

# Oil Market Report

## Corrigendum

11 August 2022

- Soaring oil use for power generation and gas-to-oil switching are boosting demand. In this *Report*, we have raised our estimates for 2022 global demand growth by 380 kb/d, to 2.1 mb/d. Gains mask relative weakness in other sectors, and a slowdown in growth from 5.1 mb/d at the start of the year to less than 100 kb/d by 4Q22. World oil demand is now forecast at 99.7 mb/d in 2022 and 101.8 mb/d in 2023.
- World oil supply hit a post-pandemic high of 100.5 mb/d in July as maintenance wound down in the North Sea, Canada and Kazakhstan. OPEC+ ramped up total oil production by 530 kb/d in line with higher targets and non-OPEC+ rose by 870 kb/d. World oil supply is set to rise by a further 1 mb/d by year-end. In this *Report*, we revise up our forecast for Russian oil output but have lowered the outlook for North America.
- Refinery throughputs rose by 1.1 mb/d in July and are set for a further 350 kb/d gain this month, when runs will reach their highest level since January 2020. The increase was above refined product demand, driving cracks and refinery margins sharply below the all-time highs seen in June. Global refinery runs are now on track to rise by 2.6 mb/d in 2022 and 1.3 mb/d next year.
- Russian oil exports fell by 115 kb/d in July to 7.4 mb/d, from about 8 mb/d at the start of the year. Crude and oil product flows to the US, UK, EU, Japan and Korea have slumped by nearly 2.2 mb/d since the outbreak of the war, two-thirds of which have been rerouted to other markets. Export revenues fell from 21 bn in June to \$19 bn in July, on both reduced volumes and lower oil prices.
- Global observed inventories fell by a marginal 5 mb in June, with a drawdown in both OECD and non-OECD stocks partially offset by an increase in oil on water. OECD total industry stocks increased by 6.2 mb, to 2 681 mb but remained 292.1 mb below the five-year average. Government stocks released to the market totalled 33.8 mb in June, the largest drawdown since March.
- Benchmark crude oil futures have sunk by around \$30/bbl since a June peak as worsening economic prospects and oil demand growth weighed on sentiment. At the time of writing, Brent traded at around \$97/bbl and WTI \$92/bbl. Steadier forward prices flattened backwardation across the futures curve and prompt physical premiums eased.



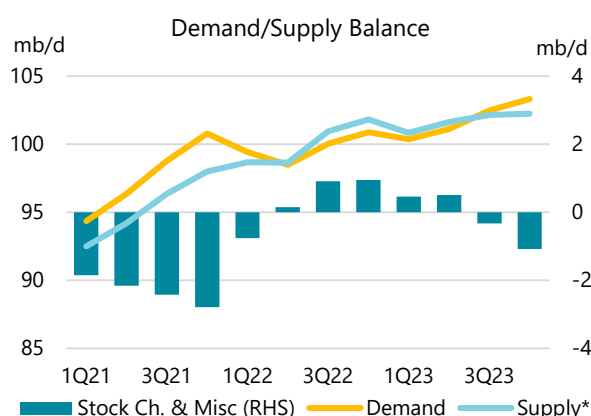
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# Summer heat

Rising oil supplies and escalating concerns over the deteriorating economic outlook have knocked around \$30/bbl off prices from a peak in June. For product prices and refinery margins, the plunge has been even steeper as a sharp run-up in refinery activity collided with lacklustre driving demand during the Northern Hemisphere summer season. At the time of writing, ICE Brent futures were around \$97/bbl while NYMEX WTI were trading at \$92/bbl.

At the same time, natural gas and electricity prices have soared to new records, incentivising gas-to-oil switching in some countries. With several regions experiencing blazing heatwaves, the latest data confirm increased oil burn in power generation, especially in Europe and the Middle East but also across Asia. Fuel switching is also taking place in European industry, including refining. In this *Report*, we have revised our forecast for world oil demand higher for the remainder of the year, but growth is nonetheless expected to slow from 5.1 mb/d in 1Q22 to a marginal 40 kb/d by 4Q22. World oil demand is now seen rising by 2.1 mb/d in 2022 to 99.7 mb/d and by a further 2.1 mb/d next year, when it surpasses pre-Covid levels at 101.8 mb/d.



\* Assumes OPEC+ unwinds cuts. Iran remains under sanctions.

The outlook for world oil supply has been revised upward, with more limited declines in Russian supply than previously forecast. While Russia's exports of crude and oil products to Europe, the US, Japan and Korea have fallen by nearly 2.2 mb/d since the start of the war, the rerouting of flows to India, China, Türkiye and others, along with seasonally higher Russian domestic demand has mitigated upstream losses. By July, Russian oil production was only 310 kb/d below pre-war levels while total oil exports were down just 580 kb/d. The EU embargo on Russian crude and product imports that comes into full effect in February 2023 is expected to result in further declines, as some 1 mb/d of products and 1.3 mb/d of crude would have to find new homes.

In a largely symbolic move, OPEC+ agreed in early August to raise its supply target by just 100 kb/d for September, significantly lower than the July and August scheduled increases of 648 kb/d. The group noted that "severely limited" spare capacity should be used with "great caution in response to severe supply disruptions", suggesting that substantial further OPEC+ output increases are unlikely in the coming months.

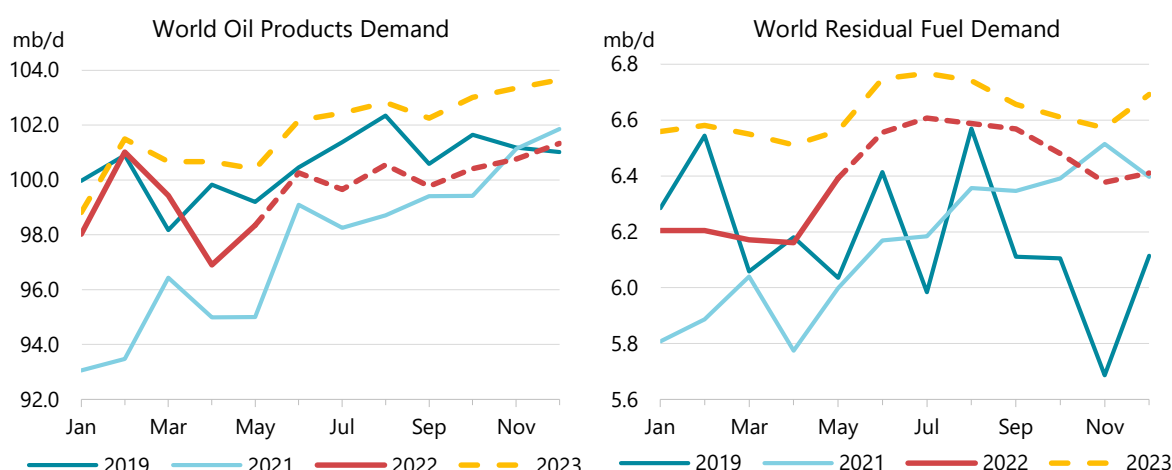
Even so, builds in global inventories are now projected at around 900 kb/d during the rest of this year and 500 kb/d over the first half of 2023. The release of additional emergency stocks through at least October will provide further relief. By end-June, around 150 mb of the volumes committed through IEA collective actions and individual IEA member SPR sales had yet to find its way to the market. With OECD industry stocks still some 290 mb below their five-year average, such builds could help ease market tensions. But with supply increasingly at risk to disruptions, another price rally cannot be excluded.

# Demand

## Overview

### Oil demand boosted by exceptional factors

Surging oil use for power generation and gas-to-oil switching in the wake of soaring European natural gas prices are lifting the growth trajectory for oil demand over the remainder of the year and into 2023. As a result, our estimates for 2022 global demand growth have been raised by 380 kb/d. These extraordinary gains, overwhelmingly concentrated in the Middle East and Europe, mask relative weakness in other sectors, but will propel demand higher by 2.1 mb/d to 99.7 mb/d in 2022 and by a further 2.1 mb/d to 101.8 mb/d in 2023.



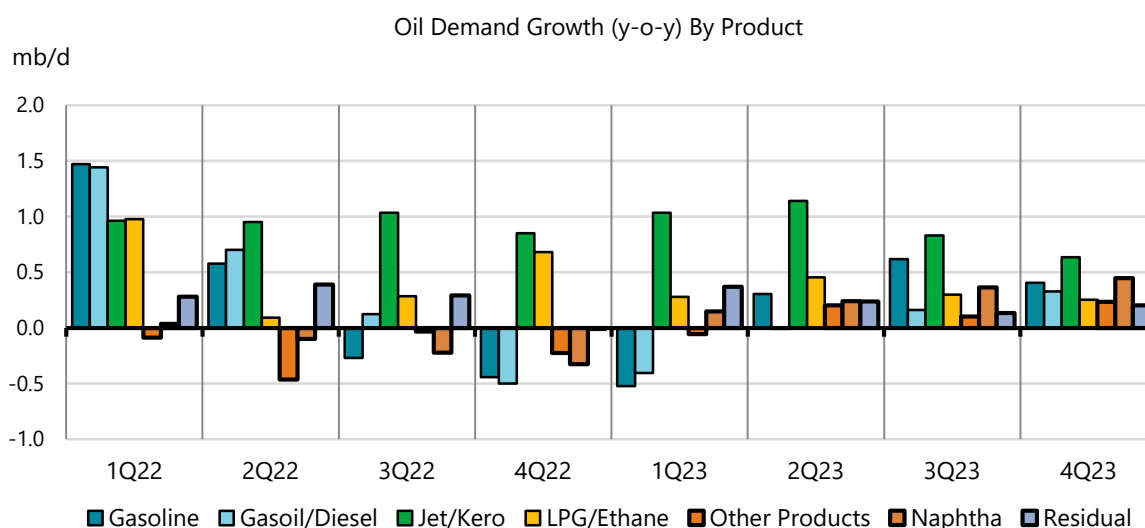
A looming natural gas crunch in Europe is already incentivising substantial gas-to-oil demand substitution. Forward pricing signals that this situation could persist until at least the end of 2023. European Union members have committed to reducing their demand for gas by 15% from August 2022 to March 2023. We estimate that this will increase oil consumption by roughly 300 kb/d for the next six quarters. Oil products are not an alternative for most household consumers. Nonetheless, industrial consumers, particularly refiners, can replace a great deal of gas use with oil. Substitution will be principally in fuel oil (+150 kb/d) and gasoil (+140 kb/d).

Fuel oil and direct crude use for power generation soared in recent months, as the globe sweltered in unseasonably hot weather, boosting demand. This was most apparent in Saudi Arabia and Iraq, with a 230 kb/d rise in fuel oil and direct crude burning in May. Elsewhere, Portugal's usage increased by 30 kb/d or 173% between April and May, while Spain, the UK and Japan saw more moderate monthly increases of between 15% and 55%. Preliminary indications point to sustained gains through the summer.

New data also show road fuel demand holding up slightly better than expected, although growth stalled in 2Q22 and deliveries will decline in 2H22. May and June statistics have boosted our 2Q22 estimate of combined growth in gasoline and gasoil to 1.3 mb/d year-on-

year (y-o-y). Excluding historical baseline revisions, global 2Q22 gasoline demand has been revised 210 kb/d higher, with gasoil 170 kb/d above last month's *Report*.

Global economic forecasts deteriorated further in July. The IMF cut its global GDP growth forecast for 2022 to 3.2% and for 2023 to 2.9%, a downgrade from its April projection by 0.4 and 0.7 percentage points, respectively. The IMF cited “an increasingly gloomy and uncertain outlook”, with the war in Ukraine, high commodity prices and China’s lockdowns weighing on growth. Some other organisations forecast that 2H22 will see global growth below 2.5% y-o-y and an outright recession in Europe due to extremely high energy prices. The latest economic data generally came in softer around the globe: Eurozone consumer confidence, as reported by the European Commission, fell from -23.8 to -27 in July, an all-time low. US consumer confidence dropped by 2.7 points to 95.7 in July: its third straight monthly decline, to a one-and-a-half-year low. Consumer aversion to high prices and the more negative general macroeconomic sentiment affected gasoline prices the most within the product complex.



Prompt indicators suggest that road fuel demand in the OECD began to ebb more quickly from July onwards, aligning with more negative economic sentiment to suggest a considerable 2H22 contraction. EIA and UK government figures show significant deteriorations in gasoline and diesel demand in July, while mobility indices in several of the largest developed economies fell behind 2021 levels by mid-July. While these preliminary signals are subject to change, they match our expectations of receding OECD fuel use in 2H22 (gasoline -360 kb/d y-o-y, diesel -410 kb/d).

Global Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2020	2021	2022	2023	2022	2023	2022	2023
LPG & Ethane	13 128	13 812	14 321	14 642	509	321	3.7	2.2
Naphtha	6 434	6 983	6 831	7 131	- 153	300	-2.2	4.4
Motor Gasoline	23 647	25 604	25 932	26 137	328	205	1.3	0.8
Jet Fuel & Kerosene	4 709	5 192	6 143	7 052	951	909	18.3	14.8
Gas/Diesel Oil	26 120	27 641	28 077	28 099	437	21	1.6	0.1
Residual Fuel Oil	5 624	6 157	6 395	6 630	238	235	3.9	3.7
Other Products	11 879	12 199	11 997	12 118	- 202	122	-1.7	1.0
<b>Total Products</b>	<b>91 541</b>	<b>97 589</b>	<b>99 695</b>	<b>101 809</b>	<b>2 106</b>	<b>2 114</b>	<b>2.2</b>	<b>2.1</b>

Chinese economic data were also weaker, with its manufacturing PMI and home sales contracting. After a second quarter of negligible GDP growth, China's Communist Party all but abandoned its 5.5% annual growth target for 2022, while stressing its commitment to its zero-tolerance Covid policy. This was in evident in Shenzhen and Wuhan, where new lockdowns were implemented in July. While we still expect a rebound in economic activity and a general relaxation of restrictions by early 2023, these developments have set back our projected demand recovery by two months.

As the opportunities for gains in other oil products become more limited, the ongoing rebound in air traffic and associated recovery in jet/kerosene use will become the major driver of oil demand growth. Average deliveries will climb by 880 kb/d in 2023, encompassing over 40% of the increase in total oil demand. *Radarbox* figures show early August traffic at 88% of 2019 levels and aviation analysts *OAG* show elevated levels of scheduled capacity later into this summer than in a typical year.

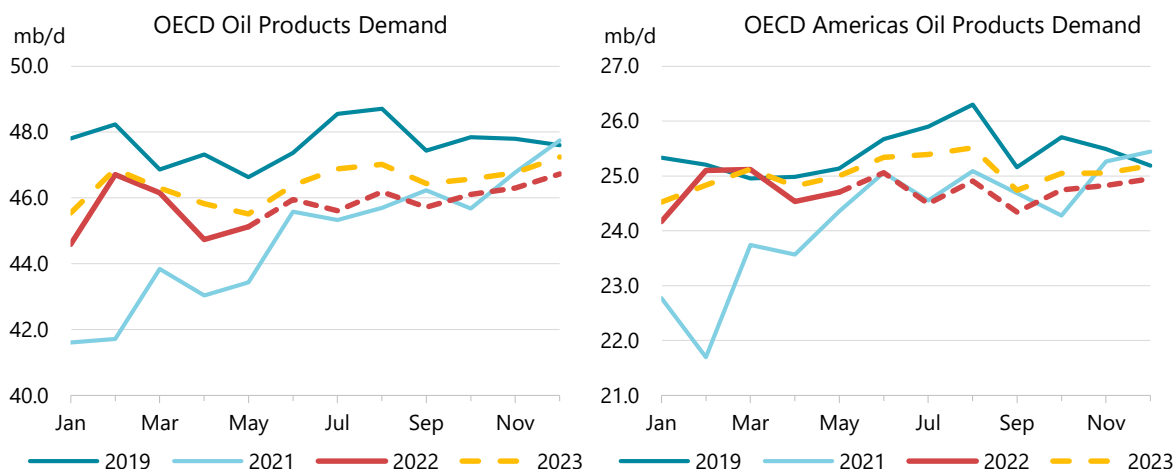
In our July and August *Reports*, we have revised historical demand to align with updated annual data for 2020 from the *World Energy Statistics 2022* publication and whole year figures from OECD countries for 2021. The 2020 slowdown was greater than previously estimated (-340 kb/d relative to the June *Report*), however, 2021 demand is little changed (-20 kb/d).

Global Demand by Region								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2020	2021	2022	2023	2022	2023	2022	2023
Africa	3 766	3 991	4 104	4 088	113	- 16	2.8	-0.4
Americas	27 920	30 179	30 807	31 087	628	280	2.1	0.9
Asia/Pacific	34 085	36 187	36 703	38 423	516	1 720	1.4	4.7
Europe	13 136	13 904	14 429	14 504	525	75	3.8	0.5
FSU	4 559	4 848	4 734	4 645	- 114	- 89	-2.3	-1.9
Middle East	8 075	8 480	8 918	9 062	438	144	5.2	1.6
<b>World</b>	<b>91 541</b>	<b>97 589</b>	<b>99 695</b>	<b>101 809</b>	<b>2 106</b>	<b>2 114</b>	<b>2.2</b>	<b>2.1</b>
OECD	42 049	44 740	45 819	46 443	1 080	624	2.4	1.4
Non-OECD	49 491	52 849	53 876	55 366	1 027	1 490	1.9	2.8

## OECD

Based on complete May data and preliminary indications for June, 2Q22 OECD oil demand growth slowed to 1.3 mb/d y-o-y compared with 3.4 mb/d in 1Q22. Total oil use is expected

to average 45.8 mb/d during 2022 and 46.4 mb/d in 2023, up 1.1 mb/d and 620 kb/d, respectively.



Gasoline (+430 kb/d) and diesel (+520 kb/d) deliveries both posted robust y-o-y gains in May, but preliminary statistics show a fall in June (-130 kb/d and -160 kb/d, respectively). These declines are expected to continue through the remainder of 2022. High electricity demand for cooling is contributing to elevated overall fuel oil demand (+200 kb/d y-o-y in May). As a result of restricted natural gas availability, we now expect a ramp-up of about 200 kb/d in fuel oil and gasoil demand during 4Q22 and 1Q23, compared with the winter of 2021/2022, when gas-to-oil substitution was already taking place.

## OECD Americas decline gather pace

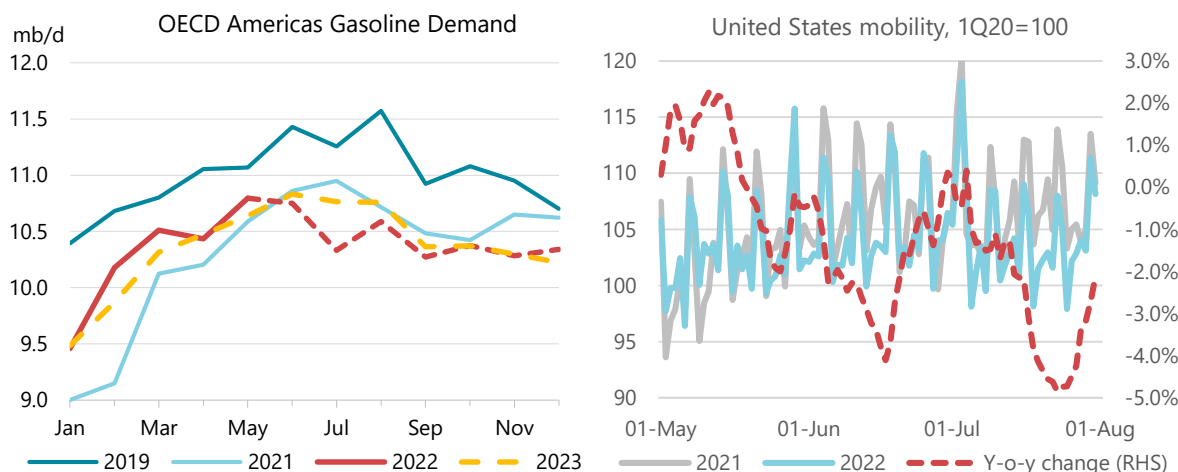
Demand growth in OECD Americas is rapidly going into reverse. Having run well ahead of 2021 throughout most of 1H22, deliveries contracted in July (-50 kb/d y-o-y). The deficit is set to widen to 190 kb/d in 3Q22, with gasoline declining 320 kb/d y-o-y.

Prompt EIA weekly data for June and July highlights increasingly subdued US gasoline deliveries. Having been neck-and-neck with 2021 in May, we estimate that use tumbled by 230 kb/d (-2.5%) in June and plunged by 640 kb/d (-6.9%) in July. While some indicators are less negative and final May data outperformed the preliminaries by about 180 kb/d, demand estimates based on mobility indicators show a comparable annual fall.

Similarly, the macroeconomic climate continues to darken, including a 0.9% fall in 2Q22 GDP, a 0.75 percentage point hike in the US Federal Reserve benchmark interest rate, deteriorating consumer confidence and the *S&P Global US Services Purchasing Managers' Index (PMI)* posting its first indication of decline in almost two years (at 47.3 in July it is below the 50-expansion threshold).

We project OECD America's demand to fall by an average of 280 kb/d y-o-y in 2H22. The decline could be steeper in 3Q22 if August and September data follow the trend of preliminary July data. More bullish indicators include lower average July gasoline prices (down 6% m-o-m according to *GlobalPetrolPrices.com*), a limited recovery in mobility indicators during the final week of the month, and the US adding twice as many jobs as expected in July.





Diesel demand has been more resilient than gasoline and is largely keeping pace with 2021 levels (flat in May, -80 kb/d in June and +30 kb/d in July). Principally this reflects the relative price inelasticity of diesel and the fact that while the *S&P Global US Manufacturing PMI* is easing, it remains in positive territory (52.2 in July). The road freight market continues to lag 2021, with *DAT Freight and Analytics* showing that spot loadings were 34% lower y-o-y in July.

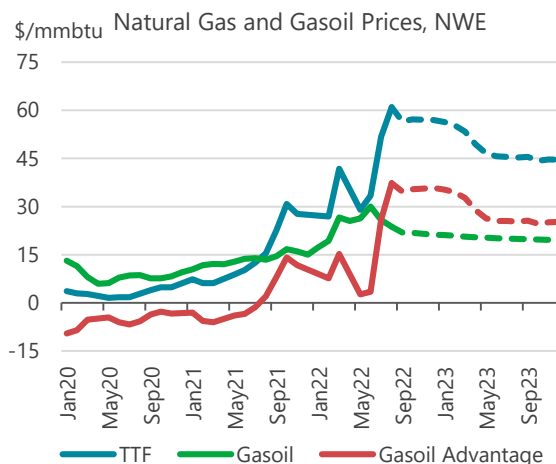
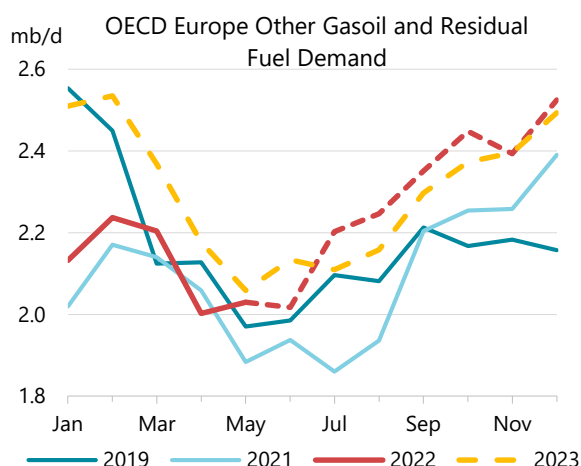
## OECD Europe gas pressure lifts demand

European deliveries are currently being boosted by exceptional demand for heat and power generation and in industry. Electricity requirements for cooling amid a protracted heatwave and the beginning of what may be a major rise in gas-to-oil switching under new EU guidelines in response to uncertainty surrounding gas supply from Russia are augmenting fuel oil and gasoil use. These twin crises, combined with strong June preliminary data for other fuels, have led us to increase projected growth for 2022 to 510 kb/d (reaching 13.6 mb/d) with a much more gradual slowdown during 2H22.

Fuel oil use rose in several countries during 2Q22 according to final May and preliminary June statistics (including Portugal +131% y-o-y, UK +51%, Spain +30%, Germany +20% and Italy +12% for the quarter). European residual fuel demand increased by 120 kb/d y-o-y in 2Q22 and we expect this level to rise further into the winter of 2022/2023, given the urgent need to reduce gas consumption.

In many major industrial settings where oil is a practical alternative, gas consumers are preparing to switch if required, adapting equipment and supply chains. Notably, these changes have reportedly been concentrated in heat, steam and hydrogen production, where oil's disadvantages around relative efficiency and carbon pricing are less pertinent than in the power sector. Refiners are especially well-placed to use oil and several operators have indicated that they are in the process of substantially trimming their use of gas. Official monthly oil statistics show that adjusted for runs, oil use in refinery fuels increased by an average of 11% in the first five months of 2022. Our projections assume that total substitution will add almost 300 kb/d to oil product deliveries from now until the end of 2023 and that in 4Q22 and 1Q23 demand for non-road gasoil and fuel oil will rise by 220 kb/d y-o-y (compared to a period that itself saw substantial switching).

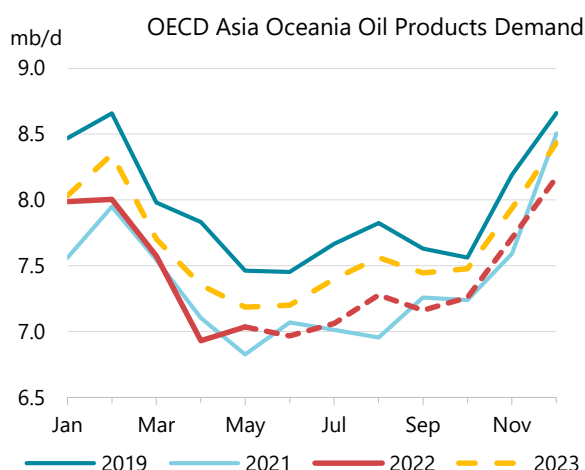
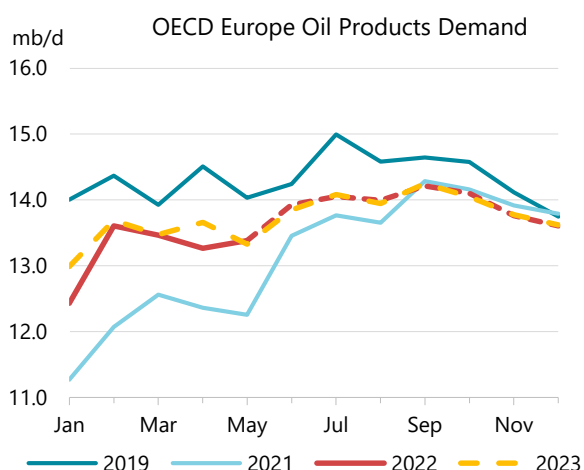




June preliminary data shows that gasoline (+40 kb/d y-o-y) and diesel (-220 kb/d y-o-y) demand performed slightly better than forecast. Demand in June remained close to 2021 levels for road fuels in major countries like France, Germany and Italy but mobility data and preliminary UK sales estimates suggest that a greater slowdown began in July. The *S&P Global Eurozone Manufacturing PMI* slipped into contraction in July, falling to 49.8 from 52.1 in June. In addition, the very low levels of the river Rhine will have mixed impacts on oil demand, forcing more deliveries by truck in the region, but disrupting major refinery and petrochemical operations.

## OECD Asia Oceania slowdown continues

In June, OECD Asia Oceania oil deliveries dropped by 100 kb/d y-o-y, following a rise of 200 kb/d in May. Gasoline (-60 kb/d) and gasoil (-50 kb/d) were the poorest performers, with mobility falling amid high prices and with PMIs revealing worsening manufacturing conditions. Korean demand was especially weak, declining by 200 kb/d y-o-y amid large-scale protests and strikes by truck drivers.



Japanese demand was stronger, climbing by 50 kb/d y-o-y in June. This was largely the result of an estimated 70 kb/d boost in oil use in power generation amid extremely high temperatures in the country. Australian demand was essentially flat y-o-y in May, with lower road fuels deliveries being balanced by growth in jet/kerosene.

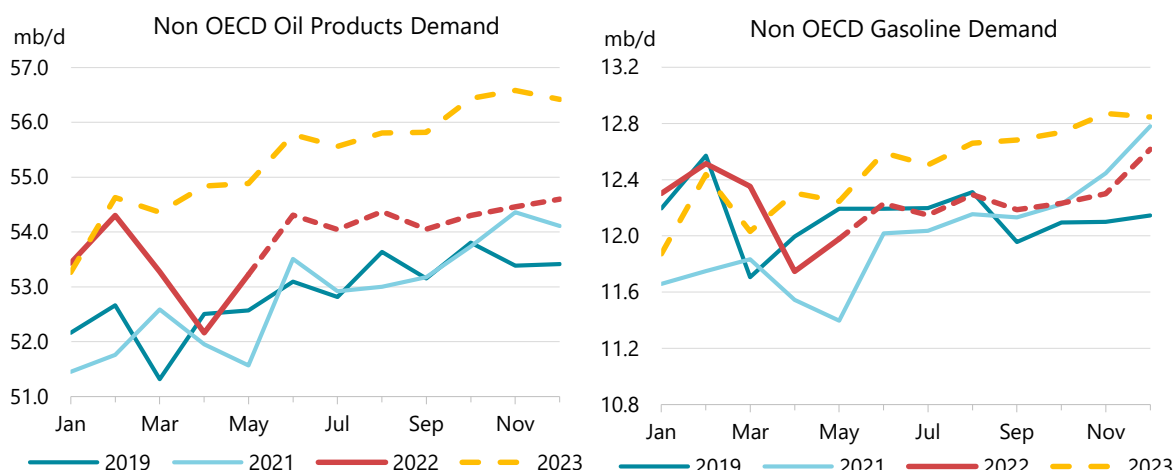
Average 2022 regional demand is set to increase by only 40 kb/d, to 7.4 mb/d. Growth will be hampered by a 70 kb/d drop in naphtha use due to uneven Chinese polymer demand, weak margins and petrochemical plant issues handicapping the region's producers.

OECD Demand based on Adjusted Preliminary Submissions - June 2022														
(million barrels per day)														
	Gasoline		Jet/Kerosene		Diesel		LPG/Ethane		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
<b>OECD Americas</b>	<b>10.75</b>	<b>-1.0</b>	<b>1.89</b>	<b>18.2</b>	<b>3.32</b>	<b>3.6</b>	<b>3.60</b>	<b>0.0</b>	<b>0.60</b>	<b>-1.5</b>	<b>4.90</b>	<b>-5.4</b>	<b>25.06</b>	<b>0.0</b>
US*	9.07	-2.5	1.62	12.7	2.43	-3.0	2.81	-0.4	0.38	2.6	3.96	-6.6	20.27	-2.0
Canada	0.79	-5.2	0.14	84.3	0.26	-3.8	0.45	2.2	0.04	42.1	0.70	-1.1	2.38	1.1
Mexico	0.81	25.3	0.09	45.0	0.46	78.9	0.30	-0.2	0.16	-17.5	0.22	2.5	2.04	21.8
<b>OECD Europe</b>	<b>2.20</b>	<b>1.9</b>	<b>1.45</b>	<b>85.9</b>	<b>5.14</b>	<b>-4.0</b>	<b>0.97</b>	<b>-14.2</b>	<b>0.91</b>	<b>22.2</b>	<b>3.26</b>	<b>-1.0</b>	<b>13.92</b>	<b>3.5</b>
Germany	0.51	5.4	0.20	57.5	0.69	-10.4	0.12	-9.6	0.05	19.7	0.62	11.7	2.19	3.8
United Kingdom	0.29	2.4	0.28	127.6	0.47	-10.4	0.11	33.4	0.03	103.2	0.26	-2.2	1.44	11.5
France	0.25	5.7	0.15	78.1	0.77	-4.0	0.11	-12.1	0.03	18.4	0.30	-11.3	1.61	-0.1
Italy	0.20	3.3	0.17	125.5	0.51	-0.5	0.10	-3.8	0.10	2.8	0.23	-13.7	1.32	5.0
Spain	0.13	-3.0	0.15	124.4	0.46	-5.8	0.05	13.9	0.15	32.5	0.34	-5.8	1.28	5.8
<b>OECD Asia &amp; Oceania</b>	<b>1.30</b>	<b>-4.2</b>	<b>0.48</b>	<b>9.3</b>	<b>1.41</b>	<b>-4.1</b>	<b>0.78</b>	<b>-2.1</b>	<b>0.42</b>	<b>3.4</b>	<b>2.59</b>	<b>-0.9</b>	<b>6.97</b>	<b>-1.4</b>
Japan	0.69	-1.4	0.22	-3.4	0.43	-0.7	0.39	0.0	0.21	-7.1	1.17	7.6	3.10	1.5
Korea	0.20	-17.9	0.12	7.5	0.39	-12.9	0.32	-6.6	0.18	10.7	1.18	-7.9	2.40	-7.7
Australia	0.28	0.7	0.11	57.4	0.53	-2.9	0.05	-1.3	0.01	139.9	0.11	1.4	1.10	3.4
<b>OECD Total</b>	<b>14.25</b>	<b>-0.9</b>	<b>3.82</b>	<b>35.6</b>	<b>9.87</b>	<b>-1.6</b>	<b>5.35</b>	<b>-3.2</b>	<b>1.93</b>	<b>9.7</b>	<b>10.74</b>	<b>-3.1</b>	<b>45.95</b>	<b>0.8</b>

\* Including US territories

## Non-OECD

Non-OECD demand rose by 1.1 mb/d m-o-m in June, 500 kb/d above its historical average increase. This was due to strength in gasoline and jet/kerosene, as China's ongoing rebound combined with robust Russian deliveries, higher Middle Eastern oil use for power generation and India's sustained demand recovery. Total use was 54.3 mb/d, 800 kb/d higher y-o-y. We expect some of the momentum of these actuals to carry over into 2H22 and 2023. Correcting for the impact of historical revisions, we have increased our forecast for 2022 and 2023 by about 300 kb/d each, to 53.9 mb/d and 55.4 mb/d, respectively.

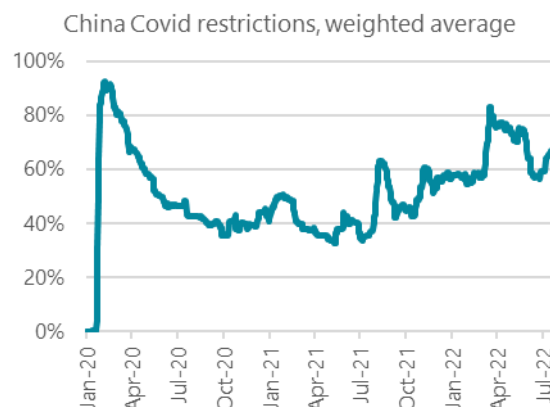
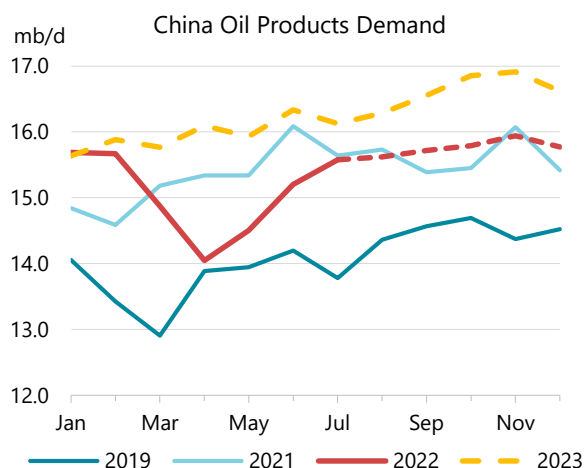


## Chinese demand set back after renewed lockdowns

China's deliveries rose by 700 kb/d m-o-m in June, well ahead of its seasonal average, as its emergence from lockdowns gathered pace. However, we anticipate this recovery to lose steam over the next few months, as July saw a subsequent pick-up in lockdown restrictions. A number of Chinese cities experienced a resurgence in Covid outbreaks and the flare-up in infections prompted new curtailments in the manufacturing hub of Shenzhen, as well as in Wuhan, where a district of one million residents was locked down. This was reflected in a weighted average of provincial Covid-19 restriction data from Oxford University's *Blavatnik School of Government* (BSG), which showed an increase in July. Moreover, Chinese economic data took a turn for the worse in July. The *Caixin Manufacturing PMI* fell to 50.4 from 51.7, while China's official PMI moved back into contraction territory, to 49 in July from 50.2. Second quarter GDP data released in July, show the economy grew by a lacklustre 0.4%. In response, the Communist Party's Politburo has all but abandoned its 5.5% annual growth target for this year, while reiterating its commitment to its stringent Covid containment strategy.

Total deliveries were lower by 890 kb/d year-on-year (y-o-y) in June. In last month's *OMR Report*, we expected positive y-o-y growth to be attained by July. This has been pushed back to September as the renewed lockdowns and more adverse economic conditions decelerate gasoline and gasoil use.

Naphtha (+80 kb/d m-o-m) and LPG/ethane (+220 kb/d m-o-m) continued their trajectory of robust growth, as China expands its petrochemical production capacity. The petrochemical sector is relatively unaffected by the lockdowns and day-to-day economic vagaries, and we anticipate LPG/ethane to post the highest annual growth rate among major products at 8% y-o-y.



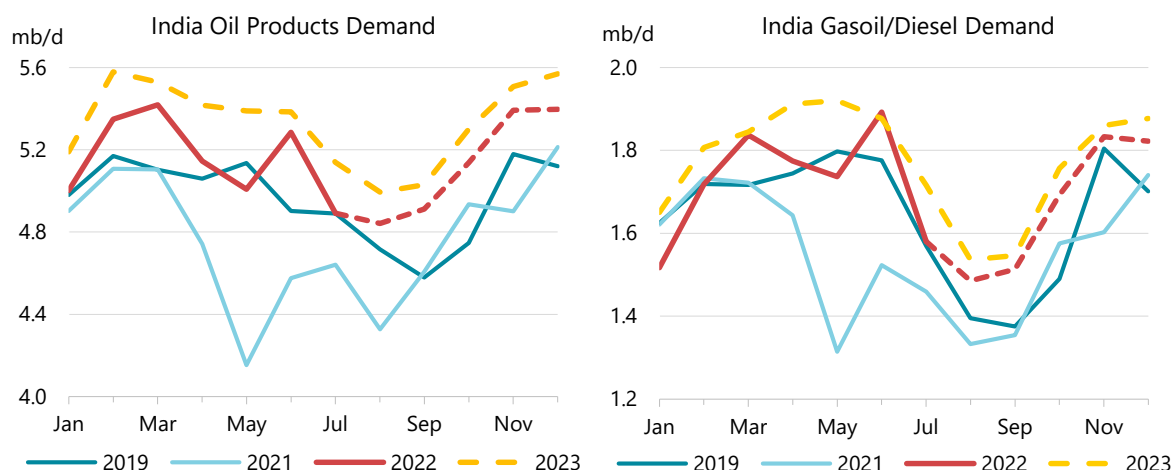
Sources: IEA, Oxford University BSG

**Jet/kerosene deliveries**, the only product category where demand is still well below pre-Covid levels, climbed by 120 kb/d month-on-month (m-o-m) in June, as flight numbers continued their recovery. According to tracking data from *Radarbox*, average July traffic climbed further, by 37% from June levels, to 10 700 daily flights. Traffic is now almost back to February's level, before the Omicron-related lockdowns took effect. As this indicator is highly correlated to fuel use, we expect jet/kerosene demand to show a similar increase in July and a return to y-o-y growth by August. It will continue to be the main driver of product growth in 2023 on a relative basis, forecast to increase by a stellar 39%. By comparison, no other major product is forecast to attain double-digit growth: gasoil and gasoline are expected to grow by about 3% y-o-y, more or less in line with national GDP growth of around 5% in 2023.

China: Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2020	2021	2022	2023	2022	2023	2022	2023
LPG & Ethane	1 836	2 153	2 325	2 467	172	142	8.0	6.1
Naphtha	1 479	1 679	1 718	1 863	39	145	2.3	8.4
Motor Gasoline	3 156	3 502	3 539	3 638	37	99	1.1	2.8
Jet Fuel & Kerosene	755	733	596	830	- 137	234	-18.7	39.2
Gas/Diesel Oil	3 022	3 399	3 504	3 618	105	115	3.1	3.3
Residual Fuel Oil	490	527	521	561	- 6	40	-1.1	7.7
Other Products	3 466	3 434	3 163	3 273	- 270	110	-7.9	3.5
<b>Total Products</b>	<b>14 204</b>	<b>15 427</b>	<b>15 366</b>	<b>16 250</b>	<b>- 60</b>	<b>884</b>	<b>-0.4</b>	<b>5.8</b>

## Indian deliveries remain resilient

Indian demand in July fell by 390 kb/d m-o-m, reversing last month's strength due to softer gasoil use. However, this decline was partly seasonal, as monsoon rains curtailed mobility. Total demand was 250 kb/d higher y-o-y in July, at 4.9 mb/d – and has now bounced back to pre-Covid levels. The country's economy remains resilient with the *S&P Global India Manufacturing PMI* rising to 56.4 in July, up 0.5 from June, to an eight-month high. Low prices should also incentivise demand for gasoline and diesel, with consumer prices stable m-o-m in July and now some 7% below their all-time highs set in May, according to *GlobalPetrolPrices.com*.



For 2022 as a whole, we see demand increasing by 380 kb/d y-o-y, dominated by gasoil (+150 kb/d y-o-y). Next year, we see demand rising by 190 kb/d y-o-y, with jet/kerosene up by 40 kb/d and gasoline up by 50 kb/d.

India: Demand by Product (thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2020	2021	2022	2023	2022	2023	2022	2023
LPG & Ethane	873	892	913	931	20	18	2.3	2.0
Naphtha	313	313	291	296	- 22	5	-7.1	1.7
Motor Gasoline	698	781	851	905	70	54	9.0	6.3
Jet Fuel & Kerosene	118	127	163	205	37	42	28.8	25.8
Gas/Diesel Oil	1 448	1 551	1 699	1 775	149	75	9.6	4.4
Residual Fuel Oil	146	152	157	158	5	1	3.4	0.9
Other Products	984	950	1 072	1 063	122	- 8	12.8	-0.8
<b>Total Products</b>	<b>4 582</b>	<b>4 765</b>	<b>5 146</b>	<b>5 333</b>	<b>381</b>	<b>187</b>	<b>8.0</b>	<b>3.6</b>

## Other Non-OECD

Russian demand rose by 210 kb/d m-o-m in June, more or less in line with its historical seasonal pattern, due to higher deliveries in gasoline (+100 kb/d m-o-m) and gasoil (+40 kb/d m-o-m). Road fuels demand was firm, helped by consumer prices that were little changed in June and July and still well below their March peak, according to figures from *GlobalPetrolPrices.com*. Gasoil use was supported by military and industrial consumption. The *S&P Global Russia Manufacturing PMI*, while falling to 50.3 from 50.9 in June, showed improved demand conditions, with the largest rate of expansion in new orders since April 2019. Meanwhile, jet/kerosene demand climbed back to pre-invasion levels, a pattern that is also apparent in flight numbers from Moscow's Sheremetyevo Airport. All in all, this propelled product uses higher by 190 kb/d y-o-y in June. However, we expect this to slow considerably in the second half of the year, as sanctions strengthen and GDP growth's negative momentum accelerates. Overall deliveries are forecast to fall by 50 kb/d in 2022, led by jet/kerosene (-60 kb/d), and to contract by 120 kb/d in 2023.

The Middle East saw robust demand in May, up by 320 kb/d m-o-m and 650 kb/d higher y-o-y, as power systems were overstretched by the extremely hot weather. The main contribution came from direct crude use in power generation. Saudi Arabia's monthly deliveries rose by 190 kb/d in May, almost entirely due to higher oil burn. Iraq saw a similar

development, with direct crude use 50 kb/d higher m-o-m, also well ahead of its normal seasonal strength. The country declared a state of emergency in August as temperatures rose above 50°C. We have increased our forecast for Middle Eastern demand growth to 440 kb/d y-o-y for 2022 (+180 kb/d) and to 140 kb/d for 2023 (+60 kb/d).

Non-OECD: Demand by Region								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2020	2021	2022	2023	2022	2023	2022	2023
Africa	3 766	3 991	4 104	4 088	113	- 16	2.8	-0.4
Asia	26 918	28 805	29 277	30 754	471	1 477	1.6	5.0
FSU	4 559	4 848	4 734	4 645	- 114	- 89	-2.3	-1.9
Latin America	5 451	5 955	6 063	6 038	108	- 25	1.8	-0.4
Middle East	8 075	8 480	8 918	9 062	438	144	5.2	1.6
Non-OECD Europe	723	770	780	780	10	0	1.4	0.0
<b>Total Products</b>	<b>49 491</b>	<b>52 849</b>	<b>53 876</b>	<b>55 366</b>	<b>1 027</b>	<b>1 490</b>	<b>1.9</b>	<b>2.8</b>

Latin American deliveries fell counter-seasonally by 20 kb/d m-o-m in June. However, demand remains 140 kb/d higher y-o-y, helped by solid growth in gasoil, gasoline and jet/kerosene. Brazil's June deliveries were marginally negative at -20 kb/d m-o-m. We continue to see flat growth in 2022 and a further slowdown in 2023 (-40 kb/d y-o-y), as lacklustre mobility undercuts gasoline and diesel demand, while gasoil and fuel oil are weaker in the absence of last year's drought-related support. Likewise, Argentina's demand was flat m-o-m. Full-year growth for 2022 is anticipated to remain positive at 30 kb/d, before turning negative in 2023 (-10 kb/d y-o-y). The country's rapidly escalating economic troubles (a collapsing peso, fiscal worries, stalling economic reforms and hyperinflation at 65%) do not bode well for oil demand.

Non-OECD: Demand by Product								
(thousand barrels per day)								
	Demand				Annual Chg (kb/d)		Annual Chg (%)	
	2020	2021	2022	2023	2022	2023	2022	2023
LPG & Ethane	7 779	8 279	8 574	8 804	295	230	3.6%	2.7%
Naphtha	3 311	3 654	3 649	3 901	- 5	252	-0.1%	6.9%
Motor Gasoline	10 987	12 000	12 279	12 534	279	255	2.3%	2.1%
Jet Fuel & Kerosene	2 113	2 162	2 401	2 844	239	443	11.0%	18.5%
Gas/Diesel Oil	13 472	14 457	14 855	14 880	399	25	2.8%	0.2%
Residual Fuel Oil	4 108	4 401	4 473	4 671	72	198	1.6%	4.4%
Other Products	7 722	7 897	7 658	7 761	- 239	103	-3.0%	1.3%
<b>Total Products</b>	<b>49 491</b>	<b>52 849</b>	<b>53 888</b>	<b>55 395</b>	<b>1 039</b>	<b>1 506</b>	<b>2.0%</b>	<b>2.8%</b>

Although Pakistani deliveries fell by 20 kb/d m-o-m in May, y-o-y growth was unchanged at 120 kb/d. Half of this increase comes from fuel oil and gasoil use in power generation, to the detriment of hugely expensive LNG. A spell of exceptionally hot weather has made the country scramble for fuel, in a frantic effort to keep its power grid running: about a quarter of its power-generation capacity has been shut in due to fuel shortages. To make matters worse, it is struggling to secure its energy needs through import tenders, as it faces an acute financial crisis (the rupee has plunged 22% year-to-date against the US dollar), making suppliers and banks reluctant to take on Pakistani credit risk.

Egyptian demand was flat m-o-m in May, as fuel oil demand stayed strong. Deliveries are anticipated to grow by 70 kb/d y-o-y for 2022, almost entirely due to the burning of fuel oil in

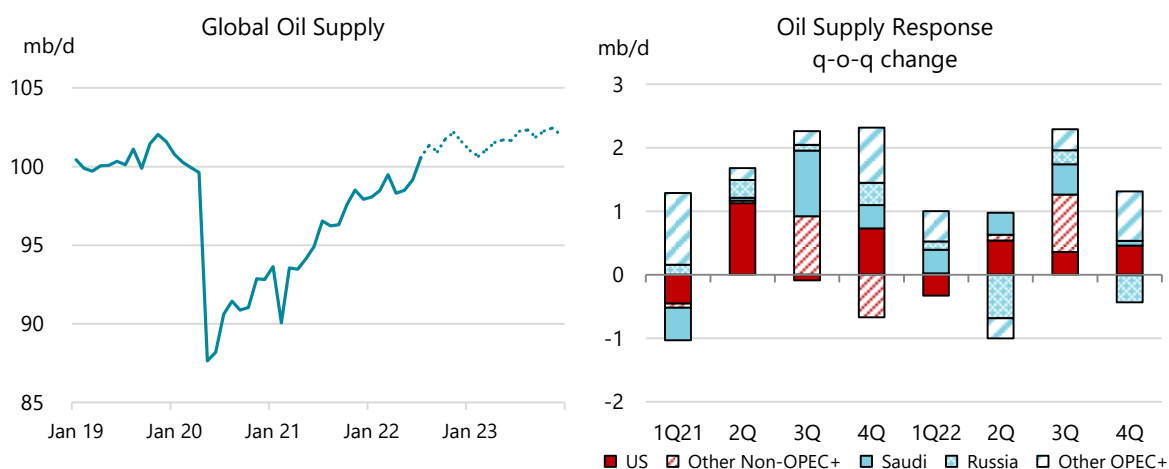
**power generation, which is crowding out usage of domestically produced natural gas (that is instead being exported as LNG).**



# Supply

## Overview

World oil supply reached a post-pandemic peak in July amid a strong return from maintenance-related outages. Global output rose 1.4 mb/d to 100.5 mb/d, the highest level since January 2020, after the North Sea, Canada and Kazakhstan bounced back from scheduled upstream repairs and Saudi Arabia ramped up in line with its OPEC+ increase. Russian supply edged up marginally.



From July through December, production is forecast to grow by 1 mb/d to reach 101.6 mb/d. Supplies from OPEC+ are expected to rise by 400 kb/d over the period, with higher anticipated flows from Libya, Kazakhstan and Gulf producers offset by deepening losses in Russia. Producers outside the alliance (non-OPEC+) are set to add 640 kb/d, with the United States leading the gains.

### World Oil Production by Region (OPEC+ based on current agreement)

(million barrels per day)

	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023
Africa	7.4	7.4	7.0	7.1	7.3	7.2	7.3	7.3	7.3	7.2	7.3
Latin America	5.9	6.2	6.2	6.4	6.6	6.3	6.7	6.7	6.8	6.8	6.7
North America	24.3	25.0	25.4	26.0	26.6	25.7	26.6	26.9	27.2	27.5	27.1
China	4.1	4.2	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.2	4.3
Other Asia	3.4	3.3	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1
Europe	3.5	3.4	3.2	3.3	3.5	3.3	3.5	3.4	3.4	3.6	3.5
FSU	13.8	14.4	13.4	13.6	13.5	13.7	12.7	12.5	12.4	12.5	12.5
Middle East	27.9	30.1	30.8	31.5	31.7	31.0	31.8	31.9	31.9	31.9	31.9
<b>Total Oil Production</b>	<b>90.3</b>	<b>94.0</b>	<b>93.4</b>	<b>95.3</b>	<b>96.6</b>	<b>94.8</b>	<b>96.0</b>	<b>96.1</b>	<b>96.3</b>	<b>96.9</b>	<b>96.3</b>
Processing Gains	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
Global Biofuels	2.8	2.4	3.0	3.3	2.9	2.9	2.6	3.1	3.4	3.0	3.0
<b>Total Supply</b>	<b>95.3</b>	<b>98.7</b>	<b>98.7</b>	<b>100.9</b>	<b>101.8</b>	<b>100.0</b>	<b>100.9</b>	<b>101.6</b>	<b>102.1</b>	<b>102.2</b>	<b>101.7</b>
<i>OPEC Crude</i>	26.5	28.6	28.8	29.6	30.1	29.2	30.1	30.1	30.1	30.0	30.1
<i>OPEC NGLs</i>	5.0	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.4	5.4	5.4
<i>Non-OPEC OPEC+</i>	17.4	18.2	17.2	17.5	17.4	17.6	16.6	16.4	16.3	16.4	16.4
<b>Total OPEC+</b>	<b>49.0</b>	<b>51.9</b>	<b>51.3</b>	<b>52.3</b>	<b>52.7</b>	<b>52.1</b>	<b>52.0</b>	<b>51.8</b>	<b>51.7</b>	<b>51.8</b>	<b>51.9</b>

For 2022 as a whole, global production is forecast to rise by 4.8 mb/d, to 100 mb/d. OPEC+ is on track to contribute 3.1 mb/d while non-OPEC+ is set to increase supplies by 1.7 mb/d. In 2023, world oil production is projected to rise by 1.7 mb/d to reach an annual record of 101.7 mb/d, led by non-OPEC+ supply rising by around 1.9 mb/d. The US accounts for 60% of the gains.

As for Russia, we have revised up our projection this month due to the limited impact to date of US and European sanctions substantially curbing supply. Asian buyers have stepped in to take advantage of cheap crude importing higher volumes. In July, Russian oil production was only 310 kb/d below pre-war levels. Although the EU embargo on Russian crude and product imports that comes into full effect in February 2023 is expected to result in further declines, some policymakers have suggested a possible softening of measures. That has led us to revise up 2H22 Russian volumes by a further 500 kb/d and make an upward adjustment of 800 kb/d for 2023.

## OPEC+ agrees to modest output increase

OPEC+ agreed at its 3 August meeting to raise its supply target by a modest 100 kb/d for September, significantly lower than the July and August targeted increases of 648 kb/d. The extra volume was divided proportionally among the 19 members taking part in the deal, with Saudi Arabia and the UAE between them due to add about 30 kb/d. In the end, however, a month-on-month (m-o-m) decline is forecast for OPEC+ output in September because of further reductions in Russian supply.

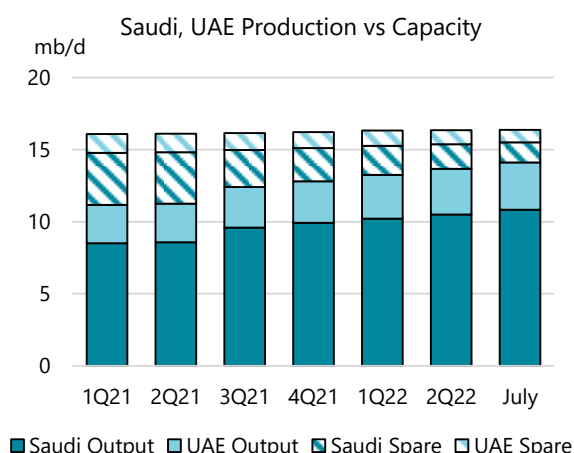
In its post-meeting communique, OPEC+ noted that “severely limited” spare capacity should be used with “great caution in response to severe supply disruptions” and stated that there was insufficient investment in the upstream sector. Comparatively low levels of operational spare production capacity, held mainly by Saudi Arabia and the UAE, may thus all but rule out substantial further OPEC+ output increases in the coming months. The producer group is due to meet again on 5 September.

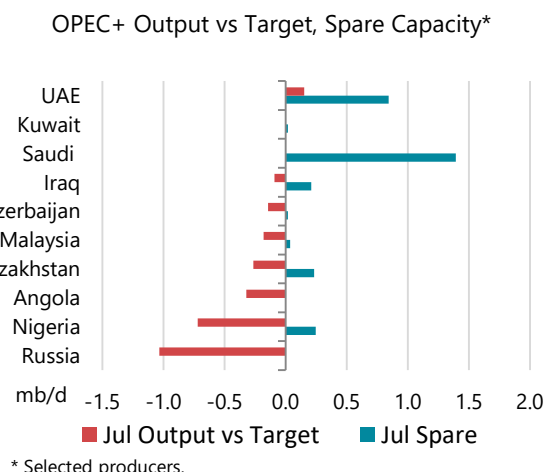
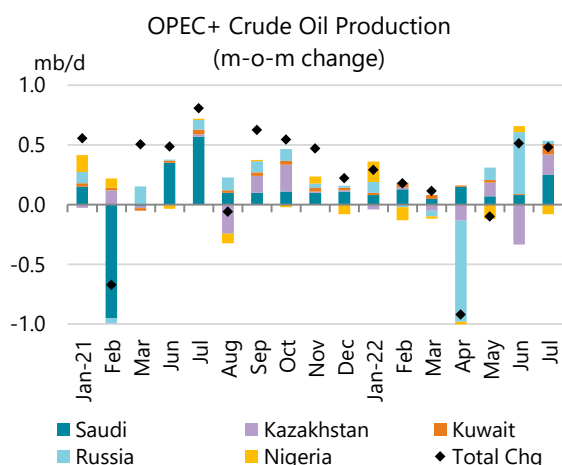
In July, the combined spare capacity buffer of Saudi Arabia and the UAE was 2.2 mb/d. This will shrink further this month when record supply cuts enforced in 2020, after Covid-19 slashed demand, are fully phased out. Saudi crude production is targeted to reach 11 mb/d in August, a monthly level that it has scaled only twice

before. That elevated rate would reduce spare capacity to just 1.2 mb/d. As for the UAE, its spare capacity may fall below the 800 kb/d level of July.

Higher flows in July from Saudi Arabia, along with Kazakhstan and Kuwait, pushed up total OPEC+ crude oil output from the 23-member producer group to 44.17 mb/d (+480 kb/d m-o-m). Venezuela and Nigeria posted sharp losses due to operational issues. In the case of Nigeria, oil theft and sabotage also contributed to lower output. Libyan production edged higher following the mid-July lifting of *force majeure* on oil fields and terminals and is expected to recover strongly this month – helping to boost overall OPEC+ output.

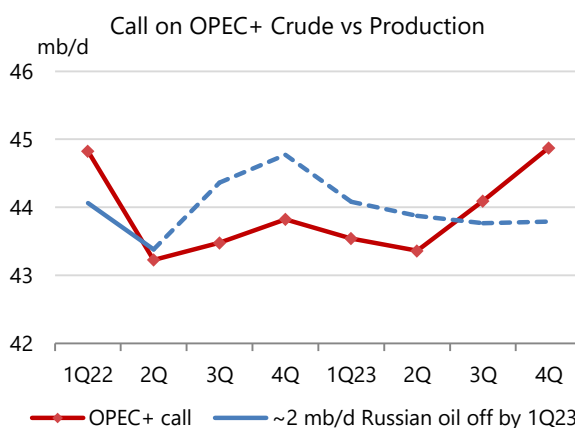
Volumes from OPEC countries rose 260 kb/d in July to 29.05 mb/d while non-OPEC partners raised output by 220 kb/d to 15.12 mb/d. Production from just the 19 members subject to the supply deal was up 570 kb/d m-o-m compared to a planned 648 kb/d increase.





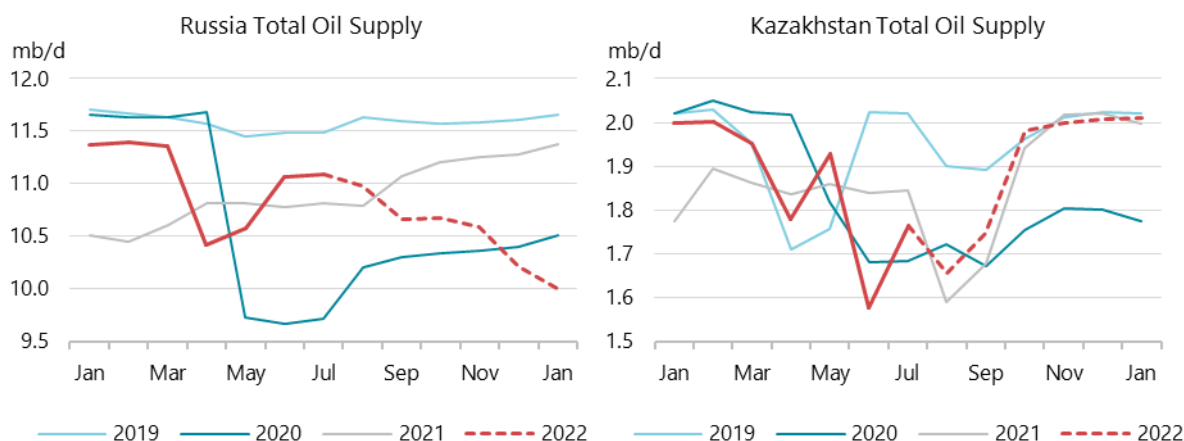
That left the group's production running 2.7 mb/d below its official target as operational issues, capacity constraints and sanctions on Russia hampered its ability to ramp up. Russian crude oil supply of 9.8 mb/d (+20 kb/d m-o-m) was 1.03 mb/d below its quota. Output in Nigeria and Angola also ran far below their targets, by a combined 1.04 mb/d.

Despite an anticipated decline in Russian production, rising OPEC+ volumes and expanding non-OPEC+ supply could see global inventories building during the rest of this year and into the first half of 2023. We estimate the call on OPEC+ crude for 3Q22 is 43.4 mb/d, 770 kb/d below what the group pumped in July. The implied call rises by 400 kb/d to 43.8 mb/d in 4Q22, before falling to an average 43.4 mb/d in 1H23.



Supply from Russia crept higher during July, with stronger domestic consumption continuing to offset lower exports. Total crude oil, condensates and NGLs rose 25 kb/d to reach 11.09 mb/d, down just 310 kb/d from pre-invasion levels. We expect Russian oil production to ease gradually m-o-m from August through November, along with lower anticipated refinery runs, and assume that the decline will be steeper in December when the EU embargo on Russian crude oil takes effect. That would result in annual average output in 2022 of 10.86 mb/d, steady versus 2021. By the start of next year, we now expect to see close to 2 mb/d shut in, which would reduce total oil supply to 9.5 mb/d.

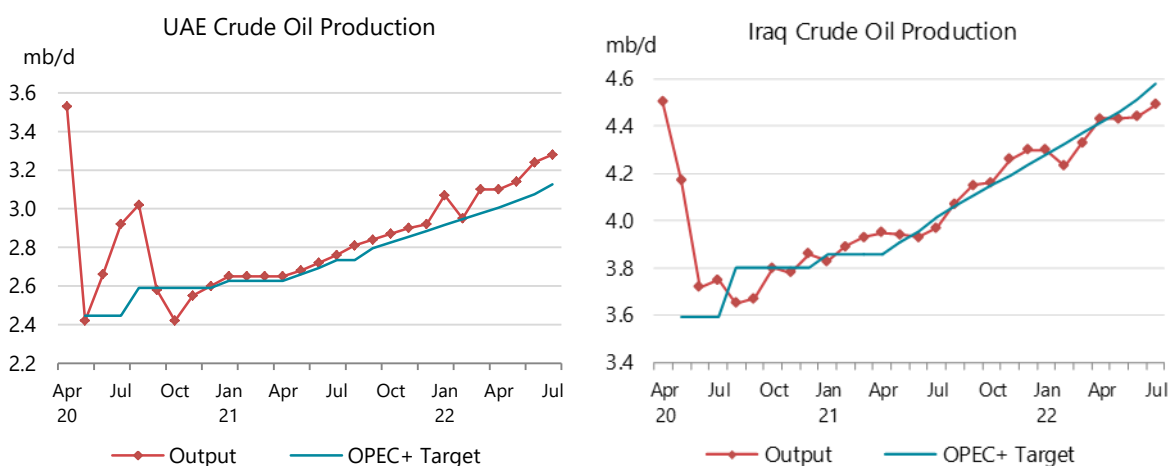
On the upstream front, Rosneft, the country's top producer, has started drilling at the Payakha field, part of its Vostok Oil Arctic megaproject. As planned, the project is on track to reach 600 kb/d in 2024 and 2 mb/d in 2030, according to Rosneft.



In Kazakhstan, output recovered in July following the completion of planned maintenance at the Kashagan oil field. Total production of crude oil and condensates rose by 190 kb/d to 1.76 mb/d, of which crude oil increased to 1.42 mb/d (+170 kb/d). But levels for August are set to fall m-o-m due to scheduled maintenance at the 600 kb/d Tengiz oil field and after an unexpected gas leak at Kashagan temporarily halted output. Kashagan had pumped around 400 kb/d prior to its turnaround. At the time of writing, total supply of crude and condensates was running around 1.5 mb/d compared to 1.7 mb/d in July.

In the Middle East, producers continue to increase supply as they phase out OPEC+ cuts. During July, Saudi Arabia pumped 10.83 mb/d of crude oil, up 250 kb/d m-o-m, as the Kingdom increased shipments to world oil markets. Production in Kuwait rose 90 kb/d to 2.77 mb/d.

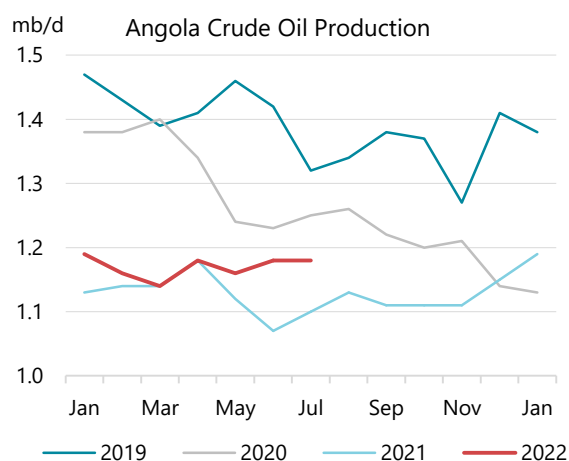
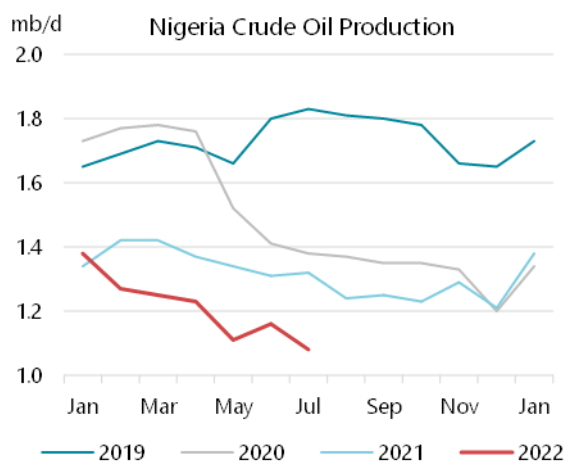
The UAE continued to pump above its OPEC+ target during July, with production up 40 kb/d to 3.28 mb/d. The Abu Dhabi National Oil Co has signed a partnership agreement with TotalEnergies that includes cooperation in trading, product supply and carbon capture, utilisation and storage (CCUS) as France seeks to cut its reliance on energy imports from Russia.



In Iraq, volumes rose 50 kb/d to 4.49 mb/d in July, 90 kb/d below its OPEC+ target. We have lowered Iraq's sustainable production capacity by roughly 100 kb/d to 4.7 mb/d due to ongoing operational constraints at its southern export outlet. Baghdad is striving to ramp

up southern export capacity to 3.35 mb/d by September from roughly 3.3 mb/d now. From February to July, exports from Basrah averaged 3.24 mb/d.

Combined output from the African members of OPEC+ eased 30 kb/d, pushed lower by a sharp loss in Nigeria. Crude oil supply in Nigeria slumped to a near four-decade monthly low of 1.08 mb/d (-80 kb/d m-o-m) due to ongoing issues with Bonny Light as well as at the Forcados terminal. We have cut Nigeria's sustainable production capacity by around 200 kb/d to 1.3 mb/d due to persistent technical and operational issues along with sabotage, pipeline leaks and oil theft.



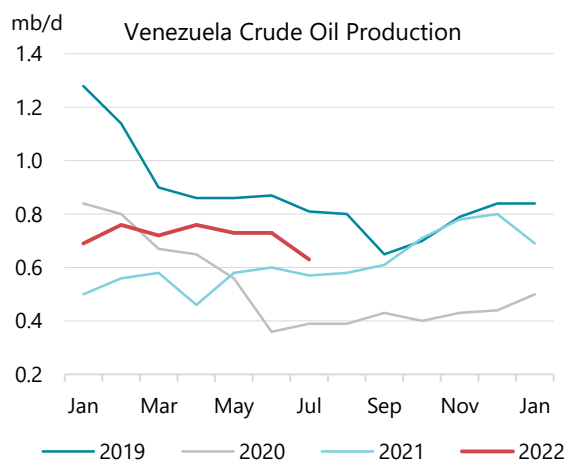
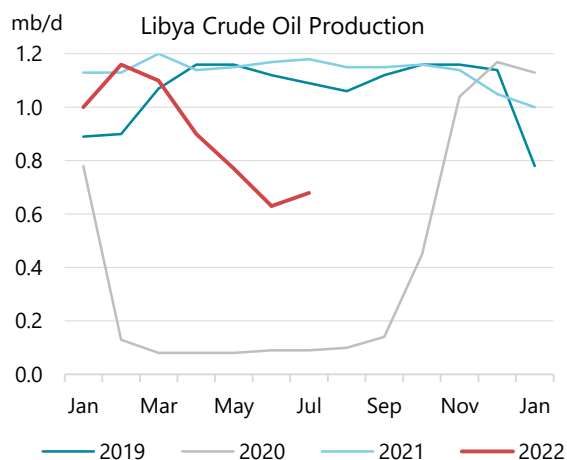
Nigeria has been striving for years to stop sabotage and oil theft – but seemingly to no avail. Shipments of key grade Forcados were halted after a leak was found at the terminal on 17 July. Forcados output declined by 50 kb/d in July to 120 kb/d, far below 1Q22 average volumes of 215 kb/d. And the pipeline delivering Bonny Light crude has not operated since mid-June due to theft, with exports under *force majeure* since March. Bonny Light supply was running at just 30 kb/d in July compared to 125 kb/d in January and 220 kb/d at the start of 2021. Additionally, Shell has shut the floating production, storage and offloading (FPSO) vessel at its EA oil field due to water leaking into the facility. The 170 kb/d Sea Eagle FPSO had recently been pumping about 35 kb/d.

But there are some bright spots in the Nigerian upstream. TotalEnergies has begun production from the shallow-water Ikike field, which is expected to deliver peak production of 50 kb/d of oil equivalent by the end of 2022. Crude oil supply in Angola held steady at 1.18 mb/d in July.

Venezuela saw supply tumble 100 kb/d in July to 630 kb/d, the lowest level since September 2021, after a fire in a gas pipeline forced the shutdown of associated oil fields and electrical failures led to unplanned downtime in some upgraders. Output is set to recover this month.

Output in Libya rose 50 kb/d to 680 kb/d after the National Oil Corp (NOC), under new management, lifted *force majeure* at oil fields and terminals on 15 July. A continuing recovery this month could see average monthly flows topping the 1 mb/d mark. Libya's Oil Minister Mohammed Oun said the country's output had climbed to 1.2 mb/d by the end of July – a little over two weeks after the Tripoli based Government of National Unity replaced long-serving NOC chairman Mustafa Sanalla with ex-central bank governor Farhat Bengdara. Production had slumped below 600 kb/d before *force majeure* was lifted. Libya's

**oil sector has been under siege from political turmoil as the country's two rival governments jostle for power and oil revenues.**



**Crude oil supply from Iran declined by 50 kb/d to 2.52 mb/d in July after exports, mainly to China, fell due to stiff competition from Russia. On 8 August, the European Union put forward a final text to revive the 2015 Iran nuclear deal. 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)						
	Jun 2022 Supply	Jul 2022 Supply	July Compliance	Jul 2022 Target	Sustainable Capacity <sup>2</sup>	Eff Spare Cap vs Jul <sup>3</sup>
Algeria	1.02	1.02	206%	1.04	1.0	0.0
Angola	1.18	1.18	1338%	1.50	1.2	0.0
Congo	0.28	0.26	1300%	0.32	0.3	0.0
Equatorial Guinea	0.09	0.10	1350%	0.13	0.1	0.0
Gabon	0.19	0.21	-575%	0.18	0.2	0.0
Iraq	4.44	4.49	223%	4.58	4.7	0.2
Kuwait	2.68	2.77	95%	2.77	2.8	0.0
Nigeria	1.16	1.08	2497%	1.80	1.3	0.2
Saudi Arabia	10.58	10.83	102%	10.83	12.2	1.4
UAE	3.24	3.28	-273%	3.13	4.1	0.8
<b>Total OPEC-10</b>	<b>24.86</b>	<b>25.22</b>	<b>359%</b>	<b>26.28</b>	<b>27.9</b>	<b>2.7</b>
Iran <sup>4</sup>	2.57	2.52			3.8	
Libya <sup>4</sup>	0.63	0.68			1.2	0.5
Venezuela <sup>4</sup>	0.73	0.63			0.8	0.1
<b>Total OPEC</b>	<b>28.79</b>	<b>29.05</b>			<b>33.7</b>	<b>3.4</b>
Azerbaijan	0.52	0.56	1301%	0.71	0.6	0.0
Kazakhstan	1.25	1.42	1007%	1.68	1.7	0.2
Mexico <sup>5</sup>	1.62	1.63		1.75	1.7	0.0
Oman	0.85	0.85	200%	0.87	0.9	0.0
Russia	9.78	9.80	719%	10.83	10.2	
Others <sup>6</sup>	0.88	0.86	1381%	1.09	0.9	0.1
<b>Total Non-OPEC</b>	<b>14.90</b>	<b>15.12</b>	<b>800%</b>	<b>16.93</b>	<b>15.9</b>	<b>0.4</b>
<b>OPEC+19 in cut deal<sup>4</sup></b>	<b>38.14</b>	<b>38.71</b>	<b>523%</b>	<b>41.45</b>	<b>42.1</b>	<b>3.1</b>
<b>Total OPEC+</b>	<b>43.69</b>	<b>44.17</b>			<b>49.6</b>	<b>3.7</b>

1 Excludes condensates.

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

3 Excludes shut in Iranian, Russian crude.

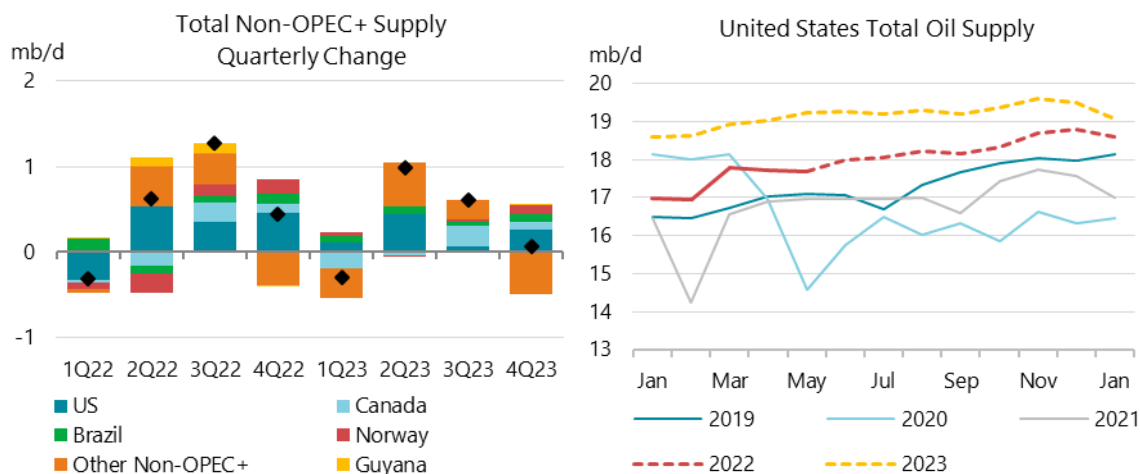
4 Iran, Libya, Venezuela exempt from cuts.

5 Mexico excluded from OPEC+ compliance.

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

## Non-OPEC+ returns from downtime

Total oil volumes from non-OPEC+ countries rose by 870 kb/d in July, to 48.4 mb/d, as Norway and Canada returned from maintenance, Brazil and Ecuador recovered from operational issues, Guyana ramped up oil output further and biofuels production rose seasonally. Non-OPEC+ supply is projected to average 48 mb/d in 2022 and 49.9 mb/d in 2023, rising 1.7 mb/d this year and 1.9 mb/d next year. Pre-Covid sanctioned conventional projects represent the majority of the 2023 gains, while US light tight oil (LTO) is expected to provide one-third of the growth, down from nearly half of the non-OPEC+ increase seen this year.



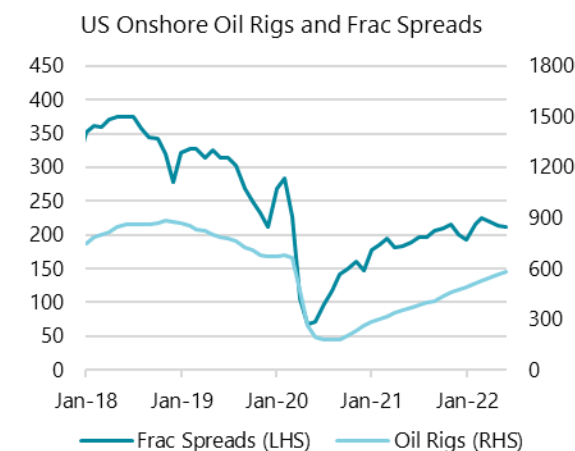
US output rose by 80 kb/d m-o-m to 18.1 mb/d in July, as LTO increased by 90 kb/d. The Gulf of Mexico (GoM) held steady as the hurricane season (June to November) – still expected to be above average – has yet to impact operations. This *Report* estimates that close to 29 mb (average of 160 kb/d over the Atlantic hurricane season) of production in the GoM is at risk during the 2022 hurricane season. This is comparable to last year's loss of supplies and is approximately 70% of 2020's estimated impact.

Total US oil output has been revised down by 90 kb/d for 2022 and 20 kb/d for 2023, and is now expected to average 18 mb/d and 19.2 mb/d, respectively. Growth of 1.2 mb/d is forecast for both years. Crude oil volumes have been revised down by 210 kb/d in 2022 and 230 kb/d in 2023, this has been partially offset by upward revisions in NGLs of 110 kb/d and 200 kb/d, respectively. NGL production has continued to outperform on higher gas-oil ratios (GOR) in the Permian Basin and increased gas exploitation in gas basins.

While rig counts have risen steadily since mid-2020, frac spreads have remained relatively flat since October 2021. This *Report* has previously

discussed frack crew and oilfield services bottlenecks in the shale patch – which have been stubbornly sticky, leading to escalating costs that are outpacing broad-based inflation measures. Second-quarter earnings calls from oilfield service companies and shale oil producers reported these constraints with the former discussing continued tightness in the supply chain and the latter noting increased costs and prudent production outlooks. Those challenges, combined with capex budgets that are currently tied to a percentage of free cash flow, in part to guarantee investor returns, are likely to drag on supply gains over the next 12-18 months.

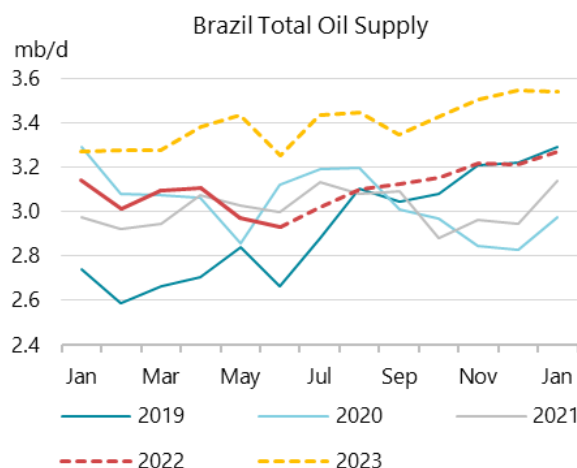
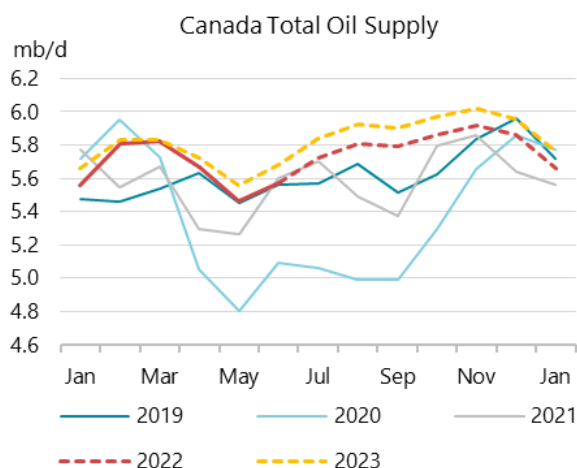
In May, the latest month for which official US Energy Information Administration (EIA) data is available, total oil supply fell by 40 kb/d, with NGLs and non-conventional oil partially offsetting a 60 kb/d drop in crude. GoM crude oil declined by 160 kb/d, with planned maintenance at Mars-Ursa and Shenzi accounting for the bulk of the drop. Lower



Sources: Rystad Energy, Baker Hughes

production in Texas and New Mexico of a combined -60 kb/d were more than offset by returning barrels in North Dakota of 150 kb/d after two April storms.

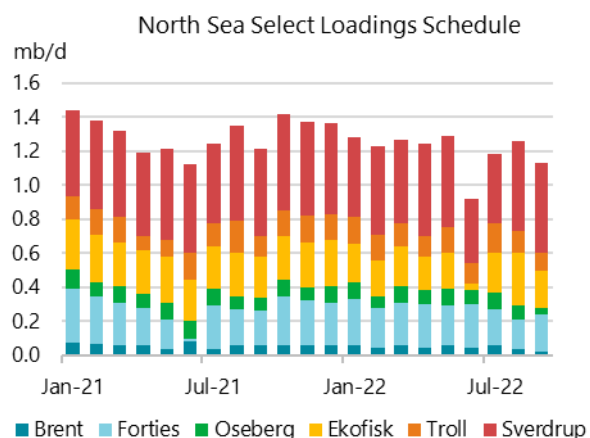
In June, Canadian supply rose by 110 kb/d, according to data from the Alberta Energy Regulator (AER), on higher upgrader throughput following spring maintenance. In July, upgraders boosted runs further, helping to lift production by 150 kb/d to 5.7 mb/d. Canadian output is forecast to average 5.9 mb/d in the second half of the year, bringing the annual average to 5.7 mb/d, up 150 kb/d y-o-y. The forecast for 2023 sees growth of 90 kb/d, to 5.8 mb/d. This has been reduced by 170 kb/d since last month's *Report*, following weaker than expected recent performance and further consolidation of the Canadian upstream sector.



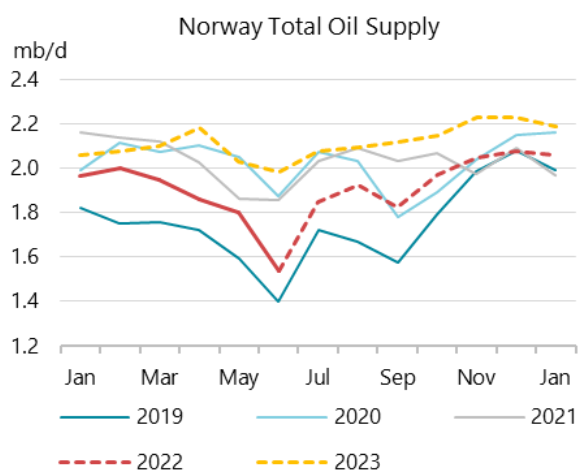
Brazilian output rose by 90 kb/d in July, to reach 3 mb/d, according to provisional daily data from the Agencia Nacional do Petroleo (ANP). The increase was primarily due to platforms coming back online at the Tupi oilfield. Equinor announced that it has resumed production at the 60 kb/d Peregrino field, more than two years after the field was shut in for operational issues. Additionally, Petrobras stated that its 150 kb/d P-71 Itapu FPSO may come on line earlier than expected. These two developments have led us to revise up 2023 by 90 kb/d, with volumes now reaching an average 3.4 mb/d (up 290 kb/d y-o-y). Supply for 2022 is estimated to average 3.1 mb/d, with output for the rest of the year trending upwards as Mero and two Tupi FPSO vessels continue to ramp up.

Elsewhere in Latin America, supply rose by 170 kb/d m-o-m in July as production returned in Ecuador and Guyanese loadings increased. Ecuadorian output returned to normal levels of 470 kb/d, up 70 kb/d on the month, after an agreement was reached with protestors and the government to increase fuel subsidies and to repeal Executive Decree 95 – which sought to double Ecuador's oil supply through further deregulation. Statements from Hess (non-operating partner) and Kpler data show that Guyanese loadings from the Unity FPSO have reached design capacity of around 220 kb/d. Total Guyana supplies rose 110 kb/d m-o-m to 350 kb/d.

North Sea loadings (as measured by BFOE plus Troll and Johan Sverdrup) are scheduled at 1.1 mb/d for September, down 130 kb/d from August on planned maintenance, with the largest declines coming from the Oseberg and Ekofisk streams. UK supply rebounded in July, as expected, by 50 kb/d to 850 kb/d, and is still forecast to average 880 kb/d on the year.



Sources: Reuters, Energy Intelligence

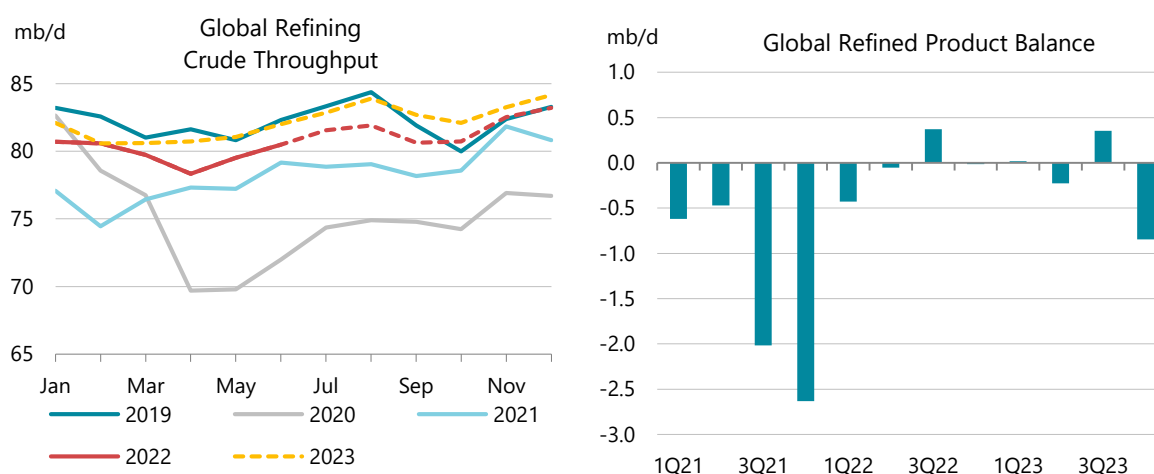


Data from the Norwegian Petroleum Directorate show output in June was down 270 kb/d m-o-m to 1.5 mb/d as Johan Sverdrup and the Greater Ekofisk area entered their peak maintenance month. Production is estimated to have recovered to May levels of 1.8 mb/d in July. Norwegian supply is expected to grow in the second half of the year, briefly pausing during planned maintenance in September, as three new projects all produce first oil. Full year production is estimated to be 1.9 mb/d this year and grows to 2.1 mb/d in 2023 as Johan Sverdrup boosts output.

# Refining

## Overview

Global refinery runs have been ramping up seasonally over the past three months and are expected to reach 82 mb/d in August, their highest level since January 2020. In 3Q22, refined product balances are forecast to register the first quarterly build in two years. This was largely the reason behind product cracks and refinery margins falling sharply in July from their all-time highs in June, despite lower crude prices. In July, throughputs rose by 1 mb/d m-o-m to 81.4 mb/d, and 2.6 mb/d above a year ago.



Notwithstanding projected high quarterly run rates in 3Q22 and the possibility of a build in product inventories, refinery throughputs are forecast to fall in September and October on seasonal maintenance. In 4Q22, refined product inventories may start drawing again even as throughputs rise to peak 2022 rates. This is despite our upward revision to Russian refinery throughputs on the assumption that European importers will not refrain from Russian refined product purchases until the end of the phase-out period for sanctions in February 2023.

Global Refinery Crude Throughput <sup>1</sup>														
	(million barrels per day)													
	2019	2020	2021	1Q22	Jun-22	2Q22	Jul-22	Aug-22	Sep-22	3Q22	Oct-22	4Q22	2022	2023
Americas	19.2	16.6	17.8	18.4	18.9	18.6	19.1	19.0	18.3	18.8	18.3	18.5	18.6	19.0
Europe	12.2	10.7	11.0	11.1	11.8	11.6	11.7	11.7	11.5	11.6	11.8	12.1	11.6	11.5
Asia Oceania	6.8	5.9	5.8	6.2	5.6	5.8	5.8	6.1	6.0	6.0	5.9	6.2	6.0	5.9
<b>Total OECD</b>	<b>38.1</b>	<b>33.2</b>	<b>34.5</b>	<b>35.7</b>	<b>36.3</b>	<b>36.1</b>	<b>36.6</b>	<b>36.8</b>	<b>35.9</b>	<b>36.4</b>	<b>36.0</b>	<b>36.8</b>	<b>36.2</b>	<b>36.4</b>
FSU	6.8	6.4	6.7	6.6	6.3	5.9	6.5	6.2	5.9	6.2	5.8	6.2	6.2	5.3
Non-OECD Europe	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
China	13.4	13.7	14.4	14.3	13.7	13.2	13.8	14.0	14.2	14.0	14.2	14.2	13.9	14.4
Other Asia	10.3	9.3	9.5	10.3	10.4	10.4	10.5	10.6	10.4	10.5	10.6	10.7	10.5	10.9
Latin America	3.2	3.0	3.2	3.3	3.5	3.4	3.5	3.3	3.4	3.4	3.3	3.4	3.4	3.4
Middle East	7.8	7.1	7.6	7.7	7.9	8.0	8.3	8.5	8.4	8.4	8.3	8.4	8.2	8.9
Africa	2.0	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2
<b>Total Non-OECD</b>	<b>44.0</b>	<b>41.9</b>	<b>43.7</b>	<b>44.5</b>	<b>44.1</b>	<b>43.3</b>	<b>44.9</b>	<b>45.1</b>	<b>44.7</b>	<b>44.9</b>	<b>44.6</b>	<b>45.3</b>	<b>44.5</b>	<b>45.6</b>
<b>Total</b>	<b>82.1</b>	<b>75.0</b>	<b>78.2</b>	<b>80.2</b>	<b>80.4</b>	<b>79.3</b>	<b>81.5</b>	<b>81.8</b>	<b>80.5</b>	<b>81.3</b>	<b>80.6</b>	<b>82.1</b>	<b>80.7</b>	<b>82.1</b>
<i>Year-on-year change</i>	<i>-0.2</i>	<i>-7.1</i>	<i>3.2</i>	<i>4.3</i>	<i>1.3</i>	<i>1.6</i>	<i>2.7</i>	<i>2.9</i>	<i>2.4</i>	<i>2.7</i>	<i>2.1</i>	<i>1.8</i>	<i>2.6</i>	<i>1.3</i>

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

Gas-to-oil switching across several product categories, including fuel oil, gasoil, refinery gases and by-products, is expected to contribute to robust oil demand. This is partly driven by the refining sector itself. Several European refiners reported they have already started substituting higher priced natural gas in refinery processes, both in energy and hydrogen production, with oil products. The slump in product cracks and refinery margins is thus likely to reverse, even without the additional impact from hurricanes in the US Gulf Coast—provided no further negative developments for demand.

In 2023, refined product markets look balanced overall, with the ramp-up of 1.6 mb/d of new refining capacity. After a 2.6 mb/d increase this year, refinery throughputs are forecast to rise by another 1.4 mb/d to 82.1 mb/d in 2023, closing in on 2019 levels.

## Product cracks and refinery margins

In July, refinery throughputs globally were estimated substantially above refined product demand. Even with crude oil prices falling by \$10/bbl on average, cracks across all products but naphtha collapsed from their monthly record highs in June. As a result, refinery margins fell by \$10-15/bbl. By the end of the month daily cracks and margins were generally down to levels last seen in March.

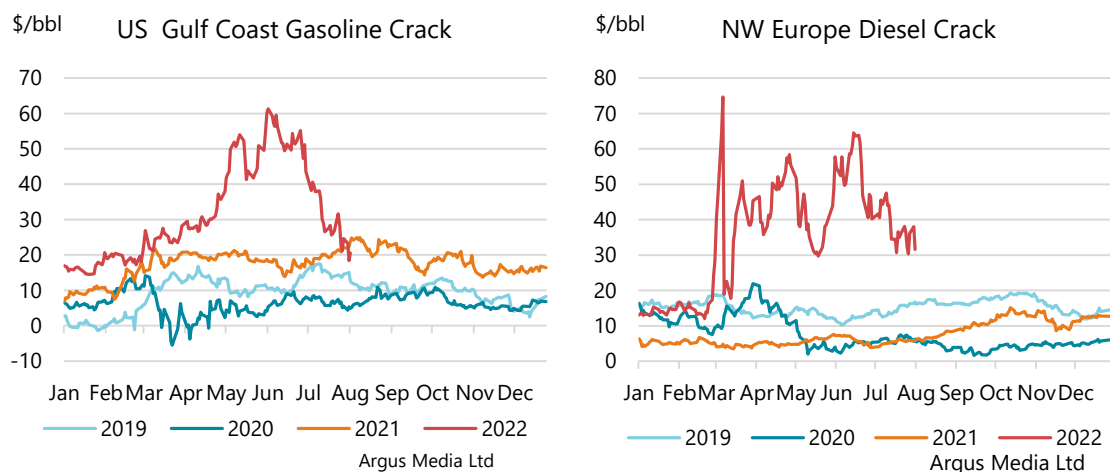
Product Prices and Differentials (\$/bbl)												
	Prices			Differentials				Week Starting				
	May	Jun	Jul	May	Jun	Jul	Jun-Jul	04-Jul	11-Jul	18-Jul	25-Jul	01-Aug
Northwest Europe				to North Sea Dated			chg					
Gasoline	148.24	162.92	131.16	35.33	39.09	19.06	-20.03	28.01	19.55	13.81	15.04	11.97
Diesel	151.68	178.75	152.29	38.76	54.92	40.20	-14.72	42.24	45.12	35.34	36.34	33.68
Jet/Kero	161.88	178.11	146.90	48.96	54.29	34.81	-19.48	33.91	38.16	30.94	33.98	33.02
Naphtha	99.84	90.20	85.73	-13.08	-33.63	-26.36	7.27	-24.11	-24.51	-28.03	-27.84	-25.71
HSFO	96.80	91.28	71.44	-16.12	-32.55	-40.65	-8.10	-41.44	-43.35	-39.58	-38.03	-29.58
0.5% Fuel Oil	121.31	135.92	115.91	8.39	12.10	3.82	-8.28	5.63	3.30	3.29	1.55	1.96
US Gulf Coast				to WTI Houston								
Gasoline	157.34	169.71	135.03	46.55	53.88	33.03	-20.84	40.52	34.23	26.85	27.26	21.62
Diesel	163.46	179.48	151.87	52.67	63.65	49.87	-13.78	47.88	55.47	45.53	48.86	45.45
Jet/Kero	161.46	171.69	145.41	50.66	55.86	43.42	-12.45	40.95	49.52	39.18	42.31	38.33
Naphtha	101.48	111.82	90.27	-9.31	-4.01	-11.72	-7.71	-12.89	-11.57	-14.80	-8.45	-7.00
HSFO	94.62	94.92	84.17	-16.18	-20.91	-17.82	3.09	-21.60	-21.15	-17.05	-10.90	-6.60
0.5% Fuel Oil	131.87	140.31	125.44	21.07	24.48	23.45	-1.03	23.81	23.51	23.57	22.81	21.06
Singapore				to Dubai								
Gasoline	140.99	149.10	116.50	32.05	35.03	12.51	-22.52	21.80	11.39	5.13	6.75	8.77
Diesel	153.41	177.35	145.63	44.47	63.28	41.64	-21.64	47.99	45.19	35.16	33.65	35.58
Jet/Kero	142.90	165.10	135.14	33.97	51.03	31.16	-19.87	33.81	35.26	26.99	25.40	26.54
Naphtha	95.76	85.42	82.93	-13.17	-28.65	-21.06	7.59	-17.54	-18.04	-23.70	-25.77	-21.19
HSFO	98.44	92.45	73.94	-10.50	-21.62	-30.05	-8.42	-27.48	-30.65	-32.24	-31.88	-24.04
0.5% Fuel Oil	136.42	155.05	136.56	27.49	40.98	32.58	-8.41	43.32	37.83	26.80	17.64	13.69

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Gasoline cracks fell on higher refinery output and lower demand. July typically shows a lull in the summer driving season in the US. This year, cyclical factors could also be playing a role. A slowdown in the economy and still high retail gasoline prices, despite the monthly fall, have translated into lower mobility levels (see *Demand*). Weekly gasoline deliveries data from the EIA indicate y-o-y declines starting in April and accelerating in July.

Weakness in the world's largest gasoline market spread across the rest of the world. In Europe, gasoline cracks halved in July, to \$20/bbl. Higher tanker freight rates started weighing on gasoline exports out of the continent. In Singapore, gasoline cracks collapsed

to single digits in the second half of the month, briefly posting negative levels. According to *Kpler* data, gasoline exports from Singapore fell sharply in July, as tanker rates surged, bloating local inventories. Data from *Enterprise Singapore* showed light distillate stocks at their highest levels on record at end-July.

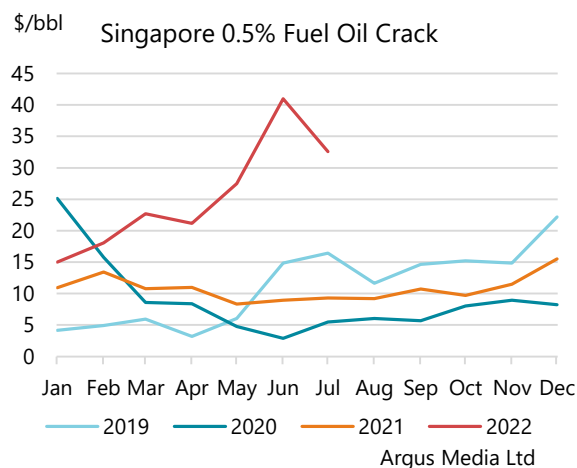
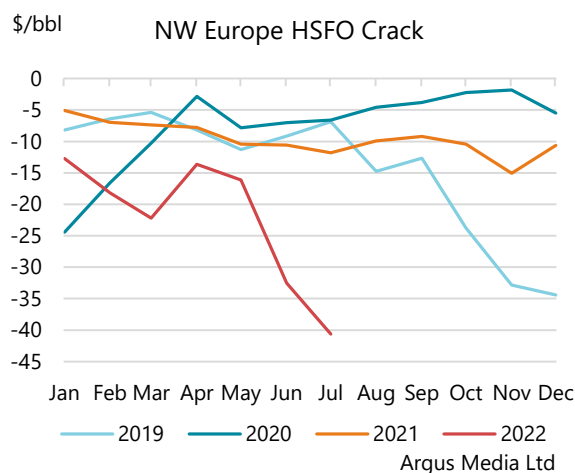


On the other hand, naphtha cracks reacted positively to falling crude prices, increasing by around \$7/bbl on average, but values are still very low compared to previous years. This was largely a technical gain, and given that it did not correspond fully to the crude price decrease, it is still indicative of lacklustre petrochemical demand, where margins remain depressed.

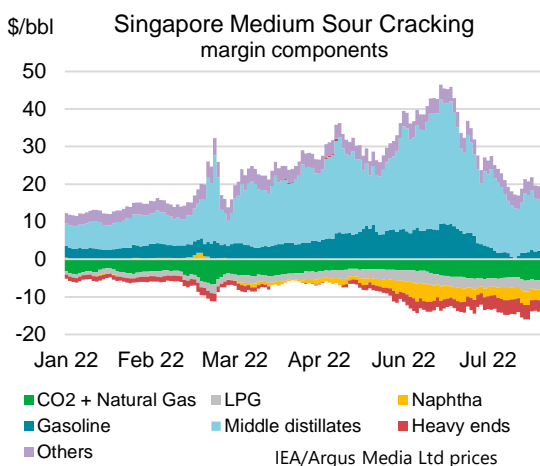
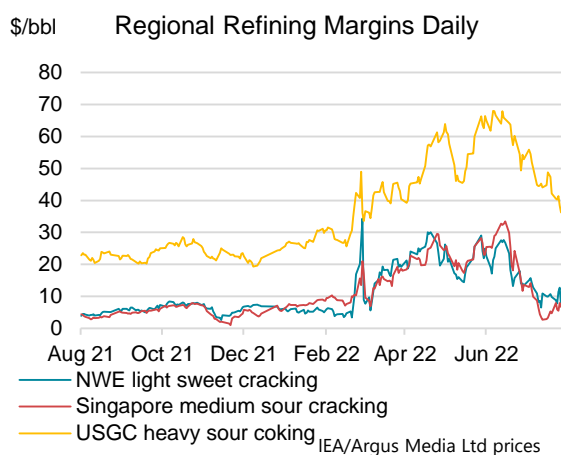
Middle distillates were not immune to the price falls. Cracks were down \$13-22/bbl across regional hubs. Widespread flight cancellations amid ground-level bottlenecks and personnel shortages limited further demand growth for jet kerosene. Europe's diesel imports from Russia in June and July rebounded to slightly above pre-war volumes. European prices were also affected by limited barge traffic on the Rhine due to low water levels, which severely restricted product flow from the Amsterdam-Rotterdam-Antwerp hub to Germany, France and Switzerland. This created an artificial overhang at the hub, where prices are assessed, while landlocked countries such as Switzerland, Hungary and Austria had to release strategic stocks to offset the product deficit during the peak summer demand season.

Fuel oil cracks fell to record lows, shrugging off the generally beneficial downward movement of crude prices and stronger demand, as higher refinery activity increased supplies. The rise in crude runs reduced the need for purchases of secondary feedstocks. In Singapore, 0.5% sulphur marine fuel oil followed diesel cracks lower, but the fall was limited to \$9/bbl on a monthly average basis.





After reaching record levels in June, refinery margins dropped for the first time since January 2022. Hydroskimming margins in Northwest Europe fell to single digits on a monthly average basis. Urals-based medium-sour cracking margins in Europe declined the most, with *Argus* reassessing Urals differentials \$10/bbl higher in July. Nevertheless, at \$40/bbl on average, they were more than twice the levels of sweet cracking margins. US Gulf Coast sour coking margins remain the most profitable globally, even ahead of the heavily discounted Urals-based margins in Europe, thanks to higher yields of premium products, lower natural gas prices and the absence of emission costs.



With gasoline cracks faltering, middle distillates are again emerging as the main pillar of refinery margins, especially outside the US. This was more pronounced in Singapore, where gasoline cracks collapsed in the second half of July. At the end of the month, Singapore sour cracking margins fell to single digits, and to their lowest daily values since December 2021.

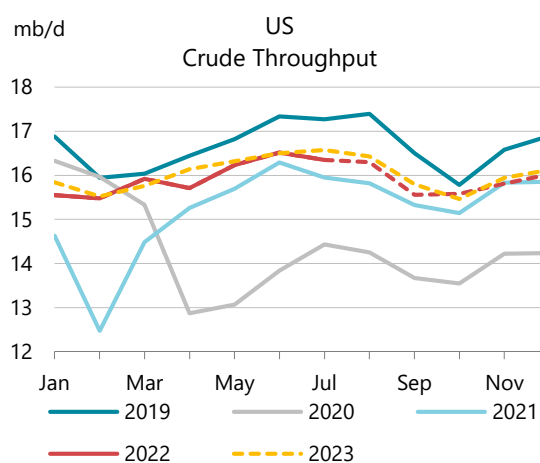
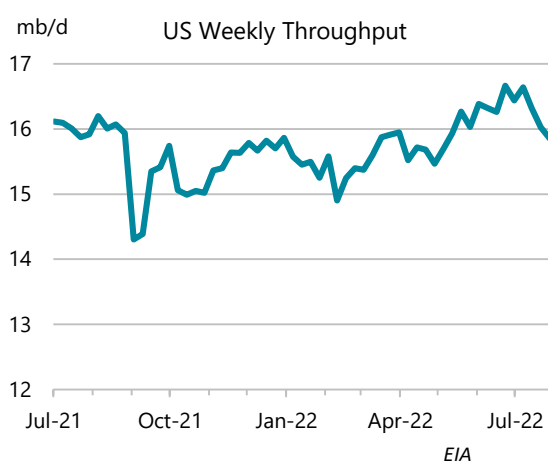
IEA Global Indicator Refining Margins										
\$/bbl	Monthly Average				Change Jun - Jul	Average for week starting:				
	Apr 22	May 22	Jun 22	Jul 22		04 Jul	11 Jul	18 Jul	25 Jul	01 Aug
NW Europe										
Light sweet hydroskimming	17.09	14.71	14.11	4.92	-9.20	6.66	6.00	2.74	3.88	4.93
Light sweet cracking	23.39	20.31	22.79	12.33	-10.46	14.87	14.66	9.06	10.15	9.59
Light sweet cracking + Petchem	28.08	23.75	27.56	15.09	-12.47	18.24	17.50	11.40	12.38	11.61
Medium sour cracking	60.08	57.87	60.28	40.27	-20.01	48.24	48.41	30.98	31.16	32.03
US Gulf Coast										
Light sweet cracking	31.38	37.83	45.12	29.34	-15.79	32.52	32.22	24.22	26.06	22.14
Medium sour cracking	39.42	45.88	56.49	38.88	-17.61	41.71	41.60	34.57	35.17	30.02
Heavy sour coking	46.64	54.86	64.39	49.65	-14.73	52.73	53.21	44.65	45.77	39.36
Singapore										
Light sweet cracking	16.27	15.50	24.03	12.14	-11.89	16.44	13.94	7.37	8.07	8.15
Light sweet cracking + Petchem	18.47	17.00	26.32	13.32	-13.00	17.66	15.10	8.37	9.35	9.74
Medium sour cracking	20.50	22.26	27.10	10.22	-16.88	15.83	12.22	5.13	4.05	6.82
Medium sour cracking + Petchem	22.67	23.74	29.37	11.38	-17.98	17.04	13.37	6.12	5.31	8.39

Note: Mediterranean and US Midcontinent margins are available in Table 15 of this Report.

Source: IEA/Argus Media Ltd prices.

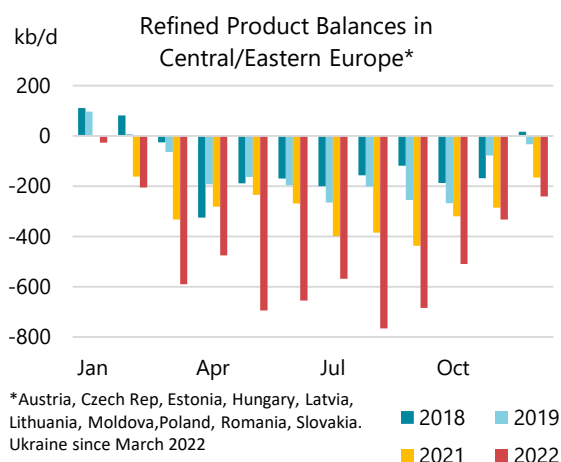
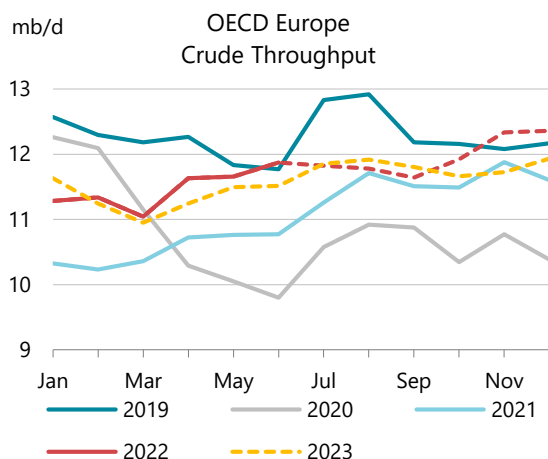
## Regional refining developments

The early summer rebound in US refining activity stalled in July, with preliminary weekly numbers showing a 170 kb/d fall from June's 16.4 mb/d. US Gulf Coast (PADD 3) refinery throughput edged up to its highest monthly level since December 2019. Midcontinent and West Coast runs were lower m-o-m on maintenance and unplanned outages. The hurricane season is still expected to be more active than in an average year but no major updates have been issued recently. The new owner of the 200 kb/d US Virgin Islands refinery has announced plans to restart the plant in 2Q23, but environmental issues are still outstanding. For now, we do not include its restart in our forecasts.



In Europe, refinery runs climbed 210 kb/d in June to 11.8 mb/d, slightly above the pre-pandemic levels of June 2019. Among countries with sizeable refining capacity, only France

had utilisation rates still below 74%, with the rest running at relatively high rates. July runs are estimated slightly lower m-o-m on several unplanned outages. Austria's Schwechat refinery is now not expected to ramp up until 4Q22. The refinery has run at just 20% of capacity following an accident in early June.



Refinery outages are just one of several factors behind the particularly tight refined product situation spanning eastward from Austria to the Baltics, Ukraine and Romania. Since the start of the war, Ukrainian imports have reoriented westward from Russia and Belarus, increasing the call on product supplied into the Central and Eastern European market. Low Rhine water levels are also affecting the flow of products from global seaborne markets to this region. Alternative supply routes – via the Danube and/or trucked from ports on the Adriatic or Black Seas – are all costlier and subject to local infrastructure constraints. Combined oil product import requirements of these countries have surged since April and are not expected to normalise until late in the year, with the return of all affected refining capacity. Russian crude oil deliveries to Hungary, Slovakia and the Czech Republic via the Druzhba pipeline were halted in early August, due to issues affecting transit fee payment to the Ukrainian transport company. At the time of writing, the flows were expected to resume within several days, based on announcements made by Hungary's MOL, which operates refineries in Hungary and Slovakia.

## Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Change from		Utilisation rate	
							Apr 22	May 21	May 22	May 21
US <sup>1</sup>	15.76	15.45	15.38	15.82	15.61	16.13	0.52	0.54	92%	87%
Canada	1.82	1.80	1.84	1.76	1.57	1.65	0.08	0.19	87%	73%
Chile	0.19	0.19	0.21	0.21	0.19	0.13	-0.05	-0.04	59%	73%
Mexico	0.76	0.79	0.85	0.83	0.89	0.82	-0.07	0.13	50%	75%
<b>OECD Americas<sup>1</sup></b>	<b>18.52</b>	<b>18.23</b>	<b>18.28</b>	<b>18.62</b>	<b>18.25</b>	<b>18.74</b>	<b>0.49</b>	<b>0.78</b>	<b>88%</b>	<b>83%</b>
France	0.78	0.80	0.78	0.80	0.83	0.85	0.02	0.23	74%	55%
Germany	1.88	1.71	1.82	1.72	1.90	1.80	-0.10	0.14	89%	82%
Italy	1.25	1.13	1.11	1.23	1.33	1.46	0.13	0.26	84%	69%
Netherlands	0.95	0.96	0.90	0.88	1.02	1.06	0.04	-0.02	87%	89%
Spain	1.23	1.23	1.22	1.17	1.33	1.37	0.04	0.26	97%	79%
United Kingdom	1.03	1.04	1.02	1.05	1.10	1.08	-0.02	0.14	90%	79%
Other OECD Europe <sup>2</sup>	4.38	4.30	4.39	4.10	4.03	3.94	-0.09	-0.10	81%	79%
<b>OECD Europe</b>	<b>11.50</b>	<b>11.18</b>	<b>11.24</b>	<b>10.94</b>	<b>11.53</b>	<b>11.56</b>	<b>0.02</b>	<b>0.90</b>	<b>85%</b>	<b>77%</b>
Japan	2.93	2.85	2.82	2.72	2.72	2.65	-0.07	0.51	77%	62%
Korea	2.81	2.91	2.87	2.78	2.80	2.76	-0.05	0.10	78%	75%
Other Asia Oceania <sup>3</sup>	0.57	0.57	0.58	0.53	0.51	0.48	-0.03	-0.16	74%	88%
<b>OECD Asia Oceania</b>	<b>6.31</b>	<b>6.33</b>	<b>6.27</b>	<b>6.03</b>	<b>6.03</b>	<b>5.89</b>	<b>-0.14</b>	<b>0.45</b>	<b>77%</b>	<b>71%</b>
<b>OECD Total</b>	<b>36.33</b>	<b>35.74</b>	<b>35.79</b>	<b>35.59</b>	<b>35.82</b>	<b>36.19</b>	<b>0.37</b>	<b>2.14</b>	<b>85%</b>	<b>79%</b>

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

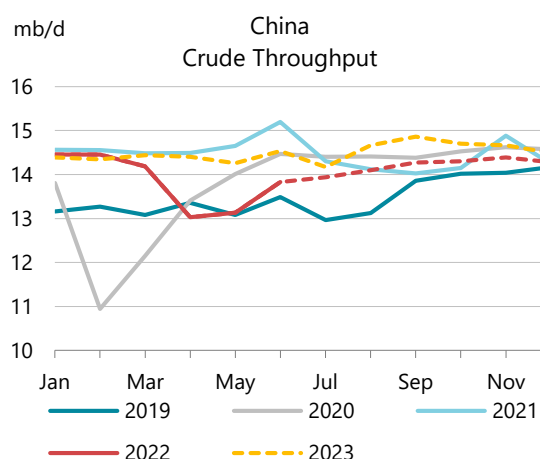
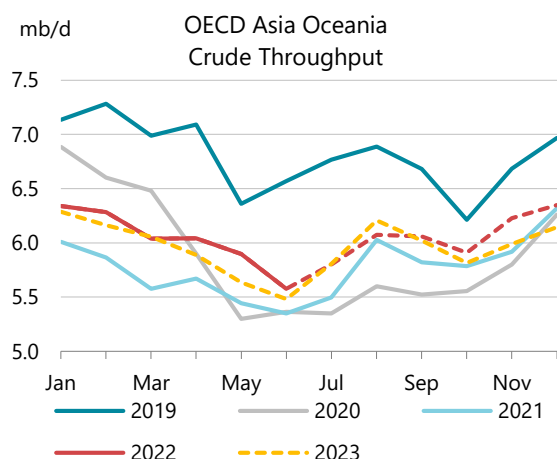
2 Includes Lithuania

3 Includes Israel

OECD Asia throughputs fell to their seasonal trough in June. After reaching summer peak run rates in August, refining activity is set to fall again in September and October on refinery maintenance. In 1H22 regional runs increased by 380 kb/d on average, but remained 900 kb/d below 2019 levels. Since 2019, 430 kb/d of capacity has been closed, mostly in Australia and New Zealand, and another 240 kb/d is slated for permanent shutdown in Japan by the end of 2023.

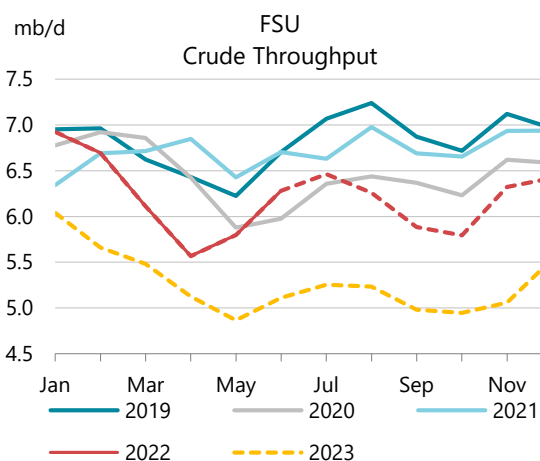
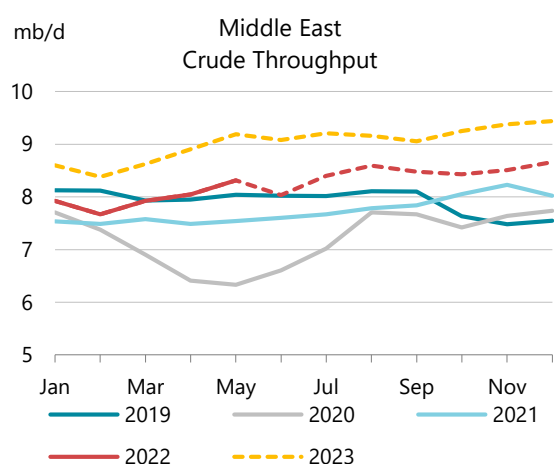
Although Japan and Korea have not introduced import sanctions on Russia, the country's crude shipments to these two destinations have dropped from a combined 270 kb/d in January, to just 25 kb/d in June and July. This coincided with a seasonal 680 kb/d decline in refinery throughputs in Japan and Korea over the same period.

Chinese runs in June surged 695 kb/d m-o-m to 13.7 mb/d, but were 1.4 mb/d down y-o-y from the historical high posted in June 2021. July refinery activity surveys were inconclusive, with some indicating declines due to heavy maintenance schedules and others showing a further ramp-up. We have estimated runs slightly higher in July, with modest monthly increases for the rest of the year. The newest petrochemical refinery, the 320 kb/d Shenghong project, is expected to start this month. Overall, 2022 runs are forecast to fall 440 kb/d y-o-y, but rebound by 470 kb/d in 2023. At the same time, oil demand in China is expected to drop by less than 100 kb/d this year and increase by 880 kb/d in 2023. China has a stated objective of phasing out refined product exports by 2025 but recently announced a plan to bring the deadline forward to end-2023.



**In India, refinery throughput in June fell marginally to 5.2 mb/d. Refining activity in Chinese Taipei continued ramping up, reaching 925 kb/d in May, the highest since July 2019. Malaysia's 300 kb/d Pengerang refinery started exporting products in June, confirming reports of a start-up three years after an accident forced the shutdown of the then newly built site.**

**In Saudi Arabia, refinery throughputs surged 195 kb/d m-o-m in May, to 2.7 mb/d. Runs in Bahrain and Iraq were up slightly m-o-m in May. Kuwait's data were unchanged from April. Refinery throughputs in Brazil edged up to just under 2 mb/d in June, the highest level since September 2015. In Argentina, runs were unchanged for the third consecutive month, at 510 kb/d. Colombia's Ecopetrol reported that its refining activity was higher in 2Q22, up 40 kb/d q-o-q. In South Africa, the only operating refinery, Natref's 110 kb/d plant, was forced to shut down for two weeks in July due to a feedstock shortage. Glencore, the owner of the 100 kb/d Astron refinery, announced that the restart of the plant is expected by the end of this year, after a two-year shutdown.**

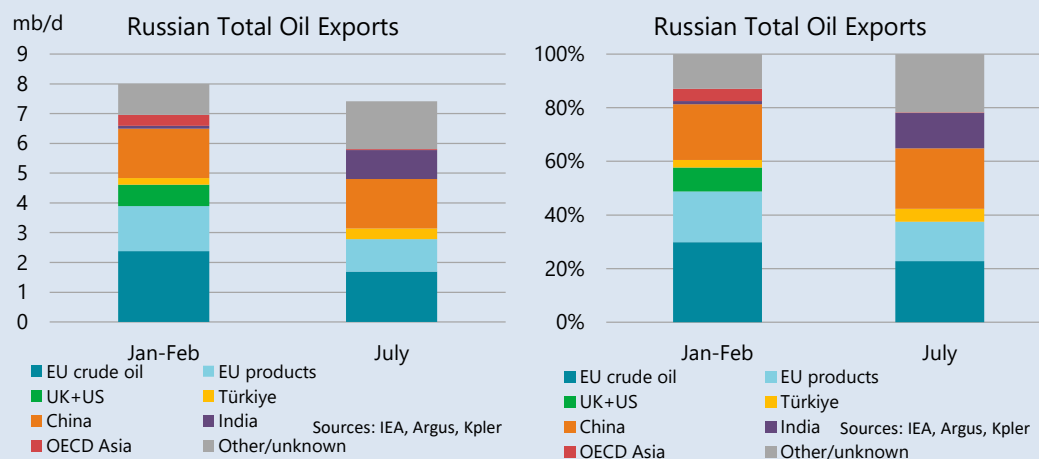


**Russian refinery throughputs increased 220 kb/d m-o-m in July on continued refined product exports and seasonally higher domestic demand. We have revised our throughput forecast up by 380 kb/d for the rest of the year, on the assumption that product exports will not slow until the official start of the EU embargo for Russian refined product imports in**

**February 2023. For next year, our forecast is adjusted up by 100 kb/d on average, heavily weighted towards 1Q23.**

### China overtakes EU as top Russian crude oil destination

Russian oil exports in July are estimated 115 kb/d lower m-o-m, at 7.4 mb/d, a tick below the 2021 average of 7.5 mb/d. With higher domestic refinery throughputs, crude oil exports fell by 280 kb/d while products rose by 160 kb/d. Export revenues fell by \$2 bn to \$19 bn, mainly due to lower oil prices. *Argus* assessed Urals crude discounts \$10/bbl narrower in July, which softened the impact of the fall in benchmark crude oil prices.



Shipments to the EU fell by 250 kb/d m-o-m to 2.8 mb/d in July, with crude oil exports down 130 kb/d. This represents a drop of 1.1 mb/d compared to the Jan-Feb average, with its share in total Russian exports declining by 11 percentage points to just 37%. Crude oil loadings dropped by almost 700 kb/d, while products fell by 430 kb/d. However, diesel shipments were maintained at average pre-war levels, as fuel oil, naphtha, gasoline and VGO accounted for all of the decline.

Russian Oil Exports (mb/d)								
	2021 avg	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
EU crude oil	2.1	2.3	2.4	2.1	2.1	2.1	1.8	1.7
EU products	1.3	1.5	1.6	1.3	1.4	1.3	1.2	1.1
UK+US	0.7	0.6	0.9	0.2	0.1	0.0	0.0	0.0
Türkiye	0.2	0.2	0.2	0.4	0.4	0.3	0.4	0.4
China	1.6	1.7	1.6	1.8	1.8	2.0	2.1	1.7
India	0.1	0.1	0.1	0.5	1.0	1.0	0.8	1.0
OECD Asia	0.4	0.4	0.3	0.3	0.3	0.0	0.1	0.0
Other/unknown	1.2	1.1	1.0	1.0	1.0	0.9	1.2	1.6
<b>Total exports</b>	<b>7.5</b>	<b>8.0</b>	<b>8.0</b>	<b>7.7</b>	<b>8.0</b>	<b>7.7</b>	<b>7.5</b>	<b>7.4</b>
<i>Memo</i>								
Pipeline to EU	0.72	0.76	0.84	0.82	0.86	0.82	0.76	0.83
Pipeline to China	0.72	0.83	0.78	0.76	0.82	0.78	0.81	0.83
Crude Oil	4.6	4.9	4.8	5.1	5.4	5.3	5.1	4.8
Oil Products	2.9	3.1	3.2	2.6	2.6	2.3	2.5	2.6
<b>Estimated export revenues, \$bn</b>	<b>14.6</b>	<b>20.2</b>	<b>19.8</b>	<b>22.3</b>	<b>18.3</b>	<b>19.8</b>	<b>21.1</b>	<b>19.1</b>

Sources: IEA, Argus, Kpler.

Note: Recent months volumes and revenues are estimates and subject to change.

Final June data for seaborne exports show that total crude oil shipments to China, which amounted to 2.1 mb/d, exceeded the volumes sent to the EU countries, at 1.8 mb/d, for the first time. July numbers for now are identical for the two regions, but China-bound volumes are likely to gain more as the “unknown” destination voyages are completed.

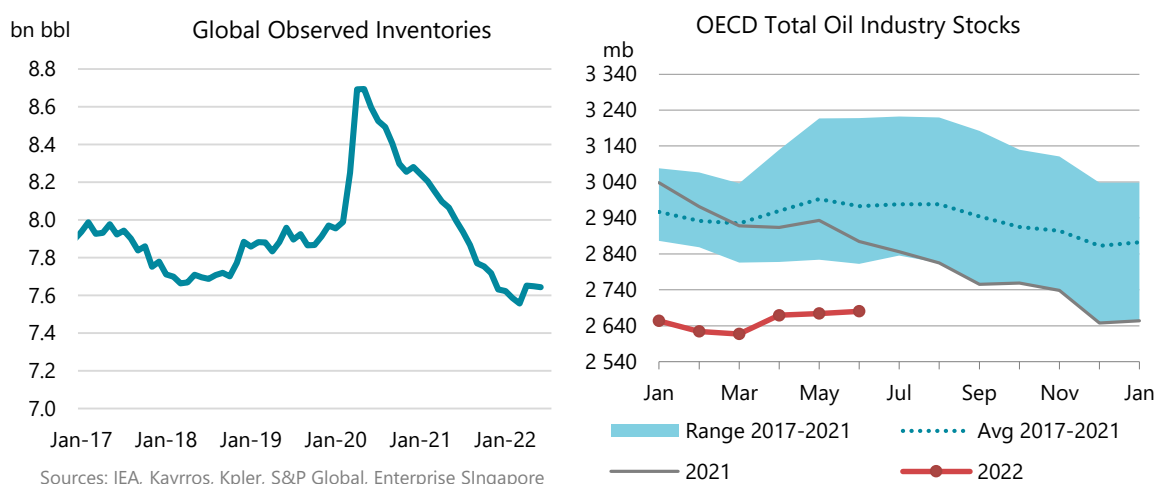
At the same time, Russia was the single largest source of crude oil supply to China in May and June. China accounted for 35% of Russia’s crude oil exports, while Russia accounted for about 20% of China’s crude oil imports. Russian exports to India increased to a new record level of 975 kb/d in July.



# Stocks

## Overview

Global observed inventories fell by a marginal 5 mb in June, with a drawdown in both OECD and non-OECD stocks partially offset by an increase in oil on water. For 2Q22, observed oil stocks were up by a sharp 87.3 mb, the first quarterly increase since 2Q20, led by substantial builds in the non-OECD during April and May and oil on water. By contrast, OECD total stocks (government and industry) slumped by 31.9 mb in the quarter, to 4 028 mb, their lowest level since 2005.



In June, OECD total industry stocks increased by 6.2 mb, to 2 681 mb, but remained 292.1 mb below the five-year average. Commercial crude oil stocks inched up by 0.4 mb compared to a normal decline of 21.7 mb. Product inventories rose in line with the seasonal trend, up by 6.9 mb. In terms of forward demand, total OECD industry stocks covered 58.5 days, up by 0.2 days from the previous month but 4.4 days lower than a year ago.

As part of the IEA's collective release of emergency reserves and the additional US SPR sale, 33.8 mb of government stocks were made available to the market in June, the most significant drawdown since March. The United States sold 29.4 mb, or 980 kb/d, of SPR crude oil while European countries released 1.6 mb of middle distillates and 0.4 mb of gasoline. Another 2 mb of crude and 0.6 mb of middle distillates were drawn from Korean emergency reserves.

Preliminary data for July showed OECD industry oil inventories built by 15.5 mb. Crude oil stocks were down by a marginal 0.1 mb as they declined in Europe (-3 mb) and Japan (-1 mb) while they increased by 3.9 mb in the US. NGL and feedstock inventories fell by 2.8 mb. Product stocks significantly rose by 18.4 mb. The largest increase came from the US other product stocks (+16.7 mb). Motor gasoline inventories counter-seasonally built by 4.4 mb. Middle distillates stocks increased by a mere 0.4 mb. By contrast, fuel oil stocks fell in all regions, by a combined 2.6 mb.

Preliminary OECD Industry Stock Change in June 2022 and Second Quarter 2022												
June 2022 (preliminary)					Second 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>7.6</b>	<b>0.3</b>	<b>-7.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.0</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>-0.1</b>	<b>0.2</b>
Gasoline	0.7	-3.8	0.6	-2.5	0.0	-0.1	0.0	-0.1	-0.2	0.0	0.0	-0.3
Middle Distillates	2.6	-3.5	4.9	4.0	0.1	-0.1	0.2	0.1	0.0	0.0	0.1	0.1
Residual Fuel Oil	0.8	-1.1	-1.2	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other Products	11.4	-6.0	1.4	6.8	0.4	-0.2	0.0	0.2	0.5	0.0	0.0	0.5
<b>Total Products</b>	<b>15.5</b>	<b>-14.4</b>	<b>5.8</b>	<b>6.9</b>	<b>0.5</b>	<b>-0.5</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.0</b>	<b>0.1</b>	<b>0.4</b>
Other Oils <sup>1</sup>	-0.1	1.5	-2.5	-1.1	0.0	0.0	-0.1	0.0	0.1	0.0	0.1	0.1
<b>Total Oil</b>	<b>23.0</b>	<b>-12.7</b>	<b>-4.2</b>	<b>6.2</b>	<b>0.8</b>	<b>-0.4</b>	<b>-0.1</b>	<b>0.2</b>	<b>0.5</b>	<b>0.1</b>	<b>0.1</b>	<b>0.7</b>

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

Following the submission of more complete data, OECD industry stocks for May were revised down by 16.5 mb to 2 674 mb. The biggest change was in crude inventories, which were adjusted lower in all regions, by a combined 21.9 mb. By contrast, NGLs and feedstocks came in 10.6 mb higher. Oil product stocks were lowered by 5.2 mb, led by middle distillates (-3.3 mb) and gasoline (-1.7 mb). April data were also adjusted down, by 6.1 mb, mostly for crude oil in OECD Americas.

OECD Industry Stock Revisions versus July 2022 Oil Market Report								
(million barrels)								
	Americas		Europe		Asia Oceania		OECD	
	Apr-22	May-22	Apr-22	May-22	Apr-22	May-22	Apr-22	May-22
<b>Crude Oil</b>	<b>-6.6</b>	<b>-13.3</b>	<b>-0.1</b>	<b>-4.6</b>	<b>0.1</b>	<b>-4.0</b>	<b>-6.6</b>	<b>-21.9</b>
Gasoline	0.1	-2.3	0.0	0.4	-0.4	0.2	-0.3	-1.7
Middle Distillates	0.3	-1.5	-0.1	-2.4	-0.3	0.6	-0.1	-3.3
Residual Fuel Oil	0.0	1.1	-0.8	-1.9	0.1	-0.1	-0.7	-0.9
Other Products	0.0	1.1	0.0	-0.4	0.2	0.0	0.2	0.7
<b>Total Products</b>	<b>0.4</b>	<b>-1.6</b>	<b>-0.8</b>	<b>-4.2</b>	<b>-0.4</b>	<b>0.7</b>	<b>-0.8</b>	<b>-5.2</b>
Other Oils <sup>1</sup>	1.4	10.9	0.0	-0.3	0.0	-0.1	1.4	10.6
<b>Total Oil</b>	<b>-4.8</b>	<b>-4.0</b>	<b>-1.0</b>	<b>-9.1</b>	<b>-0.3</b>	<b>-3.4</b>	<b>-6.1</b>	<b>-16.5</b>

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

## Implied balance

Global observed inventories drew by 170 kb/d in June, according to preliminary data. OECD industry crude stocks, including NGLs and feedstocks, were essentially unchanged, with a 330 kb/d decline in OECD Asia Oceania offset by a corresponding increase in OECD Americas and Europe. OECD product stocks rose by 230 kb/d, led by the Americas (+520 kb/d). Government stocks drew by 1.1 mb/d. Non-OECD crude oil stocks fell by 420 kb/d, after a sharp rise of 1.7 mb/d in May, according to satellite data from *Kayros*. Chinese crude oil stocks were largely unchanged. Crude oil on water, including floating storage, edged up by 130 kb/d, while products increased by 970 kb/d, based on shipping data from *Kpler*.

In 2Q22, the global observed stock data show a 940 kb/d build, the first increase in eight quarters, while the global supply and demand balance shows a smaller 150 kb/d surplus. A 1 mb/d decline in OECD government stocks supported refilling OECD commercial tanks by 690 kb/d. Non-OECD crude inventories also increased, by an average 750 kb/d in 2Q22, mainly in China (880 kb/d), while oil on water rose by 500 kb/d.

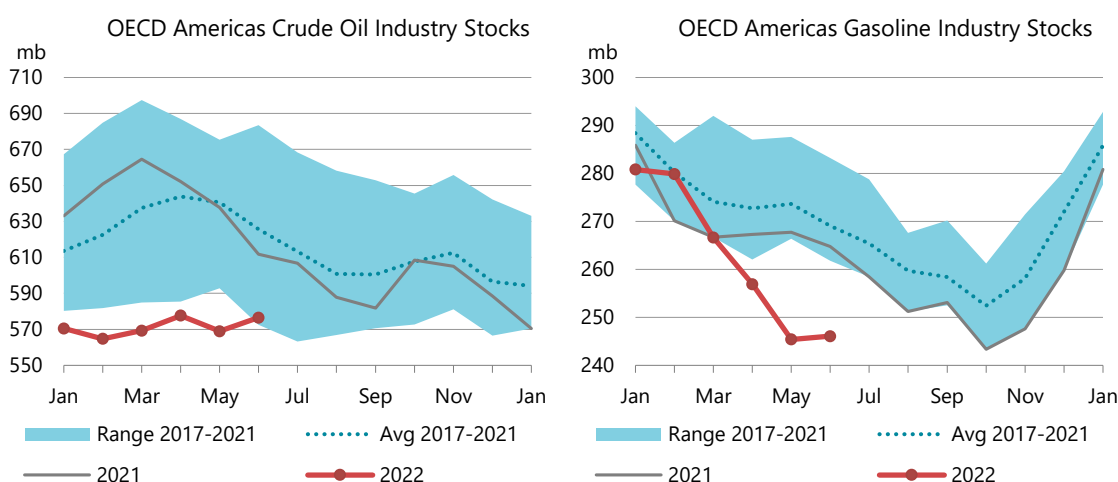
Global Oil Balance and Observed Stock Changes (mb/d)								
	2020	2021	1Q22	Apr-22	May-22	Jun-22	2Q22	Jul-22
Global oil balance	2.28	-2.31	-0.76	1.43	0.15	-1.12	0.15	0.89
Observed stock changes								
OECD industry stocks	0.41	-1.07	-0.33	1.73	0.15	0.21	0.69	0.50
OECD government stocks	0.02	-0.16	-0.46	-1.02	-0.98	-1.13	-1.04	-0.74
Non-OECD crude stocks*	0.39	-0.44	0.43	0.93	1.70	-0.42	0.75	-0.68
Selected non-OECD product stocks**	0.12	-0.03	0.05	-0.12	0.19	0.07	0.05	0.06
Oil on water	0.01	-0.06	-0.50	1.60	-1.17	1.10	0.50	
Total observed stock changes	0.95	-1.76	-0.81	3.12	-0.10	-0.17	0.94	
Unaccounted for balance	1.33	-0.55	0.05	-1.70	0.25	-0.95	-0.79	
*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 May 2022, plus Fujairah and Singapore inventories.								
Sources: IEA, EIA, PAJ, Euroilstock, Kayros, JODI, Kpler, FEDCom/S&P Global Platts and Enterprise Singapore.								

## Recent OECD industry stocks changes

### OECD Americas

Industry inventories in the OECD Americas rose by 23 mb to 1 452 mb in June, but remained 125.5 mb below the five-year average. Crude oil industry stocks increased by 7.6 mb. Including the 29.4 mb sold from the US SPR over the month, total crude stocks drew by 21.8 mb, slightly more than the five-year average (-15.7 mb). US refinery runs reached their highest level since the start of the pandemic, at 16.5 mb/d, while crude exports were at a lofty 3 mb/d, according to the EIA.

Oil product stocks were up by 15.5 mb in June, in line with the seasonal pattern. The increase was led by other products at 11.4 mb, but the build was less than the typical rise of 18.9 mb due to high US LPG exports. Gasoline inventories rose by a counter-seasonal 0.7 mb due to weaker demand in the US. Middle distillate stocks increased by 2.6 mb while fuel oil inventories built by 0.8 mb.



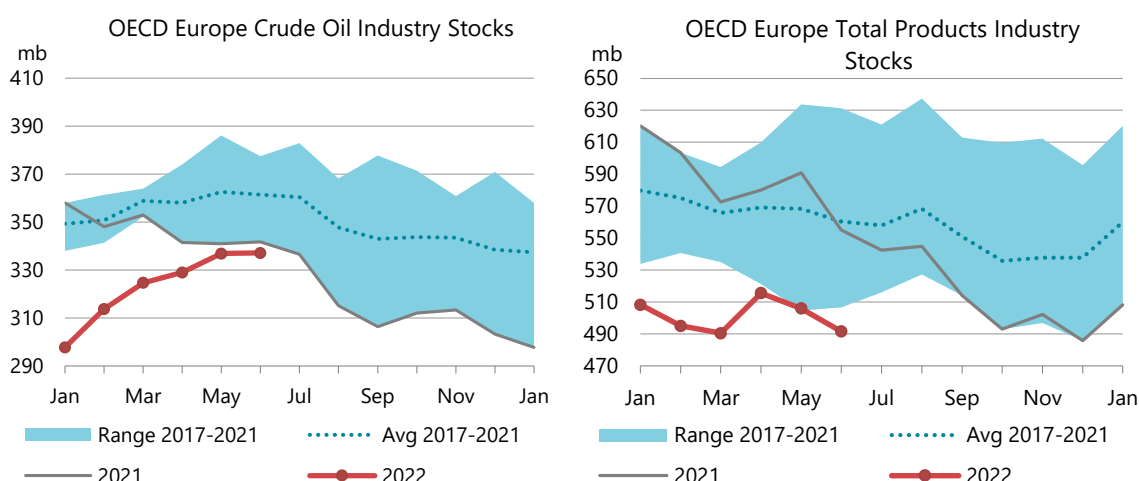
US EIA Weekly data through 29 July show that industry oil stocks increased counter-seasonally by a considerable 23.9 mb in the month. Commercial crude oil inventories rose

by 3.9 mb compared to a more normal draw of 17.2 mb, largely due to the release of SPR supplies (23 mb). In line with seasonal patterns, NGL and feedstock inventories declined by 1.8 mb. Total product stocks increased by 21.8 mb, two times larger than the five-year average. Gasoline stocks built by 5.8 mb, against the usual stock drawdown of 5.2 mb, as demand declined again in July. By contrast, middle distillates inched 0.5 mb lower, compared with a more normal 3.2 mb seasonal increase. Higher distillates exports (+290 kb/d m-o-m) partially explain the fall. Fuel oil edged down by 0.2 mb while other products rose by 16.7 mb, similar to the five-year trend.

## OECD Europe

Industry stocks in OECD Europe declined by 12.7 mb, in line with the five-year average. Stocks remain 97.2 mb below the 2017-2021 average. Crude oil stocks were largely unchanged, with a 1.8 mb increase in Italy offset by a draw in Germany. NGL and feedstock inventories rose by 1.5 mb, when they typically fall by 2.2 mb.

Total oil product stocks were down by 14.4 mb, more than the five-year average (-8 mb). The most significant decrease came from other product inventories (-6 mb). Motor gasoline, middle distillate and fuel oil inventories fell in line with the seasonal trends, by 3.8 mb, 3.5 mb and 1.1 mb, respectively. Stocks released from emergency reserves totaled 1.6 mb of middle distillates and 0.4 mb of gasoline.

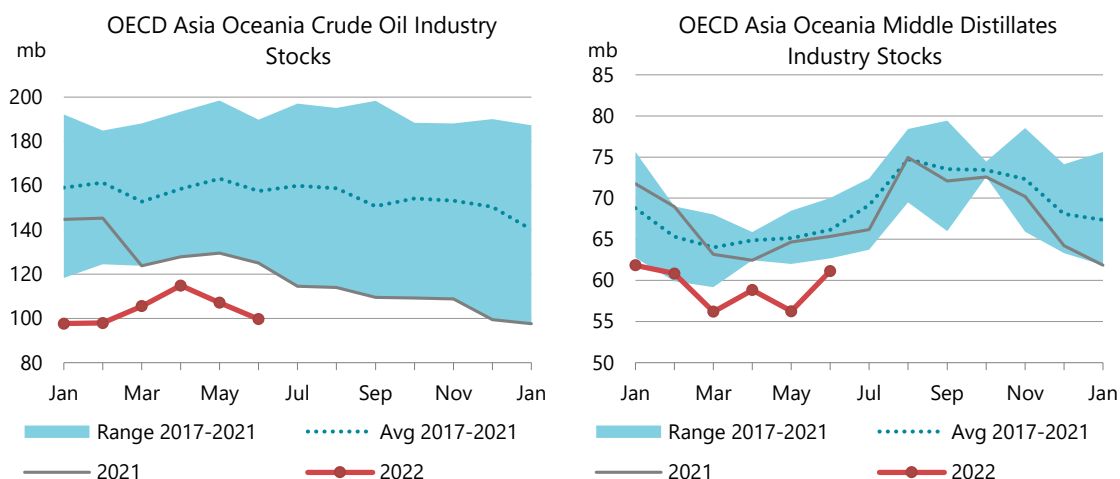


Preliminary July data from *Euroilstock* showed total industry inventories declined by 5.8 mb. Crude oil led the way, falling by 3 mb. Although the crude stocks in the Italy built by a large 2.9 mb, they fell in UK (-1.5 mb), Portugal (-1.5 mb), France (-0.7 mb) and other countries. Refined products stocks fell by 2.8 mb in total, with gasoline, middle distillates and fuel oils declining by 0.7 mb, 1.1 mb and 1 mb, respectively.

## OECD Asia Oceania

Industry stocks in OECD Asia Oceania drew by 4.2 mb to 323.1 mb in June, 69.4 mb below the five-year average. Crude stocks fell by 7.4 mb, in line with the seasonal pattern, and despite 2 mb of government stocks released in Korea. According to *Kpler*, crude imports in Japan and Korea decreased by a combined 250 kb/d m-o-m. NGL and feedstock inventories declined by 2.5 mb, with counter-seasonal drops in Japan (-2.1 mb) and Korea (-0.4 mb).

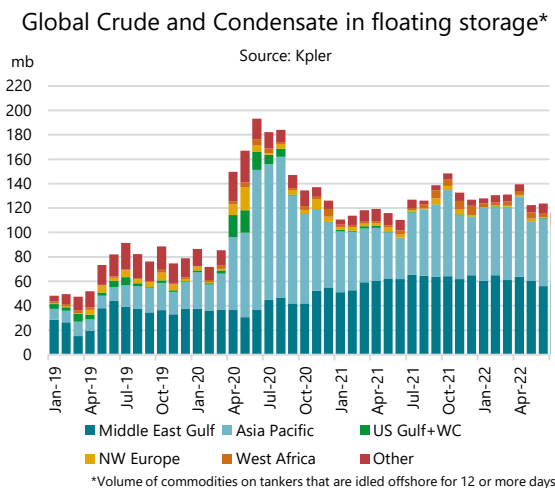
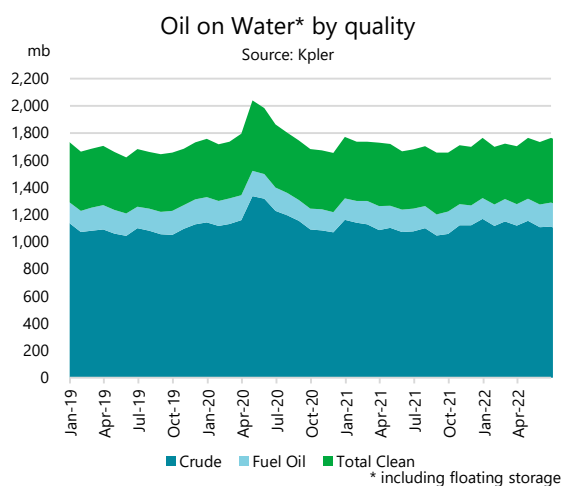
Oil product inventories rose by 5.8 mb, led by middle distillates (+4.9 mb), mostly in Korea. An eight-day nationwide truck driver strike in the first half of June in Korea disrupted the country's demand for diesel. Gasoline stocks increased by a modest 0.6 mb, when they normally decrease by 1.2 mb. Other product stocks rose by 1.4 mb while fuel oil fell by 1.2 mb.



Preliminary July data from the Petroleum Association of Japan show total oil stocks declined by 2.6 mb. Crude oil inventories fell by 1 mb while product stocks decreased counter-seasonally by 0.6 mb. Middle distillates stocks increased by 2.1 mb, largely in line with the seasonal norm. Gasoline stocks fell by 0.8 mb, hitting the lowest level since 2003, when PAJ started providing data. Residual fuel oil and naphtha inventories were also down, by 1.4 mb and 0.5 mb, respectively.

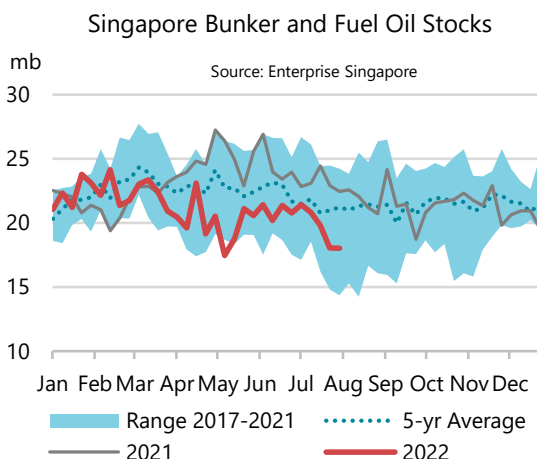
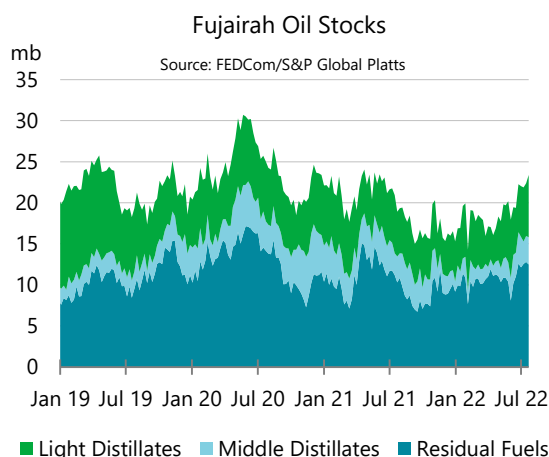
## Other stock developments

In June, volumes of oil on water (including floating storage) rose by 33.1 mb, according to data from *Kpler*. The increase was led by oil products, which surged by 29.2 mb m-o-m on higher exports of fuel oil from Malaysia (+290 kb/d m-o-m) and gasoil from the UAE (+150 kb/d). Total crude oil on water increased by 3.9 mb. Crude held in short-term floating storage rose by 1.9 mb to 123.3 mb, following a massive drop of 17.8 mb in the previous month. Volumes increased by 7.2 mb in the Asia Pacific region while they declined by 4 mb in the Middle East Gulf. Oil product floating storage built by 1.2 mb to 60 mb.

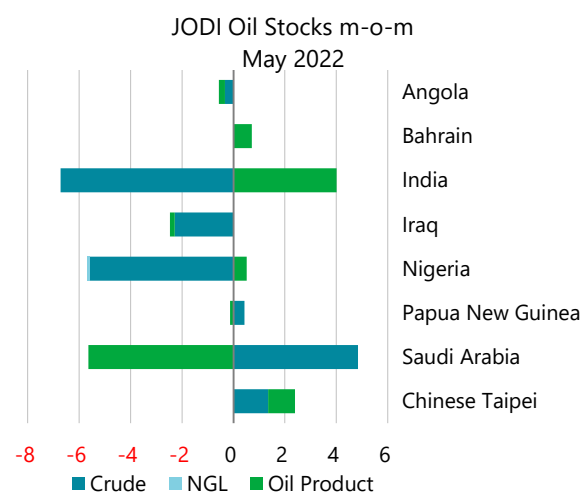


In Fujairah, independent product stocks increased for the third consecutive month, by 2.6 mb in July, according to data from *FEDCom* and *S&P Global Platts*. Total inventories reached a 14-month high as flooding at the end of the month disrupted operations at the port. Light distillates and heavy distillates rose by 1.8 mb and 0.8 mb, respectively, while middle distillates were largely unchanged. Light distillates inventories were at 7.4 mb, the highest end-month level since August 2020.

Independent product inventories in Singapore edged down by 0.6 mb in July, according to data from *Enterprise Singapore*. Residual fuels fell by 2.8 mb to 18 mb at end-month, the lowest since October 2018. By contrast, light distillates rose by 2.2 mb to a record high at 17.7 mb. Gasoline and naphtha net imports to Singapore were 310 kb/d in July, the highest in 17 months, *Kpler* data shows. Middle distillates stocks were unchanged.



**Total oil stocks in 10 non-OECD economies reporting to the JODI-Oil database fell by a combined 8.3 mb m-o-m in May. Crude inventories declined by 8.3 mb. Stocks in India and Nigeria decreased by 6.7 mb and 5.6 mb, respectively. In India, refinery input was 80 kb/d higher m-o-m while crude imports were 480 kb/d lower. In Nigeria, lower production (-200 kb/d m-o-m) partly explain the decline. By contrast, crude inventories built by 4.8 mb in Saudi Arabia during the month. A fall in crude exports of 330 kb/d and an increase in the production by 100 kb/d m-o-m was only partly offset by increased refinery throughput (+210 kb/d). Seasonally higher consumption in Saudi Arabia saw its oil product stocks fall by 5.6 mb. Indian oil product stocks rose 4 mb, partly due to lower demand (-250 kb/d m-o-m).**



### Government stock releases help ease low industry stocks and market tensions

The ongoing coordinated release of emergency oil stocks from IEA countries is helping to alleviate supply concerns and reduce market tightness by bringing more physical supply to the market. This has also facilitated an increase in commercial inventories and an easing of prices. After reaching a post-invasion high of \$127.98/bbl during March, Brent futures prices dipped and then rose to a more

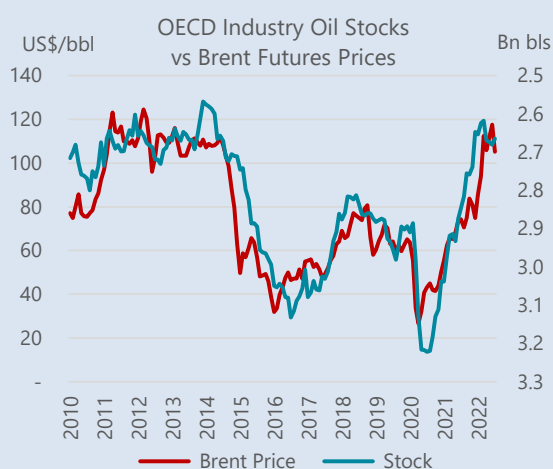
sustained peak in June at just above \$120/bbl, before spiralling lower as OECD industry inventories continued to edge higher.

Oil inventories and oil price changes are inherently linked, especially during a global crisis, with low industry stock levels pushing up prices (a scarcity premium) and higher industry stocks pressuring prices lower (surplus discount). The current energy crisis sparked by Russia's invasion of Ukraine at end-February underscores this market dynamic. OECD industry stocks hit a low of 2.62 bn barrels in March before rising progressively to 2.68 bn bbl in June, thanks, in part, to the massive release of government reserve stocks. Prices have since fallen to \$105/bbl on average in July as inventories continue rising, crucially in some OECD countries where industry stocks had dropped to very low levels. (EIA, *Euroilstock* and PAJ data show OECD industry crude stocks up 15.5 mb in July).

Commercial inventories in OECD countries reflect the international oil market as a whole, just as marker crude prices reflect overall market trends. As such, the adjacent graph shows the correlation between the Brent price and total OECD oil industry stocks.

The overall correlation value between OECD industry oil stocks and Brent futures over the past ten years has been a very solid -0.89 ratio. While the price levels reflect stock levels, the stock levels react to the structure of the futures price curve: contango (linked to low prompt prices) supports stock builds while backwardation (when prompt prices are high) pushes stocks draws. The negative correlation is not as strong on a regional level as it is on a global basis. The distinct drivers for the reference crude price for each region (Brent for Europe, WTI for Americas, and Dubai for Asia) take into account very different time horizons and regional market factors. The correlation of prompt futures prices with regional stocks is better for WTI in the Americas than for Brent in Europe and Dubai in Asia Oceania.

IEA member countries are planning to continue to release emergency stocks through end-October 2022. The decision on when to end the IEA collective action will be taken collectively by member countries when market tightness has eased considerably and the outlook is clearer. When the collective action ends, IEA countries will decide the timeframe to rebuild emergency stocks.



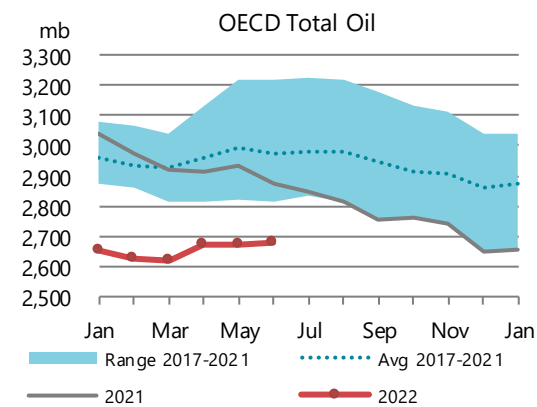
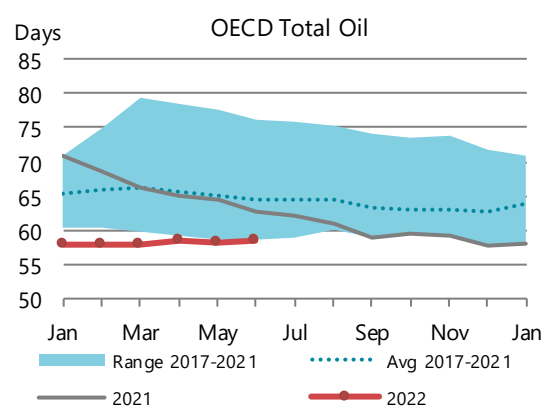
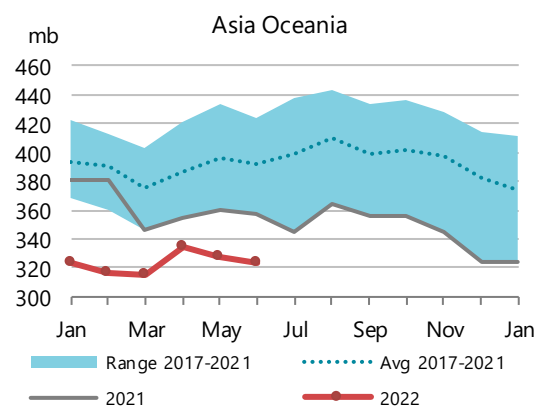
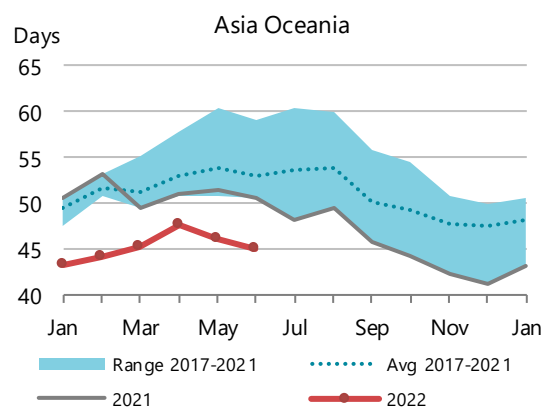
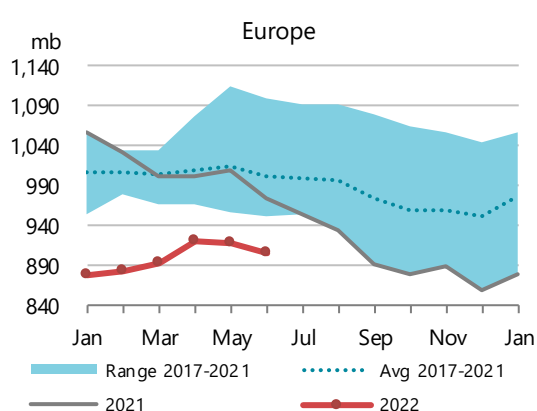
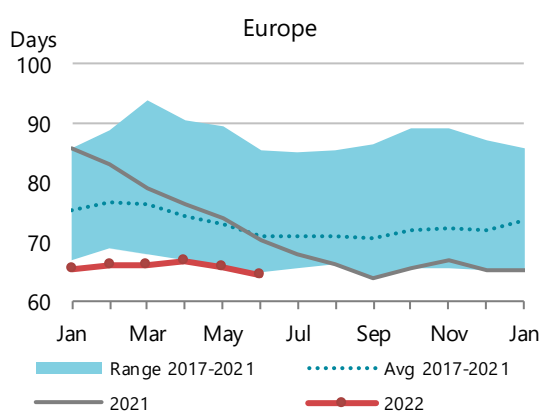
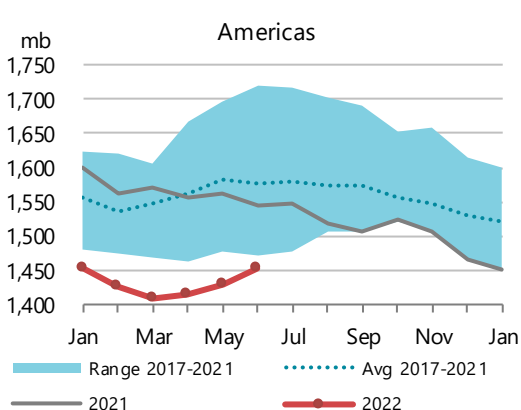
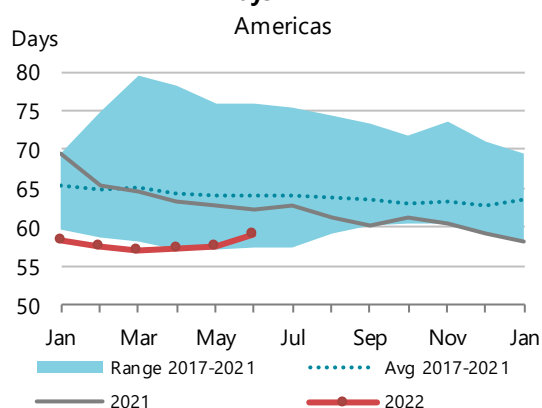


## Regional OECD End-of-Month Industry Stocks

(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.

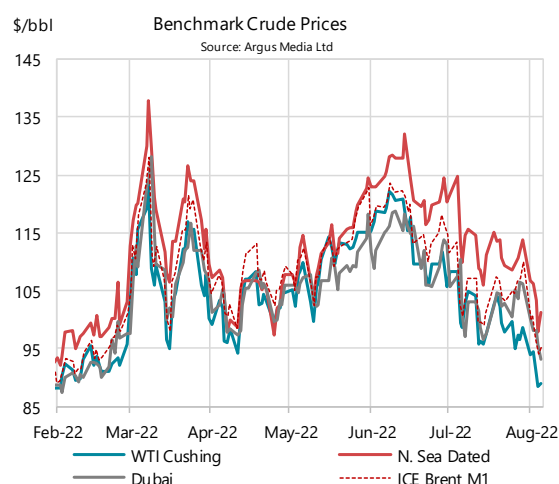
# Prices

## Overview

Global crude oil prices extended their fall from mid-June to August, posting the third largest monthly drop in July since the summer of 2018. Markets maintained their focus on the waning economic outlook, slowing oil demand growth rates in the second half of the year and expectations of rising oil inventories from 3Q22 onwards. ICE Brent futures fell in July to the lowest levels since February, and continued their downward spiral into August. Backwardation flattened across the futures curve as long forward prices remained relatively stable, pressured by both rising stocks and production (see *Government stock release helping to contain price tensions*). North Sea Dated prices dropped to \$97.75/bbl on 4 August, almost \$35/bbl below their mid-June peak of \$132/bbl. After making strong gains in May and early June, crude price differentials to marker grades deteriorated in July and early August.

Crude Prices and Differentials (\$/bbl)							
	Month			Week of	Last	Chng Jul-22	
	Jul-21	Jun-22	Jul-22	01 Aug	05 Aug	m-o-m	y-o-y
<b>Crude Futures (M1)</b>							
NYMEX WTI	72.43	114.34	99.38	91.42	89.59	-14.96	26.95
ICE Brent	74.29	117.50	105.12	97.39	95.47	-12.38	30.83
<b>Crude Marker Grades</b>							
North Sea Dated	74.99	123.62	112.63	103.07	101.35	-10.99	37.63
WTI (Cushing)	72.46	114.59	99.84	91.30	89.01	-14.75	27.38
Dubai	72.88	112.89	102.86	97.08	93.07	-10.04	29.97
<b>Differential to North Sea Dated</b>							
WTI (Cushing)	-2.53	-9.03	-12.79	-11.76	-12.34	-3.76	-10.25
Dubai	-2.11	-10.73	-9.77	-5.99	-8.28	0.96	-7.66
<b>Differential to ICE Brent</b>							
North Sea Dated	0.70	6.12	7.51	5.68	5.88	1.39	6.80
NYMEX WTI	-1.86	-3.16	-5.74	-5.97	-5.88	-2.58	-3.88

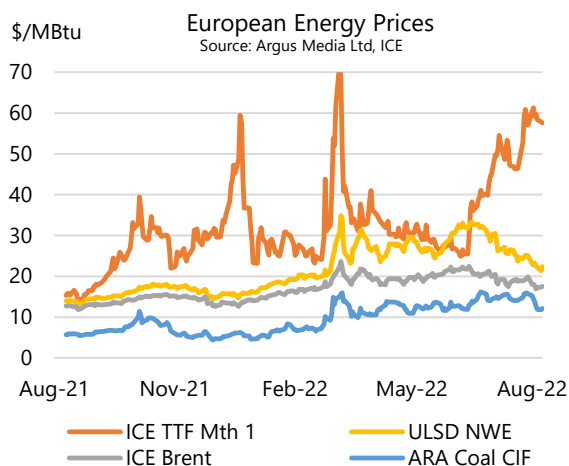
Sources: Argus Media Ltd, ICE, NYMEX (NYMEX WTI = NYMEX Light Sweet Crude)



A darker economic outlook and its impact on oil demand growth were the overriding market drivers in July. Economic indicators highlighted the ongoing deterioration in the OECD and China. Consumer confidence has fallen to notably low levels in these countries while industrial activity indicators (PMIs) now signal weaker growth or contraction already underway. Chinese efforts to reinforce economic growth in the second half of 2022 face an expanding real estate crisis and the consequences of their zero-Covid policy.

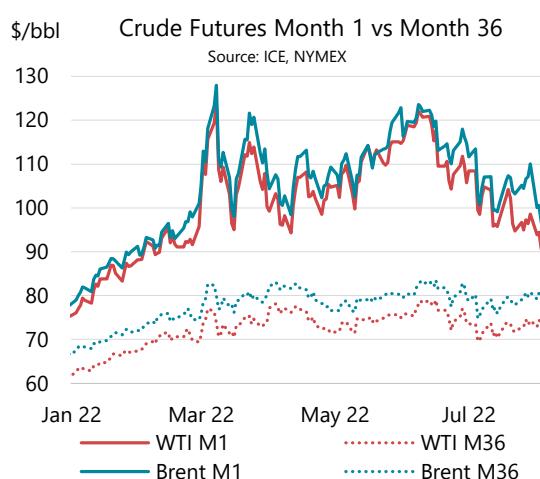
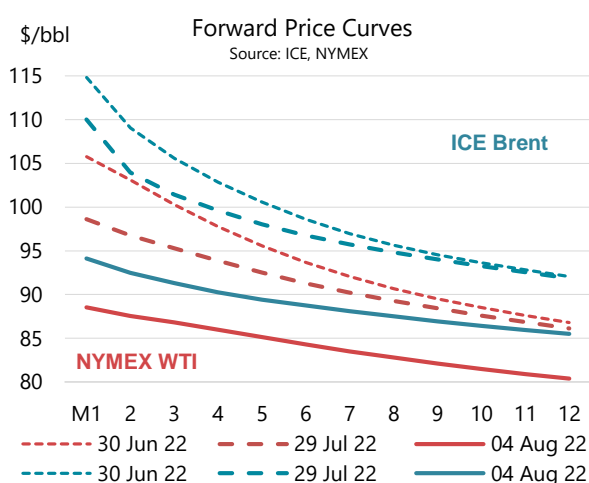
The weakness in the US, EU and China will have knock-on effects elsewhere. A debt crisis has already begun to unfold in some emerging and developing markets due to rising interest rates and a stronger US dollar, which have heightened import costs for energy, food and other commodities. Asian economies with large domestic demand (e.g. India) will see a lesser impact. Lower US economic activity is expected to flow through to neighbouring Canada, Mexico and potentially Latin American countries.

Europe's energy crisis worsened in July, ricocheting on to other regions. Russian gas export cuts to Europe deepened last month as Nord Stream 1 deliveries only recovered to 20% of capacity following a two-week shutdown for maintenance. The sudden supply loss boosted European gas prices in July to three times the level of oil prices, and four times their level of a year ago. Despite the recent fall in oil prices, these extreme prices for gas, as well as for coal and power, are aggravating recession worries for 2H22. Warnings of possible demand rationing in some countries – notably Germany – underscored the economic risk. The ripple effect of increased European demand for LNG imports has contributed to higher US natural gas prices that have begun to hobble local industrial competitiveness, which is leading to layoffs, for example, in the US aluminium industry.



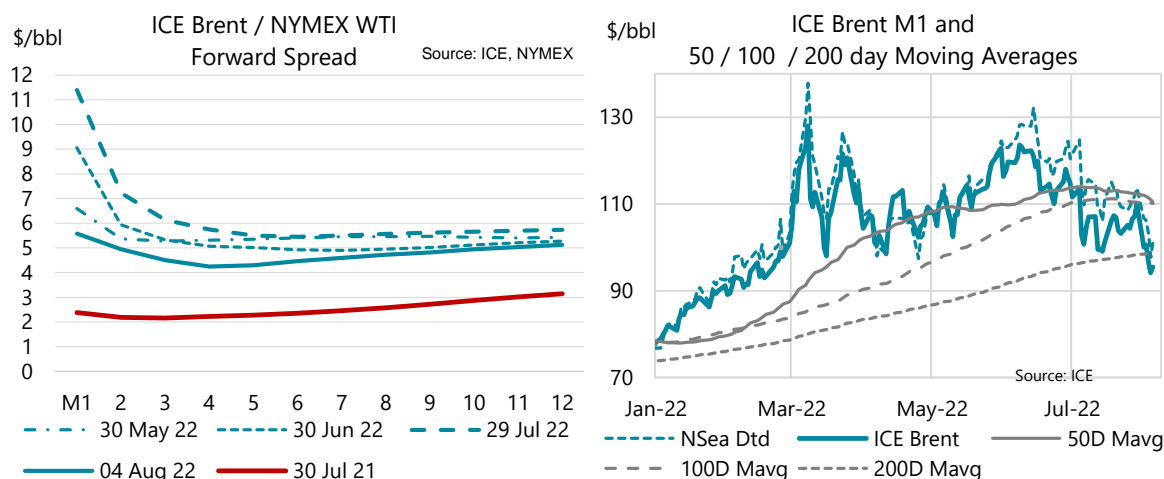
## Futures markets

While prompt futures fell sharply in July, long-dated forward prices remained relatively stable, as they have since March. Consequently, the structure flattened over the length of the curve but remained in backwardation overall. The substantially lower backwardation reflects an easing of market tensions as observed stock changes flipped from a draw of 800 kb/d in 1Q22 to a build of 900 kb/d in 2Q22, while expecting further increases in 2H22 (+900 kb/d according to this *Report*). In early August, futures prices broke a substantial technical resistance level, dropping below the 200-day moving average. Money Manager net long positions in crude and product futures fell over the month, in line with the downturn in prices.



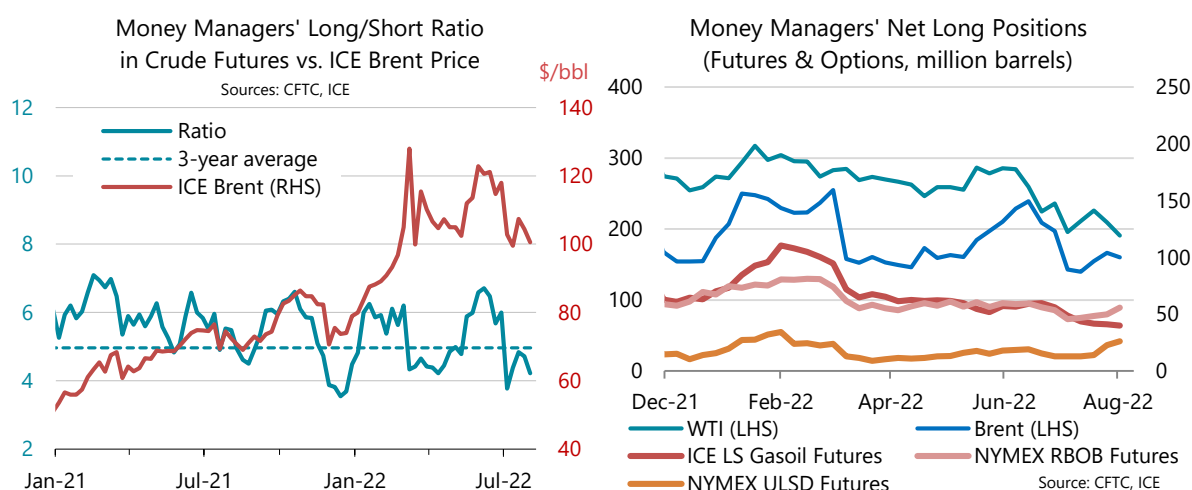
In July, Brent futures tumbled \$12.38/bbl m-o-m to \$105.12/bbl and WTI fell by a sharper \$14.96/bbl to \$99.38/bbl. The broad downward trend has continued, with Brent reaching \$94.12/bbl and WTI \$88.54/bbl on 4 August – around \$20/bbl below prices in the last week of

June. Both contracts regained terrain on 5 August, rising to \$95.47/bbl for Brent and \$89.59/bbl for WTI. Prices were last at these levels in mid-February, but then they were rising in response to stronger demand, tight supply and steady stock draws, and before any market conviction about an imminent Russian invasion of Ukraine. The Brent premium to WTI across the futures curve remains well above levels seen a year ago, reflecting demand for US crude exports as well as higher freight costs. It allows refiners to lock-in the price differential needed to cover the cost of shipping US crude exports to Europe.



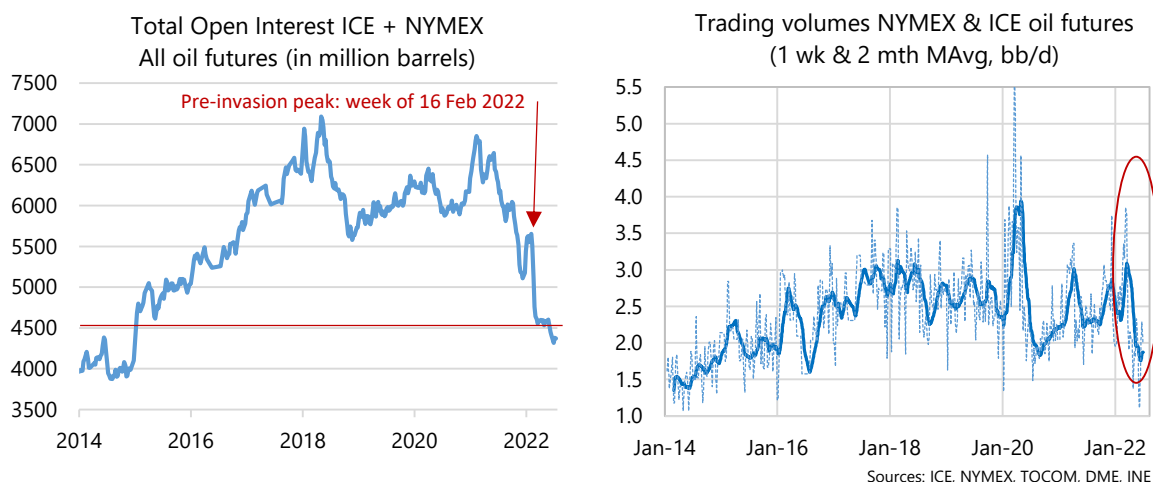
After breaking through the 50- and 100-day moving averages in early July, Brent prices oscillated between the 100- and 200-day moving average thresholds over the rest of the month. The accumulating bearish market factors drove Brent prices decisively below the 200-day moving average resistance of \$98.60/bbl on 3 August. This price transition reflects both the current and anticipated stock builds. It also reflects the compounding downside risks to the market outlook.

Product futures cracks all contracted in July by around \$12/bbl. Improved refinery supply and slowing demand growth eased both physical and futures light product market tensions.



Money managers cut net long positions on crude futures in early July, then held them steady through end-month. They cut length and built shorts on crude contracts, moving the long-short ratio below its three-year average before rebalancing at a lower overall level. Money managers reduced net long position on ICE Gasoil futures but remained unchanged

on NYMEX RBOB and increased them on NYMEX ULSD. Levels of open interest and trade volumes across all oil futures contracts combined continued to fall over the past month, reflecting the increased margin call cost of holding positions due to escalating volatility and higher interest rates. Lower open interest and trading volumes will reduce market liquidity and contribute to more price volatility.



Prompt Month Oil Futures Prices (monthly and weekly averages, \$/bbl)											
	May-22	Jun-22	Jul-22	Jul-22 m-o-m Chg	Jul-22 y-o-y Chg	Week Commencing:					Last
						04 Jul	11 Jul	18 Jul	25 Jul	01 Aug	05 Aug
<b>US Market</b>											
Light Sweet Crude Oil (WTI) 1st contract	109.26	114.34	99.38	-14.96	26.95	101.39	97.92	100.03	96.80	91.42	89.59
Light Sweet Crude Oil (WTI) 12th contract	89.81	93.95	83.00	-10.95	17.69	81.71	81.31	83.37	84.38	82.25	79.45
RBOB	158.94	167.47	140.32	-27.15	45.10	141.05	137.43	136.24	143.80	122.85	120.39
ULSD	164.84	180.72	152.89	-27.83	63.49	150.77	154.94	150.63	152.28	141.34	136.66
ULSD (\$/mmbtu)	28.36	31.70	27.00	-4.70	10.88	26.63	27.26	26.68	26.92	25.15	24.38
Henry Hub Natural Gas (\$/mmbtu)	8.16	7.60	7.19	-0.41	3.37	5.84	6.58	7.80	8.55	8.11	8.18
<b>European Market</b>											
Brent 1st contract	111.96	117.50	105.12	-12.38	30.83	105.73	101.28	105.52	106.66	97.39	95.47
Brent 12th contract	94.23	98.03	88.25	-9.78	20.03	87.68	86.08	88.40	90.03	88.26	85.51
Gasoil	152.21	174.02	149.64	-24.38	69.23	154.04	151.95	143.60	145.96	135.97	131.64
<b>Prompt Month Differentials</b>											
WTI M1 - Brent M1	-2.70	-3.16	-5.74	-2.58	-3.88	-4.34	-3.36	-5.49	-9.86	-5.97	-5.88
WTI M1 vs. M12	19.45	20.39	16.38	-4.01	9.26	19.68	16.61	16.66	12.42	9.17	10.14
Brent M1 vs. M12	17.73	19.47	16.87	-2.60	10.80	18.05	15.20	17.12	16.63	9.13	9.96
ULSD - WTI	55.58	66.38	53.51	-12.87	36.54	49.38	57.02	50.60	55.48	49.92	47.07
RBOB - WTI	49.68	53.13	40.94	-12.19	18.15	39.66	39.51	36.21	47.00	31.43	30.80
3-2-1 Crack (WTI, RBOB, ULSD)	51.64	57.55	45.13	-12.42	24.28	42.90	45.34	41.01	49.82	37.60	36.22
ULSD - Natural Gas (\$/mmbtu)	20.20	24.10	19.81	-4.29	7.51	20.78	20.68	18.88	18.37	17.04	16.20
Gasoil - Brent	40.25	56.52	44.52	-12.00	38.40	48.31	50.67	38.08	39.30	38.58	36.17

Source: ICE, NYMEX.

## Spot crude oil prices

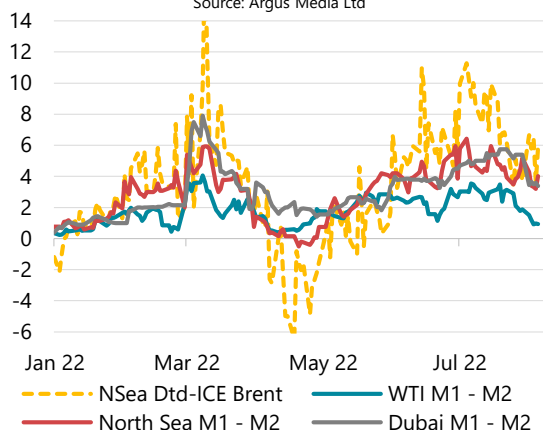
Strong refinery demand sustained physical crude prices in July, boosting the spot premium to futures. Eroding but still robust refinery margins and a recovery in Chinese crude buying were the key to support. Grade price differentials rose for light sweet crudes, notably in the Atlantic Basin, while those for Middle East sour grades deteriorated slightly. However, the differentials eroded suddenly in late-July and early-August as waning demand for gasoline and diesel narrowed their cracks and undercut refinery margins. The rise in crude stocks and flatter backwardation also cut the urgency of getting short-haul barrels with prompt

delivery dates. Finally, the recent recovery in Libyan production and the progressive wrap-up of regional upstream maintenance programmes have both eased supply tensions.

The North Sea Dated premium to futures rose \$1.39/bbl to \$7.51/bbl in July. After peaking at almost \$12/bbl in the first week of July, it fell below \$4/bbl in the first week of August, a level not seen since May. In parallel, North Sea grade price differentials rolled-off late in July after a strong month. Forties spreads fell below \$2/bbl in early August versus over \$5/bbl in the first three weeks of July. Lower Forties differentials and a narrower North Sea Dated premium to Dubai attracted Asian buyers, with one VLCC of Forties now headed to Korea.

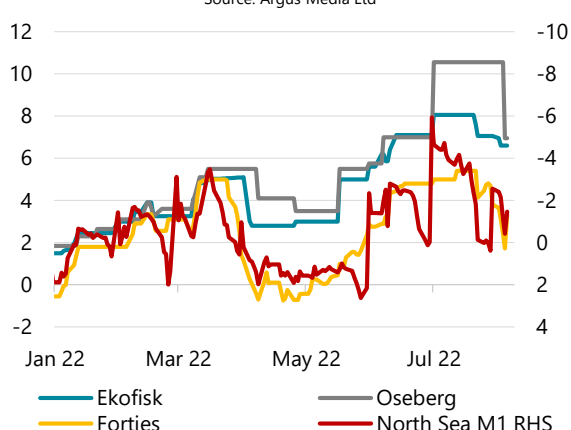
\$/bbl Crude Prices Prompt Month Differentials

Source: Argus Media Ltd



\$/bbl North Sea Differentials to North Sea Dated

Source: Argus Media Ltd

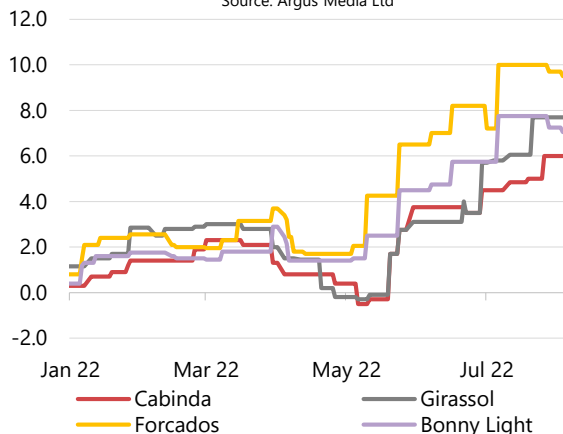


West African crude price differentials also peaked and eased over the course of July.

Nigerian light sweet grade spreads rose around \$2/bbl in July. Forcados reached almost \$9.60/bbl before collapsing to around \$2/bbl in early August. Competition for barrels between European, Indian and Chinese refiners supported differentials. Angolan heavy sweet Girassol rose \$3/bbl in July, peaking at \$7.70/bbl in the last two weeks of the month before easing in early August.

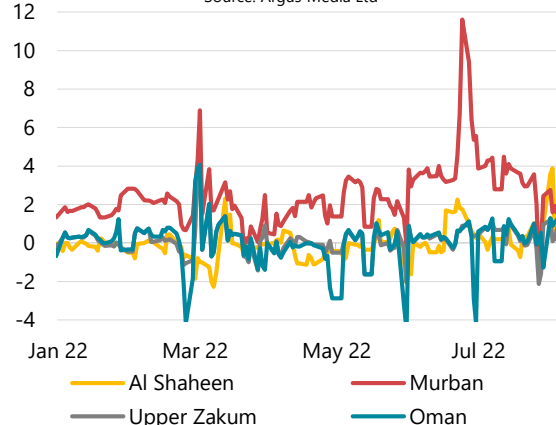
\$/bbl West Africa Differentials to N.Sea Dated

Source: Argus Media Ltd



\$/bbl Middle Eastern Differentials to Dubai

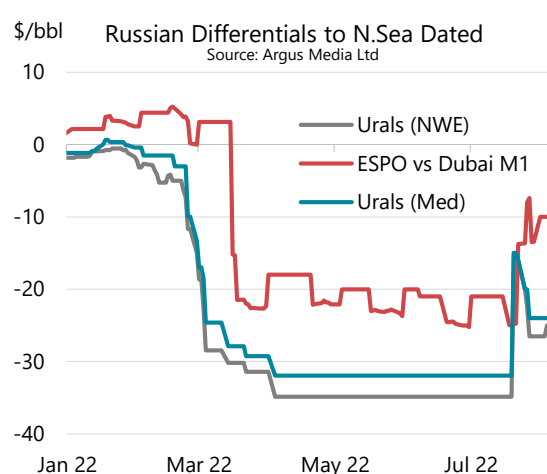
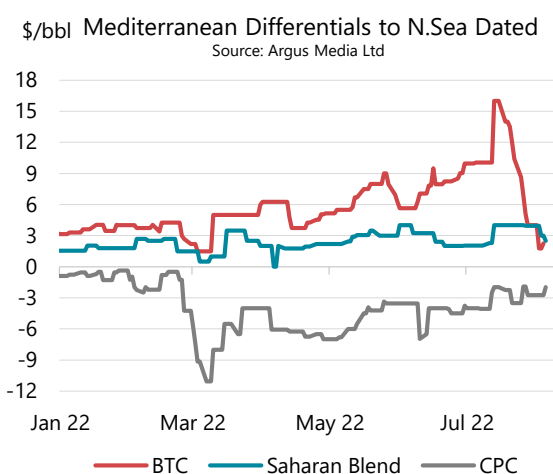
Source: Argus Media Ltd



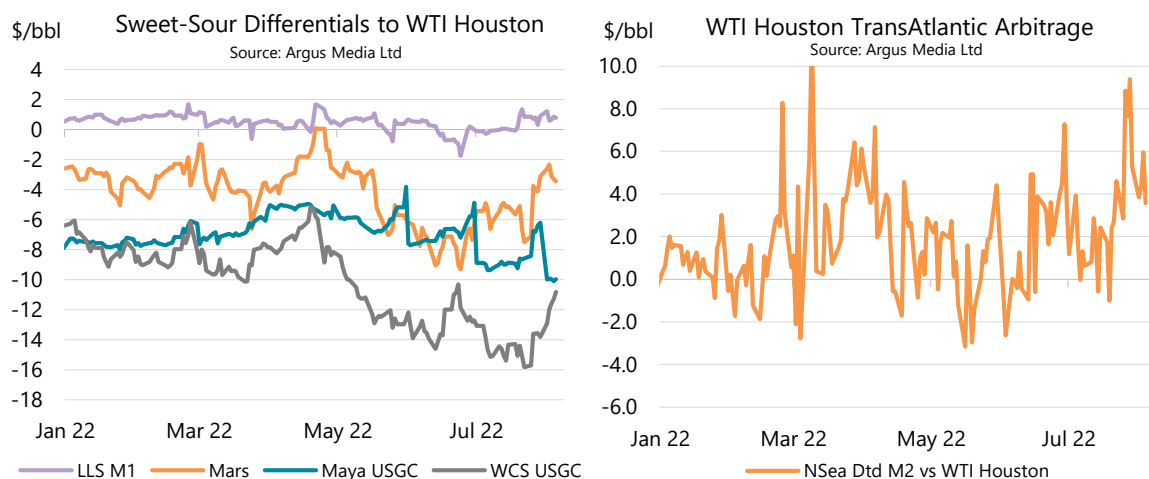
Trade in Russian Urals became more transparent in July, revealing narrower discounts than last reported. Argus assessed Urals priced in Northwest Europe at -\$15/bbl against North Sea Dated on 20 July (versus -\$34.85/bbl in place since 1 April) on European traders' comments. It revised the discount wider in the following days to over -\$25/bbl on reported

deals by Russian traders and corresponding to cargoes delivered CIF to India at North Sea Dated -\$18/bbl. Urals cargoes loading in August have reportedly sold-out, shifting trade to the September programme. Reassessment of Urals prices came as the EU and its allies attempt to align policies for a proposed price cap on Russian crude and product sales with already adopted EU sanctions restricting shipping and insurance of Russian oil cargoes. EU sanctions should accommodate purchasers of Russian oil that respect the proposed price cap, allowing access to tankers and insurance.

Eastern Russia's ESPO Blend, supported by strong Chinese and Indian demand, saw its discount to Dubai move in a -\$25/bbl to -\$20/bbl range in July before narrowing to -\$13.50/bbl in late July and -\$10/bbl in August. *Argus* indicates deals for September loading ESPO cargoes may have been done at discounts of as little as \$5/bbl. Chinese ESPO demand picked-up as refinery activity rose and with European refiners competing for West African and North Sea barrels.



In the Middle East, the Murban premium to Dubai fell \$1.52/bbl m-o-m in July, contrasting with trends for light sweet Atlantic Basin grades. Murban peaked versus Dubai in late June at over \$6/bbl before steadily eroding to just \$1.30/bbl in the last week of July. The market struggled to balance the arrival of competing US and West African cargoes in September and October when autumn refinery maintenance peaks in the Atlantic Basin. Heavy flooding in Fujairah did not disrupt trade out of the port.



**Exports in July supported crude prices on the US Gulf Coast (USGC) versus marker grades. The shift of SPR crude from mainly sour to sweet barrels boosted sour grades versus markers. The WTI Houston premium to Cushing rose \$0.07/bbl to \$2.01/bbl in July while sour Mars crude discounts to WTI at Houston narrowed by \$2.12/bbl to -\$5.33/bbl. The WTI Houston discount to North Sea M2 widened by \$1.53/bbl to -\$3.26/bbl in July, supporting high exports of US crude to Europe. Discounts for heavy sour Canadian WCS to US destinations deepened as exports volumes rose with maintenance programs completed. Its discount at Hardisty to WTI at Cushing widened by \$3.14/bbl to -\$25.65/bbl in July before narrowing in early August.**

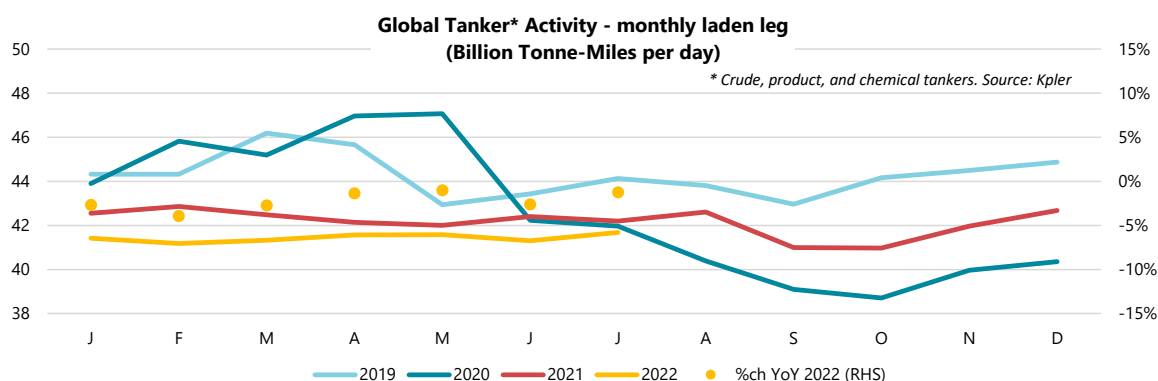


Spot Crude Oil Prices and Differentials											
(monthly and weekly averages, \$/bbl)											
	May-22	Jun-22	Jul-22	Jul-22	Jul-22	Week Commencing:					Last
				m-o-m	y-o-y						
				Chg	Chg	04 Jul	11 Jul	18 Jul	25 Jul	01 Aug	05 Aug
<b>Crudes</b>											
North Sea Dated	113.38	123.62	112.63	-10.99	37.63	115.57	109.85	112.45	110.85	103.07	101.35
North Sea M1	114.71	121.74	109.85	-11.89	34.83	111.25	106.09	110.25	110.40	101.55	99.89
North Sea M2	112.07	117.56	105.11	-12.45	30.85	106.01	101.25	105.75	106.23	97.91	95.87
WTI (Cushing) M1	109.61	114.59	99.84	-14.75	27.38	101.39	97.92	101.26	97.38	91.30	89.01
WTI (Cushing) M2	107.49	112.25	97.04	-15.21	25.10	98.07	95.15	98.22	95.25	90.20	88.08
WTI (Houston) M1	110.80	115.83	101.85	-13.98	29.13	103.16	99.78	103.66	99.43	93.40	90.99
Urals (NWE)	78.53	88.77	83.05	-5.72	10.61	80.72	75.00	89.31	86.45	77.17	76.35
Dubai (1st mon)	108.08	112.89	102.86	-10.04	29.97	103.80	98.49	103.24	104.43	97.08	93.07
<b>Differentials to Futures</b>											
North Sea Dated vs. ICE Brent	1.42	6.12	7.51	1.39	6.80	9.84	8.57	6.93	4.19	5.68	5.88
WTI (Cushing) M1 vs. Futures	0.35	0.25	0.46	0.21	0.43	0.00	0.00	1.23	0.58	-0.12	-0.58
<b>Differentials to Physical Markers</b>											
WTI (Houston) versus North Sea M2	-1.27	-1.73	-3.26	-1.53	-1.72	-2.86	-1.47	-2.09	-6.79	-4.51	-4.89
WTI (Houston) versus WTI (Cushing) M1	1.18	1.24	2.01	0.77	1.75	1.77	1.86	2.40	2.06	2.10	1.97
Urals (NWE) versus North Sea Dated	-34.85	-34.85	-29.57	5.28	-27.03	-34.85	-34.85	-23.14	-24.40	-25.90	-25.00
Dubai versus North Sea M2	-3.99	-4.67	-2.26	2.41	-0.88	-2.21	-2.75	-2.51	-1.80	-0.83	-2.80
Dubai versus WTI (Cushing) M2	0.59	0.64	5.82	5.17	4.88	5.73	3.34	5.02	9.17	6.88	4.99
<b>Prompt MonDifferentials</b>											
Forward North Sea M1-M2	2.64	4.18	4.74	0.56	3.98	5.24	4.85	4.50	4.17	3.64	4.02
Forward WTI Cushing M1-M2	2.12	2.34	2.80	0.46	2.28	3.32	2.77	3.04	2.12	1.11	0.93
Forward Dubai M1-M2	2.29	3.85	5.27	1.42	4.04	4.89	5.28	5.67	5.35	3.51	3.39

Source: Argus Media Ltd, ICE, NYMEX

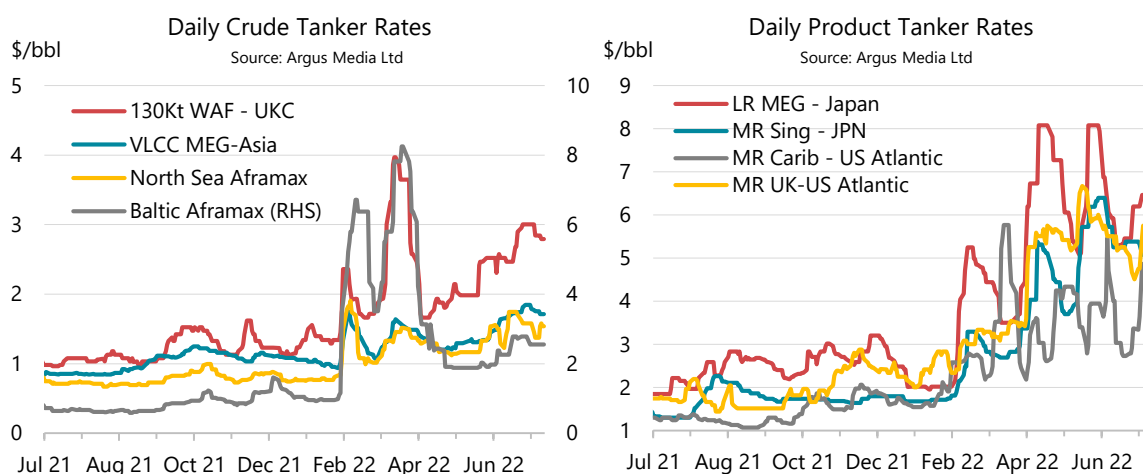
## Freight

Freight rates rose for dirty tankers on average in July, as refiners chartered vessels to meet the summer rise in refinery activity. Sanctions on Russian tankers that have tightened available capacity, notably on the Aframax and LR segments, continue to sustain overall chartering tensions despite a 2% increase in available tonnage since January as newbuilds outpace scrapping. The demand for VLCCs, the segment with the loosest capacity balance, has improved as Middle East shipments rise and as trade moves away from the more expensive Suezmax vessels. Aframax rates rose in the Baltic on higher Russian crude exports and in the North Sea ahead of the roll-off of maintenance programmes.



Clean tanker freight rates fell by around 12% on average in July, with MR vessels on Asian routes the exception - down around 5%. Weakness emerged as post-maintenance refinery activity surged and product demand eased, initially diminishing regional supply deficits and trade balancing requirements. Rates slid from peaks in June to a trough in the first half of July, before rebounding late in the month.

**Global tanker tonne-miles navigated have remained flat since the beginning of 2022. Russian oil exports shifted from European destinations to more distant Asian ports as Europe imported more from the US, Middle East and West Africa. Gains from Russian exports to Asia were counterbalanced by US and West African crude cargoes that swung away from distant Asian destinations to nearer refineries in Europe.**



Freight Costs											
(monthly and weekly averages, \$/bbl)											
	Jul-22					Week Commencing					
	May-22	Jun-22	Jul-22	m-o-m chg	y-o-y chg	27-Jun	04-Jul	11-Jul	18-Jul	25-Jul	01-Aug
<b>Crude Tankers</b>											
VLCC MEG-Asia	1.25	1.38	1.74	0.36	0.88	1.54	1.66	1.73	1.81	1.79	1.72
130Kt WAF - UKC	1.88	2.31	2.75	0.44	1.73	2.49	2.49	2.66	2.99	2.96	2.81
Baltic Aframax	2.25	1.97	2.57	0.60	1.90	2.20	2.26	2.77	2.78	2.55	2.55
North Sea Aframax	1.21	1.32	1.56	0.24	0.83	1.47	1.45	1.74	1.59	1.50	1.51
<b>Product Tankers</b>											
LR MEG - Japan	7.22	6.67	5.79	-0.88	3.81	6.54	5.61	5.39	5.82	6.33	6.42
MR Sing - JPN	4.52	5.58	5.33	-0.25	4.02	6.14	5.34	5.28	5.38	5.22	5.01
MR Carib - US Atlantic	3.49	3.82	3.41	-0.41	2.11	4.32	3.52	2.80	3.05	4.17	5.39
MR UK-US Atlantic	5.52	6.00	5.16	-0.84	3.38	5.62	5.40	5.24	4.73	5.19	5.86

Source: Argus Media Ltd

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

	2019	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023
<b>OECD DEMAND</b>																	
Americas	25.4	22.5	22.8	24.3	24.8	25.0	24.2	24.8	24.8	24.6	24.8	24.7	24.8	25.1	25.2	25.1	25.0
Europe	14.3	12.4	12.0	12.7	13.9	14.0	13.1	13.2	13.5	14.1	13.8	13.6	13.4	13.6	14.1	13.8	13.7
Asia Oceania	7.9	7.2	7.7	7.0	7.1	7.8	7.4	7.9	7.0	7.2	7.7	7.4	8.0	7.2	7.5	7.9	7.7
<b>Total OECD</b>	<b>47.7</b>	<b>42.0</b>	<b>42.4</b>	<b>44.0</b>	<b>45.7</b>	<b>46.7</b>	<b>44.7</b>	<b>45.8</b>	<b>45.3</b>	<b>45.8</b>	<b>46.4</b>	<b>45.8</b>	<b>46.2</b>	<b>45.9</b>	<b>46.8</b>	<b>46.9</b>	<b>46.4</b>
<b>NON-OECD DEMAND</b>																	
FSU	4.7	4.6	4.6	4.7	5.0	5.1	4.8	4.7	4.7	4.8	4.7	4.7	4.4	4.5	4.8	4.9	4.6
Europe	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
China	14.1	14.2	14.9	15.6	15.6	15.6	15.4	15.4	14.6	15.6	15.8	15.4	15.8	16.1	16.3	16.8	16.3
Other Asia	14.1	12.7	13.7	13.1	12.8	13.9	13.4	14.1	14.0	13.4	14.1	13.9	14.5	14.5	14.2	14.9	14.5
Americas	6.3	5.5	5.7	5.8	6.1	6.1	6.0	5.9	6.1	6.1	6.1	6.1	5.9	6.0	6.1	6.1	6.0
Middle East	8.8	8.1	8.2	8.4	8.9	8.4	8.5	8.5	9.0	9.4	8.8	8.9	8.7	9.2	9.5	8.9	9.1
Africa	4.1	3.8	4.0	3.9	3.9	4.1	4.0	4.2	4.1	4.0	4.1	4.1	4.1	4.1	4.0	4.2	4.1
<b>Total Non-OECD</b>	<b>52.9</b>	<b>49.5</b>	<b>51.9</b>	<b>52.3</b>	<b>53.0</b>	<b>54.1</b>	<b>52.8</b>	<b>53.6</b>	<b>53.2</b>	<b>54.2</b>	<b>54.5</b>	<b>53.9</b>	<b>54.1</b>	<b>55.2</b>	<b>55.7</b>	<b>56.5</b>	<b>55.4</b>
<b>Total Demand<sup>1</sup></b>	<b>100.6</b>	<b>91.5</b>	<b>94.3</b>	<b>96.3</b>	<b>98.8</b>	<b>100.8</b>	<b>97.6</b>	<b>99.4</b>	<b>98.5</b>	<b>100.0</b>	<b>100.8</b>	<b>99.7</b>	<b>100.3</b>	<b>101.1</b>	<b>102.5</b>	<b>103.3</b>	<b>101.8</b>
<b>OECD SUPPLY</b>																	
Americas	24.8	23.9	23.4	24.3	24.3	25.3	24.3	25.0	25.4	26.0	26.6	25.7	26.6	26.9	27.2	27.5	27.1
Europe	3.4	3.6	3.6	3.1	3.4	3.4	3.4	3.3	3.0	3.2	3.4	3.2	3.4	3.3	3.3	3.5	3.4
Asia Oceania	0.5	0.5	0.5	0.5	0.6	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>2</sup></b>	<b>28.6</b>	<b>28.0</b>	<b>27.6</b>	<b>27.9</b>	<b>28.3</b>	<b>29.2</b>	<b>28.2</b>	<b>28.8</b>	<b>28.9</b>	<b>29.6</b>	<b>30.5</b>	<b>29.5</b>	<b>30.5</b>	<b>30.7</b>	<b>31.0</b>	<b>31.5</b>	<b>30.9</b>
<b>NON-OECD SUPPLY</b>																	
FSU	14.6	13.5	13.4	13.7	13.7	14.3	13.8	14.4	13.4	13.6	13.5	13.7	12.7	12.5	12.4	12.5	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	3.9	4.0	4.1	4.1	4.1	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.2	4.3
Other Asia	3.3	3.0	3.0	2.9	2.8	2.8	2.9	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6
Americas	5.3	5.3	5.3	5.3	5.4	5.2	5.3	5.4	5.5	5.7	5.8	5.6	5.9	5.9	6.0	6.1	6.0
Middle East	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3
Africa	1.5	1.4	1.3	1.3	1.3	1.3	1.3	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>2</sup></b>	<b>31.8</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>30.4</b>	<b>30.8</b>	<b>30.7</b>	<b>30.8</b>	<b>30.1</b>	<b>30.0</b>	<b>29.9</b>	<b>30.0</b>	<b>30.0</b>
Processing gains <sup>3</sup>	2.4	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
Global Biofuels	2.8	2.6	2.2	2.9	3.2	2.7	2.8	2.4	3.0	3.3	2.9	2.9	2.6	3.1	3.4	3.0	3.0
<b>Total Non-OPEC Supply</b>	<b>65.6</b>	<b>63.0</b>	<b>62.1</b>	<b>63.5</b>	<b>64.3</b>	<b>65.0</b>	<b>63.7</b>	<b>64.9</b>	<b>64.6</b>	<b>66.1</b>	<b>66.5</b>	<b>65.5</b>	<b>65.5</b>	<b>66.2</b>	<b>66.7</b>	<b>66.8</b>	<b>66.3</b>
<b>OPEC<sup>4</sup></b>																	
Crude	29.6	25.7	25.4	25.6	27.0	27.8	26.4	28.5	28.7								
NGLs	5.3	5.1	5.1	5.1	5.1	5.2	5.1	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.4
<b>Total OPEC</b>	<b>35.0</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>33.8</b>	<b>34.0</b>								
<b>Total Supply</b>	<b>100.6</b>	<b>93.8</b>	<b>92.5</b>	<b>94.2</b>	<b>96.4</b>	<b>98.0</b>	<b>95.3</b>	<b>98.7</b>	<b>98.7</b>								
<b>STOCK CHANGES AND MISCELLANEOUS</b>																	
<b>Reported OECD</b>																	
Industry	0.1	0.4	-1.3	-0.5	-1.3	-1.2	-1.1	-0.3	0.7								
Government	0.0	0.0	0.0	-0.2	-0.1	-0.3	-0.2	-0.5	-1.0								
<b>Total</b>	<b>0.0</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>-0.8</b>	<b>-0.3</b>								
Floating storage/Oil in transit	0.1	0.0	-0.5	-0.6	-0.3	1.1	-0.1	-0.5	0.5								
Miscellaneous to balance <sup>5</sup>	-0.1	1.8	-0.1	-0.9	-0.7	-2.4	-1.0	0.5	0.0								
<b>Total Stock Ch. &amp; Misc</b>	<b>0.0</b>	<b>2.3</b>	<b>-1.9</b>	<b>-2.2</b>	<b>-2.4</b>	<b>-2.8</b>	<b>-2.3</b>	<b>-0.8</b>	<b>0.2</b>								
<b>Memo items:</b>																	
Call on OPEC crude + Stock ch. <sup>6</sup>	29.6	23.4	27.2	27.7	29.4	30.6	28.7	29.3	28.5	28.5	29.0	28.8	29.4	29.4	30.3	31.0	30.1

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

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

<sup>4</sup> OPEC data based on today's membership throughout the time series.

<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)

	2019	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023
<b>OECD DEMAND</b>																	
Americas	-0.1	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.1	-0.1	-	-0.3	-0.1	-0.1	-0.1
Europe	-	-	0.1	-	-	-	-	0.1	0.2	0.3	0.2	0.2	0.3	0.1	0.1	0.2	0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
<b>Total OECD</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-0.1</b>	<b>0.2</b>	<b>-</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>-0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>
<b>NON-OECD DEMAND</b>																	
FSU	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	-	0.1	-	-	0.1	0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	0.1	0.1	-
Other Asia	-	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Americas	-	-0.1	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Middle East	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2
Africa	-	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 Non-OECD</b>	<b>-</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>
<b>Total Demand</b>	<b>-0.1</b>	<b>-0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.2</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>
<b>OECD SUPPLY</b>																	
Americas	-	-	0.1	0.1	-	-	-	-	-0.1	-0.3	-0.2	-0.2	-0.3	-0.3	-0.1	-0.1	-0.2
Europe	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total OECD</b>	<b>-</b>	<b>-</b>	<b>0.1</b>	<b>0.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.2</b>
<b>NON-OECD SUPPLY</b>																	
FSU	-	-	-	-	-	-	-	-	-	0.1	0.7	0.2	0.8	0.8	0.8	0.8	0.8
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Non-OECD</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.1</b>	<b>0.7</b>	<b>0.2</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Non-OPEC Supply</b>	<b>-</b>	<b>-</b>	<b>0.1</b>	<b>0.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-0.2</b>	<b>-0.3</b>	<b>0.5</b>	<b>-</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>0.7</b>
<b>OPEC</b>																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total OPEC</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Supply</b>	<b>-</b>	<b>-</b>	<b>0.1</b>	<b>0.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-0.3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>STOCK CHANGES AND MISCELLANEOUS</b>																	
<b>REPORTED OECD</b>																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Floating storage/Oil in transit	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	0.1	0.2	-	-0.1	-0.1	-0.1	-0.1	-0.2	-	-	-	-	-	-	-	-	-
<b>Total Stock Ch. &amp; Misc</b>	<b>0.1</b>	<b>0.2</b>	<b>-</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-1.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Memo items:</b>																	
Call on OPEC crude + Stock ch.	-0.1	-0.2	-	0.1	0.1	0.1	0.1	0.1	1.0	0.8	0.1	0.5	-0.1	-0.4	-0.1	-0.1	-0.2

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)

	2019	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023
<b>Total Demand</b>	<b>100.6</b>	<b>91.5</b>	<b>94.3</b>	<b>96.3</b>	<b>98.8</b>	<b>100.8</b>	<b>97.6</b>	<b>99.4</b>	<b>98.5</b>	<b>100.0</b>	<b>100.8</b>	<b>99.7</b>	<b>100.3</b>	<b>101.1</b>	<b>102.5</b>	<b>103.3</b>	<b>101.8</b>
<b>OECD SUPPLY</b>																	
Americas <sup>2</sup>	22.8	21.9	21.5	22.3	22.4	23.3	22.4	23.0	23.4	23.9	24.5	23.7	24.5	24.8	25.1	25.5	25.0
Europe	3.4	3.6	3.6	3.1	3.4	3.4	3.4	3.3	3.0	3.2	3.4	3.2	3.4	3.3	3.3	3.5	3.4
Asia Oceania	0.5	0.5	0.5	0.5	0.6	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>26.7</b>	<b>26.0</b>	<b>25.6</b>	<b>25.9</b>	<b>26.3</b>	<b>27.2</b>	<b>26.3</b>	<b>26.8</b>	<b>26.9</b>	<b>27.6</b>	<b>28.4</b>	<b>27.4</b>	<b>28.4</b>	<b>28.6</b>	<b>28.9</b>	<b>29.5</b>	<b>28.9</b>
<b>NON-OECD SUPPLY</b>																	
FSU <sup>3</sup>	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	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	3.9	4.0	4.1	4.1	4.1	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.2	4.3
Other Asia <sup>4</sup>	2.5	2.3	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0
Latin America	5.3	5.3	5.3	5.3	5.4	5.2	5.3	5.4	5.5	5.7	5.8	5.6	5.9	5.9	6.0	6.1	6.0
Middle East <sup>5</sup>	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	2.0	2.0
Africa <sup>6</sup>	1.2	1.2	1.1	1.1	1.1	1.1	1.1	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>15.3</b>	<b>15.1</b>	<b>15.1</b>	<b>15.1</b>	<b>15.1</b>	<b>14.8</b>	<b>15.0</b>	<b>15.2</b>	<b>15.2</b>	<b>15.4</b>	<b>15.5</b>	<b>15.3</b>	<b>15.6</b>	<b>15.7</b>	<b>15.7</b>	<b>15.6</b>	<b>15.6</b>
Processing Gains	2.4	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
Global Biofuels	2.8	2.6	2.2	2.9	3.2	2.7	2.8	2.4	3.0	3.3	2.9	2.9	2.6	3.1	3.4	3.0	3.0
<b>Total Non-OPEC+</b>	<b>47.2</b>	<b>45.9</b>	<b>45.0</b>	<b>46.2</b>	<b>47.0</b>	<b>47.1</b>	<b>46.3</b>	<b>46.7</b>	<b>47.4</b>	<b>48.6</b>	<b>49.1</b>	<b>48.0</b>	<b>48.9</b>	<b>49.8</b>	<b>50.4</b>	<b>50.5</b>	<b>49.9</b>
<b>OPEC+ CRUDE</b>																	
Algeria	1.0	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Angola	1.4	1.3	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1
Azerbaijan	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5
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	2.4	2.0	2.3	2.4	2.5	2.5	2.4	2.5	2.5	2.5	2.6	2.5	2.6	2.6	2.6	2.6	2.6
Iraq	4.7	4.0	3.9	3.9	4.1	4.2	4.0	4.3	4.4	4.5	4.6	4.5	4.7	4.7	4.7	4.7	4.7
Kazakhstan	1.6	1.5	1.5	1.5	1.4	1.7	1.5	1.6	1.4	1.4	1.6	1.5	1.7	1.7	1.6	1.7	1.6
Kuwait	2.7	2.4	2.3	2.4	2.4	2.5	2.4	2.6	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8
Libya	1.1	0.4	1.2	1.2	1.2	1.1	1.1	1.1	0.8	1.0	1.1	1.0	1.2	1.2	1.2	1.2	1.2
Malaysia	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Mexico	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.7	1.6	1.7	1.7	1.7	1.6	1.7
Nigeria	1.7	1.5	1.4	1.3	1.3	1.2	1.3	1.3	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.2
Oman	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9
Russia	10.4	9.4	9.3	9.5	9.7	10.0	9.6	10.0	9.4	9.6	9.2	9.6	8.4	8.3	8.3	8.3	8.3
Saudi Arabia	9.9	9.2	8.5	8.6	9.6	9.9	9.1	10.2	10.5	11.0	11.0	10.7	11.0	11.0	11.0	11.0	11.0
South Sudan	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	3.2	2.9	2.7	2.7	2.8	2.9	2.8	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Venezuela	0.9	0.5	0.5	0.5	0.6	0.8	0.6	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.8
<b>OPEC+ Crude</b>	<b>45.9</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>44.1</b>	<b>43.4</b>	<b>44.4</b>	<b>44.8</b>	<b>44.2</b>	<b>44.1</b>	<b>43.9</b>	<b>43.8</b>	<b>43.8</b>	<b>43.9</b>
OPEC+ NGLs & Condensate	7.4	7.2	7.4	7.4	7.3	7.5	7.4	7.8	7.8	7.8	7.8	7.8	7.8	7.9	7.9	7.9	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>53.4</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>51.3</b>	<b>52.3</b>	<b>52.7</b>	<b>52.1</b>	<b>52.0</b>	<b>51.8</b>	<b>51.7</b>	<b>51.8</b>	<b>51.9</b>
<b>Total Supply Oil</b>	<b>100.6</b>	<b>93.8</b>	<b>92.5</b>	<b>94.2</b>	<b>96.4</b>	<b>98.0</b>	<b>95.3</b>	<b>98.7</b>	<b>98.7</b>	<b>100.9</b>	<b>101.8</b>	<b>100.0</b>	<b>100.9</b>	<b>101.6</b>	<b>102.1</b>	<b>102.2</b>	<b>101.7</b>
<b>Memo items:</b>																	
Call on OPEC+ crude + Stock ch	45.9	38.3	41.9	42.7	44.4	46.1	43.8	44.8	43.2	43.4	43.8	43.8	43.5	43.3	44.1	44.9	44.0

<sup>1</sup> From Aug 2022, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libya, Iran, Venezuela held at most recent level through 2023.

<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**

	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023
<b>Demand (mb/d)</b>																
Americas	22.47	22.77	24.33	24.78	24.99	24.22	24.79	24.77	24.59	24.84	24.74	24.83	25.05	25.22	25.10	25.05
Europe	12.41	11.96	12.69	13.90	13.96	13.13	13.15	13.52	14.09	13.82	13.65	13.37	13.61	14.09	13.81	13.72
Asia Oceania	7.17	7.68	7.00	7.07	7.78	7.38	7.85	6.98	7.17	7.71	7.43	8.02	7.25	7.47	7.95	7.67
<b>Total OECD</b>	<b>42.05</b>	<b>42.41</b>	<b>44.01</b>	<b>45.75</b>	<b>46.73</b>	<b>44.74</b>	<b>45.79</b>	<b>45.27</b>	<b>45.84</b>	<b>46.38</b>	<b>45.82</b>	<b>46.22</b>	<b>45.90</b>	<b>46.78</b>	<b>46.86</b>	<b>46.44</b>
Asia	26.92	28.62	28.67	28.34	29.59	28.81	29.50	28.57	29.05	29.98	29.28	30.24	30.61	30.48	31.67	30.75
Middle East	8.07	8.16	8.43	8.89	8.43	8.48	8.52	9.01	9.38	8.76	8.92	8.69	9.19	9.50	8.86	9.06
Americas	5.45	5.74	5.81	6.15	6.11	5.95	5.94	6.08	6.12	6.11	6.06	5.86	6.04	6.14	6.11	6.04
FSU	4.56	4.63	4.74	4.97	5.05	4.85	4.71	4.73	4.83	4.66	4.73	4.43	4.50	4.79	4.86	4.64
Africa	3.77	4.03	3.94	3.90	4.10	3.99	4.21	4.08	3.98	4.15	4.10	4.09	4.07	4.02	4.17	4.09
Europe	0.72	0.76	0.75	0.78	0.79	0.77	0.77	0.76	0.79	0.80	0.78	0.76	0.77	0.79	0.80	0.78
<b>Total Non-OECD</b>	<b>49.49</b>	<b>51.94</b>	<b>52.33</b>	<b>53.03</b>	<b>54.07</b>	<b>52.85</b>	<b>53.65</b>	<b>53.23</b>	<b>54.16</b>	<b>54.45</b>	<b>53.88</b>	<b>54.07</b>	<b>55.16</b>	<b>55.73</b>	<b>56.48</b>	<b>55.37</b>
<b>World</b>	<b>91.54</b>	<b>94.35</b>	<b>96.35</b>	<b>98.78</b>	<b>100.80</b>	<b>97.59</b>	<b>99.44</b>	<b>98.50</b>	<b>99.99</b>	<b>100.83</b>	<b>99.70</b>	<b>100.29</b>	<b>101.07</b>	<b>102.51</b>	<b>103.34</b>	<b>101.81</b>
of which:																
United States <sup>1</sup>	18.19	18.45	20.03	20.21	20.41	19.78	20.22	20.05	19.75	20.17	20.05	20.15	20.27	20.26	20.34	20.25
Europe five <sup>2</sup>	6.91	6.68	7.07	7.66	7.81	7.31	7.38	7.63	7.83	7.77	7.66	7.55	7.61	7.76	7.76	7.67
China	14.20	14.88	15.59	15.59	15.64	15.43	15.40	14.58	15.64	15.83	15.37	15.76	16.12	16.32	16.79	16.25
Japan	3.36	3.77	3.07	3.17	3.66	3.41	3.70	3.02	3.16	3.56	3.36	3.80	3.14	3.37	3.71	3.50
India	4.58	5.04	4.49	4.52	5.02	4.77	5.25	5.14	4.88	5.31	5.15	5.43	5.40	5.05	5.46	5.33
Russia	3.42	3.50	3.58	3.76	3.76	3.65	3.63	3.61	3.69	3.46	3.60	3.31	3.35	3.61	3.63	3.48
Brazil	2.87	2.91	2.92	3.13	3.06	3.01	2.95	2.99	3.04	3.05	3.01	2.88	2.95	3.01	3.02	2.97
Saudi Arabia	3.45	3.24	3.53	3.76	3.44	3.49	3.34	3.72	3.98	3.59	3.66	3.39	3.82	4.05	3.63	3.73
Canada	2.19	2.19	2.16	2.43	2.33	2.28	2.26	2.18	2.40	2.32	2.29	2.32	2.25	2.50	2.40	2.37
Korea	2.45	2.54	2.49	2.59	2.69	2.58	2.73	2.51	2.57	2.68	2.62	2.79	2.64	2.66	2.76	2.71
Mexico	1.60	1.63	1.66	1.61	1.72	1.65	1.76	1.99	1.91	1.83	1.87	1.82	1.99	1.94	1.83	1.90
Iran	1.76	1.90	1.81	1.81	1.81	1.83	1.91	1.84	1.83	1.81	1.85	1.91	1.85	1.84	1.81	1.85
<b>Total</b>	<b>64.98</b>	<b>66.70</b>	<b>68.40</b>	<b>70.23</b>	<b>71.36</b>	<b>69.19</b>	<b>70.54</b>	<b>69.29</b>	<b>70.68</b>	<b>71.38</b>	<b>70.47</b>	<b>71.10</b>	<b>71.38</b>	<b>72.37</b>	<b>73.15</b>	<b>72.01</b>
<b>% of World</b>	<b>71.0%</b>	<b>70.7%</b>	<b>71.0%</b>	<b>71.1%</b>	<b>70.8%</b>	<b>70.9%</b>	<b>70.9%</b>	<b>70.3%</b>	<b>70.7%</b>	<b>70.8%</b>	<b>70.7%</b>	<b>70.9%</b>	<b>70.6%</b>	<b>70.6%</b>	<b>70.8%</b>	<b>70.7%</b>
<b>Annual Change (% per annum)</b>																
Americas	-11.6	-6.4	22.3	9.6	8.4	7.8	8.8	1.8	-0.8	-0.6	2.1	0.2	1.1	2.6	1.0	1.2
Europe	-13.3	-10.1	15.4	8.1	11.8	5.8	9.9	6.6	1.3	-1.0	3.9	1.7	0.6	0.0	-0.1	0.6
Asia Oceania	-9.8	-2.6	5.6	4.4	5.5	3.0	2.3	-0.3	1.3	-0.9	0.6	2.1	3.8	4.2	3.0	3.3
<b>Total OECD</b>	<b>-11.8</b>	<b>-6.8</b>	<b>17.3</b>	<b>8.3</b>	<b>8.9</b>	<b>6.4</b>	<b>8.0</b>	<b>2.9</b>	<b>0.2</b>	<b>-0.8</b>	<b>2.4</b>	<b>0.9</b>	<b>1.4</b>	<b>2.1</b>	<b>1.0</b>	<b>1.4</b>
Asia	-4.3	12.1	9.6	3.8	3.2	7.0	3.1	-0.3	2.5	1.3	1.6	2.5	7.1	4.9	5.6	5.0
Middle East	-8.7	-1.8	12.9	5.7	4.0	5.0	4.4	6.8	5.5	3.9	5.2	2.0	2.0	1.3	1.2	1.6
Americas	-13.3	2.3	19.0	10.6	6.4	9.2	3.4	4.7	-0.5	-0.1	1.8	-1.4	-0.8	0.4	0.0	-0.4
FSU	-3.5	-0.2	14.3	5.2	6.8	6.3	1.8	-0.1	-2.8	-7.7	-2.3	-6.0	-4.9	-1.0	4.3	-1.9
Africa	-8.6	-1.3	15.1	5.7	6.0	6.0	4.3	3.7	2.1	1.2	2.8	-2.6	-0.4	1.0	0.5	-0.4
Europe	-7.5	4.1	12.3	5.9	4.4	6.5	2.2	0.8	1.1	1.4	1.4	-2.0	0.8	0.5	0.5	0.0
<b>Total Non-OECD</b>	<b>-6.4</b>	<b>6.2</b>	<b>12.0</b>	<b>5.2</b>	<b>4.2</b>	<b>6.8</b>	<b>3.3</b>	<b>1.7</b>	<b>2.1</b>	<b>0.7</b>	<b>1.9</b>	<b>0.8</b>	<b>3.6</b>	<b>2.9</b>	<b>3.7</b>	<b>2.8</b>
<b>World</b>	<b>-9.0</b>	<b>-0.1</b>	<b>14.4</b>	<b>6.6</b>	<b>6.3</b>	<b>6.6</b>	<b>5.4</b>	<b>2.2</b>	<b>1.2</b>	<b>0.0</b>	<b>2.2</b>	<b>0.9</b>	<b>2.6</b>	<b>2.5</b>	<b>2.5</b>	<b>2.1</b>
<b>Annual Change (mb/d)</b>																
Americas	-2.95	-1.54	4.44	2.16	1.94	1.75	2.01	0.44	-0.19	-0.15	0.52	0.04	0.28	0.63	0.25	0.31
Europe	-1.90	-1.35	1.69	1.05	1.47	0.72	1.19	0.84	0.19	-0.13	0.51	0.22	0.09	0.01	-0.01	0.08
Asia Oceania	-0.78	-0.21	0.37	0.30	0.40	0.22	0.18	-0.02	0.09	-0.07	0.04	0.17	0.27	0.30	0.24	0.24
<b>Total OECD</b>	<b>-5.63</b>	<b>-3.10</b>	<b>6.50</b>	<b>3.50</b>	<b>3.82</b>	<b>2.69</b>	<b>3.38</b>	<b>1.25</b>	<b>0.09</b>	<b>-0.35</b>	<b>1.08</b>	<b>0.43</b>	<b>0.64</b>	<b>0.94</b>	<b>0.48</b>	<b>0.62</b>
Asia	-1.20	3.09	2.51	1.04	0.92	1.89	0.88	-0.10	0.71	0.39	0.47	0.74	2.04	1.43	1.69	1.48
Middle East	-0.77	-0.15	0.96	0.48	0.33	0.41	0.36	0.58	0.49	0.33	0.44	0.17	0.18	0.12	0.10	0.14
Americas	-0.84	0.13	0.93	0.59	0.37	0.50	0.20	0.28	-0.03	0.00	0.11	-0.08	-0.05	0.03	0.00	-0.03
FSU	-0.16	-0.01	0.59	0.24	0.32	0.29	0.09	-0.01	-0.14	-0.39	-0.11	-0.28	-0.23	-0.05	0.20	-0.09
Africa	-0.35	-0.05	0.52	0.21	0.23	0.23	0.17	0.14	0.08	0.05	0.11	-0.11	-0.02	0.04	0.02	-0.02
Europe	-0.06	0.03	0.08	0.04	0.03	0.05	0.02	0.01	0.01	0.01	0.01	-0.02	0.01	0.00	0.00	0.00
<b>Total Non-OECD</b>	<b>-3.39</b>	<b>3.03</b>	<b>5.59</b>	<b>2.62</b>	<b>2.20</b>	<b>3.36</b>	<b>1.71</b>	<b>0.90</b>	<b>1.12</b>	<b>0.39</b>	<b>1.03</b>	<b>0.42</b>	<b>1.93</b>	<b>1.57</b>	<b>2.02</b>	<b>1.49</b>
<b>World</b>	<b>-9.01</b>	<b>-0.07</b>	<b>12.09</b>	<b>6.12</b>	<b>6.02</b>	<b>6.05</b>	<b>5.09</b>	<b>2.15</b>	<b>1.21</b>	<b>0.04</b>	<b>2.11</b>	<b>0.85</b>	<b>2.57</b>	<b>2.51</b>	<b>2.50</b>	<b>2.11</b>
<b>Revisions to Oil Demand from Last Month's Report (mb/d)</b>																
Americas	-0.09	-0.05	-0.05	-0.05	-0.05	-0.05	-0.10	-0.09	-0.27	-0.11	-0.14	-0.05	-0.25	-0.07	-0.09	-0.11
Europe	-0.02	0.05	0.05	0.05	0.05	0.05	0.07	0.25	0.31	0.21	0.21	0.29	0.07	0.07	0.16	0.15
Asia Oceania	0.03	0.01	-0.04	-0.04	-0.04	-0.03	-0.04	0.00	-0.02	0.05	0.00	-0.02	-0.04	0.07	0.08	0.02
<b>Total OECD</b>	<b>-0.08</b>	<b>0.01</b>	<b>-0.04</b>	<b>-0.04</b>	<b>-0.04</b>	<b>-0.03</b>	<b>-0.07</b>	<b>0.15</b>	<b>0.02</b>	<b>0.15</b>	<b>0.06</b>	<b>0.22</b>	<b>-0.23</b>	<b>0.07</b>	<b>0.15</b>	<b>0.05</b>
Asia	-0.06	0.08	0.08	0.07	0.09	0.08	0.11	0.15	0.09	0.19	0.13	0.22	0.24	0.27	0.30	0.26
Middle East	-0.12	-0.09	-0.06	-0.08	-0.09	-0.08	-0.07	0.17	0.20	0.12	0.10	0.10	0.25	0.18	0.12	0.16
Americas	-0.08	0.00	0.00	0.01	0.01	0.01	-0.01	0.02	0.02	0.02	0.01	-0.08	-0.07	-0.08	-0.09	-0.08
FSU	0.06	0.06	0.06	0.06	0.07	0.06	0.06	0.13	0.15	0.04	0.10	-0.03	0.02	0.08	0.11	0.05
Africa	0.10	0.09	0.09	0.09	0.11	0.09	0.14	0.10	0.08	0.08	0.10	0.10	0.06	0.05	0.05	0.06
Europe	-0.01	0.00	0.00	0.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00	-0.01	-0.02	-0.01	-0.01	-0.01
<b>Total Non-OECD</b>	<b>-0.11</b>	<b>0.15</b>	<b>0.18</b>	<b>0.15</b>	<b>0.19</b>	<b>0.17</b>	<b>0.24</b>	<b>0.55</b>	<b>0.54</b>	<b>0.46</b>	<b>0.45</b>	<b>0.30</b>	<b>0.47</b>	<b>0.48</b>	<b>0.49</b>	<b>0.44</b>
<b>World</b>	<b>-0.19</b>	<b>0.16</b>	<b>0.14</b>	<b>0.11</b>	<b>0.15</b>	<b>0.14</b>	<b>0.18</b>	<b>0.71</b>	<b>0.56</b>	<b>0.61</b>	<b>0.51</b>	<b>0.52</b>	<b>0.24</b>	<b>0.55</b>	<b>0.64</b>	<b>0.49</b>
<b>Revisions to Oil Demand Growth from Last Month's Report (mb/d)</b>																
World	-0.09	0.40	0.33	0.26	0.31	0.33	0.02	0.57	0.45	0.46	0.38	0.34	-0.47	-0.02	0.04	-0.03

<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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22 <sup>2</sup>	Apr 22	May 21
<b>Americas</b>											
LPG and ethane	3.52	3.66	3.54	3.55	3.90	4.18	3.72	3.63	3.50	-0.13	-0.20
Naphtha	0.26	0.25	0.27	0.26	0.25	0.22	0.22	0.22	0.21	-0.01	-0.07
Motor gasoline	9.53	10.32	10.55	10.72	10.56	10.04	10.51	10.44	10.79	0.36	0.21
Jet and kerosene	1.25	1.57	1.50	1.74	1.73	1.69	1.77	1.79	1.82	0.03	0.35
Gasoil/diesel oil	4.88	5.03	5.00	4.97	5.11	5.31	5.40	5.04	5.14	0.10	0.20
Residual fuel oil	0.41	0.55	0.51	0.56	0.60	0.59	0.66	0.53	0.56	0.03	0.03
Other products	2.63	2.84	2.95	2.98	2.85	2.75	2.83	2.90	2.69	-0.21	-0.16
<b>Total</b>	<b>22.47</b>	<b>24.22</b>	<b>24.33</b>	<b>24.78</b>	<b>24.99</b>	<b>24.79</b>	<b>25.12</b>	<b>24.54</b>	<b>24.71</b>	<b>0.17</b>	<b>0.35</b>
<b>Europe</b>											
LPG and ethane	1.07	1.10	1.07	1.11	1.08	1.11	1.10	0.94	0.90	-0.04	-0.13
Naphtha	1.06	1.12	1.01	1.09	1.17	1.15	1.02	1.00	1.04	0.04	0.03
Motor gasoline	1.76	1.93	1.93	2.20	2.02	1.88	1.95	2.05	2.05	0.00	0.16
Jet and kerosene	0.74	0.86	0.69	1.03	1.07	1.02	1.07	1.23	1.27	0.03	0.62
Gasoil/diesel oil	5.93	6.26	6.13	6.51	6.69	6.14	6.38	6.13	6.06	-0.06	0.24
Residual fuel oil	0.69	0.76	0.74	0.78	0.76	0.79	0.81	0.80	0.87	0.07	0.14
Other products	1.17	1.10	1.12	1.17	1.15	1.07	1.13	1.12	1.20	0.08	0.07
<b>Total</b>	<b>12.41</b>	<b>13.13</b>	<b>12.69</b>	<b>13.90</b>	<b>13.96</b>	<b>13.15</b>	<b>13.46</b>	<b>13.26</b>	<b>13.38</b>	<b>0.12</b>	<b>1.12</b>
<b>Asia Oceania</b>											
LPG and ethane	0.76	0.77	0.75	0.72	0.78	0.94	0.90	0.80	0.79	-0.01	0.08
Naphtha	1.81	1.95	1.83	1.98	2.06	1.93	1.86	1.86	1.73	-0.13	-0.11
Motor gasoline	1.38	1.35	1.34	1.34	1.37	1.28	1.28	1.25	1.36	0.11	0.06
Jet and kerosene	0.61	0.61	0.47	0.42	0.72	0.87	0.72	0.52	0.51	-0.01	0.05
Gasoil/diesel oil	1.83	1.89	1.88	1.83	1.98	1.95	1.95	1.80	1.90	0.10	0.09
Residual fuel oil	0.42	0.45	0.40	0.43	0.48	0.52	0.52	0.46	0.42	-0.04	0.04
Other products	0.36	0.36	0.34	0.35	0.39	0.36	0.35	0.24	0.32	0.08	-0.01
<b>Total</b>	<b>7.17</b>	<b>7.38</b>	<b>7.00</b>	<b>7.07</b>	<b>7.78</b>	<b>7.85</b>	<b>7.57</b>	<b>6.93</b>	<b>7.03</b>	<b>0.10</b>	<b>0.21</b>
<b>OECD</b>											
LPG and ethane	5.35	5.53	5.36	5.38	5.75	6.23	5.72	5.36	5.18	-0.18	-0.25
Naphtha	3.12	3.33	3.11	3.34	3.48	3.30	3.10	3.08	2.98	-0.11	-0.15
Motor gasoline	12.66	13.60	13.82	14.25	13.96	13.20	13.74	13.73	14.20	0.47	0.43
Jet and kerosene	2.60	3.03	2.65	3.19	3.52	3.59	3.56	3.54	3.60	0.06	1.02
Gasoil/diesel oil	12.65	13.18	13.01	13.32	13.78	13.39	13.74	12.97	13.11	0.14	0.53
Residual fuel oil	1.52	1.76	1.65	1.76	1.84	1.91	1.99	1.78	1.85	0.06	0.20
Other products	4.16	4.30	4.41	4.50	4.39	4.18	4.30	4.26	4.21	-0.05	-0.10
<b>Total</b>	<b>42.05</b>	<b>44.74</b>	<b>44.01</b>	<b>45.75</b>	<b>46.73</b>	<b>45.79</b>	<b>46.16</b>	<b>44.73</b>	<b>45.12</b>	<b>0.39</b>	<b>1.68</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. 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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22 <sup>2</sup>	Latest month vs.	
										Apr 22	May 21
<b>United States<sup>3</sup></b>											
LPG and ethane	2.74	2.85	2.76	2.73	3.07	3.37	3.05	2.95	2.81	-0.14	-0.08
Naphtha	0.18	0.19	0.21	0.20	0.18	0.15	0.16	0.15	0.14	-0.01	-0.07
Motor gasoline	8.05	8.80	9.07	9.13	8.96	8.47	8.86	8.75	9.11	0.35	-0.03
Jet and kerosene	1.08	1.38	1.34	1.52	1.49	1.46	1.52	1.54	1.58	0.04	0.26
Gasoil/diesel oil	3.78	3.94	3.93	3.87	4.00	4.14	4.16	3.81	3.87	0.07	0.00
Residual fuel oil	0.21	0.31	0.25	0.33	0.41	0.38	0.44	0.30	0.34	0.04	0.08
Other products	2.13	2.32	2.47	2.43	2.30	2.24	2.33	2.45	2.22	-0.23	-0.18
<b>Total</b>	<b>18.19</b>	<b>19.78</b>	<b>20.03</b>	<b>20.21</b>	<b>20.41</b>	<b>20.22</b>	<b>20.51</b>	<b>19.96</b>	<b>20.08</b>	<b>0.12</b>	<b>-0.02</b>
<b>Japan</b>											
LPG and ethane	0.39	0.40	0.38	0.35	0.41	0.49	0.46	0.43	0.41	-0.02	0.07
Naphtha	0.66	0.70	0.65	0.67	0.76	0.63	0.57	0.54	0.55	0.01	-0.11
Motor gasoline	0.79	0.73	0.69	0.75	0.73	0.67	0.69	0.67	0.67	0.00	0.02
Jet and kerosene	0.37	0.37	0.25	0.22	0.46	0.58	0.46	0.28	0.24	-0.04	0.01
Diesel	0.41	0.42	0.41	0.42	0.44	0.43	0.44	0.41	0.39	-0.02	0.02
Other gasoil	0.31	0.32	0.29	0.29	0.35	0.37	0.37	0.31	0.29	-0.03	0.02
Residual fuel oil	0.22	0.25	0.21	0.24	0.26	0.29	0.28	0.25	0.22	-0.04	0.03
Other products	0.21	0.22	0.19	0.24	0.25	0.23	0.22	0.11	0.19	0.08	-0.01
<b>Total</b>	<b>3.36</b>	<b>3.41</b>	<b>3.07</b>	<b>3.17</b>	<b>3.66</b>	<b>3.70</b>	<b>3.50</b>	<b>3.01</b>	<b>2.95</b>	<b>-0.05</b>	<b>0.04</b>
<b>Germany</b>											
LPG and ethane	0.11	0.12	0.13	0.12	0.11	0.11	0.11	0.12	0.11	-0.01	-0.01
Naphtha	0.28	0.32	0.30	0.31	0.34	0.35	0.32	0.34	0.34	0.00	0.02
Motor gasoline	0.46	0.45	0.45	0.49	0.46	0.43	0.45	0.44	0.41	-0.03	-0.03
Jet and kerosene	0.10	0.13	0.11	0.16	0.16	0.15	0.16	0.19	0.19	0.00	0.08
Diesel	0.71	0.72	0.72	0.78	0.76	0.67	0.74	0.68	0.62	-0.06	-0.06
Other gasoil	0.36	0.27	0.25	0.26	0.36	0.28	0.30	0.24	0.27	0.02	0.02
Residual fuel oil	0.05	0.05	0.05	0.05	0.06	0.06	0.05	0.06	0.06	0.00	0.01
Other products	0.08	0.07	0.07	0.08	0.08	0.06	0.06	0.07	0.09	0.02	0.02
<b>Total</b>	<b>2.15</b>	<b>2.13</b>	<b>2.07</b>	<b>2.23</b>	<b>2.34</b>	<b>2.11</b>	<b>2.18</b>	<b>2.14</b>	<b>2.09</b>	<b>-0.06</b>	<b>0.05</b>
<b>Italy</b>											
LPG and ethane	0.09	0.11	0.09	0.10	0.12	0.13	0.13	0.11	0.09	-0.01	0.01
Naphtha	0.10	0.09	0.09	0.08	0.10	0.10	0.10	0.10	0.08	-0.02	-0.02
Motor gasoline	0.14	0.17	0.17	0.20	0.18	0.16	0.17	0.18	0.18	0.00	0.01
Jet and kerosene	0.05	0.06	0.06	0.09	0.07	0.07	0.06	0.09	0.09	0.00	0.04
Diesel	0.39	0.48	0.47	0.51	0.51	0.48	0.50	0.48	0.49	0.00	0.02
Other gasoil	0.07	0.07	0.06	0.07	0.07	0.04	0.05	0.04	0.05	0.01	-0.01
Residual fuel oil	0.06	0.09	0.09	0.10	0.09	0.09	0.09	0.10	0.10	0.00	0.01
Other products	0.14	0.11	0.11	0.11	0.12	0.10	0.11	0.11	0.14	0.03	0.02
<b>Total</b>	<b>1.03</b>	<b>1.18</b>	<b>1.16</b>	<b>1.26</b>	<b>1.26</b>	<b>1.17</b>	<b>1.22</b>	<b>1.21</b>	<b>1.22</b>	<b>0.01</b>	<b>0.08</b>
<b>France</b>											
LPG and ethane	0.11	0.11	0.13	0.11	0.10	0.12	0.13	0.10	0.09	-0.01	-0.03
Naphtha	0.12	0.14	0.12	0.13	0.16	0.13	0.11	0.06	0.08	0.02	-0.03
Motor gasoline	0.17	0.21	0.20	0.24	0.22	0.21	0.22	0.23	0.24	0.01	0.05
Jet and kerosene	0.09	0.09	0.07	0.11	0.11	0.10	0.10	0.11	0.12	0.01	0.05
Diesel	0.67	0.73	0.72	0.77	0.75	0.71	0.75	0.73	0.74	0.01	0.07
Other gasoil	0.14	0.13	0.09	0.11	0.16	0.16	0.14	0.09	0.06	-0.03	-0.02
Residual fuel oil	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	-0.01	0.00
Other products	0.09	0.10	0.10	0.12	0.10	0.08	0.10	0.10	0.10	0.00	0.01
<b>Total</b>	<b>1.43</b>	<b>1.55</b>	<b>1.46</b>	<b>1.64</b>	<b>1.62</b>	<b>1.54</b>	<b>1.56</b>	<b>1.45</b>	<b>1.47</b>	<b>0.02</b>	<b>0.09</b>
<b>United Kingdom</b>											
LPG and ethane	0.12	0.11	0.09	0.11	0.11	0.12	0.12	0.12	0.12	-0.01	0.03
Naphtha	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Motor gasoline	0.22	0.25	0.25	0.28	0.28	0.26	0.25	0.30	0.29	-0.01	0.03
Jet and kerosene	0.18	0.18	0.14	0.16	0.24	0.24	0.25	0.27	0.27	0.00	0.14
Diesel	0.43	0.47	0.48	0.49	0.49	0.46	0.45	0.50	0.47	-0.03	0.00
Other gasoil	0.11	0.13	0.14	0.14	0.12	0.11	0.11	0.15	0.13	-0.01	0.00
Residual fuel oil	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01
Other products	0.10	0.10	0.11	0.11	0.10	0.11	0.12	0.10	0.12	0.01	0.01
<b>Total</b>	<b>1.21</b>	<b>1.26</b>	<b>1.24</b>	<b>1.30</b>	<b>1.35</b>	<b>1.31</b>	<b>1.32</b>	<b>1.46</b>	<b>1.42</b>	<b>-0.04</b>	<b>0.20</b>
<b>Canada</b>											
LPG and ethane	0.43	0.45	0.44	0.46	0.45	0.43	0.31	0.35	0.31	-0.04	-0.16
Naphtha	0.05	0.04	0.04	0.05	0.04	0.05	0.05	0.04	0.04	0.00	0.01
Motor gasoline	0.73	0.76	0.74	0.84	0.76	0.74	0.74	0.78	0.78	0.00	0.08
Jet and kerosene	0.08	0.09	0.06	0.11	0.12	0.10	0.11	0.12	0.11	0.00	0.06
Diesel	0.27	0.27	0.27	0.27	0.26	0.27	0.26	0.27	0.26	-0.01	0.00
Other gasoil	0.30	0.30	0.29	0.33	0.30	0.31	0.30	0.27	0.24	-0.02	-0.06
Residual fuel oil	0.03	0.03	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.00	0.01
Other products	0.30	0.33	0.29	0.37	0.36	0.31	0.30	0.27	0.28	0.01	0.02
<b>Total</b>	<b>2.19</b>	<b>2.28</b>	<b>2.16</b>	<b>2.43</b>	<b>2.33</b>	<b>2.26</b>	<b>2.10</b>	<b>2.11</b>	<b>2.06</b>	<b>-0.06</b>	<b>-0.04</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)

	2021	2022	2023	1Q22	2Q22	3Q22	4Q22	1Q23	May 22	Jun 22	Jul 22
<b>OPEC</b>											
<b>Crude Oil</b>											
Saudi Arabia	9.15			10.20	10.50				10.50	10.58	10.83
Iran	2.42			2.55	2.52				2.45	2.57	2.52
Iraq	4.03			4.29	4.43				4.43	4.44	4.49
UAE	2.76			3.04	3.16				3.14	3.24	3.28
Kuwait	2.42			2.61	2.67				2.67	2.68	2.77
Angola	1.12			1.16	1.17				1.16	1.18	1.18
Nigeria	1.31			1.30	1.17				1.11	1.16	1.08
Libya	1.15			1.08	0.77				0.77	0.63	0.68
Algeria	0.91			0.99	1.01				1.01	1.02	1.02
Congo	0.27			0.27	0.27				0.26	0.28	0.26
Gabon	0.18			0.19	0.18				0.18	0.19	0.21
Equatorial Guinea	0.10			0.09	0.09				0.09	0.09	0.10
Venezuela	0.61			0.72	0.74				0.73	0.73	0.63
<b>Total Crude Oil</b>	<b>26.43</b>			<b>28.49</b>	<b>28.68</b>				<b>28.50</b>	<b>28.79</b>	<b>29.05</b>
of which Neutral Zone <sup>1</sup>	0.25			0.27	0.28				0.28	0.28	0.28
<b>Total NGLs<sup>2</sup></b>	<b>5.12</b>	<b>5.35</b>	<b>5.45</b>	<b>5.27</b>	<b>5.35</b>	<b>5.39</b>	<b>5.40</b>	<b>5.43</b>	<b>5.35</b>	<b>5.36</b>	<b>5.39</b>
<b>Total OPEC<sup>3</sup></b>	<b>31.55</b>			<b>33.77</b>	<b>34.04</b>				<b>33.85</b>	<b>34.15</b>	<b>34.44</b>
<b>NON-OPEC<sup>4</sup></b>											
<b>OECD</b>											
<b>Americas</b>	24.34	25.73	27.05	24.99	25.36	25.96	26.58	26.58	25.15	25.57	25.81
United States	16.79	17.95	19.15	17.24	17.78	18.14	18.60	18.71	17.67	17.98	18.06
Mexico	1.95	2.03	2.07	2.00	2.00	2.03	2.08	2.08	2.00	2.01	2.02
Canada	5.59	5.74	5.83	5.73	5.57	5.77	5.88	5.77	5.46	5.58	5.72
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>	3.38	3.23	3.39	3.34	3.05	3.18	3.37	3.40	3.13	2.80	3.16
UK	0.89	0.88	0.83	0.91	0.85	0.85	0.89	0.87	0.86	0.80	0.85
Norway	2.04	1.90	2.11	1.97	1.74	1.87	2.03	2.08	1.80	1.54	1.85
Others	0.46	0.46	0.45	0.46	0.46	0.46	0.45	0.45	0.47	0.46	0.46
<b>Asia Oceania</b>	0.51	0.50	0.47	0.49	0.51	0.50	0.51	0.48	0.53	0.51	0.50
Australia	0.44	0.44	0.41	0.42	0.45	0.44	0.44	0.42	0.47	0.44	0.43
Others	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.06	0.06	0.07	0.07
<b>Total OECD</b>	<b>28.24</b>	<b>29.46</b>	<b>30.92</b>	<b>28.81</b>	<b>28.92</b>	<b>29.65</b>	<b>30.45</b>	<b>30.47</b>	<b>28.81</b>	<b>28.88</b>	<b>29.46</b>
<b>NON-OECD</b>											
<b>Former USSR</b>	13.77	13.71	12.52	14.39	13.42	13.59	13.47	12.68	13.49	13.58	13.83
Russia	10.87	10.86	9.55	11.37	10.69	10.91	10.49	9.68	10.58	11.06	11.09
Azerbaijan	0.70	0.67	0.67	0.70	0.67	0.64	0.67	0.67	0.68	0.63	0.67
Kazakhstan	1.85	1.87	1.99	1.98	1.76	1.72	2.00	2.01	1.93	1.58	1.76
Others	0.35	0.32	0.31	0.34	0.30	0.31	0.31	0.32	0.30	0.30	0.30
<b>Asia</b>	6.91	6.95	6.89	7.02	6.96	6.93	6.88	6.95	6.91	7.00	6.94
China	4.06	4.23	4.28	4.23	4.23	4.24	4.21	4.31	4.22	4.27	4.24
Malaysia	0.57	0.57	0.57	0.57	0.56	0.57	0.57	0.57	0.54	0.57	0.57
India	0.73	0.71	0.70	0.72	0.71	0.70	0.69	0.69	0.71	0.72	0.70
Indonesia	0.68	0.64	0.61	0.67	0.64	0.63	0.62	0.62	0.63	0.64	0.63
Others	0.88	0.81	0.75	0.83	0.81	0.79	0.79	0.77	0.80	0.81	0.79
<b>Europe</b>	0.11	0.11	0.10	0.11	0.11	0.10	0.10	0.10	0.11	0.11	0.11
<b>Americas</b>	5.30	5.59	5.96	5.43	5.47	5.68	5.79	5.86	5.50	5.35	5.61
Brazil	3.00	3.09	3.39	3.09	3.00	3.08	3.20	3.28	2.97	2.93	3.02
Argentina	0.64	0.71	0.73	0.69	0.70	0.71	0.72	0.72	0.71	0.70	0.71
Colombia	0.74	0.76	0.75	0.75	0.76	0.76	0.76	0.76	0.75	0.76	0.76
Ecuador	0.48	0.47	0.45	0.47	0.45	0.47	0.47	0.46	0.48	0.40	0.47
Others	0.43	0.57	0.64	0.43	0.55	0.66	0.65	0.65	0.58	0.56	0.66
<b>Middle East</b>	3.08	3.20	3.26	3.15	3.21	3.23	3.22	3.25	3.18	3.24	3.23
Oman	0.98	1.07	1.10	1.04	1.07	1.08	1.08	1.09	1.06	1.08	1.08
Qatar	1.82	1.84	1.87	1.82	1.85	1.85	1.85	1.87	1.85	1.85	1.85
Others	0.28	0.29	0.29	0.29	0.29	0.30	0.30	0.29	0.27	0.31	0.30
<b>Africa</b>	1.31	1.28	1.26	1.28	1.27	1.28	1.28	1.27	1.20	1.30	1.27
Egypt	0.57	0.57	0.56	0.57	0.57	0.57	0.57	0.56	0.57	0.57	0.57
Others	0.74	0.71	0.70	0.72	0.70	0.71	0.71	0.71	0.63	0.73	0.71
<b>Total Non-OECD</b>	<b>30.49</b>	<b>30.84</b>	<b>29.99</b>	<b>31.39</b>	<b>30.43</b>	<b>30.81</b>	<b>30.75</b>	<b>30.11</b>	<b>30.38</b>	<b>30.57</b>	<b>30.99</b>
Processing gains <sup>5</sup>	2.25	2.31	2.36	2.29	2.29	2.33	2.32	2.33	2.29	2.32	2.35
Global biofuels	2.75	2.91	3.04	2.42	2.98	3.30	2.93	2.55	3.17	3.22	3.30
<b>TOTAL NON-OPEC</b>	<b>63.73</b>	<b>65.52</b>	<b>66.30</b>	<b>64.91</b>	<b>64.61</b>	<b>66.08</b>	<b>66.46</b>	<b>65.45</b>	<b>64.64</b>	<b>64.99</b>	<b>66.10</b>
<b>TOTAL SUPPLY</b>	<b>95.28</b>			<b>98.68</b>	<b>98.65</b>				<b>98.49</b>	<b>99.14</b>	<b>100.54</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)

	2021	2022	2023	1Q22	2Q22	3Q22	4Q22	1Q23	May 22	Jun 22	Jul 22
<b>United States</b>											
Alaska	437	433	415	446	437	411	436	413	447	423	389
California	380	346	333	349	348	344	341	338	346	347	346
Texas	4766	5033	5275	4887	5009	5092	5141	5143	4965	5047	5052
Federal Gulf of Mexico <sup>2</sup>	1707	1711	1942	1673	1731	1729	1712	1971	1606	1826	1829
Other US Lower 48	3963	4310	4687	4108	4168	4386	4572	4648	4230	4192	4313
NGLs <sup>3</sup>	5397	5928	6280	5614	5904	5994	6190	6003	5887	5950	5930
Other Hydrocarbons	142	188	218	167	187	187	210	200	190	190	200
<b>Total</b>	<b>16793</b>	<b>17948</b>	<b>19150</b>	<b>17245</b>	<b>17784</b>	<b>18144</b>	<b>18602</b>	<b>18715</b>	<b>17672</b>	<b>17976</b>	<b>18059</b>
<b>Canada</b>											
Alberta Light/Medium/Heavy	436	487	499	469	497	492	488	503	494	491	495
Alberta Bitumen	1921	1973	2113	1926	1882	2027	2054	2015	1859	1867	1896
Saskatchewan	437	454	447	445	461	457	452	453	465	458	458
Other Crude	456	428	460	441	436	413	422	447	441	417	413
NGLs	975	1023	994	1051	1020	1014	1009	1003	1006	1028	1016
Other Upgraders	180	185	177	188	171	184	196	182	161	177	194
Synthetic Crudes	1181	1190	1138	1210	1101	1187	1260	1171	1037	1139	1252
<b>Total</b>	<b>5586</b>	<b>5738</b>	<b>5826</b>	<b>5729</b>	<b>5567</b>	<b>5774</b>	<b>5880</b>	<b>5774</b>	<b>5462</b>	<b>5575</b>	<b>5723</b>
<b>Mexico</b>											
Crude	1780	1863	1912	1825	1834	1871	1921	1926	1836	1845	1854
NGLs	170	161	149	171	159	158	155	153	162	162	158
<b>Total</b>	<b>1954</b>	<b>2030</b>	<b>2066</b>	<b>2002</b>	<b>1999</b>	<b>2035</b>	<b>2082</b>	<b>2084</b>	<b>2004</b>	<b>2012</b>	<b>2017</b>
<b>UK</b>											
Brent Fields	25	25	21	29	28	20	23	25	27	28	27
Forties Fields	211	222	201	250	195	211	232	226	197	137	215
Ninian Fields	24	19	16	21	19	19	18	17	19	20	19
Flotta Fields	50	43	39	48	41	43	42	41	29	45	43
Other Fields	511	499	495	487	502	496	510	498	516	510	479
NGLs	67	68	64	74	68	66	65	65	69	63	67
<b>Total</b>	<b>888</b>	<b>876</b>	<b>835</b>	<b>909</b>	<b>852</b>	<b>855</b>	<b>889</b>	<b>872</b>	<b>857</b>	<b>802</b>	<b>851</b>
<b>Norway<sup>4</sup></b>											
Ekofisk-Ula Area	141	108	115	130	53	122	125	123	88	-58	130
Oseberg-Troll Area	212	210	237	211	212	185	233	235	212	219	223
Statfjord-Gullfaks Area	262	246	227	249	251	244	239	234	244	250	247
Haltenbanken Area	284	273	281	283	258	277	273	277	245	280	281
Sleipner-Frigg Area	816	815	990	834	729	813	883	940	774	697	722
Other Fields	74	58	82	57	45	39	92	86	74	-62	59
NGLs	249	191	178	205	188	185	187	184	167	213	186
<b>Total</b>	<b>2038</b>	<b>1901</b>	<b>2111</b>	<b>1971</b>	<b>1735</b>	<b>1866</b>	<b>2032</b>	<b>2079</b>	<b>1804</b>	<b>1538</b>	<b>1848</b>
<b>Other OECD Europe</b>											
Denmark	66	65	63	67	66	64	63	61	66	65	65
Italy	100	125	122	125	126	125	124	123	127	125	126
Republic of Türkiye	66	66	67	64	67	67	67	67	67	67	67
Other	99	87	83	91	81	89	87	85	79	90	90
NGLs	7	6	5	8	6	6	6	6	6	6	6
Non-Conventional Oils	119	108	106	103	115	107	106	106	126	102	106
<b>Total</b>	<b>456</b>	<b>458</b>	<b>446</b>	<b>458</b>	<b>462</b>	<b>458</b>	<b>453</b>	<b>448</b>	<b>471</b>	<b>457</b>	<b>460</b>
<b>Australia</b>											
Gippsland Basin	5	5	5	6	6	5	5	5	6	5	5
Cooper-Eromanga Basin	23	19	17	19	19	18	18	18	19	19	19
Carnarvon Basin	114	105	96	108	106	104	102	99	106	105	105
Other Crude	193	193	176	177	199	196	198	179	216	191	190
NGLs	109	114	116	107	117	114	117	116	118	121	111
<b>Total</b>	<b>444</b>	<b>435</b>	<b>411</b>	<b>417</b>	<b>446</b>	<b>438</b>	<b>440</b>	<b>418</b>	<b>465</b>	<b>442</b>	<b>430</b>
<b>Other OECD Asia Oceania</b>											
New Zealand	18	16	15	17	16	17	16	16	14	17	17
Japan	4	3	3	4	3	3	3	3	3	3	3
NGLs	11	10	9	12	10	9	9	9	11	9	9
Non-Conventional Oils	37	38	37	41	37	37	37	37	35	38	37
<b>Total</b>	<b>71</b>	<b>68</b>	<b>64</b>	<b>73</b>	<b>67</b>	<b>66</b>	<b>65</b>	<b>65</b>	<b>63</b>	<b>67</b>	<b>66</b>
<b>OECD</b>											
Crude Oil	19584	20241	21434	19850	19825	20382	20893	21216	19820	19668	20178
NGLs	6992	7510	7804	7250	7481	7556	7747	7547	7433	7562	7492
Non-Conventional Oils <sup>5</sup>	1663	1713	1681	1714	1617	1707	1814	1702	1554	1651	1795
<b>Total</b>	<b>28239</b>	<b>29464</b>	<b>30919</b>	<b>28814</b>	<b>28923</b>	<b>29645</b>	<b>30455</b>	<b>30465</b>	<b>28807</b>	<b>28880</b>	<b>29465</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> 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>5</sup> Does not include biofuels.

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

	2021	2022	2023	1Q22	2Q22	3Q22	4Q22	1Q23	May 22	Jun 22	Jul 22
<b>OPEC+</b>											
<b>Crude Oil</b>											
Algeria	0.91	1.01	1.00	0.99	1.01	1.01	1.01	1.00	1.01	1.02	1.02
Angola	1.12	1.14	1.07	1.16	1.17	1.13	1.10	1.10	1.16	1.18	1.18
Azerbaijan	0.59	0.56	0.54	0.58	0.56	0.55	0.56	0.55	0.57	0.52	0.56
Bahrain	0.17	0.19	0.19	0.18	0.19	0.19	0.19	0.19	0.17	0.20	0.19
Brunei	0.08	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Congo	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.27	0.26	0.28	0.26
Equatorial Guinea	0.10	0.10	0.10	0.09	0.09	0.10	0.10	0.10	0.09	0.09	0.10
Gabon	0.18	0.19	0.19	0.19	0.18	0.19	0.19	0.19	0.18	0.19	0.21
Iran	2.42	2.54	2.55	2.55	2.52	2.54	2.55	2.55	2.45	2.57	2.52
Iraq	4.03	4.47	4.66	4.29	4.43	4.53	4.64	4.66	4.43	4.44	4.49
Kazakhstan	1.52	1.52	1.65	1.63	1.43	1.39	1.65	1.66	1.58	1.25	1.42
Kuwait	2.42	2.70	2.81	2.61	2.67	2.76	2.78	2.80	2.67	2.68	2.77
Libya	1.15	0.99	1.18	1.08	0.77	0.97	1.14	1.18	0.77	0.63	0.68
Malaysia	0.42	0.40	0.40	0.41	0.39	0.40	0.40	0.40	0.38	0.41	0.40
Mexico	1.66	1.65	1.66	1.64	1.62	1.65	1.69	1.69	1.62	1.62	1.63
Nigeria	1.31	1.19	1.17	1.30	1.17	1.11	1.19	1.19	1.11	1.16	1.08
Oman	0.75	0.84	0.87	0.82	0.84	0.85	0.85	0.86	0.84	0.85	0.85
Russia	9.62	9.56	8.32	10.04	9.39	9.62	9.20	8.44	9.26	9.78	9.80
Saudi Arabia	9.15	10.68	11.03	10.20	10.50	10.95	11.03	11.03	10.50	10.58	10.83
South Sudan	0.15	0.14	0.15	0.14	0.14	0.14	0.15	0.15	0.14	0.14	0.13
Sudan	0.06	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
UAE	2.76	3.15	3.19	3.04	3.16	3.22	3.19	3.19	3.14	3.24	3.28
Venezuela	0.61	0.72	0.76	0.72	0.74	0.67	0.76	0.76	0.73	0.73	0.63
<b>Total Crude Oil</b>	<b>41.47</b>	<b>44.15</b>	<b>43.88</b>	<b>44.06</b>	<b>43.38</b>	<b>44.38</b>	<b>44.77</b>	<b>44.08</b>	<b>43.18</b>	<b>43.69</b>	<b>44.17</b>
<i>of which Neutral Zone</i>	<i>0.25</i>			<i>0.27</i>	<i>0.28</i>				<i>0.28</i>	<i>0.28</i>	<i>0.28</i>
<b>Total NGLs</b>	<b>7.52</b>	<b>7.91</b>	<b>7.98</b>	<b>7.87</b>	<b>7.89</b>	<b>7.92</b>	<b>7.96</b>	<b>7.96</b>	<b>7.94</b>	<b>7.90</b>	<b>7.94</b>
<b>TOTAL OPEC+</b>	<b>49.0</b>	<b>52.1</b>	<b>51.9</b>	<b>51.9</b>	<b>51.3</b>	<b>52.3</b>	<b>52.7</b>	<b>52.0</b>	<b>51.1</b>	<b>51.6</b>	<b>52.1</b>
<b>NON-OPEC+</b>											
<b>OECD</b>											
<b>Americas<sup>2</sup></b>	<b>22.39</b>	<b>23.70</b>	<b>24.99</b>	<b>22.98</b>	<b>23.36</b>	<b>23.93</b>	<b>24.49</b>	<b>24.50</b>	<b>23.14</b>	<b>23.56</b>	<b>23.79</b>
United States	16.79	17.95	19.15	17.24	17.78	18.14	18.60	18.71	17.67	17.98	18.06
Canada	5.59	5.74	5.83	5.73	5.57	5.77	5.88	5.77	5.46	5.58	5.72
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>	<b>3.38</b>	<b>3.23</b>	<b>3.39</b>	<b>3.34</b>	<b>3.05</b>	<b>3.18</b>	<b>3.37</b>	<b>3.40</b>	<b>3.13</b>	<b>2.80</b>	<b>3.16</b>
UK	0.89	0.88	0.83	0.91	0.85	0.85	0.89	0.87	0.86	0.80	0.85
Norway	2.04	1.90	2.11	1.97	1.74	1.87	2.03	2.08	1.80	1.54	1.85
Others	0.46	0.46	0.45	0.46	0.46	0.46	0.45	0.45	0.47	0.46	0.46
<b>Asia Oceania</b>	<b>0.51</b>	<b>0.50</b>	<b>0.47</b>	<b>0.49</b>	<b>0.51</b>	<b>0.50</b>	<b>0.51</b>	<b>0.48</b>	<b>0.53</b>	<b>0.51</b>	<b>0.50</b>
Australia	0.44	0.44	0.41	0.42	0.45	0.44	0.44	0.42	0.47	0.44	0.43
Others	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.06	0.06	0.07	0.07
<b>Total OECD (non-OPEC+)</b>	<b>26.28</b>	<b>27.43</b>	<b>28.85</b>	<b>26.81</b>	<b>26.92</b>	<b>27.61</b>	<b>28.37</b>	<b>28.38</b>	<b>26.80</b>	<b>26.87</b>	<b>27.45</b>
<b>Non-OECD</b>											
<b>FSU</b>	<b>0.35</b>	<b>0.32</b>	<b>0.31</b>	<b>0.34</b>	<b>0.30</b>	<b>0.31</b>	<b>0.31</b>	<b>0.32</b>	<b>0.30</b>	<b>0.30</b>	<b>0.30</b>
<b>Asia</b>	<b>6.24</b>	<b>6.29</b>	<b>6.24</b>	<b>6.34</b>	<b>6.31</b>	<b>6.28</b>	<b>6.23</b>	<b>6.29</b>	<b>6.27</b>	<b>6.35</b>	<b>6.28</b>
China	4.06	4.23	4.28	4.23	4.23	4.24	4.21	4.31	4.22	4.27	4.24
India	0.73	0.71	0.70	0.72	0.71	0.70	0.69	0.69	0.71	0.72	0.70
Indonesia	0.68	0.64	0.61	0.67	0.64	0.63	0.62	0.62	0.63	0.64	0.63
Others	0.77	0.72	0.66	0.73	0.72	0.71	0.70	0.68	0.71	0.73	0.71
<b>Europe</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>
<b>Americas</b>	<b>5.30</b>	<b>5.59</b>	<b>5.96</b>	<b>5.43</b>	<b>5.47</b>	<b>5.68</b>	<b>5.79</b>	<b>5.86</b>	<b>5.50</b>	<b>5.35</b>	<b>5.61</b>
Brazil	3.00	3.09	3.39	3.09	3.00	3.08	3.20	3.28	2.97	2.93	3.02
Argentina	0.64	0.71	0.73	0.69	0.70	0.71	0.72	0.72	0.71	0.70	0.71
Colombia	0.74	0.76	0.75	0.75	0.76	0.76	0.76	0.76	0.75	0.76	0.76
Ecuador	0.48	0.47	0.45	0.47	0.45	0.47	0.47	0.46	0.48	0.40	0.47
Others	0.43	0.57	0.64	0.43	0.55	0.66	0.65	0.65	0.58	0.56	0.66
<b>Middle East</b>	<b>1.92</b>	<b>1.94</b>	<b>1.96</b>	<b>1.92</b>	<b>1.95</b>	<b>1.94</b>	<b>1.94</b>	<b>1.96</b>	<b>1.95</b>	<b>1.94</b>	<b>1.94</b>
Qatar	1.82	1.84	1.87	1.82	1.85	1.85	1.85	1.87	1.85	1.85	1.85
Others	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
<b>Africa</b>	<b>1.10</b>	<b>1.08</b>	<b>1.06</b>	<b>1.08</b>	<b>1.07</b>	<b>1.08</b>	<b>1.08</b>	<b>1.07</b>	<b>1.00</b>	<b>1.10</b>	<b>1.08</b>
Egypt	0.57	0.57	0.56	0.57	0.57	0.57	0.57	0.56	0.57	0.57	0.57
Others	0.53	0.51	0.50	0.52	0.50	0.51	0.51	0.50	0.44	0.53	0.52
<b>Total non-OECD (non-OPEC+)</b>	<b>15.02</b>	<b>15.32</b>	<b>15.63</b>	<b>15.23</b>	<b>15.19</b>	<b>15.39</b>	<b>15.46</b>	<b>15.60</b>	<b>15.12</b>	<b>15.14</b>	<b>15.33</b>
Processing gains	2.25	2.31	2.36	2.29	2.29	2.33	2.32	2.33	2.29	2.32	2.35
Global biofuels	2.75	2.91	3.04	2.42	2.98	3.30	2.93	2.55	3.17	3.22	3.30
<b>TOTAL NON-OPEC+</b>	<b>46.31</b>	<b>47.97</b>	<b>49.88</b>	<b>46.75</b>	<b>47.38</b>	<b>48.63</b>	<b>49.08</b>	<b>48.86</b>	<b>47.38</b>	<b>47.56</b>	<b>48.43</b>
<b>TOTAL SUPPLY</b>	<b>95.30</b>	<b>100.03</b>	<b>101.73</b>	<b>98.68</b>	<b>98.65</b>	<b>100.93</b>	<b>101.81</b>	<b>100.91</b>	<b>98.49</b>	<b>99.14</b>	<b>100.54</b>

<sup>1</sup> From Aug 2022, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libya, Iran, Venezuela held at most recent level through 2023.

<sup>2</sup> Excludes Mexico

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

	RECENT MONTHLY STOCKS <sup>2</sup> in Million Barrels					PRIOR YEARS' STOCKS <sup>2</sup> in Million Barrels			STOCK CHANGES in mb/d			
	Feb2022	Mar2022	Apr2022	May2022	Jun2022 <sup>3</sup>	Jun2019	Jun2020	Jun2021	3Q2021	4Q2021	1Q2022	2Q2022
<b>OECD INDUSTRY-CONTROLLED STOCKS<sup>1</sup></b>												
<b>OECD Americas</b>												
Crude	564.7	569.3	577.6	568.9	576.5	604.2	683.4	611.7	-0.33	0.07	-0.21	0.08
Motor Gasoline	279.9	266.6	256.9	245.4	246.1	261.8	283.2	264.8	-0.13	0.07	0.08	-0.23
Middle Distillate	190.9	179.2	173.8	179.0	181.6	203.9	248.6	214.7	-0.12	-0.09	-0.18	0.03
Residual Fuel Oil	34.7	34.5	36.4	36.8	37.6	35.5	46.6	38.4	-0.04	-0.03	0.03	0.03
Total Products <sup>4</sup>	705.4	683.1	682.2	696.4	711.9	789.1	856.6	765.3	-0.03	-0.40	-0.47	0.32
<b>Total<sup>5</sup></b>	<b>1424.9</b>	<b>1410.0</b>	<b>1415.1</b>	<b>1429.2</b>	<b>1452.3</b>	<b>1560.4</b>	<b>1718.9</b>	<b>1543.3</b>	<b>-0.39</b>	<b>-0.45</b>	<b>-0.62</b>	<b>0.46</b>
<b>OECD Europe</b>												
Crude	313.7	324.6	329.0	336.9	337.1	358.6	377.5	341.8	-0.38	-0.03	0.24	0.14
Motor Gasoline	91.3	90.4	93.5	90.1	86.3	89.8	99.8	86.6	-0.07	0.05	0.05	-0.05
Middle Distillate	244.3	240.9	251.9	244.4	240.9	276.3	339.4	306.6	-0.37	-0.31	-0.03	0.00
Residual Fuel Oil	62.3	62.3	65.5	64.9	63.8	59.5	74.2	64.3	-0.01	-0.04	0.03	0.02
Total Products <sup>4</sup>	495.2	490.6	515.6	506.0	491.6	542.0	631.4	555.1	-0.44	-0.31	0.05	0.01
<b>Total<sup>5</sup></b>	<b>882.8</b>	<b>892.0</b>	<b>920.0</b>	<b>917.9</b>	<b>905.2</b>	<b>982.6</b>	<b>1098.5</b>	<b>974.1</b>	<b>-0.89</b>	<b>-0.37</b>	<b>0.38</b>	<b>0.14</b>
<b>OECD Asia Oceania</b>												
Crude	97.9	105.5	114.8	107.1	99.7	152.3	158.8	125.0	-0.17	-0.11	0.07	-0.06
Motor Gasoline	27.6	25.6	25.7	25.5	26.2	25.8	25.2	29.4	-0.03	-0.03	0.02	0.01
Middle Distillate	60.9	56.2	58.8	56.3	61.2	70.0	67.0	65.3	0.07	-0.09	-0.09	0.05
Residual Fuel Oil	18.0	15.4	16.9	17.3	16.1	19.7	17.4	16.8	0.02	-0.02	-0.02	0.01
Total Products <sup>4</sup>	165.3	158.1	161.2	159.3	165.1	175.3	176.7	170.2	0.15	-0.23	-0.05	0.08
<b>Total<sup>5</sup></b>	<b>317.0</b>	<b>315.7</b>	<b>334.4</b>	<b>327.3</b>	<b>323.1</b>	<b>391.0</b>	<b>400.0</b>	<b>357.4</b>	<b>-0.02</b>	<b>-0.34</b>	<b>-0.09</b>	<b>0.08</b>
<b>Total OECD</b>												
Crude	976.3	999.4	1021.4	1012.9	1013.3	1115.1	1219.7	1078.5	-0.88	-0.07	0.09	0.15
Motor Gasoline	398.8	382.7	376.2	361.0	358.5	377.4	408.2	380.8	-0.22	0.10	0.15	-0.27
Middle Distillate	496.1	476.2	484.6	479.7	483.6	550.2	655.0	586.6	-0.42	-0.48	-0.30	0.08
Residual Fuel Oil	115.0	112.2	118.8	119.0	117.6	114.7	138.2	119.4	-0.03	-0.09	0.04	0.06
Total Products <sup>4</sup>	1365.8	1331.8	1358.9	1361.7	1368.6	1506.4	1664.6	1490.7	-0.33	-0.94	-0.48	0.40
<b>Total<sup>5</sup></b>	<b>2624.6</b>	<b>2617.7</b>	<b>2669.6</b>	<b>2674.4</b>	<b>2680.6</b>	<b>2934.0</b>	<b>3217.4</b>	<b>2874.8</b>	<b>-1.30</b>	<b>-1.17</b>	<b>-0.33</b>	<b>0.69</b>
<b>OECD GOVERNMENT-CONTROLLED STOCKS<sup>6</sup></b>												
<b>OECD Americas</b>												
Crude	578.9	566.1	547.9	523.1	493.7	644.8	656.0	621.3	-0.04	-0.26	-0.31	-0.79
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	198.8	198.4	195.8	196.2	196.2	207.0	208.8	205.8	0.00	-0.05	-0.02	-0.02
Products	274.8	268.5	262.1	259.5	257.5	275.8	276.5	278.8	-0.01	-0.01	-0.09	-0.12
<b>OECD Asia Oceania</b>												
Crude	370.1	367.8	364.5	361.0	359.1	378.6	377.3	374.5	-0.05	0.01	-0.03	-0.10
Products	38.0	37.9	37.9	37.9	37.3	38.8	39.0	38.8	0.00	0.00	-0.01	-0.01
<b>Total OECD</b>												
Crude	1147.8	1132.3	1108.1	1080.3	1049.0	1230.4	1242.1	1201.6	-0.10	-0.31	-0.35	-0.92
Products	314.8	308.3	302.0	299.4	296.8	316.5	317.5	319.7	-0.01	-0.01	-0.11	-0.12
<b>Total<sup>5</sup></b>	<b>1464.2</b>	<b>1442.3</b>	<b>1411.6</b>	<b>1381.3</b>	<b>1347.5</b>	<b>1548.8</b>	<b>1561.5</b>	<b>1523.6</b>	<b>-0.12</b>	<b>-0.31</b>	<b>-0.46</b>	<b>-1.04</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> 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)

	January			February			March			April			May		
	2021	2022	%	2021	2022	%	2021	2022	%	2021	2022	%	2021	2022	%
<b>United States<sup>2</sup></b>															
Crude	475.9	414.3	-12.9	493.2	409.1	-17.1	501.9	414.4	-17.4	489.7	419.1	-14.4	476.6	414.3	-13.1
Motor Gasoline	255.1	251.8	-1.3	241.1	250.4	3.9	237.6	238.5	0.4	238.4	230.1	-3.5	239.9	220.7	-8.0
Middle Distillate	207.8	165.3	-20.5	185.3	162.2	-12.5	186.4	151.5	-18.7	178.1	145.3	-18.4	185.0	152.0	-17.8
Residual Fuel Oil	32.0	26.7	-16.6	31.2	27.5	-11.9	30.9	27.9	-9.7	31.3	29.4	-6.1	31.7	29.2	-7.9
Other Products	213.5	195.4	-8.5	198.5	178.0	-10.3	199.6	179.8	-9.9	210.1	191.5	-8.9	219.9	212.5	-3.4
Total Products	708.4	639.2	-9.8	656.1	618.1	-5.8	654.5	597.7	-8.7	657.9	596.3	-9.4	676.5	614.4	-9.2
Other <sup>3</sup>	145.7	136.4	-6.4	145.6	138.2	-5.1	145.3	141.5	-2.6	141.8	138.1	-2.6	140.7	143.8	2.2
<b>Total</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>1301.7</b>	<b>1153.6</b>	<b>-11.4</b>	<b>1289.4</b>	<b>1153.5</b>	<b>-10.5</b>	<b>1293.8</b>	<b>1172.5</b>	<b>-9.4</b>
<b>Japan</b>															
Crude	77.0	69.2	-10.1	77.0	70.7	-8.2	64.5	76.0	17.8	69.8	80.3	15.0	78.4	74.9	-4.5
Motor Gasoline	13.5	11.3	-16.3	13.0	10.9	-16.2	12.4	9.8	-21.0	12.9	10.3	-20.2	14.9	10.3	-30.9
Middle Distillate	33.5	30.8	-8.1	30.1	26.7	-11.3	27.4	23.3	-15.0	29.2	24.7	-15.4	32.2	26.6	-17.4
Residual Fuel Oil	6.9	7.0	1.4	7.1	6.5	-8.5	6.5	5.7	-12.3	7.2	6.2	-13.9	7.6	6.8	-10.5
Other Products	31.0	34.6	11.6	32.9	32.2	-2.1	31.6	32.0	1.3	31.9	33.1	3.8	33.1	34.8	5.1
Total Products	84.9	83.7	-1.4	83.1	76.3	-8.2	77.9	70.8	-9.1	81.2	74.3	-8.5	87.8	78.5	-10.6
Other <sup>3</sup>	50.1	47.6	-5.0	49.1	43.7	-11.0	47.3	42.0	-11.2	49.7	47.3	-4.8	51.0	49.9	-2.2
<b>Total</b>	<b>212.0</b>	<b>200.5</b>	<b>-5.4</b>	<b>209.2</b>	<b>190.7</b>	<b>-8.8</b>	<b>189.7</b>	<b>188.8</b>	<b>-0.5</b>	<b>200.7</b>	<b>201.9</b>	<b>0.6</b>	<b>217.2</b>	<b>203.3</b>	<b>-6.4</b>
<b>Germany</b>															
Crude	52.7	46.1	-12.5	49.5	47.3	-4.4	52.7	48.1	-8.7	49.0	48.8	-0.4	46.7	50.7	8.6
Motor Gasoline	12.6	11.0	-12.7	11.6	10.6	-8.6	8.9	10.7	20.2	10.2	11.6	13.7	11.3	11.8	4.4
Middle Distillate	27.5	23.1	-16.0	25.7	21.6	-16.0	22.7	24.1	6.2	24.1	27.1	12.4	26.7	25.9	-3.0
Residual Fuel Oil	7.1	8.5	19.7	7.6	8.6	13.2	7.5	7.9	5.3	7.8	7.8	0.0	7.9	8.0	1.3
Other Products	9.3	10.2	9.7	9.4	10.0	6.4	9.5	9.9	4.2	10.0	10.6	6.0	10.3	10.0	-2.9
Total Products	56.5	52.8	-6.5	54.3	50.8	-6.4	48.6	52.6	8.2	52.1	57.1	9.6	56.2	55.7	-0.9
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>109.2</b>	<b>98.9</b>	<b>-9.4</b>	<b>103.8</b>	<b>98.1</b>	<b>-5.5</b>	<b>101.3</b>	<b>100.7</b>	<b>-0.6</b>	<b>101.1</b>	<b>105.9</b>	<b>4.7</b>	<b>102.9</b>	<b>106.4</b>	<b>3.4</b>
<b>Italy</b>															
Crude	37.4	29.9	-20.1	34.3	30.4	-11.4	39.9	32.7	-18.0	38.6	34.1	-11.7	42.9	36.4	-15.2
Motor Gasoline	11.6	12.7	9.5	10.6	11.3	6.6	9.8	11.3	15.3	12.6	10.5	-16.7	12.1	11.6	-4.1
Middle Distillate	29.0	26.4	-9.0	28.1	23.8	-15.3	28.6	23.1	-19.2	28.8	22.6	-21.5	30.0	22.5	-25.0
Residual Fuel Oil	8.4	7.5	-10.7	7.7	8.1	5.2	8.1	7.9	-2.5	7.4	8.7	17.6	7.3	8.3	13.7
Other Products	16.2	11.2	-30.9	14.0	11.3	-19.3	12.3	11.0	-10.6	11.1	11.4	2.7	10.9	11.8	8.3
Total Products	65.2	57.8	-11.3	60.4	54.5	-9.8	58.8	53.3	-9.4	59.9	53.2	-11.2	60.3	54.2	-10.1
Other <sup>3</sup>	15.1	13.5	-10.6	14.5	13.1	-9.7	15.1	14.7	-2.6	15.3	14.6	-4.6	15.6	13.8	-11.5
<b>Total</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>113.8</b>	<b>100.7</b>	<b>-11.5</b>	<b>113.8</b>	<b>101.9</b>	<b>-10.5</b>	<b>118.8</b>	<b>104.4</b>	<b>-12.1</b>
<b>France</b>															
Crude	13.4	9.2	-31.3	12.3	12.4	0.8	12.8	12.1	-5.5	12.8	10.2	-20.3	12.4	11.6	-6.5
Motor Gasoline	4.9	5.1	4.1	5.4	4.5	-16.7	3.9	4.2	7.7	4.8	4.9	2.1	4.9	4.5	-8.2
Middle Distillate	23.4	20.1	-14.1	25.2	16.5	-34.5	22.3	18.6	-16.6	21.9	19.3	-11.9	23.1	19.6	-15.2
Residual Fuel Oil	2.1	1.3	-38.1	1.8	1.3	-27.8	2.0	0.7	-65.0	1.8	1.1	-38.9	1.9	1.5	-21.1
Other Products	3.5	3.4	-2.9	3.5	3.5	0.0	3.5	3.6	2.9	3.4	3.8	11.8	3.7	3.5	-5.4
Total Products	33.9	29.9	-11.8	35.9	25.8	-28.1	31.7	27.1	-14.5	31.9	29.1	-8.8	33.6	29.1	-13.4
Other <sup>3</sup>	7.0	7.2	2.9	7.9	7.1	-10.1	7.9	7.1	-10.1	7.9	7.6	-3.8	7.8	8.2	5.1
<b>Total</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>52.4</b>	<b>46.3</b>	<b>-11.6</b>	<b>52.6</b>	<b>46.9</b>	<b>-10.8</b>	<b>53.8</b>	<b>48.9</b>	<b>-9.1</b>
<b>United Kingdom</b>															
Crude	27.5	22.7	-17.5	24.2	26.2	8.3	26.5	26.3	-0.8	24.8	26.3	6.0	29.3	23.9	-18.4
Motor Gasoline	12.1	10.6	-12.4	10.3	9.6	-6.8	9.3	9.2	-1.1	8.9	9.9	11.2	9.6	9.8	2.1
Middle Distillate	31.6	20.4	-35.4	29.4	19.8	-32.7	26.0	18.2	-30.0	25.4	20.0	-21.3	25.6	19.1	-25.4
Residual Fuel Oil	1.5	1.2	-20.0	1.2	1.5	25.0	1.4	1.4	0.0	1.3	1.7	30.8	1.5	1.7	13.3
Other Products	6.8	6.0	-11.8	6.3	6.3	0.0	5.9	5.8	-1.7	6.3	6.8	7.9	6.6	6.8	3.0
Total Products	52.0	38.2	-26.5	47.2	37.2	-21.2	42.6	34.6	-18.8	41.9	38.4	-8.4	43.3	37.4	-13.6
Other <sup>3</sup>	7.3	7.6	4.1	7.1	7.9	11.3	7.8	7.7	-1.3	7.9	7.5	-5.1	8.1	6.8	-16.0
<b>Total</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>76.9</b>	<b>68.6</b>	<b>-10.8</b>	<b>74.6</b>	<b>72.2</b>	<b>-3.2</b>	<b>80.7</b>	<b>68.1</b>	<b>-15.6</b>
<b>Canada<sup>4</sup></b>															
Crude	124.0	121.7	-1.9	124.8	122.4	-1.9	129.0	120.7	-6.4	129.3	125.8	-2.7	127.9	120.3	-5.9
Motor Gasoline	17.8	17.5	-1.7	16.4	16.6	1.2	16.2	16.7	3.1	16.8	15.4	-8.3	15.5	13.6	-12.3
Middle Distillate	20.7	18.7	-9.7	20.3	18.0	-11.3	19.7	19.2	-2.5	20.0	19.4	-3.0	17.6	18.6	5.7
Residual Fuel Oil	2.7	1.7	-37.0	2.3	2.2	-4.3	3.0	2.4	-20.0	2.2	1.9	-13.6	3.3	2.7	-18.2
Other Products	11.9	12.2	2.5	12.5	12.9	3.2	12.5	13.3	6.4	11.9	13.6	14.3	12.4	13.5	8.9
Total Products	53.1	50.1	-5.6	51.5	49.7	-3.5	51.4	51.6	0.4	50.9	50.3	-1.2	48.8	48.4	-0.8
Other <sup>3</sup>	23.8	19.4	-18.5	20.2	16.4	-18.8	17.9	15.9	-11.2	19.0	17.1	-10.0	21.8	19.6	-10.1
<b>Total</b>	<b>200.9</b>	<b>191.2</b>	<b>-4.8</b>	<b>196.5</b>	<b>188.5</b>	<b>-4.1</b>	<b>198.3</b>	<b>188.2</b>	<b>-5.1</b>	<b>199.2</b>	<b>193.2</b>	<b>-3.0</b>	<b>198.5</b>	<b>188.3</b>	<b>-5.1</b>

<sup>1</sup> Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrapment 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>1</sup> and 'days')

	End June 2021		End September 2021		End December 2021		End March 2022		End June 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	201.6	83	198.3	85	202.3	90	188.1	-	-	-
Chile	11.7	30	10.4	27	10.8	28	10.5	-	-	-
Mexico	36.4	24	36.0	22	36.7	22	35.7	-	-	-
United States <sup>4</sup>	1894.8	94	1860.5	91	1789.5	89	1721.7	-	-	-
<b>Total<sup>4</sup></b>	<b>2166.6</b>	<b>88</b>	<b>2127.3</b>	<b>86</b>	<b>2061.5</b>	<b>84</b>	<b>1978.0</b>	<b>80</b>	<b>1948.0</b>	<b>79</b>
<b>OECD Asia Oceania</b>										
Australia	39.6	41	40.9	39	37.6	36	40.0	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	528.6	167	525.1	144	519.4	140	500.5	-	-	-
Korea	194.9	75	189.3	70	168.8	62	174.6	-	-	-
New Zealand	7.6	56	8.3	53	6.8	44	6.2	-	-	-
<b>Total</b>	<b>770.7</b>	<b>109</b>	<b>763.5</b>	<b>98</b>	<b>732.6</b>	<b>93</b>	<b>721.4</b>	<b>103</b>	<b>719.5</b>	<b>100</b>
<b>OECD Europe<sup>5</sup></b>										
Austria	23.0	82	21.1	81	20.9	85	24.1	-	-	-
Belgium	51.0	83	47.1	71	43.3	68	42.9	-	-	-
Czech Republic	21.8	93	21.7	97	22.5	107	22.2	-	-	-
Denmark	28.1	188	25.3	170	23.7	167	22.5	-	-	-
Estonia	2.9	88	2.7	90	2.5	90	2.6	-	-	-
Finland	39.5	210	37.3	192	36.2	189	38.4	-	-	-
France	163.0	100	157.3	97	151.6	98	148.8	-	-	-
Germany	275.7	124	270.4	116	268.9	127	268.8	-	-	-
Greece	30.5	100	26.4	90	29.4	107	29.4	-	-	-
Hungary	25.6	131	25.9	134	27.0	143	28.0	-	-	-
Ireland	12.0	84	10.6	67	10.8	70	10.6	-	-	-
Italy	128.9	102	118.0	94	112.5	96	116.3	-	-	-
Latvia	3.0	70	2.7	75	2.6	76	2.8	-	-	-
Lithuania	8.5	113	9.1	132	8.2	137	9.8	-	-	-
Luxembourg	0.8	13	0.5	9	0.6	11	0.5	-	-	-
Netherlands	147.2	171	125.8	151	109.5	130	123.9	-	-	-
Norway	23.6	104	20.2	85	21.4	112	26.3	-	-	-
Poland	80.0	103	78.1	104	80.6	112	82.8	-	-	-
Portugal	19.9	91	19.0	83	20.9	89	21.3	-	-	-
Slovak Republic	12.3	125	12.2	127	12.2	134	12.8	-	-	-
Slovenia	5.3	104	4.9	99	5.2	108	4.6	-	-	-
Spain	118.8	96	111.6	89	104.9	84	106.6	-	-	-
Sweden	45.2	141	38.3	120	30.1	99	28.2	-	-	-
Switzerland	32.9	177	33.4	156	31.5	168	30.2	-	-	-
Republic of Türkiye	85.1	74	85.6	82	87.4	96	87.6	-	-	-
United Kingdom	76.2	59	71.6	53	72.8	55	68.6	-	-	-
<b>Total</b>	<b>1461.0</b>	<b>105</b>	<b>1377.0</b>	<b>99</b>	<b>1337.2</b>	<b>102</b>	<b>1360.5</b>	<b>101</b>	<b>1360.6</b>	<b>97</b>
<b>Total OECD</b>	<b>4398.3</b>	<b>96</b>	<b>4267.8</b>	<b>92</b>	<b>4131.3</b>	<b>90</b>	<b>4059.9</b>	<b>90</b>	<b>4028.1</b>	<b>88</b>
<b>DAYS OF IEA Net Imports<sup>6</sup> -</b>	<b>167</b>	<b>-</b>	<b>160</b>	<b>-</b>	<b>156</b>	<b>-</b>	<b>156</b>	<b>-</b>	<b>-</b>	<b>-</b>

1 Total Stocks are industry and government-controlled stocks (see breakdown in the table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

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

3 End June 2022 forward demand figures are IEA Secretariat forecasts.

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

5 Data not available for Iceland.

6 Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see [www.iea.org/netimports.asp](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
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	110	36	74
4Q2020	4579	1541	3038	108	36	72
1Q2021	4464	1546	2918	102	35	67
2Q2021	4398	1524	2875	96	33	63
3Q2021	4268	1513	2755	92	32	59
4Q2021	4131	1484	2648	90	32	58
1Q2022	4060	1442	2618	90	32	58
2Q2022	4028	1348	2681	88	29	58

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

2 Days of forward demand calculated using actual demand except in 2Q2022 (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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier May 21	change
<b>Saudi Light &amp; Extra Light</b>												
Americas	0.20	0.26	0.34	0.31	0.45	0.43	0.44	0.51	0.40	0.47	0.26	0.21
Europe	0.68	0.59	0.48	0.40	0.55	0.55	0.53	0.61	0.78	0.57	0.40	0.17
Asia Oceania	1.42	1.39	1.30	1.12	1.18	1.48	1.57	1.48	1.59	1.33	1.15	0.17
<b>Saudi Medium</b>												
Americas	0.12	0.14	0.01	-	-	-	-	-	-	-	-	-
Europe	0.02	0.02	0.01	-	0.02	-	0.00	0.01	-	-	-	-
Asia Oceania	0.23	0.25	0.21	0.17	0.19	0.26	0.20	0.18	0.29	0.22	0.15	0.07
<b>Canada Heavy</b>												
Americas	2.27	2.39	2.59	2.43	2.47	2.82	2.69	2.68	2.60	2.52	2.48	0.04
Europe	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.04	0.07	0.12	0.00	0.12
Asia Oceania	0.00	0.00	0.02	0.04	0.01	0.00	0.01	0.02	0.02	-	0.05	-
<b>Iraqi Basrah Light<sup>2</sup></b>												
Americas	0.31	0.11	0.08	0.05	0.04	0.17	0.16	0.13	0.29	0.35	0.15	0.20
Europe	0.85	0.58	0.62	0.63	0.60	0.68	0.62	0.71	0.38	0.59	0.61	-0.03
Asia Oceania	0.37	0.22	0.17	0.17	0.16	0.19	0.17	0.19	0.19	0.19	0.16	0.03
<b>Kuwait Blend</b>												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.11	0.04	-	-	-	-	-	-	-	-	-	-
Asia Oceania	0.61	0.55	0.48	0.45	0.47	0.52	0.58	0.57	0.54	0.35	0.42	-0.07
<b>Iranian Light</b>												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.00	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	0.00	-	-	-	-	-	-	-	-	-	-	-
<b>Iranian Heavy<sup>3</sup></b>												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.04	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	0.14	-	-	-	-	-	-	-	-	-	-	-
<b>BFOE</b>												
Americas	0.00	-	0.00	0.00	0.01	-	-	-	-	-	0.00	-
Europe	0.37	0.42	0.36	0.28	0.36	0.40	0.38	0.35	0.42	0.55	0.40	0.15
Asia Oceania	0.01	0.03	0.05	0.07	-	0.05	0.02	-	0.07	0.06	0.10	-0.03
<b>Kazakhstan</b>												
Americas	-	-	0.01	0.03	-	-	-	-	-	-	-	-
Europe	0.76	0.74	0.70	0.73	0.68	0.66	0.89	0.87	0.65	0.57	0.81	-0.24
Asia Oceania	0.18	0.07	0.09	0.10	0.10	0.10	0.14	0.17	0.18	0.10	0.07	0.03
<b>Venezuelan 22 API and heavier</b>												
Americas	0.05	-	-	-	-	-	-	-	-	-	-	-
Europe	0.09	0.04	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
<b>Mexican Maya</b>												
Americas	0.51	0.48	0.40	0.45	0.45	0.32	0.36	0.36	0.32	0.46	0.41	0.05
Europe	0.19	0.16	0.14	0.15	0.13	0.12	0.11	0.10	0.07	0.06	0.13	-0.07
Asia Oceania	0.13	0.12	0.14	0.12	0.14	0.13	0.08	0.03	0.05	0.03	0.13	-0.10
<b>Russian Urals</b>												
Americas	0.01	-	-	-	-	-	-	-	-	-	-	-
Europe	1.37	1.12	1.05	0.99	1.08	1.14	1.08	0.84	0.87	0.71	0.98	-0.28
Asia Oceania	-	-	0.01	-	0.03	-	-	-	-	-	-	-
<b>Cabinda and Other Angola</b>												
North America	0.01	0.01	-	-	-	-	-	-	-	-	-	-
Europe	0.15	0.12	0.03	0.04	0.03	0.04	0.06	0.13	0.15	0.21	0.09	0.11
Pacific	0.00	-	-	-	-	-	-	-	-	-	-	-
<b>Nigerian Light<sup>4</sup></b>												
Americas	0.03	-	0.02	0.06	0.03	-	-	-	-	-	0.06	-
Europe	0.51	0.49	0.41	0.30	0.40	0.52	0.47	0.58	0.42	0.40	0.29	0.11
Asia Oceania	0.02	0.02	0.01	0.01	-	0.01	-	-	-	-	0.03	-
<b>Libya Light and Medium</b>												
Americas	0.00	-	0.02	0.03	0.06	-	-	-	-	-	0.10	-
Europe	0.67	0.19	0.79	0.79	0.87	0.76	0.67	0.67	0.65	0.49	0.72	-0.23
Asia Oceania	0.03	0.01	0.02	0.02	0.01	0.03	0.02	0.01	0.03	0.02	0.03	-0.01

<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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier	
											May 21	% change
<b>Crude Oil</b>												
Americas	2726	1896	2077	2109	2367	2129	2096	2115	2052	1965	2095	-6%
Europe	9872	8349	8519	8382	8748	9150	9010	8688	9119	9148	8612	6%
Asia Oceania	6541	5579	5519	5453	5419	5876	6101	6010	6047	5167	5406	-4%
<b>Total OECD</b>	<b>19139</b>	<b>15823</b>	<b>16116</b>	<b>15945</b>	<b>16533</b>	<b>17154</b>	<b>17207</b>	<b>16813</b>	<b>17219</b>	<b>16280</b>	<b>16113</b>	<b>1%</b>
<b>LPG</b>												
Americas	26	28	21	16	22	25	39	35	24	16	14	14%
Europe	434	422	404	421	378	424	469	444	524	475	456	4%
Asia Oceania	583	559	563	556	528	528	681	708	569	602	535	12%
<b>Total OECD</b>	<b>1042</b>	<b>1009</b>	<b>988</b>	<b>992</b>	<b>928</b>	<b>977</b>	<b>1188</b>	<b>1186</b>	<b>1116</b>	<b>1092</b>	<b>1005</b>	<b>9%</b>
<b>Naphtha</b>												
Americas	5	7	8	7	11	8	6	6	12	2	12	-86%
Europe	347	409	512	514	445	563	399	373	500	465	596	-22%
Asia Oceania	990	1003	1146	1074	1226	1199	1078	976	972	930	1101	-15%
<b>Total OECD</b>	<b>1342</b>	<b>1419</b>	<b>1667</b>	<b>1594</b>	<b>1682</b>	<b>1770</b>	<b>1482</b>	<b>1356</b>	<b>1485</b>	<b>1397</b>	<b>1709</b>	<b>-18%</b>
<b>Gasoline<sup>3</sup></b>												
Americas	822	577	803	1074	973	565	483	505	723	942	1097	-14%
Europe	112	109	106	159	75	89	110	95	180	126	169	-26%
Asia Oceania	110	116	146	185	125	129	157	187	117	182	158	16%
<b>Total OECD</b>	<b>1044</b>	<b>801</b>	<b>1054</b>	<b>1418</b>	<b>1172</b>	<b>783</b>	<b>750</b>	<b>786</b>	<b>1019</b>	<b>1250</b>	<b>1424</b>	<b>-12%</b>
<b>Jet &amp; Kerosene</b>												
Americas	174	159	164	166	207	175	120	113	116	114	191	-40%
Europe	520	337	334	291	349	411	326	392	483	413	343	20%
Asia Oceania	72	60	71	67	39	82	71	59	53	78	45	72%
<b>Total OECD</b>	<b>766</b>	<b>556</b>	<b>569</b>	<b>525</b>	<b>596</b>	<b>668</b>	<b>517</b>	<b>564</b>	<b>651</b>	<b>605</b>	<b>579</b>	<b>5%</b>
<b>Gasoil/Diesel</b>												
Americas	118	134	197	149	154	222	157	90	44	109	185	-41%
Europe	1300	1192	1192	1213	1173	1263	1103	1072	1296	1060	1162	-9%
Asia Oceania	261	328	352	351	344	377	299	322	280	404	322	25%
<b>Total OECD</b>	<b>1679</b>	<b>1654</b>	<b>1741</b>	<b>1713</b>	<b>1670</b>	<b>1862</b>	<b>1559</b>	<b>1484</b>	<b>1620</b>	<b>1573</b>	<b>1670</b>	<b>-6%</b>
<b>Heavy Fuel Oil</b>												
Americas	116	143	102	96	91	104	139	157	122	119	66	79%
Europe	223	295	374	314	435	375	322	343	285	295	330	-10%
Asia Oceania	101	88	119	116	121	129	117	67	91	72	94	-23%
<b>Total OECD</b>	<b>440</b>	<b>526</b>	<b>594</b>	<b>526</b>	<b>648</b>	<b>607</b>	<b>578</b>	<b>566</b>	<b>498</b>	<b>487</b>	<b>490</b>	<b>-1%</b>
<b>Other Products</b>												
Americas	716	591	580	698	607	510	496	560	665	461	722	-36%
Europe	865	574	575	510	585	689	676	647	633	544	494	10%
Asia Oceania	261	207	233	233	239	241	221	228	184	158	246	-36%
<b>Total OECD</b>	<b>1842</b>	<b>1372</b>	<b>1389</b>	<b>1442</b>	<b>1431</b>	<b>1439</b>	<b>1394</b>	<b>1435</b>	<b>1482</b>	<b>1163</b>	<b>1462</b>	<b>-20%</b>
<b>Total Products</b>												
Americas	1978	1639	1875	2205	2064	1607	1440	1465	1705	1763	2287	-23%
Europe	3800	3339	3497	3423	3441	3815	3404	3365	3900	3377	3551	-5%
Asia Oceania	2378	2360	2630	2582	2623	2686	2624	2547	2267	2428	2502	-3%
<b>Total OECD</b>	<b>8156</b>	<b>7338</b>	<b>8002</b>	<b>8210</b>	<b>8127</b>	<b>8108</b>	<b>7468</b>	<b>7377</b>	<b>7872</b>	<b>7568</b>	<b>8340</b>	<b>-9%</b>
<b>Total Oil</b>												
Americas	4703	3535	3952	4315	4431	3736	3535	3580	3757	3728	4382	-15%
Europe	13672	11688	12016	11804	12188	12965	12414	12053	13019	12525	12163	3%
Asia Oceania	8919	7939	8150	8036	8041	8562	8725	8557	8314	7595	7908	-4%
<b>Total OECD</b>	<b>27294</b>	<b>23162</b>	<b>24117</b>	<b>24155</b>	<b>24661</b>	<b>25263</b>	<b>24675</b>	<b>24190</b>	<b>25091</b>	<b>23848</b>	<b>24452</b>	<b>-2%</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 7a**  
**REGIONAL OECD IMPORTS FROM NON-OECD COUNTRIES<sup>1,2</sup>**  
(thousand barrels per day)

	2019	2020	2021	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier	
											May 21	% change
<b>Crude Oil</b>												
Americas	2576	1835	1982	2006	2275	2028	2032	2066	1995	1909	2007	-5%
Europe	8913	7115	7268	7109	7455	7850	7671	7353	7754	7428	7310	2%
Asia Oceania	5914	5051	4910	4843	4772	5312	5480	5497	5497	4708	4829	-3%
<b>Total OECD</b>	<b>17403</b>	<b>14002</b>	<b>14160</b>	<b>13958</b>	<b>14502</b>	<b>15190</b>	<b>15183</b>	<b>14916</b>	<b>15245</b>	<b>14045</b>	<b>14146</b>	<b>-1%</b>
<b>LPG</b>												
Americas	23	22	20	16	22	25	37	35	24	16	14	14%
Europe	303	252	242	228	245	251	252	246	292	226	202	12%
Asia Oceania	74	58	47	60	35	33	90	109	70	42	64	-35%
<b>Total OECD</b>	<b>400</b>	<b>331</b>	<b>309</b>	<b>304</b>	<b>303</b>	<b>309</b>	<b>379</b>	<b>390</b>	<b>385</b>	<b>283</b>	<b>280</b>	<b>1%</b>
<b>Naphtha</b>												
Americas	2	1	4	2	5	5	3	4	2	1	1	-20%
Europe	320	390	425	452	337	485	338	309	385	363	550	-34%
Asia Oceania	895	832	975	946	1010	1073	942	895	904	905	939	-4%
<b>Total OECD</b>	<b>1217</b>	<b>1223</b>	<b>1404</b>	<b>1400</b>	<b>1352</b>	<b>1563</b>	<b>1283</b>	<b>1208</b>	<b>1291</b>	<b>1269</b>	<b>1490</b>	<b>-15%</b>
<b>Gasoline<sup>3</sup></b>												
Americas	308	195	248	330	312	174	111	154	227	217	392	-45%
Europe	108	104	100	152	70	80	92	79	148	105	158	-33%
Asia Oceania	84	98	141	178	125	129	157	187	117	182	158	16%
<b>Total OECD</b>	<b>500</b>	<b>397</b>	<b>489</b>	<b>660</b>	<b>507</b>	<b>384</b>	<b>360</b>	<b>419</b>	<b>493</b>	<b>504</b>	<b>709</b>	<b>-29%</b>
<b>Jet &amp; Kerosene</b>												
Americas	41	55	63	63	65	93	43	30	43	20	69	-71%
Europe	464	297	298	273	309	362	323	391	456	378	322	17%
Asia Oceania	72	60	71	67	39	82	71	59	51	78	45	72%
<b>Total OECD</b>	<b>576</b>	<b>413</b>	<b>433</b>	<b>403</b>	<b>414</b>	<b>537</b>	<b>436</b>	<b>480</b>	<b>551</b>	<b>475</b>	<b>436</b>	<b>9%</b>
<b>Gasoil/Diesel</b>												
Americas	86	103	134	94	94	146	87	36	9	33	111	-70%
Europe	1126	1062	1109	1136	1070	1186	1037	1019	1161	1003	1107	-9%
Asia Oceania	260	323	352	351	343	377	299	322	280	404	322	25%
<b>Total OECD</b>	<b>1472</b>	<b>1488</b>	<b>1595</b>	<b>1580</b>	<b>1507</b>	<b>1710</b>	<b>1423</b>	<b>1377</b>	<b>1451</b>	<b>1440</b>	<b>1540</b>	<b>-7%</b>
<b>Heavy Fuel Oil</b>												
Americas	102	110	86	84	78	77	109	144	91	92	56	64%
Europe	202	279	347	280	417	350	307	321	278	289	284	2%
Asia Oceania	100	88	119	116	121	129	117	67	91	72	94	-23%
<b>Total OECD</b>	<b>404</b>	<b>477</b>	<b>552</b>	<b>480</b>	<b>616</b>	<b>555</b>	<b>533</b>	<b>531</b>	<b>461</b>	<b>453</b>	<b>434</b>	<b>4%</b>
<b>Other Products</b>												
Americas	543	513	530	631	556	463	455	512	611	422	658	-36%
Europe	629	352	398	335	398	498	496	479	476	346	319	8%
Asia Oceania	177	130	155	171	151	150	148	149	124	103	162	-36%
<b>Total OECD</b>	<b>1350</b>	<b>995</b>	<b>1083</b>	<b>1137</b>	<b>1105</b>	<b>1111</b>	<b>1099</b>	<b>1140</b>	<b>1211</b>	<b>870</b>	<b>1138</b>	<b>-24%</b>
<b>Total Products</b>												
Americas	1106	1000	1084	1219	1131	983	844	915	1008	799	1301	-39%
Europe	3152	2735	2920	2856	2848	3212	2845	2844	3197	2710	2942	-8%
Asia Oceania	1662	1590	1860	1889	1825	1974	1824	1787	1637	1787	1784	0%
<b>Total OECD</b>	<b>5920</b>	<b>5325</b>	<b>5864</b>	<b>5964</b>	<b>5804</b>	<b>6168</b>	<b>5513</b>	<b>5547</b>	<b>5842</b>	<b>5295</b>	<b>6027</b>	<b>-12%</b>
<b>Total Oil</b>												
Americas	3682	2835	3067	3225	3406	3010	2876	2981	3003	2708	3308	-18%
Europe	12064	9850	10188	9966	10303	11062	10516	10197	10950	10138	10253	-1%
Asia Oceania	7576	6641	6769	6731	6597	7286	7304	7285	7134	6495	6613	-2%
<b>Total OECD</b>	<b>23322</b>	<b>19327</b>	<b>20024</b>	<b>19922</b>	<b>20306</b>	<b>21358</b>	<b>20696</b>	<b>20463</b>	<b>21086</b>	<b>19341</b>	<b>20173</b>	<b>-4%</b>

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

2 Excludes intra-regional trade

3 Includes additives

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

	2019	2020	2021	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier	
											May 21	% change
<b>Crude Oil</b>												
Americas	149	60	95	104	92	101	64	49	57	56	88	-36%
Europe	959	1234	1251	1272	1293	1300	1339	1335	1365	1720	1302	32%
Asia Oceania	628	527	610	611	646	563	621	513	551	459	577	-20%
<b>Total OECD</b>	<b>1736</b>	<b>1821</b>	<b>1956</b>	<b>1987</b>	<b>2031</b>	<b>1964</b>	<b>2023</b>	<b>1897</b>	<b>1974</b>	<b>2235</b>	<b>1967</b>	<b>14%</b>
<b>LPG</b>												
Americas	3	6	1	0	0	0	2	0	0	0	0	77%
Europe	131	171	162	193	132	173	216	198	232	249	254	-2%
Asia Oceania	508	501	516	495	493	495	591	598	500	560	471	19%
<b>Total OECD</b>	<b>642</b>	<b>678</b>	<b>679</b>	<b>688</b>	<b>625</b>	<b>669</b>	<b>809</b>	<b>796</b>	<b>731</b>	<b>809</b>	<b>725</b>	<b>12%</b>
<b>Naphtha</b>												
Americas	3	6	4	4	6	2	2	2	10	1	10	-95%
Europe	27	20	87	62	108	79	61	64	115	101	46	120%
Asia Oceania	96	170	172	128	216	126	136	82	69	25	162	-84%
<b>Total OECD</b>	<b>125</b>	<b>196</b>	<b>263</b>	<b>195</b>	<b>330</b>	<b>207</b>	<b>200</b>	<b>147</b>	<b>194</b>	<b>127</b>	<b>218</b>	<b>-42%</b>
<b>Gasoline<sup>3</sup></b>												
Americas	514	382	555	744	661	391	372	351	495	725	705	3%
Europe	4	5	6	7	5	9	18	16	31	20	11	91%
Asia Oceania	26	18	5	7	0	0	0	0	0	0	0	8%
<b>Total OECD</b>	<b>544</b>	<b>404</b>	<b>565</b>	<b>758</b>	<b>665</b>	<b>400</b>	<b>390</b>	<b>367</b>	<b>527</b>	<b>746</b>	<b>716</b>	<b>4%</b>
<b>Jet &amp; Kerosene</b>												
Americas	133	103	101	103	142	83	78	83	72	95	122	-22%
Europe	56	40	35	19	40	49	3	1	27	35	21	66%
Asia Oceania	0	0	0	0	0	0	0	0	2	0	0	na
<b>Total OECD</b>	<b>190</b>	<b>144</b>	<b>137</b>	<b>122</b>	<b>182</b>	<b>132</b>	<b>81</b>	<b>84</b>	<b>101</b>	<b>130</b>	<b>143</b>	<b>-9%</b>
<b>Gasoi/Diesel</b>												
Americas	32	31	63	55	60	76	70	53	35	76	75	2%
Europe	174	131	82	77	103	77	66	54	134	57	55	3%
Asia Oceania	1	4	0	0	0	0	0	0	0	0	0	195%
<b>Total OECD</b>	<b>207</b>	<b>166</b>	<b>146</b>	<b>132</b>	<b>163</b>	<b>152</b>	<b>136</b>	<b>107</b>	<b>169</b>	<b>133</b>	<b>130</b>	<b>3%</b>
<b>Heavy Fuel Oil</b>												
Americas	14	33	16	12	13	27	31	13	31	27	10	163%
Europe	21	16	26	34	19	25	15	22	6	7	46	-85%
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>46</b>	<b>32</b>	<b>52</b>	<b>46</b>	<b>35</b>	<b>37</b>	<b>34</b>	<b>56</b>	<b>-39%</b>
<b>Other Products</b>												
Americas	173	78	50	67	51	47	41	49	54	39	64	-39%
Europe	236	222	177	175	187	191	180	167	158	198	176	13%
Asia Oceania	83	77	78	62	89	91	73	79	60	55	85	-35%
<b>Total OECD</b>	<b>493</b>	<b>377</b>	<b>306</b>	<b>304</b>	<b>326</b>	<b>329</b>	<b>295</b>	<b>295</b>	<b>271</b>	<b>293</b>	<b>324</b>	<b>-10%</b>
<b>Total Products</b>												
Americas	872	639	790	986	933	625	596	550	697	963	986	-2%
Europe	649	604	577	566	593	603	559	521	704	668	608	10%
Asia Oceania	716	770	771	693	798	713	801	759	630	641	718	-11%
<b>Total OECD</b>	<b>2236</b>	<b>2013</b>	<b>2138</b>	<b>2246</b>	<b>2324</b>	<b>1940</b>	<b>1955</b>	<b>1831</b>	<b>2031</b>	<b>2272</b>	<b>2313</b>	<b>-2%</b>
<b>Total Oil</b>												
Americas	1021	699	885	1090	1025	726	660	599	755	1019	1074	-5%
Europe	1608	1838	1828	1839	1886	1903	1898	1857	2069	2388	1910	25%
Asia Oceania	1343	1297	1381	1304	1444	1276	1422	1272	1181	1100	1295	-15%
<b>Total OECD</b>	<b>3972</b>	<b>3835</b>	<b>4093</b>	<b>4233</b>	<b>4355</b>	<b>3905</b>	<b>3979</b>	<b>3727</b>	<b>4004</b>	<b>4507</b>	<b>4279</b>	<b>5%</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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier May 21	change
<b>OECD Americas</b>												
Venezuela	81	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	868	745	719	689	809	731	780	749	856	747	749	-2
North Sea	148	59	92	93	92	101	64	49	57	56	88	-32
Other OECD Europe	2	1	3	11	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	192	91	229	295	307	185	103	136	47	24	334	-310
Saudi Arabia	621	588	427	370	483	520	570	635	478	539	317	221
Kuwait	45	21	21	20	36	20	24	12	26	24	-	-
Iran	-	-	3	-	-	-	6	-	-	-	-	-
Iraq	331	177	152	172	128	192	225	187	218	234	162	73
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	3	5	17	-	44	22	10	-	58	-	-	-
Other Middle East	-	-	-	-	-	-	-	-	-	-	-	-
West Africa <sup>2</sup>	267	145	228	272	255	180	171	191	155	251	255	-4
Other Africa	137	45	161	172	167	157	144	156	156	90	159	-70
Asia	32	17	25	16	46	22	-	-	-	-	30	-
Other	0	3	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2726</b>	<b>1896</b>	<b>2077</b>	<b>2109</b>	<b>2367</b>	<b>2129</b>	<b>2096</b>	<b>2115</b>	<b>2052</b>	<b>1965</b>	<b>2095</b>	<b>-129</b>
<b>of which Non-OECD</b>	<b>2576</b>	<b>1835</b>	<b>1982</b>	<b>2006</b>	<b>2275</b>	<b>2028</b>	<b>2032</b>	<b>2066</b>	<b>1995</b>	<b>1909</b>	<b>2007</b>	<b>-98</b>
<b>OECD Europe</b>												
Canada	60	95	83	81	89	55	79	51	71	184	20	164
Mexico + USA	900	1139	1168	1191	1204	1245	1260	1284	1295	1536	1282	254
Venezuela	106	44	-	-	-	-	-	-	-	-	-	-
Other Central & South America	118	208	219	272	263	194	217	270	183	317	256	61
Non-OECD Europe	14	25	23	19	28	23	20	15	12	10	13	-3
Former Soviet Union	4239	3504	3538	3466	3525	3849	3958	3280	3435	3032	3605	-572
Saudi Arabia	792	756	522	484	587	501	508	564	775	694	479	215
Kuwait	97	48	0	-	0	0	-	-	-	-	-	-
Iran	74	6	1	-	6	-	-	-	-	-	-	-
Iraq	1124	814	912	916	927	1018	668	786	622	810	818	-8
Oman	-	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	2	-	-	-	-	-	-	-	-	-	-	-
Other Middle East	3	8	9	12	12	6	-	-	-	18	9	9
West Africa <sup>2</sup>	1140	1074	822	719	842	947	807	958	1057	1140	844	297
Other Africa	1180	596	1197	1204	1228	1282	929	943	1139	870	1241	-371
Asia	-	0	0	-	0	-	5	15	-	-	-	-
Other	13	11	1	-	0	6	520	504	529	497	-	-
<b>Total</b>	<b>9863</b>	<b>8329</b>	<b>8496</b>	<b>8364</b>	<b>8712</b>	<b>9126</b>	<b>8973</b>	<b>8670</b>	<b>9117</b>	<b>9108</b>	<b>8565</b>	<b>543</b>
<b>of which Non-OECD</b>	<b>8913</b>	<b>7115</b>	<b>7268</b>	<b>7109</b>	<b>7455</b>	<b>7850</b>	<b>7671</b>	<b>7353</b>	<b>7754</b>	<b>7428</b>	<b>7310</b>	<b>118</b>
<b>OECD Asia Oceania</b>												
Canada	5	1	16	38	5	3	9	16	17	-	50	-
Mexico + USA	613	477	496	483	554	463	582	497	465	395	429	-34
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	48	91	110	145	93	97	129	159	100	96	102	-6
North Sea	10	49	98	90	87	97	30	-	69	64	99	-35
Other OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	435	300	335	372	265	376	405	388	421	164	353	-189
Saudi Arabia	1878	1867	1766	1574	1601	2020	2029	1907	2151	1785	1592	193
Kuwait	666	584	506	484	493	563	624	615	566	409	447	-38
Iran	137	-	-	-	-	-	-	-	-	-	-	-
Iraq	364	224	167	165	160	192	172	189	194	189	155	33
Oman	59	22	32	43	49	22	28	49	68	48	16	32
United Arab Emirates	1256	1096	1083	1094	1143	1184	1145	1265	1135	1326	1213	114
Other Middle East	449	387	362	383	371	301	442	429	361	357	382	-25
West Africa <sup>2</sup>	56	65	71	103	67	79	52	59	63	90	153	-63
Other Africa	90	42	56	44	85	39	42	52	23	19	26	-6
Non-OECD Asia	220	161	175	177	161	153	126	113	169	133	166	-33
Other	254	210	241	256	278	280	277	261	247	91	224	-133
<b>Total</b>	<b>6541</b>	<b>5577</b>	<b>5515</b>	<b>5449</b>	<b>5411</b>	<b>5869</b>	<b>6093</b>	<b>5998</b>	<b>6047</b>	<b>5167</b>	<b>5406</b>	<b>-239</b>
<b>of which Non-OECD</b>	<b>5914</b>	<b>5051</b>	<b>4910</b>	<b>4843</b>	<b>4772</b>	<b>5312</b>	<b>5480</b>	<b>5497</b>	<b>5497</b>	<b>4708</b>	<b>4829</b>	<b>-121</b>
<b>Total OECD Trade</b>	<b>19129</b>	<b>15801</b>	<b>16088</b>	<b>15923</b>	<b>16489</b>	<b>17124</b>	<b>17161</b>	<b>16783</b>	<b>17217</b>	<b>16241</b>	<b>16066</b>	<b>175</b>
<b>of which Non-OECD</b>	<b>17403</b>	<b>14002</b>	<b>14160</b>	<b>13958</b>	<b>14502</b>	<b>15190</b>	<b>15183</b>	<b>14916</b>	<b>15245</b>	<b>14045</b>	<b>14146</b>	<b>-101</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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier	
											May 21	change
<b>OECD Americas</b>												
Venezuela	4	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	83	40	41	67	37	51	12	21	33	50	66	-16
ARA (Belgium Germany Netherlands)	190	149	193	312	240	93	124	137	168	230	251	-21
Other Europe	296	213	326	380	380	268	221	182	284	434	388	46
FSU	79	57	82	98	92	57	31	43	9	-	124	-
Saudi Arabia	7	6	24	50	41	-	6	17	59	53	65	-12
Algeria	-	4	1	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	14	13	13	12	15	4	8	13	15	10	19	-9
Singapore	5	1	4	3	8	3	-	-	-	-	3	-
OECD Asia Oceania	28	21	37	52	43	30	27	32	44	61	66	-4
Non-OECD Asia (excl. Singapore)	116	72	81	99	116	60	53	60	112	104	116	-12
Other	0	-	0	-	-	-	-	-	1	-	-	-
<b>Total<sup>2</sup></b>	<b>822</b>	<b>577</b>	<b>803</b>	<b>1074</b>	<b>973</b>	<b>565</b>	<b>483</b>	<b>505</b>	<b>723</b>	<b>942</b>	<b>1097</b>	<b>-155</b>
<b>of which Non-OECD</b>	<b>308</b>	<b>195</b>	<b>248</b>	<b>330</b>	<b>312</b>	<b>174</b>	<b>111</b>	<b>154</b>	<b>227</b>	<b>217</b>	<b>392</b>	<b>-176</b>
<b>OECD Europe</b>												
OECD Americas	3	3	5	5	3	8	17	16	31	18	7	12
Venezuela	0	0	2	1	5	-	2	2	1	2	0	1
Other Central & South America	3	4	7	2	11	5	14	10	2	3	1	2
Non-OECD Europe	18	16	10	16	10	6	5	4	4	-	10	-
FSU	54	31	8	7	9	2	7	3	33	37	8	30
Saudi Arabia	0	8	3	-	13	0	0	1	-	1	-	-
Algeria	0	1	-	-	-	-	-	-	19	5	-	-
Other Middle East & Africa	8	3	5	6	3	2	7	8	14	4	5	-1
Singapore	3	2	0	-	0	0	1	1	1	3	-	-
OECD Asia Oceania	1	1	1	2	1	1	1	-	-	2	4	-2
Non-OECD Asia (excl. Singapore)	0	0	3	2	2	3	3	2	4	1	2	-1
Other	21	37	62	117	15	61	53	46	71	50	132	-82
<b>Total<sup>2</sup></b>	<b>112</b>	<b>107</b>	<b>106</b>	<b>159</b>	<b>75</b>	<b>89</b>	<b>110</b>	<b>95</b>	<b>180</b>	<b>126</b>	<b>169</b>	<b>-43</b>
<b>of which Non-OECD</b>	<b>108</b>	<b>104</b>	<b>100</b>	<b>152</b>	<b>70</b>	<b>80</b>	<b>92</b>	<b>79</b>	<b>148</b>	<b>105</b>	<b>158</b>	<b>-53</b>
<b>OECD Asia Oceania</b>												
OECD Americas	6	4	1	0	0	0	0	0	0	0	0	0
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central & South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	14	4	4	7	0	0	0	0	0	0	0	0
Other Europe	5	10	0	0	0	0	0	0	0	0	0	0
FSU	0	0	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	1	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East & Africa	-	1	-	-	-	-	-	-	-	-	-	-
Singapore	46	51	100	98	96	120	135	164	80	131	89	42
Non-OECD Asia (excl. Singapore)	21	37	29	58	19	0	14	14	27	43	60	-17
Other	17	9	12	22	9	9	9	9	9	9	9	0
<b>Total<sup>2</sup></b>	<b>110</b>	<b>116</b>	<b>146</b>	<b>185</b>	<b>125</b>	<b>129</b>	<b>157</b>	<b>187</b>	<b>117</b>	<b>182</b>	<b>158</b>	<b>24</b>
<b>of which Non-OECD</b>	<b>84</b>	<b>98</b>	<b>141</b>	<b>178</b>	<b>125</b>	<b>129</b>	<b>157</b>	<b>187</b>	<b>117</b>	<b>182</b>	<b>158</b>	<b>24</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>1044</b>	<b>799</b>	<b>1054</b>	<b>1418</b>	<b>1172</b>	<b>783</b>	<b>750</b>	<b>786</b>	<b>1019</b>	<b>1250</b>	<b>1424</b>	<b>-174</b>
<b>of which Non-OECD</b>	<b>500</b>	<b>397</b>	<b>489</b>	<b>660</b>	<b>507</b>	<b>384</b>	<b>360</b>	<b>419</b>	<b>493</b>	<b>504</b>	<b>709</b>	<b>-204</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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier	
											May 21	change
<b>OECD Americas</b>												
Venezuela	1	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	38	34	28	30	24	20	3	-	9	4	39	-35
ARA (Belgium Germany Netherlands)	5	11	34	31	30	22	39	19	-	11	34	-24
Other Europe	2	4	5	9	1	10	2	-	-	8	24	-15
FSU	6	12	25	21	10	33	25	4	-	-	28	-
Saudi Arabia	3	8	15	9	11	18	18	-	-	19	26	-7
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	2	9	25	8	18	26	8	5	-	-	8	-
Singapore	0	-	2	2	8	-	2	-	-	-	2	-
OECD Asia Oceania	24	16	25	15	29	44	29	34	35	58	17	41
Non-OECD Asia (excl. Singapore)	30	34	27	16	12	31	0	-	-	2	7	-5
Other	7	6	12	8	11	18	31	27	-	8	-	-
<b>Total<sup>2</sup></b>	<b>118</b>	<b>134</b>	<b>197</b>	<b>149</b>	<b>154</b>	<b>222</b>	<b>157</b>	<b>90</b>	<b>44</b>	<b>109</b>	<b>185</b>	<b>-76</b>
<b>of which Non-OECD</b>	<b>86</b>	<b>103</b>	<b>134</b>	<b>94</b>	<b>94</b>	<b>146</b>	<b>87</b>	<b>36</b>	<b>9</b>	<b>33</b>	<b>111</b>	<b>-78</b>
<b>OECD Europe</b>												
OECD Americas	138	99	40	38	55	33	31	27	120	40	25	15
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	0	3	1	1	1	3	1	2	1	-	-	-
Non-OECD Europe	41	30	35	40	30	32	34	39	42	37	49	-12
FSU	608	627	611	687	546	516	591	619	497	415	689	-274
Saudi Arabia	205	193	140	128	142	153	97	73	114	149	108	40
Algeria	0	2	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	83	71	158	143	198	222	137	96	133	203	149	54
Singapore	27	17	19	18	24	22	33	22	91	28	32	-4
OECD Asia Oceania	36	32	42	39	48	44	34	27	15	17	30	-13
Non-OECD Asia (excl. Singapore)	152	101	126	112	122	195	88	115	251	132	66	66
Other	10	15	20	7	6	43	56	51	33	38	13	25
<b>Total<sup>2</sup></b>	<b>1300</b>	<b>1190</b>	<b>1192</b>	<b>1213</b>	<b>1173</b>	<b>1263</b>	<b>1102</b>	<b>1070</b>	<b>1296</b>	<b>1060</b>	<b>1162</b>	<b>-102</b>
<b>of which Non-OECD</b>	<b>1126</b>	<b>1062</b>	<b>1109</b>	<b>1136</b>	<b>1070</b>	<b>1186</b>	<b>1037</b>	<b>1019</b>	<b>1161</b>	<b>1003</b>	<b>1107</b>	<b>-104</b>
<b>OECD Asia Oceania</b>												
OECD Americas	1	4	0	-	0	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	0	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	0	0	0	0	0	0	-	-	0	0	0
Other Europe	-	-	0	-	-	0	-	-	-	-	-	-
FSU	4	2	1	1	2	1	-	-	-	-	1	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	7	13	4	0	0	3	-	-	17	5	-	-
Singapore	111	91	109	91	153	110	123	148	88	146	71	74
Non-OECD Asia (excl. Singapore)	133	208	229	249	181	259	168	166	171	241	236	4
Other	5	9	8	10	8	5	8	9	4	13	14	-1
<b>Total<sup>2</sup></b>	<b>261</b>	<b>328</b>	<b>352</b>	<b>351</b>	<b>344</b>	<b>377</b>	<b>299</b>	<b>322</b>	<b>280</b>	<b>404</b>	<b>322</b>	<b>82</b>
<b>of which Non-OECD</b>	<b>260</b>	<b>323</b>	<b>352</b>	<b>351</b>	<b>343</b>	<b>377</b>	<b>299</b>	<b>322</b>	<b>280</b>	<b>404</b>	<b>322</b>	<b>82</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>1679</b>	<b>1652</b>	<b>1740</b>	<b>1713</b>	<b>1670</b>	<b>1862</b>	<b>1558</b>	<b>1482</b>	<b>1620</b>	<b>1573</b>	<b>1670</b>	<b>-97</b>
<b>of which Non-OECD</b>	<b>1472</b>	<b>1488</b>	<b>1595</b>	<b>1580</b>	<b>1507</b>	<b>1710</b>	<b>1423</b>	<b>1377</b>	<b>1451</b>	<b>1440</b>	<b>1540</b>	<b>-100</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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier	
											May 21	change
<b>OECD Americas</b>												
Venezuela	0	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	7	5	1	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	5	0	14	-	-	-	-	0	-	-
Other Europe	0	4	6	5	6	7	0	0	-	2	11	-9
FSU	-	0	4	0	0	16	3	-	-	-	-	-
Saudi Arabia	2	6	6	4	4	17	5	8	-	-	6	-
Algeria	-	1	4	0	3	5	-	-	-	-	-	-
Other Middle East and Africa	10	11	18	31	14	22	11	12	6	6	28	-22
Singapore	3	4	2	2	5	-	2	-	3	-	3	-
OECD Asia Oceania	133	100	91	98	122	76	78	83	72	93	111	-18
Non-OECD Asia (excl. Singapore)	16	23	27	25	34	33	17	10	35	3	31	-28
Other	3	4	1	-	4	-	5	-	-	10	-	-
<b>Total<sup>2</sup></b>	<b>174</b>	<b>159</b>	<b>164</b>	<b>166</b>	<b>207</b>	<b>175</b>	<b>120</b>	<b>113</b>	<b>116</b>	<b>114</b>	<b>191</b>	<b>-76</b>
<b>of which Non-OECD</b>	<b>41</b>	<b>55</b>	<b>63</b>	<b>63</b>	<b>65</b>	<b>93</b>	<b>43</b>	<b>30</b>	<b>43</b>	<b>20</b>	<b>69</b>	<b>-49</b>
<b>OECD Europe</b>												
OECD Americas	20	13	3	2	1	9	1	1	4	4	3	1
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	1	0	0	-	-	1	-	-	-	2	-	-
Non-OECD Europe	2	0	0	-	-	0	-	-	4	7	-	-
FSU	41	21	27	24	30	21	20	16	21	1	27	-26
Saudi Arabia	105	40	27	39	11	21	37	41	66	45	21	24
Algeria	11	9	5	8	6	-	3	-	-	-	-	-
Other Middle East and Africa	199	155	155	136	179	168	151	158	200	160	162	-2
Singapore	29	10	11	4	23	15	6	16	30	-	11	-
OECD Asia Oceania	36	27	32	17	39	40	2	0	22	32	19	13
Non-OECD Asia (excl. Singapore)	73	50	62	59	59	113	78	127	103	142	72	70
Other	2	10	9	2	1	22	27	33	20	20	28	-8
<b>Total<sup>2</sup></b>	<b>520</b>	<b>336</b>	<b>333</b>	<b>291</b>	<b>349</b>	<b>411</b>	<b>326</b>	<b>391</b>	<b>471</b>	<b>413</b>	<b>343</b>	<b>70</b>
<b>of which Non-OECD</b>	<b>464</b>	<b>297</b>	<b>298</b>	<b>273</b>	<b>309</b>	<b>362</b>	<b>323</b>	<b>391</b>	<b>456</b>	<b>378</b>	<b>322</b>	<b>56</b>
<b>OECD Asia Oceania</b>												
OECD Americas	-	-	0	0	0	0	0	0	0	0	0	0
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	0	-	-	-	-	-	-	-	-	-
Other Europe	-	-	0	-	0	-	-	-	2	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	-	-	1	-	-	-	-	-	0	0	-	-
Singapore	21	14	16	18	19	19	26	24	18	23	8	15
Non-OECD Asia (excl. Singapore)	29	28	34	36	15	29	20	21	28	39	22	17
Other	22	18	21	14	5	34	25	15	5	17	15	1
<b>Total<sup>2</sup></b>	<b>72</b>	<b>60</b>	<b>71</b>	<b>67</b>	<b>39</b>	<b>82</b>	<b>71</b>	<b>59</b>	<b>53</b>	<b>78</b>	<b>45</b>	<b>33</b>
<b>of which Non-OECD</b>	<b>72</b>	<b>60</b>	<b>71</b>	<b>67</b>	<b>39</b>	<b>82</b>	<b>71</b>	<b>59</b>	<b>51</b>	<b>78</b>	<b>45</b>	<b>33</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>766</b>	<b>555</b>	<b>569</b>	<b>525</b>	<b>596</b>	<b>668</b>	<b>517</b>	<b>564</b>	<b>640</b>	<b>605</b>	<b>579</b>	<b>26</b>
<b>of which Non-OECD</b>	<b>576</b>	<b>413</b>	<b>433</b>	<b>403</b>	<b>414</b>	<b>537</b>	<b>436</b>	<b>480</b>	<b>551</b>	<b>475</b>	<b>436</b>	<b>40</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	2Q21	3Q21	4Q21	1Q22	Mar 22	Apr 22	May 22	Year Earlier	
											May 21	change
<b>OECD Americas</b>												
Venezuela	7	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	50	52	34	25	39	44	55	94	22	59	7	51
ARA (Belgium Germany Netherlands)	6	12	6	2	9	9	6	1	-	15	6	9
Other Europe	8	21	10	10	4	18	25	12	31	12	4	8
FSU	29	43	34	36	19	18	46	31	59	-	40	-
Saudi Arabia	2	2	0	0	-	2	1	2	6	11	-	-
Algeria	8	2	7	4	3	13	-	-	0	21	6	15
Other Middle East and Africa	5	10	8	11	15	0	6	18	3	1	2	-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>96</b>	<b>91</b>	<b>104</b>	<b>139</b>	<b>157</b>	<b>122</b>	<b>119</b>	<b>66</b>	<b>52</b>
<b>of which Non-OECD</b>	<b>102</b>	<b>110</b>	<b>86</b>	<b>84</b>	<b>78</b>	<b>77</b>	<b>109</b>	<b>144</b>	<b>91</b>	<b>92</b>	<b>56</b>	<b>36</b>
<b>OECD Europe</b>												
OECD Americas	7	12	24	32	14	20	13	15	5	7	44	-37
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	5	6	4	1	10	1	1	1	0	7	2	5
Non-OECD Europe	21	13	12	12	12	11	14	21	45	33	15	18
FSU	144	141	247	150	315	279	216	214	118	136	127	9
Saudi Arabia	-	2	-	-	-	-	-	-	-	-	-	-
Algeria	0	2	2	-	2	3	-	-	30	10	-	-
Other Middle East and Africa	19	13	14	10	18	13	11	8	13	52	4	48
Singapore	1	3	3	7	2	2	-	-	0	-	-	-
OECD Asia Oceania	14	4	3	2	5	5	2	7	1	-	1	-
Non-OECD Asia (excl. Singapore)	3	-	-	-	-	-	-	-	-	-	-	-
Other	8	93	59	94	55	41	62	71	70	49	127	-78
<b>Total<sup>2</sup></b>	<b>222</b>	<b>288</b>	<b>368</b>	<b>308</b>	<b>433</b>	<b>374</b>	<b>320</b>	<b>338</b>	<b>282</b>	<b>294</b>	<b>321</b>	<b>-27</b>
<b>of which Non-OECD</b>	<b>202</b>	<b>279</b>	<b>347</b>	<b>280</b>	<b>417</b>	<b>350</b>	<b>307</b>	<b>321</b>	<b>278</b>	<b>289</b>	<b>284</b>	<b>4</b>
<b>OECD Asia Oceania</b>												
OECD Americas	1	-	-	-	-	-	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-
Other Central and South America	-	0	-	-	-	-	-	-	-	-	-	-
ARA (Belgium Germany Netherlands)	-	-	0	-	0	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-
FSU	6	5	0	-	-	-	-	-	-	-	-	-
Saudi Arabia	1	1	13	14	13	25	12	20	20	-	21	-
Algeria	-	-	-	-	-	-	-	-	-	-	-	-
Other Middle East and Africa	27	38	30	27	31	30	6	18	-	-	28	-
Singapore	25	18	29	44	22	23	34	19	25	26	17	9
Non-OECD Asia (excl. Singapore)	40	26	47	30	56	51	64	10	47	46	27	19
Other	1	-	-	-	-	-	-	-	-	-	-	-
<b>Total<sup>2</sup></b>	<b>101</b>	<b>88</b>	<b>119</b>	<b>116</b>	<b>121</b>	<b>129</b>	<b>117</b>	<b>67</b>	<b>91</b>	<b>72</b>	<b>94</b>	<b>-22</b>
<b>of which Non-OECD</b>	<b>100</b>	<b>88</b>	<b>119</b>	<b>116</b>	<b>121</b>	<b>129</b>	<b>117</b>	<b>67</b>	<b>91</b>	<b>72</b>	<b>94</b>	<b>-22</b>
<b>Total OECD Trade<sup>2</sup></b>	<b>439</b>	<b>519</b>	<b>588</b>	<b>520</b>	<b>645</b>	<b>607</b>	<b>576</b>	<b>561</b>	<b>496</b>	<b>485</b>	<b>482</b>	<b>3</b>
<b>of which Non-OECD</b>	<b>404</b>	<b>477</b>	<b>552</b>	<b>480</b>	<b>616</b>	<b>555</b>	<b>533</b>	<b>531</b>	<b>461</b>	<b>453</b>	<b>434</b>	<b>18</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	3Q21	4Q21	1Q22	2Q22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22
<b>CRUDE PRICES</b>													
<b>IEA CIF Average Import<sup>1</sup></b>													
IEA Europe	64.25	42.91	69.96	67.23	72.11	78.46	96.55	95.15	110.71	103.62	108.14		
IEA Americas	56.93	37.31	64.78	63.76	67.32	73.13	86.94	84.04	100.97	101.67	105.60		
IEA Asia Oceania	66.38	46.28	70.41	67.63	74.07	80.92	89.86	89.56	98.74	111.16	110.95		
<b>IEA Total</b>	<b>62.75</b>	<b>42.19</b>	<b>68.56</b>	<b>66.29</b>	<b>71.18</b>	<b>77.55</b>	<b>92.11</b>	<b>90.53</b>	<b>104.81</b>	<b>105.09</b>	<b>108.07</b>		
<b>SPOT PRICES</b>													
North Sea Dated	64.12	41.76	70.82	73.42	79.67	102.12	113.90	98.01	118.75	104.25	113.38	123.62	112.63
North Sea Dated M1	64.74	42.90	71.51	73.96	80.45	101.45	114.15	97.35	117.45	105.54	114.71	121.74	109.85
WTI (Cushing) M1	57.03	39.25	68.10	70.54	77.33	95.18	108.77	91.74	108.52	101.77	109.61	114.59	99.84
WTI (Houston) M1	61.87	40.71	69.01	71.17	78.27	96.77	109.96	93.23	110.25	102.93	110.80	115.83	101.85
Urals (NWE)	63.31	41.21	69.00	71.16	78.05	89.49	79.11	92.50	89.92	69.58	78.53	88.77	83.05
Dubai M1	63.49	42.36	69.35	71.60	78.23	96.06	108.12	92.48	110.49	102.91	108.08	112.89	102.86
<b>PRODUCT PRICES<sup>2</sup></b>													
<b>Northwest Europe</b>													
Gasoline	71.24	44.24	79.88	85.33	90.75	110.51	145.57	106.33	127.11	125.39	148.24	162.92	131.16
Diesel	79.32	49.07	78.17	80.59	92.14	125.45	160.41	112.68	156.26	151.26	151.68	178.75	152.29
Jet/Kero	80.20	45.44	77.05	79.54	91.28	123.46	164.80	111.20	151.65	154.57	161.88	178.11	146.90
Naphtha	56.64	39.75	71.36	75.04	82.48	100.24	97.35	96.85	113.69	101.89	99.84	90.20	85.73
HSFO	50.09	33.62	61.04	62.96	67.71	84.41	92.96	79.79	96.56	90.60	96.80	91.28	71.44
0.5% Fuel Oil	80.26	48.16	76.59	78.30	85.28	109.89	125.94	104.39	127.40	120.82	121.31	135.92	115.91
<b>US Gulf Coast</b>													
Gasoline	71.11	47.30	86.49	91.76	95.15	116.70	153.69	112.33	134.26	133.04	157.34	169.71	135.03
Diesel	79.12	50.26	84.73	87.37	97.55	126.70	167.83	118.11	151.15	160.19	163.46	179.48	151.87
Jet/Kero	78.84	46.30	77.95	79.89	92.12	121.54	163.46	112.54	145.83	156.92	161.46	171.69	145.41
Naphtha	61.87	40.95	69.01	71.17	78.27	96.77	109.96	93.23	110.25	102.93	110.80	115.83	101.99
HSFO	52.53	34.71	59.90	62.33	67.41	83.38	93.04	80.13	93.44	89.41	94.62	94.92	84.17
0.5% Fuel Oil	74.08	49.88	79.69	80.73	89.03	114.08	133.17	108.18	133.88	127.06	131.87	140.31	125.44
<b>Singapore</b>													
Gasoline	63.77	43.82	70.01	72.23	79.01	97.17	108.97	93.16	111.40	103.64	108.93	114.07	103.99
Diesel	78.47	49.60	77.80	79.85	90.88	119.08	159.99	110.70	142.57	148.30	153.41	177.35	145.63
Jet/Kero	57.46	38.33	63.20	66.08	70.13	85.69	98.18	81.04	99.15	103.97	98.44	92.45	73.94
Naphtha	77.55	45.06	75.29	77.12	88.49	113.53	147.63	106.17	134.32	133.96	142.90	165.10	135.14
HSFO	70.10	45.28	78.49	81.41	91.16	111.63	137.95	108.26	127.47	123.18	140.99	149.10	116.50
0.5% Fuel Oil	75.66	52.85	80.81	81.99	91.25	115.97	139.05	111.24	134.07	124.83	136.42	155.05	136.56

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

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

IEA Americas includes United States and Canada.

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

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

July 2022

NATIONAL CURRENCY *							US DOLLARS					
Total	% change from		Ex-Tax	% change from			Total	% change from		Ex-Tax	% change from	
Price	Jun-22	Jul-21	Price	Jun-22	Jul-21		Price	Jun-22	Jul-21	Price	Jun-22	Jul-21
GASOLINE <sup>1</sup> (per litre)												
France	2.009	- 4.9	27.6	1.133	-7.1	82.4	2.045	-8.3	9.9	1.153	-10.4	57.1
Germany	1.866	- 5.7	16.1	1.209	4.7	74.0	1.900	-9.1	-0.0	1.231	0.9	49.8
Italy	2.004	- 0.9	21.6	1.165	-1.3	87.0	2.040	-4.6	4.7	1.186	-4.9	61.0
Spain	2.042	- 3.2	45.6	1.215	-12.8	77.1	2.079	-6.7	25.4	1.237	-16.0	52.5
United Kingdom	1.896	3.0	43.0	1.050	4.6	99.6	2.272	0.2	24.1	1.258	1.7	73.2
Japan	172.0	- 0.3	8.8	99.8	-0.4	14.6	1.256	-2.6	-12.5	0.729	-2.7	-7.8
Canada	1.890	- 10.0	33.5	1.391	-10.7	48.3	1.460	-11.0	29.1	1.075	-11.6	43.5
United States	1.205	- 7.5	45.4	1.074	-8.3	53.2	1.205	-7.5	45.4	1.074	-8.3	53.2
AUTOMOTIVE DIESEL FOR NON COMMERCIAL USE (per litre)												
France	1.991	- 4.0	38.2	1.200	-5.4	102.7	2.027	-7.5	18.9	1.222	-8.9	74.5
Germany	1.971	- 3.0	41.6	1.326	1.4	89.4	2.006	-6.6	21.9	1.350	-2.3	63.1
Italy	1.959	0.2	30.2	1.239	0.2	100.8	1.994	-3.5	12.1	1.261	-3.4	72.9
Spain	2.001	- 1.1	58.6	1.275	-10.1	92.0	2.037	-4.7	36.5	1.298	-13.4	65.3
United Kingdom	1.980	2.9	46.1	1.120	4.3	104.0	2.372	0.1	26.8	1.342	1.5	77.0
Japan	152.0	- 0.2	10.1	106.2	-0.3	13.6	1.110	-2.5	-11.4	0.775	-2.6	-8.6
Canada	2.014	- 10.4	53.4	1.548	-11.2	73.9	1.556	-11.4	48.4	1.196	-12.1	68.3
United States	1.450	- 4.6	64.4	1.299	-5.1	77.2	1.450	-4.6	64.4	1.299	-5.1	77.2
DOMESTIC HEATING OIL (per litre)												
France	1.618	- 4.1	80.0	1.193	-4.6	101.0	1.648	-7.6	54.9	1.214	-8.1	73.1
Germany	1.468	- 3.5	93.8	1.173	-3.7	103.8	1.495	-7.0	66.9	1.194	-7.2	75.5
Italy	1.941	- 1.2	50.0	1.188	-1.6	80.7	1.976	-4.8	29.2	1.209	-5.2	55.6
Spain	1.494	- 2.6	103.2	1.138	-2.8	122.7	1.521	-6.1	74.9	1.159	-6.3	91.7
United Kingdom	1.130	- 3.8	93.8	0.974	-4.2	119.5	1.353	-6.4	68.1	1.167	-6.8	90.4
Japan <sup>2</sup>	112.8	- 0.9	19.3	99.7	-1.0	19.9	0.823	-3.2	-4.0	0.728	-3.2	-3.5
Canada	1.920	- 8.1	56.7	1.712	-8.1	61.2	1.483	-9.1	51.6	1.323	-9.1	55.9
United States	-	-	-	-	-	-	-	-	-	-	-	-
LOW SULPHUR FUEL OIL FOR INDUSTRY <sup>3</sup> (per kg)												
France	0.818	- 5.1	34.7	0.679	-6.1	45.0	0.833	-8.6	15.9	0.691	-9.5	24.8
Germany	-	-	-	-	-	-	-	-	-	-	-	-
Italy	0.795	- 4.7	48.2	0.764	-4.8	51.2	0.809	-8.1	27.6	0.777	-8.3	30.2
Spain	0.702	- 0.1	53.6	0.685	-0.2	55.6	0.715	-3.8	32.2	0.697	-3.8	34.0
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 Global Indicator Refining Margins**

\$/bbl	2019	2020	2021	3Q21	4Q21	1Q22	2Q22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22
<b>NW Europe</b>													
Light sweet hydroskimming	3.04	1.09	2.51	3.00	4.75	5.35	15.29	2.51	9.15	17.09	14.71	14.11	4.92
Light sweet cracking	5.41	2.06	3.46	4.14	6.60	8.97	22.13	5.15	14.89	23.39	20.31	22.79	12.33
Light sweet cracking + Petchem	6.92	3.20	6.51	7.07	9.18	11.10	26.42	6.66	16.68	28.08	23.75	27.56	15.09
Medium sour cracking	8.65	4.31	6.09	7.15	7.25	21.99	59.38	10.90	44.05	60.08	57.87	60.28	40.27
Medium sour cracking + Petchem	10.11	5.42	9.05	9.99	9.76	24.06	63.55	12.38	45.80	64.64	61.21	64.91	42.94
<b>Mediterranean</b>													
Light sweet hydroskimming	4.16	2.37	2.89	3.44	4.41	4.24	13.90	0.29	8.61	16.67	12.36	12.76	1.60
Light sweet cracking	7.17	3.34	4.94	5.91	7.32	8.90	23.67	4.47	14.72	24.34	21.07	25.75	12.20
Medium sour cracking	10.65	5.76	5.65	6.77	7.76	11.93	30.18	9.47	15.48	27.53	29.93	33.08	18.16
<b>US Gulf Coast</b>													
Light sweet cracking	7.51	4.28	11.04	12.81	11.96	16.54	38.22	14.37	22.03	31.38	37.83	45.12	29.34
Medium sour cracking	11.95	6.61	15.79	17.87	18.71	25.08	47.39	22.30	31.78	39.42	45.88	56.49	38.88
Heavy sour coking	17.42	9.73	19.98	21.92	23.97	32.06	55.43	29.20	39.70	46.64	54.86	64.39	49.65
<b>US Midwest</b>													
Light sweet cracking	10.76	3.74	12.33	14.95	11.14	13.95	40.42	10.31	21.26	30.57	38.14	52.10	33.86
Heavy sour coking	23.67	13.26	26.02	29.17	27.74	32.07	60.64	28.07	40.77	48.28	59.13	73.93	55.35
<b>Singapore</b>													
Light sweet cracking	-1.24	0.20	3.10	3.13	5.56	7.94	18.69	6.77	11.19	16.27	15.50	24.03	12.14
Light sweet cracking + Petchem	0.32	2.03	4.82	4.35	7.03	8.63	20.69	7.37	12.11	18.47	17.00	26.32	13.32
Medium sour cracking	5.16	1.80	3.92	4.22	5.27	9.85	23.35	8.82	13.13	20.50	22.26	27.10	10.22
Medium sour cracking + Petchem	6.70	3.61	5.61	5.42	6.72	10.53	25.33	9.41	14.04	22.67	23.74	29.37	11.38

Source: IEA, Argus Media Ltd prices.

**Table 16**  
**REFINED PRODUCT YIELDS BASED ON TOTAL INPUT (% VOLUME)<sup>1</sup>**

	Mar-22	Apr-22	May-22	May-21	May 22 vs Previous Month	May 22 vs Previous Year	May 22 vs 5 Year Average	5 Year Average
<b>OECD Americas</b>								
Naphtha	1.1	1.0	1.0	1.3	0.0	-0.3	-0.4	1.4
Motor gasoline	44.3	43.1	43.2	45.7	0.1	-2.4	-1.2	44.4
Jet/kerosene	7.8	9.3	9.4	7.2	0.1	2.1	1.7	7.7
Gasoil/diesel oil	29.3	27.9	28.1	27.6	0.2	0.5	-1.1	29.2
Residual fuel oil	3.3	2.9	2.8	2.9	-0.1	-0.1	-0.4	3.2
Petroleum coke	4.2	4.3	4.3	4.3	0.0	0.0	-0.2	4.4
Other products	12.9	13.7	14.3	14.4	0.6	-0.1	0.7	13.6
<b>OECD Europe</b>								
Naphtha	8.5	8.2	8.0	8.0	-0.1	0.0	-0.2	8.2
Motor gasoline	21.3	21.2	21.3	20.5	0.1	0.8	1.4	19.9
Jet/kerosene	6.6	7.5	8.6	5.4	1.0	3.2	1.4	7.1
Gasoil/diesel oil	41.3	40.4	39.0	41.1	-1.4	-2.0	-1.5	40.5
Residual fuel oil	8.0	8.5	9.3	8.9	0.8	0.3	0.0	9.3
Petroleum coke	1.4	1.3	1.5	1.4	0.2	0.1	0.1	1.4
Other products	15.6	15.1	14.8	17.5	-0.3	-2.7	-1.1	15.9
<b>OECD Asia Oceania</b>								
Naphtha	16.9	16.7	16.6	16.4	-0.1	0.1	0.6	16.0
Motor gasoline	21.5	20.7	20.9	21.6	0.3	-0.7	-0.5	21.5
Jet/kerosene	12.5	12.5	12.3	11.9	-0.1	0.4	-1.7	14.0
Gasoil/diesel oil	30.5	29.5	30.4	31.1	0.9	-0.7	-0.1	30.5
Residual fuel oil	8.5	8.8	8.7	7.6	-0.1	1.1	1.5	7.2
Petroleum coke	0.5	0.5	0.2	0.4	-0.3	-0.2	-0.2	0.4
Other products	11.7	12.2	12.4	12.8	0.2	-0.3	-0.4	12.8
<b>OECD Total</b>								
Naphtha	6.1	5.9	5.8	5.9	-0.1	0.0	-0.3	6.1
Motor gasoline	33.2	32.3	32.5	33.8	0.1	-1.4	-0.2	32.6
Jet/kerosene	8.3	9.3	9.6	7.4	0.3	2.2	1.0	8.6
Gasoil/diesel oil	33.3	32.2	32.0	32.4	-0.2	-0.3	-1.0	33.0
Residual fuel oil	5.7	5.7	5.9	5.6	0.2	0.3	0.0	5.8
Petroleum coke	2.7	2.7	2.7	2.8	0.0	-0.1	-0.1	2.8
Other products	13.6	13.9	14.1	15.1	0.3	-0.9	-0.1	14.2

<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	4Q21	1Q22	2Q22	May 22	Jun 22	Jul 22
<b>ETHANOL</b>									
<b>OECD Americas</b>	<b>1063</b>	<b>934</b>	<b>1010</b>	<b>1092</b>	<b>1058</b>	<b>1021</b>	<b>1045</b>	<b>1016</b>	<b>1016</b>
United States	1029	906	979	1061	1023	986	1010	980	980
Other*	34	28	30	30	35	35			
<b>OECD Europe</b>	<b>97</b>	<b>93</b>	<b>103</b>	<b>117</b>	<b>115</b>	<b>116</b>	<b>124</b>	<b>98</b>	<b>98</b>
France	21	17	18	22	25	24	30	15	15
Germany	12	11	12	15	20	19	21	8	8
Spain	9	8	10	10	6	8	6	12	12
United Kingdom	5	5	9	16	16	11	14	4	4
Other*	50	52	54	54	48	54			
<b>OECD Asia Oceania</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>5</b>
Australia	4	4	4	4	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>1213</b>	<b>1178</b>	<b>1141</b>	<b>1173</b>	<b>1118</b>	<b>1118</b>
<b>Total Non-OECD Ethanol</b>	<b>809</b>	<b>735</b>	<b>703</b>	<b>515</b>	<b>312</b>	<b>849</b>	<b>979</b>	<b>1044</b>	<b>1124</b>
Brazil	621	560	515	327	100	637	767	832	912
China*	67	69	76	76	79	79			
Argentina*	19	15	18	18	21	21			
Other	102	91	94	94	112	112	212	212	212
<b>TOTAL ETHANOL</b>	<b>1974</b>	<b>1766</b>	<b>1820</b>	<b>1728</b>	<b>1490</b>	<b>1990</b>	<b>2152</b>	<b>2162</b>	<b>2242</b>
<b>BIODIESEL</b>									
<b>OECD Americas</b>	<b>151</b>	<b>159</b>	<b>168</b>	<b>197</b>	<b>155</b>	<b>193</b>	<b>232</b>	<b>241</b>	<b>241</b>
United States	145	153	160	190	152	187	229	229	229
Other*	7	6	7	7	4	6			
<b>OECD Europe</b>	<b>295</b>	<b>281</b>	<b>313</b>	<b>314</b>	<b>295</b>	<b>316</b>	<b>305</b>	<b>345</b>	<b>345</b>
France	43	41	43	43	50	52	59	43	43
Germany	69	61	66	66	58	63	58	71	71
Italy*	18	28	30	31	22	32			
Spain*	42	30	39	38	32	35	31	47	47
Other	123	121	136	136	134	134	129	147	147
<b>OECD Asia Oceania</b>	<b>15</b>	<b>12</b>	<b>12</b>	<b>8</b>	<b>11</b>	<b>13</b>	<b>14</b>	<b>12</b>	<b>12</b>
Australia	0	0	0	0	0	0	0	0	0
Other*	15	12	12	8	11	13			
<b>Total OECD Biodiesel</b>	<b>461</b>	<b>452</b>	<b>493</b>	<b>520</b>	<b>462</b>	<b>522</b>	<b>551</b>	<b>598</b>	<b>598</b>
<b>Total Non-OECD Biodiesel</b>	<b>405</b>	<b>411</b>	<b>439</b>	<b>439</b>	<b>464</b>	<b>464</b>	<b>464</b>	<b>464</b>	<b>464</b>
Brazil	102	111	116	114	101	105	109	107	105
Argentina*	42	27	36	36	42	42			
Other*	261	274	287	289	321	317			
<b>TOTAL BIODIESEL</b>	<b>866</b>	<b>863</b>	<b>932</b>	<b>959</b>	<b>926</b>	<b>986</b>	<b>1014</b>	<b>1062</b>	<b>1062</b>
<b>GLOBAL BIOFUELS</b>	<b>2839</b>	<b>2630</b>	<b>2752</b>	<b>2687</b>	<b>2415</b>	<b>2976</b>	<b>3166</b>	<b>3224</b>	<b>3304</b>

\* monthly data not available.

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