

Oil Market Report

11 February 2022

- Global oil supply rose by 560 kb/d to 98.7 mb/d in January, but the uptrend was slowed by a chronic OPEC+ under-performance versus targets that has taken 300 mb of oil off the market since the start of 2021. If OPEC+ cuts are fully unwound, world oil output could rise by 6.3 mb/d in 2022. That would erode effective spare capacity, which could fall from 5.1 mb/d to 2.5 mb/d by year-end. A further 1.3 mb/d of Iranian crude supply could gradually be brought to market should sanctions be lifted.
- A reassessment of historical data has resulted in a significant upgrade to our demand estimates. While the revisions lift baseline demand – primarily for Saudi Arabia (in LPG use) and China (in the petrochemical sector) – by nearly 800 kb/d, growth rates are largely unchanged. World oil demand is set to expand by 3.2 mb/d this year, to reach 100.6 mb/d, as restrictions to contain the spread of Covid ease.
- The global refining industry has underperformed relative to demand for the past six quarters and this is set to continue for most of 2022. The 3.8 mb/d forecast increase in throughputs this year lags behind demand growth even as 4Q22 runs are forecast to surpass pre-pandemic levels. Further upside is capped by closures and higher energy costs affecting refinery margins.
- OECD industry oil stocks declined by a steep 60 mb in December, led by large draws in middle distillates across all regions. At 2 680 mb, oil inventories were 355 mb lower than a year ago and at their lowest in seven years. Stocks covered 59.6 days of forward demand, a decrease of 0.9 days from a month earlier and 3.2 days below the historical average. Preliminary data for January show OECD industry stocks falling by another 13.5 mb.
- Benchmark crude oil prices surged by ~\$15/bbl in January, breaching the \$90/bbl threshold for the first time since 2014. Backwardation on the 12-month strip beginning with the April 2022 contract has hit double digits for both WTI and Brent, reflecting low crude stock levels. Despite the significant crude oil price tensions, product price premiums versus the crude markers remain robust and are even rising, indicating product market tightness - notably for gasoil.



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Unmet targets

Chronic underperformance by OPEC+ in meeting its output targets and rising geopolitical tensions have propelled oil prices higher. Benchmark crude prices rose by more than 15% in January to cross the \$90/bbl threshold for the first time in more than seven years. Global oil stocks at multi-year lows and dwindling OPEC+ spare capacity have left the market with only a small cushion.

In January, producers outside the OPEC+ alliance were the ones driving world oil supply higher. Further increases are expected in the coming months as new projects start up and US shale continues to respond to higher prices. That has led us to raise our forecast for US oil supply growth for 2022 to 1.2 mb/d. Canada, Brazil and Guyana could add an additional 460 kb/d between them.

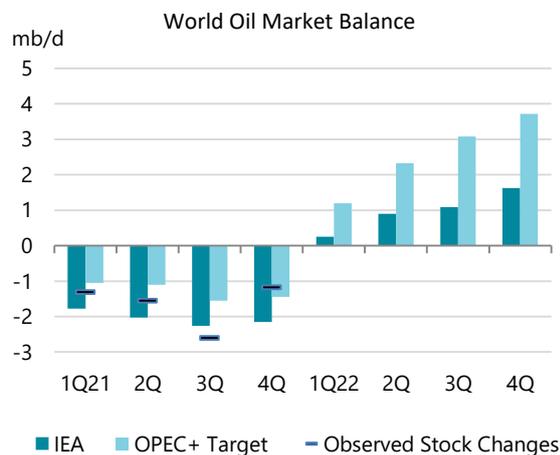
By contrast, the gap between OPEC+ output and its target levels swelled to 900 kb/d in January. The bloc's prolonged underperformance has effectively taken 300 mb, or 800 kb/d, off the market since the start of 2021.

That shortfall is expected to deepen as some OPEC+ members struggle with production constraints, exacerbating market tightness. OECD industry oil inventories plunged by a hefty 60 mb in December, to stand 255 mb below the five-year average and at their lowest level in seven years. Over the past 12 months, industry stocks have declined by 355 mb despite the release of more than 50 mb of oil from government reserves over the same period.

Meanwhile, our continued examination of historical demand data has gone a long way to closing the gap between observed and implied inventory changes apparent for some time in this *Report*. More complete information now available and new methodologies for capturing data continue to shed light on areas not well covered in official statistics. While the data revisions lift demand for Saudi Arabia (in LPG consumption) and China (in the petrochemical sector), overall growth rates are barely changed. World oil demand is set to rise by 3.2 mb/d in 2022 as restrictions to limit the spread of Covid ease, releasing pent-up demand.

Despite higher demand and the recurring failure of OPEC+ to meet its targets, the market is still set to shift to surplus in 2022. Non-OPEC+ producers could add 2 mb/d of supply, and if OPEC+ cuts are fully unwound, the bloc could increase output by 4.3 mb/d. Of course, that would come at the expense of effective spare capacity, which could fall to 2.5 mb/d by the end of the year and end up held almost entirely by Saudi Arabia and, to a lesser extent, the UAE. Iran, if released from sanctions, could add another 1.3 mb/d.

If the persistent gap between OPEC+ output and its target levels continues, supply tensions will rise, increasing the likelihood of more volatility and upward pressure on prices. But these risks, which have broad economic implications, could be reduced if producers in the Middle East with spare capacity were to compensate for those running out.

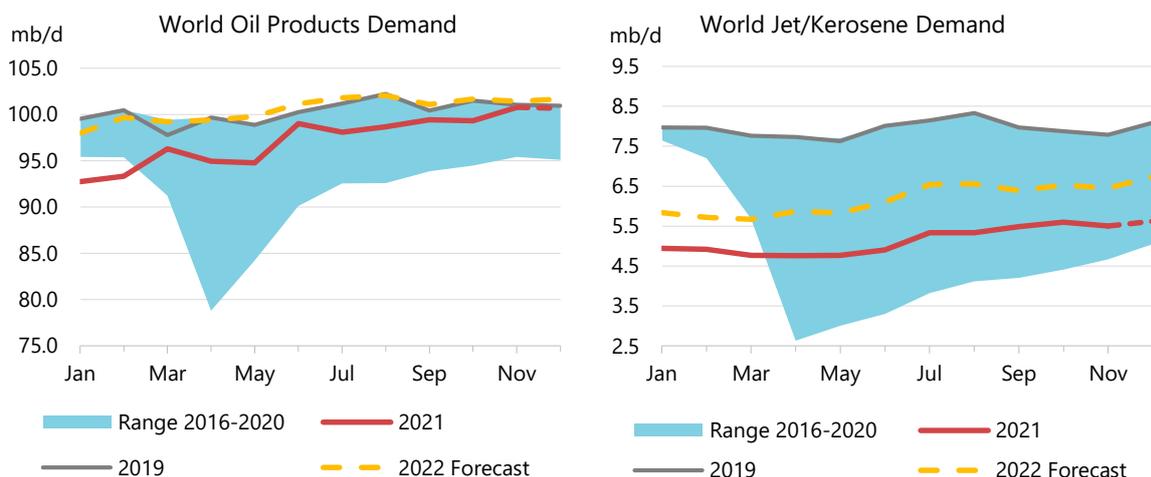


Demand

Overview

World oil demand is projected to increase by 3.2 mb/d in 2022 following a rise of 5.6 mb/d in 2021. Growth this year is only slightly below our previous estimates. The milder-than-expected negative impact of the Omicron variant on demand has been largely offset by additional consumption stemming from a cold snap in the US and a continued switch to oil from gas in some industrial sectors.

Notably, the absolute level of demand increased significantly from last month's *Report*, due to changes to our baseline estimates for Saudi Arabia and China (see Box *Historical baseline demand revised higher on new and more complete data*). World oil demand in 2019 is now estimated at 100.3 mb/d, an upward revision of 770 kb/d versus our previous data. This baseline revision is carried over the 2020-22 period.



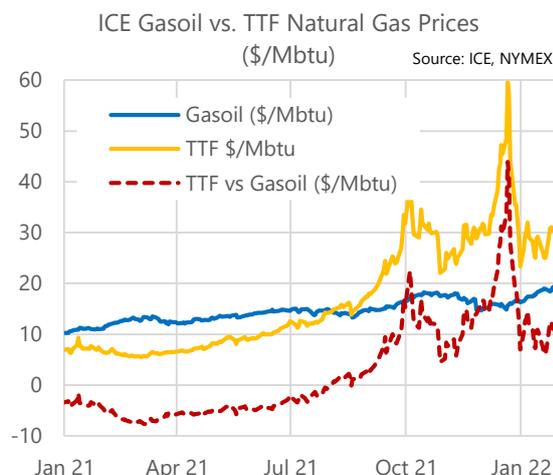
The broad effect of Omicron on economic activity and oil demand appears roughly in line with our assumptions. The new wave of Covid cases has had a relatively limited impact on behaviours in countries with a high rate of vaccination. Measures to keep the spread of the virus under control have nevertheless had some negative impact on oil demand in India and China, which continues to pursue a zero-Covid policy.

The fast spread of the Omicron variant and accelerated vaccination programmes are expected to increase population immunity by the end of the first quarter. Restrictions to mobility are anticipated to be more limited in the second half of the year, supporting a strong recovery in transportation demand.

A key factor driving stronger oil demand has been the exceptional natural gas price premium to oil products. Clean, low sulphur oil products present a viable, lower cost alternative to many energy consumers faced with extremely high spot natural gas prices, particularly in Europe. This is apparent in demand data that has shown strong growth for gasoil and LPGs in a number of markets. As long as gas markets remain tight and at a price premium to oil products, this will add to oil demand in the coming months, particularly during the heating season.

We estimate that during 4Q21 higher natural gas prices increased demand for oil compared to normal seasonal trend in Europe by between 250 kb/d and 300 kb/d (roughly 200 kb/d gasoil, 30 kb/d fuel oil and 50 kb/d in other products). In OECD Asia, fuel switching led to an increase of 50-100 kb/d. In other countries, such as Brazil, China and India, low precipitation and tensions in the coal market provided some support to gasoil demand although the impact is more difficult to identify.

Weather in the US also supported demand in January according to preliminary data. A cold snap in the Northeast of the country contributed to higher demand for LPG (+30 kb/d) and gasoil (+170 kb/d) compared with normal seasonal increases. Natural gas pipeline capacity constraints, limited LNG availability and a surge in demand for heating also boosted fuel oil use in electricity generation by 80 kb/d.



Global Demand by Product

(thousand barrels per day)

	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	13 157	13 206	13 801	14 163	595	362	4.5	2.6
Naphtha	6 343	6 384	6 949	7 202	565	253	8.8	3.6
Motor Gasoline	26 708	23 612	25 651	26 331	2 039	680	8.6	2.7
Jet Fuel & Kerosene	7 938	4 656	5 163	6 190	508	1 027	10.9	19.9
Gas/Diesel Oil	28 312	26 500	27 766	28 227	1 267	461	4.8	1.7
Residual Fuel Oil	6 140	5 719	6 075	6 334	356	259	6.2	4.3
Other Products	11 718	11 723	11 944	12 129	221	185	1.9	1.5
Total Products	100 316	91 800	97 350	100 577	5 551	3 227	6.0	3.3

The global fundamentals are slightly less supportive than last month. GDP growth in 2022 has been revised lower again, from 4.5% to 4.3% on average. In particular, US GDP growth has been adjusted down from 4.4% to 4%.

Meanwhile, the surge in oil prices over the past month has lifted the Brent forward curve, used as input in this forecast, by 13% compared to the previous *Report*. Brent prices are expected to rise from \$70.60/bbl in 2021 to \$86/bbl on average for 2022. On a year-on-year basis, based on the current forward strip, the impact of high oil prices should peak in the first half of the year, with prices progressively returning to last year's levels at the end of 2022.

Global Demand by Region								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
Africa	4 250	3 818	4 027	4 133	209	106	5.5	2.6
Americas	31 704	28 053	30 131	31 025	2 078	894	7.4	3.0
Asia/Pacific	35 834	34 058	36 067	37 517	2 009	1 450	5.9	4.0
Europe	15 093	13 176	13 840	14 377	664	538	5.0	3.9
FSU	4 723	4 497	4 788	4 940	291	152	6.5	3.2
Middle East	8 711	8 197	8 498	8 584	300	86	3.7	1.0
World	100 316	91 800	97 350	100 577	5 551	3 227	6.0	3.3
OECD	47 657	42 018	44 611	46 227	2 593	1 617	6.2	3.6
Non-OECD	52 659	49 782	52 740	54 350	2 958	1 610	5.9	3.1

Box 1. Historical baseline demand revised higher on new and more complete data

New data sources and analytical methodologies continue to shed light on areas not well covered in official statistics, especially in non-OECD countries. An investigation and reassessment of historical demand data sets for several countries has resulted in an upward revision to our demand figures going back to 2007. Demand for 2019 was revised up by 770 kb/d, which we have carried forward through the forecast period.

Two main factors are behind the upward adjustment. They concern products and sectors that are the least transparent in the oil balance: natural gas liquids on the supply side and petrochemicals on the demand side. We traditionally rely on annual statistical data to rebase and adjust our monthly estimates, especially for countries where reliable and complete monthly data do not exist. Annual data is compiled from questionnaires submitted to the IEA Energy Data Center by non-member countries on a

voluntarily basis, or from official statistics reported by relevant authorities. These are supplemented by other indicators to generate estimates when there are no questionnaires or official sources.

First, we have raised our demand estimates for China, the world's largest petrochemical producer and consumer, for 2019 by 360 kb/d. This revision takes into account discrepancies in refinery inputs and reported product outputs in annual statistics. We believe the missing output also implies missing demand, and can be mostly explained by feedstocks used at integrated petrochemical complexes (which have grown significantly since the late 2010's) where the consumption is inside the refinery gates, or by refinery own use. As the final products leaving the refinery were not oil products but petrochemical products, some reporting entities might not have fully accounted for these in the data submitted, which underpins the official statistics for China.



Our second major adjustment has been made to domestic oil consumed in Saudi Arabia. The country is not only the world's biggest oil exporter and third largest oil producer but it also boasts production of more than 2 mb/d of condensate and NGLs, including ethane produced from its gas fields. Saudi Arabia also has a vibrant petrochemical sector, and based on our in-depth analysis of petrochemical activity and trade flows from newly available data sources, we have adjusted estimates for domestic LPG consumption up by ~500 kb/d.

Together, these revisions result in a tighter balance than previously reported, more aligned with available data for oil stocks and already reflected in the oil price and forward structure.

OECD

Total OECD oil demand for November jumped by 930 kb/d month-on-month (m-o-m), with gasoil, fuel oil and LPG outperforming their seasonal trend. Demand growth was very strong in the OECD Americas (890 kb/d m-o-m compared with a more normal drop of 40 kb/d). In Europe and Asia demand was down by 360 kb/d and up by 350 kb/d, respectively, and in line with typical seasonal trends.

Based on provisional data, we estimate OECD December deliveries grew by 370 kb/d m-o-m, slightly more than the seasonal growth. Gasoline demand, particularly in North America, supported OECD gains.

Demand in 4Q21 increased 770 kb/d q-o-q, was flat year-on-year (y-o-y), and remained 1.4 mb/d below pre-pandemic levels. In 1Q22, we forecast the deficit versus 2019 widening to 1.8 mb/d, reflecting the impact of Omicron-related restrictions on transport fuel use at the start of the quarter.

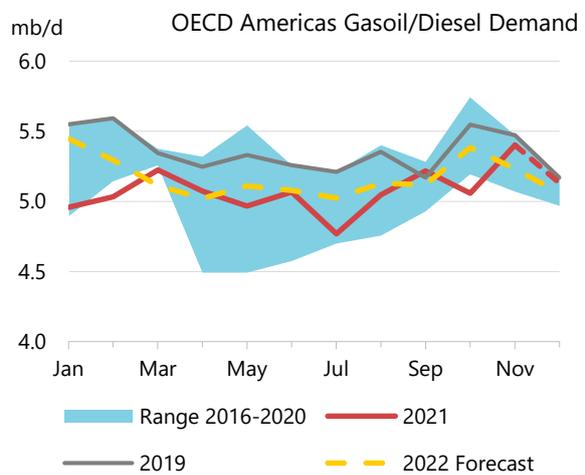
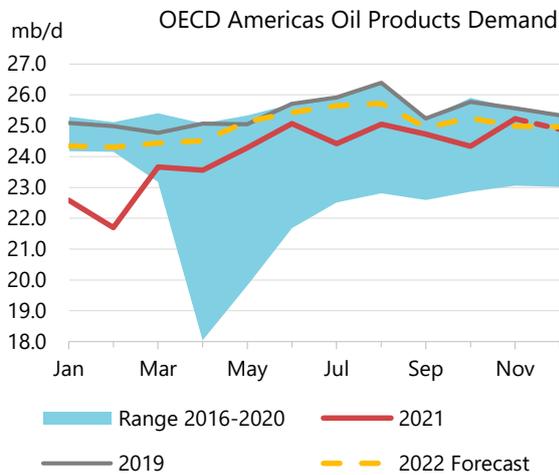
OECD Demand based on Adjusted Preliminary Submissions - December 21																
(million barrels per day)																
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		LPG/Ethane		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas	10.63	13.8	1.76	35.0	3.18	4.6	2.03	0.1	4.02	0.3	0.49	31.1	2.85	-5.8	24.88	8.1
US*	8.94	13.5	1.54	31.2	2.45	5.0	1.64	-2.4	3.11	-4.2	0.32	40.2	2.28	-8.1	20.22	6.8
Canada	0.85	20.3	0.10	73.2	0.25	-5.4	0.35	10.6	0.51	31.5	0.04	46.2	0.37	8.6	2.46	17.7
Mexico	0.75	12.7	0.09	77.9	0.30	10.2	0.05	21.6	0.37	6.4	0.12	8.2	0.17	-2.2	1.84	11.4
OECD Europe	2.01	21.2	0.98	47.1	4.91	8.7	1.79	6.4	1.12	5.9	0.77	14.8	2.37	6.0	13.70	11.9
Germany	0.47	11.1	0.13	69.2	0.68	1.4	0.39	4.6	0.09	-16.1	0.05	9.9	0.42	18.0	2.23	8.6
United Kingdom	0.28	39.9	0.24	29.0	0.50	13.0	0.15	20.2	0.11	-9.3	0.02	27.7	0.11	9.2	1.38	18.6
France	0.23	23.3	0.13	56.0	0.73	7.4	0.19	18.8	0.13	6.9	0.03	8.5	0.23	3.1	1.66	12.6
Italy	0.19	33.3	0.08	100.2	0.54	21.2	0.09	10.1	0.13	18.0	0.07	31.3	0.27	6.5	1.35	21.5
Spain	0.12	11.9	0.09	123.8	0.43	4.2	0.27	-2.7	0.07	-7.0	0.11	-4.8	0.17	-18.4	1.20	2.1
OECD Asia & Oceania	1.48	0.6	0.90	-5.2	1.43	3.7	0.58	3.4	0.91	9.4	0.51	14.8	2.68	19.9	8.44	7.7
Japan	0.80	-2.8	0.58	-11.4	0.44	1.5	0.36	-1.2	0.52	6.3	0.27	17.7	1.12	20.2	4.10	4.2
Korea	0.26	24.4	0.21	1.1	0.43	16.6	0.15	20.2	0.33	18.4	0.22	10.2	1.39	22.4	2.94	18.0
Australia	0.29	-4.5	0.10	53.3	0.49	-3.0	-	-	0.04	1.7	0.01	-7.0	0.11	2.2	1.05	0.8
OECD Total	14.12	13.2	3.63	24.7	9.52	6.5	4.40	3.0	6.05	2.5	1.77	18.9	7.91	5.4	47.02	9.1

* Including US territories

OECD oil deliveries for 2021 are estimated to have grown 2.6 mb/d to 44.6 mb/d and is projected to rise a further 1.6 mb/d in 2022, to 46.2 mb/d. In 2022, demand will remain 1.45 mb/d below 2019, with only petrochemical feedstocks above pre-pandemic levels.

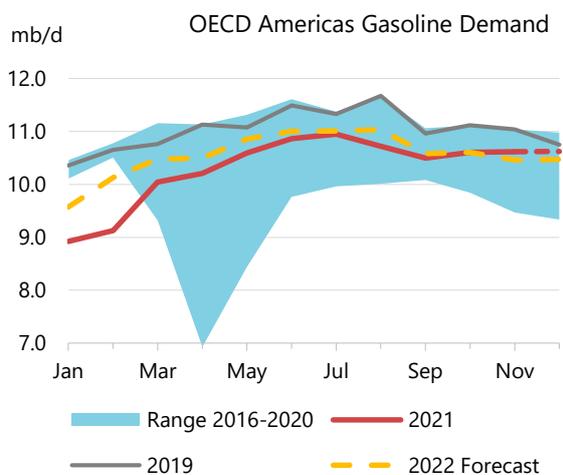
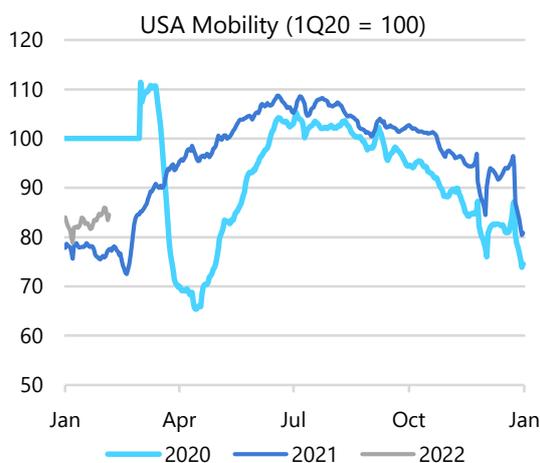
OECD Americas

After an increase of 890 kb/d m-o-m in November, provisional December data point to a 170 kb/d m-o-m drop in OECD Americas demand. Gasoline edged upwards by 10 kb/d but gasoil deliveries declined seasonably by 270 kb/d m-o-m.



US oil demand rose by 665 kb/d m-o-m in November but declined by 520 kb/d in December and by 220 kb/d in January, according to preliminary data. A cold snap in January supported a sharp increase in gasoil, LPG and fuel oil demand in the Midcontinent and Northeast.

US jet kerosene demand rose 20 kb/d m-o-m in December before posting a seasonal decline of 35 kb/d m-o-m in January. Jet kerosene use remained 270 kb/d below 2019 in December and 210 kb/d below pre-Covid levels in January. The number of international flights increased significantly at the end of 2021, following the lifting of restrictions in November, but has since declined as Omicron cases reached record levels. However, the number of new infections is now falling rapidly and the recovery in international air travel should resume in 2Q22. Domestic air travel had almost fully recovered by the end of January, and is only 5% to 10% down from pre-Covid levels. Jet kerosene demand grew by 290 kb/d in 2021 and we project growth of 210 kb/d in 2022.



US gasoline demand rose counter-seasonally by 30 kb/d m-o-m in November but fell by 70 kb/d m-o-m in December, before posting a larger-than-seasonal decline of 860 kb/d in January. Gasoline demand approached pre-Covid levels in December before ending 700 kb/d below 2019 in January. Harsh weather conditions may explain this decline in road transport and gasoline demand. US gasoline demand grew by 740 kb/d in 2021 and we project this growth to slow to 120 kb/d in 2022. US gasoline demand should remain 360 kb/d below 2019 levels in 2022.

Gasoil demand rose counter-seasonally, by 275 kb/d m-o-m, in November but declined by 190 kb/d in December. We estimate that cold weather and limited gas availability in the Northeast in January (forcing generators to switch from natural gas to fuel oil) added 30 kb/d to LPG demand, 170 kb/d to heating oil and 80 kb/d to fuel oil demand.

Overall, we project US oil demand to grow by 510 kb/d in 2022 after a growth of 1.5 mb/d in 2021. Jet fuel, LPG ethane and gasoline will lead the recovery. US oil demand will reduce its gap versus 2019 from 710 kb/d in 2021 to 210 kb/d in 2022.

Canadian deliveries grew by 20 kb/d m-o-m in November. Gasoline deliveries declined by 80 kb/d. We project demand rebounded by 100 kb/d in December and averaged 2.3 mb/d for 2021, well below the pre-Covid levels of 2.5 mb/d. Canadian oil demand is projected to increase by 160 kb/d in 2022 but to remain 75 kb/d below 2019 on average.

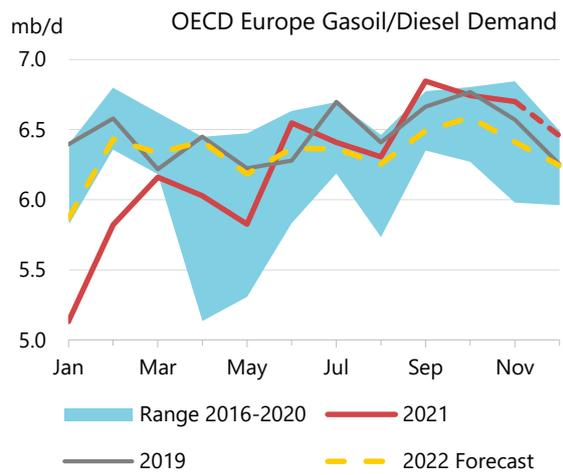
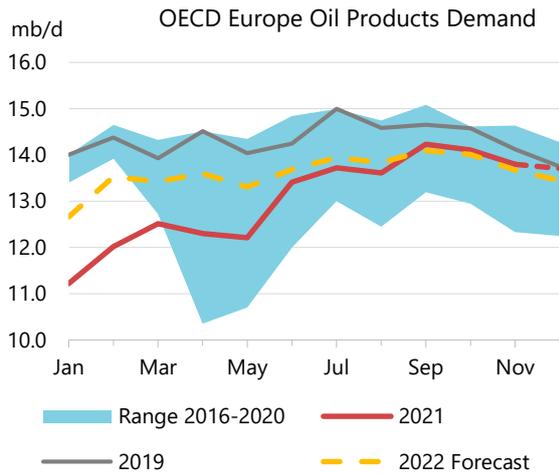
Mexican demand continued to rise strongly in December, according to provisional data. After six m-o-m declines, consumption rose by 185 kb/d in November and 100 kb/d in December. Gasoline demand was particularly strong, increasing by 60 kb/d m-o-m in both months. Mexican oil demand is forecast to rise by 180 kb/d in 2022, reducing the gap versus pre-Covid levels from 320 kb/d in 2021 to 140 kb/d.

OECD Europe

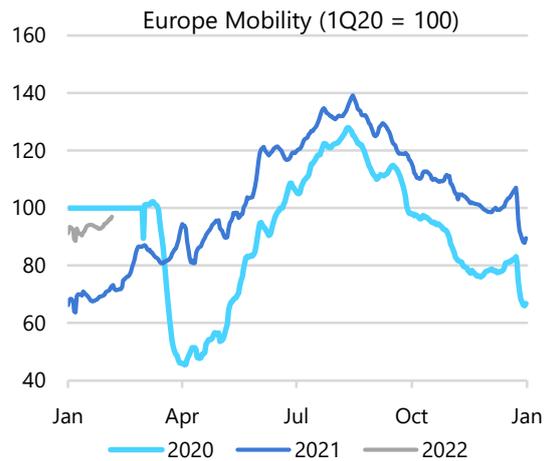
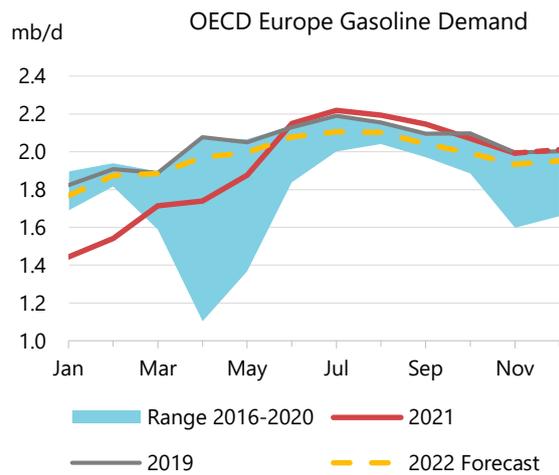
Overall OECD European deliveries declined by 310 kb/d m-o-m in November, tracking typical changes for the month. Provisional December data indicates a fall of 90 kb/d m-o-m, a little lower than the normal seasonal drop. Europe's oil demand has been supported in the past few months by very high natural gas prices – triggering some gas to oil switching in industry, power generation and refining. The switch supported gasoil, fuel oil and other product demand. We estimate that gas to oil switching has increased oil demand in OECD Europe by roughly 250 kb/d to 300 kb/d from September onward.

Gasoil demand in OECD Europe is estimated to have declined seasonally by 245 kb/d in December, but remained at the top of its historical 2016-2020 range. Gasoil demand contracted by 70 kb/d m-o-m in Germany, but rose by 15 kb/d in France, according to preliminary data.

Since January, a combination of higher oil prices, slightly lower natural gas prices and high carbon prices may have reduced the incentive to switch from gas to oil in power generation, industry or refining. Gasoil demand is nevertheless set to increase by 80 kb/d y-o-y in 2022 after a growth of 290 kb/d in 2021.



Europe’s fuel oil demand, by contrast, recorded m-o-m increases in both November (20 kb/d) and December (50 kb/d). Fuel oil use in power generation increased in both months, although it does not appear clearly in Eurostat data on European generation. Part of it could have been in industry. As a result, fuel oil demand was higher y-o-y in November and December, by 60 kb/d and 100 kb/d, respectively. Fuel oil demand is projected to increase by 65 kb/d y-o-y in 2022.

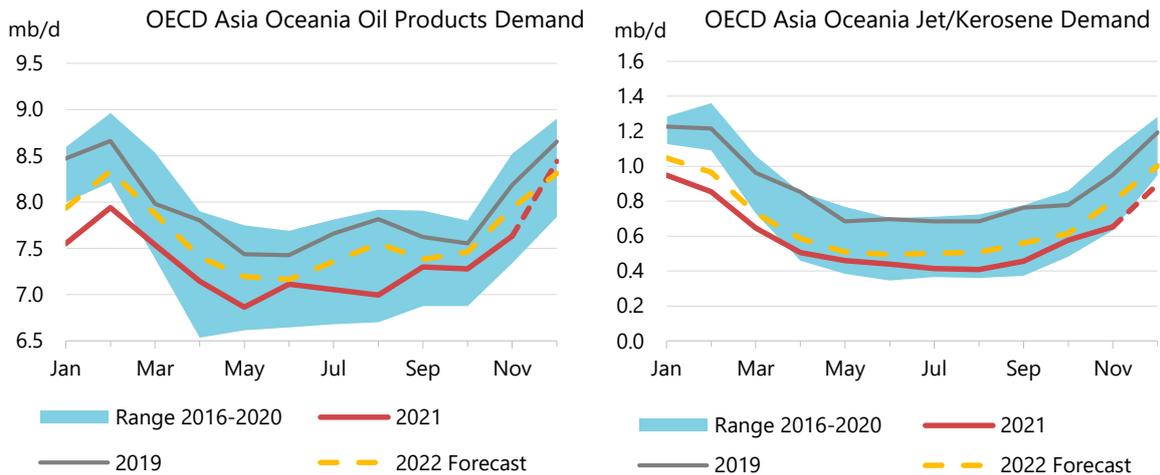


Gasoline demand declined by 80 kb/d in Europe in November but gained 20 kb/d m-o-m in December. Mobility data point to strong y-o-y demand growth in January. Reluctance to take public transportation during the Omicron wave likely supported the use of private cars and gasoline demand. Air traffic data from *Radarbox* shows an increased number of flights in December and early January, but traffic lost momentum thereafter as Omicron spread. Jet kerosene demand is estimated to have fallen 150 kb/d in January, but growth in 2022 of 300 kb/d y-o-y will be the strongest amongst products.

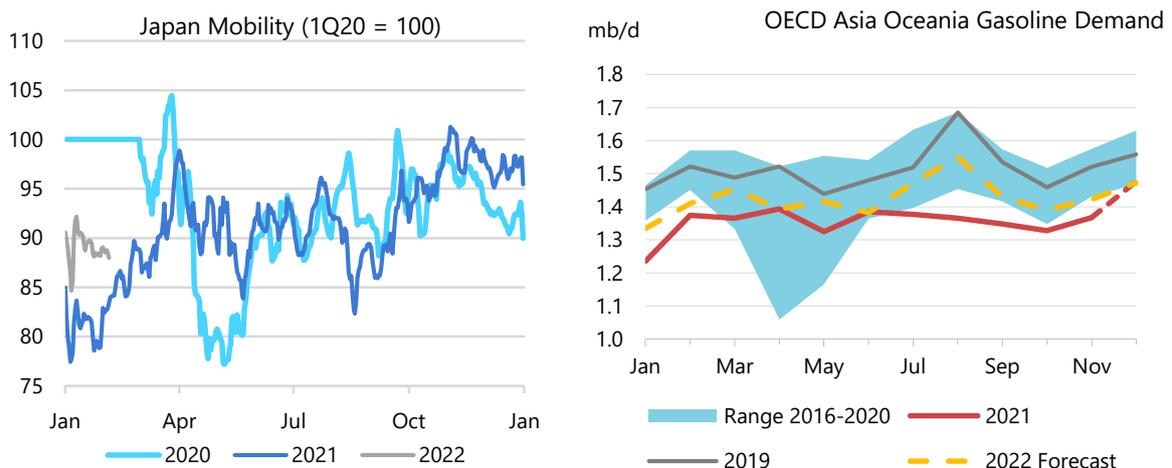
Naphtha demand remained particularly strong in December (50 kb/d above 2020) supported by good petrochemical demand and high LPG prices. Globally, we project growth of 520 kb/d in European oil demand in 2022, with transport fuels gaining the most.

OECD Asia Oceania

OECD Asia Oceanian oil demand rose by 350 kb/d m-o-m in November, slightly below the seasonal trend. Jet kerosene posted the strongest growth at 80 kb/d m-o-m, supported by seasonal demand for heating fuel. Kerosene demand increased by a further 240 kb/d in December, according to preliminary data. Gasoline demand was also strong in November, rising by 40 kb/d m-o-m. Provisional data indicate a further m-o-m gain of 110 kb/d in gasoline demand in December.



In Japan, oil demand rose by 175 kb/d m-o-m in November and a further 575 kb/d in December, according to provisional data. Demand was supported by a strong seasonal increase in kerosene deliveries. Gasoline and diesel demand shrank m-o-m in November, but bounced back strongly in December, by 80 kb/d and 90 kb/d, respectively. We estimate that other products demand rose by 65 kb/d m-o-m in December. Gasoil and other product strength reflected some gas to oil switching in industry, refining and power generation. We estimate that gas to oil switching may have added 50 kb/d to 100 kb/d to OECD Asia oil demand since September.



Korean demand posted a similar evolution, rising by 80 kb/d m-o-m in November and 320 kb/d in December. Gasoil and gasoline demand increased by 75 kb/d m-o-m and 30 kb/d m-o-m, respectively, in December. Korean demand for other products reached the top of its historical

range in December. Gasoil and other product strength reflected some switching from gas to oil in the industry and refining sectors.

Australian oil demand rose 70 kb/d y-o-y in November, supported by strong gasoil and gasoline use. Deliveries declined m-o-m in December and January, in line with seasonal trends and as the number of Covid cases resumed at an explosive growth rate.

Overall, OECD Asia Oceania oil demand is projected to increase by 255 kb/d in 2022 after growth of 260 kb/d in 2021. The gap versus 2019 will narrow from 530 kb/d in 2021 to 280 kb/d in 2022.

Non-OECD

Our outlook for non-OECD oil demand growth remains largely intact. The latest data confirm the strength off the recovery that drove consumption back above pre-pandemic levels in 2021. While the response to the Omicron variant has slowed demand in key countries recently, including India and China, we expect the impact of the virus to ease through the year. Prompt data already show a strong increase in mobility over 2021 and early 2022 in several key non-OECD countries. Overall, we project non-OECD oil demand to grow by 1.6 mb/d to 54.3 mb/d in 2022, slowing from an increase of 3 mb/d in 2021.

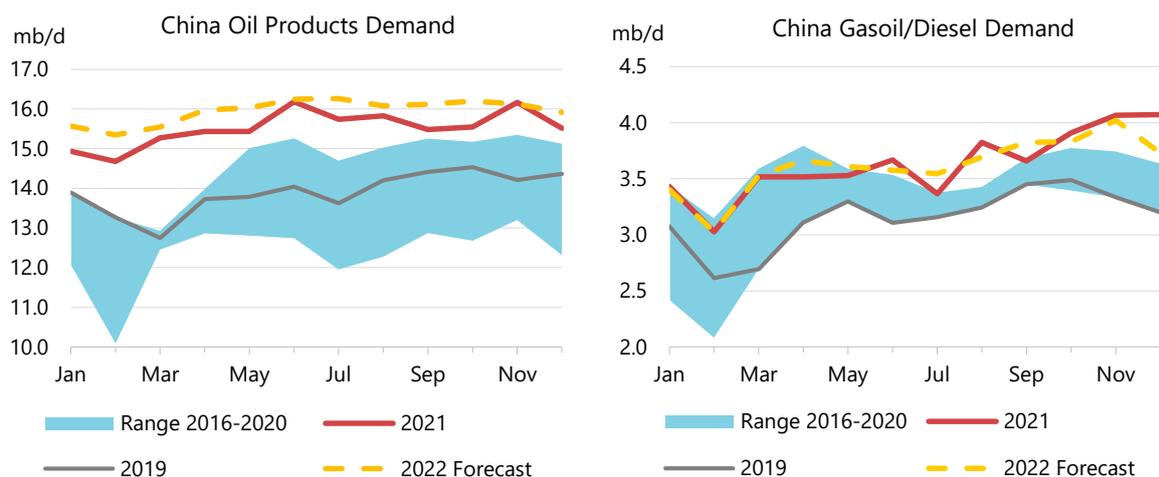
Non-OECD oil deliveries dropped seasonally in December, by 500 kb/d, according to preliminary data. China posted the largest non-OECD country decline of 660 kb/d. For 4Q21, demand averaged 53.8 mb/d, up 760 kb/d q-o-q and 1.6 mb/d higher y-o-y. We estimate that for 2021 as a whole, oil demand was 3 mb/d higher y-o-y and 80 kb/d above the 2019 level. The recovery in mobility in 2021 is reflected in a 1.1 mb/d y-o-y increase in gasoline demand. We expect this to continue, albeit at a reduced rate, driving a 330 kb/d increase in gasoline consumption during 2022.

China

December Chinese apparent oil demand displays a decidedly mixed picture, making it difficult to draw firm conclusions about market conditions at year-end. Total demand appears to have contracted by 660 kb/d m-o-m, largely due to lower uptake of LPG/ethane (-310 kb/d) and other products (-510 kb/d). However, this decline, faster than the typical seasonal drop, disguises stronger performances for some other products. Gasoil rose marginally, defying a typical monthly fall of around 200 kb/d, while gasoline demand increased by 40 kb/d. At 15.5 mb/d, total oil demand was 390 kb/d higher than a year ago (and 1.1 mb/d above December 2019 levels).

Average 4Q21 demand was 50 kb/d higher q-o-q, and 530 kb/d higher y-o-y. Renewed restrictions on flights saw the slide in jet fuel use continue (-170 kb/d q-o-q), while higher global prices suppressed LPG/ethane consumption (-160 kb/d). Increases for gasoil (+400 kb/d) and naphtha (+210 kb/d) outweighed declines in other products. But, gasoline demand rose 420 kb/d y-o-y in 4Q21.

Recent indicators, including the *Caixin Manufacturing PMI* (which fell from 50.9 in December to 49.1 in January), suggest that the combined strains of Covid-19 restrictions, real-estate shocks and higher energy prices are acting as a drag on the economy.



Strong y-o-y growth will largely be maintained (+520 kb/d) in 1Q22, dominated by naphtha (+290 kb/d) due to the considerable number of petrochemical plants brought online during the last 12 months. Slowing industrial and economic activity in 1Q22 will drive gasoil demand to a small y-o-y contraction and reduce gasoline growth to 20 kb/d.

China: Demand by Product

(tho usand barrels per day)

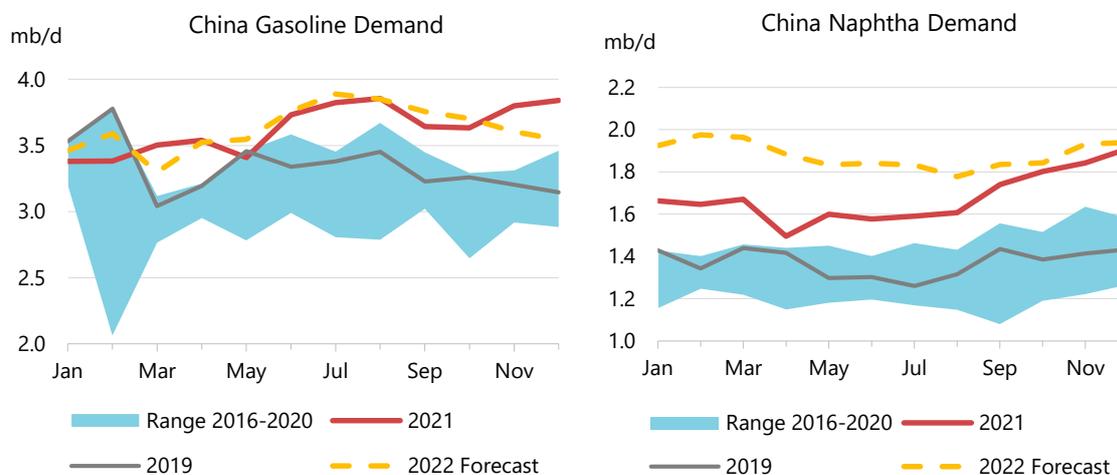
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	1 781	1 912	2 230	2 311	317	81	16.6	3.6
Naphtha	1 373	1 478	1 679	1 881	201	202	13.6	12.0
Motor Gasoline	3 332	3 284	3 630	3 627	345	- 3	10.5	-0.1
Jet Fuel & Kerosene	877	722	700	714	- 21	14	-3.0	2.0
Gas/Diesel Oil	3 151	3 259	3 636	3 624	377	- 12	11.6	-0.3
Residual Fuel Oil	444	445	481	520	36	38	8.1	7.9
Other Products	2 948	3 197	3 165	3 276	- 32	111	-1.0	3.5
Total Products	13 905	14 298	15 521	15 953	1 223	432	8.6	2.8

In 2021 Chinese demand posted remarkable y-o-y growth of 1.2 mb/d to reach 15.5 mb/d (1.6 mb/d above 2019 levels). Every major product, apart from jet/kerosene, saw higher use. Oil demand growth (+8.6%) outpaced GDP (+8.1%) across the year, despite the challenges impacting air traffic, and is largely due to exceptional support for oil in electricity generation and the continued explosive growth of the Chinese petrochemical sector. Our expectation is that the rate of growth will slow below GDP growth in 2022, nonetheless posting a robust increase of 430 kb/d.

As for December, monthly performance of gasoil and gasoline demand was better than expected while that for other products was much lower. The exceptional support for gasoil demand from use in small-scale electrical generators may still be playing a role, but electricity generation fell 2.1% y-o-y in December and several reports indicate that power supply issues have been largely under control since November.

Gasoline demand in December was within 20 kb/d of August 2021's all-time peak. An analysis of Oxford University data on provincial-level Covid restrictions indicates that while these have tightened significantly overall, this has been more restrictive in some sectors than others. For example, strict limitations on international and interprovincial travel weighed heavily on air traffic and jet fuel consumption through November and December – although there were signs of a partial rebound in the weeks before the Lunar New Year. Mandated closures of workplaces have been much less widespread, likely weakening the negative impact on oil demand. Indeed,

limitations on public transport systems – including in major cities like Xi’an, Tianjin, Guangzhou and Ningbo – may have had a small positive impact on use of private cars. Trends of this sort can be observed in places where more complete mobility and road traffic data is available.

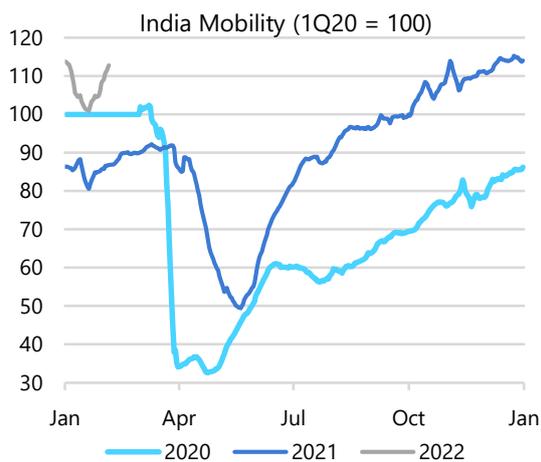
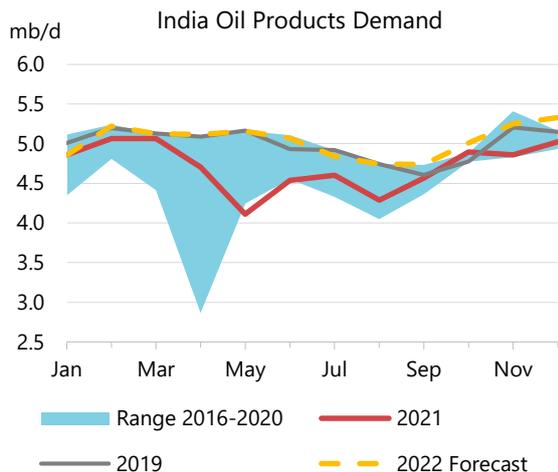


Naphtha demand narrowly surpassed expectations in December, rising by 70 kb/d m-o-m. In 4Q21, deliveries were up by 210 kb/d q-o-q and China consumed naphtha at the fastest rate of any country ever (1.9 mb/d). We expect that the increase seen in recent months will continue and that demand will rise by a further 100 kb/d in 1Q22, reflecting the full impact of recent petrochemical plant start-ups. In contrast, LPG demand was relatively weak in 4Q21, falling by 160 kb/d. Higher relative LPG prices meant that naphtha was favoured as a feedstock in olefin production by flexible cracker operators. Challenging production economics for methanol- and coal-based operators have further underscored the strength of naphtha cracking in recent months.

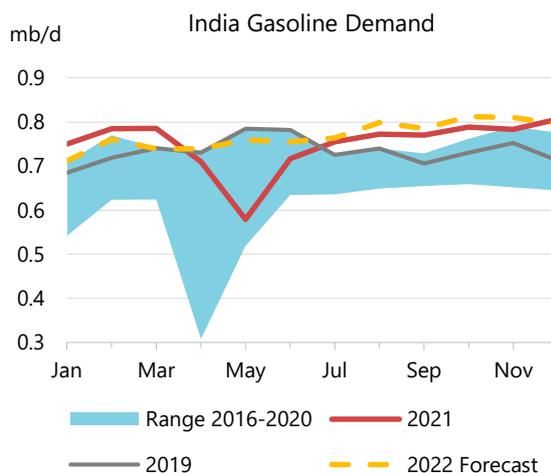
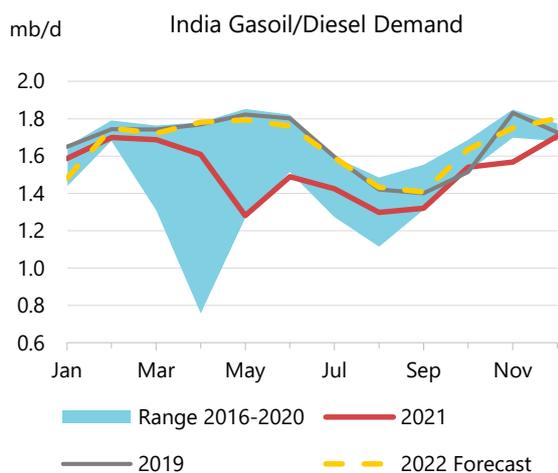
Demand for jet/kerosene remained at low levels in December, rising by 5 kb/d m-o-m. Severe limitations on domestic and international flights led to a 440 kb/d y-o-y fall in demand and consumption was only 120 kb/d above its April 2020 nadir. Flight traffic data from *Radarbox* indicates that international flight numbers were at only one-third of pre-pandemic levels and domestic flights about 30% lower than in 2019. However, air traffic volumes increased in the period before the Chinese New Year and we expect that this will lead to a q-o-q rebound of 170 kb/d in 1Q22.

India

Indian oil demand is projected to increase by 320 kb/d in 2022 after growth of 170 kb/d in 2021. Gasoil will lead the recovery in oil demand. However, January demand waned (-170 kb/d m-o-m) in response to government lockdowns to curb the spread of the Omicron variant. The largest monthly decline was for gasoil (-230 kb/d), with gasoline falling by 100 kb/d and jet/kerosene by 20 kb/d. The typical seasonal fall for total demand is 110 kb/d.



Despite what appears to be a challenging start to the year, we expect that demand growth is likely to regain momentum as Covid restrictions are relaxed and with indicators like the *IHS Markit India Manufacturing PMI* showing continued expansion – albeit slowing from 55.5 in December to 54 in January. Demand in 1Q22 is forecast to rise 130 kb/d q-o-q, to 5.1 mb/d, 50 kb/d lower than in 1Q19. For 2022, we forecast y-o-y growth of 320 kb/d, which would surpass the rate of 2019 by 40 kb/d, with LPG/ethane, gasoline and naphtha showing the most progress.



Gasoil is set to post the strongest y-o-y growth of any product (+140 kb/d) in the absence of further major lockdowns such as those in the first half of 2021 that created a major drag on commercial and manufacturing activity. Gasoline demand has not been suppressed to the same extent as gasoil by the pandemic and we expect continued steady growth, with deliveries showing solid y-o-y increases from 2Q22 onwards for an average annual rise of 20 kb/d.

January's lower jet/kerosene demand mirrored a sharp drop in domestic flight numbers. *Radarbox* data indicate that, having started the year at close to 2019 levels, air traffic fell by more than one-third during the month. Data from *Radarbox* and *OAG* suggest that a limited rebound took place in early February. We expect a gradual recovery to continue through the rest of the year, taking average 2022 demand 20 kb/d higher y-o-y but remaining 70 kb/d lower than 2019.

India: Demand by Product

(thousand barrels per day)

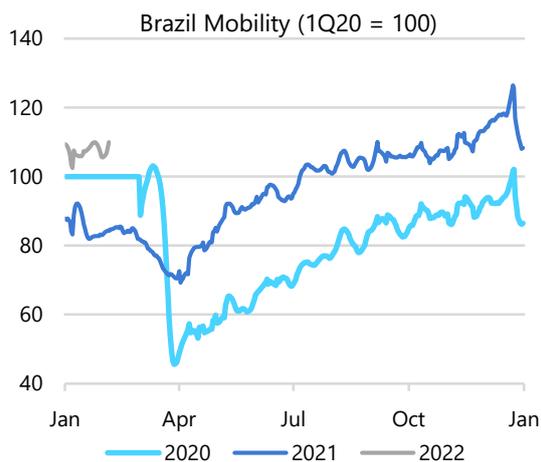
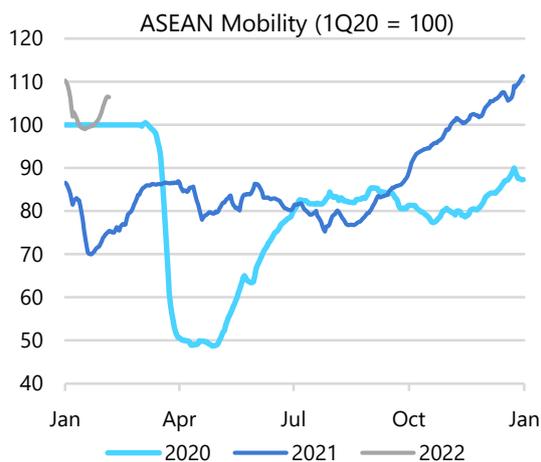
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	837	869	888	912	19	24	2.1%	2.8%
Naphtha	308	318	319	343	2	24	0.5%	7.5%
Motor Gasoline	734	667	750	769	83	19	12.4%	2.6%
Jet Fuel & Kerosene	225	120	128	150	9	22	7.2%	16.8%
Gas/Diesel Oil	1 667	1 414	1 516	1 658	102	141	7.2%	9.3%
Residual Fuel Oil	145	136	141	145	6	4	4.1%	2.5%
Other Products	1 076	1 016	968	1 057	- 49	89	-4.8%	9.2%
Total Products	4 991	4 540	4 711	5 035	171	324	3.8%	6.9%

Other Non-OECD

Overall 2021 **African** oil demand was slightly more than 4 mb/d. Demand grew by 210 kb/d y-o-y and is projected to increase by a further 110 kb/d in 2022. Nevertheless, consumption will remain 120 kb/d lower than 2019. Recent data from Egypt and South Africa have been slightly ahead of expectations, reflecting increased mobility.

Middle Eastern deliveries declined seasonally in 4Q21 (-440 kb/d q-o-q), primarily on lower direct crude use in power generation. Quarterly demand was 200 kb/d higher y-o-y, with transportation fuels rebounding from their 2020 lows. However, gasoline, gasoil and jet/kerosene demand all remain below 2019 and are not expected to surpass these levels during 2022. Total 2022 demand is expected to be 90 kb/d higher y-o-y, but 130 kb/d lower than 2019.

Oil demand in **Russia** continued to perform strongly during December, up 60 kb/d m-o-m, and in line with the seasonal trend. Gasoil demand was especially strong, outstripping expectations with a 75 kb/d m-o-m increase. We expect annual growth to slow to 130 kb/d in 2022 (from 240 kb/d in 2021), with demand already well above pre-pandemic levels in 2021 (+90 kb/d) there is more limited scope for additional gains.



In **Pakistan**, November demand came in lower than expected, falling by 40 kb/d m-o-m. This was principally driven by reduced fuel oil use (-30 kb/d) as demand from electricity producers dried up. High 4Q21 imports of fuel oil in anticipation of increased demand over the winter have resulted in an oversupply for domestic refiners. Oil demand was 70 kb/d higher y-o-y in 2021 and we expect this to climb by a further 30 kb/d in 2022.

Brazilian oil use increased in December (+50 kb/d m-o-m), in contrast to a typical seasonal fall. Gasoline deliveries leapt by 140 kb/d m-o-m, reflecting a 6.3% monthly increase in mobility. We expect 1Q22 demand to edge lower by 10 kb/d y-o-y and to fall by 50 kb/d for 2022 on very weak economic growth (Oxford Economics forecasts complete stagnation in Brazil's GDP for 2022). Gasoil demand is set to decline in the absence of exceptional drought-related support from agricultural irrigation pumps and from diesel generators offsetting lost hydroelectric power supply.

For **Latin America** as a whole, 4Q21 oil demand increased on average by 210 kb/d y-o-y. We forecast that this will slow to 100 kb/d in 1Q22, with overall growth of 50 kb/d forecast in 2022.

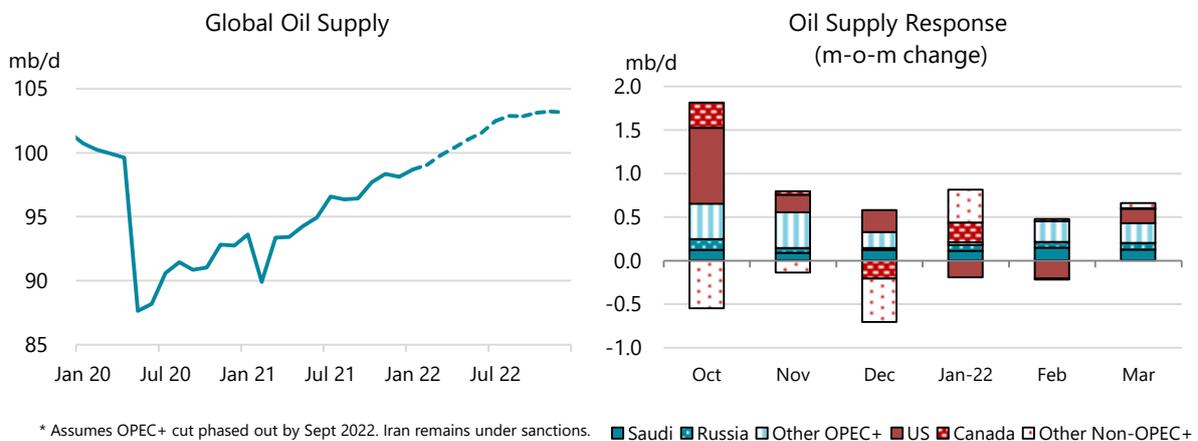
Argentinian demand has largely moved in line with seasonal trends during 2H21 (at an average +40 kb/d versus 1H21) and we expect it to remain at about the same level in 2022.

Non-OECD: Demand by Region								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
Africa	4 250	3 818	4 027	4 133	209	106	5.5	2.6
Asia	27 899	26 920	28 667	29 863	1 747	1 196	6.5	4.2
FSU	4 723	4 497	4 788	4 940	291	152	6.5	3.2
Latin America	6 294	5 608	5 993	6 050	385	56	6.9	0.9
Middle East	8 711	8 197	8 498	8 584	300	86	3.7	1.0
Non-OECD Europe	782	741	766	780	25	14	3.4	1.8
Total Products	52 659	49 782	52 740	54 350	2 958	1 610	5.9	3.1

Supply

Overview

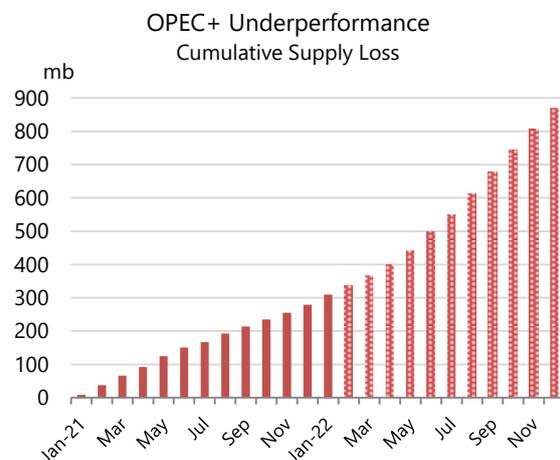
World oil production rose 560 kb/d to 98.7 mb/d in January, with non-OPEC+ producers delivering 70% of the increase while the OPEC+ alliance continued to pump far below target levels. The group’s persistent supply shortfall, largely due to technical issues and other capacity constraints, has resulted in a loss to the market of around 800 kb/d since the start of 2021. The prevailing lower output levels versus stated monthly increases by the bloc have led to unintended consequences, with sharp draws in global inventories and supply shortfalls compounding tight oil markets.



In January, non-OPEC+ oil supply rose by 410 kb/d led higher by Canada, Ecuador, Brazil and China. Total oil production from OPEC+ rose by a more modest 150 kb/d after a recovery in Nigeria and higher Middle East and Russian flows were partly offset by lower output in Venezuela and Libya.

February could see a more modest increase in world oil output. The 19 OPEC+ members taking part in the supply deal are scheduled to boost output by 400 kb/d, but the mismatch between targets versus actual production means additional volumes will be lower as some countries outside the Middle East struggle with technical problems and other constraints. The OPEC+ bloc is due to meet again on 2 March to review policy.

Throughout 2021 OPEC+ fell far short of its official production target, initially because Saudi Arabia withheld 1 mb/d of extra oil in order to speed the market’s rebalancing. But all the while the gap



between what Nigeria, Angola and Malaysia could pump versus their targets was growing ever wider. And 2022 kicks off with Russia approaching capacity limits. During January, those countries in the supply deal raised production by only 280 kb/d compared with a planned 400 kb/d increase.

The failure of OPEC+ to reach its stated targets has under-delivered more than 300 mb of oil from world markets since the start of 2021. By the end of this year, the amount of oil lost could approach 1 billion barrels unless members with substantial spare capacity, concentrated in the Middle East, pump more to make up for those who can't.

There is no sign of that happening yet. Although total effective OPEC+ spare capacity is now assessed at 5.1 mb/d, we estimate that only 2.2 mb/d – held primarily by Saudi Arabia and the UAE – could be brought online in short order. Iran, if released from sanctions, could gradually add another 1.3 mb/d. There are positive signals coming out of the Iran nuclear negotiations that suggest the finish line could be in sight but as always, the devil is in the details (see Box *Sanctions in focus for Iran, Russia*).

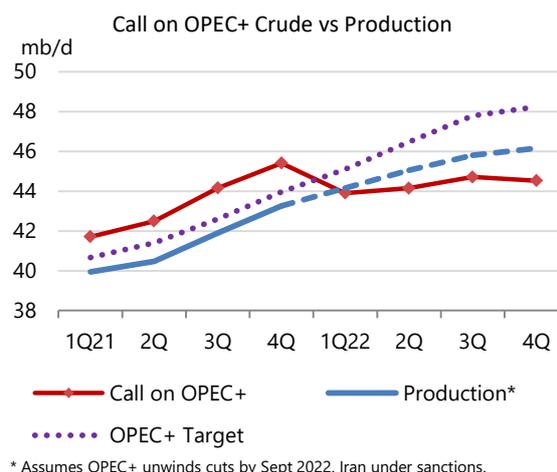
(mb/d)	Sustainable Capacity	Short-Order Spare	90-Day Spare
Saudi	12.2	1.2	2.1
UAE	4.1	0.6	1.2
Iraq	4.8	0.3	0.6
Kuwait	2.8	0.1	0.2
Russia	10.2	0.1	0.2
Others	12.0	0.0	0.8
Total*	46.2	2.2	5.1

* Excludes Iran

Despite the under-shoot by OPEC+, global oil supply is still expected to grow by 6.3 mb/d to an unprecedented 101.5 mb/d this year as non-OPEC+ ramps up and those within OPEC+ with the ability crank out more. Saudi Arabia is still expected to drive the increase and pump at an annual high if OPEC+ continues to unwind the remainder of its record 2020 supply cut while the US, Canada and Brazil could also reach record levels.

Indeed, as US shale responds to higher prices, we have revised up our forecast for US oil supply growth by 240 kb/d for 2022 to 1.2 mb/d. It leads non-OPEC+ gains of 2 mb/d y-o-y. With Canada, Guyana and Brazil also set to deliver solid growth, these four countries combined will account for 85% of the non-OPEC+ increase. OPEC+ total oil production, including condensates and NGLs, is set to expand this year by an average 4.3 mb/d.

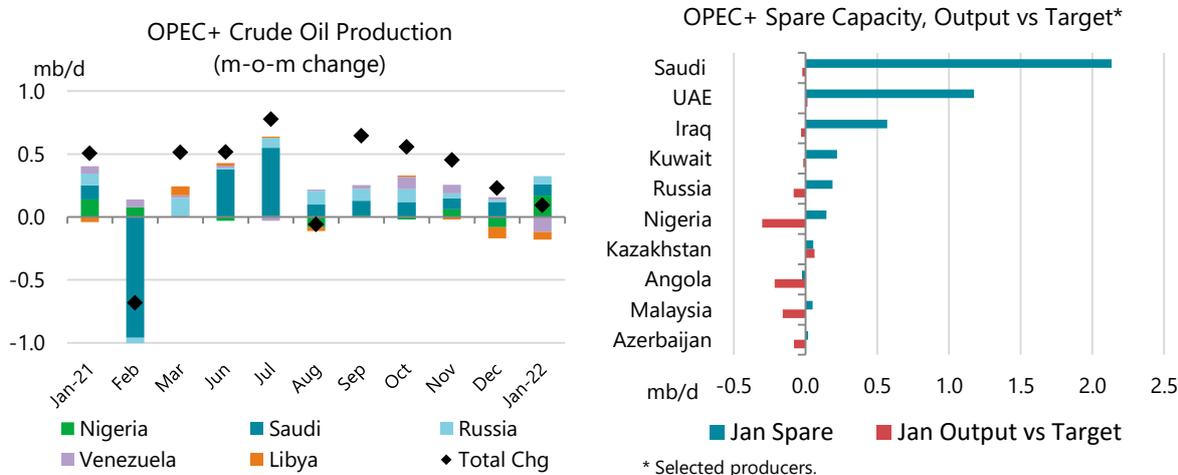
Our baseline demand revision has meanwhile substantially tightened the balances compared to last month's *Report*. In 1Q22 we now expect OPEC+ to pump just 250 kb/d above the call on its crude compared with our previous estimate of 1.5 mb/d.



OPEC+ continues to under-shoot target

OPEC+ crude oil production from all 23-members of OPEC+ rose 90 kb/d in January to 43.65 mb/d after a solid recovery in Nigeria and increased output from the Middle East and Russia offset losses in Venezuela and Libya.

Taking into account only the 19 members bound by the supply deal, output was up 280 kb/d, short of the planned 400 kb/d increase. As a result, their combined production trailed 900 kb/d below target in January compared to a gap of 790 kb/d the month before.



Compliance with the OPEC+ agreement reached 127% during January, the highest since record cuts were enforced in May 2020. Production of crude from OPEC countries increased by 130 kb/d to 28.1 mb/d in January. As for the alliance's non-OPEC members, output of crude eased 40 kb/d to 15.55 mb/d.

OPEC+ Crude Oil Production ¹						
	(million barrels per day)					
	Dec 2021	Jan 2022	January	Jan 2022	Sustainable	Spare Cap
	Supply	Supply	Compliance	Target	Capacity ²	vs Jan
Algeria	0.97	0.98	91%	0.97	0.99	0.01
Angola	1.15	1.19	277%	1.41	1.19	0.00
Congo	0.26	0.26	260%	0.30	0.29	0.03
Equatorial Guinea	0.09	0.09	370%	0.12	0.11	0.02
Gabon	0.21	0.18	47%	0.17	0.21	0.03
Iraq	4.29	4.25	108%	4.28	4.82	0.57
Kuwait	2.55	2.57	107%	2.59	2.79	0.22
Nigeria	1.21	1.38	308%	1.68	1.53	0.15
Saudi Arabia	10.01	10.10	103%	10.12	12.23	2.13
UAE	2.88	2.93	94%	2.92	4.10	1.17
Total OPEC-10	23.62	23.93	129%	24.55	28.26	4.33
Iran ³	2.50	2.50			3.80	1.30
Libya ³	1.05	0.99			1.20	0.21
Venezuela ³	0.80	0.68			0.75	0.07
Total OPEC	27.97	28.10			34.01	5.91
Azerbaijan	0.60	0.58	241%	0.66	0.60	0.02
Kazakhstan	1.67	1.63	54%	1.57	1.69	0.06
Mexico ⁴	1.65	1.64		1.75	1.69	0.05
Oman	0.80	0.81	103%	0.81	0.87	0.06
Russia	9.98	10.04	109%	10.12	10.23	0.19
Others ⁵	0.89	0.84	303%	1.02	0.93	0.09
Total Non-OPEC	15.59	15.55	123%	15.94	16.01	0.46
OPEC+-19 in cut deal*	37.56	37.84	127%	38.74	42.58	4.74
Total OPEC+	43.56	43.65			50.02	6.37

1 Excludes condensates.

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

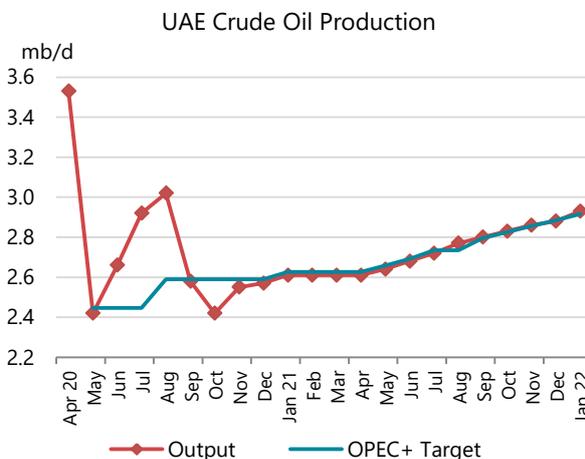
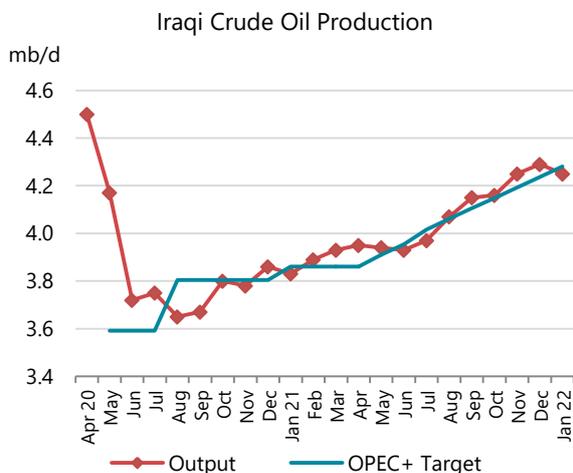
3 Iran, Libya, Venezuela exempt from cuts.

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

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

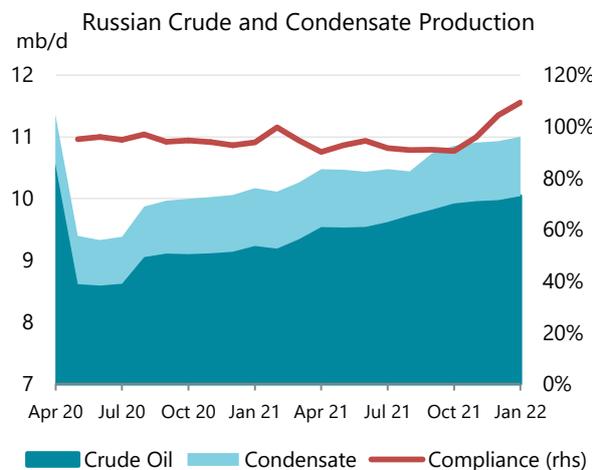
Saudi Arabia pumped 10.1 mb/d during January (+90 kb/d m-o-m), slightly under its higher monthly quota. Its supply target rises to 10.23 mb/d in February.

Supply from **Iraq**, including the Kurdistan Regional Government, declined by 40 kb/d to 4.25 mb/d, leaving it 30 kb/d below its January quota. Total Iraqi shipments of crude oil fell 50 kb/d in January to 3.61 mb/d after bad weather and technical glitches curbed exports from the south. Shipments of Basrah crude accounted for roughly 3.1 mb/d of the total.



Elsewhere in the Gulf, production rose by a combined 60 kb/d in January. Supply increased by 50 kb/d to 2.93 mb/d in the **UAE**. Pressing ahead with its capacity expansion, the Abu Dhabi National Oil Co has awarded \$169 million worth of contracts for well-testing services to optimise the performance of onshore reservoirs. In **Kuwait**, crude oil output edged up to 2.57 mb/d last month. Output inched up to 810 kb/d in **Oman** and dipped to 160 kb/d in **Bahrain**.

January marked the second month that **Russia** pumped below its OPEC+ target. Crude supply rose by 60 kb/d in January to 10.04 mb/d. Bashneft, Surgutneftgas and Rosneft drove the January increase. Total supply, including condensates and NGLs, rose 70 kb/d to 11.35 mb/d. Russia has meanwhile agreed a 10-year extension of an existing deal to provide 200 kb/d of oil to western China via Kazakhstan.



Box 2. Sanctions in focus for Iran, Russia

International sanctions are yet again proving to be a crucial variable in the world of oil supply. Prospects for a removal of sanctions on Iran that would free up more barrels got a boost as talks to revive the Joint Comprehensive Plan of Action (JCPOA) nuclear deal appeared to edge closer to agreement. At the same time, the potential enforcement of additional financial restrictions on Russia over its crisis with Ukraine brings the flow of the world’s second biggest crude oil exporter into the spotlight.

As for Iran, if and when a deal is struck it could take at least another month for US sanctions to be lifted – paving the way for production and exports to increase. We believe Tehran has made steady progress in preparing its oil network - enabling it to ramp up relatively quickly once sanctions are eased. By the end of this year, crude production could rise towards sustainable capacity of 3.8 mb/d, up roughly 1.3 mb/d from current levels. Iran also has about 80 million barrels of crude oil and condensate stored on tankers, and it will move to clear that overhang as quickly as possible.

Despite sanctions, Iran ranked as the world's second largest source of supply growth last year after it raised crude output to 2.4 mb/d (up 420 kb/d y-o-y) on the back of a substantial increase in exports of oil, including condensates, to China. Crude production in January held steady at 2.5 mb/d, with oil exports hovering around 800 kb/d.

After the previous US administration withdrew from the JCPOA in 2018, Iranian oil sales slowed to a trickle. But shipments rose to around 600 kb/d in 2021 thanks to hefty purchases by China. In addition to China, we expect Iran to re-establish supply contracts with key customers in India, Korea, Japan, Turkey and Europe. Before Washington re-imposed sanctions, Iran was exporting 2.4 mb/d of oil, with China the single biggest lifter at 670 kb/d. India imported 490 kb/d, Europe 590 kb/d, Korea 260 kb/d and Japan 150 kb/d.

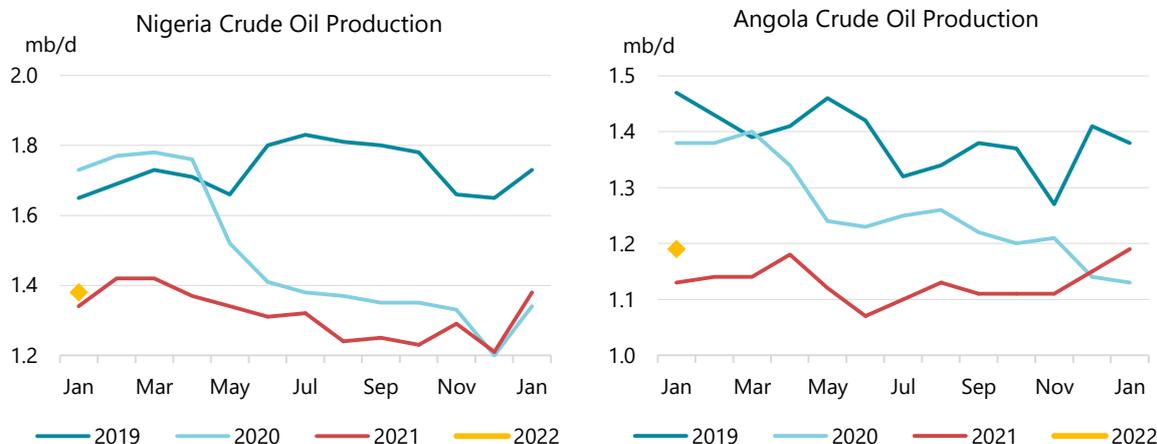
While Iran counts Europe as one of its core outlets, Russia is the continent's top oil supplier. Of the nearly 11 mb/d of Russian oil produced in 2021, Europe imported some 4 mb/d. Of about 2.5 mb/d of crude oil imports, one-third was delivered via the Druzhba pipeline. The potential for sanctions on Russia's oil exports looks remote, not least because of current high prices and the scale of the impact on markets, but an escalation of the conflict could disrupt flows.

Most immediately at risk are roughly 250 kb/d of Russian oil exports transiting Ukraine via the southern branch of the Druzhba pipeline to supply Hungary, Slovakia and the Czech Republic. Some 2.35 mb/d of Russian oil exports arrive in Europe through other pipelines and ports. If Russian oil supply via the Druzhba pipeline were interrupted, as was the case in 2019 due to contaminated crude, these countries would have to draw on emergency oil stocks and seek alternative supplies.

Kazakhstan's crude oil output declined by 40 kb/d to 1.63 mb/d in January after deadly protests at the start of the month briefly reduced flows at Tengiz, its biggest oil field. Operator Chevron says progress is being made on a \$45 billion project that aims to lift capacity at Tengiz to 850 kb/d from around 650 kb/d currently. Production losses from maintenance work at the field are expected to be lower this year versus 2021. State oil company KazMunaiGas has meanwhile raised oil reserve estimates for its largest onshore upstream subsidiary, OzenMunaiGas, by some 289 million barrels, or 8%, after a five-year re-evaluation. The unit has been pumping roughly 110 kb/d of heavy crude that mostly feeds domestic refineries. **Azeri** crude oil production in January eased to 580 kb/d.

Nigerian crude supply rebounded to 1.38 mb/d in January, up 170 kb/d m-o-m, after *force majeure* was lifted on exports from the Forcados crude stream and Bonny Light production recovered. Official data show Forcados output rising by 90 kb/d to 240 kb/d and Bonny Light production increasing by 50 kb/d to 125 kb/d. While Forcados has returned to a more robust range, Bonny Light is still well below 1H21 rates of 170 kb/d. Persistent technical and operational issues, sabotage and pipeline leaks have kept Nigeria from optimising its sustainable output capacity.

Adding to its oil sector woes, a floating production, storage and offloading (FPSO) vessel exploded off the coast of Nigeria in early February. The Trinity Spirit FPSO once produced the Ukpokiti crude stream from offshore block OML 108. In **Angola**, crude output rose 40 kb/d in January to 1.19 mb/d, bolstered by the recent start-up of new fields.

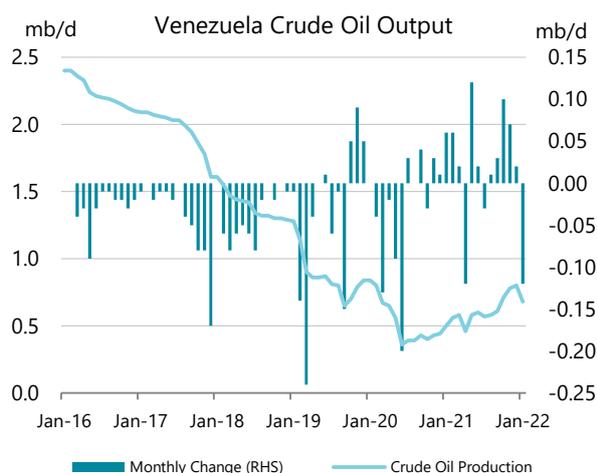


Supply fell in **Gabon**, edged up in **Algeria** and held steady in **Sudan, South Sudan, Equatorial Guinea** and **Congo**.

Output from **Libya**, exempt from official OPEC+ cuts, fell 60 kb/d m-o-m to 990 kb/d – the lowest since October 2020 - after pipeline maintenance and bad weather curbed supply. Production is expected to recover this month and at the time of writing was running above 1 mb/d. The country’s oil sector is suffering from a lack of funding to rebuild infrastructure that has been hit hard by a prolonged civil war and remains vulnerable to unrest and political instability. On the upstream front, Libya's *National Oil Corp* and *BP* have agreed to restart exploration in line with a 2018 deal between the two sides and *Eni*.

For Latin American members, spared from OPEC+ curbs, Venezuelan output tumbled while Mexico’s output fell modestly. Crude oil production from **Mexico** inched down to 1.64 mb/d, while total oil volumes eased marginally m-o-m to 1.96 mb/d. Supply increases of 50 kb/d are expected through 2022 in Mexico as new fields offset declines at mature fields. For 2022, production has been revised 10 kb/d lower, to 2 mb/d, since the last *Report* on delays to *Eni’s* Amoca-Mizton development.

Venezuelan crude supply fell 120 kb/d to 680 kb/d in January due to the delayed arrival of Iranian condensate used to dilute extra heavy Orinoco crude. Maintenance work at the Boscan field also curbed flows.

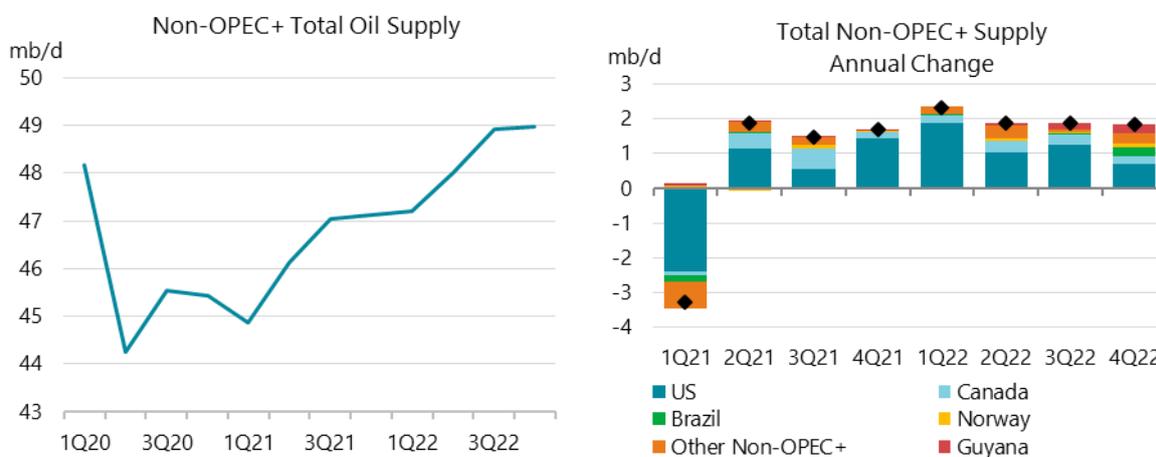


Overall output could recover this month as a cargo of condensate from Iran arrived at the end of January. Venezuelan production briefly topped the 1 mb/d mark in December, but that level appears fleeting due to the country’s battered infrastructure that urgently needs investment.

In Asia, **Malaysian** crude oil production dropped 30 kb/d to 390 kb/d during January due to unplanned maintenance at the deepwater Gumusut-Kakap oil field off the coast of Sabah. The Shell-operated Gumusut-Kakap and Malikai oil fields produce key export crude Kimanis. In **Brunei**, crude supply eased to 80 kb/d.

Non-OPEC+ steadily increasing

Volumes from non-OPEC+ countries rebounded by 410 kb/d in January after a disappointing December due to production issues in Ecuador, Brazil and China. At 47.2 mb/d, Non-OPEC+ is beginning its steady climb to a projected 2022 exit rate of 48.9 mb/d, 2.1 mb/d higher than December 2021. Expected annualized growth in 2022 has been revised higher to 2 mb/d. The US contributes nearly 60% of the non-OPEC+ gains projected for 2022 with Canada and Guyana accounting for another 20%.

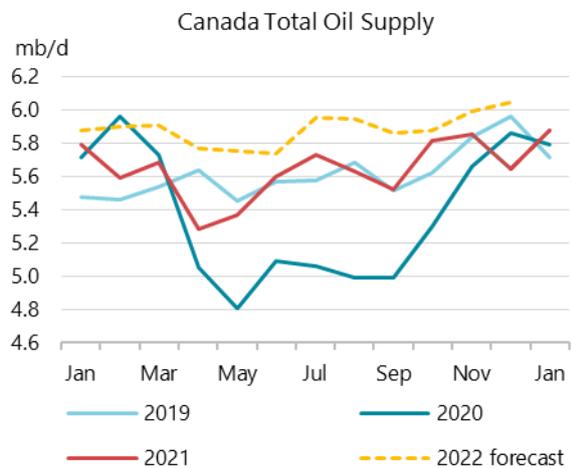
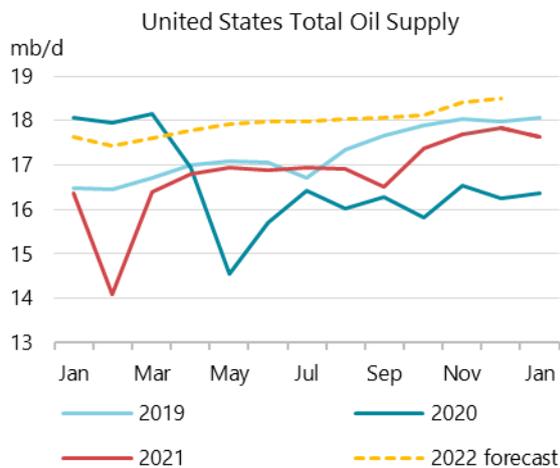


US supply fell in January by an estimated 190 kb/d to 17.6 mb/d on seasonal declines in NGL (-220 kb/d) being offset slightly by increases in crude output (+30 kb/d). US production for 2022 has been revised up in this month's *Report* by 240 kb/d, with the majority of the additional gains coming from US light tight oil (LTO). This brings US total oil gains to 1.2 mb/d, of which 1 mb/d is crude. The revisions come after sustained higher price movements in WTI, revised guidance from publicly listed companies and updated information regarding private operators.

For November, the latest month for which official data from the Energy Information Administration (EIA) is available, total oil supply rose m-o-m by 300 kb/d to 17.7 mb/d. Increases were driven primarily by the Gulf of Mexico (GoM), US LTO and NGLs. GoM liftings increased by 110 kb/d, as the Mars-Ursa field came back to full production after Hurricane Ida. Onshore volumes increased in the Bakken and Permian basins by 130 kb/d.

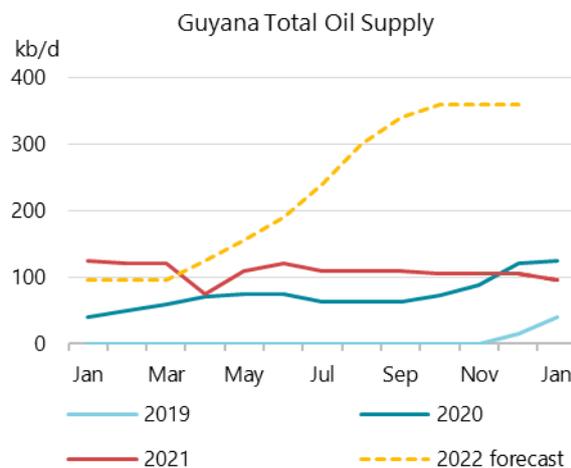
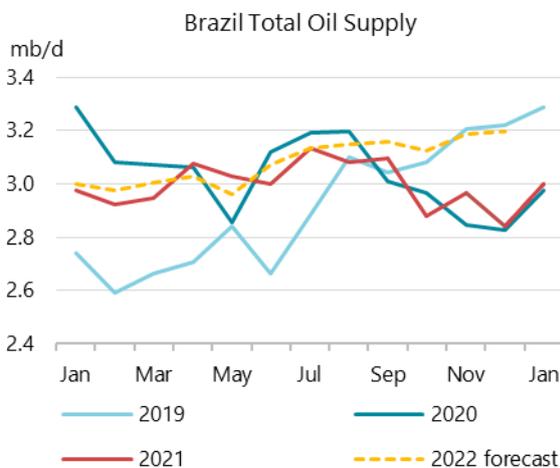
On 27 January the US Federal Court in the District of Columbia annulled the November GoM lease sale on the grounds of an inadequate environmental review. Under the National Environmental Policy Act (NEPA), the US government leasing agency should have quantified the carbon emissions that would be produced by foreign consumption of the oil and gas extracted from the leases sold during the November auction, which was deemed to have been inadequately performed back in 2017. This is the third time in 14 months that the US courts have halted oil and gas developments for the same reason under NEPA. Recent signals from the US judicial branch suggest they are viewing new hydrocarbon development and NEPA through an enhanced climate

framework. These rulings may result in additional lawsuits given the US legal system’s reliance on precedent.

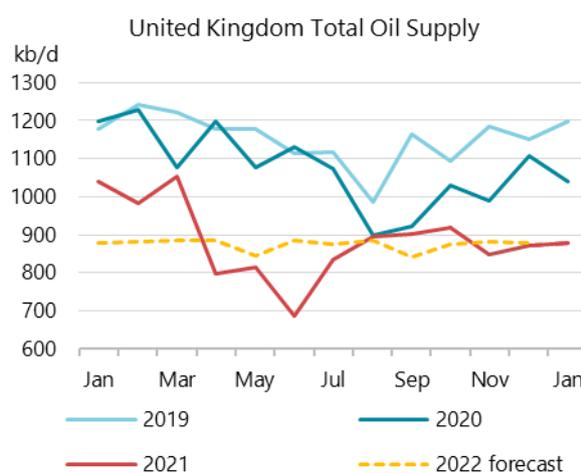
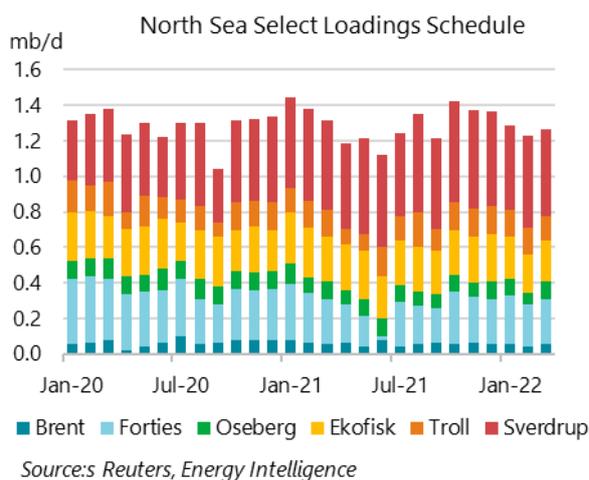


In December, **Canadian** supply dropped by 210 kb/d m-o-m due to lower bitumen volumes, according to data from the Alberta Energy Regulator. Last month’s *Report* had weather effects built into the December and January forecast, yet the decline was larger than expected. Canadian oil production for 2022 is still estimated to be a record setting 5.9 mb/d, driven by gains in Alberta and NGLs. Atlantic Canada offshore liftings rose 10 kb/d in December, following a 20 kb/d increase in November, to 250 kb/d. *Equinor*, *CNOOC*, and *Chevron* all recently relinquished exploration licences in the Flemish Pass Basin off Canada’s Atlantic coast. *Equinor* and *Chevron* forfeited their licenses due to lack of drilling activity and *CNOOC* saw poor results from their 2021 exploration campaign in the basin.

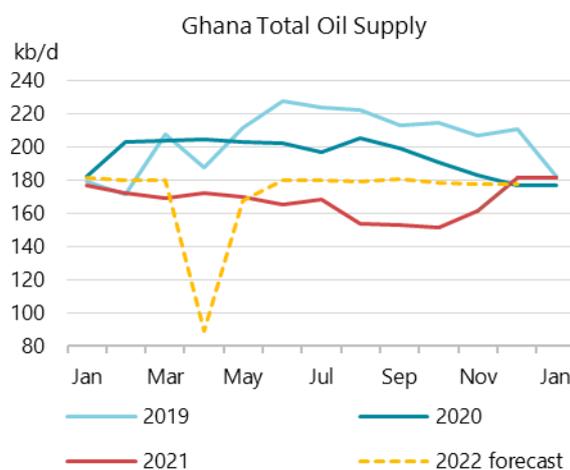
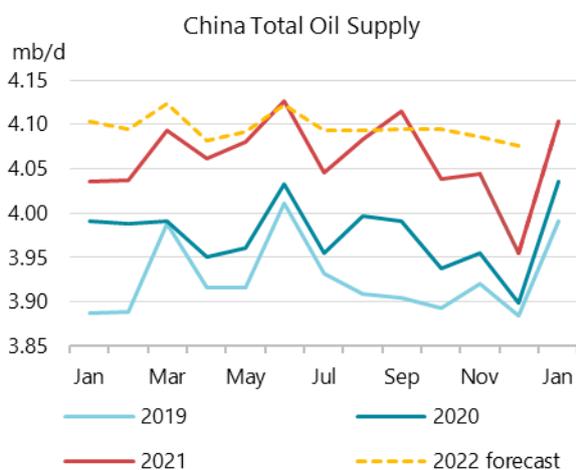
Daily data from the Agencia Nacional do Petroleo (ANP) suggests that **Brazil’s** January total oil supply rose by 160 kb/d m-o-m to 3 mb/d. This comes after a 120 kb/d dip in December due to an outage at the Buzios P-77 FPSO. Full-year 2021 Brazilian crude dropped just over 1% to 2.91 mb/d, according to the ANP. Two major oil fields, Tupi and Buzios producing at 900 kb/d and 550 kb/d, respectively, accounted for approximately half of Brazil’s crude output last year. We forecast production will average 3.1 mb/d in 2022.



Elsewhere in Latin America, **Ecuadorian** production has fully returned after December’s erosion concerns shut down two pipelines, reaching 460 kb/d in January, up 230 kb/d. Officials are looking to boost private investment in the sector by converting Petroecuador, the state owned oil firm, to a “Sociedad Anonima” (SA) through a public listing after merging it last year with Petroamazonas, the state run upstream company. **Peru**, flat m-o-m at 120 kb/d, announced a revamping of their oil royalty system to be more dynamic in hopes of attracting additional private investment into the sector. **Guyanese** volumes were revised down in January by 25 kb/d to 95 kb/d, but revised up for 2022 by 50 kb/d to 230 kb/d based on new guidance from Hess. Additionally, a duo of Canadian explorers reported a significant find in between Guyana’s prolific Stabroek block and Suriname’s Block 58.



North Sea loadings (as measured by FTOE plus Troll and Johan Sverdrup) for the first quarter are forecast to decline 50 kb/d q-o-q and 100 kb/d y-o-y on lower United Kingdom supply. **UK** volumes have lagged as official data shows a drop of 110 kb/d below our expectations in last month’s *Report*. We forecast UK liftings roughly flat on the year, averaging 880 kb/d – in line with current volumes. Data from the **Norwegian** Petroleum Directorate indicates that production increased m-o-m in December by 110 kb/d to 2.1 mb/d. Volumes are estimated to have risen 20 kb/d in January and forecast to average 2.1 mb/d for the year, a rise of 60 kb/d over 2021.



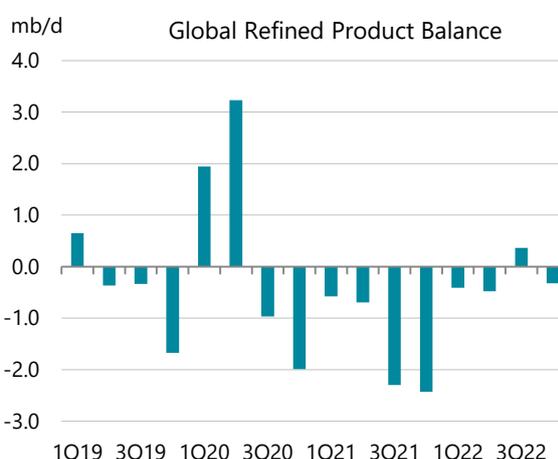
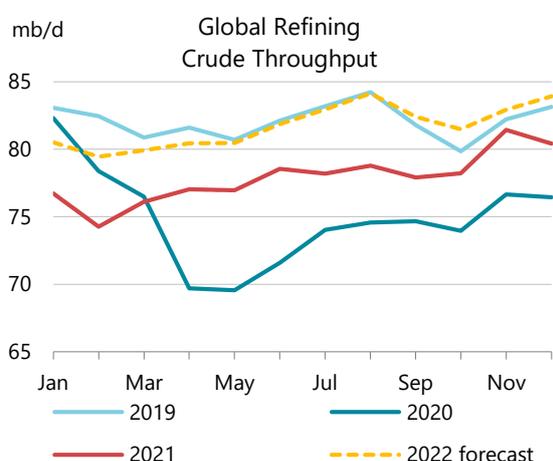
Chinese volumes fell in December by 90 kb/d, in line with historically observed trends but of a greater magnitude. Supply for January is estimated at 4.1 mb/d. For 2022 as a whole, production is expected to hold relatively steady compared with 2021.

In Africa, **Ghana's** production rose by 10 kb/d to 180 kb/d in January. Tullow's recent guidance that increases in Jubilee's volumes will be offset by disappointing results from TEN have been incorporated into our 2022 forecast. Compared to the last *Report*, 2022 supply has been revised up 10 kb/d to 170 kb/d for Ghana. In Uganda, TotalEnergies announced a final investment decision on their Lake Albert project expected to deliver 230 kb/d beginning in 2025.

Refining

Overview

A major ramp-up in global refinery activity in 4Q21 failed to stem the persistent decline in product inventories. With maintenance-related outages seasonally increasing from February onwards, our previous expectation that product market tensions would ease in 1Q22 may not materialise. In 1Q22, throughputs are estimated at 79.9 mb/d, 2.1 mb/d below 1Q19, but the call on refined products is only 1.2 mb/d lower. While global refinery intake is forecast to surpass pre-pandemic levels in 4Q22, product inventories are not expected to see significant builds this year. Revisions to global demand in this month's *Report* have been partially offset by higher refinery throughput estimations, but our view of global product balances, historical and forecasts, has tightened.



Global Refinery Crude Throughput ¹														
(million barrels per day)														
	2019	2020	Nov-21	Dec-21	4Q21	2021	Jan-22	Feb-22	Mar-22	1Q22	2Q22	3Q22	4Q22	2022
Americas	19.1	16.5	18.3	18.4	18.1	17.7	18.1	17.4	18.1	17.9	18.8	19.3	18.7	18.7
Europe	12.2	10.7	11.8	11.5	11.5	11.0	11.5	11.7	11.7	11.6	11.2	11.9	11.7	11.6
Asia Oceania	6.8	5.9	5.9	6.2	6.0	5.8	6.1	5.9	5.5	5.9	5.3	6.0	6.0	5.8
Total OECD	38.0	33.1	36.0	36.1	35.6	34.4	35.6	35.0	35.3	35.3	35.4	37.1	36.4	36.1
FSU	6.8	6.4	6.9	6.9	6.8	6.7	7.0	6.8	6.8	6.9	6.7	6.9	6.9	6.8
Non-OECD Europe	0.5	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
China	13.4	13.8	14.5	13.9	14.1	14.2	14.2	14.0	14.3	14.2	14.6	14.7	14.7	14.5
Other Asia	10.3	9.2	10.2	9.8	9.8	9.5	10.0	10.2	9.8	10.0	10.3	10.1	10.2	10.2
Latin America	3.2	3.0	3.3	3.4	3.4	3.2	3.4	3.3	3.4	3.4	3.4	3.5	3.5	3.5
Middle East	7.8	6.9	8.0	7.9	7.9	7.5	7.8	7.7	7.7	7.7	8.2	8.3	8.5	8.2
Africa	2.0	1.9	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9
Total Non-OECD	44.0	41.6	45.3	44.2	44.3	43.4	44.8	44.3	44.5	44.5	45.4	46.0	46.3	45.6
Total	82.0	74.8	81.3	80.3	79.9	77.8	80.4	79.3	79.8	79.9	80.8	83.1	82.7	81.6
<i>Year-on-year change</i>	-0.2	-7.2	4.8	4.0	4.3	3.0	3.8	5.2	3.8	4.2	3.4	4.9	2.8	3.8

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

In 2021, refinery throughputs recovered by 3 mb/d, after a fall of 7.2 mb/d in 2020, well behind demand growth. In 2022, the growth will accelerate to 3.8 mb/d. Despite tight product markets and relatively strong margins, we see limited upside potential for 2022. The global refining system lost 2.8 mb/d of capacity in 2020-21, mostly from the fleet of operating refineries in the

US, Europe and Asia, rather than from the roster of long-term mothballed/underutilised assets. The bulk of new capacity projected for 2022 will not materialise until the second half of the year. Kuwait's mega-refinery Al-Zour, which accounts for half of 2022 net additions, may take longer than expected to reach commercial operations, due to its size (615 kb/d). Nominal refinery margins look very healthy, but higher natural gas costs and, in Europe, emission allowance prices are a substantial drag on real earnings for refiners.

Product cracks and refinery margins

Crude prices in January registered some of their strongest gains ever. North Sea Dated monthly average prices were up by \$13.10/bbl, the second largest m-o-m increase in the quote's history. Nevertheless, middle distillate cracks managed to improve while gasoline held largely steady. By contrast, cracks for both fuel oil and overheated naphtha fell.

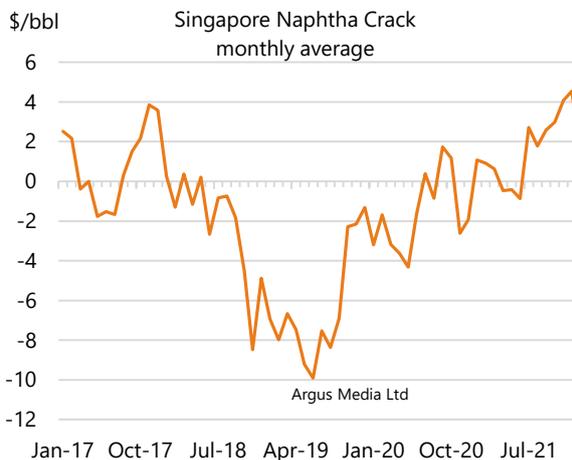
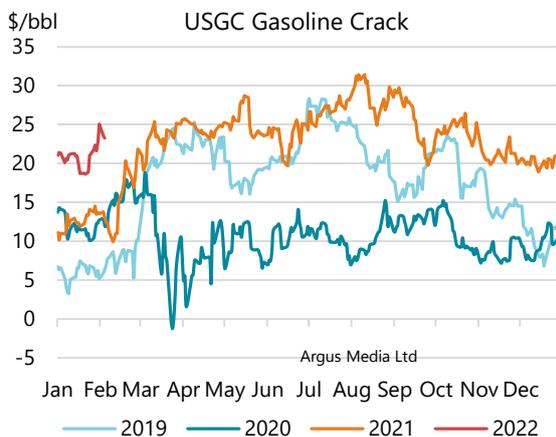
Spot Product Prices														
(monthly and weekly averages, \$/bbl)														
	Nov	Dec	Jan	Jan-Dec Chg	%	Week Ending					Nov	Dec	Jan	Chg
						07 Jan	14 Jan	21 Jan	28 Jan	04 Feb				
Rotterdam, Barges FOB														
														Differential to North Sea Dated
Gasoline EBOB oxy	93.21	82.88	94.85	11.97	14.4	89.78	93.12	96.36	97.99	101.56	11.84	8.87	7.75	-1.12
Naphtha	82.33	78.27	86.87	8.60	11.0	82.94	85.11	87.97	89.76	93.03	0.96	4.27	-0.23	-4.50
Jet/Kerosene	90.46	85.18	100.65	15.47	18.2	93.88	99.39	103.51	103.54	107.80	9.09	11.17	13.54	2.38
ULSD 10ppm	92.83	86.38	101.18	14.80	17.1	94.51	98.63	104.11	104.92	109.63	11.46	12.38	14.08	1.70
Gasoil 0.1%	90.67	84.69	99.18	14.49	17.1	93.10	97.25	101.75	102.31	107.01	9.30	10.68	12.08	1.40
VGO 2.0%	83.71	77.13	87.75	10.62	13.8	83.45	85.07	89.95	90.80	93.28	2.34	3.12	0.65	-2.47
Fuel Oil 0.5%	86.70	82.84	95.85	13.01	15.7	88.47	94.05	99.57	98.79	103.76	5.33	8.83	8.75	-0.08
LSFO 1%	78.61	74.57	83.98	9.41	12.6	79.38	81.46	85.95	87.43	89.59	-2.76	0.56	-3.13	-3.69
HSFO 3.5%	67.40	64.43	75.42	10.98	17.0	70.65	72.57	77.18	79.52	79.12	-13.97	-9.57	-11.69	-2.11
Mediterranean, FOB Cargoes														
														Differential to Urals
Premium Unl 10 ppm	91.68	84.94	96.68	11.75	13.8	91.84	94.60	98.57	99.65	103.07	11.60	11.86	9.92	-1.94
Naphtha	80.76	75.50	84.89	9.39	12.4	80.78	83.08	86.14	87.85	91.00	0.69	2.43	-1.87	-4.30
Jet Aviation fuel	89.29	83.07	99.21	16.14	19.4	92.39	97.96	102.20	102.05	106.20	9.21	10.00	12.45	2.45
ULSD 10ppm	91.96	85.03	99.81	14.78	17.4	93.65	97.61	102.42	103.24	107.49	11.88	11.96	13.05	1.09
Gasoil 0.1%	90.64	83.90	99.18	15.28	18.2	92.49	96.93	102.07	102.79	106.69	10.57	10.83	12.42	1.59
LSFO 1%	80.30	76.33	86.30	9.97	13.1	82.12	84.10	88.33	89.19	90.97	0.23	3.26	-0.46	-3.72
HSFO 3.5%	66.01	62.67	73.78	11.10	17.7	69.08	70.96	75.52	77.86	77.30	-14.07	-10.40	-12.99	-2.59
US Gulf, FOB Pipeline														
														Differential to WTI Houston
Super Unleaded	101.25	93.14	105.10	11.96	12.8	100.19	104.00	106.83	108.50	114.03	21.33	20.28	20.48	0.20
Jet/Kerosene	92.43	87.63	102.12	14.50	16.5	95.73	101.99	105.97	104.64	110.72	12.51	14.77	17.50	2.74
ULSD 10ppm	97.70	91.78	106.71	14.93	16.3	100.03	105.82	109.89	110.61	115.81	17.78	18.92	22.09	3.17
Heating Oil	86.21	79.14	94.52	15.37	19.4	87.76	93.77	98.96	97.59	101.98	6.29	6.29	9.90	3.61
No. 6 3%*	66.25	63.04	74.91	11.86	18.8	70.10	73.32	77.18	78.43	80.55	-13.67	-9.81	-9.71	0.10
Singapore, FOB Cargoes														
														Differential to Dubai
Premium Unleaded	95.01	87.92	98.04	10.12	11.5	93.51	95.77	99.48	101.96	105.53	14.80	14.67	14.70	0.03
Naphtha	84.21	77.82	84.56	6.74	8.7	80.86	83.21	85.57	87.46	91.60	4.00	4.57	1.22	-3.35
Jet/Kerosene	89.09	83.47	95.78	12.31	14.8	88.63	94.47	98.58	100.08	103.60	8.88	10.22	12.44	2.22
Gasoil 0.001%	91.49	85.86	99.19	13.33	15.5	92.53	97.21	101.74	103.77	107.18	11.28	12.61	15.85	3.24
Fuel Oil 0.5%	92.51	89.50	99.08	9.58	10.7	92.88	98.74	102.61	101.20	106.74	12.30	16.25	15.74	-0.51
HSFO 180 CST	71.15	65.86	76.17	10.31	15.7	71.13	73.53	78.85	80.25	81.31	-9.07	-7.39	-7.17	0.22
HSFO 380 CST 4%	69.87	64.79	74.15	9.36	14.4	69.13	71.93	76.28	78.31	79.17	-10.34	-8.46	-9.19	-0.73

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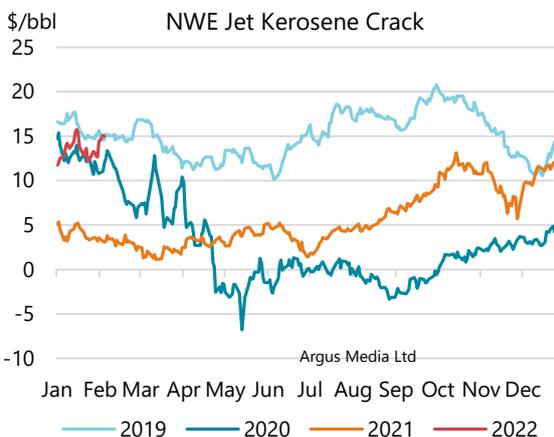
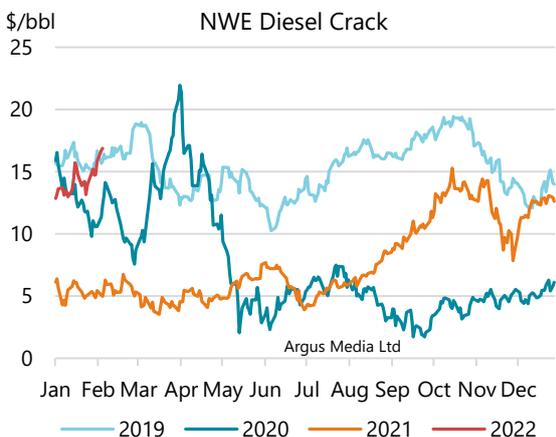
*Waterborne

Gasoline cracks in the US held up well despite a further seasonal demand decline in January. The support came from tighter supply as refinery runs fell m-o-m. On the other hand, petroleum-based gasoline cracks, after netting off Renewable Volume Obligation (RVO) costs, were down some \$0.60/bbl m-o-m to \$14.20/bbl. In Singapore, gasoline cracks were stable m-o-m, and, at \$14.70/bbl on average, were higher than the US Gulf Coast cracks net of RVO. In Europe, seasonal demand weakness prevailed, and gasoline cracks fell \$1.05/bbl m-o-m.

Unlike transport fuels, where recovering demand supports product cracks, the petrochemical sector's sensitivity to prices has been increasing. Poor petrochemical margins and higher crude prices led to a crash in naphtha cracks both in Europe and in Singapore. Northwest European naphtha cracks saw a reversal of fortune in January, falling from a record monthly high of \$4.30/bbl in December to a small discount to crude oil. In Singapore, naphtha cracks were down \$3.35/bbl from December levels but were still in positive territory at \$1.20/bbl.



Middle distillate cracks increased m-o-m across all the regions. Their defiance of the extraordinary surge in crude oil prices has provided key support to the overall gains in the oil complex (see Box *Spectre of 2008?*). January Northwest European diesel cracks, however, were lower than in April 2020, when the fall in crude prices provided a major prop to cracks. In the US and Singapore, gasoil cracks reached the highs seen in 4Q19.



Jet fuel cracks in Europe and Singapore climbed to the highest monthly average levels since end-2019, increasing by \$2.20-2.45/bbl in January. Omicron-related travel restrictions in most part of the world have been lifted, supporting jet fuel demand, while tight refinery supplies limit availability of both jet fuel and diesel.

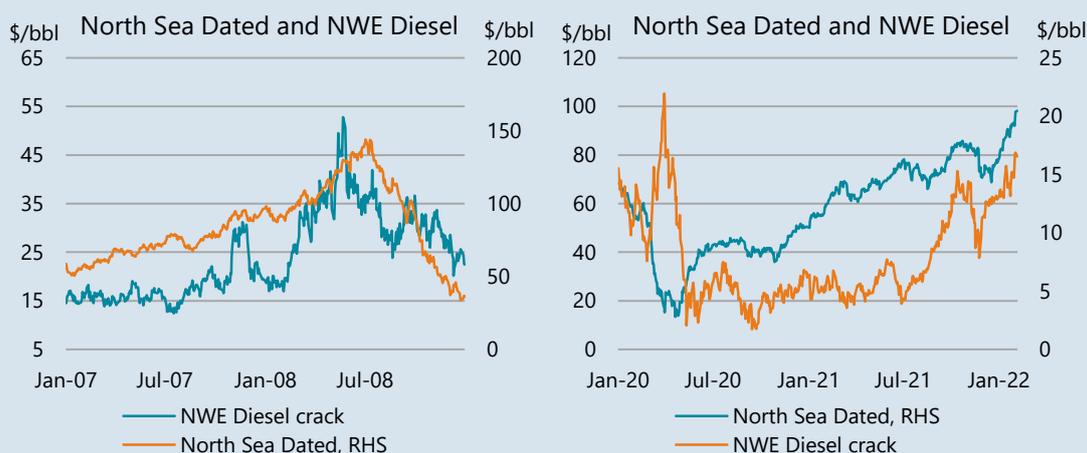
High sulphur fuel oil cracks fell by \$2/bbl in Europe, and by less than \$1/bbl in Singapore. In historical terms, fuel oil cracks are relatively strong given current crude oil price levels. Fuel oil demand suffered less than that of road and air transport fuels during the pandemic, and as such, it has not seen the size of the rebound that other fuels have seen. However, its supply remains

constrained by low refinery activity. Singapore 0.5% sulphur fuel oil cracks fell by a small \$0.50/bbl, but remained one of the highest-priced products in the region.

Box 3. The spectre of 2008?

The synchronised rally of crude oil prices and middle distillates cracks in recent months has prompted comparisons with 2007-08 price developments, which led to historical records in 2Q08. While similarities with 2007-08 are present, there is certainly more flexibility in the global oil market today to limit extreme price action.

Robust global diesel demand growth in the 2000s was accompanied by the mandating of ultra-low sulphur diesel across many OECD countries. Refiners, faced with desulphurisation capacity constraints, had to resort to processing low sulphur crudes to meet product specifications. At the same time, North Sea and US domestic production of light sweet crude grades had been on a decade-long declining trend, reducing the underlying supply basis for the two major futures contracts, WTI and Brent. Higher futures prices lifted the whole crude oil complex, even as sweet-sour differentials widened. Diesel cracks surged to \$50/bbl in May 2008, while high-sulphur fuel oil cracks fell to \$-45/bbl. Gasoline cracks remained weak throughout the diesel rally.



Global oil consumption has yet to recover to pre-pandemic levels, but diesel demand, taken on its own, is estimated to have reached a new historical high in 4Q21. Europe remains the largest diesel deficit region and a global pricing hub. It saw demand set a new quarterly record in 4Q21, despite a sharp fall in diesel car registrations. At the same time, global diesel supply is constrained. Refiners have under-produced relative to demand for six consecutive quarters. China, a major diesel exporter, saw exports slowing to a trickle by end-2021. Desulphurisation capacity is no longer a constraint per se, but current levels of natural gas prices, needed for hydrogen supply, is increasing the cost of diesel production. Low-sulphur crude supply is also relatively constrained, this time, due to underperformance from some of the largest OPEC+ sweet crude producers: Angola and Nigeria. Consequently, observed middle distillate inventories are at multi-year lows.

Global diesel markets may also be affected by a delayed impact of the IMO 2020. When the IMO 0.5% sulphur marine fuel regulations came into effect, the onset of Covid-19 pandemic early on in 2020 significantly dampened the expected price dislocations. However, strong growth of bunker

fuel use in 2021, to above pre-pandemic levels, combined with current refining issues, may be contributing to the upward pressure on diesel cracks. Increased desulphurisation costs have certainly been a factor for the recent rally in crude futures, which are still benchmarked against light sweet grades.

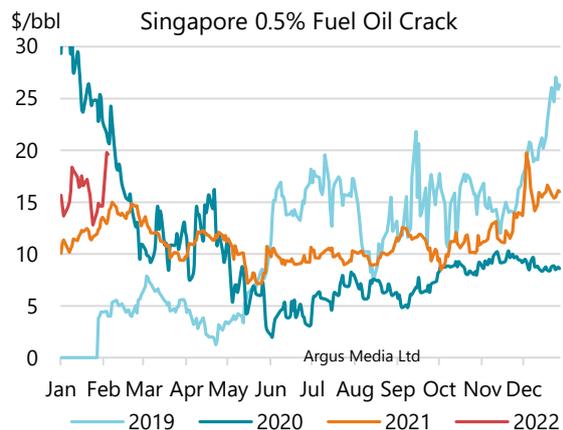
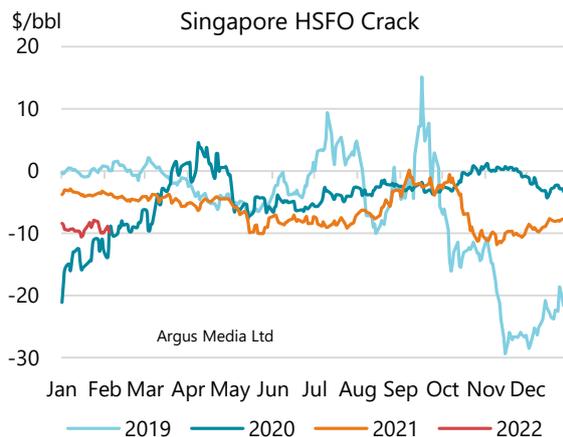
Even as diesel cracks have tripled from the 2H20-1H21 levels, they are only back to pre-pandemic levels of 4Q19, still well below historical records. There is no apparent outright lack of desulphurisation capacity and natural gas costs should drop back after the end of heating season in the northern hemisphere. Moreover, sweet crude supply is set to grow this year, with higher output in the US and Brazil.

IEA/KBC Global Indicator Refining Margins¹

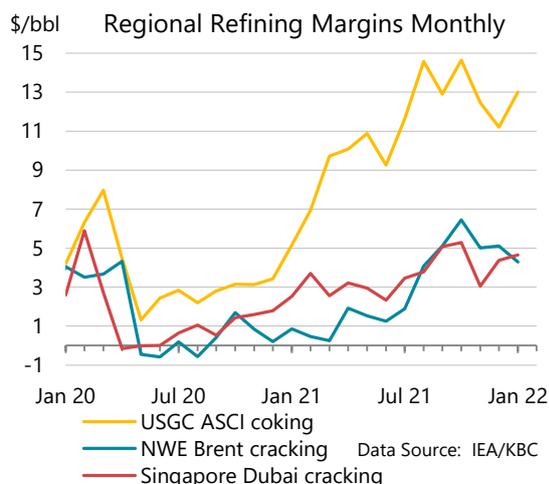
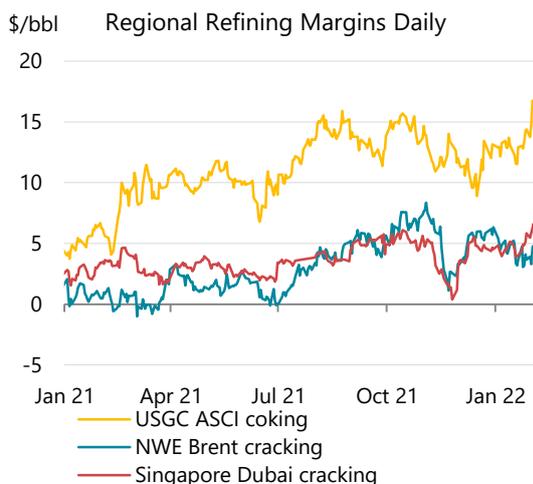
	Monthly Average				Change	Average for week ending:				
	Oct 21	Nov 21	Dec 21	Jan 22		Jan-Dec	07 Jan	14 Jan	21 Jan	28 Jan
NW Europe										
Brent (Cracking)	6.44	5.01	5.11	4.29	↓ -0.82	4.92	4.61	4.08	3.75	4.16
Urals (Cracking)	7.23	4.67	5.14	4.14	↓ -1.00	5.42	4.37	3.55	3.43	5.10
Brent (Hydroskimming)	3.22	1.64	2.89	1.29	↓ -1.60	2.09	1.37	1.10	0.90	0.91
Urals (Hydroskimming)	1.97	-1.42	0.53	-0.84	↓ -1.37	0.57	-0.90	-1.45	-1.28	-0.64
Mediterranean										
Es Sider (Cracking)	7.43	4.84	6.52	5.66	↓ -0.86	6.57	5.91	5.57	4.94	5.19
Urals (Cracking)	6.71	3.91	5.31	4.21	↓ -1.10	5.74	4.89	3.40	3.24	3.93
Es Sider (Hydroskimming)	4.92	2.44	4.58	2.95	↓ -1.63	4.19	3.10	2.78	2.22	2.00
Urals (Hydroskimming)	1.09	-2.41	-0.31	-2.05	↓ -1.74	-0.25	-1.62	-3.02	-2.74	-3.21
US Gulf Coast										
Mars (Cracking)	9.51	6.63	6.04	7.84	↑ 1.81	7.81	7.85	6.79	8.56	9.77
50/50 HLS/LLS (Coking)	17.48	14.87	14.18	15.17	↑ 0.98	15.09	15.65	14.25	15.31	17.71
50/50 Maya/Mars (Coking)	12.12	9.73	10.70	11.43	↑ 0.73	11.50	11.91	10.47	11.60	13.44
ASCI (Coking)	14.64	12.46	11.21	13.01	↑ 1.80	12.81	13.19	12.07	13.58	15.54
US Midwest										
30/70 WCS/Bakken (Cracking)	13.06	10.59	10.65	8.21	↓ -2.44	8.87	7.60	7.24	8.73	10.22
Bakken (Cracking)	14.78	10.98	11.45	9.29	↓ -2.16	10.42	8.55	7.87	9.64	11.62
WTI (Coking)	15.58	11.14	11.87	10.74	↓ -1.13	11.94	10.81	8.70	10.82	13.13
30/70 WCS/Bakken (Coking)	16.08	13.84	13.59	10.49	↓ -3.10	11.29	9.98	9.35	10.90	12.95
Singapore										
Dubai (Hydroskimming)	0.30	-2.74	-1.12	-1.31	↓ -0.18	-1.49	-1.29	-1.67	-0.87	-0.47
Tapis (Hydroskimming)	0.12	-2.40	-1.79	-4.28	↓ -2.48	-3.38	-3.96	-4.76	-4.80	-5.99
Dubai (Hydrocracking)	5.29	3.04	4.38	4.65	↑ 0.28	4.38	4.74	4.25	5.03	6.10
Tapis (Hydrocracking)	4.64	2.82	3.13	0.85	↓ -2.28	1.72	1.24	0.32	0.25	-0.40

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)



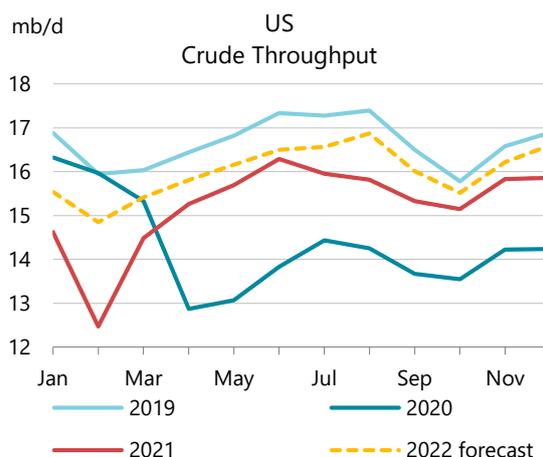
Refinery margin trends diverged in January, with different levels of exposure in each region to main product cracks. In the US Gulf Coast, with stable gasoline, higher distillates and the much smaller weight of the fuel oil and naphtha in the yield structure, margins were higher m-o-m. In Singapore, lower fuel oil and naphtha cracks resulted in slimmer hydroskimming margins. Higher middle distillate cracks more than offset the negative impact for the complex margins, pushing them upwards m-o-m. In Europe, however, gains in middle distillates were not sufficient to cover losses from gasoline and the rest of the products.



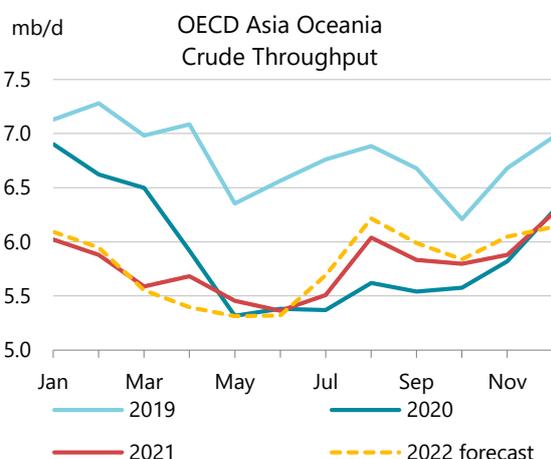
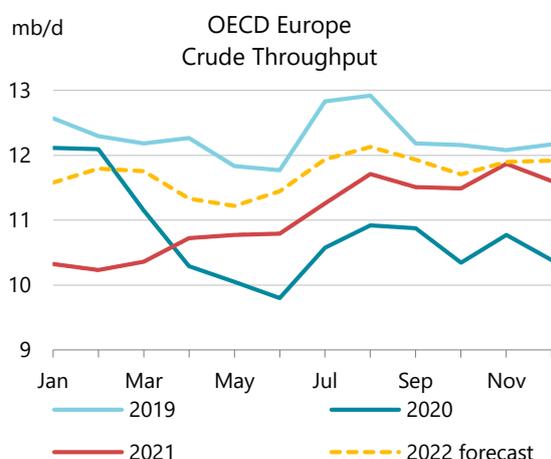
Regional refining developments

US refining activity has firmly returned to pre-pandemic seasonality, despite not having fully recovered from the 2020 fall. In January, weekly data showed intake falling 320 kb/d m-o-m to 15.4 mb/d, up 920 kb/d y-o-y. We have revised down February and March throughput rates based on latest forecasts of freezing weather for the period. In early February, weather-related power outages resulted in temporary refinery shutdowns in Texas. In February 2021, winter storm Uri reduced throughputs in the Texas Gulf Coast refining district by 1.7 mb/d m-o-m to 2.5 mb/d. This year, we assume that less severe temperatures and higher preparedness will limit the impact to about 400 kb/d for the month of February.

In January, US refinery intake was still some 800 kb/d below pre-pandemic levels. Utilisation rates stood at 86.1%, similar to January 2020 levels, as some 870 kb/d of refining capacity has permanently closed since then. These rates are quite robust compared to the rest of the world, particularly in the midst of the low gasoline demand season. This raises the question of further upside potential in the US refining system. The country is still a net exporter of refined products, but the eventual full recovery of demand is likely to tighten product balances. To address the summer peak in gasoline demand, US refiners usually maintain operating rates above 90%, supporting our forecast of 16.5 mb/d - 16.8 mb/d in July-August 2022.



Throughputs in Europe fell 270 kb/d m-o-m in December to 11.5 mb/d, with unplanned outages hitting several refineries on the continent. Nevertheless, runs saw their highest post-pandemic y-o-y growth, up by 1.2 mb/d. **German** data for November were notably revised higher by 130 kb/d, with throughputs reaching 1.9 mb/d for the first time since July 2018. Germany's utilisation rate of 93% was the highest among OECD major refiners. In **France**, utilisation rates were at just 69%, an improvement over the 50% seen at the start of last year, but lagging the 85% average for the rest of the region. Our regional forecast for 2022 has been revised up by 180 kb/d on higher global demand.



Weekly data for January show **Japan's** refinery intake slowing slightly m-o-m from December's post-pandemic high of 2.9 mb/d. Eneos, the country's largest refinery operator, said it would permanently close the 120 kb/d Wakayama refinery next year. As a result, total Japanese capacity will fall to 3.2 mb/d, down 2 mb/d from its peak at the end of the 1990s. In January, the government announced subsidies for refiners and importers of fuels, amounting to 3.40 yens/litre, in order to cap retail prices. On 10 February the subsidies increased to 5 yen/litre, equivalent to \$7/bbl. **Korean** refinery intake reached 2.8 mb/d in December, a new post-pandemic high. We have revised up the country's forecast for 2022 by 100 kb/d on expectations of more robust product export prospects to Asian countries. Also, the government

is working on concluding free trade agreements with the Middle East producers this year in order to abolish the 3% import duties on crude oil, which would help boost refiner profitability.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

	Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21	Change from		Utilisation rate	
							Nov 21	Dec 20	Dec 21	Dec 20
US ¹	15.85	15.72	15.23	15.05	15.73	15.76	0.03	1.62	88%	77%
Canada	1.71	1.73	1.75	1.54	1.75	1.68	-0.07	0.04	84%	82%
Chile	0.17	0.21	0.20	0.18	0.14	0.19	0.05	-0.01	82%	82%
Mexico	0.65	0.65	0.79	0.74	0.72	0.75	0.03	0.14	45%	86%
OECD Americas¹	18.39	18.31	17.97	17.51	18.35	18.38	0.03	1.72	84%	75%
France	0.79	0.82	0.75	0.72	0.79	0.78	-0.01	0.24	69%	44%
Germany	1.71	1.81	1.73	1.90	1.93	1.88	-0.05	0.30	93%	78%
Italy	1.21	1.26	1.33	1.38	1.39	1.25	-0.14	0.17	77%	62%
Netherlands	0.99	1.01	1.04	1.13	1.05	1.00	-0.04	-0.02	83%	85%
Spain	1.17	1.24	1.22	1.12	1.20	1.23	0.02	0.19	87%	74%
United Kingdom	1.01	1.03	0.94	0.91	1.04	1.03	-0.01	0.14	86%	75%
Other OECD Europe ²	4.28	4.44	4.39	4.23	4.38	4.33	-0.04	0.21	86%	81%
OECD Europe	11.16	11.61	11.41	11.39	11.77	11.50	-0.27	1.22	84%	73%
Japan	2.25	2.67	2.62	2.50	2.62	2.93	0.31	0.16	85%	81%
South Korea	2.63	2.76	2.65	2.72	2.71	2.81	0.09	0.09	80%	77%
Other Asia Oceania ³	0.62	0.61	0.56	0.56	0.53	0.51	-0.02	-0.27	79%	90%
OECD Asia Oceania	5.50	6.03	5.82	5.79	5.87	6.25	0.38	-0.02	82%	80%
OECD Total	35.04	35.96	35.20	34.68	35.98	36.13	0.14	2.92	84%	75%

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

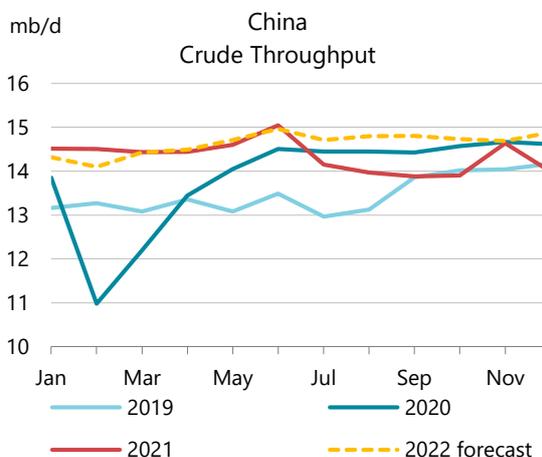
² Includes Lithuania

³ Includes Israel

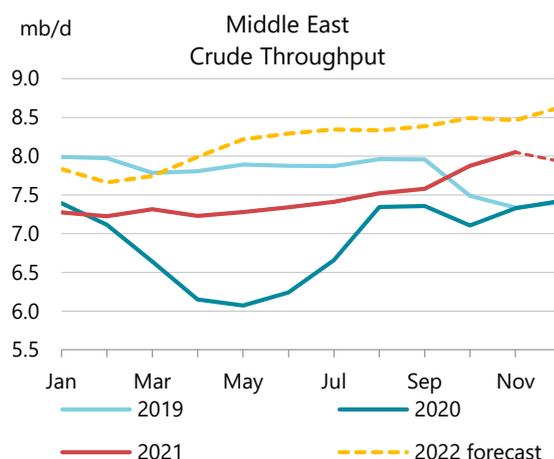
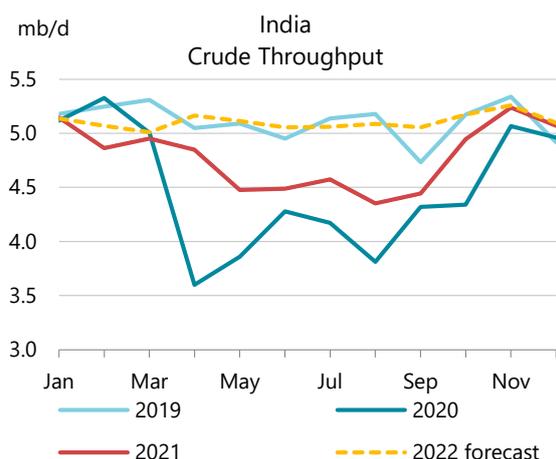
China did not report additional information since our last *Report*, and will only issue combined January-February statistics in March. This month, we have rebased our Chinese refinery throughputs from 2019 onwards. We usually revise historical refinery throughputs on the basis of annual statistics when they become available, but delayed revisions for 2019 last year while waiting for more information on demand. In line with the adjustments to the demand baseline in this report, we have now revised up 2019 crude runs by 390 kb/d to take account of

“crude oil intake for raw petrochemical material manufacturing”, a distinct category in China’s oil data. Previously we included this in direct use of crude oil. The revision is carried forward, but we have assumed a tapering off in 2021 to an average 220 kb/d due to tighter crude oil availability. This has increased the implied utilisation rates in China, to 79% on average in 2021. We similarly adjusted the forecast for 2022 up by 230 kb/d to account for the baseline revisions.

Indian throughput in December fell 170 kb/d m-o-m to 5.1 mb/d, mostly on maintenance at the 160 kb/d Haldia refinery, where a fatal accident occurred during the outage. Runs were above the December 2019 level, but below the monthly seasonal peak recorded in December 2017 at 5.2 mb/d. In **Thailand**, throughput in November rebounded 65 kb/d m-o-m to 1.07 mb/d, its highest since August 2019. In Chinese Taipei, November runs were still affected by refinery

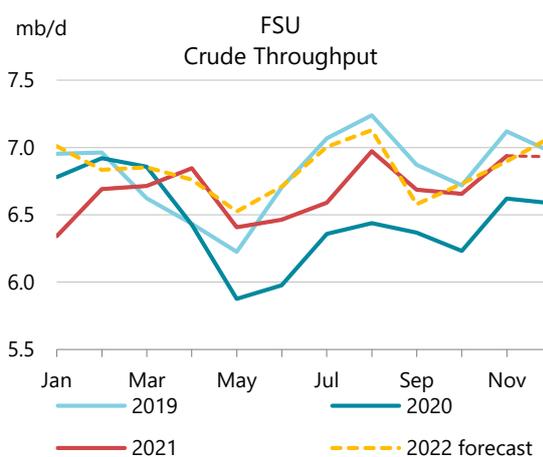


outages and up only 30 kb/d to 730 kb/d. Working capital constraints prompted temporary runcuts at the 200 kb/d Nghi Son refinery in **Vietnam** in January, as the operator could not secure crude oil deliveries on time. In December, Sri Lanka's sole refinery had to shut temporarily due to lack of funds for purchasing crude feedstock. **Pakistan's** refiners have reportedly cut runs in December and January due to lack of demand for residual fuel for power generation. An earlier scramble to import fuel oil amid high natural gas prices resulted in an oversupply in the domestic market. We have revised down **Singapore** refinery intake estimates for 4Q21 by 85 kb/d to an average 820 kb/d. This implies no growth compared to 2020 levels.

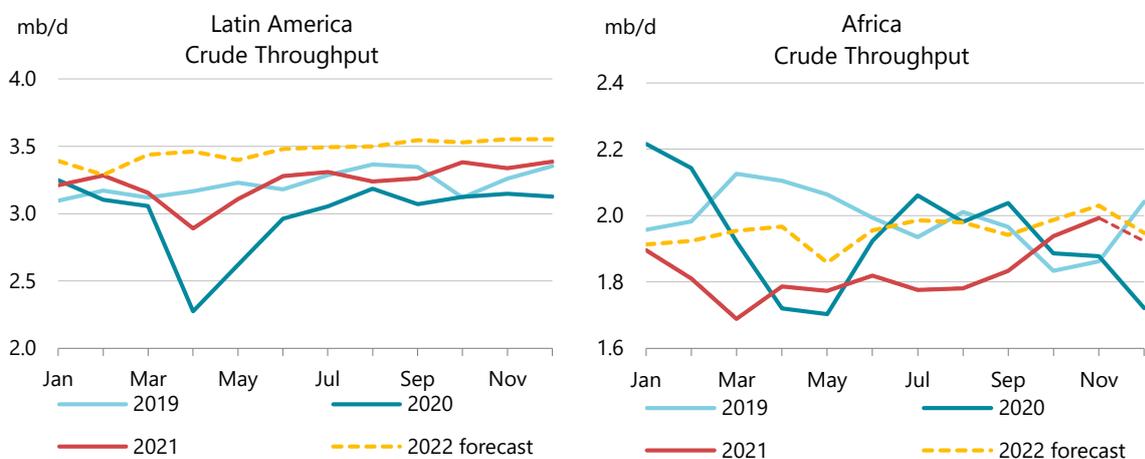


Refinery intake in **Saudi Arabia** in November was up 160 kb/d m-o-m to 2.8 mb/d. While at its highest level since November 2018, the average utilisation rate was at a more modest 84%, given the addition of the 400 kb/d Jazan refinery since then. **Kuwait** reported runs for October and November at 700 kb/d and 750 kb/d, respectively. The mega Al-Zour refinery project suffered deadly fires in December and January, but it is still expected to come online in the second half of this year.

Crude supply to **Russian** refineries was up 70 kb/d m-o-m in January, to 5.9 mb/d, a new post-pandemic high despite domestic crude prices in rubles marking new records. Throughput rose 540 kb/d y-o-y, compared to crude output growth of 830 kb/d. Russian refiners are incentivised by the excise tax rebate mechanism, which, according to Reuters calculations, would amount to 120 bn rubles in January. This is equivalent to a premium of \$8.60/bbl for refinery margins. Throughputs are expected to fall over the coming months with the onset of the maintenance season in February, before bouncing back in 3Q22. **Kazakhstan** reported a 20 kb/d fall in refinery intake in December, to 360 kb/d. The government said it has asked foreign upstream operators to start supplying crude to the domestic refining system in order to increase throughputs.



In **Brazil**, refinery intake inched up by 15 kb/d m-o-m, to just over 1.9 mb/d. Petrobras announced record maintenance spending plans for its downstream sector this year, totalling \$460 million. The company also agreed to sell the 45 kb/d Clara Camarao refinery in a deal, which includes 22 oil and gas fields, to Brazilian independent oil producer 3R. This refinery was not part of the eight sites slated for divestment, of which only three have found buyers so far. In **Argentina**, throughput rates in December were essentially flat from the previous month. At the end of January, the government of **Peru** temporarily suspended loading and offloading operations at the offshore mooring facility serving Repsol's 120 kb/d La Pampilla refinery, citing need for the company to resolve technical issues. An oil spill occurred on the site in mid-January, following the tsunami waves caused by the explosion of the Hunga-Tonga volcano in the South Pacific. Repsol estimated the cleaning operations in the affected coastal areas could last until end-March. We have assumed reduced utilisation rates in February and March. Peru's only other refinery, the 65 kb/d Talara plant, has been shut since early 2020 to carry out a 30 kb/d expansion and is expected to restart this year. The country is also served by smaller condensate processing units.



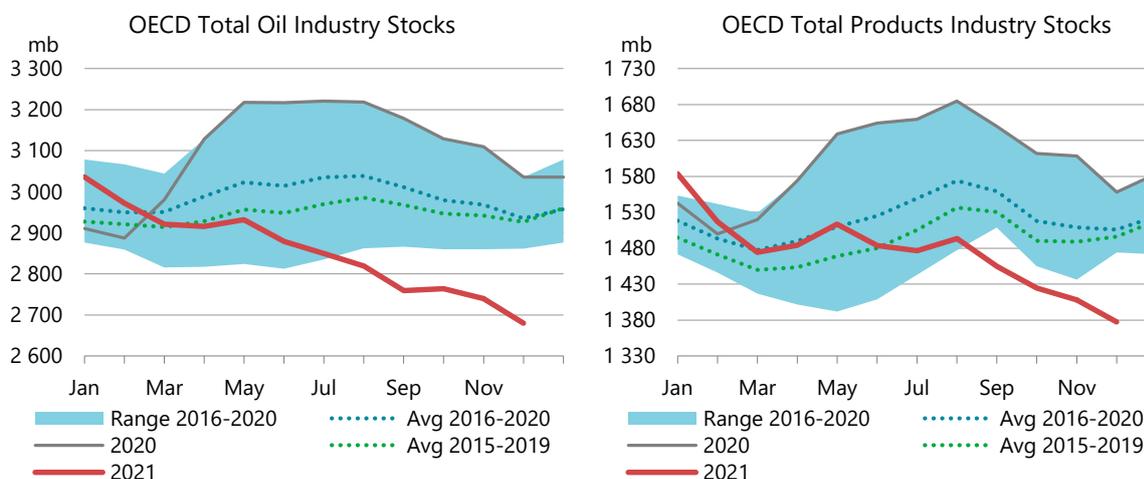
In Africa, November refinery runs were estimated higher by 55 kb/d m-o-m. **Libyan** National Oil Company reported that 2021 refinery throughput averaged 93 kb/d, some 13 kb/d higher than our estimate. Of the country's two major refineries, only the 120 kb/d Zawya facility remains operational, while the 220 kb/d Ras Lanuf is still shut due to damage from the conflict. In **South Africa**, Astron Energy plans to restart the 100 kb/d Cape Town refinery in the second half of this year. The refinery was shut for repairs in May 2020 following a major accident.

Stocks

Overview

OECD commercial oil stocks declined by a steep 60 mb (1.9 mb/d) in December, led by large draws in middle distillates across all regions. Inventories are now 355 mb lower than a year ago, with product stocks accounting for 50% of the year-on-year (y-o-y) decline. Total oil stocks in OECD Asia and Europe in December fell to historical lows, based on our records dating back to 1984, following a strong rise in demand partly caused by natural gas to oil switching. At 2 680 mb, inventories are now 255 mb below the five-year average, and at the lowest level in more than seven years. In terms of forward demand, industry stocks covered 59.6 days at end-December, a decrease of 0.9 days over the month and 3.2 days below the 2016-2020 average. Preliminary data point to further declines in January of 13.5 mb, contrary to the normal seasonal trend.

There is little prospect for a fulsome recovery of crude and product stocks in 2022. While demand continues to recover in the coming months, stocks may not reach more comfortable levels until late in 3Q22. Moreover, significant stock builds of around 1 mb/d will only begin in 2Q22, as shown by our supply-demand balance. However, it would take almost seven months for OECD oil industry stocks to regain their five-year average level if all the 1 mb/d surplus went only to those countries. Yet stocks have also drawn heavily in non-OECD tanks. So, despite the substantial builds shown in the balances for 2Q and 3Q 2022, stocks could stay tight by historical standards throughout most of 2022.

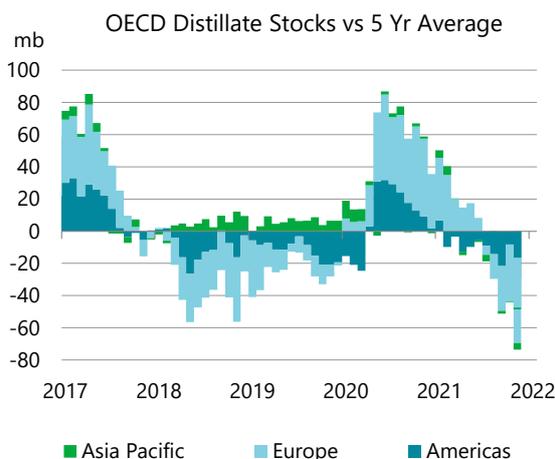


OECD crude stocks drew by 18.5 mb in December, still consistent with historical patterns. The Americas accounted for 85% of the decline at 15.7 mb, as US oil holders drew down inventories to manage year-end tax burdens. Europe and Asia Pacific posted modest drops of 2.3 mb and 0.4 mb, respectively. Total OECD crude stocks in December stood at 1 019 mb, and were 109 mb below the five-year average.

In December, OECD product stocks sank by another 30.8 mb to 1 377 mb, 12% below year-ago levels. Middle distillates were down 13.9 mb when they normally build by 11.2 mb, highlighting a 25.1 mb swing from the seasonal average.

Other refined products fell by 28.4 mb, while gasoline stocks built by 13.2 mb, both aligned with seasonal patterns. Product stocks have drawn unexpectedly as refinery runs have failed to keep pace with the growth in demand.

Preliminary data for January show OECD inventories fell by a further 13.5 mb, versus a seasonal trend to build. Stock draws were observed in the US and Japan, while Europe posted a large build of 13.7 mb. Data from the US Energy Information Administration (EIA) show stocks in the US declined 19.3 mb. Product stocks sank 18.7 mb, more than four-times the seasonal average, while crude and NGLS stocks declined a mere 0.6 mb. Japan's stocks drew 7.9 mb in total, of which 2.1 mb in crude and NGLs as well as product stocks dipped 5.8 mb versus the average decline of 1.3 mb. Data from *Euroilstock* show European inventories built by 13.7 mb, led by 11.8 mb increase in product stocks along with a 2 mb rise in crude oil.



Preliminary Industry Stock Change in December 2021 and Fourth Quarter 2021

	December 2021 (preliminary)				Fourth Quarter 2021							
	(million barrels)				(million barrels per day)							
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
Crude Oil	-15.7	-2.3	-0.4	-18.5	-0.5	-0.1	0.0	-0.6	-0.3	-0.5	-0.2	-1.0
Gasoline	15.7	-1.7	-0.8	13.2	0.5	-0.1	0.0	0.4	-0.1	-0.1	0.0	-0.2
Middle Distillates	-0.3	-7.2	-6.5	-13.9	0.0	-0.2	-0.2	-0.4	-0.1	-0.3	0.1	-0.3
Residual Fuel Oil	-1.1	-1.5	1.0	-1.6	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Other Products	-22.8	0.2	-5.8	-28.4	-0.7	0.0	-0.2	-0.9	0.3	0.0	0.1	0.4
Total Products	-8.4	-10.2	-12.2	-30.8	-0.3	-0.3	-0.4	-1.0	0.0	-0.4	0.2	-0.2
Other Oils ¹	-6.9	-4.0	0.2	-10.7	-0.2	-0.1	0.0	-0.3	0.0	-0.1	0.0	-0.1
Total Oil	-31.0	-16.5	-12.4	-60.0	-1.0	-0.5	-0.4	-1.9	-0.3	-0.9	0.0	-1.3

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Revisions for the month of November saw OECD stock data lowered by 15.8 mb to 2 740 mb on the receipt of more complete information. Crude inventories were revised down by 11.9 mb, as a large downward correction in Europe (-15.2 mb), was partially offset by upward adjustments in both the Americas (+0.6 mb) and Asia (+2.5 mb). Product stocks were revised higher by 0.8 mb due to an upward change in Europe (+12.6 mb), offset by reductions in Americas (-7.9 mb) and Asia (-3.9 mb).

Revisions versus January 2022 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Oct-21	Nov-21	Oct-21	Nov-21	Oct-21	Nov-21	Oct-21	Nov-21
Crude Oil	2.5	0.6	-0.1	-15.2	0.1	2.7	2.5	-11.9
Gasoline	0.0	-0.3	0.0	2.7	0.0	-2.5	0.0	-0.1
Middle Distillates	0.0	-3.5	-0.9	4.6	0.0	-1.5	-0.9	-0.5
Residual Fuel Oil	0.0	1.8	0.0	2.8	0.0	0.3	0.0	4.9
Other Products	0.0	-5.9	0.0	2.6	0.0	-0.2	0.0	-3.5
Total Products	0.0	-7.9	-0.8	12.6	0.0	-3.9	-0.8	0.8
Other Oils ¹	0.0	-2.4	0.0	-1.9	0.0	-0.4	0.0	-4.7
Total Oil	2.5	-9.8	-0.9	-4.5	0.1	-1.6	1.7	-15.8

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Implied balance

The recent adjustments to baseline demand figures, based on new data sources and analytical methodologies, have narrowed the gap in our balances. Global oil supply and demand figures show implied stock draws throughout 2021 amounting to 2.07 mb/d, while total observable stocks fell by 1.66 mb/d. The unaccounted for balance points to a further decline of 410 kb/d in 2021, suggesting unreported stock draws in some regions, lower demand, higher supplies or a combination of the above.

In 4Q21, total known and observed stocks fell 1.18 mb/d. OECD industry stocks led the way with a 1.17 mb/d decline. Product stocks were down 850 kb/d over the quarter, while crude stocks were only marginally lower by 20 kb/d. Additionally, OECD government stocks dropped 310 kb/d in the fourth quarter, falling 160 kb/d overall in 2021. The US led the 2021 decline, with nearly 44 mb (120 kb/d) of government crude oil released over the past year, of that 28 mb drew since August (See Box *US has allocated 40 mb SPR release*).

In non-OECD regions, crude oil inventories (including China) fell by 1 mb/d in 4Q21, according to satellite data from *Kayrros*, contributing to the 400 kb/d decline observed in 2021. Non-OECD product stocks, (including Singapore and Fujairah), rose by 80 kb/d, with noticeable builds in India and Saudi Arabia. Oil on water, including short-term floating storage, grew by 900 kb/d in the last quarter, with crude volumes rising by 920 kb/d while products fell by 170 kb/d, based on shipping data from *Kpler*.

Global Oil Balance and Observed Stock Changes (mb/d)											
	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021
Global oil balance	0.24	5.49	7.44	-2.03	-2.79	2.03	-1.83	-2.04	-2.26	-2.15	-2.07
Observed stock changes											
OECD total stocks	0.02	0.90	2.86	-0.53	-1.65	0.39	-1.25	-0.72	-1.42	-1.17	-1.14
Non-OECD crude stocks*	0.16	1.44	0.33	0.51	-0.90	0.35	0.38	-0.40	-0.58	-0.99	-0.40
Selected non-OECD product stocks**	-0.14	0.07	0.50	-0.10	0.01	0.12	0.10	-0.08	-0.21	0.08	-0.02
Oil on water	0.04	0.54	0.65	-1.65	0.73	0.07	-0.58	-0.36	-0.30	0.86	-0.09
Total observed stock changes	0.08	2.95	4.34	-1.76	-1.82	0.93	-1.34	-1.56	-2.52	-1.22	-1.66
Unaccounted for balance	0.15	2.54	3.10	-0.27	-0.98	1.10	-0.48	-0.48	0.25	-0.94	-0.41

*Crude stock change data from *Kayrros*. Data are available for selected countries and include only, and not all, above-ground storage.

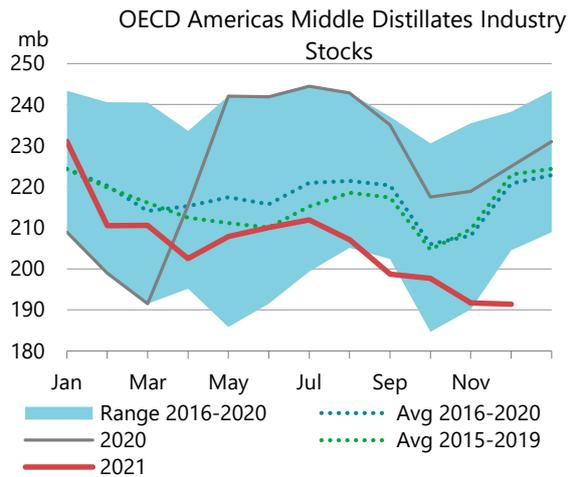
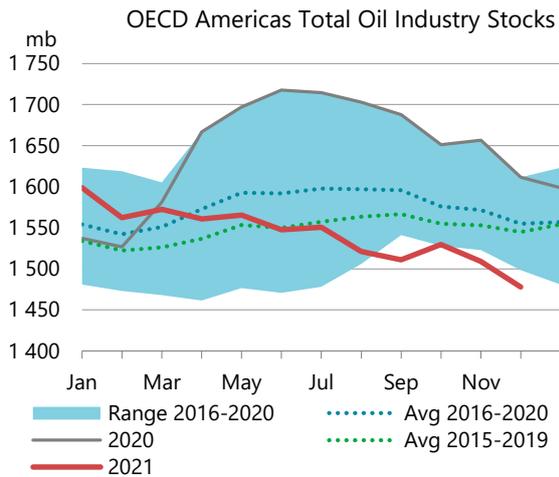
***JODI* data adjusted for monthly gaps in reporting, latest data for Oct 2021, plus Fujairah and Singapore inventories.

Sources: IEA, EIA, PAJ, Euroilstock, *Kayrros*, *JODI*, *Kpler*, *FEDCom/S&P Global Platts*, *Enterprise Singapore*.

Recent OECD industry stock changes

OECD Americas

Industry stocks in the OECD Americas fell by 31 mb month-on-month (m-o-m) in December, nearly double the normal decline. At 1 478 mb, inventories remain 77 mb below the five-year average. Crude drew by 15.7 mb m-o-m in line with seasonal trends, reaching 599 mb, and now stand 51 mb below year-ago levels. In addition, NGLs and feedstocks dropped by a normal 6.9 mb.

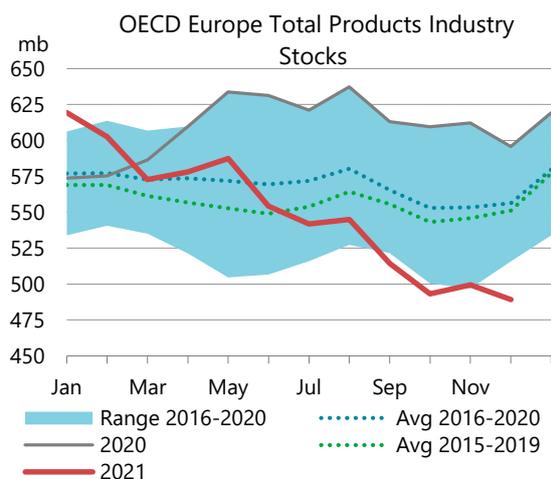
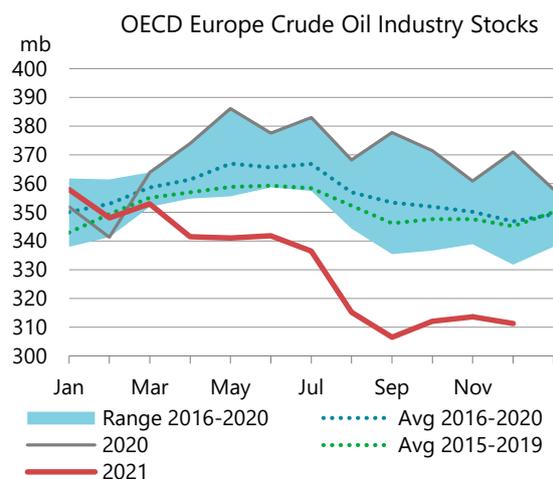


Total product inventories fell by 8.4 mb, led by a counter-seasonal draw in middle distillates. Gasoline stocks built by 15.7 mb, while other refined products dropped 22.8 mb, both in line with their five-year averages. Higher demand for oil products combined with seasonally weak refinery runs, fuelled the drawdown.

Preliminary data from the EIA showed a further decline in January of 19.3 mb. Residual fuel led the decline, with a 33.5 mb drop, more than the average 26.9 mb draw. Middle distillates fell by 1.7 mb, versus a seasonal 6.6 mb build. Similarly, crude and NGLs drew by 0.6 mb, when they normally build by 8.2 mb. By contrast, gasoline stocks rose by 16.5 mb in January.

OECD Europe

OECD industry stocks in Europe were fell 16.5 mb to 869 mb in December, and were 174 mb lower y-o-y. This was four-times more than the seasonal average draw (3.6 mb). In terms of forward demand, industry stocks are down 1.1 days m-o-m to 66.4 days, and are 3.9 days below the five-year average. Refinery runs were 270 kb/d lower for the month, contributing to the decline.



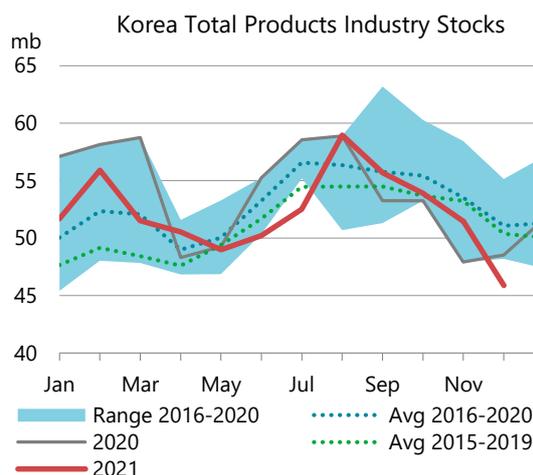
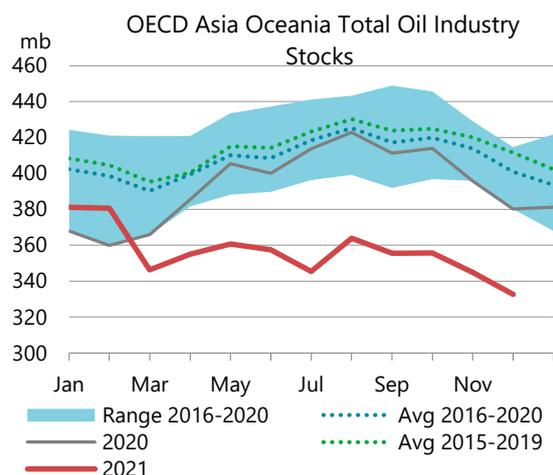
Crude oil inventories drew by 2.3 mb, corresponding with the seasonal trend. Crude holdings finished at 311 mb, just 11 mb above the ten-year low at 300 mb in 4Q2011. Crude stocks decreased in France and Italy by 3 mb each, while Germany and Netherlands posted gains of 1.4 mb and 2.8 mb, respectively.

OECD product stocks plunged by 10.2 mb, when they typically build by 2.8 mb. Regional product stocks in Europe have fallen to all-time lows. At 489 mb, the deficit has surpassed the recent low in November 2013 of 491 mb, according to data going back to 1984. Middle distillates led with a 7.2 mb decline, when they normally build by 2 mb. Motor gasoline dropped counter-seasonally by 1.7 mb. Product draws were led by Netherlands (-1.8 mb), along with Italy (-1.6 mb) and Germany (-1 mb), while France posted a slight build of 0.3 mb. The remaining countries in Europe drew a combined total of 6 mb.

Preliminary data from *Euroilstock* showed overall inventories increasing by 13.7 mb in January. Crude oil stocks rose by 2.0 mb. Total oil product stocks climbed by 11.8 mb. Middle distillate stocks led the way by rising 6.1 mb in the month. Spain, Germany and France saw notable builds in total stocks of 7.8 mb, 4.9 mb and 4.5 mb, respectively.

OECD Asia Oceania

OECD industry stocks in Asia Pacific declined by 12.4 mb in December. At 869 mb, stocks remain at the lowest level in our records. In terms of forward demand, stock cover is 41.9 days, down by 0.6 days m-o-m in December. Crude stocks fell by 0.4 mb versus an average decline of 1.6 mb.



Oil product stocks in the region declined by 12.2 mb, more than the seasonal average of 8.6 mb. Korea posted a larger than usual draw of 5.6 mb versus the 2.4 mb normal fall. The region has been experiencing higher demand for oil products, as China reduced their product exports.

Preliminary data for January from the *Petroleum Association of Japan* show crude oil inventories decreasing by 2.1 mb m-o-m, more than the average 1.6 mb decline for the month. Total product stocks drew by 5.8 mb, led by a 5.2 mb fall in middle distillate stocks. Gasoline inventories built by 0.9 mb, while residual fuel oil and other product inventories slipped by 0.2 mb and 1.3 mb, respectively.

Box 4. US has allocated 40 mb from SPR release

OECD government controlled stocks fell by 57 mb during 2021, with the US making up 78% of the decline. Other countries, especially in Europe, also decreased their holdings in line with lower stockholding obligations based on reduced demand in 2020. Further US drawdowns are expected in the coming months, as announced sales and exchanges are concluded.

In November of last year, the US, China, India Japan, UK, and South Korea pledged to release oil to combat rising prices, with the bulk of the release to come from the US Strategic Petroleum Reserves (SPR). So far, the US has made visible progress with the SPR release, concluding release agreements on 40 mb of the original 50 mb announced. The US is looking to have the remaining 10 mb sold imminently and released in the coming months. Of the SPR already released, 13 mb was delivered over December and January, with the majority coming from the November announcement.



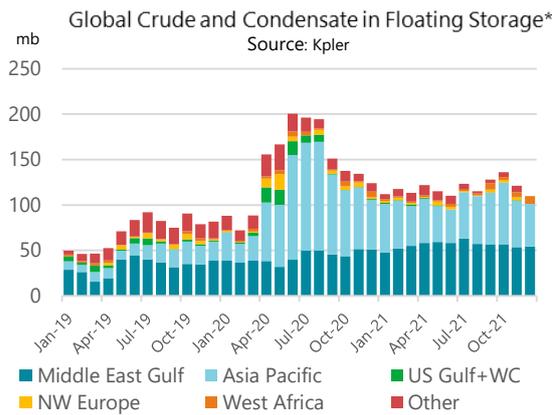
The 50 mb announcement was split into various exchange contracts and a one-off sale. The congressionally-mandated SPR sale of 18.1 mb was procured by six companies in January. The oil is scheduled to be delivered between 1 February and 31 March.

As for the exchange, seven contracts have been awarded, totalling 21.7 mb, which is two-thirds of the target portion of 32 mb. The exchanged oil will be returned to the SPR between 2022 and 2024. At the end of January 2022, the US SPR held 590 mb, 13 mb less than in November 2021.

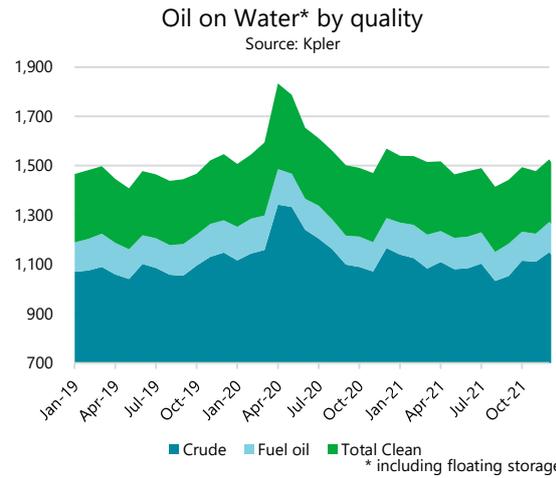
South Korea decided to release 3.17 mb between January and March, consisting of 2.08 mb crude and 1.09 mb oil products. The crude oil will be leased for one year and the oil products are to be sold through auctions. Japan held a bid for 0.6 mb on 9 February, moving forward the planned replacement of some stocks with new oil. It was reported that China may release SPR oil around the Lunar New Year holidays but so far, details have been scarce and no major change in inventory levels has been observed by *Kayrros* satellite data.

Other stock developments

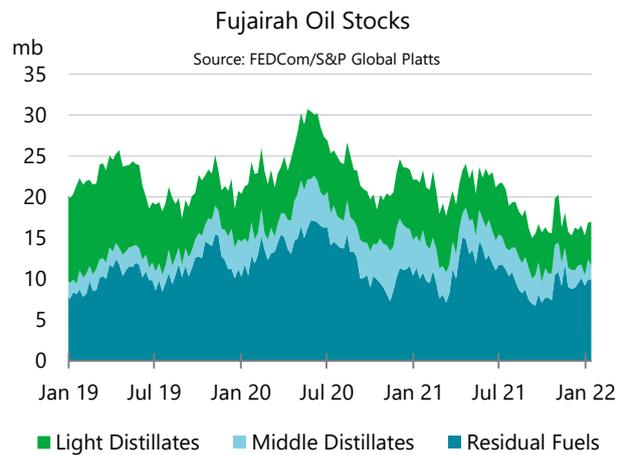
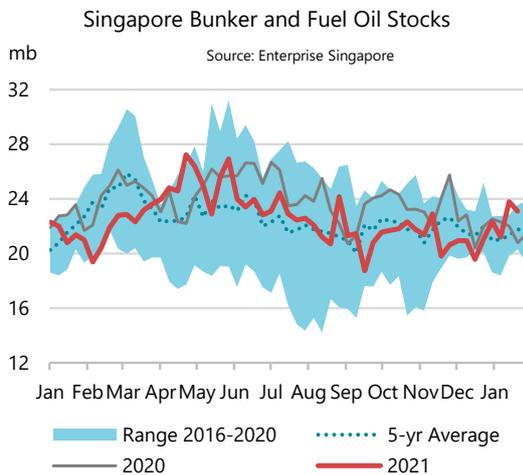
Volumes of oil on the water (including floating storage), rose by 49 mb in December to 1 525 mb, according to *Kpler*. The increase was due to a significant jump in crude oil volumes of 41 mb, while total products added a further 8 mb. Higher exports out of the Middle East and North America contributed to the swell. By contrast, crude and condensate held in short-term floating storage decreased by a 5 mb to 116 mb. At the same time, products in short-term floating storage drew by 3 mb to 35 mb at end-December.



*Volume of commodities on tankers that are idled offshore for 12 or more days



In Fujairah, independent product stocks posted a large build in January, up 3.3 mb. Light distillates rose 1.8 mb, middle distillates were unchanged and heavy distillates increased 1.5 mb.



Independent product stocks in Singapore, the world's largest bunkering hub, increased by 6.9 mb to 46.8 mb in January, according to data from *Enterprise Singapore*. Light distillates and residual fuel oil stocks rose by 3.3 mb each, while middle distillates inched up 0.3 mb.

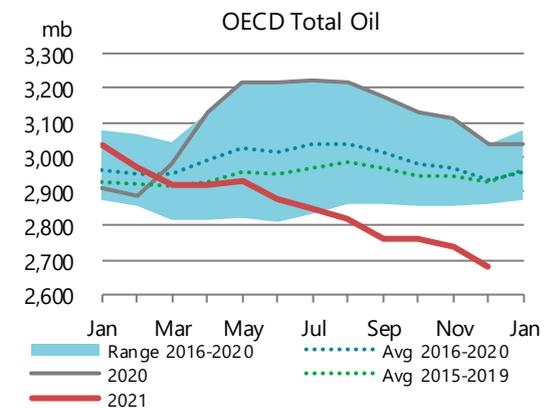
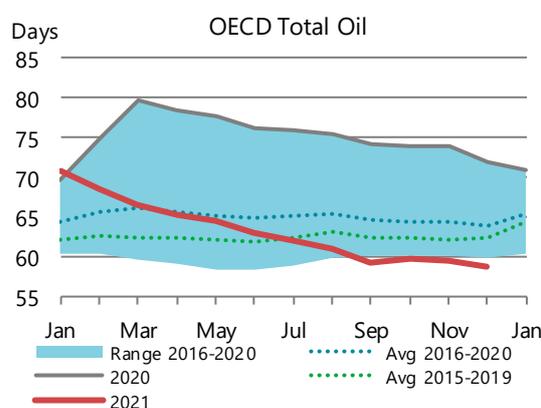
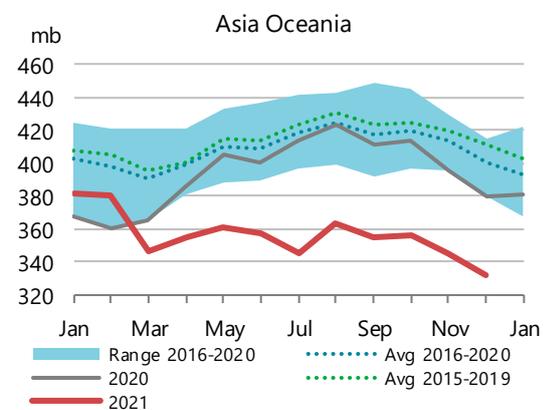
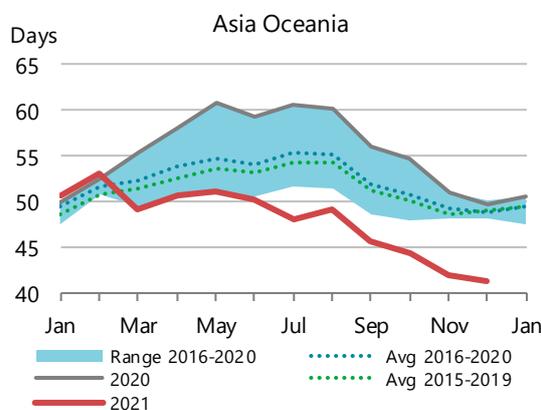
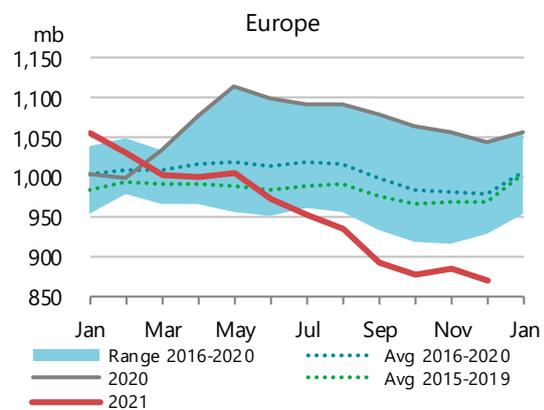
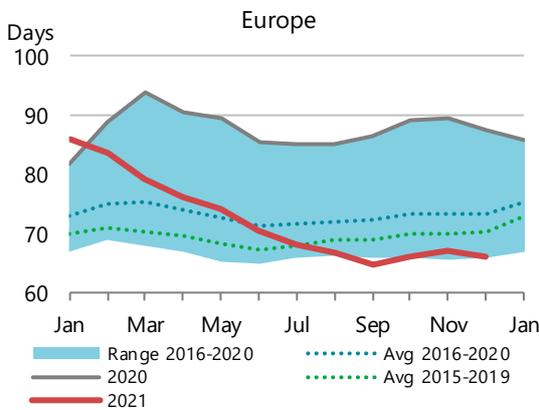
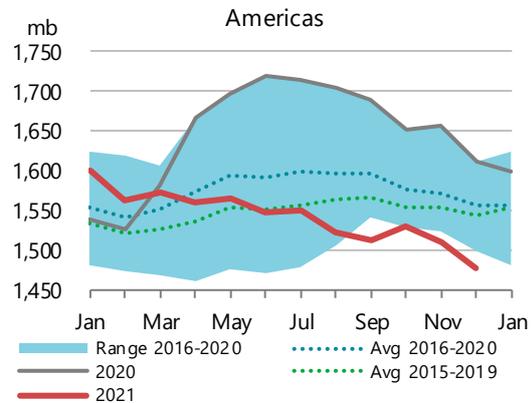
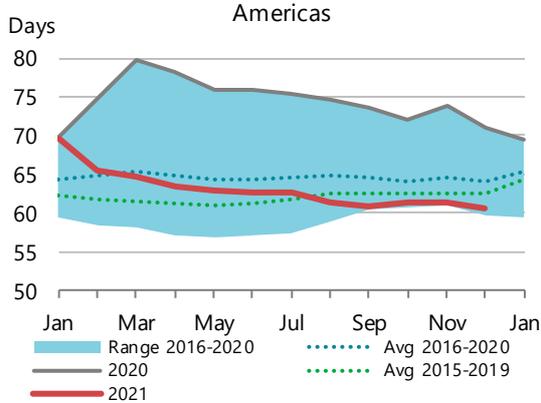
Total oil stocks in 16 non-OECD countries reporting data to the *JODI-Oil* database increased 4.9 mb in November. Crude inventories decreased by 7.1 mb, while NGLs fell by another 1.1 mb. At the same time, product stocks built by 13 mb. India led the gains with a higher than normal product stock build of 12.5 mb, while Saudi Arabia added 4.7 mb. Conversely, Nigeria and Bulgaria each drew by 1.4 mb, and Angola fell 690 kb.

Regional OECD End-of-Month Industry Stocks

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

Days¹

Million Barrels



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

Prices

Overview

Physical crude barrels are within shouting distance of \$100/bbl, a price not seen since 2014. After a brief mid-month pause, oil prices continued their meteoric rise in January, decisively breaching \$90/bbl for NYMEX WTI and ICE Brent. Backwardation on the twelve-month strip beginning with the April 2022 contract has hit double digits for both WTI and Brent, highlighting low crude stock levels. Despite extreme crude price tensions, product price premiums versus the crude markers remain robust and even rising, reflecting tight product markets, notably for gasoil.

Crude Prices and Differentials (\$/bbl)								\$/bbl	
	Month		Week of	Last	Chng Jan-22				
	Jan-21	Dec-21	Jan-22	31 Jan	07 Feb	m-o-m	y-o-y		
Crude Futures (M1)									
NYMEX WTI	52.10	71.69	82.98	89.44	91.32	11.29	30.88		
ICE Brent	55.32	74.80	85.57	90.84	92.69	10.77	30.25		
Crude Marker Grades									
North Sea Dated	54.73	74.01	87.10	93.85	98.17	13.09	32.37		
WTI (Cushing)	52.10	71.53	83.13	89.44	91.32	11.59	31.03		
Dubai	54.76	73.25	83.34	88.74	90.87	10.09	28.58		
Differential to North Sea Dated									
WTI (Cushing)	-2.63	-2.47	-3.98	-4.41	-6.85	-1.50	-1.35		
Dubai	0.03	-0.76	-3.76	-5.11	-7.30	-3.00	-3.79		
Differential to ICE Brent									
North Sea Dated	-0.59	-0.79	1.53	3.01	5.48	2.32	2.12		
NYMEX WTI	-3.22	-3.11	-2.59	-1.40	-1.37	0.52	0.63		

Sources: Argus Media Ltd, ICE, NYMEX (NYMEX WTI = NYMEX Light Sweet Crude)

The market has its eyes fixed on the post-Omicron demand recovery, fear of the Russia-Ukraine face-off spilling over into oil supply, persistent tension in the natural gas and carbon markets, as well as abiding uncertainty about the OPEC+ production increases. The threat of central banks raising interest rates has shaken equity and bond markets but has not significantly undermined oil demand growth expectations or oil prices. While higher interest rates normally detract from economic growth, the current gap between inflation and interest rates creates deeply negative real interest rates that remain very stimulative.

Downside uncertainties do exist for producers. The most significant concern is higher supply linked to recent announcements of faster US shale oil production increases and advances in negotiations with Iran to revitalize the JCPOA. The latter could lead to a return of Iranian crude production in 2H22, should an agreement be reached. There are also several bearish demand-side factors. Resurgence of a new Covid variant is a possible risk. Seasonal refinery maintenance peaks in the second quarter (April/May). Central banks withdrawing financial support and rapidly boosting interest rates in the coming quarters could also pressure economic and oil demand growth. Higher oil prices may yet weaken demand growth. Finally, a seasonal fall in natural gas prices to mBtu parity with oil products or below will remove a key support for demand.

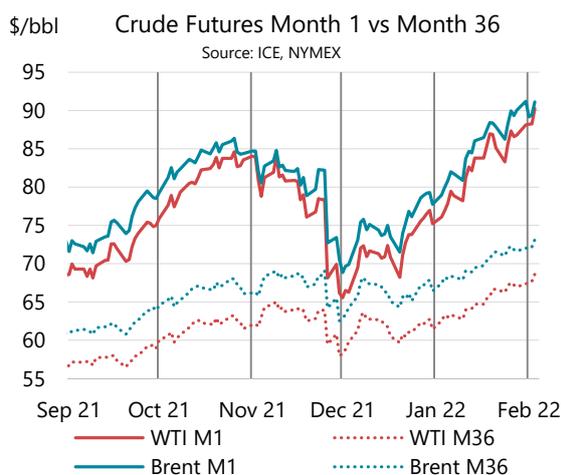
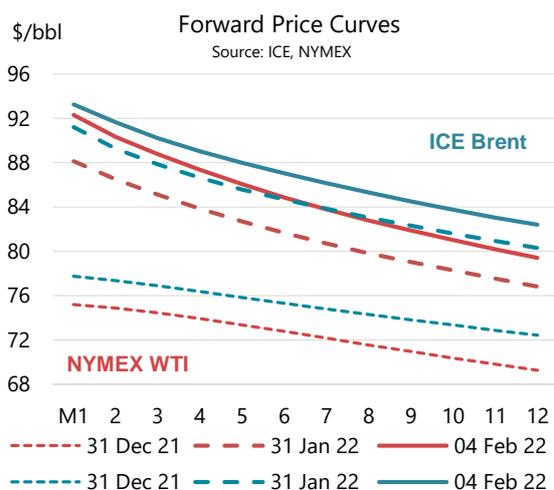
However, our own analysis of oil supply and demand in 2022, excluding an eventual Iranian production increase, suggests a roughly balanced market in 1Q22 followed by growing supply surpluses that will average around 1 mb/d in 2Q22 and 3Q22. While large, even salutary, these

forecast stock builds are not enough to offset the deficit in oil stocks accumulated over the past year and could not return OECD oil stocks to their five-year average until very late this year. Consequently, one of the main drivers supporting high oil prices may persist for a while.

ICE Brent and NYMEX WTI prices surged past \$90/bbl for the first time in more than seven years in early February, to highs of \$92-\$94/bbl. They closed at \$90.49/bbl and \$89.04/bbl, respectively, on 9 February. Physical market tensions have pulled futures prices higher. Strong European refinery demand for light, sweet crude to offset high hydrotreatment costs (linked to high gas prices) and CO₂ emissions costs (linked to rising EUA emission contract costs) has driven up prices for North Sea Dated and related sweet crudes. North Sea Dated exceeded \$90/bbl on 26 January, reached \$97.78/bbl on 4 February, before closing at \$95.03/bbl on 9 February

Futures markets

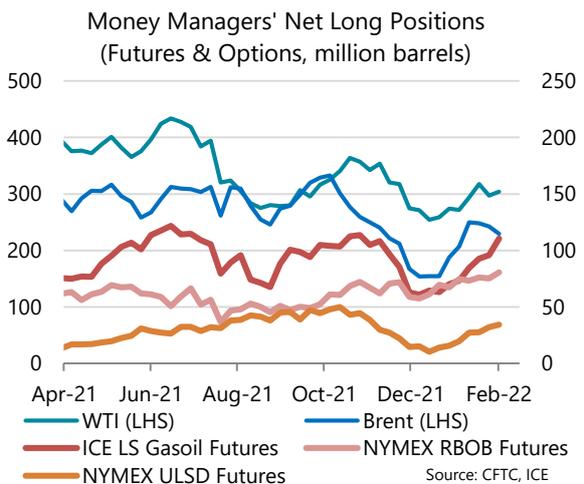
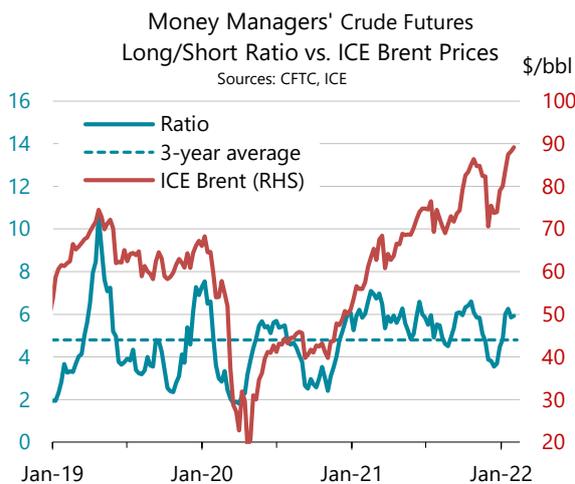
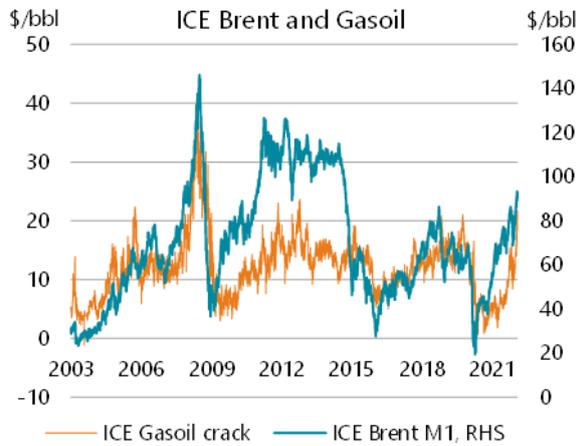
The steady pull on crude prices from the physical market has lifted both the front and the back of the forward curve. The prompt ICE Brent contract reached \$93.27/bbl on 4 February, \$7.70/bbl above the average price in January of \$85.57/bbl that was already up \$10.77/bbl month-on-month (m-o-m). Similarly, NYMEX WTI rose \$11.29/bbl m-o-m to \$82.98/bbl and to \$92.31/bbl on 4 February. The first to twelfth contract spread exceeded \$10/bbl for both ICE Brent and NYMEX WTI in the first week of February.



Forward prices are the tail that wags the dog. Prompt prices reflect the strength in backwardation, that is how much more prompt crude supply is valued over that in a few months or years. Prompt prices reflect immediate supply tensions from low stock levels and tight sweet crude markets (both futures grades are linked to underlying sweet crude markets). Increased concern about a dearth in upstream investment and narrowing OPEC+ spare capacity have contributed to higher forward prices. The 36th contract prices eased slightly when prompt prices fell steeply in early December. However, they have made particularly strong gains over the past month.

The ICE Brent premium to NYMEX WTI eased by \$0.52/bbl m-o-m in January to \$2.95/bbl, and continued to narrow over the month to \$1.40/bbl in the first week of February. Stock tensions in the US Midcontinent have supported NYMEX WTI versus ICE Brent. However, the tensions in the physical forward North Sea market kept the arbitrage open.

ICE Gasoil and NYMEX ULSD price cracks rose steadily over the month as rising gasoil prices outpaced the massive increases in crude prices. The strength of the cracks highlights the tensions in the underlying physical markets linked to strong demand and the impediments on refinery efforts to keep pace with demand. NYMEX ULSD cracks rose \$3.78/bbl m-o-m to an astonishing \$26.58/bbl in January and continued rising to an average \$28.25/bbl in the last week of January and first week of February, amongst the highest levels ever. ICE Gasoil cracks increased by \$2.61/bbl m-o-m to \$14.62/bbl in January and reached \$21.49/bbl on 4 February. Gasoil cracks briefly saw these levels in early 2019, though crude prices were then falling rather than rising steeply. The last occasions such strong gasoil cracks accompanied strong and rising crude prices was particularly in 2008 when crude prices spiked to \$150/bbl, pulled higher by gasoil market tensions. It is a striking reminder of gasoil's importance to the economic recovery and the facility with which external factors can disrupt its supply (see Box "The spectre of 2008?").



The evolution of the NYMEX RBOB gasoline crack was more subdued, stagnating in January at \$17.92/bbl, but averaged \$20.24/bbl in the first week of February as the onset of refinery maintenance begin to make itself felt in the gasoline supply – demand balance, as in the balances for gasoil and other products.

Is the market a one-way long-bet for everyone? The recovery in Money Manager net long positions on crude contracts since mid-December has carried them from their lowest long/short ratio in a year at 3.7 to just over 6 which has been something of a ceiling since January 2021. In other words, there are now six times as many long positions on crude as short positions amongst money managers; so some are still positioned for lower crude prices at some horizon in the future. That ratio peaked on 25 January and has since declined. Net long position on both crude contracts have eased in the past 2-3 weeks. That has come from reduced long positions as traders take profits after a spectacular period of price increases. There is no sign that short positions are increasing in parallel.

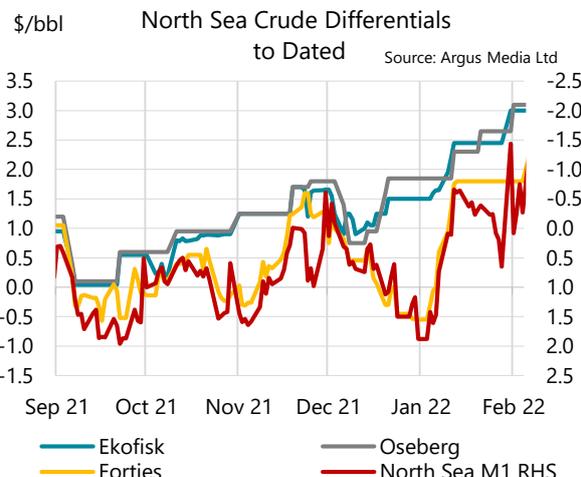
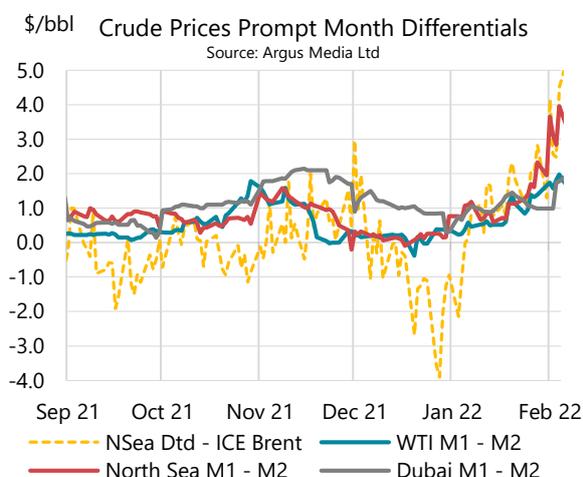
Net long positions on product contracts rose 34% m-o-m, an exceptionally strong showing. The middle distillate contracts were the key driver of this increase, reflecting the tensions in these markets. Money Manager net length increased by 50% for ICE Gasoil and by 74% for NYMEX ULSD. It only increased by 8% for NYMEX RBOB. These changes resulted essentially from increased long positions. Only NYMEX ULSD saw short positions rise, but significantly less than longs. The Money Manager long/short ratio increased by 29% for ICE gasoil but just 15% for NYMEX ULSD and 13% for NYMEX RBOB.

Prompt Month Oil Futures Prices												
(monthly and weekly averages, \$/bbl)												
	Jan-21	Nov-21	Dec-21	Jan-22	Jan-22		27 Dec	03 Jan	Week Commencing:			
					m-o-m Chg	y-o-y Chg			10 Jan	17 Jan	24 Jan	31 Jan
NYMEX												
Light Sweet Crude Oil (WTI)	52.10	78.65	71.69	82.98	11.29	30.88	76.06	77.86	81.61	86.11	85.94	89.44
RBOB	64.29	95.81	89.68	100.90	11.21	36.61	94.74	96.00	99.34	102.83	104.53	109.68
ULSD	66.29	99.72	94.49	109.56	15.07	43.27	99.36	102.25	108.26	112.66	114.41	117.46
ULSD (\$/mmbtu)	11.69	17.59	16.66	19.32	2.66	7.63	17.52	18.03	19.09	19.87	20.18	20.72
Henry Hub Natural Gas (\$/mmbtu)	2.65	5.12	3.86	4.26	0.39	1.61	3.89	3.83	4.34	4.03	4.65	4.92
ICE												
Brent	55.32	80.85	74.80	85.57	10.77	30.25	78.77	80.70	83.96	87.74	88.76	90.84
Gasoil	60.15	92.81	86.81	100.19	13.38	40.04	90.52	93.66	97.98	103.25	104.54	109.23
Prompt Month Differentials												
NYMEX WTI - ICE Brent	-3.22	-2.20	-3.11	-2.59	0.52	0.63	-2.71	-2.84	-2.35	-1.63	-2.82	-1.40
NYMEX ULSD - WTI	14.19	21.07	22.80	26.58	3.78	12.39	23.30	24.39	26.65	26.55	28.47	28.02
NYMEX RBOB - WTI	12.19	17.16	17.99	17.92	-0.08	5.73	18.68	18.14	17.73	16.72	18.59	20.24
NYMEX 3-2-1 Crack (RBOB)	12.85	18.46	19.60	20.80	1.21	7.95	20.22	20.22	20.71	20.00	21.88	22.84
NYMEX ULSD - Natural Gas (\$/mmbtu)	9.04	12.47	12.80	15.07	2.27	6.03	13.64	14.21	14.75	15.84	15.53	15.80
ICE Gasoil - ICE Brent	4.83	11.96	12.01	14.62	2.61	9.79	11.75	12.96	14.02	15.51	15.78	18.39

Source: ICE, NYMEX.

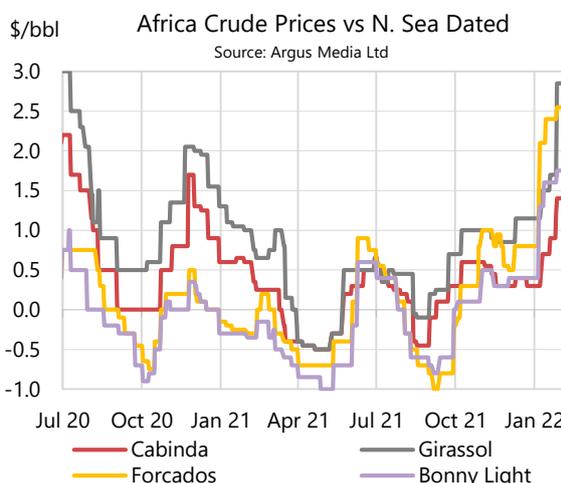
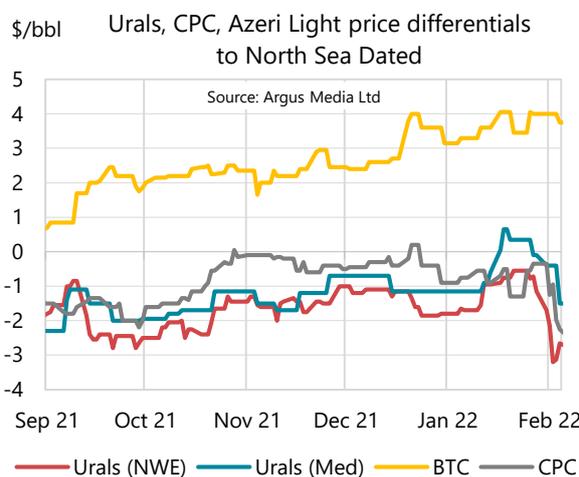
Spot crude oil prices

Constructive market conditions lifted physical crude prices to strong premiums versus futures during January. The strength reflects multiple region and product specific physical drivers in the market. Gasoil demand has received a strong boost from the continuing economic recovery but also from its competitive price position versus natural gas in a number of markets. The European refiners have pivoted to light sweet crude to ease the associated refining costs of CO2 emissions permits and hydrogen production for desulphurisation. Finally, both crude and product stocks have fallen to exceptionally low levels just as demand is recovering, adding to the call on immediately available barrels from refiners.



North Sea Dated prices swung back to premiums versus ICE Brent in January, with the premium rising \$2.32 m-o-m to \$1.53/bbl on average and reaching \$4.51/bbl on 4 February on steady gains. As a consequence, in January North Sea Dated surged by \$13.09/bbl m-o-m to \$87.10/bbl. WTI at Cushing increased \$11.59/bbl m-o-m to average \$83.13/bbl and front month Dubai rose \$10.09/bbl m-o-m to average \$83.34/bbl in January. All the crudes continued to rise through 4 February reaching \$97.78/bbl for North Sea Dated, \$92.31/bbl for WTI and \$89.89/bbl for Dubai, that is \$10.68/bbl, \$9.20/bbl and \$6.55/bbl, respectively, above the January average. Incremental Middle East supply combined with widening discounts for sour compared to sweet barrels pressured Dubai prices versus the others. The physical forward spreads M1-M2 rose into stronger backwardation for all the markers.

North Sea grade differentials tracked the trend in the price structure with Forties regularly aligning with the North Sea Dated premium to front month North Sea M1. Ekofisk premiums widened m-o-m to \$0.98/bbl to \$2.27/bbl in January, Oseberg by \$0.90/bbl to \$2.29/bbl and Forties \$1.15/bbl to \$1.38/bbl. By 4 February, premiums for these crudes had reached \$3/bbl, \$3.10/bbl and \$1.80/bbl, respectively. Middle distillate-rich Oseberg clearly benefitted from strong gasoil cracks.



The high emissions and hydrotreatment costs for European refiners penalized the more sour Urals and CPC grades over the past month. Purchasing EUA contracts to offset European refiners CO₂ emissions, combined with the cost of transforming expensive natural gas into hydrogen, undercuts the margins for a typical European cracking refinery by around \$4/bbl today. Any crude quality gains are a blessing. Urals discounts to North Sea Dated narrowed by \$0.21/bbl m-o-m in January, to -\$1.11/bbl and to -\$0.75/bbl in mid-month on tighter loading programmes. With larger loading programs, discounts increased in first week of February to -\$2.57/bbl. CPC Blend discounts widened by \$0.38/bbl to -\$0.72/bbl on average in January and reached -\$2.25/bbl on 4 February. On the other hand, premiums to North Sea Dated for light sweet BTC rose by \$0.67/bbl m-o-m in January to \$3.67/bbl.

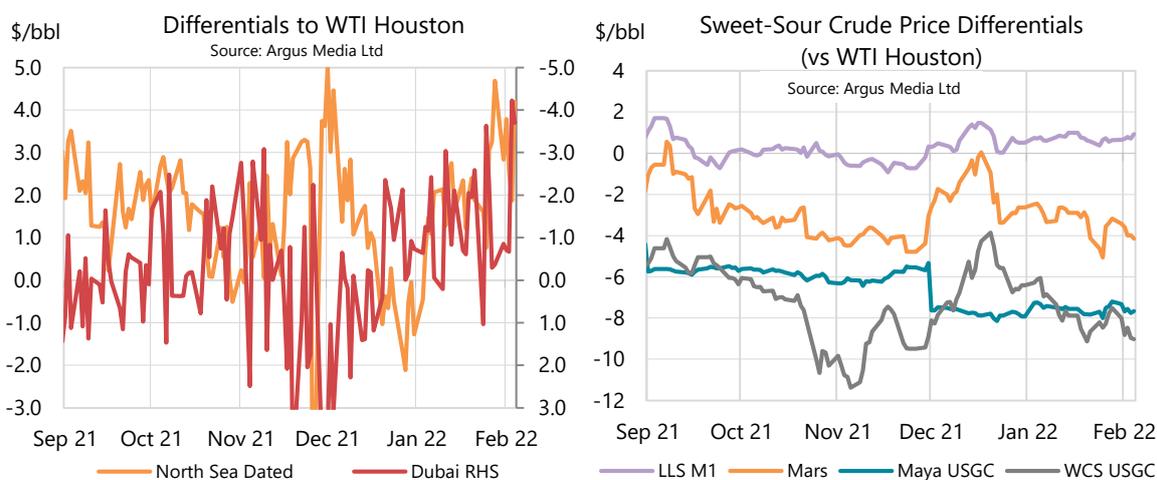
In West Africa, premiums for all the major sweet grades gained strongly over the month, reaching levels not seen since July 2020 when producers had cut back on production. They all benefitted from strong European demand for sweet crude but also from continuing Asian buying as sweet crude premia versus Dubai were also strong (Murban, ESPO). Nigerian Forcados rose \$1.42/bbl to \$2.14/bbl while compatriot Bonny Light increased \$1.04/bbl m-o-m to \$1.44/bbl in January; they reached \$2.55/bbl and \$1.75/bbl, respectively, at end-month. Angolan Girassol was up

\$0.64/bbl to \$1.69/bbl in January while Cabinda edged up \$0.46/bbl to \$0.80/bbl. They reached \$2.85/bbl and \$1.40/bbl, respectively, at end-month.

In the Middle East and in Asia, the sweeter grades similarly benefitted from the refining tensions. The premium for Emirati Muban to Dubai rose \$0.50/bbl to \$1.77/bbl and reached \$2.88/bbl in the first week of February. On the other hand, heavier and more sour Upper Zakum inched up \$0.17/bbl m-o-m and flipped to a premium of \$0.14/bbl in January, and to \$0.27/bbl in the first week of February. Sweet Russian ESPO's premium to Dubai gained \$0.22/bbl m-o-m in January to \$1.65/bbl, and reached \$2.62/bbl on 4 February. Light sweet Indonesian Tapis' premium to Dubai rose \$2.76/bbl m-o-m to \$8.39/bbl in January and to \$13.59/bbl on 4 February. Regional prices were influenced by refiners ordering ahead of the Lunar New Year holiday, on the one hand, and by Chinese refiners anticipating slower operations during the winter olympics, on the other.

In North America, crude prices benefitted from an open arbitrage to Europe, attracted by strong demand for light sweet WTI-like grades. The arbitrage was more irregularly open to Asia thanks to good demand for sour crudes like Mars. The sour crude values continued to deteriorate versus light sweet WTI. This created a strong pull from the US Gulf of Mexico, both for local refiners and for exports that maintained the Cushing to Houston and Cushing to Midland arbitrages open, and contributed to pushing stocks in PADD2 to low levels.

The North Sea M1 premium to WTI (Houston) rose \$0.69/bbl m-o-m to \$2.52/bbl and reached \$3.93/bbl on 4 February. The Dubai premium to WTI M2 (Cushing) fell -\$0.87/bbl m-o-m in January to \$1.04/bbl but recovered to reach over \$1.70/bbl in the last week of January.



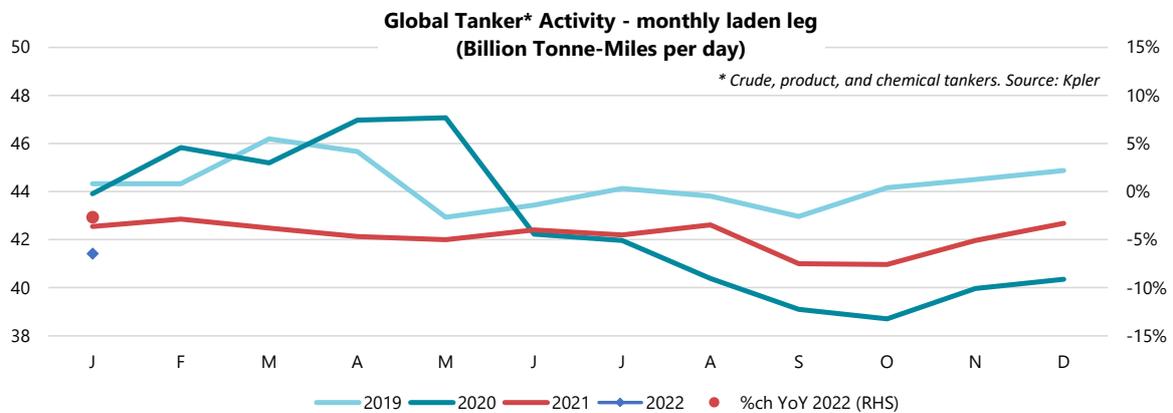
The Western Canadian Select (WCS) discount in Hardisty versus WTI at Cushing narrowed by \$2.95/bbl m-o-m to -\$14.09/bbl in January due to weather-related production issues, but blew out again to -\$16.50/bbl by 4 February. On the US Gulf Coast, the WCS discount to WTI (Houston) widened by \$1.45/bbl to -\$7.73/bbl and reached -\$9.02/bbl on 4 February. The incremental barrels from the steady OPEC+ production increases are mainly heavier and more sour, penalising similar grades. Mars, representative of the US Gulf of Mexico sour grades, saw its discount to WTI (Houston) widen by \$1.40/bbl m-o-m to -\$3.22/bbl in January and to -\$4.15/bbl on 4 February. The premium for Light Louisiana Sweet (LLS) versus WTI (Houston) was up just \$0.04/bbl m-o-m to \$0.70/bbl in January, but extended gains to \$0.93/bbl on 4 February.

Spot Crude Oil Prices and Differentials													
(monthly and weekly averages, \$/bbl)													
	Jan-21	Nov-21	Dec-21	Jan-22	Jan-22		27 Dec	03 Jan	Week Commencing:				Last
					m-o-m Chg	y-o-y Chg			10 Jan	17 Jan	24 Jan	31 Jan	04 Feb
Crudes													
North Sea Dated	54.73	81.37	74.01	87.10	13.09	32.37	77.36	81.11	85.07	89.32	90.63	93.85	97.78
North Sea Mth 1	55.38	82.17	74.69	87.14	12.45	31.76	78.81	82.42	84.72	88.97	90.72	93.32	97.51
North Sea Mth 2	55.34	81.13	74.49	86.00	11.51	30.67	78.45	81.41	83.99	88.01	89.05	90.22	93.55
WTI (Cushing) Mth 1	52.10	79.18	71.53	83.13	11.59	31.03	76.28	77.86	81.61	86.39	86.30	89.44	92.31
WTI (Cushing) Mth 2	52.11	78.31	71.35	82.30	10.96	30.19	75.89	77.48	81.06	85.33	85.12	87.68	90.33
WTI (Houston) Mth 1	53.69	79.92	72.86	84.62	11.76	30.94	77.42	79.29	83.01	87.88	87.95	90.80	93.59
Urals (NWE)	54.23	79.89	72.69	86.00	13.30	31.77	75.54	79.40	83.85	88.58	89.88	91.28	95.12
Dubai (1st month)	54.76	80.21	73.25	83.34	10.09	28.58	77.31	78.18	81.46	85.77	86.85	88.74	89.89
Differentials to Futures													
North Sea Dated vs. ICE Brent	-0.59	0.52	-0.79	1.53	2.32	2.12	-1.41	0.41	1.11	1.58	1.87	3.01	4.51
WTI (Cushing) Mth1 vs. NYMEX	0.00	0.53	-0.16	0.14	0.30	0.15	0.22	0.00	0.00	0.28	0.36	0.00	0.00
Differentials to Physical Markers													
WTI (Houston) versus North Sea Mth 1	-1.70	-2.25	-1.83	-2.52	-0.69	-0.82	-1.39	-3.13	-1.72	-1.09	-2.76	-2.52	-3.93
WTI (Houston) versus WTI (Cushing) Mth 1	1.59	0.74	1.32	1.50	0.17	-0.09	1.14	1.43	1.40	1.49	1.66	1.36	1.27
Urals (NWE) versus North Sea Dated	-0.50	-1.48	-1.31	-1.11	0.21	-0.61	-1.82	-1.71	-1.22	-0.74	-0.75	-2.57	-2.66
Dubai versus North Sea Mth 2	-0.58	-0.91	-1.24	-2.66	-1.42	-2.08	-1.13	-3.23	-2.52	-2.24	-2.20	-1.48	-3.66
Dubai versus WTI (Cushing) Mth 2	2.64	1.90	1.90	1.04	-0.87	-1.61	1.42	0.70	0.40	0.44	1.73	1.05	-0.44
Prompt Month Differentials													
Forward North Sea Mth1-Mth2	0.05	1.04	0.19	1.14	0.94	1.09	0.36	1.01	0.74	0.96	1.67	3.10	3.96
Forward WTI Cushing Mth1-Mth2	-0.01	0.87	0.19	0.82	0.63	0.83	0.38	0.38	0.54	1.06	1.18	1.75	1.98
Forward Dubai Mth1-Mth2	0.29	1.91	1.00	1.04	0.04	0.75	0.58	0.85	0.91	1.35	1.07	1.51	1.78

Source: Argus Media Ltd, ICE

Freight

Global tanker activity fell by around 3% m-o-m in January and was almost 3% below a year ago. Despite the improvement, activity continued to lag the 2019 level by around 6%. *Kayros* satellite data shows crude oil stocks in the Middle East and Sub-Saharan Africa built by a combined 21 mb or 700 kb/d in the month of January, somewhat starving the freight market of chartering activity in its principal loading zones.



At current freight rates, few tankers are covering their operating expenses. The tankers with the best returns are those equipped with scrubbers and good fuel efficiency, (Eco ships as opposed to non-Eco ships). As bunker prices track crude prices higher, the Eco ships have taken on a premium versus non-Eco ships, as they consume less bunkers per tonne-mile of activity. Eco ships equipped with scrubbers have a premium versus non-scrubber Eco ships as they can consume cheaper high sulphur fuel oil bunkers.

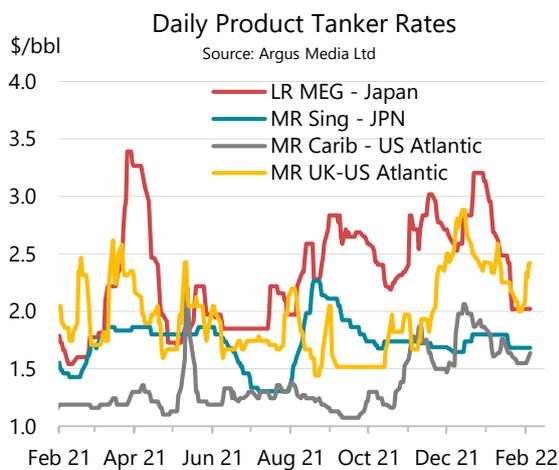
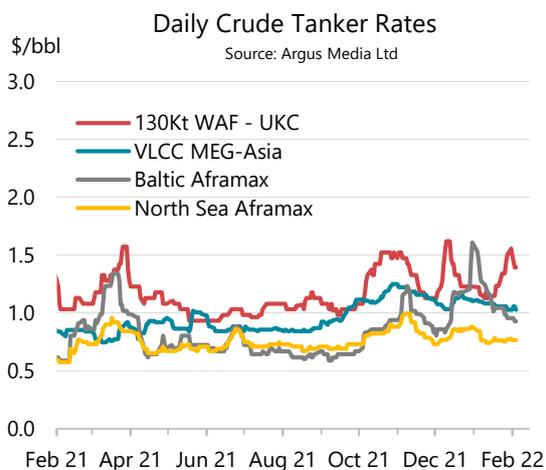
Dirty tanker freight rates in January eased slightly on most routes. The persistent overhang in VLCC capacity continues to pressure Suezmax rates while Aframax rates have benefitted from local issues such as weather in the Baltic and Black Sea or an acceleration of loading of light sweet crude from the USGC toward Europe. From end-December to end-January, rates fell on all

segments except Suezmax vessels on the West Africa to UK Continent route that rose strongly. European refinery demand for sweet West African crudes boosted chartering rates on this route. Aframax ships in the Baltic got a slight bump higher over the month, linked to regional weather conditions and available tanker capacity.

Freight Costs												
(monthly and weekly averages, \$/bbl)												
	Jan-21	Nov-21	Dec-21	Jan-22	Jan-22		27-Dec	Week Commencing				
					m-o-m chg	y-o-y chg		03-Jan	10-Jan	17-Jan	24-Jan	31-Jan
Crude Tankers												
VLCC MEG-Asia	0.93	1.18	1.09	1.07	-0.02	0.1	1.11	1.10	1.08	1.06	1.05	1.04
130Kt WAF - UKC	0.95	1.31	1.32	1.25	-0.07	0.3	1.23	1.19	1.14	1.20	1.39	1.46
Baltic Aframax	0.63	1.01	1.06	1.14	0.08	0.5	1.42	1.40	1.19	1.04	1.00	0.94
North Sea Aframax	0.60	0.87	0.81	0.77	-0.04	0.2	0.87	0.82	0.75	0.77	0.76	0.77
Product Tankers												
LR MEG - Japan	1.95	2.80	2.86	2.40	-0.46	0.4	3.17	2.82	2.52	2.30	2.02	2.02
MR Sing - JPN	1.74	1.71	1.72	1.74	0.02	0.0	1.80	1.80	1.80	1.71	1.68	1.68
MR Carib - US Atlantic	1.21	1.67	1.83	1.64	-0.20	0.4	1.88	1.69	1.69	1.63	1.55	1.58
MR UK-US Atlantic	1.67	1.99	2.60	2.24	-0.36	0.6	2.40	2.36	2.39	2.22	2.04	2.31

Source: Argus Media Ltd

The modest reduction in chartering due to stock builds pressured rates on routes loading from the Middle East or from West Africa. The continued stagnation expected in West African crude production in the coming months will pressure Suezmax and Aframax rates. On the other hand, VLCC rates will benefit from steady growth of almost 3 mb/d in Middle East crude production this year that will partly offset the widening tonnage overhang in this tanker segment.



The clean tanker market also reflected the surplus in available tonnage in most regions over the past month. LR tankers have suffered the most, pressured by new VLCCs entering the clean product market straight out of the yards to transport gasoil. The overhang in tonnage is substantial versus demand and has pressured MR vessels, even if that tanker market segment is somewhat better balanced.

Tables

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

	2018	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
OECD DEMAND																	
Americas	25.4	25.4	24.3	19.8	22.6	23.0	22.4	22.7	24.3	24.7	24.8	24.1	24.4	25.0	25.4	25.1	25.0
Europe	14.3	14.3	13.3	11.0	12.9	12.5	12.4	11.9	12.6	13.8	13.9	13.1	13.2	13.5	14.0	13.7	13.6
Asia Oceania	8.0	7.9	7.9	6.6	6.8	7.3	7.1	7.7	7.0	7.1	7.8	7.4	8.0	7.3	7.4	7.9	7.7
Total OECD	47.7	47.7	45.5	37.5	42.3	42.8	42.0	42.3	44.0	45.7	46.5	44.6	45.6	45.8	46.8	46.7	46.2
NON-OECD DEMAND																	
FSU	4.7	4.7	4.6	4.1	4.7	4.7	4.5	4.6	4.7	4.9	5.0	4.8	4.7	4.8	5.1	5.1	4.9
Europe	0.8	0.8	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.8
China	13.1	13.9	12.2	14.8	15.0	15.2	14.3	15.0	15.7	15.7	15.7	15.5	15.5	16.1	16.2	16.1	16.0
Other Asia	14.0	14.0	13.5	11.3	12.3	13.4	12.6	13.5	12.9	12.6	13.7	13.1	14.0	14.0	13.5	14.2	13.9
Americas	6.3	6.3	5.8	5.0	5.7	5.9	5.6	5.8	5.9	6.2	6.1	6.0	5.9	6.0	6.2	6.2	6.0
Middle East	8.7	8.7	8.4	7.6	8.6	8.2	8.2	8.2	8.4	8.9	8.4	8.5	8.4	8.5	9.0	8.4	8.6
Africa	4.2	4.3	4.1	3.5	3.7	3.9	3.8	4.1	4.0	4.0	4.1	4.0	4.1	4.1	4.1	4.2	4.1
Total Non-OECD	51.7	52.7	49.3	46.9	50.7	52.2	49.8	51.9	52.2	53.0	53.8	52.7	53.3	54.3	54.8	54.9	54.3
Total Demand¹	99.5	100.3	94.8	84.4	93.0	95.0	91.8	94.1	96.2	98.7	100.2	97.4	98.9	100.1	101.7	101.6	100.6
OECD SUPPLY																	
Americas	23.0	24.8	25.9	22.6	23.2	23.7	23.8	23.3	24.3	24.4	25.4	24.3	25.4	25.7	26.0	26.4	25.9
Europe	3.5	3.4	3.7	3.6	3.4	3.5	3.6	3.6	3.1	3.4	3.4	3.4	3.5	3.3	3.4	3.5	3.4
Asia Oceania	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD⁴	26.9	28.6	30.1	26.7	27.1	27.8	27.9	27.4	27.8	28.3	29.3	28.2	29.4	29.5	29.9	30.4	29.8
NON-OECD SUPPLY																	
FSU	14.6	14.6	14.8	13.2	12.8	13.2	13.5	13.4	13.7	13.7	14.3	13.8	14.4	14.5	14.6	14.8	14.6
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.9	4.0	4.0	4.0	3.9	4.0	4.1	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.1
Other Asia	3.4	3.3	3.2	3.0	2.9	3.0	3.0	3.0	2.9	2.8	2.8	2.9	2.8	2.8	2.7	2.7	2.7
Americas	5.1	5.3	5.6	5.1	5.4	5.2	5.3	5.3	5.3	5.4	5.2	5.3	5.3	5.4	5.6	5.7	5.5
Middle East	3.1	3.0	3.1	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
Africa	1.5	1.5	1.4	1.4	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Total Non-OECD⁴	31.6	31.8	32.2	29.9	29.6	29.7	30.3	30.2	30.5	30.5	30.8	30.5	31.2	31.3	31.7	31.9	31.5
Processing gains ³	2.4	2.4	2.3	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Global Biofuels	2.7	2.8	2.3	2.5	3.1	2.6	2.6	2.2	2.9	3.2	2.7	2.7	2.3	3.1	3.4	3.0	2.9
Total Non-OPEC Supply	63.5	65.6	66.8	61.1	61.9	62.2	63.0	61.9	63.5	64.3	65.1	63.7	65.3	66.3	67.3	67.6	66.6
OPEC²																	
Crude	31.4	29.6	28.2	25.6	24.1	24.9	25.7	25.3	25.5	26.9	27.7	26.4					
NGLs	5.4	5.3	5.3	5.1	5.0	5.1	5.1	5.2	5.2	5.2	5.2	5.2	5.3	5.4	5.5	5.5	5.4
Total OPEC	36.8	35.0	33.5	30.7	29.1	30.0	30.8	30.4	30.7	32.1	33.0	31.6					
Total Supply	100.3	100.6	100.3	91.8	91.0	92.2	93.8	92.4	94.2	96.5	98.1	95.3					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.1	0.1	1.0	2.6	-0.4	-1.6	0.4	-1.3	-0.5	-1.3	-0.9	-1.0					
Government	-0.1	0.0	0.0	0.3	-0.1	-0.1	0.0	0.0	-0.2	-0.1	-0.3	-0.2					
Total	0.0	0.0	1.0	2.9	-0.5	-1.7	0.4	-1.2	-0.7	-1.4	-1.2	-1.1					
Floating storage/Oil in transit	0.2	0.0	0.5	0.6	-1.6	0.8	0.1	-0.6	-0.4	-0.3	0.9	-0.1					
Miscellaneous to balance ⁵	0.5	0.2	4.0	3.9	0.1	-1.9	1.5	0.1	-0.9	-0.5	-1.9	-0.8					
Total Stock Ch. & Misc	0.8	0.2	5.5	7.4	-2.0	-2.8	2.0	-1.8	-2.0	-2.3	-2.2	-2.1					
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	30.6	29.4	22.7	18.2	26.1	27.7	23.7	27.1	27.5	29.2	29.9	28.4	28.3	28.4	28.9	28.5	28.5

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 Total demand minus total non-OPEC supply minus OPEC NGLs.

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

	2018	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
OECD DEMAND																	
Americas	-	-0.1	-	-	-	-	-	-	-	-	0.1	-	0.1	-0.1	-0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.2	-	0.1	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	0.1	-	0.1
Total OECD	-	-0.1	-	0.3	0.1	0.3	-	-0.1	-	0.1							
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	0.1	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3
Other Asia	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.8	0.8	0.9	0.8	0.8
Total Demand	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.8	0.9	0.9	1.3	1.0	1.1	0.8	0.8	0.8	0.9
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.3	0.3	0.3	0.3
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-0.1	-	0.1	0.2	0.3	0.3	0.2									
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	0.1	0.1	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-0.1	-	-0.1	-0.1	-	-	-									
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Total Non-OPEC Supply	-	-0.2	-	-0.1	-	0.2	0.3	0.1									
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-										
Total Supply	-	0.1	0.1	0.1	-0.2	-	-	-	-	-	-						
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-										
Floating storage/Oil in transit	-0.1	-	-0.1	0.2	-	-	-	-	0.1	0.1	-	-	-	-	-	-	-
Miscellaneous to balance	-0.5	-0.7	-0.8	-1.2	-0.8	-0.8	-0.9	-0.8	-0.8	-0.9	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-0.6	-0.7	-0.9	-1.0	-0.8	-0.8	-0.9	-0.8	-0.8	-0.8	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	0.6	0.7	0.9	1.0	0.8	0.8	0.9	0.8	0.8	0.8	1.4	1.0	1.2	0.7	0.5	0.5	0.7

Note: When submitting monthly oil statistics, OECD member countries may update data for prior periods. Similar updates to non-OECD data can also occur.

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

	2018	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Total Demand	99.5	100.3	94.8	84.4	93.0	95.0	91.8	94.1	96.2	98.7	100.2	97.4	98.9	100.1	101.7	101.6	100.6
OECD SUPPLY																	
Americas ²	20.9	22.8	23.9	20.7	21.3	21.8	21.9	21.4	22.3	22.4	23.4	22.4	23.5	23.7	24.0	24.3	23.9
Europe	3.5	3.4	3.7	3.6	3.4	3.5	3.6	3.6	3.1	3.4	3.4	3.4	3.5	3.3	3.4	3.5	3.4
Asia Oceania	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD (non-OPEC+)	24.8	26.7	28.1	24.8	25.2	25.9	26.0	25.5	25.9	26.4	27.3	26.3	27.5	27.5	27.9	28.3	27.8
NON-OECD SUPPLY																	
FSU ³	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.9	4.0	4.0	4.0	3.9	4.0	4.1	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.1	4.1
Other Asia ⁴	2.6	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.0	2.1
Latin America	5.1	5.3	5.6	5.1	5.4	5.2	5.3	5.3	5.3	5.4	5.2	5.3	5.3	5.4	5.6	5.7	5.5
Middle East ⁵	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Africa ⁶	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Total Non-OECD (non-OPEC+)	15.1	15.3	15.5	14.9	15.1	14.8	15.1	15.1	15.1	15.2	14.8	15.0	15.0	15.1	15.3	15.3	15.2
Processing Gains	2.4	2.4	2.3	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Global Biofuels	2.7	2.8	2.3	2.5	3.1	2.6	2.6	2.2	2.9	3.2	2.7	2.7	2.3	3.1	3.4	3.0	2.9
Total Non-OPEC+	44.9	47.2	48.2	44.3	45.5	45.4	45.9	44.9	46.1	47.0	47.1	46.3	47.2	48.0	48.9	49.0	48.3
OPEC+ CRUDE																	
Algeria	1.0	1.0	1.0	0.9	0.8	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.0
Angola	1.5	1.4	1.4	1.3	1.2	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1
Azerbaijan	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Brunei	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Congo	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Equatorial Guinea	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Gabon	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Iran	3.6	2.4	2.0	1.9	2.0	2.1	2.0	2.3	2.4	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5
Iraq	4.6	4.7	4.6	4.1	3.7	3.8	4.0	3.9	3.9	4.1	4.2	4.0	4.3	4.5	4.6	4.7	4.5
Kazakhstan	1.6	1.6	1.7	1.5	1.4	1.4	1.5	1.5	1.5	1.4	1.7	1.5	1.6	1.5	1.6	1.7	1.6
Kuwait	2.7	2.7	2.7	2.4	2.2	2.3	2.4	2.3	2.4	2.4	2.5	2.4	2.6	2.7	2.8	2.8	2.7
Libya	1.0	1.1	0.3	0.1	0.1	0.9	0.4	1.2	1.2	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2
Malaysia	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Mexico	1.8	1.7	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7
Nigeria	1.6	1.7	1.8	1.6	1.4	1.3	1.5	1.4	1.3	1.3	1.2	1.3	1.4	1.4	1.4	1.4	1.4
Oman	0.9	0.8	0.9	0.8	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8
Russia	10.4	10.4	10.4	9.2	8.9	9.1	9.4	9.3	9.5	9.7	10.0	9.6	10.1	10.2	10.3	10.3	10.2
Saudi Arabia	10.3	9.9	9.8	9.3	8.8	9.0	9.2	8.5	8.5	9.6	9.9	9.1	10.2	10.5	10.9	11.0	10.7
South Sudan	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Sudan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
UAE	3.0	3.2	3.2	2.9	2.8	2.5	2.9	2.6	2.6	2.8	2.9	2.7	3.0	3.0	3.1	3.2	3.1
Venezuela	1.4	0.9	0.8	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.8	0.6	0.7	0.8	0.8	0.8	0.7
OPEC+ Crude	47.8	45.9	44.6	40.2	38.2	39.3	40.6	39.9	40.5	41.9	43.3	41.4	44.2	45.0	45.8	46.2	45.3
OPEC+ NGLs & Condensate	7.4	7.4	7.5	7.2	7.1	7.3	7.3	7.4	7.5	7.4	7.6	7.5	7.7	7.8	7.9	8.0	7.9
OPEC+ Nonconventionals	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total OPEC+	55.3	53.4	52.1	47.5	45.4	46.7	47.9	47.5	48.1	49.4	51.0	49.0	52.0	53.0	53.8	54.2	53.3
Total Supply Oil	100.3	100.6	100.3	91.8	91.0	92.2	93.8	92.4	94.2	96.5	98.1	95.3	99.2	101.0	102.7	103.2	101.5
Memo items:																	
Call on OPEC+ crude + Stock ch	47.0	45.7	39.1	32.9	40.2	42.1	38.6	41.7	42.5	44.2	45.4	43.5	43.9	44.2	44.7	44.5	44.3

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

² OECD Americas excludes Mexico

³ FSU excludes Russia, Kazakhstan, Azerbaijan

⁴ Other Asia excludes Brunei, Malaysia

⁵ Middle East excludes Oman, Bahrain

⁶ Africa excludes Sudan, South Sudan

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Demand (mb/d)																
Americas	25.41	24.31	19.85	22.64	22.98	22.44	22.68	24.30	24.73	24.81	24.14	24.36	25.02	25.44	25.06	24.98
Europe	14.31	13.33	11.02	12.87	12.51	12.43	11.91	12.64	13.85	13.87	13.07	13.19	13.53	13.96	13.71	13.60
Asia Oceania	7.93	7.86	6.60	6.75	7.35	7.14	7.67	7.04	7.11	7.79	7.40	8.04	7.25	7.43	7.90	7.65
Total OECD	47.66	45.50	37.46	42.26	42.84	42.02	42.26	43.97	45.69	46.46	44.61	45.59	45.80	46.83	46.67	46.23
Asia	27.90	25.72	26.04	27.24	28.66	26.92	28.48	28.53	28.24	29.41	28.67	29.49	30.05	29.66	30.24	29.86
Middle East	8.71	8.37	7.59	8.59	8.24	8.20	8.23	8.44	8.88	8.44	8.50	8.41	8.51	8.97	8.44	8.58
Americas	6.29	5.77	5.03	5.72	5.90	5.61	5.79	5.86	6.19	6.12	5.99	5.88	5.99	6.17	6.15	6.05
FSU	4.72	4.57	4.09	4.67	4.66	4.50	4.56	4.68	4.93	4.98	4.79	4.67	4.84	5.15	5.10	4.94
Africa	4.25	4.13	3.48	3.75	3.92	3.82	4.08	3.99	3.95	4.09	4.03	4.14	4.13	4.06	4.20	4.13
Europe	0.78	0.74	0.69	0.77	0.77	0.74	0.75	0.74	0.83	0.75	0.77	0.75	0.77	0.83	0.77	0.78
Total Non-OECD	52.66	49.30	46.91	50.73	52.15	49.78	51.89	52.25	53.02	53.78	52.74	53.34	54.30	54.83	54.91	54.35
World	100.32	94.80	84.37	92.99	94.99	91.80	94.15	96.22	98.71	100.24	97.35	98.93	100.10	101.66	101.58	100.58
of which:																
United States ¹	20.46	19.50	16.07	18.45	18.72	18.19	18.45	20.03	20.21	20.18	19.72	19.80	20.34	20.49	20.28	20.23
Europe five ²	8.20	7.62	5.93	7.11	7.03	6.92	6.68	7.08	7.67	7.82	7.32	7.54	7.56	7.75	7.74	7.65
China	13.90	12.22	14.75	14.99	15.21	14.30	14.97	15.68	15.68	15.74	15.52	15.49	16.08	16.15	16.08	15.95
Japan	3.74	3.78	2.93	3.06	3.53	3.33	3.73	3.08	3.18	3.66	3.41	3.97	3.25	3.34	3.68	3.56
India	4.99	4.92	3.89	4.25	5.10	4.54	4.99	4.45	4.48	4.93	4.71	5.06	5.11	4.77	5.19	5.04
Russia	3.57	3.52	3.08	3.58	3.50	3.42	3.49	3.59	3.79	3.75	3.66	3.58	3.70	3.98	3.87	3.78
Brazil	3.08	2.95	2.64	2.99	3.13	2.93	2.97	2.98	3.19	3.12	3.07	2.96	2.96	3.07	3.09	3.02
Saudi Arabia	3.59	3.40	3.23	3.77	3.48	3.47	3.24	3.54	3.76	3.47	3.50	3.27	3.38	3.73	3.37	3.44
Canada	2.51	2.42	1.97	2.25	2.14	2.19	2.12	2.16	2.41	2.39	2.27	2.31	2.34	2.59	2.48	2.43
Korea	2.60	2.53	2.45	2.36	2.40	2.44	2.55	2.50	2.59	2.70	2.59	2.64	2.56	2.67	2.71	2.64
Mexico	1.96	1.85	1.40	1.50	1.58	1.58	1.62	1.64	1.60	1.71	1.64	1.75	1.85	1.87	1.81	1.82
Iran	1.93	2.01	1.78	1.81	1.85	1.86	1.98	1.90	1.90	1.90	1.92	2.01	1.95	1.94	1.92	1.96
Total	70.52	66.71	60.11	66.12	67.68	65.17	66.81	68.63	70.48	71.38	69.34	70.39	71.09	72.35	72.23	71.52
% of World	70.3%	70.4%	71.2%	71.1%	71.3%	71.0%	71.0%	71.3%	71.4%	71.2%	71.2%	71.2%	71.0%	71.2%	71.1%	71.1%
Annual Change (% per annum)																
Americas	0.0	-2.6	-21.5	-12.4	-10.1	-11.7	-6.7	22.4	9.2	8.0	7.5	7.4	3.0	2.9	1.0	3.5
Europe	0.0	-5.4	-22.8	-12.7	-11.6	-13.1	-10.7	14.7	7.6	10.9	5.1	10.7	7.1	0.8	-1.2	4.0
Asia Oceania	-1.0	-6.0	-12.6	-12.3	-9.6	-10.0	-2.5	6.7	5.4	5.9	3.7	4.8	3.1	4.5	1.5	3.4
Total OECD	-0.2	-4.0	-20.4	-12.5	-10.4	-11.8	-7.1	17.4	8.1	8.5	6.2	7.9	4.2	2.5	0.5	3.6
Asia	2.9	-6.8	-6.9	-1.4	0.9	-3.5	10.8	9.6	3.6	2.6	6.5	3.5	5.3	5.1	2.8	4.2
Middle East	-0.1	-1.4	-11.2	-5.9	-5.1	-5.9	-1.7	11.3	3.3	2.4	3.7	2.2	0.8	1.0	0.0	1.0
Americas	0.6	-6.5	-19.8	-10.5	-6.8	-10.9	0.3	16.4	8.3	3.7	6.9	1.5	2.3	-0.4	0.5	0.9
FSU	0.8	1.6	-11.9	-4.8	-3.8	-4.8	-0.3	14.6	5.7	6.7	6.5	2.4	3.5	4.3	2.5	3.2
Africa	0.8	-4.2	-19.0	-9.6	-7.9	-10.2	-1.3	14.9	5.5	4.2	5.5	1.5	3.5	2.6	2.8	2.6
Europe	3.4	-1.8	-12.0	-3.6	-3.1	-5.2	1.0	7.2	7.8	-2.2	3.4	0.1	4.0	0.0	3.3	1.8
Total Non-OECD	1.8	-4.9	-10.6	-4.3	-2.2	-5.5	5.3	11.4	4.5	3.1	5.9	2.8	3.9	3.4	2.1	3.1
World	0.9	-4.5	-15.3	-8.2	-6.1	-8.5	-0.7	14.0	6.1	5.5	6.0	5.1	4.0	3.0	1.3	3.3
Annual Change (mb/d)																
Americas	0.00	-0.64	-5.42	-3.22	-2.58	-2.97	-1.63	4.45	2.09	1.83	1.69	1.68	0.72	0.71	0.26	0.84
Europe	0.00	-0.76	-3.24	-1.87	-1.64	-1.88	-1.42	1.62	0.97	1.36	0.64	1.28	0.89	0.11	-0.16	0.52
Asia Oceania	-0.08	-0.50	-0.95	-0.95	-0.78	-0.80	-0.19	0.44	0.36	0.44	0.26	0.37	0.22	0.32	0.12	0.25
Total OECD	-0.07	-1.90	-9.62	-6.03	-5.00	-5.64	-3.24	6.51	3.43	3.62	2.59	3.33	1.83	1.13	0.21	1.62
Asia	0.79	-1.87	-1.93	-0.39	0.25	-0.98	2.77	2.49	0.99	0.75	1.75	1.01	1.51	1.43	0.83	1.20
Middle East	-0.01	-0.12	-0.95	-0.54	-0.44	-0.51	-0.14	0.86	0.29	0.20	0.30	0.18	0.07	0.09	0.00	0.09
Americas	0.04	-0.40	-1.24	-0.67	-0.43	-0.69	0.02	0.83	0.47	0.22	0.38	0.09	0.13	-0.02	0.03	0.06
FSU	0.04	0.07	-0.55	-0.24	-0.19	-0.23	-0.01	0.59	0.27	0.31	0.29	0.11	0.16	0.21	0.12	0.15
Africa	0.03	-0.18	-0.82	-0.40	-0.34	-0.43	-0.05	0.52	0.21	0.17	0.21	0.06	0.14	0.10	0.12	0.11
Europe	0.03	-0.01	-0.09	-0.03	-0.02	-0.04	0.01	0.05	0.06	-0.02	0.03	0.00	0.03	0.00	0.02	0.01
Total Non-OECD	0.92	-2.51	-5.59	-2.26	-1.17	-2.88	2.59	5.34	2.29	1.63	2.96	1.45	2.05	1.81	1.13	1.61
World	0.85	-4.42	-15.21	-8.29	-6.16	-8.52	-0.65	11.85	5.72	5.25	5.55	4.78	3.88	2.95	1.34	3.23
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	-0.06	0.00	0.00	0.00	0.00	0.00	-0.05	-0.03	-0.01	0.09	0.00	0.14	-0.10	-0.11	-0.03	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.05	0.09	-0.02	-0.03	0.01	0.01
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.10	0.07	0.06	0.03	0.06
Total OECD	-0.06	-	-	-	-	-	-0.04	-0.03	-0.01	0.33	0.06	0.33	-0.05	-0.08	0.01	0.05
Asia	0.36	0.39	0.57	0.39	0.38	0.43	0.39	0.38	0.37	0.29	0.36	0.24	0.32	0.34	0.26	0.29
Middle East	0.47	0.46	0.47	0.47	0.48	0.47	0.49	0.49	0.50	0.59	0.52	0.49	0.47	0.48	0.49	0.48
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.02	0.01	0.02	0.01
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.05	0.02	0.03	0.03	0.03	0.03	0.03
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	0.01	0.00	0.00
Total Non-OECD	0.83	0.85	1.04	0.86	0.86	0.90	0.89	0.88	0.90	0.95	0.91	0.77	0.83	0.87	0.79	0.82
World	0.77	0.85	1.04	0.86	0.86	0.90	0.85	0.85	0.89	1.28	0.97	1.11	0.79	0.80	0.80	0.87
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.15	0.11	0.26	0.07	0.09	0.13	0.00	-0.18	0.04	0.42	0.07	0.26	-0.06	-0.10	-0.48	-0.10

¹ US figures exclude US territories.

² France, Germany, Italy, Spain and UK

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

	Latest month vs.										
	2020	2021	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21 ²	Oct 21	Nov 20
Americas											
LPG and ethane	3.46	3.62	3.75	3.66	3.50	3.54	3.67	3.36	3.89	0.53	0.08
Naphtha	0.25	0.25	0.26	0.23	0.27	0.26	0.26	0.20	0.25	0.05	-0.01
Motor gasoline	9.53	10.32	9.55	9.37	10.56	10.73	10.50	10.60	10.62	0.01	1.14
Jet and kerosene	1.23	1.55	1.24	1.28	1.48	1.72	1.68	1.65	1.72	0.08	0.46
Gasoil/diesel oil	4.92	5.08	5.08	5.07	5.04	5.01	5.22	5.06	5.40	0.35	0.33
Residual fuel oil	0.40	0.53	0.41	0.52	0.50	0.54	0.51	0.54	0.62	0.08	0.23
Other products	2.66	2.79	2.70	2.55	2.95	2.93	2.88	2.92	2.72	-0.20	-0.07
Total	22.44	24.14	22.98	22.68	24.30	24.73	24.72	24.33	25.22	0.89	2.16
Europe											
LPG and ethane	1.08	1.08	1.06	1.12	1.06	1.10	1.01	1.05	0.99	-0.06	-0.08
Naphtha	1.07	1.14	1.16	1.23	1.02	1.11	1.16	1.21	1.17	-0.04	0.02
Motor gasoline	1.75	1.93	1.72	1.57	1.92	2.19	2.15	2.07	1.99	-0.08	0.39
Jet and kerosene	0.73	0.83	0.65	0.61	0.67	1.01	1.06	1.08	1.00	-0.08	0.37
Gasoil/diesel oil	5.96	6.25	6.07	5.70	6.13	6.52	6.85	6.74	6.70	-0.04	0.72
Residual fuel oil	0.68	0.71	0.68	0.69	0.69	0.73	0.75	0.69	0.71	0.02	0.06
Other products	1.15	1.13	1.17	1.00	1.14	1.19	1.25	1.27	1.23	-0.04	-0.02
Total	12.43	13.07	12.51	11.91	12.64	13.85	14.23	14.11	13.79	-0.31	1.46
Asia Oceania											
LPG and ethane	0.78	0.79	0.79	0.86	0.77	0.73	0.74	0.70	0.77	0.07	-0.03
Naphtha	1.82	1.98	1.75	1.97	1.86	2.02	2.13	2.01	2.06	0.05	0.37
Motor gasoline	1.35	1.36	1.42	1.32	1.37	1.36	1.35	1.33	1.37	0.04	-0.06
Jet and kerosene	0.61	0.60	0.69	0.82	0.47	0.43	0.46	0.58	0.65	0.08	0.02
Gasoil/diesel oil	1.79	1.83	1.89	1.82	1.82	1.77	1.83	1.85	1.88	0.03	-0.08
Residual fuel oil	0.43	0.46	0.44	0.50	0.41	0.44	0.43	0.46	0.49	0.02	0.03
Other products	0.35	0.37	0.38	0.37	0.35	0.36	0.37	0.35	0.41	0.06	0.05
Total	7.14	7.40	7.35	7.66	7.04	7.11	7.30	7.28	7.63	0.35	0.30
OECD											
LPG and ethane	5.32	5.49	5.59	5.64	5.33	5.38	5.42	5.11	5.66	0.55	-0.03
Naphtha	3.15	3.38	3.16	3.43	3.16	3.38	3.56	3.42	3.48	0.06	0.37
Motor gasoline	12.64	13.61	12.69	12.27	13.85	14.28	13.99	14.00	13.98	-0.03	1.47
Jet and kerosene	2.57	2.98	2.58	2.70	2.62	3.16	3.20	3.30	3.37	0.07	0.85
Gasoil/diesel oil	12.67	13.15	13.04	12.60	12.98	13.30	13.90	13.65	13.98	0.34	0.97
Residual fuel oil	1.51	1.70	1.53	1.71	1.59	1.71	1.69	1.70	1.82	0.12	0.32
Other products	4.16	4.30	4.25	3.91	4.44	4.49	4.50	4.53	4.35	-0.18	-0.04
Total	42.02	44.61	42.84	42.26	43.97	45.69	46.25	45.71	46.65	0.93	3.92

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

² Latest official OECD submissions (MOS).

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

	2020	2021	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21 ²	Latest month vs.	
										Oct 21	Nov 20
United States³											
LPG and ethane	2.74	2.82	3.01	2.85	2.76	2.73	2.83	2.62	3.08	0.46	0.02
Naphtha	0.18	0.19	0.19	0.16	0.21	0.20	0.20	0.15	0.19	0.04	0.01
Motor gasoline	8.05	8.79	8.06	8.00	9.07	9.13	8.97	8.95	8.99	0.04	0.99
Jet and kerosene	1.08	1.38	1.10	1.14	1.34	1.52	1.50	1.45	1.50	0.05	0.37
Gasoil/diesel oil	3.78	3.95	3.94	3.97	3.93	3.87	4.08	3.89	4.17	0.28	0.29
Residual fuel oil	0.21	0.30	0.22	0.26	0.25	0.33	0.32	0.38	0.43	0.06	0.22
Other products	2.13	2.30	2.21	2.05	2.47	2.43	2.34	2.45	2.23	-0.23	-0.05
Total	18.19	19.72	18.72	18.45	20.03	20.21	20.22	19.89	20.59	0.70	1.85
Japan											
LPG and ethane	0.41	0.42	0.42	0.50	0.40	0.37	0.39	0.35	0.42	0.06	0.00
Naphtha	0.68	0.73	0.71	0.74	0.68	0.70	0.78	0.74	0.78	0.04	0.04
Motor gasoline	0.76	0.74	0.78	0.71	0.71	0.78	0.76	0.74	0.72	-0.02	-0.04
Jet and kerosene	0.36	0.36	0.44	0.55	0.24	0.21	0.23	0.32	0.39	0.07	0.00
Diesel	0.40	0.40	0.42	0.41	0.39	0.39	0.41	0.41	0.40	-0.01	-0.02
Other gasoil	0.30	0.31	0.33	0.35	0.28	0.27	0.29	0.31	0.31	0.01	0.00
Residual fuel oil	0.21	0.24	0.23	0.27	0.21	0.23	0.22	0.24	0.26	0.02	0.02
Other products	0.20	0.22	0.20	0.20	0.18	0.23	0.24	0.23	0.24	0.01	0.04
Total	3.33	3.41	3.53	3.73	3.08	3.18	3.32	3.35	3.52	0.18	0.05
Germany											
LPG and ethane	0.11	0.12	0.10	0.12	0.13	0.12	0.11	0.11	0.10	-0.01	0.01
Naphtha	0.29	0.34	0.32	0.35	0.31	0.32	0.35	0.36	0.34	-0.02	0.02
Motor gasoline	0.45	0.45	0.44	0.40	0.44	0.48	0.48	0.47	0.47	0.00	0.06
Jet and kerosene	0.10	0.13	0.08	0.09	0.11	0.16	0.18	0.17	0.16	0.00	0.07
Diesel	0.71	0.71	0.71	0.60	0.71	0.77	0.77	0.78	0.78	-0.01	0.08
Other gasoil	0.36	0.28	0.33	0.22	0.26	0.26	0.32	0.38	0.35	-0.03	0.05
Residual fuel oil	0.05	0.05	0.05	0.05	0.04	0.05	0.05	0.05	0.06	0.01	0.00
Other products	0.08	0.07	0.07	0.05	0.06	0.07	0.09	0.09	0.08	-0.01	0.00
Total	2.15	2.13	2.11	1.89	2.07	2.23	2.36	2.41	2.35	-0.07	0.30
Italy											
LPG and ethane	0.09	0.10	0.10	0.11	0.09	0.09	0.09	0.10	0.10	0.00	0.02
Naphtha	0.10	0.11	0.12	0.11	0.10	0.09	0.10	0.10	0.12	0.01	-0.01
Motor gasoline	0.14	0.17	0.14	0.13	0.17	0.19	0.18	0.18	0.18	0.00	0.05
Jet and kerosene	0.04	0.04	0.04	0.02	0.04	0.07	0.06	0.05	0.05	0.00	0.00
Diesel	0.42	0.49	0.45	0.44	0.49	0.52	0.54	0.50	0.52	0.01	0.10
Other gasoil	0.06	0.06	0.07	0.05	0.06	0.07	0.07	0.07	0.05	-0.02	-0.03
Residual fuel oil	0.06	0.06	0.06	0.05	0.05	0.06	0.06	0.06	0.06	0.00	0.01
Other products	0.14	0.15	0.15	0.14	0.16	0.16	0.17	0.17	0.17	0.00	0.01
Total	1.05	1.18	1.13	1.04	1.15	1.25	1.29	1.24	1.24	-0.00	0.16
France											
LPG and ethane	0.11	0.12	0.11	0.12	0.13	0.11	0.10	0.08	0.10	0.02	-0.02
Naphtha	0.12	0.14	0.14	0.15	0.12	0.13	0.14	0.16	0.15	-0.01	0.02
Motor gasoline	0.17	0.21	0.17	0.18	0.20	0.24	0.24	0.22	0.22	0.00	0.09
Jet and kerosene	0.09	0.09	0.08	0.08	0.07	0.11	0.11	0.11	0.11	0.00	0.04
Diesel	0.67	0.74	0.69	0.68	0.72	0.78	0.80	0.78	0.76	-0.02	0.15
Other gasoil	0.14	0.13	0.13	0.17	0.09	0.11	0.15	0.15	0.14	-0.02	0.03
Residual fuel oil	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.02	0.03	0.00	0.00
Other products	0.09	0.09	0.09	0.07	0.09	0.12	0.12	0.10	0.10	-0.01	0.01
Total	1.42	1.55	1.44	1.47	1.45	1.63	1.70	1.63	1.60	-0.03	0.32
United Kingdom											
LPG and ethane	0.13	0.11	0.12	0.13	0.09	0.10	0.10	0.10	0.12	0.02	-0.01
Naphtha	0.02	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	-0.01
Motor gasoline	0.22	0.25	0.23	0.20	0.26	0.28	0.29	0.30	0.26	-0.04	0.03
Jet and kerosene	0.19	0.17	0.17	0.17	0.14	0.16	0.20	0.21	0.22	0.01	0.06
Diesel	0.43	0.48	0.46	0.42	0.50	0.50	0.53	0.49	0.51	0.03	0.04
Other gasoil	0.11	0.13	0.11	0.11	0.14	0.14	0.14	0.13	0.10	-0.03	-0.02
Residual fuel oil	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	-0.01	0.00
Other products	0.10	0.11	0.10	0.09	0.11	0.11	0.11	0.10	0.11	0.01	0.00
Total	1.21	1.27	1.22	1.16	1.25	1.31	1.39	1.34	1.34	-0.00	0.09
Canada											
LPG and ethane	0.37	0.44	0.37	0.46	0.40	0.45	0.48	0.40	0.43	0.03	0.02
Naphtha	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.03	0.01	-0.01
Motor gasoline	0.75	0.79	0.74	0.67	0.77	0.86	0.81	0.90	0.82	-0.08	0.07
Jet and kerosene	0.07	0.08	0.06	0.05	0.05	0.10	0.10	0.09	0.11	0.01	0.05
Diesel	0.27	0.27	0.26	0.27	0.27	0.27	0.27	0.26	0.27	0.01	0.00
Other gasoil	0.33	0.34	0.35	0.32	0.32	0.36	0.38	0.38	0.37	-0.01	-0.02
Residual fuel oil	0.04	0.03	0.03	0.04	0.03	0.02	0.02	0.02	0.03	0.01	0.00
Other products	0.33	0.30	0.29	0.28	0.28	0.32	0.36	0.27	0.32	0.04	0.00
Total	2.19	2.27	2.14	2.12	2.16	2.41	2.45	2.35	2.37	0.02	0.11

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

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2020	2021	2022	3Q21	4Q21	1Q22	2Q22	3Q22	Nov 21	Dec 21	Jan 22
OPEC											
Crude Oil											
Saudi Arabia	9.21	9.12		9.57	9.90				9.89	10.01	10.10
Iran	2.00	2.42		2.47	2.48				2.47	2.50	2.50
Iraq	4.05	4.03		4.06	4.23				4.25	4.29	4.25
UAE	2.86	2.72		2.76	2.86				2.86	2.88	2.93
Kuwait	2.41	2.42		2.44	2.53				2.53	2.55	2.57
Angola	1.27	1.12		1.11	1.12				1.11	1.15	1.19
Nigeria	1.49	1.31		1.27	1.24				1.29	1.21	1.38
Libya	0.35	1.15		1.16	1.12				1.14	1.05	0.99
Algeria	0.90	0.91		0.92	0.96				0.96	0.97	0.98
Congo	0.30	0.27		0.27	0.26				0.25	0.26	0.26
Gabon	0.20	0.18		0.18	0.19				0.19	0.21	0.18
Equatorial Guinea	0.11	0.10		0.10	0.08				0.07	0.09	0.09
Venezuela	0.53	0.61		0.59	0.76				0.78	0.80	0.68
Total Crude Oil	25.69	26.36		26.90	27.74				27.79	27.97	28.10
<i>of which Neutral Zone¹</i>	<i>0.11</i>	<i>0.25</i>		<i>0.24</i>	<i>0.28</i>				<i>0.27</i>	<i>0.30</i>	<i>0.30</i>
Total NGLs²	5.11	5.22	5.43	5.24	5.24	5.33	5.43	5.47	5.24	5.24	5.29
Total OPEC³	30.80	31.58		32.14	32.98				33.03	33.21	33.39
NON-OPEC⁴											
OECD											
Americas	23.84	24.34	25.86	24.38	25.38	25.44	25.66	25.98	25.52	25.46	25.49
United States	16.56	16.75	17.97	16.79	17.64	17.57	17.90	18.03	17.69	17.84	17.65
Mexico	1.93	1.95	2.01	1.95	1.97	1.97	2.00	2.01	1.97	1.97	1.96
Canada	5.35	5.63	5.88	5.63	5.77	5.89	5.75	5.92	5.85	5.64	5.87
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.56	3.38	3.42	3.39	3.40	3.47	3.33	3.41	3.32	3.45	3.46
UK	1.08	0.89	0.88	0.88	0.88	0.88	0.87	0.87	0.85	0.87	0.88
Norway	2.01	2.04	2.10	2.05	2.06	2.13	2.01	2.09	2.00	2.11	2.13
Others	0.47	0.46	0.45	0.46	0.46	0.45	0.45	0.44	0.47	0.47	0.45
Asia Oceania	0.52	0.51	0.51	0.54	0.54	0.52	0.52	0.51	0.53	0.54	0.52
Australia	0.45	0.44	0.45	0.46	0.47	0.46	0.45	0.45	0.47	0.47	0.46
Others	0.07	0.07	0.06	0.08	0.07	0.07	0.07	0.06	0.07	0.07	0.07
Total OECD	27.92	28.23	29.80	28.30	29.32	29.43	29.51	29.90	29.38	29.45	29.48
NON-OECD											
Former USSR	13.50	13.77	14.59	13.67	14.31	14.44	14.51	14.61	14.34	14.38	14.41
Russia	10.61	10.87	11.57	10.89	11.24	11.42	11.56	11.62	11.25	11.28	11.35
Azerbaijan	0.70	0.70	0.70	0.71	0.71	0.70	0.71	0.71	0.71	0.72	0.70
Kazakhstan	1.84	1.85	1.95	1.70	1.99	1.96	1.87	1.91	2.02	2.02	2.00
Others	0.36	0.36	0.37	0.36	0.36	0.37	0.37	0.37	0.36	0.36	0.37
Asia	6.99	6.91	6.84	6.88	6.80	6.87	6.86	6.83	6.85	6.76	6.85
China	3.97	4.06	4.10	4.08	4.01	4.11	4.10	4.09	4.04	3.96	4.10
Malaysia	0.60	0.57	0.57	0.53	0.55	0.56	0.57	0.57	0.56	0.57	0.54
India	0.75	0.73	0.71	0.73	0.72	0.72	0.71	0.70	0.73	0.72	0.73
Indonesia	0.73	0.68	0.65	0.68	0.67	0.66	0.66	0.65	0.67	0.67	0.67
Others	0.93	0.88	0.82	0.86	0.85	0.82	0.82	0.81	0.85	0.85	0.82
Europe	0.12	0.11	0.10	0.11	0.11	0.11	0.11	0.10	0.11	0.11	0.11
Americas	5.32	5.29	5.51	5.43	5.15	5.31	5.38	5.63	5.30	4.94	5.30
Brazil	3.04	3.00	3.08	3.10	2.89	3.00	3.02	3.15	2.96	2.84	3.00
Argentina	0.61	0.64	0.69	0.64	0.68	0.68	0.69	0.69	0.68	0.69	0.68
Colombia	0.79	0.74	0.72	0.75	0.75	0.74	0.73	0.72	0.75	0.75	0.74
Ecuador	0.48	0.48	0.48	0.49	0.40	0.48	0.49	0.48	0.49	0.24	0.46
Others	0.40	0.43	0.53	0.43	0.42	0.41	0.46	0.59	0.42	0.42	0.41
Middle East	3.01	3.09	3.23	3.10	3.13	3.19	3.23	3.24	3.13	3.15	3.16
Oman	0.96	0.98	1.07	0.98	1.01	1.05	1.07	1.08	1.01	1.02	1.04
Qatar	1.77	1.82	1.85	1.82	1.83	1.85	1.85	1.85	1.83	1.83	1.85
Others	0.28	0.29	0.30	0.29	0.29	0.30	0.31	0.30	0.30	0.30	0.28
Africa	1.39	1.31	1.29	1.30	1.30	1.30	1.26	1.29	1.30	1.30	1.31
Egypt	0.60	0.57	0.56	0.56	0.57	0.57	0.56	0.56	0.57	0.56	0.57
Others	0.79	0.74	0.72	0.73	0.73	0.74	0.70	0.73	0.73	0.74	0.74
Total Non-OECD	30.33	30.49	31.55	30.48	30.80	31.23	31.35	31.70	31.04	30.64	31.14
Processing gains ⁵	2.11	2.25	2.38	2.34	2.32	2.38	2.38	2.38	2.33	2.37	2.38
Global biofuels	2.63	2.74	2.92	3.19	2.67	2.31	3.06	3.36	2.67	2.45	2.30
TOTAL NON-OPEC	63.00	63.72	66.65	64.31	65.11	65.34	66.29	67.33	65.42	64.91	65.30
TOTAL SUPPLY	93.80	95.30		96.45	98.09				98.45	98.12	98.69

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. GTL in Nigeria and non-oil inputs to Saudi Arabian MTBE.

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

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

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

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

	2020	2021	2022	3Q21	4Q21	1Q22	2Q22	3Q22	Nov 21	Dec 21	Jan 22
United States											
Alaska	448	438	450	406	447	457	455	428	446	457	453
California	404	370	352	368	360	357	353	350	360	360	358
Texas	4854	4777	5182	4885	5007	5088	5171	5209	4988	5079	5090
Federal Gulf of Mexico ²	1644	1714	1900	1486	1782	1882	1910	1923	1795	1862	1893
Other US Lower 48	3934	3917	4302	3988	4150	4237	4280	4344	4164	4217	4205
NGLs ³	5175	5393	5601	5521	5721	5375	5557	5604	5768	5685	5468
Other Hydrocarbons	98	141	179	137	170	173	170	177	170	180	180
Total	16556	16751	17966	16790	17637	17568	17896	18034	17691	17839	17647
Canada											
Alberta Light/Medium/Heavy	423	436	478	438	459	483	480	477	463	457	484
Alberta Bitumen	1718	1921	2198	1940	1963	2147	2184	2283	2012	1891	2118
Saskatchewan	435	444	439	444	445	446	441	437	444	443	447
Other Crude	490	454	391	457	422	341	405	404	415	425	310
NGLs	949	1010	1032	1021	999	1038	1027	1044	1019	1007	1034
Other Upgraders	219	180	180	178	199	193	163	171	201	191	199
Synthetic Crudes	1116	1181	1163	1148	1280	1244	1051	1102	1297	1230	1280
Total	5349	5625	5883	5626	5769	5891	5752	5918	5853	5644	5872
Mexico											
Crude	1716	1780	1849	1784	1803	1807	1837	1858	1804	1807	1797
NGLs	206	168	154	162	161	158	155	153	162	159	159
Total	1926	1953	2007	1951	1968	1969	1996	2015	1970	1970	1961
UK											
Brent Fields	35	27	21	19	26	24	24	16	28	23	25
Forties Fields	297	216	218	224	247	241	208	200	250	247	242
Ninian Fields	31	23	17	23	19	18	18	17	21	17	19
Flotta Fields	51	51	45	57	48	47	43	45	41	50	47
Other Fields	575	503	504	485	468	480	509	520	437	463	474
NGLs	88	67	71	69	72	72	71	70	71	72	72
Total	1077	888	875	878	880	882	872	868	849	871	880
Norway⁵											
Ekofisk-Ula Area	132	142	132	145	142	140	133	122	140	142	141
Oseberg-Troll Area	234	211	236	207	219	233	230	235	211	235	229
Statfjord-Gullfaks Area	230	262	250	271	267	260	254	241	257	265	263
Haltenbanken Area	280	283	306	274	291	295	302	308	300	288	293
Sleipner-Frigg Area	743	821	874	800	857	869	868	861	854	865	872
Other Fields	101	69	60	96	31	84	-20	94	-21	55	83
NGLs	288	253	242	260	250	251	246	234	257	258	252
Total	2007	2041	2100	2054	2058	2133	2013	2094	1998	2108	2134
Other OECD Europe											
Denmark	71	66	65	67	67	67	66	64	68	72	66
Italy	101	98	105	103	106	106	105	104	114	105	105
Turkey	62	66	67	67	67	67	67	67	67	67	67
Other	91	99	90	100	93	93	91	89	98	93	93
NGLs	7	7	6	7	6	6	6	5	6	6	6
Non-Conventional Oils	144	121	115	115	119	114	115	115	122	124	113
Total	474	456	446	459	457	453	449	444	474	467	450
Australia											
Gippsland Basin	8	4	4	4	4	4	4	4	4	4	4
Cooper-Eromanga Basin	35	23	19	21	21	20	20	19	21	20	20
Carnarvon Basin	106	112	110	121	117	114	112	109	116	117	115
Other Crude	202	200	211	208	224	214	212	210	225	223	214
NGLs	102	100	104	108	105	105	104	104	101	110	104
Total	453	440	449	462	470	456	451	446	466	475	457
Other OECD Asia Oceania											
New Zealand	21	18	17	18	18	17	17	17	18	18	18
Japan	4	4	4	4	4	4	4	4	3	4	4
NGLs	11	11	10	11	11	10	10	9	11	10	10
Non-Conventional Oils	34	37	35	43	34	35	35	35	33	37	34
Total	71	70	65	75	66	66	65	65	66	68	65
OECD											
Crude Oil	19475	19552	20897	19512	20175	20642	20782	21059	20147	20371	20554
NGLs	6834	7016	7227	7166	7334	7023	7185	7232	7403	7315	7114
Non-Conventional Oils ⁴	1615	1664	1676	1626	1807	1763	1538	1604	1827	1766	1810
Total	27923	28232	29800	28305	29316	29429	29505	29895	29378	29452	29477

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 are included.

Table 3b
WORLD OIL PRODUCTION (Including OPEC+ based on current agreement¹)
(million barrels per day)

	2020	2021	2022	1Q21	2Q21	3Q21	4Q21	1Q22	Nov 21	Dec 21	Jan 22
OPEC+											
Crude Oil											
Algeria	0.90	0.91	0.99	0.87	0.89	0.92	0.96	0.98	0.96	0.97	0.98
Angola	1.27	1.12	1.12	1.14	1.12	1.11	1.12	1.15	1.11	1.15	1.19
Azerbaijan	0.61	0.59	0.58	0.59	0.60	0.60	0.59	0.57	0.59	0.60	0.58
Bahrain	0.17	0.17	0.19	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.16
Brunei	0.08	0.08	0.09	0.09	0.09	0.08	0.08	0.09	0.08	0.09	0.08
Congo	0.30	0.27	0.29	0.28	0.27	0.27	0.26	0.28	0.25	0.26	0.26
Equatorial Guinea	0.11	0.10	0.11	0.11	0.11	0.10	0.08	0.10	0.07	0.09	0.09
Gabon	0.20	0.18	0.18	0.17	0.18	0.18	0.19	0.18	0.19	0.21	0.18
Iran	2.00	2.42	2.50	2.32	2.40	2.47	2.48	2.50	2.47	2.50	2.50
Iraq	4.05	4.03	4.51	3.88	3.94	4.06	4.23	4.31	4.25	4.29	4.25
Kazakhstan	1.50	1.52	1.60	1.49	1.52	1.41	1.66	1.61	1.66	1.67	1.63
Kuwait	2.41	2.42	2.72	2.34	2.35	2.44	2.53	2.61	2.53	2.55	2.57
Libya	0.35	1.15	1.16	1.15	1.15	1.16	1.12	1.08	1.14	1.05	0.99
Malaysia	0.46	0.42	0.42	0.45	0.43	0.39	0.40	0.41	0.41	0.42	0.39
Mexico	1.66	1.66	1.68	1.67	1.69	1.65	1.65	1.65	1.65	1.65	1.64
Nigeria	1.49	1.31	1.42	1.39	1.34	1.27	1.24	1.41	1.29	1.21	1.38
Oman	0.76	0.75	0.84	0.73	0.74	0.76	0.78	0.82	0.78	0.80	0.81
Russia	9.42	9.62	10.22	9.26	9.54	9.72	9.95	10.11	9.96	9.98	10.04
Saudi Arabia	9.21	9.12	10.67	8.47	8.53	9.57	9.90	10.22	9.89	10.01	10.10
South Sudan	0.16	0.15	0.15	0.14	0.16	0.16	0.15	0.15	0.16	0.15	0.15
Sudan	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
UAE	2.86	2.72	3.08	2.61	2.64	2.76	2.86	2.95	2.86	2.88	2.93
Venezuela	0.53	0.61	0.74	0.55	0.55	0.59	0.76	0.72	0.78	0.80	0.68
Total Crude Oil	40.57	41.40	45.29	39.94	40.47	41.90	43.25	44.15	43.33	43.56	43.65
<i>of which Neutral Zone</i>	<i>0.11</i>	<i>0.22</i>		<i>0.23</i>	<i>0.26</i>	<i>0.24</i>	<i>0.28</i>		<i>0.27</i>	<i>0.30</i>	<i>0.30</i>
Total NGLs	7.38	7.60	7.98	7.56	7.60	7.52	7.71	7.84	7.74	7.74	7.80
TOTAL OPEC+	47.9	49.0	53.3	47.5	48.1	49.4	51.0	52.0	51.1	51.3	51.4
NON-OPEC+											
OECD											
Americas²	21.91	22.38	23.86	21.37	22.30	22.43	23.42	23.47	23.55	23.49	23.53
United States	16.56	16.75	17.97	15.68	16.88	16.79	17.64	17.57	17.69	17.84	17.65
Canada	5.35	5.63	5.88	5.69	5.42	5.63	5.77	5.89	5.85	5.64	5.87
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.56	3.38	3.42	3.63	3.13	3.39	3.40	3.47	3.32	3.45	3.46
UK	1.08	0.89	0.88	1.03	0.77	0.88	0.88	0.88	0.85	0.87	0.88
Norway	2.01	2.04	2.10	2.14	1.92	2.05	2.06	2.13	2.00	2.11	2.13
Others	0.47	0.46	0.45	0.47	0.44	0.46	0.46	0.45	0.47	0.47	0.45
Asia Oceania	0.52	0.51	0.51	0.51	0.46	0.54	0.54	0.52	0.53	0.54	0.52
Australia	0.45	0.44	0.45	0.44	0.39	0.46	0.47	0.46	0.47	0.47	0.46
Others	0.07	0.07	0.06	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07
Total OECD (non-OPEC+)	26.00	26.28	27.79	25.51	25.88	26.35	27.35	27.46	27.41	27.48	27.52
Non-OECD											
FSU	0.36	0.36	0.37	0.35	0.35	0.36	0.36	0.37	0.36	0.36	0.37
Asia	6.27	6.24	6.17	6.29	6.28	6.25	6.14	6.21	6.18	6.08	6.22
China	3.97	4.06	4.10	4.06	4.09	4.08	4.01	4.11	4.04	3.96	4.10
India	0.75	0.73	0.71	0.74	0.72	0.73	0.72	0.72	0.73	0.72	0.73
Indonesia	0.73	0.68	0.65	0.70	0.68	0.68	0.67	0.66	0.67	0.67	0.67
Others	0.82	0.77	0.71	0.79	0.79	0.76	0.74	0.72	0.74	0.74	0.72
Europe	0.12	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Americas	5.32	5.29	5.51	5.27	5.31	5.43	5.15	5.31	5.30	4.94	5.30
Brazil	3.04	3.00	3.08	2.95	3.04	3.10	2.89	3.00	2.96	2.84	3.00
Argentina	0.61	0.64	0.69	0.62	0.63	0.64	0.68	0.68	0.68	0.69	0.68
Colombia	0.79	0.74	0.72	0.75	0.72	0.75	0.75	0.74	0.75	0.75	0.74
Ecuador	0.48	0.48	0.48	0.51	0.50	0.49	0.40	0.48	0.49	0.24	0.46
Others	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Middle East	1.87	1.93	1.96	1.92	1.92	1.93	1.93	1.96	1.93	1.93	1.96
Qatar	1.77	1.82	1.85	1.82	1.82	1.82	1.83	1.85	1.83	1.83	1.85
Others	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11
Africa	1.2	1.1	1.1	1.11	1.11	1.08	1.08	1.09	1.08	1.09	1.10
Egypt	0.60	0.57	0.56	0.57	0.58	0.56	0.57	0.57	0.57	0.56	0.57
Others	0.57	0.53	0.51	0.54	0.53	0.52	0.52	0.53	0.51	0.53	0.53
Total non-OECD (non-OPEC+)	15.11	15.02	15.18	15.06	15.09	15.15	14.78	15.05	14.97	14.52	15.05
Processing gains	2.11	2.25	2.38	2.13	2.22	2.34	2.32	2.38	2.33	2.37	2.38
Global biofuels	2.63	2.74	2.92	2.18	2.93	3.19	2.67	2.31	2.67	2.45	2.30
TOTAL NON-OPEC+	45.85	46.30	48.28	44.87	46.13	47.03	47.12	47.19	47.38	46.82	47.24
TOTAL SUPPLY	93.80	95.30	101.55	92.38	94.20	96.45	98.09	99.18	98.45	98.12	98.69

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

² Excludes Mexico

Table 4
OECD STOCKS AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Aug2021	Sep2021	Oct2021	Nov2021	Dec2021 ³	Dec2018	Dec2019	Dec2020	1Q2021	2Q2021	3Q2021	4Q2021
OECD INDUSTRY-CONTROLLED STOCKS¹												
OECD Americas												
Crude	597.8	591.8	618.9	615.5	599.8	604.3	580.1	650.8	0.26	-0.57	-0.33	0.09
Motor Gasoline	251.5	253.2	243.5	247.7	263.5	278.3	279.7	272.2	-0.06	-0.02	-0.13	0.11
Middle Distillate	207.1	198.7	197.7	191.7	191.4	217.3	204.5	224.9	-0.16	-0.01	-0.12	-0.08
Residual Fuel Oil	36.4	34.9	35.6	35.3	34.2	34.2	36.5	38.0	0.02	-0.01	-0.04	-0.01
Total Products ⁴	761.5	756.3	746.0	733.8	725.4	775.4	787.4	793.9	-0.65	0.26	-0.03	-0.34
Total⁴	1521.3	1511.4	1529.8	1509.4	1478.4	1541.9	1524.9	1611.9	-0.44	-0.27	-0.40	-0.36
OECD Europe												
Crude	315.1	306.4	312.1	313.6	311.2	333.9	352.1	371.0	-0.20	-0.12	-0.38	0.05
Motor Gasoline	83.2	80.5	85.6	87.8	86.1	93.8	91.7	98.9	-0.10	-0.04	-0.07	0.06
Middle Distillate	296.4	272.7	252.9	253.1	245.9	256.5	277.0	317.4	-0.06	-0.07	-0.36	-0.29
Residual Fuel Oil	64.3	63.4	58.6	60.9	59.4	53.9	59.5	67.1	0.00	-0.03	-0.01	-0.04
Total Products ⁴	544.9	514.2	493.2	499.4	489.2	515.8	546.0	595.8	-0.26	-0.20	-0.44	-0.27
Total⁵	934.1	892.4	878.1	885.6	869.1	929.8	977.8	1043.4	-0.46	-0.32	-0.88	-0.25
OECD Asia Oceania												
Crude	114.0	109.4	109.2	108.8	108.4	155.0	154.7	152.7	-0.33	0.01	-0.17	-0.01
Motor Gasoline	28.3	26.7	28.1	24.5	23.7	24.8	26.8	25.9	0.04	0.00	-0.03	-0.03
Middle Distillate	75.0	72.1	72.6	70.2	63.7	74.1	72.5	66.3	-0.03	0.02	0.07	-0.09
Residual Fuel Oil	18.2	18.7	16.4	16.0	17.0	20.1	17.4	15.6	0.02	0.00	0.02	-0.02
Total Products ⁴	186.9	184.3	185.3	175.0	162.8	182.7	175.3	168.5	-0.02	0.05	0.15	-0.23
Total⁵	363.9	355.4	355.6	344.9	332.5	401.8	393.8	380.1	-0.38	0.12	-0.02	-0.25
Total OECD												
Crude	1026.9	1007.6	1040.2	1037.8	1019.4	1093.1	1086.9	1174.4	-0.27	-0.67	-0.89	0.13
Motor Gasoline	362.9	360.4	357.1	360.0	373.2	397.0	398.2	396.9	-0.12	-0.06	-0.22	0.14
Middle Distillate	578.5	543.5	523.1	514.9	501.0	547.9	553.9	608.7	-0.25	-0.05	-0.41	-0.46
Residual Fuel Oil	118.9	116.9	110.7	112.2	110.5	108.1	113.4	120.6	0.03	-0.04	-0.03	-0.07
Total Products ⁴	1493.3	1454.8	1424.5	1408.3	1377.5	1473.9	1508.7	1558.2	-0.93	0.11	-0.31	-0.84
Total⁵	2819.4	2759.2	2763.5	2739.9	2680.0	2873.5	2896.5	3035.4	-1.28	-0.47	-1.30	-0.86
OECD GOVERNMENT-CONTROLLED STOCKS⁶												
OECD Americas												
Crude	621.3	617.8	610.7	601.5	593.7	649.1	635.0	638.1	0.00	-0.18	-0.04	-0.26
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	204.0	205.3	203.2	202.4	201.3	210.9	207.5	205.2	0.02	-0.02	0.00	-0.04
Products	278.0	277.7	274.7	275.2	276.5	267.9	273.0	280.2	0.03	-0.05	-0.01	-0.01
OECD Asia Oceania												
Crude	371.3	369.5	369.5	370.5	370.1	381.1	377.3	374.6	0.00	0.00	-0.05	0.01
Products	38.8	38.8	38.9	38.9	38.9	38.8	38.9	39.1	0.00	0.00	0.00	0.00
Total OECD												
Crude	1196.5	1192.5	1183.4	1174.3	1165.1	1241.2	1219.7	1217.9	0.02	-0.20	-0.10	-0.30
Products	318.9	318.5	315.6	316.1	317.5	308.6	313.9	321.3	0.03	-0.05	-0.01	-0.01
Total⁵	1517.1	1512.7	1500.7	1492.4	1484.3	1551.7	1535.3	1541.3	0.05	-0.24	-0.12	-0.31

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

² Closing stock levels.

³ Estimated.

⁴ Total products includes gasoline, middle distillates, fuel oil and other products.

⁵ Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

⁶ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 4a
INDUSTRY STOCKS¹ ON LAND IN SELECTED COUNTRIES

(million barrels)

	July			August			September			October			November		
	2020	2021	%	2020	2021	%	2020	2021	%	2020	2021	%	2020	2021	%
United States²															
Crude	520.1	438.9	-15.6	504.4	421.7	-16.4	497.7	420.4	-15.5	493.9	436.6	-11.6	500.8	434.0	-13.3
Motor Gasoline	250.4	230.8	-7.8	237.5	225.7	-5.0	227.6	227.0	-0.3	227.6	216.7	-4.8	241.2	220.6	-8.5
Middle Distillate	221.9	187.5	-15.5	222.2	182.4	-17.9	215.0	176.3	-18.0	196.4	175.5	-10.6	197.5	171.0	-13.4
Residual Fuel Oil	35.9	29.1	-18.9	34.4	29.4	-14.5	32.1	28.0	-12.8	31.2	28.4	-9.0	31.1	27.6	-11.3
Other Products	273.7	239.5	-12.5	291.1	246.9	-15.2	306.1	251.1	-18.0	292.7	250.8	-14.3	273.2	239.3	-12.4
Total Products	781.9	686.9	-12.1	785.2	684.4	-12.8	780.8	682.4	-12.6	747.9	671.4	-10.2	743.0	658.5	-11.4
Other ³	152.0	143.0	-5.9	147.9	135.1	-8.7	144.7	137.9	-4.7	144.4	139.4	-3.5	144.9	136.1	-6.1
Total	1454.0	1268.8	-12.7	1437.5	1241.2	-13.7	1423.2	1240.7	-12.8	1386.2	1247.4	-10.0	1388.7	1228.6	-11.5
Japan															
Crude	94.1	70.5	-25.1	94.2	73.9	-21.5	90.2	70.8	-21.5	89.7	72.8	-18.8	79.6	78.1	-1.9
Motor Gasoline	11.9	9.9	-16.8	12.1	9.9	-18.2	12.2	10.2	-16.4	12.1	11.6	-4.1	12.5	10.4	-16.8
Middle Distillate	33.0	30.8	-6.7	37.1	34.4	-7.3	37.7	36.2	-4.0	38.3	36.6	-4.4	38.6	36.9	-4.4
Residual Fuel Oil	7.4	7.1	-4.1	7.2	7.3	1.4	6.9	7.4	7.2	6.9	6.9	0.0	7.0	6.5	-7.1
Other Products	36.0	31.7	-11.9	38.4	36.3	-5.5	38.5	37.7	-2.1	36.0	39.1	8.6	35.5	36.4	2.5
Total Products	88.3	79.5	-10.0	94.8	87.9	-7.3	95.3	91.5	-4.0	93.3	94.2	1.0	93.6	90.2	-3.6
Other ³	53.6	51.1	-4.7	56.1	52.9	-5.7	54.4	51.4	-5.5	52.5	49.9	-5.0	52.4	50.9	-2.9
Total	236.0	201.1	-14.8	245.1	214.7	-12.4	239.9	213.7	-10.9	235.5	216.9	-7.9	225.6	219.2	-2.8
Germany															
Crude	49.9	50.6	1.4	50.2	47.8	-4.8	49.6	45.5	-8.3	48.8	46.5	-4.7	50.1	47.0	-6.2
Motor Gasoline	8.9	9.1	2.2	10.0	9.5	-5.0	9.3	9.6	3.2	10.2	10.6	3.9	11.7	10.6	-9.4
Middle Distillate	25.5	25.4	-0.4	27.6	25.1	-9.1	22.3	21.8	-2.2	21.7	21.2	-2.3	24.3	22.4	-7.8
Residual Fuel Oil	7.4	7.9	6.8	8.3	8.1	-2.4	7.9	8.1	2.5	7.1	8.1	14.1	7.2	8.5	18.1
Other Products	9.5	10.1	6.3	9.6	10.6	10.4	9.7	10.4	7.2	9.7	10.8	11.3	9.1	10.5	15.4
Total Products	51.3	52.5	2.3	55.5	53.3	-4.0	49.2	49.9	1.4	48.7	50.7	4.1	52.3	52.0	-0.6
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	101.2	103.1	1.9	105.7	101.1	-4.4	98.8	95.4	-3.4	97.5	97.2	-0.3	102.4	99.0	-3.3
Italy															
Crude	43.2	36.0	-16.7	40.8	32.9	-19.4	40.0	33.6	-16.0	40.4	31.8	-21.3	36.7	36.1	-1.6
Motor Gasoline	11.5	9.4	-18.3	11.4	9.3	-18.4	11.5	9.6	-16.5	11.8	11.7	-0.8	12.8	11.3	-11.7
Middle Distillate	31.2	22.6	-27.6	31.3	26.6	-15.0	30.1	26.6	-11.6	29.2	25.1	-14.0	29.3	23.8	-18.8
Residual Fuel Oil	8.0	7.0	-12.5	8.4	7.5	-10.7	7.9	7.0	-11.4	7.9	7.1	-10.1	7.6	7.5	-1.3
Other Products	17.4	10.8	-37.9	19.0	11.5	-39.5	19.9	11.0	-44.7	19.4	11.1	-42.8	19.9	10.9	-45.2
Total Products	68.1	49.8	-26.9	70.1	54.9	-21.7	69.4	54.2	-21.9	68.3	55.0	-19.5	69.6	53.5	-23.1
Other ³	17.8	13.9	-21.9	17.6	14.3	-18.8	17.3	14.8	-14.5	16.1	15.4	-4.3	17.0	14.5	-14.7
Total	129.1	99.7	-22.8	128.5	102.1	-20.5	126.7	102.6	-19.0	124.8	102.2	-18.1	123.3	104.1	-15.6
France															
Crude	14.0	13.6	-2.9	11.6	13.4	15.5	13.9	12.2	-12.2	9.4	12.6	34.0	13.3	11.9	-10.5
Motor Gasoline	4.5	3.8	-15.6	5.0	4.2	-16.0	4.9	4.0	-18.4	5.4	4.0	-25.9	6.1	4.1	-32.8
Middle Distillate	22.0	21.6	-1.8	25.9	21.3	-17.8	24.7	19.5	-21.1	24.4	17.0	-30.3	24.1	18.0	-25.3
Residual Fuel Oil	1.6	2.0	25.0	1.5	1.7	13.3	1.6	2.0	25.0	1.5	1.6	6.7	1.7	1.7	0.0
Other Products	4.2	3.3	-21.4	4.1	3.1	-24.4	3.9	3.2	-17.9	4.1	3.3	-19.5	4.3	3.4	-20.9
Total Products	32.3	30.7	-5.0	36.5	30.3	-17.0	35.1	28.7	-18.2	35.4	25.9	-26.8	36.2	27.2	-24.9
Other ³	8.7	7.6	-12.6	9.1	7.0	-23.1	8.2	7.0	-14.6	8.2	7.0	-14.6	7.6	6.5	-14.5
Total	55.0	51.9	-5.6	57.2	50.7	-11.4	57.2	47.9	-16.3	53.0	45.5	-14.2	57.1	45.6	-20.1
United Kingdom															
Crude	31.8	26.8	-15.7	28.4	24.0	-15.5	27.7	24.9	-10.1	27.8	24.8	-10.8	26.1	23.4	-10.3
Motor Gasoline	9.8	9.4	-4.1	9.3	9.3	0.0	9.9	8.7	-12.1	10.4	9.5	-8.7	10.7	9.8	-8.4
Middle Distillate	32.1	24.5	-23.7	32.0	23.7	-25.9	30.6	21.4	-30.1	32.5	21.3	-34.5	30.6	22.1	-27.8
Residual Fuel Oil	1.5	1.5	0.0	1.8	1.2	-33.3	1.2	1.3	8.3	1.1	1.3	18.2	1.1	1.6	45.5
Other Products	7.2	6.3	-12.5	7.3	6.9	-5.5	6.5	7.1	9.2	6.6	6.5	-1.5	6.5	6.1	-6.2
Total Products	50.6	41.7	-17.6	50.4	41.1	-18.5	48.2	38.5	-20.1	50.6	38.6	-23.7	48.9	39.6	-19.0
Other ³	7.8	8.8	12.8	7.3	8.2	12.3	7.8	8.2	5.1	8.5	9.0	5.9	8.7	9.1	4.6
Total	90.2	77.3	-14.3	86.1	73.3	-14.9	83.7	71.6	-14.5	86.9	72.4	-16.7	83.7	72.1	-13.9
Canada⁴															
Crude	133.5	143.3	7.3	130.9	142.1	8.6	129.0	137.5	6.6	128.1	148.4	15.8	131.3	147.9	12.6
Motor Gasoline	15.0	15.1	0.7	14.3	14.3	0.0	15.0	14.7	-2.0	15.6	15.3	-1.9	16.2	16.2	0.0
Middle Distillate	13.1	15.0	14.5	11.6	15.2	31.0	10.6	12.8	20.8	11.7	12.3	5.1	11.9	13.1	10.1
Residual Fuel Oil	2.7	3.1	14.8	2.7	2.4	-11.1	3.0	2.8	-6.7	2.7	3.0	11.1	2.6	2.5	-3.8
Other Products	9.6	10.3	7.3	8.6	10.8	25.6	8.1	9.2	13.6	8.4	8.8	4.8	8.6	10.1	17.4
Total Products	40.4	43.5	7.7	37.2	42.7	14.8	36.7	39.5	7.6	38.4	39.4	2.6	39.3	41.9	6.6
Other ³	28.4	25.7	-9.5	30.9	26.7	-13.6	30.0	25.2	-16.0	30.3	25.3	-16.5	29.4	23.8	-19.0
Total	202.3	212.5	5.0	199.0	211.5	6.3	195.7	202.2	3.3	196.8	213.1	8.3	200.0	213.6	6.8

¹ Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropet 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 December 2020		End March 2021		End June 2021		End September 2021		End December 2021 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	199.1	94	201.0	93	206.1	86	202.2	-	-	-
Chile	11.0	33	9.7	30	11.7	31	10.4	-	-	-
Mexico	36.3	26	38.1	27	36.4	26	36.0	-	-	-
United States ⁴	1983.4	108	1941.5	97	1894.8	94	1860.5	-	-	-
Total⁴	2252.0	100	2212.4	92	2171.2	89	2131.2	86	2074.1	85
OECD Asia Oceania										
Australia	40.2	39	43.5	40	39.8	40	41.1	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	532.4	143	506.5	164	528.6	166	525.1	-	-	-
Korea	213.3	84	201.5	81	194.9	75	189.3	-	-	-
New Zealand	8.0	51	8.3	57	7.6	56	8.3	-	-	-
Total	793.8	104	759.7	108	770.9	108	763.7	98	741.5	92
OECD Europe⁵										
Austria	23.6	113	23.6	97	23.0	84	21.1	-	-	-
Belgium	51.7	82	51.2	82	51.0	83	47.1	-	-	-
Czech Republic	23.8	134	23.1	108	21.8	93	21.7	-	-	-
Denmark	32.3	256	31.7	229	28.1	189	25.3	-	-	-
Estonia	3.7	150	2.9	107	2.9	99	2.7	-	-	-
Finland	38.5	235	39.1	230	39.5	209	37.3	-	-	-
France	158.4	107	162.1	112	163.0	100	157.3	-	-	-
Germany	278.2	147	278.0	134	275.7	123	270.4	-	-	-
Greece	35.0	153	34.4	144	30.5	100	26.4	-	-	-
Hungary	26.8	172	25.8	147	25.6	135	25.9	-	-	-
Ireland	11.9	94	11.7	87	12.0	83	10.6	-	-	-
Italy	135.8	130	126.8	110	128.9	103	118.0	-	-	-
Latvia	3.2	101	3.0	82	3.0	70	2.7	-	-	-
Lithuania	7.9	146	7.8	116	8.5	113	9.1	-	-	-
Luxembourg	0.6	13	0.6	13	0.8	14	0.5	-	-	-
Netherlands	156.6	195	158.1	196	147.2	181	125.8	-	-	-
Norway	30.1	114	28.2	146	23.6	99	20.2	-	-	-
Poland	81.6	131	82.7	126	80.0	103	78.1	-	-	-
Portugal	22.4	123	20.7	98	19.9	90	19.0	-	-	-
Slovak Republic	12.7	170	12.3	144	12.3	136	12.2	-	-	-
Slovenia	5.3	126	5.3	117	5.3	104	4.9	-	-	-
Spain	123.1	110	121.7	106	118.1	95	111.6	-	-	-
Sweden	62.7	219	48.8	162	45.2	144	38.3	-	-	-
Switzerland	34.0	206	33.7	192	32.9	178	33.4	-	-	-
Turkey	85.4	107	84.4	91	85.1	74	85.6	-	-	-
United Kingdom	85.5	74	76.9	61	76.2	58	71.6	-	-	-
Total	1531.0	129	1494.9	118	1460.3	106	1377.0	99	1348.7	102
Total OECD	4576.8	109	4467.0	102	4402.3	97	4271.9	92	4164.3	91
DAYS OF IEA Net Imports⁶ -		245		241		167		160		

¹ Total Stocks are industry and government-controlled stocks (see breakdown in the 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 December 2021 forward demand figures are IEA Secretariat forecasts.

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

⁵ Data not available for Iceland.

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

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled Millions of Barrels		Industry	Total	Government ¹ controlled Days of Fwd. Demand ²	
4Q2018	4425	1552	2873	93	33	61	
1Q2019	4435	1557	2878	94	33	61	
2Q2019	4487	1549	2938	93	32	61	
3Q2019	4492	1544	2948	94	32	62	
4Q2019	4432	1535	2896	98	34	64	
1Q2020	4517	1537	2980	121	41	80	
2Q2020	4778	1561	3217	114	37	76	
3Q2020	4730	1551	3179	111	36	75	
4Q2020	4577	1541	3035	109	37	72	
1Q2021	4467	1546	2921	102	35	67	
2Q2021	4402	1524	2879	97	34	63	
3Q2021	4272	1513	2759	92	33	59	
4Q2021	4164	1484	2680	91	33	59	

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 4Q2021 (where latest forecasts are used).

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

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier		
											Nov 20	change	
Saudi Light & Extra Light													
Americas	0.66	0.20	0.26	0.11	0.18	0.31	0.45	0.53	0.33	0.45	0.26	0.19	
Europe	0.69	0.68	0.59	0.51	0.43	0.40	0.55	0.49	0.59	0.52	0.52	0.00	
Asia Oceania	1.45	1.42	1.39	1.44	1.41	1.12	1.18	1.25	1.25	1.41	1.35	0.06	
Saudi Medium													
Americas	0.30	0.12	0.14	0.03	0.06	-	-	-	-	-	-	-	
Europe	0.01	0.02	0.02	0.01	0.01	-	0.02	0.01	-	-	-	-	
Asia Oceania	0.41	0.23	0.25	0.26	0.22	0.17	0.19	0.18	0.26	0.25	0.23	0.02	
Canada Heavy													
Americas	2.41	2.27	2.39	2.55	2.62	2.43	2.47	2.55	2.65	2.94	2.64	0.30	
Europe	0.04	0.04	0.03	0.03	0.04	0.03	0.04	0.02	0.02	0.02	0.03	0.00	
Asia Oceania	0.00	0.00	0.00	-	0.01	0.04	0.01	0.01	-	0.01	-	-	
Iraqi Basrah Light²													
Americas	0.50	0.31	0.11	0.05	0.06	0.05	0.04	-	0.13	0.11	-	-	
Europe	0.76	0.85	0.58	0.54	0.56	0.63	0.60	0.58	0.75	0.79	0.72	0.07	
Asia Oceania	0.43	0.37	0.22	0.20	0.15	0.17	0.16	0.13	0.13	0.26	0.16	0.10	
Kuwait Blend													
Americas	0.02	-	-	-	-	-	-	-	-	-	-	-	
Europe	0.13	0.11	0.04	-	-	-	-	-	-	-	-	-	
Asia Oceania	0.66	0.61	0.55	0.47	0.47	0.45	0.47	0.46	0.54	0.53	0.47	0.06	
Iranian Light													
Americas	-	-	-	-	-	-	-	-	-	-	-	-	
Europe	0.16	0.00	-	-	-	-	-	-	-	-	-	-	
Asia Oceania	0.01	0.00	-	-	-	-	-	-	-	-	-	-	
Iranian Heavy³													
Americas	-	-	-	-	-	-	-	-	-	-	-	-	
Europe	0.35	0.04	-	-	-	-	-	-	-	-	-	-	
Asia Oceania	0.28	0.14	-	-	-	-	-	-	-	-	-	-	
BFOE													
Americas	0.00	0.00	-	-	-	0.00	0.01	-	-	-	-	-	
Europe	0.35	0.37	0.42	0.43	0.39	0.28	0.36	0.26	0.36	0.38	0.33	0.05	
Asia Oceania	0.09	0.01	0.03	0.03	0.08	0.07	-	-	0.10	0.00	-	-	
Kazakhstan													
Americas	-	-	-	-	-	0.03	-	-	-	-	-	-	
Europe	0.75	0.76	0.74	0.71	0.73	0.73	0.68	0.50	0.61	0.62	0.72	-0.10	
Asia Oceania	0.19	0.18	0.07	0.03	0.07	0.10	0.10	0.09	0.10	0.07	0.04	0.03	
Venezuelan 22 API and heavier													
Americas	0.44	0.05	-	-	-	-	-	-	-	-	-	-	
Europe	0.03	0.09	0.04	0.01	-	-	-	-	-	-	-	-	
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	
Mexican Maya													
Americas	0.63	0.51	0.48	0.37	0.36	0.45	0.45	0.49	0.30	0.38	0.42	-0.04	
Europe	0.21	0.19	0.16	0.18	0.15	0.15	0.13	0.13	0.10	0.13	0.19	-0.06	
Asia Oceania	0.08	0.13	0.12	0.16	0.15	0.12	0.14	0.10	0.15	0.14	0.09	0.05	
Russian Urals													
Americas	0.01	0.01	-	-	-	-	-	-	-	-	-	-	
Europe	1.40	1.37	1.12	0.96	0.97	0.99	1.08	0.98	1.22	1.24	0.84	0.39	
Asia Oceania	0.00	-	-	-	0.01	-	0.03	0.08	-	-	-	-	
Cabinda and Other Angola													
North America	0.06	0.01	0.01	-	-	-	-	-	-	-	-	-	
Europe	0.14	0.15	0.12	0.10	0.02	0.04	0.03	0.03	0.09	-	0.07	-	
Pacific	0.01	0.00	-	-	-	-	-	-	-	-	-	-	
Nigerian Light⁴													
Americas	0.01	0.03	-	-	-	0.06	0.03	0.03	-	-	-	-	
Europe	0.53	0.51	0.49	0.52	0.41	0.30	0.40	0.33	0.60	0.49	0.59	-0.11	
Asia Oceania	0.02	0.02	0.02	0.02	0.00	0.01	-	-	0.02	-	0.02	-	
Libya Light and Medium													
Americas	-	0.00	-	-	-	0.03	0.06	-	-	-	-	-	
Europe	0.62	0.67	0.19	0.49	0.75	0.79	0.87	0.91	0.76	0.78	0.49	0.28	
Asia Oceania	0.02	0.03	0.01	-	0.01	0.02	0.01	-	0.01	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)

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	% change
Crude Oil												
Americas	3759	2698	1880	1625	1698	2111	2369	2437	2066	2139	1610	33%
Europe	9814	9872	8349	8053	7780	8382	8748	8749	9351	9230	8300	11%
Asia Oceania	6697	6542	5603	5511	5336	5459	5431	5478	5810	5929	5029	18%
Total OECD	20269	19111	15833	15189	14814	15952	16548	16664	17227	17298	14940	16%
LPG												
Americas	22	26	28	26	21	16	22	26	20	24	27	-11%
Europe	457	434	422	429	394	421	378	401	336	405	401	1%
Asia Oceania	553	582	559	506	642	555	528	507	516	482	509	-5%
Total OECD	1032	1042	1009	961	1057	992	927	933	873	910	936	-3%
Naphtha												
Americas	8	5	7	5	7	7	11	14	4	6	5	5%
Europe	391	347	409	410	526	514	445	456	588	545	365	49%
Asia Oceania	1021	993	1005	889	1087	1076	1229	1254	1168	1151	926	24%
Total OECD	1420	1345	1422	1303	1620	1597	1685	1724	1760	1701	1296	31%
Gasoline³												
Americas	773	817	567	565	598	1074	973	937	662	535	564	-5%
Europe	110	112	109	108	102	159	75	106	68	42	83	-49%
Asia Oceania	113	114	126	116	155	196	135	108	143	109	103	5%
Total OECD	996	1043	802	789	854	1429	1183	1151	873	686	750	-9%
Jet & Kerosene												
Americas	140	175	158	145	108	166	207	253	238	137	146	-6%
Europe	509	520	337	295	281	291	349	344	382	373	175	114%
Asia Oceania	89	76	63	58	100	71	43	51	46	117	58	101%
Total OECD	738	771	558	498	489	528	600	648	667	627	378	66%
Gasoil/Diesel												
Americas	124	118	135	256	267	149	154	197	267	274	237	16%
Europe	1339	1300	1192	1178	1099	1172	1170	1059	1271	1413	1029	37%
Asia Oceania	253	262	328	320	336	353	345	319	355	409	357	15%
Total OECD	1716	1680	1656	1754	1701	1674	1668	1575	1893	2096	1622	29%
Heavy Fuel Oil												
Americas	161	116	143	129	116	96	91	81	129	66	144	-54%
Europe	197	223	295	310	368	315	435	523	216	454	394	15%
Asia Oceania	162	101	88	80	109	116	121	115	101	140	107	30%
Total OECD	520	440	526	519	594	527	648	719	446	660	646	2%
Other Products												
Americas	679	713	592	515	507	698	607	541	536	506	584	-13%
Europe	1011	865	574	491	515	512	583	546	741	725	565	28%
Asia Oceania	263	268	241	232	246	260	267	285	281	253	278	-9%
Total OECD	1952	1846	1406	1238	1268	1471	1456	1372	1557	1484	1427	4%
Total Products												
Americas	1908	1971	1629	1641	1623	2206	2064	2050	1856	1548	1706	-9%
Europe	4013	3800	3339	3221	3286	3384	3435	3434	3604	3956	3012	31%
Asia Oceania	2454	2397	2410	2200	2674	2627	2668	2638	2611	2660	2338	14%
Total OECD	8374	8168	7378	7062	7583	8217	8167	8122	8070	8164	7056	16%
Total Oil												
Americas	5666	4669	3510	3266	3321	4317	4433	4487	3922	3687	3316	11%
Europe	13827	13672	11688	11274	11066	11766	12183	12183	12955	13186	11312	17%
Asia Oceania	9151	8939	8014	7711	8011	8087	8100	8116	8420	8589	7368	17%
Total OECD	28644	27279	23211	22251	22397	24169	24715	24786	25297	25462	21995	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)

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	% change
Crude Oil												
Americas	3606	2553	1820	1547	1615	2007	2277	2373	1942	2077	1559	33%
Europe	9088	8913	7115	6786	6643	7109	7455	7368	8168	7826	7019	11%
Asia Oceania	6249	5914	5076	5003	4710	4840	4785	4868	5158	5299	4526	17%
Total OECD	18943	17380	14011	13336	12968	13957	14517	14610	15267	15202	13104	16%
LPG												
Americas	15	23	22	18	19	16	22	26	20	24	20	16%
Europe	350	303	252	231	244	229	245	230	229	248	219	13%
Asia Oceania	158	74	57	65	58	60	35	25	33	20	79	-75%
Total OECD	523	400	331	314	321	304	302	282	282	291	319	-9%
Naphtha												
Americas	4	2	1	1	4	2	5	7	2	3	1	120%
Europe	360	320	390	377	427	452	337	367	486	423	331	28%
Asia Oceania	924	898	835	744	870	948	1012	1069	1027	1020	701	45%
Total OECD	1288	1220	1226	1122	1301	1402	1354	1443	1514	1446	1034	40%
Gasoline³												
Americas	271	308	194	167	174	330	312	261	214	149	151	-1%
Europe	105	108	104	103	98	152	70	99	65	24	78	-70%
Asia Oceania	90	88	109	116	144	189	135	108	143	109	103	5%
Total OECD	466	504	406	386	417	671	518	468	422	282	332	-15%
Jet & Kerosene												
Americas	56	39	54	47	31	63	65	73	110	54	42	27%
Europe	445	464	297	278	248	273	309	325	347	320	171	87%
Asia Oceania	89	76	63	58	100	71	43	51	46	117	58	101%
Total OECD	590	579	414	382	378	406	418	449	504	490	271	81%
Gasoi/Diesel												
Americas	100	86	103	190	203	94	94	108	161	190	155	23%
Europe	1160	1126	1062	1082	1027	1095	1067	989	1193	1344	969	39%
Asia Oceania	253	261	324	316	336	353	345	319	355	409	357	15%
Total OECD	1513	1473	1489	1588	1566	1541	1506	1415	1709	1943	1480	31%
Heavy Fuel Oil												
Americas	147	102	110	97	105	84	78	67	95	34	142	-76%
Europe	185	202	279	295	340	281	417	514	170	434	378	15%
Asia Oceania	162	100	88	80	109	116	121	115	101	140	107	30%
Total OECD	493	404	477	472	554	481	615	696	366	608	628	-3%
Other Products												
Americas	522	542	514	466	469	631	556	503	507	444	529	-16%
Europe	702	629	352	334	358	337	396	372	553	579	376	54%
Asia Oceania	182	184	164	162	176	198	178	203	195	180	203	-11%
Total OECD	1406	1355	1030	962	1004	1166	1131	1079	1255	1204	1107	9%
Total Products												
Americas	1115	1103	998	986	1005	1219	1131	1045	1110	897	1041	-14%
Europe	3307	3152	2735	2699	2742	2817	2842	2898	3042	3372	2522	34%
Asia Oceania	1857	1681	1640	1540	1793	1934	1871	1890	1900	1995	1609	24%
Total OECD	6279	5936	5373	5225	5540	5971	5844	5833	6053	6263	5172	21%
Total Oil												
Americas	4721	3656	2818	2533	2620	3227	3408	3418	3052	2974	2601	14%
Europe	12395	12064	9850	9485	9385	9927	10297	10266	11210	11197	9541	17%
Asia Oceania	8106	7595	6716	6543	6503	6775	6656	6758	7058	7293	6134	19%
Total OECD	25223	23316	19384	18561	18508	19928	20361	20442	21320	21465	18276	17%

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

² Excludes intra-regional trade

³ Includes additives

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

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	% change
Crude Oil												
Americas	153	145	60	78	83	104	92	64	125	62	51	21%
Europe	726	959	1234	1268	1137	1272	1293	1380	1184	1404	1281	10%
Asia Oceania	448	628	527	508	627	619	646	610	652	630	503	25%
Total OECD	1326	1731	1821	1853	1846	1995	2031	2054	1960	2096	1835	14%
LPG												
Americas	7	3	6	8	3	0	0	0	0	0	6	-100%
Europe	107	131	171	197	150	193	132	170	108	157	182	-13%
Asia Oceania	395	508	501	442	584	495	493	482	483	462	430	7%
Total OECD	508	642	678	647	737	688	625	652	591	619	618	0%
Naphtha												
Americas	4	3	6	4	3	4	6	7	1	3	4	-27%
Europe	31	27	20	33	99	62	108	88	103	122	34	260%
Asia Oceania	97	96	170	144	217	128	216	185	141	130	224	-42%
Total OECD	132	125	196	181	319	195	330	280	245	256	263	-3%
Gasoline³												
Americas	502	509	373	398	423	744	661	676	448	386	413	-6%
Europe	5	4	5	5	3	7	5	6	3	18	5	270%
Asia Oceania	23	26	18	0	11	8	0	0	0	0	0	35%
Total OECD	530	539	396	403	437	759	665	683	451	404	417	-3%
Jet & Kerosene												
Americas	84	136	104	99	77	103	142	180	128	84	104	-19%
Europe	64	56	40	18	33	19	40	19	35	54	4	1341%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	148	192	144	116	110	122	182	199	163	137	107	28%
Gasoil/Diesel												
Americas	25	32	32	66	64	55	60	90	106	84	82	3%
Europe	178	174	131	96	72	77	103	69	78	68	60	13%
Asia Oceania	0	1	4	3	0	0	0	0	0	0	0	na
Total OECD	203	207	167	166	136	132	163	159	184	152	142	7%
Heavy Fuel Oil												
Americas	15	14	33	33	11	12	13	13	34	32	2	1957%
Europe	12	21	16	15	29	34	19	9	46	19	16	21%
Asia Oceania	0	1	0	0	0	0	0	0	0	0	0	na
Total OECD	27	36	49	47	39	46	32	22	80	51	17	194%
Other Products												
Americas	157	171	78	48	38	67	51	38	29	62	54	14%
Europe	308	236	222	158	157	175	187	174	188	146	190	-23%
Asia Oceania	81	83	77	70	70	62	88	81	86	73	76	-3%
Total OECD	546	490	377	276	264	304	326	294	302	281	320	-12%
Total Products												
Americas	793	867	631	655	618	986	933	1005	746	651	664	-2%
Europe	706	649	604	522	543	566	593	536	561	585	490	19%
Asia Oceania	597	716	770	660	881	693	797	748	710	665	730	-9%
Total OECD	2095	2232	2005	1836	2043	2246	2323	2289	2017	1901	1884	1%
Total Oil												
Americas	945	1012	691	733	701	1090	1025	1069	870	712	715	0%
Europe	1432	1608	1838	1789	1681	1839	1886	1916	1745	1989	1771	12%
Asia Oceania	1044	1343	1297	1168	1508	1312	1444	1358	1363	1295	1233	5%
Total OECD	3421	3963	3827	3690	3889	4241	4354	4343	3977	3997	3720	7%

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

² Excludes intra-regional trade

³ Includes additives

Table 8
REGIONAL OECD CRUDE IMPORTS BY SOURCE¹
(thousand barrels per day)

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	change
OECD Americas												
Venezuela	506	81	-	-	-	-	-	-	-	-	-	-
Other Central & South America	795	867	745	750	648	689	809	961	674	756	678	78
North Sea	150	143	60	78	83	93	92	64	125	62	51	11
Other OECD Europe	1	2	1	-	-	11	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	145	189	91	96	128	295	308	271	213	209	79	130
Saudi Arabia	983	601	572	293	333	370	484	577	386	602	373	230
Kuwait	78	45	21	16	7	20	36	46	23	25	24	1
Iran	-	-	-	-	12	-	-	-	-	-	-	-
Iraq	519	331	177	107	115	172	128	29	185	165	111	55
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	5	3	5	10	-	-	44	69	33	-	-	-
Other Middle East	-	-	-	-	-	-	-	-	-	-	-	-
West Africa ²	317	267	145	188	207	273	255	187	177	183	241	-58
Other Africa	196	137	45	67	149	172	167	157	217	104	54	50
Asia	61	32	17	11	17	16	46	77	32	33	-	-
Other	3	0	3	10	-	-	-	-	-	-	-	-
Total	3759	2698	1880	1625	1698	2111	2369	2437	2066	2139	1610	529
of which Non-OECD	3606	2553	1820	1547	1615	2007	2277	2373	1942	2077	1559	518
OECD Europe												
Canada	81	60	95	117	108	81	89	67	44	75	92	-17
Mexico + USA	645	900	1139	1150	1029	1191	1204	1313	1139	1329	1188	141
Venezuela	57	106	44	13	-	-	-	-	-	-	-	-
Other Central & South America	132	118	208	205	143	272	263	208	122	160	164	-4
Non-OECD Europe	12	14	25	34	23	19	28	27	24	22	20	2
Former Soviet Union	4149	4240	3506	3270	3306	3466	3526	3465	3799	3922	3320	603
Saudi Arabia	818	792	756	602	517	484	587	599	614	444	673	-229
Kuwait	137	97	48	30	-	-	0	-	0	-	4	-
Iran	536	74	6	2	-	-	6	-	-	-	3	-
Iraq	962	1124	814	759	783	916	927	898	1099	1110	910	201
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	2	2	-	-	-	-	-	-	-	-	-	-
Other Middle East	-	3	8	1	6	12	12	18	18	-	-	-
West Africa ²	1115	1140	1074	976	780	719	842	696	1001	949	1013	-64
Other Africa	1161	1180	596	858	1071	1204	1228	1417	1470	1220	842	378
Asia	-	-	0	-	-	-	0	0	-	-	-	-
Other	9	13	11	5	-	-	-	-	16	-	-	-
Total	9816	9863	8330	8022	7767	8364	8712	8709	9346	9232	8228	1003
of which Non-OECD	9088	8913	7115	6786	6643	7109	7455	7368	8168	7826	7019	807
OECD Asia Oceania												
Canada	3	5	1	-	17	38	5	10	-	10	-	-
Mexico + USA	344	613	477	444	493	491	554	497	497	585	404	181
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	35	48	91	114	107	145	93	88	60	105	89	16
North Sea	100	10	49	64	116	90	87	103	156	35	99	-65
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	435	435	300	295	328	372	265	264	435	333	347	-15
Saudi Arabia	2040	1878	1867	1976	1868	1574	1601	1650	1729	1937	1831	106
Kuwait	672	666	584	508	482	484	493	495	570	571	503	68
Iran	274	137	-	-	-	-	-	-	-	-	-	-
Iraq	435	364	224	205	151	165	160	131	126	263	160	102
Oman	56	59	22	19	15	43	49	17	49	-	17	-
United Arab Emirates	1098	1256	1096	960	908	1094	1143	1118	1039	1260	779	481
Other Middle East	450	449	387	374	396	383	371	466	313	252	423	-171
West Africa ²	95	56	65	49	46	119	77	65	112	79	25	54
Other Africa	105	90	42	23	59	35	68	60	33	22	24	-2
Non-OECD Asia	319	220	161	207	193	161	174	191	181	136	201	-65
Other	235	255	234	268	155	264	285	322	504	335	117	218
Total	6697	6542	5602	5505	5336	5455	5424	5478	5803	5923	5020	903
of which Non-OECD	6249	5914	5076	5003	4710	4840	4785	4868	5158	5299	4526	773
Total OECD Trade	20271	19103	15812	15152	14801	15931	16504	16624	17215	17294	14859	2435
of which Non-OECD	18943	17380	14011	13336	12968	13957	14517	14610	15267	15202	13104	2098

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes, and converted to barrels at 7.37 barrels per tonne. Data will differ from Table 6 which is based on submissions in barrels.

² West Africa includes Angola, Nigeria, Gabon, Equatorial Guinea, Congo and Democratic Republic of Congo.

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

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	change
OECD Americas												
Venezuela	23	4	-	-	-	-	-	-	-	-	-	-
Other Central & South America	64	83	40	24	10	67	37	49	72	28	28	0
ARA (Belgium Germany Netherlands)	167	189	146	138	127	312	240	211	97	78	162	-84
Other Europe	323	293	207	241	275	380	381	418	299	297	221	76
FSU	80	100	67	89	100	112	105	69	79	93	81	12
Saudi Arabia	11	7	6	-	4	50	41	16	-	-	-	-
Algeria	1	-	4	-	4	-	-	-	-	-	-	-
Other Middle East & Africa	19	14	13	20	23	12	15	10	-	11	5	6
Singapore	8	5	1	-	4	3	8	10	9	1	-	-
OECD Asia Oceania	13	28	21	19	21	52	43	47	52	11	30	-19
Non-OECD Asia (excl. Singapore)	84	116	72	53	47	99	116	110	73	38	60	-22
Other	0	0	-	-	0	-	-	-	-	-	-	-
Total²	794	838	578	585	615	1088	986	941	680	557	588	-31
of which Non-OECD	271	308	194	167	174	330	312	261	214	149	151	-2
OECD Europe												
OECD Americas	4	3	3	4	2	5	3	4	3	17	2	15
Venezuela	0	0	0	-	1	1	5	10	-	-	-	-
Other Central & South America	5	3	4	5	8	2	11	11	14	3	10	-8
Non-OECD Europe	11	18	16	12	9	16	10	10	2	6	6	0
FSU	70	62	44	41	25	16	32	24	11	18	19	-2
Saudi Arabia	2	0	8	21	-	-	13	41	0	-	-	-
Algeria	0	0	1	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	4	8	3	3	8	6	3	3	4	2	1	1
Singapore	2	3	2	1	-	-	0	0	0	0	-	-
OECD Asia Oceania	1	1	1	1	1	2	1	2	0	1	3	-2
Non-OECD Asia (excl. Singapore)	2	0	0	2	3	2	2	2	4	3	4	-1
Other	20	21	37	27	57	117	15	7	37	9	43	-34
Total²	122	121	120	116	113	168	97	116	76	58	89	-31
of which Non-OECD	105	108	104	103	98	152	70	99	65	24	78	-54
OECD Asia Oceania												
OECD Americas	4	6	4	0	2	0	0	0	0	0	0	0
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	13	14	4	-	9	7	0	0	-	0	-	-
Other Europe	7	5	10	-	-	-	-	-	-	-	-	-
FSU	1	0	2	-	-	-	-	-	-	-	-	-
Saudi Arabia	0	1	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	1	-	1	-	-	-	-	-	-	-	-	-
Singapore	49	46	51	44	86	98	97	86	124	88	52	36
Non-OECD Asia (excl. Singapore)	19	21	37	52	39	58	19	2	0	1	32	-31
Other	20	21	19	19	20	33	19	20	19	20	20	0
Total²	114	114	128	116	155	196	135	108	143	109	103	5
of which Non-OECD	90	88	109	116	144	189	135	108	143	109	103	5
Total OECD Trade²	1029	1073	826	816	883	1451	1219	1165	899	723	780	-57
of which Non-OECD	466	504	406	386	417	671	518	468	422	282	332	-51

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

² Total figure excludes intra-regional trade.

Table 10
REGIONAL OECD GASOIL/DIESEL IMPORTS BY SOURCE¹
(thousand barrels per day)

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	change
OECD Americas												
Venezuela	4	1	-	-	-	-	-	-	-	-	-	-
Other Central and South America	30	38	34	39	40	30	24	19	16	34	34	0
ARA (Belgium Germany Netherlands)	6	5	11	36	51	31	30	56	45	21	39	-18
Other Europe	3	2	5	4	3	9	1	1	8	22	5	17
FSU	16	6	12	26	35	21	10	24	38	50	42	8
Saudi Arabia	17	3	8	17	23	9	11	8	34	8	2	5
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	8	2	9	29	48	8	18	23	25	26	25	1
Singapore	1	0	-	-	-	2	8	7	-	-	-	-
OECD Asia Oceania	15	24	16	26	10	15	29	33	53	41	38	3
Non-OECD Asia (excl. Singapore)	23	30	34	64	48	16	12	9	24	46	50	-4
Other	-	7	6	15	8	8	11	17	23	26	2	24
Total²	124	118	135	256	267	149	154	197	267	274	237	38
of which Non-OECD	100	86	103	190	203	94	94	108	161	190	155	35
OECD Europe												
OECD Americas	154	138	99	64	34	38	55	18	25	21	32	-11
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	4	0	3	2	-	1	1	0	1	0	2	-2
Non-OECD Europe	39	41	30	33	28	30	27	26	34	28	36	-7
FSU	714	685	661	633	721	717	571	548	513	646	622	24
Saudi Arabia	225	205	193	260	131	114	142	109	155	176	232	-57
Algeria	-	0	2	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	76	83	71	73	65	129	198	233	211	228	75	153
Singapore	14	27	17	13	10	18	24	13	20	16	16	0
OECD Asia Oceania	25	36	32	32	38	39	48	51	53	48	28	19
Non-OECD Asia (excl. Singapore)	151	152	101	89	72	108	122	83	167	308	68	241
Other	12	10	15	10	23	7	6	5	123	11	-46	57
Total²	1413	1378	1224	1210	1122	1201	1195	1087	1304	1481	1065	417
of which Non-OECD	1160	1126	1062	1082	1027	1095	1067	989	1193	1344	969	375
OECD Asia Oceania												
OECD Americas	-	1	4	3	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	0	0	-	-	-	-	-	-	0	-
ARA (Belgium Germany Netherlands)	-	-	0	-	-	0	0	0	0	0	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	4	4	2	1	1	1	2	2	3	-	1	-
Saudi Arabia	3	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	8	7	13	8	13	-	-	-	-	7	24	-17
Singapore	141	111	91	85	82	92	153	149	104	122	105	17
Non-OECD Asia (excl. Singapore)	91	133	208	215	229	249	182	162	243	275	221	54
Other	5	5	10	8	11	11	9	5	5	5	6	0
Total²	253	262	328	320	336	353	345	319	355	409	357	52
of which Non-OECD	253	261	324	316	336	353	345	319	355	409	357	52
Total OECD Trade²	1790	1758	1687	1785	1724	1703	1693	1602	1926	2164	1658	507
of which Non-OECD	1513	1473	1489	1588	1566	1541	1506	1415	1709	1943	1480	463

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

² Total figure excludes intra-regional trade.

Table 11
REGIONAL OECD JET AND KEROSENE IMPORTS BY SOURCE¹
(thousand barrels per day)

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	change
OECD Americas												
Venezuela	6	0	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	7	5	5	3	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	0	-	-	-	4	0	14	15	-	-	-	-
Other Europe	0	0	4	4	6	5	6	0	29	-	-	-
FSU	0	-	0	-	-	0	0	-	9	11	-	-
Saudi Arabia	1	2	6	14	-	4	4	3	32	-	11	-
Algeria	-	-	1	-	9	0	3	3	5	2	-	-
Other Middle East and Africa	2	10	11	18	6	31	14	4	28	4	21	-17
Singapore	6	3	4	-	-	2	5	6	-	-	-	-
OECD Asia Oceania	84	136	100	95	67	98	122	165	98	84	104	-20
Non-OECD Asia (excl. Singapore)	27	14	22	10	13	25	34	57	37	36	11	26
Other	11	3	4	-	-	-	4	-	-	-	-	-
Total²	140	175	158	145	108	166	207	253	238	137	146	-9
of which Non-OECD	56	39	54	47	31	63	65	73	110	54	42	11
OECD Europe												
OECD Americas	32	20	13	1	1	2	1	0	8	15	2	13
Venezuela	1	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	2	1	0	-	-	-	-	-	1	2	-	-
Non-OECD Europe	6	2	0	-	-	-	-	-	0	-	-	-
FSU	40	45	22	26	34	25	33	30	25	16	36	-20
Saudi Arabia	98	105	40	30	36	39	11	17	-	30	33	-3
Algeria	9	11	9	6	6	8	6	10	-	-	-	-
Other Middle East and Africa	197	199	155	153	137	136	180	141	169	141	97	44
Singapore	25	29	10	8	3	4	23	24	19	17	-	-
OECD Asia Oceania	32	36	27	16	32	17	39	19	27	39	2	37
Non-OECD Asia (excl. Singapore)	69	73	50	54	17	59	59	103	116	107	22	85
Other	1	2	10	2	12	2	1	2	21	10	-17	27
Total²	512	523	337	296	278	292	352	347	385	376	174	202
of which Non-OECD	445	464	297	278	248	273	309	325	347	320	171	149
OECD Asia Oceania												
OECD Americas	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	1	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	1	-	-	-	3	-	-	-	-	-	-	-
Singapore	28	21	14	10	6	18	20	22	24	16	20	-4
Non-OECD Asia (excl. Singapore)	26	29	28	28	55	37	15	20	5	57	28	29
Other	33	26	21	19	36	17	8	8	18	43	9	34
Total²	89	76	63	58	100	71	43	51	46	117	58	59
of which Non-OECD	89	76	63	58	100	71	43	51	46	117	58	59
Total OECD Trade²	741	774	558	499	486	529	602	651	670	630	378	252
of which Non-OECD	590	579	414	382	378	406	418	449	504	490	271	219

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

² Total figure excludes intra-regional trade.

Table 12
REGIONAL OECD RESIDUAL FUEL OIL IMPORTS BY SOURCE¹
(thousand barrels per day)

	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	Sep 21	Oct 21	Nov 21	Year Earlier	
											Nov 20	change
OECD Americas												
Venezuela	42	7	-	-	-	-	-	-	-	-	-	-
Other Central and South America	72	50	52	38	29	25	39	47	58	12	42	-31
ARA (Belgium Germany Netherlands)	7	6	12	15	3	2	9	12	10	1	2	0
Other Europe	7	8	21	17	8	10	4	1	24	31	-	-
FSU	23	30	44	51	62	36	19	15	29	14	84	-70
Saudi Arabia	-	2	2	-	-	0	-	-	-	5	-	-
Algeria	-	8	2	-	8	4	3	-	6	4	-	-
Other Middle East and Africa	7	5	10	7	6	11	15	-	1	-	16	-
Singapore	-	1	1	-	-	-	2	6	-	-	-	-
OECD Asia Oceania	-	-	-	-	-	-	1	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	0	0	-	-	-	8	0	-	-	-	-	-
Other	2	-	-	-	-	-	-	-	-	-	-	-
Total²	161	117	145	129	116	96	91	81	129	66	144	-78
of which Non-OECD	147	102	110	97	105	84	78	67	95	34	142	-108
OECD Europe												
OECD Americas	4	7	12	12	28	32	14	2	39	12	15	-3
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	3	5	6	5	5	1	10	29	1	-	2	-
Non-OECD Europe	17	21	13	21	12	13	12	9	9	7	25	-18
FSU	154	154	149	156	272	154	321	411	238	415	114	300
Saudi Arabia	1	-	2	-	-	-	-	-	-	-	-	-
Algeria	1	0	2	-	3	-	2	-	8	-	-	-
Other Middle East and Africa	15	19	13	14	14	10	18	20	5	9	13	-4
Singapore	-	1	3	4	2	7	2	-	7	-	-	-
OECD Asia Oceania	8	14	4	3	0	2	5	7	7	7	1	6
Non-OECD Asia (excl. Singapore)	0	3	-	-	-	-	-	-	-	-	-	-
Other	5	8	93	99	48	94	54	48	-93	42	222	-179
Total²	208	232	295	315	384	313	439	524	220	492	392	100
of which Non-OECD	185	202	279	295	340	281	417	514	170	434	378	56
OECD Asia Oceania												
OECD Americas	0	1	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	0	0	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	16	6	5	-	1	-	-	-	-	-	-	-
Saudi Arabia	-	1	1	-	-	14	13	-	24	22	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	23	27	38	35	32	27	31	31	-	49	51	-2
Singapore	37	25	18	14	27	44	22	26	29	29	30	-1
Non-OECD Asia (excl. Singapore)	85	40	26	31	49	30	56	57	48	40	26	14
Other	0	1	-	-	-	-	-	-	-	-	-	-
Total²	162	101	88	80	109	116	121	115	101	140	107	32
of which Non-OECD	162	100	88	80	109	116	121	115	101	140	107	32
Total OECD Trade²	531	450	528	524	609	524	651	720	450	698	643	55
of which Non-OECD	493	404	477	472	554	481	615	696	366	608	628	-20

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)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21	Jan 22
CRUDE OIL PRICES													
IEA CIF Average Import¹													
IEA Americas	56.93	37.31		53.66	63.76	67.32		65.88	67.72	75.35	75.53		
IEA Europe	64.25	42.91		60.10	67.23	72.11		70.35	72.53	80.48	80.33		
IEA Asia Oceania	66.38	46.28		57.82	67.63	74.07		74.49	74.12	78.50	82.51		
IEA Total	62.75	42.19		57.60	66.29	71.18		70.13	71.46	78.59	79.52		
FOB Spot													
North Sea Dated	64.12	41.76	70.82	61.07	68.84	73.42	79.67	70.75	74.40	83.54	81.37	74.01	87.10
Brent (Asia) Mth 1	64.86	44.86	71.49	61.55	69.50	74.09	80.47	71.12	75.70	84.27	82.58	74.82	86.18
WTI (Cushing) Mth 1	57.03	39.25	68.10	58.13	66.19	70.54	77.33	67.73	71.56	81.36	79.18	71.53	83.13
Urals (Mediterranean)	64.31	41.93	69.47	60.41	67.48	71.32	78.39	68.08	72.65	81.93	80.08	73.07	86.76
Dubai (1st month)	63.49	42.36	69.35	60.20	67.01	71.60	78.23	69.32	72.57	81.46	80.21	73.25	83.34
Tapis (Dated)	70.57	43.28	72.80	62.30	69.81	75.30	83.38	72.22	76.30	86.39	85.09	78.88	91.73
PRODUCT PRICES													
Rotterdam, Barges FOB													
Premium Unl 10 ppm	71.35	44.65	80.25	65.71	78.57	85.64	90.71	84.32	86.31	95.92	93.21	82.88	94.85
Naphtha	0.00	39.64	71.14	60.82	66.69	74.61	82.00	72.43	76.04	85.37	82.33	78.27	86.87
Jet/Kerosene	79.24	44.79	76.50	64.04	72.52	78.87	90.15	75.92	82.07	94.81	90.46	85.18	100.65
ULSD 10ppm	79.45	49.32	78.52	66.15	74.64	80.81	92.06	77.67	84.35	96.92	92.83	86.38	101.18
Gasoil 0.1 %	77.73	48.10	77.12	65.02	73.43	79.41	90.20	76.03	82.90	95.22	90.67	84.69	99.18
LSFO 1%	62.21	42.78	70.18	62.77	66.88	72.12	78.63	69.35	74.86	82.72	78.61	74.57	83.98
HSFO 3.5%	50.31	34.43	62.07	55.34	60.08	63.95	68.68	61.71	66.05	74.26	67.40	64.43	75.42
Mediterranean, FOB Cargoes													
Premium Unl 10 ppm	71.31	45.59	80.69	66.81	77.94	86.49	91.08	84.87	87.66	96.59	91.68	84.94	96.68
Naphtha	54.43	37.81	69.60	59.29	65.19	73.44	80.04	71.28	74.92	83.83	80.76	75.50	84.89
Jet Aviation Fuel	77.76	43.28	75.26	62.77	71.22	77.96	88.66	75.05	81.21	93.58	89.29	83.07	99.21
ULSD 10ppm	79.05	48.76	78.00	65.71	74.07	80.64	91.16	77.54	84.05	96.44	91.96	85.03	99.81
Gasoil 0.1 %	77.70	47.60	76.89	64.76	72.94	79.60	89.87	76.65	82.81	95.03	90.64	83.90	99.18
LSFO 1%	63.90	44.06	71.27	63.60	67.84	73.10	80.24	70.60	75.89	84.08	80.30	76.33	86.30
HSFO 3.5%	52.17	34.36	60.50	53.60	58.23	62.69	67.23	60.35	65.26	73.08	66.01	62.67	73.78
US Gulf, FOB Pipeline													
Super Unleaded	79.24	50.64	91.17	76.13	90.78	97.57	99.76	96.43	97.33	105.98	100.72	92.61	104.58
Unleaded	72.28	46.02	86.46	72.92	85.70	91.72	95.12	91.17	91.63	101.08	95.45	88.83	100.62
Jet/Kerosene	78.81	46.20	77.91	65.77	73.74	79.86	92.09	76.45	84.05	96.22	92.43	87.63	102.12
ULSD 10 ppm	79.09	50.17	84.69	71.63	82.05	87.33	97.51	84.70	90.38	103.07	97.70	91.78	106.71
No. 6 3% ²	52.57	34.63	59.90	51.93	57.77	62.33	67.41	60.92	65.20	72.89	66.25	63.04	74.91
Singapore, FOB Cargoes													
Premium Unleaded	72.55	46.65	80.49	67.39	76.86	83.45	93.71	81.13	84.06	98.48	95.01	87.92	98.04
Naphtha	57.15	40.77	70.99	61.09	66.41	73.93	82.09	71.01	75.15	84.45	84.21	77.82	84.56
Jet/Kerosene	77.26	44.83	75.26	63.47	71.52	77.10	88.47	74.05	79.88	93.09	89.09	83.47	95.78
Gasoil 0.05%	77.23	48.43	76.12	64.93	72.28	77.16	89.64	73.77	79.66	93.38	90.84	84.94	97.84
HSFO 180 CST	58.62	39.32	64.53	56.74	61.28	68.34	71.42	65.07	73.48	77.52	71.15	65.86	76.17
HSFO 380 CST 4%	57.57	38.25	63.22	56.09	60.20	66.13	70.14	63.34	70.30	76.02	69.87	64.79	74.15

¹ IEA CIF Average Import price for November 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

January 2022

	NATIONAL CURRENCY *						US DOLLARS					
	Total Price	% change from		Ex-Tax Price	% change from		Total Price	% change from		Ex-Tax Price	% change from	
		Dec-21	Jan-21		Dec-21	Jan-21		Dec-21	Jan-21		Dec-21	Jan-21
GASOLINE¹ (per litre)												
France	1.698	4.0	20.9	0.724	8.1	50.8	1.922	4.2	12.4	0.820	8.2	40.3
Germany	1.737	4.4	24.2	0.805	8.3	54.2	1.966	4.6	15.5	0.911	8.5	43.4
Italy	1.757	1.9	20.3	0.712	3.8	51.8	1.989	2.0	11.9	0.806	4.0	41.2
Spain	1.506	1.7	24.5	0.772	2.8	46.5	1.705	1.9	15.8	0.874	3.0	36.3
United Kingdom	1.451	-0.5	24.4	0.629	-0.9	60.5	1.967	1.3	23.7	0.853	0.9	59.5
Japan	168.1	1.1	22.4	96.2	1.7	41.1	1.463	0.2	10.5	0.837	0.8	27.3
Canada	1.495	5.4	32.8	1.008	7.3	45.9	1.185	6.8	33.9	0.799	8.9	47.1
United States	0.876	0.2	42.0	0.746	0.3	52.6	0.876	0.2	42.0	0.746	0.3	52.6
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.614	5.1	24.3	0.736	9.7	55.6	1.827	5.3	15.7	0.833	9.9	44.7
Germany	1.602	5.3	30.3	0.876	8.3	55.6	1.813	5.4	21.3	0.992	8.5	44.7
Italy	1.624	2.1	21.8	0.714	4.1	50.0	1.838	2.3	13.3	0.808	4.3	39.5
Spain	1.383	2.6	26.4	0.764	3.9	45.5	1.566	2.8	17.6	0.865	4.1	35.4
United Kingdom	1.490	-0.4	22.8	0.662	-0.7	53.6	2.020	1.4	22.1	0.897	1.1	52.7
Japan	148.0	1.2	25.6	102.6	1.6	36.6	1.288	0.3	13.4	0.893	0.7	23.3
Canada	1.533	6.0	38.4	1.090	7.8	50.6	1.215	7.5	39.5	0.864	9.3	51.8
United States	0.984	2.3	39.0	0.834	2.7	49.2	0.984	2.3	39.0	0.834	2.7	49.2
DOMESTIC HEATING OIL (per litre)												
France	1.088	8.3	38.9	0.750	10.2	51.1	1.231	8.5	29.2	0.849	10.4	40.6
Germany	0.917	8.0	46.8	0.709	8.8	53.0	1.038	8.2	36.5	0.803	8.9	42.3
Italy	1.440	4.2	24.2	0.777	6.5	42.0	1.630	4.3	15.5	0.880	6.6	32.1
Spain	0.876	7.2	45.2	0.628	8.4	56.0	0.992	7.4	35.0	0.710	8.6	45.1
United Kingdom	0.722	3.0	46.2	0.576	3.7	60.5	0.979	4.9	45.3	0.781	5.5	59.5
Japan ²	108.8	1.4	35.8	96.1	1.5	37.2	0.947	0.6	22.5	0.836	0.6	23.8
Canada	1.442	6.0	41.8	1.258	6.2	40.0	1.143	7.5	43.0	0.997	7.7	41.1
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY³ (per kg)												
France	0.694	6.8	36.5	0.554	8.7	59.7	0.785	7.0	27.0	0.627	8.9	48.6
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.636	7.8	48.3	0.604	8.2	56.0	0.720	8.0	38.0	0.684	8.4	45.2
Spain	0.508	-3.4	25.4	0.491	-3.6	33.9	0.575	-3.3	16.6	0.556	-3.4	24.5
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-
Canada	-	-	-	-	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	-	-	-	-	-	-	-

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

² Kerosene for Japan.

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

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

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

	Monthly Average				Change Jan-Dec	Average for week ending:					
	Oct 21	Nov 21	Dec 21	Jan 22		07 Jan	14 Jan	21 Jan	28 Jan	04 Feb	
NW Europe											
Brent (Cracking)	6.44	5.01	5.11	4.29	↓	-0.82	4.92	4.61	4.08	3.75	4.16
Urals (Cracking)	7.23	4.67	5.14	4.14	↓	-1.00	5.42	4.37	3.55	3.43	5.10
Brent (Hydroskimming)	3.22	1.64	2.89	1.29	↓	-1.60	2.09	1.37	1.10	0.90	0.91
Urals (Hydroskimming)	1.97	-1.42	0.53	-0.84	↓	-1.37	0.57	-0.90	-1.45	-1.28	-0.64
Mediterranean											
Es Sider (Cracking)	7.43	4.84	6.52	5.66	↓	-0.86	6.57	5.91	5.57	4.94	5.19
Urals (Cracking)	6.71	3.91	5.31	4.21	↓	-1.10	5.74	4.89	3.40	3.24	3.93
Es Sider (Hydroskimming)	4.92	2.44	4.58	2.95	↓	-1.63	4.19	3.10	2.78	2.22	2.00
Urals (Hydroskimming)	1.09	-2.41	-0.31	-2.05	↓	-1.74	-0.25	-1.62	-3.02	-2.74	-3.21
US Gulf Coast											
Mars (Cracking)	9.51	6.63	6.04	7.84	↑	1.81	7.81	7.85	6.79	8.56	9.77
50/50 HLS/LLS (Coking)	17.48	14.87	14.18	15.17	↑	0.98	15.09	15.65	14.25	15.31	17.71
50/50 Maya/Mars (Coking)	12.12	9.73	10.70	11.43	↑	0.73	11.50	11.91	10.47	11.60	13.44
ASCI (Coking)	14.64	12.46	11.21	13.01	↑	1.80	12.81	13.19	12.07	13.58	15.54
US Midwest											
30/70 WCS/Bakken (Cracking)	13.06	10.59	10.65	8.21	↓	-2.44	8.87	7.60	7.24	8.73	10.22
Bakken (Cracking)	14.78	10.98	11.45	9.29	↓	-2.16	10.42	8.55	7.87	9.64	11.62
WTI (Coking)	15.58	11.14	11.87	10.74	↓	-1.13	11.94	10.81	8.70	10.82	13.13
30/70 WCS/Bakken (Coking)	16.08	13.84	13.59	10.49	↓	-3.10	11.29	9.98	9.35	10.90	12.95
Singapore											
Dubai (Hydroskimming)	0.30	-2.74	-1.12	-1.31	↓	-0.18	-1.49	-1.29	-1.67	-0.87	-0.47
Tapis (Hydroskimming)	0.12	-2.40	-1.79	-4.28	↓	-2.48	-3.38	-3.96	-4.76	-4.80	-5.99
Dubai (Hydrocracking)	5.29	3.04	4.38	4.65	↑	0.28	4.38	4.74	4.25	5.03	6.10
Tapis (Hydrocracking)	4.64	2.82	3.13	0.85	↓	-2.28	1.72	1.24	0.32	0.25	-0.40

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

	Sep-21	Oct-21	Nov-21	Nov-20	Nov 21 vs Previous Month	Nov 21 vs Previous Year	Nov 21 vs 5 Year Average	5 Year Average
OECD Americas								
Naphtha	1.2	1.1	1.2	1.4	0.1	-0.1	-0.2	1.5
Motor gasoline	46.7	47.2	47.6	48.4	0.5	-0.8	-0.2	47.8
Jet/kerosene	7.7	7.5	7.8	6.4	0.3	1.4	-0.8	8.6
Gasoil/diesel oil	27.4	28.6	28.5	29.1	-0.1	-0.6	-0.4	28.9
Residual fuel oil	2.9	3.0	3.1	2.5	0.0	0.5	-0.1	3.1
Petroleum coke	4.2	4.1	4.1	4.2	0.0	-0.1	-0.4	4.5
Other products	12.9	12.3	11.2	11.4	-1.1	-0.1	1.1	10.1
OECD Europe								
Naphtha	8.8	8.7	8.3	9.4	-0.5	-1.2	-0.1	8.4
Motor gasoline	21.3	21.7	21.8	21.3	0.1	0.5	0.6	21.1
Jet/kerosene	6.4	6.3	6.3	4.8	0.0	1.5	-1.4	7.7
Gasoil/diesel oil	40.8	40.5	41.0	41.7	0.6	-0.6	1.0	40.1
Residual fuel oil	7.8	8.1	8.2	6.9	0.1	1.3	-0.7	8.9
Petroleum coke	1.5	1.4	1.5	1.5	0.1	0.0	0.1	1.4
Other products	16.4	15.8	15.2	16.7	-0.6	-1.4	0.4	14.9
OECD Asia Oceania								
Naphtha	16.3	16.6	16.0	15.9	-0.7	0.1	0.0	15.9
Motor gasoline	22.4	22.6	23.4	22.7	0.8	0.7	1.7	21.7
Jet/kerosene	12.4	12.3	12.9	12.6	0.5	0.3	-2.0	14.9
Gasoil/diesel oil	30.6	30.7	30.4	30.8	-0.3	-0.4	0.9	29.5
Residual fuel oil	7.8	8.0	8.2	8.2	0.2	0.0	0.5	7.6
Petroleum coke	0.4	0.4	0.5	0.3	0.0	0.1	0.1	0.4
Other products	12.9	12.4	12.4	12.7	0.0	-0.3	0.7	11.7
OECD Total								
Naphtha	6.3	6.3	6.0	6.5	-0.3	-0.6	-0.3	6.3
Motor gasoline	34.2	34.6	35.2	35.1	0.6	0.0	0.6	34.6
Jet/kerosene	8.1	7.9	8.1	7.0	0.2	1.2	-1.3	9.4
Gasoil/diesel oil	32.3	32.9	32.9	33.4	0.0	-0.5	0.3	32.6
Residual fuel oil	5.3	5.6	5.6	5.0	0.0	0.6	-0.2	5.8
Petroleum coke	2.7	2.6	2.7	2.7	0.1	0.0	-0.1	2.7
Other products	14.0	13.5	12.7	13.3	-0.7	-0.6	0.8	11.9

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

Table 17
WORLD BIOFUELS PRODUCTION
(thousand barrels per day)

	2019	2020	2021	2Q21	3Q21	4Q21	Nov 21	Dec 21	Jan 22
ETHANOL									
OECD Americas¹	1063	934	1006	1021	993	1076	1109	1051	1016
United States	1029	906	975	991	963	1046	1079	1021	980
Other	34	28	30	30	30	30			
OECD Europe²	97	93	103	104	121	109	111	96	105
France	21	17	18	17	26	18	22	10	20
Germany	12	11	12	14	16	12	15	0	14
Spain	9	8	10	9	10	11	9	15	10
United Kingdom	5	5	9	9	11	10	11	6	9
Other	50	52	54	55	58	58			
OECD Asia Oceania³	4	4	4	4	3	4	4	5	4
Australia	4	4	4	4	3	4	4	4	4
Other	0	0	0	0	0	0			
Total OECD Ethanol	1165	1031	1113	1129	1117	1189	1224	1152	1125
Total Non-OECD Ethanol	809	735	703	872	1130	515	513	306	286
Brazil	621	560	515	683	942	327	324	118	74
China	67	69	76	76	76	76			
Argentina	19	15	18	18	18	18			
Other	102	91	94	94	94	94	188	188	212
TOTAL ETHANOL	1974	1766	1816	2001	2248	1704	1737	1458	1411
BIODIESEL									
OECD Americas¹	151	159	163	161	162	181	176	183	238
United States	145	153	156	154	156	172	169	169	229
Other	7	6	7	7	7	9			
OECD Europe²	295	281	314	316	322	333	306	359	325
France	43	41	43	42	48	42	46	30	47
Germany	69	61	66	64	72	71	63	78	66
Italy	18	28	31	30	30	33			
Spain	42	30	39	38	38	42	37	51	40
Other	123	121	136	142	133	145	130	165	140
OECD Asia Oceania³	15	12	12	17	15	9	9	11	12
Australia	0	0	0	0	0	0	0	0	0
Other	15	12	12	17	15	9			
Total OECD Biodiesel	461	452	489	494	499	523	491	554	574
Total Non-OECD Biodiesel	405	411	439	439	439	439	439	439	464
Brazil	102	111	118	118	117	119	111	121	105
Argentina*	42	27	36	36	36	36			
Other	261	274	286	286	287	284			
TOTAL BIODIESEL	866	863	928	933	939	962	930	993	1038
GLOBAL BIOFUELS	2839	2630	2744	2934	3186	2667	2667	2451	2449

* monthly data not available.

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