	0.10	0.09	0.11	0.10	0.10	0.11	0.01	0.02
Total	1.58	1.21	1.20	1.22	1.16	1.25	1.23	1.21	1.31	0.10	0.33
Canada											
LPG and ethane	0.39	0.37	0.35	0.37	0.46	0.38	0.39	0.37	0.38	0.01	0.00
Naphtha	0.02	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.00	-0.01
Motor gasoline	0.88	0.75	0.81	0.74	0.67	0.76	0.72	0.73	0.84	0.11	0.03
Jet and kerosene	0.17	0.07	0.06	0.06	0.05	0.05	0.04	0.05	0.06	0.01	0.00
Diesel	0.26	0.27	0.26	0.26	0.27	0.27	0.27	0.26	0.27	0.01	0.00
Other gasoil	0.38	0.33	0.35	0.35	0.32	0.30	0.30	0.32	0.29	-0.04	-0.01
Residual fuel oil	0.04	0.04	0.03	0.03	0.04	0.03	0.05	0.02	0.03	0.01	0.01
Other products	0.36	0.33	0.36	0.29	0.28	0.28	0.26	0.28	0.31	0.03	0.00
Total	2.51	2.19	2.25	2.14	2.12	2.10	2.06	2.05	2.19	0.14	0.02

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)

	2020	2021	2022	1Q21	2Q21	3Q21	4Q21	1Q22	Jun 21	Jul 21	Aug 21
OPEC											
Crude Oil											
Saudi Arabia	9.21			8.47	8.53				8.92	9.46	9.56
Iran	2.00			2.30	2.42				2.45	2.50	2.50
Iraq	4.05			3.88	3.94				3.93	3.97	4.07
UAE	2.86			2.61	2.64				2.68	2.72	2.77
Kuwait	2.41			2.34	2.35				2.38	2.42	2.44
Angola	1.27			1.14	1.12				1.07	1.10	1.13
Nigeria	1.49			1.39	1.34				1.31	1.32	1.24
Libya	0.35			1.15	1.15				1.17	1.18	1.14
Algeria	0.90			0.87	0.89				0.90	0.91	0.92
Congo	0.30			0.28	0.27				0.26	0.25	0.26
Gabon	0.20			0.17	0.18				0.18	0.18	0.19
Equatorial Guinea	0.11			0.11	0.11				0.11	0.10	0.10
Venezuela	0.53			0.55	0.54				0.60	0.57	0.57
Total Crude Oil	25.69			25.26	25.49				25.96	26.68	26.89
<i>of which Neutral Zone¹</i>	<i>0.11</i>			<i>0.23</i>	<i>0.25</i>				<i>0.28</i>	<i>0.28</i>	<i>0.28</i>
Total NGLs²	5.17	5.28	5.50	5.18	5.28	5.32	5.32	5.50	5.32	5.32	5.32
Total OPEC³	30.86			30.45	30.77				31.28	32.00	32.21
NON-OPEC⁴											
OECD											
Americas	23.85	24.12	25.39	23.27	24.24	24.15	24.79	24.96	24.49	24.57	24.16
United States	16.56	16.53	17.55	15.64	16.85	16.61	16.99	17.07	16.89	16.93	16.63
Mexico	1.93	1.94	2.00	1.93	1.96	1.90	1.97	1.98	1.97	1.97	1.78
Canada	5.35	5.64	5.83	5.69	5.42	5.63	5.82	5.91	5.62	5.66	5.74
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.56	3.39	3.50	3.59	3.09	3.30	3.59	3.62	2.95	3.32	3.33
UK	1.08	0.90	0.92	1.03	0.77	0.86	0.95	0.96	0.69	0.82	0.87
Norway	2.00	2.04	2.14	2.11	1.89	1.98	2.18	2.21	1.84	2.04	2.00
Others	0.48	0.45	0.45	0.45	0.43	0.47	0.46	0.45	0.42	0.46	0.46
Asia Oceania	0.54	0.50	0.50	0.52	0.46	0.50	0.52	0.51	0.39	0.48	0.50
Australia	0.46	0.43	0.43	0.45	0.39	0.43	0.45	0.44	0.32	0.40	0.43
Others	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07
Total OECD	27.94	28.01	29.40	27.37	27.79	27.95	28.90	29.09	27.84	28.37	28.00
NON-OECD											
Former USSR	13.50	13.73	14.73	13.42	13.69	13.63	14.15	14.50	13.67	13.72	13.41
Russia	10.61	10.85	11.69	10.53	10.80	10.85	11.19	11.51	10.78	10.82	10.77
Azerbaijan	0.70	0.70	0.73	0.70	0.69	0.70	0.72	0.72	0.71	0.70	0.69
Kazakhstan	1.84	1.82	1.95	1.84	1.84	1.72	1.88	1.91	1.84	1.85	1.59
Others	0.36	0.36	0.37	0.35	0.35	0.36	0.36	0.36	0.35	0.35	0.36
Asia	6.99	6.95	6.87	7.01	6.96	6.89	6.93	6.91	7.00	6.88	6.89
China	3.97	4.07	4.07	4.06	4.09	4.07	4.07	4.08	4.13	4.05	4.08
Malaysia	0.60	0.57	0.58	0.61	0.57	0.54	0.58	0.58	0.57	0.55	0.52
India	0.75	0.73	0.71	0.74	0.72	0.73	0.72	0.72	0.73	0.73	0.73
Indonesia	0.73	0.68	0.65	0.70	0.68	0.67	0.67	0.66	0.68	0.68	0.67
Others	0.93	0.89	0.86	0.90	0.90	0.89	0.89	0.87	0.90	0.87	0.89
Europe	0.12	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Americas	5.32	5.38	5.60	5.27	5.31	5.46	5.49	5.49	5.28	5.48	5.43
Brazil	3.04	3.06	3.25	2.95	3.04	3.12	3.15	3.18	3.00	3.15	3.09
Argentina	0.61	0.64	0.66	0.62	0.63	0.64	0.65	0.65	0.63	0.64	0.64
Colombia	0.79	0.73	0.70	0.75	0.72	0.74	0.73	0.71	0.70	0.74	0.74
Ecuador	0.48	0.52	0.52	0.51	0.50	0.52	0.54	0.53	0.50	0.52	0.53
Others	0.40	0.43	0.48	0.44	0.42	0.44	0.43	0.43	0.45	0.44	0.44
Middle East	3.06	3.14	3.29	3.10	3.12	3.15	3.20	3.26	3.12	3.14	3.15
Oman	0.96	0.98	1.08	0.96	0.96	0.99	1.02	1.05	0.97	0.97	0.98
Qatar	1.82	1.87	1.90	1.86	1.87	1.87	1.87	1.90	1.87	1.87	1.87
Others	0.28	0.29	0.31	0.28	0.28	0.29	0.30	0.31	0.29	0.29	0.29
Africa	1.38	1.31	1.27	1.32	1.35	1.29	1.29	1.29	1.35	1.33	1.30
Egypt	0.60	0.57	0.55	0.57	0.58	0.57	0.57	0.56	0.58	0.58	0.57
Others	0.78	0.74	0.72	0.75	0.77	0.72	0.73	0.73	0.77	0.76	0.73
Total Non-OECD	30.37	30.62	31.85	30.24	30.54	30.53	31.17	31.56	30.53	30.66	30.29
Processing gains ⁵	2.11	2.25	2.38	2.13	2.22	2.34	2.32	2.38	2.28	2.35	2.38
Global Biofuels	2.58	2.80	3.05	2.14	2.91	3.26	2.90	2.52	3.12	3.30	3.26
TOTAL NON-OPEC	63.01	63.69	66.67	61.88	63.47	64.08	65.29	65.55	63.77	64.67	63.93
TOTAL SUPPLY	93.87			92.32	94.24				95.05	96.67	96.14

¹ Neutral Zone production is already included in Saudi Arabia and Kuwait production with their respective shares.

² Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. NGLs in Qatar and Nigeria and non-oil inputs to Saudi Arabian MTBE.

³ OPEC data based on today's membership throughout the time series.

⁴ Comprises crude oil, condensates, NGLs and oil from non-conventional sources.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 3a
OIL SUPPLY IN OECD COUNTRIES¹
(thousand of barrels per day)

	2020	2021	2022	1Q21	2Q21	3Q21	4Q21	1Q22	Jun 21	Jul 21	Aug 21
United States											
Alaska	448	437	449	456	443	400	451	461	440	367	423
California	404	372	358	377	374	370	367	363	372	372	370
Texas	4854	4730	5064	4399	4814	4850	4853	4917	4791	4858	4877
Federal Gulf of Mexico ²	1644	1727	1907	1801	1800	1527	1782	1858	1825	1838	1541
Other US Lower 48	3934	3852	4150	3659	3852	3941	3953	4095	3880	3900	3960
NGLs ³	5175	5305	5515	4860	5459	5413	5478	5270	5474	5484	5349
Other Hydrocarbons	100	103	110	91	104	109	106	102	109	114	114
Total	16558	16526	17553	15644	16847	16610	16989	17067	16891	16932	16633
Canada											
Alberta Light/Medium/Heavy	423	424	413	418	429	425	422	417	420	429	424
Alberta Bitumen	1718	1996	2244	1893	1886	2037	2167	2142	1909	1908	2016
Saskatchewan	435	438	423	448	437	436	432	429	440	435	438
Other Crude	490	466	435	469	470	464	463	436	483	461	465
NGLs	949	1002	1025	1015	1011	973	1011	1038	991	976	982
Other Upgraders	219	173	173	179	163	174	179	194	185	194	190
Synthetic Crudes	1116	1141	1116	1268	1029	1118	1151	1249	1191	1252	1223
Total	5349	5641	5829	5689	5424	5627	5824	5905	5619	5656	5737
Mexico											
Crude	1721	1764	1833	1750	1781	1729	1795	1805	1794	1795	1606
NGLs	206	172	161	175	175	171	168	165	171	172	172
Total	1932	1941	1999	1930	1961	1905	1968	1975	1970	1972	1782
UK											
Brent Fields	35	27	22	36	29	21	23	26	29	28	17
Forties Fields	297	193	191	259	133	163	219	213	10	112	183
Ninian Fields	31	24	21	28	24	23	24	23	30	18	24
Flotta Fields	51	61	71	61	37	70	73	73	65	60	75
Other Fields	575	528	542	558	505	513	538	553	526	549	496
NGLs	88	67	72	85	42	70	73	73	26	54	73
Total	1078	901	919	1027	769	860	950	960	687	822	870
Norway⁵											
Ekofisk-Ula Area	132	136	126	138	141	127	138	135	151	114	126
Oseberg-Troll Area	234	230	258	228	190	243	259	260	212	243	249
Statfjord-Gullfaks Area	230	270	274	265	244	275	293	286	246	257	294
Haltenbanken Area	274	269	295	290	227	277	281	285	196	287	284
Sleipner-Frigg Area	743	829	887	800	824	822	871	882	817	805	822
Other Fields	101	46	44	82	67	-34	70	100	60	56	-40
NGLs	288	259	253	304	200	266	267	263	163	272	264
Total	2001	2039	2137	2106	1895	1976	2179	2211	1844	2035	1998
Other OECD Europe											
Denmark	71	65	61	63	67	66	65	63	66	67	66
Italy	101	103	112	104	79	114	114	113	82	110	111
Turkey	62	66	67	64	67	67	67	67	69	67	67
Other	90	103	97	105	100	104	102	100	88	106	104
NGLs	7	7	6	7	7	7	7	7	7	7	7
Non-Conventional Oils	151	108	103	112	105	108	108	103	113	107	110
Total	481	452	446	454	425	467	463	453	424	465	465
Australia											
Gippsland Basin	8	5	5	5	6	6	6	6	6	6	6
Cooper-Eromanga Basin	35	25	22	27	25	24	24	23	25	24	24
Carnarvon Basin	106	113	113	106	105	123	120	117	107	121	127
Other Crude	202	190	204	204	163	182	209	206	114	162	182
NGLs	113	96	90	106	92	92	92	91	70	91	95
Total	464	429	434	447	391	427	450	443	321	404	434
Other OECD Asia Oceania											
New Zealand	21	18	17	19	18	18	18	17	18	18	18
Japan	4	4	4	4	4	4	4	4	4	4	4
NGLs	11	10	9	11	10	10	10	10	9	10	10
Non-Conventional Oils	34	38	39	34	38	40	40	39	38	43	38
Total	71	71	70	69	71	72	71	71	70	75	70
OECD											
Crude Oil	19474	19516	20710	19116	19345	19388	20203	20477	19275	19580	19361
NGLs	6845	6926	7140	6569	7005	7010	7113	6926	6921	7075	6960
Non-Conventional Oils ⁴	1624	1568	1547	1689	1442	1554	1589	1692	1641	1715	1679
Total	27942	28010	29397	27373	27793	27953	28904	29095	27836	28370	28000

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 3b
WORLD OIL PRODUCTION (Including OPEC+ based on current agreement ¹)
(million barrels per day)

	2020	2021	2022	1Q21	2Q21	3Q21	4Q21	1Q22	Jun 21	Jul 21	Aug 21
OPEC+											
Crude Oil											
Algeria	0.90	0.91	0.99	0.87	0.89	0.92	0.95	0.98	0.90	0.91	0.92
Angola	1.27	1.15	1.16	1.14	1.12	1.12	1.20	1.18	1.07	1.10	1.13
Azerbaijan	0.61	0.60	0.61	0.59	0.60	0.61	0.62	0.61	0.61	0.61	0.60
Bahrain	0.17	0.18	0.19	0.17	0.17	0.18	0.19	0.19	0.17	0.18	0.18
Brunei	0.08	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.09	0.07	0.09
Congo	0.30	0.28	0.31	0.28	0.27	0.27	0.29	0.30	0.26	0.25	0.26
Equatorial Guinea	0.11	0.11	0.12	0.11	0.11	0.10	0.12	0.12	0.11	0.10	0.10
Gabon	0.20	0.17	0.18	0.17	0.18	0.18	0.17	0.17	0.18	0.18	0.19
Iran	2.00	2.43	2.50	2.30	2.42	2.50	2.50	2.50	2.45	2.50	2.50
Iraq	4.05	4.02	4.51	3.88	3.94	4.05	4.19	4.33	3.93	3.97	4.07
Kazakhstan	1.50	1.49	1.63	1.49	1.52	1.40	1.54	1.59	1.51	1.53	1.28
Kuwait	2.41	2.42	2.72	2.34	2.35	2.45	2.53	2.61	2.38	2.42	2.44
Libya	0.35	1.15	1.14	1.15	1.15	1.15	1.14	1.14	1.17	1.18	1.14
Malaysia	0.46	0.43	0.44	0.45	0.43	0.39	0.44	0.44	0.43	0.40	0.38
Mexico	1.66	1.66	1.69	1.67	1.69	1.61	1.67	1.67	1.69	1.68	1.48
Nigeria	1.49	1.35	1.53	1.39	1.34	1.27	1.39	1.46	1.31	1.32	1.24
Oman	0.76	0.76	0.85	0.73	0.74	0.76	0.80	0.82	0.74	0.75	0.76
Russia	9.42	9.60	10.38	9.26	9.54	9.68	9.91	10.23	9.54	9.62	9.71
Saudi Arabia	9.21	9.13	10.67	8.47	8.53	9.57	9.91	10.23	8.92	9.46	9.56
South Sudan	0.16	0.15	0.15	0.14	0.16	0.15	0.15	0.15	0.17	0.16	0.15
Sudan	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
UAE	2.86	2.72	3.08	2.61	2.64	2.76	2.86	2.95	2.68	2.72	2.77
Venezuela	0.53	0.56	0.57	0.55	0.54	0.57	0.57	0.57	0.60	0.57	0.57
Total Crude Oil	40.57	41.39	45.58	39.92	40.49	41.83	43.28	44.37	40.96	41.73	41.58
<i>of which Neutral Zone</i>	<i>0.11</i>			<i>0.23</i>	<i>0.25</i>				<i>0.28</i>	<i>0.28</i>	<i>0.28</i>
Total NGLs	7.44	7.65	7.94	7.59	7.64	7.61	7.75	7.93	7.67	7.63	7.48
TOTAL OPEC+	48.0	49.0	53.5	47.5	48.1	49.4	51.0	52.3	48.6	49.4	49.1
NON-OPEC+											
OECD											
Americas²	21.92	22.18	23.39	21.34	22.28	22.25	22.82	22.98	22.52	22.60	22.38
United States	16.56	16.53	17.55	15.64	16.85	16.61	16.99	17.07	16.89	16.93	16.63
Canada	5.35	5.64	5.83	5.69	5.42	5.63	5.82	5.91	5.62	5.66	5.74
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.56	3.39	3.50	3.59	3.09	3.30	3.59	3.62	2.95	3.32	3.33
UK	1.08	0.90	0.92	1.03	0.77	0.86	0.95	0.96	0.69	0.82	0.87
Norway	2.00	2.04	2.14	2.11	1.89	1.98	2.18	2.21	1.84	2.03	2.00
Others	0.48	0.45	0.45	0.45	0.43	0.47	0.46	0.45	0.42	0.46	0.46
Asia Oceania	0.54	0.50	0.50	0.52	0.46	0.50	0.52	0.51	0.39	0.48	0.50
Australia	0.46	0.43	0.43	0.45	0.39	0.43	0.45	0.44	0.32	0.40	0.43
Others	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07
Total OECD (non-OPEC+)	26.01	26.07	27.40	25.44	25.83	26.05	26.94	27.12	25.87	26.40	26.22
Non-OECD											
FSU	0.36	0.36	0.37	0.35	0.35	0.36	0.36	0.36	0.35	0.35	0.36
Asia	6.27	6.26	6.17	6.29	6.28	6.25	6.24	6.22	6.32	6.24	6.26
China	3.97	4.07	4.07	4.06	4.09	4.07	4.07	4.08	4.13	4.05	4.08
India	0.75	0.73	0.71	0.74	0.72	0.73	0.72	0.72	0.73	0.73	0.73
Indonesia	0.73	0.68	0.65	0.70	0.68	0.67	0.67	0.66	0.68	0.68	0.67
Others	0.82	0.78	0.74	0.79	0.79	0.78	0.77	0.75	0.79	0.78	0.78
Europe	0.12	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Americas	5.32	5.38	5.60	5.27	5.31	5.46	5.49	5.49	5.28	5.48	5.43
Brazil	3.04	3.06	3.25	2.95	3.04	3.12	3.15	3.18	3.00	3.15	3.09
Argentina	0.61	0.64	0.66	0.62	0.63	0.64	0.65	0.65	0.63	0.64	0.64
Colombia	0.79	0.73	0.70	0.75	0.72	0.74	0.73	0.71	0.70	0.74	0.74
Ecuador	0.48	0.52	0.52	0.51	0.50	0.52	0.54	0.53	0.50	0.52	0.53
Others	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Middle East	1.92	1.97	2.01	1.96	1.97	1.97	1.98	2.01	1.97	1.97	1.97
Qatar	1.82	1.87	1.90	1.86	1.87	1.87	1.87	1.90	1.87	1.87	1.87
Others	0.10	0.10	0.11	0.10	0.10	0.10	0.11	0.11	0.10	0.10	0.11
Africa	1.2	1.1	1.1	1.12	1.12	1.07	1.08	1.08	1.12	1.11	1.09
Egypt	0.60	0.57	0.55	0.57	0.58	0.57	0.57	0.56	0.58	0.58	0.57
Others	0.56	0.53	0.51	0.55	0.54	0.50	0.52	0.52	0.54	0.53	0.51
Total non-OECD (non-OPEC+)	15.15	15.18	15.31	15.11	15.14	15.22	15.25	15.27	15.15	15.27	15.22
Processing gains	2.11	2.25	2.38	2.13	2.22	2.34	2.32	2.38	2.28	2.35	2.38
Global biofuels	2.58	2.80	3.05	2.14	2.91	3.26	2.90	2.52	3.12	3.30	3.26
TOTAL NON-OPEC+	45.86	46.31	48.13	44.82	46.11	46.87	47.41	47.29	46.42	47.31	47.08
TOTAL SUPPLY	93.87	95.35	101.65	92.32	94.24	96.31	98.43	99.59	95.05	96.67	96.14

¹ From Sept 2021 OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libya, Iran, Venezuela held at most recent level through 2022.

² Excludes Mexico

Table 4
OECD STOCKS AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Mar2021	Apr2021	May2021	Jun2021	Jul2021*	Jul2018	Jul2019	Jul2020	3Q2020	4Q2020	1Q2021	2Q2021
OECD INDUSTRY-CONTROLLED STOCKS¹												
OECD Americas												
Crude	674.1	662.1	647.0	621.2	613.8	563.2	595.7	677.2	-0.36	-0.10	0.26	-0.58
Motor Gasoline	266.7	267.3	267.7	265.7	257.9	264.7	261.0	277.6	-0.28	0.17	-0.06	-0.01
Middle Distillate	210.6	202.5	207.9	210.9	209.8	199.3	209.2	244.4	-0.07	-0.11	-0.16	0.00
Residual Fuel Oil	39.8	38.6	40.4	39.0	36.5	34.7	36.3	42.6	-0.09	-0.01	0.02	-0.01
Total Products ³	735.3	737.5	755.7	761.3	765.2	752.5	802.6	857.1	0.08	-0.65	-0.65	0.29
Total⁴	1572.6	1560.9	1565.7	1548.7	1546.5	1478.3	1568.5	1715.0	-0.33	-0.83	-0.44	-0.26
OECD Europe												
Crude	352.2	340.8	340.3	340.3	343.7	363.0	357.4	383.0	0.00	-0.07	-0.21	-0.13
Motor Gasoline	90.3	95.5	97.3	86.5	84.4	82.1	87.7	94.3	-0.10	0.09	-0.10	-0.04
Middle Distillate	312.2	312.5	316.4	306.0	295.9	258.7	278.1	334.3	-0.05	-0.19	-0.06	-0.07
Residual Fuel Oil	66.6	66.2	68.0	64.7	60.4	58.7	61.3	74.2	-0.06	-0.01	-0.01	-0.02
Total Products ³	576.5	582.6	591.7	559.3	542.2	516.0	541.0	621.2	-0.20	-0.18	-0.22	-0.19
Total⁴	1006.1	1004.6	1010.6	977.9	960.3	960.7	985.0	1092.4	-0.21	-0.39	-0.42	-0.31
OECD Asia Oceania												
Crude	123.8	127.8	129.5	125.0	114.2	158.5	158.8	170.3	0.05	-0.12	-0.33	0.01
Motor Gasoline	29.1	29.0	29.0	29.4	25.0	25.9	27.8	25.7	0.02	-0.01	0.04	0.00
Middle Distillate	63.2	62.5	64.7	65.3	65.1	72.3	72.4	71.2	0.05	-0.06	-0.03	0.02
Residual Fuel Oil	17.1	19.1	17.6	16.8	17.8	19.2	18.9	18.3	0.00	-0.02	0.02	0.00
Total Products ³	166.2	168.3	170.6	170.4	167.5	174.6	181.1	181.1	0.07	-0.16	-0.02	0.05
Total⁴	346.3	355.0	360.6	357.5	342.9	396.4	403.7	413.7	0.12	-0.34	-0.38	0.12
Total OECD												
Crude	1150.0	1130.8	1116.8	1086.5	1071.7	1084.7	1111.9	1230.5	-0.31	-0.29	-0.28	-0.70
Motor Gasoline	386.0	391.7	393.9	381.7	367.3	372.7	376.5	397.6	-0.37	0.26	-0.12	-0.05
Middle Distillate	586.0	577.4	589.0	582.2	570.8	530.4	559.7	650.0	-0.07	-0.36	-0.25	-0.04
Residual Fuel Oil	123.5	123.9	125.9	120.4	114.7	112.7	116.5	135.2	-0.15	-0.04	0.03	-0.03
Total Products ³	1477.9	1488.4	1518.0	1491.0	1474.9	1443.2	1524.7	1659.3	-0.05	-0.99	-0.89	0.14
Total⁴	2925.0	2920.5	2936.9	2884.1	2849.7	2835.3	2957.2	3221.1	-0.41	-1.55	-1.24	-0.45
OECD GOVERNMENT-CONTROLLED STOCKS⁵												
OECD Americas												
Crude	637.8	633.4	627.6	621.3	621.1	660.0	644.8	656.1	-0.15	-0.04	0.00	-0.18
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	207.3	205.9	206.2	205.8	204.0	211.0	205.8	207.8	-0.01	-0.02	0.02	-0.02
Products	283.2	281.4	281.4	278.9	277.4	277.2	274.1	281.7	0.04	0.00	0.03	-0.05
OECD Asia Oceania												
Crude	374.6	374.6	374.5	374.5	374.5	383.3	378.6	377.2	0.00	-0.03	0.00	0.00
Products	38.8	38.8	38.8	38.8	38.8	38.7	38.9	39.4	0.00	0.00	0.00	0.00
Total OECD												
Crude	1219.6	1213.9	1208.3	1201.6	1199.7	1254.3	1229.2	1241.2	-0.16	-0.10	0.02	-0.20
Products	324.0	322.3	322.3	319.7	318.3	318.0	315.0	323.0	0.05	-0.01	0.03	-0.05
Total⁴	1545.8	1538.4	1532.5	1523.6	1519.5	1575.5	1546.0	1566.2	-0.11	-0.11	0.05	-0.24

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot 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 STOCKS¹ ON LAND IN SELECTED COUNTRIES

(million barrels)

	February			March			April			May			June		
	2020	2021	%	2020	2021	%	2020	2021	%	2020	2021	%	2020	2021	%
United States²															
Crude	452.6	493.2	9.0	483.3	501.9	3.8	529.0	489.7	-7.4	521.6	476.6	-8.6	532.7	448.0	-15.9
Motor Gasoline	253.1	241.1	-4.7	261.8	237.6	-9.2	258.5	238.4	-7.8	259.0	239.9	-7.4	254.5	238.2	-6.4
Middle Distillate	177.4	185.3	4.5	168.4	186.4	10.7	192.6	178.1	-7.5	218.7	185.0	-15.4	220.5	187.4	-15.0
Residual Fuel Oil	31.3	31.2	-0.3	34.8	30.9	-11.2	36.2	31.3	-13.5	38.5	31.7	-17.7	39.5	31.1	-21.3
Other Products	215.1	198.5	-7.7	218.7	199.6	-8.7	230.6	210.1	-8.9	240.2	219.9	-8.5	256.7	225.9	-12.0
Total Products	676.9	656.1	-3.1	683.7	654.5	-4.3	717.9	657.9	-8.4	756.4	676.5	-10.6	771.2	682.6	-11.5
Other ³	153.2	145.6	-5.0	159.6	145.3	-9.0	156.8	141.8	-9.6	154.3	140.7	-8.8	153.8	142.9	-7.1
Total	1282.7	1294.9	1.0	1326.6	1301.7	-1.9	1403.7	1289.4	-8.1	1432.3	1293.8	-9.7	1457.7	1273.5	-12.6
Japan															
Crude	79.6	77.0	-3.3	84.4	64.5	-23.6	97.4	69.8	-28.3	98.6	78.4	-20.5	91.0	76.0	-16.5
Motor Gasoline	11.2	13.0	16.1	11.7	12.4	6.0	13.1	12.9	-1.5	12.5	14.9	19.2	11.5	14.3	24.3
Middle Distillate	28.5	30.1	5.6	27.5	27.4	-0.4	29.0	29.2	0.7	30.5	32.2	5.6	31.9	31.5	-1.3
Residual Fuel Oil	7.3	7.1	-2.7	6.4	6.5	1.6	7.6	7.2	-5.3	7.6	7.6	0.0	7.5	7.0	-6.7
Other Products	32.8	32.9	0.3	33.4	31.6	-5.4	32.9	31.9	-3.0	37.1	33.1	-10.8	36.6	31.9	-12.8
Total Products	79.8	83.1	4.1	79.0	77.9	-1.4	82.6	81.2	-1.7	87.7	87.8	0.1	87.5	84.7	-3.2
Other ³	51.8	49.1	-5.2	51.8	47.3	-8.7	55.0	49.7	-9.6	55.5	51.0	-8.1	55.7	51.3	-7.9
Total	211.2	209.2	-0.9	215.2	189.7	-11.8	235.0	200.7	-14.6	241.8	217.2	-10.2	234.2	212.0	-9.5
Germany															
Crude	47.8	49.5	3.6	51.9	52.7	1.5	51.5	49.0	-4.9	51.1	46.7	-8.6	51.4	48.7	-5.3
Motor Gasoline	11.5	11.6	0.9	11.1	8.9	-19.8	9.8	10.2	4.1	10.0	11.3	13.0	9.6	9.4	-2.1
Middle Distillate	26.5	25.7	-3.0	23.1	22.7	-1.7	21.8	24.1	10.6	26.1	26.7	2.3	25.3	24.1	-4.7
Residual Fuel Oil	6.8	7.6	11.8	7.0	7.5	7.1	7.8	7.8	0.0	7.6	7.9	3.9	8.2	7.9	-3.7
Other Products	9.9	9.4	-5.1	9.7	9.5	-2.1	9.5	10.0	5.3	10.0	10.3	3.0	9.3	10.0	7.5
Total Products	54.7	54.3	-0.7	50.9	48.6	-4.5	48.9	52.1	6.5	53.7	56.2	4.7	52.4	51.4	-1.9
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	103.8	1.3	102.8	101.3	-1.5	100.4	101.1	0.7	104.8	102.9	-1.8	103.8	100.1	-3.6
Italy															
Crude	37.9	34.3	-9.5	44.8	39.9	-10.9	42.4	38.6	-9.0	39.8	42.9	7.8	41.6	42.7	2.6
Motor Gasoline	12.8	10.6	-17.2	13.9	9.8	-29.5	14.1	12.6	-10.6	12.9	12.1	-6.2	13.0	10.4	-20.0
Middle Distillate	29.6	28.1	-5.1	32.9	28.6	-13.1	33.7	28.8	-14.5	33.0	30.0	-9.1	32.9	29.4	-10.6
Residual Fuel Oil	9.4	7.7	-18.1	9.3	8.1	-12.9	9.5	7.4	-22.1	9.0	7.3	-18.9	9.2	7.5	-18.5
Other Products	16.0	16.8	5.0	17.2	16.1	-6.4	17.8	15.7	-11.8	18.6	15.0	-19.4	17.8	14.7	-17.4
Total Products	67.8	63.2	-6.8	73.3	62.6	-14.6	75.1	64.5	-14.1	73.5	64.4	-12.4	72.9	62.0	-15.0
Other ³	16.2	15.0	-7.4	16.8	15.8	-6.0	17.8	16.2	-9.0	16.6	16.5	-0.6	17.5	16.0	-8.6
Total	121.9	112.5	-7.7	134.9	118.3	-12.3	135.3	119.3	-11.8	129.9	123.8	-4.7	132.0	120.7	-8.6
France															
Crude	9.9	12.3	24.2	11.7	12.8	9.4	11.5	12.8	11.3	14.2	12.4	-12.7	11.9	13.0	9.2
Motor Gasoline	5.3	5.4	1.9	4.9	3.9	-20.4	5.3	4.8	-9.4	4.5	4.9	8.9	4.9	3.6	-26.5
Middle Distillate	20.6	25.2	22.3	22.5	22.3	-0.9	20.2	21.9	8.4	20.1	23.1	14.9	22.9	22.9	0.0
Residual Fuel Oil	1.1	1.8	63.6	1.2	2.0	66.7	1.2	1.8	50.0	0.9	1.9	111.1	1.6	1.7	6.2
Other Products	4.5	3.5	-22.2	4.8	3.5	-27.1	4.8	3.4	-29.2	4.7	3.7	-21.3	4.1	3.2	-22.0
Total Products	31.5	35.9	14.0	33.4	31.7	-5.1	31.5	31.9	1.3	30.2	33.6	11.3	33.5	31.4	-6.3
Other ³	9.0	7.9	-12.2	8.2	7.9	-3.7	9.6	7.9	-17.7	9.3	7.8	-16.1	8.7	8.4	-3.4
Total	50.4	56.1	11.3	53.3	52.4	-1.7	52.6	52.6	0.0	53.7	53.8	0.2	54.1	52.8	-2.4
United Kingdom															
Crude	27.8	24.2	-12.9	29.3	26.5	-9.6	30.3	24.8	-18.2	30.0	29.2	-2.7	32.1	26.5	-17.4
Motor Gasoline	10.9	10.3	-5.5	10.5	9.3	-11.4	10.8	8.9	-17.6	9.2	9.6	4.3	9.5	9.1	-4.2
Middle Distillate	27.4	29.4	7.3	27.2	26.0	-4.4	31.5	25.4	-19.4	31.3	25.7	-17.9	32.3	24.1	-25.4
Residual Fuel Oil	2.1	1.2	-42.9	1.7	1.4	-17.6	1.5	1.3	-13.3	1.3	1.5	15.4	1.8	1.3	-27.8
Other Products	7.0	6.3	-10.0	7.2	5.9	-18.1	7.2	6.3	-12.5	6.8	6.6	-2.9	6.3	6.4	1.6
Total Products	47.4	47.2	-0.4	46.6	42.6	-8.6	51.0	41.9	-17.8	48.6	43.4	-10.7	49.9	40.9	-18.0
Other ³	7.6	7.1	-6.6	7.6	7.8	2.6	8.1	7.9	-2.5	7.6	8.1	6.6	7.9	8.8	11.4
Total	82.8	78.5	-5.2	83.5	76.9	-7.9	89.4	74.6	-16.6	86.2	80.7	-6.4	89.9	76.2	-15.2
Canada⁴															
Crude	133.2	133.3	0.1	140.3	138.4	-1.4	145.4	139.2	-4.3	142.0	137.1	-3.5	137.5	139.9	1.7
Motor Gasoline	15.1	16.4	8.6	17.2	16.2	-5.8	15.6	16.8	7.7	15.0	15.5	3.3	15.6	14.8	-5.1
Middle Distillate	11.9	15.2	27.7	12.9	15.0	16.3	12.0	15.1	25.8	12.6	12.7	0.8	12.5	13.6	8.8
Residual Fuel Oil	2.4	2.8	16.7	2.8	3.3	17.9	2.8	2.5	-10.7	2.5	3.6	44.0	2.6	3.2	23.1
Other Products	10.3	10.3	0.0	10.2	10.4	2.0	10.6	10.4	-1.9	10.3	10.4	1.0	9.4	10.3	9.6
Total Products	39.7	44.7	12.6	43.1	44.9	4.2	41.0	44.8	9.3	40.4	42.2	4.5	40.1	41.9	4.5
Other ³	14.7	20.2	37.4	14.3	17.8	24.5	18.5	19.0	2.7	21.4	21.7	1.4	24.8	23.2	-6.5
Total	187.6	198.2	5.7	197.7	201.1	1.7	204.9	203.0	-0.9	203.8	201.0	-1.4	202.4	205.0	1.3

¹ Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot 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 COUNTRIES¹
(millions of barrels¹ and days²)

	End June 2020		End September 2020		End December 2020		End March 2021		End June 2021 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	202.3	90	195.7	92	199.1	94	201.0	96	205.0	-
Chile	12.4	44	11.9	32	11.0	33	9.7	30	11.7	-
Mexico	23.6	18	35.1	25	36.3	26	38.1	27	36.4	-
United States ⁴	2115.7	115	2067.4	110	1983.4	108	1941.5	98	1896.8	-
Total⁴	2376.1	105	2332.2	102	2252.0	100	2212.4	92	2172.0	86
OECD Asia Oceania										
Australia	41.3	42	40.9	39	40.2	39	43.5	40	39.8	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	553.8	181	559.5	158	532.4	143	506.5	164	528.6	-
Korea	213.4	90	219.4	91	213.3	84	201.5	81	194.9	-
New Zealand	7.8	52	8.4	51	8.0	51	8.3	57	7.6	-
Total	816.3	121	828.2	113	793.8	104	759.7	108	770.9	109
OECD Europe⁵										
Austria	22.7	89	24.4	107	23.6	113	23.6	97	23.0	-
Belgium	50.1	94	52.8	94	51.7	82	51.2	82	51.0	-
Czech Republic	23.2	105	22.7	115	23.8	134	23.1	108	21.8	-
Denmark	34.1	240	32.1	241	32.3	257	31.7	229	27.8	-
Estonia	4.4	155	3.6	139	3.7	150	2.9	107	2.9	-
Finland	39.7	204	43.3	235	38.5	235	39.1	230	39.5	-
France	165.5	110	167.7	116	158.4	107	162.1	112	163.0	-
Germany	281.3	133	276.6	131	278.2	148	278.0	137	275.9	-
Greece	38.3	149	34.9	150	35.0	153	34.4	144	30.5	-
Hungary	26.2	155	26.9	152	26.8	172	25.8	147	25.6	-
Ireland	12.3	94	12.2	85	11.9	94	11.7	86	12.4	-
Italy	142.3	121	139.9	124	135.8	130	131.3	114	133.6	-
Latvia	3.4	85	3.5	103	3.2	101	3.0	82	3.0	-
Lithuania	7.7	106	7.6	120	7.9	146	7.8	116	8.5	-
Luxembourg	0.7	14	0.6	12	0.6	13	0.6	13	0.8	-
Netherlands	174.4	207	165.5	194	156.6	195	158.1	196	147.2	-
Norway	27.3	125	31.8	136	30.1	114	28.2	146	23.6	-
Poland	82.3	114	82.2	122	81.6	131	82.0	125	78.6	-
Portugal	22.0	102	22.3	108	22.4	123	20.7	98	19.9	-
Slovak Republic	12.1	143	12.6	157	12.7	171	12.4	144	12.4	-
Slovenia	5.4	111	5.4	131	5.3	126	5.3	117	5.3	-
Spain	128.0	115	126.7	112	123.1	110	121.7	106	118.1	-
Sweden	71.9	271	66.5	268	63.0	220	48.8	161	45.3	-
Switzerland	34.4	197	34.5	196	34.0	206	33.7	192	33.9	-
Turkey	86.0	79	89.9	98	85.4	107	84.4	91	85.1	-
United Kingdom	89.9	75	83.5	68	85.5	74	76.9	62	76.2	-
Total	1585.6	123	1569.6	125	1531.3	129	1498.7	119	1464.8	108
Total OECD	4778.1	113	4730.0	110	4577.0	109	4470.8	102	4407.6	96
DAYS OF IEA Net Imports⁶	258	-	254	-	245	-	241	-	167	-

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 entropet 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 2021 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	Industry	Total	Government ¹	Industry
		controlled Millions of Barrels			controlled Days of Fwd. Demand ²	
2Q2018	4387	1575	2812	91	33	58
3Q2018	4436	1570	2866	93	33	60
4Q2018	4425	1552	2873	93	33	60
1Q2019	4435	1557	2878	94	33	61
2Q2019	4487	1549	2938	93	32	61
3Q2019	4492	1544	2948	94	32	62
4Q2019	4432	1535	2896	98	34	64
1Q2020	4517	1537	2980	121	41	80
2Q2020	4778	1561	3217	113	37	76
3Q2020	4730	1551	3179	110	36	74
4Q2020	4577	1541	3036	109	37	72
1Q2021	4471	1546	2925	102	35	67
2Q2021	4408	1524	2884	96	33	63

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 2Q2021 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier		
											Jun 20	change	
Saudi Light & Extra Light													
Americas	0.66	0.20	0.26	0.03	0.11	0.18	0.31	0.25	0.26	0.41	0.30	0.11	
Europe	0.69	0.68	0.60	0.50	0.53	0.43	0.40	0.39	0.40	0.41	0.53	-0.12	
Asia Oceania	1.45	1.42	1.39	1.34	1.44	1.41	1.12	1.09	1.15	1.10	1.29	-0.18	
Saudi Medium													
Americas	0.30	0.12	0.14	0.06	0.03	0.06	-	-	-	-	0.55	-	
Europe	0.01	0.02	0.02	0.01	0.01	0.01	-	-	-	-	0.00	-	
Asia Oceania	0.41	0.23	0.25	0.25	0.26	0.22	0.17	0.18	0.15	0.18	0.28	-0.09	
Canada Heavy													
Americas	2.41	2.27	2.39	2.23	2.55	2.62	2.34	2.38	2.48	2.14	2.08	0.06	
Europe	0.04	0.04	0.03	0.03	0.03	0.04	0.03	0.07	0.00	0.02	0.00	0.02	
Asia Oceania	0.00	0.00	0.00	0.01	-	0.01	0.04	0.01	0.05	0.05	-	-	
Iraqi Basrah Light²													
Americas	0.50	0.31	0.11	0.07	0.05	0.06	0.05	-	0.15	-	0.16	-	
Europe	0.76	0.85	0.58	0.54	0.54	0.56	0.63	0.55	0.61	0.74	0.48	0.25	
Asia Oceania	0.43	0.37	0.22	0.23	0.20	0.15	0.17	0.21	0.16	0.13	0.14	-0.01	
Kuwait Blend													
Americas	0.02	-	-	-	-	-	-	-	-	-	-	-	
Europe	0.13	0.11	0.04	0.01	-	-	-	-	-	-	0.07	-	
Asia Oceania	0.66	0.61	0.55	0.43	0.47	0.47	0.45	0.51	0.42	0.43	0.62	-0.19	
Iranian Light													
Americas	-	-	-	-	-	-	-	-	-	-	-	-	
Europe	0.16	0.00	-	-	-	-	-	-	-	-	-	-	
Asia Oceania	0.01	0.00	-	-	-	-	-	-	-	-	-	-	
Iranian Heavy³													
Americas	-	-	-	-	-	-	-	-	-	-	-	-	
Europe	0.35	0.04	-	-	-	-	-	-	-	-	-	-	
Asia Oceania	0.28	0.14	-	-	-	-	-	-	-	-	-	-	
BFOE													
Americas	0.00	0.00	-	-	-	-	0.00	-	0.00	0.00	-	-	
Europe	0.35	0.37	0.43	0.48	0.43	0.39	0.28	0.25	0.40	0.18	0.56	-0.38	
Asia Oceania	0.09	0.01	0.03	0.06	0.03	0.08	0.07	0.07	0.10	0.03	-	-	
Kazakhstan													
Americas	-	-	-	-	-	-	0.03	0.09	-	-	-	-	
Europe	0.75	0.76	0.76	0.78	0.74	0.75	0.75	0.75	0.81	0.68	0.77	-0.09	
Asia Oceania	0.19	0.18	0.07	0.08	0.03	0.07	0.10	0.13	0.07	0.10	0.04	0.06	
Venezuelan 22 API and heavier													
Americas	0.44	0.05	-	-	-	-	-	-	-	-	-	-	
Europe	0.03	0.09	0.04	0.08	0.01	-	-	-	-	-	0.03	-	
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	
Mexican Maya													
Americas	0.63	0.51	0.48	0.47	0.37	0.36	0.45	0.40	0.41	0.54	0.51	0.04	
Europe	0.21	0.19	0.16	0.16	0.18	0.15	0.15	0.15	0.13	0.17	0.10	0.07	
Asia Oceania	0.08	0.13	0.12	0.10	0.16	0.15	0.12	0.13	0.13	0.10	0.13	-0.03	
Russian Urals													
Americas	0.01	0.01	-	-	-	-	-	-	-	-	-	-	
Europe	1.40	1.37	1.20	1.13	1.07	1.05	1.11	0.92	1.12	1.28	1.30	-0.02	
Asia Oceania	0.00	-	-	-	-	0.01	-	-	-	-	-	-	
Cabinda and Other Angola													
North America	0.06	0.01	0.01	-	-	-	-	-	-	-	-	-	
Europe	0.14	0.15	0.12	0.09	0.10	0.02	0.04	-	0.09	0.03	0.10	-0.07	
Pacific	0.01	0.00	-	-	-	-	-	-	-	-	-	-	
Nigerian Light⁴													
Americas	0.01	0.03	-	-	-	-	0.06	0.03	0.06	0.07	-	-	
Europe	0.53	0.51	0.49	0.57	0.52	0.41	0.31	0.29	0.29	0.35	0.48	-0.13	
Asia Oceania	0.02	0.02	0.02	0.01	0.02	0.00	0.01	-	0.03	-	-	-	
Libya Light and Medium													
Americas	-	0.00	-	-	-	-	0.03	-	0.10	-	-	-	
Europe	0.62	0.67	0.19	0.04	0.49	0.75	0.79	0.93	0.72	0.73	0.04	0.68	
Asia Oceania	0.02	0.03	0.01	-	-	0.01	0.02	0.01	0.03	0.01	-	-	

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report. IEA Americas includes United States and Canada. IEA Europe includes all countries in OECD Europe except Estonia, Hungary, Slovenia and Latvia. IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33* API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier	
											Jun 20	% change
Crude Oil												
Americas	3759	2698	1880	1671	1625	1698	2111	1990	2097	2247	2519	-11%
Europe	9814	9872	8349	8145	8053	7741	8372	7944	8606	8557	7368	16%
Asia Oceania	6697	6542	5603	5237	5511	5336	5459	5770	5414	5196	4616	13%
Total OECD	20269	19111	15833	15053	15189	14775	15942	15704	16117	16000	14503	10%
LPG												
Americas	22	26	28	26	26	21	16	20	14	13	21	-38%
Europe	457	434	422	430	429	394	420	417	456	387	287	35%
Asia Oceania	553	582	559	532	506	642	555	522	535	610	481	27%
Total OECD	1032	1042	1009	988	961	1057	991	959	1004	1010	789	28%
Naphtha												
Americas	8	5	7	10	5	7	7	2	12	7	12	-43%
Europe	391	347	409	339	410	523	487	520	573	366	422	-13%
Asia Oceania	1021	993	1005	981	889	1087	1076	973	1103	1152	1125	2%
Total OECD	1420	1345	1422	1330	1303	1617	1570	1495	1688	1525	1559	-2%
Gasoline³												
Americas	773	817	567	695	565	598	1074	1087	1097	1037	712	46%
Europe	110	112	109	92	108	101	157	219	167	85	189	-55%
Asia Oceania	113	114	126	175	116	155	195	214	168	204	164	25%
Total OECD	996	1043	802	962	789	854	1426	1520	1433	1326	1065	24%
Jet & Kerosene												
Americas	140	175	158	175	145	108	166	137	191	169	137	23%
Europe	509	520	337	302	295	281	291	295	343	234	358	-35%
Asia Oceania	89	76	63	41	58	100	71	80	48	85	41	108%
Total OECD	738	771	558	518	498	489	528	513	582	489	537	-9%
Gasoi/Diesel												
Americas	124	118	135	91	256	267	149	86	185	174	97	79%
Europe	1339	1300	1192	1105	1178	1099	1173	1154	1127	1238	1361	-9%
Asia Oceania	253	262	328	365	320	336	355	378	323	365	402	-9%
Total OECD	1716	1680	1656	1561	1754	1701	1677	1619	1636	1777	1860	-5%
Heavy Fuel Oil												
Americas	161	116	143	136	129	116	96	71	66	152	165	-8%
Europe	197	223	295	318	310	368	315	358	330	256	249	3%
Asia Oceania	162	101	88	118	80	109	116	155	94	100	41	144%
Total OECD	520	440	526	571	519	594	527	584	490	508	455	12%
Other Products												
Americas	679	713	592	606	515	507	697	601	722	767	587	31%
Europe	1011	865	574	541	491	516	507	482	490	550	528	4%
Asia Oceania	263	268	241	229	232	246	260	249	273	259	221	17%
Total OECD	1952	1846	1406	1376	1238	1268	1464	1332	1484	1575	1335	18%
Total Products												
Americas	1908	1971	1629	1739	1641	1623	2204	2004	2287	2318	1731	34%
Europe	4013	3800	3339	3126	3221	3283	3351	3447	3486	3116	3394	-8%
Asia Oceania	2454	2397	2410	2440	2200	2674	2629	2570	2543	2775	2476	12%
Total OECD	8374	8168	7378	7305	7062	7580	8184	8021	8317	8209	7601	8%
Total Oil												
Americas	5666	4669	3510	3410	3266	3321	4315	3994	4384	4565	4250	7%
Europe	13827	13672	11688	11271	11274	11023	11723	11391	12093	11673	10762	8%
Asia Oceania	9151	8939	8014	7677	7711	8011	8088	8340	7957	7971	7092	12%
Total OECD	28644	27279	23211	22358	22251	22355	24126	23725	24434	24209	22104	10%

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)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier	
											Jun 20	% change
Crude Oil												
Americas	3606	2553	1820	1643	1547	1615	2007	1907	2009	2107	2381	-12%
Europe	9088	8913	7115	6869	6786	6604	7100	6830	7307	7157	6618	8%
Asia Oceania	6249	5914	5076	4816	5003	4710	4840	5170	4836	4515	4253	6%
Total OECD	18943	17380	14011	13328	13336	12928	13948	13907	14153	13778	13252	4%
LPG												
Americas	15	23	22	23	18	19	16	20	14	13	18	-28%
Europe	350	303	252	246	231	244	228	237	202	246	223	10%
Asia Oceania	158	74	57	61	65	58	60	81	63	34	56	-39%
Total OECD	523	400	331	330	314	321	303	338	280	293	298	-2%
Naphtha												
Americas	4	2	1	1	1	4	2	1	1	4	0	na
Europe	360	320	390	328	377	424	425	483	527	262	414	-37%
Asia Oceania	924	898	835	840	744	870	948	903	941	1000	858	17%
Total OECD	1288	1220	1226	1169	1122	1298	1376	1387	1470	1267	1272	0%
Gasoline³												
Americas	271	308	194	226	167	174	330	297	392	298	339	-12%
Europe	105	108	104	87	103	98	151	211	157	84	186	-55%
Asia Oceania	90	88	109	152	116	144	188	191	168	204	139	47%
Total OECD	466	504	406	465	386	416	668	699	717	586	664	-12%
Jet & Kerosene												
Americas	56	39	54	53	47	31	63	44	69	75	49	54%
Europe	445	464	297	259	278	248	273	286	322	208	314	-34%
Asia Oceania	89	76	63	41	58	100	71	80	48	85	41	108%
Total OECD	590	579	414	353	382	378	406	410	438	369	404	-9%
Gasoil/Diesel												
Americas	100	86	103	69	190	203	94	64	111	106	90	18%
Europe	1160	1126	1062	914	1082	1027	1095	1088	1072	1125	1172	-4%
Asia Oceania	253	261	324	358	316	336	355	378	323	365	394	-8%
Total OECD	1513	1473	1489	1341	1588	1566	1544	1530	1506	1596	1656	-4%
Heavy Fuel Oil												
Americas	147	102	110	113	97	105	84	52	56	145	109	33%
Europe	185	202	279	298	295	340	281	325	284	234	235	0%
Asia Oceania	162	100	88	118	80	109	116	155	94	100	41	144%
Total OECD	493	404	477	529	472	554	481	531	434	479	386	24%
Other Products												
Americas	522	542	514	526	466	469	631	568	658	665	497	34%
Europe	702	629	352	335	334	359	337	323	321	367	330	11%
Asia Oceania	182	184	164	152	162	176	198	198	188	209	156	34%
Total OECD	1406	1355	1030	1013	962	1004	1166	1089	1167	1241	983	26%
Total Products												
Americas	1115	1103	998	1012	986	1005	1219	1045	1301	1307	1103	19%
Europe	3307	3152	2735	2466	2699	2739	2789	2954	2885	2526	2875	-12%
Asia Oceania	1857	1681	1640	1722	1540	1793	1935	1986	1826	1998	1686	18%
Total OECD	6279	5936	5373	5200	5225	5537	5943	5985	6011	5831	5664	3%
Total Oil												
Americas	4721	3656	2818	2654	2533	2620	3226	2952	3310	3414	3483	-2%
Europe	12395	12064	9850	9336	9485	9343	9890	9784	10192	9683	9493	2%
Asia Oceania	8106	7595	6716	6538	6543	6503	6776	7156	6662	6512	5940	10%
Total OECD	25223	23316	19384	18528	18561	18466	19891	19892	20164	19609	18916	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 7b
INTER-REGIONAL OECD TRANSFERS^{1,2}
(thousand barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier	
											Jun 20	% change
Crude Oil												
Americas	153	145	60	28	78	83	104	83	88	141	139	1%
Europe	726	959	1234	1276	1268	1137	1271	1114	1299	1400	750	87%
Asia Oceania	448	628	527	421	508	627	619	600	577	681	363	88%
Total OECD	1326	1731	1821	1724	1853	1846	1994	1797	1964	2222	1252	78%
LPG												
Americas	7	3	6	4	8	3	0	0	0	0	3	-100%
Europe	107	131	171	184	197	150	192	180	254	141	63	123%
Asia Oceania	395	508	501	470	442	584	495	440	471	575	425	35%
Total OECD	508	642	678	658	647	737	688	620	725	717	491	46%
Naphtha												
Americas	4	3	6	9	4	3	4	0	10	3	12	-78%
Europe	31	27	20	12	33	99	62	37	46	103	8	1227%
Asia Oceania	97	96	170	140	144	217	128	70	162	152	267	-43%
Total OECD	132	125	196	161	181	319	195	107	218	258	286	-10%
Gasoline³												
Americas	502	509	373	469	398	423	744	790	705	738	373	98%
Europe	5	4	5	5	5	3	7	8	11	2	3	-52%
Asia Oceania	23	26	18	23	0	11	8	23	0	0	25	-100%
Total OECD	530	539	396	497	403	437	759	821	716	740	401	85%
Jet & Kerosene												
Americas	84	136	104	123	99	77	103	94	122	94	88	6%
Europe	64	56	40	43	18	33	19	9	21	26	44	-41%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	148	192	144	165	116	110	122	103	143	120	132	-10%
Gasoi/Diesel												
Americas	25	32	32	22	66	64	55	23	75	67	7	841%
Europe	178	174	131	191	96	72	78	66	55	113	189	-40%
Asia Oceania	0	1	4	7	3	0	0	0	0	0	8	-100%
Total OECD	203	207	167	220	166	136	133	88	130	181	204	-12%
Heavy Fuel Oil												
Americas	15	14	33	22	33	11	12	19	10	7	56	-88%
Europe	12	21	16	20	15	29	34	33	46	22	14	55%
Asia Oceania	0	1	0	0	0	0	0	0	0	0	0	na
Total OECD	27	36	49	42	47	39	46	53	56	29	70	-59%
Other Products												
Americas	157	171	78	79	48	38	66	33	64	101	89	13%
Europe	308	236	222	206	158	157	170	159	169	183	198	-8%
Asia Oceania	81	83	77	77	70	70	62	52	84	50	65	-23%
Total OECD	546	490	377	363	276	264	299	244	318	334	352	-5%
Total Products												
Americas	793	867	631	727	655	618	985	959	986	1010	628	61%
Europe	706	649	604	660	522	543	562	493	602	590	519	14%
Asia Oceania	597	716	770	718	660	881	693	584	718	777	790	-2%
Total OECD	2095	2232	2005	2105	1836	2043	2241	2037	2306	2378	1937	23%
Total Oil												
Americas	945	1012	691	755	733	701	1089	1042	1074	1151	766	50%
Europe	1432	1608	1838	1935	1789	1681	1833	1607	1901	1990	1269	57%
Asia Oceania	1044	1343	1297	1139	1168	1508	1312	1184	1295	1459	1153	27%
Total OECD	3421	3963	3827	3830	3690	3889	4235	3833	4270	4600	3188	44%

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 SOURCE¹
(thousand barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier Jun 20	change
OECD Americas												
Venezuela	506	81	-	-	-	-	-	-	-	-	-	-
Other Central & South America	795	867	745	782	750	648	689	659	749	656	618	37
North Sea	150	143	60	28	78	83	93	83	88	107	139	-31
Other OECD Europe	1	2	1	-	-	-	11	-	-	33	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	145	189	91	80	96	128	295	207	335	342	75	267
Saudi Arabia	983	601	572	441	293	333	370	325	318	469	1283	-814
Kuwait	78	45	21	29	16	7	20	62	-	-	-	-
Iran	-	-	-	-	-	12	-	-	-	-	-	-
Iraq	519	331	177	143	107	115	172	175	162	180	146	34
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	5	3	5	2	10	-	-	-	-	-	28	-
Other Middle East	-	-	-	-	-	-	-	-	-	-	-	-
West Africa ²	317	267	145	128	188	207	273	261	256	304	169	134
Other Africa	196	137	45	34	67	149	172	202	159	156	25	130
Asia	61	32	17	4	11	17	16	17	30	-	36	-
Other	3	0	3	-	10	-	-	-	-	-	-	-
Total	3759	2698	1880	1671	1625	1698	2111	1990	2097	2247	2519	-272
of which Non-OECD	3606	2553	1820	1643	1547	1615	2007	1907	2009	2107	2381	-274
OECD Europe												
Canada	81	60	95	80	117	108	81	152	20	74	29	45
Mexico + USA	645	900	1139	1196	1150	1029	1190	962	1279	1326	721	606
Venezuela	57	106	44	91	13	-	-	-	-	-	38	-
Other Central & South America	132	118	208	248	205	143	272	222	256	340	88	252
Non-OECD Europe	12	14	25	21	34	23	19	13	13	31	15	16
Former Soviet Union	4149	4240	3506	3409	3270	3291	3458	3327	3604	3438	3438	-1
Saudi Arabia	818	792	756	637	602	517	484	498	479	475	594	-119
Kuwait	137	97	48	7	30	-	-	-	-	-	55	-
Iran	536	74	6	4	2	-	-	-	-	-	-	-
Iraq	962	1124	814	822	759	765	916	862	818	1071	769	302
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	2	2	-	-	-	-	-	-	-	-	-	-
Other Middle East	-	3	8	13	1	6	12	16	9	11	25	-14
West Africa ²	1115	1140	1074	1128	976	780	719	673	843	636	993	-357
Other Africa	1161	1180	596	450	858	1065	1204	1220	1239	1150	583	566
Asia	-	-	0	1	-	-	-	-	-	-	-	-
Other	9	13	11	12	5	-	-	-	-	-	21	-
Total	9816	9863	8330	8119	8022	7727	8354	7944	8559	8553	7370	1183
of which Non-OECD	9088	8913	7115	6869	6786	6604	7100	6830	7307	7157	6618	539
OECD Asia Oceania												
Canada	3	5	1	6	-	17	38	9	50	55	-	-
Mexico + USA	344	613	477	336	444	493	491	522	429	525	337	188
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	35	48	91	75	114	107	145	128	102	205	45	160
North Sea	100	10	49	79	64	116	90	69	99	101	26	75
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	435	435	300	286	295	328	372	488	353	274	134	140
Saudi Arabia	2040	1878	1867	1858	1976	1868	1574	1647	1592	1480	1739	-259
Kuwait	672	666	584	459	508	482	484	541	447	464	647	-183
Iran	274	137	-	-	-	-	-	-	-	-	-	-
Iraq	435	364	224	226	205	151	165	211	155	129	136	-6
Oman	56	59	22	35	19	15	43	33	16	82	-	-
United Arab Emirates	1098	1256	1096	975	960	908	1094	1185	1213	880	942	-63
Other Middle East	450	449	387	374	374	396	383	403	382	363	255	108
West Africa ²	95	56	65	70	49	46	119	81	153	121	53	68
Other Africa	105	90	42	40	23	59	35	59	26	20	21	-1
Non-OECD Asia	319	220	161	128	207	193	161	160	166	156	120	37
Other	235	255	234	290	268	155	264	221	231	339	162	177
Total	6697	6542	5602	5237	5505	5336	5455	5758	5414	5196	4616	580
of which Non-OECD	6249	5914	5076	4816	5003	4710	4840	5170	4836	4515	4253	262
Total OECD Trade	20271	19103	15812	15027	15152	14761	15921	15691	16070	15996	14505	1491
of which Non-OECD	18943	17380	14011	13328	13336	12928	13948	13907	14153	13778	13252	526

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 Guinea, Congo and Democratic Republic of Congo.

Table 9
REGIONAL OECD GASOLINE IMPORTS BY SOURCE¹
(thousand barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier	
											Jun 20	change
OECD Americas												
Venezuela	23	4	-	-	-	-	-	-	-	-	-	-
Other Central & South America	64	83	40	44	24	10	67	107	66	28	96	-68
ARA (Belgium Germany Netherlands)	167	189	146	199	138	127	312	312	251	375	195	179
Other Europe	323	293	207	255	241	275	380	435	388	316	165	151
FSU	80	100	67	71	89	100	112	101	124	110	108	2
Saudi Arabia	11	7	6	16	-	4	50	-	65	84	15	69
Algeria	1	-	4	5	-	4	-	-	-	-	7	-
Other Middle East & Africa	19	14	13	15	20	23	12	5	19	11	14	-2
Singapore	8	5	1	3	-	4	3	-	3	6	7	-1
OECD Asia Oceania	13	28	21	15	19	21	52	43	66	48	13	35
Non-OECD Asia (excl. Singapore)	84	116	72	84	53	47	99	84	116	98	108	-10
Other	0	0	-	-	-	0	-	-	-	-	-	-
Total²	794	838	578	707	585	615	1088	1088	1097	1077	728	349
of which Non-OECD	271	308	194	226	167	174	330	297	392	298	339	-41
OECD Europe												
OECD Americas	4	3	3	3	4	2	5	7	7	2	3	-2
Venezuela	0	0	0	-	-	1	1	1	0	-	-	-
Other Central & South America	5	3	4	2	5	8	2	2	1	3	0	3
Non-OECD Europe	11	18	16	18	12	9	16	25	10	13	23	-10
FSU	70	62	44	26	41	24	15	14	14	16	24	-8
Saudi Arabia	2	0	8	5	21	-	-	-	-	-	22	-
Algeria	0	0	1	-	-	-	-	-	-	-	8	-
Other Middle East & Africa	4	8	3	3	3	8	6	12	5	2	14	-12
Singapore	2	3	2	2	1	-	-	-	-	-	2	-
OECD Asia Oceania	1	1	1	1	1	1	2	1	4	-	-	-
Non-OECD Asia (excl. Singapore)	2	0	0	-	2	3	2	4	2	2	-	-
Other	20	21	37	45	27	57	117	157	132	63	100	-38
Total²	122	121	120	106	116	113	166	224	175	100	197	-97
of which Non-OECD	105	108	104	87	103	98	151	211	157	84	186	-102
OECD Asia Oceania												
OECD Americas	4	6	4	0	0	2	0	0	0	0	3	-3
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	13	14	4	6	-	9	7	23	-	-	-	-
Other Europe	7	5	10	17	-	-	-	-	-	-	21	-
FSU	1	0	2	-	-	-	-	-	-	-	1	-
Saudi Arabia	0	1	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	1	-	1	3	-	-	-	-	-	-	-	-
Singapore	49	46	51	72	44	86	97	76	89	125	94	31
Non-OECD Asia (excl. Singapore)	19	21	37	55	52	39	58	56	60	59	24	35
Other	20	21	19	19	19	20	33	59	19	20	20	0
Total²	114	114	128	173	116	155	195	214	168	204	164	40
of which Non-OECD	90	88	109	152	116	144	188	191	168	204	139	65
Total OECD Trade²	1029	1073	826	987	816	883	1449	1525	1440	1381	1089	292
of which Non-OECD	466	504	406	465	386	416	668	699	717	586	664	-78

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 SOURCE¹
(thousand barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier	
											Jun 20	change
OECD Americas												
Venezuela	4	1	-	-	-	-	-	-	-	-	-	-
Other Central and South America	30	38	34	40	39	40	30	10	39	39	40	-1
ARA (Belgium Germany Netherlands)	6	5	11	2	36	51	31	10	34	48	-	-
Other Europe	3	2	5	2	4	3	9	0	24	1	3	-1
FSU	16	6	12	-	26	35	21	3	28	32	-	-
Saudi Arabia	17	3	8	10	17	23	9	1	26	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	8	2	9	4	29	48	8	13	8	3	-	-
Singapore	1	0	-	-	-	-	2	-	2	3	-	-
OECD Asia Oceania	15	24	16	18	26	10	15	12	17	17	4	13
Non-OECD Asia (excl. Singapore)	23	30	34	13	64	48	16	22	7	17	42	-24
Other	-	7	6	3	15	8	8	14	-	11	8	3
Total²	124	118	135	91	256	267	149	86	185	174	97	77
of which Non-OECD	100	86	103	69	190	203	94	64	111	106	90	16
OECD Europe												
OECD Americas	154	138	99	156	64	34	38	13	25	78	154	-76
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	4	0	3	7	2	-	1	2	-	-	2	-
Non-OECD Europe	39	41	30	34	33	28	30	33	31	26	28	-2
FSU	714	685	661	555	633	721	717	738	714	701	590	111
Saudi Arabia	225	205	193	183	260	131	113	127	93	120	304	-184
Algeria	-	0	2	-	-	-	-	-	-	-	15	-
Other Middle East and Africa	76	83	71	68	73	65	129	111	149	127	93	34
Singapore	14	27	17	10	13	10	18	8	32	14	17	-3
OECD Asia Oceania	25	36	32	36	32	38	39	53	30	35	35	0
Non-OECD Asia (excl. Singapore)	151	152	101	72	89	72	108	63	66	197	98	100
Other	12	10	15	11	10	23	7	25	13	-16	55	-71
Total²	1413	1378	1224	1131	1210	1122	1202	1173	1152	1282	1390	-107
of which Non-OECD	1160	1126	1062	914	1082	1027	1095	1088	1072	1125	1172	-47
OECD Asia Oceania												
OECD Americas	-	1	4	7	3	-	-	-	-	-	8	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	0	-	0	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	0	-	-	-	0	-	0	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	4	4	2	1	1	1	1	1	1	1	1	0
Saudi Arabia	3	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	8	7	13	23	8	13	-	-	-	-	52	-
Singapore	141	111	91	103	85	82	92	82	71	123	93	30
Non-OECD Asia (excl. Singapore)	91	133	208	214	215	229	252	283	237	236	234	2
Other	5	5	10	16	8	11	11	13	15	5	15	-10
Total²	253	262	328	365	320	336	355	378	323	365	402	-38
of which Non-OECD	253	261	324	358	316	336	355	378	323	365	394	-30
Total OECD Trade²	1790	1758	1687	1588	1785	1724	1706	1638	1660	1821	1889	-69
of which Non-OECD	1513	1473	1489	1341	1588	1566	1544	1530	1506	1596	1656	-60

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 SOURCE¹
(thousand barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier	
											Jun 20	change
OECD Americas												
Venezuela	6	0	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	7	5	7	5	3	-	-	-	-	4	-
ARA (Belgium Germany Netherlands)	0	-	-	-	-	4	0	-	-	1	-	-
Other Europe	0	0	4	8	4	6	5	-	11	3	1	2
FSU	0	-	0	1	-	-	0	-	-	1	-	-
Saudi Arabia	1	2	6	1	14	-	4	-	6	6	-	-
Algeria	-	-	1	3	-	9	0	1	-	-	-	-
Other Middle East and Africa	2	10	11	13	18	6	31	29	28	36	10	26
Singapore	6	3	4	3	-	-	2	-	3	2	3	-2
OECD Asia Oceania	84	136	100	115	95	67	98	94	111	90	87	2
Non-OECD Asia (excl. Singapore)	27	14	22	24	10	13	25	14	31	31	15	16
Other	11	3	4	-	-	-	-	-	-	-	17	-
Total²	140	175	158	175	145	108	166	137	191	169	137	32
of which Non-OECD	56	39	54	53	47	31	63	44	69	75	49	27
OECD Europe												
OECD Americas	32	20	13	5	1	1	2	3	3	0	11	-10
Venezuela	1	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	1	0	-	-	-	-	-	-	-	-	-
Non-OECD Europe	6	2	0	1	-	-	-	-	-	-	-	-
FSU	40	45	22	14	26	34	25	23	28	26	16	10
Saudi Arabia	98	105	40	25	30	36	39	63	21	33	53	-20
Algeria	9	11	9	6	6	6	8	16	-	8	16	-8
Other Middle East and Africa	197	199	155	166	153	137	136	86	162	157	162	-5
Singapore	25	29	10	6	8	3	4	-	11	-	15	-
OECD Asia Oceania	32	36	27	37	16	32	17	6	19	25	33	-8
Non-OECD Asia (excl. Singapore)	69	73	50	38	54	17	59	63	72	42	34	8
Other	1	2	10	4	2	12	2	34	28	-56	19	-75
Total²	512	523	337	302	296	278	292	295	344	236	359	-123
of which Non-OECD	445	464	297	259	278	248	273	286	322	208	314	-106
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	-	-	-	-	3	-	-	-	-	-	-
Singapore	28	21	14	17	10	6	18	18	8	27	10	17
Non-OECD Asia (excl. Singapore)	26	29	28	16	28	55	37	49	22	40	11	29
Other	33	26	21	9	19	36	17	13	18	19	20	-2
Total²	89	76	63	41	58	100	71	80	48	85	41	44
of which Non-OECD	89	76	63	41	58	100	71	80	48	85	41	44
Total OECD Trade²	741	774	558	518	499	486	529	513	582	490	537	-47
of which Non-OECD	590	579	414	353	382	378	406	410	438	369	404	-35

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 SOURCE¹
(thousand barrels per day)

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Apr 21	May 21	Jun 21	Year Earlier	
											Jun 20	change
OECD Americas												
Venezuela	42	7	-	-	-	-	-	-	-	-	-	-
Other Central and South America	72	50	52	34	38	29	25	10	7	57	87	-29
ARA (Belgium Germany Netherlands)	7	6	12	9	15	3	2	-	6	-	22	-
Other Europe	7	8	21	13	17	8	10	19	4	7	34	-27
FSU	23	30	44	43	51	62	36	23	40	46	23	23
Saudi Arabia	-	2	2	7	-	-	0	-	-	1	-	-
Algeria	-	8	2	0	-	8	4	-	6	6	-	-
Other Middle East and Africa	7	5	10	30	7	6	11	1	2	29	-	-
Singapore	-	1	1	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	0	0	-	-	-	-	8	18	-	6	-	-
Other	2	-	-	-	-	-	-	-	-	-	-	-
Total²	161	117	145	136	129	116	96	71	66	152	165	-13
of which Non-OECD	147	102	110	113	97	105	84	52	56	145	109	36
OECD Europe												
OECD Americas	4	7	12	17	12	28	32	32	44	20	10	10
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	3	5	6	14	5	5	1	-	2	2	-	-
Non-OECD Europe	17	21	13	16	21	12	13	9	15	14	9	5
FSU	154	154	149	141	156	272	154	150	127	186	130	55
Saudi Arabia	1	-	2	-	-	-	-	-	-	-	20	-
Algeria	1	0	2	-	-	3	-	-	-	-	-	-
Other Middle East and Africa	15	19	13	9	14	14	10	17	4	9	22	-13
Singapore	-	1	3	1	4	2	7	7	-	13	5	8
OECD Asia Oceania	8	14	4	3	3	0	2	2	1	2	4	-2
Non-OECD Asia (excl. Singapore)	0	3	-	-	-	-	-	-	-	-	-	-
Other	5	8	93	113	99	48	94	146	127	8	62	-55
Total²	208	232	295	313	315	384	313	362	322	254	263	-9
of which Non-OECD	185	202	279	298	295	340	281	325	284	234	235	-1
OECD Asia Oceania												
OECD Americas	0	1	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	0	-	0	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	16	6	5	2	-	1	-	-	-	-	-	-
Saudi Arabia	-	1	1	3	-	-	14	-	21	22	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	23	27	38	61	35	32	27	36	28	17	-	-
Singapore	37	25	18	23	14	27	44	97	17	19	16	3
Non-OECD Asia (excl. Singapore)	85	40	26	29	31	49	30	22	27	42	25	17
Other	0	1	-	-	-	-	-	-	-	-	-	-
Total²	162	101	88	118	80	109	116	155	94	100	41	59
of which Non-OECD	162	100	88	118	80	109	116	155	94	100	41	59
Total OECD Trade²	531	450	528	567	524	609	525	588	482	506	469	37
of which Non-OECD	493	404	477	529	472	554	481	531	434	479	386	93

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

² Total figure excludes intra-regional trade.

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

	2018	2019	2020	3Q20	4Q20	1Q21	2Q21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21
CRUDE OIL PRICES													
IEA CIF Average Import¹													
IEA Americas	60.02	56.93	37.31	39.34	40.17	53.66	63.73	59.03	60.30	62.95	67.78		
IEA Europe	70.52	64.25	42.85	43.29	43.99	60.09	67.22	65.00	63.85	66.96	70.68		
IEA Asia Oceania	72.46	66.38	46.28	42.99	44.27	57.82	67.63	63.86	65.94	67.05	70.26		
IEA Total	67.77	62.75	42.16	42.12	43.00	57.61	66.30	62.93	63.42	65.80	69.71		
FOB Spot													
North Sea Dated	71.27	64.12	41.76	42.82	44.03	61.07	68.84	65.56	64.59	68.54	72.96	74.99	70.75
Brent (Asia) Mth 1	72.23	64.86	44.86	44.20	45.86	61.55	69.50	66.20	65.58	68.50	74.09	75.36	71.12
WTI (Cushing) Mth 1	65.20	57.03	39.25	40.90	42.63	58.13	66.19	62.35	61.71	65.18	71.38	72.46	67.73
Urals (Mediterranean)	70.17	64.31	41.93	43.39	44.49	60.41	67.48	64.29	63.15	67.30	71.57	73.09	68.08
Dubai (1st month)	69.65	63.49	42.36	42.80	44.62	60.20	67.01	64.40	62.92	66.34	71.50	72.88	69.32
Tapis (Dated)	73.04	69.16	43.28	43.69	44.21	62.30	69.81	67.16	65.74	69.45	74.00	77.33	72.22
PRODUCT PRICES													
Rotterdam, Barges FOB													
Premium Unl 10 ppm	78.78	71.35	44.65	46.58	46.99	65.71	78.57	72.05	75.04	78.36	81.96	86.22	84.32
Naphtha	64.48	56.27	39.64	41.90	43.64	60.82	66.69	64.08	62.39	66.32	70.92	75.26	72.43
Jet/Kerosene	86.39	79.24	44.79	41.92	46.75	64.04	72.52	67.43	67.80	72.45	76.88	78.49	75.92
ULSD 10ppm	86.22	79.45	49.32	47.49	48.86	66.15	74.64	69.93	69.58	74.53	79.34	80.29	77.67
Gasoil 0.1 %	84.28	77.73	48.10	45.99	48.05	65.02	73.43	68.65	68.19	73.42	78.21	79.15	76.03
LSFO 1%	63.22	62.21	42.78	41.34	46.27	62.77	66.88	67.09	64.69	65.89	69.73	72.02	69.35
HSFO 3.5%	61.13	50.31	34.43	38.33	41.40	55.34	60.08	59.06	57.61	58.94	63.31	63.99	61.71
Mediterranean, FOB Cargoes													
Premium Unl 10 ppm	79.41	71.31	45.59	47.45	47.42	66.81	77.94	73.62	74.64	77.42	81.40	86.87	84.87
Naphtha	66.08	54.43	37.81	40.74	42.80	59.29	65.19	62.59	60.82	64.72	69.56	74.03	71.28
Jet Aviation Fuel	85.37	77.76	43.28	40.88	46.01	62.77	71.22	66.24	66.44	71.03	75.73	77.48	75.05
ULSD 10ppm	86.03	79.05	48.76	47.45	49.02	65.71	74.07	69.46	68.98	73.90	78.85	80.19	77.54
Gasoil 0.1 %	84.74	77.70	47.60	46.32	48.48	64.76	72.94	68.39	67.95	72.48	77.86	79.20	76.65
LSFO 1%	64.31	63.90	44.06	42.26	47.07	63.60	67.84	68.04	65.86	66.78	70.56	72.71	70.60
HSFO 3.5%	62.06	52.17	34.36	37.23	39.72	53.60	58.23	57.01	55.68	57.32	61.34	62.36	60.35
US Gulf, FOB Pipeline													
Super Unleaded	85.71	79.24	50.64	52.55	52.94	76.13	90.78	85.80	86.58	90.81	94.75	98.99	96.43
Unleaded	80.10	72.28	46.02	49.24	49.93	72.92	85.70	81.83	82.38	85.60	88.96	92.39	91.17
Jet/Kerosene	85.12	78.81	46.20	45.02	49.16	65.77	73.74	69.60	69.66	73.41	77.94	79.25	76.45
ULSD 10 ppm	85.94	79.09	50.17	48.59	52.24	71.63	82.05	76.61	76.25	82.82	86.89	87.04	84.70
No. 6 3% ²	60.20	52.57	34.63	37.70	40.20	51.93	57.77	54.40	56.04	56.54	60.55	60.93	60.92
Singapore, FOB Cargoes													
Premium Unleaded	80.21	72.55	46.65	47.32	48.72	67.39	76.86	73.43	73.94	76.11	80.31	85.14	81.13
Naphtha	67.50	57.15	40.77	43.29	43.51	61.09	66.41	65.03	62.40	65.94	70.64	75.57	71.01
Jet/Kerosene	85.05	77.26	44.83	42.13	47.08	63.47	71.52	66.82	66.74	71.71	75.91	77.25	74.05
Gasoil 0.05%	84.33	77.23	48.43	47.00	48.38	64.93	72.28	68.75	67.73	72.11	76.78	77.93	73.77
HSFO 180 CST	67.04	58.62	39.32	40.35	44.09	56.74	61.28	60.67	59.02	59.71	64.79	66.22	65.07
HSFO 380 CST 4%	66.01	57.57	38.25	39.59	43.26	56.09	60.20	59.92	58.00	58.63	63.64	64.56	63.34

¹ IEA CIF Average Import price for June is an estimate.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Waterborne

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Table 14
MONTHLY AVERAGE END-USER PRICES FOR PETROLEUM PRODUCTS

August 2021

	NATIONAL CURRENCY *					US DOLLARS						
	Total Price	% change from		Ex-Tax Price	% change from		Total Price	% change from		Ex-Tax Price	% change from	
		Jul-21	Aug-20		Jul-21	Aug-20		Jul-21	Aug-20		Jul-21	Aug-20
GASOLINE ¹ (per litre)												
France	1.578	0.3	18.6	0.624	0.5	49.3	1.857	-0.2	17.9	0.734	-0.0	48.5
Germany	1.618	0.7	25.5	0.705	1.4	54.6	1.904	0.2	24.9	0.830	0.9	53.8
Italy	1.654	0.4	18.2	0.628	0.8	49.9	1.946	-0.1	17.6	0.739	0.3	49.1
Spain	1.417	1.1	21.6	0.698	1.7	42.4	1.667	0.6	21.0	0.821	1.3	41.7
United Kingdom	1.346	1.5	19.1	0.542	3.0	49.3	1.857	1.4	25.1	0.748	3.0	56.8
Japan	158.3	0.1	17.1	87.3	0.2	31.7	1.442	0.5	13.0	0.795	0.6	27.1
Canada	1.413	-0.2	32.7	0.935	-0.3	47.0	1.122	-0.8	39.4	0.742	-0.9	54.4
United States	0.834	0.6	44.8	0.704	0.4	56.8	0.834	0.6	44.8	0.704	0.4	56.8
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.433	-0.6	16.0	0.585	-1.2	39.3	1.686	-1.0	15.4	0.688	-1.7	38.6
Germany	1.389	-0.2	28.4	0.697	-0.4	50.5	1.634	-0.7	27.7	0.820	-0.9	49.7
Italy	1.505	-	17.1	0.617	-	41.5	1.771	-0.5	16.5	0.726	-0.5	40.8
Spain	1.266	0.3	19.4	0.667	0.5	34.2	1.490	-0.2	18.8	0.785	-0.0	33.5
United Kingdom	1.370	1.1	16.0	0.562	2.4	39.1	1.890	1.0	21.8	0.775	2.3	46.1
Japan	138.2	0.1	19.4	93.7	0.2	28.0	1.259	0.5	15.3	0.853	0.6	23.6
Canada	1.320	0.5	32.1	0.897	0.8	43.5	1.048	-0.1	38.8	0.712	0.2	50.7
United States	0.885	0.3	37.9	0.735	0.3	48.8	0.885	0.3	37.9	0.735	0.3	48.8
DOMESTIC HEATING OIL (per litre)												
France	0.893	-0.7	23.8	0.588	-0.9	32.2	1.051	-1.2	23.2	0.692	-1.4	31.5
Germany	0.752	-0.7	58.6	0.571	-0.8	64.3	0.885	-1.2	57.8	0.671	-1.3	63.4
Italy	1.289	-0.4	15.4	0.653	-0.6	27.5	1.517	-0.9	14.8	0.769	-1.1	26.8
Spain	0.738	0.3	34.7	0.513	0.3	44.2	0.868	-0.2	34.0	0.604	-0.1	43.4
United Kingdom	0.579	-0.8	23.7	0.440	-1.0	31.5	0.798	-0.8	29.9	0.607	-1.0	38.2
Japan ²	95.2	0.7	20.5	83.8	0.7	21.4	0.867	1.1	16.3	0.763	1.1	17.1
Canada	1.221	-0.3	37.2	1.059	-0.3	37.0	0.969	-0.9	44.1	0.841	-0.9	43.9
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY ³ (per kg)												
France	0.596	-1.8	31.8	0.457	-2.4	45.9	0.702	-2.3	31.1	0.538	-2.9	45.2
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.528	-1.6	45.8	0.496	-1.7	50.1	0.621	-2.1	45.0	0.584	-2.2	49.3
Spain	0.463	1.2	54.7	0.446	1.2	58.0	0.544	0.7	53.9	0.524	0.7	57.2
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Japan	81.169	3.0	39.2	81.169	3.0	39.2	0.739	3.4	34.4	0.739	3.4	34.4
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 Margins¹
 (\$/bbl)

	Monthly Average				Change Aug-Jul	Average for week ending:					
	May 21	Jun 21	Jul 21	Aug 21		13 Aug	20 Aug	27 Aug	03 Sep	10 Sep	
NW Europe											
Brent (Cracking)	1.53	1.25	1.89	4.09	↑	2.19	4.09	3.88	4.26	4.89	5.69
Urals (Cracking)	2.35	1.94	3.07	4.85	↑	1.78	4.87	4.97	5.13	5.16	5.29
Brent (Hydroskimming)	-0.75	-1.13	-0.79	1.23	↑	2.02	1.14	1.12	1.62	2.07	2.95
Urals (Hydroskimming)	-1.64	-2.02	-1.53	0.17	↑	1.71	0.14	0.41	0.64	0.31	0.51
Mediterranean											
Es Sider (Cracking)	3.05	2.47	3.42	5.48	↑	2.07	5.64	5.46	5.31	6.09	7.10
Urals (Cracking)	0.80	0.94	1.77	4.69	↑	2.92	4.55	4.95	5.24	5.20	5.32
Es Sider (Hydroskimming)	1.65	0.88	1.70	3.78	↑	2.08	3.99	3.80	3.59	4.27	5.29
Urals (Hydroskimming)	-3.19	-3.19	-2.74	0.24	↑	2.98	0.18	0.55	0.81	0.55	0.77
US Gulf Coast											
Mars (Cracking)	5.60	4.22	6.32	9.86	↑	3.55	9.76	9.46	10.78	9.51	8.14
50/50 HLS/LLS (Coking)	13.97	12.41	14.47	17.31	↑	2.84	17.71	16.39	17.65	17.36	16.71
50/50 Maya/Mars (Coking)	9.21	7.66	9.34	12.64	↑	3.29	13.05	12.10	12.75	12.89	11.89
ASCI (Coking)	10.88	9.26	11.64	14.57	↑	2.94	14.79	13.94	14.97	14.20	13.24
US Midwest											
30/70 WCS/Bakken (Cracking)	16.64	14.84	14.80	16.90	↑	2.11	17.79	16.28	16.36	16.02	15.55
Bakken (Cracking)	19.55	17.36	17.33	19.23	↑	1.90	20.55	18.51	18.20	18.25	17.91
WTI (Coking)	20.02	17.24	17.82	20.00	↑	2.18	21.36	19.26	19.07	19.02	18.90
30/70 WCS/Bakken (Coking)	20.53	18.34	18.44	20.13	↑	1.69	21.32	19.40	19.17	18.97	18.56
Singapore											
Dubai (Hydroskimming)	-3.48	-4.01	-3.58	-2.34	↑	1.23	-2.59	-2.77	-1.87	-0.93	0.37
Tapis (Hydroskimming)	0.77	0.78	-0.34	1.45	↑	1.79	1.44	1.51	1.07	1.28	2.48
Dubai (Hydrocracking)	2.95	2.33	3.38	3.78	↑	0.40	3.94	3.50	3.66	4.40	5.12
Tapis (Hydrocracking)	0.61	0.33	-0.42	1.53	↑	1.94	1.66	1.66	1.02	1.11	2.25

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-21	May-21	Jun-21	Jun-20	Jun 21 vs Previous Month	Jun 21 vs Previous Year	Jun 21 vs 5 Year Average	5 Year Average
OECD Americas								
Naphtha	1.4	1.3	1.2	1.3	-0.1	-0.1	-0.3	1.5
Motor gasoline	45.7	45.7	44.5	46.0	-1.2	-1.5	-0.5	44.9
Jet/kerosene	7.2	7.2	7.3	4.7	0.1	2.6	-1.1	8.4
Gasoil/diesel oil	28.0	27.6	27.7	30.6	0.1	-3.0	-1.0	28.7
Residual fuel oil	2.8	2.9	2.7	2.9	-0.1	-0.2	-0.5	3.3
Petroleum coke	4.3	4.3	4.5	4.5	0.1	0.0	0.0	4.5
Other products	13.7	14.0	14.4	14.1	0.4	0.4	1.4	13.1
OECD Europe								
Naphtha	8.3	8.0	8.0	8.5	0.0	-0.5	-0.1	8.0
Motor gasoline	20.6	20.5	20.5	19.7	0.0	0.8	0.1	20.4
Jet/kerosene	5.2	5.4	5.9	4.2	0.6	1.7	-1.8	7.8
Gasoil/diesel oil	41.5	41.0	41.7	43.6	0.7	-1.9	1.8	39.9
Residual fuel oil	8.5	9.0	8.0	7.5	-1.0	0.5	-0.9	8.9
Petroleum coke	1.4	1.4	1.5	1.5	0.1	0.0	0.2	1.4
Other products	17.2	17.5	17.1	17.1	-0.3	0.0	1.2	15.9
OECD Asia Oceania								
Naphtha	16.8	16.2	15.0	15.8	-1.2	-0.8	-0.4	15.4
Motor gasoline	22.5	21.6	22.7	20.6	1.1	2.2	1.1	21.7
Jet/kerosene	11.4	12.1	11.8	11.9	-0.3	-0.1	-2.5	14.3
Gasoil/diesel oil	30.7	30.9	31.3	32.7	0.4	-1.4	0.8	30.5
Residual fuel oil	8.0	7.8	7.9	7.8	0.2	0.1	1.0	6.9
Petroleum coke	0.3	0.4	0.4	0.5	0.0	-0.1	-0.1	0.5
Other products	12.8	12.8	13.6	12.6	0.7	1.0	0.8	12.7
OECD Total								
Naphtha	6.2	5.9	5.4	6.1	-0.4	-0.7	-0.5	5.9
Motor gasoline	33.8	33.9	33.7	33.2	-0.2	0.5	0.5	33.2
Jet/kerosene	7.3	7.4	7.6	5.8	0.1	1.8	-1.6	9.2
Gasoil/diesel oil	32.7	32.3	32.6	35.1	0.2	-2.6	0.0	32.5
Residual fuel oil	5.5	5.6	5.2	5.2	-0.4	-0.1	-0.5	5.7
Petroleum coke	2.7	2.8	2.9	2.8	0.2	0.1	0.1	2.8
Other products	14.7	14.9	15.1	14.8	0.2	0.4	1.2	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)

	2019	2020	2021	4Q20	1Q21	2Q21	Jun 21	Jul 21	Aug 21
ETHANOL									
OECD Americas¹	1060	936	1002	1002	932	1021	1054	1064	981
United States	1029	906	970	972	901	991	1023	1033	949
Other	31	30	31	30	31	31			
OECD Europe²	97	90	102	85	90	113	128	103	103
France	20	16	17	15	17	22	31	14	14
Germany	12	11	12	10	14	21	21	7	7
Spain	9	8	9	8	6	6	7	12	12
United Kingdom	4	4	11	5	9	12	13	11	11
Other	51	50	53	48	43	52			
OECD Asia Oceania³	5	4	5	5	4	4	4	5	5
Australia	4	3	3	3	3	4	4	3	3
Other	1	1	1	1	1	1			
Total OECD Ethanol	1163	1030	1108	1092	1026	1139	1186	1172	1088
Total Non-OECD Ethanol	813	743	798	664	320	904	1028	1174	1217
Brazil	621	560	577	467	99	683	808	954	996
China	67	69	76	83	76	76			
Argentina	19	15	18	15	18	18			
Other	106	99	126	99	126	126	220	220	220
TOTAL ETHANOL	1976	1774	1906	1756	1345	2042	2214	2346	2305
BIODIESEL									
OECD Americas¹	119	125	160	128	103	132	168	193	193
United States	113	118	152	122	99	129	164	182	182
Other	7	6	7	6	4	4			
OECD Europe²	281	261	290	274	254	286	291	310	310
France	42	41	43	41	46	50	58	37	37
Germany	66	60	66	56	53	60	60	75	75
Italy	18	28	31	28	27	29			
Spain	38	34	39	36	32	33	33	46	46
Other	116	99	112	114	97	115	112	118	118
OECD Asia Oceania³	15	20	23	17	14	23	23	28	28
Australia	2	3	4	3	2	2	2	6	6
Other	13	17	19	14	12	21			
Total OECD Biodiesel	415	405	473	419	370	441	482	531	531
Total Non-OECD Biodiesel	388	405	425	406	424	425	425	425	425
Brazil	102	111	116	113	117	117	110	110	116
Argentina*	42	27	36	27	36	36			
Other	245	267	273	265	271	272			
TOTAL BIODIESEL	803	810	898	825	794	866	907	956	956
GLOBAL BIOFUELS	2779	2584	2804	2581	2140	2908	3122	3302	3261

* monthly data not available.

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