

Oil Market Report

19 January 2021

- Global oil demand is expected to recover by 5.5 mb/d to 96.6 mb/d in 2021, following an unprecedented collapse of 8.8 mb/d in 2020. For now, a resurgence in Covid-19 cases is slowing the rebound, but a widespread vaccination effort and an acceleration in economic activity is expected to spur stronger growth in the second half of the year.
- After falling by a record 6.6 mb/d in 2020, world oil supply is set to rise by over 1 mb/d this year, with OPEC+ adding more than those outside the bloc. There may be scope for higher growth given our expectations for further improvement in demand in 2H21. After holding flat at 92.8 mb/d in December, global supply is rising this month with OPEC+ due to ramp up during January.
- Global refinery throughput is expected to rebound by 4.5 mb/d in 2021, after a 7.2 mb/d drop in 2020. Runs rose by 2.6 mb/d in November, the largest monthly gain in seven years, as refiners returned from peak maintenance. A cold snap in Europe and Asia boosted diesel and kerosene, but higher crude oil prices led fuel oil cracks lower, with an overall negative impact on refinery margins.
- Observed global oil stocks fell by 2.58 mb/d in 4Q20 after preliminary data showed hefty draw downs towards year-end. In November, OECD industry stocks fell for a fourth consecutive month. A monthly decline of 23.6 mb (0.79 mb/d) left inventories at 3 108 mb, 166.7 mb above their five-year average. Products led the fall, with OECD industry crude stocks only 48.9 mb below a May-peak.
- Oil's rally accelerated, with Brent reaching \$57/bbl on 12 January, a level not seen since February 2020. Despite rising Covid cases, crude prices are well supported by financial, economic and market fundamentals. Crude prices flipped into backwardation in December, and the 12 month time spread deepened to \$2.50/bbl by mid-January. Freight rates fell after OPEC+ agreed cuts on 5 January.



Table of contents

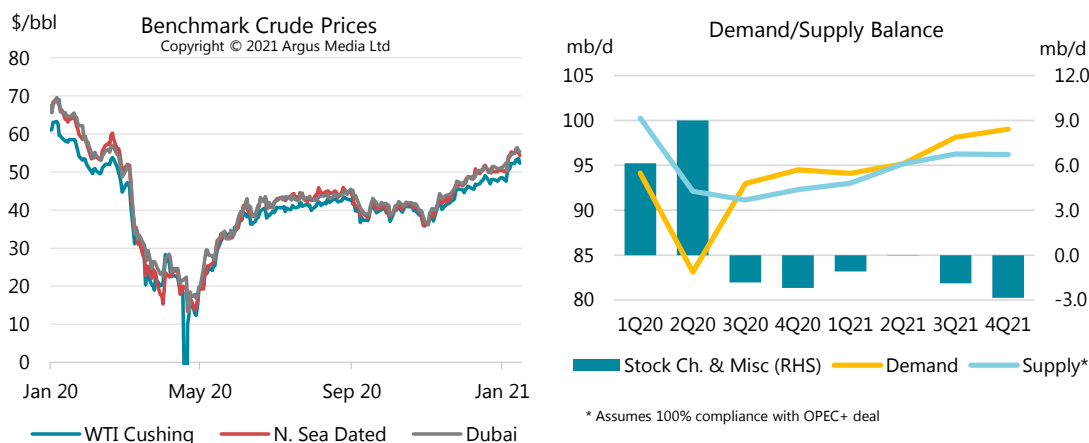
Gaining Ground	3
Demand	4
Overview	4
Fundamentals	5
OECD	6
Non-OECD	10
Other Non-OECD	13
Supply	14
Libya drives OPEC+ gains	16
Picture brightens for those outside OPEC+	20
Refining	23
Overview	23
Product cracks and refinery margins	24
Regional refining outlook	28
Stocks	35
Overview	35
Implied balance	36
Recent OECD industry stock changes	38
OECD Americas	38
OECD Europe	39
OECD Asia Oceania	39
Other stock developments	40
Prices	43
Overview	43
Futures markets	44
Spot crude oil prices	46
Freight	50
Tables	52

List of boxes

Box 1. Saudi surprises with 1 mb/d cut	16
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Gaining Ground

Global oil markets, battered by Covid-19, opened the New Year with a price rally gathering pace. Brent rose to \$57/bbl and WTI to \$53/bbl, reflecting a boost in demand on a cold-snap in Europe and Asia and OPEC+ supply cuts that look set to keep markets in deficit. The global vaccine roll-out is putting fundamentals on a stronger trajectory for the year, with both supply and demand shifting back into growth mode following 2020's unprecedented collapse.



But it will take more time for oil demand to recover fully as renewed lockdowns in a number of countries weigh on fuel sales. This has contributed to us revising down our forecast for global oil demand by 0.6 mb/d for 1Q21 and 0.3 mb/d for 2021 as a whole. World oil demand is now expected to rise by 5.5 mb/d this year, following 2020's 8.8 mb/d contraction. This recovery mainly reflects the impact of fiscal and monetary support packages as well as the effectiveness of steps to resolve the pandemic.

Anticipating weaker demand, OPEC+ decided in January to delay a further easing of cuts and Saudi Arabia surprised with an additional 1 mb/d supply reduction in February and March. The group's more proactive production restraint looks set to hasten a drawdown in the global stock surplus that got underway in earnest during 3Q20. Assuming OPEC+ achieves 100% compliance with the latest agreement, global oil stocks could draw by 1.1 mb/d, or 100 mb, in 1Q21, with the potential for much steeper declines during the second half of the year as demand strengthens.

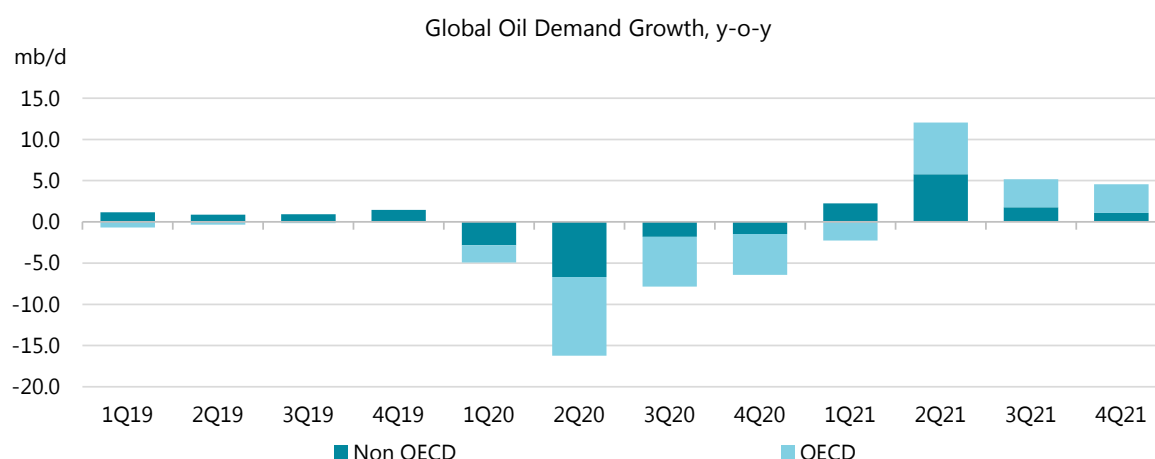
Higher demand will allow supply to start rising this year. World oil supply is now expected to increase by 1.2 mb/d in 2021 following a record decline of 6.6 mb/d last year. Much more oil is likely to be required, given our forecast for a substantial improvement in demand in the second half of the year. Our balances assume that during 2H21, OPEC+ will still withhold 5.8 mb/d of oil from the market as per the group's April 2020 agreement. However, OPEC+ has taken a more flexible approach to market management and will meet monthly to decide on output levels.

Higher crude prices could also provide an incentive to increase production by the US shale industry, which saw the biggest fall in output last year. For now though, companies seem committed to pledges made to keep production flat and instead use any price gain to pay down debt or to boost investor returns. If they stick to those plans, OPEC+ may start to reclaim the market share it has steadily lost to the US and others since 2016.

Demand

Overview

The recovery in global oil demand from the depths of the pandemic slowed considerably in November 2020 and went into reverse in December, due to a resurgence in Covid-19 cases. All in all, we estimate that oil consumption grew 1.5 mb/d quarter-on-quarter (q-o-q) in 4Q20, but nonetheless remained 6.4 mb/d below the pre-pandemic levels of 4Q19.



Global oil demand growth is expected to decline marginally in 1Q21 in the wake of tougher government plans that call for more travel restrictions and lockdowns that will further limit mobility. Frigid temperatures recorded in Asia and Europe over January will only partially offset the impact of the stricter policies. We expect oil demand to return to near year-ago levels, as the start of the global pandemic (in February 2020) becomes part of the y-o-y comparison.

Global Oil Demand (2019-2021)															
(million barrels per day)*															
	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
Africa	4.3	4.3	4.2	4.3	4.3	4.2	3.3	3.9	4.0	3.9	4.1	4.0	4.0	4.1	4.1
Americas	31.4	31.7	32.3	32.1	31.9	30.1	24.9	28.5	28.9	28.1	28.7	29.4	30.9	31.1	30.0
Asia/Pacific	35.9	35.6	35.2	36.4	35.8	33.3	32.3	34.1	36.0	33.9	36.0	35.5	35.5	36.7	35.9
Europe	14.8	15.0	15.5	14.9	15.0	14.1	11.6	13.6	13.2	13.1	13.2	13.9	14.4	14.4	14.0
FSU	4.6	4.7	5.0	4.9	4.8	4.6	4.0	4.8	4.7	4.5	4.4	4.5	4.9	4.9	4.7
Middle East	8.1	8.1	8.7	8.3	8.3	7.8	7.0	8.2	7.6	7.6	7.6	7.8	8.4	7.8	7.9
World	99.1	99.3	100.8	100.9	100.0	94.1	83.1	93.0	94.5	91.2	94.1	95.2	98.1	99.0	96.6
Annual Chg (%)	0.5	0.5	0.8	1.4	0.8	-5.0	-16.3	-7.8	-6.4	-8.8	0.0	14.5	5.6	4.8	6.0
Annual Chg (mb/d)	0.5	0.5	0.8	1.4	0.8	-4.9	-16.2	-7.8	-6.4	-8.8	0.0	12.1	5.2	4.6	5.5
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-0.2	0.0	-0.6	-0.3	-0.1	-0.2	-0.3

* Including biofuels

In this *Report*, we revise 4Q20 demand lower by 215 kb/d following the receipt of finalised data in the Americas and Europe. Our 1Q21 forecast has been reduced by a sharper 580 kb/d as surging Covid-19 cases weigh on demand. Border closures, social distancing measures and shutdowns, among other policies, will continue to constrain fuel demand until vaccines are more widely distributed, most likely only by the second half of the year.

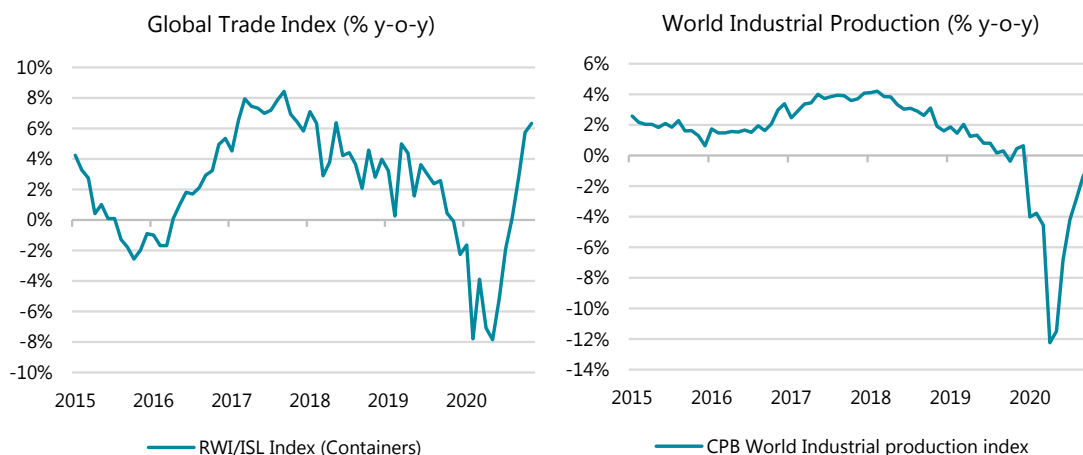
Our 2020 oil demand forecast is revised down 40 kb/d and for 2021 lowered by 280 kb/d. We now expect oil demand to recover by 5.5 mb/d to 96.6 mb/d in 2021, following a decline of 8.8 mb/d last year.

Fundamentals

The new widespread escalation of Covid-19 cases remains the main factor impacting oil demand. While vaccination campaigns are underway in many countries, several regions are facing a rebound in the pandemic forcing tighter mobility constraints. In addition, the emergence of more contagious variants of the virus are complicating efforts to contain the surge in cases, with confirmed cases worldwide now over 90 million.

In Europe, the average number of daily cases in the UK jumped to close to 60 000 in the seven days to 11 January, as a new variant of the virus forced the country into a severe lockdown. Additional containment measures (restaurant closures, curfews) were also taken in France, Germany, Sweden, Portugal and several other European countries. The US experienced more than 250 000 new daily cases in the seven days to 11 January and is currently reporting around 4 000 daily deaths. Many US states issued curfews and stay-at-home-orders.

Numerous other countries experienced significant increases in cases. In Brazil, the number of new daily cases accelerated to more than 55 000 in the seven days to 11 January. South Africa reported more than 18 000 new daily cases in the same period, well above the first wave of 12 500. Japan reported more than 6 000 new daily cases in the same period, prompting the government to declare a state of emergency in 11 prefectures, encouraging staff to work from home and urging residents to avoid non-essential outings.



A new outbreak in China since early January has prompted authorities to impose the strictest lockdowns since the first wave almost a year ago. As of mid-January, more than 28 million people were ordered to stay in place in Hebei and some districts of Beijing. Transportation was shut down and ceremonies cancelled. Other cases were reported in the provinces of Heilongjiang, Guangxi and Shaanxi.

The eventual recovery in oil consumption to pre-pandemic levels depends on a large rollout of Covid-19 vaccines to the global population. In December, Russia became the first country to start its vaccination campaign, quickly followed by the UK, the US and other countries in Europe, Asia, the Middle East and Latin America. A total of 40 million doses have been

administered at the time of writing, covering just 0.5% of the global population. However, vaccination campaigns take time due to the huge logistical constraints. Many countries have struggled to hit their current vaccination targets. In our forecast, we assume that the vaccination campaigns will start to have an impact on mobility and transport fuel demand in the second half of 2021.

The economic impact from the new wave of Covid has largely been muted so far thanks to containment measures allowing economic activity to continue as much as possible. Consequently, recent economic indicators show only a moderate slowdown in world economic growth. The Global PMI slowed from 53.1 in November to 52.7 in December. However, the most recent lockdown measures and the fear of the virus have led to further weakness in the service sector, with tourism, recreation and transportation being the most affected.

Manufacturing and trade remained resilient in December as auto makers and equipment producers reported strong expansion. Countries with large manufacturing sectors, such as Germany, were less disrupted by the measures to contain the new Covid wave. Germany reported a fall of 5% in GDP for the whole of 2020, less than the 5.9% decline experienced in 2009. The Chinese economy continued to expand in 2020 despite the pandemic, with growth reported at 2.3% for the year and 6.5% y-o-y in 4Q20. Nevertheless, the new wave of Covid cases led to a minor downward revision to the 2021 world GDP growth forecast. In 2021, the world economy is now expected to grow roughly 5% after a decline of close to 4% in 2020.

OECD

OECD oil product demand grew 240 kb/d m-o-m in October (the last month for which full data is available), but the pace has since slackened as several countries imposed new social distancing measures amid a resurgence of Covid-19 in the Americas and Europe. Based on preliminary November data, we estimate that m-o-m growth slowed to just 30 kb/d. On a yearly basis, November OECD demand was down 5.2 mb/d.

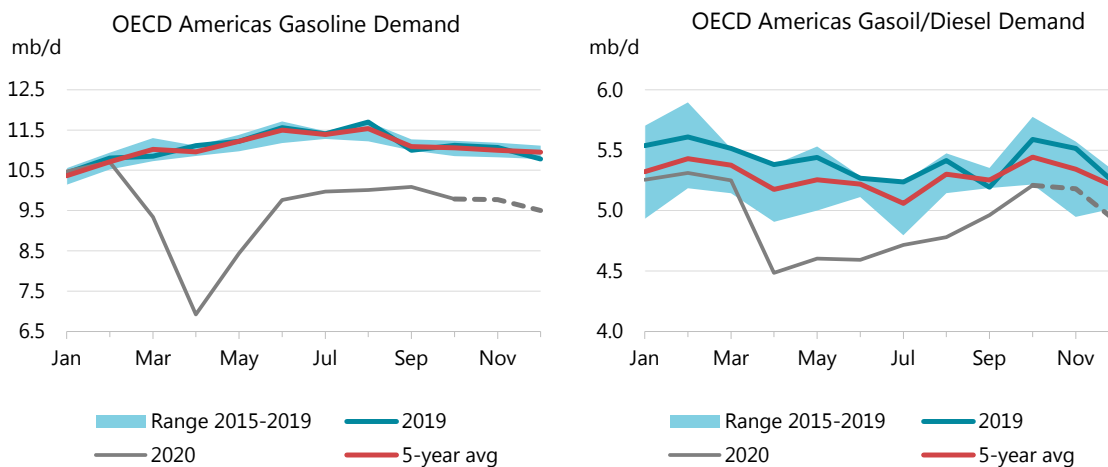
This month, we have revised down our expectations for 4Q20 demand by 390 kb/d and for 1Q21 by 400 kb/d, due to the virus' spreading and confirmed lower data for several countries. We now calculate that demand grew by 715 kb/d quarter-on-quarter (q-o-q) in 4Q20, a much slower pace than the 4.7 mb/d registered in 3Q. In 1Q21, we expect q-o-q growth to slow further to 240 kb/d. OECD demand is set to return to growth on a year-on-year basis in 2Q21.

OECD Americas

Oil demand in the OECD Americas region rose by 400 kb/d m-o-m in October and another 390 kb/d in November, helped by an increase in air travel during the holiday season and higher gasoil and LPG consumption. However, a strong increase in Covid cases in Canada and the US significantly reduced travel at year-end. We estimate that oil demand fell back 570 kb/d on the month in December and was down a significant 2.7 mb/d on the year, as transport fuel use suffered. In December, gasoline sales eased 270 kb/d m-o-m and 1.3 mb/d y-o-y. Gasoil/diesel consumption decreased 285 kb/d m-o-m and was down 300 kb/d on the year.

In the **US**, oil deliveries rose 180 kb/d m-o-m in November. However preliminary figures indicate that they fell back 770 kb/d m-o-m in December, the largest such decline since April. Road transport fuels were largely to blame. Jet and kerosene deliveries, meanwhile, rose 140 kb/d m-o-m in November, but inched 20 kb/d lower in December. In **Canada**, oil demand fell 170 kb/d

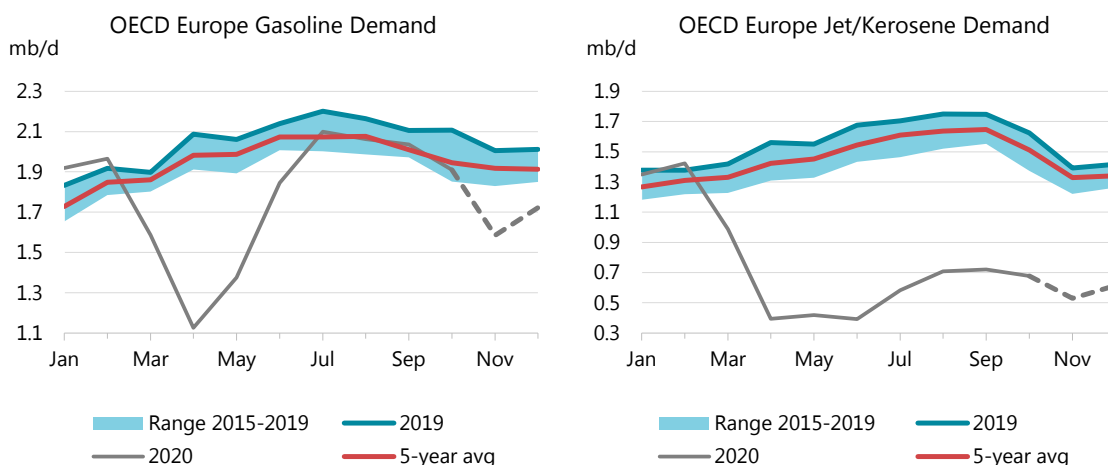
m-o-m in October, with declines in diesel and gasoline. In **Mexico**, demand increased in October, but fell back a little in November.



We now expect oil demand in the region to decrease by 190 kb/d q-o-q in 1Q21 (and 1.4 mb/d y-o-y) as a result of Covid-19. In addition, the mild temperatures recorded in January will undermine heating oil demand. Overall, we forecast the region's total oil products demand will rise 1.6 mb/d in 2021, or around half the amount of demand lost to Covid-19 in 2020.

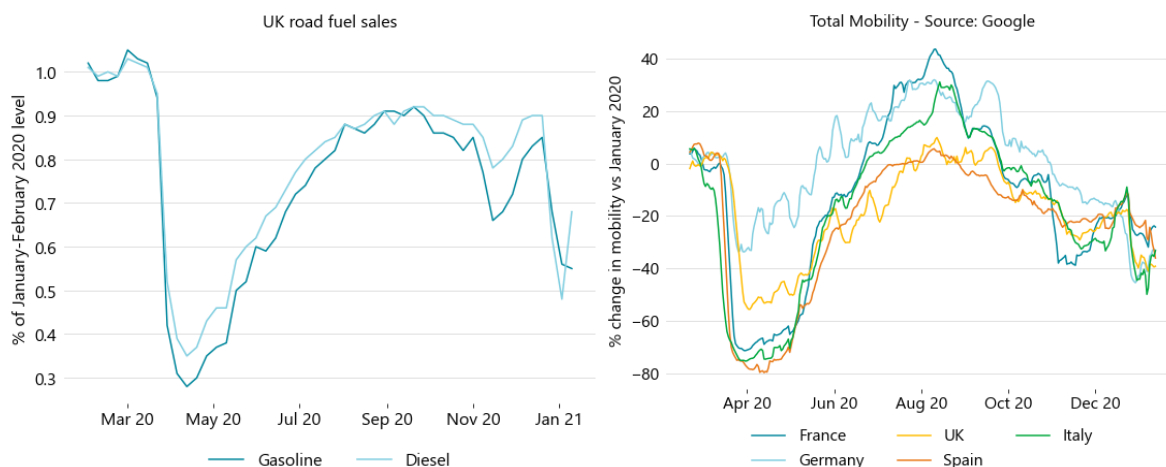
OECD Europe

OECD Europe oil demand decreased 190 kb/d in October (-1.6 mb/d y-o-y) following the end of the summer driving season and as several countries imposed travel restrictions. Transport fuels (diesel, gasoline and jet fuel) were responsible for most of the fall. Demand contracted in several countries, including **Belgium** (-40 kb/d m-o-m), **Turkey** (-135 kb/d) and the **Netherlands** (-20 kb/d).

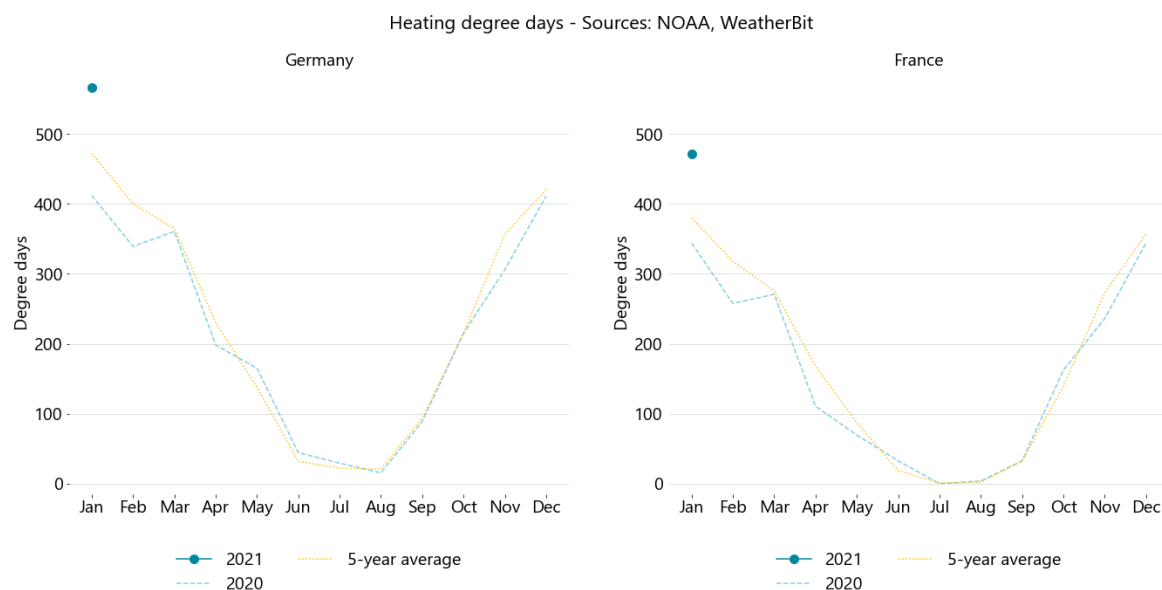


Preliminary figures for **France** (-290 kb/d m-o-m), **Germany** (-210 kb/d) and **Italy** (-180 kb/d) point to even sharper falls in demand in November. As with previous lockdown episodes, diesel and gasoline were most impacted, while jet fuel demand remained very weak. New high frequency **UK** experimental data through early January (Energy Trends: UK oil and oil products) show gasoline demand rising slightly in December, but then falling sharply in January with a tougher lockdown, that included keeping schools closed, imposed since late December.

European gasoline demand suffered its second dip of the year in November, equivalent to about half the decline registered in April during the first virus wave. A similar pattern happened for other fuels, such as diesel and jet, although with less pronounced declines.



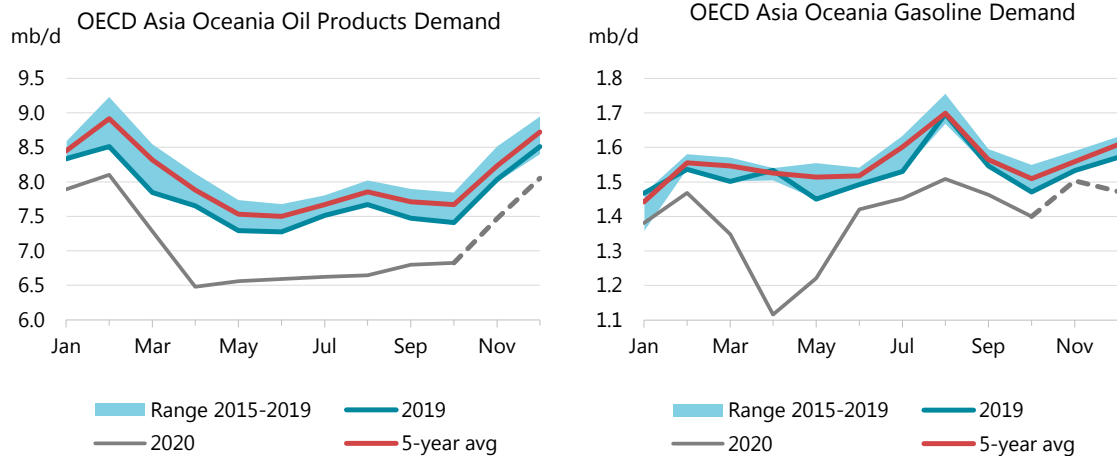
We expect European oil demand to rise by a modest 110 kb/d q-o-q in 1Q21, but to remain 840 kb/d below 2020 levels (which was marked by the start of lockdowns in Europe). The frigid temperatures recorded during much of January at a time when many Europeans were working from home are likely to have boosted heating fuel demand. Overall, oil consumption should recover by 870 kb/d y-o-y in 2021, or less than half of the volume lost in 2020 to the pandemic.



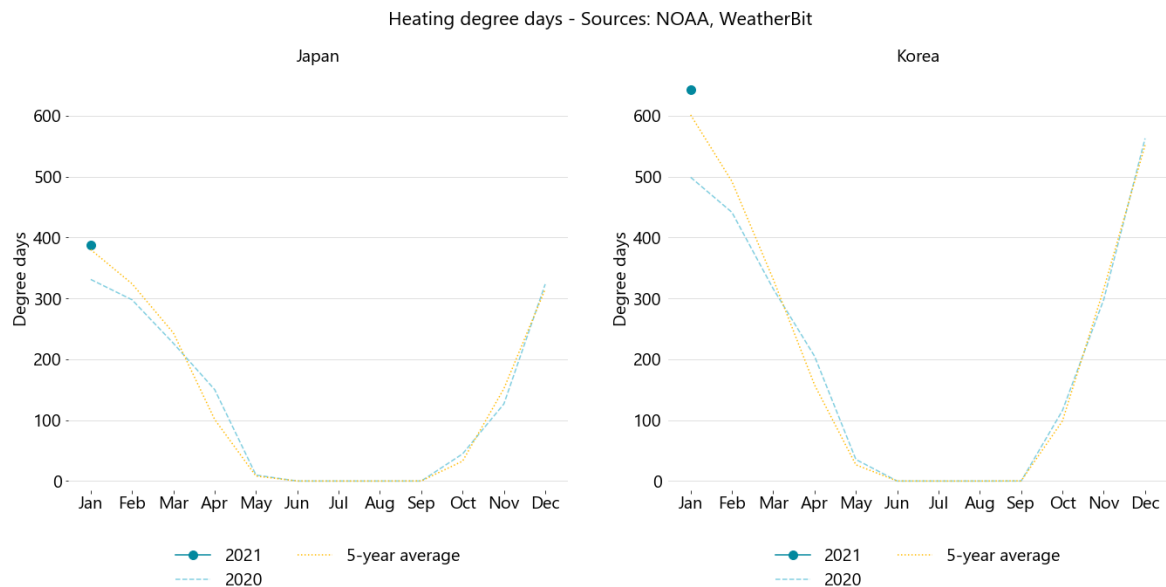
Very cold temperatures in France, the UK, Spain and Germany will support heating oil deliveries in 1Q21. Heating degree days in the main heating oil consumers are roughly 30% higher than last year in January.

OECD Asia Oceania

Oil demand in OECD Asia Oceania rose just 20 kb/d on the month in October. We estimate robust sequential consumption growth of 645 kb/d m-o-m in November and 590 kb/d m-o-m in December. This contrasts with the Americas and European regions where demand contracted.



Preliminary Japanese figures for November show deliveries rose 400 kb/d m-o-m to just 180 kb/d below November 2019, the smallest y-o-y deficit in 2020. The largest m-o-m increases were seen in kerosene (for seasonal reasons) and gasoil/diesel. Gasoline and gasoil/diesel consumption rose to almost reach year-ago levels, but jet/kerosene remained down y-o-y by around 60 kb/d due to limited international flights.



We expect the region's consumption to rise by another 320 kb/d q-o-q in 1Q21, thus nearly returning to pre-pandemic levels. Cold temperatures recorded during December and January should help boost heating fuels demand (kerosene, LPG) in Japan and Korea. Heating degree days are close to their historical average in Japan, 15% above last year, and close to 25% above last year in Korea. At the same time, a spike in Asian spot LNG and coal prices and the shutdown of a coal-fired unit in Japan have supported the use of oil for power generation in the region.

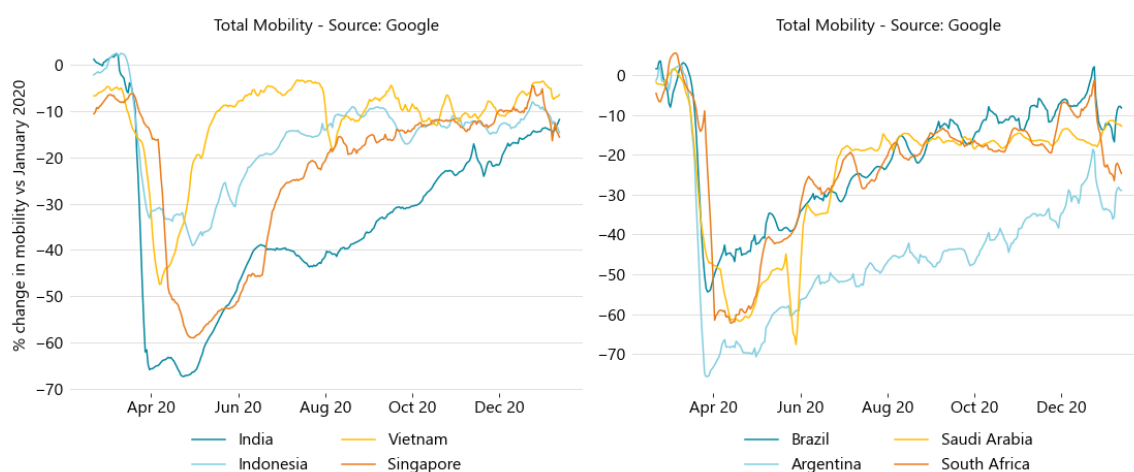
The New Year brought renewed demand pressure as Covid-19 infections rose in Japan during January. New mobility restrictions could endanger the oil demand recovery seen in 4Q20. Following a demand contraction of 680 kb/d in 2020, we only expect a recovery of 275 kb/d in 2021 for OECD Asia Oceania.

Non-OECD

Non-OECD oil demand continued to recover in 4Q20 after the strong 3Q20 rebound. While jet fuel remains a drag on overall demand, gasoil/diesel and gasoline have tracked transportation and mobility needs higher as economic activity improved and within the bounds of Covid restrictions imposed by local governments. Non-OECD oil demand is estimated to have risen by 800 kb/d q-o-q in 4Q20 (5.15 mb/d q-o-q in 3Q20). Gasoil/diesel rose by 480 kb/d q-o-q, narrowing the gap with pre-pandemic levels to less than 100 kb/d. Jet/kerosene demand increased by 250 kb/d q-o-q but remained 1.15 mb/d below 2019 levels as the aviation sector continued to struggle. Gasoline demand stagnated as the negative impact of seasonality roughly offset the economic recovery versus 2Q20, remaining down 250 kb/d y-o-y.

Non-OECD: Demand by Region							
(thousand barrels per day)							
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q20	3Q20	4Q20	3Q20	4Q20	3Q20	4Q20
Africa	3 331	3 891	4 036	- 273	- 247	-6.6	-5.8
Asia	25 745	27 395	28 531	- 247	73	-0.9	0.3
FSU	4 029	4 767	4 733	- 183	- 172	-3.7	-3.5
Latin America	4 865	5 764	5 823	- 517	- 415	-8.2	-6.6
Middle East	6 993	8 153	7 642	- 582	- 699	-6.7	-8.4
Non-OECD Europe	614	764	767	- 23	- 14	-3.0	-1.7
Total Products	45 576	50 734	51 531	-1 826	-1 473	-3.5	-2.8

On an annual basis, demand in 4Q20 was down only 1.5 mb/d for non-OECD countries versus -4.95 mb/d in the OECD. In 2020, non-OECD consumption declined overall by 3.2 mb/d y-o-y. In 2021, non-OECD oil consumption is set to rebound by 2.7 mb/d, but overall consumption will still be 480 kb/d below 2019 levels.



Mobility improved in non-OECD countries in October and November, but rising Covid cases in South Africa and Brazil in December reversed this trend at the end of the year. Like the UK,

South Africa and Brazil are suffering from new Covid variants that appear to be more contagious.

Non-OECD oil demand growth in 2021 will depend on vaccine campaigns to free-up economic activity and mobility, with the biggest impact in the second half of the year as the vaccinated share of the population becomes significant. While some non-OECD countries are already undertaking vaccination campaigns, many low income economies in the group will likely have to wait two to three years to have their population well immunised. Some 190 countries are part of the COVAX initiative¹, aimed at coordinating access to vaccine doses for member countries. COVAX plans to deliver at least 1.3 billion donor-funded doses in 2021 to 92 low-income economies and vaccinate around 20% of the population of the countries concerned by end-2021. First deliveries are expected in 1Q21.

China

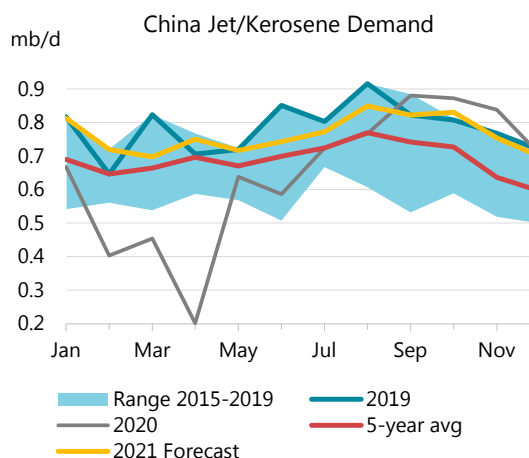
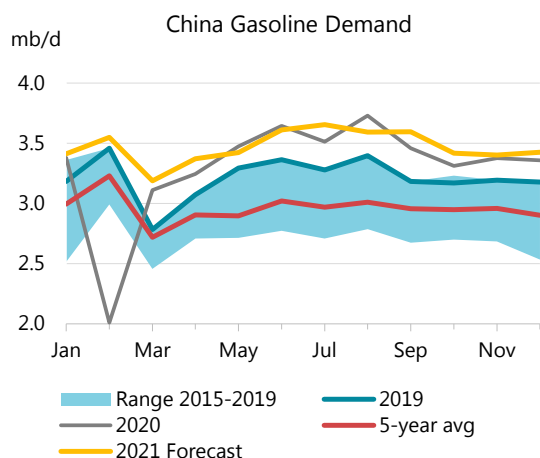
Chinese oil demand remained stagnant q-o-q in 4Q20 after very strong increases in 2Q20 (+2.35 mb/d) and 3Q20 (+500 kb/d). Demand rose 640 kb/d y-o-y in 4Q20. China has already vaccinated 10 million people and plans to vaccinate an additional 40 million ahead of the Lunar New Year holidays next month, when large-scale travel typically occurs. This year, however, the recent uptick in Covid cases has alarmed the government. Provincial authorities and employers are discouraging people from travelling. China's state planner expects lower than normal holiday travel.

China: Demand by Product							
(thousand barrels per day)							
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2020	2021	2020	2021
LPG & Ethane	1 681	1 758	1 854	78	96	4.6	5.4
Naphtha	1 360	1 474	1 629	114	155	8.4	10.5
Motor Gasoline	3 203	3 298	3 461	96	163	3.0	4.9
Jet Fuel & Kerosene	792	654	772	- 138	118	-17.4	18.0
Gas/Diesel Oil	3 719	3 787	3 917	67	130	1.8	3.4
Residual Fuel Oil	427	460	505	33	45	7.8	9.8
Other Products	2 533	2 471	2 509	- 62	38	-2.5	1.6
Total Products	13 714	13 903	14 648	188	745	1.4	5.4

The Chinese economy continues to expand rapidly, confirming its quick recovery from the Covid crisis. China will be the only major economy reporting growth for 2020 (final data to be reported 18 January). After the Chinese stimulus programme focused mainly on supporting industry and businesses, consumer spending is now picking up. China's exports have boomed in recent months, supported by sales of medical equipment and work-from-home equipment during the pandemic. In December, exports rose 18% y-o-y, lifting export growth for the year to 3.6%.

For 2020 as a whole, oil consumption should increase by 190 kb/d, to 13.9 mb/d, underlining the very strong recovery from the Covid-19 pandemic already achieved. In 2021, we expect demand to rise by 745 kb/d to 14.6 mb/d.

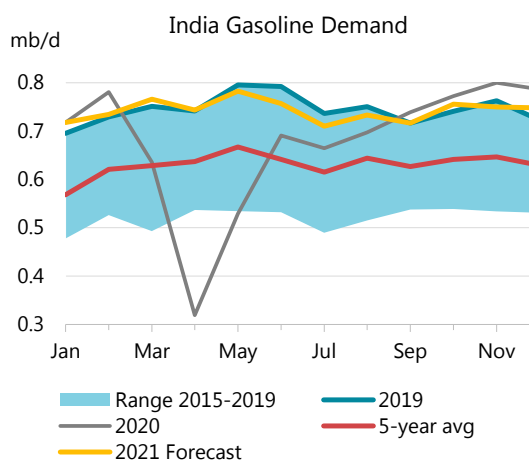
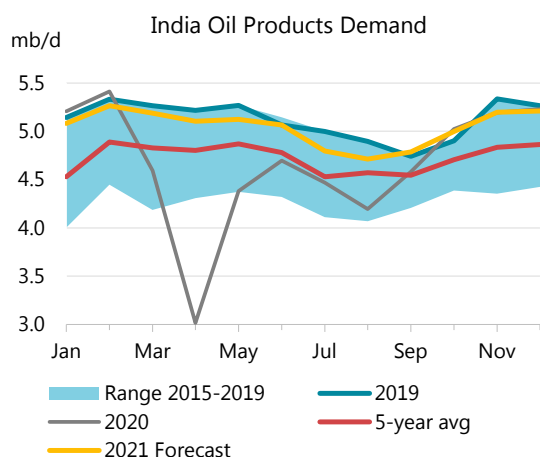
¹ Under the World Health Organisation, Gavi (Global Alliance for Vaccines and Immunization) and the Coalition for Preparedness Innovations.



India

Indian oil demand grew by a strong 740 kb/d q-o-q in 4Q20, buoyed by gasoil/diesel sales (+440 kb/d). Gasoline demand rose 90 kb/d q-o-q, while jet and kerosene sales were unchanged. A slowdown in new Covid cases helped to boost oil consumption, which returned to 2019 levels during the quarter.

India: Demand by Product							
(thousand barrels per day)							
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2020	2021	2020	2021
LPG & Ethane	858	892	910	35	18	4.0	2.0
Naphtha	332	344	370	12	25	3.7	7.4
Motor Gasoline	745	678	743	- 67	65	-9.0	9.6
Jet Fuel & Kerosene	237	132	153	- 105	21	-44.2	15.9
Gas/Diesel Oil	1 735	1 481	1 660	- 253	178	-14.6	12.0
Residual Fuel Oil	143	137	142	- 6	5	-4.5	3.4
Other Products	1 065	997	1 062	- 68	65	-6.4	6.5
Total Products	5 114	4 662	5 039	- 453	377	-8.8	8.1



India has been one of the most severely hit countries by the pandemic due to stringent lockdowns and limited stimulus support. It launched a mass vaccination programme in

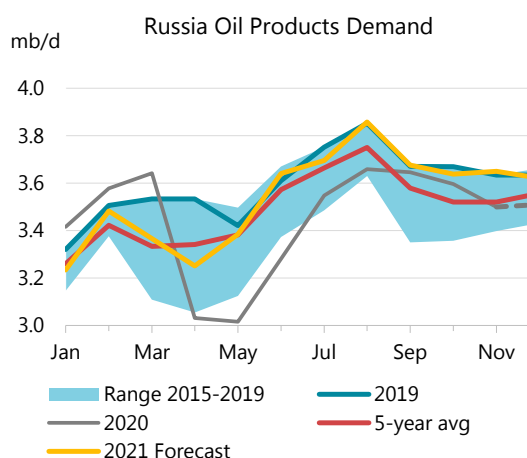
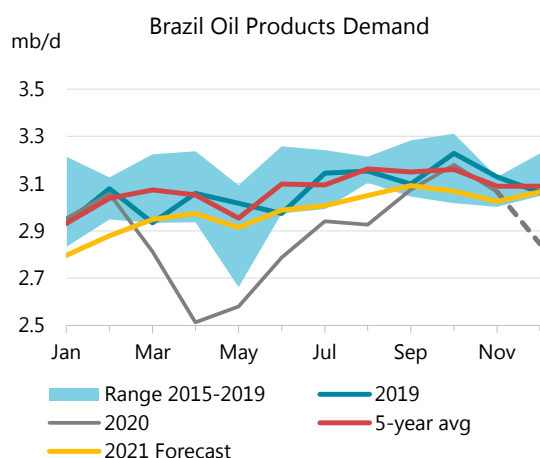
mid-January for 300 million health workers and vulnerable people, which should support the recovery in economic activity and oil demand. For 2020 as a whole, Indian demand should decrease by 450 kb/d, before increasing by 380 kb/d in 2021. This forecast assumes that the spreading of Covid cases in India remains under control.

Other Non-OECD

In **Argentina**, oil demand remained roughly stagnant q-o-q in 4Q20. Total oil consumption is likely to fall by 90 kb/d in 2020, before recovering by 40 kb/d in 2021. The outlook reflects the rebound in Covid cases in recent weeks after progressive declines in 4Q20. Argentina started a vaccination campaign at the end of December, with the administration of 300 000 doses of the Russian Sputnik V vaccine.

In **Brazil**, oil demand rose 50 kb/d q-o-q in 4Q20 but remained down 110 kb/d y-o-y. While October and November demand were relatively strong, transport fuel demand is believed to have dropped significantly in December with higher Covid cases. Brazil's government has announced plans to vaccinate 51 million people (one fourth of the population) in 1H21.

Russian deliveries fell by 110 kb/d y-o-y in 4Q20, as Covid cases remain elevated. In 2020, consumption is projected to decrease by 140 kb/d, before recovering by 90 kb/d in 2021. According to press reports, Russia started its vaccination campaign at the start of December with Sputnik V.



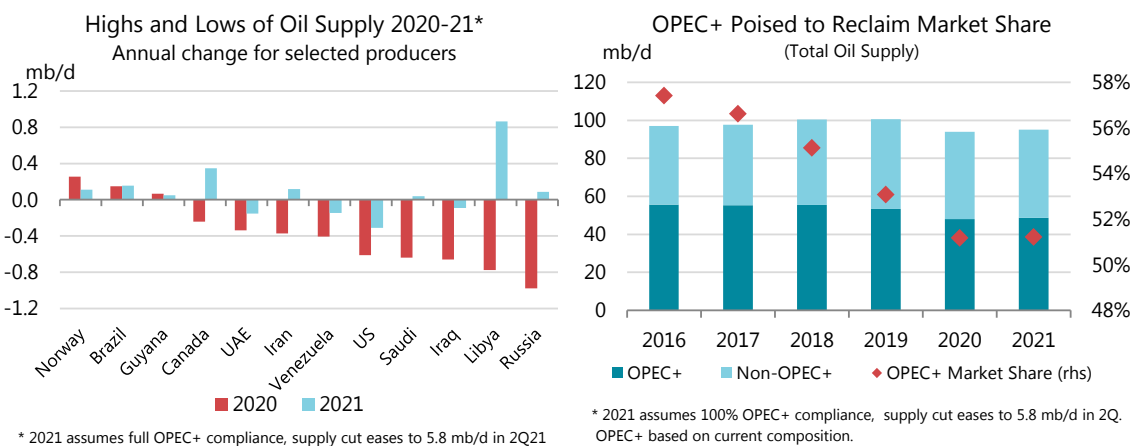
In **Africa**, the African Union has complemented COVAX by securing 270 million vaccines for its 54 members. More than 50 million doses will be available during the spring, the rest before the end of 2021. South Africa has independently ordered 20 million doses. African oil demand is expected to remain 200 kb/d below 2019 levels in 2021.

Thailand hopes to vaccinate half of its population by the end of the year, rising to 70% by 2022. The country wants to produce domestically 26 million doses of the AstraZeneca vaccine, and to import some from China. Thai oil demand is expected to remain 40 kb/d below 2019's levels in 2021.

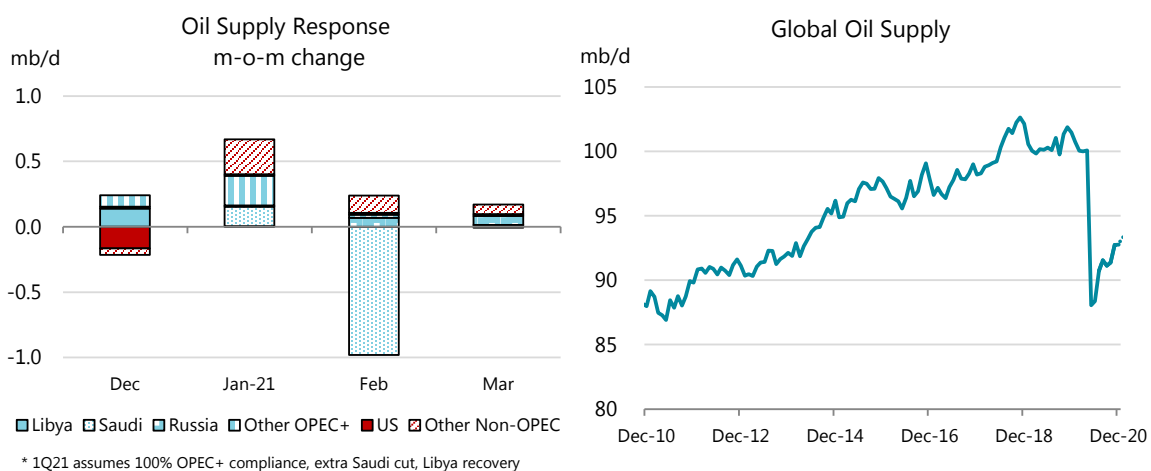
Saudi Arabia's oil demand fell 330 kb/d q-o-q in 4Q20 as seasonally lower electricity needs cut direct crude use. In 2020, total oil demand is expected to have contracted by 130 kb/d due to lower gasoline and jet/kerosene deliveries. Saudi Arabia started its vaccination campaign in mid-December. Dubai and Kuwait started to vaccinate at the end of December.

Supply

World oil supply is on track to swing back to growth this year after an unprecedented collapse in demand from Covid-19 in 2020 led to the biggest ever annual decline in production. As things now stand, global output could rise by more than 1 mb/d in 2021 provided OPEC+ continues to unwind its record cuts of 2020, Libya sustains its recovery and higher prices spur those outside OPEC+ to pump more. And with the US expected to post another annual decline in 2021, OPEC+ may start to reclaim the market share it has steadily lost to others outside the bloc since its creation in 2016.



Last year, OPEC+ and economically driven shut-ins from those outside the group removed a whopping 6.6 mb/d from world markets, but supply of 93.94 mb/d still far outpaced demand. Core OPEC+ producer Russia posted the biggest decline, followed by Libya, where civil unrest slowed output to a trickle. The US, the world's growth engine from 2017-2019, lost 610 kb/d and is expected to see a further annual drop this year. Norway and Brazil led the gains. The net result was a 5.3 mb/d fall in output from OPEC+ and a 1.3 mb/d decrease from those not taking part in the group.



This year kicks off with output on the rise as OPEC+ ramps up in January under a deal struck at the end of 2020. During December, global oil supply was flat at 92.8 mb/d, down 8.7 mb/d year on year (y-o-y) as higher OPEC+ production led by Libya, exempt from OPEC+ cuts, offset losses from the US. As for OPEC's 13 members, crude oil production rose 150 kb/d month on month (m-o-m) to 25.2 mb/d, boosted by Libya's further recovery and modest increases in the UAE and Iraq. For the year as a whole, OPEC posted a decline of 3.8 mb/d y-o-y that left annual crude supply at 25.7 mb/d.

OPEC+ Crude Oil Production ¹								
(million barrels per day)								
	Nov 2020 Supply	Dec 2020 Supply	Supply Baseline ²	December Compliance	Average Compliance	Aug-Dec Target	Jan 2021 Target	Feb 2021 Target
Algeria	0.86	0.86	1.06	102%	102%	0.86	0.88	0.88
Angola	1.21	1.17	1.53	128%	100%	1.25	1.27	1.27
Congo	0.29	0.28	0.33	76%	50%	0.27	0.27	0.27
Equatorial Guinea	0.10	0.11	0.13	74%	77%	0.10	0.11	0.11
Gabon	0.20	0.19	0.19	-9%	-38%	0.15	0.16	0.16
Iraq	3.81	3.87	4.65	92%	91%	3.80	3.86	3.86
Kuwait	2.30	2.30	2.81	99%	101%	2.30	2.33	2.33
Nigeria	1.33	1.25	1.83	173%	126%	1.50	1.52	1.52
Saudi Arabia	8.99	8.99	11.00	100%	150%	8.99	9.12	9.12
UAE	2.50	2.57	3.17	103%	84%	2.59	2.63	2.63
Total OPEC 10	21.59	21.59	26.68	105%	99%	21.82	22.12	22.12
Iran ³	1.99	2.02						
Libya ³	1.04	1.17						
Venezuela ³	0.43	0.42						
Total OPEC	25.05	25.20						
Azerbaijan	0.59	0.59	0.72	99%	100%	0.59	0.60	0.60
Kazakhstan	1.44	1.44	1.71	85%	89%	1.40	1.42	1.43
Mexico ⁵	1.63	1.65	1.75			1.75	1.75	1.75
Oman	0.72	0.72	0.88	100%	102%	0.72	0.73	0.73
Russia	9.11	9.13	11.00	93%	95%	8.99	9.12	9.18
Others ⁴	0.92	0.93	1.11	88%	87%	0.90	0.92	0.92
Total Non-OPEC	14.41	14.47	17.17	93%	94%	14.35	14.53	14.61
Total OPEC+	39.46	39.67	43.85	100%	97%	36.17	36.65	36.73

1 Excludes condensates.

2 Based on Oct-2018, except for Saudi and Russia which each have an 11 mb/d baseline.

3 Iran, Libya, Venezuela exempt from cuts.

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

5 Mexico only cut production in May and June.

The recent resurgence of Covid-19 amid fragile demand growth led OPEC+ to forego a 0.5 mb/d production increase that had been proposed for February and agree at its 4-5 January meeting to keep supply largely steady, with some exceptions. Saudi Arabia promised to make a substantial voluntary reduction (see *Saudi surprises with 1 mb/d cut*). Yet our forecast for a strong improvement in demand in 2H21 suggests that there may be scope for considerably higher oil supply growth in 2021 than we currently estimate.

Our assumptions show OPEC+ output rising by 670 kb/d this year (based on 100% compliance with its current supply agreements), while producers outside the bloc increase by 560 kb/d y-o-y. For OPEC+, we have assumed a gradual easing of cuts during 2Q21 to a reduction of 5.8 mb/d (versus the October 2018 reference) which it holds through 1Q22 as per the group's April 2020 agreement. In that case, OPEC+ market share edges above the 2020 level. Supply cut agreements and sanctions have shrunk the group's market share to 51% in 2020 from 57% in 2016.

As for the US, we expect overall oil supplies to fall by another 0.3 mb/d y-o-y in 2021. While improved market conditions have already encouraged US energy firms to boost activity, the pace of the recovery is expected to be modest. Major operators have reiterated their commitment to maintain capital discipline and have yet to signal any significant revisions to their 2021 budgets. Instead they will focus on paying down debt and increasing investor returns. However, WTI already trading above \$50/bbl will generate significant free cash flow for some

companies, providing the means to boost investment and activity. So, if prices remain at current levels or continue to rise, there is clearly upside potential for US shale production.

Box 1. Saudi surprises with 1 mb/d cut

In an unexpected move at the 4-5 January OPEC+ meeting, Saudi Arabia vowed to remove an extra 1 mb/d in February and March while the group's new deal requires most members to hold production at current levels through the first quarter. The size of the cut and the fact the kingdom is willing to go it alone clearly reflect its concern over the threat to oil demand posed by Covid-19, the risk of stocks starting to rise again and prices falling back significantly.

Exceptions were made for Russia and Kazakhstan which are allowed to increase production by 65 kb/d and 10 kb/d, respectively in February and March. Both countries have been pumping above their supply targets, so the increase will legitimise some of that excess.

At the start of the meeting, Russia and Kazakhstan insisted the group proceed with a planned 0.5 mb/d increase in the production ceiling for February. Iraq, Nigeria and the UAE preferred to sustain January levels given the uncertain oil demand outlook.

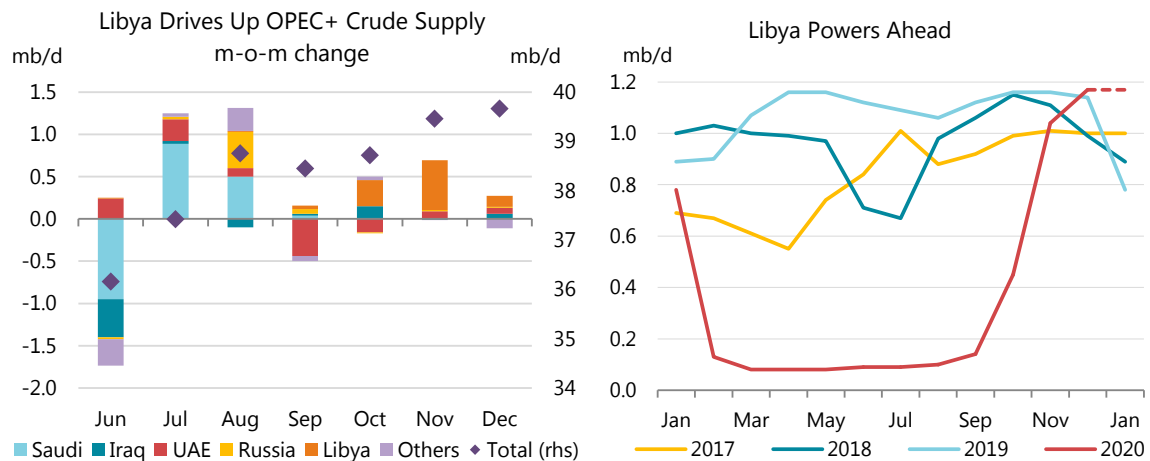
In volume terms, Saudi crude oil production is set to plunge to 8.1 mb/d in February and March from its target of 9.1 mb/d this month. This is not the first time the Saudis have acted unilaterally in this dramatic fashion. In June 2020, they also removed an extra 1 mb/d of supply from the market.

With Brent holding above \$50/bbl, the ceiling for OPEC+ production rises by nearly 0.5 mb/d in January to 36.65 mb/d. Including the extra Saudi cut, the output target falls by 920 kb/d in February to 35.73 mb/d and rises slightly to 35.8 mb/d in March. April levels will be set at the group's next meeting on 4 March.

Libya drives OPEC+ gains

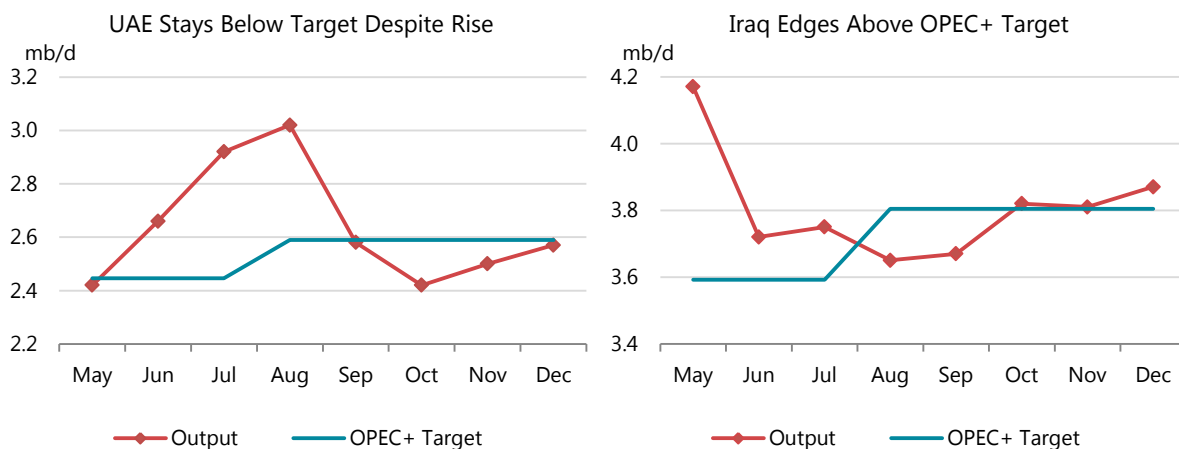
Pumping at its highest since 2013, Libya led an increase in OPEC+ crude oil output during December. Overall supply from the bloc rose 200 kb/d to 39.7 mb/d, the highest in eight months. For those taking part in supply cuts, the UAE and Iraq posted modest increases, but remained at or near OPEC+ supply targets. Nigeria and Angola saw notable declines, while output was broadly steady in the remainder of the countries subject to cuts. As a result, compliance with the OPEC+ deal was a robust 100% in December.

For a third month running, **Libya** dominated gains in the OPEC+ producer group and the world as well. An eight-month blockade had cut flows below 100 kb/d, but Libya's rebound took off in September after a cease-fire agreement. Since then, crude production has risen by more than 1 mb/d to reach 1.17 mb/d in December. Including condensates, total oil production was 1.25 mb/d, up 25 kb/d on December 2019. Crude oil supply may decrease slightly in January due to two-week pipeline maintenance that could reduce Waha output by up to 200 kb/d. If its recovery can be sustained, the North African producer is on track to post the biggest annual gain in 2021. For 2020 as a whole, its average crude production plunged to just 350 kb/d, down 730 kb/d y-o-y. Volatility could still lie ahead, however, as the country has yet to work out a comprehensive revenue-sharing agreement.



Iran, also spared from OPEC+ cuts and hoping to boost oil shipments if US sanctions are eased, lifted output slightly. At just above 2 mb/d, crude production in December was at the highest level since February, but down 80 kb/d versus the previous year. The volume of oil stored at sea rose to 59 mb at the end of December from 58 mb the previous month. For 2020 as a whole, supply was at a 34-year low of 1.98 mb/d, down 380 kb/d on 2019. On the upstream front, the National Iranian Oil Co has approved a new tranche of projects in a multi-billion dollar programme to boost production by 355 kb/d at 33 oil fields. The latest eight projects, reportedly worth \$1.2 billion, could raise output by 95 kb/d. **Venezuela**, also under US sanctions and battling a long-running drop in supply, saw production dip to 420 kb/d in December. With its oil network plagued by underinvestment, theft and mismanagement, output for 2020 as a whole fell 350 kb/d to 530 kb/d.

Of the 19 OPEC+ countries taking part in supply cuts, the **UAE** raised output the most in December. At 2.57 mb/d, up 70 kb/d m-o-m, production was nevertheless below its supply target for the fourth month in a row. For the whole of 2020, output eased 320 kb/d to 2.86 mb/d. While restricting output now, the Abu Dhabi National Oil Co is pressing ahead with plans to boost production capacity via its second bidding round. It has awarded Eni and Thailand's PTTEP an exploration concession for Offshore Block 3. Occidental Petroleum won the first concession.



Iraq, hit by plunging oil revenues, increased output by 60 kb/d in December. At 3.87 mb/d, its supply was 66 kb/d above target and down 710 kb/d on a year ago. Shipments of Basrah crude

grades in December rose 140 kb/d to 2.75 mb/d. In early January, Iraq loaded the first cargo of its new Basrah Medium crude. Exports of Basrah Medium, with a gravity of 27.9 degrees API, are expected to run around 1 mb/d, similar to Basrah Light, with the balance of shipments being Basrah Heavy. The semiautonomous Kurdistan Regional Government (KRG) has meanwhile appointed Kamal al-Atroshi, an oil and gas adviser to Prime Minister Masrour Barzani, as its new natural resources minister, a post that had been vacant for more than a year. For 2020, production from Iraq, including the KRG, was down 660 kb/d to 4.05 mb/d.

Elsewhere in the Middle East, production was broadly steady. Supply in **Saudi Arabia** held at 8.99 mb/d in December, just below its target which rose to 9.12 mb/d from January. For 2020 as a whole, production fell 590 kb/d to 9.2 mb/d. In exploration, Saudi Aramco has discovered four new oil and gas fields, including unconventional resources. The Al-Reesh discovery confirms the potential for extracting Arab Extra Light from the Tuwaiq mountain formation.

Kuwaiti production was 2.3 mb/d in December, 410 kb/d below a year ago. For 2020, output fell 260 kb/d to 2.43 mb/d. Kuwait has meanwhile found two new light oil fields. One of the discoveries is in the northwestern Houma oilfield and the other is in the northern Al-Qashaniya field. Crude oil output in **Oman** was unchanged at 720 kb/d.

Production from African countries taking part in OPEC+ cuts fell 140 kb/d m-o-m. **Nigeria's** compliance rate rose to 173% after production declined by 80 kb/d m-o-m mostly due to issues arising from a fire at the Qua Iboe terminal. Output of 1.25 mb/d, the lowest since August 2016, was down 400 kb/d on a year ago. In **Angola**, output slipped to a 15-year low of 1.17 mb/d, down 240 kb/d on a year ago. With key fields in decline, overall Angolan crude production has fallen from its peak of 1.9 mb/d that was reached in 2010. Elsewhere in West Africa, supply in **Congo** inched down to 280 kb/d in December and eased to 190 kb/d in **Gabon**. Output crept up in **Equatorial Guinea**. In North Africa, **Algerian** supply held steady at 860 kb/d, just below its OPEC+ target.

Nigeria Falls to 4-year Low



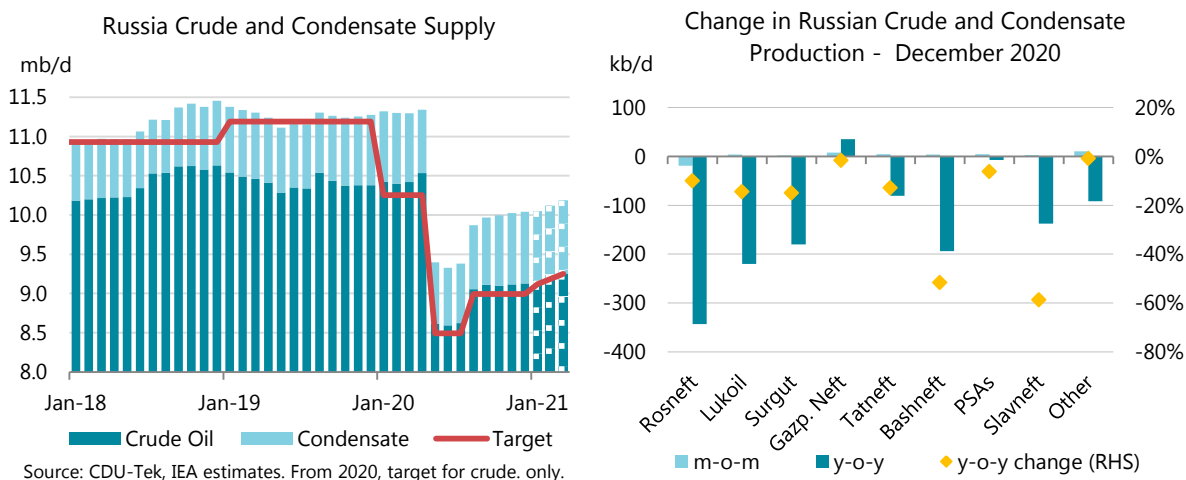
Angola Slips to 15-year Low



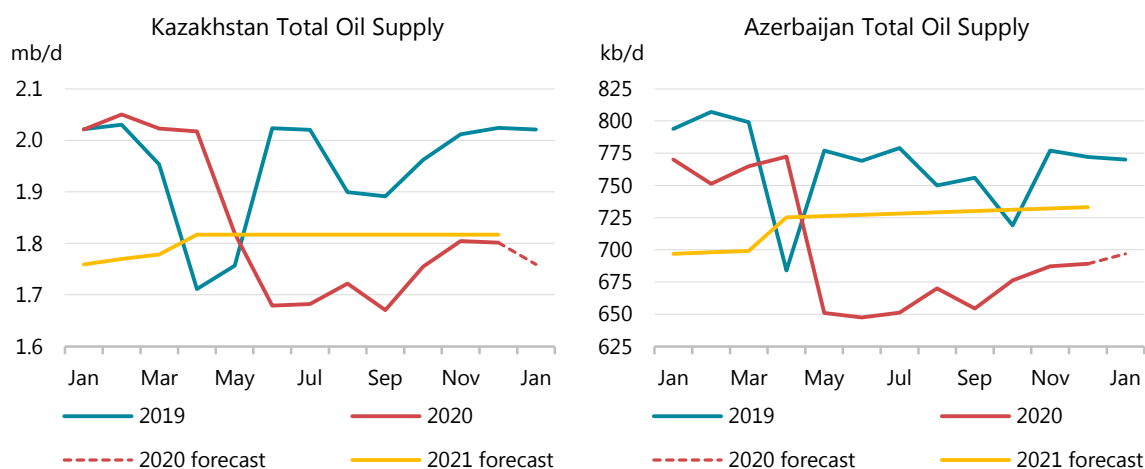
Russian crude and condensate production inched up by 15 kb/d in December. At 10.04 mb/d, output was 1.23 mb/d below a year ago. Excluding condensates, exempt from cuts, production is estimated at 9.13 mb/d, 135 kb/d above target - or 93% compliant with the OPEC+ deal. Russia was allocated a 125 kb/d rise in its target for January and negotiated further 65 kb/d increases in output for both February and March, successively.

For 2020 as a whole, Russian oil supply declined for the first time since 2008 and reached its lowest level since 2011. Crude and condensate production averaged 10.27 mb/d last year, down

from a post-Soviet record of 11.25 mb/d in 2019, according to energy ministry data. Assuming full compliance with the revised targets for 1Q21 and a gradual easing of cuts thereafter, output looks set to increase by a modest 0.1 mb/d in 2021.



Kazakhstan's crude and condensate production in December was largely unchanged at around 1.75 mb/d, of which 1.44 mb/d was crude. Compliance with the OPEC+ deal held at 85%, according to IEA calculations. CPC loading schedules suggested relatively stable output in January, before poor weather caused power outages and production shut-ins, potentially boosting Kazakh compliance.



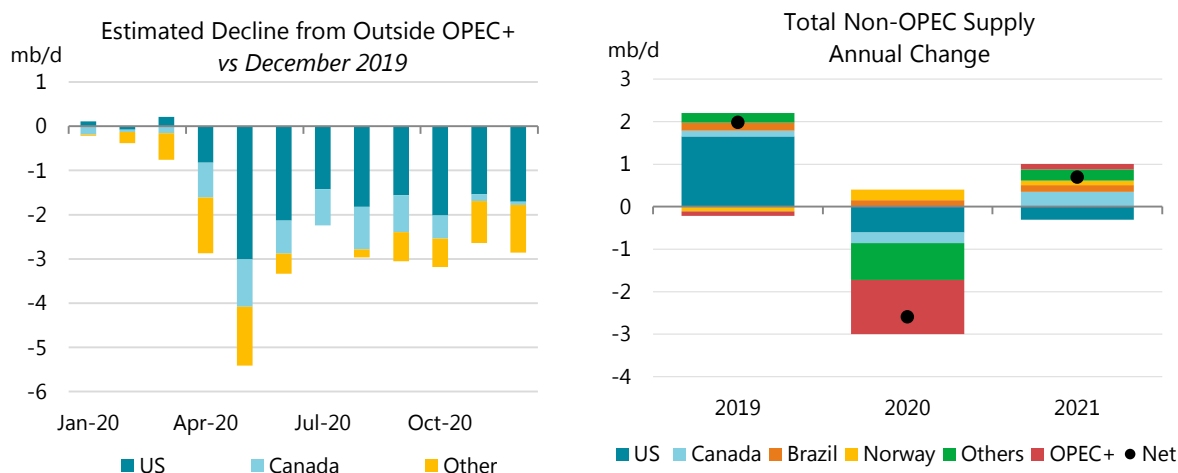
Azerbaijan's crude oil production held steady at around 590 kb/d last month, in line with its OPEC+ target. The BP led Azeri-Ceyhan-Gunashli complex pumped 460 kb/d while Socar's fields produced 125 kb/d. Including record levels of condensates, primarily from the Shah Deniz field, total production was 690 kb/d, 80 kb/d lower than a year ago. For the year as a whole, Azeri production declined 65 kb/d to 700 kb/d.

Malaysia, meanwhile, produced roughly 450 kb/d of crude and 100 kb/d of condensates in December. Production has been well below its OPEC+ target that rose from 486 kb/d in December to 493 kb/d in January. **Brunei's** crude oil output rose from 74 kb/d in November to 89 kb/d last month, 6 kb/d above its OPEC+ target.

Mexican crude and condensate production inched up 10 kb/d in November, to 1.7 mb/d, 30 kb/d lower than a year ago and largely in line with expectations. NGL output was lower than forecast, however, trending 30 kb/d below a year ago, according to Pemex statistics. Output at priority fields rose another 10 kb/d m-o-m to 140 kb/d, with gains stemming primarily from the Mulach crude and Ixachi gas condensate fields. Mature assets held largely steady m-o-m but continued to see steep annual declines. Ku-Maloob-Zaap produced 640 kb/d, 125 kb/d less than a year ago. Overall, Mexican oil output was unchanged in 2020 at just over 1.9 mb/d. Production is expected to hold at a similar level in 2021.

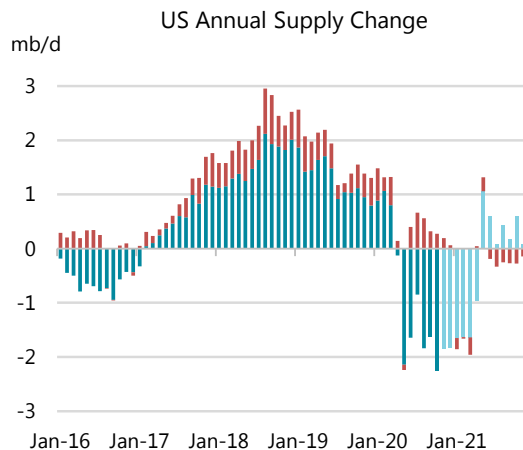
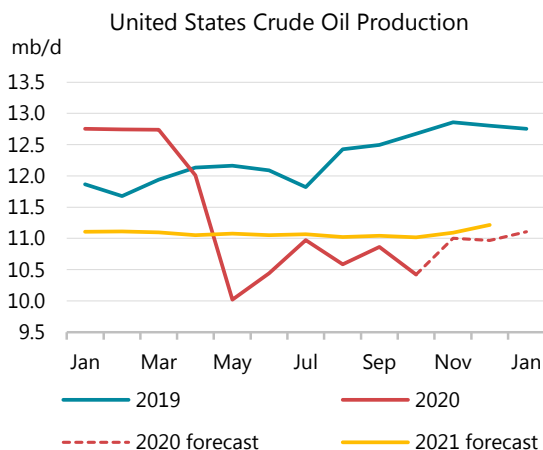
Picture brightens for those outside OPEC+

The supply outlook for countries not taking part in the OPEC+ agreement has seen further improvements since last month's *Report*. Higher prices and a tighter market fueled increased drilling and completion activity in the US, while the recovery in Canada gained pace with the majority of shut-in volumes now restored. As a result, 2021 estimates for production from these countries outside of OPEC+ have been revised up by 175 kb/d on average, with North America accounting for the bulk of the increase. Total non-OPEC oil supply is now seen falling by 2.6 mb/d on average in 2020 and then expanding by 0.6 mb/d in 2021.

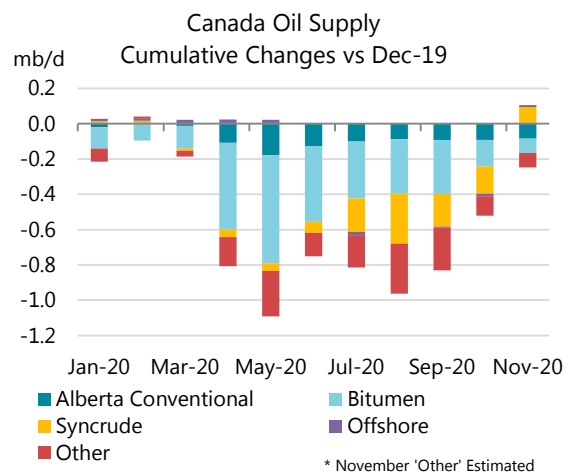
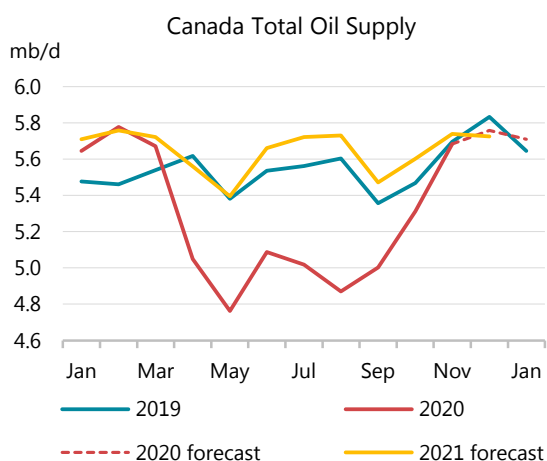


The bulk of the change to the 2021 forecast stems from a slightly more optimistic view for the **US**. This year's forecast has been raised by nearly 0.2 mb/d since last month's *Report* as higher prices are expected to spur increased activity in the shale patch. Improved market conditions have already encouraged energy firms to boost activity. The pace of the recovery is expected to be modest, however, as major operators prioritise capital discipline, tight budgets and dividends for shareholders. Crude oil production is now expected to decline by 0.2 mb/d compared with a fall of nearly 1 mb/d on average during 2020.

In October, the latest month for which official data is available, crude oil production slumped by 440 kb/d to 10.42 mb/d, as hurricanes forced massive shut-ins offshore. Supply was 2.4 mb/d lower than the record-high seen in November 2019 as offshore shut-ins added to widespread drilling cuts in response to low demand and prices. Offshore production in October fell 450 kb/d m-o-m to less than 1.1 mb/d, 860 kb/d below a year earlier and the lowest since 2008 when Hurricanes Rita and Katrina resulted in even bigger losses. Onshore production was largely unchanged m-o-m but stood 1.4 mb/d below a year ago.



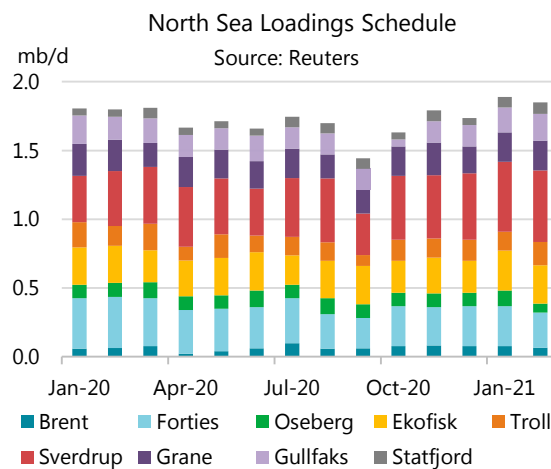
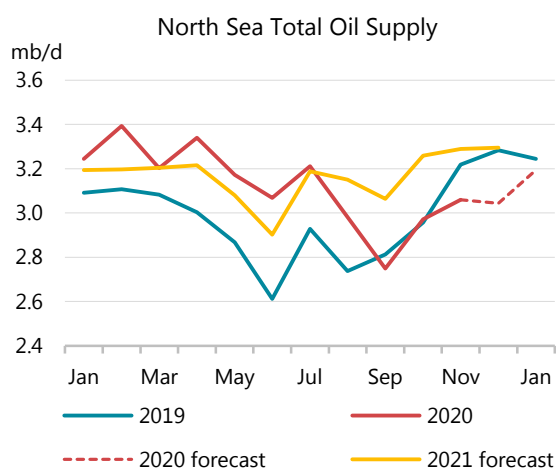
Canadian oil production continues to recover, with output surging 370 kb/d m-o-m in November. At 5.7 mb/d, output was at its highest since February, and only 150 kb/d below end-2019 levels. The increase was stronger than expected, fuelled by record production of synthetic crude oil from Alberta's upgraders. Synthetic crude oil output rose 250 kb/d m-o-m to 1.27 mb/d, up 240 kb/d on a year ago. Raw bitumen production also edged up 70 kb/d m-o-m, reducing the y-o-y deficit to 70 kb/d. Other supplies, including conventional crude and NGLs, saw only modest gains however, standing 65 kb/d below a year ago.



Following a 220 kb/d increase in October and a further 90 kb/d rise in November, **North Sea** oil production held steady last month at just over 3 mb/d. Government mandated production limits in Norway as well as extensive maintenance and outages have kept North Sea oil supply below year-earlier levels since September, with the UK accounting for most of the decline. Loading schedules suggest higher output at the start of 2021.

Norwegian production rose 150 kb/d m-o-m in November, to just over 2 mb/d, as seasonal maintenance concluded and the Johan Sverdrup field pumped more. Equinor announced late last year that it had raised the capacity of Johan Sverdrup phase 1 to around 500 kb/d and loading programmes indicate the field will continue to pump near this level in early 2021. Output will also be supported by the end of government imposed curtailments and new projects that came online in 4Q20. In November 2020, Aefugl Phase 1 and Tor were commissioned and these will ramp up to 20 kb/d and 15 kb/d, respectively, at plateau. First oil from Equinor's Snorre expansion was seen in December and this project will eventually add 80 kb/d. Norway

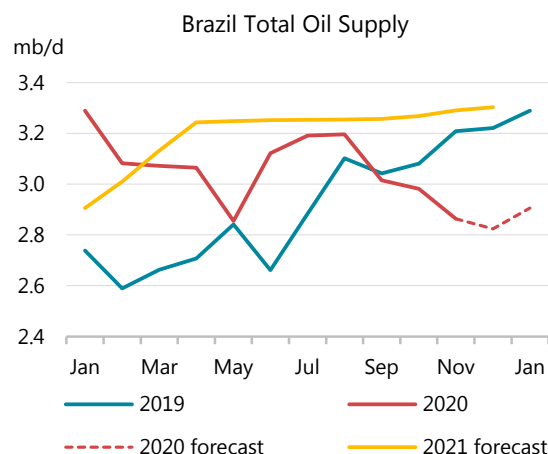
was one of 2020's few growth countries, with production up 255 kb/d y-o-y. Gains will slow in 2021 to 110 kb/d.



By contrast, **UK** supply fell 60 kb/d m-o-m to 960 kb/d in November (down 195 kb/d y-o-y), data from the department of Business, Energy and Industrial Strategy show. Poor performance from smaller fields and low supplies to the Forties pipeline have caused output to slump in recent months. BP's Vorlich field came online in late November and will eventually add 16 kb/d to UK flows, but there are few other sources of growth on the near horizon. Covid-19 triggered weak investment in drilling to support base production and UK output is set to drop 50 kb/d in 2021, having already slipped 80 kb/d in 2020.

Brazilian oil output fell by 120 kb/d m-o-m in November to 2.86 mb/d as maintenance intensified at a number of fields.

Production at Búzios took the biggest hit, falling nearly 100 kb/d m-o-m to 470 kb/d – its lowest in nine months but nevertheless up 25 kb/d on a year earlier. By contrast, production at the Tupi (Lula) field slumped 220 kb/d below a year ago, as a number of installations were shut or ran at reduced rates. Total Santos Basin production was down 94 kb/d m-o-m and 108 kb/d y-o-y, while Campos Basin production fell 20 kb/d on the month to 200 kb/d lower than a year ago. Overall, November production dropped 350 kb/d y-o-y, its steepest annual decline in 25 years.



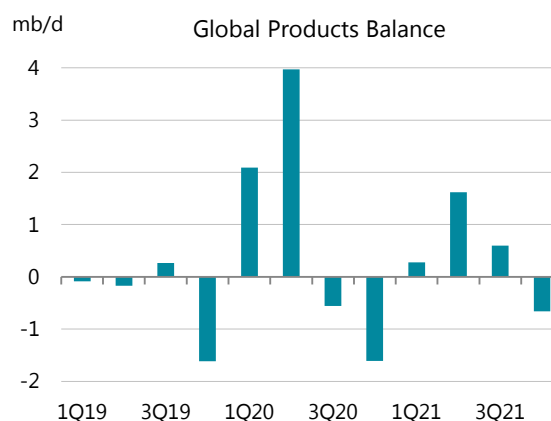
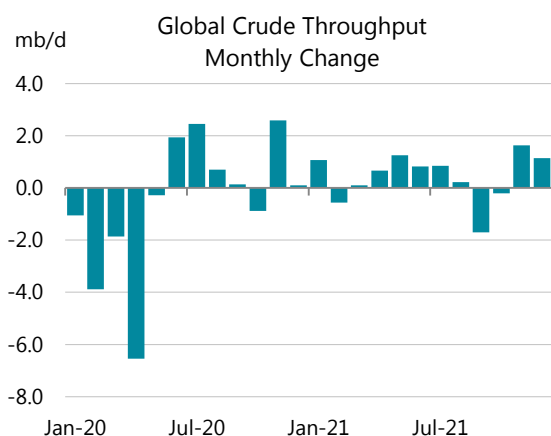
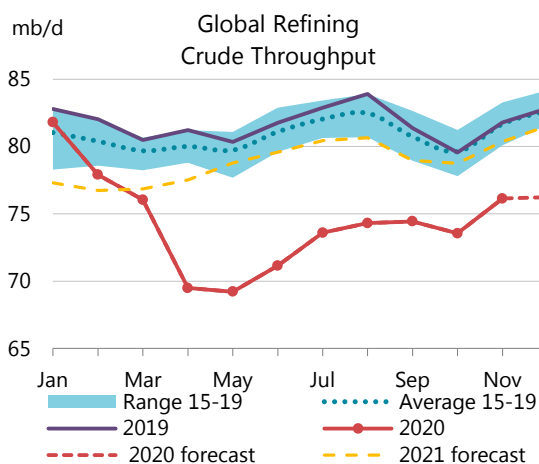
According to preliminary daily data for December, output likely eased by another 40 kb/d m-o-m as Búzios production slumped further, to 370 kb/d. The same daily data suggest marginally higher output at the start of 2021. For 2020 as a whole, Brazil's total oil production rose 150 kb/d on average. Similar gains are expected for 2021.

Refining

Overview

In November, global refining throughput recorded the largest monthly gain in seven years, returning to activity levels last seen in March 2020. With December throughputs assessed almost unchanged from November, 4Q20 refining activity was up 1.2 mb/d quarter-on-quarter (q-o-q), but down 6.1 mb/d year-on-year (y-o-y). The increase in refinery runs over 3Q20 and 4Q20, totalling 5.4 mb/d, was only half the 11 mb/d demand recovery over the same period, helping absorb some of the product stock build from 1H20. In the first half of the year, and especially in April-May, refiners overproduced relative to demand, thanks to the high refining margins that resulted from steep and rapid fall in crude prices.

Overall, with demand down by 8.8 mb/d y-o-y, refining throughputs in 2020 were assessed 7.2 mb/d lower, resulting in a large build in total product stocks. In 2021, global refining throughput is expected to recover by 4.5 mb/d compared to demand growth of 5.5 mb/d. However, given the relatively high proportion of LPG/ethane in global demand growth in 2021, the refined product stocks overhang may be carried through to 2021, acting as a constant brake on the recovery in refinery margins. Depending on the speed and product composition of the demand rebound, refinery margins may even fall in 2021 on average, if crude markets tighten faster than product markets.



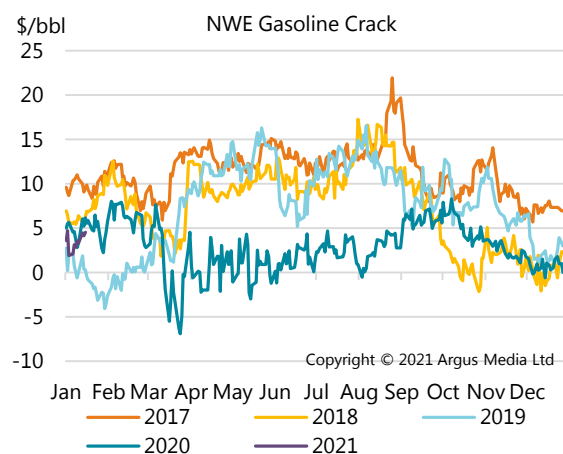
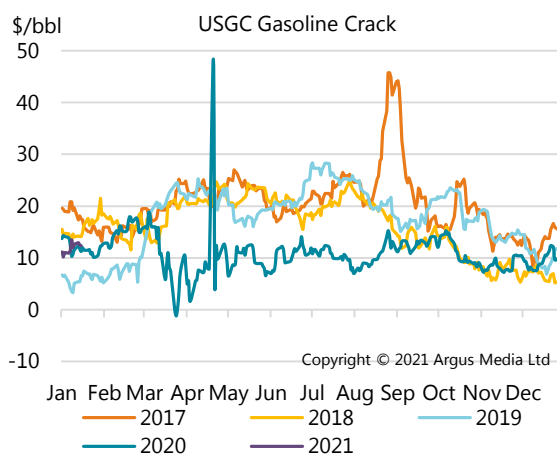
Global Refinery Crude Throughput ¹												
	(million barrels per day)											
	2019	1Q20	2Q20	3Q20	Oct 20	Nov 20	Dec 20	4Q20	2020	Jan 21	1Q21	2021
Americas	19.1	18.3	15.3	16.3	15.9	16.2	16.6	16.2	16.5	17.1	17.3	17.8
Europe	12.2	11.7	9.9	10.7	10.2	10.8	10.5	10.5	10.7	10.6	10.6	11.1
Asia Oceania	6.8	6.7	5.5	5.5	5.5	5.8	6.0	5.8	5.9	6.2	6.0	6.0
Total OECD	38.0	36.6	30.7	32.5	31.6	32.9	33.1	32.5	33.1	33.8	33.9	34.9
FSU	6.8	6.9	6.1	6.4	6.2	6.6	6.6	6.5	6.5	6.6	6.6	6.6
Non-OECD Europe	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5
China	13.0	11.9	13.5	14.0	14.1	14.2	14.1	14.1	13.4	14.0	13.8	14.0
Other Asia	10.3	10.6	8.6	8.7	9.1	9.6	9.4	9.4	9.3	9.6	9.6	10.0
Latin America	3.2	3.1	2.6	3.1	3.1	3.1	3.1	3.1	3.0	3.2	3.2	3.2
Middle East	7.7	6.9	6.1	7.0	7.0	7.3	7.5	7.3	6.8	7.6	7.5	7.7
Africa	2.0	2.1	1.8	1.9	1.9	2.0	1.8	1.9	1.9	1.9	1.9	2.0
Total Non-OECD	43.6	41.9	39.1	41.5	41.8	43.2	43.0	42.7	41.3	43.4	43.0	44.0
Total	81.6	78.5	69.8	74.0	73.5	76.1	76.1	75.2	74.4	77.2	76.9	78.9
<i>Year-on-year change</i>	<i>-0.4</i>	<i>-3.2</i>	<i>-11.1</i>	<i>-8.6</i>	<i>-6.0</i>	<i>-5.6</i>	<i>-6.6</i>	<i>-6.1</i>	<i>-7.2</i>	<i>-4.5</i>	<i>-1.6</i>	<i>4.5</i>

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

Product cracks and refinery margins

Strong \$6-7/bbl gains in crude prices in December set the stage for a challenging month for product cracks but extreme winter weather in Europe and Asia supported heating fuel cracks.

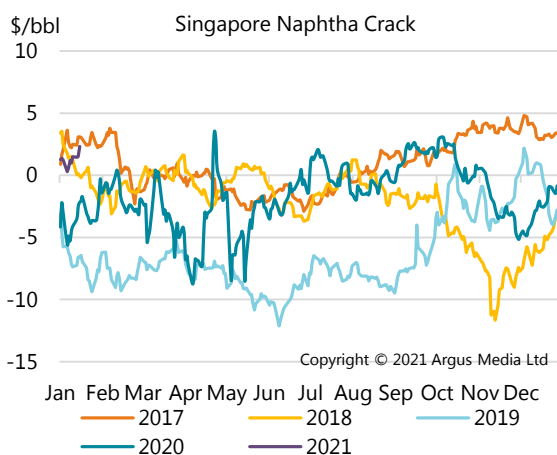
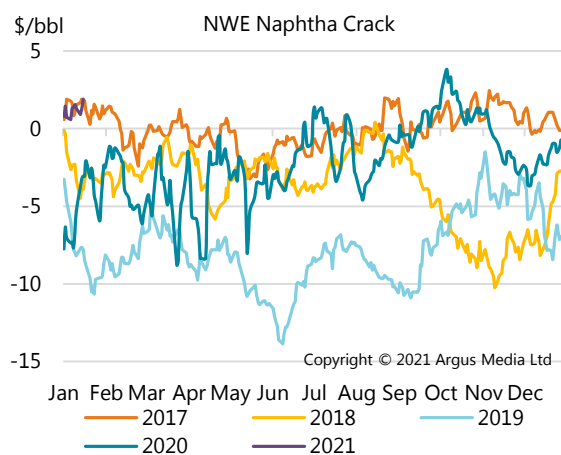
Light distillate cracks diverged in December. They were lower m-o-m in Europe, but higher in the US and Asia. Naphtha started strengthening with the return from maintenance of several major crackers in Asia. Sluggish growth in refining activity in the US in December supported gasoline cracks even as demand was on a seasonal downtrend.



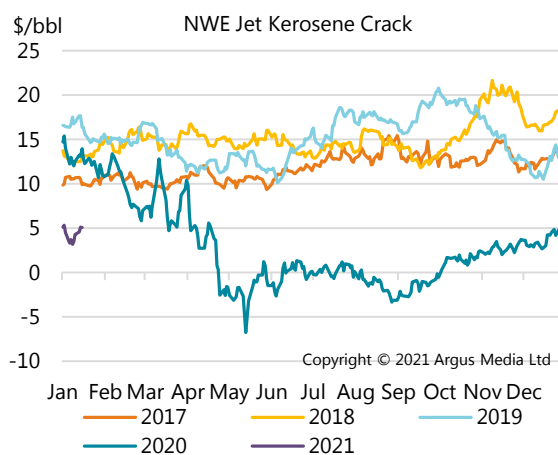
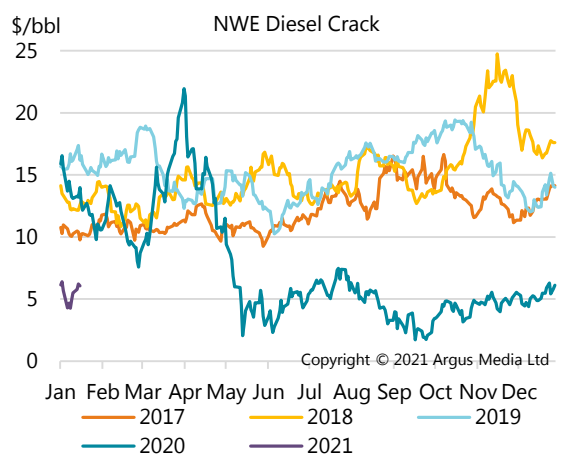
In Northwest Europe, gasoline cracks fell to just \$1.2/bbl on average in December but lower refinery runs in the region and stronger naphtha cracks eventually provided a modest boost. At the end of December, European naphtha was pricing at a premium to crude oil for the first time since October, when supply had tightened due to peak seasonal maintenance.

In Singapore, both gasoline and naphtha cracks were stronger m-o-m, with refining activity outside China and Japan deteriorating further as run-cuts intensified. Colder than usual weather in Asia and logistics constraints in the Panama canal for US-sourced LPG and LNG cargoes

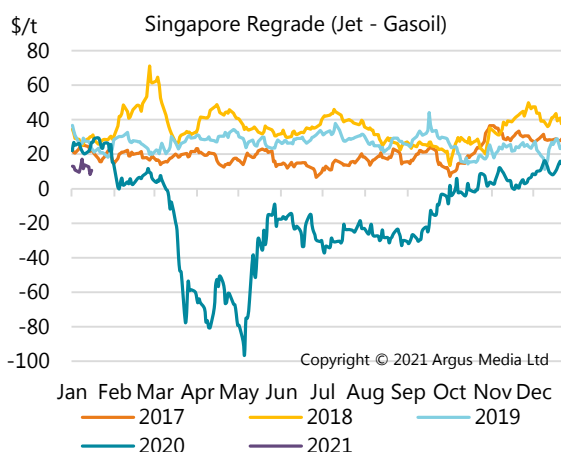
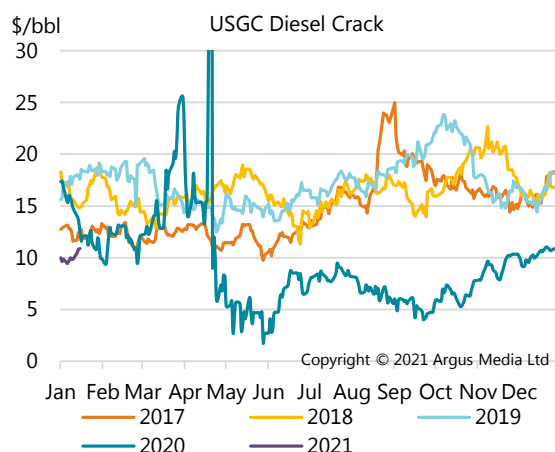
propelled Asian LPG prices, improving naphtha's competitiveness in the petrochemical segment. Regional demand for heating kerosene likely also drove refiners to widen their kerosene yield cut at the expense of both gasoil and naphtha, contributing to tighter markets for both products.



Middle distillates cracks were stronger across all regions in December. The lead came from Asia, where cold weather boosted demand for heating kerosene. Singapore and Northwest Europe kerosene cracks surged to \$4.1/bbl, the highest monthly average since March. The Singapore regrade (density-adjusted differential between jet kerosene and diesel prices) averaged \$11/tonne, the highest since January 2020.



US Gulf Coast diesel cracks rose to just above \$10/bbl, pricing above gasoline cracks. Diesel and jet fuel cracks strength continued in early January; in defiance of strong crude prices:

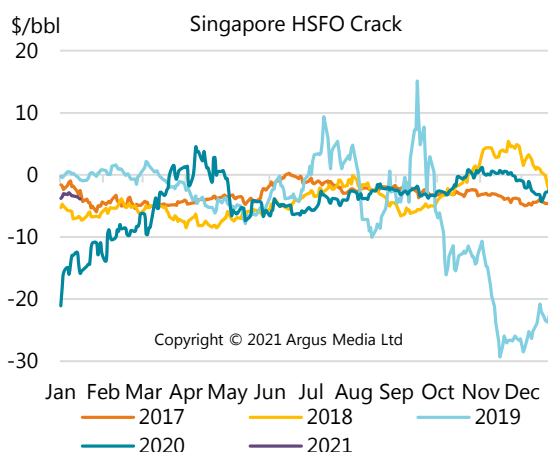
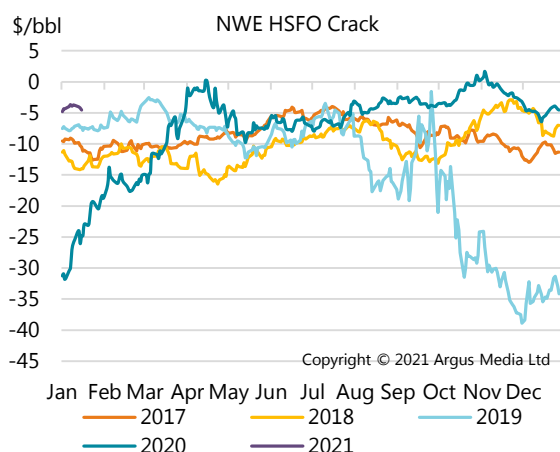


Spot Product Prices															
(monthly and weekly averages, \$/bbl)															
	Oct	Nov	Dec	Dec-Nov		Week Ending						Oct	Nov	Dec	Chg
				Chg	%	18 Dec	25 Dec	01 Jan	08 Jan	15 Jan					
Rotterdam, Barges FOB						Differential to North Sea Dated									
Gasoline EBOB oxy	45.30	44.97	50.77	5.81	12.9	51.67	51.35	53.32	56.06	59.23	5.29	2.42	1.05	-1.37	
Naphtha	41.72	41.13	48.16	7.03	17.1	49.24	49.42	51.04	54.21	56.62	1.72	-1.41	-1.56	-0.15	
Jet/Kerosene	41.45	45.33	53.72	8.39	18.5	54.86	55.16	55.86	57.12	59.74	1.45	2.79	3.99	1.20	
ULSD 10ppm	44.17	47.45	55.20	7.76	16.3	56.32	56.33	56.89	58.18	60.94	4.16	4.91	5.48	0.58	
Gasoil 0.1%	43.34	46.66	54.37	7.71	16.5	55.49	55.49	55.99	57.32	60.02	3.33	4.12	4.65	0.53	
VGO 2.0%	43.27	45.72	52.53	6.81	14.9	53.75	53.94	54.31	57.15	59.44	3.26	3.18	2.81	-0.37	
Fuel Oil 0.5%	47.07	50.12	57.00	6.87	13.7	58.25	57.70	58.20	60.57	63.68	7.06	7.58	7.27	-0.31	
LSFO 1%	42.48	45.74	50.76	5.02	11.0	51.80	51.19	51.74	54.41	56.70	2.48	3.20	1.03	-2.16	
HSFO 3.5%	38.25	41.12	44.99	3.87	9.4	46.03	46.04	46.04	49.06	51.19	-1.75	-1.42	-4.73	-3.31	
Mediterranean, FOB Cargoes						Differential to Urals									
Premium Unl 10 ppm	45.56	45.45	51.33	5.89	13.0	52.25	52.01	53.98	56.75	59.90	5.30	2.09	1.27	-0.83	
Naphtha	41.07	40.34	47.08	6.74	16.7	48.04	48.36	50.00	53.18	55.58	0.81	-3.02	-2.99	0.03	
Jet Aviation fuel	40.89	44.62	52.75	8.13	18.2	53.85	54.15	54.88	56.22	58.91	0.63	1.27	2.69	1.41	
ULSD 10ppm	44.47	47.47	55.33	7.86	16.6	56.36	56.50	56.91	58.35	60.99	4.21	4.12	5.26	1.15	
Gasoil 0.1%	43.78	46.96	54.94	7.98	17.0	56.14	55.96	56.28	57.77	60.64	3.52	3.60	4.87	1.27	
LSFO 1%	43.63	46.55	51.18	4.63	9.9	52.03	51.98	52.74	55.41	57.31	3.37	3.20	1.11	-2.09	
HSFO 3.5%	36.95	39.15	43.19	4.04	10.3	44.26	44.35	44.45	47.50	49.76	-3.31	-4.20	-6.87	-2.67	
US Gulf, FOB Pipeline						Differential to WTI Houston									
Super Unleaded	51.35	50.34	58.28	7.94	15.8	60.88	59.22	60.44	63.56	66.91	11.18	8.44	9.69	1.25	
Jet/Kerosene	44.21	47.51	55.52	8.01	16.9	57.00	56.52	56.56	57.71	60.94	4.04	5.62	6.94	1.32	
ULSD 10ppm	46.64	51.00	58.92	7.93	15.5	60.36	60.06	60.26	61.92	64.79	6.47	9.10	10.34	1.24	
Heating Oil	42.36	45.50	53.67	8.17	18.0	55.00	54.93	55.08	55.82	58.58	2.19	3.60	5.08	1.48	
No. 6 3%*	37.37	39.44	43.67	4.23	10.7	44.32	45.35	44.93	47.16	48.76	-2.80	-2.45	-4.92	-2.46	
Singapore, FOB Cargoes						Differential to Dubai									
Premium Unleaded	45.96	46.67	53.43	6.76	14.5	54.33	54.36	55.75	57.98	60.98	5.26	3.34	3.66	0.32	
Naphtha	41.88	40.71	47.80	7.08	17.4	49.05	49.38	51.36	53.97	57.22	1.18	-2.62	-1.98	0.64	
Jet/Kerosene	41.65	45.64	53.87	8.23	18.0	55.21	54.41	55.46	56.24	59.02	0.95	2.31	4.10	1.79	
Gasoil 0.001%	43.92	47.57	55.41	7.84	16.5	56.58	56.23	57.01	57.81	60.90	3.22	4.24	5.63	1.39	
Fuel Oil 0.5%	49.35	52.84	58.77	5.93	11.2	59.48	59.22	60.97	63.74	67.12	8.65	9.51	9.00	-0.51	
HSFO 180 CST	41.19	43.64	47.43	3.79	8.7	48.72	48.04	48.09	50.16	52.17	0.48	0.30	-2.35	-2.65	
HSFO 380 CST 4%	39.53	43.41	46.83	3.42	7.9	48.1	47.2	47.5	49.9	52.1	-1.17	0.08	-2.94	-3.03	

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* Waterborne

Stronger refinery crude runs and a steeper crude price backwardation also drove the fuel oil cracks lower, falling m-o-m for the first time since June. Lower gasoline cracks in Europe reduced refinery appetite for secondary feedstocks. Singapore high-sulphur fuel oil (HSFO) cracks flipped to a discount to crude oil, while the 0.5% bunker fuel crack only slipped to \$9/bbl on average thanks to rising LSFO demand to meet spiking regional power generation requirements.

IEA/KBC Global Indicator Refining Margins¹

(\$/bbl)

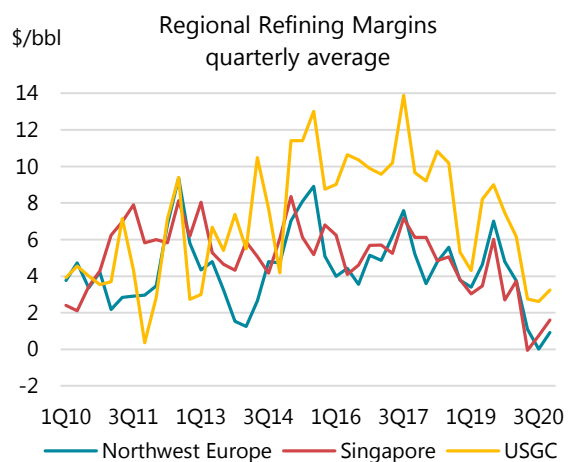
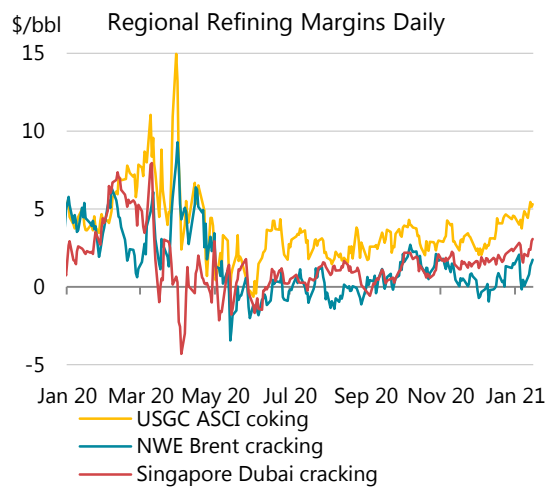
	Monthly Average				Change	Average for week ending:					
	Sep 20	Oct 20	Nov 20	Dec 20	Dec-Nov	18 Dec	25 Dec	01 Jan	08 Jan	15 Jan	
NW Europe											
Brent (Cracking)	0.42	1.70	0.85	0.20	↓	-0.64	0.25	0.51	1.38	0.58	1.20
Urals (Cracking)	0.52	1.38	0.69	0.79	↑	0.10	1.00	1.71	2.73	1.46	1.44
Brent (Hydroskimming)	-0.52	1.21	0.86	-0.18	↓	-1.04	-0.13	0.00	0.62	-0.08	0.30
Urals (Hydroskimming)	-1.21	-0.15	-0.39	-0.95	↓	-0.56	-0.72	0.02	0.67	-0.40	-0.62
Mediterranean											
Es Sider (Cracking)	1.01	2.35	3.33	2.12	↓	-1.21	2.37	3.09	3.74	2.84	3.15
Urals (Cracking)	-0.28	1.22	0.21	0.19	↓	-0.03	0.43	0.86	1.31	0.81	0.99
Es Sider (Hydroskimming)	0.54	2.24	3.34	1.50	↓	-1.84	1.70	2.40	3.04	2.36	2.51
Urals (Hydroskimming)	-2.09	-0.50	-1.55	-2.48	↓	-0.93	-2.25	-1.81	-1.52	-1.64	-1.57
US Gulf Coast											
Mars (Cracking)	0.90	1.61	1.37	0.97	↓	-0.40	1.06	2.01	1.94	1.95	2.32
50/50 HLS/LLS (Coking)	5.21	5.19	4.92	5.77	↑	0.85	6.14	6.62	6.80	6.74	7.65
50/50 Maya/Mars (Coking)	2.34	3.00	2.62	2.61	↓	-0.01	2.88	3.33	3.58	3.07	3.84
ASCI (Coking)	2.81	3.15	3.14	3.43	↑	0.30	3.66	4.43	4.48	4.27	5.05
US Midwest											
30/70 WCS/Bakken (Cracking)	6.13	6.18	6.12	6.86	↑	0.74	7.79	9.51	8.03	8.18	7.92
Bakken (Cracking)	7.27	6.88	6.89	7.32	↑	0.43	8.24	9.58	8.38	7.96	9.14
WTI (Coking)	6.47	5.91	5.50	5.45	↓	-0.05	6.49	7.97	6.48	5.67	6.91
30/70 WCS/Bakken (Coking)	7.29	7.20	7.23	8.26	↑	1.03	9.38	11.12	9.33	9.17	9.27
Singapore											
Dubai (Hydroskimming)	-2.53	-1.30	-0.77	-1.96	↓	-1.19	-1.86	-2.07	-1.96	-1.99	-2.01
Tapis (Hydroskimming)	3.06	3.82	3.22	1.78	↓	-1.44	2.20	1.47	2.41	1.39	2.17
Dubai (Hydrocracking)	0.54	1.44	1.59	1.80	↑	0.20	1.76	1.83	2.38	2.21	2.55
Tapis (Hydrocracking)	2.66	3.03	2.28	1.15	↓	-1.13	1.63	0.90	1.70	0.57	1.23

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)

The robust gains in middle distillates cracks did not fully compensate refiners for losses from gasoline and fuel in Europe. Benchmark US and Singapore margins, however, were boosted by

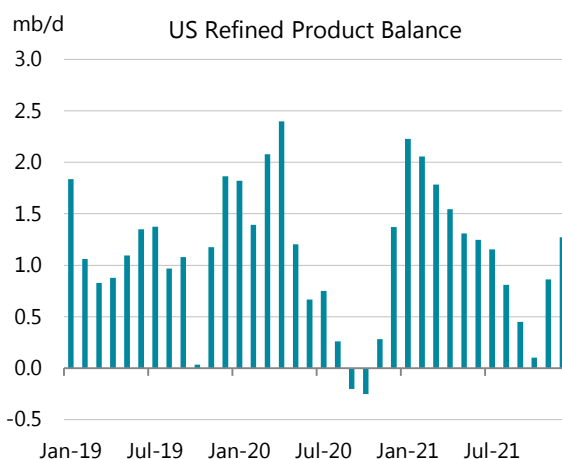
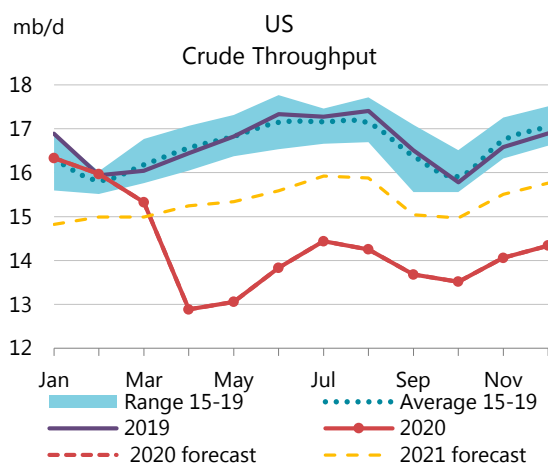
stronger middle distillate cracks, helped by supportive gasoline and naphtha. Brent cracking margins in Northwest Europe slumped below zero in early-December before recovering in the second half, averaging just above zero for the month and into January.



Overall, 4Q20 margins rebounded modestly from the historical lows seen in 3Q20, despite the \$1.2/bbl increase in crude oil prices. This was helped by the noticeable tightening in some product markets. According to our product balances implied stock draws accelerated to 1.6 mb/d in 4Q20, from 0.5 mb/d in 3Q20.

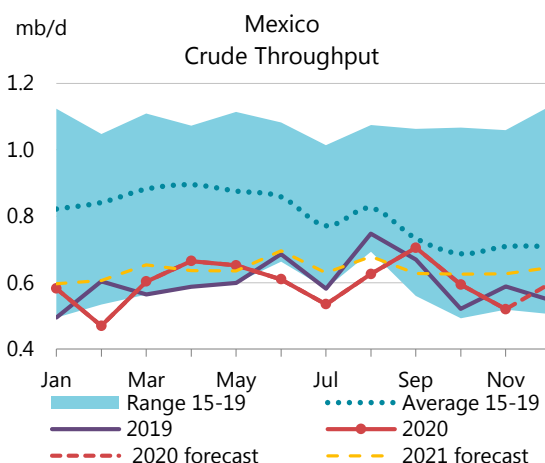
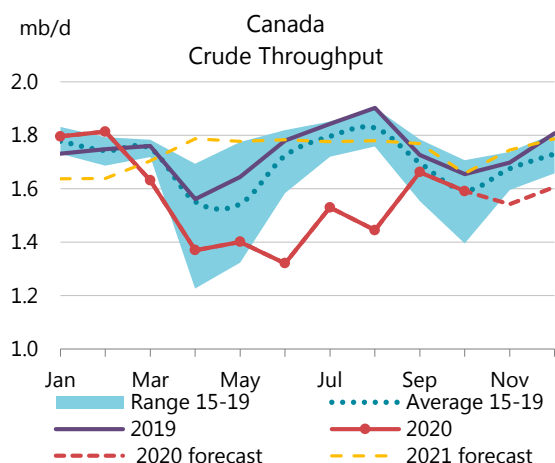
Regional refining outlook

US refinery throughputs followed the seasonal pattern in December, increasing by 245 kb/d m-o-m to 14.2 mb/d. After a further increase to 14.7 mb/d in early January, throughputs are likely to stagnate until a stronger demand recovery takes hold in 2Q21, impacted by both weak margins and the reduced capacity during the refinery maintenance season.

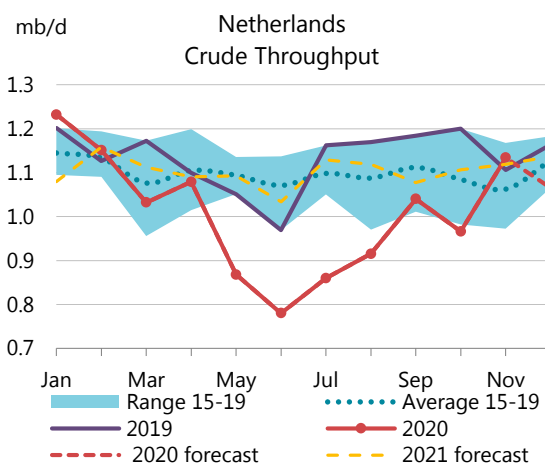
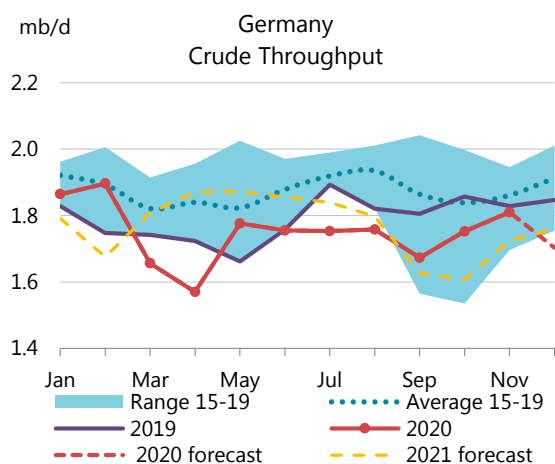


For 2020 as a whole, US runs fell by 2.3 mb/d y-o-y, the same amount as demand for refined products. Net US refined product exports fell only marginally, remaining above 1.1 mb/d. US refinery throughput is expected to rise by 1 mb/d in 2021, driven by the domestic demand recovery while product trade remains largely unchanged.

Canadian runs in October were revised higher by 200 kb/d to 1.6 mb/d. Further recovery of demand and refining activity has been hampered recently by strict confinement measures limiting international and local travel. In **Mexico**, November runs fell to just 510 kb/d. The Covid-19 impact on demand helped narrow the net product deficit from 1.3 mb/d in 2019 to 0.9 mb/d in 2020 as refinery runs stagnated at 33% utilisation rates.

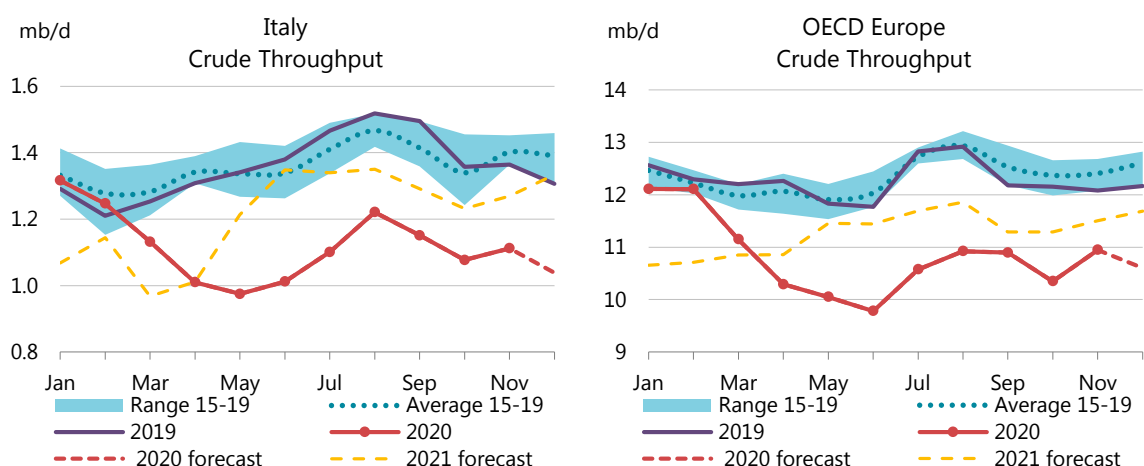


OECD Europe throughputs rose by 0.6 mb/d m-o-m in November even as lockdowns cut transport fuel demand to its lowest since May. The monthly rebound was due to several refineries restarting after maintenance in **Belgium, Netherlands** and **Norway**. Nevertheless, runs were 1.1 mb/d down y-o-y. Preliminary data for 15 EU countries from *Euroilstock* show runs fell again in December, reversing the previous month's gains.



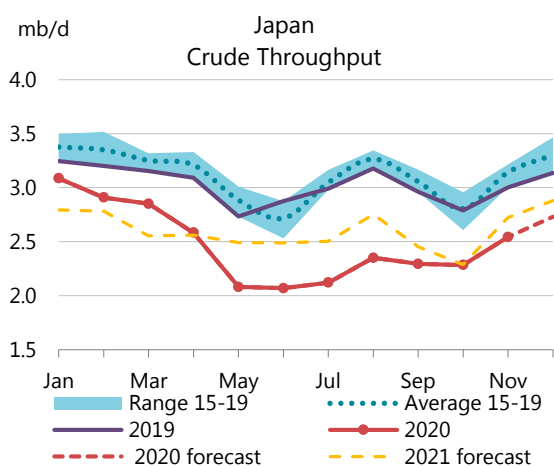
In 2020, Covid-19 had an uneven impact on European refiners. Among the region's major refining countries, refinery throughputs were back in their seasonal range by 4Q20 only in **Germany** and the Netherlands, but remained significantly below the seasonal levels elsewhere. Covid-19 only added to the challenges that European refiners were already facing, with a long-term trend of falling refining activity. In 2010, there were six countries in the region with refinery runs above 1 mb/d, but this dropped to four in 2020. Germany and Italy remained the largest and the second largest refining countries, respectively, while the UK and France were replaced by Spain and the Netherlands.

French capacity utilisation fell to just 55% in 2020, the lowest in the region. With the permanent shutdown announced for the 93 kb/d Grandpuits refinery and an expected recovery in activity, capacity utilisation in France is forecast to reach 70% 2021. For individual sites, this is generally considered a threshold for economic shutdown, meaning that some sites may start-up, while others could remain offline, raising the question of further closures in the future. Italy and Portugal were the other two countries with utilisation rates below 70% (64% and 66% respectively). Galp, the operator of **Portugal's** two refineries, announced the permanent closure of the smaller Porto plant in 2021. In **Italy**, Eni said it is considering converting the 120 kb/d Livorno refinery into a biofuels plant. Between 2011 and 2014, five refineries were permanently closed in the country with a total capacity of 420 kb/d, two of which, the Gela and Venice plants, were converted to renewable diesel production.



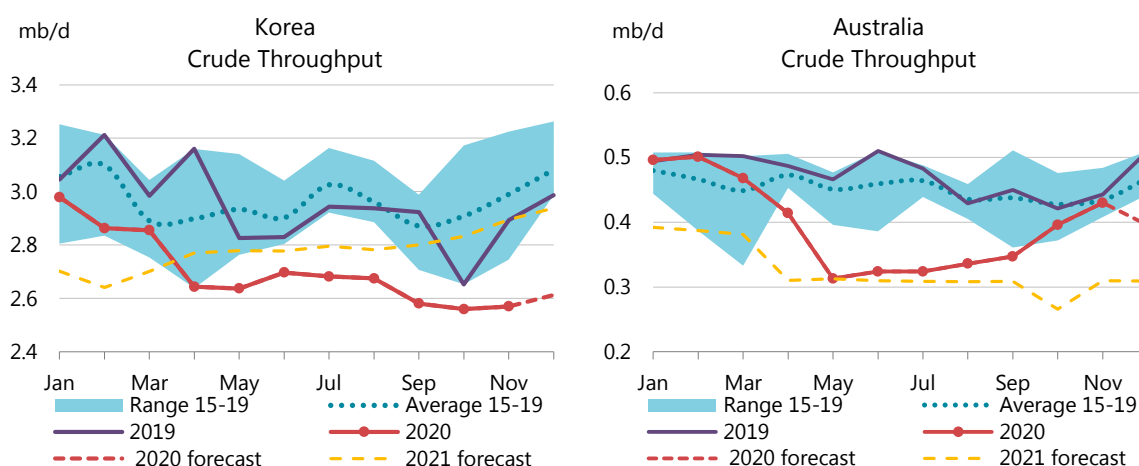
Meanwhile, Covid-19 is reasserting itself in the new calendar year, resulting in heightened restrictions coming into force in the **UK** and a progressive tightening of the confinement rules elsewhere (France, Germany, etc.). Runs in 1Q21 are forecast to fall 1.1 mb/d y-o-y, as 1Q20 throughputs were only slightly affected by the first lockdowns that started rolling out at the end of February 2020.

Refinery runs started increasing in November in **Japan** and, based on weekly data, were up again in December. At 2.7 mb/d, runs were at their highest level since March 2020. Japanese oil demand has a strong seasonality, with winter demand usually around 15% higher than during the rest of the year. Most of the seasonal increase comes from kerosene used for heating. In Japan, kerosene use in residential and commercial sectors for heating and cooking exceeds aviation fuel demand. This drives the winter peak in refinery runs. This winter's spike in fuel oil demand for power generation (as the cold snap boosted power demand for home heating) has added to refinery incentive to ramp up crude throughput.



Colder than average weather this winter could contribute to even more robust run rates, but lacklustre demand in transport fuel segments due to Covid-19 and the shutdown of Idemitsu's 160 kb/d Hokkaido refinery early January due to a fire will potentially cap further increases. Japan's largest refining company, Eneos, announced the permanent shutdown of one of the crude distillation units at the Negishi refinery next year, cutting the plant's capacity by 120 kb/d to 150 kb/d. In 2010, the refinery had closed another 70 kb/d crude distillation unit.

Korean refining activity, by contrast, stagnated in November. Cracker maintenance affected demand for naphtha and, consequently, refinery margins, resulting in economic run-cuts. Korea is a net product exporter, and our forecast of a partial recovery from 2Q21 is based on generally faster global demand recovery in that period.



Australia kicked off a subsidy scheme on 1 January designed to support refinery operations. The government has allocated AUS\$ 83.6 mn (\$64 mn), to compensate refiners at a rate of 1 cent per litre of gasoline, diesel and jet fuel produced. This is equivalent to roughly \$1.1/bbl incremental margin, representing more than 50% premium to the Singapore Dubai cracking margins in recent months. The funds would be sufficient to cover some 60 mb of throughput, or up to five months of refinery operations at their typical run rate.

The programme will run through June 2021, and is expected to be replaced by new support measures afterwards. To qualify for the pay out, refiners must operate throughout the designated period. BP's Kwinana refinery is expected to permanently shut in 1Q21. The owners of the Lytton and Geelong refineries, two of the remaining three, had also announced possible closures, but the Geelong owner Varo Energy has confirmed they will keep the refinery online to benefit from the subsidy programme.

Australian throughput declined by 80 kb/d in 2020, and is expected to fall by another 70 kb/d in 2021, to just 315 kb/d, covering less than 30% of the country's demand.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

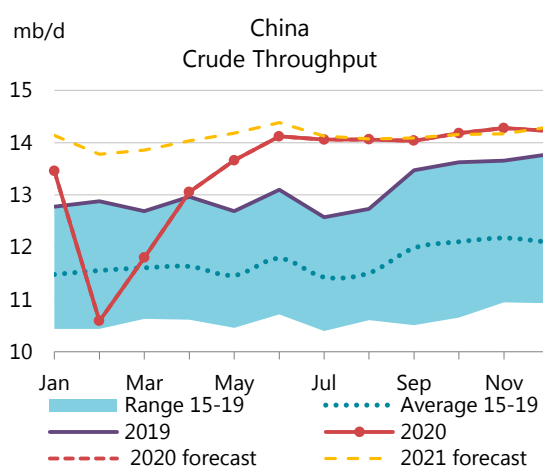
	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Change from		Utilisation rate ¹	
							Oct 20	Nov 19	Nov 20	Nov 19
US ²	13.73	14.34	14.15	13.58	13.42	13.96	0.54	-2.52	74%	87%
Canada	1.31	1.52	1.44	1.65	1.58	1.53	-0.05	-0.16	76%	84%
Chile	0.10	0.10	0.12	0.18	0.21	0.17	-0.04	-0.04	74%	90%
Mexico	0.60	0.53	0.62	0.70	0.58	0.51	-0.07	-0.07	31%	35%
OECD Americas³	15.74	16.48	16.32	16.11	15.79	16.17	0.38	-2.78	71%	83%
France	0.69	0.77	0.71	0.79	0.83	0.75	-0.08	-0.06	60%	65%
Germany	1.75	1.74	1.75	1.66	1.74	1.80	0.06	-0.02	89%	90%
Italy	1.00	1.09	1.21	1.14	1.07	1.10	0.04	-0.25	63%	78%
Netherlands	0.77	0.85	0.91	1.03	0.96	1.12	0.17	0.03	87%	85%
Spain	0.99	1.02	1.08	1.09	1.06	1.11	0.05	-0.06	79%	83%
United Kingdom	0.78	0.87	0.84	0.90	0.90	0.87	-0.04	-0.26	69%	89%
Other OECD Europe	3.71	4.14	4.33	4.19	3.70	4.10	0.40	-0.51	78%	88%
OECD Europe	9.68	10.47	10.82	10.79	10.25	10.85	0.60	-1.13	75%	83%
Japan	2.06	2.11	2.34	2.29	2.27	2.53	0.26	-0.46	71%	84%
South Korea	2.69	2.67	2.67	2.57	2.55	2.56	0.01	-0.32	73%	82%
Other Asia Oceania	0.63	0.58	0.60	0.63	0.67	0.71	0.04	-0.09	82%	91%
OECD Asia Oceania	5.37	5.36	5.61	5.49	5.50	5.80	0.31	-0.87	73%	84%
OECD Total	30.79	32.32	32.75	32.39	31.54	32.82	1.28	-4.78	73%	83%

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

² US\$0

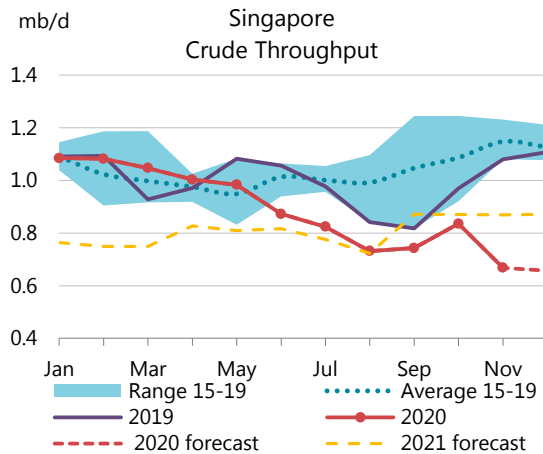
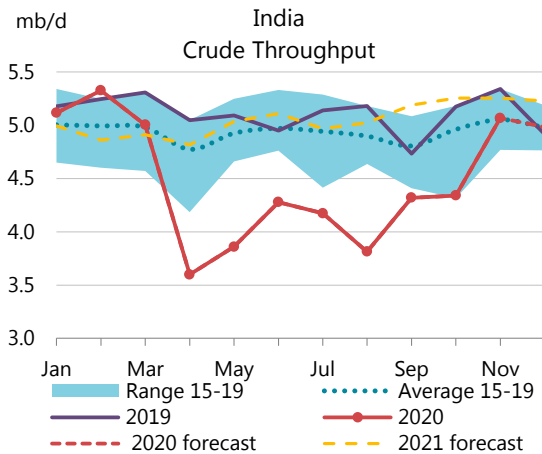
³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

China's refining activity registered a new record in November, up by a small increment from October to just under 14.2 mb/d. In December, runs fell by 50 kb/d. In 2020, runs increased by 0.4 mb/d y-o-y, the lowest annual gain in four years, but an impressive result compared to declines elsewhere. The pattern of growth revealed the increasing contrast in the Chinese refining landscape. Gains came from new petrochemical refineries in the Zhejiang, Liaoning and Guangdong provinces, with Shandong independents also ramping up runs, while throughput fell y-o-y in the rest of the country.

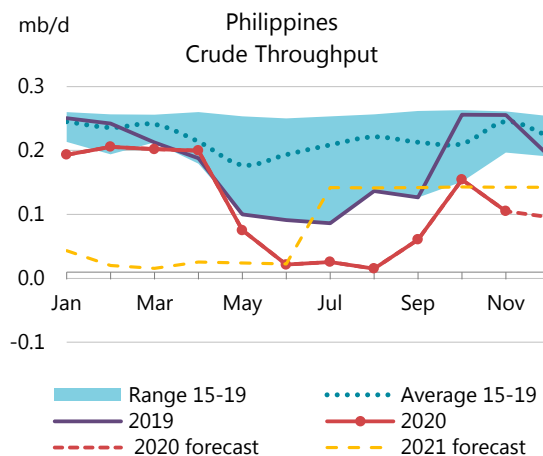
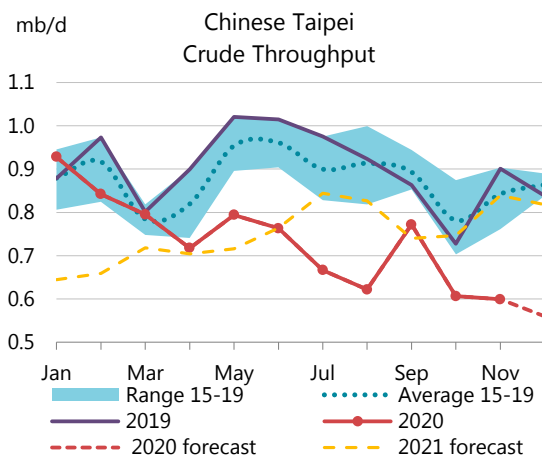


The Ministry of Commerce released the first batch of 2021 crude import quotas for independent refiners and traders, increasing the allocations by almost 20% y-o-y. These were mostly reflected in the quotas to the new petrochemical refineries of the Hengli and Zhejiang Petrochemical groups.

Indian refinery runs in November surged 730 kb/d m-o-m, the largest monthly gain in our records, and exceeded 5 mb/d for the first time since February 2020. Runs were still down 270 kb/d y-o-y. State-owned refiners, that primarily serve the domestic market, were essentially back to year-earlier capacity utilisation, while export-oriented private sector refineries continued at lower rates. After a 620 kb/d y-o-y decline in 2020, throughput is expected to recover by 570 kb/d in 2021.



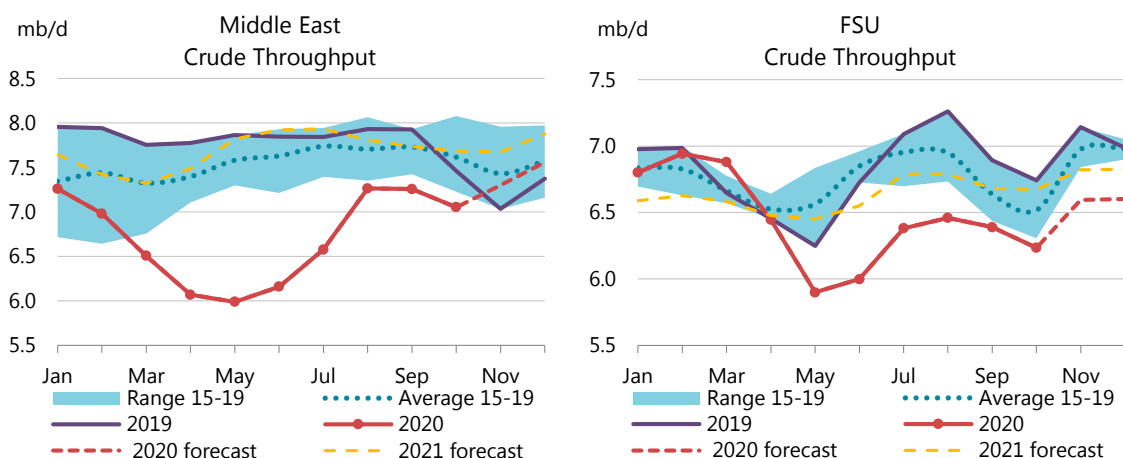
Singapore refinery runs in December were estimated at 650 kb/d, marginally down from November. Our methodology is based on crude/condensate net inflows and crude oil stocks changes available from cargo tracking and satellite observation data, respectively. Estimations using the same methodology for Shell's 500 kb/d Bukom refinery, the largest in Singapore, indicate crude runs at under 50% utilisation since May 2020. Shell recently announced plans to cut the refinery's capacity by half in the coming years, but it seems that processing volumes have already been adjusted lower.



In October, **Chinese Taipei** runs fell below 600 kb/d for the first time in 10 years on the combined impact of maintenance and economic run-cuts. Throughput is expected to fluctuate around 61% in the first half of 2021. In the **Philippines**, Petron announced a temporary shutdown of its Bataan refinery from mid-January. This was the only operating refinery in the country after the permanent shutdown of Shell's Tabangao refinery last year. The Philippines has not reported refinery intake data since May, and our estimates are based on cargo tracking and observed crude oil stock changes. We assume processing at the Bataan refinery will resume in 3Q21 as Petron is seeking to boost the economic performance of the refinery by registering it in the region's free economic zone, for fiscal optimisation purposes.

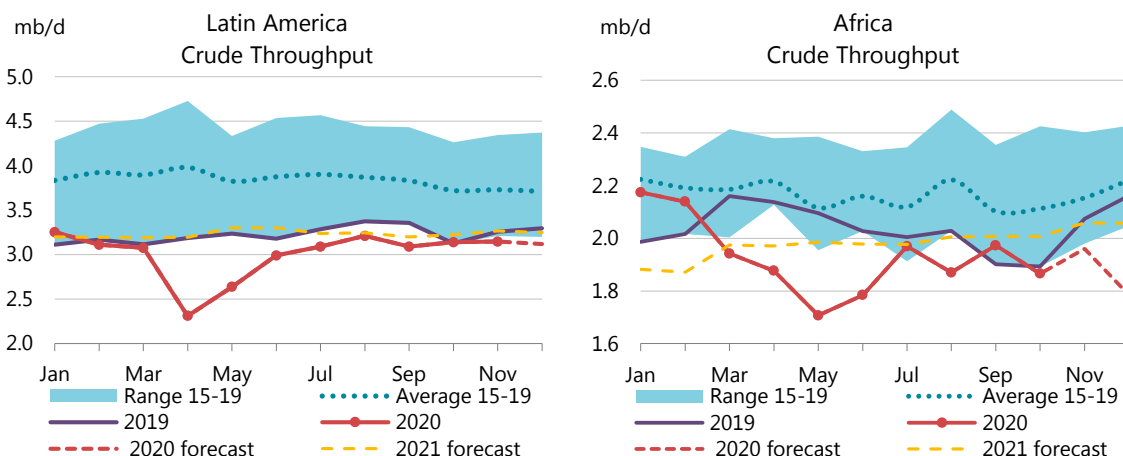
In the Middle East, **Saud Arabia** reported October runs at 2.4 mb/d, up 50 kb/d m-o-m, and, for the first time in 2020, surpassing year earlier levels. The annual gain was mostly due to a low base in 4Q19, however. Overall run rates in the country, averaging just 68% in 2020, are expected to increase to 77% in 2021. Runs could also be boosted by the progressive start-up of

the Jizan refinery in 2021 where initial crude cargoes have arrived. **Iraqi** runs were unchanged from September. Overall, the regional runs were assessed lower m-o-m on turnarounds, but expected to increase in November and December.



Russian throughput in December remained flat from November levels at 5.4 mb/d, and down 440 kb/d y-o-y. In 2020, runs fell by 320 kb/d on average, far more than the relatively modest 150 kb/d decline in demand. The Covid-19 impact on global demand, which reduced Russian product exports, coincided with the so-called fiscal manoeuvre that came into force last year. It shifted some of the fiscal burden from the upstream segment to downstream, affecting refinery economics in Russia.

Brazil's throughputs in November declined by a marginal 20 kb/d m-o-m, while **Argentinian** runs increased by 35 kb/d. Runs for the continent as a whole have trailed the five-year range in 2020. Brazil, the largest refiner, had a relatively positive year in 2020, seeing a small 15 kb/d annual increase in runs, a rare gain on the global landscape of large annual decreases. However, Brazil's runs are 330 kb/d down from the 2.1 mb/d historical peak in 2014.

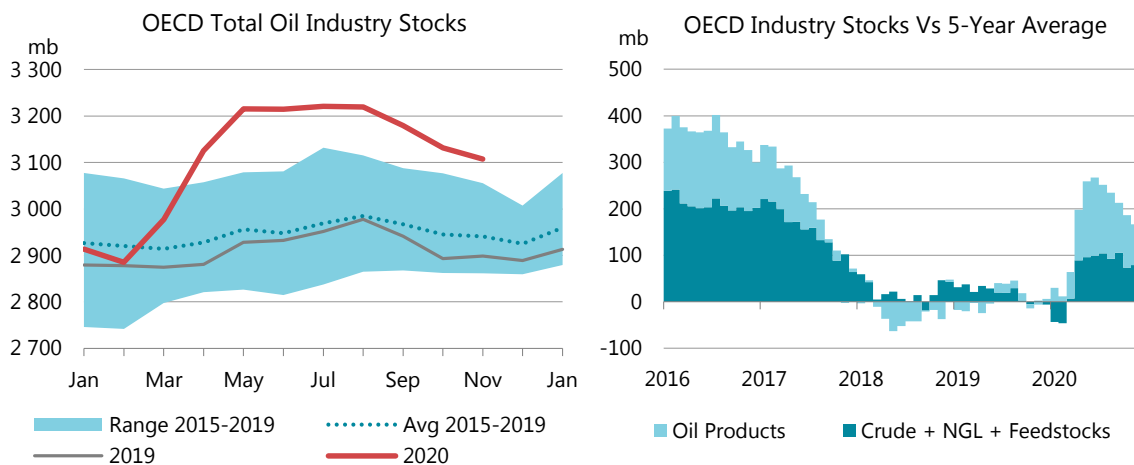


In Africa, **Algerian** refinery throughputs fell 100 kb/d m-o-m in October to 525 kb/d, the lowest in two years. Yet another refinery in **South Africa** has suffered an unplanned outage in January, leaving the country with only one operational plant as two other refineries were already shut due to fire damage.

Stocks

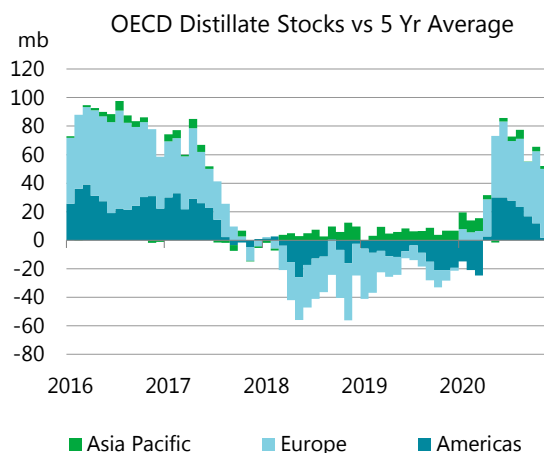
Overview

Total OECD industry stocks fell for a fourth consecutive month in November, reducing the overhang compared with the five-year average to 166.7 mb. A counter seasonal decline in product inventories led the 23.6 mb drop (0.79 mb/d) that took total oil stocks to 3 108 mb by end-month. After reaching a peak of 3 221 mb in July, OECD industry stocks drew by 0.93 mb/d on average through November and an even sharper 1.44 mb/d in December (according to preliminary data from the US, Japan and Europe). In terms of forward demand, end-November industry stocks covered 71.4 days, a decrease of 1.1 days m-o-m but 9.4 days above the average.



OECD industry crude inventories drew by a modest 3.8 mb in November. At 1 193 mb, crude stocks were only 48.9 mb below the peak level seen in May, representing an average draw since then of 270 kb/d. That compares with a 1 mb/d build from January to May. The OECD Asia Pacific region led the decrease in November with a larger than usual fall of 10.1 mb. Crude stocks in Europe also fell by 4.7 mb. By contrast, the Americas saw crude stocks build by 11.1 mb amid lower crude exports and rising productions in the US.

Oil product inventories drew counter-seasonally by 23.1 mb (0.77 mb/d) to 1 555 mb in November. Other oil stocks fell by 24 mb, more than double the usual decrease for the month. Middle distillate stocks fell by 11.3 mb. Those stocks in the Americas drew counter-seasonally by 4.8 mb and stood around the five-year average while European inventories were 48.2 mb above the average. By contrast, gasoline and fuel oil inventories rose by 11.7 mb and 0.5 mb, respectively.



In December, preliminary data show that US crude stocks fell by 7.9 mb m-o-m, largely in line with the seasonal trend. Total product stocks in the US decreased counter-seasonally by 12 mb, led by other products (-27.7 mb, mainly propane). European crude stocks drew by 3.3 mb, notably in France (-4.8 mb). Total oil product stocks in Europe fell by 14.3 mb. Japanese crude stocks drew more than usual by 5.2 mb and product stocks fell by 2.4 mb.

Preliminary Industry Stock Change in November 2020 and Third Quarter 2020												
	November 2020 (preliminary)				Third Quarter 2020							
	(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	11.1	-4.7	-10.1	-3.8	0.4	-0.2	-0.3	-0.1	-0.4	0.0	0.1	-0.3
Gasoline	9.0	3.2	-0.5	11.7	0.3	0.1	0.0	0.4	-0.3	-0.1	0.0	-0.4
Middle Distillates	-4.8	-4.1	-2.4	-11.3	-0.2	-0.1	-0.1	-0.4	-0.1	-0.1	0.1	-0.1
Residual Fuel Oil	-1.1	1.6	0.0	0.5	0.0	0.1	0.0	0.0	-0.1	-0.1	0.0	-0.2
Other Products	-24.9	1.0	-0.1	-24.0	-0.8	0.0	0.0	-0.8	0.4	0.0	0.0	0.4
Total Products	-21.8	1.7	-3.0	-23.1	-0.7	0.1	-0.1	-0.8	0.0	-0.2	0.1	-0.2
Other Oils ¹	2.8	1.3	-0.8	3.3	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1
Total Oil	-8.0	-1.7	-13.9	-23.6	-0.3	-0.1	-0.5	-0.8	-0.3	-0.2	0.1	-0.4

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD stock data for October were revised up by 2.7 mb to 3 131 mb. Product inventories in the Americas increased by 6.2 mb, notably other product stocks (4.5 mb). Total crude stocks in October were revised down by 1.6 mb mainly due to changes in Europe (-6.7 mb). September figures were lowered by 4.4 mb in total.

Revisions versus December 2020 Oil Market Report								
	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Sep-20	Oct-20	Sep-20	Oct-20	Sep-20	Oct-20	Sep-20	Oct-20
Crude Oil	0.5	3.1	-1.0	-6.7	0.0	2.0	-0.4	-1.6
Gasoline	-1.0	-0.4	0.0	4.1	0.0	-0.8	-1.0	3.0
Middle Distillates	-1.5	2.1	0.0	-2.8	0.0	0.1	-1.5	-0.6
Residual Fuel Oil	0.0	-0.1	0.0	-0.8	0.0	-0.1	0.1	-1.0
Other Products	0.9	4.5	0.0	0.4	0.0	1.0	0.8	5.9
Total Products	-1.6	6.2	0.0	0.9	0.0	0.1	-1.6	7.2
Other Oils ¹	-3.0	-3.0	0.7	0.5	0.0	-0.4	-2.3	-2.9
Total Oil	-4.1	6.3	-0.2	-5.3	0.0	1.7	-4.4	2.7

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Implied balance

The global supply and demand balance shows implied stock draws accelerating from 1.83 mb/d in 3Q20 to 2.19 mb/d in 4Q20. Available data and early indicators through December show stock draws towards year-end. In particular, observed inventories plunged by 3.32 mb/d in October and 2.15 mb/d in November. Preliminary data for December suggest the stock draw continued at 2.24 mb/d, with notable reductions in non-OECD crude oil stocks.

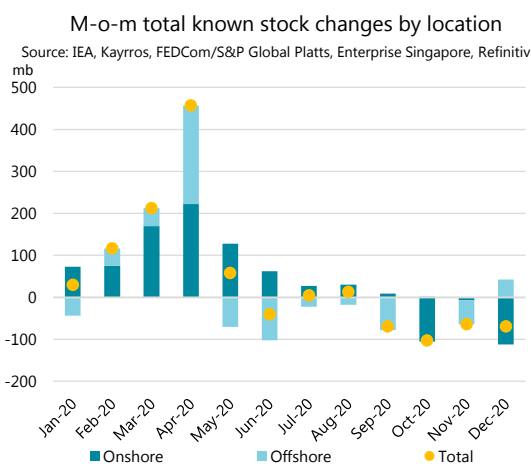
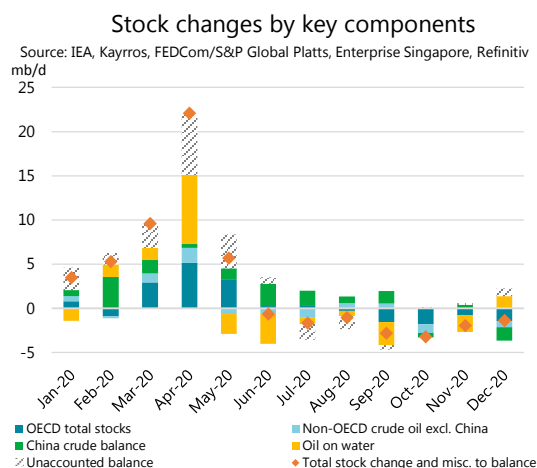
Crude oil and products on water, including floating storage, returned to the December 2019 level in September and onshore inventories started to draw. In November, tanker-tracking data from *Refinitiv* showed that crude oil on water fell by 1.61 mb/d, partly due to draws on short-term floating crude oil storage in the Asia Pacific of more than 25 mb. On the contrary, December data suggest a 1.12 mb/d build.

In 4Q20, OECD industry stocks of crude, NGLs and feedstocks combined drew by 29.5 mb (-0.32 mb/d). Europe saw the majority of the fall, accounting for 18.6 mb, or -0.2 mb/d. In the

Asia-Pacific those stock drew by 11.4 mb while in the Americas they rose by a modest 0.4 mb. OECD industry product stocks drew by a large 87.1 mb (-0.95 mb/d). Product stocks in the Americas and Europe drew by 63.5 mb and 16.5 mb, respectively. Those in Asia Pacific also fell by 7.1 mb. OECD total industry stocks (combined crude and product) in 4Q20 fell steeply by 116.6 mb (-1.27 mb/d), compared with a gradual draw in 3Q20 (-34.9 mb or -0.38 mb/d).

Preliminary 4Q20 and 2H20 implied balance (mb/d)							
	1Q20	2Q20	1H20	3Q20	4Q20	2H20	2020
OECD industry crude oil, NGLs and feedstocks	0.66	1.17	0.91	-0.20	-0.32	-0.26	0.32
OECD industry product stocks	0.31	1.44	0.87	-0.18	-0.95	-0.56	0.15
OECD government stocks	0.02	0.27	0.14	-0.11	-0.08	-0.09	0.02
Non-OECD crude oil excl. China	0.47	0.15	0.31	0.03	-0.54	-0.25	0.03
Independent product stocks (Fujairah and Singapore)	0.14	0.08	0.11	-0.09	0.01	-0.04	0.03
Crude oil on water including floating storage	0.09	0.84	0.47	-1.36	-0.24	-0.80	-0.17
Products on water including floating storage	0.34	-0.17	0.09	0.07	0.10	0.09	0.09
Total known stock change excluding China (as above)	2.03	3.78	2.91	-1.84	-2.01	-1.92	0.48
IEA estimate - Chinese crude balance	1.90	1.43	1.66	1.27	-0.56	0.35	1.00
Total known and estimated stock change	3.93	5.21	4.57	-0.57	-2.58	-1.57	1.48
Total stock change and misc. to balance*	6.14	9.01	7.57	-1.83	-2.19	-2.01	2.75
Unaccounted balance	2.21	3.80	3.00	-1.26	0.39	-0.44	1.27

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



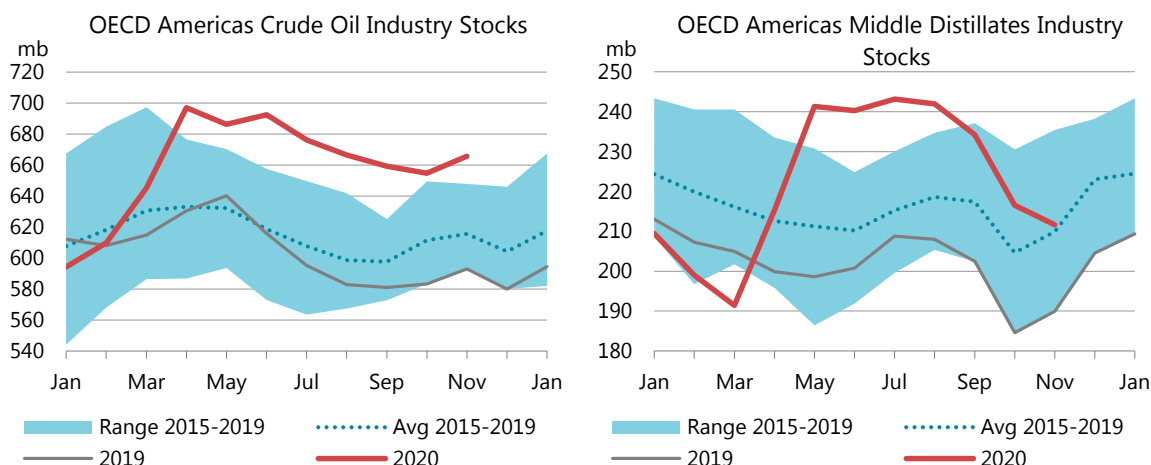
For non-OECD economies, excluding China, crude oil inventories drew by a large 50.1 mb (-0.54 mb/d) in 4Q20, notably in October by 30 mb and December by 21.2 mb, according to satellite data from *Kayrros*. The implied crude stock change in China in the same period, as calculated by the IEA, was a draw of 51.8 mb (0.56 mb/d) amidst lower net crude imports. On the contrary, although far more modestly, independent product stocks in Fujairah rose by 2.6 mb in 4Q20 while those in Singapore fell by 1.8 mb.

Overall, taking these various data sources together, our assessment of reported data shows stock draws 0.57 mb/d in 3Q20 and 2.58 mb/d in 4Q20. The gap between observed stock changes and the IEA's estimated "total stock change and miscellaneous to balance" may partly be accounted for in later months by revised and new data.

Recent OECD industry stock changes

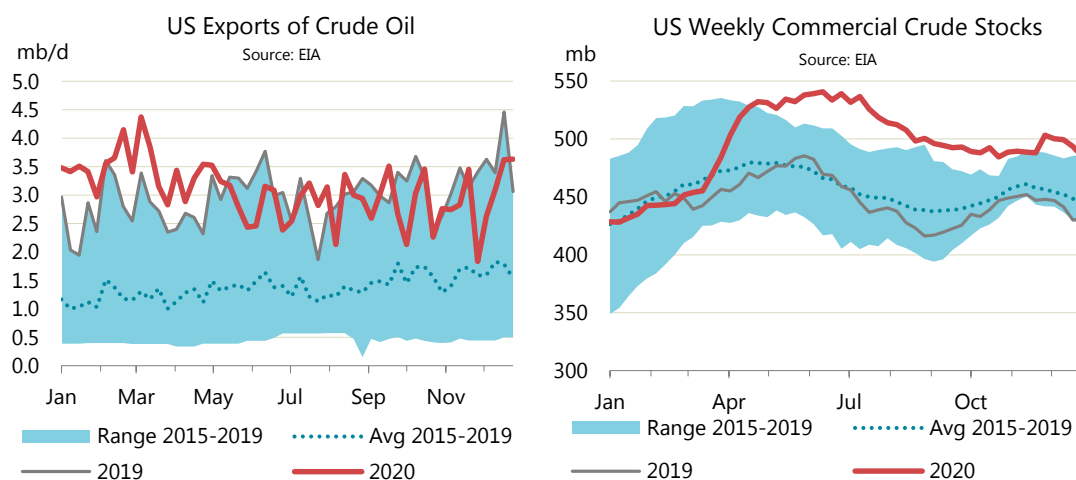
OECD Americas

Industry stocks in the OECD Americas region fell by 8 mb m-o-m in November to 1 643 mb, but remained 90.6 mb above the five-year average. The decrease was larger than the norm (usually they fall by 1.5 mb for the month) as counter-seasonal product stock draws led the way.



Crude oil stocks rose by 11.1 mb m-o-m and, at 666 mb, stood 50.2 mb above the five-year average, amid lower crude exports and rising US output in November. According to the *US Energy Information Administration*, crude oil exports fell 105 kb/d m-o-m to 2.6 mb/d on average. A rebound in US crude oil production following extensive hurricane USGC shut-ins during October also pushed inventories up.

Oil product stocks decreased counter-seasonally by 21.8 mb (0.73 mb/d). Other product (mainly propane) inventories led the way by drawing 24.9 mb, more than double the usual draws of 10.1 mb. Middle distillate and fuel oil stocks fell by 4.8 mb and 1.1 mb, respectively. Gasoline inventories built 9 mb amidst lower demand in the US.

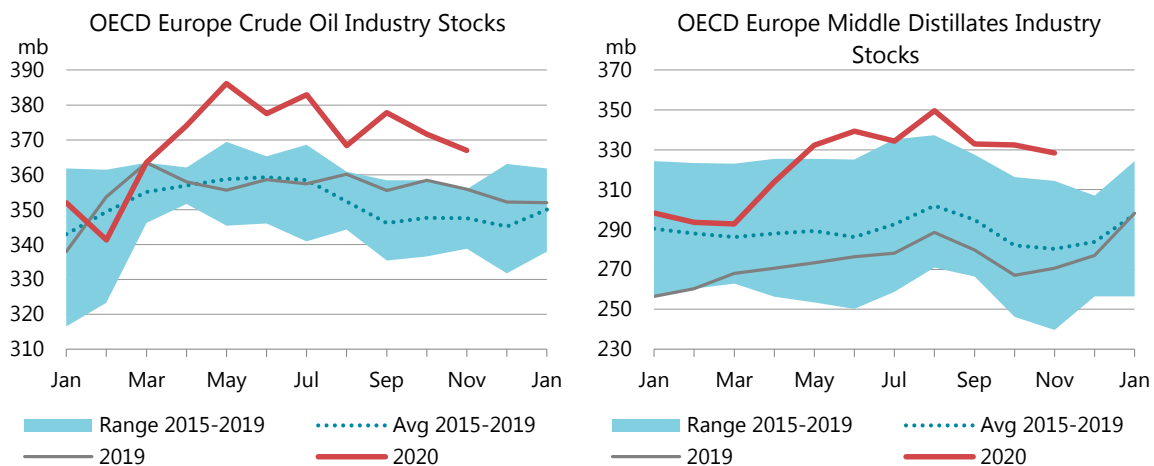


Weekly data from the *US Energy Information Administration* showed that crude oil stocks fell by 7.9 mb in December as crude exports surged to 3.6 mb/d in the week ending 25 December and 3 mb/d on average for the month (+360 kb/d m-o-m). Crude inventories in the US often fall in December because of taxes which are applied to the value of crude oil and petroleum products held in storage on 31 December in certain states (notably Texas). PADD 3 led the draw at 7.7 mb. Crude stocks in Cushing, Oklahoma, were largely unchanged at 59.1 mb, representing an average storage capacity utilisation rate of 75%.

Total product stocks fell counter-seasonally by 12 mb in December, led by a 27.7 mb draw in other products. Residual fuel oil stocks drew by 0.3 mb. In contrast, middle distillate inventories rose by 11 mb, largely in line with the seasonal trend. Gasoline stocks built by 5 mb, but less than half the usual increase of 11.7 mb for the month.

OECD Europe

In November, industry stocks in OECD Europe drew by 1.7 mb to 1 061 mb, which was 92.1 mb above the five-year average. The decrease was counter-seasonal for the month owing to a fall in crude oil stocks. Crude oil inventories fell by 4.7 mb in November. They stood at 367 mb and were 19.4 mb above the five-year average. Crude stocks decreased by 3.6 mb in Italy and by 2.1 mb in the UK, while they rose by 7.6 mb and 3.3 mb, in the Netherlands and France respectively.



Total oil product stocks built by 1.7 mb. Motor gasoline and fuel oil inventories led the increase, rising 3.2 mb and 1.6 mb, respectively. Other oil stocks rose 1 mb in line with the seasonal norm. Middle distillate stocks fell by 4.1 mb, more than usual.

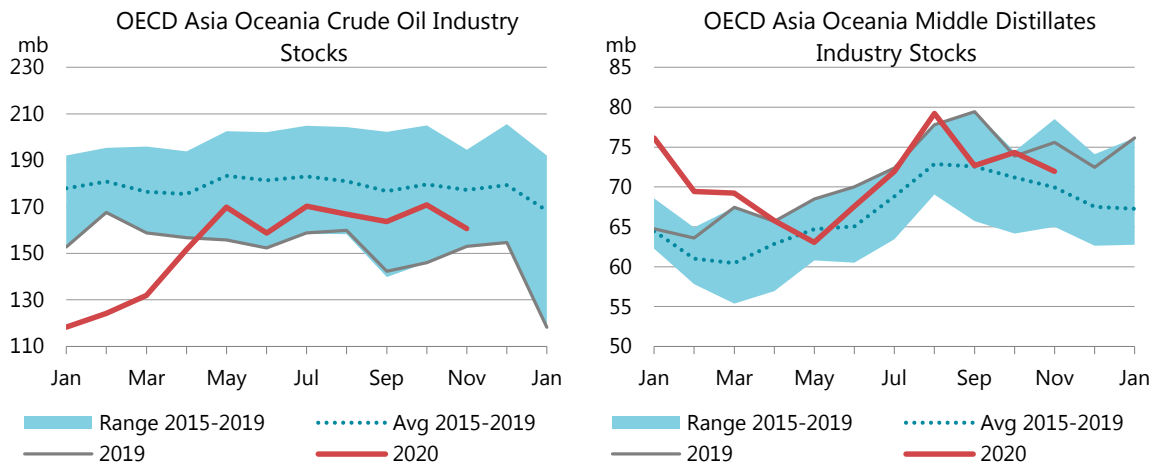
Preliminary December data from *Euroilstock* showed overall inventories falling by 17.6 mb (0.57 mb/d). Crude oil stocks decreased by 3.3 mb, notably in France (-4.8 mb) and Germany (-1.5 mb) while those in Italy built by 2.9 mb. Total oil product stocks drew by 14.3 mb. Middle distillate stocks led the fall by 9.5 mb. Gasoline and fuel oil inventories fell by 1.8 mb and 2.2 mb, respectively. Naphtha stocks also decreased by 0.9 mb.

OECD Asia Oceania

Total industry stocks in the OECD Asia Oceania region fell by 13.9 mb in November to 404 mb. Crude stocks drew by 10.1 mb, which is four times more than the normal seasonal pattern

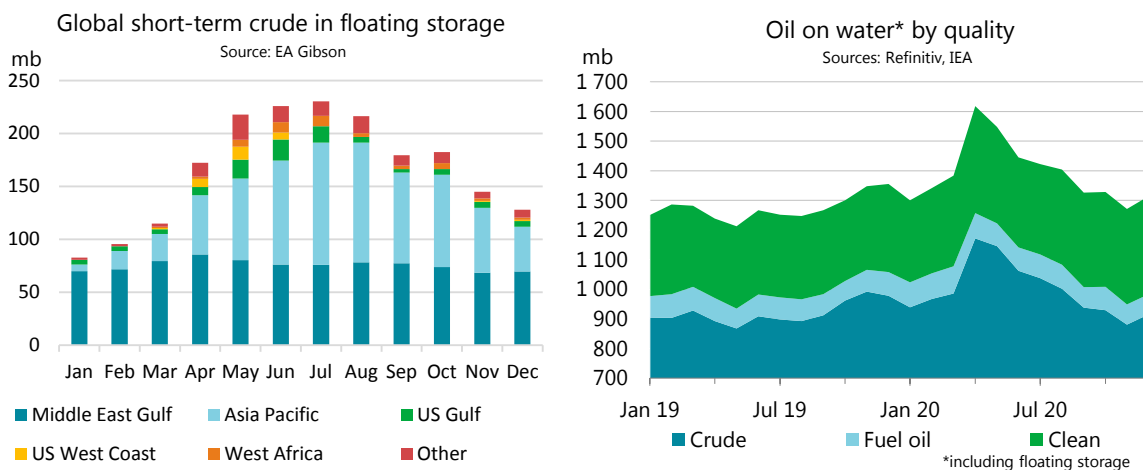
(-2.3 mb) as crude inventories in Japan decreased by 6 mb amidst higher refinery runs (+260 kb/d m-o-m). Korean crude oil stocks fell counter-seasonally by 3.3 mb, when typically they build by 1.7 mb.

Oil product stocks in the region drew by 3 mb in November. Middle distillate stocks fell by 2.4 mb, double the usual draw of 1.2 mb, as Korean inventories decreased by 3.8 mb. Gasoline and other product stocks drew by 0.5 mb and 0.1 mb, respectively. Fuel oil inventories were unchanged.



Preliminary data for December from the *Petroleum Association of Japan* showed crude oil inventories falling by 5.2 mb m-o-m. The decrease was larger than usual for the month, which normally sees a draw of 0.4 mb. Total product stocks drew by 2.4 mb, largely in line with the trend. Middle distillate stocks led the decrease by 3.5 mb. Gasoline inventories also fell, but by a modest 0.2 mb. Residual fuel oil and other oil product stocks rose by 0.4 mb and 0.8 mb, respectively.

Other stock developments



Volumes of crude oil held in short-term floating storage fell by 17 mb to 128 mb in December according to data from *EA Gibson*. The Asia Pacific region led the decrease with 19.2 mb and

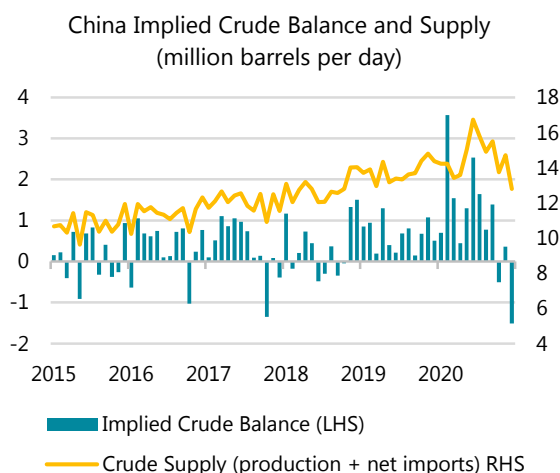
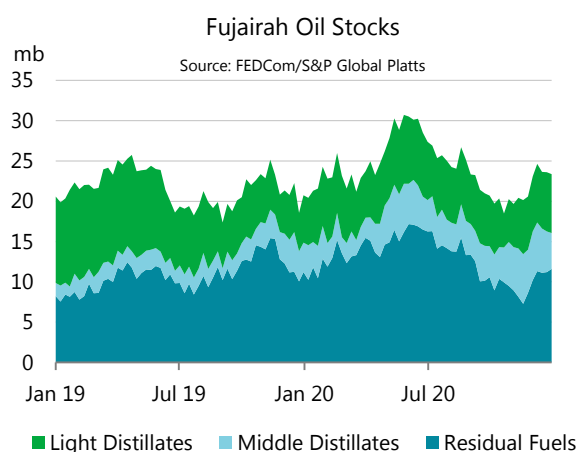
stood at 42.1 mb. Crude oil stored in the Middle East Gulf and the Mediterranean rose by 1.2 mb and 1.1 mb, respectively.

At end-December, 51 VLCCs and 15 Suezmaxes were used for floating storage globally. The number of vessels utilised for floating storage has fallen consistently since July (126 vessels) and, at 66 vessels, was well below the level seen in April (91 vessels) last year. In Iran, 27 VLCCs and five Suezmaxes (up by one) remained in use at end-month.

Volumes of oil on water (including floating storage), based on data from *Refinitiv*, fell 57.1 mb in November. The draw includes 48.3 mb of crude oil and 10.8 mb of fuel oil. Clean product volumes on the water built by 2.1 mb. According to tanker tracking data from *Kpler*, seaborne crude oil exports from Kuwait fell by 8.9 mb m-o-m in November. The US, Saudi Arabia and Iraq also reduced their crude exports by more than 5 mb each.

In Fujairah, independent product stocks built by 2.9 mb in December to 23.5 mb, according to data from *FEDCom and S&P Global Platts*. Residual fuel oil stocks rose by 2.8 mb to 11.4 mb, the highest since August 2020. Light distillate inventories also rose by 0.7 mb, while middle distillate inventories fell by 0.6 mb.

Independent product inventories in Singapore, the world's largest bunkering hub, decreased by 2.2 mb to 51.1 mb in December according to data from *Enterprise Singapore*. Residual fuel stocks led the way with a 3.2 mb fall. Middle distillate inventories drew by 0.6 mb. By contrast, light distillate stocks rose by 1.6 mb.



The Chinese implied crude balance rose by 10.8 mb in November, according to data derived from reported crude production, refinery runs and net crude imports. Net crude oil imports rose 0.95 mb/d m-o-m in November to 10.88 mb/d, while refinery runs increased marginally m-o-m to hit a new all-time high of 14.18 mb/d. Preliminary customs data for December showed a large 1.94 mb/d decrease in net crude imports, leading to a fall in the implied crude balance of 46.8 mb (1.51 mb/d).

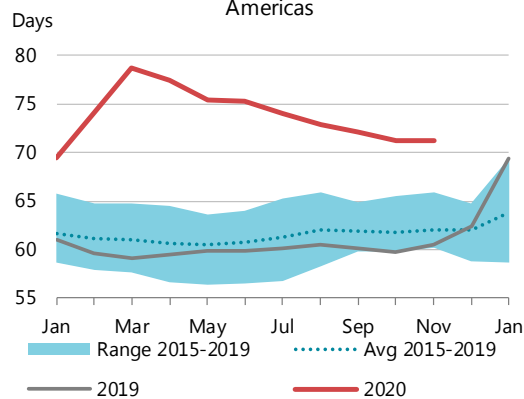
Total oil stocks in 19 non-OECD economies reported to the *JODI-Oil* database fell 17.2 mb m-o-m in October. Crude stocks in Nigeria and Iraq decreased by 7.9 mb and 4.4 mb, respectively. Brazilian stocks fell by 1.7 mb. On the contrary, crude stocks in Angola and Saudi Arabia rose by 0.9 mb and 0.7 mb, respectively. For oil products, combined stocks decreased by 5.2 mb, led by Algeria (-1.9 mb) and Brazil (-1.6 mb). Azerbaijan and Nigeria increased their product stocks by 0.5 mb and 0.4 mb, respectively.

Regional OECD End-of-Month Industry Stocks

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

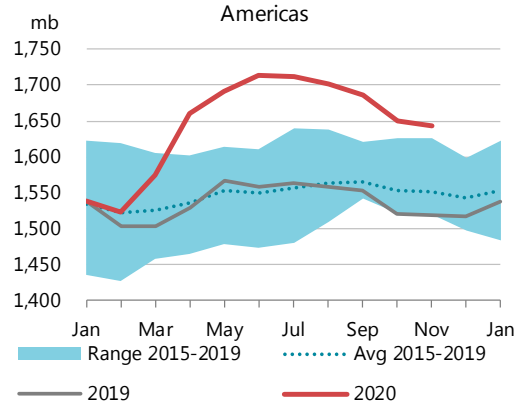
Days¹

Americas

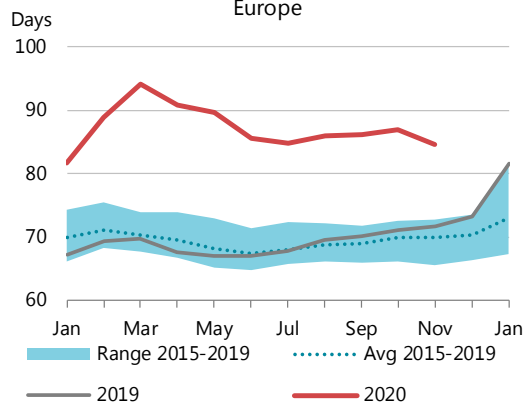


Million Barrels

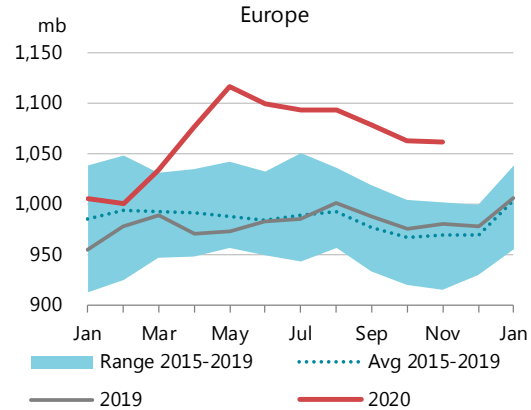
Americas



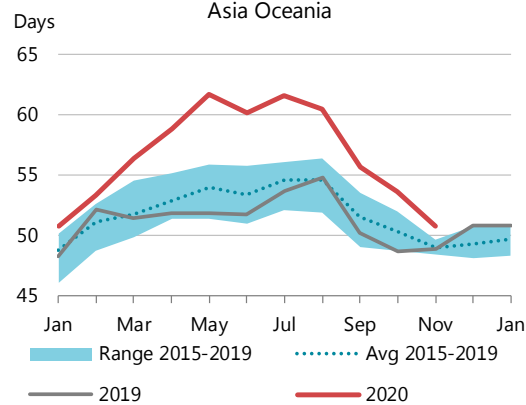
Europe



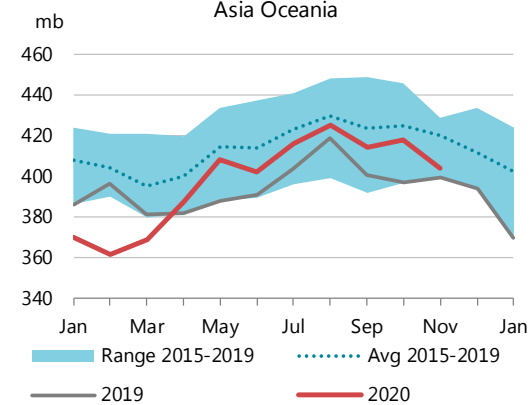
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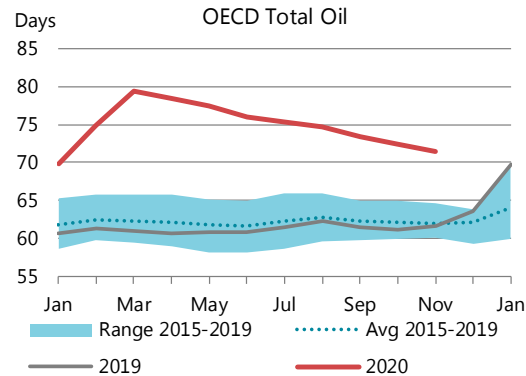
Asia Oceania



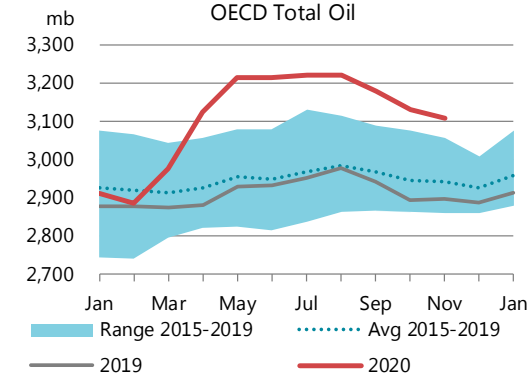
Asia Oceania



OECD Total Oil



OECD Total Oil



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

Prices

Overview

Oil prices continued their steady rise throughout the month of December, accelerating into the early days of 2021. Despite the near-worldwide rise in Covid cases, and particularly in new and more contagious variants, crude prices have remained for the moment well supported by financial, economic, and market fundamentals. In the week to 15 January, ICE Brent prices exceeded \$56/bbl, a level not seen since February 2020.

Oil futures, like other financial assets, have benefitted from the current favourable fiscal and monetary environment, the synchronised expansion in the business cycle (despite some sputtering in sectors heavily impacted by the pandemic), growing momentum in vaccination programmes, and the easing of prominent risks (Brexit, US elections, the global trade war, etc.). Data on positions of traders in paper markets confirm that a steady increase in net long positions accompanied the recent rise in crude prices. As the forward crude price curve moved from contango into backwardation, traders moved from longer-dated forward contracts (purchased to minimise their roll-losses during contango) to prompt contracts (delivering gains with each monthly roll of positions under backwardation). At the same time, rising prices have attracted producer hedging, pressuring prices at the back of the forward curve. The combination of moves boosted backwardation, in a self-reinforcing trend.

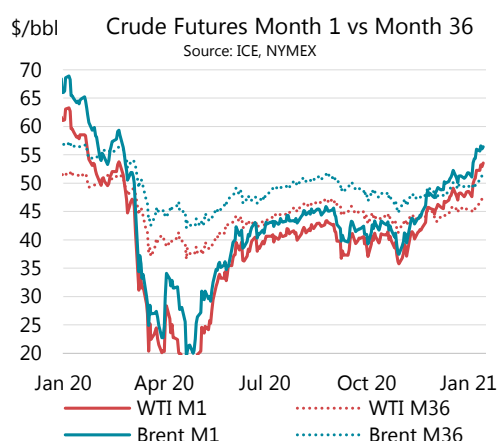
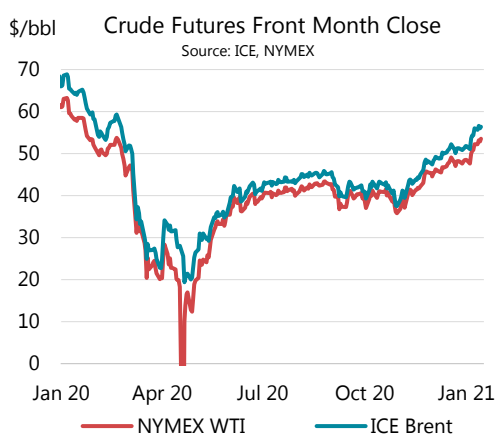
On the economic front, the European Central Bank announced continued monetary support for the EU in early December 2020. On 18 December, the EU Council and the Parliament reached a provisional agreement on the €672.5 billion Recovery and Resilience Facility that is at the heart of Next Generation EU €750 billion plan agreed by EU leaders in July 2020. It comes in addition to the EU's long-term Multiannual Financial Framework (2021-2027) of €1.1 trillion for a cumulative €1.8 trillion to fund the recovery and EU long-term priorities. The US Federal Reserve Bank reiterated its support for the US economy and for continued US dollar liquidity. In December, the US government approved a new round of fiscal support amounting to \$900 billion that the incoming Biden administration hopes to boost to nearly \$2 trillion.

Finally, the market fundamentals have strengthened both in the short and longer-term. At the 4-5 January OPEC+ meeting, the group took pre-emptive measures to head-off the impact of renewed Covid-driven demand deterioration. The tactic reinforced market confidence in the capacity of OPEC+ to navigate the crisis. In parallel, the launch and ramp-up of vaccination programmes has provided a light at the end of the tunnel for the oil demand outlook. Finally, global crude and product stocks have drawn steadily, tightening the market and consolidating the fundamental basis for support. Product stocks appear to have tightened more than crude stocks, resulting in stronger product cracks.

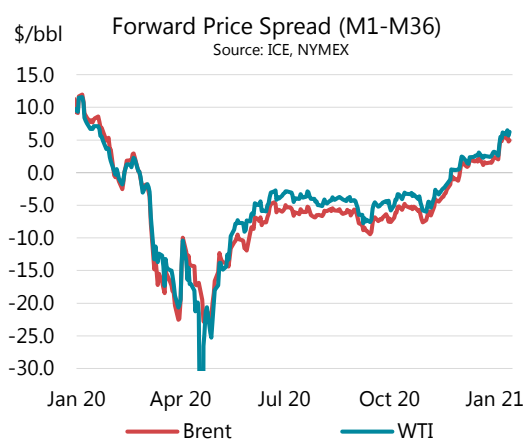
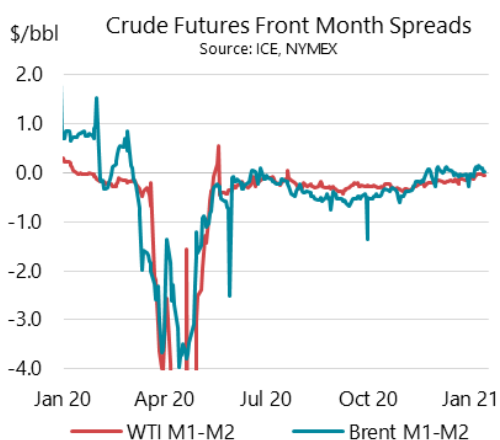
Recovering demand will gather pace this year with the potent combination of vaccines, stimulus measures, a natural desire to get back to "normal", and the firm hand of OPEC+ on the tiller of supply. As OPEC+ accompanies the recovery in demand, it will likely err on the side of caution. The persistent supply tension will draw down oil stocks, notably in days of cover, supporting prices.

Futures markets

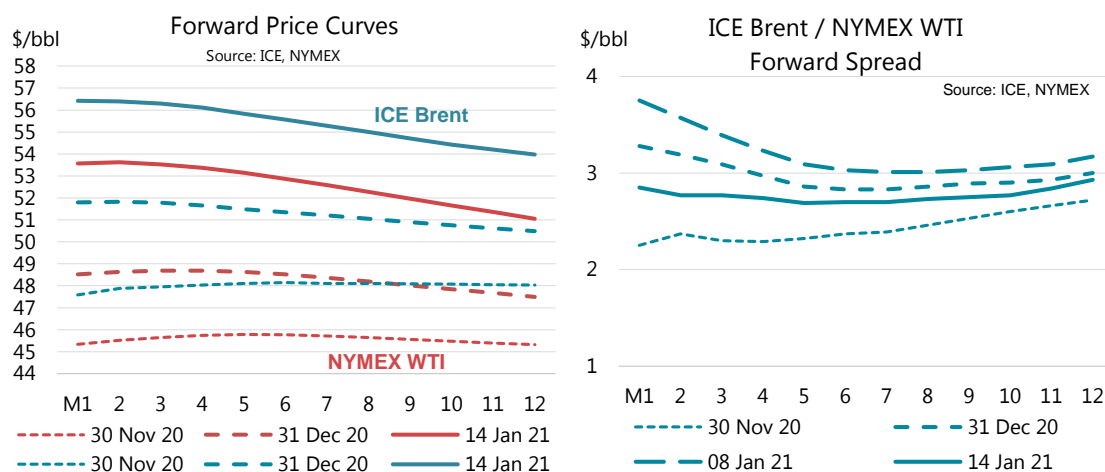
Crude futures prices continued the steady rise they began just after the US elections. Prompt crude futures prices rose m-o-m in December by \$6.24/bbl to \$50.22/bbl for ICE Brent and by \$5.72/bbl to \$47.07/bbl for NYMEX WTI. After rising \$3.03/bbl to \$51.27/bbl and \$2.73/bbl to \$48.14/bbl, respectively, from the last week of November to the last week of December, ICE Brent and NYMEX WTI continued to push higher in January, reaching \$55.96/bbl and \$52.86/bbl on average in the second week of January (+\$5.74/bbl and +\$5.79/bbl versus end-December). ICE Brent hit \$56.58/bbl on 12 January and WTI NYMEX rose to \$53.57/bbl on 14 January before falling back slightly.



The time structure of the ICE Brent premium to NYMEX WTI moved to a significant backwardation over December and into early January before flattening in the second week of the month. The change in the time structure for the premium highlights the difference between the fundamentals of the international market and the domestic US market. The international market benefitted from the change in OPEC+ policy as well as the recent cold snap in Asia and Europe. On the other hand, the US market remained subdued, despite production losses, as weak local demand impacted refinery throughputs that combined with end-year crude stock draws to ease the call on crude. Finally, higher forward prices have reportedly begun to attract renewed producer hedging which has pressured forward versus prompt prices.



From end-October to end-November, prompt crude prices rose \$10/bbl while prices for the twelfth forward contract rose \$6-7/bbl. By end-November, the crude price structure had flattened after lingering in a more or less substantial contango since the beginning of the pandemic. The trend continued throughout December. Front month futures spreads on WTI narrowed their discounts to just a few cents of contango in recent weeks while those on Brent were roughly flat overall. The twelve-month time structure steadily rose into a backwardation of \$1-1.30/bbl on 31 December and steepened in the first weeks of January reaching highs on 14 January 2021 of \$2.40-2.50/bbl. The first to thirty-sixth month spread rose to over \$5/bbl on crude futures in the second week of January, highlighting the depth the backwardation has reached.

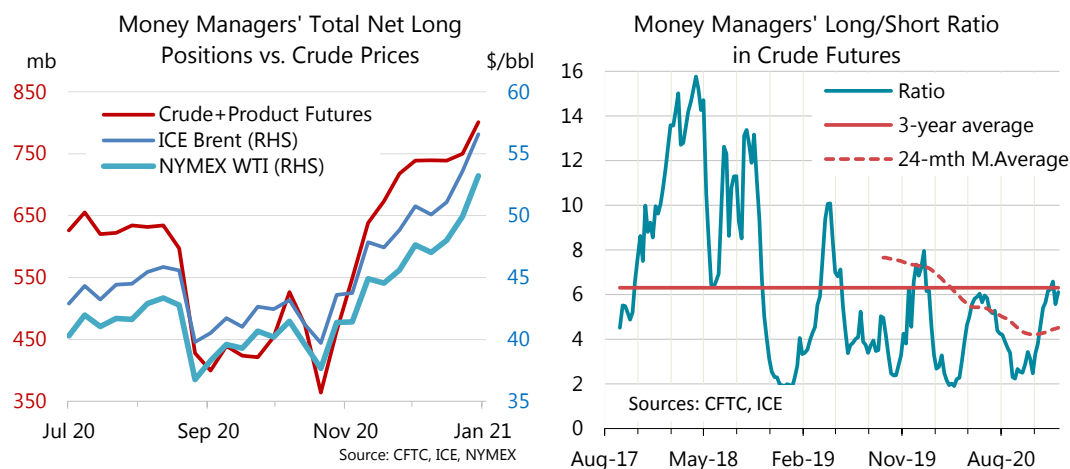


From November to December, all product futures rose faster than crude futures leading to stronger cracks in general. Stronger cracks reflect falling product stocks and healthier demand for gasoline and diesel globally before the current Covid wave started to impact demand once again. Stronger cracks will help nurse idle refinery capacity back to activity to meet any rise in product demand.

The NYMEX ULSD crack vs. WTI rose \$2.67/bbl m-o-m to \$13.74/bbl in December and averaged roughly \$14/bbl in the first two weeks of January. Consequently, ULSD averaged \$60.81/bbl in December (+\$8.39/bbl m-o-m) and \$67.04/bbl in the second week of January. The ICE Gasoil crack vs. Brent rose \$1.47/bbl to \$5.14/bbl in December but eased to around \$4.50/bbl in the first two weeks of January, leaving gasoil at \$55.36/bbl in December (+\$7.71/bbl m-o-m) and at \$60.76/bbl in the second week of January. On the other hand, the NYMEX RBOB crack vs. WTI rose \$1.07/bbl to \$8.72/bbl in December and continued to rise into the first half of January, reaching around \$11.60/bbl. As a result, RBOB averaged \$55.79/bbl in December (+\$6.79/bbl m-o-m) and \$64.72/bbl in the second week of January.

Between 1 December and 12 January, money managers boosted their net long positions in crude contracts by 13%, in-line with the trend of rising crude prices. The increase reflects a 10% rise in long positions versus a 2% fall in short positions. Money manager long positions increased for both Brent (+19%) and WTI (+4%) but short positions declined for Brent (-13%, reflecting a strong international market) while rising for WTI (+8%). Net short positions on crude contracts for producers rose by 33% over the month, but entirely on Brent futures as producers reduced shorts on WTI futures. On the other hand, swap dealers increased net long positions on Brent (+4%) and increased net short positions on WTI (+7%). The long-short ratio for money managers rose from early December (5.41) to around the long-term average of 6.29 from late

December through mid-January. There remains potential for higher long positions and a higher long-short ratio in the coming weeks based on historical levels.



On products, net long positions rose 56% from the first week of December to the first week of January, boosted by increased net longs on ICE gasoil and NYMEX RBOB while net longs fell for NYMEX ULSD. Despite crude prices swinging into backwardation, product cracks have improved since early December as tighter product balances have become a driver for rising crude prices.

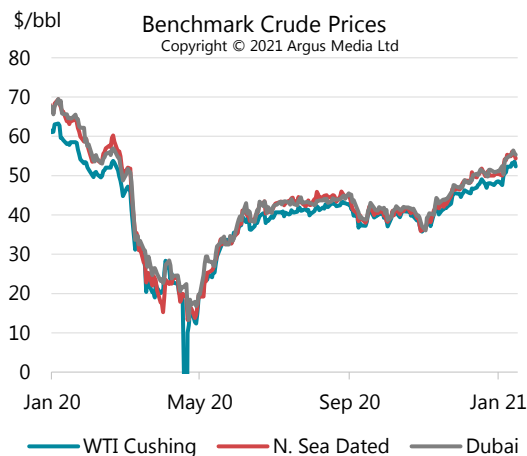
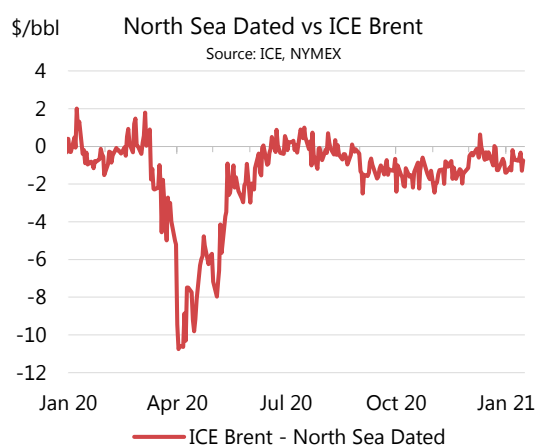
Prompt Month Oil Futures Prices (monthly and weekly averages, \$/bbl)											
	Oct	Nov	Dec	Dec-Nov Avg Chg	% Chg	Week Commencing:					
						07 Dec	14 Dec	21 Dec	28 Dec	04 Jan	11 Jan
NYMEX											
Light Sweet Crude Oil (WTI)	39.55	41.35	47.07	5.72	13.8	46.05	47.98	47.78	48.14	50.25	52.86
RBOB	48.62	49.00	55.79	6.79	13.9	53.86	56.97	57.34	58.55	61.53	64.72
ULSD	48.32	52.42	60.81	8.39	16.0	59.45	62.20	62.23	62.29	64.07	67.04
ULSD (\$/mmbtu)	8.52	9.24	10.72	1.48	16.0	10.49	10.97	10.98	10.99	11.30	11.82
Henry Hub Natural Gas (\$/mmbtu)	2.84	2.87	2.58	-0.29	-10.0	2.48	2.68	2.65	2.43	2.69	2.73
ICE											
Brent	41.52	43.98	50.22	6.24	14.2	49.34	51.18	50.87	51.27	53.87	55.96
Gasoil	44.49	47.65	55.36	7.71	16.2	54.03	56.62	56.47	56.96	58.15	60.76
Prompt Month Differentials											
NYMEX WTI - ICE Brent	-1.97	-2.63	-3.15	-0.52		-3.29	-3.20	-3.09	-3.13	-3.62	-3.10
NYMEX ULSD - WTI	8.77	11.07	13.74	2.67		13.40	14.22	14.45	14.15	13.82	14.18
NYMEX RBOB - WTI	9.07	7.65	8.72	1.07		7.81	8.99	9.56	10.41	11.28	11.86
NYMEX 3-2-1 Crack (RBOB)	8.97	8.79	10.39	1.60		9.67	10.74	11.19	11.65	12.13	12.64
NYMEX ULSD - Natural Gas (\$/m	5.69	6.37	8.14	1.77		8.01	8.30	8.32	8.55	8.61	9.10
ICE Gasoil - ICE Brent	2.97	3.67	5.14	1.47		4.69	5.44	5.60	5.69	4.28	4.80

Source: ICE, NYMEX.

Spot crude oil prices

Monthly average North Sea Dated prices rose \$7.18/bbl to average \$49.72/bbl in December, remaining at a discount to futures throughout the month and into January. By the second week of January, the North Sea Dated price had risen to a weekly average of \$55.24/bbl. The discount versus ICE Brent narrowed on average from November to December (+\$0.94/bbl to -\$0.50/bbl), however it widened over the latter half of December and into the first weeks of January (to around -\$0.75/bbl). Ample buying by Asian refiners (notably Chinese) seen during much of 4Q20 eased at end-year, but recovered in January. Russian crude exports were relatively robust in

December, adding to pressure on spot prices vs. futures. Refinery margins remain too weak to close the physical crude price discount to futures.

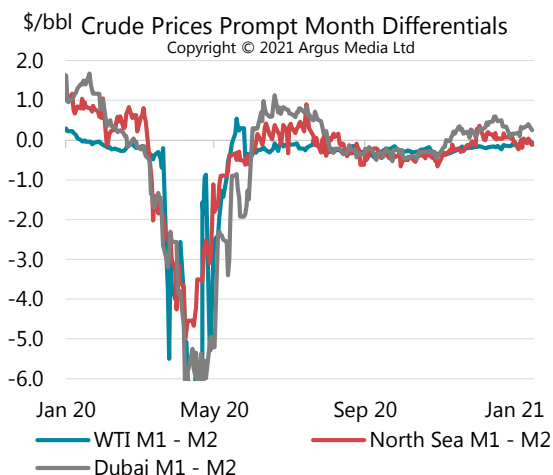


Prompt time spreads (M1-M2) on physical forward prices reflected pending market tensions better than spot prices.

The prompt North Sea time spread on physical forward prices also remained in backwardation throughout December, before easing into contango in January. Tension on front month contracts for January (physical positions one month forward) reflected expectations of tighter markets due to anticipated smaller Russian export programmes and a return of purchases by Asian refiners.

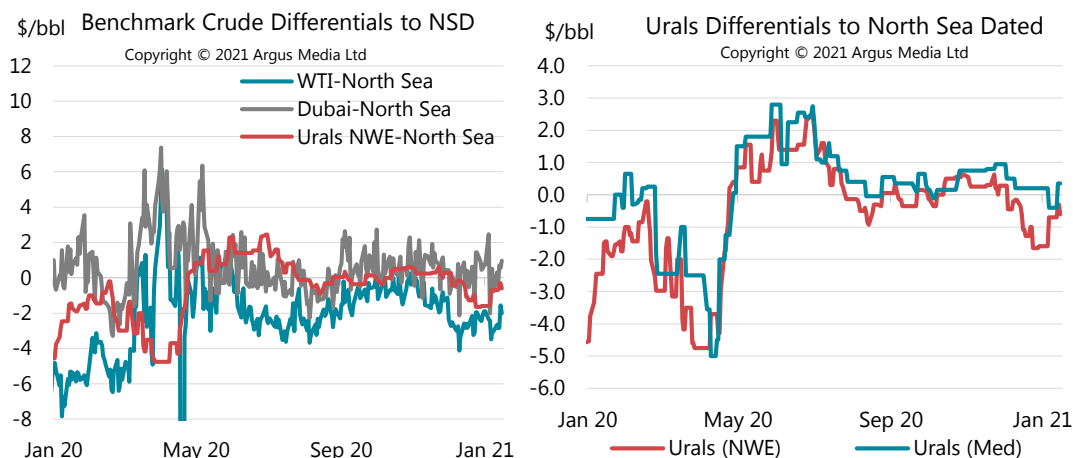
The backwardation in Dubai prices rose steadily through December before easing through the holiday season. The curve moved higher again following the 4-5 January OPEC+ meeting when a 1 mb/d Saudi production cut was announced. The backwardation reflects the strength of Asian crude buying versus restrained supply from the Middle East and the consequent need to draw-in Atlantic Basin barrels. However, with increasing concerns about travel during the upcoming Chinese lunar New Year, forward prices now reflect near-term demand uncertainties.

The monthly average for the front month Dubai price rose \$6.44/bbl m-o-m to \$49.78/bbl in December and reached \$55.67/bbl in the second week of January. With slower Asian refinery demand, Dubai's already strong premium to North Sea Dated narrowed in December (-\$0.74/bbl to \$0.05/bbl). The narrower Dubai premium to North Sea Dated briefly influenced the arbitrage for Atlantic Basin crudes to Asia, notably for West African grades.



WTI prices at Cushing rose \$5.95/bbl m-o-m to \$47.05/bbl in December while monthly average prices for WTI at Houston rose \$6.69/bbl m-o-m to \$48.59/bbl. Prices continued to rise, reaching a weekly average in the second week of January of \$52.86/bbl at Cushing and \$54.42/bbl at Houston, sustaining the Houston premium to Cushing. As in November, prices in Houston benefitted from the strong pull from the international market for US crude exports,

while prices in Cushing reflected the weak recovery in mid-continent refinery activity amid rising in-bound Canadian crude arrivals and ample local crude stocks.



The prompt WTI forward physical time spread remained in contango throughout December and January (albeit with a slightly narrower discount at end month). The discount reflects the persistent modest supply overhang in the US midcontinent arising from weak local refinery runs as well as more stable local production and rising Canadian crude exports to the US market.

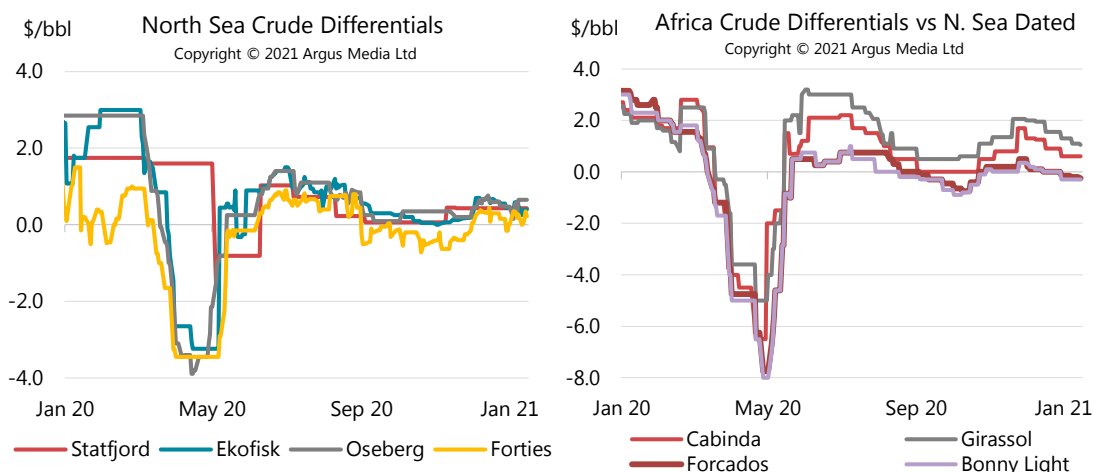
The price discount for WTI at Houston vs. North Sea Dated deepened in December (-\$0.49/bbl to -\$1.14/bbl), before narrowing from late December into the first weeks of January to \$0.85/bbl. The phenomenon reflects end-year adjustments of business inventories (including crude oil) for fiscal reasons in a certain number of states, notably Texas. Crude stocks holders draw down inventories where possible to reduce their tax exposure before 31 December. This pushes crude into the market or into their refining system, which briefly slows buying and weighs on prices.

The Urals premium to North Sea Dated in the Mediterranean narrowed by \$0.47/bbl m-o-m to \$0.34/bbl in December while that for Northwest Europe swung by -\$0.99/bbl to a \$0.71/bbl discount. The two differentials recovered in the early days of January. An unexpectedly large December Russian crude export programme in Northwest Europe pressured differentials. Cargos cleared slowly as weak refinery margins continue to restrict buying, but January appears to be a tighter month with renewed strength in Asian demand for Russian crude.

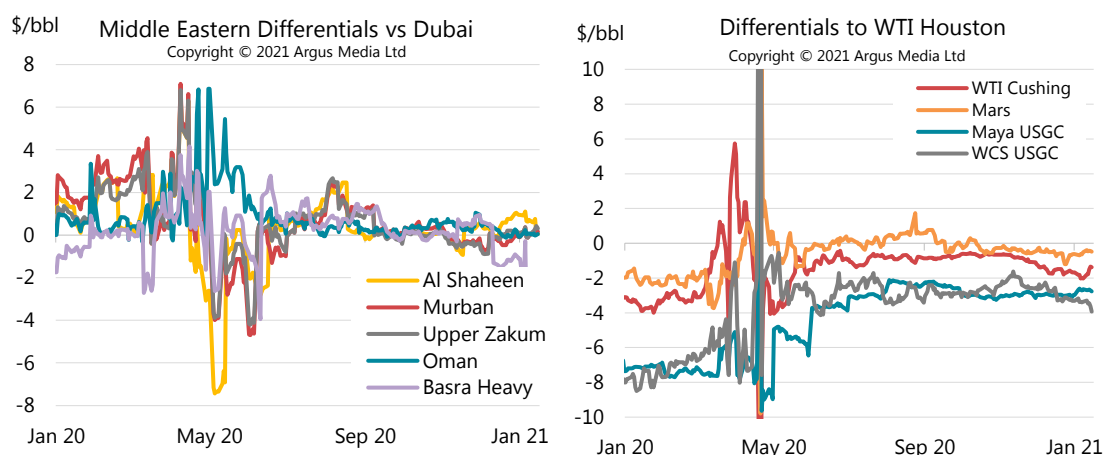
Differentials to North Sea Dated for key regional grades (Forties, Statfjord, Ekofisk and Oseberg) all made large gains from November to December. All four crudes moved to premiums versus North Sea Dated supported by Asian buying. The premiums eased slightly in late December and January as Asian buying eased and as the rising backwardation pushed more crude out of storage locally.

West African crude price differentials to North Sea Dated fell or stagnated in December as demand from both China and India slowed sharply. Interest remained subdued into January when differentials deteriorated further as unsold February-loading cargoes accumulated. Sluggish Chinese buying hit Angolan grades hard while the dearth of Indian purchases pressured Nigerian grades. December premiums to North Sea Dated fell -\$0.20/bbl to \$0.06/bbl for Forcados, \$0.08/bbl to \$0.05/bbl for Brass River, and \$0.01/bbl to \$0.06/bbl for Bonny Light. Angolan heavy sweet Girassol rose \$0.20/bbl to \$1.77/bbl and Cabinda rose \$0.11/bbl to \$1.09/bbl. The deterioration continued into the second week of January as Cabinda fell to

\$0.60/bbl, Girassol to \$1.09/bbl, Bonny Light to -\$0.30 /bbl, and Forcados to -\$0.22/bbl. Differentials reflect January sales of February loading cargoes that will discharge in March or April. Weak interest suggests buyers see ample crude available to meet Asian refinery requirements at that horizon either due to lower runs (maintenance), planned stock draws (impact of backwardation), or uncertainty about end-user demand in the spring.



Middle Eastern crude price differentials to Dubai narrowed under pressure from steepening backwardation and rising demand uncertainties throughout December and into January. Iraqi Basrah Heavy fell sharply with the first sales of the new Basrah Medium grade for loading in January but recovered in January as sales shifted to February cargoes. The Murban discount to Dubai widened by \$0.06 /bbl to -\$0.30/bbl in December before flipping to an average premium in January of \$0.08 /bbl. Oman's premium to Dubai narrowed by -\$0.27/bbl to \$0.22/bbl in December, which further narrowed to \$0.06 /bbl in the first weeks of January. The Upper Zakum discount to Dubai narrowed by \$0.21 /bbl to -\$0.17/bbl in December, flipping to a premium in the second half of the month that rose to \$0.15/bbl on average in January.



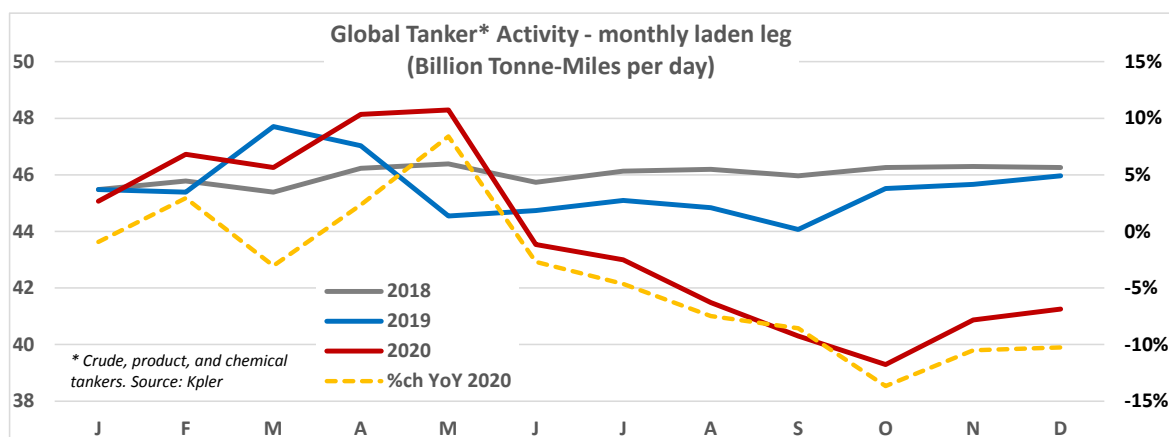
In North America, sour crude price differentials on the USGC versus WTI at Houston deteriorated in December as crude buying eased in favour of drawing stocks. Discounts to WTI at Houston for domestic grade Mars widened by \$0.49/bbl to -\$0.53/bbl, before recovering to -\$0.44/bbl in the second week of January. Maya discounts were relatively stable from November to December, narrowing in January by around \$0.30 /bbl. Ample arrivals of Canadian heavy WCS on the USGC pressured January discounts.

Spot Crude Oil Prices and Differentials											
(monthly and weekly averages, \$/bbl)											
	Oct	Nov	Dec	Dec-Nov Avg Chg	% Chg	Week Commencing:					
						07 Dec	14 Dec	21 Dec	28 Dec	04 Jan	11 Jan
Crudes											
North Sea Dated	40.01	42.54	49.72	7.18	16.9	49.28	50.68	50.29	50.45	53.12	55.24
North Sea Mth 1	41.05	43.65	50.28	6.63	15.2	49.74	51.12	50.79	51.14	53.72	55.86
WTI (Cushing) Mth 1	39.53	41.10	47.05	5.95	14.5	46.05	47.98	47.68	48.14	50.25	52.86
WTI (Houston) Mth 1	40.17	41.90	48.59	6.69	16.0	47.56	49.55	49.32	49.77	52.19	54.42
Urals (NWE)	40.26	42.83	49.01	6.19	14.5	49.05	49.81	49.06	48.85	52.06	54.72
Urals (Mediterranean)	40.26	43.35	50.07	6.71	15.5	49.66	50.88	50.49	50.65	52.96	55.29
Dubai (1st month)	40.70	43.33	49.78	6.44	14.9	48.86	50.83	50.42	51.00	53.03	55.67
Tapis (Dated)	39.15	42.54	50.88	8.34	19.6	50.08	51.48	51.92	52.20	54.82	56.94
Differentials to Futures											
North Sea Dated vs. ICE Brent	-1.51	-1.44	-0.50	0.94		-0.06	-0.50	-0.58	-0.82	-0.75	-0.72
WTI (Cushing) Mth1 vs. NYMEX	-0.02	-0.25	-0.02	0.23		0.00	0.00	-0.11	-0.01	0.00	0.00
Differential to North Sea Dated											
WTI (Houston)	0.16	-0.64	-1.14	-0.49		-1.72	-1.14	-0.97	-0.68	-0.93	-0.82
Urals (NWE)	0.25	0.28	-0.71	-0.99		-0.23	-0.88	-1.23	-1.60	-1.06	-0.52
Urals (Mediterranean)	0.26	0.81	0.34	-0.47		0.38	0.20	0.20	0.20	-0.16	0.05
Dubai	0.70	0.79	0.05	-0.74		-0.41	0.15	0.13	0.55	-0.09	0.43
Tapis (Dated)	-0.85	0.00	1.16	1.16		0.80	0.80	1.63	1.75	1.70	1.70
Prompt Month Differential											
Forward Cash Brent Mth1-Mth2	-0.46	-0.24	0.12	0.36		0.11	0.09	0.08	0.02	-0.11	-0.05
Forward WTI Cushing Mth1-Mth2	-0.28	-0.26	-0.16	0.10		-0.19	-0.16	-0.16	-0.13	-0.07	-0.04
Forward Dubai Mth1-Mth2	-0.36	0.10	0.34	0.24		0.38	0.54	0.38	0.13	0.25	0.33

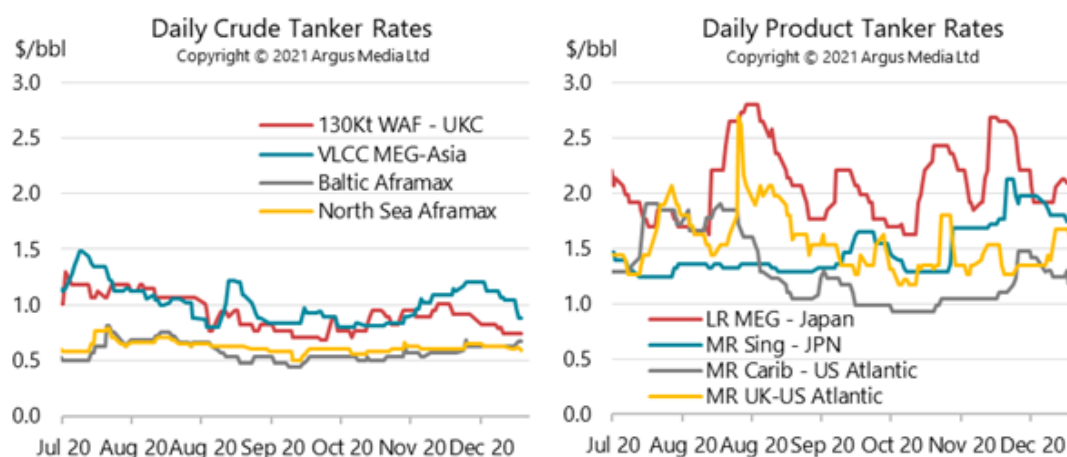
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Freight

After a modest recovery of tanker activity in November, tonne-miles transported per day stagnated in December, down by around -10% vs. December 2019. Tanker demand remains quite depressed, notably with new Saudi production cuts announced for February and March.



Crude tanker rates rose in December, notably for VLCCs, as chartering for January picked-up in anticipation of higher OPEC+ production. VLCC rates on Middle East to Asia routes rose 33% in to \$1.10/bbl. Higher rates combined with steepening backwardation helped push some crude out of floating storage, releasing tonnage to the market. Suezmax rates rose on the West Africa to UK-continent route in anticipation of higher loadings and influenced by higher VLCC rates. However, following the announcement of Saudi production cuts at the 4-5 January OPEC+ meeting, rates deteriorated for both Suezmaxes and VLCCs as chartering requirements dipped.



Aframax tanker rates on Baltic and North Sea routes rose over the month, boosted by a larger than expected Russian export programme. Rates were stable or slightly increasing in January as Russia's OPEC+ production quota was revised higher.

Rates for product tankers increased sharply in early December on the Middle East to Asia and Singapore to Japan, but subsequently eased in January, pulled higher initially by strong demand for heating fuels in NorthEast Asia. Other rates on UK to US routes were boosted by the trend East of Suez.

Freight Costs										
(monthly and weekly averages, \$/bbl)										
	Oct	Nov	Dec	Dec-Nov		Week Ending				
				Chg	%	18 Dec	25 Dec	01 Jan	08 Jan	15 Jan
Crude Tankers										
VLCC MEG-Asia	0.87	0.83	1.10	0.27	32.7	1.15	1.20	1.12	1.07	0.88
130Kt WAF - UKC	0.75	0.86	0.92	0.05	6.2	0.91	0.91	0.83	0.74	0.74
Baltic Aframax	0.50	0.53	0.58	0.05	10.1	0.56	0.63	0.63	0.63	0.67
North Sea Aframax	0.58	0.59	0.61	0.03	4.3	0.60	0.64	0.62	0.62	0.61
Product Tankers										
LR MEG - Japan	1.95	2.09	2.25	0.16	7.7	2.65	2.21	1.92	1.91	2.10
MR Sing - JPN	1.50	1.38	1.83	0.45	33.0	1.76	1.98	1.98	1.80	1.74
MR Carib - US Atlantic	1.07	0.96	1.18	0.22	22.7	1.11	1.47	1.41	1.24	1.19
MR UK-US Atlantic	1.41	1.37	1.37	0.00	0.2	1.26	1.35	1.35	1.53	1.67

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Tables

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

	2017	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
OECD DEMAND																	
Americas	25.1	25.7	25.3	25.5	26.0	25.8	25.7	24.3	20.0	22.7	23.1	22.5	22.9	23.6	24.9	25.1	24.1
Europe	14.4	14.3	14.0	14.2	14.7	14.1	14.3	13.3	11.0	12.8	12.4	12.4	12.5	13.2	13.7	13.7	13.3
Asia Oceania	8.1	8.0	8.2	7.4	7.6	8.0	7.8	7.8	6.5	6.7	7.4	7.1	7.8	7.0	7.1	7.7	7.4
Total OECD	47.7	48.0	47.5	47.1	48.3	47.9	47.7	45.4	37.5	42.2	43.0	42.0	43.2	43.8	45.6	46.4	44.8
NON-OECD DEMAND																	
FSU	4.7	4.7	4.6	4.7	5.0	4.9	4.8	4.6	4.0	4.8	4.7	4.5	4.4	4.5	4.9	4.9	4.7
Europe	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8
China	12.5	13.0	13.2	13.8	13.8	14.1	13.7	11.9	14.2	14.7	14.7	13.9	14.3	14.6	14.8	14.9	14.6
Other Asia	13.7	14.0	14.5	14.4	13.8	14.4	14.3	13.7	11.5	12.7	13.8	12.9	14.0	13.9	13.6	14.2	13.9
Americas	6.4	6.2	6.1	6.2	6.3	6.2	6.2	5.7	4.9	5.8	5.8	5.5	5.7	5.8	6.0	6.0	5.9
Middle East	8.3	8.3	8.1	8.1	8.7	8.3	8.3	7.8	7.0	8.2	7.6	7.6	7.6	7.8	8.4	7.8	7.9
Africa	4.2	4.2	4.3	4.3	4.2	4.3	4.3	4.2	3.3	3.9	4.0	3.9	4.1	4.0	4.0	4.1	4.1
Total Non-OECD	50.4	51.2	51.5	52.3	52.6	53.0	52.3	48.7	45.6	50.7	51.5	49.1	50.9	51.3	52.5	52.6	51.9
Total Demand¹	98.1	99.2	99.1	99.3	100.8	100.9	100.0	94.1	83.1	93.0	94.5	91.2	94.1	95.2	98.1	99.0	96.6
OECD SUPPLY																	
Americas	20.5	23.0	24.0	24.5	24.6	25.5	24.6	25.7	22.8	23.1	23.6	23.8	23.9	23.7	23.8	23.9	23.8
Europe	3.5	3.5	3.5	3.2	3.2	3.5	3.3	3.7	3.6	3.4	3.4	3.5	3.6	3.5	3.5	3.7	3.6
Asia Oceania	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Total OECD⁴	24.4	26.9	27.9	28.2	28.4	29.6	28.5	29.9	26.9	27.1	27.6	27.8	28.0	27.7	27.9	28.2	28.0
NON-OECD SUPPLY																	
FSU	14.3	14.6	14.8	14.4	14.6	14.7	14.6	14.8	13.2	12.8	13.2	13.5	13.3	13.6	13.7	13.7	13.6
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.9	3.8	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9
Other Asia	3.5	3.4	3.4	3.3	3.2	3.2	3.3	3.2	3.0	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0
Americas	5.1	5.1	5.1	5.2	5.5	5.6	5.3	5.6	5.1	5.4	5.2	5.3	5.4	5.6	5.6	5.6	5.5
Middle East	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
Africa	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.4	1.1	1.1	1.3	1.3	1.2
Total Non-OECD⁴	31.6	31.7	32.0	31.7	32.0	32.2	32.0	32.3	30.0	29.7	29.9	30.5	30.1	30.6	30.8	30.8	30.6
Processing gains ³	2.3	2.4	2.3	2.4	2.4	2.3	2.4	2.3	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3
Global Biofuels	2.5	2.7	2.2	2.9	3.2	2.7	2.8	2.2	2.5	3.0	2.6	2.6	2.3	2.9	3.2	2.8	2.8
Total Non-OPEC Supply	60.8	63.6	64.5	65.1	65.9	66.9	65.6	66.6	61.3	61.9	62.2	63.0	62.6	63.5	64.2	64.1	63.6
OPEC²																	
Crude	31.5	31.4	30.1	29.6	29.0	29.3	29.5	28.2	25.6	24.1	24.9	25.7					
NGLs	5.4	5.5	5.5	5.5	5.4	5.4	5.4	5.4	5.2	5.1	5.2	5.2	5.3	5.3	5.3	5.3	5.3
Total OPEC	36.9	36.9	35.6	35.1	34.4	34.7	34.9	33.6	30.8	29.2	30.1	30.9					
Total Supply	97.6	100.5	100.1	100.2	100.3	101.6	100.6	100.3	92.1	91.1	92.3	93.9					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.4	0.1	0.0	0.6	0.1	-0.6	0.0	0.9	2.6	-0.4							
Government	-0.1	-0.1	0.1	-0.1	0.0	-0.1	0.0	0.0	0.3	-0.1							
Total	-0.5	0.0	0.1	0.5	0.1	-0.7	0.0	0.9	2.9	-0.5							
Floating storage/Oil in transit	0.4	0.0	-0.3	-0.1	0.0	0.9	0.1	0.4	0.7	-1.3							
Miscellaneous to balance ⁵	-0.3	1.3	1.4	0.4	-0.6	0.4	0.4	4.8	5.5	-0.1							
Total Stock Ch. & Misc	-0.5	1.3	1.1	0.9	-0.5	0.7	0.5	6.1	9.0	-1.8	-2.2	2.8					
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	31.9	30.1	29.0	28.7	29.5	28.7	29.0	22.0	16.6	25.9	27.0	22.9	26.2	26.4	28.6	29.6	27.7

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

² OPEC data based on today's membership throughout the time series.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

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

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

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

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

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

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
Demand (mb/d)																
Americas	25.73	25.29	25.47	26.02	25.82	25.65	24.35	20.01	22.71	23.11	22.55	22.93	23.64	24.85	25.08	24.13
Europe	14.32	14.02	14.20	14.68	14.09	14.25	13.35	10.99	12.83	12.39	12.39	12.50	13.21	13.66	13.66	13.26
Asia Oceania	7.95	8.22	7.41	7.55	7.99	7.79	7.75	6.54	6.69	7.45	7.11	7.76	6.96	7.13	7.68	7.38
Total OECD	47.99	47.54	47.08	48.26	47.90	47.70	45.44	37.54	42.24	42.95	42.05	43.19	43.82	45.64	46.42	44.78
Asia	27.03	27.71	28.16	27.64	28.46	27.99	25.60	25.74	27.39	28.53	26.82	28.27	28.51	28.34	29.04	28.54
Middle East	8.29	8.08	8.14	8.74	8.34	8.32	7.79	6.99	8.15	7.64	7.65	7.62	7.77	8.39	7.76	7.89
Americas	6.23	6.10	6.18	6.28	6.24	6.20	5.73	4.86	5.76	5.82	5.55	5.73	5.79	6.05	6.03	5.90
FSU	4.68	4.55	4.69	4.95	4.90	4.78	4.62	4.03	4.77	4.73	4.54	4.45	4.51	4.92	4.87	4.69
Africa	4.25	4.33	4.31	4.16	4.28	4.27	4.21	3.33	3.89	4.04	3.87	4.12	4.04	4.01	4.14	4.08
Europe	0.76	0.74	0.78	0.79	0.78	0.77	0.73	0.61	0.76	0.77	0.72	0.73	0.73	0.79	0.78	0.76
Total Non-OECD	51.23	51.51	52.26	52.56	53.00	52.34	48.68	45.58	50.73	51.53	49.14	50.92	51.35	52.50	52.63	51.86
World	99.23	99.05	99.33	100.82	100.90	100.03	94.12	83.11	92.97	94.48	91.19	94.11	95.17	98.15	99.05	96.64
of which: US50	20.50	20.36	20.46	20.72	20.63	20.54	19.33	16.08	18.36	18.56	18.08	18.26	18.87	19.90	20.11	19.29
Europe 5*	8.23	8.13	8.13	8.32	8.03	8.15	7.63	5.90	7.05	6.87	6.86	6.99	7.44	7.69	7.74	7.47
China	13.00	13.17	13.76	13.82	14.10	13.71	11.90	14.23	14.73	14.73	13.90	14.32	14.64	14.76	14.86	14.65
Japan	3.79	4.05	3.39	3.43	3.74	3.65	3.69	2.89	3.03	3.56	3.29	3.77	3.10	3.22	3.62	3.43
India	4.96	5.24	5.18	4.88	5.16	5.11	5.06	4.03	4.41	5.14	4.66	5.17	5.09	4.76	5.13	5.04
Russia	3.50	3.43	3.50	3.74	3.63	3.58	3.53	3.09	3.60	3.52	3.43	3.34	3.41	3.72	3.62	3.52
Brazil	2.98	2.96	2.99	3.11	3.12	3.04	2.92	2.60	2.96	3.01	2.87	2.85	2.94	3.03	3.03	2.96
Saudi Arabia	3.06	2.90	2.99	3.42	3.03	3.08	2.90	2.73	3.26	2.93	2.95	2.84	3.03	3.31	2.86	3.01
Canada	2.53	2.15	2.27	2.57	2.49	2.37	2.33	1.88	2.16	2.14	2.13	2.15	2.21	2.41	2.40	2.29
Korea	2.57	2.58	2.43	2.54	2.63	2.55	2.51	2.42	2.34	2.42	2.42	2.53	2.43	2.47	2.54	2.49
Mexico	2.01	2.07	2.08	2.06	2.00	2.05	1.97	1.48	1.59	1.72	1.69	1.82	1.89	1.87	1.88	1.87
Iran	1.98	1.99	1.95	1.95	2.02	1.98	1.86	1.68	1.81	1.76	1.78	1.85	1.78	1.86	1.86	1.84
Total	69.11	69.03	69.13	70.55	70.56	69.83	65.62	59.01	65.28	66.37	64.08	65.89	66.83	68.99	69.65	67.85
% of World	69.7%	69.7%	69.6%	70.0%	69.9%	69.8%	69.7%	71.0%	70.2%	70.2%	70.3%	70.0%	70.2%	70.3%	70.3%	70.2%
Annual Change (ex per annum)																
Americas	2.4	-0.9	-0.2	-0.1	0.1	-0.3	-3.7	-21.4	-12.7	-10.5	-12.1	-5.8	18.2	9.4	8.5	7.0
Europe	-0.7	-0.7	-0.6	-0.2	-0.5	-0.5	-4.8	-22.6	-12.6	-12.1	-13.1	-6.3	20.3	6.4	10.3	7.0
Asia Oceania	-2.4	-4.1	-2.7	-1.1	0.1	-2.0	-5.7	-11.7	-11.5	-6.7	-8.8	0.2	6.4	6.6	3.1	3.9
Total OECD	0.7	-1.4	-0.7	-0.3	-0.1	-0.6	-4.4	-20.3	-12.5	-10.3	-11.8	-5.0	16.7	8.1	8.1	6.5
Asia	3.2	3.9	3.4	2.8	4.2	3.6	-7.6	-8.6	-0.9	0.3	-4.2	10.4	10.7	3.4	1.8	6.4
Middle East	-0.1	0.3	-2.7	1.3	3.0	0.4	-3.5	-14.1	-6.7	-8.4	-8.2	-2.2	11.1	2.9	1.6	3.2
Americas	-2.3	-0.6	0.0	-0.5	-0.6	-0.4	-6.1	-21.3	-8.2	-6.6	-10.6	0.0	19.1	5.0	3.6	6.4
FSU	0.6	2.2	2.0	1.6	2.0	1.9	1.4	-14.0	-3.7	-3.5	-5.0	-3.7	12.0	3.3	2.8	3.3
Africa	2.2	0.5	1.1	0.5	0.1	0.6	-2.7	-22.8	-6.6	-5.8	-9.4	-2.3	21.2	3.1	2.6	5.4
Europe	-0.8	1.6	4.8	2.4	-0.8	2.0	-0.9	-20.8	-2.9	-1.7	-6.6	0.1	18.5	3.2	2.1	5.4
Total Non-OECD	1.6	2.3	1.7	1.8	2.8	2.2	-5.5	-12.8	-3.5	-2.8	-6.1	4.6	12.7	3.5	2.1	5.5
World	1.1	0.5	0.5	0.8	1.4	0.8	-5.0	-16.3	-7.8	-6.4	-8.8	-0.0	14.5	5.6	4.8	6.0
Annual Change (mb/d)																
Americas	0.61	-0.22	-0.06	-0.04	0.03	-0.07	-0.95	-5.46	-3.31	-2.71	-3.11	-1.42	3.64	2.14	1.97	1.59
Europe	-0.10	-0.09	-0.08	-0.03	-0.07	-0.07	-0.68	-3.21	-1.85	-1.70	-1.86	-0.84	2.23	0.83	1.27	0.87
Asia Oceania	-0.20	-0.36	-0.21	-0.08	0.00	-0.16	-0.47	-0.86	-0.86	-0.54	-0.68	0.01	0.42	0.44	0.23	0.28
Total OECD	0.32	-0.67	-0.35	-0.15	-0.04	-0.30	-2.10	-9.54	-6.02	-4.94	-5.65	-2.25	6.28	3.41	3.47	2.74
Asia	0.85	1.04	0.93	0.74	1.14	0.96	-2.12	-2.42	-0.25	0.07	-1.17	2.67	2.77	0.94	0.51	1.72
Middle East	-0.01	0.02	-0.23	0.11	0.24	0.04	-0.28	-1.15	-0.58	-0.70	-0.68	-0.17	0.78	0.24	0.12	0.24
Americas	-0.15	-0.04	0.00	-0.03	-0.04	-0.03	-0.37	-1.32	-0.52	-0.41	-0.65	0.00	0.93	0.29	0.21	0.36
FSU	0.03	0.10	0.09	0.08	0.10	0.09	0.06	-0.66	-0.18	-0.17	-0.24	-0.17	0.48	0.16	0.13	0.15
Africa	0.09	0.02	0.05	0.02	0.01	0.03	-0.12	-0.98	-0.27	-0.25	-0.40	-0.10	0.71	0.12	0.10	0.21
Europe	-0.01	0.01	0.04	0.02	-0.01	0.01	-0.01	-0.16	-0.02	-0.01	-0.05	0.00	0.11	0.02	0.02	0.04
Total Non-OECD	0.81	1.16	0.88	0.94	1.44	1.11	-2.83	-6.68	-1.83	-1.47	-3.20	2.24	5.77	1.77	1.10	2.72
World	1.12	0.49	0.53	0.79	1.41	0.81	-4.93	-16.22	-7.85	-6.42	-8.85	-0.01	12.06	5.18	4.57	5.45
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.04	-0.27	-0.08	-0.26	-0.06	-0.06	0.00	-0.10
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.12	-0.03	-0.14	0.02	-0.03	-0.04	-0.05
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.03	-0.04	-0.02	-0.02
Total OECD	-	-	-	-	-0.00	-0.00	0.01	-0.00	-0.05	-0.39	-0.11	-0.40	-0.07	-0.13	-0.07	-0.17
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.06	0.03	0.18	0.08	-0.06	-0.09	0.08	0.06	0.00
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	-0.03	-0.03	-0.02	-0.05	-0.03
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.01	0.00	0.00	-0.02	-0.01
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	-0.01	-0.04	-0.03	-0.03	-0.05	-0.04
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.01	0.00	-0.04	-0.02	-0.02	-0.01	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	0.03	0.05	0.02	0.18	0.07	-0.18	-0.18	0.01	-0.08	-0.11
World	-0.00	-0.00	-0.00	-0.00	-0.01	-0.00	0.04	0.05	-0.02	-0.21	-0.04	-0.58	-0.26	-0.12	-0.16	-0.28
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	-0.01	0.00	0.00	0.00	0.00	0.00	0.05	0.05	-0.02	-0.21	-0.03	-0.63	-0.31	-0.10	0.06	-0.24

* France, Germany, Italy, Spain and UK

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

	Latest month vs.									
	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20 ²	Sep 20 Oct 19
Americas										
LPG and ethane	3.70	3.84	4.10	4.13	3.50	3.50	3.43	3.46	3.86	0.41 -0.01
Naphtha	0.32	0.24	0.22	0.25	0.21	0.23	0.24	0.22	0.24	0.02 0.06
Motor gasoline	11.17	11.09	10.99	10.16	8.38	10.02	10.01	10.08	9.79	-0.30 -1.33
Jet and kerosene	2.03	2.08	2.08	1.87	0.78	1.13	1.18	1.09	1.17	0.08 -0.89
Gasoil/diesel oil	5.43	5.41	5.43	5.27	4.56	4.82	4.78	4.96	5.21	0.25 -0.38
Residual fuel oil	0.60	0.56	0.49	0.41	0.38	0.53	0.54	0.51	0.53	0.02 -0.06
Other products	2.48	2.43	2.51	2.25	2.20	2.48	2.71	2.32	2.26	-0.07 -0.29
Total	25.73	25.65	25.82	24.35	20.01	22.71	22.88	22.64	23.05	0.41 -2.91
Europe										
LPG and ethane	1.19	1.17	1.11	1.22	0.97	1.10	1.11	1.10	1.07	-0.03 0.01
Naphtha	1.04	1.01	1.02	1.06	1.06	1.02	1.02	0.94	1.07	0.13 0.13
Motor gasoline	2.00	2.04	2.04	1.82	1.45	2.07	2.06	2.04	1.91	-0.13 -0.20
Jet and kerosene	1.52	1.55	1.48	1.25	0.40	0.67	0.71	0.72	0.68	-0.04 -0.95
Gasoil/diesel oil	6.45	6.45	6.53	6.22	5.35	6.02	5.69	6.28	6.25	-0.03 -0.51
Residual fuel oil	0.88	0.83	0.75	0.71	0.64	0.68	0.67	0.70	0.71	0.01 -0.05
Other products	1.25	1.20	1.17	1.06	1.11	1.27	1.18	1.36	1.26	-0.10 -0.01
Total	14.32	14.25	14.09	13.35	10.99	12.83	12.44	13.13	12.94	-0.19 -1.57
Asia Oceania										
LPG and ethane	0.73	0.76	0.80	0.82	0.69	0.67	0.66	0.67	0.67	0.00 -0.06
Naphtha	1.99	1.96	1.96	1.93	1.75	1.80	1.80	1.80	1.68	-0.12 -0.15
Motor gasoline	1.55	1.53	1.52	1.40	1.25	1.47	1.51	1.46	1.40	-0.06 -0.07
Jet and kerosene	0.92	0.91	1.00	0.99	0.40	0.37	0.36	0.37	0.49	0.12 -0.31
Gasoil/diesel oil	1.90	1.92	1.96	1.83	1.78	1.77	1.71	1.83	1.84	0.02 -0.06
Residual fuel oil	0.51	0.42	0.43	0.45	0.41	0.39	0.36	0.42	0.42	0.00 0.03
Other products	0.35	0.29	0.31	0.32	0.26	0.23	0.25	0.24	0.31	0.07 0.03
Total	7.95	7.79	7.99	7.75	6.54	6.69	6.65	6.80	6.82	0.02 -0.59
OECD										
LPG and ethane	5.62	5.77	6.02	6.18	5.16	5.27	5.20	5.22	5.60	0.38 -0.06
Naphtha	3.34	3.21	3.20	3.25	3.03	3.05	3.06	2.97	2.99	0.03 0.04
Motor gasoline	14.71	14.66	14.55	13.38	11.08	13.56	13.58	13.58	13.10	-0.49 -1.60
Jet and kerosene	4.47	4.55	4.56	4.11	1.58	2.16	2.24	2.18	2.33	0.16 -2.15
Gasoil/diesel oil	13.77	13.77	13.92	13.32	11.69	12.61	12.18	13.07	13.30	0.23 -0.95
Residual fuel oil	1.99	1.81	1.66	1.57	1.43	1.60	1.57	1.64	1.66	0.03 -0.08
Other products	4.08	3.93	3.98	3.63	3.57	3.98	4.14	3.92	3.83	-0.10 -0.27
Total	47.99	47.70	47.90	45.44	37.54	42.24	41.97	42.58	42.82	0.24 -5.06

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

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

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

	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20 ²	Latest month vs.	
										Sep 20	Oct 19
United States³											
LPG and ethane	2.87	2.94	3.18	3.22	2.71	2.69	2.63	2.63	3.05	0.42	0.07
Naphtha	0.23	0.21	0.19	0.20	0.16	0.19	0.20	0.17	0.19	0.02	0.05
Motor gasoline	9.33	9.31	9.16	8.49	7.11	8.50	8.51	8.55	8.26	-0.29	-1.05
Jet and kerosene	1.71	1.75	1.76	1.58	0.69	0.97	1.03	0.93	1.01	0.08	-0.72
Gasoil/diesel oil	4.15	4.10	4.12	3.97	3.51	3.70	3.66	3.82	4.02	0.20	-0.20
Residual fuel oil	0.32	0.28	0.27	0.17	0.15	0.32	0.31	0.32	0.28	-0.04	-0.04
Other products	1.89	1.96	1.95	1.70	1.75	1.99	2.11	1.89	1.82	-0.07	-0.19
Total	20.50	20.54	20.63	19.33	16.08	18.36	18.44	18.31	18.62	0.32	-2.09
Japan											
LPG and ethane	0.37	0.35	0.36	0.40	0.31	0.27	0.26	0.28	0.28	0.00	-0.01
Naphtha	0.73	0.73	0.76	0.70	0.62	0.66	0.68	0.67	0.66	0.00	-0.05
Motor gasoline	0.88	0.85	0.84	0.78	0.69	0.85	0.89	0.85	0.79	-0.05	0.00
Jet and kerosene	0.50	0.48	0.55	0.61	0.22	0.19	0.20	0.19	0.28	0.08	-0.11
Diesel	0.44	0.44	0.44	0.41	0.39	0.40	0.39	0.42	0.42	0.00	-0.02
Other gasoil	0.34	0.33	0.34	0.34	0.29	0.28	0.26	0.28	0.30	0.02	-0.01
Residual fuel oil	0.27	0.23	0.24	0.23	0.20	0.19	0.17	0.20	0.23	0.03	0.00
Other products	0.26	0.24	0.22	0.23	0.18	0.18	0.19	0.17	0.19	0.02	0.00
Total	3.79	3.65	3.74	3.69	2.89	3.03	3.04	3.06	3.15	0.09	-0.19
Germany											
LPG and ethane	0.11	0.12	0.11	0.11	0.11	0.11	0.12	0.10	0.09	-0.01	-0.01
Naphtha	0.27	0.27	0.30	0.29	0.27	0.27	0.28	0.21	0.31	0.10	0.04
Motor gasoline	0.49	0.50	0.50	0.46	0.39	0.49	0.48	0.48	0.48	0.00	-0.04
Jet and kerosene	0.22	0.22	0.21	0.18	0.06	0.09	0.09	0.09	0.08	-0.01	-0.16
Diesel	0.76	0.77	0.76	0.72	0.65	0.75	0.70	0.77	0.77	0.00	-0.03
Other gasoil	0.31	0.35	0.33	0.44	0.44	0.26	0.20	0.27	0.32	0.04	-0.02
Residual fuel oil	0.06	0.05	0.04	0.04	0.04	0.04	0.03	0.04	0.05	0.01	0.01
Other products	0.10	0.09	0.08	0.08	0.07	0.10	0.08	0.12	0.10	-0.02	0.01
Total	2.33	2.36	2.33	2.32	2.03	2.09	1.98	2.08	2.21	0.13	-0.20
Italy											
LPG and ethane	0.10	0.10	0.11	0.11	0.07	0.09	0.09	0.09	0.10	0.01	0.00
Naphtha	0.13	0.10	0.10	0.08	0.09	0.11	0.11	0.11	0.12	0.01	0.01
Motor gasoline	0.18	0.18	0.19	0.15	0.13	0.20	0.19	0.20	0.18	-0.02	-0.02
Jet and kerosene	0.11	0.11	0.11	0.07	0.03	0.06	0.06	0.06	0.05	-0.01	-0.07
Diesel	0.47	0.44	0.45	0.36	0.27	0.41	0.37	0.43	0.42	-0.01	-0.05
Other gasoil	0.08	0.07	0.08	0.06	0.07	0.07	0.06	0.08	0.08	0.01	0.00
Residual fuel oil	0.07	0.06	0.06	0.06	0.05	0.06	0.06	0.06	0.07	0.01	0.00
Other products	0.14	0.14	0.14	0.12	0.12	0.15	0.13	0.15	0.15	0.00	0.00
Total	1.27	1.20	1.23	1.02	0.82	1.14	1.07	1.17	1.17	-0.01	-0.15
France											
LPG and ethane	0.12	0.13	0.13	0.14	0.10	0.13	0.13	0.13	0.12	-0.01	0.00
Naphtha	0.10	0.11	0.08	0.11	0.14	0.11	0.11	0.10	0.14	0.04	0.07
Motor gasoline	0.19	0.20	0.20	0.18	0.13	0.22	0.22	0.21	0.20	-0.01	0.00
Jet and kerosene	0.17	0.17	0.16	0.14	0.04	0.08	0.09	0.09	0.08	-0.01	-0.09
Diesel	0.69	0.68	0.69	0.65	0.54	0.75	0.68	0.78	0.76	-0.02	0.05
Other gasoil	0.24	0.23	0.23	0.22	0.16	0.07	0.06	0.07	0.13	0.05	-0.12
Residual fuel oil	0.05	0.05	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.00	0.00
Other products	0.12	0.12	0.11	0.08	0.08	0.11	0.09	0.13	0.12	-0.01	0.00
Total	1.69	1.69	1.63	1.54	1.22	1.52	1.42	1.54	1.58	0.04	-0.09
United Kingdom											
LPG and ethane	0.15	0.14	0.10	0.15	0.13	0.12	0.12	0.11	0.12	0.01	0.05
Naphtha	0.03	0.03	0.03	0.04	0.05	0.03	0.02	0.03	0.01	-0.02	-0.01
Motor gasoline	0.28	0.29	0.29	0.27	0.14	0.23	0.25	0.25	0.24	-0.01	-0.04
Jet and kerosene	0.33	0.33	0.33	0.32	0.11	0.13	0.13	0.15	0.16	0.01	-0.17
Diesel	0.52	0.51	0.51	0.49	0.31	0.43	0.45	0.45	0.47	0.02	-0.03
Other gasoil	0.14	0.14	0.14	0.12	0.11	0.12	0.12	0.15	0.12	-0.03	-0.02
Residual fuel oil	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00
Other products	0.12	0.12	0.11	0.10	0.08	0.11	0.11	0.11	0.11	-0.01	-0.01
Total	1.61	1.57	1.52	1.52	0.96	1.18	1.20	1.27	1.24	-0.02	-0.23
Canada											
LPG and ethane	0.39	0.44	0.43	0.41	0.41	0.39	0.37	0.39	0.35	-0.04	-0.07
Naphtha	0.05	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.00	-0.01
Motor gasoline	0.88	0.83	0.89	0.78	0.62	0.78	0.76	0.81	0.73	-0.08	-0.15
Jet and kerosene	0.16	0.18	0.17	0.14	0.04	0.07	0.07	0.07	0.07	0.00	-0.12
Diesel	0.26	0.26	0.26	0.27	0.27	0.26	0.26	0.27	0.26	-0.01	0.01
Other gasoil	0.37	0.34	0.35	0.33	0.24	0.31	0.32	0.34	0.31	-0.03	-0.08
Residual fuel oil	0.04	0.04	0.03	0.04	0.03	0.02	0.03	0.00	0.02	0.02	-0.02
Other products	0.37	0.26	0.34	0.34	0.25	0.31	0.41	0.25	0.22	-0.03	-0.09
Total	2.53	2.37	2.49	2.33	1.88	2.16	2.23	2.15	1.97	-0.17	-0.52

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)

	2019	2020	2021	3Q20	4Q20	1Q21	2Q21	3Q21	Oct 20	Nov 20	Dec 20
OPEC											
Crude Oil											
Saudi Arabia	9.80	9.21		8.78	8.99				8.98	8.99	8.99
Iran	2.36	1.98		1.96	1.99				1.96	1.99	2.02
Iraq	4.71	4.05		3.69	3.83				3.82	3.81	3.87
UAE	3.18	2.86		2.84	2.50				2.42	2.50	2.57
Kuwait	2.68	2.42		2.25	2.30				2.30	2.30	2.30
Angola	1.39	1.27		1.24	1.19				1.20	1.21	1.17
Nigeria	1.73	1.49		1.37	1.31				1.35	1.33	1.25
Libya	1.09	0.35		0.11	0.89				0.45	1.04	1.17
Algeria	1.02	0.90		0.84	0.86				0.86	0.86	0.86
Congo	0.33	0.30		0.30	0.28				0.27	0.29	0.28
Gabon	0.21	0.20		0.19	0.20				0.20	0.20	0.19
Equatorial Guinea	0.11	0.11		0.11	0.11				0.11	0.10	0.11
Venezuela	0.87	0.53		0.40	0.42				0.40	0.43	0.42
Total Crude Oil	29.49	25.68		24.10	24.85				24.32	25.05	25.20
<i>of which Neutral Zone¹</i>	<i>0.00</i>	<i>0.11</i>		<i>0.13</i>	<i>0.20</i>				<i>0.20</i>	<i>0.20</i>	<i>0.20</i>
Total NGLs²	5.44	5.24	5.32	5.12	5.20	5.29	5.33	5.34	5.18	5.20	5.21
Total OPEC³	34.94	30.91		29.21	30.05				29.50	30.25	30.41
NON-OPEC⁴											
OECD											
Americas											
United States	17.16	16.55	16.24	16.27	16.12	16.19	16.23	16.26	15.86	16.33	16.17
Mexico	1.93	1.93	1.94	1.91	1.90	1.94	1.93	1.93	1.89	1.89	1.93
Canada	5.54	5.30	5.65	4.96	5.58	5.73	5.54	5.64	5.31	5.68	5.76
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe											
UK	1.13	1.05	1.00	0.96	0.98	1.03	0.95	0.98	1.02	0.96	0.95
Norway	1.74	1.99	2.10	1.95	1.97	2.10	2.05	2.08	1.88	2.03	2.01
Others	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.47	0.47	0.49	0.49
Asia Oceania											
Australia	0.46	0.47	0.50	0.47	0.48	0.49	0.50	0.50	0.47	0.48	0.48
Others	0.07	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.06	0.07
Total OECD	28.51	27.85	27.97	27.07	27.59	28.03	27.74	27.94	26.97	27.93	27.87
NON-OECD											
Former USSR											
Russia	11.58	10.61	10.69	10.08	10.36	10.46	10.70	10.80	10.34	10.37	10.38
Azerbaijan	0.77	0.70	0.72	0.66	0.68	0.70	0.72	0.73	0.68	0.69	0.69
Kazakhstan	1.94	1.84	1.80	1.69	1.79	1.77	1.80	1.82	1.76	1.80	1.80
Others	0.35	0.36	0.35	0.36	0.36	0.35	0.35	0.35	0.36	0.36	0.35
Asia											
China	3.92	3.98	3.93	3.98	3.95	3.99	3.98	3.90	3.94	3.95	3.97
Malaysia	0.67	0.61	0.66	0.58	0.61	0.65	0.66	0.67	0.62	0.59	0.61
India	0.80	0.75	0.72	0.75	0.73	0.73	0.72	0.72	0.74	0.73	0.73
Indonesia	0.77	0.74	0.71	0.72	0.73	0.72	0.71	0.71	0.73	0.73	0.72
Others	1.04	0.96	0.94	0.93	0.94	0.97	0.94	0.93	0.94	0.93	0.96
Europe											
0.12	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.10	0.11	0.11	0.11
Americas											
Brazil	2.90	3.05	3.20	3.14	2.89	3.02	3.25	3.26	2.98	2.86	2.82
Argentina	0.65	0.61	0.61	0.60	0.60	0.61	0.61	0.61	0.60	0.60	0.61
Colombia	0.89	0.79	0.75	0.75	0.76	0.76	0.75	0.74	0.76	0.76	0.76
Ecuador	0.54	0.49	0.54	0.52	0.52	0.53	0.54	0.54	0.51	0.52	0.53
Others	0.36	0.40	0.45	0.39	0.42	0.45	0.45	0.44	0.40	0.42	0.45
Middle East											
Oman	3.19	3.14	3.20	3.10	3.14	3.17	3.20	3.22	3.14	3.14	3.15
Qatar	1.91	1.89	1.92	1.90	1.90	1.92	1.92	1.92	1.90	1.90	1.90
Others	0.31	0.29	0.30	0.28	0.29	0.30	0.30	0.30	0.29	0.29	0.29
Africa											
Egypt	1.48	1.39	1.20	1.37	1.35	1.13	1.12	1.28	1.34	1.36	1.35
Others	0.63	0.60	0.56	0.59	0.58	0.58	0.57	0.56	0.59	0.58	0.58
Others	0.85	0.79	0.64	0.78	0.77	0.56	0.55	0.72	0.76	0.77	0.77
Total Non-OECD	31.98	30.50	30.58	29.72	29.95	30.11	30.61	30.82	29.94	29.92	29.98
Processing gains ⁵	2.35	2.11	2.26	2.10	2.12	2.20	2.24	2.30	2.06	2.13	2.16
Global Biofuels	2.78	2.57	2.80	3.03	2.59	2.30	2.89	3.17	2.92	2.51	2.35
TOTAL NON-OPEC	65.62	63.03	63.61	61.92	62.24	62.64	63.48	64.23	61.88	62.49	62.36
TOTAL SUPPLY	100.56	93.94		91.14	92.29				91.38	92.74	92.77

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)

	2019	2020	2021	3Q20	4Q20	1Q21	2Q21	3Q21	Oct 20	Nov 20	Dec 20
United States											
Alaska	466	449	436	443	466	462	442	391	459	469	470
California	455	407	375	393	384	380	377	373	383	385	383
Texas	5070	4863	4614	4690	4630	4641	4584	4590	4634	4664	4594
Federal Gulf of Mexico ²	1897	1647	1842	1449	1486	1789	1846	1867	1057	1665	1743
Other US Lower 48	4360	3922	3812	3831	3828	3832	3810	3821	3886	3818	3780
NGLs ³	4825	5149	5002	5334	5180	4935	4996	5050	5299	5188	5053
Other Hydrocarbons	92	116	164	130	144	150	170	167	140	145	147
Total	17164	16553	16244	16270	16118	16189	16225	16260	15858	16334	16170
Canada											
Alberta Light/Medium/Heavy	487	422	396	411	416	400	397	395	413	420	413
Alberta Bitumen	1837	1726	2020	1662	1920	2018	1920	2099	1823	1891	2043
Saskatchewan	487	436	429	420	446	436	431	428	438	450	450
Other Crude	489	490	491	459	480	488	486	489	468	485	487
NGLs	961	954	996	911	984	991	1026	958	991	974	986
Other Upgraders	172	171	177	148	180	188	171	171	158	197	185
Synthetic Crudes	1111	1103	1139	952	1158	1209	1104	1104	1019	1266	1193
Total	5544	5301	5649	4963	5584	5728	5537	5643	5312	5684	5758
Mexico											
Crude	1705	1722	1738	1696	1712	1740	1731	1731	1698	1705	1733
NGLs	218	207	195	209	187	200	197	193	189	181	190
Total	1928	1932	1936	1908	1902	1944	1931	1927	1890	1889	1926
UK											
Brent Fields	44	35	27	33	31	31	30	22	28	33	32
Forties Fields	327	289	225	257	248	255	190	216	288	251	205
Ninian Fields	37	31	19	31	21	21	16	18	18	25	22
Flotta Fields	57	50	42	47	44	43	39	42	42	45	45
Other Fields	590	566	607	516	547	593	589	605	540	528	571
NGLs	79	82	82	73	88	84	82	81	103	80	79
Total	1134	1052	1000	957	979	1027	946	984	1019	962	955
Norway⁵											
Ekofisk-Ula Area	138	132	143	131	130	147	143	134	128	129	132
Oseberg-Troll Area	259	230	224	204	224	226	220	221	225	224	224
Statfjord-Gullfaks Area	237	234	276	251	204	261	272	275	124	231	258
Haltenbanken Area	283	274	297	259	283	290	294	296	283	282	283
Sleipner-Frigg Area	429	737	802	725	781	799	800	794	775	774	795
Other Fields	91	98	93	105	79	100	51	103	95	97	46
NGLs	299	286	268	278	271	277	273	260	249	290	276
Total	1737	1991	2102	1953	1973	2101	2052	2083	1878	2027	2014
Other OECD Europe											
Denmark	101	72	64	70	69	67	65	64	71	66	69
Italy	78	77	95	77	84	93	96	96	81	84	86
Turkey	58	62	63	63	64	63	63	63	64	63	64
Other	96	85	97	82	93	100	98	96	76	103	101
NGLs	8	7	6	6	6	6	6	6	6	6	6
Non-Conventional Oils	126	168	146	171	168	148	147	146	171	165	167
Total	466	470	472	468	483	477	475	470	469	488	493
Australia											
Gippsland Basin	9	8	7	7	7	7	7	7	7	7	7
Cooper-Eromanga Basin	34	36	33	35	35	34	33	33	35	35	35
Carnarvon Basin	72	108	121	118	124	123	122	120	125	124	124
Other Crude	246	202	209	188	191	203	209	212	190	192	192
NGLs	98	115	127	122	118	123	128	129	114	119	122
Total	458	468	497	470	475	489	499	502	471	477	479
Other OECD Asia Oceania											
New Zealand	24	19	19	18	20	19	19	18	20	20	20
Japan	4	4	4	5	4	4	4	4	4	5	5
NGLs	12	11	10	11	10	10	10	10	11	10	10
Non-Conventional Oils	28	34	31	36	30	30	31	31	30	30	31
Total	69	69	63	70	65	64	64	63	65	64	65
OECD											
Crude Oil	20469	19432	19619	18675	19052	19668	19385	19623	18479	19272	19413
NGLs	6509	6819	6692	6952	6851	6632	6724	6695	6970	6855	6729
Non-Conventional Oils ⁴	1534	1596	1660	1439	1683	1727	1627	1622	1521	1806	1727
Total	28512	27846	27971	27066	27587	28027	27736	27940	26969	27933	27869

1 Subcategories refer to crude oil only unless otherwise noted.

2 Only production from Federal waters is included.

3 To the extent possible, condensates from natural gas processing plants are included with NGLs, while field condensates are counted as crude oil.

4 Does not include biofuels.

5 North Sea production is grouped by area including all fields being processed through the named field complex, ie, not just the field of that name.

6 Other North Sea NGLs is included.

Table 4
OECD STOCKS AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jul2020	Aug2020	Sep2020	Oct2020	Nov2020*	Nov2017	Nov2018	Nov2019	4Q2019	1Q2020	2Q2020	3Q2020
OECD INDUSTRY-CONTROLLED STOCKS¹												
OECD Americas												
Crude	676.4	666.7	659.3	654.8	665.8	610.4	611.3	593.0	-0.01	0.71	0.52	-0.36
Motor Gasoline	276.6	263.4	255.2	255.7	264.7	254.3	257.8	259.2	0.24	0.11	-0.10	-0.28
Middle Distillate	243.2	242.0	234.3	216.5	211.7	203.1	194.0	189.9	0.02	-0.14	0.54	-0.07
Residual Fuel Oil	43.1	41.5	38.5	38.1	37.0	35.7	35.1	38.0	0.00	0.04	0.07	-0.09
Total Products ³	828.3	825.2	815.9	786.2	764.3	720.7	718.6	726.9	-0.14	-0.19	0.90	-0.04
Total⁴	1712.0	1701.5	1686.8	1650.8	1642.8	1524.1	1528.1	1519.9	-0.38	0.56	1.51	-0.29
OECD Europe												
Crude	383.0	368.3	377.9	371.7	367.0	348.8	338.8	355.9	-0.04	0.13	0.15	0.00
Motor Gasoline	94.4	95.3	90.2	96.1	99.3	92.9	88.3	90.4	0.06	0.09	0.00	-0.10
Middle Distillate	334.3	349.6	333.0	332.5	328.4	267.4	239.6	270.5	-0.03	0.17	0.51	-0.07
Residual Fuel Oil	74.2	71.6	68.7	64.7	66.2	61.2	56.3	65.0	-0.07	0.13	0.04	-0.06
Total Products ³	621.2	637.2	611.5	607.6	609.3	534.7	496.9	542.9	-0.03	0.44	0.50	-0.22
Total⁴	1092.8	1092.8	1078.3	1062.6	1060.9	958.3	915.6	979.8	-0.11	0.61	0.72	-0.22
OECD Asia Oceania												
Crude	170.3	166.8	163.8	170.8	160.7	188.0	160.7	153.0	0.13	-0.25	0.29	0.05
Motor Gasoline	27.4	27.8	28.2	27.8	27.3	23.4	26.1	25.7	0.00	0.01	-0.01	0.01
Middle Distillate	72.0	79.2	72.7	74.3	72.0	65.5	78.5	75.6	-0.08	-0.04	-0.02	0.06
Residual Fuel Oil	18.3	16.5	17.2	16.1	16.1	20.5	19.2	19.1	-0.04	0.02	-0.01	0.00
Total Products ³	183.4	193.0	186.0	184.4	181.4	175.7	189.9	181.2	-0.20	0.00	0.04	0.08
Total⁴	416.0	425.3	414.3	417.9	404.0	426.4	418.0	399.2	-0.08	-0.27	0.37	0.13
Total OECD												
Crude	1229.6	1201.8	1200.9	1197.3	1193.5	1147.2	1110.8	1101.8	0.09	0.59	0.97	-0.30
Motor Gasoline	398.3	386.4	373.6	379.5	391.3	370.6	372.2	375.4	0.30	0.21	-0.11	-0.37
Middle Distillate	649.5	670.8	639.9	623.4	612.1	536.1	512.0	536.1	-0.08	0.00	1.03	-0.08
Residual Fuel Oil	135.6	129.6	124.4	118.9	119.4	117.4	110.7	122.1	-0.10	0.18	0.09	-0.15
Total Products ³	1632.9	1655.4	1613.3	1578.1	1555.0	1431.1	1405.4	1450.9	-0.37	0.26	1.44	-0.18
Total⁴	3220.8	3219.7	3179.5	3131.3	3107.7	2908.8	2861.7	2898.9	-0.57	0.89	2.61	-0.38
OECD GOVERNMENT-CONTROLLED STOCKS⁵												
OECD Americas												
Crude	656.1	647.5	642.2	638.6	637.6	661.3	649.6	635.0	-0.11	0.00	0.23	-0.15
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	207.8	208.0	207.4	204.9	206.5	207.0	211.9	209.3	0.01	-0.01	0.02	-0.01
Products	281.5	281.4	280.6	282.4	282.8	268.1	266.6	273.7	-0.01	0.03	0.01	0.04
OECD Asia Oceania												
Crude	377.2	377.5	377.6	374.5	374.5	385.4	380.8	377.4	0.00	0.00	0.00	0.00
Products	39.4	39.4	39.4	39.1	39.1	38.6	38.7	38.9	0.00	0.00	0.00	0.00
Total OECD												
Crude	1241.2	1233.0	1227.1	1218.0	1218.6	1253.7	1242.3	1221.6	-0.09	-0.01	0.25	-0.16
Products	322.9	322.8	322.0	323.4	323.8	308.7	307.4	314.6	-0.01	0.03	0.01	0.05
Total⁴	1566.1	1557.8	1551.4	1543.5	1544.3	1565.9	1552.4	1537.9	-0.10	0.02	0.27	-0.11

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrapot 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)

	June			July			August			September			October		
	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%
United States²															
Crude	463.4	531.9	14.8	441.6	519.3	17.6	430.1	504.0	17.2	425.6	497.3	16.8	443.4	493.6	11.3
Motor Gasoline	229.9	253.3	10.2	235.4	249.3	5.9	230.4	236.6	2.7	232.0	226.5	-2.4	224.5	227.3	1.2
Middle Distillate	173.5	218.9	26.2	182.8	220.7	20.7	180.9	221.4	22.4	178.2	214.1	20.1	162.4	195.5	20.4
Residual Fuel Oil	30.5	39.6	29.8	30.7	36.3	18.2	28.8	34.8	20.8	30.0	32.1	7.0	29.7	31.2	5.1
Other Products	225.7	232.6	3.1	233.6	246.7	5.6	243.5	260.9	7.1	246.2	270.6	9.9	236.7	259.0	9.4
Total Products	659.6	744.4	12.9	682.5	753.0	10.3	683.6	753.7	10.3	686.4	743.3	8.3	653.3	713.0	9.1
Other ³	181.2	176.5	-2.6	185.0	178.7	-3.4	187.0	178.5	-4.5	186.3	181.3	-2.7	188.9	179.1	-5.2
Total	1304.2	1452.8	11.4	1309.1	1451.0	10.8	1300.7	1436.2	10.4	1298.3	1421.9	9.5	1285.6	1385.7	7.8
Japan															
Crude	91.9	91.0	-1.0	102.6	94.1	-8.3	96.5	94.2	-2.4	86.3	90.2	4.5	88.9	89.7	0.9
Motor Gasoline	9.5	11.5	21.1	9.6	11.9	24.0	10.0	12.1	21.0	9.5	12.2	28.4	10.1	12.1	19.8
Middle Distillate	28.2	31.9	13.1	31.0	33.0	6.5	35.8	37.1	3.6	34.6	37.7	9.0	36.2	38.3	5.8
Residual Fuel Oil	7.8	7.5	-3.8	7.7	7.4	-3.9	7.5	7.2	-4.0	7.9	6.9	-12.7	8.1	6.9	-14.8
Other Products	35.8	36.6	2.2	37.0	36.0	-2.7	42.0	38.4	-8.6	39.4	38.5	-2.3	39.0	36.0	-7.7
Total Products	81.3	87.5	7.6	85.3	88.3	3.5	95.3	94.8	-0.5	91.4	95.3	4.3	93.4	93.3	-0.1
Other ³	53.1	55.7	4.9	53.8	53.6	-0.4	56.7	56.1	-1.1	54.2	54.4	0.4	56.0	52.5	-6.3
Total	226.3	234.2	3.5	241.7	236.0	-2.4	248.5	245.1	-1.4	231.9	239.9	3.4	238.3	235.5	-1.2
Germany															
Crude	47.7	51.4	7.8	49.8	49.9	0.2	48.6	50.2	3.3	47.1	49.6	5.3	47.6	48.9	2.7
Motor Gasoline	11.9	9.6	-19.3	11.7	8.9	-23.9	10.1	10.0	-1.0	10.6	9.3	-12.3	10.9	10.2	-6.4
Middle Distillate	24.8	25.3	2.0	23.8	25.5	7.1	24.4	27.6	13.1	24.1	22.3	-7.5	22.9	21.8	-4.8
Residual Fuel Oil	6.8	8.2	20.6	6.6	7.4	12.1	7.2	8.3	15.3	7.4	8.0	8.1	7.0	7.1	1.4
Other Products	10.4	9.3	-10.6	10.5	9.5	-9.5	10.5	9.6	-8.6	10.3	9.8	-4.9	10.2	9.7	-4.9
Total Products	53.9	52.4	-2.8	52.6	51.3	-2.5	52.2	55.5	6.3	52.4	49.4	-5.7	51.0	48.8	-4.3
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	101.6	103.8	2.2	102.4	101.2	-1.2	100.8	105.7	4.9	99.5	99.0	-0.5	98.6	97.7	-0.9
Italy															
Crude	45.0	41.6	-7.6	42.2	43.2	2.4	41.6	40.8	-1.9	42.7	40.0	-6.3	44.0	40.4	-8.2
Motor Gasoline	11.3	13.0	15.0	11.5	11.5	0.0	11.5	11.4	-0.9	12.5	11.5	-8.0	13.1	11.8	-9.9
Middle Distillate	28.0	32.9	17.5	28.0	31.2	11.4	30.9	31.3	1.3	31.1	30.1	-3.2	29.1	29.2	0.3
Residual Fuel Oil	8.7	9.2	5.7	8.9	8.0	-10.1	9.4	8.4	-10.6	8.8	7.9	-10.2	9.1	7.9	-13.2
Other Products	12.4	17.8	43.5	12.0	17.4	45.0	12.8	19.0	48.4	13.8	19.9	44.2	13.8	19.4	40.6
Total Products	60.4	72.9	20.7	60.4	68.1	12.7	64.6	70.1	8.5	66.2	69.4	4.8	65.1	68.3	4.9
Other ³	13.8	17.5	26.8	15.1	17.8	17.9	15.1	17.6	16.6	15.7	17.3	10.2	15.2	16.1	5.9
Total	119.2	132.0	10.7	117.7	129.1	9.7	121.3	128.5	5.9	124.6	126.7	1.7	124.3	124.8	0.4
France															
Crude	15.8	11.9	-24.7	13.5	14.0	3.7	14.0	11.6	-17.1	11.0	13.9	26.4	16.8	9.4	-44.0
Motor Gasoline	5.9	4.9	-16.9	5.7	4.5	-21.1	5.5	5.0	-9.1	4.9	4.9	0.0	4.7	5.4	14.9
Middle Distillate	21.1	22.9	8.5	19.6	22.0	12.2	22.1	25.9	17.2	20.1	24.7	22.9	19.3	24.4	26.4
Residual Fuel Oil	0.9	1.6	77.8	1.2	1.6	33.3	1.6	1.5	-6.3	0.6	1.6	166.7	1.2	1.5	25.0
Other Products	4.3	4.1	-4.7	4.4	4.2	-4.5	4.4	4.1	-6.8	4.1	3.9	-4.9	4.0	4.1	2.5
Total Products	32.2	33.5	4.0	30.9	32.3	4.5	33.6	36.5	8.6	29.7	35.1	18.2	29.2	35.4	21.2
Other ³	8.5	8.7	2.4	8.0	8.7	8.7	8.4	9.1	8.3	7.5	8.2	9.3	7.4	8.2	10.8
Total	56.5	54.1	-4.2	52.4	55.0	5.0	56.0	57.2	2.1	48.2	57.2	18.7	53.4	53.0	-0.7
United Kingdom															
Crude	31.1	32.1	3.2	26.9	31.8	18.2	27.8	28.5	2.5	26.2	27.7	5.7	28.6	27.9	-2.4
Motor Gasoline	8.7	9.5	9.2	9.2	9.8	6.5	8.9	9.3	4.5	9.3	9.9	6.5	9.4	10.4	10.6
Middle Distillate	24.3	32.3	32.9	26.6	32.1	20.7	27.5	32.0	16.4	25.3	30.3	19.8	25.9	32.5	25.5
Residual Fuel Oil	1.4	1.8	28.6	1.1	1.5	36.4	1.3	1.8	38.5	1.4	1.2	-14.3	1.4	1.1	-21.4
Other Products	6.6	6.3	-4.5	6.4	7.1	10.9	7.2	7.2	0.0	7.0	6.4	-8.6	7.1	6.5	-8.5
Total Products	41.0	49.9	21.7	43.3	50.5	16.6	44.9	50.3	12.0	43.0	47.8	11.2	43.8	50.5	15.3
Other ³	8.9	7.9	-11.2	9.5	7.8	-17.9	9.7	7.3	-24.7	9.0	7.8	-13.3	9.0	8.4	-6.7
Total	81.0	89.9	11.0	79.7	90.1	13.0	82.4	86.1	4.5	78.2	83.3	6.5	81.4	86.8	6.6
Canada⁴															
Crude	121.0	137.5	13.6	120.5	133.5	10.8	122.3	130.9	7.0	122.2	129.0	5.6	119.0	128.1	7.6
Motor Gasoline	13.9	15.6	12.2	14.2	15.0	5.6	14.7	14.3	-2.7	14.5	15.0	3.4	14.7	15.6	6.1
Middle Distillate	14.9	12.5	-16.1	15.9	13.1	-17.6	15.8	11.6	-26.6	14.4	10.6	-26.4	12.9	11.7	-9.3
Residual Fuel Oil	2.0	2.6	30.0	2.0	2.7	35.0	1.5	2.7	80.0	1.8	3.0	66.7	1.7	2.7	58.8
Other Products	9.6	9.4	-2.1	10.6	9.6	-9.4	10.0	8.6	-14.0	9.8	8.1	-17.3	9.4	8.4	-10.6
Total Products	40.4	40.1	-0.7	42.7	40.4	-5.4	42.0	37.2	-11.4	40.5	36.7	-9.4	38.7	38.4	-0.8
Other ³	20.5	24.8	21.0	22.0	28.4	29.1	23.8	30.9	29.8	22.8	30.0	31.6	22.6	30.3	34.1
Total	181.9	202.4	11.3	185.2	202.3	9.2	188.1	199.0	5.8	185.5	195.7	5.5	180.3	196.8	9.2

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

2 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 barrels² and 'days')

	End September 2019		End December 2019		End March 2020		End June 2020		End September 2020 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	185.6	75	181.3	78	197.6	105	202.3	94	195.7	-
Chile	12.3	33	11.5	30	11.9	43	12.4	42	11.9	-
Mexico	34.3	18	20.9	13	23.1	18	23.6	17	35.1	-
United States ⁴	1945.2	94	1918.8	99	1957.7	122	2110.9	115	2066.2	-
Total⁴	2199.5	86	2154.7	90	2212.4	112	2371.3	105	2331.0	101
OECD Asia Oceania										
Australia	44.8	37	42.6	37	42.7	46	41.3	43	40.9	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	551.6	147	551.9	150	534.9	185	553.8	183	559.5	-
Korea	210.2	80	206.3	82	196.5	81	213.4	91	219.4	-
New Zealand	10.1	53	9.2	52	11.0	95	10.1	71	11.4	-
Total	816.6	102	810.0	105	785.1	120	818.6	122	831.2	112
OECD Europe⁵										
Austria	20.9	79	22.0	89	24.2	111	22.7	89	24.4	-
Belgium	47.5	71	45.7	70	47.9	86	50.1	90	52.8	-
Czech Republic	21.4	101	22.3	117	24.0	148	23.2	105	22.7	-
Denmark	28.2	170	26.9	191	29.2	220	34.1	239	32.0	-
Estonia	2.7	90	3.9	131	2.6	99	4.4	138	3.6	-
Finland	39.2	192	36.4	172	38.7	194	39.7	185	43.3	-
France	160.4	99	158.6	103	162.5	134	165.5	109	167.7	-
Germany	276.6	118	277.0	119	278.5	137	281.2	135	276.7	-
Greece	32.0	107	29.4	107	35.7	147	38.3	147	34.7	-
Hungary	24.9	139	26.2	159	26.2	160	26.2	151	26.9	-
Ireland	8.8	54	9.7	61	10.3	95	12.3	94	12.2	-
Italy	134.9	109	128.3	126	145.2	177	142.3	124	139.9	-
Latvia	3.6	97	2.5	80	2.7	84	3.4	90	3.5	-
Lithuania	8.0	121	6.9	121	7.3	116	7.7	106	7.6	-
Luxembourg	0.6	10	0.6	11	0.7	16	0.7	14	0.6	-
Netherlands	149.1	162	145.6	153	147.1	176	174.4	197	165.5	-
Norway	27.1	162	23.8	131	28.5	160	27.3	158	31.8	-
Poland	79.3	113	81.2	127	83.2	137	82.3	115	82.4	-
Portugal	24.1	97	24.3	111	25.7	152	22.0	103	22.3	-
Slovak Republic	11.7	141	12.3	153	12.5	163	12.1	141	12.6	-
Slovenia	4.8	91	5.3	114	5.2	112	5.4	105	5.4	-
Spain	123.1	94	124.8	102	127.4	145	128.0	115	126.7	-
Sweden	42.8	157	44.5	174	46.1	205	72.4	312	65.8	-
Switzerland	32.1	139	32.3	149	33.4	182	34.4	190	34.5	-
Turkey	88.0	89	88.3	100	89.4	112	86.0	79	89.9	-
United Kingdom	78.3	51	81.2	54	83.1	87	89.8	76	83.3	-
Total	1470.0	105	1460.0	109	1517.2	138	1586.0	124	1568.6	127
Total OECD	4486.1	94	4424.7	98	4514.8	121	4775.9	114	4730.8	110
DAYS OF IEA Net Imports⁶		214		212		217		259		255

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 entropot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End September 2020 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled Millions of Barrels		Industry	Total	Government ¹ controlled Days of Fwd. Demand ²		Industry
3Q2017	4553	1579		2974	94	33		62
4Q2017	4428	1569		2860	92	33		59
1Q2018	4395	1577		2818	93	33		59
2Q2018	4389	1575		2814	91	33		58
3Q2018	4438	1570		2868	93	33		60
4Q2018	4427	1552		2875	93	33		61
1Q2019	4432	1557		2875	94	33		61
2Q2019	4481	1549		2932	93	32		61
3Q2019	4486	1544		2942	94	32		62
4Q2019	4425	1535		2889	98	34		64
1Q2020	4515	1537		2978	121	41		80
2Q2020	4776	1561		3214	114	37		77
3Q2020	4731	1551		3179	110	36		74

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 3Q2020 (when latest forecasts are used).

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

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier	
											Oct 19	change
Saudi Light & Extra Light												
Americas	0.59	0.66	0.20	0.23	0.49	0.41	0.03	-	0.05	0.06	-	-
Europe	0.69	0.69	0.68	0.56	0.56	0.79	0.50	0.47	0.65	0.52	0.47	0.05
Asia Oceania	1.56	1.45	1.42	1.32	1.41	1.36	1.34	1.24	1.16	1.41	1.08	0.33
Saudi Medium												
Americas	0.33	0.30	0.12	0.06	0.06	0.39	0.06	0.08	0.11	0.09	0.08	0.01
Europe	0.01	0.01	0.02	0.02	0.05	0.03	0.01	0.02	-	0.02	0.04	-0.02
Asia Oceania	0.37	0.41	0.23	0.19	0.22	0.26	0.25	0.26	0.26	0.27	0.32	-0.05
Canada Heavy												
Americas	2.23	2.41	2.27	2.33	2.64	2.14	2.23	2.21	2.16	2.54	2.10	0.44
Europe	0.02	0.04	0.04	0.04	0.04	0.02	0.03	0.06	0.03	0.01	0.02	0.00
Asia Oceania	-	0.00	0.00	0.01	-	-	0.01	-	0.02	-	0.02	-
Iraqi Basrah Light²												
Americas	0.63	0.50	0.31	0.21	0.26	0.05	0.07	0.12	0.10	0.08	-	-
Europe	0.76	0.76	0.85	0.59	0.62	0.60	0.54	0.50	0.56	0.53	0.69	-0.16
Asia Oceania	0.40	0.43	0.37	0.39	0.27	0.20	0.23	0.37	0.18	0.11	0.25	-0.14
Kuwait Blend												
Americas	0.11	0.02	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.13	0.11	0.10	0.08	0.09	0.01	0.00	-	-	0.09	-
Asia Oceania	0.68	0.66	0.61	0.57	0.63	0.67	0.43	0.44	0.48	0.48	0.47	0.01
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.27	0.16	0.00	-	-	-	-	-	-	-	-	-
Asia Oceania	0.01	0.01	0.00	-	-	-	-	-	-	-	-	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.52	0.35	0.04	-	-	-	-	-	-	-	-	-
Asia Oceania	0.57	0.28	0.14	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.02	0.00	0.00	-	-	-	-	-	-	-	-	-
Europe	0.45	0.35	0.37	0.45	0.48	0.32	0.47	0.46	0.41	0.40	0.32	0.08
Asia Oceania	0.10	0.09	0.01	-	-	0.02	0.06	0.13	0.03	0.07	-	-
Kazakhstan												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.75	0.75	0.76	0.67	0.80	0.69	0.74	0.70	0.73	0.71	0.67	0.04
Asia Oceania	0.10	0.19	0.18	0.15	0.10	0.07	0.08	0.10	0.10	-	0.20	-
Venezuelan 22 API and heavier												
Americas	0.48	0.44	0.05	-	-	-	-	-	-	-	-	-
Europe	0.04	0.03	0.09	0.09	0.03	0.04	0.08	0.04	0.08	0.03	0.09	-0.06
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.58	0.63	0.51	0.46	0.55	0.53	0.47	0.47	0.41	0.30	0.35	-0.04
Europe	0.20	0.21	0.19	0.17	0.13	0.15	0.16	0.16	0.17	0.15	0.16	-0.01
Asia Oceania	0.07	0.08	0.13	0.14	0.14	0.10	0.10	0.10	0.09	0.20	0.16	0.05
Russian Urals												
Americas	0.01	0.01	0.01	-	-	-	-	-	-	-	-	-
Europe	1.64	1.40	1.37	1.23	1.40	1.10	1.00	0.97	1.14	1.02	1.24	-0.23
Asia Oceania	0.01	0.00	-	-	-	-	-	-	-	-	-	-
Cabinda and Other Angola												
North America	0.07	0.06	0.01	-	-	0.03	-	-	-	-	-	-
Europe	0.11	0.14	0.15	0.13	0.18	0.11	0.09	0.12	0.11	0.16	0.17	-0.01
Pacific	0.01	0.01	0.00	0.01	-	-	-	-	-	-	0.02	-
Nigerian Light⁴												
Americas	0.04	0.01	0.03	-	-	-	-	-	-	-	-	-
Europe	0.39	0.53	0.51	0.50	0.50	0.39	0.57	0.61	0.56	0.46	0.56	-0.10
Asia Oceania	0.02	0.02	0.02	0.02	0.04	0.01	0.01	0.03	-	0.03	0.01	0.01
Libya Light and Medium												
Americas	0.02	-	0.00	-	-	-	-	-	-	-	-	-
Europe	0.54	0.62	0.67	0.70	0.20	0.03	0.04	0.04	0.05	0.11	0.74	-0.63
Asia Oceania	0.03	0.02	0.03	0.02	0.04	-	-	-	-	-	0.03	-

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

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

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

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

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier	
											Oct 19	% change
Crude Oil												
Americas	4361	3759	2698	2292	2097	2134	1671	1493	1656	1721	2270	-24%
Europe	9902	9814	9872	9589	9309	7883	8214	7932	8528	7824	9895	-21%
Asia Oceania	6849	6697	6542	6520	6372	5298	5217	5248	5109	5394	6140	-12%
Total OECD	21112	20269	19111	18401	17779	15315	15102	14673	15293	14939	18305	-18%
LPG												
Americas	20	22	26	28	31	28	26	25	16	14	26	-48%
Europe	432	457	434	438	533	305	430	401	418	470	443	6%
Asia Oceania	551	553	582	586	647	551	532	472	559	496	482	3%
Total OECD	1003	1032	1042	1052	1210	884	988	897	993	979	951	3%
Naphtha												
Americas	19	8	5	5	7	7	10	20	3	6	1	403%
Europe	369	391	347	396	421	466	289	306	196	390	353	11%
Asia Oceania	978	1021	993	1061	1109	1044	981	1027	890	740	1008	-27%
Total OECD	1366	1420	1345	1462	1536	1517	1280	1352	1089	1135	1361	-17%
Gasoline ³												
Americas	727	773	817	669	507	499	695	679	754	551	769	-28%
Europe	153	110	112	90	112	123	59	69	37	106	144	-26%
Asia Oceania	102	113	114	110	103	111	182	151	135	152	118	29%
Total OECD	983	996	1043	869	722	734	936	899	927	809	1031	-22%
Jet & Kerosene												
Americas	171	140	175	170	164	146	175	181	188	163	174	-6%
Europe	504	509	520	496	422	325	310	349	337	456	502	-9%
Asia Oceania	80	89	76	94	119	35	42	59	21	28	100	-72%
Total OECD	755	738	771	760	704	506	527	589	546	648	777	-17%
Gasoil/Diesel												
Americas	77	124	118	117	77	115	91	101	102	176	72	143%
Europe	1337	1339	1300	1253	1263	1218	1125	1171	1025	1334	1377	-3%
Asia Oceania	196	253	262	286	281	346	379	382	354	369	295	25%
Total OECD	1610	1716	1680	1656	1622	1679	1595	1654	1480	1879	1744	8%
Heavy Fuel Oil												
Americas	131	161	116	127	156	153	136	185	135	189	113	66%
Europe	233	197	223	206	283	267	343	311	285	388	186	108%
Asia Oceania	146	162	101	80	108	46	118	52	164	63	66	-4%
Total OECD	510	520	440	413	546	466	597	547	584	639	365	75%
Other Products												
Americas	717	679	713	809	704	542	606	598	571	557	835	-33%
Europe	1012	1011	865	723	665	601	553	571	558	413	779	-47%
Asia Oceania	263	263	268	273	288	215	229	223	263	245	245	0%
Total OECD	1991	1952	1846	1804	1656	1359	1388	1393	1392	1215	1859	-35%
Total Products												
Americas	1862	1908	1971	1924	1645	1491	1739	1788	1769	1655	1992	-17%
Europe	4040	4013	3800	3602	3699	3305	3109	3178	2856	3558	3784	-6%
Asia Oceania	2316	2454	2397	2490	2654	2349	2462	2366	2386	2092	2313	-10%
Total OECD	8218	8374	8168	8016	7997	7145	7310	7331	7011	7305	8089	-10%
Total Oil												
Americas	6223	5666	4669	4216	3742	3625	3410	3280	3424	3376	4262	-21%
Europe	13942	13827	13672	13191	13008	11188	11324	11110	11384	11382	13679	-17%
Asia Oceania	9164	9151	8939	9010	9027	7647	7679	7614	7495	7487	8452	-11%
Total OECD	29330	28644	27279	26417	25776	22460	22413	22004	22303	22245	26394	-16%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

Table 7a
REGIONAL OECD IMPORTS FROM NON-OECD COUNTRIES^{1,2}
(thousand barrels per day)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier	
											Oct 19	% change
Crude Oil												
Americas	4235	3606	2553	2203	2047	2048	1643	1449	1642	1622	2233	-27%
Europe	9436	9088	8913	8397	8026	6783	6973	6707	7168	6651	8829	-25%
Asia Oceania	6553	6249	5914	5795	5690	4799	4796	4795	4590	4748	5455	-13%
Total OECD	20224	18943	17380	16394	15764	13630	13412	12951	13400	13021	16517	-21%
LPG												
Americas	16	15	23	25	25	22	23	19	16	14	26	-48%
Europe	337	350	303	282	303	227	234	227	221	231	291	-21%
Asia Oceania	205	158	74	54	46	57	62	49	89	78	37	113%
Total OECD	557	523	400	362	373	306	318	296	325	323	354	-9%
Naphtha												
Americas	16	4	2	2	1	2	1	3	1	0	1	-97%
Europe	350	360	320	348	398	455	266	288	186	346	316	9%
Asia Oceania	931	924	898	941	924	831	840	866	788	660	935	-29%
Total OECD	1297	1288	1220	1291	1323	1288	1107	1157	975	1005	1252	-20%
Gasoline³												
Americas	213	271	308	234	168	213	226	247	180	181	298	-39%
Europe	149	105	108	87	108	118	53	58	36	101	142	-28%
Asia Oceania	102	90	88	101	86	81	159	123	135	152	117	30%
Total OECD	464	466	504	421	362	412	438	428	351	434	556	-22%
Jet & Kerosene												
Americas	67	56	39	34	58	60	53	54	68	45	27	67%
Europe	436	445	464	446	356	288	261	305	262	422	428	-1%
Asia Oceania	80	89	76	94	119	35	42	59	21	28	100	-72%
Total OECD	583	590	579	573	533	383	355	417	351	495	555	-11%
Gasoil/Diesel												
Americas	50	100	86	82	61	92	69	66	89	146	58	153%
Europe	1086	1160	1126	1168	1148	1102	939	923	874	1161	1301	-11%
Asia Oceania	195	253	261	286	281	340	372	382	354	358	295	22%
Total OECD	1331	1513	1473	1537	1490	1535	1380	1372	1317	1665	1653	1%
Heavy Fuel Oil												
Americas	123	147	102	107	124	107	113	151	106	122	110	11%
Europe	218	185	202	191	268	253	327	306	257	371	155	140%
Asia Oceania	146	162	100	80	108	46	118	52	164	63	66	-4%
Total OECD	487	493	404	378	500	406	558	508	527	556	330	68%
Other Products												
Americas	542	522	542	646	611	453	526	508	502	492	642	-23%
Europe	731	702	629	510	365	374	362	373	331	266	599	-56%
Asia Oceania	186	182	184	198	199	144	152	133	196	170	186	-9%
Total OECD	1459	1406	1355	1354	1175	971	1040	1014	1029	928	1428	-35%
Total Products												
Americas	1026	1115	1103	1129	1047	948	1012	1047	962	1000	1163	-14%
Europe	3307	3307	3152	3031	2947	2816	2441	2480	2166	2898	3231	-10%
Asia Oceania	1845	1857	1681	1755	1762	1535	1744	1664	1747	1509	1735	-13%
Total OECD	6179	6279	5936	5915	5757	5300	5196	5191	4876	5407	6128	-12%
Total Oil												
Americas	5261	4721	3656	3332	3095	2996	2654	2496	2605	2622	3396	-23%
Europe	12744	12395	12064	11428	10973	9599	9413	9187	9334	9549	12060	-21%
Asia Oceania	8398	8106	7595	7550	7452	6334	6541	6459	6337	6258	7190	-13%
Total OECD	26403	25223	23316	22310	21520	18930	18608	18142	18275	18429	22645	-19%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade

³ Includes additives

Table 7b
INTER-REGIONAL OECD TRANSFERS^{1,2}
(thousand barrels per day)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier	
											Oct 19	% change
Crude Oil												
Americas	126	153	145	89	50	86	28	44	13	99	37	163%
Europe	466	726	959	1192	1283	1100	1242	1225	1361	1173	1067	10%
Asia Oceania	296	448	628	725	682	499	421	453	519	646	684	-6%
Total OECD	888	1326	1731	2007	2015	1685	1690	1722	1893	1918	1789	7%
LPG												
Americas	4	7	3	3	6	6	4	6	0	0	0	na
Europe	95	107	131	156	230	78	196	173	198	239	152	57%
Asia Oceania	346	395	508	532	601	494	470	422	470	417	445	-6%
Total OECD	445	508	642	690	837	578	670	601	668	656	597	10%
Naphtha												
Americas	3	4	3	3	6	5	9	17	1	5	0	na
Europe	19	31	27	48	23	11	23	18	11	44	37	20%
Asia Oceania	47	97	96	120	185	213	140	160	102	80	73	10%
Total OECD	69	132	125	171	213	229	172	195	114	130	109	19%
Gasoline³												
Americas	514	502	509	436	339	286	469	432	574	371	471	-21%
Europe	5	5	4	3	4	5	7	11	1	5	2	96%
Asia Oceania	0	23	26	9	17	30	23	29	0	0	2	-99%
Total OECD	519	530	539	448	360	321	499	472	575	376	475	-21%
Jet & Kerosene												
Americas	104	84	136	137	106	87	123	127	120	118	147	-20%
Europe	68	64	56	50	65	37	49	44	74	35	74	-53%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	172	148	192	186	171	124	171	172	194	153	222	-31%
Gasoil/Diesel												
Americas	28	25	32	35	16	22	22	34	13	30	15	106%
Europe	250	178	174	85	115	116	186	248	151	173	76	127%
Asia Oceania	1	0	1	0	0	6	7	0	0	10	0	na
Total OECD	279	203	207	120	132	144	215	282	163	214	91	135%
Heavy Fuel Oil												
Americas	8	15	14	20	31	46	22	33	29	66	3	1953%
Europe	15	12	21	15	15	15	16	6	28	17	31	-46%
Asia Oceania	0	0	1	0	0	0	0	0	0	0	0	na
Total OECD	23	27	36	35	46	61	39	39	57	83	35	140%
Other Products												
Americas	175	157	171	163	93	90	79	90	70	65	193	-67%
Europe	280	308	236	213	299	228	191	198	227	147	180	-18%
Asia Oceania	77	81	83	75	89	70	77	90	66	75	59	27%
Total OECD	532	546	490	451	481	388	348	379	363	287	432	-34%
Total Products												
Americas	836	793	867	795	597	543	727	740	806	655	829	-21%
Europe	733	706	649	571	752	489	669	698	690	660	553	19%
Asia Oceania	470	597	716	735	892	813	718	702	639	583	578	1%
Total OECD	2039	2095	2232	2101	2241	1845	2114	2140	2135	1898	1960	-3%
Total Oil												
Americas	962	945	1012	884	647	629	755	784	820	754	867	-13%
Europe	1199	1432	1608	1763	2034	1589	1910	1923	2051	1833	1620	13%
Asia Oceania	766	1044	1343	1461	1574	1312	1139	1155	1158	1229	1263	-3%
Total OECD	2927	3421	3963	4108	4256	3530	3805	3862	4028	3816	3749	2%

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)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier Oct 19	change
OECD Americas												
Venezuela	618	506	81	-	-	-	-	-	-	-	-	-
Other Central & South America	928	795	867	849	823	625	782	743	828	703	935	-232
North Sea	124	150	143	89	50	83	28	44	13	99	37	61
Other OECD Europe	-	1	2	-	-	4	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	121	145	189	143	146	42	80	68	86	145	155	-10
Saudi Arabia	1043	983	601	501	545	1015	441	267	381	375	523	-148
Kuwait	144	78	45	26	37	-	29	-	18	25	-	-
Iran	-	-	-	-	-	-	-	-	-	-	-	-
Iraq	605	519	331	292	284	176	143	209	83	121	252	-132
Oman	14	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	20	5	3	-	-	9	2	-	-	31	-	-
Other Middle East	2	-	-	-	-	-	-	-	-	-	-	-
West Africa ²	497	317	267	244	118	146	128	128	187	169	218	-48
Other Africa	214	196	137	92	56	24	34	34	59	21	119	-98
Asia	26	61	32	54	40	12	4	-	-	32	31	0
Other	4	3	0	0	-	-	-	-	-	-	-	-
Total	4361	3759	2698	2292	2097	2134	1671	1493	1656	1721	2270	-550
of which Non-OECD	4235	3606	2553	2203	2047	2048	1643	1449	1642	1622	2233	-611
OECD Europe												
Canada	45	81	60	65	115	67	81	103	56	108	8	100
Mexico + USA	419	645	900	1127	1167	1033	1161	1122	1305	1065	1059	6
Venezuela	67	57	106	104	33	40	91	51	93	38	103	-65
Other Central & South America	160	132	118	156	229	151	248	247	351	203	107	96
Non-OECD Europe	9	12	14	25	34	13	21	24	19	54	19	35
Former Soviet Union	4437	4149	4240	4186	4131	3217	3446	3342	3449	3395	4634	-1239
Saudi Arabia	750	818	792	624	716	1071	637	647	753	585	511	74
Kuwait	201	137	97	53	90	64	61	89	-	-	51	-
Iran	801	536	74	32	18	-	1	-	4	2	73	-71
Iraq	995	962	1124	862	828	847	819	574	979	757	913	-156
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	6	2	2	7	-	-	-	-	-	-	-	-
Other Middle East	1	-	3	-	-	16	13	22	18	2	-	-
West Africa ²	960	1115	1140	1134	1317	876	1134	1180	1068	1103	1307	-204
Other Africa	1045	1161	1180	1204	599	474	442	426	397	488	1111	-623
Asia	2	-	-	-	-	-	1	-	4	-	-	-
Other	5	9	13	12	10	17	19	27	5	14	-	-
Total	9903	9816	9863	9590	9287	7886	8174	7853	8502	7814	9897	-2083
of which Non-OECD	9436	9088	8913	8397	8026	6783	6973	6707	7168	6651	8829	-2177
OECD Asia Oceania												
Canada	-	3	5	12	-	-	6	-	17	-	17	-
Mexico + USA	199	344	613	705	674	457	336	284	433	578	668	-89
Venezuela	8	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	35	35	48	23	79	96	75	69	81	131	20	111
North Sea	97	100	10	8	8	42	79	169	69	68	-	-
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	413	435	435	392	402	218	278	378	298	234	368	-134
Saudi Arabia	2166	2040	1878	1751	1844	1790	1858	1768	1629	1943	1602	341
Kuwait	671	672	666	615	668	704	459	462	515	514	503	11
Iran	543	274	137	-	-	-	-	-	-	-	-	-
Iraq	402	435	364	381	267	201	226	372	180	111	219	-108
Oman	42	56	59	46	35	-	35	-	57	39	44	-5
United Arab Emirates	1147	1098	1256	1416	1434	1018	962	892	900	901	1553	-652
Other Middle East	390	450	449	463	454	345	374	370	350	293	351	-58
West Africa ²	66	95	56	45	96	46	70	91	89	53	17	36
Other Africa	92	105	90	108	79	26	40	48	21	23	128	-105
Non-OECD Asia	325	319	220	230	198	109	121	116	153	212	288	-76
Other	253	235	255	325	134	245	297	231	317	293	361	-69
Total	6849	6697	6542	6520	6372	5298	5217	5248	5109	5394	6140	-745
of which Non-OECD	6553	6249	5914	5795	5690	4799	4796	4795	4590	4748	5455	-707
Total OECD Trade	21113	20271	19103	18402	17757	15318	15062	14593	15267	14929	18307	-3378
of which Non-OECD	20224	18943	17380	16394	15764	13630	13412	12951	13400	13021	16517	-3495

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)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier	
											Oct 19	change
OECD Americas												
Venezuela	18	23	4	-	-	-	-	-	-	-	-	-
Other Central & South America	42	64	83	61	28	65	44	42	37	14	70	-56
ARA (Belgium Germany Netherlands)	178	167	189	155	119	126	199	202	242	75	213	-137
Other Europe	326	323	293	267	201	131	255	208	311	289	227	62
FSU	84	80	100	119	57	49	71	96	65	82	125	-43
Saudi Arabia	1	11	7	-	4	6	16	-	11	-	-	-
Algeria	-	1	-	-	10	2	5	10	-	-	-	-
Other Middle East & Africa	24	19	14	8	9	8	15	29	10	51	15	36
Singapore	10	8	5	-	-	2	3	10	-	-	-	-
OECD Asia Oceania	10	13	28	14	21	30	15	24	20	7	32	-25
Non-OECD Asia (excl. Singapore)	63	84	116	77	63	88	84	81	70	54	103	-50
Other	3	0	0	0	-	-	-	-	-	-	1	-
Total²	759	794	838	701	512	508	707	703	767	572	786	-214
of which Non-OECD	213	271	308	234	168	213	226	247	180	181	298	-118
OECD Europe												
OECD Americas	4	4	3	3	2	4	5	9	0	5	2	2
Venezuela	-	0	0	-	-	1	-	-	-	-	-	-
Other Central & South America	3	5	3	4	7	1	0	1	-	1	7	-5
Non-OECD Europe	15	11	18	18	21	15	23	19	19	14	16	-2
FSU	89	70	62	60	57	51	27	24	18	13	88	-75
Saudi Arabia	0	2	0	-	-	7	-	-	-	64	-	-
Algeria	1	0	0	1	-	3	-	-	-	-	-	-
Other Middle East & Africa	5	4	8	17	3	5	5	7	4	2	24	-22
Singapore	2	2	3	2	2	1	2	2	2	2	2	0
OECD Asia Oceania	1	1	1	0	1	1	1	1	1	-	0	-
Non-OECD Asia (excl. Singapore)	3	2	0	0	0	0	-	-	-	-	0	-
Other	41	20	21	-5	28	46	9	15	6	11	21	-9
Total²	163	122	121	101	122	134	73	78	51	112	160	-47
of which Non-OECD	149	105	108	87	108	118	53	58	36	101	142	-40
OECD Asia Oceania												
OECD Americas	-	4	6	1	8	8	0	0	0	0	2	-2
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	0	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	13	14	9	9	1	6	4	-	-	-	-
Other Europe	-	7	5	-	1	22	17	25	-	-	-	-
FSU	-	1	0	-	1	7	-	-	-	-	-	-
Saudi Arabia	0	0	1	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	5	1	-	-	-	-	3	10	-	-	-	-
Singapore	52	49	46	63	49	40	69	57	25	27	75	-48
Non-OECD Asia (excl. Singapore)	30	19	21	17	18	21	55	37	55	70	18	53
Other	15	20	21	21	20	20	30	19	53	55	24	31
Total²	102	114	114	110	104	118	180	151	134	152	118	34
of which Non-OECD	102	90	88	101	86	81	159	123	135	152	117	35
Total OECD Trade²	1024	1029	1073	912	738	760	961	933	952	836	1064	-227
of which Non-OECD	464	466	504	421	362	412	438	428	351	434	556	-122

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)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier	
											Oct 19	change
OECD Americas												
Venezuela	2	4	1	-	-	-	-	-	-	-	-	-
Other Central and South America	13	30	38	41	25	34	40	38	56	46	55	-9
ARA (Belgium Germany Netherlands)	7	6	5	18	7	-	2	-	5	25	2	23
Other Europe	3	3	2	1	1	11	2	-	3	5	-	-
FSU	6	16	6	11	1	22	-	-	-	15	-	-
Saudi Arabia	2	17	3	-	3	-	10	10	5	2	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	4	8	2	-	4	-	4	-	11	25	-	-
Singapore	0	1	0	-	-	-	-	-	-	-	-	-
OECD Asia Oceania	18	15	24	16	8	11	18	34	5	0	13	-12
Non-OECD Asia (excl. Singapore)	22	23	30	30	28	31	13	13	14	54	3	51
Other	0	-	7	-	-	6	3	5	2	4	-	-
Total²	77	124	118	117	77	115	91	101	102	176	72	104
of which Non-OECD	50	100	86	82	61	92	69	66	89	146	58	88
OECD Europe												
OECD Americas	222	154	138	54	89	84	153	208	112	134	44	90
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	3	4	0	-	2	1	7	16	2	4	-	-
Non-OECD Europe	48	39	41	48	27	27	34	37	22	31	38	-7
FSU	732	714	685	670	816	630	562	568	511	561	706	-145
Saudi Arabia	160	225	205	203	113	222	192	188	207	336	174	161
Algeria	-	-	0	0	-	7	-	-	-	-	-	-
Other Middle East and Africa	72	76	83	77	79	65	67	41	103	82	87	-5
Singapore	15	14	27	34	16	29	10	7	7	19	45	-26
OECD Asia Oceania	28	25	36	31	27	32	33	40	38	39	32	7
Non-OECD Asia (excl. Singapore)	125	151	152	199	150	95	78	64	76	104	274	-170
Other	21	12	10	8	-21	61	17	33	-26	52	9	42
Total²	1427	1413	1378	1324	1297	1253	1152	1202	1052	1362	1410	-48
of which Non-OECD	1086	1160	1126	1168	1148	1102	939	923	874	1161	1301	-139
OECD Asia Oceania												
OECD Americas	1	-	1	-	-	6	7	-	-	10	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	0	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	0	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	5	4	4	3	3	3	1	2	-	2	3	-1
Saudi Arabia	-	3	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	8	7	11	0	22	23	50	-	-	-	-
Singapore	87	141	111	133	78	96	99	116	87	58	184	-127
Non-OECD Asia (excl. Singapore)	96	91	133	134	194	209	214	193	207	234	103	131
Other	7	5	5	5	6	10	34	22	60	65	5	60
Total²	196	253	262	286	281	346	379	382	354	369	295	74
of which Non-OECD	195	253	261	286	281	340	372	382	354	358	295	64
Total OECD Trade²	1701	1790	1758	1727	1655	1714	1622	1685	1508	1907	1777	130
of which Non-OECD	1331	1513	1473	1537	1490	1535	1380	1372	1317	1665	1653	12

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)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier Oct 19	change
OECD Americas												
Venezuela	16	6	0	-	-	-	-	-	-	-	-	-
Other Central and South America	1	2	7	11	5	5	7	2	16	10	8	2
ARA (Belgium Germany Netherlands)	-	0	-	-	-	-	-	-	-	-	-	-
Other Europe	0	0	0	-	3	0	8	6	9	10	-	-
FSU	1	0	-	-	-	-	1	-	3	-	-	-
Saudi Arabia	2	1	2	-	3	7	1	2	-	-	-	-
Algeria	0	-	-	-	1	1	3	-	10	-	-	-
Other Middle East and Africa	3	2	10	11	11	4	13	-	22	29	9	20
Singapore	2	6	3	-	13	1	3	10	-	-	-	-
OECD Asia Oceania	104	84	136	137	103	87	115	122	111	107	147	-40
Non-OECD Asia (excl. Singapore)	30	27	14	11	21	31	24	40	17	7	10	-4
Other	13	11	3	-	4	11	-	-	-	-	-	-
Total²	171	140	175	170	164	146	175	181	188	163	174	-11
of which Non-OECD	67	56	39	34	58	60	53	54	68	45	27	18
OECD Europe												
OECD Americas	20	32	20	16	35	14	3	1	-	2	20	-18
Venezuela	5	1	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	2	1	0	0	-	-	-	-	-	-	-
Non-OECD Europe	3	6	2	-	-	-	1	-	-	-	-	-
FSU	33	40	45	32	33	17	18	25	10	17	42	-25
Saudi Arabia	94	98	105	115	54	47	31	56	20	41	104	-63
Algeria	12	9	11	14	12	13	6	8	-	18	17	1
Other Middle East and Africa	207	197	199	196	174	128	153	116	210	240	189	50
Singapore	28	25	29	34	21	6	26	41	3	22	22	1
OECD Asia Oceania	48	32	36	34	31	23	46	43	74	33	55	-22
Non-OECD Asia (excl. Singapore)	53	69	73	51	67	40	31	32	28	37	56	-18
Other	1	1	2	5	-2	38	-4	27	-9	48	-1	49
Total²	508	512	523	497	423	326	311	350	337	459	503	-44
of which Non-OECD	436	445	464	446	356	288	261	305	262	422	428	-6
OECD Asia Oceania												
OECD Americas	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	1	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	1	-	-	-	-	-	-	-	-	-	-
Singapore	23	28	21	20	25	5	17	31	10	2	29	-27
Non-OECD Asia (excl. Singapore)	34	26	29	39	52	15	16	20	2	16	33	-17
Other	22	33	26	35	42	16	9	8	9	11	38	-27
Total²	80	89	76	94	119	35	42	59	21	28	100	-72
of which Non-OECD	80	89	76	94	119	35	42	59	21	28	100	-72
Total OECD Trade²	758	741	774	761	705	507	528	590	546	651	778	-127
of which Non-OECD	583	590	579	573	533	383	355	417	351	495	555	-60

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)

	2017	2018	2019	4Q19	1Q20	2Q20	3Q20	Aug 20	Sep 20	Oct 20	Year Earlier	
											Oct 19	change
OECD Americas												
Venezuela	16	42	7	-	-	-	-	-	-	-	-	-
Other Central and South America	71	72	50	53	71	67	34	48	26	47	52	-5
ARA (Belgium Germany Netherlands)	5	7	6	9	6	16	9	8	18	28	3	25
Other Europe	3	7	8	11	25	30	13	25	11	38	0	38
FSU	24	23	30	27	49	33	43	68	43	69	13	56
Saudi Arabia	-	-	2	-	-	-	7	-	-	-	-	-
Algeria	1	-	8	17	8	0	0	-	0	-	24	-
Other Middle East and Africa	9	7	5	14	1	3	30	36	37	6	21	-15
Singapore	3	-	1	-	-	3	-	-	-	-	-	-
OECD Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	1	0	0	-	-	-	-	-	-	-	-	-
Other	0	2	-	-	-	-	-	-	-	-	-	-
Total²	131	161	117	131	161	153	136	185	136	189	113	75
of which Non-OECD	123	147	102	107	124	107	113	151	106	122	110	12
OECD Europe												
OECD Americas	6	4	7	4	9	10	13	5	22	17	10	7
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	3	5	4	5	-	7	6	13	9	5	4
Non-OECD Europe	17	17	21	20	5	11	16	16	16	21	20	1
FSU	195	154	154	145	152	145	141	102	119	238	115	123
Saudi Arabia	0	1	-	-	-	7	-	-	-	-	-	-
Algeria	1	1	0	-	1	7	-	-	-	-	-	-
Other Middle East and Africa	23	15	19	17	14	13	9	5	13	16	17	-1
Singapore	-	-	1	2	1	4	1	-	1	6	-	-
OECD Asia Oceania	9	8	14	11	7	5	3	1	6	-	21	-
Non-OECD Asia (excl. Singapore)	1	0	3	0	-	-	-	-	-	-	-	-
Other	-8	5	8	4	91	66	144	164	89	100	2	98
Total²	246	208	232	208	285	268	333	298	280	407	191	216
of which Non-OECD	218	185	202	191	268	253	327	306	257	371	155	216
OECD Asia Oceania												
OECD Americas	0	0	1	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	9	16	6	14	11	9	2	-	-	-	14	-
Saudi Arabia	-	-	1	-	-	-	3	-	9	-	-	-
Algeria	1	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	18	23	27	24	42	14	61	26	81	32	-	-
Singapore	58	37	25	16	25	10	23	-	41	9	-	-
Non-OECD Asia (excl. Singapore)	59	85	40	26	30	13	29	25	32	21	52	-30
Other	0	0	1	-	-	-	0	-	1	0	-	-
Total²	146	162	101	80	108	46	118	52	164	63	66	-3
of which Non-OECD	146	162	100	80	108	46	118	52	164	63	66	-3
Total OECD Trade²	523	531	450	419	553	467	587	534	579	659	369	289
of which Non-OECD	487	493	404	378	500	406	558	508	527	556	330	226

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

² Total figure excludes intra-regional trade.

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

	2017	2018	2019	1Q19	2Q19	3Q19	4Q19	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20
CRUDE OIL PRICES													
IEA CIF Average Import¹													
IEA Americas	48.58	60.02	56.93	53.65	62.53	56.63	54.71	38.64	40.75	38.59	37.83		
IEA Europe	53.26	70.52	64.25	62.42	69.11	62.31	63.40	42.65	45.16	42.09	40.61		
IEA Asia Oceania	54.13	72.46	66.38	63.83	70.75	65.40	65.68	38.81	44.91	45.29	43.41		
IEA Total	52.05	67.77	62.75	60.34	67.62	61.51	61.66	40.54	43.86	41.93	40.58		
FOB Spot													
North Sea Dated	54.16	71.27	64.12	63.08	68.74	61.84	63.06	43.27	44.78	40.58	40.01	42.54	49.72
Brent (Asia) Mth 1	54.86	72.23	64.86	64.65	70.17	62.38	62.49	44.35	45.44	42.92	42.12	44.70	50.72
WTI (Cushing) Mth 1	50.78	65.20	57.03	54.87	59.89	56.40	56.88	40.76	42.36	39.60	39.53	41.10	47.05
Urals (Mediterranean)	53.26	70.17	64.31	63.46	68.77	61.84	63.40	44.28	45.01	40.98	40.26	43.35	50.07
Dubai (1st month)	53.15	69.65	63.49	63.40	67.52	61.23	62.00	43.18	43.90	41.45	40.70	43.33	49.78
Tapis (Dated)	67.87	69.16	43.28	67.08	72.91	66.63	70.08	45.61	46.30	39.48	39.15	42.54	50.88
PRODUCT PRICES													
Rotterdam, Barges FOB													
Premium Unl 10 ppm	65.80	78.78	71.35	64.09	79.58	72.78	69.21	45.95	47.41	46.48	45.30	44.97	50.77
Naphtha	54.19	68.70	56.27	55.36	58.79	53.18	57.90	42.51	42.42	40.78	41.72	41.13	48.16
Jet/Kerosene	65.92	86.39	79.24	78.30	81.19	79.03	78.51	43.50	43.37	38.95	41.45	45.33	53.72
ULSD 10ppm	66.28	86.22	79.45	79.18	81.87	77.92	78.96	49.53	49.70	43.36	44.17	47.45	55.20
Gasoil 0.1 %	64.68	84.28	77.73	77.46	80.14	76.53	76.91	47.76	48.12	42.19	43.34	46.66	54.37
LSFO 1%	48.72	63.22	62.21	60.18	64.33	61.60	62.83	40.99	43.09	40.11	42.48	45.74	50.76
HSFO 3.5%	45.63	61.13	50.31	57.19	60.06	51.20	33.35	37.06	40.86	37.37	38.25	41.12	44.99
Mediterranean, FOB Cargoes													
Premium Unl 10 ppm	65.83	79.41	71.31	65.29	77.58	72.12	70.45	46.72	48.29	47.44	45.56	45.45	51.33
Naphtha	52.74	66.08	54.43	53.48	57.08	51.94	55.36	41.56	41.49	39.21	41.07	40.34	47.08
Jet Aviation Fuel	65.04	85.37	77.76	76.90	79.75	77.97	76.48	42.64	42.56	37.51	40.89	44.62	52.75
ULSD 10ppm	66.20	86.03	79.05	79.13	81.24	77.73	78.23	49.73	49.58	43.14	44.47	47.47	55.33
Gasoil 0.1 %	64.60	84.74	77.70	77.51	79.68	76.99	76.72	48.49	48.26	42.28	43.78	46.96	54.94
LSFO 1%	49.91	64.31	63.90	62.56	65.04	62.73	65.32	42.02	44.03	40.89	43.63	46.55	51.18
HSFO 3.5%	47.22	62.06	52.17	58.47	60.65	52.70	37.35	37.03	39.10	35.74	36.95	39.15	43.19
US Gulf, FOB Pipeline													
Super Unleaded	73.82	85.71	79.24	72.72	87.04	81.48	75.52	51.99	53.59	51.53	50.83	49.81	57.76
Unleaded	67.98	80.10	72.28	65.69	80.84	74.00	68.37	48.51	50.50	48.10	47.68	47.25	54.50
Jet/Kerosene	65.40	85.12	78.81	78.34	80.80	78.19	77.90	45.65	46.86	42.52	44.21	47.51	55.52
ULSD 10 ppm	67.93	85.94	79.09	78.77	81.32	77.78	78.46	50.07	50.06	45.57	46.64	51.00	58.92
No. 6 3% ²	46.03	60.20	52.57	60.09	60.32	50.83	39.32	37.06	40.08	35.99	37.37	39.44	43.67
Singapore, FOB Cargoes													
Premium Unleaded	67.96	80.21	72.55	67.20	75.06	72.76	75.03	46.56	48.18	47.27	45.96	46.67	53.43
Naphtha	53.99	67.50	57.15	56.16	58.68	53.64	60.13	43.60	43.08	43.19	41.88	40.71	47.80
Jet/Kerosene	65.28	85.05	77.26	76.35	79.77	77.00	75.99	43.92	43.28	39.37	41.65	45.64	53.87
Gasoil 0.05%	65.65	84.33	77.23	76.13	79.92	76.61	76.32	49.82	48.10	43.30	43.43	47.15	54.50
HSFO 180 CST	50.84	67.04	58.62	63.96	65.23	62.33	43.51	39.36	42.20	39.61	41.19	43.64	47.43
HSFO 380 CST 4%	50.01	66.01	57.57	63.36	63.40	61.43	42.63	39.06	41.26	38.59	39.53	43.41	46.83

¹ IEA CIF Average Import price for October 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

December 2020

NATIONAL CURRENCY *							US DOLLARS					
Total	% change from		Ex-Tax	% change from			Total	% change from		Ex-Tax	% change from	
Price	Nov-20	Dec-19	Price	Nov-20	Dec-19		Price	Nov-20	Dec-19	Price	Nov-20	Dec-19
GASOLINE ¹ (per litre)												
France	1.362	2.6	- 10.6	0.444	7.0	-23.2	1.657	5.5	-2.1	0.540	10.0	-15.9
Germany	1.306	4.1	- 6.0	0.461	8.0	-10.1	1.589	7.0	3.0	0.561	11.0	-1.6
Italy	1.424	2.6	- 9.9	0.439	7.1	-22.7	1.733	5.5	-1.4	0.534	10.1	-15.4
Spain	1.182	2.5	- 9.6	0.504	5.0	-17.1	1.438	5.4	-1.1	0.613	8.0	-9.2
United Kingdom	1.141	1.2	- 8.6	0.371	3.3	-19.5	1.533	2.9	-6.3	0.498	5.1	-17.5
Japan	134.8	1.3	- 8.9	65.9	2.3	-15.4	1.299	1.9	-4.1	0.635	2.9	-11.0
Canada	1.073	3.4	- 8.5	0.644	5.1	-14.2	0.838	5.4	-6.0	0.503	7.2	-11.8
United States	0.580	4.1	- 14.1	0.453	5.3	-17.3	0.580	4.1	-14.1	0.453	5.3	-17.3
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.259	3.7	- 13.6	0.440	9.2	-27.4	1.532	6.6	-5.4	0.535	12.3	-20.5
Germany	1.128	6.7	- 11.0	0.494	12.0	-17.0	1.372	9.7	-2.5	0.601	15.2	-9.1
Italy	1.296	2.9	- 12.3	0.445	7.2	-25.1	1.577	5.8	-3.9	0.541	10.3	-18.0
Spain	1.062	3.5	- 13.4	0.499	6.4	-21.3	1.292	6.4	-5.1	0.607	9.4	-13.8
United Kingdom	1.189	1.2	- 8.6	0.411	3.0	-18.5	1.597	2.9	-6.3	0.552	4.7	-16.4
Japan	115.4	1.3	- 10.1	72.9	1.8	-13.9	1.112	1.9	-5.5	0.702	2.4	-9.5
Canada	1.069	4.6	- 16.8	0.689	6.7	-24.4	0.834	6.7	-14.5	0.538	8.8	-22.2
United States	0.683	6.2	- 15.4	0.535	8.1	-18.8	0.683	6.2	-15.4	0.535	8.1	-18.8
DOMESTIC HEATING OIL (per litre)												
France	0.750	6.6	- 21.3	0.469	9.0	-26.5	0.912	9.6	-13.8	0.570	12.1	-19.5
Germany	0.517	11.7	- 26.9	0.381	12.7	-28.6	0.629	14.9	-20.0	0.463	15.9	-21.8
Italy	1.137	4.3	- 14.2	0.528	7.9	-22.6	1.383	7.3	-6.1	0.643	10.9	-15.3
Spain	0.571	9.1	- 26.5	0.375	11.8	-31.2	0.695	12.2	-19.5	0.457	14.9	-24.7
United Kingdom	0.478	10.3	- 18.5	0.343	14.1	-23.2	0.642	12.1	-16.5	0.461	16.0	-21.2
Japan ²	79.7	0.8	- 12.6	69.6	0.8	-13.1	0.768	1.4	-8.1	0.671	1.4	-8.5
Canada	0.972	8.3	- 18.6	0.859	8.5	-18.3	0.759	10.5	-16.3	0.670	10.7	-16.0
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY ³ (per kg)												
France	0.489	5.2	- 18.6	0.350	7.5	-24.2	0.595	8.2	-10.9	0.426	10.5	-17.0
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.404	8.1	- 20.5	0.373	8.8	-21.9	0.492	11.1	-13.0	0.454	11.9	-14.5
Spain	0.330	4.1	- 28.0	0.313	4.4	-29.1	0.401	7.1	-21.2	0.381	7.3	-22.4
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-
Canada	-	-	-	-	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	-	-	-	-	-	-	-

¹ Unleaded premium (95 RON) for France, Germany, Italy, Spain, UK; regular unleaded for Canada, Japan and the United States

² Kerosene for Japan.

³ VAT excluded from prices for low sulphur fuel oil when refunded to industry.

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

** Prices for France, Germany and Spain for December 2020 were estimated by IEA based on available data.

Table 15
IEA/KBC Global Indicator Refining Margins¹
 (\$/bbl)

	Monthly Average				Change	Average for week ending:					
	Sep 20	Oct 20	Nov 20	Dec 20	Dec-Nov	18 Dec	25 Dec	01 Jan	08 Jan	15 Jan	
NW Europe											
Brent (Cracking)	0.42	1.70	0.85	0.20	↓	-0.64	0.25	0.51	1.38	0.58	1.20
Urals (Cracking)	0.52	1.38	0.69	0.79	↑	0.10	1.00	1.71	2.73	1.46	1.44
Brent (Hydroskimming)	-0.52	1.21	0.86	-0.18	↓	-1.04	-0.13	0.00	0.62	-0.08	0.30
Urals (Hydroskimming)	-1.21	-0.15	-0.39	-0.95	↓	-0.56	-0.72	0.02	0.67	-0.40	-0.62
Mediterranean											
Es Sider (Cracking)	1.01	2.35	3.33	2.12	↓	-1.21	2.37	3.09	3.74	2.84	3.15
Urals (Cracking)	-0.28	1.22	0.21	0.19	↓	-0.03	0.43	0.86	1.31	0.81	0.99
Es Sider (Hydroskimming)	0.54	2.24	3.34	1.50	↓	-1.84	1.70	2.40	3.04	2.36	2.51
Urals (Hydroskimming)	-2.09	-0.50	-1.55	-2.48	↓	-0.93	-2.25	-1.81	-1.52	-1.64	-1.57
US Gulf Coast											
Mars (Cracking)	0.90	1.61	1.37	0.97	↓	-0.40	1.06	2.01	1.94	1.95	2.32
50/50 HLS/LLS (Coking)	5.21	5.19	4.92	5.77	↑	0.85	6.14	6.62	6.80	6.74	7.65
50/50 Maya/Mars (Coking)	2.34	3.00	2.62	2.61	↓	-0.01	2.88	3.33	3.58	3.07	3.84
ASCI (Coking)	2.81	3.15	3.14	3.43	↑	0.30	3.66	4.43	4.48	4.27	5.05
US Midwest											
30/70 WCS/Bakken (Cracking)	6.13	6.18	6.12	6.86	↑	0.74	7.79	9.51	8.03	8.18	7.92
Bakken (Cracking)	7.27	6.88	6.89	7.32	↑	0.43	8.24	9.58	8.38	7.96	9.14
WTI (Coking)	6.47	5.91	5.50	5.45	↓	-0.05	6.49	7.97	6.48	5.67	6.91
30/70 WCS/Bakken (Coking)	7.29	7.20	7.23	8.26	↑	1.03	9.38	11.12	9.33	9.17	9.27
Singapore											
Dubai (Hydroskimming)	-2.53	-1.30	-0.77	-1.96	↓	-1.19	-1.86	-2.07	-1.96	-1.99	-2.01
Tapis (Hydroskimming)	3.06	3.82	3.22	1.78	↓	-1.44	2.20	1.47	2.41	1.39	2.17
Dubai (Hydrocracking)	0.54	1.44	1.59	1.80	↑	0.20	1.76	1.83	2.38	2.21	2.55
Tapis (Hydrocracking)	2.66	3.03	2.28	1.15	↓	-1.13	1.63	0.90	1.70	0.57	1.23

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

	Aug-20	Sep-20	Oct-20	Oct-19	Oct 20 vs Previous Month	Oct 20 vs Previous Year	Oct 20 vs 5 Year Average	5 Year Average
OECD Americas								
Naphtha	1.3	1.3	1.3	1.1	0.0	0.2	-0.2	1.6
Motor gasoline	46.0	47.2	49.7	47.0	2.5	2.7	2.5	47.2
Jet/kerosene	5.3	5.1	5.2	9.3	0.1	-4.0	-3.8	9.0
Gasoil/diesel oil	30.3	29.3	28.5	28.7	-0.8	-0.2	-0.1	28.6
Residual fuel oil	2.7	2.8	2.7	2.8	-0.1	-0.1	-0.8	3.5
Petroleum coke	4.4	4.4	4.3	4.3	-0.1	0.0	-0.2	4.5
Other products	13.4	13.2	12.0	11.4	-1.1	0.6	1.2	10.8
OECD Europe								
Naphtha	8.6	8.6	8.5	7.8	-0.1	0.7	0.8	7.8
Motor gasoline	21.0	21.5	22.7	20.7	1.2	2.0	1.8	20.9
Jet/kerosene	4.9	4.7	4.4	9.4	-0.3	-5.0	-4.1	8.5
Gasoil/diesel oil	43.3	42.6	42.0	39.6	-0.6	2.4	2.6	39.5
Residual fuel oil	6.9	7.0	6.8	8.6	-0.1	-1.8	-2.6	9.5
Petroleum coke	1.4	1.5	1.5	1.4	0.1	0.1	0.2	1.3
Other products	16.7	16.6	15.7	14.9	-1.0	0.8	1.0	14.7
OECD Asia Oceania								
Naphtha	16.5	16.7	15.6	16.0	-1.0	-0.4	0.3	15.3
Motor gasoline	22.4	22.1	23.0	21.7	0.9	1.3	0.6	22.3
Jet/kerosene	12.2	10.7	11.3	15.8	0.5	-4.5	-4.3	15.6
Gasoil/diesel oil	31.3	31.2	32.1	29.6	0.9	2.4	2.9	29.2
Residual fuel oil	6.0	7.1	7.4	7.3	0.3	0.1	0.2	7.2
Petroleum coke	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.4
Other products	14.1	13.5	12.8	11.6	-0.6	1.3	1.0	11.8
OECD Total								
Naphtha	6.3	6.4	6.2	5.9	-0.2	0.3	0.1	6.1
Motor gasoline	33.7	34.4	36.3	33.9	1.9	2.3	2.2	34.1
Jet/kerosene	6.4	5.9	6.0	10.4	0.1	-4.4	-4.0	10.0
Gasoil/diesel oil	34.8	34.0	33.5	32.5	-0.5	1.1	1.2	32.3
Residual fuel oil	4.7	4.9	4.9	5.5	0.0	-0.6	-1.3	6.1
Petroleum coke	2.7	2.7	2.7	2.7	0.0	0.1	0.0	2.7
Other products	14.6	14.4	13.4	12.6	-1.0	0.8	1.1	12.3

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

Table 17
WORLD BIOFUELS PRODUCTION
(thousand barrels per day)

	2018	2019	2020	2Q20	3Q20	4Q20	Oct 20	Nov 20	Dec 20
ETHANOL									
OECD Americas¹	1078	1060	933	729	948	1004	973	999	1039
United States	1048	1029	908	703	923	978	948	973	1013
Other	31	31	25	25	25	26			
OECD Europe²	96	96	85	69	97	83	87	81	81
France	21	20	14	10	21	11	17	8	8
Germany	14	12	10	9	15	5	14	0	0
Spain	9	9	7	5	7	9	6	10	10
United Kingdom	9	5	3	3	3	5	3	6	6
Other	43	50	50	42	52	53			
OECD Asia Oceania³	4	5	4	4	4	5	4	5	5
Australia	4	4	3	3	3	3	3	3	3
Other	0	1	1	1	1	2			
Total OECD Ethanol	1178	1161	1022	801	1049	1091	1064	1085	1125
Total Non-OECD Ethanol	729	813	758	894	1151	707	1004	658	457
Brazil	557	621	570	707	959	506	803	458	257
China	56	67	69	70	74	83			
Argentina	19	19	15	15	15	15			
Other	96	106	103	102	102	102	201	201	201
TOTAL ETHANOL	1907	1975	1780	1695	2200	1798	2068	1743	1582
BIODIESEL									
OECD Americas¹	126	119	121	122	131	119	128	114	114
United States	121	113	115	117	125	109	123	102	102
Other	5	7	6	5	5	9			
OECD Europe²	275	280	243	219	274	248	298	223	223
France	52	42	41	35	48	39	54	32	32
Germany	65	66	55	52	64	52	53	51	51
Italy	15	18	26	25	26	28			
Spain	33	38	26	22	29	29	30	29	29
Other	110	115	95	85	107	100	129	85	85
OECD Asia Oceania³	14	14	15	18	18	16	12	17	17
Australia	1	1	1	1	1	2	1	2	2
Other	13	13	14	17	17	14			
Total OECD Biodiesel	415	413	380	359	423	383	439	354	354
Total Non-OECD Biodiesel	345	388	408	409	409	409	409	409	409
Brazil	92	102	108	100	124	104	104	104	104
Argentina*	47	42	27	27	27	27			
Other	205	245	273	282	258	278			
TOTAL BIODIESEL	759	801	788	768	832	792	848	763	763
GLOBAL BIOFUELS	2666	2776	2568	2464	3032	2590	2915	2507	2346

* monthly data not available.

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