

# Oil Market Report

## Highlights

12 May 2022

- World oil demand growth is forecast to slow to 1.9 mb/d in 2Q22 from 4.4 mb/d in 1Q22 and is now projected to ease to 490 kb/d on average in the second half of the year on a more tempered economic expansion and higher prices. As summer driving escalates and jet fuel continues to recover, world oil demand is set to rise by 3.6 mb/d from April to August. For 2022, demand is expected to increase by 1.8 mb/d on average to 99.4 mb/d.
- Russia shut in nearly 1 mb/d in April, driving down world oil supply by 710 kb/d to 98.1 mb/d. Over time, steadily rising volumes from Middle East OPEC+ and the US along with a slowdown in demand growth is expected to fend off an acute supply deficit amid a worsening Russian supply disruption. Excluding Russia, output from the rest of the world is set to rise by 3.1 mb/d from May through December.
- Global refinery margins have surged to extraordinarily high levels due to depleted product inventories and constrained refinery activity. Throughputs in April fell 1.4 mb/d to 78 mb/d, the lowest since May 2021, largely driven by China. Between now and August, runs are forecast to ramp up by 4.7 mb/d, but the tightness in product markets is expected to continue based on our current oil demand outlook.
- Global observed oil inventories declined by a further 45 mb during March and are now a total 1.2 billion barrels lower since June 2020. In the OECD, the release of 24.7 mb of government stocks during March halted the precipitous decline in industry inventories. OECD industry stocks rose by 3 mb to 2 626 mb, but remained 299 mb below the five-year average. Preliminary data for April show OECD industry inventories increased by 5.3 mb.
- Crude prices fell in April to trade in a narrow \$10/bbl range above \$100/bbl. ICE Brent last traded around \$105/bbl and WTI \$102/bbl. Rapid early-May advances on the sixth round of EU sanctions for Russia drove renewed price tensions. High crude prices and exceptional product cracks are supporting strong inflation trends.



# Table of contents

Highlights.....	1
Pressure mounting.....	3
Demand.....	4
Overview .....	4
OECD .....	6
Non-OECD .....	10
Supply .....	16
Overview .....	16
Russia turns down taps as sanctions bite .....	16
OPEC+ holds firm on policy .....	17
Steady Rise of Middle East OPEC+ .....	18
Non-OPEC+ growth concerns linger .....	20
Refining .....	24
Overview .....	24
Product cracks and refinery margins .....	25
Regional refining developments .....	28
Stocks.....	36
Overview .....	36
Implied balance.....	37
Recent OECD industry stock changes .....	38
Other stock developments .....	40
Prices.....	44
Overview .....	44
Futures markets .....	45
Spot crude oil prices.....	48
Freight .....	52
Tables.....	54

## List of boxes

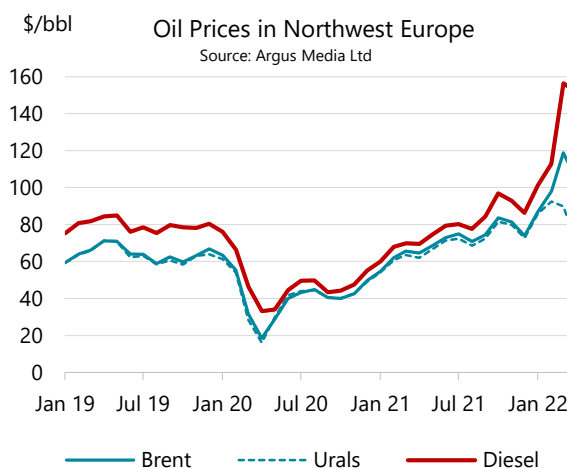
Box 1.	Oilfield service sector strain caps US supply growth.....	21
Box 2.	Russian oil exports increase in April .....	32
Box 3.	IEA emergency reserves are making their way to the market .....	42

# Pressure mounting

Russia's isolation following its invasion of Ukraine is deepening as the EU and G7 contemplate tougher sanctions that include a full phase out of oil imports from the country. If agreed, the new embargoes would accelerate the reorientation of trade flows that is already underway and will force Russian oil companies to shut in more wells. Even so, steadily rising output elsewhere, coupled with slower demand growth, especially in China, is expected to fend off an acute supply deficit in the near term. Amid the widening supply and demand uncertainties, oil market volatility remains rife, but prices are trading in a lower and narrower \$10/bbl range above \$100/bbl. Brent last traded at \$ 105/bbl and WTI \$102/bbl.

Despite mounting international pressure and falling oil production, Russian exports have so far held up by and large. But now major trading houses are winding down deals ahead of a 15 May deadline to halt all transactions with state-controlled Rosneft, Gazprom Neft and Transneft. Following a supply decline of nearly 1 mb/d in April, losses could expand to around 3 mb/d during the second half of the year.

Global refinery maintenance and capacity constraints are exacerbating dislocations caused by Russia's war in Ukraine. During April, crude and product markets saw diverging trends. While crude prices trended lower overall, diesel and gasoline cracks surged to record levels, pulling up refinery margins and end-user prices.



Limited spare capacity in the global refining system, together with reduced exports of Russian fuel oil, diesel and naphtha have aggravated the tightness in product markets, which have now seen seven consecutive quarters of stock draws. While a first tranche of SPR releases halted the precipitous decline in OECD industry stocks in March, crude made up the majority of it and product stocks have continued to fall. Notably, middle distillate reserves reached their lowest levels since April 2008.

Soaring pump prices and slowing economic growth are expected to significantly curb the demand recovery through the remainder of the year and into 2023. Moreover, extended lockdowns across China where the government struggles to contain the spread of Covid-19 are driving a significant slowdown in the world's second largest oil consumer. For the year as a whole, global oil demand is forecast to average 99.4 mb/d in 2022, up 1.8 mb/d y-o-y.

As restrictions in China ease, summer driving picks up and jet fuel continues to recover, world oil demand is set to rise by 3.6 mb/d from an April low through August. If refiners cannot keep pace, product markets and consumers could come under additional strain. The IEA's recent *10-Point Plan to Cut Oil Use* outlines measures that can be taken immediately to cut consumption and ease the pain caused by high oil prices.

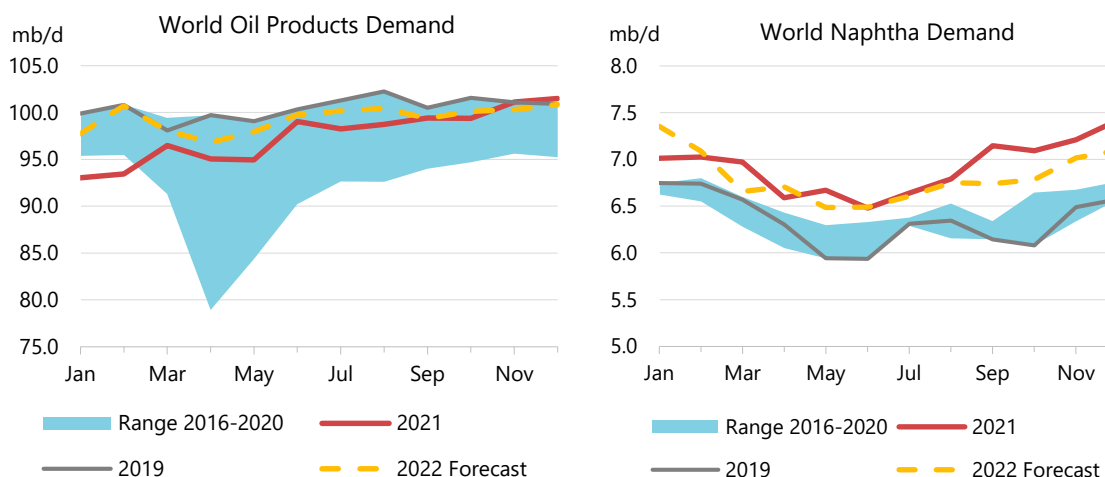
# Demand

## Overview

### World oil demand growth slows

Escalating lockdowns across China, as the government struggles to contain the spread of Covid-19 are driving a dramatic slowdown in the world's second-largest and fastest-growing oil consumer. Simultaneously, price expectations for the rest of the year are increasing as Russia's invasion of Ukraine shows little sign of easing. However, the impact of these twin crises for oil demand was moderated in 1Q22 by the continued strong recovery in oil use in Western countries. Most of these issues were already factored into last month's *Report*, which itself assumed a 240 kb/d demand reduction, but we have now revised down growth projections for this year by a further 70 kb/d, to 1.8 mb/d. Global demand is forecast to average 99.4 mb/d in 2022.

Most of this year's expected growth took place in 1Q22 (+4.4 mb/d). The comparative absence of public health restrictions in advanced economies allowed demand for major fuels to rebound (gasoline +1.4 mb/d, gasoil +1.2 mb/d and jet/kerosene +840 kb/d) while the continuing expansion of petrochemical capacity helped LPG use to soar by 970 kb/d. In 4Q22, however, we project that demand will be 230 kb/d lower than in 4Q21 as the economy slows and the impacts of higher prices bite.



This loss of momentum during the rest of 2022 is fuelled by the significant Chinese lockdowns, sanctions on Russia that began in late-1Q22 and persistently higher oil prices for the second half of this year. The higher demand baseline established in 2H21 highlights the slowdown. The ICE Brent futures prices used as an input to our demand estimates are now expected to average almost \$104/bbl for 2022 (as of 2 May 2022) – up from a little over \$102/bbl in early April. In isolation, a 1.5% price rise like this would theoretically lessen demand by up to 50 kb/d. Our updated outlook for GDP is largely unchanged, despite higher growth expectations for some commodity producers and for Brazil, where recent indicators have been more positive.

In China, mobility restrictions stifled commerce and left air traffic close to its April 2020 nadir. Chinese demand for 2Q22 has now been revised down by a total of 890 kb/d across the April and May *Reports*. The crisis is having substantial knock-on effects for neighbouring economies and on shipping networks globally. The *Kiel Trade Indicator*, a measure of global container shipping, shows that, despite stabilising in April, volumes stalled in early-2022, after near-continuous growth since April 2020. Bunker demand in Hong Kong and Singapore fell in February and March.

Global Demand by Region								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
Africa	4 244	3 812	4 036	4 154	225	118	5.9	2.9
Americas	31 843	28 187	30 303	30 917	2 116	614	7.5	2.0
Asia/Pacific	35 846	34 073	36 092	36 921	2 019	828	5.9	2.3
Europe	15 093	13 142	13 817	14 265	676	447	5.1	3.2
FSU	4 723	4 497	4 778	4 465	281	- 313	6.3	-6.6
Middle East	8 710	8 206	8 522	8 629	317	107	3.9	1.3
<b>World</b>	<b>100 459</b>	<b>91 916</b>	<b>97 550</b>	<b>99 351</b>	<b>5 634</b>	<b>1 802</b>	<b>6.1</b>	<b>1.8</b>
OECD	47 778	42 128	44 764	45 928	2 637	1 164	6.3	2.6
Non-OECD	52 681	49 788	52 785	53 423	2 997	638	6.0	1.2

The crises in China and Russia are also slowing the global recovery in jet fuel demand. In March, Russia's international isolation began to weigh on its domestic economy. The sharpest impact so far has come on jet/kerosene, with consumption falling by 13% month-on-month (m-o-m), despite a huge increase in military requirements, as commercial flight numbers collapsed by 31%. In China, air traffic has fallen even more spectacularly, from almost 11 000 daily flights in February, to just over 3 000 each day in April. While traffic within these countries and to their neighbours will be slow to recover, passenger and flight numbers continue to rise gradually elsewhere. We forecast steady gains for global jet/kerosene demand throughout 2022, at 820 kb/d year-on-year (y-o-y). Total global jet/kerosene use should reach 6 mb/d, but will nevertheless lag 1.9 mb/d behind 2019 levels, highlighting the potential for further growth beyond our forecast period.

We expect that a large part of the demand response to high prices will come in the form of curtailed personal mobility and business activity. This will trim transport fuel demand as the year goes on. Additionally, we already observe changing behaviour from some industrial consumers. Notably, the costs for gasoil and natural gas in power generation have returned close to parity in Europe (including emissions trading costs). This implies less switching from gas to oil in power generation as some users who moved away from gas are incentivised to return. Provisional German data for March indicate that demand for non-road gasoil was about 100 kb/d lower than previously forecast, with Europe as a whole unwinding a substantial share of the maximum 250-300 kb/d additional demand in power generation. Furthermore, very high distillate prices provide a powerful disincentive to the widespread use of back-up generators in Asian countries, where their utilisation has recently been prevalent. Similarly, petrochemical operators have been hit with higher naphtha prices and weaker margins. This has triggered rate cuts and feedstock shifts on an even greater scale than forecast in April's *Report*. Globally, naphtha demand shrank by 310 kb/d y-o-y in March (the first such fall since April 2020), compared with an average y-o-y increase of 540 kb/d during the previous six months. In contrast, LPG climbed by 820 kb/d, with flexible steam-cracker operators increasing their intake.

Notwithstanding this month's downward revision, there could be more pessimistic scenarios going forward if China's fight against Covid further undermines demand growth, Russia's

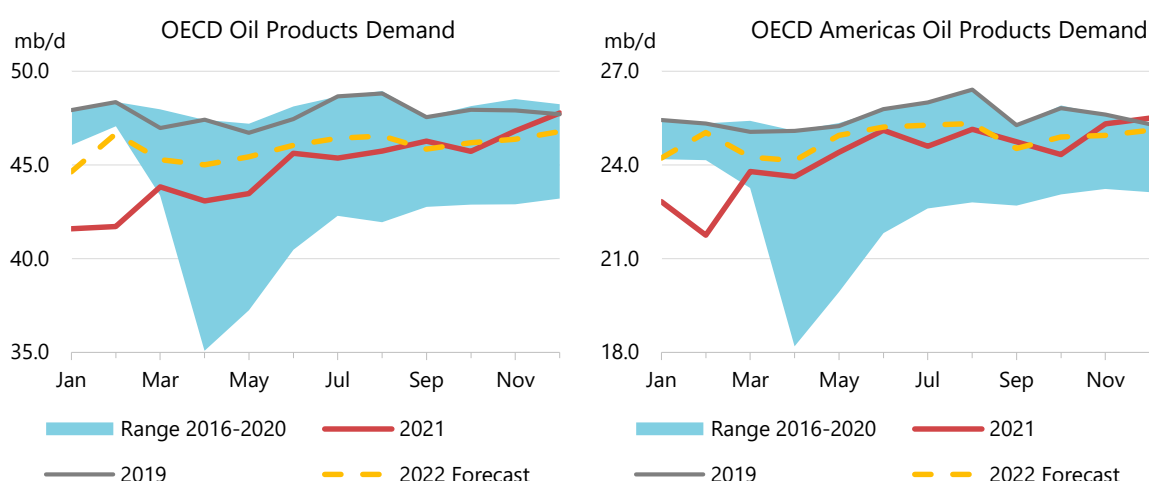
confrontation with Europe expands or economic growth in advanced economies slows more than anticipated. Hence, the greatest risks to this forecast are likely to the downside, with reduced pressure on stocks and refineries.

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	13 251	13 314	13 907	14 488	593	581	4.5	4.2
Naphtha	6 347	6 380	6 921	6 814	540	- 107	8.5	-1.5
Motor Gasoline	26 717	23 633	25 672	26 053	2 039	381	8.6	1.5
Jet Fuel & Kerosene	7 930	4 664	5 217	6 039	553	822	11.9	15.8
Gas/Diesel Oil	28 317	26 514	27 809	28 025	1 295	216	4.9	0.8
Residual Fuel Oil	6 148	5 721	6 073	6 141	352	68	6.1	1.1
Other Products	11 749	11 690	11 952	11 791	262	- 161	2.2	-1.3
<b>Total Products</b>	<b>100 459</b>	<b>91 916</b>	<b>97 550</b>	<b>99 351</b>	<b>5 634</b>	<b>1 802</b>	<b>6.1</b>	<b>1.8</b>

## OECD

Overall 1Q22 OECD oil demand is almost unchanged from last month's *Report*, at 45.5 mb/d. A 3.1 mb/d y-o-y increase reflects the relative absence of large-scale public-health restrictions, in contrast to 2021. Demand for every major product except naphtha increased significantly and each of the three OECD sub-regions had higher y-o-y deliveries.

However, this apparent stability disguises some variation within the quarter, with January up by 3 mb/d y-o-y and February a remarkable 5 mb/d higher but March only 1.4 mb/d stronger. Significantly higher oil product prices and greater economic uncertainty, are combining to cool demand across all OECD regions, with March falling 570 kb/d faster from February than the seasonal trend.



Preliminary data suggest that March demand for gasoil contracted by 30 kb/d y-o-y, reflecting worsening business confidence and supply chain problems, with naphtha demand tumbling by 230 kb/d as weak steam cracker margins based on the feedstock saw operators cut rates or switch to LPG (+520 kb/d) where possible. Gasoline demand held up better, with greater resilience in personal mobility and lower pricing compared to diesel. Jet/kerosene accounts for a large majority of the growth compared with 2021, standing 980 kb/d higher.

Average annual demand is forecast to rise by 1.2 mb/d to 45.9 mb/d. While 1Q22 saw considerable y-o-y growth at 3.2 mb/d (compared with the relatively weak 1Q21), higher prices and faltering economic growth are expected to take their toll through the rest of the year in line with our previous forecasts. Demand in 2Q22 will be up by 1.4 mb/d, 3Q22 500 kb/d higher and 4Q22 deliveries 320 kb/d lower than in 2021.

OECD Demand based on Adjusted Preliminary Submissions - March 2022															
(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
<b>OECD Americas</b>	<b>10.14</b>	<b>0.0</b>	<b>1.73</b>	<b>32.9</b>	<b>3.32</b>	<b>-0.1</b>	<b>1.88</b>	<b>-6.2</b>	<b>3.94</b>	<b>10.4</b>	<b>0.47</b>	<b>-19.6</b>	<b>2.85</b>	<b>-4.2</b>	<b>24.25 2.0</b>
US*	8.54	-0.9	1.52	28.6	2.48	-3.5	1.50	-6.4	3.08	11.4	0.30	-12.8	2.29	-5.1	19.63 1.2
Canada	0.78	-3.8	0.10	76.0	0.26	-1.6	0.32	-10.4	0.50	6.5	0.04	35.6	0.37	11.6	2.36 2.2
Mexico	0.76	17.6	0.09	83.9	0.41	32.0	0.06	34.0	0.32	9.2	0.11	-44.1	0.17	-14.5	1.91 10.4
<b>OECD Europe</b>	<b>1.92</b>	<b>11.9</b>	<b>1.08</b>	<b>84.8</b>	<b>4.90</b>	<b>1.6</b>	<b>1.59</b>	<b>-0.3</b>	<b>1.17</b>	<b>4.1</b>	<b>0.83</b>	<b>17.0</b>	<b>2.19</b>	<b>-1.3</b>	<b>13.41 7.2</b>
Germany	0.43	-3.1	0.13	39.2	0.67	-4.9	0.28	8.0	0.11	-13.8	0.07	26.4	0.36	-0.9	2.03 0.2
United Kingdom	0.25	16.2	0.28	72.6	0.45	-3.2	0.15	3.7	0.13	2.4	0.02	30.9	0.12	15.5	1.37 13.8
France	0.22	14.3	0.11	90.7	0.75	0.8	0.15	1.9	0.15	17.7	0.04	53.8	0.21	-4.4	1.63 7.6
Italy	0.19	40.0	0.06	155.4	0.53	16.6	0.07	-7.7	0.12	31.5	0.07	28.6	0.26	0.4	1.29 19.0
Spain	0.11	-0.8	0.11	240.3	0.44	-2.4	0.26	-5.4	0.07	3.4	0.13	13.9	0.19	-8.7	1.25 3.7
<b>OECD Asia &amp; Oceania</b>	<b>1.32</b>	<b>-3.6</b>	<b>0.71</b>	<b>9.2</b>	<b>1.32</b>	<b>-3.8</b>	<b>0.58</b>	<b>11.7</b>	<b>0.91</b>	<b>12.2</b>	<b>0.52</b>	<b>10.4</b>	<b>2.30</b>	<b>-3.5</b>	<b>7.61 1.1</b>
Japan	0.71	-2.7	0.43	6.4	0.42	-0.9	0.37	9.7	0.48	2.1	0.28	4.4	0.85	-10.7	3.54 -1.3
Korea	0.19	-9.8	0.15	1.2	0.31	-7.5	0.14	17.6	0.37	32.2	0.22	16.3	1.27	1.6	2.61 4.5
Australia	0.29	-4.0	0.10	44.4	0.52	-3.9	-	-	0.04	0.3	0.01	41.9	0.12	-3.7	1.08 0.0
<b>OECD Total</b>	<b>13.38</b>	<b>1.2</b>	<b>3.52</b>	<b>38.8</b>	<b>9.54</b>	<b>0.2</b>	<b>4.05</b>	<b>-1.7</b>	<b>6.02</b>	<b>9.4</b>	<b>1.82</b>	<b>3.2</b>	<b>7.34</b>	<b>-3.1</b>	<b>45.28 3.3</b>

## February rebound in OECD Americas but slowdown looming

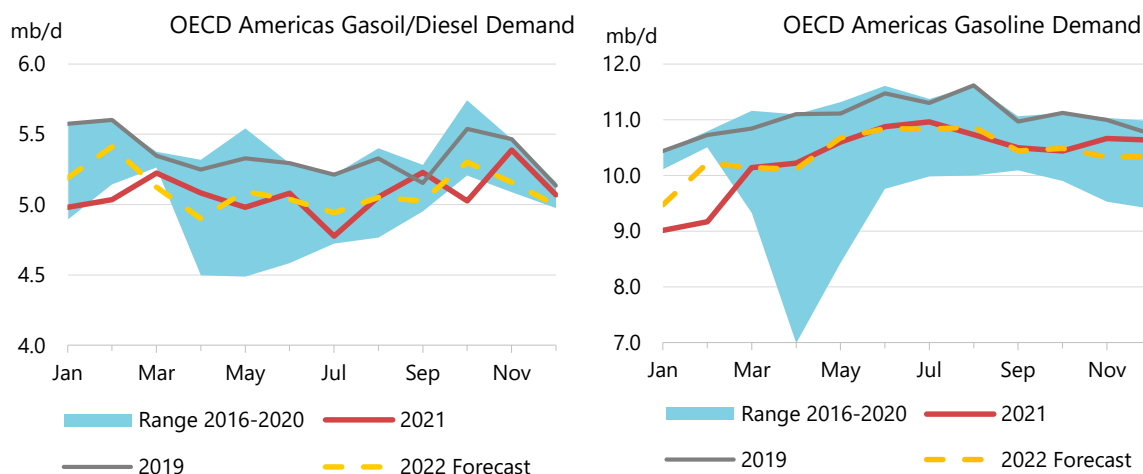
OECD Americas oil demand showed renewed strength in February, rising by 820 kb/d m-o-m, according to monthly oil statistics submitted by member countries. This jump dramatically outpaced the typical 150 kb/d rise, marking a break with underwhelming January data. However, preliminary weekly estimates for March and April from the US Energy Information Administration (EIA) suggest that growth is already slowing. We estimate that demand will slump by 790 kb/d from February to March, when it usually increases slightly, and by a further 120 kb/d in April. Overall 1Q22 demand was 1.7 mb/d higher y-o-y, with gasoline (+480 kb/d) and jet/kerosene (+390 kb/d) benefitting from an easing of public health restrictions this year, and LPG use (+530 kb/d) profiting from new ethane-based petrochemical capacity given the competitiveness of such plants in comparison to relatively high-cost naphtha crackers in other regions.

Gasoline (+750 kb/d m-o-m and +1.1 mb/d y-o-y) was the leading driver of the stronger February data. US Federal Highway Administration (FHA) data showed that the distance travelled by vehicles in the country rose from 7.7 billion miles per day in January to 8.4 billion miles each day in February (+11%). US gasoline demand increased by 620 kb/d. Gasoil deliveries rose counter-seasonally, climbing by 220 kb/d m-o-m. The *S&P Global US Manufacturing Purchasing Managers Index (PMI)* stood at 58.6 in February indicating strong expansion. In addition to robust US volumes, Mexican demand, estimated based on data from Pemex, continued to gather pace in February, after a disappointing 2021, rising by 100 kb/d m-o-m. This trend was reproduced in March (+190 kb/d) and we have lifted our outlook for the rest of 2022. Chilean demand also outperformed our expectations, rising by 30 kb/d m-o-m on higher gasoline use.

This positive momentum went into reverse in March, with preliminary information indicating that US gasoline deliveries declined (-90 kb/d m-o-m) contrary to typical seasonality and that gasoil use dropped by 300 kb/d. This decline continued into April, falling by another 130 kb/d. If confirmed, this would suggest that the impact of increased prices was felt almost immediately,



but should be treated with caution given the possibility of revision once monthly statistics become available. Diesel prices rose considerably faster than those for gasoline. The unexpectedly weak data form a striking contrast with very strong PMI readings for both manufacturing (rising from 58.8 in March to 59.7 in April – the third successive increase) and services (58 in March and 55.6 April). Notwithstanding this evidence of rising output, anecdotal reports of difficulties for freight operators due to rising costs are confirmed by *DAT Freight & Analytics*, who identify a dramatic 21% y-o-y decline in spot truck cargoes for April.



Based on these indications that higher prices are already having a substantial impact on demand, we have slightly reduced our 2022 outlook for US demand. However, these falls are outweighed by greater expectations for Mexico and we now project growth of 550 kb/d for 2022 for the Americas as a whole. Most of this growth is concentrated in 1Q22, with demand staying close to 2021 levels throughout the rest of the year.

## OECD Europe deliveries steady

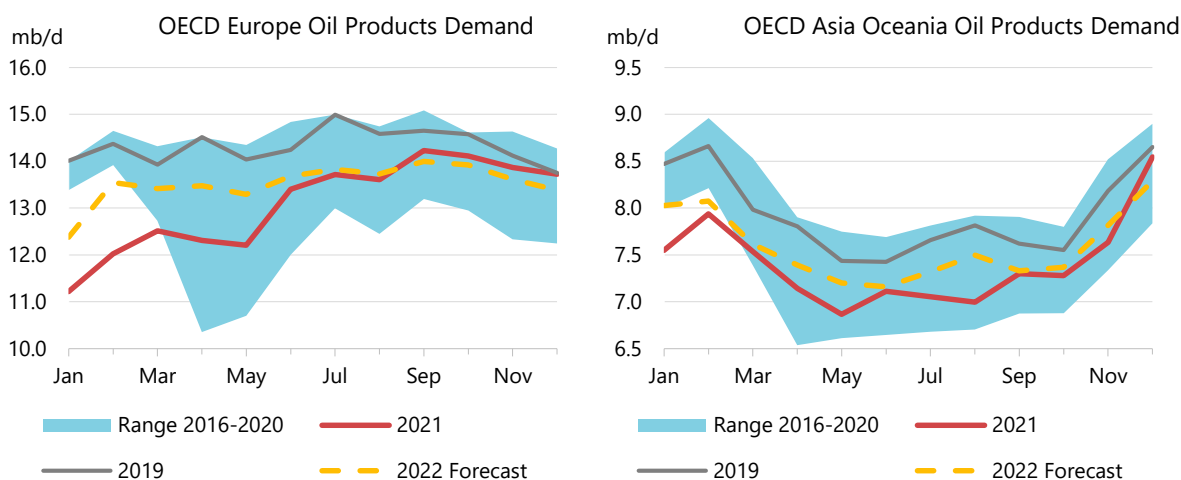
Overall 1Q22 demand in OECD Europe rose by 1.2 mb/d y-o-y despite anti-Covid restrictions in several key countries. While there were partial lockdowns in Germany and the Netherlands during January, these were less prevalent than in 1Q21 and eased during February and March, clearing the path to higher demand. Member country monthly statistics reveal that February deliveries were 1.2 mb/d in excess of January – about 250 kb/d faster than average for the month. Gasoil was the primary motor of growth, accounting for 800 kb/d of the increase (+620 kb/d y-o-y) while gasoline went up by 190 kb/d m-o-m. The *S&P Global Eurozone Manufacturing PMI* was at 58.2 in February but slid to 56.5 in March and 55.5 in April as cost pressures and greater supply chain challenges hit manufacturing operations. We project y-o-y gasoil demand growth to slacken to 70 kb/d in March.

Survey data for German manufacturers shows that new orders and output contracted in April (the first time since June 2020), although both the Netherlands and France reported quickening expansion. We expect the pressures on European economies, along with the impact of higher oil pricing, to weigh ever more heavily on demand through the year. While overall 2022 demand will be 440 kb/d higher than 2021, virtually all this growth will take place in 1H22, with 4Q22 demand 260 kb/d lower y-o-y.

Fuel switching from natural gas to oil in industry provided substantial support to gasoil demand in 1Q22, estimated at 250 kb/d as higher natural gas prices made oil an attractive alternative.



However, the subsequent stabilisation of gas prices and sharp increases in middle distillate costs have now brought the fuels close to price parity once again, suggesting that some consumers will now be incentivised to switch back to gas, which will ease demand for oil. Indeed, provisional March data for Germany suggests that other gasoil demand (i.e. non-diesel gasoil) was about 100 kb/d lower than previously forecast, a sign that tighter distillate markets are limiting this form of consumption.



## OECD Asia Oceania demand subdued in March

Based on preliminary submissions, March OECD Asia Oceania demand fell by 460 kb/d m-o-m to 7.5 mb/d, 230 kb/d below our expectations in last month's *Report*. The decline was in part driven by typical seasonal variation, with jet/kerosene use going down by 240 kb/d as winter heating requirements declined. However, y-o-y growth slowed to 80 kb/d from 140 kb/d in February with gasoline demand down by 50 kb/d and signs that petrochemical producers were trimming rates. Combined naphtha and LPG deliveries were 30 kb/d lower y-o-y, despite new plant start-ups during 2021 and showed a major shift towards LPG use (+100 kb/d) at the expense of naphtha (-130 kb/d). In particular, Japanese naphtha consumption tumbled by 150 kb/d compared with 2021, with four of the country's 12 steam crackers reportedly down for at least part of the month (three for checks following March's earthquake).

For 1Q22 total Asia Oceania demand rebounded by 230 kb/d y-o-y but remained some 460 kb/d lower than 1Q19. Gasoline and naphtha continue to lag 2021 levels and all major products, save fuel oil and LPG, are lower than in 2019. Various forms of fuel switching as a result of high relative natural gas pricing likely contributed an additional 100 kb/d to demand over the quarter.

Growth is forecast to slow slightly in 2Q22, to 210 kb/d y-o-y. The higher price outlook and economic headwinds apparent in almost every region will restrict the scope for increases, but our assumptions do not imply an abrupt downturn in demand. *S&P Global* PMIs for manufacturers indicated continued expansion in Japan (53.5), Korea (52.1) and Australia (58.8) in April. As in other advanced economies, the gap between 2021 and 2022 demand will narrow throughout the year, with Asia Oceania demand essentially flat y-o-y by 4Q22.

## Non-OECD

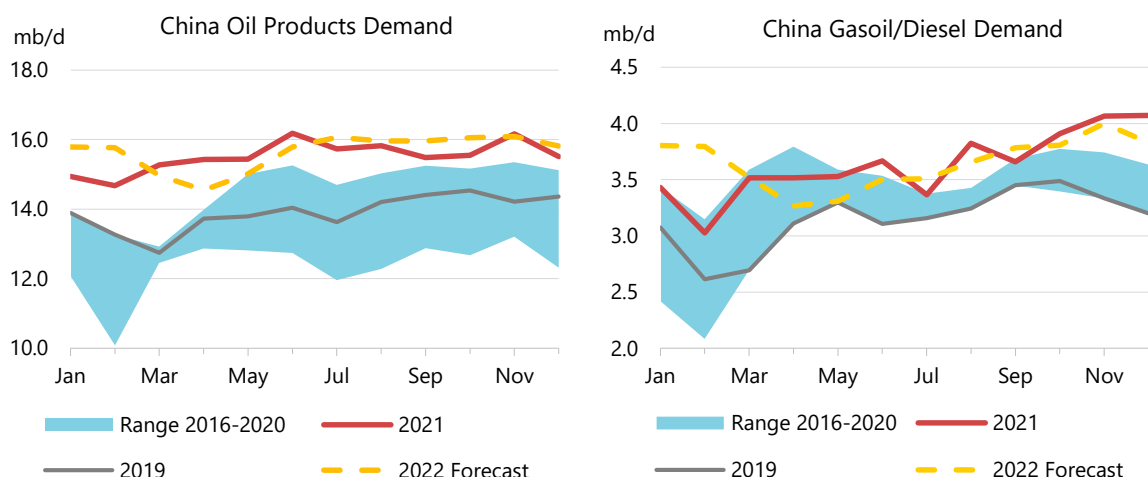
Total non-OECD oil use was close to record levels in 1Q22. At 53.3 mb/d, non-OECD demand stood 1.3 mb/d higher than a year ago and 1.5 mb/d in excess of pre-pandemic levels. However, severe and increasingly widespread Covid-19 containment measures in China, international sanctions on Russia and the impact of higher prices is expected to cool oil use in 2Q22. Demand is forecast 610 kb/d lower quarter-on-quarter (q-o-q), to stand only 160 kb/d ahead of 2Q19.

China's lockdowns are creating widespread disruption to personal mobility and activity as well as a range of different industries. Total 2Q22 oil use in China is expected to fall by 570 kb/d y-o-y compared with annual growth of 520 kb/d in 1Q22. Oil demand in Russia is already showing the strain of international pressure, falling by 150 kb/d m-o-m (-30 kb/d y-o-y) in March and with domestic businesses reporting significant problems. Deliveries in India (+220 kb/d y-o-y), Latin America (+140 kb/d), the Middle East (+140 kb/d) and Egypt (+120 kb/d) saw more positive trends. While we expect problems in Russia to persist, China should return to growth before the end of the year, helping total non-OECD demand grow by 640 kb/d to 53.4 mb/d for 2022.

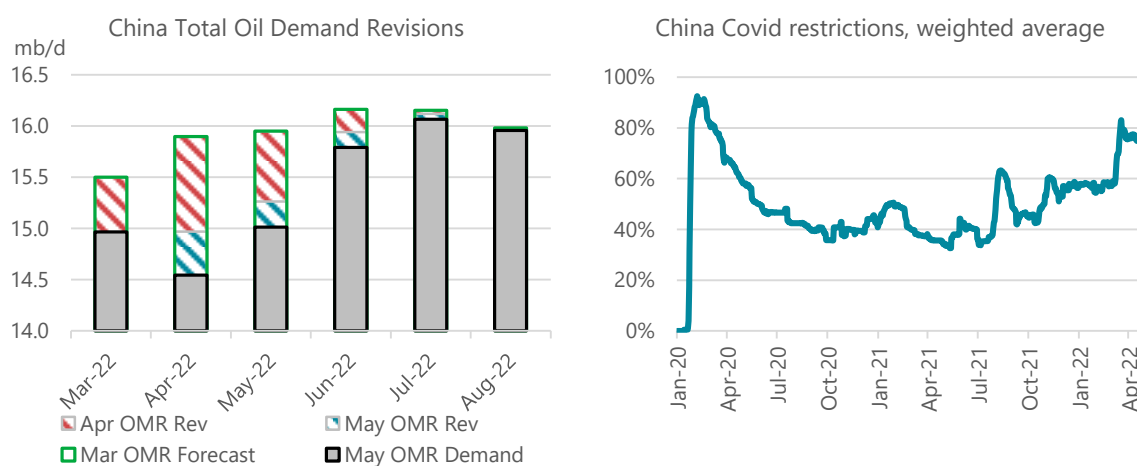
Non-OECD: Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	7 748	7 888	8 322	8 557	434	236	5.5%	2.8%
Naphtha	3 080	3 238	3 549	3 605	311	56	9.6%	1.6%
Motor Gasoline	12 128	10 976	12 047	12 303	1 071	256	9.8%	2.1%
Jet Fuel & Kerosene	3 447	2 090	2 221	2 337	131	116	6.2%	5.2%
Gas/Diesel Oil	14 580	13 832	14 637	14 833	805	195	5.8%	1.3%
Residual Fuel Oil	4 359	4 217	4 373	4 353	157	- 20	3.7%	-0.5%
Other Products	7 339	7 548	7 636	7 434	88	- 202	1.2%	-2.6%
<b>Total Products</b>	<b>52 681</b>	<b>49 788</b>	<b>52 785</b>	<b>53 423</b>	<b>2 997</b>	<b>638</b>	<b>6.0%</b>	<b>1.2%</b>

## Chinese demand reels on deepening lockdowns

Cities across China continue to be gripped by stringent lockdowns designed to stop the spread of Covid-19. These measures appear to have been, at most, a partial success. Reported new cases have declined from a late-April peak and are low in comparison with many Western countries. Nevertheless, the lockdowns required to achieve this have often been longer and more severe than initially expected, while the virus continues to spread to new cities and regions. Most notably, Beijing has introduced a number of new restrictions although not yet as severe as in Shanghai. Japan's *Nomura Research Institute* estimated that in late-April almost 330 million people across 43 Chinese cities were under some form of lockdown. This geographical widening highlights the possibility of new public health measures and has the potential to substantially deepen and extend the impact on oil demand.



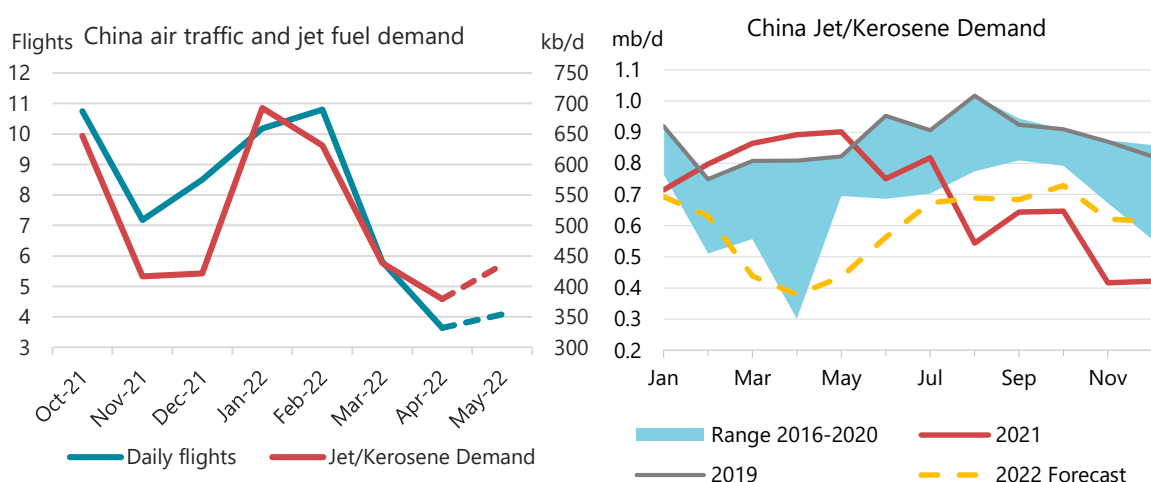
Provincial-level information on restrictions produced by Oxford University's *Blavatnik School of Government* underscores the growing scale of the measures in effect. A weighted average of restrictions has remained above 75% of maximum 2020 levels since mid-March, with little sign of a major decrease. The *China Caixin Manufacturing PMI* fell to 46 in April from 48.1 in March. In the second heaviest fall on record, their *Services PMI* slumped to 36.2 versus 42 in March. Both indices are at their lowest since April 2020 and indicate substantial contractions. Such limits on activity and their economic corollaries have led us to further reduce our expectations for Chinese oil demand in 2Q22 by 275 kb/d on average. For the year as a whole, we now forecast demand to grow by only 130 kb/d, reaching 15.7 mb/d. This is 50 kb/d lower than in the *April Report* and 300 kb/d below our February forecast.



Sources: IEA, Oxford University BSG

March apparent demand recorded a m-o-m fall of 800 kb/d, compared with an average seasonal drop of 140 kb/d. March oil use was 310 kb/d lower than a year ago, the first y-o-y decline since February 2020 and a strong contrast with the 1.1 mb/d annual growth in February 2022. All major products except LPG (+70 kb/d) fell m-o-m. Gasoil led the declines (-270 kb/d), but jet/kerosene, naphtha and gasoline demand (each about -190 kb/d lower) also dropped steeply. Despite a weaker final month, 1Q22 demand rose by 520 kb/d y-o-y. While road fuel demand is likely to benefit to a limited extent from widespread public transport closures, we have reduced our expectations for April oil use to 14.5 mb/d, 420 kb/d lower than March and 890 kb/d below a year ago. We expect demand to fall by 570 kb/d y-o-y in 2Q22.

The large decline in gasoil demand principally reflects the slowdown in manufacturing and commercial activity. We estimate that this worsened in April, as evidenced by the lower PMI values. Factories across the country are closed or hampered by lockdown measures and ensuing supply chain issues. Rising global commodity prices have added further difficulties for businesses. Similarly, gasoline demand has been hindered by a large decline in personal mobility and consumer activity. Alongside the low March and April services PMI numbers, Alibaba reported that sales via their Taobao e-commerce platform tumbled by 8% y-o-y in March. Baidu's *Congestion Index* suggests that during late April and early May, traffic was noticeably reduced compared with 2021 in more than half of China's largest 98 cities. In Shanghai (home to 25 million people) there was an almost total lack of congestion throughout April, with similarly large reductions in peak traffic in cities like Jinan (9 million people) and Changchun (also 9 million people). Notably, in recent weeks the index for Beijing (22 million people) indicates a significant disruption to normal behaviour.



Sources: IEA, Radarbox.

While major ports in affected areas have been able to keep operating, significant congestion has disrupted supply chains for local producers and bunker fuel demand. Consulting firm *Linerlytica* reported that congestion at Shanghai (the world's busiest port) and Ningbo rose steadily during March and April while data provider *Windward* indicated that the number of vessels waiting at Chinese ports doubled from February to mid-April. Fuel oil use in China was 75 kb/d lower m-o-m in March (15% lower y-o-y) and we expect it to remain subdued in April. Recent fuel oil data in associated shipping centres Hong Kong (February -6% y-o-y) and Singapore (February -13% and March -9% y-o-y) highlights the extent of these disruptions.

In proportion to market size, jet/kerosene use experienced the most precipitous fall of any product, collapsing by 44% m-o-m. According to data from *Radarbox*, the number of flights from Chinese airports plummeted by a remarkable 46% m-o-m. Having stood at 10 800 each day in February they tumbled to 5 800 a day in March before all-but-reaching February 2020 levels in April, at only 3 300 a day (a further 43% fall). Jet/kerosene demand fell by 190 kb/d in March and we expect this fall to be extended by a further 60 kb/d in April. Flight numbers ticked upwards in early May but remain at remarkably low levels. Any rebound in demand is likely to take several months and could struggle to return to 1H21 levels during 2022.

Naphtha demand slumped by 190 kb/d in March. This reflected a combination of lower operating rates at Chinese steam crackers, with tighter margins and supply chain issues, alongside a switch

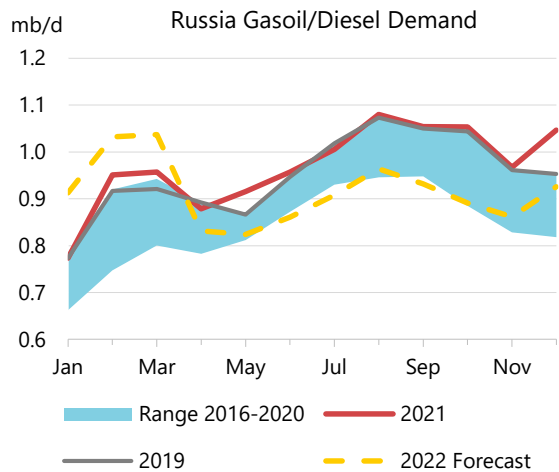
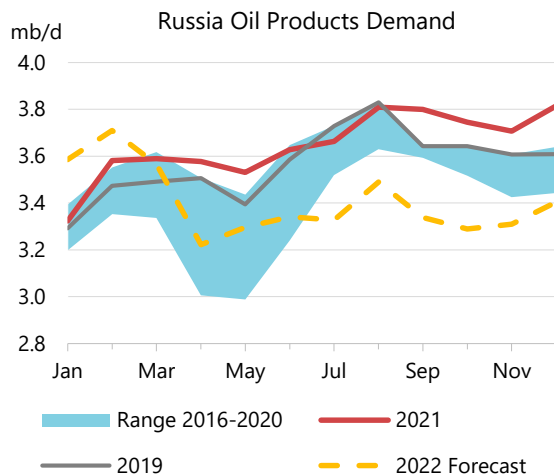
by flexible cracker operators in favour of LPG consumption as margins based on the lighter feedstock became more favourable. As in other countries, we expect that petrochemical producers will maximise the share of LPG feedstock used throughout the year. Ship-tracking data from *Kpler* showed lower imports of US ethane bound for steam crackers during March, down by 50 kb/d to just under 100 kb/d. These leapt to 170 kb/d April, the highest level since September 2021. LPG/ethane demand is projected to rise by 220 kb/d in 2022, the fastest growth of any oil product in the country.

China: Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
LPG & Ethane	1 781	1 912	2 230	2 445	317	215	16.6	9.7
Naphtha	1 373	1 478	1 679	1 769	201	90	13.6	5.4
Motor Gasoline	3 332	3 284	3 630	3 674	345	44	10.5	1.2
Jet Fuel & Kerosene	877	722	700	596	- 21	- 104	-3.0	-14.9
Gas/Diesel Oil	3 151	3 259	3 636	3 642	377	6	11.6	0.2
Residual Fuel Oil	444	445	481	483	36	2	8.1	0.3
Other Products	2 948	3 197	3 165	3 041	- 32	- 123	-1.0	-3.9
<b>Total Products</b>	<b>13 905</b>	<b>14 298</b>	<b>15 521</b>	<b>15 651</b>	<b>1 223</b>	<b>130</b>	<b>8.6</b>	<b>0.8</b>

## Russia sanctions begin to bite

As expected, March data for Russia shows a substantial decline in demand. Total oil use dropped by 150 kb/d m-o-m, where the normal seasonal change is for a 20 kb/d fall. Jet/kerosene (-30 kb/d) and fuel oil (-40 kb/d) saw the largest reductions. Commercial flights from major Russian airports tumbled by 31% in March according to *FlightRadar24* data. However, jet fuel demand was partly insulated by the near trebling of Russian military consumption from 30 kb/d in January to almost 90 kb/d in early April. International flights from Russia have been severely restricted due to airspace closures and the possibility of the seizure of leased aircraft at foreign airports, while domestic flight numbers have been curtailed by the continued closure of airports across a large swathe of south-western Russia. Our jet/kerosene demand outlook has been revised slightly higher on a partial rebound in domestic flights in late April and early May. Nonetheless, we expect maintenance and equipment issues to weigh more heavily on demand in 2H22.

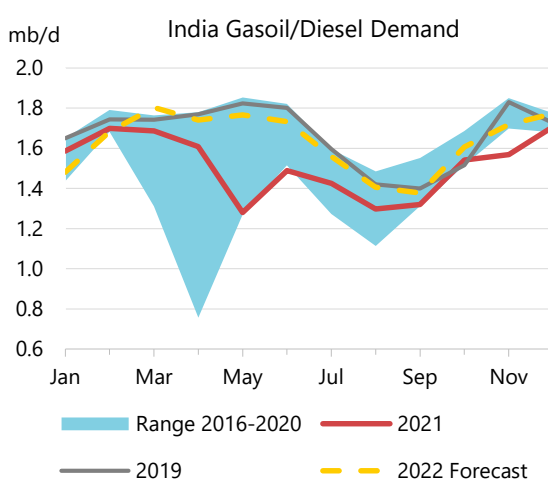
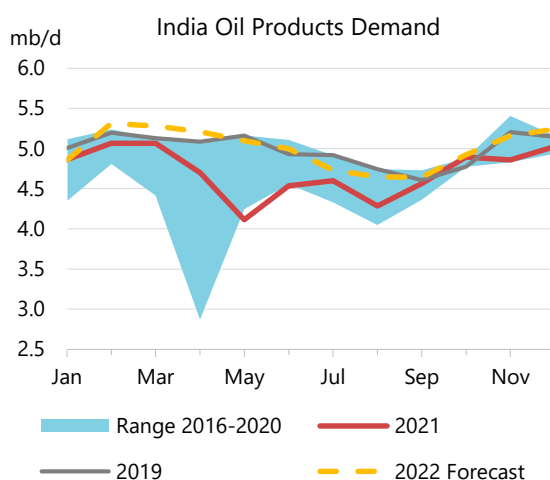
Gasoil and gasoline demand both exceeded expectations in March. Gasoil demand was flat, in contrast to the ordinary seasonal rise. Gasoline use was also largely unchanged, outperforming the normal seasonal fall. According to *GlobalPetrolPrices.com*, domestic diesel and gasoline prices did not rise significantly in March or April (indeed gasoline prices actually fell). Our previous projections assumed that effective prices would increase along with global markets, weighing on demand. We have modified our assumptions slightly to lessen the price impact on Russian domestic consumption. Nevertheless, the outlook for 2022 remains grim – as evidenced by a third month of declines in the *S&P Global Russia Manufacturing PMI*, which registered at 48.2 in April amid the impact of sanctions, rampant inflation and a fall in new orders as customer confidence remained weak. Total 2022 oil demand will be 240 kb/d lower y-o-y at 3.4 mb/d.



## Growth cools amid Indian price hikes

Total Indian demand declined by 70 kb/d m-o-m in April. Gasoline and gasoil use were essentially flat m-o-m, as firms began to pass on higher global prices to consumers. On 22 March, state companies ended a 137-day freeze on prices, following a round of state elections. The first half of April recorded a 10% m-o-m fall in gasoline demand and a 16% fall in diesel demand. In March, stock-building by users in anticipation of price hikes had contributed to unusually strong sales. Demand for LPG, which is important for residential cooking and heating, dropped by an estimated 90 kb/d m-o-m in April (in excess of the average seasonal 50 kb/d decline). LPG sales in March are believed to have benefitted substantially from stock-building ahead of a 50 Rupees per cylinder price increase.

Nevertheless, overall April demand was 510 kb/d higher y-o-y. During April 2021, India was in the midst of severe anti-Covid lockdowns. Compared with the weak baseline, 2Q22 demand is expected to climb 660 kb/d y-o-y, with annual growth of 290 kb/d for 2022. The *S&P Global India Manufacturing PMI* shows activity gathering pace in April, up to 54.7 from 54 in March.



Growth is forecast to slow dramatically in 3Q22, to 190 kb/d y-o-y. The principal reason for this is the comparison to a stronger period in 2021, when lockdowns were easing. Additionally, higher oil prices will erode oil use, especially personal consumption. We forecast that 3Q22 gasoline use will be flat y-o-y while growth for gasoil will slow to 100 kb/d, from 290 kb/d in 2Q22. Broadly

speaking, this situation is likely to persist into 4Q22 (+180 kb/d y-o-y) with average 2022 demand standing 20 kb/d higher than 2019 levels at 5 mb/d.

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	898	19	10	2.1%	1.1%
Naphtha	308	318	319	308	2	- 11	0.5%	-3.4%
Motor Gasoline	734	667	750	781	83	31	12.4%	4.1%
Jet Fuel & Kerosene	225	120	128	159	9	30	7.2%	23.5%
Gas/Diesel Oil	1 667	1 414	1 516	1 637	102	121	7.2%	8.0%
Residual Fuel Oil	145	136	141	145	6	4	4.1%	2.6%
Other Products	1 076	1 016	968	1 078	- 49	110	-4.8%	11.4%
<b>Total Products</b>	<b>4 991</b>	<b>4 540</b>	<b>4 711</b>	<b>5 006</b>	<b>171</b>	<b>294</b>	<b>3.8%</b>	<b>6.2%</b>

## Other Non-OECD

**Brazil** posted strong oil demand in March, 70 kb/d in excess of our previous expectations. Gasoil use (-20 kb/d y-o-y) was close to the unusually high level of March 2021, while gasoline posted 80 kb/d y-o-y growth. Overall 1Q22 demand was flat y-o-y. Improving assessments of the country's economic position, with the *S&P Global Brazil Manufacturing PMI* showing increased activity in both March (52.3) and April (51.8), is supporting the outlook. Our GDP growth assumptions have been raised for 2Q22 and 3Q22, albeit from a low base. We now expect Brazilian demand to fall by only 20 kb/d, to just over 3 mb/d during 2022. Total **Latin American** oil demand is forecast to rise by 60 kb/d for the year as a whole, reaching 6.4 mb/d.

Projected **Middle Eastern** demand growth for 2022 has increased to 110 kb/d, following an upward revision to our GDP estimates for major energy exporters in the region. Higher global commodity prices have strengthened local economies and we forecast gasoline and jet/kerosene demand to rise by about 100 kb/d each compared with 2021. This will easily outweigh the sizeable reductions in the quantity of crude oil burnt for power generation as Gulf economies continue to diversify their sources of electricity.

**African** oil use grew by 120 kb/d in 1Q22, with fuel oil use in **Egypt** increasing by an average of 90 kb/d in January and February as the government prioritised LNG exports from Idku and Damietta and oil filled the gap in power generation. Increased traffic through the Suez Canal during April (6.3% higher y-o-y) likely supported bunker demand at Egypt's ports. We expect total Egyptian demand to be 70 kb/d higher y-o-y in 2022.

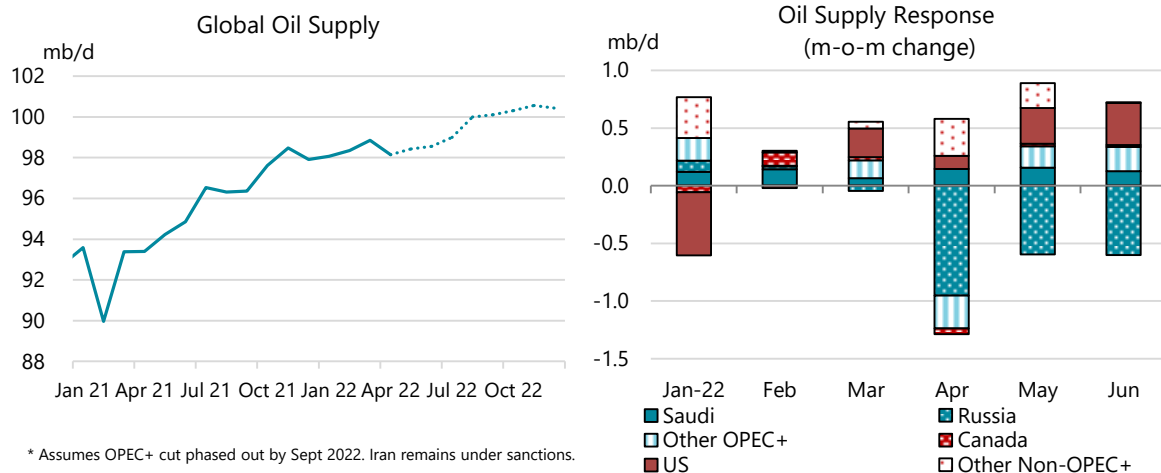
Non-OECD: Demand by Region								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2019	2020	2021	2022	2021	2022	2021	2022
Africa	4 244	3 812	4 036	4 154	225	118	5.9	2.9
Asia	27 911	26 934	28 683	29 332	1 749	649	6.5	2.3
FSU	4 723	4 497	4 778	4 465	281	- 313	6.3	-6.6
Latin America	6 310	5 631	6 029	6 096	397	67	7.1	1.1
Middle East	8 710	8 206	8 522	8 629	317	107	3.9	1.3
Non-OECD Europe	782	708	737	746	28	9	4.0	1.3
<b>Total Products</b>	<b>52 681</b>	<b>49 788</b>	<b>52 785</b>	<b>53 423</b>	<b>2 997</b>	<b>638</b>	<b>6.0</b>	<b>1.2</b>



# Supply

## Overview

World oil supply fell to 98.1 mb/d in April, down 710 kb/d - the biggest monthly loss since February 2021 – after Russia shut-in nearly 1 mb/d. Production from other OPEC+ members continued to disappoint, with total oil output from the bloc down more than 1 mb/d. Libya and Kazakhstan lost more than 400 kb/d between them due to unplanned closures at export terminals. The sharp declines widened the shortfall between the bloc's supply versus official output targets to around 2.7 mb/d compared to 1.3 mb/d in March, reflecting the group's persistent battle with capacity constraints and technical issues. The overall global decline was partially offset by higher non-OPEC+ supply, which rose by 380 kb/d led by strong gains in biofuels and a modest production increase from the United States.



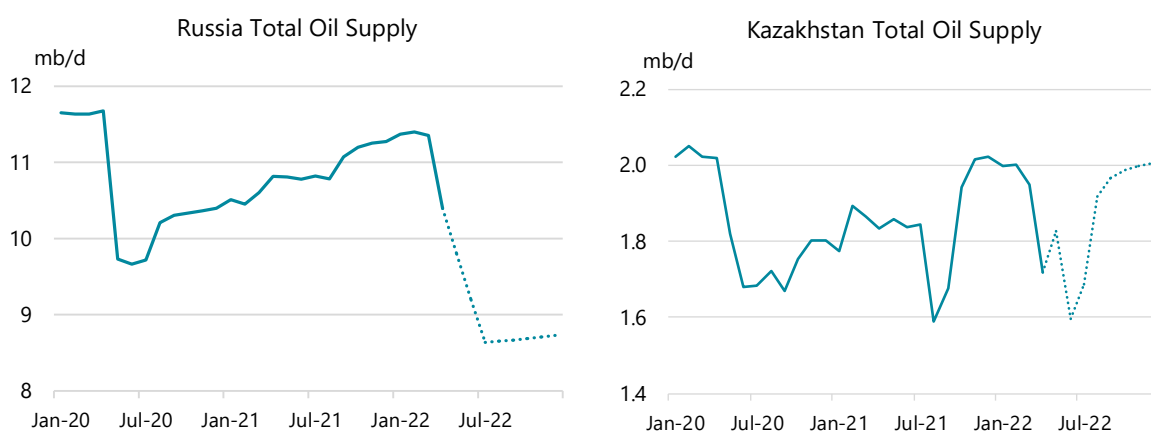
Over time, steadily rising volumes from Middle East OPEC+ members and the US along with slower demand growth is expected to fend off an acute supply deficit even amid a worsening Russian disruption. Excluding Russia, output from the rest of the world is set to rise by 3.1 mb/d from May through December. The US is expected to deliver the single largest gain – adding 1.1 mb/d of the total non-OPEC+ increase of 1.5 mb/d. OPEC+ is poised to boost output gradually by 1.6 mb/d if cuts are unwound fully, with Middle East producers delivering the lion's share. Saudi Arabia is slated to add 480 kb/d while Iraq, Kuwait and the UAE combined could contribute a similar amount. For the year as a whole, production is forecast to rise 5.2 mb/d y-o-y (excluding Russia), with OPEC+ accounting for 3.4 mb/d and non OPEC+ for 1.8 mb/d.

## Russia turns down taps as sanctions bite

After holding broadly steady in March, **Russian** oil production plunged during April as the country's refiners processed much less crude due to slower products exports and falling domestic demand in the wake of Western sanctions. Though a smaller drop than we anticipated in last month's *Report*, total output of crude oil, condensates and NGLs tumbled 960 kb/d m-o-m to 10.4 mb/d in April, the lowest level since November 2020. Supply of crude oil declined by 900 kb/d

to 9.1 mb/d, which was 1.3 mb/d below the country's OPEC+ target. Top producer Rosneft has reportedly shouldered much of the reduction so far. Sanctions are also taking a toll on projects operated by Western oil companies. ExxonMobil declared *force majeure* at the 300 kb/d Sakhalin-1 field where it is curbing output as operations become more difficult. The company intends to withdraw from the country following Russia's invasion of Ukraine.

As sanctions tighten and a lack of storage forces producers to shut in still more wells, we are expecting a further loss of 600 kb/d this month – taking the overall decline since February to around 1.6 mb/d. This could stretch to more than 2 mb/d in June and deepen to close to 3 mb/d from July onwards if existing sanctions deter further buying or should the embargo on Russian oil expand (at the time of writing, the EU was still discussing a ban on Russian oil imports). If that were to prove the case, annual average oil production would fall to 9.6 mb/d, a yearly level last seen in 2004. Given the rapidly evolving situation and high degree of uncertainty, our estimates are under continuous review and will be revised as necessary.



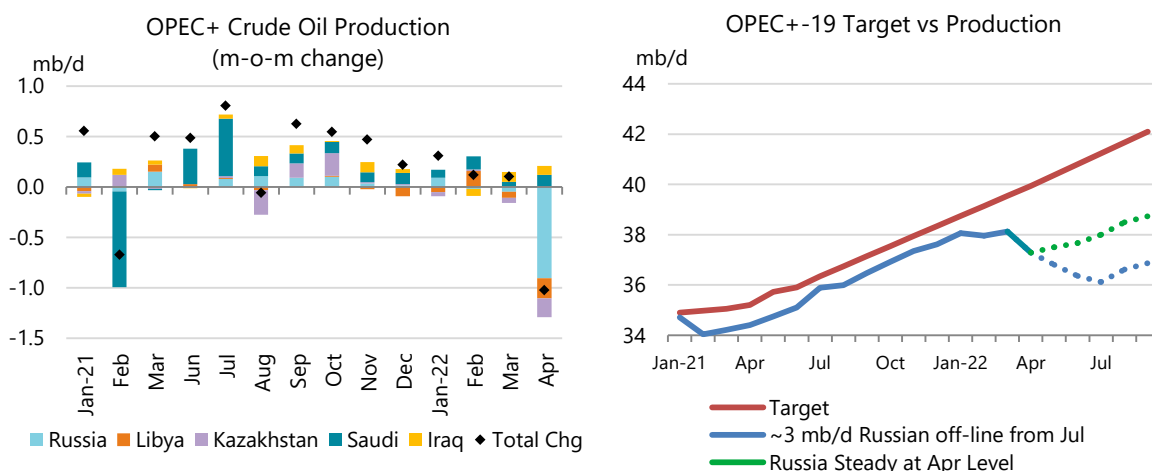
In neighbouring **Kazakhstan** maintenance and repair work is making for erratic flows. Output slumped during March and April due to unscheduled outages, is rebounding in May but is set to fall again in June because of planned maintenance. Total oil production of crude oil and condensates fell by 230 kb/d in April to 1.72 mb/d, with crude oil dropping by 190 kb/d to 1.41 mb/d due to repair of the Caspian Pipeline Consortium (CPC) loading terminal on Russia's Black Sea coast. Before the unscheduled maintenance that started in March, total oil supply stood at 1.95 mb/d.

By late April, the CPC terminal and pipeline returned to full capacity – with production recovering to above 1.9 mb/d. Those higher rates are holding up so far this month, which suggests the country's top three fields – Tengiz, Kashagan and Karachaganak are pumping at or near March levels. Kashagan, which had been producing around 400 kb/d, is due for maintenance from May through July, with a full field shut down next month. Following the upgrade work, Kashagan output is expected to rise to around 450 kb/d.

## OPEC+ holds firm on policy

The 23-member OPEC+ bloc agreed on 5 May to stick with its existing policy to raise crude oil output in modest monthly increments. It endorsed a 432 kb/d supply rise for June, in line with its

plan to phase out record cuts enforced in 2020 when demand collapsed in the wake of Covid. The producer group is due to meet again on 2 June.



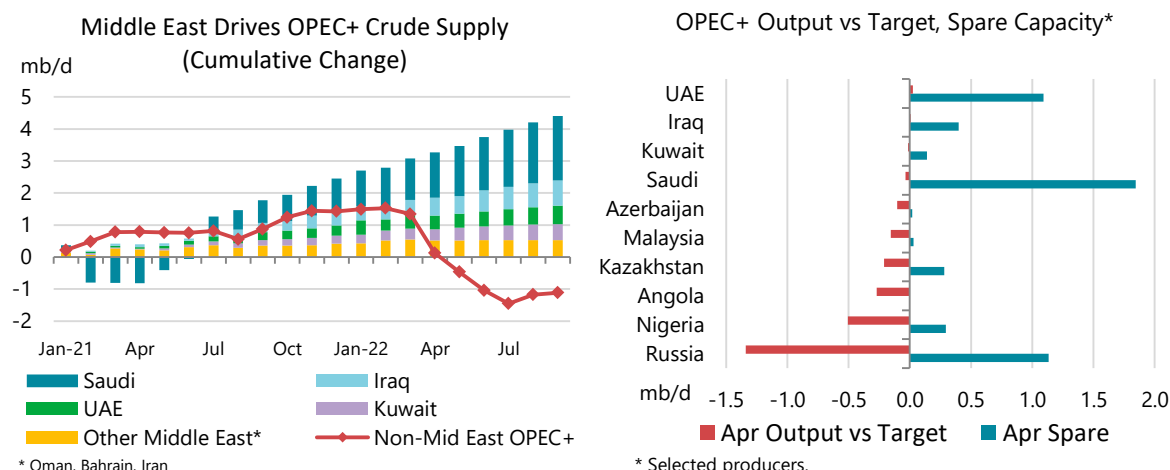
During April, total crude oil production from all 23 members of the OPEC+ bloc plunged 1.03 mb/d to 43.12 mb/d. Production of crude from OPEC countries edged up 50 kb/d to 28.67 mb/d in April as higher flows from Saudi Arabia and Iraq offset a hefty decline in Libya. Non-OPEC partners pumped 14.45 mb/d, down 1.08 mb/d, led lower by Russian losses. The magnitude of the Russian decline meant that - taking into account only the 19 members bound by the supply deal - output tumbled 840 kb/d compared to a planned 400 kb/d increase. As a result, their combined production trailed roughly 2.7 mb/d below target in April compared to a deficit of 1.3 mb/d the previous month. Apart from Russia, many countries can't keep up with rising targets due to dwindling spare capacity and reduced operational efficiency. Prime examples are Nigeria and Angola, which between them pumped nearly 800 kb/d below target in April.

## Steady Rise of Middle East OPEC+

Core Gulf producers are tapping into their spare capacity to continue along an upward supply trend through this year. From January 2021 to April 2022, Saudi Arabia, the UAE, Iraq and Kuwait have added a combined 2.8 mb/d of crude oil and should boost that amount to 3.9 mb/d by September when OPEC+ cuts are due to be phased out.

Only Saudi Arabia and the UAE hold substantial, readily available spare capacity and so far they are lifting supply broadly in line with their previously-agreed OPEC+ quotas. During April, **Saudi Arabia** pumped 10.4 mb/d of crude oil, up 120 kb/d m-o-m.

In **Iraq**, production rose 90 kb/d to 4.42 mb/d in April. Refinery glitches cut internal consumption, but exports climbed 180 kb/d to 3.8 mb/d, the highest rate since March 2020. Shipments of southern Basrah crude increased by 90 kb/d to 3.29 mb/d in April, while loadings from the north rose by the same amount to 510 kb/d. Output in **Kuwait** inched up while supply held steady in the **UAE** during April. In a rare move that suggests global trade flows may be readjusting to shifts in Russian oil supplies, TotalEnergies's shipping arm reportedly chartered a tanker to load Murban crude from the UAE in early May for Europe.



Iran's crude oil output eased to 2.55 mb/d. Negotiations between Tehran and the West to revive the 2015 nuclear deal have been on hold since March, primarily because Iran insists that the US must remove the Islamic Revolutionary Guard Corps from its list of Foreign Terrorist Organization. Iran could be a source of significant supplies if sanctions were to be eased, although its return to the market would not happen overnight.

OPEC+ Crude Oil Production <sup>1</sup>						
	(million barrels per day)					
	Mar 2022 Supply	Apr 2022 Supply	April Compliance	Apr 2022 Target	Sustainable Capacity <sup>2</sup>	Spare Cap vs Apr
Algeria	1.00	1.00	104%	1.00	1.00	0.00
Angola	1.14	1.18	446%	1.45	1.15	0.00
Congo	0.26	0.27	344%	0.31	0.29	0.02
Equatorial Guinea	0.09	0.10	450%	0.12	0.11	0.01
Gabon	0.20	0.19	-30%	0.18	0.20	0.01
Iraq	4.33	4.42	97%	4.41	4.82	0.40
Kuwait	2.64	2.65	110%	2.67	2.79	0.14
Nigeria	1.25	1.23	637%	1.74	1.52	0.29
Saudi Arabia	10.28	10.40	106%	10.44	12.24	1.84
UAE	3.03	3.03	85%	3.01	4.12	1.09
<b>Total OPEC-10</b>	<b>24.22</b>	<b>24.47</b>	<b>162%</b>	<b>25.32</b>	<b>28.25</b>	<b>3.81</b>
Iran <sup>3</sup>	2.58	2.55			3.80	1.25
Libya <sup>3</sup>	1.10	0.90			1.20	0.30
Venezuela <sup>3</sup>	0.72	0.75			0.75	0.00
<b>Total OPEC</b>	<b>28.62</b>	<b>28.67</b>			<b>34.00</b>	<b>5.37</b>
Azerbaijan	0.58	0.58	376%	0.68	0.60	0.02
Kazakhstan	1.60	1.41	340%	1.62	1.69	0.28
Mexico <sup>4</sup>	1.63	1.64		1.75	1.69	0.05
Oman	0.83	0.84	100%	0.84	0.87	0.03
Russia	10.00	9.10	337%	10.44	10.23	1.13
Others <sup>5</sup>	0.89	0.89	392%	1.05	0.94	0.05
<b>Total Non-OPEC</b>	<b>15.53</b>	<b>14.45</b>	<b>330%</b>	<b>16.38</b>	<b>16.02</b>	<b>1.56</b>
<b>OPEC+-19 in cut deal<sup>6</sup></b>	<b>38.12</b>	<b>37.28</b>	<b>223%</b>	<b>39.94</b>	<b>42.58</b>	<b>5.33</b>
<b>Total OPEC+</b>	<b>44.15</b>	<b>43.12</b>			<b>50.02</b>	<b>6.93</b>

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.

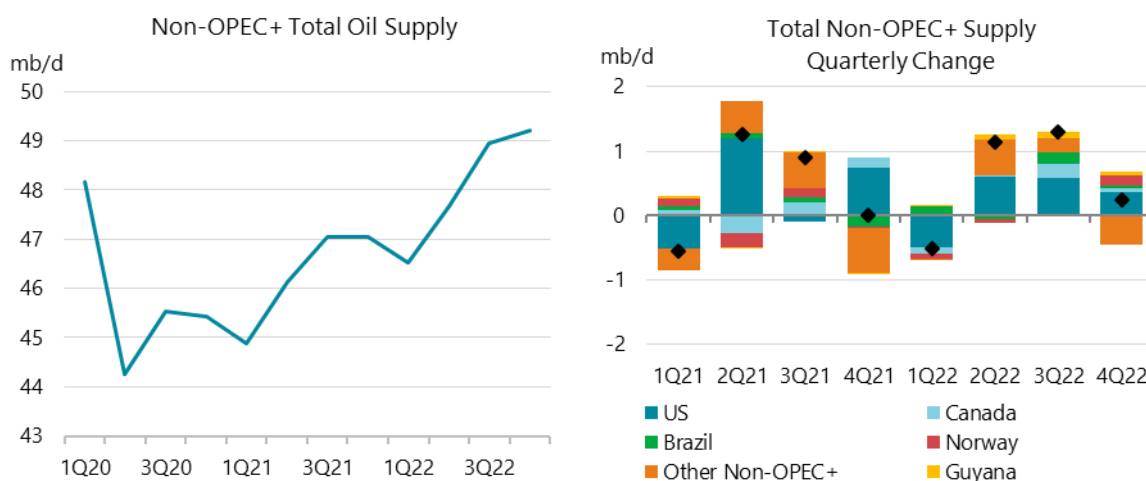
In terms of crude oil supply, **Libya** posted the second largest decrease within OPEC+, with output falling 200 kb/d to 900 kb/d due to political unrest. Since mid-April, at least 500 kb/d has been offline because of field and export terminal closures that forced the National Oil Corp (NOC) to declare *force majeure* on loadings from several ports. On 1 May, NOC lifted *force majeure* at the Zueitina oil terminal, which should see the resumption of some 90 kb/d. But at the time of writing, the order remained in place at Libya's biggest oil field, El-Sharara, and the nearby El-Feel in the

southwest as well as the eastern port of Marsa el-Brega. Because of its ongoing political crisis, the country remains prone to supply outages.

Disruptions are also hitting output elsewhere in Africa. In **Gabon**, Perenco has reportedly declared *force majeure* for 150 days following a late-April leak at its 130 kb/d Cap Lopez oil terminal. Roughly 50 kb/d is expected to be offline. Crude production during April was 190 kb/d. Perenco shut the terminal near Port Gentil after a storage tank leaked more than 300,000 barrels of oil. The cause of the spill is still unclear.

## Non-OPEC+ growth concerns linger

Total oil volumes from non-OPEC+ countries grew by 380 kb/d to 47.2 mb/d in April, following seasonally higher biofuels production and increased output from the US and Brazil. Non-OPEC+ oil supply is projected to average 48.1 mb/d in 2022, a boost of 1.8 mb/d y-o-y. The US is expected to add 1.2 mb/d, or 64% of the non-OPEC+ 2022 gain. Growth will also come from Canada and Guyana, up by 190 kb/d and 140 kb/d, respectively.



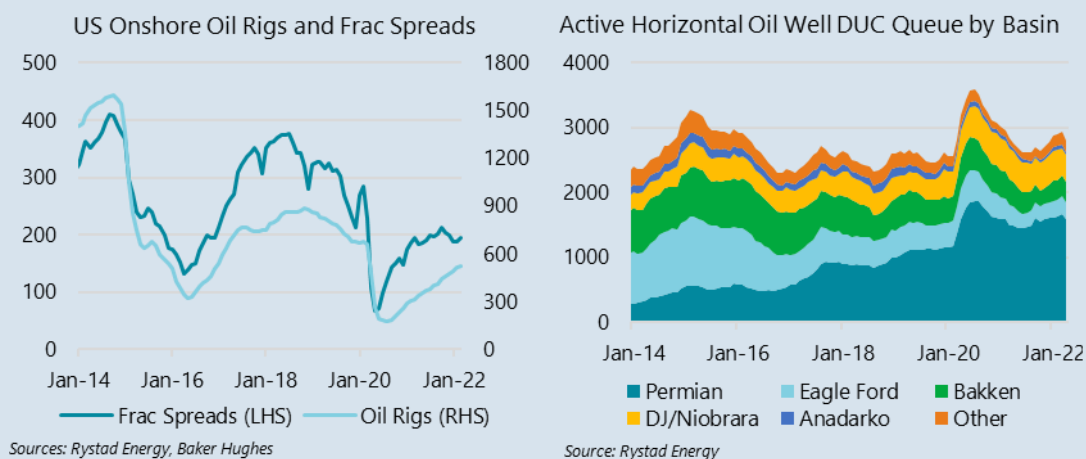
**US** output rose by an estimated 110 kb/d m-o-m in April to 17.3 m/d, driven by a seasonal rebound in NGLs while a late winter freeze cut output in North Dakota. In February, the latest month for which official data from the Energy Information Administration (EIA) is available, total oil supply fell by 20 kb/d. February declines of 100 kb/d m-o-m in the Gulf of Mexico (GoM) were offset by a marginal increase in onshore crude production and NGL volumes. Total US output is forecast to average 17.9 mb/d in 2022, down 90 kb/d compared with last month's *Report*.

US GoM 2022 annual volumes were revised down by 80 kb/d in this *Report*, primarily from lower baseline production. Supply is nonetheless expected to increase by close to 100 kb/d y-o-y to 1.8 mb/d as new projects come online (Kings Quay, Power Nap, Mad Dog South and Vito) and others such as Jack Saint Malo and Julia continue to grow.

### Box 1. Oilfield service sector strain caps US supply growth

Greater than expected weather effects at the start of the year, an extremely tight oilfield services (OFS) sector and a recent slowdown in completions underpin a 90 kb/d downward revision to our 2022 US LTO forecast. While frack spreads, rigs and labour availability should allow for growth over the course of the year, with output projected to rise by 1.1 mb/d on average to 8.3 mb/d, continued tightness in oilfield services and supply chains could limit any upside.

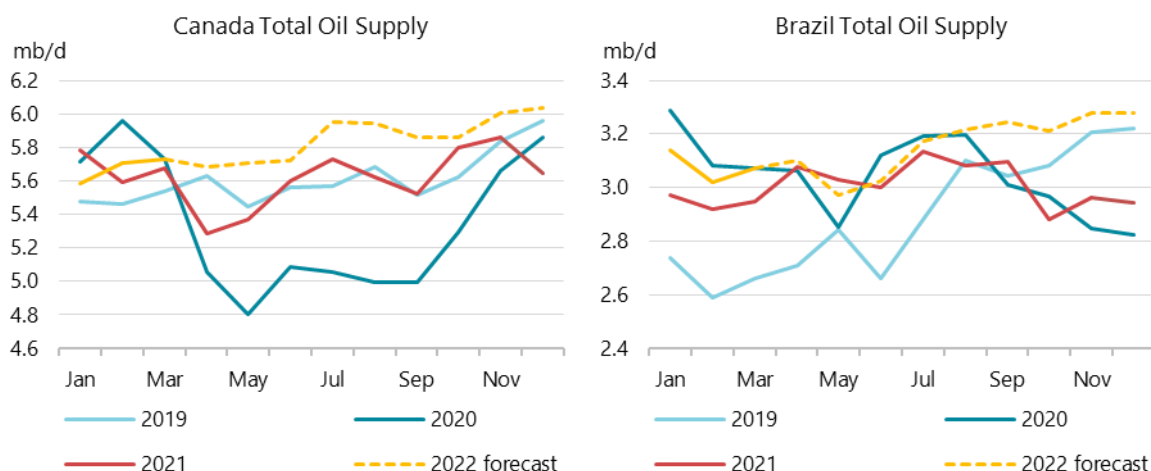
US onshore oil rigs have increased year-to-date through the end of April by 71 rigs, or 15%, and from one year ago there are 210 more oil rigs drilling, up 61%. Enverus, a consultancy and data provider, estimates that 90% of super-spec drilling rigs are currently active and that 70% of high-spec rigs are in the field. Additionally, hydraulic horsepower for frac crews is thought to be at 85-90% utilisation rates, with US lower 48 total capacity 30-40% below its 2019 peak. Recent data from Rystad Energy suggests that frac spreads have been steady since June 2021, averaging about 200 per month while drilling has increased – this is confirmed by the growth seen in drilled but uncompleted (DUC) well counts across multiple basins.



Recent commentary from publicly listed OFS executives and shale producers points to continued tightness ahead. Two companies stated that the earliest delivery for new, currently uncontracted frac crews would be 2023. Historically, this market structure would incentivise new capacity to be built, but the sector has been structurally underinvested in since the 2015 price crash and after years of lacklustre performance shareholders are pushing for higher returns. Companies are seeing the current environment as a way to bolster margins, repair balance sheets and return cash as opposed to investing in more capacity. As slack is taken out of the system, prices will continue to increase leading shale producers to think twice about adding margin dilutive rigs; and any stops and starts to the global supply chain could cause more hiccups in the oil patch.

In March, **Canadian** supply was relatively flat, according to data from the Alberta Energy Regulator and Canada-Newfoundland & Labrador Offshore Petroleum Board (C-NLOPB). Offshore production increased by 10 kb/d m-o-m for the second straight month, on higher volumes from both Hebron and Hibernia. Total Canadian oil output in April fell by 50 kb/d on reduced upgrader throughput and lower NGLs. Seasonal maintenance in the oil sands are

expected to continue through June. Growth will, however, come in the second half of the year, bringing full-year production to 5.8 mb/d, up 190 kb/d from 2021.

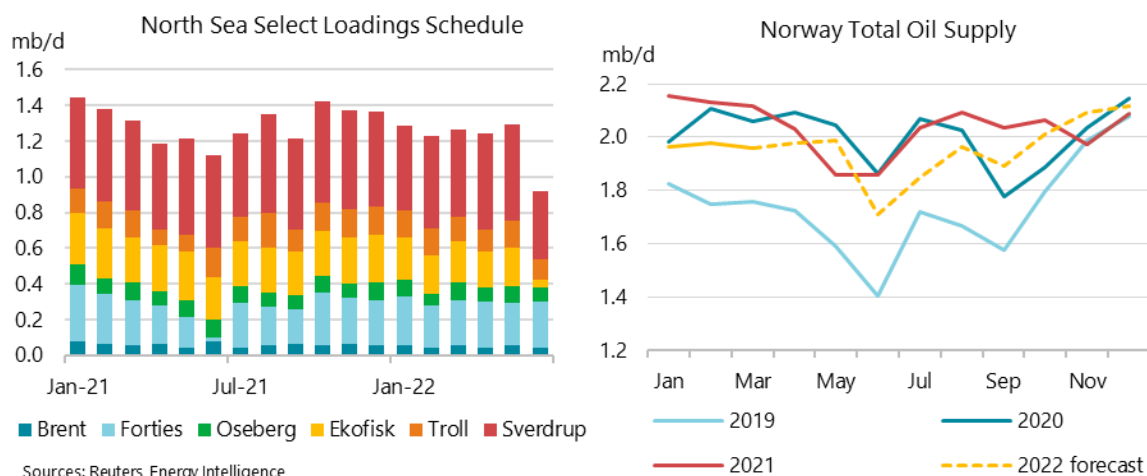


**Brazilian** supply edged up by 30 kb/d m-o-m in April to 3.1 mb/d, according to provisional daily data from the Agencia Nacional do Petróleo (ANP). This gain comes after an increase of 50 kb/d m-o-m in March. Brazil's 2022 output is expected to average 3.2 mb/d, up 140 kb/d from 2021. The Petrobras-operated Guanabara floating production storage and offloading (FPSO) vessel, the first of four planned FPSOs in the Mero development, saw first oil in April. The FPSO is expected to reach its 180 kb/d nameplate capacity by the end of the year. Additionally, the first two wells of an 18 well increased oil recovery project at Roncador started up five months ahead of schedule. These two wells are expected to produce 20 kb/d and reduce the carbon intensity of the field.

**Argentinean** supply increased in April by 10 kb/d m-o-m to 700 kb/d on continued strength of Neuquén LTO. Activity in Argentina's main shale region is up three-fold from one year ago and 4% from March. High prices and commissioning of more take-away capacity are projected to sustain growth rates in the region. **Ecuadorian** output was flat m-o-m in April, while **Colombian** volumes fell by 10 kb/d to 740 kb/d. Production in **Guyana** gained 50 kb/d to 180 kb/d as the Unity FPSO continues to ramp up. **Peruvian** supply fell in March by 20 kb/d due to flood damage on the Oleducto Norperuano (ONP) pipeline and social unrest around Block 95 in the Marañon Basin in the northern Amazon region. Both of these issues were reportedly resolved by mid-April.

**North Sea** loadings (as measured by BFOE plus Troll and Johan Sverdrup) are expected to average 1.15 mb/d in the second quarter, down 110 kb/d q-o-q on planned maintenance at Johan Sverdrup and fields in the Ekofisk area, with the majority of the decline expect in June and July. **UK** output was essentially flat in April at 910 kb/d, and is expected to remain largely unchanged on the year, averaging 900 kb/d – 20 kb/d higher than 2021 volumes. In concert with an announcement by BP to invest an incremental \$22.5 billion in the UK's energy system by the end of 2030, the UK's Prime Minister and Energy Minister both backed away from calls for a windfall tax on oil companies. Details of BP's incremental investment in the region are to be forthcoming, yet the company stated it will be used to help the country deliver on its dual ambitions of ensuring energy security and reaching its net zero target.





Data from the **Norwegian** Petroleum Directorate indicates that output in March was largely unchanged around 2 mb/d. April supply increased by only 20 kb/d. Maintenance at Johan Sverdrup and the Greater Ekofisk Area is expected to take 340 kb/d off the market in June and 200 kb/d in July. In September, maintenance work at Oseberg and the Sture oil terminal is estimated to reduce volumes by 160 kb/d. For the year as a whole, production is projected to average 2 mb/d, down 80 kb/d from 2021 levels, primarily due to the larger maintenance programme this year.

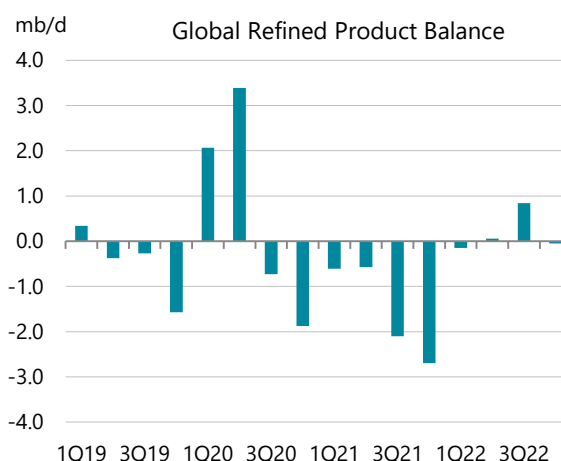
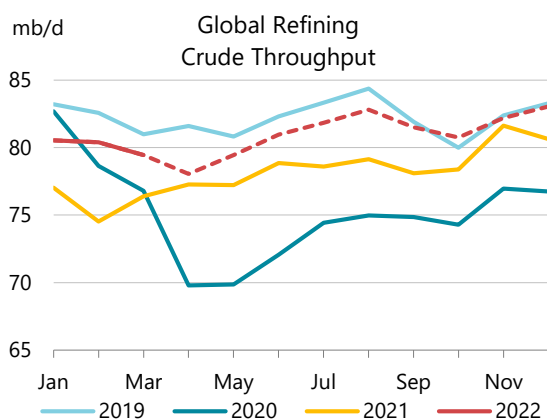
In non-OPEC+ Africa, production from **Ghana** is projected to fall by 50 kb/d in April as maintenance work is performed on the Jubilee field. Full-year output is expected to be flat y-o-y at 170 kb/d. Recoverable resources from TotalEnergies' Venus discovery offshore **Namibia** have been revised upwards, from 3 billion barrels of oil equivalent (boe) when first discovered in February 2022 to 13 billion boe, of which 10 billion barrels is oil. If these numbers are confirmed by appraisal work, this would be the largest ever deepwater field to be found. This and the neighbouring Graff oil discovery, owned by Shell, present strong opportunities for large volumes of oil to be delivered in the later part of this decade.

Total **Chinese** oil production rose by 30 kb/d to 4.3 mb/d in March, primarily on continued improvement in the Changqing and Xinjiang provinces. Strong 1Q22 supply and PetroChina's comments during its recent earnings call have led us to revise Chinese full-year output upwards by 50 kb/d to 4.2 mb/d, up 170 kb/d annually.

# Refining

## Overview

Global refinery throughputs in April plunged to 78 mb/d, the lowest level since May 2021. Most of the 1.4 mb/d m-o-m decline came from China, where refiners cut back run rates in the wake of severe lockdown measures. US refining activity in April was also underwhelming, with operational issues and tight available capacity, leading to a counter-seasonal monthly fall. In addition, Russian throughputs fell further in April on weaker domestic demand and limited fuel oil and heavy feedstock export opportunities, while European and OECD Asian were in seasonal maintenance.



Seven consecutive quarters of stock draws have drained product storage across the globe to precariously low levels, especially in the emerging economies of Africa and Asia. Transport fuel shortages started to curtail daily mobility and economic activity for large swathes of the population in several African countries, Yemen and Sri Lanka. Jet fuel shortages have been reported across Africa and even in Mexico.

Demand growth and rapidly depleting inventories have led refinery margins to unprecedented levels across all regions and configurations. We expect a strong ramp-up in refining activity to fill the product supply gap. From the seasonal low in April to the peak in August, global throughputs are forecast to rise by 4.7 mb/d, helping restock depleted product inventories in 3Q22 for the first time in two years. The increase will come mostly from China, Europe and the US.

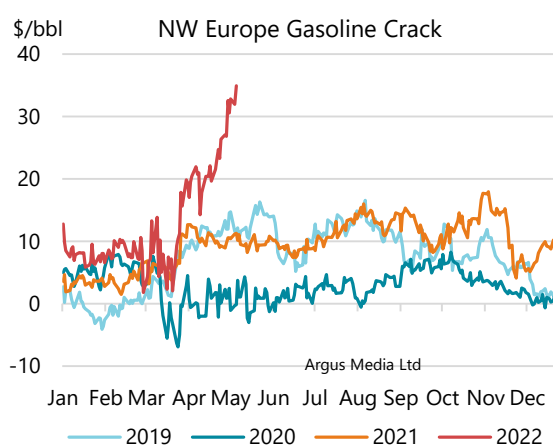
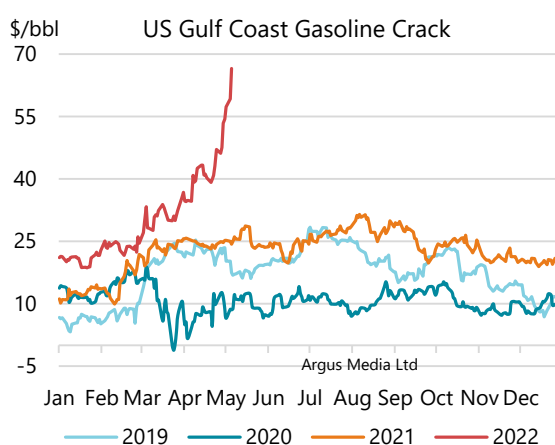
On balance, there is more downside risk to the refinery throughput forecast than upside potential. Depending on the severity of the EU sanctions package and the phase-in specifics, Russian product exports could continue at lower levels or stop altogether. US refiners may not be able to operate at the high utilisation rates assumed in our forecast. New capacity ramp-up in the Middle East and refinery restarts in Europe, Latin America and Asia could be further delayed. Crucially, the growth in 3Q22 throughputs would require crude oil stock draws on the order of 1.5 mb/d. While the IEA collective and member country individual stock releases have made more than 230 mb of crude oil available to the market, upward pressure on prices may discourage refiner appetite.

Global Refinery Crude Throughput <sup>1</sup>														
	(million barrels per day)													
	2019	2020	4Q21	2021	Feb-22	Mar-22	1Q22	Apr-22	May-22	Jun-22	2Q22	3Q22	4Q22	2022
Americas	19.2	16.6	18.2	17.8	18.3	18.5	18.4	18.4	19.1	19.4	19.0	19.1	18.6	18.8
Europe	12.2	10.7	11.5	11.0	11.2	10.9	11.1	11.2	11.0	11.7	11.3	11.8	11.7	11.5
Asia Oceania	6.8	5.9	6.0	5.8	6.3	6.0	6.2	5.7	5.5	5.4	5.5	6.1	6.1	6.0
Total OECD	38.1	33.2	35.7	34.5	35.8	35.5	35.7	35.3	35.6	36.4	35.8	37.0	36.4	36.2
FSU	6.8	6.4	6.8	6.7	6.7	6.1	6.6	5.6	5.2	5.2	5.3	5.3	5.4	5.6
Non-OECD Europe	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.5	0.5	0.5
China	13.4	13.8	14.1	14.2	14.1	13.8	14.0	13.1	13.8	14.2	13.7	14.5	14.7	14.2
Other Asia	10.3	9.3	9.9	9.5	10.3	10.1	10.2	10.1	10.6	10.6	10.4	10.7	10.7	10.5
Latin America	3.2	3.0	3.3	3.2	3.3	3.4	3.3	3.4	3.5	3.6	3.5	3.5	3.6	3.5
Middle East	7.8	7.1	8.0	7.6	7.7	8.1	7.9	8.2	8.4	8.6	8.4	8.6	8.8	8.4
Africa	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9
Total Non-OECD	44.0	41.9	44.4	43.6	44.5	43.9	44.3	42.7	43.7	44.4	43.6	44.9	45.5	44.6
Total	82.1	75.1	80.1	78.1	80.3	79.3	80.0	78.0	79.3	80.9	79.4	82.0	81.9	80.8
Year-on-year change	-0.2	-7.1	4.2	3.0	5.9	3.1	4.1	0.8	2.2	2.1	1.7	3.4	1.8	2.8

<sup>1</sup> Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand for recast.

## Product cracks and refinery margins

In April, spot crude prices fell by \$6-15/bbl, depending on the grade, but most product prices did not follow suit, resulting in extraordinarily high product cracks in all trading hubs. Russian crude seaborne crude oil exports increased by 260 kb/d m-o-m to 3.6 mb/d, their highest since April 2017 (see Box *Russian oil exports increase in April*), adding to the bearish factors for crude oil prices.

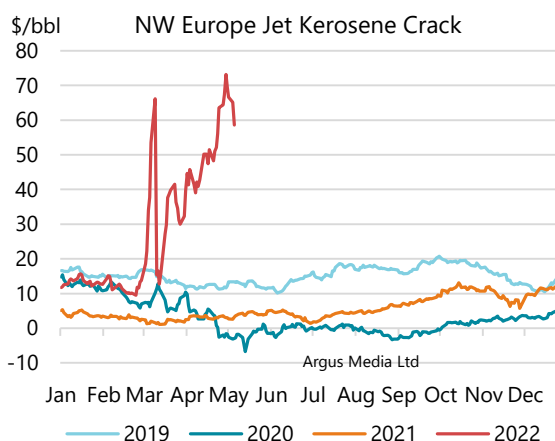
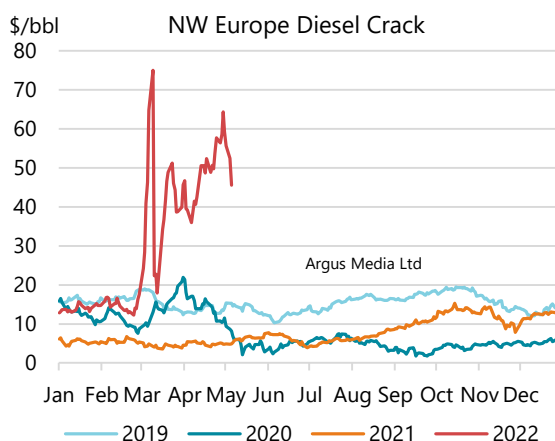


Gasoline cracks reached record daily and monthly average levels in all trading regions. US Gulf Coast cracks were up by \$10/bbl m-o-m to \$40/bbl. In Europe, which is a net exporter of gasoline, cracks more than doubled to \$21.40/bbl. Singapore gasoline cracks rose \$3/bbl to \$23.80/bbl. Naphtha cracks, meanwhile, plunged to -\$5/bbl in Singapore, leading to the first monthly average negative value since June last year. In Europe, naphtha cracks remained negative but halved their discount to crude oil to -\$2.80/bbl, as refinery maintenance and rejection of Russian origin product supported prices.

Spot Product Prices														
(monthly and weekly averages, \$/bbl)														
	Feb	Mar	Apr	Apr-Mar		Week Ending					Feb	Mar	Apr	Chg
				Chg	%	08 Apr	15 Apr	22 Apr	29 Apr	06 May				Chg
Rotterdam, Barges FOB						Differential to North Sea Dated								
Gasoline EBOB oxy	106.55	127.41	125.68	-1.73	-1.4	123.50	122.65	127.37	128.74	138.48	8.54	8.66	21.43	12.77
Naphtha	96.44	113.24	101.44	-11.80	-10.4	100.71	102.67	102.84	99.74	100.63	-1.57	-5.51	-2.81	2.71
Jet/Kerosene	109.98	150.44	153.17	2.73	1.8	146.03	148.25	155.33	163.79	170.88	11.97	31.69	48.92	17.23
ULSD 10ppm	112.77	156.47	151.46	-5.01	-3.2	143.53	148.07	155.89	158.30	159.12	14.76	37.73	47.22	9.49
Gasoil 0.1%	110.26	151.41	145.48	-5.93	-3.9	136.59	141.16	149.41	154.58	156.71	12.25	32.66	41.23	8.57
VGO 2.0%	97.83	124.68	124.92	0.25	0.2	123.53	124.24	127.18	124.97	128.47	-0.18	5.93	20.68	14.75
Fuel Oil 0.5%	106.08	129.40	122.73	-6.68	-5.2	122.72	122.68	123.14	121.55	121.66	8.07	10.65	18.48	7.83
LSFO 1%	91.90	110.94	98.73	-12.21	-11.0	99.39	97.75	99.36	97.58	101.85	-6.11	-7.81	-5.52	2.30
HSFO 3.5%	81.00	97.98	91.93	-6.05	-6.2	93.04	90.75	91.73	90.97	97.51	-17.01	-20.77	-12.32	8.45
Mediterranean, FOB Cargoes						Differential to Urals								
Premium Unl 10 ppm	108.01	128.55	126.02	-2.53	-2.0	124.17	122.30	127.73	129.55	138.84	13.07	35.96	53.59	17.63
Naphtha	93.90	110.29	97.78	-12.51	-11.3	98.20	98.29	98.04	96.16	97.11	-1.04	17.69	25.34	7.65
Jet Aviation fuel	108.03	148.12	150.30	2.18	1.5	144.29	144.62	151.24	161.09	168.48	13.09	55.53	77.86	22.33
ULSD 10ppm	110.31	153.21	147.98	-5.23	-3.4	139.67	144.51	152.53	155.28	155.44	15.37	60.61	75.54	14.93
Gasoil 0.1%	109.08	146.07	142.97	-3.10	-2.1	134.17	138.59	147.08	152.17	152.83	14.14	53.48	70.53	17.05
LSFO 1%	93.09	115.65	105.01	-10.64	-9.2	106.05	103.91	105.25	103.83	108.04	-1.85	23.06	32.57	9.52
HSFO 3.5%	78.87	95.64	89.21	-6.43	-6.7	90.26	87.30	88.98	88.66	94.96	-16.07	3.05	16.78	13.73
US Gulf, FOB Pipeline						Differential to WTI Houston								
Super Unleaded	116.98	140.78	143.25	2.47	1.8	136.21	143.85	145.53	148.68	163.08	23.75	30.52	40.32	9.80
Jet/Kerosene	112.50	145.78	156.86	11.08	7.6	147.59	148.87	161.93	168.05	177.84	19.27	35.52	53.93	18.41
ULSD 10ppm	118.06	151.09	160.12	9.03	6.0	148.65	152.38	164.26	175.78	179.74	24.83	40.84	57.20	16.36
Heating Oil	104.17	136.20	136.68	0.48	0.4	125.79	131.10	145.24	144.15	152.92	10.94	25.95	33.75	7.81
No. 6 3%*	80.13	93.44	89.41	-4.03	-4.3	86.78	88.45	91.25	91.16	93.70	-13.10	-16.81	-13.51	3.30
Singapore, FOB Cargoes						Differential to Dubai								
Premium Unleaded	110.72	131.07	126.73	-4.34	-3.3	123.51	122.85	131.49	129.54	141.27	18.25	20.58	23.82	3.24
Naphtha	95.75	111.42	97.75	-13.67	-12.3	97.69	99.21	100.15	94.41	95.43	3.28	0.93	-5.16	-6.09
Jet/Kerosene	106.17	134.32	134.35	0.04	0.0	131.41	130.00	138.71	136.74	149.00	13.69	23.83	31.45	7.62
Gasoil 0.001%	110.70	142.57	148.86	6.29	4.4	142.58	146.30	155.74	152.33	162.83	18.22	32.08	45.95	13.87
Fuel Oil 0.5%	111.24	134.07	125.16	-8.91	-6.6	124.36	125.04	128.61	122.81	129.65	18.76	23.58	22.26	-1.33
HSFO 180 CST	82.63	103.13	110.91	7.78	7.5	110.19	111.24	111.61	111.10	114.87	-9.85	-7.36	8.00	15.36
HSFO 380 CST 4%	81.08	99.20	104.14	4.94	5.0	103.84	102.36	106.03	103.98	106.85	-11.40	-11.29	1.23	12.52
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* Waterborne														

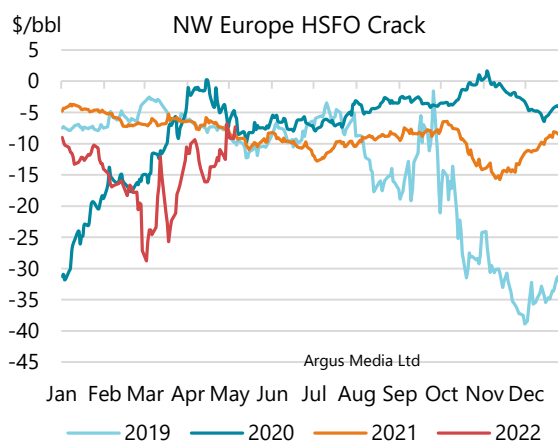
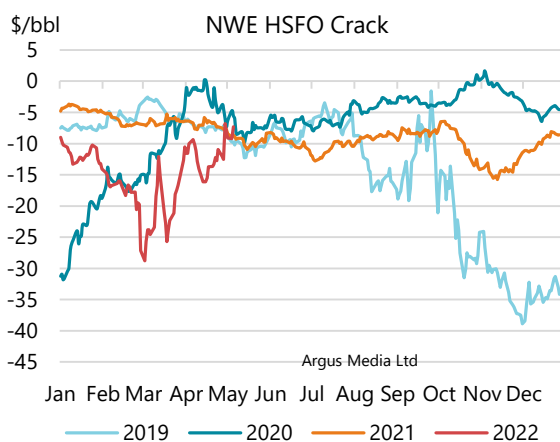
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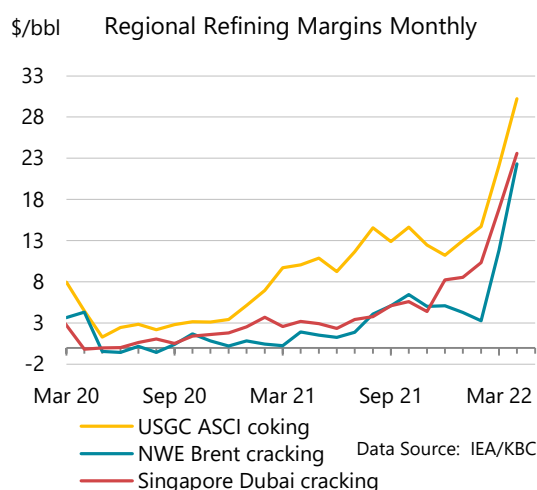
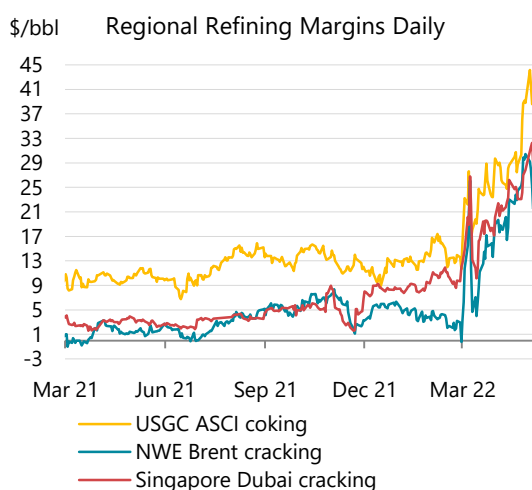


In Northwest Europe, diesel cracks resumed their upward march, gaining \$10/bbl m-o-m to reach a record-high of \$47.20/bbl in April. Premiums for guaranteed non-Russian origin product reportedly added another \$4/bbl to the quoted prices. Crucially, kerosene cracks topped diesel by \$1.70/bbl, their first such premium since October 2019. European diesel shortages lifted all other regional quotes to record levels. In fact, US Gulf Coast diesel and kerosene prices were above European levels, reflecting the strength of the pull from Latin American importers, bidding up US barrels against the European contenders. The disappointing US refining performance in April meant that the 150 kb/d m-o-m increase in US refined product exports in April came from a

500 kb/d stock draw that pushed US distillate fuel inventories to their lowest levels since March 2005.



Fuel oil cracks were helped by lower crude prices in April and tighter markets as US buyers (the principal importer of Russian fuel) sought alternative molecules following the country's embargo on Russian oil. Northwest Europe high sulphur fuel oil (HSFO) cracks strengthened by \$8/bbl to -\$12.30/bbl, an unusually narrow ratio to crude prices. In Singapore, HSFO cracks turned positive on a monthly average basis, which reflected the impact of the recent bunker fuel contamination.



All of our refinery margin indicators were in double-digit territory in April for the first time, regardless of region and complexity. The current almost universal product shortage, low inventories and refinery capacity bottlenecks have led to inelastic short-term supply, pushing cracks for almost all products to extraordinarily high levels. Refiners running Urals are enjoying even more impressive windfalls. Our indicative margin for a Northwest Europe cracking refinery on Urals averaged \$55/bbl in April. Polish refiner Lotos disclosed their April margin at \$59/bbl, which they calculate based on Urals quotes. Hungary's Mol, which is supplied Urals by the Druzhba pipeline, withdrew the publication of its monthly margin indicator for April.

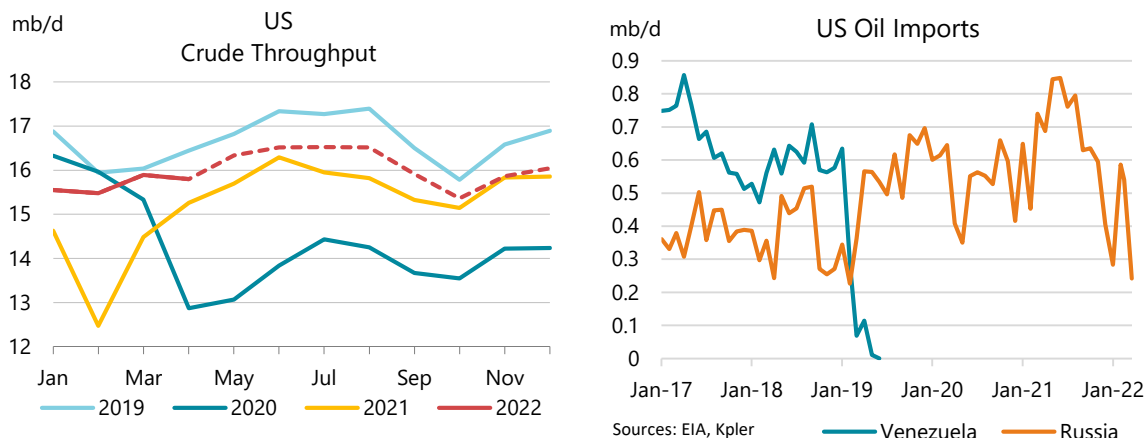
IEA/KBC Global Indicator Refining Margins <sup>1</sup>											
(\$/bbl)											
	Monthly Average				Change	Average for week ending:					
	Jan 22	Feb 22	Mar 22	Apr 22		Apr-Mar	08 Apr	15 Apr	22 Apr	29 Apr	06 May
NW Europe											
Brent (Cracking)	4.29	3.28	11.84	22.33	↑	10.50	18.48	19.51	23.39	28.27	25.96
Urals (Cracking)	4.14	7.04	38.78	55.01	↑	16.23	51.63	52.69	56.13	60.54	58.02
Brent (Hydroskimming)	1.29	-0.37	6.26	14.30	↑	8.05	11.48	12.01	15.06	18.81	15.65
Urals (Hydroskimming)	-0.84	0.76	29.76	45.32	↑	15.56	43.24	43.40	45.76	49.55	47.06
Mediterranean											
Es Sider (Cracking)	5.66	4.21	15.62	24.45	↑	8.83	20.02	21.18	25.83	30.81	27.46
Urals (Cracking)	4.21	5.16	38.66	55.11	↑	16.44	50.80	52.29	56.52	61.59	58.13
Es Sider (Hydroskimming)	2.95	0.79	9.46	16.61	↑	7.15	13.77	13.84	17.38	21.25	17.84
Urals (Hydroskimming)	-2.05	-2.40	26.15	41.65	↑	15.50	39.35	39.22	42.12	46.20	43.35
US Gulf Coast											
Mars (Cracking)	7.84	8.11	11.76	16.98	↑	5.22	15.95	14.67	15.39	20.87	24.77
50/50 HLS/LLS (Coking)	15.17	17.29	27.01	36.25	↑	9.24	32.11	32.47	36.40	43.74	48.46
50/50 Maya/Mars (Coking)	11.43	12.33	18.13	25.71	↑	7.58	22.23	21.93	25.32	32.83	36.79
ASCI (Coking)	13.01	14.73	22.13	30.24	↑	8.11	27.56	26.71	29.25	36.62	41.08
US Midwest											
30/70 WCS/Bakken (Cracking)	8.21	9.14	16.10	24.20	↑	8.10	19.53	20.92	25.20	31.15	33.90
Bakken (Cracking)	9.29	11.05	20.22	30.39	↑	10.17	24.71	26.84	31.73	38.42	41.79
WTI (Coking)	10.74	11.89	22.74	34.23	↑	11.49	28.74	30.90	35.19	42.23	46.32
30/70 WCS/Bakken (Coking)	10.49	12.22	21.75	31.79	↑	10.04	26.02	28.08	33.13	40.05	43.62
Singapore											
Dubai (Hydroskimming)	-1.31	-1.47	2.11	11.86	↑	9.74	10.81	11.67	11.54	13.58	16.20
Tapis (Hydroskimming)	1.02	-0.76	2.82	15.45	↑	12.62	13.55	14.00	18.15	17.94	18.01
Dubai (Hydrocracking)	8.56	10.35	16.87	23.58	↑	6.72	21.41	23.46	24.37	25.92	31.03
Tapis (Hydrocracking)	0.95	-1.02	3.12	17.80	↑	14.68	15.21	15.72	20.92	21.37	22.01

<sup>1</sup> 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.

Sources: IEA, KBC Advanced Technologies (KBC).

## Regional refining developments

US throughputs in April fell 90 kb/d m-o-m to 15.7 mb/d, in contrast with the seasonal trend of second-quarter increases. The decline was due to outages on the West Coast, with the Gulf Coast and Midcontinent regions largely flat m-o-m, despite extremely attractive refinery margins. Several refineries experienced unplanned outages, and the available capacity in the system was too tight to respond. Utilisation rates were above 89% in March and April. US buyers, mostly refiners and blenders, are phasing out purchases of Russian oil, primarily refinery feedstocks. They did not lift any Russian barrels in April, but some 160 kb/d landed during that month, from earlier purchases, down from about 600 kb/d on average in 2021. US refiners had accelerated purchases of Russian oil after the introduction of sanctions on Venezuela in 2019. In their first-quarter earnings calls several US refiners noted possible difficulties in securing alternatives for heavy feedstocks.



US refinery throughputs are expected to rise by 680 kb/d in 3Q22 compared to 1Q22, but this may not increase available export barrels as domestic demand for main refined products – gasoline, kerosene and diesel – is set to gain seasonally by almost as much. For this throughput increase we assume record high utilisation rates, but the ability of plants to resist operational stress and the hurricane season at the end of summer may yet affect our forecast. Currently, US refiners are the most flexible in terms of yield switches between gasoline, kerosene and diesel. The output for the first two products is largely driven by domestic demand, while the call on US diesel exports will skyrocket as Europe seeks to replace Russian-origin product. US refiners have increased kerosene output in recent months, although yields are yet to reach their usual double-digit levels. Competition between the three products for available molecules will be intense, leading to persistently high and volatile cracks.

The government of the **US Virgin Islands** asked President Biden to help restart the 200 kb/d refinery formerly operated by Limetree Bay. The plant was shut by the US Environmental Protection Agency last year after just a few months of operations, due to pollution concerns. When it operated, it exported mostly low sulphur fuel oil for the Caribbean bunkers market.

**Mexican** throughputs in March fell to 825 kb/d. April runs likely declined further due to a fire at the Salina Cruz refinery, which shut the plant for several days. The government plans to officially launch the newly built 340 kb/d Olmeca refinery in July but the work is not yet completed. The refinery may only run in a test mode this year, without producing on-specification fuels.

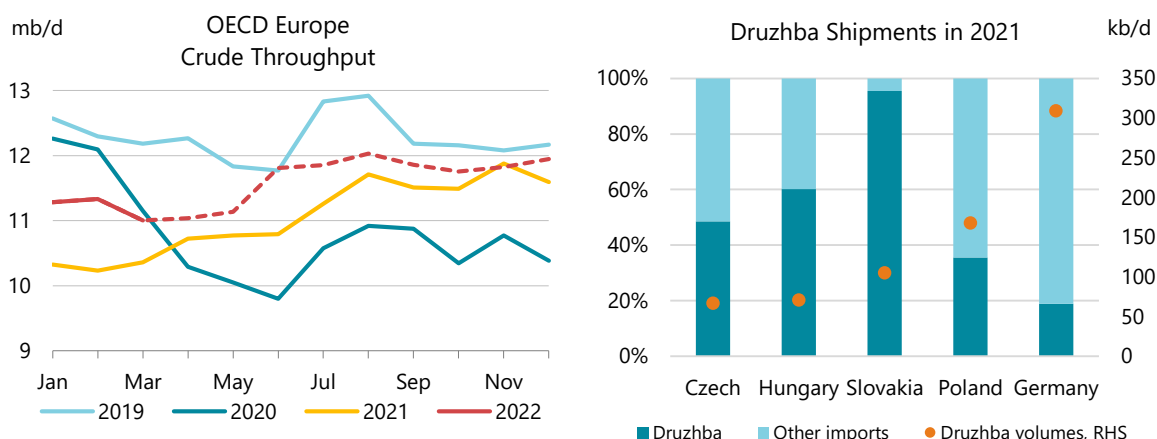
Refinery throughputs in Europe fell by 330 kb/d m-o-m in March, to just 10.9 mb/d, the lowest level since June 2021. Preliminary data from *Euroilstock* indicate that runs increased by around 350 kb/d in April. TotalEnergies announced that the 220 kb/d Donges refinery in **France** will restart this month, following a 17-month shutdown. In **Germany**, the future of the 230 kb/d Schwedt refinery is increasingly uncertain. In January, Rosneft agreed with Shell to buy the latter's 37.5% stake, bringing its total share to 92%. The German government has suspended the approval of this deal and has been discussing the nationalisation of Rosneft's share. Shell said in early May it will continue as a minority shareholder in the plant, but will eventually seek to sell its stake.

This refinery, along with TotalEnergies's Leuna, receives most of its crude from the Druzhba pipeline, making Germany the largest offtaker, with a 43% share. At the same time, Germany has the lowest overall reliance on the pipeline compared to other customers, with more than 80% of its crude imported through other routes. Both refineries are connected to ports in Germany and Poland. However, the capacity of the line to Rostock in Germany, which is not in regular use,



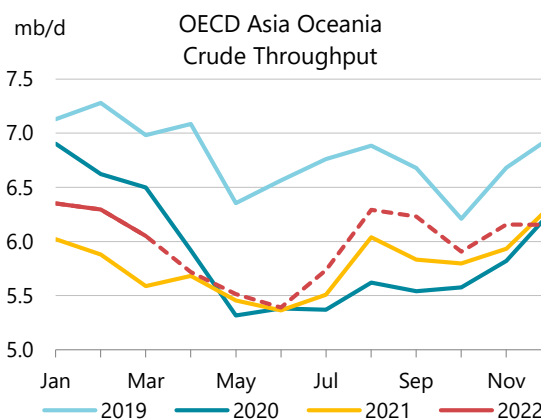
combined with the available capacity of the pipeline to the port of Gdansk in Poland, could cover only 60% of these two refineries' feedstock requirements.

With the EU embargo on Russian imports currently being discussed, attention is focused on Druzhba flows that mostly serve landlocked refineries in Eastern and Central Europe. Poland is the second largest off-taker, accounting for 23% of flows. In 2021, the country sourced 35% of its crude through the pipeline. Polish refiners started switching to alternative suppliers even before the Russian invasion into Ukraine, by cutting seaborne imports first, where Russian origin barrels accounted for almost as much as Druzhba deliveries in 2021.



Due to their landlocked situation, countries on the southern branch of the pipeline are in a less advantaged position in terms of alternative supply routes, even as together they only import just a third of the total. Slovakia is the largest off-taker on the southern branch, with 105 kb/d, taking essentially all of its crude imports via the Druzhba pipeline. Hungary and the Czech Republic take around 70 kb/d each, accounting for 50% and 60% of their crude oil imports respectively. In principle, the Adria pipeline from the Croatian port of Omisalj can offer an alternative to Druzhba for both refineries in Slovakia and Hungary, even as the route has yet to be tested in full capacity mode. For the Czech Republic, one option is a capacity upgrade of the Transalpine (TAL) pipeline that starts at the port of Trieste in Italy. Another possibility is Germany's Miro refinery in Karlsruhe switching some supply to the SPSE pipeline from the French port of Fos, freeing up TAL capacity for Czech refineries. The 450 kb/d SPSE pipeline serves the 110 kb/d Feyzin refinery in France and the 70 kb/d Cressier refinery in Switzerland, with the mainline section to Germany currently idle.

In OECD Asia, refinery intake continues to decline seasonally from winter peak run rates. In March, throughputs fell 245 kb/d m-o-m. At the end of April, **Japanese** refiner Eneos restarted the Chiba and Sendai refineries that were shut mid-March following a powerful earthquake. The government increased the upper limit of subsidies available to refiners and importers to an equivalent of \$42/bbl and included jet fuel in the consumer basket of oil products covered



by the scheme. Japan and **Korea** have not announced embargoes on Russian oil yet but Japan is considering a gradual phase-out. Both countries imported close to normal levels of Russian barrels in April but their refiners have announced plans to reduce future purchases. Korean refiners are looking for alternatives to Russian naphtha and light crude grades Sokol and ESPO. **New Zealand's** sole refinery, the 130 kb/d Marsden Point plant, did not import any crude in April and is likely running down inventories in preparation for a permanent shutdown this summer.

### Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

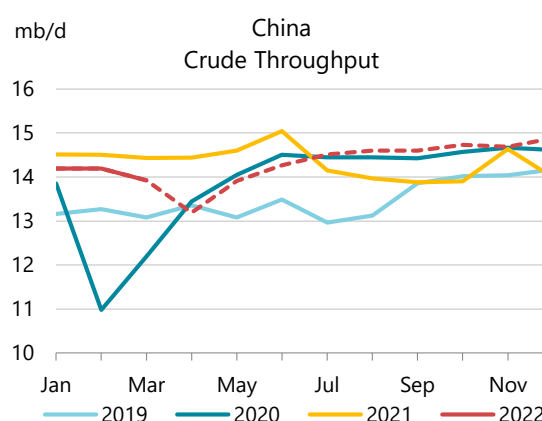
	Oct 21	Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Change from		Utilisation rate	
							Feb 22	Mar 21	Mar 22	Mar 21
US <sup>1</sup>	15.05	15.73	15.76	15.45	15.38	15.79	0.41	1.41	90%	81%
Canada	1.63	1.83	1.82	1.80	1.84	1.72	-0.12	0.02	90%	84%
Chile	0.18	0.14	0.19	0.19	0.21	0.21	0.00	0.01	92%	84%
Mexico	0.74	0.72	0.76	0.79	0.85	0.83	-0.03	0.00	50%	87%
<b>OECD Americas<sup>1</sup></b>	<b>17.60</b>	<b>18.43</b>	<b>18.52</b>	<b>18.23</b>	<b>18.28</b>	<b>18.54</b>	<b>0.26</b>	<b>1.36</b>	<b>87%</b>	<b>79%</b>
France	0.72	0.79	0.78	0.80	0.78	0.80	0.01	0.19	70%	54%
Germany	1.90	1.93	1.88	1.71	1.82	1.72	-0.10	0.18	85%	76%
Italy	1.38	1.39	1.25	1.13	1.11	1.23	0.12	0.06	71%	68%
Netherlands	1.13	1.05	0.95	0.96	0.90	0.94	0.04	-0.18	78%	93%
Spain	1.12	1.20	1.23	1.23	1.22	1.17	-0.04	0.11	83%	75%
United Kingdom	0.91	1.04	1.03	1.04	1.02	1.05	0.03	0.35	87%	59%
Other OECD Europe <sup>2</sup>	4.23	4.38	4.37	4.30	4.38	4.00	-0.39	-0.05	82%	82%
<b>OECD Europe</b>	<b>11.39</b>	<b>11.78</b>	<b>11.49</b>	<b>11.18</b>	<b>11.23</b>	<b>10.90</b>	<b>-0.33</b>	<b>0.64</b>	<b>80%</b>	<b>74%</b>
Japan	2.50	2.62	2.93	2.85	2.82	2.73	-0.10	0.28	79%	71%
South Korea	2.72	2.71	2.81	2.91	2.87	2.78	-0.09	0.25	79%	72%
Other Asia Oceania <sup>3</sup>	0.56	0.58	0.58	0.58	0.59	0.54	-0.05	-0.07	83%	70%
<b>OECD Asia Oceania</b>	<b>5.79</b>	<b>5.92</b>	<b>6.32</b>	<b>6.34</b>	<b>6.29</b>	<b>6.04</b>	<b>-0.24</b>	<b>0.46</b>	<b>79%</b>	<b>71%</b>
<b>OECD Total</b>	<b>34.78</b>	<b>36.12</b>	<b>36.33</b>	<b>35.76</b>	<b>35.80</b>	<b>35.48</b>	<b>-0.32</b>	<b>2.47</b>	<b>83%</b>	<b>76%</b>

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

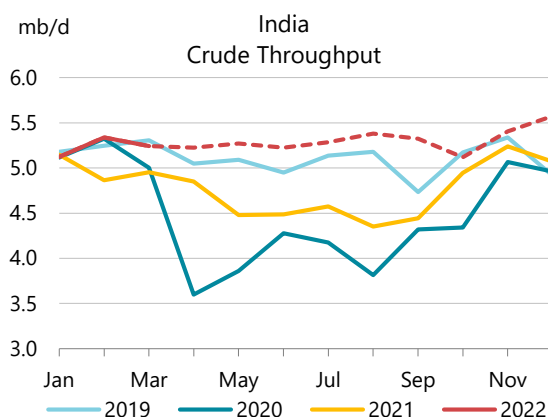
2 Includes Lithuania

3 Includes Israel

**Chinese** crude runs declined 270 kb/d m-o-m in March to 13.8 mb/d and were down 500 kb/d y-o-y. April throughputs are estimated to have fallen further, likely to their lowest level since March 2020. The peak impact from Covid lockdowns is expected in 2Q22, with demand recovering to year-earlier levels in the second half of 2022. We have revised down our forecasts for 2Q22 by 500 kb/d and 3Q22 by 200 kb/d, resulting in a small overall decline of 25 kb/d in 2022, which would be the first since 1998. Apart from domestic demand issues, the potential cut of product exports is also weighing on refinery activity prospects. The Chinese government is reportedly planning to phase out transport fuel exports already in 2023, earlier than the previously planned 2025 deadline, in an effort to accelerate transition to net zero.

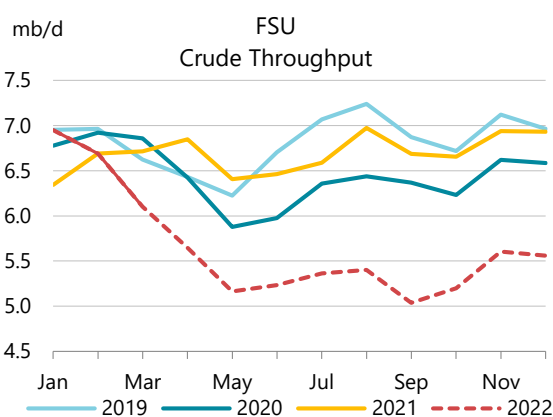
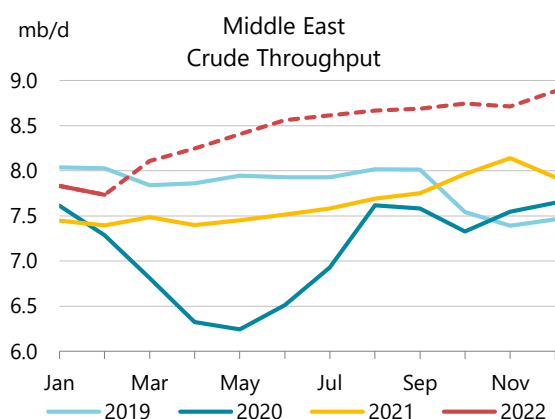


Refinery throughputs in **India** fell slightly to 5.2 mb/d in March from the record levels of February. Indian refiners loaded about 770 kb/d of Russian crude in April, compared to less than 50 kb/d imported on average in 2021. We forecast Indian refining activity up by 510 kb/d this year, which results in a similar increase in crude oil import requirements. The 300 kb/d Pengerang refinery in **Malaysia** restarted this month, according to news reports.



**Saudi** throughputs were down 270 kb/d in February on refinery maintenance, while

**Iraq** reported the highest runs since November 2019, at 630 kb/d. The **Kuwait** Integrated Petroleum Industries Company said the trial run of one of Al-Zour's three 205 kb/d crude distillation units is expected to start in coming weeks. We have revised UAE refinery throughputs higher based on newly reported 2020 annual statistics, moving the baseline up by 170 kb/d.



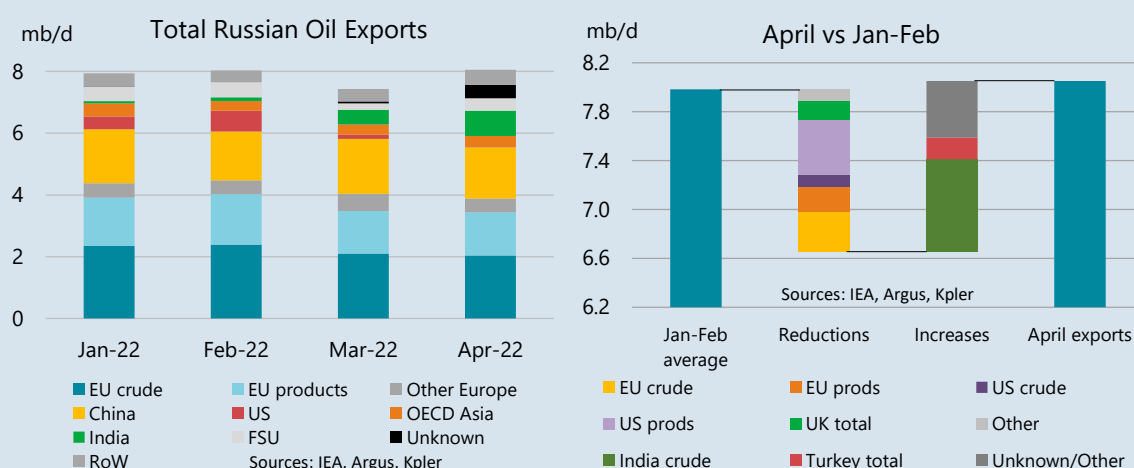
According to preliminary data, **Russian** refinery throughputs in April fell 310 kb/d to 4.9 mb/d, the lowest since 2011, on reduced exports and domestic demand. The cumulative decline from February is now at almost 1 mb/d and is expected to deepen further to 1.4 mb/d as more sanctions are put in place. Most of the decline so far has come from reduced product exports as a result of the US and UK sanctions (see Box *Russian oil exports increase in April*). **Belarus** has reportedly started exporting fuel to Russia, having lost access to the Ukrainian market.

### Box 2. Russian oil exports increase in April

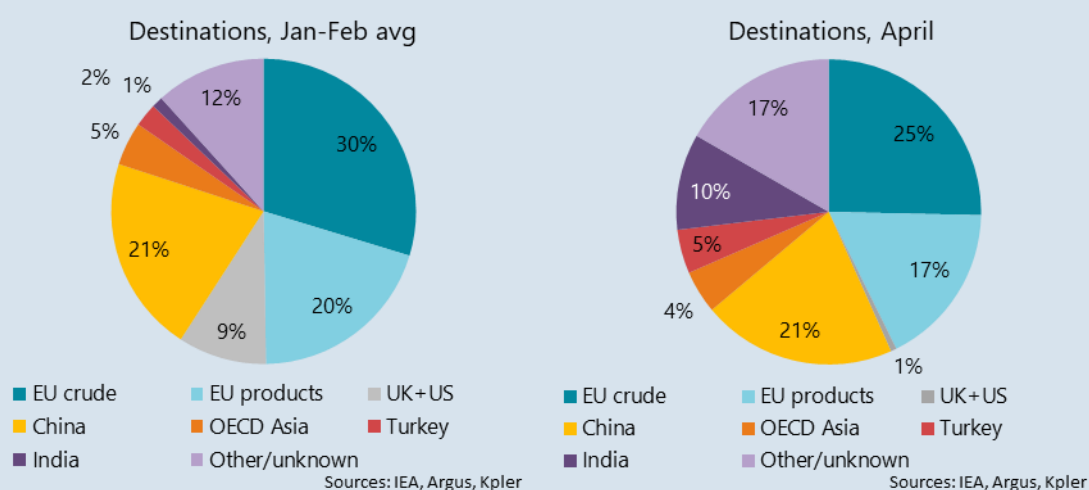
Despite the sanctions currently in place, and talk of more to come, total Russian oil exports increased by 620 kb/d in April, to 8.1 mb/d, back to the January-February average. Nevertheless, the reorientation of trade flows is already taking shape, with a notable shift of volumes from Europe and the US to India. The US was the second country to declare an embargo on Russian oil imports, with no cargoes loaded in Russia in April for delivery to the US. Shipments to the UK, also sanctioned, all but stopped, too. Most product volumes previously going to the US and the UK have yet to find

alternative markets, leading to lower refinery throughputs. This has resulted in higher crude oil exports in April despite production cuts.

Our preliminary assessment of Russian oil trade is primarily based *Kpler* tanker tracking data. We aggregate loadings by seller and by port to distinguish between Russian and non-Russian origin barrels, as Russian Black and Baltic Sea ports also ship Central Asian and Caspian crude and products for exports. For overland flows we assumed no change in Druzhba deliveries, based on preliminary reports; a 40% reduction in rail exports to the EU countries; a monthly increase in crude deliveries to Belarus and no change in deliveries to China.



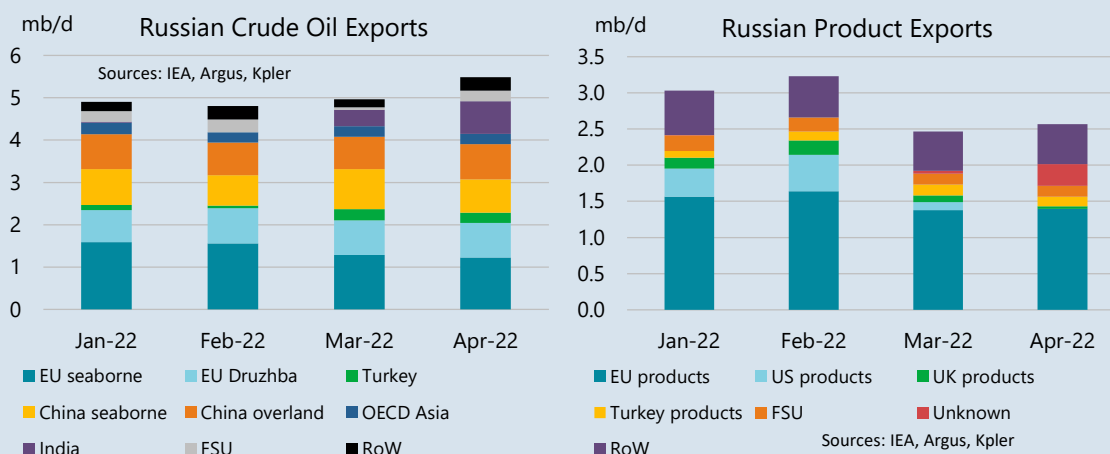
Total Russian oil exports in April increased by 620 kb/d m-o-m to 8.1 mb/d, largely in line with the January-February average. Reductions in shipments to the EU (-535 kb/d), US (-545 kb/d) and the UK (-160 kb/d) were primarily offset by increases to India (+730 kb/d) and Turkey (+180 kb/d).



The EU remained the largest market for Russian oil exports in April, with 3.4 mb/d, or 43%. Its share, however, was down from 50% at the start of the year, with volumes falling by 535 kb/d. The US and the UK together accounted for 9% of Russian exports earlier in the year, but their share went to zero in April. These falls were offset by increased loadings to India (+730 kb/d), with its market share up

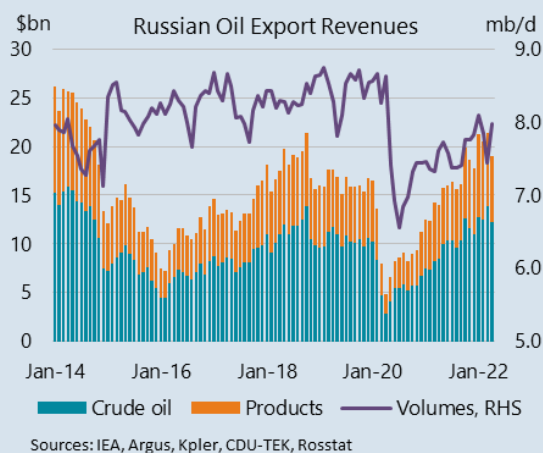
from zero to 10%, and Turkey (+180 kb/d). Some 430 kb/d, or 7% of April seaborne volumes were missing destination information. This was mostly the case for fuel oil and naphtha cargoes, likely implying ship-to-ship transfers for subsequent exports to Asia.

Crude oil exports increased by 520 kb/d m-o-m in April and 630 kb/d versus the Jan-Feb average. Exports to the EU fell by 65 kb/d m-o-m, and by a total of 330 kb/d compared to the pre-war average. The EU's share in total crude exports went down from 49% in January-February to 37% in April, while India's share increased from nothing to 14%. China's share was marginally down from 33% to 30%.

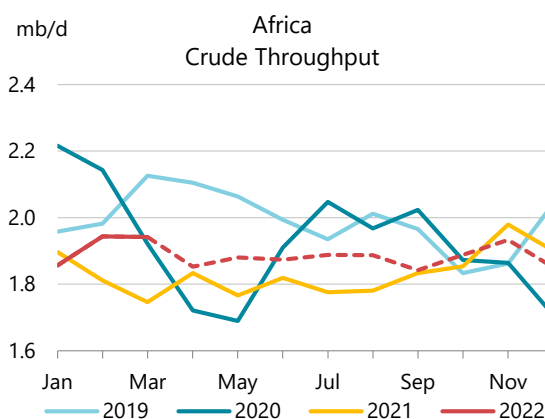
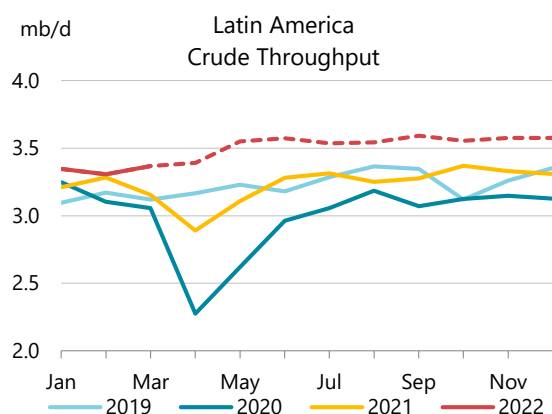


For products, volumes backed out of the US, EU and the UK (450 kb/d, 205 kb/d and 140 kb/d, respectively) were only partly offset by an increase in undisclosed destinations (+300 kb/d). Diesel exports fell by 60 kb/d m-o-m to 815 kb/d, and by 155 kb/d compared to the pre-war average. Volumes to the EU fell by just 43 kb/d compared to January-February average, but its share in Russian diesel offtake increased from 62% to 69%.

Despite higher exports, estimated export revenues fell m-o-m by \$2.3 bn, due to lower prices. We assume a 25% discount to European products assessments for the purpose of these calculations. However, total oil export revenues were up by more than 50% y-o-y for the first four months of the year compared to the same period last year.



Refinery runs increased in March in **Brazil** and **Argentina**. In **Peru**, Petroperu started trial runs at its expanded 95 kb/d Talara site in mid-April, after a two-year closure. There has been no news concerning the restart of Repsol's 120 kb/d La Pampilla refinery that was ordered to shut after an oil spill in January at the jetty. Repsol had previously said it was going to finish cleaning operations by end-March. **Jamaica's** sole refinery, the 35 kb/d Petrojam facility, was forced to shut in April due to a fire.



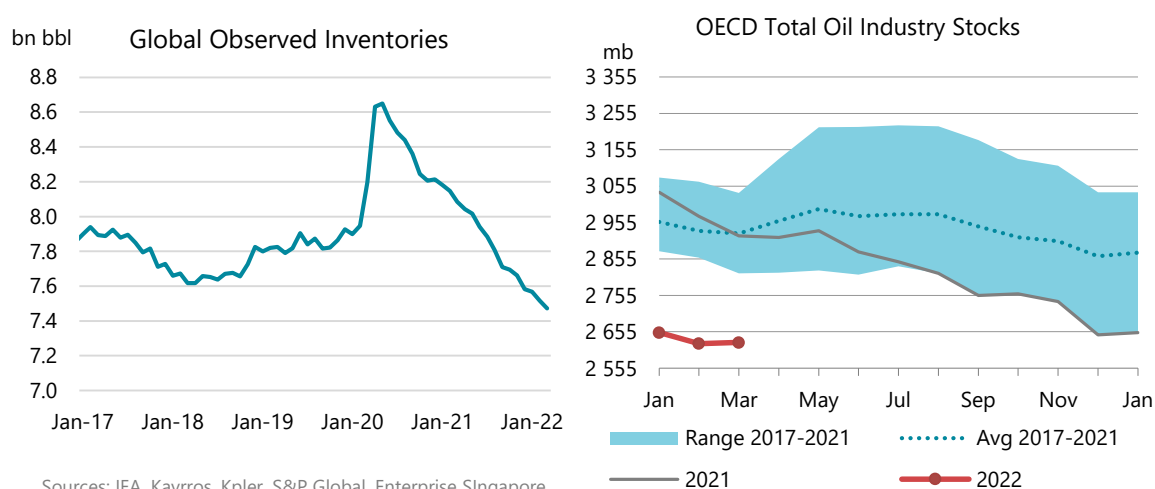
African throughput in April was estimated at 1.9 mb/d, 90 kb/d higher m-o-m. There has been a flurry of announcements regarding work progress of several greenfield or expansion projects. **Algeria's** Sonatrach said it is preparing to start a new 60 kb/d refinery in Hassi Massoud this year. The **Angolan** government reported that the equipment for the 30 kb/d first phase of the Cabinda refinery is ready to be shipped from Houston. **Nigeria** expects to complete the first phase of the 210 kb/d Port Harcourt refinery rehabilitation next year and bring online a 60 kb/d train. Meanwhile, an explosion at one of the country's numerous illegal "bush" refineries reportedly killed 100 people in April. The country's 650 kb/d Lekki refinery is expected to start up in early 2023. The **Zambian** government reiterated their plan to shut down the country's sole 40 kb/d refinery by the end of this year and convert the crude oil pipeline from a Tanzanian port to carry imported refined products. The refinery has likely been idle since 2Q20, based on data for cargo discharges at the port of Dar Es Salam.

# Stocks

## Overview

Global observed oil inventories slumped by a further 45 mb during March, extending the declines ongoing since June 2020. Over the past 22 months, a total of 1.2 billion barrels have been drawn from storage tanks, which now stand at their lowest levels since at least 2016 when our data series start. Approximately 60% of the decline has come from OECD countries, 16% from non-OECD crude stocks mainly derived from satellite observations, and the remainder from oil on the water. Scant information is available for product stocks, crude held in underground caverns or fixed roof tanks in non-OECD countries. Product holdings in China rose in March after stringent lockdowns slashed domestic consumption. Russian crude and product stocks also increased sharply as sellers struggled to place cargoes following the Russian invasion of Ukraine.

In the OECD, a first round of emergency stock releases during March halted the precipitous decline in industry inventories. According to preliminary data, 24.7 mb (800 kb/d) of government stocks were made available to the market, including 17.6 mb of crude oil and 7.1 mb of products. (See *IEA oil stock supplies are making their way to the market*). Total OECD industry stocks marginally rose by 3 mb in March, but remained 299.4 mb below the five-year average and at their lowest since 2014. At 2 626 mb, OECD industry stocks covered 57.7 days of forward demand, 0.3 days below end-February and 8.4 days lower than the five-year average.



While OECD industry stocks in March were little changed m-o-m, crude oil inventories rose by 22.8 mb to 993 mb in line with the seasonal trend. Europe accounted for the largest gain at 16.4 mb. Crude stocks in OECD Asia Oceania rose counter-seasonally by 6.4 mb. By contrast, OECD American crude stocks held steady compared with normal builds of 15.1 mb in March.

Total OECD product stocks drew by 25.5 mb m-o-m, on par with the five-year average. Of the drawdown, gasoline and middle distillates decreased by 12.1 mb and 10.2 mb, respectively. OECD Americas stocks fell by 10.3 mb, led by gasoline. OECD Europe marked the largest decline at 11 mb, of which 3.5 mb in middle distillates and 3 mb of gasoline. OECD Asia Oceania product stocks also fell by 4.2 mb. Total OECD middle distillates stocks fell to 486.2 mb, and reached their lowest levels since April 2008.



Preliminary data for April show that OECD industry inventories rose by 5.3 mb. Crude stocks were up by 7.9 mb while products fell a further 5.2 mb. According to EIA data, US crude stocks gained 3.7 mb and other refined product stocks increased by 17.8 mb while gasoline and middle distillates slumped by 8.5 mb and 8.6 mb, respectively. Inventories in Europe decreased by 4.1 mb, led by an 11.5 mb drop in middle distillates, according to *Euroilstock* data. Japanese industry stocks increased in crude oil and feedstocks by 3.8 mb while other petroleum product stocks rose marginally, by 2.2 mb in total, data from the Petroleum Association of Japan show.

In addition, *Kayros* data show crude oil stocks in non-OECD countries in April rose by 19.9 mb, on the back of a 21 mb build in China. *Kpler* data show oil on water surging by 41.9 mb in April, with +17.9 mb crude oil and +24 mb oil products.

Preliminary OECD Industry Stock Change in March 2022 and First Quarter 2022												
	March 2022 (preliminary)				First Quarter 2022							
	(million barrels)				(million barrels per day)				(million barrels per day)			
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
<b>Crude Oil</b>	<b>0.0</b>	<b>16.4</b>	<b>6.4</b>	<b>22.8</b>	<b>0.0</b>	<b>0.5</b>	<b>0.2</b>	<b>0.7</b>	<b>-0.3</b>	<b>0.3</b>	<b>0.1</b>	<b>0.0</b>
Gasoline	-8.4	-3.0	-0.7	-12.1	-0.3	-0.1	0.0	-0.4	0.1	0.0	0.0	0.2
Middle Distillates	-5.2	-3.5	-1.5	-10.2	-0.2	-0.1	0.0	-0.3	-0.1	0.0	-0.1	-0.2
Residual Fuel Oil	1.8	-1.2	-2.4	-1.8	0.1	0.0	-0.1	-0.1	0.1	0.0	0.0	0.1
Other Products	1.5	-3.4	0.5	-1.4	0.0	-0.1	0.0	0.0	-0.4	0.0	0.0	-0.4
<b>Total Products</b>	<b>-10.3</b>	<b>-11.0</b>	<b>-4.2</b>	<b>-25.5</b>	<b>-0.3</b>	<b>-0.4</b>	<b>-0.1</b>	<b>-0.8</b>	<b>-0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.4</b>
Other Oils <sup>1</sup>	3.6	3.7	-1.7	5.7	0.1	0.1	-0.1	0.2	0.1	0.1	-0.1	0.1
<b>Total Oil</b>	<b>-6.7</b>	<b>9.1</b>	<b>0.6</b>	<b>3.0</b>	<b>-0.2</b>	<b>0.3</b>	<b>0.0</b>	<b>0.1</b>	<b>-0.5</b>	<b>0.4</b>	<b>-0.1</b>	<b>-0.2</b>

<sup>1</sup> Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD stock data for February have been revised up by 12.1 mb since last month's *Report*, including 3.4 mb of crude and 8.7 mb of products. The largest adjustment came from Europe, where crude oil stocks were revised 12 mb higher. OECD Asia Oceania crude inventories were also adjusted up, by 2 mb, while a 10.6 mb decrease in OECD Americas provided a partial offset. There were also upward revisions for product stocks in OECD Americas and OECD Asia Oceania, by 5.9 mb and 3.2 mb, respectively.

OECD Industry Stock Revisions versus April 2022 Oil Market Report								
	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Jan-22	Feb-22	Jan-22	Feb-22	Jan-22	Feb-22	Jan-22	Feb-22
<b>Crude Oil</b>	<b>-1.2</b>	<b>-10.6</b>	<b>-2.1</b>	<b>12.0</b>	<b>0.0</b>	<b>2.0</b>	<b>-3.3</b>	<b>3.4</b>
Gasoline	-0.2	2.7	-0.1	-0.6	0.0	1.8	-0.3	3.9
Middle Distillates	0.0	2.4	2.5	-1.5	0.0	1.1	2.5	1.9
Residual Fuel Oil	0.0	0.2	0.7	2.0	0.0	0.2	0.7	2.5
Other Products	0.0	0.6	0.7	-0.2	0.0	0.1	0.7	0.5
<b>Total Products</b>	<b>-0.2</b>	<b>5.9</b>	<b>3.7</b>	<b>-0.4</b>	<b>0.0</b>	<b>3.2</b>	<b>3.5</b>	<b>8.7</b>
Other Oils <sup>1</sup>	0.0	-1.1	-0.1	1.3	0.0	-0.2	-0.1	0.0
<b>Total Oil</b>	<b>-1.4</b>	<b>-5.9</b>	<b>1.6</b>	<b>13.0</b>	<b>0.0</b>	<b>4.9</b>	<b>0.1</b>	<b>12.1</b>

<sup>1</sup> Other oils includes NGLs, feedstocks and other hydrocarbons.

## Implied balance

The global supply and demand balance shows an implied stock build of 790 kb/d in March, while the total observed stock change was -1.47 mb/d based on available data. There is 2.26 mb/d of oil that is not accounted for in the balance, including some product inventory builds in non-OECD countries, which are poorly covered by available data. Most notably, oil product stocks in China

likely rose sharply following stringent Covid lockdowns. Hefty crude and product stock builds in Russia following its invasion of Ukraine at the end of February are also not fully captured by the data. In March, OECD industry crude oil stocks, including NGLs, rose by 920 kb/d and product stocks dropped by 820 mb/d. In addition, OECD government stocks fell by 800 kb/d. Non-OECD crude inventories drew by 220 kb/d, according to satellite data from *Kayros*. Crude oil on the water, including floating storage, fell by a large 1.3 mb/d, while products swelled by 880 kb/d, according to data from *Kpler*. In 1Q22, the global balance data show a stock draw of 350 kb/d, 2.32 mb/d less than the decline in 4Q21 ( 2.67 mb/d).

Global Oil Balance and Observed Stock Changes (mb/d)											
	2020	1Q21	2Q21	3Q21	4Q21	2021	Jan-22	Feb-22	Mar-22	1Q22	Apr-22
Global oil balance	1.86	-1.96	-2.16	-2.39	-2.67	-2.30	0.34	-2.38	0.79	-0.35	1.31
Observed stock changes											
OECD total stocks	0.43	-1.29	-0.72	-1.42	-1.50	-1.23	-0.03	-1.52	-0.70	-0.72	-0.33
Non-OECD crude stocks*	0.34	0.40	-0.39	-0.58	-1.00	-0.40	1.41	-0.63	-0.22	0.21	0.66
Selected non-OECD product stocks**	0.05	0.13	-0.06	-0.43	-0.16	-0.13	0.52	-0.21	-0.12	0.07	-0.07
Oil on w ater	0.00	-0.52	-0.49	-0.34	1.11	-0.06	-2.17	0.50	-0.42	-0.74	
Total observed stock changes	0.82	-1.28	-1.66	-2.76	-1.54	-1.81	-0.27	-1.86	-1.47	-1.18	
Unaccounted for balance	1.04	-0.68	-0.50	0.37	-1.13	-0.48	0.61	-0.52	2.26	0.87	

\*Crude stock change data from *Kayros*. 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 Jan 2021 plus Fujairah and Singapore inventories.

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

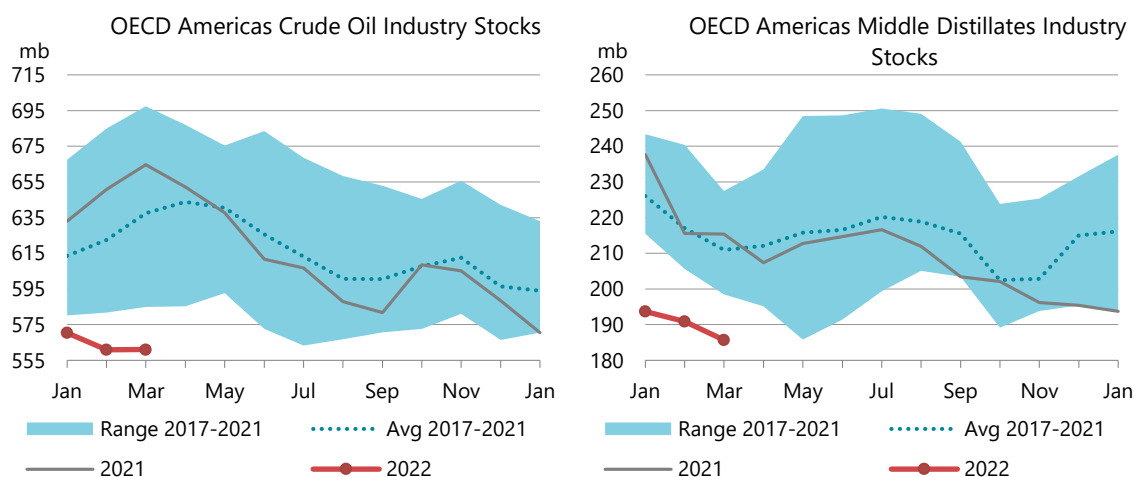
## Recent OECD industry stock changes

### OECD Americas

Industry stocks in OECD Americas were down by 6.7 mb in March, compared with a seasonal increase of 9.4 mb. Crude stocks held steady when they usually build by 15.1 mb. The United States released 14 mb of strategic petroleum reserves through mixed schemes of exchange, mandatory sale and emergency drawdown. By end-month, regional industry crude stocks stood at 561 mb, 76.5 mb below the five-year average.

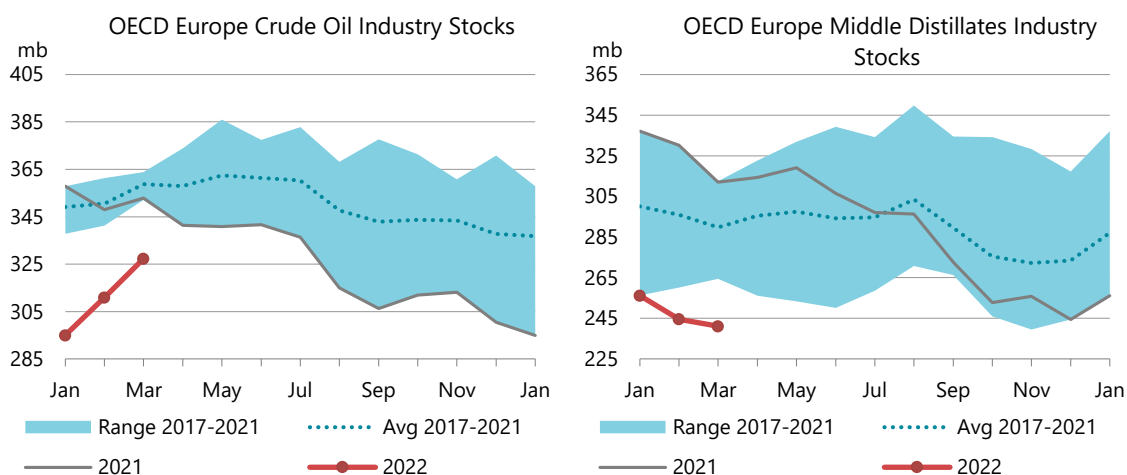
Product stocks fell by 10.3 mb, marginally larger than the average drop of 7.8 mb. Gasoline drove the decline, falling by 8.4 mb, followed by middle distillates at -5.2 mb. Middle distillates stocks dropped to 185.7 mb, the lowest level since April 2008. Fuel oil and other products increased by 1.8 mb and 1.5 mb, respectively, in line with seasonal trends.

Weekly data from the US Energy Information Administration (EIA) show total stocks rose by 3.3 mb in April. Crude gained 3.7 mb, when they typically build by 10.4 mb. Other refined products built by 17.8 mb, much larger than the five-year average. Gasoline and middle distillates drew by a further 8.5 mb and 8.6 mb, respectively, accelerated by higher exports. Middle distillates exports rose to 1.9 mb/d in the second week of April, the highest since April 2019, reflecting strong demand from buyers abroad looking for alternative sources to Russian supplies.



## OECD Europe

OECD industry stocks in Europe rose by 9.1 mb in March when they normally decline by 1.4 mb. Crude stock builds of 16.4 mb led the way, as in February, reducing the gap with the five-year average to 31.4 mb.



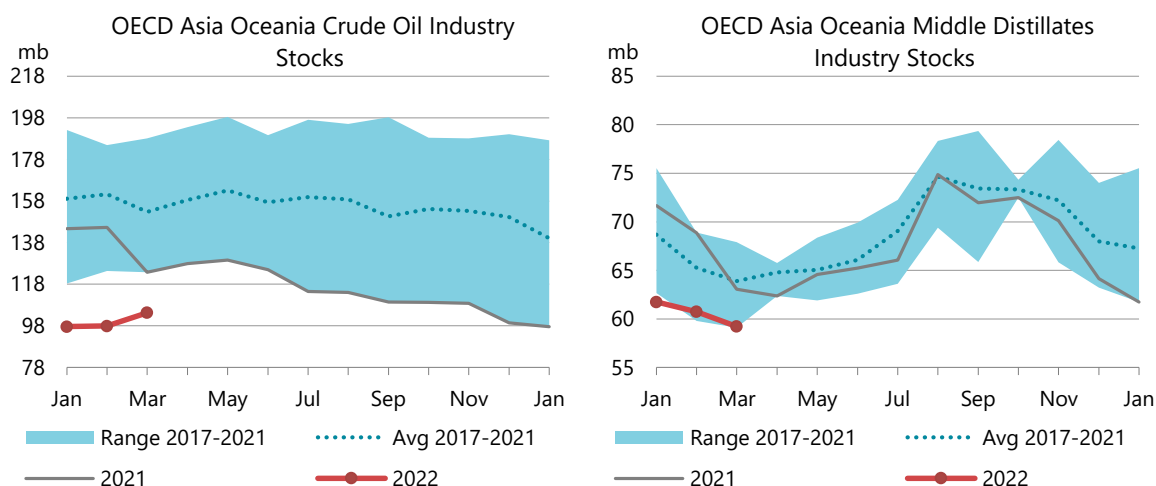
Product stocks fell by 11 mb, in line with the normal trend, led by a 3.5 mb draw in middle distillates. Additionally, France and Germany released 5.2 mb and 1.2 mb of middle distillates from their strategic reserves, respectively. Fuel oil, gasoline and other products also fell, by 1.2 mb, 3 mb and 3.4 mb, respectively. Refinery runs in the region eased by 330 kb/d m-o-m, contributing to crude stock builds along with the draws in products.

Preliminary data from *Euroilstock* show total oil stocks decreased by 4.1 mb in April. Crude oil inventories rose again by 3.6 mb, mainly in France (+4.4 mb), while products fell by 7.8 mb. Middle distillate stocks plunged by a steep 11.5 mb. Following a sharp build in March, oil stocks in Italy declined by 15 mb according to the latest data. Gasoline, fuel oil and naphtha increased by 2.1 mb, 0.5 mb and 1.1 mb, respectively.

## OECD Asia Oceania

Industry stocks in OECD Asia Oceania increased counter-seasonally by a mere 0.6 mb in March. At 317.7 mb, regional stocks were 57.6 mb below the five-year average. Crude oil inventories account for 80% of the deficit, although they built by 6.4 mb in March when they normally decrease by 8.5 mb. Korean government stock release of 2.3 mb supported the crude industry increase.

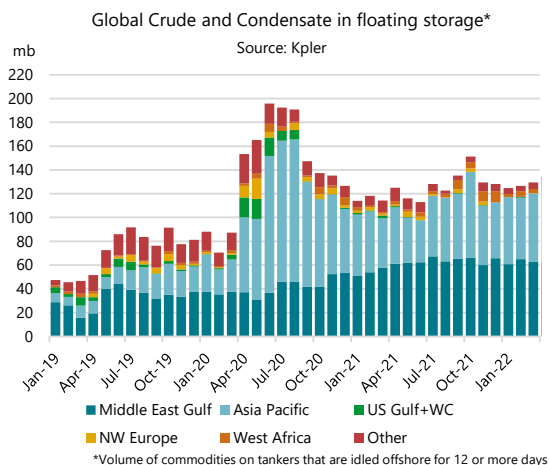
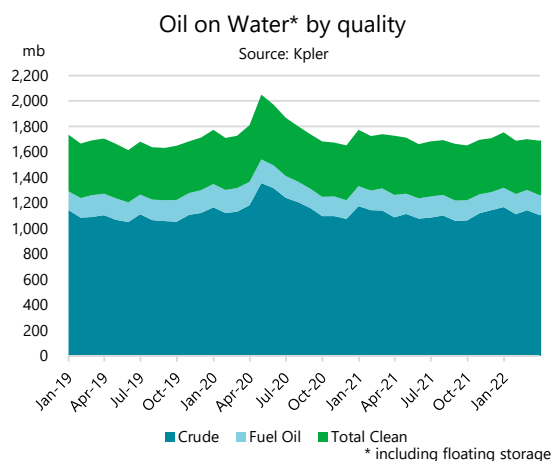
Product stocks fell by 4.2 mb in line with the seasonal trend of -5.1 mb. These stocks closed the month at 161.2 mb, only 3.4 mb below the five-year average. Fuel oil (-2.4 mb), middle distillates (-1.5 mb) and motor gasoline (-0.7 mb) stocks were down while other products (+0.5 mb) were slightly up. Refinery runs in OECD Asia Oceania declined by 240 kb/d compared to February.



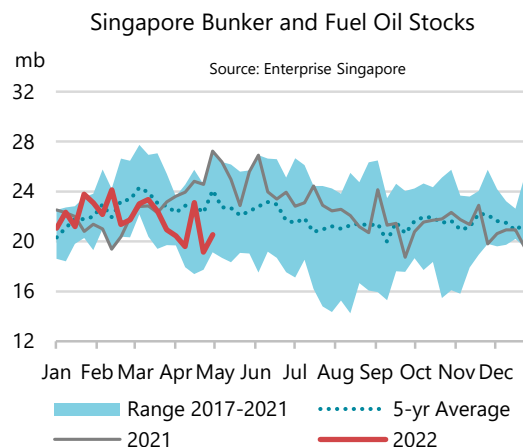
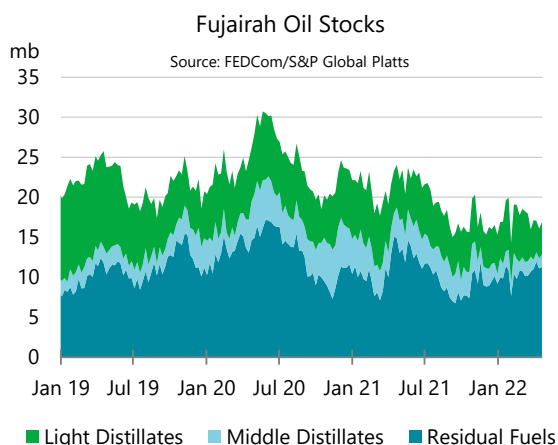
Preliminary data from the Petroleum Association of Japan show that in April total oil stocks were up by 6.1 mb compared to normal build of 8.5 mb. Crude oil and unfinished product stocks rose by 3.8 mb, while middle distillates (+0.9 mb), residual fuels (+0.5 mb), gasoline (+0.4 mb) and other products (+0.5 mb) slightly increased.

## Other stock developments

Oil on the water (including floating storage), fell by 13 mb in March to 1 688 mb, according to *Kpler*. The decrease was due to a significant decline in crude oil volumes of 40.3 mb, while oil products were up by 27.3 mb. Lower crude exports out of the Middle East and higher product exports from North America and Asia contributed to the changes. Crude and condensate held in short-term floating storage built by 2.9 mb to 129.6 mb. In the Asia Pacific region, volumes increased by 5.8 mb, about 10 % m-o-m, partially offsetting declines in the Middle East and West Africa. At the same time, products in short-term floating storage rose by 4 mb to 48 mb at end-March.

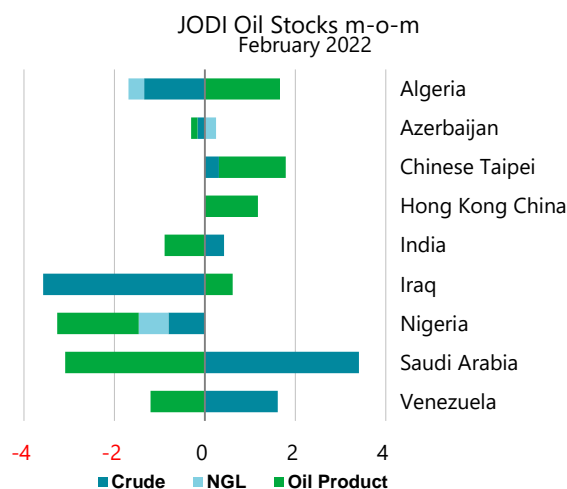


In Fujairah, independent product stocks posted a small decline in April, down 0.8 mb to 16.3 mb. Middle distillates fell by 0.5 mb to 1.4 mb, hovering at historically low levels. Light distillates stocks were also down, by 1 mb, while heavy distillates rose by 0.7 mb.



Independent product stocks in Singapore, the world's largest bunkering hub, fell by 1.3 mb to 40.3 mb in April, according to data from *Enterprise Singapore*. Residual fuels led the way with a 1.1 mb decline. Middle distillate inventories were down by 0.4 mb while light distillates built by 0.3 mb.

Total oil stocks in 12 non-OECD economies reporting data to the JODI-Oil database decreased by 2.8 mb in February. Crude oil and NGLs fell in Iraq (-3.6 mb), and Algeria (-1.6 mb) while they rose in Saudi Arabia (+3.4 mb) and Venezuela (+1.6 mb). Products stocks built in Algeria (+1.7 mb), Chinese Taipei (+1.5 mb) and Hong Kong (+1.2). By contrast, products drew in Saudi Arabia (-3.1 mb), Nigeria (-1.8 mb) and Venezuela (-1.2 mb).

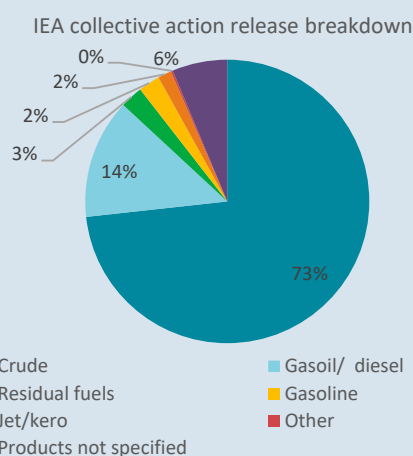


### Box 3. IEA emergency reserves are making their way to the market

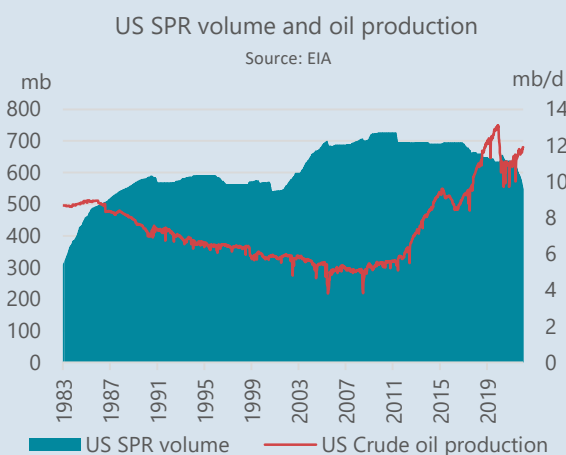
The first tranche of deliveries from the IEA's collective actions agreed in March and April 2022 are coming to market. In March, net drawdowns from the US Strategic Petroleum Reserve (SPR) were around 14 mb, inclusive of sales related to the IEA collective action and previously committed stock releases. In addition, 2.3 mb of crude oil was released from strategic stocks in Korea, while France and Germany drew 5.2 mb and 1.2 mb of middle distillates, respectively. Public stocks were also released in four other IEA countries in March. Additional volumes of OECD government stocks will be released in April, including 18 mb from the US SPR.

In addition to stocks released from public reserves, around 47 mb of oil stocks have been made available from commercial inventories, mainly refined products, by lowering the stockpiling obligations imposed on private companies.

Crude oil accounts for 73% of the 183 mb emergency stocks that have already or will be made available as part of the March and April IEA collective actions. Gasoil/diesel is expected to account for 14%, residual fuel 3%, and gasoline 2%. Crude oil will make up the entire stock release from the United States, as well as the additional volumes that the United States has pledged to release from its reserves independent of the IEA collective action (on March 31, the Biden administration committed to the release of 1 mb/d of crude through October, which includes its commitments as part of the IEA collective action and additional volumes). More than 90% of stocks being released in Korea will consist of crude oil, and two-thirds in Japan. On the other hand, 70% of volumes released in Europe will come from petroleum products.



The US Department of Energy announced in early May a long-term plan to buy back 60 mb of oil to replenish its strategic reserves at an undetermined point in the future, when it expects market tightness to have eased. Bids will be placed in the fall of 2022. At the end of March, the United States held about 570 mb of oil in its SPR, covering 28.2 days of forward demand. SPR volumes will drop to 40-years lows when all committed barrels have been released. However, in the longer term, it plans to significantly reduce volumes held in the SPR. Following the surge in domestic oil production and lower net imports in recent years, Washington previously announced that it intends to sell about 360 mb of SPR crude from 2017 to 2031 in order to allocate the profits from the sale of oil to other budgets.

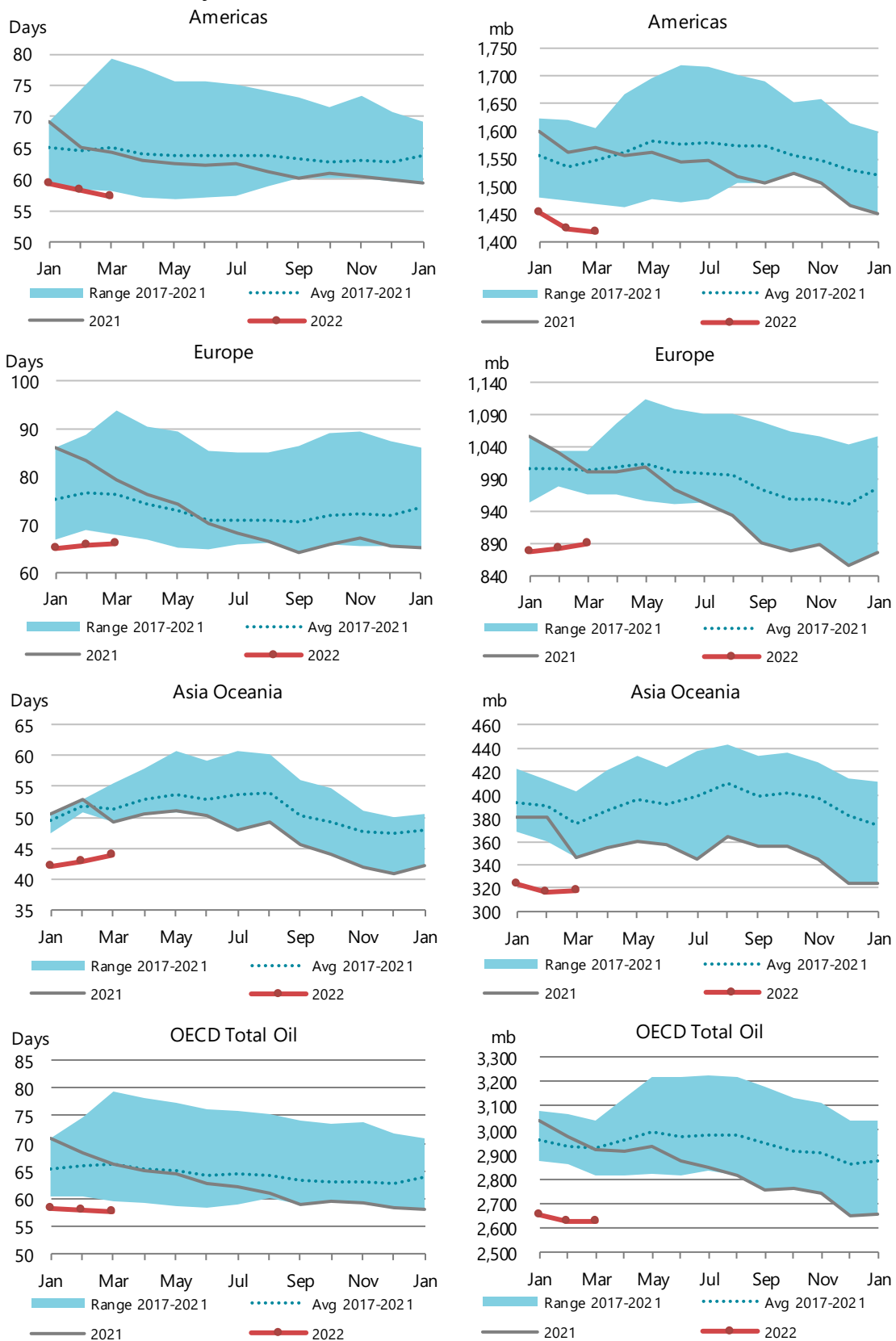


## Regional OECD End-of-Month Industry Stocks

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

Days<sup>1</sup>

Million Barrels



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

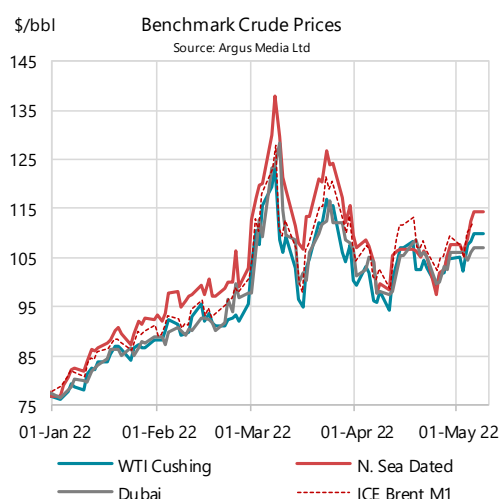
# Prices

## Overview

The protracted war in Ukraine has compounded oil market uncertainties. Crude oil prices fell from March to April, remaining volatile but in a lower and narrower \$10/bbl range above \$100/bbl for ICE Brent. Since February, Western nations have imposed evermore-severe sanctions on Russia to quell the conflict by political and economic means. The spreading impact of these injunctions has collided with toughening US Federal Reserve (Fed) measures to fight persistent inflation and the industrial supply shock from China's zero-Covid lockdowns. Oil demand growth remains relatively sustained, despite pessimistic economic indicators, and refinery output has struggled to keep pace despite the release of strategic reserves to ease crude and product supply tensions. This has resulted in a massive product price dislocation versus crude for middle distillates, and increasingly for gasoline, as well as lofty refinery margins that are driving stronger demand for crude.

Crude Prices and Differentials (\$/bbl)							
	Month		Week of		Last	Chng Apr-22	
	Apr-21	Mar-22	Apr-22	02 May	06 May	m-o-m	y-o-y
<b>Crude Futures (M1)</b>							
NYMEX WTI	61.69	108.26	101.64	106.68	109.77	-6.62	39.95
ICE Brent	65.33	112.46	105.92	109.20	112.39	-6.54	40.59
<b>Crude Marker Grades</b>							
North Sea Dated	64.59	118.75	104.25	110.52	114.46	-14.50	39.66
WTI (Cushing)	61.71	108.52	101.77	106.68	109.77	-6.75	40.06
Dubai	62.92	110.49	102.91	106.00	107.20	-7.58	39.99
<b>Differential to North Sea Dated</b>							
WTI (Cushing)	-2.88	-10.23	-2.48	-3.84	-4.69	7.75	0.41
Dubai	-1.68	-8.26	-1.34	-4.52	-7.26	6.92	0.34
<b>Differential to ICE Brent</b>							
North Sea Dated	-0.74	6.29	-1.67	1.32	2.07	-7.96	-0.93
NYMEX WTI	-3.64	-4.20	-4.28	-2.52	-2.62	-0.08	-0.64

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



April is normally a seasonal low point for end-user demand that allows refiners to undertake plant maintenance. In the coming weeks, the end of refinery turnarounds and an expected easing of China's lockdowns will coincide with oil field maintenance work in the North Sea and US Gulf Coast from May through early-July. As global refinery capacity outages drop, runs will increase by ~4 mb/d from April to July versus a relatively flat trend for crude supply. This, combined with toughening sanctions on Russian oil, will tighten physical crude markets. Oil prices already reflect those tensions as North Sea Dated prices have moved from discounts to ICE Brent futures throughout April to premiums since the beginning of May.

The wind down period for the fourth EU sanction package ends on 15 May, after which a number of current loopholes for accessing Russian barrels will close. A new sixth round of European Union (EU) sanctions - still under negotiation but expected to come into effect starting 16 May - could affect Russian crude and product imports and shipping services by EU entities. The proposed ban on crude imports would be implemented within six months and that on products by the end of the year.

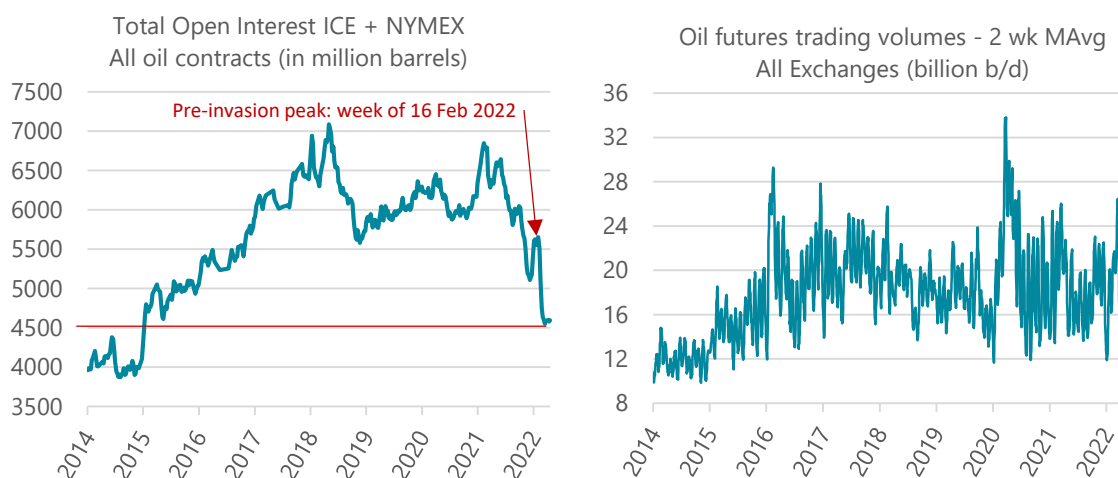


The weakening economic growth outlook has weighed on financial markets in general, including crude futures. Macroeconomic headwinds have arisen from high inflation (driven by fiscal stimulus, energy and food prices), deteriorating industrial and service activity worldwide. Consumer confidence has fallen sharply due to heightened inflation, but particularly in Europe due to the proximity of the war in Ukraine, the expanding refugee crisis and diminishing but continued dependence on Russian energy.

To contain inflation, the US Fed announced a 0.5% pt policy rate hike on 4 May, the biggest increase in over 20 years, and a drawdown of its \$9 trillion in bonds that will reduce market liquidity. On the other hand, growth concerns are holding back further increases by other central banks. Higher US dollar exchange rates will affect 60% of the poorest emerging markets that are already debt-distressed. Rising energy and food prices plus higher interest rates in emerging economies have already started triggering social unrest that could further weaken economic activity.

## Futures markets

Open interest and trading volumes across oil market contracts remain at their lowest level since end-2014. The broadening consequences of hawkish monetary policy and of the conflict in Ukraine have resulted in extreme financial market volatility. This has reduced liquidity and lowered trading volumes in oil futures. Banks and clearing houses have been much tougher on commodity margin calls and financing conditions since the massive nickel short squeeze in mid-March.

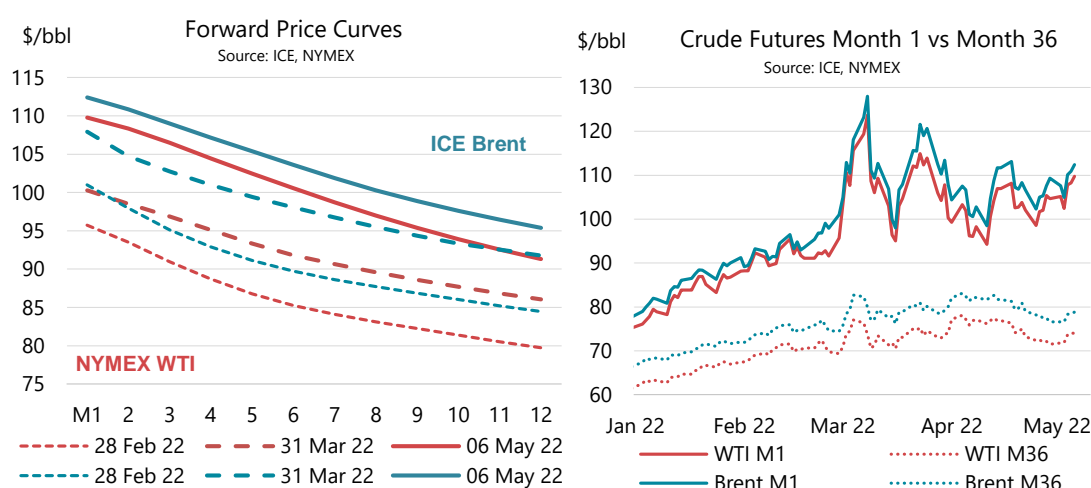


Prompt crude oil futures prices fell by around \$6.60/bbl m-o-m in April. This was a smaller fall than physical crude prices, where strategic reserve availability deflated the additional premium for access to supply. However, the general drop in prices may represent a trough rather than the transition to a lower regime.

Concerns about the economic outlook, inflation and the impact of Chinese lockdowns maintained downward pressure on prompt prices over most of April. Prices eased as some Asian uptake of Russian crude suggested a supply redistribution could avoid an outright loss of barrels due to self-imposed embargoes by European companies. However, prices came under upward tension by late April as negotiators made rapid advances on the sixth round of EU sanctions for Russia.

Futures prices fell from their second peak of March in the week beginning the 24th (weekly averages of \$118.48/bbl for ICE Brent and \$113.01/bbl for NYMEX WTI) to a trough in the first week of April (\$103.72/bbl for ICE Brent and \$99.15/bbl for NYMEX WTI). Massive strategic reserve releases announced by the US and by the IEA, plus the full lockdown of Shanghai to fight the spread of Covid, drove the sell-off that pushed both contracts below \$100/bbl on 11 April. As well, the Fed inferred that it would be raising interest rates by 0.5% at its next meeting in May, boosting the US dollar that in turn pressured crude prices.

Futures prices rallied in mid-month on supply outages in Libya, data for the first week of April showing Russian production fell to just over 10 mb/d as well as statistics indicating stronger than expected Chinese GDP growth in 1Q22. Prices subsequently retrenched as the World Bank and the IMF published pessimistic updates to their global economic forecasts and as the US government revealed that the economy contracted unexpectedly in 1Q22 q-o-q. A resurgence of Covid cases and cuts to government pandemic assistance payments undermined growth. Prices recovered into the final days of April and early May with improving prospects for a full EU ban on Russian oil and with the cut-off of Russian gas supply to Bulgaria and Poland that triggered alarm about access to energy exports. The Fed's interest rate hike that boosted the US dollar and concern that severe Covid restrictions could spread to Beijing failed to immediately slow the increase in prices.

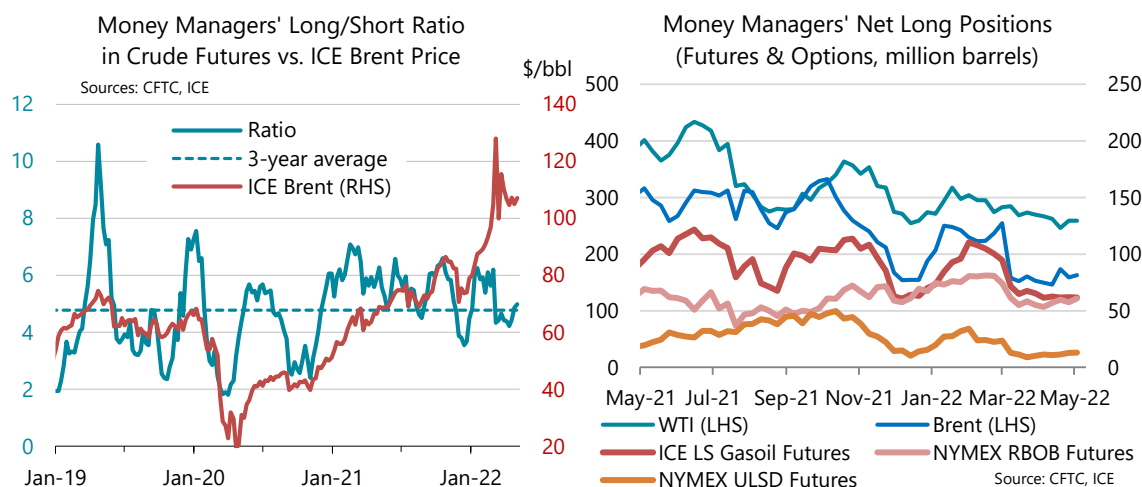


Prompt futures prices rose overall from 1 April to 6 May, despite their volatility. On the other hand, the long-dated contract months fell, dropping \$3.21/bbl to \$78.85/bbl for ICE Brent and \$3.15/bbl to \$74.05/bbl for NYMEX WTI on the 36 contract month. On the 12 month contract, prices eased into the end of April, lagging the trend on prompt contracts and increasing the 12 month backwardation to \$16-\$18/bbl. The unexpected disconnect reflects the deteriorating economic outlook that will affect forward months and comes despite the planned EU embargo that could result in tighter crude markets.

The ICE Brent prompt premium to NYMEX WTI rose \$0.10/bbl on average in April, to \$4.30/bbl. However, after peaking in the week of 28 March at \$6.20/bbl, the differential narrowed to \$3.50/bbl in late April and \$2.50/bbl in the first week of May. Shipping costs fell, US sweet crude markets tightened and European sweet crude remained robust.

The ICE gasoil premium to ICE Brent gained just \$0.50/bbl m-o-m in April to \$41.97/bbl, but rose steadily and averaged \$49.31/bbl in the last week of the month. The NYMEX ULSD premium to WTI surged by \$15.74/bbl m-o-m to \$60.88/bbl, averaging \$92/bbl in the week of 25 April. The extreme NYMEX tensions reflects the isolated delivery conditions in the New York harbour

market and the competition for incremental barrels from the US Gulf of Mexico combined with the rising cost of the renewable diesel component.



The NYMEX RBOB gasoline premium to WTI rose \$4.99/bbl m-o-m to \$35.13/bbl and reached \$42.50/bbl in the final week of April. US gasoline demand remains strong, supported by robust consumer demand in general. Gasoline cracks must rise to levels that ensure refiners don't pull too much supply out of the gasoline pool in response to very strong gasoil-diesel cracks. The gap between gasoil cracks and gasoline cracks provided an incentive for refiners to withdraw available light gasoil components from fluid catalytic cracking (FCC) feedstock streams to the detriment of gasoline production.

Prompt Month Oil Futures Prices												
(monthly and weekly averages, \$/bbl)												
	Apr-21	Feb-22	Mar-22	Apr-22	Apr-22		Week Commencing:					
					m-o-m Chg	y-o-y Chg	28 Mar	04 Apr	11 Apr	18 Apr	25 Apr	Last
<b>NYMEX</b>												
Light Sweet Crude Oil (WTI) 1st contract	61.69	91.63	108.26	101.64	-6.62	39.95	103.51	99.15	101.52	103.88	102.46	109.77
Light Sweet Crude Oil (WTI) 12th contract	57.98	79.20	86.41	89.24	2.83	31.26	86.53	89.28	91.32	90.05	86.93	91.31
RBOB	84.33	112.84	138.40	136.77	-1.63	52.43	135.16	130.88	134.71	139.05	142.88	151.88
ULSD	78.14	119.57	153.39	162.52	9.12	84.38	154.75	142.34	150.21	164.35	194.46	172.03
ULSD (\$/mmbtu)	14.09	20.94	25.93	26.70	0.76	12.60	25.55	24.38	25.80	27.47	29.41	28.85
Henry Hub Natural Gas (\$/mmbtu)	2.68	4.46	4.98	6.71	1.73	4.02	5.56	6.08	6.91	7.09	6.98	8.13
<b>ICE</b>												
Brent 1st contract	65.33	94.10	112.46	105.92	-6.54	40.59	109.69	103.72	105.90	108.44	105.91	112.39
Brent 12th contract	61.37	82.62	91.40	93.86	2.46	32.49	91.95	93.72	95.52	94.75	91.94	95.39
Gasoil	69.53	111.67	153.94	147.89	-6.06	78.35	145.85	141.50	142.84	151.27	155.22	160.15
<b>Prompt Month Differentials</b>												
NYMEX WTI - ICE Brent	-3.64	-2.47	-4.20	-4.28	-0.08	-0.64	-6.18	-4.57	-4.38	-4.56	-3.45	-2.62
NYMEX WTI 1st vs. 12th	3.71	12.43	21.85	12.40	-9.45	8.69	16.98	9.87	10.20	13.83	15.53	17.47
ICE Brent 1st - 12th	3.96	11.48	21.06	12.06	-9.00	8.10	17.74	10.00	10.38	13.69	13.97	15.92
NYMEX ULSD - WTI	16.45	27.94	45.13	60.88	15.74	44.43	51.24	43.19	48.69	60.47	92.00	65.35
NYMEX RBOB - WTI	22.64	21.21	30.14	35.13	4.99	12.48	31.65	31.73	33.19	35.17	40.42	45.20
NYMEX 3-2-1 Crack (RBOB)	20.58	23.45	35.14	43.71	8.57	23.13	38.18	35.55	38.36	43.60	57.62	51.92
NYMEX ULSD - Natural Gas (\$/mmbtu)	11.41	16.48	20.96	19.99	-0.97	8.58	19.99	18.30	18.90	20.38	22.43	20.71
ICE Gasoil - ICE Brent	4.20	17.57	41.48	41.97	0.48	37.76	36.16	37.78	36.94	42.83	49.31	50.95

Source: ICE, NYMEX.

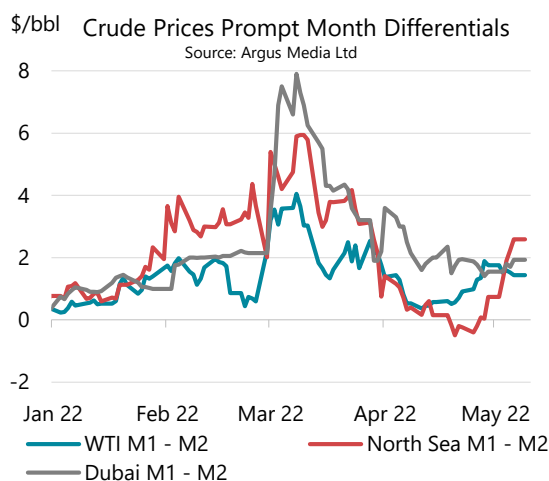
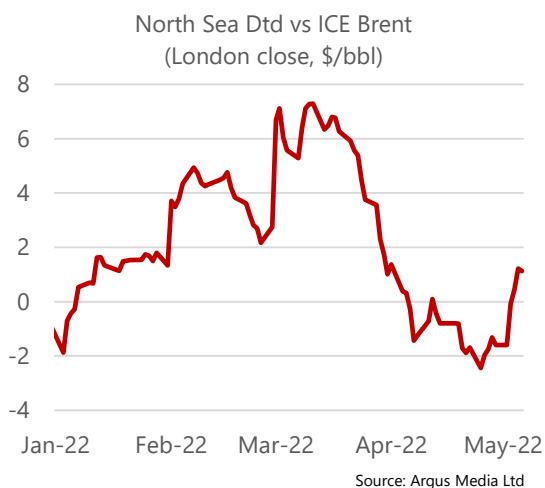
Money manager net long positions on crude futures were stable overall over the four weeks from early-April to early-May. Net positions on ICE Brent futures rose 9% while they contracted by 3% for NYMEX WTI. Both outright long and short positions declined, but short positions fell more (-14%) than longs (-2%). While short positions on ICE Brent dropped 26%, those on NYMEX WTI rose 25%, highlighting a shift in expectations to a tighter US crude balance while international market tensions could increase with an EU embargo on Russian oil. The long-short ratio rose 14% to 5.0 as an increase in the ratio for ICE Brent offset a decline for NYMEX WTI.

Net long positions of money managers on product futures rose 8% overall during the four-week period, affecting all product contracts. While the increase for ICE gasoil was just 1%, the NYMEX product contracts both rose by 14%. The changes reflect the tightening US product markets, notably on the US East Coast where the contracts are delivered at maturity. Outright long positions rose for the NYMEX contracts while outright short positions fell slightly for ICE gasoil. The long-short ratio on products was stable overall.

## Spot crude oil prices

Physical crude markets eased in April versus futures. The flattening of the backwardation and improved supply compressed most crude price premiums. Since the Russian invasion of Ukraine, the supply options for buyers to meet crude requirements have increased, notably in Europe. The initial surge of non-Russian crude buying in March resulted in a brief supply overhang in Europe whose effect was amplified by the availability of barrels from strategic reserves. Worldwide, crude demand has eased since March with persistently high levels of refinery capacity offline and reduced Chinese runs as Covid lockdowns undermine demand. Finally, some redistribution of Russian crude exports to new buyers has limited pressure to reduce exports.

As a result, North Sea Dated prices flipped from a \$6.29/bbl premium versus ICE Brent in March to a \$1.67/bbl discount in April, falling overall by -\$14.50/bbl to \$104.25/bbl. The size of the reversal is all the more remarkable as the market already held a premium from 6 January through the invasion and until 6 April. However, North Sea Dated prices rebounded to \$110.52/bbl in the first week of May and to \$114.86/bbl on 6 May. North Sea Dated flipped to a solid premium versus ICE Brent in the first week of May. Prices recovered as trading shifted from May to June programmes when substantial North Sea production volumes will be lost.

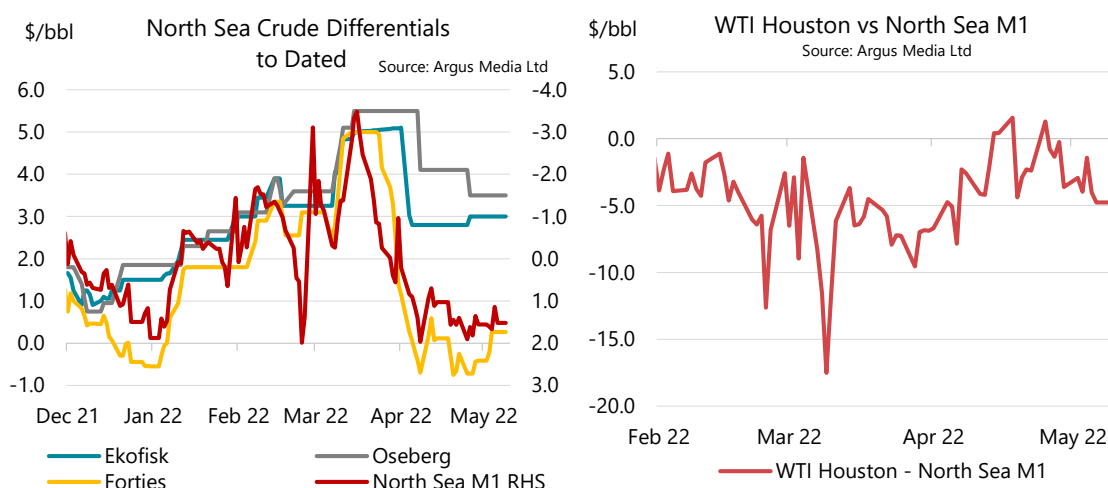


The situation in May is a reversal of April. On the one hand, regional refinery maintenance programmes are wrapping up. On the other hand, intense discussions of a full EU embargo on Russian oil have heightened the urgency to identify new supply sources. Regional field maintenance will reach exceptionally high levels, pushing the June output of the BFOET (Brent, Forties, Oseberg, Ekofisk and Troll that make up the North Sea Dated basket) to its lowest production level in 15 years. Finally, Libyan production issues persist.

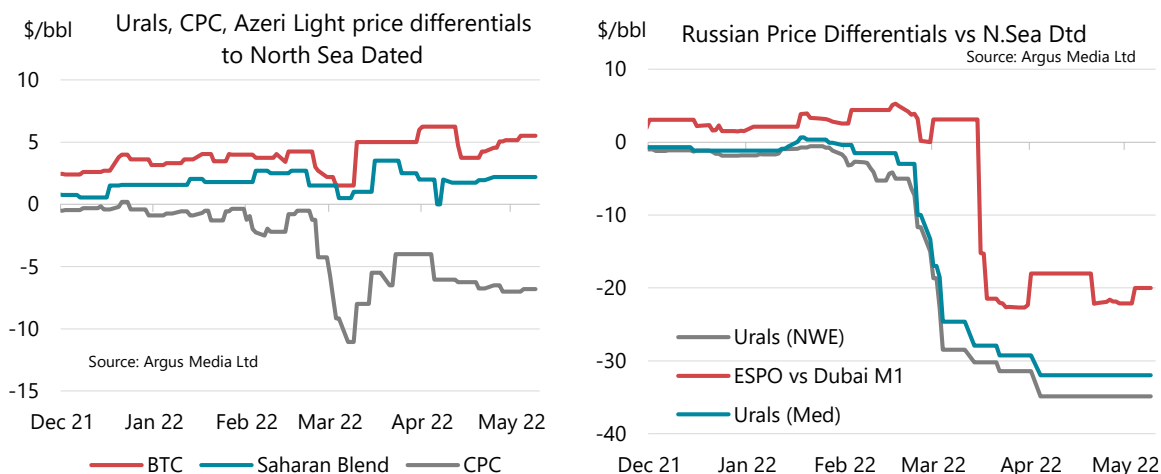
As well, sweet crude differentials remain supported by uptake to meet gasoline, diesel and jet demand requirements while reducing costs for energy and desulphurisation (both driven by

natural gas prices). Backwardation also favours short-haul supply, pushing European refiners to buy more light sweet barrels from the North Sea, North Africa, West Africa and the US.

The Forties premium to North Sea Dated declined \$4.12/bbl to -\$0.20/bbl, that for Ekofisk fell -\$1.55/bbl to \$2.97/bbl, Oseberg lost \$0.56/bbl to \$4.34/bbl while Stafjord gained \$0.04/bbl to \$3.32/bbl due to rising shipping costs.



The North Sea Dated M1 premium to WTI at Houston fell \$4.59/bbl to \$2.61/bbl in April, reaching a trough of \$0.94/bbl in the last week of the month, with substantial exports scheduled for May. But the need to cover the regional production shortfall in June pushed out the spread to \$3.95/bbl in the first week of May, attracting more US barrels to the European market. The North Sea Dated M2 premium to Dubai narrowed by \$0.63/bbl in April to \$2.63/bbl, slowing the arrival of Middle East barrels into Europe. However, anticipation of an EU embargo on imports of Russian oil boosted the spread to \$4/bbl in the first week of May and to \$6.20/bbl on 6 May.

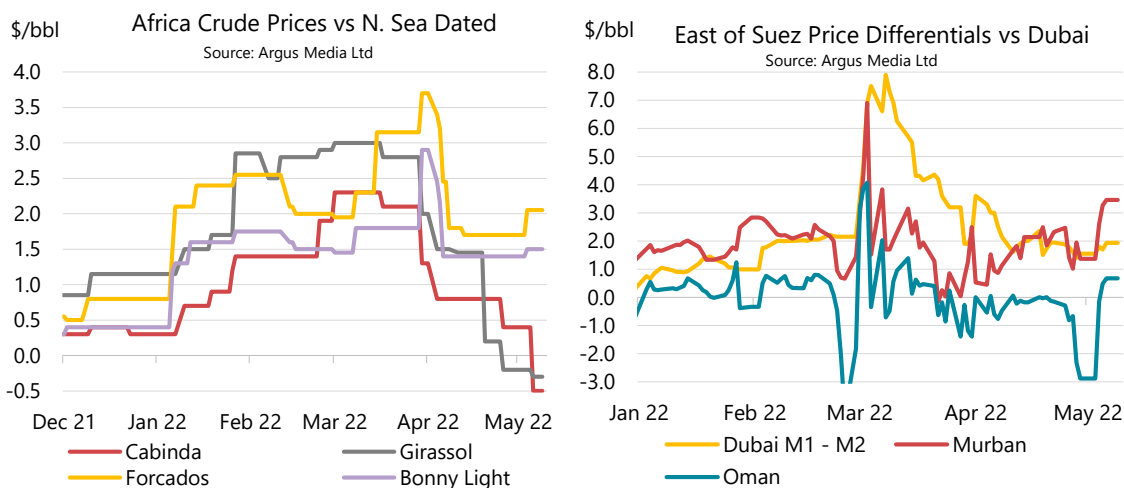


In the Mediterranean, CPC Blend discounts to North Sea Dated remain wide, reflecting risks associated with loading out of a Russian terminal. The discount narrowed by \$0.44/bbl to -\$6.15/bbl overall in April, but was -\$6.90/bbl in the first week of May. Planned maintenance at Kashagan throughout June does not yet appear to have supported the price of CPC, which remained pressured by the restart of its export terminal. The wide discount for CPC has supported its arbitrage to Asia. On the other hand, premiums for Azeri Light rose \$1.16/bbl to \$5/bbl in April and reached \$5.20/bbl in the first week of May, supported by continued Libyan production issues.

The last known deals on Russian Urals sales date from the first week of April and put its price discount versus North Sea Dated at -\$34.85/bbl in Northwest Europe and -\$31.95/bbl in the Mediterranean. Transactions that are more recent have been on a private and confidential basis.

The significant reduction in Chinese refinery buying since the beginning of the Shanghai Covid outbreak has pressured crude price differentials in the Middle East and West Africa. In addition to run cuts to accommodate the Covid lockdowns, government import quotas continue to choke independent refiner purchases while national majors have refinery capacity in maintenance. Finally, the Chinese government continues to discourage increased uptake of Russian crude at significant price discounts, which has limited any opportunistic purchases for runs or storage. The surge of Indian Urals uptake also displaced some buying of Middle East and West African grades.

West African crude price differentials deteriorated from March to April despite a flatter backwardation and falling freight rates. Some cargoes from the May programme were still unsold at end-April, adding to the pressure on prices. Angolan grades fell sharply due to flagging Chinese buying which normally dominates uptake. Cabinda premiums fell \$1.39/bbl to \$0.74/bbl and slipped to a discount of \$0.50/bbl in the first week of May with the overhang of unsold barrels. Girassol fell \$1.95/bbl to \$0.88/bbl in April and to -\$0.22/bbl in the first week of May. Premiums for light sweet Nigerian barrels fell \$0.75/bbl to \$1.33/bbl for Brass River and \$0.25/bbl to \$1.57/bbl for Bonny Light. Differentials rebounded in late April and early May, to \$1.33/bbl and \$1.48/bbl, respectively, on stronger European demand to replace North Sea barrels.



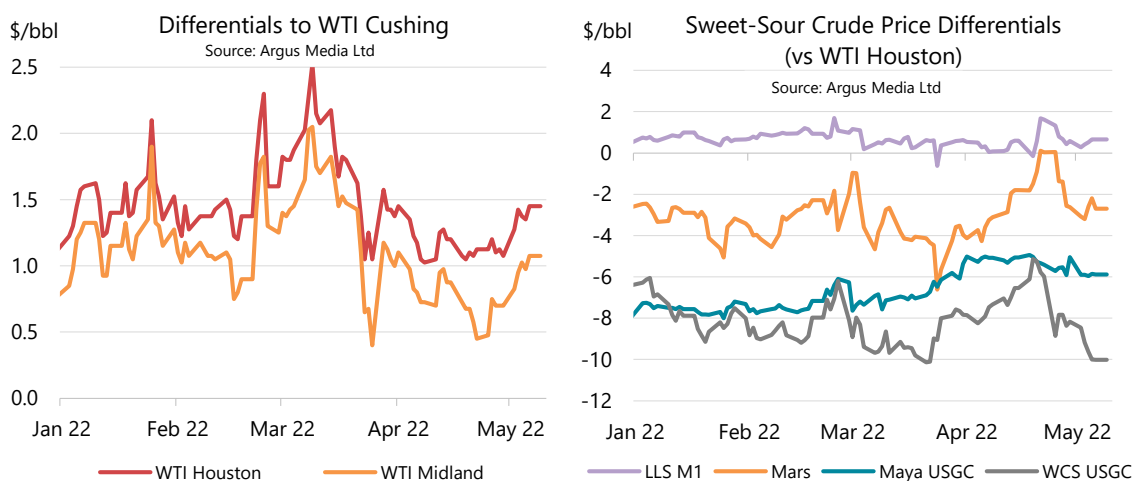
Indian refiners took advantage of the sharp discounts for Russian Urals, ESPO and Sokol grades, to buy substantial volumes via tender and spot purchases for delivery in May and June. An estimated 25-30 mb were picked up, mostly through trading houses. They have also begun to negotiate longer-term contracts. The trading houses (Trafigura, Vitol) reportedly sold the crude to Indian refiners on a delivered basis, covering shipping and insurance costs, which resulted in a price paid by India's refiners that is higher than the quoted discounts for Russian spot crude sales. On the other hand, South Korean refiners waived Urals cargoes and increasingly sought Middle East and US grades.

Middle East crude price premiums to regional marker Dubai fell on average in April versus March as the Dubai price structure flattened. Initial weakness opened the arbitrage to Europe for UAE grades Upper Zakum and Murban loading in June. However, Asian demand recovered in the first week of May for July programmes, supporting differentials late month. The absence of Chinese demand impacted Iraq which made several attempts to tender crude – directly, via the Platts window and via the DME – without attracting satisfactory bids. Oman premiums fell \$0.98/bbl to

-\$0.51/bbl in April, but rose to \$0.34/bbl in the first week of May. Murban eased by \$0.41/bbl to \$1.58/bbl and rose to \$3.11/bbl while Upper Zakum premiums declined \$0.62/bbl to -\$0.13/bbl and recovered to \$0.35/bbl. Russian ESPO crude out of Sakhalin continued to attract the usual level of Chinese buying, but barrels struggled to sell beyond China. ESPO trade remains relatively transparent and discounts to Dubai widened by \$7.22/bbl in April to -\$21.50/bbl. Japan plans to phase out crude oil purchases from Russia, as part of an 8 May statement issued by the G7 countries, which will further support Middle East crude price differentials. Japan imported 109 kb/d of Russian crude in March, (-19% y-o-y) of which 71 kb/d of ESPO, 23 kb/d of Sokol and 10 kb/d of Sakhalin Blend.

The trading houses are winding down their Russian crude oil term contracts, forcing Rosneft to perform its own marketing through direct negotiations and tenders. Rosneft does not have crude marketing and shipping know-how comparable to that of the trading houses. Both Rosneft's tenders in April failed (6.5 million tonnes of Urals, ESPO and Sokol loading in May as well as nine cargoes for ESPO for June delivery). The absence of bidders reflects Rosneft sales conditions (prepayment in roubles), shipping complications and the risks of buying from a Russian company hit by various sanctions.

US crude price differentials versus WTI were hit by the planned release of strategic reserves that was announced on 31 March. This compounded pressure from the previous release of late February. The flattening price structure initially supported crude price differentials. However, discounts widened in late month on a stronger WTI backwardation and on the announced award on 21 April by the US Department of Energy (DOE) of 30 mb from the second emergency SPR crude sale that increases deliveries in May and June to 50 mb. The DOE also announced a third Notice of Sale for 40 mb scheduled for 24 May for delivery starting in June. Much of the volumes from the sale announced in April could go to exports, which would support crude prices in the local market.



The WTI backwardation steepened over the month, partly due to blizzards in North Dakota that knocked out the state's shale oil production in April. WTI premiums at Houston and Midland versus Cushing narrowed by \$0.60/bbl to \$1.16/bbl and \$0.75/bbl, respectively, but averaged \$1.38/bbl and \$0.97/bbl in the first week of May on strong European demand for light sweet US barrels. Sour Mars crude discounts narrowed by \$1.57/bbl in April to -\$2.18/bbl but blew out again to -\$4.16/bbl in the first week of May. Maintenance on the Mars platform scheduled for May initially supported differentials.



Western Canadian Select (WCS) discounts at Hardisty versus WTI at Cushing for June barrels narrowed by \$2.25/bbl to -\$14.33/bbl on good US demand. The discount widened slightly in the first week of May to -\$15.32/bbl as the WTI backwardation steepened. WCS discounts in Houston narrowed by \$1.75/bbl to -\$7.21/bbl, reaching -\$5.65/bbl in the third week of April on healthy sour crude demand. They blew out to -\$9.46/bbl in the first week of May.

Spot Crude Oil Prices and Differentials													
(monthly and weekly averages, \$/bbl)													
	Apr-21	Feb-22	Mar-22	Apr-22	Apr-22		Week Commencing:						Last
					m-o-m Chg	y-o-y Chg	28 Mar	04 Apr	11 Apr	18 Apr	25 Apr	02 May	06 May
<b>Crudes</b>													
North Sea Dated	64.59	98.01	118.75	104.25	-14.50	39.66	112.31	103.58	104.28	105.78	103.07	110.52	114.46
North Sea Mth 1	65.80	97.35	117.45	105.54	-11.92	39.74	112.35	104.83	105.22	107.28	104.73	112.01	115.98
North Sea Mth 2	65.32	94.16	113.46	105.24	-8.22	39.92	110.35	104.10	104.88	107.56	104.68	109.99	113.39
WTI (Cushing) Mth 1	61.71	91.74	108.52	101.77	-6.75	40.06	103.51	99.15	101.52	104.20	102.66	106.68	109.77
WTI (Cushing) Mth 2	61.71	90.31	106.01	100.85	-5.15	39.14	101.51	98.23	101.06	103.54	101.21	105.12	108.33
WTI (Houston) Mth 1	62.61	93.23	110.25	102.93	-7.33	40.32	104.96	100.32	102.72	105.29	103.78	108.06	111.22
Urals (NWE)	62.06	92.50	89.92	69.58	-20.34	7.52	80.91	68.73	69.43	70.93	68.22	75.67	79.61
Dubai (1st month)	62.92	92.48	110.49	102.91	-7.58	39.99	107.32	101.66	100.84	106.72	102.34	106.00	107.20
<b>Differentials to Futures</b>													
North Sea Dated vs. ICE Brent	-0.74	3.91	6.29	-1.67	-7.96	-0.93	2.62	-0.14	-1.62	-2.66	-2.84	1.32	2.07
WTI (Cushing) Mth1 vs. NYMEX	0.02	0.11	0.26	0.13	-0.13	0.11	0.00	0.00	0.00	0.32	0.20	0.00	0.00
<b>Differentials to Physical Markers</b>													
WTI (Houston) versus North Sea Mth 1	-3.19	-4.13	-7.20	-2.61	4.59	0.58	-7.39	-4.51	-2.51	-1.99	-0.94	-3.95	-4.76
WTI (Houston) versus WTI (Cushing) Mth 1	0.90	1.49	1.73	1.16	-0.58	0.25	1.45	1.16	1.19	1.08	1.13	1.38	1.45
Urals (NWE) versus North Sea Dated	-2.53	-5.52	-28.83	-34.67	-5.84	-32.14	-31.40	-34.85	-34.85	-34.85	-34.85	-34.85	-34.85
Dubai versus North Sea Mth 2	-2.40	-1.68	-2.97	-2.34	0.63	0.07	-3.03	-2.44	-4.03	-0.84	-2.33	-3.99	-6.19
Dubai versus WTI (Cushing) Mth 2	1.20	2.17	4.48	2.05	-2.43	0.85	5.80	3.42	-0.22	3.18	1.14	0.87	-1.13
<b>Prompt Month Differentials</b>													
Forward North Sea Mth1-Mth2	0.48	3.20	4.00	0.29	-3.70	-0.19	2.01	0.73	0.35	-0.28	0.05	2.02	2.59
Forward WTI Cushing Mth1-Mth2	-0.01	1.43	2.51	0.92	-1.60	0.92	2.00	0.92	0.46	0.66	1.45	1.56	1.44
Forward Dubai Mth1-Mth2	0.50	2.04	4.76	2.13	-2.63	1.63	2.56	2.79	1.83	1.89	1.64	1.81	1.93

Source: Argus Media Ltd, ICE

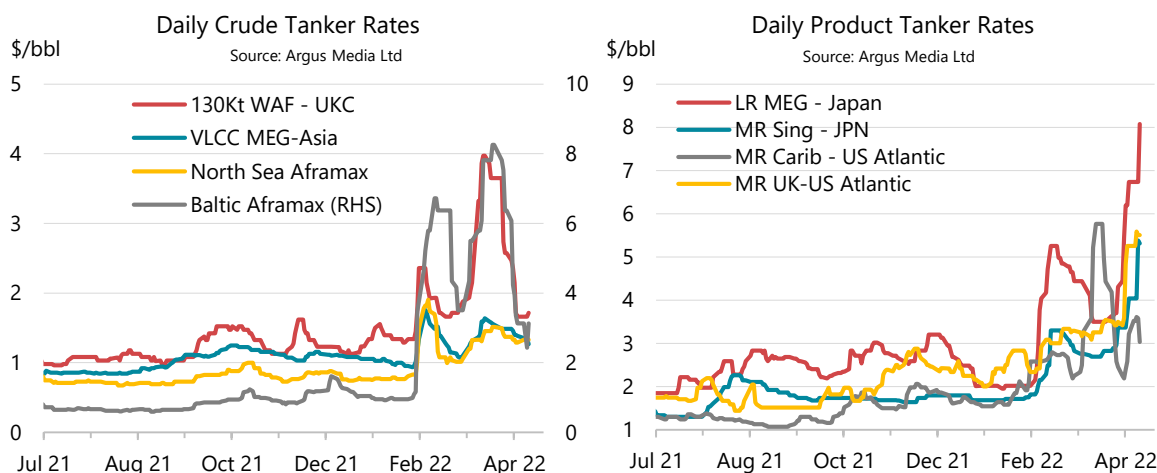
## Freight

Freight rates rose overall in April, boosted by tonne-mile demand as more ships move cargoes over longer distances as state and self-imposed company embargoes on Russian oil force trade flows to adapt. Rates for crude tankers hit a peak in the first half of April before cooling to the levels of March at the beginning of May. Clean tanker rates rose steadily over the month in most cases, beginning May at levels much above their averages for March of April.

The changing crude trade flows have benefited the Aframax and Suezmax tanker classes. The existing overhang of tonnage in VLCC s continues to increase. However, the initial spike in rates gave way to a correction as the early panic to charter tankers to lock-in non-Russian supply eased and volumes shifted between tanker classes to reduce overall costs.

According to BRS Group, while VLCC scrapping has been very modest so far in 2022, some 13 new VLCCs have been added to the fleet and another 31 are scheduled for delivery before the end of the year. Several new VLCCs are transporting middle distillate for the moment rather than crude, however. The resulting weak chartering rates leave little to cover operating costs beyond the bunker payments that have been boosted by strong gasoil prices.





Most of the initial trade flow adjustments impacted Aframax and Suezmax tankers. More West African and US cargoes going to Europe have increased the call for both classes of tankers. Aframax benefited in particular from the rise in transatlantic traffic. The loss of Russian vessels also contributed to tighten these tanker segments where much of that capacity was concentrated.

Clean product tanker classes have seen a steady increase in tension over the course of the month. The Atlantic Basin middle distillate supply deficit has been compounded by a dearth of stocks. This has opened an arbitrage to move from East of Suez to the Atlantic Basin. Moreover, pressure to reduce uptake of Russian product has increased the call on other exporters to Europe, notably US refiners. Increased transatlantic and Middle East trade have boosted Long Range (LR) and Medium Range (MR) tanker rates. Higher Asian rates reflect increased Chinese product exports as Covid lockdowns weaken demand.

Freight Costs												
(monthly and weekly averages, \$/bbl)												
	Apr-22						Week Commencing					
	Apr-21	Feb-22	Mar-22	Apr-22	m-o-m chg	y-o-y chg	28-Mar	04-Apr	11-Apr	18-Apr	25-Apr	02-May
<b>Crude Tankers</b>												
VLCC MEG-Asia	0.89	1.05	1.33	1.50	0.17	0.6	1.27	1.52	1.57	1.49	1.43	1.33
130Kt WAF - UKC	1.15	1.49	1.86	3.06	1.20	1.9	2.04	3.69	3.70	2.88	2.07	1.68
Baltic Aframax	0.74	1.45	5.37	6.35	0.98	5.6	5.12	6.66	8.04	7.02	4.15	2.87
North Sea Aframax	0.70	0.89	1.27	1.39	0.12	0.7	1.24	1.36	1.48	1.41	1.32	1.33
<b>Product Tankers</b>												
LR MEG - Japan	2.46	2.02	4.50	4.22	-0.27	1.8	4.42	3.65	3.50	3.80	5.80	7.18
MR Sing - JPN	1.82	1.73	2.80	3.02	0.22	1.2	2.76	2.70	2.78	2.99	3.57	4.91
MR Carib - US Atlantic	1.22	1.83	2.61	3.84	1.23	2.6	2.70	4.71	5.23	3.19	2.53	3.45
MR UK-US Atlantic	1.86	2.55	3.06	3.66	0.61	1.8	3.23	3.20	3.43	3.46	4.47	5.46

Source: Argus Media Ltd

# 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
<b>OECD DEMAND</b>																	
Americas	25.4	25.5	24.4	20.0	22.7	23.1	22.6	22.8	24.4	24.8	25.0	24.3	24.5	24.8	25.0	25.0	24.8
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	13.1	13.5	13.8	13.6	13.5
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	7.9	7.2	7.4	7.8	7.6
<b>Total OECD</b>	<b>47.7</b>	<b>47.8</b>	<b>45.6</b>	<b>37.6</b>	<b>42.3</b>	<b>43.0</b>	<b>42.1</b>	<b>42.4</b>	<b>44.0</b>	<b>45.8</b>	<b>46.8</b>	<b>44.8</b>	<b>45.5</b>	<b>45.5</b>	<b>46.3</b>	<b>46.4</b>	<b>45.9</b>
<b>NON-OECD DEMAND</b>																	
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	4.6	4.3	4.5	4.5	4.5
Europe	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.7
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	15.1	16.0	16.0	15.6
Other Asia	14.0	14.0	13.5	11.3	12.3	13.5	12.6	13.5	12.9	12.6	13.7	13.2	13.8	13.8	13.3	13.9	13.7
Americas	6.3	6.3	5.8	5.1	5.7	5.9	5.6	5.8	5.9	6.2	6.2	6.0	6.0	6.0	6.2	6.2	6.1
Middle East	8.7	8.7	8.4	7.6	8.6	8.3	8.2	8.3	8.5	8.9	8.4	8.5	8.5	8.6	9.0	8.5	8.6
Africa	4.2	4.2	4.1	3.5	3.7	3.9	3.8	4.1	4.0	3.9	4.1	4.0	4.2	4.2	4.1	4.2	4.2
<b>Total Non-OECD</b>	<b>51.8</b>	<b>52.7</b>	<b>49.3</b>	<b>46.9</b>	<b>50.7</b>	<b>52.2</b>	<b>49.8</b>	<b>51.9</b>	<b>52.3</b>	<b>53.0</b>	<b>53.9</b>	<b>52.8</b>	<b>53.3</b>	<b>52.7</b>	<b>53.7</b>	<b>54.0</b>	<b>53.4</b>
<b>Total Demand<sup>1</sup></b>	<b>99.5</b>	<b>100.5</b>	<b>94.9</b>	<b>84.5</b>	<b>93.1</b>	<b>95.2</b>	<b>91.9</b>	<b>94.3</b>	<b>96.3</b>	<b>98.8</b>	<b>100.7</b>	<b>97.5</b>	<b>98.8</b>	<b>98.2</b>	<b>100.0</b>	<b>100.4</b>	<b>99.4</b>
<b>OECD SUPPLY</b>																	
Americas	23.0	24.8	25.9	22.6	23.2	23.7	23.8	23.3	24.3	24.4	25.3	24.3	24.7	25.4	26.2	26.6	25.7
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	3.3	3.2	3.2	3.4	3.3
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
<b>Total OECD<sup>4</sup></b>	<b>26.9</b>	<b>28.6</b>	<b>30.1</b>	<b>26.7</b>	<b>27.1</b>	<b>27.8</b>	<b>27.9</b>	<b>27.4</b>	<b>27.8</b>	<b>28.3</b>	<b>29.2</b>	<b>28.2</b>	<b>28.6</b>	<b>29.1</b>	<b>29.9</b>	<b>30.5</b>	<b>29.5</b>
<b>NON-OECD SUPPLY</b>																	
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	12.5	11.5	11.7	12.5
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.9	4.0	4.0	4.0	3.9	4.0	4.1	4.1	4.1	4.0	4.1	4.2	4.3	4.2	4.2	4.2
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	2.8	2.7	2.8
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	5.4	5.5	5.7	5.8	5.6
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
<b>Total Non-OECD<sup>4</sup></b>	<b>31.6</b>	<b>31.8</b>	<b>32.2</b>	<b>29.9</b>	<b>29.6</b>	<b>29.7</b>	<b>30.3</b>	<b>30.2</b>	<b>30.5</b>	<b>30.5</b>	<b>30.8</b>	<b>30.5</b>	<b>31.4</b>	<b>29.6</b>	<b>28.9</b>	<b>29.1</b>	<b>29.7</b>
Processing gains <sup>3</sup>	2.4	2.4	2.3	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.7	2.8	2.3	2.5	3.1	2.6	2.6	2.2	2.9	3.2	2.7	2.8	2.4	3.0	3.3	2.9	2.9
<b>Total Non-OPEC Supply</b>	<b>63.5</b>	<b>65.6</b>	<b>66.8</b>	<b>61.1</b>	<b>61.9</b>	<b>62.2</b>	<b>63.0</b>	<b>61.9</b>	<b>63.5</b>	<b>64.3</b>	<b>65.0</b>	<b>63.7</b>	<b>64.7</b>	<b>64.0</b>	<b>64.4</b>	<b>64.9</b>	<b>64.5</b>
<b>OPEC<sup>2</sup></b>																	
Crude	31.4	29.6	28.2	25.6	24.1	24.9	25.7	25.4	25.6	27.0	27.8	26.4	28.5				
NGLs	5.4	5.3	5.3	5.1	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.1	5.3	5.4	5.4	5.4	5.4
<b>Total OPEC</b>	<b>36.8</b>	<b>35.0</b>	<b>33.5</b>	<b>30.6</b>	<b>29.1</b>	<b>30.0</b>	<b>30.8</b>	<b>30.4</b>	<b>30.7</b>	<b>32.1</b>	<b>33.0</b>	<b>31.5</b>	<b>33.7</b>				
<b>Total Supply</b>	<b>100.3</b>	<b>100.6</b>	<b>100.3</b>	<b>91.7</b>	<b>90.9</b>	<b>92.2</b>	<b>93.8</b>	<b>92.4</b>	<b>94.2</b>	<b>96.4</b>	<b>98.0</b>	<b>95.3</b>	<b>98.4</b>				
<b>STOCK CHANGES AND MISCELLANEOUS</b>																	
<b>Reported OECD</b>																	
Industry	0.1	0.1	1.0	2.6	-0.4	-1.6	0.4	-1.3	-0.5	-1.3	-1.2	-1.1	-0.2				
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	-0.5				
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>1.1</b>	<b>2.9</b>	<b>-0.5</b>	<b>-1.7</b>	<b>0.4</b>	<b>-1.3</b>	<b>-0.7</b>	<b>-1.4</b>	<b>-1.5</b>	<b>-1.2</b>	<b>-0.7</b>				
Floating storage/Oil in transit	0.1	0.1	0.4	0.6	-2.0	1.0	0.0	-0.5	-0.5	-0.3	1.1	-0.1	-0.7				
Miscellaneous to balance <sup>5</sup>	0.6	0.0	3.9	3.8	0.4	-2.3	1.4	-0.1	-1.0	-0.6	-2.3	-1.0	1.1				
<b>Total Stock Ch. &amp; Misc</b>	<b>0.8</b>	<b>0.1</b>	<b>5.4</b>	<b>7.3</b>	<b>-2.1</b>	<b>-3.0</b>	<b>1.9</b>	<b>-2.0</b>	<b>-2.2</b>	<b>-2.4</b>	<b>-2.7</b>	<b>-2.3</b>	<b>-0.4</b>				
<b>Memo items:</b>																	
Call on OPEC crude + Stock ch. <sup>6</sup>	30.6	29.5	22.8	18.3	26.2	27.9	23.8	27.3	27.7	29.4	30.5	28.7	28.8	28.8	30.2	30.2	29.5

<sup>1</sup> 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.

<sup>2</sup> OPEC data based on today's membership throughout the time series.

<sup>3</sup> Net volumetric gains and losses in the refining process and marine transportation losses.

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

<sup>5</sup> Includes changes in non-reported stocks in OECD and non-OECD areas.

<sup>6</sup> 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
<b>OECD DEMAND</b>																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1
<b>Total OECD</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-
<b>NON-OECD DEMAND</b>																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.3	-	-	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1
Americas	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
<b>Total Non-OECD</b>	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.2	-0.2	-	-	-
<b>Total Demand</b>	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.2	-0.1	-0.1	-	-
<b>OECD SUPPLY</b>																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-0.2	-	0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-	-	-0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total OECD</b>	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-0.4	-	-	-0.2
<b>NON-OECD SUPPLY</b>																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	0.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Non-OECD</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	0.2
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Non-OPEC Supply</b>	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	0.3	-	0.1	-
<b>OPEC</b>																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total OPEC</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Supply</b>	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-	-	-	-
<b>STOCK CHANGES AND MISCELLANEOUS</b>																	
<b>REPORTED OECD</b>																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-	-0.1	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
<b>Total Stock Ch. &amp; Misc</b>	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.5	-	-	-	-
<b>Memo items:</b>																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.5	-0.4	-0.1	-0.1	-

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<sup>1</sup>)**  
(million barrels per day)

	2018	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
<b>Total Demand</b>	<b>99.5</b>	<b>100.5</b>	<b>94.9</b>	<b>84.5</b>	<b>93.1</b>	<b>95.2</b>	<b>91.9</b>	<b>94.3</b>	<b>96.3</b>	<b>98.8</b>	<b>100.7</b>	<b>97.5</b>	<b>98.8</b>	<b>98.2</b>	<b>100.0</b>	<b>100.4</b>	<b>99.4</b>
<b>OECD SUPPLY</b>																	
Americas <sup>2</sup>	20.9	22.8	23.9	20.7	21.3	21.8	21.9	21.4	22.3	22.4	23.3	22.4	22.7	23.4	24.2	24.6	23.7
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	3.3	3.2	3.2	3.4	3.3
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
<b>Total OECD (non-OPEC+)</b>	<b>24.8</b>	<b>26.7</b>	<b>28.1</b>	<b>24.8</b>	<b>25.2</b>	<b>25.9</b>	<b>26.0</b>	<b>25.5</b>	<b>25.9</b>	<b>26.4</b>	<b>27.2</b>	<b>26.2</b>	<b>26.6</b>	<b>27.1</b>	<b>27.9</b>	<b>28.5</b>	<b>27.5</b>
<b>NON-OECD SUPPLY</b>																	
FSU <sup>3</sup>	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	0.3	0.3	0.3	0.3
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	4.2	4.3	4.2	4.2	4.2
Other Asia <sup>4</sup>	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	5.4	5.5	5.7	5.8	5.6
Middle East <sup>5</sup>	1.9	1.8	1.9	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	1.9
Africa <sup>6</sup>	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
<b>Total Non-OECD (non-OPEC+)</b>	<b>15.1</b>	<b>15.3</b>	<b>15.5</b>	<b>14.9</b>	<b>15.1</b>	<b>14.8</b>	<b>15.1</b>	<b>15.1</b>	<b>15.1</b>	<b>15.2</b>	<b>14.8</b>	<b>15.0</b>	<b>15.2</b>	<b>15.3</b>	<b>15.5</b>	<b>15.5</b>	<b>15.4</b>
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	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.7	2.8	2.3	2.5	3.1	2.6	2.6	2.2	2.9	3.2	2.7	2.8	2.4	3.0	3.3	2.9	2.9
<b>Total Non-OPEC+</b>	<b>44.9</b>	<b>47.2</b>	<b>48.2</b>	<b>44.3</b>	<b>45.5</b>	<b>45.4</b>	<b>45.9</b>	<b>44.9</b>	<b>46.1</b>	<b>47.0</b>	<b>47.0</b>	<b>46.3</b>	<b>46.5</b>	<b>47.7</b>	<b>49.0</b>	<b>49.2</b>	<b>48.1</b>
<b>OPEC+ CRUDE</b>																	
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	2.6	2.6	2.6	2.6	2.6
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	4.4	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	1.4	1.5	1.6	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	1.0	1.2	1.2	1.1
Malaysia	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Mexico	1.8	1.7	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	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	1.3	1.3	1.4	1.4	1.3
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	10.0	8.4	7.2	7.3	8.2
Saudi Arabia	10.3	9.9	9.8	9.3	8.8	9.0	9.2	8.5	8.6	9.6	9.9	9.2	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	0.1	0.1	0.2	0.2	0.1
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	2.7	2.7	2.8	2.9	2.8	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
<b>OPEC+ Crude</b>	<b>47.8</b>	<b>45.9</b>	<b>44.6</b>	<b>40.2</b>	<b>38.2</b>	<b>39.3</b>	<b>40.6</b>	<b>40.0</b>	<b>40.5</b>	<b>42.0</b>	<b>43.3</b>	<b>41.5</b>	<b>44.0</b>	<b>42.8</b>	<b>42.7</b>	<b>43.1</b>	<b>43.1</b>
OPEC+ NGLs & Condensate	7.4	7.4	7.4	7.1	7.1	7.3	7.2	7.4	7.4	7.3	7.5	7.4	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
<b>Total OPEC+</b>	<b>55.3</b>	<b>53.4</b>	<b>52.1</b>	<b>47.5</b>	<b>45.4</b>	<b>46.7</b>	<b>47.9</b>	<b>47.5</b>	<b>48.0</b>	<b>49.4</b>	<b>51.0</b>	<b>49.0</b>	<b>51.9</b>	<b>50.7</b>	<b>50.7</b>	<b>51.2</b>	<b>51.1</b>
<b>Total Supply Oil</b>	<b>100.3</b>	<b>100.6</b>	<b>100.3</b>	<b>91.7</b>	<b>90.9</b>	<b>92.2</b>	<b>93.8</b>	<b>92.4</b>	<b>94.2</b>	<b>96.4</b>	<b>98.0</b>	<b>95.3</b>	<b>98.4</b>	<b>98.4</b>	<b>99.7</b>	<b>100.4</b>	<b>99.2</b>
<b>Memo items:</b>																	
Call on OPEC+ crude + Stock ch	47.0	45.8	39.1	33.0	40.3	42.3	38.7	42.0	42.7	44.4	46.0	43.8	44.4	42.6	43.0	43.1	43.3

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

<sup>2</sup> OECD Americas excludes Mexico

<sup>3</sup> FSU excludes Russia, Kazakhstan, Azerbaijan

<sup>4</sup> Other Asia excludes Brunei, Malaysia

<sup>5</sup> Middle East excludes Oman, Bahrain

<sup>6</sup> 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
<b>Demand (mb/d)</b>																
Americas	25.53	24.40	19.98	22.70	23.13	22.56	22.82	24.38	24.83	25.05	24.27	24.49	24.76	25.05	24.98	24.82
Europe	14.31	13.33	11.02	12.87	12.51	12.43	11.91	12.63	13.85	13.90	13.08	13.10	13.48	13.85	13.64	13.52
Asia Oceania	7.93	7.86	6.60	6.75	7.35	7.14	7.67	7.04	7.11	7.82	7.41	7.90	7.25	7.38	7.82	7.59
<b>Total OECD</b>	<b>47.78</b>	<b>45.59</b>	<b>37.59</b>	<b>42.33</b>	<b>42.99</b>	<b>42.13</b>	<b>42.40</b>	<b>44.05</b>	<b>45.79</b>	<b>46.77</b>	<b>44.76</b>	<b>45.48</b>	<b>45.49</b>	<b>46.28</b>	<b>46.44</b>	<b>45.93</b>
Asia	27.91	25.73	26.06	27.26	28.67	26.93	28.50	28.55	28.29	29.39	28.68	29.31	28.87	29.27	29.88	29.33
Middle East	8.71	8.36	7.58	8.62	8.27	8.21	8.26	8.47	8.90	8.45	8.52	8.49	8.55	8.99	8.48	8.63
Americas	6.31	5.79	5.06	5.74	5.93	5.63	5.82	5.88	6.22	6.18	6.03	5.95	6.04	6.20	6.19	6.10
FSU	4.72	4.57	4.09	4.67	4.66	4.50	4.56	4.67	4.90	4.98	4.78	4.62	4.33	4.45	4.46	4.47
Africa	4.24	4.12	3.47	3.74	3.91	3.81	4.08	3.98	3.94	4.14	4.04	4.19	4.15	4.06	4.21	4.15
Europe	0.78	0.72	0.66	0.72	0.74	0.71	0.72	0.72	0.75	0.75	0.74	0.72	0.74	0.76	0.76	0.75
<b>Total Non-OECD</b>	<b>52.68</b>	<b>49.29</b>	<b>46.90</b>	<b>50.74</b>	<b>52.18</b>	<b>49.79</b>	<b>51.94</b>	<b>52.28</b>	<b>53.01</b>	<b>53.89</b>	<b>52.79</b>	<b>53.29</b>	<b>52.68</b>	<b>53.73</b>	<b>53.98</b>	<b>53.42</b>
<b>World</b>	<b>100.46</b>	<b>94.88</b>	<b>84.50</b>	<b>93.06</b>	<b>95.18</b>	<b>91.92</b>	<b>94.34</b>	<b>96.32</b>	<b>98.79</b>	<b>100.66</b>	<b>97.55</b>	<b>98.77</b>	<b>98.18</b>	<b>100.00</b>	<b>100.43</b>	<b>99.35</b>
of which:																
United States <sup>1</sup>	20.46	19.50	16.07	18.45	18.72	18.19	18.45	20.03	20.21	20.41	19.78	19.86	20.01	20.15	20.21	20.06
Europe five <sup>2</sup>	8.20	7.62	5.93	7.11	7.03	6.92	6.68	7.08	7.67	7.82	7.32	7.41	7.51	7.67	7.67	7.57
China	13.90	12.22	14.75	14.99	15.21	14.30	14.97	15.68	15.68	15.74	15.52	15.50	15.11	16.00	15.98	15.65
Japan	3.74	3.78	2.93	3.06	3.53	3.33	3.73	3.08	3.18	3.67	3.42	3.73	3.23	3.30	3.62	3.47
India	4.99	4.92	3.89	4.25	5.10	4.54	4.99	4.45	4.48	4.93	4.71	5.14	5.10	4.67	5.11	5.01
Russia	3.57	3.52	3.08	3.58	3.50	3.42	3.50	3.58	3.76	3.76	3.65	3.62	3.29	3.39	3.33	3.40
Brazil	3.08	2.95	2.64	2.99	3.13	2.93	2.97	2.98	3.19	3.12	3.07	2.98	3.01	3.09	3.11	3.05
Saudi Arabia	3.59	3.40	3.23	3.77	3.48	3.47	3.24	3.54	3.76	3.45	3.50	3.30	3.40	3.75	3.42	3.47
Canada	2.63	2.51	2.10	2.31	2.29	2.30	2.26	2.24	2.50	2.40	2.35	2.36	2.42	2.57	2.48	2.46
Korea	2.60	2.53	2.45	2.36	2.40	2.44	2.55	2.50	2.59	2.70	2.59	2.74	2.55	2.63	2.69	2.65
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	1.84	1.85	1.81	1.81
Iran	1.93	2.01	1.79	1.84	1.87	1.87	2.02	1.93	1.93	1.93	1.95	2.04	1.96	1.95	1.93	1.97
<b>Total</b>	<b>70.64</b>	<b>66.80</b>	<b>60.25</b>	<b>66.21</b>	<b>67.86</b>	<b>65.29</b>	<b>66.99</b>	<b>68.72</b>	<b>70.56</b>	<b>71.64</b>	<b>69.49</b>	<b>70.42</b>	<b>69.44</b>	<b>71.02</b>	<b>71.38</b>	<b>70.57</b>
<b>% of World</b>	<b>70.3%</b>	<b>70.4%</b>	<b>71.3%</b>	<b>71.1%</b>	<b>71.3%</b>	<b>71.0%</b>	<b>71.0%</b>	<b>71.3%</b>	<b>71.4%</b>	<b>71.2%</b>	<b>71.2%</b>	<b>71.3%</b>	<b>70.7%</b>	<b>71.0%</b>	<b>71.1%</b>	<b>71.0%</b>
<b>Annual Change (% per annum)</b>																
Americas	0.5	-3.4	-21.2	-12.4	-9.5	-11.7	-6.5	22.0	9.4	8.3	7.6	7.3	1.6	0.9	-0.3	2.3
Europe	0.0	-5.4	-22.8	-12.7	-11.6	-13.1	-10.6	14.7	7.5	11.1	5.2	10.0	6.7	0.0	-1.9	3.3
Asia Oceania	-1.0	-6.0	-12.6	-12.3	-9.6	-10.0	-2.5	6.7	5.4	6.4	3.8	3.1	3.0	3.8	0.0	2.4
<b>Total OECD</b>	<b>0.1</b>	<b>-4.5</b>	<b>-20.3</b>	<b>-12.5</b>	<b>-10.2</b>	<b>-11.8</b>	<b>-7.0</b>	<b>17.2</b>	<b>8.2</b>	<b>8.8</b>	<b>6.3</b>	<b>7.3</b>	<b>3.3</b>	<b>1.1</b>	<b>-0.7</b>	<b>2.6</b>
Asia	3.0	-6.7	-6.9	-1.4	0.9	-3.5	10.8	9.6	3.8	2.5	6.5	2.8	1.1	3.5	1.6	2.3
Middle East	-0.1	-1.6	-11.3	-5.6	-4.7	-5.8	-1.1	11.8	3.3	2.2	3.9	2.8	1.0	1.0	0.4	1.3
Americas	0.6	-6.4	-19.6	-10.3	-6.7	-10.8	0.4	16.3	8.4	4.3	7.1	2.3	2.7	-0.4	0.1	1.1
FSU	0.8	1.6	-11.9	-4.8	-3.8	-4.8	-0.2	14.2	5.1	6.8	6.3	1.4	-7.3	-9.2	-10.4	-6.6
Africa	0.8	-4.2	-19.0	-9.6	-8.0	-10.2	-1.1	14.8	5.5	5.7	5.9	2.8	4.2	3.0	1.8	2.9
Europe	3.4	-4.8	-16.4	-9.5	-6.5	-9.4	1.0	9.8	3.7	1.9	4.0	-0.3	2.6	1.4	1.3	1.3
<b>Total Non-OECD</b>	<b>1.8</b>	<b>-4.9</b>	<b>-10.7</b>	<b>-4.3</b>	<b>-2.2</b>	<b>-5.5</b>	<b>5.4</b>	<b>11.5</b>	<b>4.5</b>	<b>3.3</b>	<b>6.0</b>	<b>2.6</b>	<b>0.8</b>	<b>1.4</b>	<b>0.2</b>	<b>1.2</b>
<b>World</b>	<b>1.0</b>	<b>-4.7</b>	<b>-15.3</b>	<b>-8.2</b>	<b>-5.9</b>	<b>-8.5</b>	<b>-0.6</b>	<b>14.0</b>	<b>6.2</b>	<b>5.8</b>	<b>6.1</b>	<b>4.7</b>	<b>1.9</b>	<b>1.2</b>	<b>-0.2</b>	<b>1.8</b>
<b>Annual Change (mb/d)</b>																
Americas	0.12	-0.87	-5.39	-3.20	-2.44	-2.98	-1.58	4.40	2.13	1.91	1.72	1.66	0.39	0.22	-0.06	0.55
Europe	0.00	-0.76	-3.24	-1.87	-1.64	-1.88	-1.42	1.62	0.97	1.39	0.65	1.19	0.85	0.00	-0.26	0.44
Asia Oceania	-0.08	-0.50	-0.95	-0.95	-0.78	-0.80	-0.19	0.44	0.36	0.47	0.27	0.23	0.21	0.27	0.00	0.18
<b>Total OECD</b>	<b>0.05</b>	<b>-2.14</b>	<b>-9.59</b>	<b>-6.02</b>	<b>-4.86</b>	<b>-5.65</b>	<b>-3.19</b>	<b>6.45</b>	<b>3.46</b>	<b>3.77</b>	<b>2.64</b>	<b>3.08</b>	<b>1.45</b>	<b>0.49</b>	<b>-0.32</b>	<b>1.16</b>
Asia	0.80	-1.86	-1.93	-0.39	0.26	-0.98	2.77	2.49	1.03	0.72	1.75	0.81	0.32	0.98	0.48	0.65
Middle East	-0.01	-0.13	-0.96	-0.51	-0.41	-0.50	-0.09	0.89	0.29	0.18	0.32	0.23	0.08	0.09	0.04	0.11
Americas	0.04	-0.40	-1.23	-0.66	-0.43	-0.68	0.02	0.83	0.48	0.25	0.40	0.13	0.16	-0.03	0.01	0.07
FSU	0.04	0.07	-0.55	-0.24	-0.19	-0.23	-0.01	0.58	0.24	0.32	0.28	0.06	-0.34	-0.45	-0.52	-0.31
Africa	0.03	-0.18	-0.82	-0.40	-0.34	-0.43	-0.05	0.51	0.21	0.22	0.22	0.12	0.17	0.12	0.07	0.12
Europe	0.03	-0.04	-0.13	-0.08	-0.05	-0.07	0.01	0.06	0.03	0.01	0.03	0.00	0.02	0.01	0.01	0.01
<b>Total Non-OECD</b>	<b>0.93</b>	<b>-2.54</b>	<b>-5.62</b>	<b>-2.27</b>	<b>-1.15</b>	<b>-2.89</b>	<b>2.65</b>	<b>5.37</b>	<b>2.27</b>	<b>1.71</b>	<b>3.00</b>	<b>1.35</b>	<b>0.41</b>	<b>0.72</b>	<b>0.09</b>	<b>0.64</b>
<b>World</b>	<b>0.98</b>	<b>-4.68</b>	<b>-15.21</b>	<b>-8.29</b>	<b>-6.01</b>	<b>-8.54</b>	<b>-0.54</b>	<b>11.83</b>	<b>5.73</b>	<b>5.48</b>	<b>5.63</b>	<b>4.43</b>	<b>1.85</b>	<b>1.21</b>	<b>-0.23</b>	<b>1.80</b>
<b>Revisions to Oil Demand from Last Month's Report (mb/d)</b>																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	-0.01	0.04	0.04
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	-0.02	-0.02	0.00
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.03	-0.07	-0.06	-0.06
<b>Total OECD</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.00</b>	<b>-0.00</b>	<b>-0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.04</b>	<b>0.01</b>	<b>-0.09</b>	<b>-0.04</b>	<b>-0.02</b>
Asia	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.02	-0.01	-0.31	-0.06	-0.07	-0.11
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.02	0.02	0.03
Americas	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.03	0.06	0.05	0.02	0.05	0.04
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02	-0.01	-0.03	0.01
Africa	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.03	0.00	0.07	0.04	0.03	0.03	0.04
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Non-OECD</b>	<b>0.02</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.12</b>	<b>0.05</b>	<b>0.19</b>	<b>-0.16</b>	<b>-0.01</b>	<b>0.00</b>	<b>0.01</b>
<b>World</b>	<b>0.02</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.13</b>	<b>0.05</b>	<b>0.23</b>	<b>-0.15</b>	<b>-0.10</b>	<b>-0.03</b>	<b>-0.01</b>
<b>Revisions to Oil Demand Growth from Last Month's Report (mb/d)</b>																
World	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.10	0.03	0.20	-0.18	-0.12	-0.16	-0.07

<sup>1</sup> US figures exclude US territories.

<sup>2</sup> France, Germany, Italy, Spain and UK

**Table 2a**  
**OECD REGIONAL OIL DEMAND<sup>1</sup>**  
(million barrels per day)

	Latest month vs.										
	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22 <sup>2</sup>	Jan 22	Feb 21
Americas											
LPG and ethane	3.56	3.71	3.71	3.58	3.59	3.94	4.44	4.53	4.28	-0.25	0.95
Naphtha	0.25	0.25	0.23	0.27	0.26	0.24	0.28	0.24	0.19	-0.04	0.00
Motor gasoline	9.55	10.34	9.45	10.57	10.73	10.58	10.63	9.47	10.22	0.75	1.05
Jet and kerosene	1.23	1.55	1.28	1.48	1.72	1.72	1.77	1.65	1.62	-0.02	0.38
Gasoil/diesel oil	4.93	5.08	5.08	5.05	5.02	5.16	5.07	5.19	5.41	0.22	0.37
Residual fuel oil	0.40	0.53	0.52	0.49	0.54	0.58	0.61	0.55	0.54	-0.01	0.03
Other products	2.64	2.82	2.55	2.93	2.96	2.83	2.70	2.60	2.78	0.18	0.50
Total	22.56	24.27	22.82	24.38	24.83	25.05	25.50	24.22	25.04	0.82	3.29
Europe											
LPG and ethane	1.08	1.09	1.12	1.06	1.10	1.07	1.14	1.02	1.19	0.17	0.08
Naphtha	1.07	1.14	1.23	1.02	1.11	1.19	1.19	1.27	1.21	-0.05	-0.04
Motor gasoline	1.75	1.92	1.57	1.92	2.19	2.01	1.98	1.73	1.93	0.19	0.39
Jet and kerosene	0.73	0.84	0.61	0.67	1.01	1.05	1.08	0.94	1.00	0.06	0.36
Gasoil/diesel oil	5.96	6.26	5.70	6.13	6.52	6.69	6.56	5.64	6.44	0.80	0.62
Residual fuel oil	0.68	0.70	0.69	0.69	0.73	0.71	0.73	0.74	0.71	-0.03	0.04
Other products	1.15	1.13	1.00	1.14	1.19	1.17	1.04	1.04	1.08	0.03	0.09
Total	12.43	13.08	11.91	12.63	13.85	13.90	13.72	12.38	13.55	1.17	1.53
Asia Oceania											
LPG and ethane	0.78	0.79	0.86	0.77	0.73	0.79	0.91	0.95	1.01	0.06	0.13
Naphtha	1.82	1.99	1.97	1.86	2.02	2.09	2.20	2.06	1.92	-0.14	-0.09
Motor gasoline	1.35	1.36	1.32	1.37	1.36	1.40	1.49	1.30	1.32	0.01	-0.06
Jet and kerosene	0.61	0.61	0.82	0.47	0.43	0.72	0.94	0.97	0.94	-0.03	0.09
Gasoil/diesel oil	1.79	1.83	1.82	1.82	1.77	1.92	2.03	1.83	1.93	0.10	0.01
Residual fuel oil	0.43	0.46	0.50	0.41	0.44	0.49	0.52	0.56	0.51	-0.05	-0.01
Other products	0.35	0.37	0.37	0.35	0.36	0.40	0.46	0.35	0.44	0.09	0.06
Total	7.14	7.41	7.66	7.04	7.11	7.82	8.54	8.03	8.07	0.05	0.14
OECD											
LPG and ethane	5.43	5.59	5.70	5.41	5.43	5.80	6.49	6.50	6.48	-0.02	1.16
Naphtha	3.14	3.37	3.43	3.15	3.38	3.52	3.67	3.56	3.33	-0.23	-0.14
Motor gasoline	12.66	13.62	12.34	13.86	14.29	13.99	14.11	12.51	13.47	0.95	1.38
Jet and kerosene	2.57	3.00	2.70	2.62	3.16	3.49	3.78	3.55	3.56	0.01	0.83
Gasoil/diesel oil	12.68	13.17	12.61	13.00	13.30	13.77	13.66	12.66	13.78	1.12	1.00
Residual fuel oil	1.50	1.70	1.71	1.59	1.71	1.79	1.86	1.85	1.76	-0.09	0.06
Other products	4.14	4.32	3.91	4.42	4.52	4.41	4.20	3.99	4.29	0.30	0.65
Total	42.13	44.76	42.40	44.05	45.79	46.77	47.76	44.62	46.66	2.04	4.96

<sup>1</sup> 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.

<sup>2</sup> Latest official OECD submissions (MOS).

**Table 2b**  
**OIL DEMAND IN SELECTED OECD COUNTRIES<sup>1</sup>**  
(million barrels per day)

	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22 <sup>2</sup>	Latest month vs.	
										Jan 22	Feb 21
<b>United States<sup>3</sup></b>											
LPG and ethane	2.74	2.85	2.85	2.76	2.73	3.07	3.50	3.62	3.46	-0.16	1.02
Naphtha	0.18	0.19	0.16	0.21	0.20	0.18	0.21	0.16	0.14	-0.03	0.01
Motor gasoline	8.05	8.80	8.00	9.07	9.13	8.96	8.95	7.98	8.60	0.62	0.85
Jet and kerosene	1.08	1.38	1.14	1.34	1.52	1.49	1.53	1.44	1.40	-0.03	0.28
Gasoil/diesel oil	3.78	3.94	3.97	3.93	3.87	4.00	3.93	4.08	4.18	0.10	0.23
Residual fuel oil	0.21	0.31	0.26	0.25	0.33	0.41	0.42	0.33	0.36	0.03	0.10
Other products	2.13	2.32	2.05	2.47	2.43	2.30	2.23	2.11	2.30	0.19	0.49
<b>Total</b>	<b>18.19</b>	<b>19.78</b>	<b>18.45</b>	<b>20.03</b>	<b>20.21</b>	<b>20.41</b>	<b>20.76</b>	<b>19.73</b>	<b>20.44</b>	<b>0.70</b>	<b>2.99</b>
<b>Japan</b>											
LPG and ethane	0.41	0.42	0.50	0.40	0.37	0.43	0.51	0.52	0.54	0.02	0.03
Naphtha	0.68	0.73	0.74	0.68	0.70	0.79	0.83	0.72	0.67	-0.05	-0.07
Motor gasoline	0.76	0.74	0.71	0.71	0.78	0.76	0.80	0.69	0.69	0.00	-0.05
Jet and kerosene	0.36	0.36	0.55	0.24	0.21	0.45	0.63	0.64	0.63	-0.01	0.03
Diesel	0.40	0.40	0.41	0.39	0.39	0.42	0.44	0.38	0.42	0.04	-0.01
Other gasoil	0.30	0.31	0.35	0.28	0.27	0.33	0.37	0.35	0.38	0.03	0.00
Residual fuel oil	0.21	0.24	0.27	0.21	0.23	0.26	0.28	0.30	0.28	-0.03	0.02
Other products	0.20	0.22	0.20	0.18	0.23	0.25	0.27	0.21	0.28	0.07	0.10
<b>Total</b>	<b>3.33</b>	<b>3.42</b>	<b>3.73</b>	<b>3.08</b>	<b>3.18</b>	<b>3.67</b>	<b>4.14</b>	<b>3.80</b>	<b>3.87</b>	<b>0.07</b>	<b>0.04</b>
<b>Germany</b>											
LPG and ethane	0.11	0.12	0.12	0.13	0.12	0.11	0.11	0.11	0.11	0.00	-0.01
Naphtha	0.29	0.34	0.35	0.31	0.32	0.36	0.37	0.38	0.39	0.01	0.01
Motor gasoline	0.45	0.45	0.40	0.44	0.48	0.46	0.44	0.40	0.42	0.01	0.03
Jet and kerosene	0.10	0.13	0.09	0.11	0.16	0.16	0.16	0.15	0.15	0.01	0.06
Diesel	0.71	0.71	0.60	0.71	0.77	0.75	0.70	0.64	0.63	-0.01	0.05
Other gasoil	0.36	0.28	0.22	0.26	0.26	0.36	0.35	0.26	0.28	0.02	0.02
Residual fuel oil	0.05	0.05	0.05	0.04	0.05	0.06	0.06	0.07	0.04	-0.03	-0.01
Other products	0.08	0.07	0.05	0.06	0.07	0.08	0.06	0.05	0.06	0.01	0.00
<b>Total</b>	<b>2.15</b>	<b>2.14</b>	<b>1.89</b>	<b>2.07</b>	<b>2.23</b>	<b>2.34</b>	<b>2.26</b>	<b>2.05</b>	<b>2.09</b>	<b>0.03</b>	<b>0.16</b>
<b>Italy</b>											
LPG and ethane	0.09	0.10	0.11	0.09	0.09	0.11	0.14	0.11	0.13	0.02	0.01
Naphtha	0.10	0.10	0.11	0.10	0.09	0.11	0.11	0.11	0.12	0.01	0.03
Motor gasoline	0.14	0.17	0.13	0.17	0.19	0.18	0.17	0.14	0.17	0.03	0.02
Jet and kerosene	0.04	0.04	0.02	0.04	0.07	0.05	0.04	0.05	0.04	0.00	0.02
Diesel	0.42	0.49	0.44	0.49	0.52	0.52	0.53	0.44	0.52	0.08	0.04
Other gasoil	0.06	0.06	0.05	0.06	0.07	0.06	0.06	0.02	0.04	0.01	-0.01
Residual fuel oil	0.06	0.06	0.05	0.05	0.06	0.06	0.05	0.05	0.05	0.01	0.00
Other products	0.14	0.15	0.14	0.16	0.16	0.16	0.15	0.13	0.15	0.02	0.02
<b>Total</b>	<b>1.05</b>	<b>1.18</b>	<b>1.04</b>	<b>1.15</b>	<b>1.25</b>	<b>1.25</b>	<b>1.26</b>	<b>1.05</b>	<b>1.23</b>	<b>0.18</b>	<b>0.13</b>
<b>France</b>											
LPG and ethane	0.11	0.12	0.12	0.13	0.11	0.10	0.12	0.12	0.13	0.01	0.00
Naphtha	0.12	0.14	0.15	0.12	0.13	0.15	0.15	0.15	0.14	-0.01	-0.02
Motor gasoline	0.17	0.21	0.18	0.20	0.24	0.22	0.22	0.19	0.22	0.03	0.04
Jet and kerosene	0.09	0.09	0.08	0.07	0.11	0.11	0.10	0.10	0.09	0.00	0.01
Diesel	0.67	0.73	0.68	0.72	0.78	0.76	0.73	0.64	0.74	0.10	0.06
Other gasoil	0.14	0.13	0.17	0.09	0.11	0.15	0.17	0.17	0.17	0.00	0.00
Residual fuel oil	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.00	0.01
Other products	0.09	0.09	0.07	0.09	0.12	0.09	0.08	0.06	0.08	0.02	0.01
<b>Total</b>	<b>1.42</b>	<b>1.54</b>	<b>1.47</b>	<b>1.45</b>	<b>1.63</b>	<b>1.61</b>	<b>1.59</b>	<b>1.46</b>	<b>1.61</b>	<b>0.15</b>	<b>0.10</b>
<b>United Kingdom</b>											
LPG and ethane	0.13	0.11	0.13	0.09	0.10	0.11	0.10	0.11	0.11	0.00	-0.02
Naphtha	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	-0.01
Motor gasoline	0.22	0.25	0.20	0.26	0.28	0.28	0.28	0.26	0.28	0.02	0.11
Jet and kerosene	0.19	0.18	0.17	0.14	0.16	0.24	0.29	0.22	0.25	0.03	0.06
Diesel	0.43	0.48	0.42	0.50	0.50	0.50	0.50	0.44	0.54	0.10	0.11
Other gasoil	0.11	0.13	0.11	0.14	0.14	0.12	0.11	0.10	0.12	0.02	0.00
Residual fuel oil	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.00	0.00
Other products	0.10	0.11	0.09	0.11	0.11	0.10	0.10	0.10	0.11	0.01	0.02
<b>Total</b>	<b>1.21</b>	<b>1.27</b>	<b>1.16</b>	<b>1.25</b>	<b>1.31</b>	<b>1.37</b>	<b>1.40</b>	<b>1.26</b>	<b>1.42</b>	<b>0.16</b>	<b>0.27</b>
<b>Canada</b>											
LPG and ethane	0.47	0.50	0.51	0.49	0.50	0.49	0.53	0.54	0.42	-0.12	-0.12
Naphtha	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.03	-0.01	0.00
Motor gasoline	0.77	0.80	0.75	0.78	0.87	0.80	0.81	0.75	0.81	0.06	0.06
Jet and kerosene	0.07	0.08	0.06	0.05	0.10	0.11	0.12	0.08	0.10	0.02	0.06
Diesel	0.27	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.29	0.03	0.00
Other gasoil	0.34	0.35	0.33	0.33	0.37	0.35	0.32	0.34	0.40	0.06	0.09
Residual fuel oil	0.03	0.03	0.03	0.03	0.02	0.03	0.04	0.05	0.03	-0.03	0.00
Other products	0.32	0.31	0.28	0.27	0.35	0.34	0.29	0.31	0.29	-0.02	0.03
<b>Total</b>	<b>2.30</b>	<b>2.35</b>	<b>2.26</b>	<b>2.24</b>	<b>2.50</b>	<b>2.40</b>	<b>2.41</b>	<b>2.36</b>	<b>2.35</b>	<b>-0.01</b>	<b>0.12</b>

<sup>1</sup> 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.

<sup>2</sup> Latest official OECD submissions (MOS).

<sup>3</sup> US figures exclude US territories.

**Table 3**  
**WORLD OIL PRODUCTION**  
(million barrels per day)

	2020	2021	2022	4Q21	1Q22	2Q22	3Q22	4Q22	Feb 22	Mar 22	Apr 22
<b>OPEC</b>											
<b>Crude Oil</b>											
Saudi Arabia	9.21	9.15		9.91	10.20				10.23	10.28	10.40
Iran	2.00	2.42		2.48	2.56				2.58	2.58	2.55
Iraq	4.05	4.03		4.24	4.29				4.23	4.33	4.42
UAE	2.87	2.76		2.90	3.01				2.95	3.03	3.03
Kuwait	2.41	2.42		2.53	2.61				2.61	2.64	2.65
Angola	1.27	1.12		1.12	1.16				1.16	1.14	1.18
Nigeria	1.49	1.31		1.24	1.30				1.27	1.25	1.23
Libya	0.35	1.15		1.12	1.08				1.16	1.10	0.90
Algeria	0.90	0.91		0.96	0.99				0.98	1.00	1.00
Congo	0.30	0.27		0.26	0.27				0.26	0.26	0.27
Gabon	0.20	0.18		0.19	0.19				0.19	0.20	0.19
Equatorial Guinea	0.11	0.10		0.08	0.09				0.09	0.09	0.10
Venezuela	0.53	0.61		0.76	0.71				0.72	0.72	0.75
<b>Total Crude Oil</b>	<b>25.69</b>	<b>26.43</b>		<b>27.80</b>	<b>28.46</b>				<b>28.43</b>	<b>28.62</b>	<b>28.67</b>
of which Neutral Zone <sup>1</sup>	0.11	0.25		0.28	0.27				0.22	0.28	0.29
<b>Total NGLs<sup>2</sup></b>	<b>5.09</b>	<b>5.12</b>	<b>5.37</b>	<b>5.16</b>	<b>5.28</b>	<b>5.37</b>	<b>5.41</b>	<b>5.41</b>	<b>5.26</b>	<b>5.31</b>	<b>5.36</b>
<b>Total OPEC<sup>3</sup></b>	<b>30.78</b>	<b>31.55</b>		<b>32.96</b>	<b>33.74</b>				<b>33.69</b>	<b>33.93</b>	<b>34.03</b>
<b>NON-OPEC<sup>4</sup></b>											
<b>OECD</b>											
<b>Americas</b>	23.84	24.32	25.74	25.30	24.73	25.37	26.19	26.65	24.66	24.95	25.01
United States	16.56	16.73	17.88	17.54	17.05	17.65	18.22	18.59	16.96	17.21	17.32
Mexico	1.93	1.95	2.03	1.97	2.00	2.02	2.04	2.08	1.99	2.01	2.00
Canada	5.35	5.63	5.82	5.77	5.67	5.70	5.92	5.97	5.70	5.73	5.68
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>Europe</b>	3.56	3.38	3.31	3.38	3.34	3.23	3.25	3.40	3.37	3.32	3.33
UK	1.08	0.89	0.91	0.88	0.92	0.89	0.91	0.90	0.94	0.91	0.91
Norway	2.01	2.04	1.96	2.04	1.97	1.89	1.90	2.07	1.98	1.96	1.98
Others	0.47	0.46	0.44	0.46	0.46	0.44	0.43	0.43	0.45	0.45	0.44
<b>Asia Oceania</b>	0.52	0.50	0.49	0.51	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Australia	0.45	0.43	0.42	0.45	0.42	0.42	0.42	0.42	0.41	0.42	0.42
Others	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
<b>Total OECD</b>	<b>27.92</b>	<b>28.20</b>	<b>29.54</b>	<b>29.19</b>	<b>28.57</b>	<b>29.10</b>	<b>29.93</b>	<b>30.54</b>	<b>28.52</b>	<b>28.77</b>	<b>28.83</b>
<b>NON-OECD</b>											
<b>Former USSR</b>	13.50	13.77	12.53	14.31	14.41	12.52	11.52	11.73	14.45	14.34	13.13
Russia	10.61	10.87	9.62	11.24	11.37	9.80	8.65	8.71	11.40	11.35	10.40
Azerbaijan	0.70	0.70	0.70	0.71	0.70	0.69	0.69	0.70	0.69	0.70	0.70
Kazakhstan	1.84	1.85	1.89	1.99	1.98	1.72	1.86	2.00	2.00	1.95	1.72
Others	0.36	0.36	0.33	0.36	0.36	0.32	0.32	0.32	0.37	0.34	0.31
<b>Asia</b>	6.99	6.91	6.98	6.81	7.02	7.02	6.98	6.91	7.05	7.05	7.01
China	3.97	4.06	4.23	4.01	4.23	4.26	4.23	4.19	4.22	4.25	4.24
Malaysia	0.60	0.57	0.57	0.55	0.58	0.55	0.58	0.58	0.60	0.59	0.57
India	0.75	0.73	0.70	0.72	0.72	0.71	0.70	0.69	0.72	0.72	0.71
Indonesia	0.73	0.68	0.65	0.67	0.66	0.66	0.65	0.64	0.66	0.66	0.66
Others	0.93	0.88	0.83	0.85	0.83	0.84	0.83	0.82	0.85	0.83	0.84
<b>Europe</b>	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.11	0.11	0.11
<b>Americas</b>	5.32	5.30	5.61	5.18	5.43	5.46	5.73	5.84	5.39	5.43	5.51
Brazil	3.04	3.00	3.15	2.93	3.08	3.03	3.21	3.26	3.02	3.07	3.10
Argentina	0.61	0.64	0.70	0.67	0.69	0.70	0.71	0.71	0.69	0.69	0.70
Colombia	0.79	0.74	0.74	0.75	0.75	0.74	0.74	0.75	0.75	0.75	0.74
Ecuador	0.48	0.48	0.47	0.40	0.47	0.48	0.47	0.46	0.49	0.48	0.48
Others	0.40	0.43	0.55	0.42	0.44	0.51	0.60	0.66	0.45	0.44	0.49
<b>Middle East</b>	3.01	3.09	3.21	3.13	3.16	3.23	3.23	3.23	3.13	3.19	3.21
Oman	0.96	0.98	1.07	1.01	1.04	1.07	1.08	1.08	1.05	1.05	1.06
Qatar	1.77	1.82	1.84	1.83	1.82	1.85	1.85	1.85	1.79	1.82	1.85
Others	0.28	0.29	0.30	0.29	0.30	0.31	0.30	0.30	0.30	0.31	0.31
<b>Africa</b>	1.39	1.31	1.28	1.30	1.27	1.27	1.29	1.29	1.24	1.28	1.24
Egypt	0.60	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Others	0.79	0.74	0.72	0.73	0.71	0.70	0.73	0.72	0.67	0.71	0.67
<b>Total Non-OECD</b>	<b>30.33</b>	<b>30.50</b>	<b>29.73</b>	<b>30.84</b>	<b>31.40</b>	<b>29.59</b>	<b>28.86</b>	<b>29.10</b>	<b>31.38</b>	<b>31.39</b>	<b>30.20</b>
Processing gains <sup>5</sup>	2.11	2.25	2.29	2.32	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Global biofuels	2.63	2.75	2.92	2.69	2.43	3.03	3.29	2.93	2.47	2.48	2.78
<b>TOTAL NON-OPEC</b>	<b>63.00</b>	<b>63.71</b>	<b>64.48</b>	<b>65.03</b>	<b>64.69</b>	<b>64.01</b>	<b>64.37</b>	<b>64.86</b>	<b>64.65</b>	<b>64.92</b>	<b>64.11</b>
<b>TOTAL SUPPLY</b>	<b>93.78</b>	<b>95.25</b>		<b>97.99</b>	<b>98.42</b>				<b>98.34</b>	<b>98.85</b>	<b>98.14</b>

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

<sup>2</sup> Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. GTL in Nigeria and non-oil inputs to Saudi Arabian MTBE.

<sup>3</sup> OPEC data based on today's membership throughout the time series.

<sup>4</sup> Comprises crude oil, condensates, NGLs and oil from non-conventional sources

<sup>5</sup> Net volumetric gains and losses in refining and marine transportation losses.



**Table 3a**  
**OIL SUPPLY IN OECD COUNTRIES<sup>1</sup>**  
(thousand of barrels per day)

	2020	2021	2022	4Q21	1Q22	2Q22	3Q22	4Q22	Feb 22	Mar 22	Apr 22
<b>United States</b>											
Alaska	448	437	448	445	446	454	434	459	450	439	464
California	404	369	342	356	347	343	340	337	347	346	344
Texas	4854	4771	5205	4984	4887	5160	5369	5399	4831	4968	5063
Federal Gulf of Mexico <sup>2</sup>	1644	1701	1796	1729	1688	1799	1869	1827	1615	1734	1790
Other US Lower 48	3934	3909	4272	4118	4049	4125	4420	4488	4069	4080	3923
NGLs <sup>3</sup>	5175	5397	5639	5738	5463	5591	5611	5888	5475	5468	5563
Other Hydrocarbons	98	142	179	173	170	173	180	193	170	170	170
<b>Total</b>	<b>16556</b>	<b>16727</b>	<b>17883</b>	<b>17542</b>	<b>17050</b>	<b>17647</b>	<b>18222</b>	<b>18591</b>	<b>16956</b>	<b>17205</b>	<b>17317</b>
<b>Canada</b>											
Alberta Light/Medium/Heavy	423	436	468	459	468	470	468	465	467	487	466
Alberta Bitumen	1718	1921	2143	1963	2018	2133	2283	2136	1955	1955	2168
Saskatchewan	435	445	442	451	448	444	440	436	449	447	445
Other Crude	490	456	385	428	291	413	412	421	354	372	413
NGLs	949	1007	1032	988	1046	1027	1044	1011	1041	1052	1034
Other Upgraders	219	180	181	199	188	163	171	201	193	191	155
Synthetic Crudes	1116	1181	1166	1280	1214	1052	1102	1296	1246	1229	1000
<b>Total</b>	<b>5349</b>	<b>5625</b>	<b>5817</b>	<b>5768</b>	<b>5674</b>	<b>5702</b>	<b>5920</b>	<b>5966</b>	<b>5705</b>	<b>5732</b>	<b>5682</b>
<b>Mexico</b>											
Crude	1716	1780	1864	1803	1825	1844	1870	1916	1812	1834	1831
NGLs	206	170	165	167	170	166	163	160	170	166	168
<b>Total</b>	<b>1926</b>	<b>1954</b>	<b>2034</b>	<b>1975</b>	<b>2001</b>	<b>2015</b>	<b>2039</b>	<b>2082</b>	<b>1986</b>	<b>2006</b>	<b>2004</b>
<b>UK</b>											
Brent Fields	35	25	23	23	27	26	19	21	27	27	27
Forties Fields	297	212	217	245	242	208	199	221	241	238	237
Ninian Fields	31	24	18	20	20	19	18	17	19	19	19
Flotta Fields	51	50	40	44	42	38	41	40	41	41	42
Other Fields	575	511	533	472	513	530	562	529	534	511	507
NGLs	88	67	74	72	74	74	74	73	75	76	74
<b>Total</b>	<b>1077</b>	<b>888</b>	<b>907</b>	<b>877</b>	<b>918</b>	<b>895</b>	<b>912</b>	<b>902</b>	<b>937</b>	<b>912</b>	<b>905</b>
<b>Norway<sup>5</sup></b>											
Ekofisk-Ula Area	132	141	111	141	132	71	115	127	131	133	131
Oseberg-Troll Area	234	212	224	224	223	231	198	245	227	205	233
Statfjord-Gullfaks Area	230	262	238	268	246	241	236	231	240	248	242
Haltenbanken Area	280	284	281	296	287	285	276	279	279	290	285
Sleipner-Frigg Area	743	822	841	862	871	792	809	892	868	870	799
Other Fields	101	67	59	23	-1	68	69	99	28	8	81
NGLs	288	249	204	231	211	207	200	200	207	208	209
<b>Total</b>	<b>2007</b>	<b>2037</b>	<b>1960</b>	<b>2044</b>	<b>1969</b>	<b>1894</b>	<b>1902</b>	<b>2073</b>	<b>1980</b>	<b>1961</b>	<b>1980</b>
<b>Other OECD Europe</b>											
Denmark	71	66	65	67	67	66	64	63	68	67	66
Italy	101	100	126	114	126	126	125	124	133	127	125
Turkey	62	66	64	67	64	64	64	63	63	64	63
Other	91	99	87	97	89	89	87	85	79	91	89
NGLs	7	7	7	6	8	7	7	7	7	7	8
Non-Conventional Oils	144	120	92	105	104	90	88	88	101	89	93
<b>Total</b>	<b>474</b>	<b>457</b>	<b>441</b>	<b>456</b>	<b>457</b>	<b>441</b>	<b>435</b>	<b>430</b>	<b>451</b>	<b>446</b>	<b>445</b>
<b>Australia</b>											
Gippsland Basin	8	4	4	4	4	4	4	3	4	4	4
Cooper-Eromanga Basin	35	23	19	21	20	20	19	19	20	20	20
Carnarvon Basin	106	112	112	118	116	113	111	108	116	115	114
Other Crude	202	195	179	202	175	179	181	184	169	182	178
NGLs	102	99	103	101	104	103	102	102	107	102	104
<b>Total</b>	<b>453</b>	<b>434</b>	<b>417</b>	<b>446</b>	<b>418</b>	<b>418</b>	<b>417</b>	<b>416</b>	<b>415</b>	<b>422</b>	<b>419</b>
<b>Other OECD Asia Oceania</b>											
New Zealand	21	18	17	18	16	17	17	16	16	17	17
Japan	4	4	4	4	4	4	4	4	4	4	4
NGLs	11	11	10	11	11	10	10	10	12	10	10
Non-Conventional Oils	34	37	41	35	41	41	40	40	42	39	41
<b>Total</b>	<b>71</b>	<b>71</b>	<b>71</b>	<b>68</b>	<b>72</b>	<b>71</b>	<b>71</b>	<b>70</b>	<b>74</b>	<b>70</b>	<b>72</b>
<b>OECD</b>											
Crude Oil	19475	19525	20631	20066	19750	20376	21121	21257	19656	19943	20193
NGLs	6834	7013	7244	7324	7096	7195	7220	7460	7102	7099	7178
Non-Conventional Oils <sup>4</sup>	1615	1664	1664	1796	1722	1523	1587	1823	1757	1724	1464
<b>Total</b>	<b>27923</b>	<b>28202</b>	<b>29539</b>	<b>29186</b>	<b>28568</b>	<b>29095</b>	<b>29928</b>	<b>30540</b>	<b>28516</b>	<b>28766</b>	<b>28835</b>

<sup>1</sup> Subcategories refer to crude oil only unless otherwise noted.

<sup>2</sup> Only production from Federal waters is included.

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

<sup>4</sup> Does not include biofuels.

<sup>5</sup> 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.

<sup>6</sup> Other North Sea NGLs are included.

**Table 3b**  
**WORLD OIL PRODUCTION (Including OPEC+ based on current agreement<sup>1</sup>)**  
(million barrels per day)

	2020	2021	2022	1Q21	2Q21	3Q21	4Q21	1Q22	Jan 22	Mar 22	Apr 22
<b>OPEC+</b>											
<b>Crude Oil</b>											
Algeria	0.90	0.91	0.99	0.87	0.89	0.92	0.96	0.99	0.98	1.00	1.00
Angola	1.27	1.12	1.13	1.14	1.12	1.11	1.12	1.16	1.19	1.14	1.18
Azerbaijan	0.61	0.59	0.57	0.59	0.60	0.60	0.59	0.58	0.58	0.58	0.58
Bahrain	0.17	0.17	0.19	0.17	0.17	0.18	0.18	0.18	0.16	0.20	0.19
Brunei	0.08	0.08	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.09
Congo	0.30	0.27	0.28	0.28	0.27	0.27	0.26	0.27	0.28	0.26	0.27
Equatorial Guinea	0.11	0.10	0.10	0.11	0.11	0.10	0.08	0.09	0.09	0.09	0.10
Gabon	0.20	0.18	0.18	0.17	0.18	0.18	0.19	0.19	0.18	0.20	0.19
Iran	2.00	2.42	2.55	2.32	2.40	2.47	2.48	2.56	2.52	2.58	2.55
Iraq	4.05	4.03	4.50	3.88	3.94	4.06	4.24	4.29	4.30	4.33	4.42
Kazakhstan	1.50	1.52	1.56	1.49	1.52	1.41	1.66	1.63	1.63	1.60	1.41
Kuwait	2.41	2.42	2.72	2.34	2.35	2.44	2.53	2.61	2.57	2.64	2.65
Libya	0.35	1.15	1.11	1.15	1.15	1.16	1.12	1.08	1.00	1.10	0.90
Malaysia	0.46	0.42	0.42	0.45	0.43	0.39	0.40	0.42	0.40	0.43	0.41
Mexico	1.66	1.66	1.66	1.67	1.69	1.65	1.65	1.64	1.65	1.63	1.64
Nigeria	1.49	1.31	1.34	1.39	1.34	1.27	1.24	1.30	1.38	1.25	1.23
Oman	0.76	0.75	0.84	0.73	0.74	0.76	0.78	0.82	0.81	0.83	0.84
Russia	9.42	9.62	8.23	9.26	9.54	9.72	9.95	10.04	10.07	10.00	9.10
Saudi Arabia	9.21	9.15	10.66	8.51	8.56	9.60	9.91	10.20	10.10	10.28	10.40
South Sudan	0.16	0.15	0.15	0.14	0.16	0.16	0.15	0.14	0.15	0.13	0.14
Sudan	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
UAE	2.87	2.76	3.10	2.65	2.68	2.80	2.90	3.01	3.05	3.03	3.03
Venezuela	0.53	0.61	0.74	0.55	0.55	0.59	0.76	0.71	0.69	0.72	0.75
<b>Total Crude Oil</b>	<b>40.57</b>	<b>41.47</b>	<b>43.14</b>	<b>40.02</b>	<b>40.54</b>	<b>41.98</b>	<b>43.31</b>	<b>44.04</b>	<b>43.93</b>	<b>44.15</b>	<b>43.12</b>
<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>0.30</i>	<i>0.28</i>	<i>0.29</i>
<b>Total NGLs</b>	<b>7.36</b>	<b>7.50</b>	<b>8.00</b>	<b>7.48</b>	<b>7.48</b>	<b>7.39</b>	<b>7.64</b>	<b>7.86</b>	<b>7.80</b>	<b>7.92</b>	<b>7.85</b>
<b>TOTAL OPEC+</b>	<b>47.9</b>	<b>49.0</b>	<b>51.1</b>	<b>47.5</b>	<b>48.0</b>	<b>49.4</b>	<b>51.0</b>	<b>51.9</b>	<b>51.7</b>	<b>52.1</b>	<b>51.0</b>
<b>NON-OPEC+</b>											
<b>OECD</b>											
<b>Americas<sup>2</sup></b>											
United States	16.56	16.73	17.88	15.68	16.88	16.79	17.54	17.05	16.98	17.21	17.32
Canada	5.35	5.63	5.82	5.69	5.42	5.63	5.77	5.67	5.59	5.73	5.68
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>Europe</b>											
UK	1.08	0.89	0.91	1.03	0.77	0.88	0.88	0.92	0.91	0.91	0.91
Norway	2.01	2.04	1.96	2.14	1.92	2.05	2.04	1.97	1.97	1.96	1.98
Others	0.47	0.46	0.44	0.47	0.45	0.46	0.46	0.46	0.47	0.45	0.44
<b>Asia Oceania</b>											
Australia	0.45	0.43	0.42	0.44	0.39	0.46	0.45	0.42	0.42	0.42	0.42
Others	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07
<b>Total OECD (non-OPEC+)</b>	<b>26.00</b>	<b>26.25</b>	<b>27.50</b>	<b>25.51</b>	<b>25.89</b>	<b>26.36</b>	<b>27.21</b>	<b>26.57</b>	<b>26.41</b>	<b>26.76</b>	<b>26.83</b>
<b>Non-OECD</b>											
<b>FSU</b>											
Asia	6.27	6.24	6.31	6.29	6.28	6.25	6.15	6.35	6.33	6.36	6.34
China	3.97	4.06	4.23	4.06	4.09	4.08	4.01	4.23	4.22	4.25	4.24
India	0.75	0.73	0.70	0.74	0.72	0.73	0.72	0.72	0.71	0.72	0.71
Indonesia	0.73	0.68	0.65	0.70	0.68	0.68	0.67	0.66	0.67	0.66	0.66
Others	0.82	0.77	0.73	0.79	0.79	0.76	0.74	0.74	0.73	0.73	0.73
<b>Europe</b>											
Americas	5.32	5.30	5.61	5.27	5.31	5.42	5.18	5.43	5.46	5.43	5.51
Brazil	3.04	3.00	3.15	2.95	3.04	3.10	2.93	3.08	3.14	3.07	3.10
Argentina	0.61	0.64	0.70	0.62	0.63	0.64	0.67	0.69	0.69	0.69	0.70
Colombia	0.79	0.74	0.74	0.75	0.72	0.75	0.75	0.75	0.75	0.75	0.74
Ecuador	0.48	0.48	0.47	0.51	0.50	0.49	0.40	0.47	0.46	0.48	0.48
Others	0.4	0.4	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
<b>Middle East</b>											
Qatar	1.77	1.82	1.84	1.82	1.82	1.82	1.83	1.82	1.85	1.82	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
<b>Africa</b>											
Egypt	0.60	0.57	0.57	0.57	0.58	0.56	0.57	0.57	0.57	0.57	0.57
Others	0.57	0.53	0.51	0.54	0.53	0.52	0.52	0.51	0.52	0.53	0.48
<b>Total non-OECD (non-OPEC+)</b>	<b>15.11</b>	<b>15.03</b>	<b>15.38</b>	<b>15.06</b>	<b>15.09</b>	<b>15.15</b>	<b>14.82</b>	<b>15.24</b>	<b>15.30</b>	<b>15.26</b>	<b>15.27</b>
Processing gains	2.11	2.25	2.29	2.13	2.22	2.34	2.32	2.29	2.29	2.29	2.29
Global biofuels	2.63	2.75	2.92	2.18	2.94	3.19	2.69	2.43	2.34	2.48	2.78
<b>TOTAL NON-OPEC+</b>	<b>45.85</b>	<b>46.28</b>	<b>48.10</b>	<b>44.88</b>	<b>46.14</b>	<b>47.04</b>	<b>47.04</b>	<b>46.53</b>	<b>46.34</b>	<b>46.78</b>	<b>47.17</b>
<b>TOTAL SUPPLY</b>	<b>93.78</b>	<b>95.25</b>	<b>99.24</b>	<b>92.39</b>	<b>94.16</b>	<b>96.40</b>	<b>97.99</b>	<b>98.42</b>	<b>98.06</b>	<b>98.85</b>	<b>98.14</b>

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

<sup>2</sup> Excludes Mexico

**Table 4**  
**OECD STOCKS AND QUARTERLY STOCK CHANGES**

	RECENT MONTHLY STOCKS <sup>2</sup>					PRIOR YEARS' STOCKS <sup>2</sup>			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Nov2021	Dec2021	Jan2022	Feb2022	Mar2022 <sup>3</sup>	Mar2019	Mar2020	Mar2021	2Q2021	3Q2021	4Q2021	1Q2022
<b>OECD INDUSTRY-CONTROLLED STOCKS<sup>1</sup></b>												
<b>OECD Americas</b>												
Crude	605.1	588.5	570.5	561.0	561.0	605.1	635.6	664.6	-0.58	-0.33	0.07	-0.31
Motor Gasoline	247.6	259.8	280.8	279.9	271.5	267.3	292.0	266.7	-0.02	-0.13	0.07	0.13
Middle Distillate	196.2	195.4	193.7	190.9	185.7	207.5	198.5	215.4	-0.01	-0.12	-0.09	-0.11
Residual Fuel Oil	35.0	31.9	33.7	34.7	36.5	33.9	40.8	39.5	-0.01	-0.04	-0.03	0.05
Total Products <sup>4</sup>	739.9	725.9	725.7	705.3	695.0	737.5	772.5	742.0	0.26	-0.03	-0.40	-0.34
<b>Total<sup>4</sup></b>	<b>1505.1</b>	<b>1465.8</b>	<b>1452.2</b>	<b>1424.1</b>	<b>1417.4</b>	<b>1503.4</b>	<b>1583.1</b>	<b>1569.9</b>	<b>-0.29</b>	<b>-0.39</b>	<b>-0.45</b>	<b>-0.54</b>
<b>OECD Europe</b>												
Crude	313.3	300.5	295.0	311.0	327.4	363.5	363.9	352.9	-0.12	-0.38	-0.06	0.30
Motor Gasoline	87.9	86.8	94.9	92.6	89.7	98.7	99.5	90.3	-0.04	-0.07	0.07	0.03
Middle Distillate	255.9	244.5	256.2	244.7	241.2	268.0	292.4	312.2	-0.06	-0.37	-0.31	-0.04
Residual Fuel Oil	60.8	59.6	61.1	62.0	60.8	59.4	71.0	66.6	-0.03	-0.01	-0.04	0.01
Total Products <sup>4</sup>	502.2	487.9	510.4	496.8	485.8	540.9	586.3	572.6	-0.19	-0.44	-0.29	-0.02
<b>Total<sup>5</sup></b>	<b>888.7</b>	<b>857.2</b>	<b>877.3</b>	<b>881.7</b>	<b>890.7</b>	<b>988.9</b>	<b>1032.9</b>	<b>1002.3</b>	<b>-0.31</b>	<b>-0.89</b>	<b>-0.38</b>	<b>0.37</b>
<b>OECD Asia Oceania</b>												
Crude	108.8	99.4	97.6	97.9	104.3	158.8	132.0	123.8	0.01	-0.17	-0.11	0.06
Motor Gasoline	24.5	24.0	27.0	27.6	26.9	26.7	26.3	29.1	0.00	-0.03	-0.03	0.03
Middle Distillate	70.2	64.2	61.8	60.8	59.3	67.4	68.0	63.2	0.02	0.07	-0.09	-0.05
Residual Fuel Oil	16.0	16.9	16.9	18.0	15.6	19.3	18.7	17.1	0.00	0.02	-0.02	-0.01
Total Products <sup>4</sup>	175.0	162.8	168.8	165.4	161.2	166.2	172.5	166.2	0.05	0.15	-0.23	-0.02
<b>Total<sup>5</sup></b>	<b>344.9</b>	<b>323.7</b>	<b>323.7</b>	<b>317.2</b>	<b>317.7</b>	<b>381.3</b>	<b>365.9</b>	<b>346.3</b>	<b>0.12</b>	<b>-0.02</b>	<b>-0.34</b>	<b>-0.07</b>
<b>Total OECD</b>												
Crude	1027.2	988.4	963.1	969.9	992.7	1127.4	1131.5	1141.3	-0.69	-0.88	-0.10	0.05
Motor Gasoline	360.0	370.6	402.7	400.1	388.0	392.7	417.8	386.1	-0.06	-0.22	0.11	0.19
Middle Distillate	522.3	504.2	511.8	496.4	486.2	542.9	558.9	590.7	-0.04	-0.42	-0.48	-0.20
Residual Fuel Oil	111.8	108.4	111.7	114.7	112.9	112.6	130.5	123.2	-0.04	-0.03	-0.09	0.05
Total Products <sup>4</sup>	1417.1	1376.6	1404.9	1367.5	1342.0	1444.5	1531.2	1480.8	0.11	-0.32	-0.92	-0.38
<b>Total<sup>5</sup></b>	<b>2738.7</b>	<b>2646.7</b>	<b>2653.1</b>	<b>2622.9</b>	<b>2625.8</b>	<b>2873.6</b>	<b>2981.8</b>	<b>2918.5</b>	<b>-0.48</b>	<b>-1.30</b>	<b>-1.18</b>	<b>-0.23</b>
<b>OECD GOVERNMENT-CONTROLLED STOCKS<sup>6</sup></b>												
<b>OECD Americas</b>												
Crude	601.5	593.7	588.3	578.9	564.9	649.1	635.0	637.8	-0.18	-0.04	-0.26	-0.32
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
<b>OECD Europe</b>												
Crude	202.4	200.3	199.6	198.9	197.5	208.9	206.8	207.3	-0.02	0.00	-0.05	-0.03
Products	275.2	277.0	276.5	274.8	267.8	276.5	275.4	283.2	-0.05	-0.01	-0.01	-0.10
<b>OECD Asia Oceania</b>												
Crude	370.5	370.1	370.1	370.1	367.8	378.6	377.4	374.6	0.00	-0.05	0.01	-0.03
Products	38.9	38.9	38.4	38.0	37.9	38.8	38.9	38.8	0.00	0.00	0.00	-0.01
<b>Total OECD</b>												
Crude	1174.3	1164.0	1158.0	1147.9	1130.2	1236.6	1219.2	1219.6	-0.20	-0.10	-0.31	-0.38
Products	316.1	317.9	316.9	314.8	307.6	317.3	316.3	324.0	-0.05	-0.01	-0.01	-0.11
<b>Total<sup>5</sup></b>	<b>1492.4</b>	<b>1483.8</b>	<b>1476.4</b>	<b>1464.2</b>	<b>1439.5</b>	<b>1556.9</b>	<b>1537.3</b>	<b>1545.8</b>	<b>-0.24</b>	<b>-0.12</b>	<b>-0.31</b>	<b>-0.49</b>

<sup>1</sup> 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.

<sup>2</sup> Closing stock levels.

<sup>3</sup> Estimated.

<sup>4</sup> Total products includes gasoline, middle distillates, fuel oil and other products.

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

<sup>6</sup> Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

**Table 4a**  
**INDUSTRY STOCKS<sup>1</sup> ON LAND IN SELECTED COUNTRIES**

(million barrels)

	October			November			December			January			February		
	2020	2021	%	2020	2021	%	2020	2021	%	2021	2022	%	2021	2022	%
<b>United States<sup>2</sup></b>															
Crude	493.9	436.6	-11.6	500.8	434.0	-13.3	485.5	421.4	-13.2	475.9	414.3	-12.9	493.2	409.1	-17.1
Motor Gasoline	227.6	216.7	-4.8	241.2	220.6	-8.5	243.4	232.2	-4.6	255.1	251.8	-1.3	241.1	250.4	3.9
Middle Distillate	196.4	175.5	-10.6	197.5	171.0	-13.4	202.5	168.0	-17.0	207.8	165.3	-20.5	185.3	162.2	-12.5
Residual Fuel Oil	31.2	28.4	-9.0	31.1	27.6	-11.3	30.2	25.4	-15.9	32.0	26.7	-16.6	31.2	27.5	-11.9
Other Products	292.7	250.8	-14.3	273.2	239.3	-12.4	241.9	217.2	-10.2	213.5	195.4	-8.5	198.5	178.0	-10.3
Total Products	747.9	671.4	-10.2	743.0	658.5	-11.4	718.0	642.8	-10.5	708.4	639.2	-9.8	656.1	618.1	-5.8
Other <sup>3</sup>	144.4	139.4	-3.5	144.9	136.1	-6.1	139.9	129.6	-7.4	145.7	136.4	-6.4	145.6	138.2	-5.1
<b>Total</b>	<b>1386.2</b>	<b>1247.4</b>	<b>-10.0</b>	<b>1388.7</b>	<b>1228.6</b>	<b>-11.5</b>	<b>1343.4</b>	<b>1193.8</b>	<b>-11.1</b>	<b>1330.0</b>	<b>1189.9</b>	<b>-10.5</b>	<b>1294.9</b>	<b>1165.4</b>	<b>-10.0</b>
<b>Japan</b>															
Crude	89.7	72.8	-18.8	79.6	78.1	-1.9	79.8	72.9	-8.6	77.0	69.2	-10.1	77.0	70.7	-8.2
Motor Gasoline	12.1	11.6	-4.1	12.5	10.4	-16.8	12.5	10.4	-16.8	13.5	11.3	-16.3	13.0	11.0	-15.4
Middle Distillate	38.3	36.6	-4.4	38.6	36.9	-4.4	34.6	33.0	-4.6	33.5	30.8	-8.1	30.1	26.7	-11.3
Residual Fuel Oil	6.9	6.9	0.0	7.0	6.5	-7.1	6.6	7.3	10.6	6.9	7.0	1.4	7.1	6.5	-8.5
Other Products	36.0	39.1	8.6	35.5	36.4	2.5	32.3	33.0	2.2	31.0	34.6	11.6	32.9	32.2	-2.1
Total Products	93.3	94.2	1.0	93.6	90.2	-3.6	86.0	83.7	-2.7	84.9	83.7	-1.4	83.1	76.4	-8.1
Other <sup>3</sup>	52.5	49.9	-5.0	52.4	50.9	-2.9	49.9	51.1	2.4	50.1	47.6	-5.0	49.1	43.7	-11.0
<b>Total</b>	<b>235.5</b>	<b>216.9</b>	<b>-7.9</b>	<b>225.6</b>	<b>219.2</b>	<b>-2.8</b>	<b>215.7</b>	<b>207.7</b>	<b>-3.7</b>	<b>212.0</b>	<b>200.5</b>	<b>-5.4</b>	<b>209.2</b>	<b>190.8</b>	<b>-8.8</b>
<b>Germany</b>															
Crude	48.8	46.5	-4.7	50.1	47.0	-6.2	51.9	46.2	-11.0	52.7	46.1	-12.5	49.5	47.3	-4.4
Motor Gasoline	10.2	10.6	3.9	11.7	10.6	-9.4	10.9	10.7	-1.8	12.6	11.0	-12.7	11.6	10.6	-8.6
Middle Distillate	21.7	21.2	-2.3	24.3	22.4	-7.8	23.3	21.8	-6.4	27.5	23.1	-16.0	25.7	21.6	-16.0
Residual Fuel Oil	7.1	8.1	14.1	7.2	8.5	18.1	6.6	8.4	27.3	7.1	8.5	19.7	7.6	8.6	13.2
Other Products	9.7	10.8	11.3	9.1	10.5	15.4	9.3	10.7	15.1	9.3	10.2	9.7	9.4	10.0	6.4
Total Products	48.7	50.7	4.1	52.3	52.0	-0.6	50.1	51.6	3.0	56.5	52.8	-6.5	54.3	50.8	-6.4
Other <sup>3</sup>	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
<b>Total</b>	<b>97.5</b>	<b>97.2</b>	<b>-0.3</b>	<b>102.4</b>	<b>99.0</b>	<b>-3.3</b>	<b>102.0</b>	<b>97.8</b>	<b>-4.1</b>	<b>109.2</b>	<b>98.9</b>	<b>-9.4</b>	<b>103.8</b>	<b>98.1</b>	<b>-5.5</b>
<b>Italy</b>															
Crude	40.4	31.8	-21.3	36.7	36.1	-1.6	40.1	33.0	-17.7	37.4	29.9	-20.1	34.3	30.4	-11.4
Motor Gasoline	11.8	11.7	-0.8	12.8	11.3	-11.7	11.9	10.0	-16.0	11.6	12.7	9.5	10.6	11.3	6.6
Middle Distillate	29.2	25.1	-14.0	29.3	23.8	-18.8	26.9	23.7	-11.9	29.0	26.4	-9.0	28.1	23.8	-15.3
Residual Fuel Oil	7.9	7.1	-10.1	7.6	7.5	-1.3	7.9	7.1	-10.1	8.4	7.5	-10.7	7.7	8.1	5.2
Other Products	19.4	11.1	-42.8	19.9	10.9	-45.2	19.3	10.0	-48.2	16.2	11.2	-30.9	14.0	11.3	-19.3
Total Products	68.3	55.0	-19.5	69.6	53.5	-23.1	66.0	50.8	-23.0	65.2	57.8	-11.3	60.4	54.5	-9.8
Other <sup>3</sup>	16.1	15.4	-4.3	17.0	14.5	-14.7	16.6	13.1	-21.1	15.1	13.5	-10.6	14.5	13.1	-9.7
<b>Total</b>	<b>124.8</b>	<b>102.2</b>	<b>-18.1</b>	<b>123.3</b>	<b>104.1</b>	<b>-15.6</b>	<b>122.7</b>	<b>96.9</b>	<b>-21.0</b>	<b>117.7</b>	<b>101.2</b>	<b>-14.0</b>	<b>109.2</b>	<b>98.0</b>	<b>-10.3</b>
<b>France</b>															
Crude	9.4	12.6	34.0	13.3	11.9	-10.5	12.4	8.8	-29.0	13.4	9.2	-31.3	12.3	12.4	0.8
Motor Gasoline	5.4	4.0	-25.9	6.1	4.1	-32.8	4.8	4.5	-6.3	4.9	5.1	4.1	5.4	4.5	-16.7
Middle Distillate	24.4	17.0	-30.3	24.1	18.0	-25.3	21.5	18.6	-13.5	23.4	20.1	-14.1	25.2	16.5	-34.5
Residual Fuel Oil	1.5	1.6	6.7	1.7	1.7	0.0	2.3	0.9	-60.9	2.1	1.3	-38.1	1.8	1.3	-27.8
Other Products	4.1	3.3	-19.5	4.3	3.4	-20.9	3.4	3.4	0.0	3.5	3.4	-2.9	3.5	3.5	0.0
Total Products	35.4	25.9	-26.8	36.2	27.2	-24.9	32.0	27.4	-14.4	33.9	29.9	-11.8	35.9	25.8	-28.1
Other <sup>3</sup>	8.2	7.0	-14.6	7.6	6.5	-14.5	6.5	6.9	6.2	7.0	7.2	2.9	7.9	7.1	-10.1
<b>Total</b>	<b>53.0</b>	<b>45.5</b>	<b>-14.2</b>	<b>57.1</b>	<b>45.6</b>	<b>-20.1</b>	<b>50.9</b>	<b>43.1</b>	<b>-15.3</b>	<b>54.3</b>	<b>46.3</b>	<b>-14.7</b>	<b>56.1</b>	<b>45.3</b>	<b>-19.3</b>
<b>United Kingdom</b>															
Crude	27.8	24.8	-10.8	26.1	23.4	-10.3	27.9	26.2	-6.1	27.5	22.7	-17.5	24.2	26.2	8.3
Motor Gasoline	10.4	9.5	-8.7	10.7	9.8	-8.4	11.3	10.1	-10.6	12.1	10.6	-12.4	10.3	9.6	-6.8
Middle Distillate	32.5	21.3	-34.5	30.6	22.1	-27.8	30.7	21.0	-31.6	31.6	20.4	-35.4	29.4	19.8	-32.7
Residual Fuel Oil	1.1	1.3	18.2	1.1	1.6	45.5	1.2	1.3	8.3	1.5	1.2	-20.0	1.2	1.5	25.0
Other Products	6.6	6.5	-1.5	6.5	6.1	-6.2	6.9	6.1	-11.6	6.8	6.0	-11.8	6.3	6.3	0.0
Total Products	50.6	38.6	-23.7	48.9	39.6	-19.0	50.1	38.5	-23.2	52.0	38.2	-26.5	47.2	37.2	-21.2
Other <sup>3</sup>	8.5	9.0	5.9	8.7	9.1	4.6	7.4	8.1	9.5	7.3	7.6	4.1	7.1	7.9	11.3
<b>Total</b>	<b>86.9</b>	<b>72.4</b>	<b>-16.7</b>	<b>83.7</b>	<b>72.1</b>	<b>-13.9</b>	<b>85.4</b>	<b>72.8</b>	<b>-14.8</b>	<b>86.8</b>	<b>68.5</b>	<b>-21.1</b>	<b>78.5</b>	<b>71.3</b>	<b>-9.2</b>
<b>Canada<sup>4</sup></b>															
Crude	118.4	137.9	16.5	122.2	137.5	12.5	124.4	132.3	6.4	124.0	121.7	-1.9	124.8	118.7	-4.9
Motor Gasoline	16.6	15.1	-9.0	17.5	16.1	-8.0	17.3	16.0	-7.5	17.8	17.5	-1.7	16.4	16.5	0.6
Middle Distillate	18.0	16.7	-7.2	18.2	17.6	-3.3	19.6	18.3	-6.6	20.7	18.7	-9.7	20.3	18.0	-11.3
Residual Fuel Oil	2.7	2.7	0.0	2.6	2.2	-15.4	2.3	2.1	-8.7	2.7	1.7	-37.0	2.3	2.2	-4.3
Other Products	11.0	10.7	-2.7	11.2	12.0	7.1	10.8	11.8	9.3	11.9	12.2	2.5	12.5	12.9	3.2
Total Products	48.3	45.2	-6.4	49.5	47.9	-3.2	50.0	48.2	-3.6	53.1	50.1	-5.6	51.5	49.6	-3.7
Other <sup>3</sup>	30.3	25.3	-16.5	29.4	23.8	-19.0	27.3	21.7	-20.5	23.8	19.4	-18.5	20.2	19.3	-4.5
<b>Total</b>	<b>197.0</b>	<b>208.4</b>	<b>5.8</b>	<b>201.1</b>	<b>209.2</b>	<b>4.0</b>	<b>201.7</b>	<b>202.2</b>	<b>0.2</b>	<b>200.9</b>	<b>191.2</b>	<b>-4.8</b>	<b>196.5</b>	<b>187.6</b>	<b>-4.5</b>

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

<sup>2</sup> US figures exclude US territories.

<sup>3</sup> Other includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

<sup>4</sup> Canadian stock information for recent months is the administration's best estimate. Data are usually finalised three months after first publication.

**Table 5**  
**TOTAL STOCKS ON LAND IN OECD COUNTRIES<sup>1</sup>**  
(millions of barrels<sup>2</sup> and days<sup>3</sup>)

	End March 2021		End June 2021		End September 2021		End December 2021		End March 2022 <sup>3</sup>	
	Stock Level	Days Fwd <sup>2</sup> Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
<b>OECD Americas</b>										
Canada	198.3	89	201.6	81	198.3	82	202.3	-	-	-
Chile	9.7	30	11.7	31	10.4	28	10.8	-	-	-
Mexico	38.1	27	36.4	26	36.0	24	36.7	-	-	-
United States <sup>4</sup>	1941.5	97	1894.8	94	1860.5	91	1789.5	-	-	-
<b>Total<sup>4</sup></b>	<b>2209.7</b>	<b>91</b>	<b>2166.6</b>	<b>88</b>	<b>2127.3</b>	<b>86</b>	<b>2061.5</b>	<b>84</b>	<b>1984.3</b>	<b>80</b>
<b>OECD Asia Oceania</b>										
Australia	43.5	40	39.8	40	41.1	38	37.8	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	506.5	164	528.6	166	525.1	143	519.4	-	-	-
Korea	201.5	81	194.9	75	189.3	70	168.8	-	-	-
New Zealand	8.3	57	7.6	56	8.3	54	6.8	-	-	-
<b>Total</b>	<b>759.7</b>	<b>108</b>	<b>770.9</b>	<b>108</b>	<b>763.7</b>	<b>98</b>	<b>732.8</b>	<b>93</b>	<b>723.4</b>	<b>100</b>
<b>OECD Europe<sup>5</sup></b>										
Austria	23.6	97	23.0	84	21.1	83	20.9	-	-	-
Belgium	51.2	82	51.0	83	47.1	70	43.3	-	-	-
Czech Republic	23.1	108	21.8	93	21.7	97	22.5	-	-	-
Denmark	31.7	229	28.1	189	25.3	171	23.8	-	-	-
Estonia	2.9	107	2.9	99	2.7	102	2.5	-	-	-
Finland	39.1	230	39.5	209	37.3	191	36.2	-	-	-
France	162.1	112	163.0	100	157.3	98	151.6	-	-	-
Germany	278.0	134	275.7	123	270.4	116	268.9	-	-	-
Greece	34.4	144	30.5	100	26.4	92	28.4	-	-	-
Hungary	25.8	147	25.6	135	25.9	138	27.0	-	-	-
Ireland	11.7	87	12.0	83	10.6	66	10.8	-	-	-
Italy	126.8	110	128.9	103	118.0	94	112.5	-	-	-
Latvia	3.0	82	3.0	70	2.7	75	2.6	-	-	-
Lithuania	7.8	116	8.5	113	9.1	131	8.2	-	-	-
Luxembourg	0.6	13	0.8	14	0.5	9	0.6	-	-	-
Netherlands	158.1	196	147.2	181	125.8	160	109.5	-	-	-
Norway	28.2	146	23.6	99	20.2	81	21.4	-	-	-
Poland	82.7	126	80.0	103	78.1	104	80.6	-	-	-
Portugal	20.7	98	19.9	90	19.0	82	20.9	-	-	-
Slovak Republic	12.3	144	12.3	136	12.2	138	12.2	-	-	-
Slovenia	5.3	117	5.3	104	4.9	99	5.2	-	-	-
Spain	121.7	107	118.8	96	111.6	89	104.9	-	-	-
Sweden	48.8	162	45.2	144	38.3	123	30.1	-	-	-
Switzerland	33.7	192	32.9	178	33.4	156	31.5	-	-	-
Turkey	84.4	91	85.1	74	85.6	82	87.4	-	-	-
United Kingdom	76.9	61	76.2	58	71.6	52	72.8	-	-	-
<b>Total</b>	<b>1494.9</b>	<b>118</b>	<b>1461.0</b>	<b>106</b>	<b>1377.0</b>	<b>99</b>	<b>1336.2</b>	<b>102</b>	<b>1357.6</b>	<b>101</b>
<b>Total OECD</b>	<b>4464.2</b>	<b>102</b>	<b>4398.5</b>	<b>97</b>	<b>4268.0</b>	<b>92</b>	<b>4130.5</b>	<b>91</b>	<b>4065.3</b>	<b>89</b>
<b>DAYS OF IEA Net Imports<sup>6</sup> -</b>	<b>240</b>	<b>-</b>	<b>167</b>	<b>-</b>	<b>160</b>	<b>-</b>	<b>156</b>	<b>-</b>	<b>-</b>	<b>-</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> End March 2022 forward demand figures are IEA Secretariat forecasts.

<sup>4</sup> US figures exclude US territories. Total includes US territories.

<sup>5</sup> Data not available for Iceland.

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

### TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government <sup>1</sup> controlled Millions of Barrels	Industry	Total	Government <sup>1</sup> controlled Days of Fwd. Demand <sup>2</sup>	Industry
1Q2019	4430	1557	2874	94	33	61
2Q2019	4483	1549	2934	93	32	61
3Q2019	4488	1544	2944	94	32	62
4Q2019	4429	1535	2894	98	34	64
1Q2020	4519	1537	2982	121	41	80
2Q2020	4779	1561	3217	113	37	76
3Q2020	4733	1551	3182	111	36	74
4Q2020	4579	1541	3038	109	37	72
1Q2021	4464	1546	2918	102	35	67
2Q2021	4398	1524	2875	97	33	63
3Q2021	4268	1513	2755	92	33	59
4Q2021	4130	1484	2647	91	33	58
1Q2022	4065	1439	2626	89	32	58

<sup>1</sup> Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

<sup>2</sup> Days of forward demand calculated using actual demand except in 1Q2022 (where latest forecasts are used).

**Table 6**  
**IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS<sup>1</sup>**  
(million barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier	
											Feb 21	change
Saudi Light & Extra Light												
Americas	0.20	0.26	0.34	0.18	0.31	0.45	0.43	0.45	0.36	0.42	0.08	0.33
Europe	0.68	0.59	0.48	0.43	0.40	0.55	0.55	0.53	0.51	0.48	0.41	0.08
Asia Oceania	1.42	1.39	1.30	1.41	1.12	1.18	1.48	1.77	1.65	1.59	1.60	-0.01
Saudi Medium												
Americas	0.12	0.14	0.01	0.06	-	-	-	-	-	-	-	-
Europe	0.02	0.02	0.01	0.01	-	0.02	-	-	-	-	-	-
Asia Oceania	0.23	0.25	0.21	0.22	0.17	0.19	0.26	0.27	0.25	0.17	0.19	-0.02
Canada Heavy												
Americas	2.27	2.39	2.59	2.62	2.43	2.47	2.82	2.89	2.49	2.92	2.51	0.41
Europe	0.04	0.03	0.03	0.04	0.03	0.04	0.03	0.04	0.02	0.02	0.06	-0.03
Asia Oceania	0.00	0.00	0.02	0.01	0.04	0.01	0.00	-	-	0.01	0.02	-0.01
Iraqi Basrah Light <sup>2</sup>												
Americas	0.31	0.11	0.08	0.06	0.05	0.04	0.17	0.26	0.21	0.15	-	-
Europe	0.85	0.58	0.62	0.56	0.63	0.60	0.68	0.49	0.30	0.49	0.58	-0.09
Asia Oceania	0.37	0.22	0.17	0.15	0.17	0.16	0.19	0.19	0.12	0.21	0.17	0.03
Kuwait Blend												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.11	0.04	-	-	-	-	-	-	-	-	-	-
Asia Oceania	0.61	0.55	0.48	0.47	0.45	0.47	0.52	0.50	0.61	0.56	0.51	0.05
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.00	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	0.00	-	-	-	-	-	-	-	-	-	-	-
Iranian Heavy <sup>3</sup>												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.04	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	0.14	-	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.00	-	0.00	-	0.00	0.01	-	-	-	-	-	-
Europe	0.37	0.42	0.36	0.39	0.28	0.36	0.40	0.46	0.48	0.31	0.40	-0.10
Asia Oceania	0.01	0.03	0.05	0.08	0.07	-	0.05	0.06	-	0.08	0.07	0.00
Kazakhstan												
Americas	-	-	0.01	-	0.03	-	-	-	-	-	-	-
Europe	0.76	0.74	0.70	0.73	0.73	0.68	0.66	0.75	0.88	0.78	0.64	0.14
Asia Oceania	0.18	0.07	0.09	0.07	0.10	0.10	0.10	0.14	0.10	0.15	0.08	0.08
Venezuelan 22 API and heavier												
Americas	0.05	-	-	-	-	-	-	-	-	-	-	-
Europe	0.09	0.04	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.51	0.48	0.40	0.36	0.45	0.45	0.32	0.30	0.40	0.32	0.33	-0.01
Europe	0.19	0.16	0.14	0.15	0.15	0.13	0.12	0.13	0.13	0.10	0.18	-0.08
Asia Oceania	0.13	0.12	0.14	0.15	0.12	0.14	0.13	0.10	0.09	0.11	0.18	-0.07
Russian Urals												
Americas	0.01	-	-	-	-	-	-	-	-	-	-	-
Europe	1.37	1.12	1.05	0.97	0.99	1.08	1.14	0.97	1.23	1.06	0.91	0.15
Asia Oceania	-	-	0.01	0.01	-	0.03	-	-	-	-	0.03	-
Cabinda and Other Angola												
North America	0.01	0.01	-	-	-	-	-	-	-	-	-	-
Europe	0.15	0.12	0.03	0.02	0.04	0.03	0.04	0.03	0.03	0.03	-	-
Pacific	0.00	-	-	-	-	-	-	-	-	-	-	-
Nigerian Light <sup>4</sup>												
Americas	0.03	-	0.02	-	0.06	0.03	-	-	-	-	-	-
Europe	0.51	0.49	0.41	0.41	0.30	0.40	0.52	0.48	0.38	0.45	0.38	0.06
Asia Oceania	0.02	0.02	0.01	0.00	0.01	-	0.01	-	-	-	-	-
Libya Light and Medium												
Americas	0.00	-	0.02	-	0.03	0.06	-	-	-	-	-	-
Europe	0.67	0.19	0.79	0.75	0.79	0.87	0.76	0.74	0.44	0.80	0.73	0.07
Asia Oceania	0.03	0.01	0.02	0.01	0.02	0.01	0.03	0.03	0.03	0.02	0.02	0.00

<sup>1</sup> 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.

<sup>2</sup> Iraqi Total minus Kirkuk.

<sup>3</sup> Iranian Total minus Iranian Light.

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

**Table 7**  
**REGIONAL OECD IMPORTS<sup>1,2</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier	
											Feb 21	% change
Crude Oil												
Americas	2726	1896	2077	1695	2109	2367	2129	2178	2095	2075	1766	17%
Europe	9872	8349	8510	7780	8382	8748	9115	8755	8897	9492	7539	26%
Asia Oceania	6542	5603	5529	5336	5459	5431	5883	5912	6189	6120	5690	8%
Total OECD	19139	15848	16116	14812	15951	16546	17127	16845	17181	17687	14995	18%
LPG												
Americas	26	28	21	21	16	22	25	31	30	52	26	99%
Europe	434	422	404	394	421	378	424	530	471	494	345	43%
Asia Oceania	582	559	563	642	555	528	528	584	664	669	747	-11%
Total OECD	1042	1009	988	1057	992	927	976	1144	1165	1215	1119	9%
Naphtha												
Americas	5	7	8	7	7	11	8	14	7	3	6	-47%
Europe	347	409	512	526	514	445	563	538	426	397	454	-13%
Asia Oceania	993	1005	1149	1087	1076	1229	1201	1284	1169	1096	1204	-9%
Total OECD	1345	1422	1669	1620	1597	1685	1773	1836	1602	1495	1664	-10%
Gasoline <sup>3</sup>												
Americas	822	577	803	597	1074	973	565	524	401	549	472	16%
Europe	112	109	108	102	159	75	98	185	119	116	214	-46%
Asia Oceania	114	126	157	155	196	135	140	167	168	139	187	-25%
Total OECD	1048	812	1068	854	1429	1183	803	876	687	804	872	-8%
Jet & Kerosene												
Americas	174	159	164	108	166	207	175	161	127	122	104	17%
Europe	520	337	335	281	291	349	416	470	276	307	278	11%
Asia Oceania	76	63	75	100	71	43	86	96	73	89	130	-31%
Total OECD	770	559	574	489	528	600	677	727	476	518	512	1%
Gasoil/Diesel												
Americas	118	134	197	266	149	154	222	126	124	269	199	35%
Europe	1300	1192	1192	1117	1213	1173	1264	1086	1130	1120	1199	-7%
Asia Oceania	262	328	355	336	353	345	385	359	267	319	308	3%
Total OECD	1680	1655	1744	1718	1715	1672	1870	1571	1521	1707	1707	0%
Heavy Fuel Oil												
Americas	116	143	102	116	96	91	104	115	62	206	103	99%
Europe	223	295	376	369	314	435	384	461	276	350	327	7%
Asia Oceania	101	88	119	109	116	121	129	146	135	153	111	38%
Total OECD	440	526	596	594	526	648	617	722	473	709	541	31%
Other Products												
Americas	716	591	580	505	698	607	510	486	442	485	455	7%
Europe	865	574	578	515	510	585	699	604	571	811	407	99%
Asia Oceania	268	241	260	246	260	267	267	267	227	266	249	7%
Total OECD	1849	1406	1418	1266	1468	1458	1476	1357	1240	1562	1110	41%
Total Products												
Americas	1978	1639	1875	1620	2205	2064	1607	1457	1193	1685	1365	23%
Europe	3800	3339	3505	3304	3422	3440	3849	3874	3270	3595	3224	12%
Asia Oceania	2397	2410	2676	2674	2627	2668	2736	2903	2702	2731	2936	-7%
Total OECD	8175	7388	8056	7598	8255	8172	8192	8233	7164	8010	7525	6%
Total Oil												
Americas	4703	3535	3952	3315	4315	4431	3736	3634	3288	3760	3132	20%
Europe	13672	11688	12016	11084	11804	12187	12964	12629	12166	13086	10763	22%
Asia Oceania	8939	8014	8205	8011	8087	8100	8619	8815	8891	8851	8625	3%
Total OECD	27314	23236	24173	22410	24206	24718	25319	25078	24345	25698	22520	14%

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<sup>1,2</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier	
											Feb 21	% change
<b>Crude Oil</b>												
Americas	2576	1835	1982	1613	2006	2275	2028	2063	2029	1998	1696	18%
Europe	8913	7115	7259	6643	7109	7455	7815	7446	7608	8117	6426	26%
Asia Oceania	5914	5076	4915	4710	4840	4785	5320	5503	5559	5390	5022	7%
<b>Total OECD</b>	<b>17403</b>	<b>14027</b>	<b>14157</b>	<b>12966</b>	<b>13956</b>	<b>14515</b>	<b>15163</b>	<b>15012</b>	<b>15197</b>	<b>15505</b>	<b>13145</b>	<b>18%</b>
<b>LPG</b>												
Americas	23	22	20	19	16	22	25	31	24	52	18	190%
Europe	303	252	242	244	228	245	250	274	228	286	237	21%
Asia Oceania	74	57	46	58	60	35	33	44	74	85	26	223%
<b>Total OECD</b>	<b>400</b>	<b>331</b>	<b>309</b>	<b>321</b>	<b>304</b>	<b>302</b>	<b>308</b>	<b>349</b>	<b>326</b>	<b>423</b>	<b>281</b>	<b>51%</b>
<b>Naphtha</b>												
Americas	2	1	4	4	2	5	5	11	5	0	4	-99%
Europe	320	390	425	427	452	337	485	526	331	377	382	-1%
Asia Oceania	898	835	977	870	948	1012	1075	1177	950	990	892	11%
<b>Total OECD</b>	<b>1220</b>	<b>1226</b>	<b>1406</b>	<b>1301</b>	<b>1402</b>	<b>1354</b>	<b>1565</b>	<b>1714</b>	<b>1285</b>	<b>1367</b>	<b>1278</b>	<b>7%</b>
<b>Gasoline<sup>3</sup></b>												
Americas	308	195	248	174	330	312	174	163	77	99	111	-11%
Europe	108	104	102	98	152	70	89	179	93	106	210	-50%
Asia Oceania	88	109	152	144	189	135	140	167	168	139	180	-23%
<b>Total OECD</b>	<b>504</b>	<b>408</b>	<b>502</b>	<b>417</b>	<b>671</b>	<b>518</b>	<b>404</b>	<b>509</b>	<b>339</b>	<b>344</b>	<b>501</b>	<b>-31%</b>
<b>Jet &amp; Kerosene</b>												
Americas	41	55	63	31	63	65	93	115	51	47	12	306%
Europe	464	297	299	248	273	309	367	425	275	300	242	24%
Asia Oceania	76	63	75	100	71	43	86	96	73	89	130	-31%
<b>Total OECD</b>	<b>581</b>	<b>415</b>	<b>437</b>	<b>378</b>	<b>406</b>	<b>418</b>	<b>545</b>	<b>636</b>	<b>399</b>	<b>437</b>	<b>384</b>	<b>14%</b>
<b>Gasoil/Diesel</b>												
Americas	86	103	134	203	94	94	146	88	61	172	157	9%
Europe	1126	1062	1110	1045	1136	1070	1188	1006	1078	1026	1122	-9%
Asia Oceania	261	324	355	336	353	345	385	359	267	319	308	3%
<b>Total OECD</b>	<b>1473</b>	<b>1489</b>	<b>1598</b>	<b>1583</b>	<b>1582</b>	<b>1509</b>	<b>1719</b>	<b>1453</b>	<b>1406</b>	<b>1517</b>	<b>1588</b>	<b>-4%</b>
<b>Heavy Fuel Oil</b>												
Americas	102	110	86	105	84	78	77	100	62	121	94	28%
Europe	202	279	350	341	280	417	360	452	258	346	310	12%
Asia Oceania	100	88	119	109	116	121	129	146	135	153	111	38%
<b>Total OECD</b>	<b>404</b>	<b>477</b>	<b>554</b>	<b>555</b>	<b>480</b>	<b>615</b>	<b>565</b>	<b>698</b>	<b>456</b>	<b>621</b>	<b>515</b>	<b>21%</b>
<b>Other Products</b>												
Americas	543	513	530	469	631	556	463	437	403	449	437	3%
Europe	629	352	401	358	335	398	511	405	405	616	294	109%
Asia Oceania	184	164	182	176	198	178	176	154	172	178	195	-9%
<b>Total OECD</b>	<b>1356</b>	<b>1029</b>	<b>1113</b>	<b>1003</b>	<b>1164</b>	<b>1133</b>	<b>1150</b>	<b>995</b>	<b>981</b>	<b>1243</b>	<b>926</b>	<b>34%</b>
<b>Total Products</b>												
Americas	1106	1000	1084	1005	1219	1131	983	944	684	941	833	13%
Europe	3152	2735	2929	2760	2856	2847	3250	3268	2669	3058	2796	9%
Asia Oceania	1681	1640	1906	1793	1934	1871	2023	2143	1839	1953	1843	6%
<b>Total OECD</b>	<b>5939</b>	<b>5375</b>	<b>5920</b>	<b>5558</b>	<b>6009</b>	<b>5849</b>	<b>6256</b>	<b>6354</b>	<b>5191</b>	<b>5952</b>	<b>5473</b>	<b>9%</b>
<b>Total Oil</b>												
Americas	3682	2835	3067	2618	3225	3406	3010	3007	2713	2938	2529	16%
Europe	12064	9850	10189	9403	9966	10302	11065	10713	10277	11175	9222	21%
Asia Oceania	7595	6716	6821	6503	6775	6656	7343	7646	7398	7344	6866	7%
<b>Total OECD</b>	<b>23342</b>	<b>19401</b>	<b>20076</b>	<b>18524</b>	<b>19965</b>	<b>20364</b>	<b>21418</b>	<b>21366</b>	<b>20388</b>	<b>21457</b>	<b>18617</b>	<b>15%</b>

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

<sup>2</sup> Excludes intra-regional trade

<sup>3</sup> Includes additives



**Table 7b**  
**INTER-REGIONAL OECD TRANSFERS<sup>1,2</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier	
											Feb 21	% change
<b>Crude Oil</b>												
Americas	149	60	95	83	104	92	101	115	66	78	70	11%
Europe	959	1234	1251	1137	1272	1293	1300	1309	1288	1375	1114	23%
Asia Oceania	628	527	614	627	619	646	563	409	630	730	667	9%
<b>Total OECD</b>	<b>1736</b>	<b>1821</b>	<b>1960</b>	<b>1846</b>	<b>1995</b>	<b>2031</b>	<b>1964</b>	<b>1834</b>	<b>1984</b>	<b>2182</b>	<b>1851</b>	<b>18%</b>
<b>LPG</b>												
Americas	3	6	1	3	0	0	0	0	6	0	8	-100%
Europe	131	171	162	150	193	132	173	255	243	208	108	92%
Asia Oceania	508	501	517	584	495	493	495	540	590	584	721	-19%
<b>Total OECD</b>	<b>642</b>	<b>678</b>	<b>679</b>	<b>737</b>	<b>688</b>	<b>625</b>	<b>669</b>	<b>795</b>	<b>839</b>	<b>791</b>	<b>837</b>	<b>-6%</b>
<b>Naphtha</b>												
Americas	3	6	4	3	4	6	2	3	2	3	2	100%
Europe	27	20	87	99	62	108	79	11	95	19	73	-73%
Asia Oceania	96	170	172	217	128	216	126	107	219	106	311	-66%
<b>Total OECD</b>	<b>125</b>	<b>196</b>	<b>263</b>	<b>319</b>	<b>195</b>	<b>330</b>	<b>207</b>	<b>122</b>	<b>317</b>	<b>128</b>	<b>386</b>	<b>-67%</b>
<b>Gasoline<sup>3</sup></b>												
Americas	514	382	555	423	744	661	391	362	323	450	361	25%
Europe	4	5	6	3	7	5	9	5	26	10	4	138%
Asia Oceania	26	18	5	11	8	0	0	0	0	0	7	-100%
<b>Total OECD</b>	<b>544</b>	<b>404</b>	<b>565</b>	<b>437</b>	<b>759</b>	<b>665</b>	<b>399</b>	<b>367</b>	<b>349</b>	<b>460</b>	<b>372</b>	<b>24%</b>
<b>Jet &amp; Kerosene</b>												
Americas	133	103	101	77	103	142	83	46	75	75	93	-19%
Europe	56	40	35	33	19	40	49	45	2	7	36	-81%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total OECD</b>	<b>190</b>	<b>144</b>	<b>137</b>	<b>110</b>	<b>122</b>	<b>182</b>	<b>132</b>	<b>91</b>	<b>77</b>	<b>82</b>	<b>128</b>	<b>-36%</b>
<b>Gasoil/Diesel</b>												
Americas	32	31	63	63	55	60	76	38	63	97	42	128%
Europe	174	131	82	72	77	103	76	81	52	94	77	22%
Asia Oceania	1	4	0	0	0	0	0	0	0	0	0	na
<b>Total OECD</b>	<b>207</b>	<b>166</b>	<b>145</b>	<b>135</b>	<b>132</b>	<b>163</b>	<b>151</b>	<b>118</b>	<b>115</b>	<b>191</b>	<b>119</b>	<b>60%</b>
<b>Heavy Fuel Oil</b>												
Americas	14	33	16	11	12	13	27	15	0	84	9	859%
Europe	21	16	26	29	34	19	25	9	18	4	17	-76%
Asia Oceania	1	0	0	0	0	0	0	0	0	0	0	na
<b>Total OECD</b>	<b>36</b>	<b>49</b>	<b>42</b>	<b>39</b>	<b>46</b>	<b>32</b>	<b>52</b>	<b>24</b>	<b>18</b>	<b>89</b>	<b>26</b>	<b>240%</b>
<b>Other Products</b>												
Americas	173	78	50	37	67	51	47	50	39	35	18	99%
Europe	236	222	177	157	175	187	189	200	165	195	113	73%
Asia Oceania	83	77	78	70	62	88	91	113	54	88	53	66%
<b>Total OECD</b>	<b>493</b>	<b>377</b>	<b>305</b>	<b>263</b>	<b>304</b>	<b>326</b>	<b>326</b>	<b>362</b>	<b>259</b>	<b>319</b>	<b>184</b>	<b>73%</b>
<b>Total Products</b>												
Americas	872	639	790	615	986	933	625	513	509	744	532	40%
Europe	649	604	576	543	566	593	599	606	601	537	427	26%
Asia Oceania	716	770	771	881	693	797	712	760	863	777	1092	-29%
<b>Total OECD</b>	<b>2236</b>	<b>2013</b>	<b>2137</b>	<b>2040</b>	<b>2246</b>	<b>2323</b>	<b>1936</b>	<b>1879</b>	<b>1973</b>	<b>2059</b>	<b>2052</b>	<b>0%</b>
<b>Total Oil</b>												
Americas	1021	699	885	698	1090	1025	726	628	574	822	602	36%
Europe	1608	1838	1827	1681	1839	1886	1899	1915	1889	1912	1541	24%
Asia Oceania	1343	1297	1384	1508	1312	1444	1275	1169	1494	1508	1759	-14%
<b>Total OECD</b>	<b>3972</b>	<b>3835</b>	<b>4096</b>	<b>3886</b>	<b>4241</b>	<b>4354</b>	<b>3901</b>	<b>3712</b>	<b>3958</b>	<b>4241</b>	<b>3903</b>	<b>9%</b>

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

<sup>2</sup> Excludes intra-regional trade

<sup>3</sup> Includes additives

**Table 8**  
**REGIONAL OECD CRUDE IMPORTS BY SOURCE<sup>1</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier Feb 21	change
<b>OECD Americas</b>												
Venezuela	81	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	868	745	719	648	689	809	731	762	768	826	737	89
North Sea	148	59	92	83	93	92	101	115	66	78	70	7
Other OECD Europe	2	1	3	-	11	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	192	91	229	128	295	307	185	132	63	110	56	55
Saudi Arabia	621	588	427	331	370	483	520	574	554	517	363	155
Kuwait	45	21	21	7	20	36	20	12	46	13	23	-10
Iran	-	-	3	12	-	-	-	-	16	-	-	-
Iraq	331	177	152	115	172	128	192	223	254	235	121	114
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	3	5	17	-	-	44	22	32	30	-	-	-
Other Middle East	-	-	-	-	-	-	-	-	-	-	-	-
West Africa <sup>2</sup>	267	145	228	206	272	255	180	180	143	178	120	59
Other Africa	137	45	161	149	172	167	157	148	156	117	278	-161
Asia	32	17	25	17	16	46	22	-	-	-	-	-
Other	0	3	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2726</b>	<b>1896</b>	<b>2077</b>	<b>1695</b>	<b>2109</b>	<b>2367</b>	<b>2129</b>	<b>2178</b>	<b>2095</b>	<b>2075</b>	<b>1766</b>	<b>309</b>
<b>of which Non-OECD</b>	<b>2576</b>	<b>1835</b>	<b>1982</b>	<b>1613</b>	<b>2006</b>	<b>2275</b>	<b>2028</b>	<b>2063</b>	<b>2029</b>	<b>1998</b>	<b>1696</b>	<b>301</b>
<b>OECD Europe</b>												
Canada	60	95	83	108	81	89	55	45	88	100	96	4
Mexico + USA	900	1139	1168	1029	1191	1204	1245	1265	1200	1274	1017	257
Venezuela	106	44	-	-	-	-	-	-	-	-	-	-
Other Central & South America	118	208	219	143	272	263	194	301	239	180	150	30
Non-OECD Europe	14	25	23	23	19	28	23	23	20	26	23	3
Former Soviet Union	4239	3504	3524	3305	3466	3525	3797	3674	4103	4528	3233	1295
Saudi Arabia	792	756	521	517	484	587	494	423	498	459	524	-66
Kuwait	97	48	0	-	-	0	0	0	-	-	-	-
Iran	74	6	1	-	-	6	-	-	-	-	-	-
Iraq	1124	814	895	783	916	927	951	650	556	662	837	-175
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	2	-	-	-	-	-	-	-	-	-	-	-
Other Middle East	3	8	9	6	12	12	6	-	-	-	6	-
West Africa <sup>2</sup>	1140	1074	821	780	719	842	942	873	780	694	602	92
Other Africa	1180	596	1185	1071	1204	1228	1233	1007	855	975	1051	-76
Asia	-	0	0	-	-	0	-	-	-	-	-	-
Other	13	11	38	-	-	-	151	431	502	558	-	-
<b>Total</b>	<b>9863</b>	<b>8329</b>	<b>8487</b>	<b>7766</b>	<b>8364</b>	<b>8712</b>	<b>9091</b>	<b>8690</b>	<b>8840</b>	<b>9456</b>	<b>7539</b>	<b>1916</b>
<b>of which Non-OECD</b>	<b>8913</b>	<b>7115</b>	<b>7259</b>	<b>6643</b>	<b>7109</b>	<b>7455</b>	<b>7815</b>	<b>7446</b>	<b>7608</b>	<b>8117</b>	<b>6426</b>	<b>1691</b>
<b>OECD Asia Oceania</b>												
Canada	5	1	16	17	38	5	3	-	-	11	18	-7
Mexico + USA	613	477	500	493	491	554	463	311	614	642	574	68
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	48	91	110	107	145	93	97	126	141	84	137	-53
North Sea	10	49	98	116	90	87	97	98	17	77	75	2
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	435	300	335	328	372	265	376	360	423	403	263	140
Saudi Arabia	1878	1867	1766	1868	1574	1601	2020	2392	2156	2025	2066	-41
Kuwait	666	584	506	482	484	493	563	549	633	624	528	97
Iran	137	-	-	-	-	-	-	-	-	-	-	-
Iraq	364	224	167	151	165	160	192	189	124	207	175	33
Oman	59	22	32	15	43	49	22	16	16	18	-	-
United Arab Emirates	1256	1096	1083	908	1094	1143	1184	1256	1081	1084	906	178
Other Middle East	449	387	362	396	383	371	301	335	471	425	394	31
West Africa <sup>2</sup>	56	65	80	46	119	77	79	45	60	35	61	-27
Other Africa	90	42	50	59	35	68	39	61	50	22	49	-26
Non-OECD Asia	220	161	170	193	161	174	153	141	128	137	210	-73
Other	255	234	248	155	264	285	288	26	266	323	235	88
<b>Total</b>	<b>6542</b>	<b>5602</b>	<b>5524</b>	<b>5336</b>	<b>5455</b>	<b>5424</b>	<b>5877</b>	<b>5906</b>	<b>6181</b>	<b>6117</b>	<b>5690</b>	<b>427</b>
<b>of which Non-OECD</b>	<b>5914</b>	<b>5076</b>	<b>4915</b>	<b>4710</b>	<b>4840</b>	<b>4785</b>	<b>5320</b>	<b>5503</b>	<b>5559</b>	<b>5390</b>	<b>5022</b>	<b>368</b>
<b>Total OECD Trade</b>	<b>19130</b>	<b>15826</b>	<b>16089</b>	<b>14798</b>	<b>15929</b>	<b>16502</b>	<b>17097</b>	<b>16774</b>	<b>17115</b>	<b>17648</b>	<b>14995</b>	<b>2653</b>
<b>of which Non-OECD</b>	<b>17403</b>	<b>14027</b>	<b>14157</b>	<b>12966</b>	<b>13956</b>	<b>14515</b>	<b>15163</b>	<b>15012</b>	<b>15197</b>	<b>15505</b>	<b>13145</b>	<b>2360</b>

<sup>1</sup> 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.

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

**Table 9**  
**REGIONAL OECD GASOLINE IMPORTS BY SOURCE<sup>1</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier	
											Feb 21	change
<b>OECD Americas</b>												
Venezuela	4	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	83	40	41	10	67	37	51	52	9	6	5	1
ARA (Belgium Germany Netherlands)	190	149	193	127	312	240	93	113	107	128	84	44
Other Europe	296	213	326	274	380	380	268	223	197	291	253	39
FSU	79	57	82	83	98	92	57	42	12	40	58	-18
Saudi Arabia	7	6	24	4	50	41	-	-	-	-	7	-
Algeria	-	4	1	4	-	-	-	-	-	-	-	-
Other Middle East & Africa	14	13	13	23	12	15	4	-	5	7	9	-2
Singapore	5	1	4	4	3	8	3	-	-	-	-	-
OECD Asia Oceania	28	21	37	21	52	43	30	26	19	30	24	6
Non-OECD Asia (excl. Singapore)	116	72	81	47	99	116	60	68	52	46	32	14
Other	0	-	0	0	-	-	-	-	-	-	-	-
<b>Total<sup>2</sup></b>	<b>822</b>	<b>577</b>	<b>803</b>	<b>597</b>	<b>1074</b>	<b>973</b>	<b>565</b>	<b>524</b>	<b>401</b>	<b>549</b>	<b>472</b>	<b>77</b>
<b>of which Non-OECD</b>	<b>308</b>	<b>195</b>	<b>248</b>	<b>174</b>	<b>330</b>	<b>312</b>	<b>174</b>	<b>163</b>	<b>77</b>	<b>99</b>	<b>111</b>	<b>-12</b>
<b>OECD Europe</b>												
OECD Americas	3	3	5	2	5	3	8	5	23	10	2	8
Venezuela	0	0	2	1	1	5	-	-	4	-	-	-
Other Central & South America	3	4	7	8	2	11	5	-	5	30	-	-
Non-OECD Europe	18	16	10	9	16	10	6	9	9	1	12	-12
FSU	54	31	8	13	7	9	2	2	12	7	23	-16
Saudi Arabia	0	8	3	-	-	13	0	-	-	-	-	-
Algeria	0	1	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	8	3	5	8	6	3	2	1	3	9	1	8
Singapore	3	2	0	-	-	0	0	0	1	1	-	-
OECD Asia Oceania	1	1	1	1	2	1	1	0	3	-	2	-
Non-OECD Asia (excl. Singapore)	0	0	3	3	2	2	3	3	3	3	3	0
Other	21	37	65	57	117	15	70	165	57	55	170	-115
<b>Total<sup>2</sup></b>	<b>112</b>	<b>107</b>	<b>108</b>	<b>102</b>	<b>159</b>	<b>75</b>	<b>98</b>	<b>185</b>	<b>119</b>	<b>116</b>	<b>214</b>	<b>-98</b>
<b>of which Non-OECD</b>	<b>108</b>	<b>104</b>	<b>102</b>	<b>98</b>	<b>152</b>	<b>70</b>	<b>89</b>	<b>179</b>	<b>93</b>	<b>106</b>	<b>210</b>	<b>-104</b>
<b>OECD Asia Oceania</b>												
OECD Americas	6	4	1	2	0	0	0	0	-	0	7	-6
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	14	4	4	9	7	0	0	0	0	-	-	-
Other Europe	5	10	-	-	-	-	-	-	-	-	-	-
FSU	0	0	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	1	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	-	1	-	-	-	-	-	-	-	-	-	-
Singapore	46	51	100	86	98	97	121	148	125	115	120	-5
Non-OECD Asia (excl. Singapore)	21	37	29	39	58	19	0	-	23	3	39	-36
Other	21	19	23	20	33	19	19	19	19	21	21	0
<b>Total<sup>2</sup></b>	<b>114</b>	<b>126</b>	<b>157</b>	<b>155</b>	<b>196</b>	<b>135</b>	<b>140</b>	<b>167</b>	<b>168</b>	<b>139</b>	<b>187</b>	<b>-48</b>
<b>of which Non-OECD</b>	<b>88</b>	<b>109</b>	<b>152</b>	<b>144</b>	<b>189</b>	<b>135</b>	<b>140</b>	<b>167</b>	<b>168</b>	<b>139</b>	<b>180</b>	<b>-41</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>1048</b>	<b>810</b>	<b>1068</b>	<b>854</b>	<b>1429</b>	<b>1183</b>	<b>803</b>	<b>876</b>	<b>687</b>	<b>804</b>	<b>872</b>	<b>-69</b>
<b>of which Non-OECD</b>	<b>504</b>	<b>408</b>	<b>502</b>	<b>417</b>	<b>671</b>	<b>518</b>	<b>404</b>	<b>509</b>	<b>339</b>	<b>344</b>	<b>501</b>	<b>-157</b>

<sup>1</sup> Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.

<sup>2</sup> Total figure excludes intra-regional trade.

**Table 10**  
**REGIONAL OECD GASOIL/DIESEL IMPORTS BY SOURCE<sup>1</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier	
											Feb 21	change
<b>OECD Americas</b>												
Venezuela	1	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	38	34	28	40	30	24	20	9	7	-	50	-
ARA (Belgium Germany Netherlands)	5	11	34	51	31	30	22	-	24	76	12	64
Other Europe	2	4	5	2	9	1	10	0	0	8	-	-
FSU	6	12	25	35	21	10	33	11	-	77	21	56
Saudi Arabia	3	8	15	23	9	11	18	12	6	52	3	50
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	2	9	25	48	8	18	26	26	-	19	39	-19
Singapore	0	-	2	-	2	8	-	-	7	-	-	-
OECD Asia Oceania	24	16	25	10	15	29	44	38	39	13	31	-17
Non-OECD Asia (excl. Singapore)	30	34	27	48	16	12	31	24	0	-	40	-
Other	7	6	12	8	8	11	18	6	41	23	5	18
<b>Total<sup>2</sup></b>	<b>118</b>	<b>134</b>	<b>197</b>	<b>266</b>	<b>149</b>	<b>154</b>	<b>222</b>	<b>126</b>	<b>124</b>	<b>269</b>	<b>199</b>	<b>69</b>
<b>of which Non-OECD</b>	<b>86</b>	<b>103</b>	<b>134</b>	<b>203</b>	<b>94</b>	<b>94</b>	<b>146</b>	<b>88</b>	<b>61</b>	<b>172</b>	<b>157</b>	<b>15</b>
<b>OECD Europe</b>												
OECD Americas	138	99	40	34	38	55	33	51	18	52	33	18
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	0	3	1	-	1	1	3	9	-	-	-	-
Non-OECD Europe	41	30	35	39	40	30	32	33	40	22	34	-12
FSU	608	627	611	698	687	546	514	484	550	617	737	-121
Saudi Arabia	205	193	139	137	128	142	150	119	174	39	167	-128
Algeria	0	2	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	83	71	157	65	143	198	220	220	208	103	93	10
Singapore	27	17	18	10	18	24	21	27	1	79	12	67
OECD Asia Oceania	36	32	42	38	39	48	43	29	34	42	43	-1
Non-OECD Asia (excl. Singapore)	152	101	126	72	112	122	195	96	60	93	54	39
Other	10	15	22	23	7	6	53	18	44	73	25	48
<b>Total<sup>2</sup></b>	<b>1300</b>	<b>1190</b>	<b>1192</b>	<b>1116</b>	<b>1213</b>	<b>1173</b>	<b>1264</b>	<b>1086</b>	<b>1130</b>	<b>1120</b>	<b>1199</b>	<b>-79</b>
<b>of which Non-OECD</b>	<b>1126</b>	<b>1062</b>	<b>1110</b>	<b>1045</b>	<b>1136</b>	<b>1070</b>	<b>1188</b>	<b>1006</b>	<b>1078</b>	<b>1026</b>	<b>1122</b>	<b>-96</b>
<b>OECD Asia Oceania</b>												
OECD Americas	1	4	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	0	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	0	0	-	0	0	0	0	-	0	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	4	2	1	1	1	2	1	-	-	-	2	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	7	13	4	13	-	-	3	1	-	-	-	-
Singapore	111	91	110	82	92	153	115	108	83	150	85	64
Non-OECD Asia (excl. Singapore)	133	208	227	229	249	182	248	205	143	138	216	-78
Other	5	10	9	11	11	9	5	5	5	11	6	6
<b>Total<sup>2</sup></b>	<b>262</b>	<b>328</b>	<b>351</b>	<b>336</b>	<b>353</b>	<b>345</b>	<b>371</b>	<b>319</b>	<b>231</b>	<b>299</b>	<b>308</b>	<b>-10</b>
<b>of which Non-OECD</b>	<b>261</b>	<b>324</b>	<b>355</b>	<b>336</b>	<b>353</b>	<b>345</b>	<b>385</b>	<b>359</b>	<b>267</b>	<b>319</b>	<b>308</b>	<b>10</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>1680</b>	<b>1653</b>	<b>1740</b>	<b>1718</b>	<b>1715</b>	<b>1671</b>	<b>1857</b>	<b>1531</b>	<b>1485</b>	<b>1688</b>	<b>1707</b>	<b>-19</b>
<b>of which Non-OECD</b>	<b>1473</b>	<b>1489</b>	<b>1598</b>	<b>1583</b>	<b>1582</b>	<b>1509</b>	<b>1719</b>	<b>1453</b>	<b>1406</b>	<b>1517</b>	<b>1588</b>	<b>-71</b>

<sup>1</sup> Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.

<sup>2</sup> Total figure excludes intra-regional trade.

**Table 11**  
**REGIONAL OECD JET AND KEROSENE IMPORTS BY SOURCE<sup>1</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier Feb 21	change
<b>OECD Americas</b>												
Venezuela	0	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	7	5	1	3	-	-	-	-	-	-	2	-
ARA (Belgium Germany Netherlands)	-	-	5	4	0	14	-	-	-	-	-	-
Other Europe	0	4	6	6	5	6	7	-	-	-	-	-
FSU	-	0	4	-	0	0	16	28	2	9	-	-
Saudi Arabia	2	6	6	-	4	4	17	20	1	6	-	-
Algeria	-	1	4	9	0	3	5	8	-	-	10	-
Other Middle East and Africa	10	11	18	6	31	14	22	33	11	11	-	-
Singapore	3	4	2	-	2	5	-	-	2	3	-	-
OECD Asia Oceania	133	100	91	67	98	122	76	46	75	75	93	-18
Non-OECD Asia (excl. Singapore)	16	23	27	13	25	34	33	26	21	18	-	-
Other	3	4	1	-	-	4	-	-	14	-	-	-
<b>Total<sup>2</sup></b>	<b>174</b>	<b>159</b>	<b>164</b>	<b>108</b>	<b>166</b>	<b>207</b>	<b>175</b>	<b>161</b>	<b>127</b>	<b>122</b>	<b>104</b>	<b>18</b>
<b>of which Non-OECD</b>	<b>41</b>	<b>55</b>	<b>63</b>	<b>31</b>	<b>63</b>	<b>65</b>	<b>93</b>	<b>115</b>	<b>51</b>	<b>47</b>	<b>12</b>	<b>35</b>
<b>OECD Europe</b>												
OECD Americas	20	13	3	1	2	1	9	4	0	2	1	1
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	1	0	0	-	-	-	1	-	-	-	-	-
Non-OECD Europe	2	0	0	-	-	-	0	-	-	-	-	-
FSU	41	21	27	34	24	30	21	28	15	30	37	-8
Saudi Arabia	105	40	27	36	39	11	21	34	46	21	63	-42
Algeria	11	9	5	6	8	6	-	-	-	11	-	-
Other Middle East and Africa	199	155	154	137	136	179	165	177	161	133	102	31
Singapore	29	10	11	3	4	23	15	6	3	-	-	-
OECD Asia Oceania	36	27	32	32	17	39	40	41	1	5	34	-30
Non-OECD Asia (excl. Singapore)	73	50	62	17	59	59	113	110	27	80	20	60
Other	2	10	11	12	2	1	30	71	23	25	19	6
<b>Total<sup>2</sup></b>	<b>520</b>	<b>336</b>	<b>334</b>	<b>278</b>	<b>291</b>	<b>349</b>	<b>416</b>	<b>470</b>	<b>276</b>	<b>307</b>	<b>278</b>	<b>30</b>
<b>of which Non-OECD</b>	<b>464</b>	<b>297</b>	<b>299</b>	<b>248</b>	<b>273</b>	<b>309</b>	<b>367</b>	<b>425</b>	<b>275</b>	<b>300</b>	<b>242</b>	<b>58</b>
<b>OECD Asia Oceania</b>												
OECD Americas	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	-	-	1	3	-	-	-	-	-	-	-	-
Singapore	21	14	16	6	18	20	19	17	22	33	12	21
Non-OECD Asia (excl. Singapore)	29	28	33	55	37	15	27	22	17	14	72	-58
Other	26	21	24	36	17	8	37	49	32	34	46	-12
<b>Total<sup>2</sup></b>	<b>76</b>	<b>63</b>	<b>74</b>	<b>100</b>	<b>71</b>	<b>43</b>	<b>83</b>	<b>88</b>	<b>72</b>	<b>81</b>	<b>130</b>	<b>-49</b>
<b>of which Non-OECD</b>	<b>76</b>	<b>63</b>	<b>75</b>	<b>100</b>	<b>71</b>	<b>43</b>	<b>86</b>	<b>96</b>	<b>73</b>	<b>89</b>	<b>130</b>	<b>-41</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>770</b>	<b>558</b>	<b>573</b>	<b>486</b>	<b>528</b>	<b>600</b>	<b>674</b>	<b>719</b>	<b>475</b>	<b>510</b>	<b>512</b>	<b>-2</b>
<b>of which Non-OECD</b>	<b>581</b>	<b>415</b>	<b>437</b>	<b>378</b>	<b>406</b>	<b>418</b>	<b>545</b>	<b>636</b>	<b>399</b>	<b>437</b>	<b>384</b>	<b>53</b>

<sup>1</sup> Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.

<sup>2</sup> Total figure excludes intra-regional trade.

**Table 12**  
**REGIONAL OECD RESIDUAL FUEL OIL IMPORTS BY SOURCE<sup>1</sup>**  
(thousand barrels per day)

	2019	2020	2021	1Q21	2Q21	3Q21	4Q21	Dec 21	Jan 22	Feb 22	Year Earlier	
											Feb 21	change
<b>OECD Americas</b>												
Venezuela	7	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	50	52	34	29	25	39	44	61	13	60	46	14
ARA (Belgium Germany Netherlands)	6	12	6	3	2	9	9	15	-	17	-	-
Other Europe	8	21	10	8	10	4	18	-	-	67	9	59
FSU	29	43	34	62	36	19	18	12	50	60	49	12
Saudi Arabia	2	2	0	-	0	-	2	-	-	0	-	-
Algeria	8	2	7	8	4	3	13	27	-	-	-	-
Other Middle East and Africa	5	10	8	6	11	15	0	0	-	1	-	-
Singapore	1	1	0	-	-	2	-	-	-	-	-	-
OECD Asia Oceania	-	-	0	-	-	1	-	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	0	-	2	-	8	0	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total<sup>2</sup></b>	<b>116</b>	<b>143</b>	<b>102</b>	<b>116</b>	<b>96</b>	<b>91</b>	<b>104</b>	<b>115</b>	<b>62</b>	<b>206</b>	<b>103</b>	<b>103</b>
<b>of which Non-OECD</b>	<b>102</b>	<b>110</b>	<b>86</b>	<b>105</b>	<b>84</b>	<b>78</b>	<b>77</b>	<b>100</b>	<b>62</b>	<b>121</b>	<b>94</b>	<b>27</b>
<b>OECD Europe</b>												
OECD Americas	7	12	24	28	32	14	20	9	18	4	17	-13
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	5	6	4	5	1	10	1	2	2	-	14	-
Non-OECD Europe	21	13	12	12	12	12	11	15	16	5	12	-6
FSU	144	141	247	241	150	315	279	233	152	290	196	95
Saudi Arabia	-	2	-	-	-	-	-	-	-	-	-	-
Algeria	0	2	2	3	-	2	3	-	-	-	-	-
Other Middle East and Africa	19	13	14	14	10	18	13	24	13	11	10	1
Singapore	1	3	3	2	7	2	2	0	-	-	-	-
OECD Asia Oceania	14	4	3	0	2	5	5	-	-	-	-	-
Non-OECD Asia (excl. Singapore)	3	-	-	-	-	-	-	-	-	-	-	-
Other	8	93	62	48	94	54	51	177	76	36	51	-15
<b>Total<sup>2</sup></b>	<b>222</b>	<b>288</b>	<b>370</b>	<b>354</b>	<b>308</b>	<b>432</b>	<b>384</b>	<b>461</b>	<b>276</b>	<b>348</b>	<b>300</b>	<b>48</b>
<b>of which Non-OECD</b>	<b>202</b>	<b>279</b>	<b>350</b>	<b>341</b>	<b>280</b>	<b>417</b>	<b>360</b>	<b>452</b>	<b>258</b>	<b>346</b>	<b>310</b>	<b>36</b>
<b>OECD Asia Oceania</b>												
OECD Americas	1	-	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	0	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	6	5	0	1	-	-	-	-	-	-	-	-
Saudi Arabia	1	1	13	-	14	13	25	28	8	9	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	27	38	30	32	27	31	30	43	-	-	23	-
Singapore	25	18	29	27	44	22	23	13	63	19	8	11
Non-OECD Asia (excl. Singapore)	40	26	47	49	30	56	51	64	63	126	79	46
Other	1	-	-	-	-	-	-	-	-	-	-	-
<b>Total<sup>2</sup></b>	<b>101</b>	<b>88</b>	<b>119</b>	<b>109</b>	<b>116</b>	<b>121</b>	<b>129</b>	<b>146</b>	<b>135</b>	<b>153</b>	<b>111</b>	<b>43</b>
<b>of which Non-OECD</b>	<b>100</b>	<b>88</b>	<b>119</b>	<b>109</b>	<b>116</b>	<b>121</b>	<b>129</b>	<b>146</b>	<b>135</b>	<b>153</b>	<b>111</b>	<b>43</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>439</b>	<b>519</b>	<b>590</b>	<b>579</b>	<b>520</b>	<b>645</b>	<b>616</b>	<b>722</b>	<b>473</b>	<b>707</b>	<b>514</b>	<b>193</b>
<b>of which Non-OECD</b>	<b>404</b>	<b>477</b>	<b>554</b>	<b>555</b>	<b>480</b>	<b>615</b>	<b>565</b>	<b>698</b>	<b>456</b>	<b>621</b>	<b>515</b>	<b>106</b>

<sup>1</sup> Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes.

<sup>2</sup> Total figure excludes intra-regional trade.

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

	2019	2020	2021	2Q21	3Q21	4Q21	1Q22	Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22
<b>CRUDE OIL PRICES</b>													
<b>IEA CIF Average Import<sup>1</sup></b>													
IEA Americas	56.93	37.31	64.78	63.76	67.32	73.13		75.73	68.22	74.95	83.45		
IEA Europe	64.25	42.91	69.96	67.23	72.11	78.43		80.33	74.41	84.08	95.12		
IEA Asia Oceania	66.38	46.28	70.41	67.63	74.07	80.92		82.51	81.65	81.59	89.56		
<b>IEA Total</b>	<b>62.75</b>	<b>42.19</b>	<b>68.55</b>	<b>66.29</b>	<b>71.18</b>	<b>77.54</b>		<b>79.55</b>	<b>74.52</b>	<b>80.90</b>	<b>90.38</b>		
<b>FOB Spot</b>													
North Sea Dated	64.12	41.76	70.82	68.84	73.42	79.67	102.12	81.37	74.01	87.10	98.01	118.75	104.25
Brent (Asia) Mth 1	64.86	44.86	71.49	69.50	74.09	80.47	101.21	82.58	74.82	86.18	97.89	117.53	106.07
WTI (Cushing) Mth 1	57.03	39.25	68.10	66.19	70.54	77.33	95.18	79.18	71.53	83.13	91.74	108.52	101.77
Urals (Mediterranean)	64.31	41.93	69.47	67.48	71.32	78.39	91.49	80.08	73.07	86.76	94.94	92.59	72.44
Dubai (1st month)	63.49	42.36	69.35	67.01	71.60	78.23	96.06	80.21	73.25	83.34	92.48	110.49	102.91
Tapis (Dated)	69.16	43.28	72.80	69.81	75.30	83.38	108.06	85.09	78.88	91.73	104.62	125.65	111.36
<b>PRODUCT PRICES</b>													
<b>Rotterdam, Barges FOB</b>													
Premium Unl 10 ppm	71.35	44.65	80.25	78.57	85.64	90.71	110.45	93.21	82.88	94.85	106.55	127.41	125.68
Naphtha	56.27	39.64	71.14	66.69	74.61	82.00	99.54	82.33	78.27	86.87	96.44	113.24	101.44
Jet/Kerosene	79.24	44.79	76.50	72.52	78.87	90.15	121.79	90.46	85.18	100.65	109.98	150.44	153.17
ULSD 10ppm	79.45	49.32	78.52	74.64	80.81	92.06	125.05	92.83	86.38	101.18	112.77	156.47	151.46
Gasoil 0.1 %	77.73	48.10	77.12	73.43	79.41	90.20	121.77	90.67	84.69	99.18	110.26	151.41	145.48
LSFO 1%	62.21	42.78	70.18	66.88	72.12	78.63	96.33	78.61	74.57	83.98	91.90	110.94	98.73
HSFO 3.5%	50.31	34.43	62.07	60.08	63.95	68.68	85.42	67.40	64.43	75.42	81.00	97.98	91.93
<b>Mediterranean, FOB Cargoes</b>													
Premium Unl 10 ppm	71.31	45.59	80.69	77.94	86.49	91.08	111.91	91.68	84.94	96.68	108.01	128.55	126.02
Naphtha	54.43	37.81	69.60	65.19	73.44	80.04	97.03	80.76	75.50	84.89	93.90	110.29	97.78
Jet Aviation Fuel	77.76	43.28	75.26	71.22	77.96	88.66	119.87	89.29	83.07	99.21	108.03	148.12	150.30
ULSD 10ppm	79.05	48.76	78.00	74.07	80.64	91.16	122.64	91.96	85.03	99.81	110.31	153.21	147.98
Gasoil 0.1 %	77.70	47.60	76.89	72.94	79.60	89.87	119.44	90.64	83.90	99.18	109.08	146.07	142.97
LSFO 1%	63.90	44.06	71.27	67.84	73.10	80.24	99.17	80.30	76.33	86.30	93.09	115.65	105.01
HSFO 3.5%	52.17	34.36	60.50	58.23	62.69	67.23	83.38	66.01	62.67	73.78	78.87	95.64	89.21
<b>US Gulf, FOB Pipeline</b>													
Super Unleaded	79.24	50.64	91.17	90.78	97.57	99.76	121.45	100.72	92.61	104.58	116.46	140.25	142.72
Unleaded	72.28	46.02	86.46	85.70	91.72	95.12	116.65	95.45	88.83	100.62	112.28	134.21	132.98
Jet/Kerosene	78.81	46.20	77.91	73.74	79.86	92.09	121.50	92.43	87.63	102.12	112.50	145.78	156.86
ULSD 10 ppm	79.09	50.17	84.69	82.05	87.33	97.51	126.65	97.70	91.78	106.71	118.06	151.09	160.12
No. 6 3% <sup>2</sup>	52.57	34.63	59.90	57.77	62.33	67.41	83.38	66.25	63.04	74.91	80.13	93.44	89.41
<b>Singapore, FOB Cargoes</b>													
Premium Unleaded	72.55	46.65	80.49	76.86	83.45	93.71	113.98	95.01	87.92	98.04	110.72	131.07	126.73
Naphtha	57.15	40.77	70.99	66.41	73.93	82.09	97.77	84.21	77.82	84.56	95.75	111.42	97.75
Jet/Kerosene	77.26	44.83	75.26	71.52	77.10	88.47	113.09	89.09	83.47	95.78	106.17	134.32	134.35
Gasoil 0.05%	77.23	48.43	76.12	72.28	77.16	89.64	116.43	90.84	84.94	97.84	109.91	138.51	139.18
HSFO 180 CST	58.62	39.32	64.53	61.28	68.34	71.42	88.05	71.15	65.86	76.17	82.63	103.13	110.91
HSFO 380 CST 4%	57.57	38.25	63.22	60.20	66.13	70.14	85.45	69.87	64.79	74.15	81.08	99.20	104.14

<sup>1</sup> IEA CIF Average Import price for February 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.

<sup>2</sup> Waterborne

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**Table 14**  
**MONTHLY AVERAGE END-USER PRICES FOR PETROLEUM PRODUCTS**

April 2022

NATIONAL CURRENCY *							US DOLLARS					
Total	% change from		Ex-Tax	% change from			Total	% change from		Ex-Tax	% change from	
Price	Mar-22	Apr-21	Price	Mar-22	Apr-21		Price	Mar-22	Apr-21	Price	Mar-22	Apr-21
<b>GASOLINE <sup>1</sup> (per litre)</b>												
France	1.805	-9.2	19.1	0.813	-15.8	42.1	1.950	-11.0	7.5	0.878	-17.4	28.3
Germany	2.037	-5.2	33.9	1.057	-8.2	69.7	2.200	-7.1	20.9	1.142	-10.0	53.2
Italy	1.774	-12.9	12.7	0.976	-2.7	73.7	1.916	-14.6	1.8	1.054	-4.6	56.8
Spain	1.673	-6.5	26.7	0.910	-9.5	47.2	1.807	-8.4	14.4	0.983	-11.4	33.0
United Kingdom	1.619	1.1	29.0	0.819	6.6	75.8	2.092	-0.8	20.4	1.059	4.6	64.1
Japan	173.6	-0.6	15.4	101.2	-0.9	26.3	1.374	-6.7	-0.3	0.801	-7.0	9.1
Canada	1.758	-2.7	35.2	1.247	-3.3	49.7	1.392	-2.4	33.9	0.988	-3.0	48.2
United States	1.086	-2.7	43.8	0.955	-3.0	52.3	1.086	-2.7	43.8	0.955	-3.0	52.3
<b>AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)</b>												
France	1.862	-8.2	35.6	0.943	-12.8	76.3	2.011	-10.1	22.5	1.019	-14.6	59.2
Germany	2.031	-6.6	55.2	1.237	-8.8	96.3	2.194	-8.4	40.1	1.336	-10.7	77.3
Italy	1.771	-11.1	23.3	1.085	0.6	93.8	1.913	-12.9	11.4	1.172	-1.4	75.0
Spain	1.702	-3.2	44.1	1.028	-4.3	72.2	1.838	-5.1	30.1	1.110	-6.2	55.5
United Kingdom	1.762	3.3	36.0	0.938	9.8	87.6	2.277	1.4	26.9	1.212	7.8	75.1
Japan	153.3	-0.6	17.4	107.4	-0.8	23.9	1.213	-6.8	1.4	0.850	-6.9	7.0
Canada	1.964	-0.3	58.9	1.482	-0.3	80.7	1.555	-0.1	57.3	1.174	-0.1	78.9
United States	1.353	0.3	63.6	1.202	0.3	77.3	1.353	0.3	63.6	1.202	0.3	77.3
<b>DOMESTIC HEATING OIL (per litre)</b>												
France	1.502	-7.2	78.0	1.095	-8.2	100.3	1.622	-9.1	60.8	1.183	-10.0	80.9
Germany	1.376	-13.9	100.5	1.095	-14.5	112.5	1.486	-15.6	81.0	1.183	-16.2	91.8
Italy	1.763	-1.6	42.4	1.042	-2.3	70.4	1.904	-3.6	28.6	1.125	-4.2	53.9
Spain	1.335	0.8	99.2	1.006	0.8	120.2	1.442	-1.2	79.9	1.087	-1.2	98.8
United Kingdom	1.060	-8.1	97.7	0.898	-9.0	124.9	1.370	-9.9	84.6	1.161	-10.8	110.0
Japan <sup>2</sup>	114.3	-0.3	27.8	101.1	-0.3	28.8	0.905	-6.5	10.4	0.801	-6.5	11.2
Canada	1.940	4.7	69.5	1.730	4.7	74.0	1.536	5.0	67.8	1.370	5.0	72.3
United States	-	-	-	-	-	-	-	-	-	-	-	-
<b>LOW SULPHUR FUEL OIL FOR INDUSTRY <sup>3</sup> (per kg)</b>												
France	0.830	-5.4	47.2	0.690	-6.5	62.7	0.896	-7.3	32.9	0.745	-8.4	46.9
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.785	-5.0	56.4	0.753	-5.2	60.1	0.848	-6.9	41.2	0.814	-7.1	44.6
Spain	0.664	4.5	57.0	0.647	4.6	59.4	0.718	2.4	41.7	0.699	2.5	43.9
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-
Canada	-	-	-	-	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	-	-	-	-	-	-	-

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

<sup>2</sup> Kerosene for Japan.

<sup>3</sup> VAT excluded from prices for low sulphur fuel oil when refunded to industry.

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



**Table 15**  
**IEA/KBC Global Indicator Refining Margins<sup>1</sup>**  
 (\$/bbl)

	Monthly Average					Change	Average for week ending:				
	Jan 22	Feb 22	Mar 22	Apr 22		Apr-Mar	08 Apr	15 Apr	22 Apr	29 Apr	06 May
NW Europe											
Brent (Cracking)	4.29	3.28	11.84	22.33	↑	10.50	18.48	19.51	23.39	28.27	25.96
Urals (Cracking)	4.14	7.04	38.78	55.01	↑	16.23	51.63	52.69	56.13	60.54	58.02
Brent (Hydroskimming)	1.29	-0.37	6.26	14.30	↑	8.05	11.48	12.01	15.06	18.81	15.65
Urals (Hydroskimming)	-0.84	0.76	29.76	45.32	↑	15.56	43.24	43.40	45.76	49.55	47.06
Mediterranean											
Es Sider (Cracking)	5.66	4.21	15.62	24.45	↑	8.83	20.02	21.18	25.83	30.81	27.46
Urals (Cracking)	4.21	5.16	38.66	55.11	↑	16.44	50.80	52.29	56.52	61.59	58.13
Es Sider (Hydroskimming)	2.95	0.79	9.46	16.61	↑	7.15	13.77	13.84	17.38	21.25	17.84
Urals (Hydroskimming)	-2.05	-2.40	26.15	41.65	↑	15.50	39.35	39.22	42.12	46.20	43.35
US Gulf Coast											
Mars (Cracking)	7.84	8.11	11.76	16.98	↑	5.22	15.95	14.67	15.39	20.87	24.77
50/50 HLS/LLS (Coking)	15.17	17.29	27.01	36.25	↑	9.24	32.11	32.47	36.40	43.74	48.46
50/50 Maya/Mars (Coking)	11.43	12.33	18.13	25.71	↑	7.58	22.23	21.93	25.32	32.83	36.79
ASCI (Coking)	13.01	14.73	22.13	30.24	↑	8.11	27.56	26.71	29.25	36.62	41.08
US Midwest											
30/70 WCS/Bakken (Cracking)	8.21	9.14	16.10	24.20	↑	8.10	19.53	20.92	25.20	31.15	33.90
Bakken (Cracking)	9.29	11.05	20.22	30.39	↑	10.17	24.71	26.84	31.73	38.42	41.79
WTI (Coking)	10.74	11.89	22.74	34.23	↑	11.49	28.74	30.90	35.19	42.23	46.32
30/70 WCS/Bakken (Coking)	10.49	12.22	21.75	31.79	↑	10.04	26.02	28.08	33.13	40.05	43.62
Singapore											
Dubai (Hydroskimming)	-1.31	-1.47	2.11	11.86	↑	9.74	10.81	11.67	11.54	13.58	16.20
Tapis (Hydroskimming)	1.02	-0.76	2.82	15.45	↑	12.62	13.55	14.00	18.15	17.94	18.01
Dubai (Hydrocracking)	8.56	10.35	16.87	23.58	↑	6.72	21.41	23.46	24.37	25.92	31.03
Tapis (Hydrocracking)	0.95	-1.02	3.12	17.80	↑	14.68	15.21	15.72	20.92	21.37	22.01

<sup>1</sup> 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 (%)<sup>1</sup>**

	Dec-21	Jan-22	Feb-22	Feb-21	Feb 22 vs Previous Month	Feb 22 vs Previous Year	Feb 22 vs 5 Year Average	5 Year Average
<b>OECD Americas</b>								
Naphtha	1.1	1.1	1.1	1.1	0.0	-0.1	-0.3	1.4
Motor gasoline	48.0	46.8	45.7	46.1	-1.1	-0.5	-0.6	46.3
Jet/kerosene	8.1	8.5	8.3	6.6	-0.2	1.7	-0.4	8.7
Gasoil/diesel oil	28.0	27.9	28.3	28.0	0.4	0.3	0.4	27.9
Residual fuel oil	2.6	3.2	2.9	3.5	-0.3	-0.6	-0.4	3.3
Petroleum coke	4.3	4.2	4.2	4.2	0.1	0.1	-0.3	4.5
Other products	11.2	11.6	11.7	12.3	0.1	-0.6	0.5	11.3
<b>OECD Europe</b>								
Naphtha	8.5	8.5	8.9	10.1	0.5	-1.2	0.1	8.8
Motor gasoline	21.2	21.3	21.4	19.4	0.1	2.0	1.2	20.2
Jet/kerosene	6.5	7.4	7.7	5.3	0.3	2.4	-0.1	7.8
Gasoil/diesel oil	41.4	39.9	39.4	41.0	-0.5	-1.7	-0.6	40.0
Residual fuel oil	8.8	9.3	8.6	9.1	-0.7	-0.6	-1.5	10.1
Petroleum coke	1.6	1.7	1.7	1.6	0.1	0.1	0.3	1.4
Other products	15.0	14.5	15.2	16.1	0.7	-0.9	1.0	14.1
<b>OECD Asia Oceania</b>								
Naphtha	15.9	15.8	15.7	16.4	-0.1	-0.7	-0.1	15.8
Motor gasoline	22.9	21.4	21.4	22.2	0.0	-0.8	0.1	21.3
Jet/kerosene	13.5	14.3	13.9	13.5	-0.4	0.4	-1.8	15.8
Gasoil/diesel oil	30.1	29.6	30.1	30.2	0.4	-0.1	0.9	29.2
Residual fuel oil	8.3	8.4	9.0	7.5	0.5	1.5	1.5	7.5
Petroleum coke	0.5	0.4	0.5	0.4	0.0	0.1	0.1	0.4
Other products	12.2	12.2	12.3	12.6	0.0	-0.4	0.1	12.2
<b>OECD Total</b>								
Naphtha	6.0	6.1	6.2	7.0	0.1	-0.8	-0.4	6.6
Motor gasoline	35.1	34.1	33.6	32.8	-0.6	0.8	0.5	33.0
Jet/kerosene	8.6	9.2	9.2	7.5	-0.1	1.6	-0.6	9.8
Gasoil/diesel oil	32.6	32.0	32.1	32.7	0.1	-0.5	0.1	32.1
Residual fuel oil	5.5	6.1	5.8	6.1	-0.3	-0.3	-0.5	6.3
Petroleum coke	2.7	2.7	2.8	2.6	0.1	0.2	0.0	2.7
Other products	12.6	12.6	12.9	13.6	0.3	-0.7	0.6	12.4

<sup>1</sup> 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	3Q21	4Q21	1Q22	Feb 22	Mar 22	Apr 22
<b>ETHANOL</b>									
<b>OECD Americas<sup>1</sup></b>	<b>1063</b>	<b>934</b>	<b>1010</b>	<b>993</b>	<b>1092</b>	<b>1045</b>	<b>1046</b>	<b>1016</b>	<b>1016</b>
United States	1029	906	979	963	1061	1010	1011	980	980
Other	34	28	30	30	30	35			
<b>OECD Europe<sup>2</sup></b>	<b>97</b>	<b>93</b>	<b>103</b>	<b>118</b>	<b>117</b>	<b>113</b>	<b>122</b>	<b>103</b>	<b>103</b>
France	21	17	18	25	22	24	29	19	19
Germany	12	11	12	15	15	19	23	12	12
Spain	9	8	10	10	10	7	5	11	11
United Kingdom	5	5	9	9	16	14	22	7	7
Other	50	52	54	59	54	49			
<b>OECD Asia Oceania<sup>3</sup></b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
Australia	4	4	4	3	4	4	4	4	4
Other	0	0	0	0	0	0			
<b>Total OECD Ethanol</b>	<b>1165</b>	<b>1031</b>	<b>1117</b>	<b>1114</b>	<b>1213</b>	<b>1163</b>	<b>1172</b>	<b>1123</b>	<b>1123</b>
<b>Total Non-OECD Ethanol</b>	<b>809</b>	<b>735</b>	<b>703</b>	<b>1130</b>	<b>515</b>	<b>312</b>	<b>303</b>	<b>305</b>	<b>606</b>
Brazil	621	560	515	942	327	100	91	93	394
China	67	69	76	76	76	79			
Argentina	19	15	18	18	18	21			
Other	102	91	94	94	94	112	212	212	212
<b>TOTAL ETHANOL</b>	<b>1974</b>	<b>1766</b>	<b>1820</b>	<b>2244</b>	<b>1728</b>	<b>1475</b>	<b>1475</b>	<b>1428</b>	<b>1729</b>
<b>BIODIESEL</b>									
<b>OECD Americas<sup>1</sup></b>	<b>151</b>	<b>159</b>	<b>168</b>	<b>163</b>	<b>197</b>	<b>186</b>	<b>230</b>	<b>239</b>	<b>239</b>
United States	145	153	160	156	190	182	229	229	229
Other	7	6	7	7	7	4			
<b>OECD Europe<sup>2</sup></b>	<b>295</b>	<b>281</b>	<b>313</b>	<b>328</b>	<b>314</b>	<b>295</b>	<b>291</b>	<b>335</b>	<b>335</b>
France	43	41	43	48	43	49	57	47	47
Germany	69	61	66	74	66	58	58	68	68
Italy	18	28	30	31	31	24			
Spain	42	30	39	40	38	33	30	42	42
Other	123	121	136	136	136	131	127	144	144
<b>OECD Asia Oceania<sup>3</sup></b>	<b>15</b>	<b>12</b>	<b>12</b>	<b>15</b>	<b>8</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>12</b>
Australia	0	0	0	0	0	0	0	0	0
Other	15	12	12	15	8	11			
<b>Total OECD Biodiesel</b>	<b>461</b>	<b>452</b>	<b>493</b>	<b>506</b>	<b>520</b>	<b>492</b>	<b>532</b>	<b>587</b>	<b>587</b>
<b>Total Non-OECD Biodiesel</b>	<b>405</b>	<b>411</b>	<b>439</b>	<b>439</b>	<b>439</b>	<b>464</b>	<b>464</b>	<b>464</b>	<b>464</b>
Brazil	102	111	116	117	114	101	110	101	105
Argentina*	42	27	36	36	36	42			
Other	261	274	287	287	289	321			
<b>TOTAL BIODIESEL</b>	<b>866</b>	<b>863</b>	<b>932</b>	<b>945</b>	<b>959</b>	<b>955</b>	<b>996</b>	<b>1050</b>	<b>1050</b>
<b>GLOBAL BIOFUELS</b>	<b>2839</b>	<b>2630</b>	<b>2752</b>	<b>3190</b>	<b>2687</b>	<b>2430</b>	<b>2471</b>	<b>2478</b>	<b>2779</b>

\* monthly data not available.

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## Next Issue: 15 June 2022

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