

# Oil Market Report

### **15 February 2024**

- Global oil demand growth is losing momentum, with annual gains easing from 2.8 mb/d in 3Q23 to
  1.8 mb/d in 4Q23. A sharp drop in China underpinned an 830 kb/d decline in global oil demand to
  102.1 mb/d in the last quarter of 2023. The pace of expansion is set to decelerate further to 1.2 mb/d in
  2024, compared with 2.3 mb/d last year. China, India and Brazil will continue to dominate gains.
- World oil supply in January posted a sharp decline of 1.4 mb/d m-o-m after an Arctic blast shut in
  production in North America and as OPEC+ deepened output cuts. Record output from the US, Brazil,
  Guyana and Canada will nevertheless help boost non-OPEC+ supply by 1.6 mb/d this year compared
  to 2.4 mb/d in 2023, when total global oil supply rose by 2 mb/d to an average 102.1 mb/d.
- Refinery throughputs are set to accelerate from a seasonal low of 81.5 mb/d in February. Atlantic Basin
  activity will recover from US weather-related disruptions that cut runs by up to 1.7 mb/d, despite a pickup
  in planned maintenance and as new capacity comes online in the non-OECD. For 2024 as a whole,
  refinery crude runs are forecast to rise by 1 mb/d to 83.3 mb/d, as a 330 kb/d decline in the OECD
  mitigates non-OECD gains.
- Refining margins recovered from early-January weakness in the Atlantic Basin, led by the US Gulf Coast
  following the mid-month winter freeze. Although Singapore margins posted a narrow m-o-m gain, the
  \$4.50/bbl increase on average in USGC margins was driven by the late-month rally in cracks that pushed
  Atlantic Basin margins to their highest level since late September.
- Global observed oil stocks plummeted by about 60 mb in January, preliminary data indicate, with on-land inventories falling to their lowest level since at least 2016. In December, global stocks rose by 21.6 mb as a surge in oil on water (+60.7 mb) more than offset draws in on-land inventories (-39 mb). OECD industry stocks fell by 24.1 mb in December, reflecting declines in all three regions.
- Amid intensifying hostilities in the Middle East and North American supply outages, ICE Brent futures
  rose by \$5/bbl during January their first monthly gain since September. The forward structure flipped
  from contango to backwardation, as diverted Red Sea tanker traffic congested Asia-Europe supply
  chains and delayed flows into the Atlantic Basin. At the time of writing, Brent was trading at \$83/bbl.



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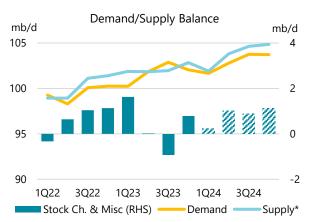
Oil Market Report Market Overview

### Winter freeze

Global oil market balances tightened in January despite apparent demand weakness. An extreme Arctic freeze that swept through key oil producing regions in the United States and Canada prompted significant supply outages that coincided with fresh voluntary output curbs by some OPEC+ countries. Escalating geopolitical tensions in the Middle East added further upward momentum, as oil tankers circumventing the Red Sea disrupted supply flows to global markets. Brent crude oil futures rose by \$5/bbl during the month and were trading around \$83/bbl at the time of writing.

The expansive post-pandemic growth phase in global oil demand has largely run its course. The pace of growth already eased sharply, from 2.8 mb/d in 3Q23 to 1.8 mb/d in 4Q23, with an apparent slowdown in China underpinning an 830 kb/d decline in consumption in the final quarter of the year.

The deceleration will gather pace in 2024, with world oil demand growth forecast to average 1.2 mb/d, only half last year's solid expansion. As in 2023, gains will be dominated by a few key countries, most notably China, and to a lesser extent India and Brazil. The three major economies are set to account for 78% of growth in global oil demand in 2024, that is forecast to reach a new peak of 103 mb/d.



While higher global oil supply this year, led by the United States, Brazil, Guyana

\* Assumes OPEC+ targets in place through 2024, voluntary cuts unwound in 2Q

and Canada, should more than eclipse the expected rise in world oil demand, a sharp decline in output in January set the year off to a difficult start. Extreme weather conditions shut in more than 900 kb/d of production across North America. The steep loss coincided with fresh OPEC+ voluntary output cuts of around 300 kb/d, resulting in a massive 1.4 mb/d m-o-m decline in global oil supply. However, the rising wave of non-OPEC+ oil growth resumes in 2Q24, driving output on an upward trajectory for the rest of the year. World oil supply is set to increase by 1.7 mb/d to a record 103.8 mb/d in 2024, with non-OPEC+ providing 95% of the incremental barrels.

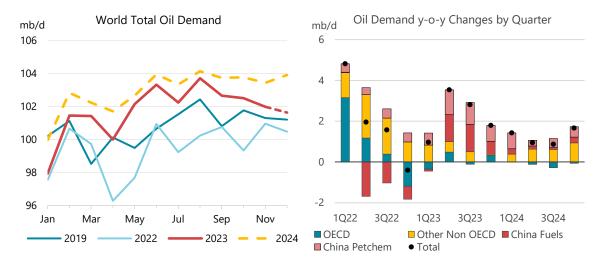
With the robust outlook for non-OPEC+ supply, our balances suggest a slight build in inventories in 1Q24 despite the extension and deepening of OPEC+ supply curbs. From 2Q24 onwards, continuation of this strength could leave OPEC+ pumping above requirements for its crude oil if extra voluntary cuts are unwound in the second quarter.

Given heightened geopolitical risks and low global oil inventories, a modest surplus may help contain market volatility. While oil on water surged by 60 mb in December due to end-year tax considerations and as a number of tanker owners diverted ships away from the Red Sea to around the Cape of Good Hope, observed onshore stocks declined by nearly 40 mb. Preliminary data suggest further draws in January, of more than 60 mb, with observable on-land stocks falling to their lowest level since at least 2016, the start of our data series. Low oil inventories exacerbate the price impact of supply and demand shocks and may limit the industry's ability to respond to unexpected strength in demand or disruptions to supply. As the IEA celebrates its 50th anniversary this week, oil supply security remains as critical as ever.

### **Demand**

### **Overview**

A marked slowdown in global oil demand growth that will characterise much of 2024 was already well underway in 4Q23, when annual gains eased to 1.8 mb/d from 2.8 mb/d in 3Q23. While the lower pace of expansion is due, in part, to a recalibration of post-pandemic baselines, the softer 4Q23 readings also include a sharp 500 kb/d quarter-on-quarter (q-o-q) decline in Chinese consumption. Global oil demand growth is forecast to decelerate further in 1Q24, to 1.4 mb/d, and in 2Q24 to just 1 mb/d. Our 2024 growth outlook remains unchanged at 1.2 mb/d y-o-y compared with average gains of 2.3 mb/d last year. The contrast between tepid OECD consumption and buoyant non-OECD demand apparent over most of last year has now become less pronounced, according to the latest data on deliveries. Nevertheless, growth will remain centred on non-OECD economies. A harsher global macroeconomic climate constrains growth in 2024 as higher oil prices undermine a minor upgrade in the economic outlook.



Oil demand growth was heavily concentrated in only three countries in 2023 and we expect the same trend to carry over into this year. China (+1.7 mb/d), Brazil (+120 kb/d) and India (+220 kb/d) contributed almost 2.1 mb/d, or 90%, of net global demand growth in 2023. This year's growth in these three countries is forecast at 960 kb/d, or nearly 80% of the overall increase. The heavy concentration in growth marks a sharp contrast with the immediate post-Covid years when demand rebounded across many countries. This appears to mark a return to the pattern of 2018-2019, when close to 90% of world gains were in these countries. Slowing growth in the wealthiest OECD countries, where underlying mobility grows more incrementally and energy transition measures will continue to erode fuel demand, is a major reason these economies are posting weak growth or declines in consumption. Equally significant is that China and India are set to deliver almost half of global GDP growth in both 2023 and 2024. In addition, massive Chinese investments in petrochemical facilities are boosting local demand while undermining it elsewhere.

Growth in non-OECD consumption in 4Q23 was 60 kb/d lower than our estimate in last month's *Report*, as China's demand growth continued to lose momentum. The annual rate of demand growth in the country slowed by 1 mb/d from the third to the fourth quarter, with the overall pace of gains in 2024 set to decelerate by the same amount. The end of the post-pandemic travel boom will limit rises in gasoline and jet/kerosene. The country's flagging economy, acutely at risk of sliding into

deflation, acts as a further drag on demand growth. As a result, demand will be increasingly dependent on petrochemical feedstocks LPG/ethane and naphtha, which will increase their share in growth's product mix to 72% from 53% last year.

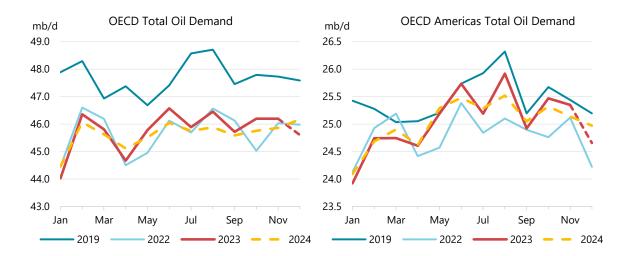
	Global Demand by Product												
			(thousand ba	rrels per day)									
			Demand		Annual Chg (k	b/d)	Annual Chg (	%)					
	2021	2022	2023	2024	2023	2024	2023	2024					
LPG & Ethane	13 794	14 127	14 542	14 878	415	336	2.9	2.3					
Naphtha	7 018	6 801	7 166	7 598	364	432	5.4	6.0					
Motor Gasoline	25 679	26 217	26 962	27 159	745	197	2.8	0.7					
Jet Fuel & Kerosene	5 171	6 129	7 212	7 341	1 083	129	17.7	1.8					
Gas/Diesel Oil	27 354	28 143	28 281	28 462	138	181	0.5	0.6					
Residual Fuel Oil	6 263	6 524	6 423	6 482	- 101	59	-1.5	0.9					
Other Products	12 231	11 539	11 175	11 062	- 364	- 113	-3.2	-1.0					
Total Products	97 510	99 480	101 760	102 982	2 280	1 223	2.3	1.2					

Conversely, 4Q23 OECD deliveries were 140 kb/d y-o-y higher than last month's forecast. This was entirely due to the United States as its economy continues to power ahead in the face of central bank interest rates at their highest level in 22 years. Among the key fuels, gasoline and LPG/ethane dominated US gains, the latter propelled by soaring petrochemical exports. As a soft landing takes shape, a more upbeat economic outlook helps US demand growth turn positive this year, at 20 kb/d y-o-y. However, the country's resilience will not be sufficient to prevent a contraction in overall OECD deliveries. With Europe's economies mired in stagnation, expanding EV fleets, tightening vehicle efficiency standards and government energy-saving measures are all set to tilt oil consumption growth into negative territory for the group of developed countries.

	Global Demand by Region (thousand barrels per day)													
			Demand		Annual Chg	(kb/d)	Annual Ch	ıg (%)						
	2021	2022	2023	2024	2023	2024	2023	2024						
Africa	4 057	4 288	4 256	4 361	- 32	104	-0.7	2.5						
Americas	30 292	31 006	31 384	31 477	378	93	1.2	0.3						
Asia/Pacific	35 953	36 095	38 118	39 174	2 023	1 056	5.6	2.8						
Europe	13 965	14 296	14 179	14 051	- 117	- 127	-0.8	-0.9						
FSU	4 893	4 947	4 933	4 902	- 14	- 32	-0.3	-0.6						
Middle East	8 350	8 848	8 889	9 018	42	129	0.5	1.4						
World	97 510	99 480	101 760	102 982	2 280	1 223	2.3	1.2						
OECD	44 813	45 680	45 767	45 650	87	- 117	0.2	-0.3						
Non-OECD	52 697	53 800	55 992	57 332	2 193	1 340	4.1	2.4						

### **OECD**

OECD deliveries rose by 320 kb/d y-o-y in 4Q23, with strong growth in the Americas (+460 kb/d) only partly offset by declines in Europe (-40 kb/d) and Asia Oceania (-90 kb/d). The United States was the main engine of growth by far in 2023, fuelled by a bustling economy and buoyant petrochemical sector. For the year as a whole, OECD demand eked out a 90 kb/d y-o-y gain, displaying the same contrast between US resilience and stagnation elsewhere. Oil consumption is set to enter a decline this year (-120 kb/d), as the bloc's economic downturn combines with expanding EV fleets and improvements in vehicle efficiency.



In the **OECD Americas**, the fourth-quarter increase of 460 kb/d y-o-y was entirely due to strong growth the **United States**. Average 4Q23 gains of 520 kb/d y-o-y in the United States were the largest in seven quarters, culminating in an average 2023 increase of 200 kb/d. Solid deliveries are a testament to how well households and businesses have weathered the 2022-2023 interest rate hiking cycle.

US GDP rose by an annualised growth rate of 3.3% in the fourth quarter, resulting in an average 3.1% for 2023 – the fastest among advanced economies. Hiring stayed firm, as employers added 353 000 jobs in January – the most in a year – with unemployment of 3.7% near historic lows. The strong economy buoyed gasoline demand, increasing by 180 kb/d y-o-y in 4Q23 – the fuel's highest quarterly growth rate in 2023. Lower pump prices further supported driving, with gasoline prices down by about 1% to \$0.90/litre in January, their fifth straight monthly drop and the lowest level since May 2021, according to data from *GlobalPetrolPrices.com*. Preliminary data for January (traditionally the weakest month for driving) were roughly in line with seasonal trends.

LPG/ethane was the other mainstay of consumption growth in 4Q23, rising 310 kb/d y-o-y. Deliveries were 3.5 mb/d in November, the second-strongest month on record and only slightly below the all-time high set in January 2022. Steam crackers' operating rates remain elevated, incentivised by falling ethane prices, which reached lows not seen since April 2020, and are boosting exports despite oversupplied global polyethylene markets.

Jet/kerosene deliveries grew by 60 kb/d y-o-y in 4Q23, their slowest quarterly pace in 2023. Demand, having briefly regained pre-pandemic levels in October, fell back to average 94% of 2019 volumes in 4Q23. This contrasts with flight activity that hovered around pre-Covid levels in the same period, according to data from *Radarbox*. With growth in air traffic stabilising, 2023's gains of 90 kb/d y-o-y are expected to slow to 30 kb/d this year.

Gasoil deliveries fell by 100 kb/d y-o-y in both 4Q23 and 2023, contrasting with gains for the other major products. Demand has been weighed down by subdued manufacturing and transport activity. However, recent data readings point to a nascent improvement. The S&P Global US Manufacturing PMI moved into expansion in January, up by 2.7 to 51.8 to the highest since September 2022. In the same vein, trucking freight may be bottoming out. The American Trucking Associations' (ATA) For-Hire Truck Tonnage Index stabilised at post-pandemic lows, dropping by 0.5% y-o-y in December and averaging -1.7% for the year. In this context, we anticipate a return to marginal growth, of 10 kb/d, in 2024.

Overall, we have increased our total 2024 demand growth forecast by 50 kb/d to a now-positive 20 kb/d amid a firmer GDP outlook (our balances assume 2%, as a soft landing plays out). Gains are spread fairly evenly across the main products, but with a somewhat more bearish outlook for gasoline. Here deliveries are set to decline by 50 kb/d amid growing transport efficiencies and an expanding electric vehicle fleet.

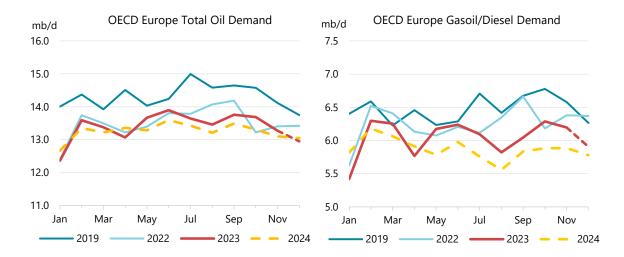
**Canadian** deliveries fell by 50 kb/d in 4Q23, with only petrochemical feedstock LPG/ethane posting modest growth of 20 kb/d. Demand in 2024 is forecast to be flat.

**Mexican** consumption regained its pre-pandemic level in 4Q23, at 1.9 mb/d. However, slowing economic activity suggests that the country's stellar post-Covid rebound has run its course. The country's GDP barely grew in 4Q23, at 0.1% q-o-q, coming in well below expectations. Overall 2023 demand was virtually flat, falling by 10 kb/d and another narrow fall, of 20 kb/d, is forecast this year.

Preliminary December delivery data for **OECD Europe** were 200 kb/d lower than anticipated in last month's *Report*, tipping 4Q23 into contraction (-40 kb/d y-o-y) and resulting in an average 2023 drop of 120 kb/d. Tepid economic conditions and warmer-than-usual weather in December weighed on gasoil, with the fuel's use in France 70 kb/d lower y-o-y.

Sluggish oil consumption echoed Europe's flatlining economy – GDP was stagnant q-o-q in 4Q23, narrowly dodging a recession. Although the eurozone's periphery registered moderate economic expansion (Italy and Spain grew by 0.2% and 0.6%, respectively), a continental recovery was held in check by France (flat), and Germany (-0.3%). November oil deliveries mirrored this regional disparity among major countries. Spain recorded the highest growth at 3.9% y-o-y in November, with Germany the weakest at -8.8%.

The adverse industrial climate weighs heavily on gasoil and naphtha demand, which saw the largest declines among the major products in 2023, at -210 kb/d and -120 kb/d y-o-y, respectively. Regional manufacturers' woes are exacerbated by lengthening supply chains, as Red Sea shipping diversions disrupt the flow of goods between Asia and Europe. These also now appear to be impacting bunker sales, with volumes in the Netherlands falling below 200 kb/d in November for the first time in two years. Data released by Rotterdam's port authority showed oil-based bunker sales decreasing by about 25% y-o-y in 4Q23.

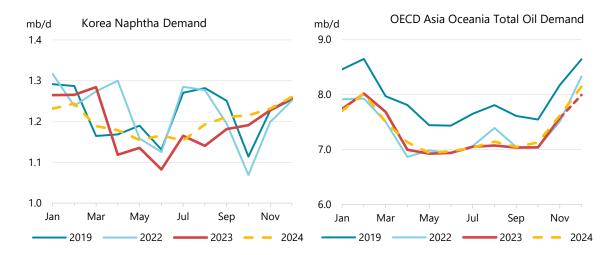


Germany remains the main drag on the bloc's economy, with deliveries declining by 140 kb/d y-o-y in 2023 – the largest drop of any country. Both high energy prices and interest rates are depressing domestic activity, with household spending and industrial production falling last year. Exports also

decreased, as fading demand for German goods added to manufacturers' malaise. Business morale was correspondingly subdued, with the *Ifo Business Climate Index* falling to its lowest level since the summer of 2020. This year may well see another German contraction, with most economists expecting the country to dip into a shallow recession in the first quarter.

Investors expect the European Central Bank (ECB) to embark on an aggressive easing of monetary policy to combat the bloc's slump, pricing more than a point in rate cuts during 2024. Elevated wage gains may yet put pay to this as the ECB expects eurozone salaries to grow by 4.6% this year – far above the 3% the bank considers consistent with its 2% inflation target. As economic gloom persists, we anticipate a decline of 140 kb/d in 2024, slightly higher than last year's 120 kb/d decrease.

Deliveries for **OECD Asia Oceania** fell by 90 kb/d y-o-y in 4Q23, largely due to softness in Japan. For 2023 as a whole, Korea (-80 kb/d y-o-y) accounted for most of the region's contraction of 40 kb/d. We anticipate the region to register demand growth of 30 kb/d y-o-y in 2024.



In common with OECD Europe, weather fluctuations were a key driver of **Japan's** oil consumption. November deliveries were supported by colder-than-usual temperatures that boosted heating usage, with jet/kerosene and LPG the only products posting y-o-y gains, of 18% and 9%, respectively. However, the weather subsequently turned extremely mild, which was reflected in preliminary jet/kerosene data for December that saw the fuel returning to a y-o-y decline (-8%), with total demand falling by 140 kb/d y-o-y.

Japan's economic outlook stays muted, with the analyst consensus of a sub-1% GDP growth in 2024. Exports are dampened by slow global trade while domestic demand remains squeezed by high consumer prices with core inflation exceeding the Bank of Japan's (BOJ) target since April, and the weak yen. Monetary policy is probably the chief driver of the country's economic outlook. While most analysts expect the BOJ to lift interest rates into positive territory this year, the bank maintained its ultra-loose monetary policy at its January meeting. We see average oil demand expanding marginally this year, by 30 kb/d.

**Korean** deliveries fell by 10 kb/d y-o-y in 4Q23, improving from an average decline of 100 kb/d during the previous three quarters. Naphtha deliveries, Korea's main product category, turned to growth of 50 kb/d in 4Q23, suggesting that steam cracker run rates may have bottomed out in the face of intense Chinese competition. The erosion of propane's recent price advantage over naphtha also buttressed demand.

Korea's economic outlook has improved in recent months, with trade compensating for weak domestic demand. Exports rose by 18% y-o-y in January, the fourth straight monthly increase, with the United States overtaking China as the main destination. Factory activity recovered in parallel, moving into expansion (+1.3 to 51.2) after having spent the past 18 months in contraction. We expect a minor return to growth of 10 kb/d y-o-y in 2024, after last year's 80 kb/d drop.

	OECD Demand based on Adjusted Preliminary Submissions - December 2023															
	(million barrels per day)															
	Gaso	line	Jet/Ker	osene	Dies	sel	Other (	Gasoil	LPG/E	hane	RF	0	Oth	er	Total Products	
	m b/d	% pa	m b/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	m b/d	% pa	m b/d	% pa	mb/d	% pa
OECD Americas	10.42	2.3	1.97	3.6	3.10	-2.4	1.70	-2.1	4.20	6.5	0.56	6.8	2.71	-1.6	24.66	1.8
US*	8.88	3.0	1.65	2.5	2.33	-3.1	1.37	-3.1	3.31	7.3	0.34	9.5	2.05	2.2	19.93	2.5
Canada	0.77	-3.9	0.18	5.4	0.33	4.1	0.27	2.4	0.44	4.3	0.04	-19.2	0.41	-18.3	2.45	-3.4
Mexico	0.67	0.4	0.10	7.7	0.26	-3.9	0.06	-0.3	0.42	2.6	0.17	6.2	0.21	10.4	1.89	2.1
OECD Europe	2.07	1.8	1.35	4.3	4.57	-6.5	1.33	-10.2	1.09	1.7	0.69	-13.2	1.85	-0.5	12.95	-3.5
Germany	0.46	9.0	0.17	-16.4	0.61	-12.6	0.26	-18.2	0.10	0.7	0.05	-6.7	0.27	-8.1	1.92	-8.0
United Kingdom	0.28	1.5	0.32	11.7	0.49	0.1	0.09	-9.0	0.08	-3.0	0.02	13.0	0.12	-6.2	1.40	1.5
France	0.24	2.1	0.17	8.4	0.64	-5.7	0.11	-23.9	0.07	-9.9	0.04	-5.8	0.17	2.9	1.43	-4.0
Italy	0.18	-2.2	0.09	21.8	0.47	-3.7	0.05	-2.0	0.12	-2.5	0.04	-13.3	0.20	0.4	1.14	-1.3
Spain	0.14	-0.9	0.13	9.9	0.43	-6.8	0.20	-14.8	0.09	10.2	0.12	-10.8	0.16	-2.3	1.28	-5.0
OECD Asia & Oceania	1.50	-5.9	1.05	-3.3	1.45	-6.3	0.47	-5.6	0.87	-4.8	0.56	0.7	2.10	-2.0	8.00	-4.0
Japan	0.83	-4.5	0.62	-7.7	0.44	-3.6	0.33	-8.2	0.51	1.3	0.31	6.1	0.83	-3.2	3.87	-3.5
Korea	0.25	-15.2	0.22	-3.3	0.42	-12.1	0.07	4.1	0.30	-14.8	0.21	-9.2	1.12	-1.5	2.58	-7.1
Australia	0.29	-2.7	0.15	17.1	0.54	-3.3	-	-	0.04	2.5	0.02	1.0	0.10	8.0	1.14	-0.2
OECD Total	13.99	1.3	4.37	2.0	9.13	-5.1	3.49	-5.8	6.16	3.9	1.80	-3.5	6.65	-1.4	45.60	-0.8

<sup>\*</sup> Including US territories.

#### Non-OECD

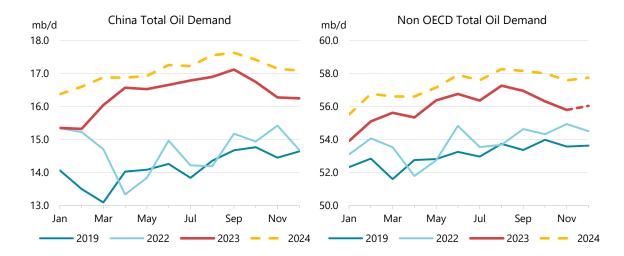
Non-OECD demand rose by 1.5 mb/d y-o-y during 4Q23 and this growth is forecast to continue into 1Q24, with an increase of 1.4 mb/d. Full-year growth was 2.2 mb/d last year, with 1.7 mb/d of this coming from China and 700 kb/d from jet/kerosene. Indeed, with December data now available for several major countries, we can see that this concentration deepened during the year with China registering 96% of 4Q23 gains and jet/kerosene, up by 750 kb/d, accounting for more than half. As the exceptional post-Covid rebound in Chinese mobility and air traffic recedes, 2024 oil demand growth will ease to 1.3 mb/d, largely driven by ongoing structural rises in petrochemical activity in China and incremental growth in fuel use for most non-OECD economies.

	Non-OECD: Demand by Product (thousand barrels per day)													
,		· ·	Demand	' '' '	Annual Chg (I	kb/d)	Annual Ch	g (%)						
	2021	2022	2023	2024	2023	2024	2023	2024						
LPG & Ethane	8 171	8 392	8 643	8 926	251	282	3.0%	3.3%						
Naphtha	3 629	3 763	4 287	4 699	524	413	13.9%	9.6%						
Motor Gasoline	12 094	12 364	12 866	13 144	503	278	4.1%	2.2%						
Jet Fuel & Kerosene	2 150	2 320	3 023	3 118	703	95	30.3%	3.1%						
Gas/Diesel Oil	14 233	14 847	15 335	15 704	488	369	3.3%	2.4%						
Residual Fuel Oil	4 516	4 682	4 740	4 795	58	55	1.2%	1.2%						
Other Products	7 903	7 433	7 098	6 946	- 335	- 152	-4.5%	-2.1%						
Total Products	52 697	53 800	55 992	57 332	2 193	1 340	4.1%	2.4%						

**Chinese** oil demand growth is losing momentum, in line with a wider cooling in the country's economy. The speed and scale of the post-lockdown rebound meant that demand exceeded our projection in each of the first 10 months of 2023. However, in both November and December demand was weaker than forecast (260 kb/d below expectations in December). Overall consumption growth

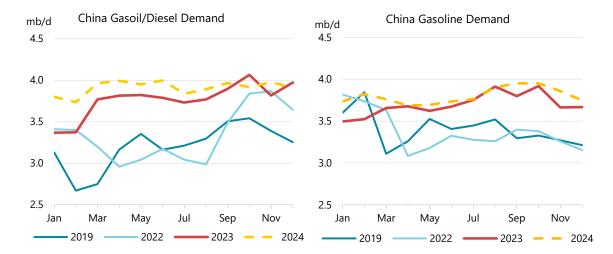
for the year was 1.7 mb/d (+11.7%), three-quarters of that for the world, pushing average apparent demand to 16.4 mb/d, 1.3 mb/d (8.6%) above the previous record high set in 2021.

We still expect China to make a further outsized contribution to growth this year, with an increase of 700 kb/d largely stemming from the continuing structural rise in naphtha and LPG demand (+500 kb/d combined). Our forecasts assume that GDP growth will slow to around 4.5% with the pace of deflation deepening in January and threatening to become a structural problem. The release of pent-up travel demand has largely run its course while energy transition measures like EVs will further curtail road fuel consumption with gains in gasoil and gasoline slowing sharply.



Lukewarm economic conditions continued at the start of this year, according to PMIs. The *Caixin China General Manufacturing PMI* remained positive in January at 50.8, unchanged m-o-m, while the *Services PMI* dipped to 52.7 versus 52.9 in December. Despite this, gasoil demand posted a solid m-o-m rise in December, to within 100 kb/d of October's all-time high. We project lower consumption, in line with the normal seasonal pattern, as industrial activity lessens around the Chinese New Year holidays. The travails of the construction sector appear to be having a limited impact on fuel demand so far, but we expect this to gradually gain significance during 2024 and contribute to a steady slowdown in gasoil growth. Overall, demand is forecast to rise by 140 kb/d for the year, compared with 430 kb/d in 2023.

By contrast, December gasoline demand remained about 250 kb/d below its annual high point, when it peaked at close to 3.9 mb/d in both August and October. Prior to the pandemic, Chinese demand for gasoline and overall showed comparatively limited seasonal changes. However, in 2023 fuel demand and mobility indicators, such as Baidu's interprovincial travel index, were more variable. These peaked with major holidays, especially around the Mid-Autumn Festival/National Day Golden Week period from late September through early October. In part, this more pronounced seasonal demand pattern may have resulted from a one-off release of pent-up demand but also structural changes to the Chinese economy. With rising spending power since the pandemic, greater discretionary travel has increased fuel use around national holidays and during the summer. Therefore, our 2024 gasoline outlook includes two periods of elevated demand, one around the New Year holidays in February and the other stretching from July to October. We assume slim growth in gasoline of 100 kb/d this year, tempered by China's world-leading EV sales, which will reduce the fuel's demand by more than 100 kb/d.



Jet/kerosene demand exceeded 1 mb/d in July and August. This is in line with flight numbers and heightened seasonality, but has since declined steadily. The unwinding of the post-pandemic surge in travel continues and demand of 900 kb/d in December was close to 2019 levels. Air traffic has started the year strongly, with domestic flights up by about 40% above 2019 levels in January and international departures hitting an all-time record at the end of the month, according to *Radarbox* data. We expect a 60 kb/d m-o-m increase in January and a further rise of 40 kb/d in February, in line with extremely strong traffic data in advance of the New Year holiday. This may take jet/kerosene use back to 1 mb/d for the first time since August. For the year as a whole, jet/kerosene demand is forecast to gain 100 kb/d, which includes a similar July-October peak to that for gasoline.

LPG/ethane demand continued its winter decline in December, edging 10 kb/d lower m-o-m as relatively high propane prices continued to disincentivise propane dehydrogenation (PDH) operations and made naphtha an attractive alternative for flexible steam crackers. However, *Kpler* ship tracking data show that imports of propane rebounded sharply in January and demand is likely to jump by about 200 kb/d m-o-m. As with mobility fuels, LPG/ethane demand was elevated last summer, but for rather different reasons. Chinese petrochemical facilities imported LPG at an accelerated rate between April and September, lifting run rates and offering an outlet to amply supplied global markets while lower prices incentivised production and inventory filling. This opportunistic approach meant that purchases declined as LPG prices rose during the Northern Hemisphere heating season. We expect continued increases in demand, for a total rise of 180 kb/d in 2024, as new plants come into operation.

	China: Demand by Product (thousand barrels per day)												
			Demand		Annual Chg (k	b/d)	Annual Chg	(%)					
	2021	2022	2023	2024	2023	2024	2023	2024					
LPG & Ethane	1 943	2 116	2 458	2 636	343	178	16.2	7.2					
Naphtha	1 577	1 817	2 390	2 716	574	326	31.6	13.6					
Motor Gasoline	3 513	3 373	3 697	3 800	324	103	9.6	2.8					
Jet Fuel & Kerosene	787	562	906	1 002	343	97	61.0	10.7					
Gas/Diesel Oil	3 242	3 337	3 768	3 912	431	144	12.9	3.8					
Residual Fuel Oil	545	592	612	628	20	17	3.4	2.7					
Other Products	3 480	2 867	2 554	2 391	- 313	- 163	-10.9	-6.4					
Total Products	15 088	14 664	16 385	17 085	1 721	700	11.7	4.3					

Chinese naphtha use is set to grow more than any other product this year, rising by 330 kb/d as new steam crackers start up. Demand was much more stable than for LPG/ethane in 2023. Together,

the two products added 920 kb/d of new consumption, much of this displaced from other regions in the form of polymer import substitution.

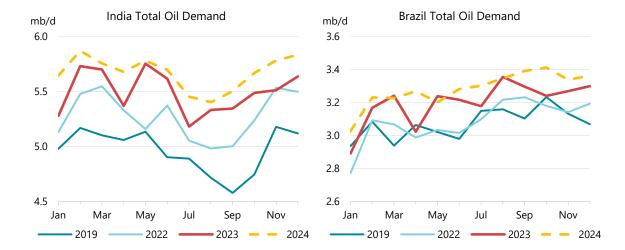
A recurring feature of our Chinese demand estimates over the past year has been a steady decline in the 'other products' group. Due to the way China reports refinery activities, this category is especially opaque. Apparent demand for other products fell by 310 kb/d in 2023, after dropping by 610 kb/d in 2022, and is set to slide by a further 160 kb/d this year. This fall, in excess of 1 mb/d since 2021, primarily results from what appears to be more complete reporting of major product output by refineries. There is now a smaller gap between National Bureau of Statistics (NBS) figures for the total volume produced of major products and total refinery runs. This is likely the result of a change in reporting practices and implies that some of the very strong growth observed in products like naphtha and gasoil over recent years stems from more complete statistics. Ignoring the decline in other products demand risks overestimating the true strength of recent growth and prospects for the coming years.

January marked a return to strong growth for **Indian** oil deliveries, with a y-o-y increase of 370 kb/d. This was largely due to rising gasoline (+80 kb/d), gasoil (+60 kb/d) and LPG/ethane (+70 kb/d) demand. LPG/ethane use hit an all-time record, slightly over 1 mb/d. *HSBC India PMIs* for manufacturing went from 54.9 in December to 56.5 in January, while services climbed from 59 to 61.8. Both have been in expansionary territory for two-and-a-half years and are comfortably the strongest readings amongst major economies. We expect total growth of 180 kb/d this year, only slightly slower than the 220 kb/d registered in 2023, with India once again the second-largest contributor to gains in global demand after China (see IEA, Indian Oil Market Outlook to 2030).

	India: Demand by Product												
			(thousand l	barrels per day)									
			Demand		Annual Ch	g (kb/d)	Annual C	hg (%)					
	2021	2022	2023	2024	2023	2024	2023	2024					
LPG & Ethane	900	924	937	987	13	51	1.4	5.4					
Naphtha	324	283	305	321	22	16	7.9	5.1					
Motor Gasoline	790	871	924	941	53	17	6.1	1.8					
Jet Fuel & Kerosene	140	164	185	201	21	16	12.6	8.9					
Gas/Diesel Oil	1 535	1 695	1 781	1 840	86	59	5.1	3.3					
Residual Fuel Oil	181	194	191	197	- 3	6	-1.5	3.2					
Other Products	1 026	1 146	1 172	1 185	26	13	2.3	1.1					
Total Products	4 896	5 276	5 495	5 673	219	178	4.2	3.2					

The extremely buoyant service sector reading is helping to drive the ongoing growth in gasoline use, which was 240 kb/d above 2019 levels in January. For 2024, we project a smaller rise in gasoline deliveries (+20 kb/d, 1.7%) than for gasoil (+60 kb/d, 3.3%). This results from a combination of stronger gains in fuel economy amongst personal cars compared with freight vehicles and a continuation of the prolonged post-pandemic recovery in public transport use. Nonetheless, vehicle sales remain very strong, at almost 400 000 in January, a 13.9% y-o-y rise, and the continued expansion of the fleet will be a powerful tailwind for consumption.

Indian LPG demand has reached record levels of over 1 mb/d, supported by the government Ujjwala Yojana scheme that promotes clean cooking by facilitating domestic LPG use. January's LPG/ethane consumption was 57% higher (+370 kb/d) than the same month in 2016, the year the programme began. In conjunction with some increases in petrochemical feedstock use, we expect this to drive a further rise of 50 kb/d in LPG/ethane demand this year.



Complete 2023 data are now available for **Brazil**, with December completing the pattern of strong growth for the year, rising by 110 kb/d y-o-y for the month. Average 2023 demand was up by 120 kb/d, led entirely by growth in the major fuels. Gasoline increased by 70 kb/d (+6.3%), gasoil 40 kb/d (+3.5%) and jet/kerosene by 10 kb/d (+9.5%). As in other major economies, gasoline's strength relative to diesel was partly due to the much stronger performance of the service sector compared to manufacturing. However, gasoline's rise was concentrated in 1H23 (+100 kb/d), concluding the fuel's post-Covid rebound, and growth subsequently slowed (+40 kb/d). By contrast, gasoil demand made a slow start to the year (+20 kb/d in 1H23), before gathering momentum in 2H23 (+50 kb/d). We expect a continuation of more balanced growth in 2024, with gains of 40 kb/d for each fuel underpinning an overall national increase of 80 kb/d.

**Middle East** demand growth ran out of steam late last year, with 4Q23 consumption estimated 110 kb/d lower y-o-y. This decline is primarily driven by a fall in feedstock demand from the petrochemical industry. We estimate that LPG/ethane use was 170 kb/d lower y-o-y, concentrated in Saudi Arabia (-90 kb/d), the UAE (-50 kb/d) and Iran (-40 kb/d). While fuel oil and direct crude use for power generation declined seasonally, together these were essentially flat y-o-y.

Data availability on Middle Eastern petrochemical activity, which we believe consumed close to 2 mb/d of oil-based feedstocks in 2023, is limited. However, trade flows for petrochemical commodities and the feedstocks themselves suggest that activity has slowed markedly (see IEA, *China's petrochemical surge is driving global oil demand growth*). During 4Q23, long-standing declines in Saudi and Iranian shipments have been joined by a fall in output from the UAE's ethane-fed Borouge complex at Ruwais. The company, an Adnoc/Borealis JV, reported that a "feedstock-related operational stop" led to a decline in production during 4Q23 that extended into 1Q24, without providing details on the reason for the interruption. We estimate that the LPG/ethane demand impact of this outage was at least 50 kb/d in 4Q23 and project a loss of 30 kb/d in 1Q24.

This year, we expect the expansion of regional demand to accelerate to 130 kb/d, or roughly 10% of global gains, compared with 40 kb/d in 2023. This will likely be broad-based, with an uptick of 10-40 kb/d in every product group except fuel oil. Saudi Arabia will lead the region's growth, at 70 kb/d, with increases in gasoil (+30 kb/d) and gasoline (+20 kb/d) resulting from strong local manufacturing and services. January S&P Global PMIs for both Saudi Arabia (55.4) and the UAE (56.6) are comparable to India's, and this will underpin continued uplift in fuel use.

		Non-	OECD: De	mand by F	Region			
			(thousand b	arrels per day)				
			Demand		Annual Chg	ı (kb/d)	Annual Ch	ng (%)
	2021	2022	2023	2024	2023	2024	2023	2024
Africa	4 057	4 288	4 256	4 361	- 32	104	-0.7	2.5
Asia	28 616	28 720	30 782	31 809	2 062	1 027	7.2	3.3
FSU	4 893	4 947	4 933	4 902	- 14	- 32	-0.3	-0.6
Latin America	6 009	6 212	6 346	6 446	134	100	2.2	1.6
Middle East	8 350	8 848	8 889	9 018	42	129	0.5	1.4
Non-OECD Europe	771	785	786	797	1	11	0.1	1.4
<b>Total Products</b>	52 697	53 800	55 992	57 332	2 193	1 340	4.1	2.4

**Singapore** bunker sales set a new all-time monthly high in December 2023, exceeding 1 mb/d for the first time. Average 2023 volumes were also at an annual record, rebounding along with recovering international shipping in the Indo-Pacific region as China's economy reopened after lockdowns. In late 2023, comparatively attractive fuel oil prices saw more ships bunkering in Singapore, with ports like Rotterdam losing market share. Similarly, the number of flights from Changi Airport, entirely dependent on international travel in the region, increased slowly during 2023 and are now only slightly below 2019 levels. Estimated oil demand rose by 90 kb/d in 2023, exceeding 1.3 mb/d for the first time since 2019, with a further 20 kb/d of growth expected in 2024.

**Pakistani** demand fell by 90 kb/d (-18.7%) in 2023, more than any other country except Germany. This drop, one consequence of the acute economic crisis which has gripped the country since mid-2022, has predominantly impacted gasoil, gasoline and fuel oil that is used in power plants. The fuels fell by about 30 kb/d each in 2023. We expect further declines in these products this year, totalling about 40 kb/d.

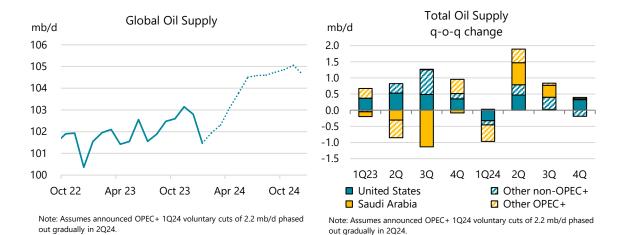
**Nigeria** also saw a sharp drop in demand, with gasoline imports plummeting by 120 kb/d y-o-y during 2H23 after government subsidies were cut and key international suppliers changed rules on fuel export quality requirements. Gasoline use slumped by 70 kb/d (-17.6%) for 2023 as a whole, with overall demand falling by 40 kb/d. *Kpler* data indicated a nascent recovery in import flows during the final months of 2023, but arrivals were much reduced in January and we are only assuming a very limited recovery of 10 kb/d in gasoline use this year. Overall demand is expected to go up by 40 kb/d in 2024.

## Supply

#### **Overview**

Global oil supply in January posted the sharpest monthly decline since December 2022 after an Arctic blast shut in production in parts of North America and further cuts and outages from OPEC+ combined to reduce total oil output by 1.4 mb/d m-o-m, to 101.5 mb/d. With key oil producing regions from the Northwest to Texas battered by blizzards and dangerous winds, US production plummeted by 540 kb/d. Further north, the polar vortex led to a loss of an estimated 360 kb/d in Alberta, Canada. Together, extreme North American weather shut in 900 kb/d, accounting for 66% of the January decline. Including smaller losses elsewhere, total non-OPEC+ supply was down 1 mb/d m-o-m and OPEC+ posted a drop of 360 kb/d.

The massive output loss in January means that global supplies this quarter are now forecast to decline by an average 930 kb/d compared to 4Q23. But the rising wave of non-OPEC+ oil growth resumes in 2Q24 and remains on an upward trajectory for the rest of the year. With non-OPEC+ production continuing to come in higher than forecast, full-year supply is now set to increase by 1.7 mb/d, to a record 103.8 mb/d in 2024, an upward revision of 250 kb/d from last month's *Report*. Non-OPEC+ producers will provide 95% of the additional barrels in 2024. Nonetheless, the oil market was caught off guard by Saudi Arabia's announcement at the end of January that it is putting its planned 1 mb/d increase in capacity on ice (see *Riyadh calls time on long-scheduled capacity expansion*).



This year's supply expansion will be dominated by the United States, Brazil, Guyana and Canada as they all scale new highs. This non-OPEC+ Americas quartet is forecast to add a combined 1.4 mb/d of new oil production, with the United States accounting for more than half the global supply gains for a fourth year running. Non-OPEC+ altogether is set to add 1.6 mb/d this year compared to 2.4 mb/d in 2023, when total global oil supply rose by 2 mb/d to an average 102.1 mb/d.

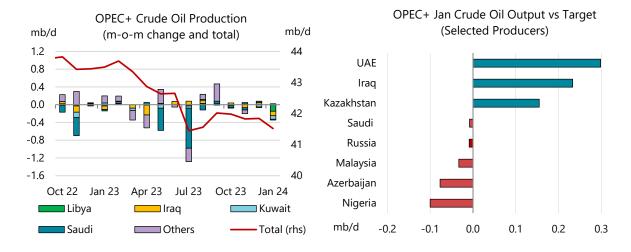
In stark contrast, output from OPEC+ is projected to edge up by only 90 kb/d this year, provided the alliance phases out its extra voluntary cuts that began in January during 2Q24. Last year, oil production from OPEC+ fell by 380 kb/d, with Saudi Arabia's output down by more than 900 kb/d while other members with supply quotas made only modest reductions. The bloc's overall decline was tempered by Iran, exempt from supply cuts, which boosted output to a five-year high in 2023.

World Oil Production by Region (OPEC+ based on current agreement) (million barrels per day)												
	2022	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024	
Africa	7.1	7.2	7.1	7.2	7.3	7.2	7.3	7.4	7.3	7.3	7.3	
Latin America	6.4	6.8	6.9	7.2	7.4	7.1	7.6	7.6	7.7	7.7	7.7	
North America	25.7	26.7	26.8	27.7	28.3	27.4	27.9	28.1	28.4	28.8	28.3	
China	4.2	4.3	4.3	4.2	4.3	4.3	4.3	4.4	4.3	4.3	4.3	
Other Asia	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	
Europe	3.3	3.4	3.3	3.2	3.4	3.3	3.4	3.3	3.2	3.4	3.3	
FSU	13.9	14.2	13.8	13.6	13.8	13.8	13.7	13.8	13.7	13.7	13.7	
Middle East	31.1	31.2	30.8	29.8	29.8	30.4	29.5	30.4	31.0	31.0	30.5	
<b>Total Oil Production</b>	94.9	96.9	96.2	96.0	97.3	96.6	96.7	98.0	98.5	99.1	98.1	
Processing Gains	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	
Global Biofuels	2.9	2.6	3.2	3.5	3.1	3.1	2.7	3.4	3.6	3.2	3.2	
<b>Total Supply</b>	100.1	101.8	101.8	101.9	102.8	102.1	101.9	103.8	104.6	104.8	103.8	
OPEC Crude	27.9	28.3	27.8	26.9	27.0	27.5	26.7	27.7	28.1	28.1	27.6	
OPEC NGLs*	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.6	5.6	
Non-OPEC OPEC+	17.7	18.0	17.7	17.5	17.7	17.7	17.5	17.6	17.5	17.6	17.6	
Total OPEC+	51.1	51.8	50.9	49.8	50.2	50.7	49.7	50.8	51.2	51.3	50.8	
Memo: Call on OPEC	27.3	26.7	27.8	27.9	26.2	27.2	26.5	26.7	27.2	27.0	26.8	

<sup>\*</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.

### **OPEC+ crude supply**

OPEC+ crude oil output from all 22 member countries fell by 330 kb/d to 41.52 mb/d in January after protests shut in Libyan production and some of the bloc's members deepened output cuts – though not as much as pledged under fresh voluntary curbs that started last month. We expected the new cuts to result in an actual reduction of around 500 kb/d compared to 4Q23, but in January only around half that volume was removed, all by Iraq, Kuwait, Algeria and Oman. Output from the 18 producers subject to quotas was 550 kb/d above an implied ceiling of 34.3 mb/d after the UAE, Iraq and Kazakhstan all pumped far above their targets. OPEC+ overproduction reflects new lower quotas allocated to some producers in 2024 as the bloc seeks to tighten the oil market.



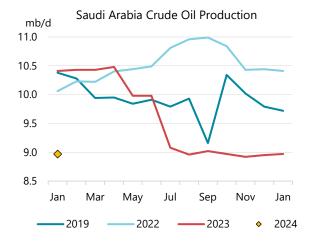
The single largest decline in January was from Libya, exempt from OPEC+ supply reductions, while Iraq and Kuwait between them decreased output by 180 kb/d. Production from OPEC's 12 members fell by 280 kb/d to 26.73 mb/d, while flows from the 10 non-OPEC nations edged down 50 kb/d to

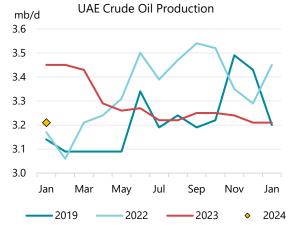
14.79 mb/d. Taken altogether, that left the group's effective spare capacity, excluding sanctions-hit Iran and Russia, at 5.7 mb/d, with Saudi Arabia accounting for 55% of the buffer.

	OPEC+ Crude Oil Production (excluding condensates)											
		(million b	arrels per day)									
	Dec 2023	Jan 2024	Jan Prod vs	Jan 2024	Sustainable	Cap						
	Supply	Supply	Target	Implied Target <sup>1</sup>	Capacity <sup>2</sup>	vs Jan³						
Algeria	0.95	0.91	0.00	0.91	1.0	0.1						
Congo	0.26	0.25	-0.03	0.28	0.3	0.0						
Equatorial Guinea	0.05	0.05	-0.02	0.07	0.1	0.0						
Gabon	0.22	0.23	0.06	0.17	0.2	0.0						
Iraq	4.33	4.23	0.23	4.00	4.8	0.6						
Kuwait	2.55	2.47	0.06	2.41	2.9	0.4						
Nigeria	1.36	1.40	-0.10	1.50	1.4	0.0						
Saudi Arabia	8.95	8.97	-0.01	8.98	12.1	3.1						
UAE	3.21	3.21	0.30	2.91	4.3	1.1						
Total OPEC-9 <sup>4</sup>	21.88	21.72	0.50	21.22	27.0	5.3						
Iran⁵	3.15	3.15			3.8							
Libya <sup>5</sup>	1.18	1.03			1.2	0.2						
Venezuela <sup>5</sup>	0.80	0.83			0.8	0.0						
Total OPEC	27.01	26.73			32.9	5.5						
Azerbaijan	0.48	0.47	-0.08	0.55	0.5	0.1						
Kazakhstan	1.62	1.62	0.15	1.47	1.7	0.0						
Mexico <sup>6</sup>	1.62	1.64			1.7	0.0						
Oman	0.80	0.76	0.00	0.76	0.9	0.1						
Russia	9.48	9.44	-0.01	9.45	9.9							
Others <sup>7</sup>	0.82	0.85	-0.02	0.87	0.9	0.0						
Total Non-OPEC	14.83	14.79	0.05	13.10	15.4	0.3						
OPEC+ 18 in Nov 2022 deal <sup>5</sup>	35.09	34.87	0.55	34.32	40.8	5.5						
Total OPEC+	41.84	41.52			48.3	5.7						

<sup>1</sup> Includes extra voluntary curbs where announced.

The bloc's Joint Ministerial Monitoring Committee (JMMC) met on 1 February and made no recommendations for changes to its current supply strategy that includes voluntary cuts of 2.2 mb/d for 1Q24 that were promised by some members last year. Saudi Arabia has slashed output the most via its extra 1 mb/d reduction that began last July. The producer alliance has suggested it will decide in early March on whether to extend voluntary reductions. Saudi Arabia has said a prolongation is possible. Without a change in policy, voluntary cuts are due to be phased out gradually in the second quarter. The JMMC, which includes Saudi Arabia and Russia, will meet again on 3 April, with a full ministerial session set for 1 June in Vienna.





<sup>2</sup> Capacity levels can be reached within 90 days and sustained for extended period.

<sup>3</sup> Excludes shut in Iranian, Russian crude. 4 Angola left OPEC effective 1 Jan 2024.

<sup>5</sup> Iran, Libya, Venezuela exempt from cuts.

<sup>6</sup> Mexico excluded from OPEC+ compliance.7 Bahrain, Brunei, Malaysia, Sudan and South Sudan.

Crude oil supply from **Saudi Arabia** in January rose by 20 kb/d to 8.97 mb/d (-1.4 mb/d y-o-y), a level Riyadh has committed to sustain through the first three months of 2024. **Kuwaiti** crude oil output declined by 80 kb/d to 2.47 mb/d (-230 kb/d y-o-y) versus its pledge to cut 140 kb/d from January. Flows from the **UAE** held at 3.21 mb/d, 300 kb/d above its implied quota. It announced a new cut of 160 kb/d from 1Q24 but this is essentially cancelled out by a previously negotiated higher quota for 2024. Supply from **Oman** was at 760 kb/d in January, a decline of 40 kb/d – in line with its pledged extra cut of 40 kb/d in 1Q24.

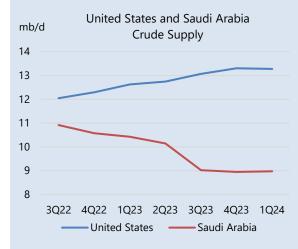
#### Riyadh calls time on long-scheduled capacity expansion

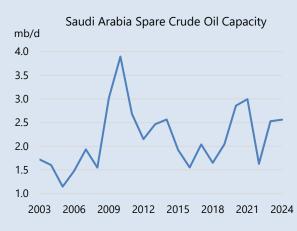
Saudi Arabia unexpectedly suspended plans for a 1 mb/d boost in crude production capacity to 13 mb/d, a target first set out in 2020. Aramco received the directive from the energy ministry on 30 January, according to an investor press release. As recently as November last year, the company indicated it was on course to hit the capacity goal by 2027 and was spending billions to do so.

After the announcement, Saudi Energy Minister Prince Abdulaziz bin Salman was quoted as saying on 12 February: "We have postponed this investment simply because we're transitioning ... [and Aramco] has oil, it has gas. It will even have geothermal very soon."

Since the fourth quarter of 2022, Riyadh has been slashing output via extra voluntary OPEC+ cuts amid booming US volumes and robust growth from Brazil and Guyana, amongst others. Having cumulatively shut in close to 2 mb/d of supply since 3Q22, it is now pumping 9 mb/d of crude oil. Barring the 2020-21 Covid period, that's the lowest level since 2011.

As a result, Saudi Arabia is holding over 3 mb/d of spare crude oil capacity, which offers a supply buffer for the world should the oil market suffer a severe outage. For Aramco, the size of that buffer makes it less urgent in the short term to raise capacity beyond the current 12 mb/d (excluding the Neutral Zone shared between Saudi Arabia and Kuwait). While Aramco has been cutting production, US shale has taken off – with crude oil output soaring to record rates of 13.3 mb/d in 4Q23 compared to 12 mb/d in the third quarter of 2022. The Americas quartet of the United States, Brazil, Canada and Guyana is expected to add enough oil among them to meet global demand growth this year.





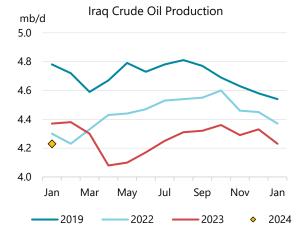
Riyadh has committed to limit output to 9 mb/d through end-March as part of broader voluntary OPEC+ curbs by some in the bloc. If it gradually phases out this reduction in 2Q24, the Kingdom could pump 9.65 mb/d of crude this year – broadly in line with 2023. On an annual basis, that would leave Saudi Arabia with some 2.5 mb/d of spare capacity, still above the 2 mb/d average for the past two decades.

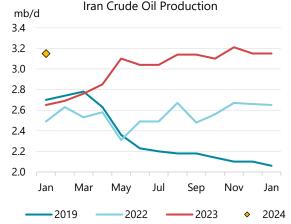
In the medium term, barring any unexpected disruptions, steadily slowing global oil demand growth and continued non-OPEC+ supply gains should ensure world oil markets remain adequately supplied – even with Saudi Arabia's lower target for crude oil capacity down the road. That raises the question of when, or if, Aramco would need to reactivate its capacity expansion plan, especially given the cost of sustaining idle capacity.

If it doesn't, by the end of the decade Saudi Arabia may only have access to historically narrow spare crude oil capacity. In Oil 2023, we forecast Saudi crude supply would rise steadily from 2025 onwards, to a record annual rate of 11.2 mb/d in 2028. In that case, Riyadh would be left with 1 mb/d of spare capacity – the lowest ever on an annual basis. However, total Saudi oil supply capacity, including condensates and NGLs, will still rise substantially in the medium term thanks to the planned start-up of Jafurah, the Kingdom's biggest unconventional non-oil associated gas field. It is potentially the largest shale gas play outside of the United States and is expected to yield more than 600 kb/d of condensates and NGLs by 2030. With oil demand growth shifting more towards petrochemicals and light ends, the planned liquid increases from Jafurah would be well aligned with this changing pattern.

Aramco is expected to provide an update on its capital expenditure plans when it announces its 2023 full-year results in March. In the first material capacity boost in more than a decade, production at the offshore fields of Marjan and Berri (a combined 550 kb/d) and Zuluf (600 kb/d) had been forecast to come online gradually starting in 2024-25, despite higher project costs. To underpin the plan, Aramco had intended to boost capital expenditure in 2023 to between \$45 billion and \$55 billion, its highest ever. These offshore expansions are going ahead as planned, offsetting field declines elsewhere. Other projects, such as the offshore Safaniyah increase, that have yet to be sanctioned could be affected. Riyadh also reportedly expects to free up more than 500 kb/d of crude for export by substituting fuel used domestically for power generation with gas.

**Iraqi** production dropped by 100 kb/d m-o-m in January to 4.23 mb/d (-140 kb/d y-o-y), 230 kb/d above its implied target. Baghdad had promised to curb output by an extra 220 kb/d from January. There were still no shipments from northern Iraq via the Iraq-Türkiye pipeline because of the long-running unresolved dispute that involves Baghdad, the Kurdistan Regional Government and the oil companies operating in the northern region. Shipments of around 450 kb/d from northern oil fields to Türkiye's Ceyhan terminal were suspended last March after Ankara closed the pipeline due to an international arbitration ruling.



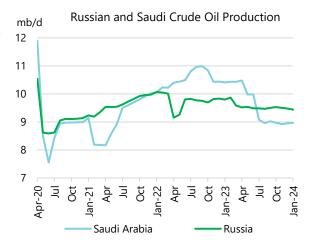


In **Iran**, crude oil supply in January held at 3.15 mb/d, near five-year highs. Exports of crude oil and condensates, primarily destined for China, were running at roughly 1.25 mb/d in January – broadly in line with last year's average rates. Before the former US administration withdrew from the Joint Comprehensive Plan of Action (JCPOA) in 2018, exports of Iranian oil had been running above 2 mb/d. To boost its production and export capability, Tehran is reportedly planning to seal a number of contracts for oil and gas projects that will add close to 400 kb/d of crude oil capacity and 30 million cubic metres a day of gas capacity. We estimate the country's current crude production capacity at about 3.8 mb/d.

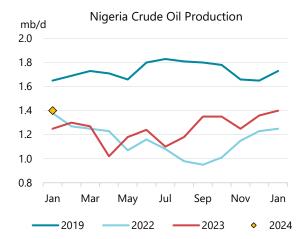
**Russian** crude output edged down 40 kb/d to 9.44 mb/d in January. Moscow promised to deepen its curb on oil exports by 200 kb/d to 500 kb/d from January, but preliminary estimates show total

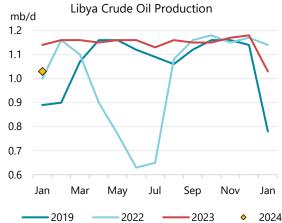
crude and product exports at 7.7 mb/d last month compared with the May-June average of 7.4 mb/d. Total supply of crude, condensates and NGLs in January was 10.87 mb/d. For 2024, total oil production is estimated at 10.84 mb/d, down 120 kb/d y-o-y.

**Kazakh** crude oil supply held steady at 1.62 mb/d in January. The country's core oil fields of Tengiz, Kashagan and Karachaganak are set for maintenance in August and October. **Azeri** crude oil output dipped to 470 kb/d last month.



Combined output from African members of OPEC+ fell 140 kb/d in January. **Libyan** crude oil production tumbled 150 kb/d to 1.03 mb/d after its largest oil field, Sharara, was closed because of protests. The field, which accounts for nearly one-third of Libyan supply, restarted production on 21 January, nearly three weeks after being shut down. Its closure was the biggest disruption to the country's flows since 2022, when a large swathe of production was forced offline for three months. The North African producer's oil fields and terminals are often targeted by political factions or militants. Relative stability throughout 2023 allowed the country's crude output to rise 160 kb/d to an average 1.16 mb/d.





Output in **Nigeria** increased by 40 kb/d to 1.4 mb/d (+150 kb/d y-o-y), the highest level in nearly three years as supply edged up from key crude oil streams such as Bonny Light and Forcados. On

the condensate front, TotalEnergies and its partners have started up the offshore Akpo West field – a tie back to the existing Akpo Floating Production Storage and Offloading (FPSO) facility that came online in 2009 and pumped around 120 kb/d last year. Akpo West will add 15 kb/d of condensates by mid-2024 and up to 4 million cubic meters per day of gas by 2028. In **Algeria**, supply declined by 40 kb/d to 910 kb/d, matching its lower OPEC+ quota.

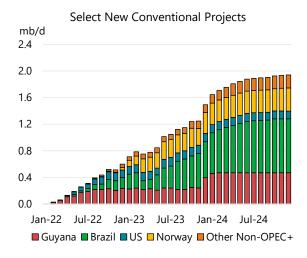
Supply in **Venezuela** rose 30 kb/d m-o-m at 830 kb/d (+110 kb/d y-o-y), as Chevron's joint ventures with Petroleos de Venezuela provided crucial support to the relatively higher flows. Production was up for a third straight year in 2023, rising by 70 kb/d to 770 kb/d, thanks mostly to Chevron's return after Washington granted it a license that enabled the US company to restart operations.

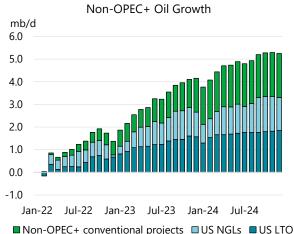
### Non-OPEC +

Non-OPEC+ production growth reversed course in January, falling by 1 mb/d m-o-m to 51.6 mb/d, as an Arctic freeze put a chill on operations across Alberta and the United States. Winter weather in those two countries accounted for 900 kb/d of the monthly drop. Output in Brazil declined for a second consecutive month, by 100 kb/d, due to operational issues while flows from Guyana increased by 70 kb/d as the Prosperity FPSO ramped up to near its nameplate capacity. Additionally, India's long delayed Cluster-2 project (KG-DWN-98/2) saw first oil in January.

Aside from the January weather-related shutdowns, these four American powerhouses will all produce at record levels this year. Combined, they will account for 88% of the 1.6 mb/d of non-OPEC+ growth forecast in 2024, to 53 mb/d. Argentina is also raising output this year, albeit more modestly than its neighbours in the Americas, as the Vaca Muerta play in the Neuquén Basin continues to find its footing. Drilling activity in the basin is expected to grow by over 20% this year. Biofuels will also increase by 120 kb/d.

The Americas' contribution to non-OPEC+ growth is driven by a stream of conventional projects in Guyana and Brazil as well as robust US light tight oil (LTO) and natural gas liquids (NGLs) growth. Between the beginning of 2022 and December 2024, new conventional non-OPEC+ projects will have added close to 2 mb/d of new output. By comparison, combined volumes from US LTO and NGLs will be up by close to 3 mb/d over the same period.



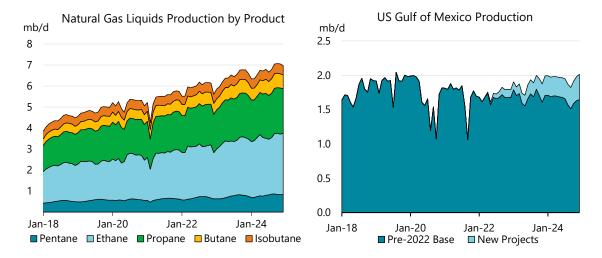


While non-OPEC+ production is on a growth spurt, some countries may have crested. Declines in the United Kingdom more than offset growth seen in Norway and Denmark this year, leading the North Sea to a net loss. Additionally, the southeast Asian countries of Thailand, Viet Nam and

Indonesia all continue to see managed declines, falling by 6% on average y-o-y. Lastly, the newest country to this grouping, Angola, will continue its multi-year tumble.

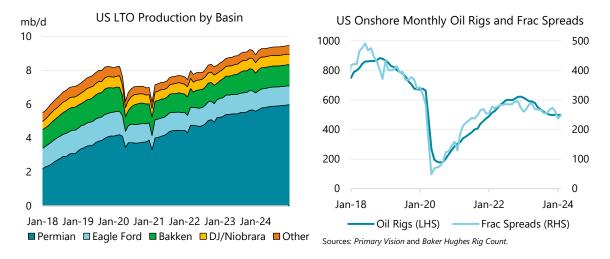
**US** oil production is estimated to have fallen by 540 kb/d m-o-m in January, to 19.5 mb/d, as a severe winter storm battered key producing regions in North Dakota, Colorado, Wyoming and Texas. NGLs and crude made up 270 kb/d of the losses each. Texas and North Dakota saw the largest losses due to the path and size of the storm. No permanent damage was reported, and February volumes are forecast to recover by 170 kb/d and 80 kb/d, respectively, for crude and NGLs.

In November, the last month for which official data from the Energy Information Administration (EIA) are available, total US oil supply continued to climb, up 80 kb/d m-o-m to 20.2 mb/d. Crude oil beat its previous high of 13.2 mb/d set in September, while NGLs were off 10 kb/d from October's record of 6.8 mb/d. Monthly gains of 150 kb/d from key light tight oil (LTO) basins offset losses of 80 kb/d in the Gulf of Mexico (GoM). The return of GoM volumes in December more than offset US LTO weakness as frack spreads fell, following historical patterns due to budget exhaustion and holiday scheduling. NGL production declined as lower ethane prices vis-à-vis natural gas prices encouraged ethane rejection.



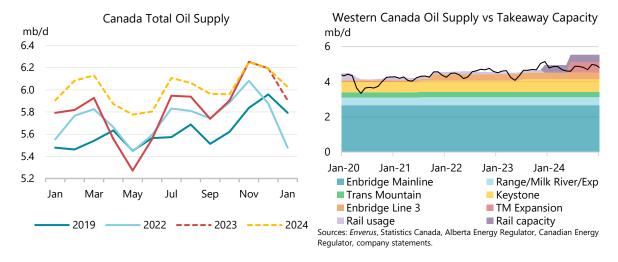
The shale patch will continue to dominate US crude supply growth in 2024, with smaller gains from the GoM. Crude output is forecast to grow by 450 kb/d this year while NGLs gain 320 kb/d. GoM volumes are expected to increase by 70 kb/d to 2 mb/d as three major projects see first oil. LTO growth is expected to roughly halve from 900 kb/d last year to 440 kb/d in 2024 as the effects of lower activity levels and a reduced inventory of drilled but uncompleted wells (DUCs) are felt throughout key basins. The time from which the drilling rig begins to drill (spud) a horizontal shale well and when the well is put on production continues to average nine months, with a 13 month mean time in the DJ basin compared to eight months in the Permian.

Drilling activity appears to have stabilised in the US shale patch with roughly 500 oil rigs running for the last 20 weeks, down 20% from 4Q22 highs, according to *Baker Hughes Rig Count* data. *Primary Vision* data show that 16 of the 45 frack crews dropped since the late November high have returned. This *Report* assumes that the majority of the remaining 30 crews will return to the patch this quarter for an annual average frack spread count slightly lower than last year.

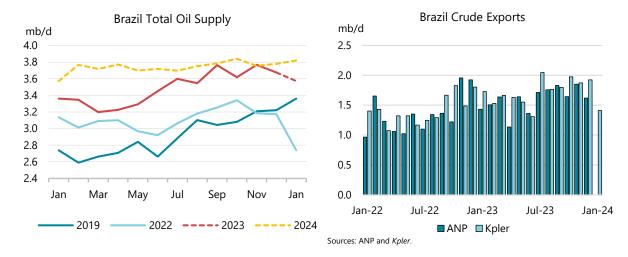


**Canadian** output in January fell by an estimated 360 kb/d to 5.9 mb/d as an Arctic freeze affected operations across the Alberta province. Operations recovered before the end of the month and February is expected to see a partial recovery to 6.1 mb/d. Canadian supply inched higher by 10 kb/d m-o-m in December according to data from the Alberta Energy Regulator, as November data were revised up by 170 kb/d from last month's *Report*. December set a new record for Canadian liquids production at 6.3 mb/d.

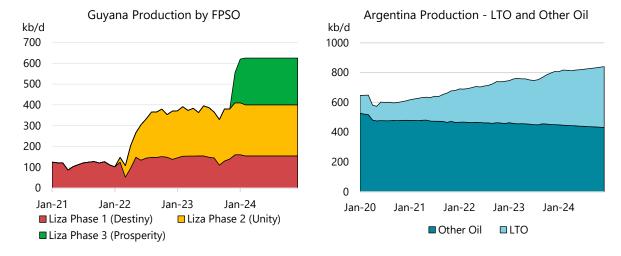
For the year as a whole, Canadian oil supply is forecast to grow by 180 kb/d to an annual high of 6 mb/d. While the Trans Mountain Expansion Project (TMX) experienced a technical delay, commercial operations are still expected to commence in 2Q24. The additional export capacity will improve egress for Albertan crude and accommodate the next phase of upstream expansions and debottlenecking projects in the province.



**Brazilian** output fell by 100 kb/d m-o-m in January, to 3.6 mb/d, based on provisional daily data from the Agencia Nacional do Petroleo (ANP) and *Kpler* export data. This came after official December ANP data showed that supply came off November highs by 90 kb/d. December output fell as two FPSOs, P-68 and P-69, were down. In January, both of those platforms returned to service while five other FPSOs experienced moderate downtime. For the year, production is forecast to grow by 250 kb/d to 3.7 mb/d.

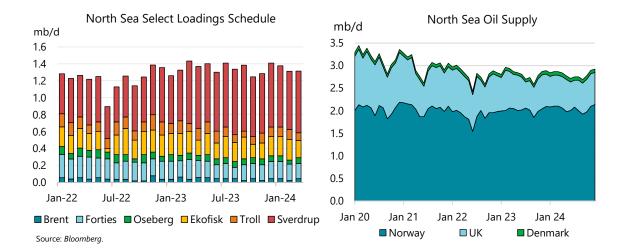


**Guyana's** Prosperity FPSO ramped up operations quicker than expected with loadings reaching 200 kb/d in January, according to *Kpler* data. ExxonMobil, the project's operator, released a press statement in early February noting that all three FPSOs are now operating above design capacity. Annual output has been revised upwards since the last *Report* and is now expected to increase by 235 kb/d to 625 kb/d.



Elsewhere in Latin America, **Argentinian** supply was flat m-o-m in January at 800 kb/d after seeing a 5% increase in output over the fourth quarter and the highest production levels since December 2008. Gains were driven by the Vaca Muerta, a large shale play in the Neuquén Basin. Fracking activity increased by 32% in January from the year-earlier and is expected to rise 22% in 2024, according to NCS Multistage, a service provider with a heavy footprint in the region. Argentine oil is forecast to increase by 60 kb/d to average 820 kb/d for 2024.

North Sea loadings (as measured by BFOE plus Troll and Johan Sverdrup) are scheduled at 1.3 mb/d in March, flat on the month and down 120 kb/d from the year prior, with Forties and Ekofisk accounting for the fall in cargoes. North Sea production was down 50 kb/d m-o-m in January, with the UK share notching up a 40 kb/d loss and Norway making up the difference. Denmark was flat on the month. North Sea output is projected to inch down by 10 kb/d to 2.8 mb/d in 2024 as gains of 30 kb/d from Norway and 10 kb/d from Denmark will be more than offset by UK declines of 50 kb/d.

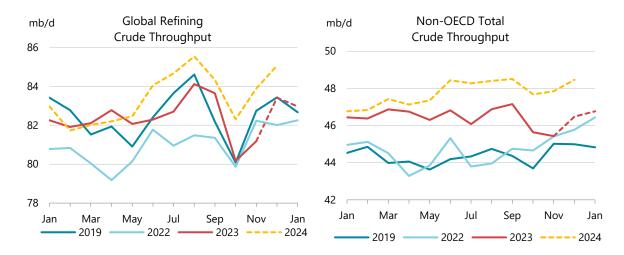


A recent court ruling in Norway sided with plaintiffs from non-governmental organisations (NGOs) against the Norwegian government regarding Breidablikk, Tyrving and Yggdrasil field developments. The plaintiffs argued that the approval of those three projects had not been preceded by the proper environmental impact studies. As a result of the ruling, any further decisions regarding the projects have been put on hold pending the validity of the licences. Tyrving and Yggdrasil were expected to start up in 2025 and 2027, respectively. The fate of Breidablikk, which saw first oil last October, is currently unknown. This *Report* assumes the Breidablikk field will supply 40 kb/d on average this year, but it is subject to change as and when more information on the legal proceedings become available.

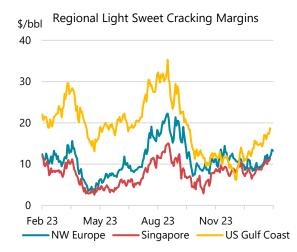
# Refining

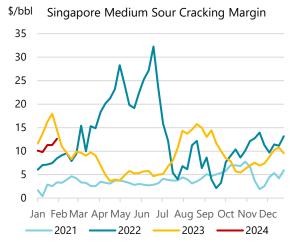
### **Overview**

Global refinery throughputs are close to a seasonal low point as maintenance picks up in the Atlantic Basin and activity in the United States recovers from January's extreme cold weather-related disruptions. However, non-OECD crude runs will accelerate during 1H24 as new capacity is commissioned and as recently started plants reach full throughput. Although this year's forecast of 83.3 mb/d is unchanged from last month's *Report*, there are substantial revisions between regions and quarters. Notably, weaker growth in Chinese, and stronger Latin American and African crude runs underpin much of the change. Overall, 2024 growth has been increased by 80 kb/d to 1 mb/d.



Refining margins weakened further in Europe during early January but rebounded on the US Gulf Coast following the mid-month winter freeze that cut runs by up to 1.7 mb/d. Singapore margins posted a narrow m-o-m gain. The \$4.60/bbl increase on average in USGC margins re-established their premium against other regions. Refining margins are close to levels seen prior to the Russia-Ukraine war, with Singapore sour cracking margins performing better than elsewhere.





Note: IEA analysis based on data from Argus Media Group.

### Regional refining developments

Global refinery throughputs have fallen steadily since the beginning of the year and are set to reach a seasonal low point in February of 81.5 mb/d. Having peaked in December at 83.3 mb/d, the start of planned maintenance in the Atlantic Basin and weather-related shutdowns in the United States have reduced crude runs. Chinese processing rates were weaker than anticipated in December and preliminary reports indicate that crude runs failed to rebound in January as expected. Estimated global crude runs for 2023 have been lowered by 60 kb/d from last month's *Report* to 82.3 mb/d. This follows weaker-than-expected activity levels in China, Saudi Arabia and Russia in November and December. This year's forecast increase of 1 mb/d in global crude runs has been revised up by 80 kb/d, led by non-OECD refining activity adding 1.4 mb/d, partially offset by OECD throughputs declining 330 kb/d y-o-y as capacity closures in the United States and Japan weigh on processing.

	Global Refinery Crude Throughput <sup>1</sup>													
					(m	illion barrels p	per day)							
	2019	2020	2021	2022	3Q23	Dec-23	4Q23	Jan-24	Feb-24	Mar-24	1Q24	Apr-24	2023	2024
Americas	19.1	16.6	17.7	18.7	19.3	19.2	18.5	18.6	17.7	18.0	18.1	18.1	18.7	18.6
Europe	12.2	10.7	11.0	11.5	11.7	11.6	11.3	11.4	11.0	10.7	11.0	11.2	11.4	11.3
Asia Oceania	6.8	5.9	5.8	6.1	5.7	6.1	5.9	6.0	6.1	5.8	6.0	5.8	5.9	5.7
Total OECD	38.1	33.1	34.5	36.3	36.8	36.9	35.7	36.0	34.9	34.5	35.1	35.0	36.0	35.6
FSU	6.9	6.5	6.8	6.5	6.6	6.6	6.5	6.5	6.5	6.4	6.4	6.4	6.6	6.6
Non-OECD Europe	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4
China	13.4	13.7	14.4	13.7	15.4	14.4	14.8	14.8	14.9	15.5	15.1	15.2	15.0	15.3
Other Asia	10.4	9.3	9.7	10.2	10.1	10.7	10.4	10.8	10.7	10.5	10.7	10.7	10.5	10.6
Latin America	3.2	3.0	3.3	3.5	3.6	3.7	3.6	3.7	3.7	3.6	3.6	3.5	3.6	3.6
Middle East	7.9	7.1	7.8	8.3	8.7	8.9	8.4	8.6	8.7	9.1	8.8	9.0	8.5	9.2
Africa	2.0	1.9	1.8	1.8	1.6	1.6	1.6	1.7	1.8	1.9	1.8	1.9	1.6	1.9
Total Non-OECD	44.3	41.9	44.1	44.5	46.6	46.4	45.8	46.6	46.7	47.4	46.9	47.2	46.3	47.7
Total	82.4	75.0	78.6	80.8	83.4	83.3	81.5	82.6	81.5	81.9	82.0	82.2	82.3	83.3
Year-on-year change	-0.1	-7.3	3.6	2.2	2.2	1.4	0.2	0.4	-0.3	-0.1	0.0	-0.5	1.5	1.0

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

Growth in 2024 continues to be dominated by countries East of Suez. However, the regional composition is different than in 2023. Last year's non-OECD refinery throughput increase of 1.8 mb/d was largely driven by China's 1.3 mb/d y-o-y ramp up, with smaller contributions from Other Asia and the Middle East. In 2024, growth will be led by the Middle East at 630 kb/d y-o-y followed by China at 340 kb/d and Africa at 260 kb/d.

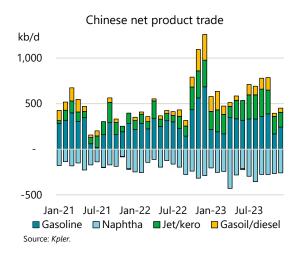
The strong rise in **Middle East** refinery throughput is a result of recently commissioned capacity in Kuwait and Oman as well as a rebound in Saudi Arabian runs following a heavy 4Q23 maintenance schedule. Kuwait's 615 kb/d Al Zour refinery reached full operational status in early February, nearly 18 months after its initial commercial runs and accounts for 25% of the regional y-o-y increase. Similarly, early February saw the formal inauguration of the 230 kb/d Duqm refinery in Oman, 12 months after the first crude cargoes were received at the Ras Markaz terminal. Duqm's product exports started in 3Q23 on a trial basis, and since the beginning of 4Q23 have averaged close to 180 kb/d, according to *Kpler* data. Consequently, Oman accounts for one-third of the annual increase. Elsewhere, Saudi Arabia's rebound in 2024 reflects higher runs at the Jizan refinery and lower maintenance forecasts, while Bahrain's expansion of the Sitra refinery is expected to boost crude runs later in the year.

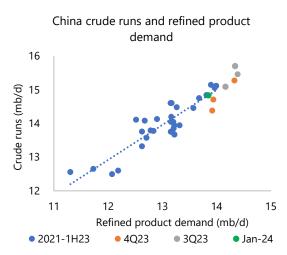
Despite the slow start to the year, our forecast for growth in **Chinese** crude runs this year is largely unchanged at around 340 kb/d. The current weakness in domestic margins has weighed on the activity levels in the independent refining sector, even as new import and export quotas were issued.

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Consequently, we have amended our seasonal profile to lower 1Q24 and 4Q24 run rates by an average of 270 kb/d and lifted 2Q24 and 3Q24 by roughly 240 kb/d. Nevertheless, with Chinese refined products demand forecast to expand by 520 kb/d y-o-y in 2024, and reports that planned maintenance will be lighter this year than last, runs look set to increase, despite only limited capacity additions. The start of the 400 kb/d Yulong refinery later this year may underpin gains, but capacity closures elsewhere in Shandong are also likely.

More broadly, the recent relative weakness in Chinese runs also reflects the increased share of LPG/ethane and naphtha in the country's demand mix, much of which is met by imports, rather than domestic output. Growth in 4Q23 crude runs slowed to just 475 kb/d, while total demand growth was more resilient at 1.4 mb/d y-o-y. Squaring up these factors, Chinese refined product demand growth slipped to 1.1 mb/d y-o-y while net product exports collapsed by almost 800 kb/d y-o-y to 650 kb/d. Furthermore, the forecast increase in runs of 340 kb/d this year implies that clean product exports are likely to be lower than last year's average of 750 kb/d.

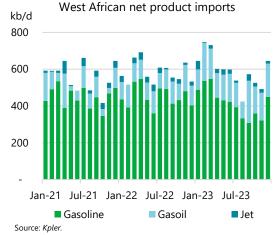




In the Atlantic Basin, **African** runs are the main source of growth. We expect higher Nigerian crude runs, driven by the start-up of the 650 kb/d Dangote refinery. Estimates from *Kayrros* indicate that trial runs started at around 150 kb/d in mid-January. We expect the commissioning of Dangote to extend into 2Q24, as process units are certified. Given the long lead times to ramp up a new refinery, we expect Nigerian runs to increase by an average 200 kb/d this year. However, if the multi-year refurbishment of the 200 kb/d Port Harcourt refinery is completed sooner than we have anticipated,

there is potential for additional growth. In this regard, reports that Port Harcourt started to receive crude supplies in recent weeks are encouraging, but for now we exclude it from our 2024 forecasts.

Elsewhere in the region, crude runs in Algeria have consistently outpaced our estimates and have been revised up for 2024 by 50 kb/d. Offsetting this upgrade, we are more cautious on the outlook for Egyptian crude runs and have trimmed our estimate for 2024 by 70 kb/d to 540 kb/d. African crude throughput rates will also be bolstered this



year by the January start of operations at the Sentuo refinery in Ghana, slightly ahead of the 2Q24 commissioning we had assumed. Once operating on a stable basis, this 120 kb/d project's first phase

of 40 kb/d will further alleviate regional product shortages. Across the arc of West African nations from Côte d'Ivoire to Cameroon, imports of gasoline, jet fuel and gasoil/diesel averaged 650 kb/d in 1H23, before dipping to 530 kb/d in 2H23.

### **OECD** refinery activity

OECD refinery crude throughput for 2024 is assessed at 35.6 mb/d, with y-o-y declines in all three regions. Refinery closures in the United States and Japan constrain the forecast. Phillips 66 confirmed the closure of the remaining crude processing unit at the 115 kb/d Rodeo plant in California this month, as part of its conversion to a biofuels plant. Japanese refiner Idemitsu will shut its 120 kb/d Yamaguchi plant by the end of 1Q24, extending the country's reduction in capacity. OECD European crude runs are also expected to drop sequentially, albeit by just under 30 kb/d y-o-y, driven by falling domestic demand, with the prospect of additional capacity closures in 2025.

	Refinery Crude Throughput and Utilisation in OECD Countries  (million barrels per day)													
							Change	from	Utilisat	ion rate				
	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Nov 23	Dec 22	Dec 23	Dec 22				
US <sup>1</sup>	16.60	16.69	16.24	15.36	15.94	16.37	0.43	1.00	91%	87%				
Canada	1.85	1.85	1.74	1.51	1.70	1.83	0.12	-0.02	100%	101%				
Chile	0.19	0.19	0.20	0.19	0.19	0.18	-0.01	0.00	78%	78%				
Mexico	0.78	0.74	0.90	0.54	0.75	0.83	0.07	-0.01	51%	51%				
OECD Americas <sup>1</sup>	19.42	19.47	19.07	17.61	18.58	19.20	0.62	0.96	89%	85%				
France	1.04	1.08	1.05	0.95	0.96	0.94	-0.02	-0.05	77%	81%				
Germany	1.71	1.72	1.59	1.51	1.58	1.56	-0.02	-0.28	76%	89%				
Italy	1.22	1.32	1.43	1.39	1.29	1.28	-0.01	-0.01	74%	74%				
Netherlands	0.98	1.12	1.09	1.15	1.08	1.08	0.00	0.05	86%	82%				
Spain	1.29	1.27	1.31	1.21	1.24	1.29	0.05	-0.03	88%	90%				
United Kingdom	1.00	0.99	0.90	0.78	0.87	1.01	0.14	-0.03	84%	87%				
Other OECD Europe <sup>2</sup>	4.33	4.44	4.28	4.18	4.28	4.43	0.15	0.14	92%	89%				
OECD Europe	11.58	11.93	11.65	11.17	11.29	11.58	0.29	-0.20	84%	86%				
Japan	2.39	2.75	2.49	2.44	2.48	2.71	0.22	-0.14	84%	85%				
Korea	2.69	2.57	2.70	2.80	2.85	2.94	0.09	0.10	82%	80%				
Other Asia Oceania <sup>3</sup>	0.53	0.52	0.57	0.53	0.54	0.50	-0.04	-0.03	93%	99%				
OECD Asia Oceania	5.61	5.84	5.76	5.76	5.88	6.15	0.27	-0.07	84%	84%				
OECD Total	36.61	37.24	36.49	34.54	35.75	36.93	1.18	0.69	86%	85%				

<sup>&</sup>lt;sup>1</sup> US includes US50, OECD Americas include Chile and US territories

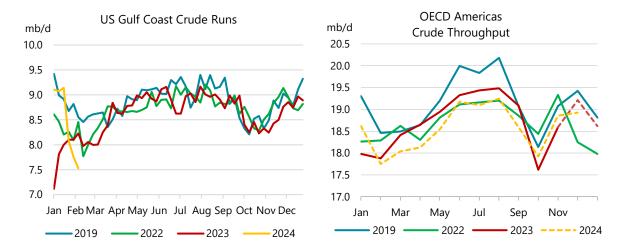
**OECD** crude runs in December rose 1.2 mb/d m-o-m to 36.9 mb/d, based on initial data, in line with last month's estimate. Throughputs reached a three-month high following the completion of the autumn maintenance season in the United States, Europe and Japan. December's annual growth rate of 690 kb/d was flattered by a gain in the United States of 1 mb/d following weather-related disruptions that impacted the December 2022 baseline. Excluding this distortion, runs across the OECD were down 310 kb/d y-o-y, with European activity notably weak. For 2023, OECD runs fell 320 kb/d y-o-y, with declines in Japan, Germany, and the United Kingdom most prominent.

**OECD Americas** runs are forecast to average 18.6 mb/d in 2024, a decline of 150 kb/d y-o-y, as US capacity is reduced. US crude runs averaged 16.4 mb/d in December but fell by 1.7 mb/d over the course of January, following the extreme cold weather event, with US Gulf Coast refineries accounting for 1.5 mb/d of this decline. Consequently, February US crude processing of 14.9 mb/d is expected to mark the seasonal low point as refinery restarts are partially offset by planned maintenance.

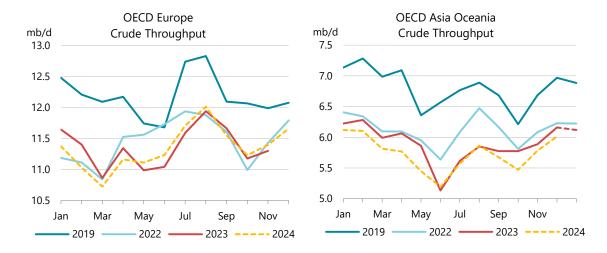
Includes Lithuania

³ Includes Israel

Canadian crude processing hit a four-month high of 1.8 mb/d in December as refinery maintenance ended. Preliminary weekly data indicate that runs dipped in January by 80 kb/d m-o-m due to weather-related curtailments. Mexican crude runs rose 70 kb/d m-o-m in December to a three-month high of 825 kb/d. Nevertheless, capacity utilisation remains mired at close to 50% and flat y-o-y. There is still scant evidence of a slowdown in Maya exports from the Dos Bocas terminal in Mexico, beyond weather-driven loading delays, that we would expect to see ahead of the start-up of the 340 kb/d Olmeca refinery. Similarly, USGC refineries have not reported any loss of Maya heavy sour crude supplies. Consequently, despite recent statements by Mexican authorities that commercial production at Olmeca will begin in the coming weeks, we continue to assume a somewhat later start.



**OECD Europe** refinery throughputs made further gains in December, reaching a seasonal peak of 11.6 mb/d, with the United Kingdom accounting for almost half the m-o-m increase. Nonetheless, crude runs were 200 kb/d lower y-o-y, with continued weak German activity responsible for much of the shortfall. Reviewing the full-year data for 2023, we have revised up the 2024 growth forecast by 30 kb/d to 11.3 mb/d, but still 30 kb/d lower than in 2023.

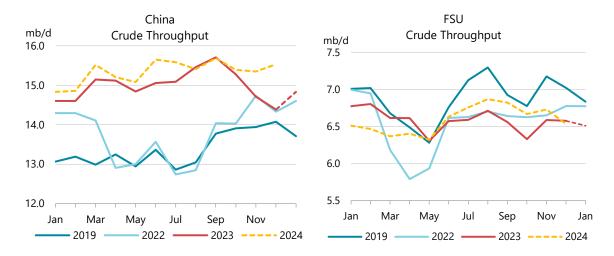


Regional runs are expected to fall throughout the first quarter to a low point in March, as heavy seasonal maintenance gets underway. Falling demand is the main drag on the region's activity levels. The recent announcement of the 2025 closure of Shell's 147 kb/d Wesseling refinery in Germany highlights the risk facing the region's less competitive assets. Given the already announced closure of the UK's 150 kb/d Grangemouth refinery next year, the prospects for a more substantial decline in crude runs are building.

**OECD Asia Oceanian** runs reached a 10-month high in December at 6.1 mb/d, an increase of 270 kb/d from November, but still 70 kb/d lower y-o-y. Japanese crude processing rose for a second consecutive month, up 220 kb/d m-o-m to 2.7 mb/d, ahead of stronger winter demand for heating fuels. December likely marks the seasonal peak in Japanese crude runs, with preliminary weekly data indicating a 100 kb/d decline in January to 2.6 mb/d. Korean crude runs reached a nine-month high of 2.9 mb/d (+86 kb/d m-o-m), in part due to the completion of maintenance but also likely a reflection of the recent recovery in naphtha cracks. In 2024, OECD Asia Oceania crude throughputs are expected to contract by 160 kb/d y-o-y, to 5.7 mb/d, due to lower processing rates in Japan following the planned closure of Idemitsu's 120 kb/d Yamaguchi plant in March.

### Non-OECD refinery activity

**Non-OECD** crude runs are revised 30 kb/d higher than last month's *Report*, to an average of 47.7 mb/d in 2024, an increase of 1.4 mb/d y-o-y. Annual growth is revised up by 90 kb/d, following weaker 4Q23 data for China, Russia and Saudi Arabia, amongst others. However, 1Q24 estimates are revised down following the weaker than expected start to the year in China and the reduction in Russian crude runs following damage at refineries in late January and early February that weighs on forecasts in the short term. Consequently, forecast **FSU** crude runs are lowered by 60 kb/d for this year, as we assume the recovery will take several months.

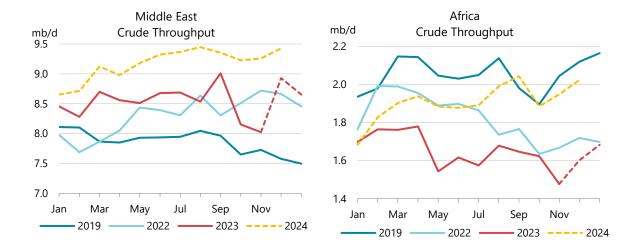


Revisions to **Chinese** crude runs drive much of the overall change. Lower 1Q24 and 4Q24 forecasts are offset by higher 2Q24 and 3Q24 estimates following revised maintenance schedules. The net of these changes is a 15 kb/d reduction to the 2024 Chinese runs forecast to 15.3 mb/d. Elsewhere, the reappraisal of Brazilian, Venezuelan, Peruvian and Argentinian forecasts following full-year 2023 data leads to a 150 kb/d increase in **Latin America** this year to 3.6 mb/d. Further upside to this revision relies on the rehabilitation of Venezuela's refining sector, with reports that the 140 kb/d El Palito refinery might return to full service in the coming months.

The **Middle East** will drive most of the increase in 2024 crude processing. Despite this, the region's performance was weak in 4Q23. Maintenance at the SATORP refinery in Saudi Arabia was heavier than forecast, cutting November throughputs to 2.1 mb/d, a fresh three-year low. We expect Saudi crude processing to rebound to 2.6 mb/d in 1Q24 and average 2.7 mb/d this year, up 140 kb/d y-o-y. Kuwaiti crude processing is forecast to average 1.2 mb/d, after the Al Zour refinery became fully operational. This is 200 kb/d below the country's nameplate capacity of 1.4 mb/d, reflecting the repeated outages the plant has suffered in recent months, although there remains the potential for

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even higher average throughputs if plant reliability improves. Overall, 2024 regional growth estimates are trimmed by 50 kb/d this month, with a more cautious outlook for Iraqi crude runs.



**Other Asia** refinery throughputs averaged 10.4 mb/d in 4Q23. Indian crude runs were 100 kb/d ahead of forecast in December at 5.3 mb/d, while Chinese Taipei November data, as submitted to *JODI-Oil World Database*, was 150 kb/d below our estimate. We forecast regional growth of 160 kb/d y-o-y, led by India and Malaysia.

### **Product cracks and refinery margins**

**Product prices** rose on average in January, tracking the increase in benchmark crude prices. US Gulf Coast (USGC) middle distillates led the improvement, with jet fuel increasing \$8.33/bbl m-o-m following the impact on product supply of the extreme cold weather mid-month that shut down 1.5 mb/d of USGC throughputs.

				Product P	rices and	d Differe	ntials (\$/bbl)						
	Prices			Differentials				Week Starting					
	Nov	Dec	Jan	Nov	Dec	Jan	Dec-Jan	08-Jan	15-Jan	22-Jan	29-Jan	05-Feb	
Northwest Europe				to North Sea Dated			chg						
Gasoline	93.53	86.69	89.70	10.48	8.85	9.45	0.60	7.69	9.08	10.12	11.17	11.83	
Diesel	114.84	105.48	107.45	31.78	27.63	27.19	-0.44	25.42	26.45	27.90	31.40	34.47	
Jet/Kero	117.16	107.57	111.56	34.11	29.72	31.30	1.58	29.40	31.54	32.38	33.23	36.66	
Naphtha	70.58	71.51	71.85	-12.48	-6.34	-8.41	-2.07	-7.97	-9.59	-9.77	-8.71	-9.05	
HSFO	70.01	67.09	67.03	-13.04	-10.76	-13.23	-2.47	-12.51	-14.93	-15.05	-14.22	-12.98	
0.5% Fuel Oil	86.22	81.16	83.58	3.16	3.31	3.32	0.00	1.52	1.67	3.66	5.48	3.97	
US Gulf Coast				to WTI Hous	ton								
Gasoline	87.71	83.67	90.38	9.10	9.71	14.51	4.80	13.21	14.62	15.73	16.49	19.56	
Diesel	111.15	99.94	107.59	32.53	25.99	31.73	5.74	32.11	31.77	32.09	35.27	40.16	
Jet/Kero	113.64	100.03	108.36	35.03	26.07	32.50	6.42	33.43	32.92	32.66	35.69	39.29	
Naphtha	71.31	67.36	73.86	-7.30	-6.59	-2.00	4.59	-5.73	-2.01	2.69	3.44	7.81	
HSFO	70.92	72.91	66.62	-7.69	-1.04	-9.25	-8.21	-6.06	-12.62	-14.07	-12.49	-11.99	
0.5% Fuel Oil	87.05	84.31	90.46	8.44	10.35	14.60	4.25	14.84	14.48	14.84	16.40	16.60	
Singapore				to Dubai									
Gasoline	92.36	87.26	91.18	7.25	8.56	11.09	2.53	8.32	10.74	14.10	14.12	14.13	
Diesel	106.48	99.78	102.85	21.37	21.08	22.75	1.68	21.91	23.47	23.25	25.14	26.71	
Jet/Kero	106.63	101.70	101.58	21.52	22.99	21.48	-1.51	22.26	22.17	20.44	21.29	22.76	
Naphtha	69.57	72.69	73.03	-15.54	-6.02	-7.07	-1.05	-8.21	-5.58	-7.43	-8.06	-8.99	
HSFO	69.51	67.93	68.00	-15.60	-10.78	-12.10	-1.32	-11.74	-12.38	-14.31	-14.36	-13.23	
0.5% Fuel Oil	99.03	88.96	90.21	13.92	10.26	10.11	-0.15	7.65	9.42	11.34	11.89	11.31	

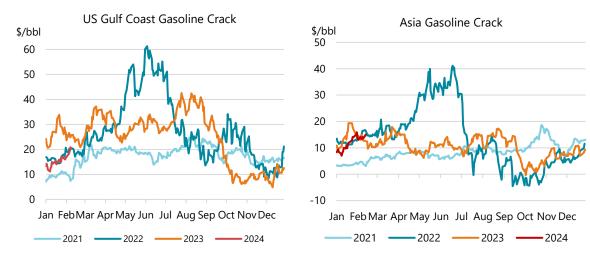
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A quick rebound in runs is not assured as the region starts a heavier-than-normal maintenance season that will constrain supplies in the coming weeks. USGC diesel and gasoline prices were also stronger, up by around \$7/bbl m-o-m.

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The rapid loss of product supply on the US Gulf Coast has tightened diesel markets and vaulted USGC diesel prices from being the cheapest globally at the start of January to a \$100/t premium to the Middle East Gulf market by mid-February. European diesel prices moved in tandem with the USGC to maintain open arbitrage opportunities. European diesel prices are now at the highest premium, i.e. the widest arbitrage, to the Middle East Gulf since November 2022. The disruption to shipments that would normally transit to Europe via the Red Sea is adding to tighter market conditions. The notable exceptions to the positive trend were jet fuel in Singapore (-\$0.12/bbl m-o-m) and fuel oil on the USGC (-\$6.30/bbl m-o-m).

**Product cracks** improved on average in January, with the USGC outpacing Europe, while Singapore was the regional laggard. High sulphur fuel oil cracks weakened by around -\$8/bbl on average in the USGC and closer to -\$2/bbl elsewhere. Light and middle distillate cracks strengthened on the USGC by an average of \$5.40/bbl m-o-m, with most of the increase occurring in the second half of the month. Naphtha cracks gave back some of December's strong gains in Europe and Singapore, despite a rally in propane prices alleviating competitive pressure in the petrochemical feedstock market. Aromatic reformer feed naphtha on the USGC saw further increases in January, turning positive against WTI by the second half of the month.

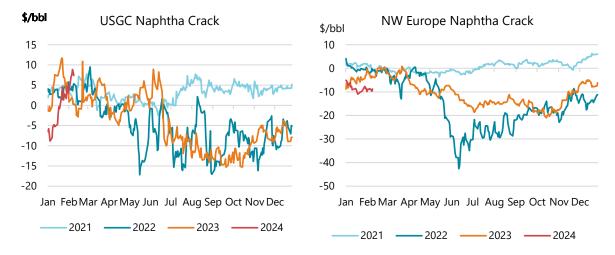


Note: IEA analysis based on data from Argus Media Group

**Gasoline prices** rose globally in January, by between \$3/bbl and \$6.71/bbl m-o-m. Price increases on the USGC were substantially more than elsewhere. Consequently, USGC gasoline cracks rose nearly \$5/bbl m-o-m and by mid-February were back above \$20/bbl for the first time since late September. European gasoline cracks strengthened slightly on the month but by early February were back in double digits at close to three-month highs. Singapore gasoline cracks also strengthened, reaching \$15/bbl by mid-February, the highest level since last August.

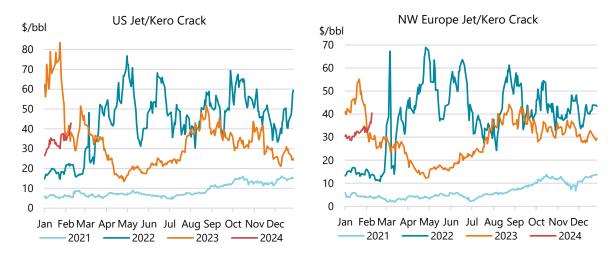
The divergence in **naphtha prices** continued in January, as petrochemical feedstock naphtha (with a high paraffinic content) in Europe and Singapore was broadly unchanged m-o-m. By contrast, USGC reformer feed naphtha (with a high aromatic content) improved by \$6.50/bbl. Sustained propane price strength has alleviated some of the competitive pressure on petrochemical feedstock naphtha pricing in Europe and Singapore. However, ethylene prices in Europe fell to their lowest levels since last August in mid-January, capping upside potential for naphtha. Conversely, USGC naphtha cracks have rallied to their strongest value since last summer, following the drop in the region's throughput in mid-January and continued healthy demand for reformer feedstock on improving gasoline cracks.

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Note: IEA analysis based on data from Argus Media Group

Jet fuel prices gained \$4/bbl on average in January, although this increase masks a more significant push higher towards month-end and into early February in the Atlantic Basin. The pronounced increases in Europe and on the USGC reflect the logistical disruption to European imports via the Red Sea compounded by the impact of a tighter USGC market, which reached three-month highs in February. By contrast, Singapore jet prices fell marginally m-o-m. Consequently, USGC jet cracks rebounded back above \$40/bbl for the first time since early November. Gains in Europe were equally rapid, with jet cracks above \$40/bbl for the first time since September. Singapore cracks fell \$1.51/bbl to \$21.48/bbl, reversing December's increase. The crack trends highlight the Atlantic Basin's dependence on Asia to balance its structural kerosene deficit. The West versus East difference in cracks reflects the marginal cost of transporting a barrel of jet from Asia to Europe that has increased with the Red Sea crisis.

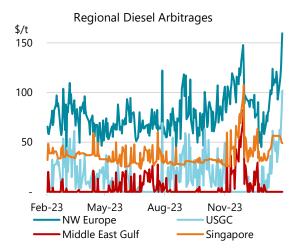


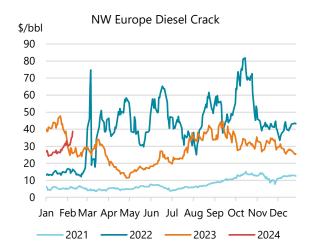
Note: IEA analysis based on data from Argus Media Group.

**Diesel prices** rebounded in January, with the USGC posting the largest rise at \$7.65/bbl. While European and Singaporean prices were up by only \$2-3/bbl m-o-m, all three markets saw prices increase towards the end of the month. Tighter USGC supplies spurred European markets to sustain an open arbitrage to the region, especially given longer shipping times from the Middle East Gulf. USGC diesel cracks surged by \$5.74/bbl on average and pushed above \$40/bbl in early February to four-month highs. The increase in USGC prices has lifted them from being the cheapest globally in early January to trade at a premium of \$100/t versus the Middle East Gulf, now the most

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competitively-priced location. Europe's premium to the Middle East has soared from under \$50/t in early January to \$162/t in early February, its strongest level since November 2022.





Note: IEA analysis based on data from Argus Media Group.

**High sulphur fuel oil** (HSFO) prices fell by \$6.30/bbl on the USGC in January but were largely stable in Europe and Singapore. Consequently, USGC HSFO cracks dropped \$8.21/bbl m-o-m to -\$9.25/bbl, while in Europe and Singapore they were down by \$1-2.5/bbl and averaged -\$12-13/bbl during the month. VLSFO cracks gained \$4/bbl on the USGC but were broadly steady elsewhere.

#### **Refinery Margins**

Except for sour cracking margins in Europe, refining margins in Europe and Singapore were on average within \$1.2/bbl of their respective December levels during January. By contrast, USGC improved by around \$4.60/bbl m-o-m. During the second half of the month all regions and configurations improved as middle distillate and, to a lesser extent gasoline, cracks strengthened.

IEA Global Indicator Refining Margins											
		Monthly Average			Change	Average for week starting:					
\$/bbl	Oct 23	Nov 23	Dec 23	Jan 24	Dec - Jan	08 Jan	15 Jan	22 Jan	29 Jan	05 Feb	
NW Europe											
Light sweet hydroskimming	4.76	7.43	6.81	6.17	-0.64	5.52	5.92	5.63	6.64	7.54	
Light sweet cracking	8.95	11.65	10.69	9.92	-0.77	8.91	9.43	9.82	11.58	12.72	
Light sweet cracking + Petchem	9.11	12.15	10.80	9.88	-0.92	8.84	9.44	9.79	11.54	13.03	
Medium sour cracking*	14.23	18.81	18.27	15.41	-2.86	13.59	14.58	16.40	18.90	21.52	
US Gulf Coast											
Light sweet cracking	12.40	11.73	10.10	14.61	4.50	14.14	14.84	15.29	16.96	19.95	
Medium sour cracking	20.14	17.96	16.55	21.14	4.59	20.49	20.88	22.39	24.11	26.64	
Heavy sour coking	27.26	27.18	24.51	29.22	4.71	28.91	29.22	30.25	31.68	35.02	
Singapore											
Light sweet cracking	4.49	7.72	8.23	8.35	0.12	7.08	8.44	8.69	9.95	10.69	
Light sweet cracking + Petchem	5.23	8.58	8.43	8.67	0.24	7.33	8.62	9.24	10.63	11.71	
Medium sour cracking	6.67	7.18	9.76	10.80	1.04	9.80	11.28	11.29	11.82	12.62	
Medium sour cracking + Petchem	7.40	8.03	9.96	11.12	1.16	10.04	11.46	11.83	12.49	13.62	

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

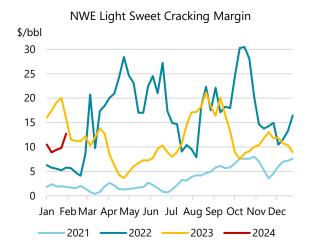
Source: IEA/Argus Media Group prices.

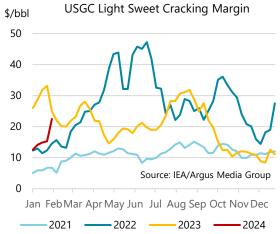
Methodology notes are available at https://www.iea.org/topics/oil-market-report#methodology

\*From 1/12/2022, the basis has changed from Urals NWE to Argus Brent Sour

By historical standards, margins in all three regions remain healthy with the gains in the USGC re-establishing the region's premium to the others. European light sweet margins edged lower by less than \$1/bbl, with integrated petrochemical assets underperforming once again. By contrast, Singapore margins strengthened marginally on average during January, as tightness in the Asian crude markets eased further, with Dubai-Brent turning negative in the second half of the month.

**European** refining margins edged lower during early January, before rallying in the second half of the month. The logistical impact of Red Sea shipping disruptions has increased the cost of middle distillate imports, thereby bolstering margins via stronger middle distillate cracks. This underpinned much of the improvement in late January despite stronger North Sea crude differentials.





Note: IEA analysis based on data from Argus Media Group.

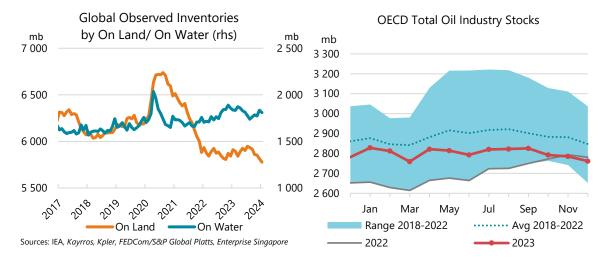
**USGC** margins started the year on a weak note, languishing at close to two-year lows. However, the start of planned maintenance and the disruption caused by the extreme cold weather event in mid-month spurred gains in light and middle distillate cracks that continued into early February. Across the different USGC configurations and crude slates, margins recovered to four-month highs by early February, as middle distillates led the gains and the loss of product supply ahead of the heavy spring maintenance season supported cracks.

Singapore average January margins were within \$1.2/bbl of December levels. In tandem with gains registered in the Atlantic Basin, margins improved towards month-end and into early February, reaching their highest level since last September, and remain well above levels seen prior to the start of the Russia Ukraine war in February 2022.

## **Stocks**

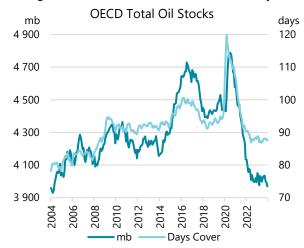
### **Overview**

Global observed oil stocks plummeted by about 60 mb in January, preliminary data indicate, with on-land inventories falling for a sixth month to their lowest level since at least 2016. In December, global stocks rose by 21.6 mb as a surge in oil on water more than offset draws in on-land inventories. OECD and non-OECD on-land stocks declined by 22.9 mb and 16.2 mb, respectively. By contrast, oil on water climbed by 60.7 mb, in line with the seasonal trend.



Industry stocks in OECD countries fell by 24.1 mb in December, reflecting declines in all three regions. At 2 761 mb, they were 85.9 mb below the five-year average. OECD Europe accounted for 75% of the deficit, led by middle distillates. European middle distillate production has fallen in recent years due to weaker refinery activity. Moreover, the replacement of middle distillate-rich Russian crude due to sanctions by lighter grades, including US barrels, has lowered middle distillate yields.

In terms of forward demand, commercial stocks covered 60.8 days, 0.4 days lower y-o-y. Even though some OECD countries made efforts to replenish their government inventories in 2023, by end-year they were 4.2 mb lower than a year ago. Total OECD oil stocks ended the year at 3 971 mb, the lowest level since 2004. Nevertheless, they still covered 87.5 days of forward demand, seven days more than in 2004 when OECD consumption was considerably higher.



In December, OECD industry crude oil,

NGL and feedstock inventories dropped by 26.3 mb. The United States was responsible for more than half the decrease (-16.4 mb), while they fell by 12.5 mb in OECD Europe. Oil product stocks inched up by 2.2 mb. Larger than usual builds in gasoline (+17.2 mb) and middle distillates (18.7 mb) were partially offset by significant seasonal declines in other products, including LPG (-31 mb) and fuel oil (-2.7 mb). Here again, the United States accounted for the bulk of the changes.

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Early data for January suggest OECD industry stocks fell by a hefty 33.6 mb, with drops in all three regions. Most notably, US crude oil inventories dropped counter-seasonally by 27.5 mb, largely due to the severe cold snap. Overall, OECD crude oil, NGL and feedstock inventories fell by 13.3 mb while product stocks declined by 20.3 mb. Other product inventories decreased significantly, by 37.3 mb, led by the United States (-36.1 mb). Middle distillate inventories inched down by 0.9 mb. By contrast, gasoline and fuel oil built in the three regions by 13.4 mb and 4.5 mb, respectively.

Prelimir	nary O	ECD Inc	_		Change i 023 (prelimi		mber 2	023 ar			<b>ter 2023</b> Jarter 202	
		(million	barrels)		(	million bar	rels per day	·)	(	million bar	rels per day	)
	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total	Am	Europe	As.Ocean	Total
Crude Oil	-9.1	-10.0	-0.1	-19.3	-0.3	-0.3	0.0	-0.6	0.3	-0.1	0.0	0.2
Gasoline	17.1	-0.1	0.2	17.2	0.6	0.0	0.0	0.6	0.1	0.0	0.0	0.1
Middle Distillates	19.5	2.7	-3.5	18.7	0.6	0.1	-0.1	0.6	0.1	-0.3	0.0	-0.2
Residual Fuel Oil	-1.3	0.0	-1.3	-2.7	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1
Other Products	-29.4	-1.2	-0.4	-31.0	-0.9	0.0	0.0	-1.0	-0.6	0.0	0.0	-0.7
<b>Total Products</b>	5.9	1.3	-5.0	2.2	0.2	0.0	-0.2	0.1	-0.4	-0.3	-0.1	-0.8
Other Oils1	-3.1	-2.5	-1.4	-7.0	-0.1	-0.1	0.0	-0.2	0.0	0.0	0.0	-0.1
Total Oil	-6.3	-11.2	-6.6	-24.1	-0.2	-0.4	-0.2	-0.8	-0.1	-0.4	-0.2	-0.7

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

OECD industry inventories for November were revised down by 4.1 mb following the submission of more complete data. OECD Asia Oceania was adjusted lower by 7.2 mb, led by crude oil in Japan (-5.5 mb). This was partially offset by OECD Americas (+2 mb) and OECD Europe (+1.1 mb). October data were revised up by 3.6 mb, mostly for crude oil in Canada (+2.1 mb) and the United Kingdom (+1.4 mb).

OECD Ind	ustry St	ock Revi		rsus Jan on barrels)	uary 202	24 Oil Ma	rket Re	port
	Ame	ricas	Eur	оре	Asia O	ceania	OE	CD
	Oct-23	Nov-23	Oct-23	Nov-23	Oct-23	Nov-23	Oct-23	Nov-23
Crude Oil	2.1	4.5	1.4	1.1	0.0	-5.5	3.5	0.1
Gasoline	0.0	1.2	0.0	0.5	0.0	-0.6	0.0	1.1
Middle Distillates	0.0	2.9	0.1	-2.4	0.0	-0.5	0.1	0.0
Residual Fuel Oil	0.0	-0.5	0.0	1.9	0.0	-0.2	0.0	1.2
Other Products	0.0	-7.6	0.1	-0.9	0.0	-0.2	0.1	-8.7
<b>Total Products</b>	0.0	-4.0	0.1	-0.9	0.0	-1.6	0.1	-6.5
Other Oils <sup>1</sup>	0.0	1.4	0.1	1.0	0.0	-0.1	0.1	2.3
Total Oil	2.1	2.0	1.6	1.1	0.0	-7.2	3.6	-4.1

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

## Implied balance

During 2023, global observed inventories were down by a modest 80 kb/d on average. Stocks on-land fell by 70 kb/d in the OECD but rose by 50 kb/d in non-OECD countries, while oil on water declined by 60 kb/d. Stock changes were moderate despite EU embargoes and the G7 price cap on Russian oils, additional OPEC+ supply cuts and increased turmoil in the Middle East.

In 4Q23, observed inventories declined by 400 kb/d while our demand/supply estimates indicate 770 kb/d of stock builds. OECD commercial crude stocks rose by 80 kb/d, but product inventories declined by a sharp 770 kb/d, mainly due to seasonal draws in LPG. Non-OECD crude oil inventories dropped by 450 kb/d, mostly in China, while product stocks inched down by 30 kb/d. Oil on water jumped by 780 kb/d after an average 600 kb/d decline in the two previous quarters. The large

1.2 mb/d of missing barrels may be partially explained by unaccounted for draws in 3Q23 and limited coverage of product inventories in non-OECD countries.

I	EA Glob	al oil b	alance	(implied	d stock	change	) (mb/d)				
	2021	2022	1Q23	2Q23	3Q23	Oct-23	Nov-23	De c-23	4Q23	2023	Jan-24
Global oil balance	-2.03	0.60	1.56	-0.07	-0.99	0.00	1.13	1.18	0.77	0.31	1.47
Observed stock changes											
OECD industry stocks	-1.06	0.35	-0.25	0.37	0.36	-1.08	-0.22	-0.78	-0.70	-0.05	-1.08
OECD government stocks	-0.16	-0.74	0.03	-0.12	0.03	-0.04	0.01	0.04	0.00	-0.01	0.11
Non-OECD crude stocks*	-0.46	0.26	0.20	0.53	-0.19	-0.71	0.00	-0.63	-0.45	0.02	-0.26
Selected non-OECD product stocks**	-0.02	-0.01	0.31	-0.18	0.04	-0.17	-0.04	0.11	-0.03	0.03	0.04
Oil on water	-0.03	0.27	0.16	-0.63	-0.57	0.73	-0.40	1.96	0.78	-0.06	
Total observed stock changes	-1.72	0.14	0.45	-0.03	-0.33	-1.27	-0.64	0.70	-0.40	-0.08	
Unaccounted for balance	-0.31	0.45	1.10	-0.05	-0.66	1.28	1.77	0.48	1.17	0.39	

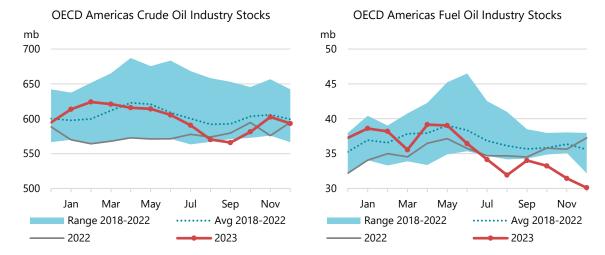
<sup>\*</sup>Crude stock change data from Kayrros and estimated Saldanha Bay data from Kpler.

## Recent OECD industry stock changes

#### **OECD Americas**

Commercial inventories in OECD Americas fell by 6.3 mb in December. At 1 527 mb, they were 1.2 mb below the five-year average. Crude oil stocks fell by 9.1 mb, led by the United States (-13.3 mb). Regional refinery throughputs improved by 960 kb/d y-o-y, partially explaining the draw. NGL and feedstock inventories also decreased, by 3.1 mb.

Oil product stocks rose counter-seasonally by 5.9 mb. Robust refinery output contributed to larger-than-normal stock builds in middle distillates (+19.5 mb) and gasoline (+17.1 mb). Middle distillate inventories hit a two-year high as US diesel demand slumped. By contrast, other product stocks dropped by 29.4 mb, compared with a 21.6 mb normal seasonal decline. US seaborne LPG exports reached a record high of 2.2 mb/d (+360 kb/d y-o-y), mainly to Asia, according to *Kpler*. Fuel oil inventories dipped further, by 1.3 mb, to a fresh low, according to the available data.



Weekly data from the U.S. Energy Information Administration (EIA) show that commercial stocks plunged counter-seasonally by 27.5 mb in January. Crude oil inventories declined by 5 mb, notably

Kayrros data are available for selected countries and include only, and not all, above-ground storage.

<sup>\*\*</sup>JODI data adjusted for monthly gaps in reporting, latest data for November 2023, plus Fujairah and Singapore inventories

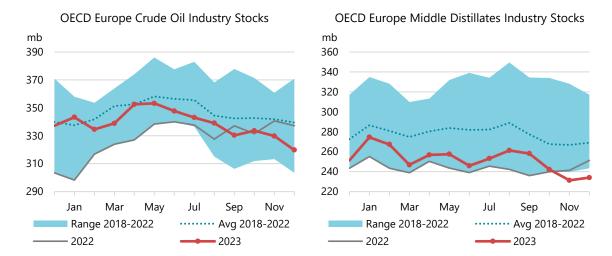
Sources: IEA, EIA, PAJ , Euroilstock , Kayrros , JODI, Kpler , FEDCom/S&P Global Platts and Enterprise Singapore

at the key Cushing, Oklahoma storage hub (-6.4 mb). Winter storms in the middle of the month forced the shutdown of over 500 kb/d of oil production while exports were robust despite refinery activity being affected. In addition, the government's Strategic Petroleum Reserve was refilled (+3.3 mb) through an exchange return and purchase programme. Other oil inventories were down by 0.5 mb. Total oil product stocks drew by 22 mb compared with a 6.2 mb normal seasonal decline. Other product inventories declined by a large 36.1 mb. Higher propane demand (+190 kb/d m-o-m) for heating due to the cold snap only partially explains the movement. Middle distillate stocks were up by a modest 0.8 mb as low refinery output caused a counter-seasonal decrease in diesel (-0.7 mb). Gasoline and fuel oil inventories built by 11 mb and 2.2 mb, respectively, largely in line with the five-year average.

### **OECD Europe**

In OECD Europe, industry stocks fell by 11.2 mb to 884.5 mb in December, 64.3 mb below the 2018-2022 average. Crude oil inventories (-10 mb) accounted for most of the decline, followed by NGLs and feedstocks (-2.5 mb). Combined crude, NGL and feedstock inventories stood at 389.7 mb, the lowest since January 2022.

Oil product inventories rose by 1.3 mb, largely in line with the seasonal norm. Middle distillates were the only product category that posted an increase, up by 2.7 mb, due to lacklustre regional diesel demand. However, they remained below the seasonal average. Other product inventories fell by 1.2 mb, mainly in Italy (-1.8 mb). Fuel oil stocks were largely unchanged, with a build in Italy (+1.2 mb) offset by a decline in the Netherlands (-1.3 mb).

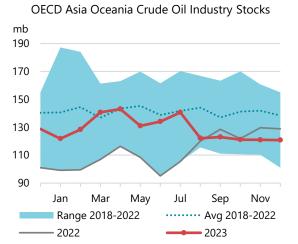


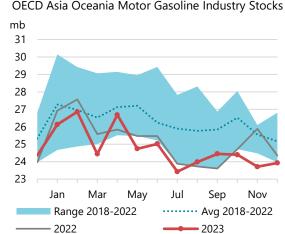
Preliminary data from *Euroilstock* show overall inventories falling by 5 mb in December. Crude oil stocks declined by 6 mb, led by Italy, the Netherlands and Spain (-1.5 mb each). Middle distillates decreased by 1 mb, led by a large 3.8 mb decline in Germany. Naphtha stocks also fell by 1 mb. Gasoline and fuel oil inventories rose by 1 mb and 2 mb, respectively.

### **OECD Asia Oceania**

Industry inventories in OECD Asia Oceania decreased by 6.6 mb in December. They stood at 350.3 mb, 20.5 mb below the five-year average, mainly in crude oil, NGLs and feedstocks (-19.9 mb). Crude oil stocks edged down by 0.1 mb m-o-m, compared with a normal seasonal decline of 3.4 mb. NGL and feedstock inventories fell by 1.4 mb.

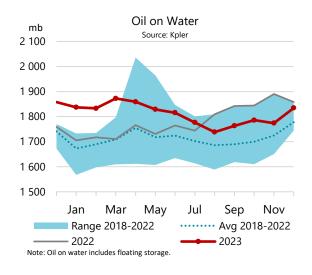
Oil product stocks declined by 5 mb. Most of the changes came from seasonal stock draws in middle distillates (-3.5 mb). Fuel oil inventories fell by 1.3 mb. Other products decreased by 0.4 mb, only one-tenth of the seasonal norm, as demand was the lowest in 15 years for December. Gasoline stocks rose by a mere 0.2 mb and remained below the 2018-2022 range.

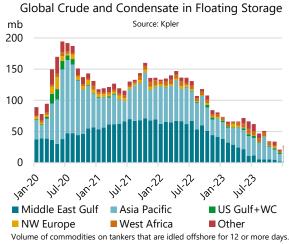




Japanese commercial stocks fell by 1 mb in January, according to preliminary data from the *Petroleum Association of Japan (PAJ)*. Crude oil inventories declined by 3.9 mb, in line with the seasonal trend, while other oil stocks rose by 2.1 mb. Product inventories built counter-seasonally by 0.7 mb. Gasoline stocks recovered by 1.4 mb to the highest level since November 2022. Middle distillate inventories drew by a modest 0.7 mb, as gasoil increased by 1.4 mb and kerosene registered a seasonal fall (-2.1 mb). Fuel oil stocks inched up by 0.3 mb while other product inventories edged down by 0.2 mb.

## Other stock developments





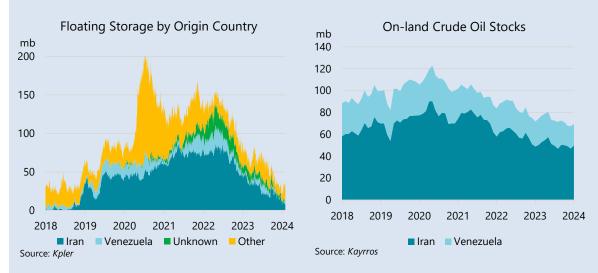
Oil on water, including floating storage, climbed by 60.7 mb to 1 835 mb in December, in line with the seasonal trend, according to tanker tracking data from *Kpler*. Oil on water usually swells at the end of the year to reduce end-year taxation on oil stocks. Notably, seaborne exports from the United States reached a record high. It was the second highest monthly export volume from a single country following Saudi Arabia, when they temporarily hiked output in April 2020 due to the collapse of the OPEC+ agreement. Crude oil surged by 39.1 mb and oil products rose by 21.5 mb. Crude oil in

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floating storage declined by 12.7 mb to 21 mb, the lowest since at least 2016 (See *Strong demand for sanctioned oils reduced stocks*). Oil products held in floating storage built by 6.8 mb to 56 mb, mainly in Asia.

#### Strong demand for sanctioned oil reduced stocks

Floating storage for crude oil and condensate at the end of 2023 was at its lowest level since at least 2016, when the data series starts, as China snapped up big volumes of sanctioned oil. The steady decline in floating storage volumes from a June 2020 peak has provided an average of 140 kb/d of oil to the market. Over the same period, combined on-land inventories in Iran and Venezuela, both subject to sanctions, also steadily declined to the lowest levels since at least 2016, freeing up an additional 40 kb/d.



Note: Floating storage includes crude and condensate volumes on tankers idled offshore for 12 or more days.

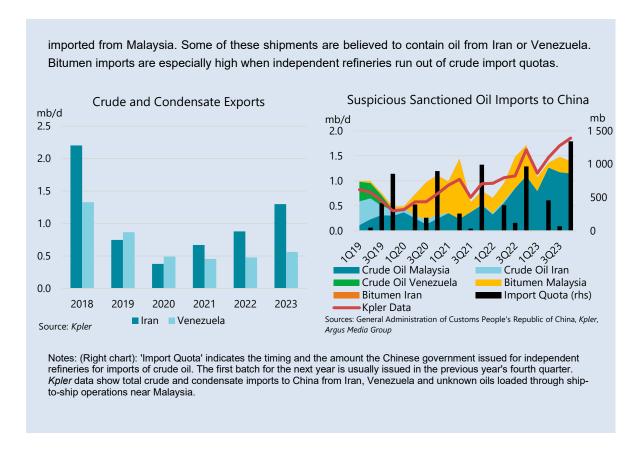
Iran and Venezuela were sanctioned in 2018 and 2019, respectively, and about 50 mb of oil without buyers at the time was stored offshore. In addition, the collapse in demand due to the Covid-19 pandemic boosted offshore storage volumes to around 200 mb. Most of those additional barrels were delivered over the following year, but sanctioned oil kept increasing. From 2Q22, when international oil prices exceeded \$100/bbl, oil in floating storage started to draw. The call on it likely reflects the attractive discount on sanctioned oil, as well as lower availability of heavier sour crudes as other Middle East OPEC producers cut production.

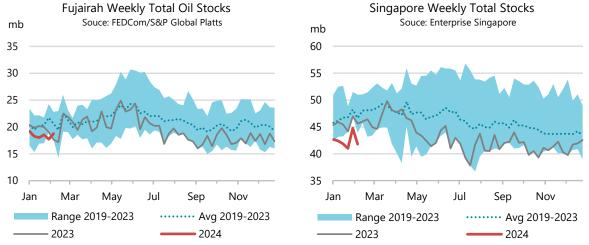
The latest decline in floating storage may also reflect an increase in tanker demand for the so-called shadow fleet to move sanctioned crude and oil products, including Russian oils. In 2023, strong Chinese crude demand and a relaxation of US sanctions on Venezuela helped push exports from Iran and Venezuela to 1.3 mb/d (+420 kb/d y-o-y) and 560 kb/d (+90 kb/d y-o-y), respectively.

Increased exports from Iran and Venezuela in 2023 not only lowered the volume of oil on water but also reduced on-land stocks. According to *Kayrros*, at the end of 2023, crude oil inventories in Venezuela fell to near record low in the available data since 2016 while Iranian stocks returned to pre-sanction levels.

The primary destination for these sanctioned barrels has been China. The country's crude oil imports in 2023 were the highest ever at 11.3 mb/d. Although officially almost no oil was imported from Iran and Venezuela, according to Chinese customs data, enormous amounts of crude oil and bitumen mix were

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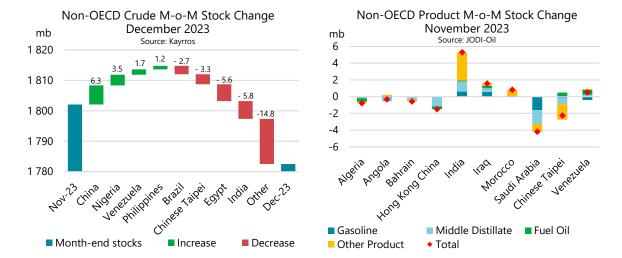




In Fujairah, independent product stocks rose by 1 mb in December to 18.9 mb, the highest since July 2023, according to *FEDCom* and *S&P Global Platts* data. Light distillate inventories jumped by 1.9 mb, to above the 2018-2022 average as imports, mainly from India and Iraq, rose to at least a six-year high, according to *Kpler*. Heavy distillate and residue stocks were largely unchanged, but middle distillate inventories fell by 0.8 mb. In January, total stocks declined by 0.9 mb, mainly in residual fuels.

Product stocks in Singapore rose by 2.4 mb to a five-month high of 42.6 mb in December, according to data from *Enterprise Singapore*. The increases were led by a 2.4 mb build in residual fuel oil, although bunkering sales hit a record high, according to the Maritime and Port Authority of Singapore. Light distillate inventories rose for the first time in 11 months, by 1.3 mb. By contrast,

middle distillate stocks dropped by 1.3 mb, to below their five-year range. In January, total inventories built again, by 2.1 mb, but were still lower than the seasonal average.

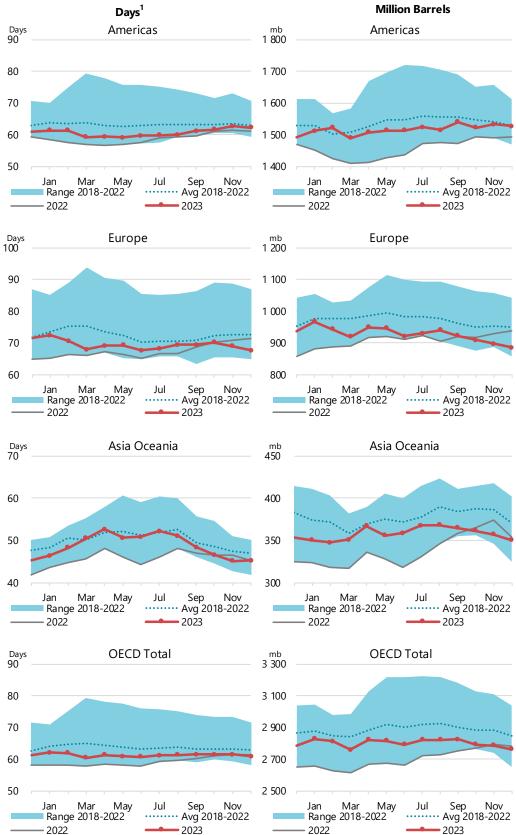


Observed crude oil stored in floating-roof tanks in non-OECD countries dropped by 19.5 mb to 1783 mb, hitting a 14-month low in December, according to satellite data from *Kayrros*. With higher imports, Chinese crude inventories rose by 6.3 mb after four consecutive months of declines that reduced holdings by 77.3 mb. In Nigeria, crude oil stocks built by 3.5 mb as several cargoes were delivered to the Dangote refinery before the start-up of test runs. By contrast, Indian crude stocks fell by 5.8 mb, to the lowest since March 2022, while inventories in Egypt declined by 5.6 mb, mainly at Sidi Kerir. Supply from Saudi Arabia to the Sumed pipeline at Ain Sukhna has been reduced after Riyadh slashed output in July. In January, crude stocks in non-OECD countries fell by 8.2 mb, led by China (-13.8 mb).

In November, oil product stocks in the 10 non-OECD economies reporting to the *JODI-Oil World Database* decreased by 1.5 mb. They declined by 4.2 mb in Saudi Arabia, to the lowest level since 2013, due to major refinery maintenance. Oil product inventories were also down in Chinese Taipei, by 2.3 mb, as its refinery output fell to the lowest level in 12 months. By contrast, stocks in India built by 5.3 mb, thanks to higher m-o-m refinery outputs.

#### **Regional OECD End-of-Month Industry Stocks**

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



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

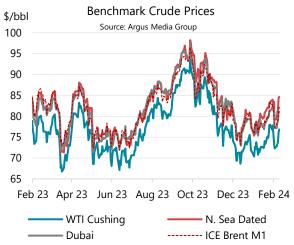
## **Prices**

### **Overview**

Global oil prices in January posted their first monthly gain since September as Middle Eastern tensions escalated. Benchmark North Sea Dated crude rose \$5/bbl to around \$82.60/bbl by end-month while its premium to Brent futures blew out from \$0.50/bbl in December to \$2/bbl in late January. Amid flare-ups on multiple fronts, traders priced risk of a broader conflict, boosting the physical differential by bidding up promptly available Atlantic Basin barrels to replace deliveries delayed by rerouting from the Red Sea. After a US-led coalition launched air strikes on Houthi targets in Yemen, Red Sea attacks continued, targeting military and commercial vessels alike. A drone assault on American troops in Jordan was followed by retaliatory US air strikes against Iranian targets in Syria and Iraq, bringing fresh geopolitical jitters. Oil prices briefly reversed course in early February, falling more than \$5/bbl on reported progress in ceasefire talks between Israel and Hamas. However, prices rebounded after Prime Minister Benjamin Netanyahu dismissed any prospect of a

truce, with the market once again focused on a broadening of the crisis in the Middle East. At the time of writing, Brent futures were trading at \$83/bbl.

An extreme winter Arctic freeze in North America that shut in over 900 kb/d of US and Canadian production further fuelled oil's January turnaround. Growing optimism of a soft landing for the global economy also triggered fresh investor buying. North Sea Dated differentials strengthened and forward price structures firmed as diverted tanker traffic around the



Red Sea lengthened supply chains and delayed flows into the Atlantic Basin. In addition, deferred East of Suez flows to Europe buoyed diesel cracks.

Global stock and bond markets resumed their rally from late last year, propelled by expectations of an imminent dovish pivot in central bank policy. US data remained supportive, with fourth-quarter GDP growth coming in well ahead of expectations at 3.3% annualised. At the same time, consumer price inflation continued to cool, rising by 3.1% y-o-y in January - the lowest reading since June. Citing US resilience, the IMF raised its projection for global growth in 2024 by 0.2% to 3.1%.

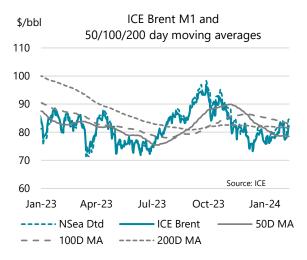
US strength stood in stark contrast to the flatlining eurozone, held back by a stagnant German economy. China also displayed downbeat economic data amid listless domestic demand, evidenced by consumer prices declining for a fourth consecutive month in January. China's GDP grew by 5.2% in 2023 – well below its pre-pandemic 6-7% trend – as the country enters a phase of structurally lower growth. Attesting to the economic malaise is China's accelerating stock market sell-off. The rout worsened in January as investors, frustrated by the lack of new government stimulus measures, liquidated their holdings. Regulators tried to prop up share prices through stricter capital controls and curbs on short selling. Still, the benchmark CSI 300 and Hang Seng stock indices fell by 6% and 9%, respectively, in January, contrasting with equity indices chasing record highs elsewhere.

	Nov 2023         Dec 2023         Jan 2024         05 Feb         09 Feb         Δ         Δ           77.38         72.12         73.86         74.60         76.84         4.20         1.74           82.03         77.32         79.15         79.92         82.19         4.67         1.83           83.05         77.85         80.26         82.17         84.62         5.18         2.41           77.44         72.08         73.93         74.60         76.84         4.20         1.85           83.33         77.16         78.74         79.28         81.02         4.36         1.58								
		Month		Week of:	Last:	Chan	ges Jan	-24	
						*M onthly	m-o-m	у-о-у	
	Nov 2023	Dec 2023	Jan 2024	05 Feb	09 Feb	$\Delta$	$\Delta$	$\Delta$	
Crude Futures (M1)									
NYMEX WTI	77.38	72.12	73.86	74.60	76.84	4.20	1.74	-4.30	
ICE Brent	82.03	77.32	79.15	79.92	82.19	4.67	1.83	-4.76	
Crude Marker Grades									
North Sea Dated	83.05	77.85	80.26	82.17	84.62	5.18	2.41	-2.60	
WTI (Cushing)	77.44	72.08	73.93	74.60	76.84	4.20	1.85	-4.18	
Dubai (London close)	83.33	77.16	78.74	79.28	81.02	4.36	1.58	-1.93	
Differential to North Sea Dated									
WTI (Cushing)	-5.62	-5.77	-6.33	-7.57	-7.78	-0.98	-0.56	-1.58	
Dubai (London close)	0.28	-0.69	-1.52	-2.89	-3.60	-0.82	-0.84	0.67	
Differential to ICE Brent									
North Sea Dated	1.02	0.52	1.11	2.25	2.43	0.51	0.59	2.15	
NYMEX WTI	-4.65	-5.20	-5.29	-5.32	-5.35	-0.47	-0.09	0.45	

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

### **Futures markets**

Crude oil futures rose by around \$5/bbl during January as the widening conflict in the Middle East heightened anxiety about potential supply disruptions. Additional price support came from the shut-in of significant oil production in North America in the wake of Arctic winter storms. Bullish financial markets, which included the S&P 500 index reaching all-time highs, further stoked momentum. Underscoring the overall risk-on sentiment, Brent's 30-day running correlation with the S&P ended the month at 65%. Oil's recovery occurred despite a firmer US dollar that rose against all major currencies in January.

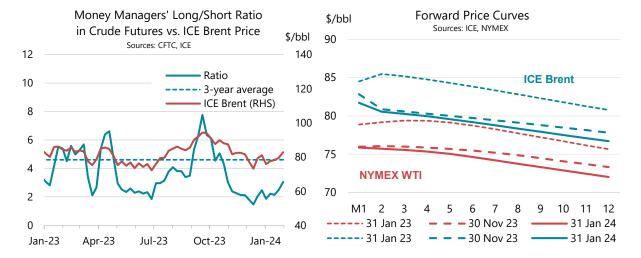


After trading below key resistance levels over the past two months, oil's technical price picture brightened, bringing fresh buying from trend-following traders. Brent futures conquered their 50-day moving average in mid-January and hovered near 100- and 200-day levels by end-month.

Crude's forward price structure continued to strengthen, with 1-12 month backwardations almost doubling to about \$4/bbl for both WTI and Brent. While shipping disruptions strained global commerce and upended supply chains, they locked-up barrels in a period of already low on-land oil stocks. This drove contango from nearby delivery months and the entire WTI curve moved into backwardation amid tightening US balances. US commercial crude inventories fell by 2% in January, according to weekly EIA data, at variance with their typical seasonal increase. Stocks at the NYMEX Cushing, Oklahoma delivery point drew throughout the month, posting 2 mb draws for three straight weeks and falling 18% m-o-m as winter storms curtailed US production.

<sup>\*</sup>Monthly  $\Delta$  refers to the difference in price between the current and previous end of month.

The same drivers substantially impacted product balances and prices. Higher freight rates and longer shipping routes hampered East of Suez flows to Europe, while lagging US refining throughput due to maintenance and cold weather also tightened balances. The NYMEX ULSD versus WTI crack spiked by \$7/bbl as the call on restrained US diesel supplies increased. Diesel margins ended the month only a whisker below last year's seasonal all-time highs. RBOB gasoline cracks were little changed as east to west flows are less prominent and Europe is an exporter.



As investors were net buyers in both WTI and Brent, the ratio of long-to-short crude futures held by money managers rose by half a point to 3.1 – still well below the historical average of 4.6. Total speculative crude positions climbed to 378 mb, their highest level since October. Non-commercial holdings in product futures rose by about 25% to 124 mb as investors added to their gasoil longs.

Total open interest in the five main ICE and NYMEX futures contracts gained 10% to 5 337 mb, surpassing 5 000 mb for the first time since October.

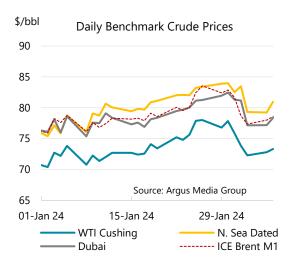
				<b>Dil Futures</b> kly averages,							
				Jan 2	2024		Week Co	mmencii	ng:		Last:
	Nov 2023	De c 2023	Jan 2024	*Monthly ∆	m-o-m Δ	<i>y-o-y</i> Δ	15 Jan	22 Jan	29 Jan	05 Feb	09 Feb
NYMEX											•
Light Sw eet Crude Oil (WTI) 1st contract	77.38	72.12	73.86	4.20	1.74	-4.30	73.11	76.00	75.31	74.60	76.84
Light Sw eet Crude Oil (WTI) 12th contract	75.69	72.48	73.01	-2.09	0.53	-3.74	70.45	72.89	72.48	72.50	72.80
RBOB	92.50	88.41	90.73	3.39	2.32	-13.61	90.34	94.21	92.52	95.52	98.26
ULSD	119.93	110.05	112.64	10.71	2.60	-22.91	112.03	115.13	116.10	118.76	124.50
ULSD (\$/mmbtu)	21.60	19.82	20.29	1.93	0.47	-4.13	20.18	20.74	20.92	21.39	22.43
NYMEX Natural Gas (\$/mmbtu)	3.06	2.54	2.72	-0.41	0.18	-0.71	2.75	2.56	2.16	1.96	1.85
ICE											
Brent 1st contract	82.03	77.32	79.15	4.67	1.83	-4.76	78.40	81.13	80.60	79.92	82.19
Brent 12th; contract	79.80	76.68	77.36	-2.01	0.67	-3.60	74.95	77.34	76.96	76.72	77.17
Gasoil	111.95	104.01	106.85	14.01	2.84	-17.46	105.80	109.87	113.53	116.23	123.36
Prompt Month Differentials											
NYMEX WTI - ICE Brent	-4.65	-5.20	-5.29	-0.47	-0.09	0.45	-5.28	-5.12	-5.29	-5.32	-5.35
NYMEX WTI 1st vs. 12th	1.69	-0.36	0.85	6.29	1.21	-0.56	2.66	3.12	2.83	2.10	4.04
ICE Brent 1st - 12th	2.23	0.64	1.79	6.68	1.15	-1.16	3.45	3.79	3.64	3.20	5.02
NYMEX ULSD - WTI	42.55	37.92	38.78	6.51	0.86	-18.61	38.92	39.12	40.79	44.15	47.66
NYMEX RBOB - WTI	15.12	16.29	16.87	-0.81	0.59	-9.31	17.23	18.21	17.21	20.91	21.42
NYMEX 3-2-1 Crack (RBOB)	24.26	23.50	24.18	1.63	0.68	-12.41	24.46	25.18	25.07	28.66	30.16
NYMEX ULSD - Natural Gas (\$/mmbtu)	18.55	17.29	17.58	2.34	0.29	-3.42	17.44	18.18	18.76	19.43	20.58
ICE Gasoil - ICE Brent	29.92	26.69	27.70	9.34	1.01	-12.70	27.41	28.74	32.93	36.31	41.17

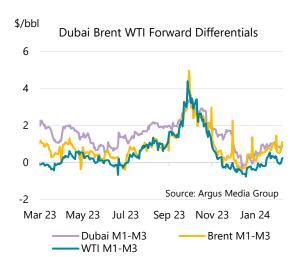
Sources: ICE, NYMEX

<sup>\*</sup>Monthly  $\Delta$  refers to the difference in price between the current and previous end of month.

## Spot crude oil prices

In January, physical crude markets tightened, with attacks on Red Sea shipping creating a divide between the Atlantic Basin and East of Suez that was accentuated by North American production losses and OPEC production cuts. Spot crude oil prices posted an average m-o-m increase of \$2/bbl, which somewhat masked the upturn of around \$5/bbl over the course of the month. Notably, North Sea Dated rose by \$5.18/bbl to \$82.53/bbl while front-month ICE Brent futures moved up by \$4.67/bbl to \$81.71/bbl. The medium sour marker Dubai firmed by \$5.45/bbl to \$82.38/bbl, while WTI at Cushing closed the month at \$75.85/bbl, up by \$4.20/bbl.





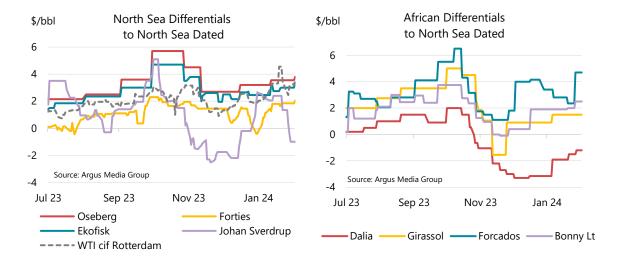
Attacks on ships transiting the Bab-el-Mandeb Strait continue to force a significant rerouting of supplies, resulting in a rise in freight rates and wider crude price differentials. As well, the deferred arrivals of purchased barrels forced refiners to pick-up immediately available short-haul barrels, lifting physical premiums to futures and steepening the price structure. A steeper backwardation makes long-distance transport less economically viable, increasing demand for local supplies. Also in January, production shut-ins in the United States reduced WTI exports to Europe to their lowest level since April 2023. This was aggravated by Libyan supply outages during the month. Grappling with these losses, Atlantic Basin refiners exerted upward pressure on prompt North Sea prices. North Sea Dated held an average premium of \$1.11/bbl over ICE Brent in January, more than double its December average. The premium strengthened even further in early February, reaching \$2.84/bbl.

The Brent-Dubai exchange of futures for swaps (EFS), representing the premium of light sweet ICE Brent crude to medium sour Dubai swaps, increased to \$1.16/bbl (+\$0.60/bbl), the widest since October 2023. This incentivised Asian-Pacific buyers towards Dubai-linked crudes, pushing prompt prices up. This shift was also evident in the more backwardated Dubai first-to-third-month spread, which widened by \$0.66/bbl m-o-m to \$0.83/bbl, reaching a high of \$1.09/bbl by the end of January.

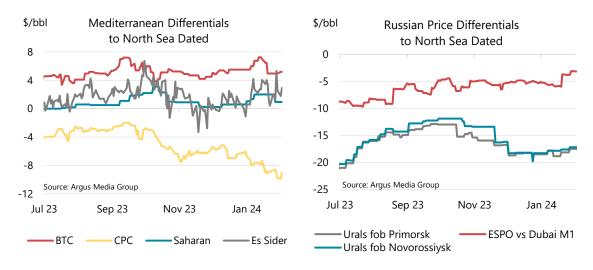
In the Atlantic Basin, prices for grades underpinning the North Sea Dated benchmark saw an increase in January as regional refiners sought prompt domestic supplies. The premium to North Sea Dated for light sweet Ekofisk rose to \$2.72/bbl (+\$0.35/bbl), while that for Oseberg inched up to \$3.39/bbl (+\$0.53/bbl). WTI also experienced gains on a delivered basis to Europe due to higher freight rates. WTI CIF Rotterdam climbed \$1.11/bbl m-o-m to \$2.86/bbl, reaching a high of \$4.55/bbl in the last week the month. Delays in shipments from the Middle East led to stronger demand for regional medium sour crudes. Consequently, medium sour Johan Sverdrup saw a substantial \$3.43/bbl m-o-m boost shifting from a -\$1.41/bbl discount to a \$2.01/bbl premium in January. The wave of Guyanese medium sour exports to Europe nearly doubled in recent months, and helped

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eventually push spreads lower. Forties versus Dated rose by \$0.11/bbl to \$1.16/bbl, peaking at \$1.85/bbl mid-month.



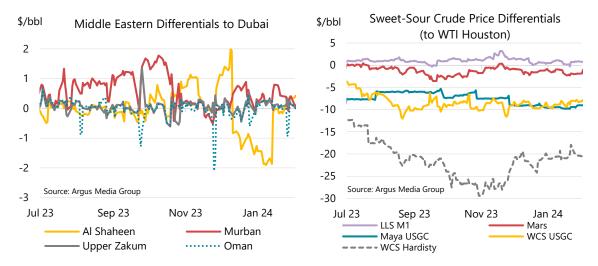
Differentials for West African light sweet grades to North Sea Dated strengthened for a second consecutive month, supported by robust European demand and favourable refining margins. Notably, Bonny Light's premium experienced a significant uptick, rising by \$1.16/bbl m-o-m to \$1.95/bbl, while Brass River averaged \$1.50/bbl, marking a \$1/bbl m-o-m gain. Qua Iboe increased by \$0.87/bbl m-o-m to \$2.05/bbl. The differential for Forcados against Dated was down \$0.60/bbl m-o-m to \$2.97/bbl, but subsequently surged to \$4.70/bbl by month-end. By contrast, Angolan prices firmed, buoyed by strong Asian interest, particularly from India as its refiners shifted away from Russian Sokol. Girassol saw its premium rise \$0.44/bbl m-o-m to \$1.34/bbl, while the discount for heavy sweet Dalia narrowed by \$1.06/bbl to -\$2.15/bbl.



In early January, key light sweet Mediterranean grades strengthened against North Sea Dated, driven by supply disruptions in both the United States and Libya. Libya's declaration of *force majeure* on the El Sharara field, closed by protesters on 3 January, tightened supplies into Europe. Azeri BTC Blend rose by \$0.72/bbl to \$5.93/bbl while Es Sider strengthened by \$0.62/bbl m-o-m to \$0.88/bbl. However, premiums for both grades saw sharp declines by month-end, as Libyan production resumed late in the month. Prices for Algerian Saharan Blend against Dated rose sharply, by \$1.15/bbl m-o-m to \$1.59/bbl and managed to retain some of their early momentum into February. CPC blend differentials posted a significant decline in January, to a \$7.85/bbl discount (-\$1.88/bbl m-o-m) as disruptions in shipping via the Suez Canal, coupled with rising freight rates, left many

eastbound shipments stranded. Only one CPC cargo headed east in January as compared to an average six per month in 2023. Prices for Russian Urals against Dated remained largely unchanged in January. Urals FOB Primorsk fell by \$0.12/bbl m-o-m to -\$18.34/bbl, while Urals FOB Novorossiysk added \$0.10/bbl to -\$18.10/bbl. Russian ESPO prices against Dubai remained flat at -\$5.11/bbl.

In the Middle East, physical prices relative to the Dubai benchmark were resilient amid considerable downward pressures. Ongoing refinery maintenance and Red Sea shipping disruptions left a surplus of crude in the region, while the start of refinery turnarounds in Asia also dampened market interest. However, firm medium sour cracking margins in Singapore, along with a stronger Brent-to-Dubai spread, helped boost some grades. Spot differentials for Mideast Gulf medium sour grades saw modest increases, with differentials for Upper Zakum to Dubai futures up by \$0.10/bbl m-o-m to a \$0.12/bbl premium. Oman differentials posted a marginal uptick, of \$0.13/bbl m-o-m, flipping December's discount to a \$0.03/bbl premium. Qatari Al-Shaheen lost \$1.10/bbl m-o-m, moving to a \$0.91/bbl discount. Prices collapsed at the start of January, to a discount as low as -\$1.91/bbl mid-month, before clawing back some of the losses and returning to a \$0.16/bbl premium by monthend. Light sour Murban crude was relatively stable, with premiums averaging \$0.33/bbl in January (-\$0.04/bbl).



In the Americas, crude prices were stable despite lower inventories and severe weather conditions in the United States and Canada. Prolonged sub-freezing temperatures throughout the Midwest and down into the US Gulf Coast region caused substantial production losses. Lost supply boosted WTI Houston and WTI Midland versus Cushing. They inched up by \$0.06/bbl and \$0.13/bbl m-o-m, respectively. The supply losses were partially offset by lower refinery throughputs, with the cold weather impacting plant operations and pushing some into early spring maintenance. Furthermore, higher freight rates contributed to muted demand for WTI, with US exports out of the Gulf Coast plummeting to their lowest level in a year. Spreads for both WTI Houston and Midland weakened substantially in early February as production began to recover. In the sour crude market, the discount of Western Canadian Select (WCS) priced in Houston versus WTI Houston narrowed by \$0.21/bbl to -\$8.72/bbl. The TMX pipeline suffered new technical delays that will push the line-fill phase into 2Q2024. The discount for WCS at Hardisty versus WTI in Cushing narrowed by \$1.32/bbl to -\$18.44/bbl, reflecting the impact of the recent storms on production. Rising freight rates also impacted differentials for sour crudes, with Mexican Maya against WTI Houston widening by \$0.51/bbl to -\$9.58/bbl, while Mars slid by \$0.21/bbl to -\$1.59/bbl.

	Sp			ces and Diekly averages,		als					
				J	an 2024		Week Co	ommenci	ng:		Last:
	Nov 2023	De c 2023	Jan 2024	*Monthly Δ	m-o-m Δ	<i>y-o-y</i> Δ	08 Jan	15 Jan	22 Jan	29 Jan	09 Feb
Crudes											
North Sea Dated	83.05	77.85	80.26	5.18	2.41	-2.60	78.92	80.18	82.55	82.64	84.62
North Sea Mth 1	82.60	77.77	79.96	4.01	2.20	-4.23	78.90	79.26	81.83	81.62	83.57
North Sea Mth 2	82.24	77.58	79.13	3.93	1.55	-5.10	77.79	78.28	80.75	81.18	81.82
WTI (Cushing) Mth 1	77.44	72.08	73.93	4.20	1.85	-4.18	71.82	73.11	76.30	75.31	76.84
WTI (Cushing) Mth 2	77.46	72.34	73.85	3.87	1.51	-4.54	71.91	73.05	75.89	75.22	76.77
WTI (Houston) Mth 1	78.61	73.95	75.86	3.85	1.91	-3.72	73.68	75.26	78.19	77.03	78.94
Urals FOB Primorsk	67.07	59.63	61.92	6.18	2.29	19.10	60.70	61.54	64.26	64.88	65.87
Dubai (1st month)	83.41	77.31	78.73	5.45	1.42	-1.69	77.60	77.67	79.76	81.24	80.84
Differentials to Futures											
North Sea Dated vs. ICE Brent	1.02	0.52	1.11	0.51	0.59	2.15	1.68	1.78	1.42	2.04	2.43
WTI (Cushing) Mth1 vs. NYMEX	0.06	-0.04	0.07	0.00	0.11	0.12	0.00	0.00	0.29	0.00	0.00
Differentials to Physical Markers											
WTI (Houston) vs. North Sea Mth 2	-3.63	-3.62	-3.27	-0.08	0.36	1.38	-4.11	-3.02	-2.57	-4.15	-2.88
WTI (Houston) vs.WTI (Cushing)	1.18	1.87	1.93	-0.35	0.06	0.46	1.86	2.15	1.89	1.72	2.10
Urals FOB Prim vs. North Sea Dated	-15.99	-18.22	-18.34	1.00	-0.12	21.71	-18.22	-18.64	-18.29	-17.76	-18.75
Dubai vs. ICE Brent	1.38	-0.02	-0.42	0.78	-0.41	3.39	0.36	-0.73	-1.37	0.64	-1.35
Dubai vs. WTI (Cushing) Mth 2	5.95	4.96	4.87	1.58	-0.09	2.85	5.70	4.62	3.87	6.02	4.07
Prompt Month Differentials											
Forward North Sea Mth1-Mth2	0.36	0.19	0.83	0.08	0.64	0.87	1.11	0.98	1.07	0.44	1.75
Forw ard WTI Cushing Mth1-Mth2	-0.03	-0.26	0.08	0.33	0.34	0.36	-0.09	0.06	0.41	0.09	0.07
Forw ard Dubai Mth1-Mth2	0.97	-0.02	0.58	1.10	0.59	0.00	0.54	0.65	0.70	0.60	0.41

Sources: Argus Media Group , ICE, NYMEX

#### Russian oil exports flat but revenues creep up in January

Russian oil export volumes changed little in January versus December, at around 7.7 mb/d. Commercial revenues rose by 1.4% m-o-m, however, to \$15.7 billion thanks to modest gains in product prices. Government fiscal revenues fell for a second month. Recent Ukraine attacks on Russian refineries and a condensate splitter have yet to affect product loadings, but the impact on trade flows could be significant if repair works are prolonged. In January, average prices for all crudes exceeded the G7 price cap while all products except naphtha were below the cap.

Urals prices rose in January, starting below \$60/bbl and ending the month near \$66/bbl before dropping to \$61.8/bbl in early February. Russian Urals crude prices rose by \$2.29/bbl m-o-m to \$61.92/bbl FOB Primorsk and \$2.52/bbl to \$62.16/bbl FOB Novorossiysk, versus a \$2.41/bbl increase in North Sea Dated to \$80.26/bbl. Gains for ESPO crude amounted to only \$1.40/bbl m-o-m to \$73.62/bbl, but mirrored the gains for Dubai M1 and thus held its discount flat versus that marker at \$1.50/bbl.

Discounts to North Sea Dated for Urals held steady (-\$0.12/bbl m-o-m to -\$18.34/bbl for Urals FOB Primorsk and +\$0.10/bbl m-o-m to -\$18.10/bbl for Urals FOB Novorossiysk), but ESPO widened by \$1.0/bbl to -\$6.64/bbl as recent Red Sea tensions boosted North Sea Dated values versus East of Suez crudes. Export volumes remained broadly unchanged at around 7.69 mb/d (crude -1% over the month to 4.84 mb/d, product +0.5% to 2.85 mb/d) despite recent outages at major refining and fractionation installations. With the exception of vacuum gasoil (VGO), the monthly average differentials for Russian product export prices versus Urals in the Baltic lagged the improvement in international market cracks.

The price discount for Urals delivered to India's west coast versus Dubai M2 narrowed to -\$1.70/bbl. Given the similarity of the grades, lower discounts undermine the benefit of taking Urals if loading prices exceed the G7 price cap. US pressure to respect the cap has hindered delivery of Russian crude to India, which fluctuated from 2 mb/d in January-October to 1.4 mb/d in November, before bouncing back to 1.7 mb/d in December. Exports dropped again in January, to 1.5 mb/d. However, 0.9 mb/d of January

<sup>\*</sup>Monthly  $\Delta$  refers to the difference in price between the current and previous end of month

Russian crude exports have yet to see discharge ports announced. Sokol crude cargoes (priced above the G7 price cap) fell to zero in January before recovering to 2-3 cargoes in February. India took around 65% of Sokol exports in 2023, or roughly 135 kb/d. Most headed to the port of Vadinar where Rosneft (producer of Sokol) owns a 49% stake in Nayara Energy's 400 kb/d refinery. Recently diverted Sokol tankers went to Malaysia and Northeast Asia, while some Chinese independent refiners have reportedly boosted purchases. Total Russian oil exports to China were 2.2 mb/d in January, some 300 kb/d lower than a year ago, but could yet come in higher once the tankers still on water reach their destination.

Russian	Crude FOB E	I)		Discount	s to N.Sea	Dated				
	Nov-23	Dec-23	Jan-24	Nov - Dec	Dec - Jan	Nov-23	Dec-23	Jan-24		
North Sea Dated	83.05	77.85	80.26	-5.21	2.41					
Price Cap	60.00	60.00	60.00							
Russia Wtd Avg	71.34	64.15	65.42	-7.19	1.27	-11.72	-13.70	-14.84		
Urals FOB Primorsk	67.07	59.63	61.92	-7.44	2.29	-15.99	-18.22	-18.34		
Urals FOB Novorossiysk	68.80	59.65	62.16	-9.16	2.52	-14.25	-18.20	-18.10		
ESPO FOB Kozmino	78.06	72.21	73.62	-5.85	1.41	-4.99	-5.64	-6.64		
						Discour	-13.70 -14.84 -18.22 -18.34 -18.20 -18.10 -5.64 -6.64 ts to Dubai M1			
ESPO FOB Kozmino						-5.44	-5.11	-5.10		

Sources: Argus Media Group, Kpler . Russia Weighted Average for Urals from Baltic and Blacks Sea, Siberian Light and Espo.

Russian oil cargoes transiting the Red Sea fell modestly in January, following Houthi attacks on ships in the Bab-el-Mandeb Strait. Limited disruption to Russian trade has kept freight costs to ship Urals from Primorsk to West Coast India flat at around \$12/bbl since mid-November. But costs have risen for Russian product tankers which have begun transiting round the Cape of Good Hope and using ship-to-ship transfers to move Russian cargoes more economically via VLCCs.

Ukrainian attacks disrupted operations at several Russian refineries, including the 240 kb/d Tuapse refinery (24 January), a 70 kb/d crude unit at Rosneft's 290 kb/d Volgograd refinery (3 February) and Novatek's Ust-Luga fractionator (6 Mt/yr, 21 January). All three facilities are large product exporters, but have yet to show an impact from the hits. Announced repair dates suggest a mid-March return to operation, but it could be longer. A decline in throughputs could drive a spike in crude exports.

						Russ	ian Oil E	xports (r	nb/d)						
	E G	UK+US	Türkiye	China	India	OECD Asia	Middle East	Africa	L.America	Other	Unknown	Total	Crude	Products	Export Revenue \$bn
2021 avg	3.3	0.6	0.2	1.6	0.1	0.5	0.1	0.1	0.1	0.8	0.0	7.2	4.6	2.6	15.1
2022 avg	2.9	0.1	0.4	1.9	0.9	0.2	0.2	0.1	0.1	0.6	0.0	7.4	5.0	2.5	19.0
2023 avg	0.6	0.0	0.7	2.3	1.9	0.0	0.3	0.4	0.2	0.9	0.1	7.4	4.9	2.6	14.6
Dec 2022	1.9	0.0	0.4	2.0	1.6	0.1	0.1	0.3	0.0	0.7	0.0	7.3	4.6	2.7	13.7
Jan 2023	1.3	0.0	0.5	2.5	1.8	0.0	0.3	0.3	0.1	0.8	0.0	7.7	5.1	2.7	14.5
Feb 2023	0.5	0.0	0.5	2.4	1.8	0.0	0.4	0.5	0.1	1.0	0.0	7.3	4.9	2.4	11.9
Mar 2023	0.5	0.0	0.6	2.2	2.2	0.1	0.5	0.5	0.2	1.0	0.1	7.8	4.9	3.0	13.5
Apr 2023	0.5	0.0	0.6	2.5	2.2	0.1	0.5	0.3	0.2	0.8	0.0	7.7	5.0	2.7	14.1
May 2023	0.5	0.0	0.7	2.4	2.3	0.0	0.4	0.3	0.2	0.9	0.0	7.7	5.2	2.5	12.8
Jun 2023	0.5	0.0	0.7	2.3	1.8	0.0	0.4	0.3	0.2	0.8	0.0	7.1	4.8	2.3	11.8
Jul 2023	0.5	0.0	0.6	2.2	1.7	0.0	0.4	0.4	0.2	0.8	0.0	6.9	4.5	2.4	13.9
Aug 2023	0.6	0.0	0.7	2.1	1.8	0.0	0.2	0.4	0.2	0.8	0.0	6.8	4.6	2.2	15.9
Sep 2023	0.6	0.0	0.7	2.4	2.0	0.0	0.4	0.3	0.2	0.8	0.0	7.4	4.8	2.6	17.9
Oct 2023	0.6	0.0	0.7	2.5	1.9	0.1	0.2	0.3	0.2	1.0	0.0	7.4	5.0	2.5	17.8
Nov 2023	0.5	0.0	0.9	2.5	1.4	0.0	0.1	0.3	0.3	1.0	0.2	7.2	4.7	2.5	15.2
Dec 2023	0.6	0.0	0.8	2.3	1.7	0.1	0.1	0.4	0.3	1.0	0.4	7.7	4.9	2.8	15.3
Jan 2024	0.4	0.0	0.8	2.2	1.5	0.0	0.1	0.5	0.2	1.0	0.9	7.7	4.8	2.9	15.6
M-o-M chg	-0.2	0.0	0.0	0.0	-0.2	-0.1	-0.1	0.1	-0.1	0.0	0.5	0.0	-0.1	0.0	0.3
Y-o-Y chg		0.0	0.3	-0.3	-0.3	0.0	-0.2	0.1	0.1	0.2	0.9	-0.1	-0.2	0.2	1.1

Note: Data in this table were derived by granular analysis and estimates of country of origin data in cases where shipments transit via third countries. They may differ from customs information due to calculation methodology and estimates updates.

Sources: IEA analysis of data from Argus Media Group and Kpler.

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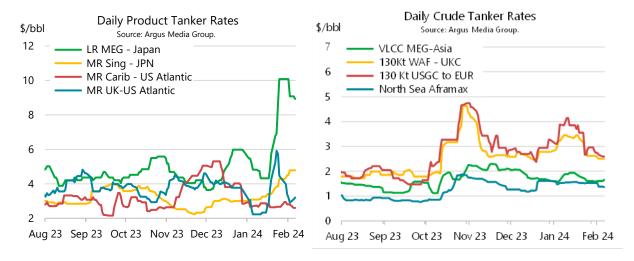
Russian product export prices rose, but remained below the G7 price cap, except for naphtha. Cracks for products versus Urals in the Baltic traced similar trends to their international peers in Northwest Europe versus North Sea Dated, with the exception of gasoil and diesel prices that lagged by around \$1/bbl. Marginal increases in export volumes of naphtha, gasoline and gasoil/diesel were offset by a 10%, or 100 kb/d, decline in fuel oil that held overall product export volumes almost unchanged on the month. Exports to Türkiye reached 510 kb/d in January, the highest level ever and consisted mostly of gasoil. However, exports for which destinations have yet to be determined currently amount to 500 kb/d, much of which could go to China, India, the Middle East or Latin America.

				Russ	ian FOB Exp	ort Prices (\$	/bbl)					
	Nov-23	Dec-23	Jan-24	Nov - Dec	Dec - Jan		Nov-23	Dec-23	Jan-24	Nov - Dec	Dec - Jan	
	Pren	nium Prod					Disco	unted Pro	ducts			
Price Cap	100.00	100.00	100.00			Price Cap	45.00	45.00	45.00			
Gasoline	72.37	68.99	71.63	-3.37	2.64	Naphtha	49.29	48.40	48.01	-0.90	-0.38	
Diesel	96.29	87.86	88.88	-8.43	1.01	Fuel Oil	43.45	38.21	38.46	-5.24	0.25	
Gasoil	87.65	79.28	81.46	-8.37	2.18	Sources: Argu	ıs Media Gro	oup, Kpler.				
VGO	58.69	53.96	55.84	-4.73	1.88	88 Note: Weighted avg prices from Baltic and Black Sea ports.						

Russian fiscal revenues from oil fell 12% m-o-m, to \$8.6 bn (-10% versus January 2022), according to the Russian Finance Ministry. Since January, the export duty on crude oil and refined products has been removed as a part of their tax reform in the oil and gas industry. The Mineral Extraction Taxes (MET) now accounts for the fiscal take. Profit-based taxation currently covers half of Russian oil production; the government may widen this in 2027. The system taxes crude sales profits in return for a reduced MET. This benefits "hard to recover" oil (3.2 mb/d today) whose output is expected to rise in the coming years as conventional reserves are depleted. An export duty of \$1.60/tonne applies to LPG.

## **Freight**

Global freight rates increased sharply in January, especially for product shipments, as the Red Sea tensions disrupted supply chains and vessels transiting the Suez Canal. Prolonged disruptions in the Bab-el-Mandeb Strait forced many shipments to divert via the Cape of Good Hope, increasing voyage times by weeks and tying down more vessels. Consequently, prices for Long Range (LR) clean cargoes transiting from the Middle East to Asia surged 31% m-o-m to \$6.38/bbl, peaking at \$9.88/bbl by month-end, an 89% increase over the month. Medium Range (MR) rates for intra-Asia shipments rose \$0.57/bbl to \$3.54/bbl due to a pre-lunar New Year holiday burst in chartering. Rates for MR product charters in the Americas fell \$1.60/bbl to \$2.75/bbl amid the severe weather that sent some US Gulf Coast refineries into early turnarounds. Demand for MR transatlantic product charters was muted, and rates averaged \$3.42/bbl, down \$0.54/bbl m-o-m.



Crude tanker rates were higher on average, compared to December, and prices spiked in mid-January across most voyages as shippers scrambled to reroute cargoes. However, by month-end prices experienced a sharp decline, as supply disruptions in the United States and Libya, coupled with the imminent refinery turnaround season, helped ease tight tonnage lists. VLCC voyages from the Middle East to Japan dropped from \$1.82/bbl to \$1.74/bbl, but were still 15% higher y-o-y and above the seasonal average despite backwardated curves that normally deter longer-haul shipments. Suezmax rates rose by 19% m-o-m on average, with West Africa to Europe charters up by \$0.45/bbl to \$3.10/bbl and USGC to Europe increasing by \$0.59/bbl to \$3.41/bbl, but both rates retreated by the end of the month. North Sea Aframax rates were stable throughout the month, maintaining an average price of \$1.54/bbl.

				Freigh	t Costs						
			(mont	hly and week	ly averages	, \$/bbl)					
				Jan	-24		V	Veek Con	nmencin	9	
	Nov 23	De c 23	Jan 24	m-o-m chg	y-o-y chg	01-Jan	08-Jan	15-Jan	22-Jan	29-Jan	05-Feb
Crude Tankers											
VLCC MEG-Asia	2.15	1.82	1.74	-0.09	0.22	1.59	1.89	1.87	1.65	1.59	1.63
130Kt WAF - UKC	3.00	2.65	3.10	0.45	-0.07	3.06	3.43	3.39	2.81	2.58	2.50
130Kt USGC to EUR	3.53	2.81	3.41	0.59	0.62	3.34	4.00	3.74	2.94	2.78	2.59
North Sea Aframax	1.56	1.35	1.54	0.19	0.14	1.52	1.54	1.56	1.52	1.50	1.37
Product Tankers											
LR MEG - Japan	4.31	4.86	6.38	1.51	0.55	5.24	4.59	4.72	8.50	9.88	9.00
MR Sing - JPN	2.49	2.97	3.54	0.57	-0.02	3.06	3.13	3.38	4.00	4.48	4.79
MR Carib - US Atlantic	3.84	4.35	2.75	-1.60	0.79	2.75	2.78	2.70	2.66	2.86	2.60
MR UK-US Atlantic Source: Argus Media Group .	4.07	3.96	3.42	-0.54	-0.40	2.72	2.25	3.18	5.14	3.51	3.15

# **Tables**

						Table	∍ 1										
			WOR	LD O	IL SI	JPPL	Y AN	D DEMA	.ND								
					(millio	n barrels	s per day)										
	2020	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	202
OECD DEMAND																	
Americas	22.5	24.3	24.7	24.8	24.9	24.7	24.8	24.5	25.2	25.3	25.2	25.0	24.6	25.1	25.3	25.1	25
Europe	12.4	13.2	13.2	13.5	14.0	13.3	13.5	13.1	13.5	13.6	13.3	13.4	13.1	13.4	13.4	13.2	13
Asia Oceania	7.2	7.3	7.8	6.9	7.2	7.6	7.4	7.8	7.0	7.1	7.5	7.3	7.7	7.0	7.1	7.6	7
Total OECD	42.1	44.8	45.7	45.2	46.1	45.7	45.7	45.4	45.7	46.0	46.0	45.8	45.4	45.6	45.7	45.9	45
NON-OECD DEMAND																	
FSU	4.6	4.9	4.8	4.8	5.1	5.1	4.9	4.9	4.9	5.0	4.9	4.9	4.8	4.8	5.0	5.0	4
Europe	0.7	8.0	0.8	8.0	0.8	0.8	8.0	8.0	0.8	0.8	8.0	0.8	0.8	0.8	8.0	0.8	C
China	14.3	15.1	15.1	14.0	14.5	15.0	14.7	15.6	16.6	16.9	16.4	16.4	16.6	17.0	17.5	17.2	17
Other Asia	13.0	13.5	14.2	14.2	13.6	14.3	14.1	14.4	14.5	14.1	14.6	14.4	14.8	14.8	14.3	14.9	14
Americas	5.4	6.0	6.0	6.2	6.4	6.3	6.2	6.2	6.3	6.5	6.4	6.3	6.3	6.4	6.5	6.5	6
Middle East	8.1	8.4	8.4	8.9	9.3	8.7	8.8	8.7	8.8	9.4	8.6	8.9	8.7	9.0	9.5	8.9	9
Africa	3.8	4.1	4.3	4.2	4.2	4.4	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.3	4.4	4
Total Non-OECD	49.8	52.7	53.6	53.1	53.9	54.6	53.8	54.9	56.2	56.9	56.1	56.0	56.3	57.2		57.8	57
Total Demand <sup>1</sup>	91.9	97.5	99.3	98.3	100.1	100.3	99.5	100.2	101.8	102.9	102.1	101.8	101.7	102.8	103.8	103.7	103.
OECD SUPPLY																	
Americas	23.9	24.3	25.0	25.4	26.1	26.3	25.7	26.7	26.9	27.7	28.3	27.4	27.9	28.1	28.4	28.8	28
Europe	3.6	3.4	3.3	3.0	3.1	3.2	3.2	3.3	3.2	3.1	3.2	3.2	3.3	3.2	3.1	3.3	3
Asia Oceania	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0
Total OECD <sup>2</sup>	28.0	28.2	28.8	28.9	29.6	30.0	29.3	30.4	30.5	31.2	32.0	31.1	31.6	31.8	32.0	32.5	32
NON-OECD SUPPLY																	
FSU	13.5	13.8	14.4	13.4	13.7	14.1	13.9	14.2	13.8	13.6	13.8	13.8	13.7	13.8	13.7	13.7	13
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
China	4.0	4.1	4.2	4.2	4.1	4.1	4.2	4.3	4.3	4.2	4.3	4.3	4.3	4.4	4.3	4.3	4
Other Asia	3.0	2.9	2.8	2.7	2.6	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.6	2.6	2.6	2.6	2
Americas	5.3	5.3	5.4	5.5	5.8	5.9	5.6	6.0	6.0	6.3	6.5	6.2	6.7	6.7	6.7	6.8	6
Middle East	3.0	3.1	3.1	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3
Africa	2.7	2.5	2.5	2.5	2.5	2.4	2.5	2.3	2.4	2.5	2.4	2.4	2.5	2.4	2.4	2.4	2
Total Non-OECD <sup>2</sup>	31.7	31.7	32.5	31.6	32.0	32.5	32.2	32.7	32.4	32.4	32.8	32.6	32.9	33.0	32.9	32.9	32
Processing gains <sup>3</sup>	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2
Global Biofuels	2.6	2.8	2.5	3.0	3.3	2.8	2.9	2.6	3.2	3.5	3.1	3.1	2.7	3.4	3.6	3.2	3
Total Non-OPEC Supply	64.4	64.9	66.1	65.9	67.2	67.6	66.7	68.0	68.5	69.5	70.3	69.1	69.7	70.6	70.9	71.1	70.
OPEC <sup>4</sup>																	
Crude	24.5	25.3	27.4	27.6	28.5	28.3	27.9	28.3	27.8	26.9	27.0	27.5					
NGLs	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.6	5
Total OPEC	29.7	30.6	32.8	33.0	33.9	33.7	33.3	33.8	33.2	32.4	32.5	33.0					
Total Supply	94.1	95.5	98.9	98.9	101.1	101.3	100.1	101.8	101.8	101.9	102.8	102.1					
STOCK CHANGES AND MISCELLA	NEOUS																
Reported OECD																	
Industry	0.4	-1.1	-0.4	0.5	0.9	0.3	0.4	-0.2	0.4	0.4	-0.7	-0.1					
Government	0.0	-0.2	-0.5	-1.1	-1.1	-0.3	-0.7	0.0	-0.1	0.0	0.0	0.0					
Total	0.4	-1.2	-0.9	-0.5	-0.1	0.0	-0.4	-0.2	0.2	0.4	-0.7	-0.1					
Floating storage/Oil in transit	0.0	0.0	-0.5	0.6	0.8	0.2	0.3	0.2	-0.6	-0.6	0.8	-0.1					
Miscellaneous to balance <sup>5</sup>	1.7	-0.8	1.0	0.5	0.3	0.9	0.7	1.6	0.3	-0.8	0.7	0.4					
Total Stock Ch. & Misc	2.2	-2.0	-0.4	0.6	1.0	1.1	0.6	1.5	-0.1	-1.0	0.8	0.3					
Mama itama																	
Memo items:	20.0	27.4	27.0	27.0	27.5	27.0	27.4	26.7	27.0	27.0	26.2	27.0	20.5	26.7	27.0	27.0	20
Call on OPEC crude & stock changes <sup>b</sup>	22.3	27.4	27.8	27.0	27.5	27.2	27.4	26.7	27.9	27.9	26.2	27.2	26.5	26.7	27.2	27.0	26

Can of OFEC clique & stock cliniques 22.3 21.4 21.0 21.3 21.2 21.4 20.1 21.9 21.9 20.2 21.2

Measured as deliveries from refleries and primary stocks, comprises inland deliveries, international marine burkers, refinery fuel, crude for direct burning,oil from non-conventional source of supply. Includes biofuels.

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

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

OPEC include current members throughout the time series.

Includes Changes in non-reported stocks in OECD and non-OECD.

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

For the purpose of this and the following tables:

- OECD comprises of Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherland, Norway, New Zealand, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Republic of Türkiye, UK, US.

- OPEC Comprises of Algeria, Corgo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Litbya, Neutral zone, Nigeria, Saudi Arabia, UAE, Venezuela.

- OPEC+ comprises of OPEC members throughtout time series plus Sudan, South Sudan, Russia, Oman, Mexico, Malaysia, Kazakhstan, Brunei, Bahrain, Azerbaijan.

		_		_	T	able	1a _		_	_				_			
WORLD C	OIL SUF	PPLY	AND D	ЕМА		CHAI barrels		FROM	I LAS	ST M	ONT	H'S T	ABLE 1				
	2020	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	202
OECD DEMAND																	
Americas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.2	(
Europe Asia Oceania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1 0.0	0.0	0.0 0.1	0.0	0.0	-0.1 0.0	-(
Total OECD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0
NON-OECD DEMAND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	
SU	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	0.0	
Europe	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	0.0	
China	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0	
Other Asia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	
Americas	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	0.0	(
Middle East	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	
Africa	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	0.0	
Total Non-OECD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	(
Total Demand	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	(
DECD SUPPLY																	
Americas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.1	
Europe Asia Oceania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1 0.0	0.0	0.1	0.1	(
Total OECD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.2	0.1	0.1	0.2	(
NON-OECD SUPPLY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	V.1	V.2	٧.,	0.1	0.2	
SU	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	0.0	
Europe	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	0.0	
China	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	0.0	
Other Asia	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	0.0	
Americas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	
Middle East	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	0.0	
Africa*	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	0.0	
Total Non-OECD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	(
Processing gains	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	0.0	
Global Biofuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	
Total Non-OPEC Supply	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.2	0.2	0.2	0.3	-
OPEC																	
Crude*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
NGLs	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	0.0	
Total OPEC Total Supply	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0					
STOCK CHANGES AND MISCELLAI	NEOUS																
REPORTED OECD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
ndustry Government	0.0 0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
- Cotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Floating storage/Oil in transit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Miscellaneous to balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0							
Fotal Stock Ch. & Misc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1							
Memo items: Call on OPEC crude & stock changes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.2	0.0	0.0	0.4	0.4	0.3	^
Jail On OFEC Glude & Stock changes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	U.1	-0.2	0.0	-0.2	<b>-</b> U.1	<b>-</b> U.1	-0.3	-0

\*Angola removed from OPEC and added to non-OPEC+ Africa from the January 2024 OMR forward. These changes affect the OPEC crude and Africa rows of this table Note: When submitting monthly oil statistics, OECD member countries may update data for prior periods. Similar updates to non-OECD data can also occur.

Deco   Demand   Series   Ser	DECD SUPPLY																		
Non-ficial	Namericans				1Q22			4Q22		1Q23	2Q23		4Q23	2023		2Q24	3Q24	4Q24	2024
Americans   21,9   22,4   23,0   23,4   24,1   24,0   27,7   24,6   24,7   25,6   26,2   25,3   28,2   26,1   26,3   23,3   33,3	Americans*   21,9   22,4   23,0   23,4   241   243   23,7   24,6   24,7   25,6   22,2   23,3   25,8   26,1   26,3   2   25,0   2	Total Demand	91.9	97.5	99.3	98.3	100.1	100.3	99.5	100.2	101.8	102.9	102.1	101.8	101.7	102.8	103.8	103.7	103.
Europe 18 8 34 33 30 31 31 32 32 31 33	Europe   3.6   3.4   3.3   3.0   3.1   3.2   3.2   3.3   3.2   3.1   3.3   3.2   3.3   3.2   3.3   3.2   3.1    Note of the processing Gains   3.4   3.3   3.0   3.1   3.2   3.2   3.3   3.2   3.3   3.2   3.3   3.2   3.3   3.2   3.3    Note of the processing Gains   3.4   3.3   3.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																	
Asia Oceansia 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Asia Cocamia																		26.
Total OECD (non-OPEC+)  26.0  26.3  28.8  28.9  27.6  27.6  28.0  27.4  28.3  28.4  29.1  29.0	Total OECD (non-OPEC+)  26.0																		3.
NON-OECD SUPPLY  FSUP  OL4  OL5  OL5  OL5  OL5  OL5  OL5  OL5	NON-OECD SUPPLY  FSU <sup>1</sup> 0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3																		
SRUP	FSUP	Total OECD (non-OPEC+)	26.0	26.3	26.8	26.9	27.6	28.0	27.4	28.3	28.4	29.1	29.9	29.0	29.6	29.7	29.9	30.4	29.
Europe Ol 0, 1 0, 1 0, 1 0, 1 0, 1 0, 1 0, 1 0,	Europe 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																		
Chine   40	China																		0.
Other Asia'	Other Asia*																		0.
Latin America  53 53 53 54 55 58 8 59 56 60 60 63 65 62 67 67 67 67 68 8 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6	Lalin America  5.3 5.3 5.3 5.4 5.5 5.8 5.9 5.8 5.9 5.8 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0																		
Middle East* 1 9 19 19 19 19 19 19 19 19 19 19 19 19	Middle East*																		
Affice   2.5   2.3   2.3   2.3   2.3   2.2	Affice 6 2.5 2.3 2.3 2.3 2.3 2.3 2.2 2.2 2.2 2.2 2.2																		
Total Non-OECD (non-OPEC+)  16.4  16.2  16.4  16.2  16.5  16.5  16.5  16.5  16.6  16.8  16.9  16.9  17.0  17.0  17.0  17.0  17.5  17.5  17.5  17.4  17.4  17.4  17.7  Processing Gains  2.1  2.2  2.3  2.3  2.3  2.3  2.3  2.3	Total Non-OECD (non-OPEC+)  16.4  16.2  16.4  16.2  16.4  16.5  16.5  16.5  16.5  16.8  16.9  17.0  17.0  17.0  17.0  17.0  17.0  17.5  17.5  17.4  17.0  17.5  17.5  17.4  17.7  17.0  17.5  17.5  17.4  17.7  17.0  17.5  17.5  17.5  17.4  17.7  17.7  17.0  17.5  17.5  17.5  17.6  17																		2.
Processing Galins 2,1 2,2 2,3 2,3 2,3 2,3 2,3 2,3 2,3 2,3 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4	Processing Gains																		17.
Total Non-OPEC+   47,2   47,5   48,0   48,7   49,7   49,0   49,0   50,0   50,8   52,1   52,6   51,4   52,2   53,0   53,4   53,5   53	Total Non-OPEC+ 47.5 48.0 48.7 49.7 49.7 49.0 50.0 50.8 52.1 52.6 51.4 52.2 53.0 53.4 50  OPEC+ CRUDE  Algeria 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 1.0 1.0 1.0 0.9 0.9 1.0 1.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	Processing Gains	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.
Ageria   0.9   0.9   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   0.9   1.0   1.0   0.9   1.0   1.0   0.9   0.9   1.0   1.0   1.0   0.9   0.9   1.0   1.0   0.9   0.9   1.0   1.0   0.9   0.9   1.0   1.0   0.9   0.9   1.0   1.0   0.9   0.9   1.0   1.0   0.9   0.9   1.0   1.0   0.9   0.9   1.0   1.0   0.9   0.9   0.5   0	Algeria 0.9 0.9 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Global Biofuels	2.6	2.8	2.5	3.0	3.3	2.8	2.9	2.6	3.2	3.5	3.1	3.1	2.7	3.4	3.6	3.2	3.
Azerbaijan 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Algeria 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.9 1.0 1.0 0.9 0.9 1.0 1.0 Azerbajjan 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	Total Non-OPEC+	47.2	47.5	48.0	48.7	49.7	49.7	49.0	50.0	50.8	52.1	52.6	51.4	52.2	53.0	53.4	53.5	53.
Algeria 0.9 0.9 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Algeria	OPEC+ CRUDE																	
Azerbaijan 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Azerbaijan 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5		0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.9	1.0	1.0	0.
Behrain 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Bahrain 0,2 0,2 0,2 0,2 0,2 0,2 0,2 0,2 0,2 0,2																		0.
Brunei 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Brunei 0.1 0.1 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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.
Congo 0,3 0,3 0,3 0,3 0,3 0,3 0,3 0,3 0,3 0,3	Congo 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3																		0.
Equatorial Guinea 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Equatorial Guinea 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																		0.
Gabon 0,2 0,2 0,2 0,2 0,2 0,2 0,2 0,2 0,2 0,2	Gabon 0.2 0.2 0.2 0.2 0.2 0.2 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	0.1	0.1	0.1	0.1	0.1	0.1	0.
Frage   1,0   1,	Iraq																		0.
Kazakhstan 1.5 1.5 1.6 1.6 1.4 1.4 1.4 1.6 1.5 1.5 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	Kazakhstan         1.5         1.5         1.6         1.4         1.4         1.6         1.5         1.6         1.4         1.4         1.6         1.5         1.6	Iran	2.0	2.4	2.5	2.5	2.5	2.6	2.5	2.7	3.0	3.1	3.2	3.0	3.2	3.2	3.2	3.2	3.
Kuwait 2.4 2.4 2.6 2.7 2.8 2.7 2.7 2.7 2.7 2.6 2.6 2.6 2.6 2.6 2.4 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	Kuwait 2.4 2.4 2.6 2.7 2.8 2.7 2.7 2.7 2.6 2.6 2.6 2.6 2.6 2.6 2.4 2.5 2.5 Libya 0.4 1.1 1.1 0.8 1.0 1.2 1.0 1.2 1.2 1.1 1.2 1.2 1.1 1.2 1.2 1.2 1.1 1.2 1.2	Iraq	4.0	4.0	4.3	4.4	4.5	4.5	4.4	4.3	4.1	4.3	4.3	4.3	4.1	4.2	4.3	4.3	4.
Libya 0.4 1.1 1.1 0.8 1.0 1.2 1.0 1.2 1.0 1.2 1.1 1.2 1.2 1.2 1.1 1.2 1.2 1.2 1.4 Malaysia 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	Libya 0.4 1.1 1.1 0.8 1.0 1.2 1.2 1.0 1.2 1.2 1.1 1.2 1.2 1.1 1.2 1.2 1.2 Malaysia 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	Kazakhstan	1.5	1.5	1.6	1.4	1.4	1.6	1.5	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.
Malaysia 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	Malaysia         0.5         0.4         0.	Kuwait	2.4	2.4	2.6	2.7	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.4	2.5	2.5	2.5	2.
Mexico 1.7 1.7 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	Mexico         1.7         1.7         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.6         1.7         1.7         1.6         1.6         1.6         1.6         1.6         1.6         1.7         1.7         1.6         1.2         2.2         2.2         2.2<	Libya	0.4	1.1	1.1	0.8	1.0	1.2	1.0	1.2	1.2	1.1	1.2	1.2	1.1	1.2	1.2	1.2	1.
Nigeria 1.5 1.3 1.3 1.2 1.0 1.1 1.1 1.3 1.1 1.2 1.3 1.2 1.0 1.1 1.1 1.3 1.1 1.2 1.3 1.2 1.4 1.4 1.3 1.3 1.1 1.2 1.4 1.4 1.3 1.3 1.1 1.2 1.4 1.4 1.4 1.3 1.3 1.1 1.2 1.4 1.4 1.4 1.3 1.3 1.1 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4	Ngeria 1.5 1.3 1.3 1.2 1.0 1.1 1.1 1.3 1.1 1.2 1.3 1.2 1.0 1.1 1.1 1.3 1.1 1.2 1.3 1.2 1.4 1.4 1.3   Oman 0.8 0.8 0.8 0.8 0.8 0.8 0.9 0.9 0.9 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	Malaysia	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	0.
Oman         0.8         0.8         0.8         0.8         0.8         0.9         0.9         0.8         0.9         0.9         0.9         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0 <td>Oman         0.8         0.8         0.8         0.8         0.8         0.9         0.9         0.9         0.8         0.8         0.8         0.8         0.8         0.8         0.8         0.9         0.9         0.9         0.8         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<td>Mexico</td><td>1.7</td><td>1.7</td><td>1.6</td><td>1.6</td><td>1.6</td><td>1.6</td><td>1.6</td><td>1.6</td><td>1.7</td><td>1.7</td><td>1.6</td><td>1.7</td><td>1.6</td><td>1.6</td><td>1.6</td><td>1.6</td><td>1.</td></td>	Oman         0.8         0.8         0.8         0.8         0.8         0.9         0.9         0.9         0.8         0.8         0.8         0.8         0.8         0.8         0.8         0.9         0.9         0.9         0.8         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 <td>Mexico</td> <td>1.7</td> <td>1.7</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.7</td> <td>1.7</td> <td>1.6</td> <td>1.7</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.</td>	Mexico	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.
Russia 9.4 9.6 10.0 9.4 9.8 9.8 9.8 9.8 9.7 9.5 9.5 9.5 9.6 9.4 9.4 9.4 9.4 9.4 9.8 9.8 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4	Russia 9.4 9.6 10.0 9.4 9.8 9.8 9.8 9.8 9.7 9.5 9.5 9.5 9.6 9.4 9.4 9.4 9.4 9.4 Saudi Arabia 9.2 9.2 10.2 10.4 10.9 10.6 10.5 10.4 10.1 9.0 8.9 9.6 9.0 9.6 10.0 1 South Sudan 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	Nigeria	1.5	1.3	1.3	1.2	1.0	1.1	1.1	1.3	1.1	1.2	1.3	1.2	1.4	1.4	1.3	1.3	1.
Saudi Arabia 9.2 9.2 10.2 10.4 10.9 10.6 10.5 10.4 10.1 9.0 8.9 9.6 9.0 9.6 10.0 10.0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 10.1 10.1	Saudi Arabia 9.2 9.2 10.2 10.4 10.9 10.6 10.5 10.4 10.1 9.0 8.9 9.6 9.0 9.6 10.0 1 South Sudan 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Oman																	0.
South Sudan 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	South Sudan 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																		9.
Sudan 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Sudan         0.1         0.2         0.2         0.2         0.2         0.2         0.2         0.2         0.2         0.2         0.2         0.2         0.2         0.1         0.1         0.1         0.2         0.2         0.2         4.1         4.2         4.2         4.2         4.2         4.2         4.2         4.2         4.2         4.2         4.2         4.2         4.2         4.2 </td <td></td> <td>9.</td>																		9.
UAE 2.9 2.8 3.1 3.3 3.5 3.4 3.3 3.4 3.3 3.4 3.3 3.2 3.3 3.2 3.3 3.3 3.3 3.3 3.3 3.4 Venezuela 0.5 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.9 0.9 0.9 00 0PEC+ Crude 39.3 40.4 43.0 42.3 43.5 43.6 43.1 43.5 42.7 41.7 41.9 42.4 41.4 42.5 42.9 42.9 42.9 0PEC+ NGLs & Condensate 7.4 7.5 7.9 7.8 7.8 7.8 8.0 7.9 8.2 8.1 8.0 8.2 8.1 8.0 8.2 8.1 8.2 8.2 8.2 8.3 8.0 0PEC+ Nonconventionals 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	UAE         2.9         2.8         3.1         3.3         3.5         3.4         3.3         3.2         3.2         3.3         3.2         3.3         3.3         3.3         3.3         3.3         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.3         3.3         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.3         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.3         3.2         3.2         3.3         3.2         3.2         3.3         3.2         3.2         3.3         3.2         3.2         3.2         3.2         3.2         3.2 <td></td> <td>0.</td>																		0.
Venezuela 0.5 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	Venezuela         0.5         0.6         0.7         0.7         0.7         0.7         0.7         0.8         0																		0.
OPEC+ Crude         39.3         40.4         43.0         42.3         43.5         43.6         43.1         43.5         42.7         41.7         41.9         42.4         41.4         42.5         42.9         42.8         42.7         41.1         42.1         41.4         42.5         42.9         42.9         42.8         42.7         41.1         42.4         41.4         42.5         42.9         42.8         42.7         41.0         0.1<	OPEC+ Crude         39.3         40.4         43.0         42.3         43.5         43.6         43.1         43.5         42.7         41.7         41.9         42.4         41.4         42.5         42.9         4           OPEC+ NGLs & Condensate         7.4         7.5         7.9         7.8         7.8         8.0         7.9         8.2         8.1         8.0         8.2         8.1         8.2         8.2         8.2           OPEC+ Nonconventionals         0.1	-· · <del>-</del>																	3.
OPEC+ NGLs & Condensate         7.4         7.5         7.9         7.8         7.8         8.0         7.9         8.2         8.1         8.0         8.2         8.1         8.2         8.2         8.2         8.3         8.0           OPEC+ Nonconventionals         0.1	OPEC+ NGLs & Condensate         7.4         7.5         7.9         7.8         7.8         8.0         7.9         8.2         8.1         8.0         8.2         8.1         8.2         8.2         8.2         8.2           OPEC+ Nonconventionals         0.1																		
OPEC+ Nonconventionals         0.1	OPEC+ Nonconventionals         0.1																		
Total OPEC+ 46.8 48.0 50.9 50.2 51.4 51.6 51.1 51.8 50.9 49.8 50.2 50.7 49.7 50.8 51.2 51.3 50  Total Supply Oil 94.1 95.5 98.9 98.9 101.1 101.4 101.1 101.8 101.8 101.8 101.9 102.8 102.1 101.9 103.8 104.6 104.8 103  Memo items: Call on OPEC+ crude & stock changes 37.2 42.4 43.3 41.7 42.5 42.5 42.5 42.5 41.9 42.8 42.7 41.1 42.1 41.2 41.5 42.0 41.8 41.1 from February 2024, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libys and Iran held at most recent level through 2024.	Total OPEC+ 46.8 48.0 50.9 50.2 51.4 51.6 51.1 51.8 50.9 49.8 50.2 50.7 49.7 50.8 51.2 5  Total Supply Oil 94.1 95.5 98.9 98.9 101.1 101.4 100.1 101.8 101.8 101.9 102.8 102.1 101.9 103.8 104.6 10  Memo items:																		0.
Total Supply Oil 94.1 95.5 98.9 98.9 101.1 101.4 100.1 101.8 101.8 101.9 102.8 102.1 101.9 103.8 104.6 104.8 103.  Memo items: Call on OPEC+ crude & stock changes 37.2 42.4 43.3 41.7 42.5 42.5 42.5 42.5 41.9 42.8 42.7 41.1 42.1 41.2 41.5 42.0 41.8 41.1 From February 2024, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Librys and Iran held at most recent level through 2024.	Total Supply Oil 94.1 95.5 98.9 98.9 101.1 101.4 100.1 101.8 101.8 101.9 102.8 102.1 101.9 103.8 104.6 10  Memo items:																		
Memo items: Call on OPEC+ crude & stock changes 37.2 42.4 43.3 41.7 42.5 42.5 42.5 41.9 42.8 42.7 41.1 42.1 41.2 41.5 42.0 41.8 41 1 From February 2024, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libya and Iran held at most recent level through 2024.	Memo items:																		
Call on OPEC+ crude & stock changes 37.2 42.4 43.3 41.7 42.5 42.5 42.5 42.5 41.9 42.8 42.7 41.1 42.1 41.2 41.5 42.0 41.8 41.1 rpm February 2024, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libys and Iran held at most recent level through 2024.		тош бирру оп	34.1	30.0	30.3	30.3	101	101.4	100.1	101.0	101.0	101.5	102.0	102.1	101.5	100.0	104.0	104.0	100.
1 From February 2024, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libya and Iran held at most recent level through 2024.	Call on OPEC+ crude & stock changes 37.2 42.4 43.3 41.7 42.5 42.5 42.5 41.9 42.8 42.7 41.1 42.1 41.2 41.5 42.0 4																		
		Call on OPEC+ crude & stock changes	37.2	42.4	43.3	41.7	42.5	42.5	42.5	41.9	42.8	42.7	41.1	42.1	41.2	41.5	42.0	41.8	41.
2 OECD Americas excludes Mexico.			est OPEC+ dea	al and individua	l country's sus	ainable cap	acity. Libya	and Iran held	at most recen	t level through	1 2024.								
3 FSU excludes Russia, Kazakhstan, Azerbaijan,																			

							Tab	le 2								
					SUMN	//ARY	OF GLC	BAL	OIL D	EMAN	ID					
	2021	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024
Demand (mb/d)																
Americas Europe	24.28 13.19	24.74 13.20	24.79 13.47	24.95 14.01	24.70 13.35	24.79 13.51	24.46 13.09	25.18 13.55	25.35 13.62	25.16 13.30	25.04 13.39	24.56 13.07	25.13 13.41	25.29 13.38	25.14 13.15	25.03 13.25
Asia Oceania	7.34	7.78	6.93	7.17	7.63	7.38	7.81	6.95	7.05	7.54	7.34	7.74	7.01	7.08	7.63	7.37
Total OECD	44.81	45.72	45.19	46.13	45.67	45.68	45.36	45.68	46.02	46.00	45.77	45.37	45.56	45.74	45.93	45.65
Asia	28.62	29.30	28.21	28.12	29.26	28.72	29.99	31.07	31.04	31.02	30.78	31.45	31.82	31.81	32.15	31.81
Middle East Americas	8.35 6.01	8.41 6.00	8.93 6.17	9.30 6.36	8.75 6.31	8.85 6.21	8.71 6.18	8.85 6.32	9.36 6.47	8.64 6.40	8.89 6.35	8.65 6.27	9.03 6.45	9.49 6.54	8.90 6.52	9.02 6.45
FSU	4.89	4.80	4.78	5.12	5.08	4.95	4.88	4.91	5.03	4.92	4.93	4.81	4.80	5.02	4.98	4.90
Africa Europe	4.06 0.77	4.27 0.78	4.25 0.77	4.25 0.79	4.39 0.80	4.29 0.79	4.34 0.78	4.25 0.76	4.16 0.80	4.27 0.80	4.26 0.79	4.32 0.79	4.35 0.78	4.34 0.81	4.43 0.81	4.36 0.80
Total Non-OECD	52.70	53.55	53.11	53.94	54.58	53.80	54.87	56.16	56.86	56.06	55.99	56.29	57.23	58.01	57.79	57.33
World	97.51	99.27	98.30	100.07	100.26	99.48	100.23	101.84	102.88	102.05	101.76	101.66	102.78	103.75	103.72	102.98
of which:																
United States <sup>1</sup>	19.89	20.09	20.00	20.11	19.85	20.01	19.80	20.38	20.37	20.39	20.24	19.88	20.37	20.37	20.41	20.26
Europe 5 <sup>2</sup>	7.38	7.43	7.66	7.83	7.43	7.59	7.36	7.53	7.49	7.40	7.45	7.39	7.44	7.37	7.30	7.38
China Japan	15.09 3.41	15.09 3.70	14.04 3.04	14.52 3.20	15.01 3.57	14.66 3.38	15.58 3.73	16.58 3.10	16.93 3.10	16.43 3.47	16.39 3.35	16.62 3.71	17.02 3.09	17.47 3.14	17.22 3.55	17.08 3.37
Japan India	4.90	5.38	5.29	5.01	5.42	5.28	5.57	5.58	5.29	5.55	5.50	5.76	5.72	5.45	5.76	5.67
Russia	3.68	3.69	3.64	3.95	3.84	3.78	3.74	3.74	3.84	3.67	3.75	3.65	3.61	3.81	3.70	3.69
Brazil	3.03	2.97	3.01	3.18	3.17	3.09	3.10	3.16	3.28	3.27	3.20	3.16	3.25	3.35	3.37	3.28
Saudi Arabia	3.51	3.35	3.84	3.98	3.74	3.73	3.54	3.71	3.97	3.70	3.73	3.54	3.82	4.06	3.79	3.80
Canada Korea	2.26 2.56	2.36 2.69	2.36 2.45	2.44 2.51	2.47 2.54	2.41 2.55	2.33 2.57	2.47	2.63 2.45	2.42	2.46 2.47	2.37 2.52	2.46 2.41	2.61 2.44	2.40 2.54	2.46 2.48
Mexico	1.63	1.75	1.92	1.89	1.86	1.86	1.83	1.84	1.86	1.86	1.85	1.81	1.81	1.82	1.84	1.82
Iran	1.80	1.86	1.77	1.75	1.72	1.77	1.83	1.75	1.73	1.71	1.75	1.79	1.77	1.76	1.75	1.77
Total	69.13	70.37	69.02	70.37	70.62	70.10	70.99	72.20	72.94	72.39	72.13	72.20	72.77	73.66	73.64	73.07
% of World Annual Change (% p	70.9%	70.9%	70.2%	70.3%	70.4%	70.5%	70.8%	70.9%	70.9%	70.9%	70.9%	71.0%	70.8%	71.0%	71.0%	71.0%
Americas	7.8	8.0	1.8	0.8	-1.6	2.1	-1.1	1.6	1.6	1.9	1.0	0.4	-0.2	-0.2	-0.1	0.0
Europe	6.3	9.9	5.9	0.3	-4.9	2.4	-0.8	0.5	-2.8	-0.3	-0.9	-0.2	-1.0	-1.8	-1.1	-1.0
Asia Oceania	2.5	1.8	-0.3	2.0	-1.4	0.5	0.4	0.4	-1.6	-1.2	-0.5	-0.9	0.9	0.3	1.3	0.4
Total OECD	6.5	7.4	2.7	0.8	-2.5	1.9	-0.8	1.1	-0.2	0.7	0.2	0.0	-0.3	-0.6	-0.1	-0.3
Asia Middle East	5.0 3.6	2.8 4.5	-1.4 7.4	0.3 6.3	-0.2 5.6	0.4 6.0	2.3 3.6	10.1 -0.9	10.4 0.6	6.0 -1.2	7.2 0.5	4.9 -0.6	2.4 2.0	2.5 1.4	3.6 3.0	3.3 1.4
Americas	11.1	3.4	5.3	2.7	2.3	3.4	3.0	2.4	1.8	1.5	2.2	1.4	2.0	1.1	1.8	1.6
FSU	6.5	2.7	-0.1	2.0	-0.1	1.1	1.6	2.6	-1.9	-3.1	-0.3	-1.4	-2.1	-0.2	1.1	-0.6
Africa	7.7	4.1	6.0	7.3	5.4	5.7	1.6	0.2	-2.1	-2.6	-0.7	-0.4	2.2	4.3	3.7	2.5
Europe Total Non-OECD	6.7 <b>5.8</b>	2.8 <b>3.2</b>	1.9 <b>1.5</b>	1.5 <b>2.3</b>	1.3 <b>1.5</b>	1.9 <b>2.1</b>	0.5 <b>2.5</b>	-0.9	0.6	0.4 <b>2.7</b>	0.1 <b>4.1</b>	1.0	1.8	1.1 2.0	1.7 <b>3.1</b>	1.4
World	6.1	5.1	2.0	1.6	-0.4	2.1	1.0	5.7 3.6	5.4 2.8	1.8	2.3	2.6 1.4	1.9 0.9	0.8	1.6	2.4 1.2
Annual Change (mb/		5.1	2.0	1.0	-0.4	2.0	1.0	3.0	2.0	1.0	2.3	1.4	0.5	0.0	1.0	1.2
Americas	1.76	1.83	0.44	0.19	-0.40	0.51	-0.28	0.39	0.40	0.46	0.24	0.10	-0.05	-0.06	-0.01	-0.01
Europe	0.78	1.19	0.75	0.05	-0.69	0.32	-0.10	0.07	-0.39	-0.04	-0.12	-0.02	-0.13	-0.24	-0.15	-0.14
Asia Oceania	0.18	0.14	-0.02	0.14	-0.10	0.04	0.03	0.02	-0.12	-0.09	-0.04	-0.07	0.06	0.02	0.10	0.03
Total OECD	2.72	3.16	1.17	0.38	-1.19	0.87	-0.35	0.48	-0.11	0.32	0.09	0.00	-0.12	-0.28	-0.07	-0.12
Asia Middle East	1.36 0.29	0.79 0.36	-0.39 0.61	0.07 0.55	-0.05 0.46	0.10 0.50	0.69 0.30	2.86 -0.08	2.92 0.06	1.75 -0.11	2.06 0.04	1.47 -0.06	0.75 0.18	0.77 0.13	1.13 0.26	1.03 0.13
Americas	0.60	0.20	0.31	0.17	0.14	0.20	0.18	0.15	0.11	0.10	0.13	0.09	0.13	0.07	0.12	0.10
FSU Africa	0.30 0.29	0.13 0.17	0.00 0.24	0.10 0.29	-0.01 0.23	0.05 0.23	0.08 0.07	0.12 0.01	-0.10 -0.09	-0.16 -0.11	-0.01 -0.03	-0.07 -0.02	-0.10 0.09	-0.01 0.18	0.05 0.16	-0.03 0.10
Europe	0.29	0.17	0.24	0.29	0.23	0.23	0.00	-0.01	0.09	0.00	0.00	0.02	0.09	0.18	0.10	0.10
Total Non-OECD	2.89	1.66	0.79	1.19	0.79	1.10	1.32	3.05	2.92	1.47	2.19	1.42	1.06	1.15	1.73	1.34
World	5.61	4.82	1.96	1.57	-0.40	1.97	0.97	3.54	2.81	1.80	2.28	1.43	0.95	0.87	1.67	1.22
Revisions to Oil Den	nand from L	ast Mor	nth's Re	port (m	b/d)											
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.05	-0.02	0.08	0.10	0.21	0.09
Europe Asia Oceania	0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05 0.01	-0.01 0.00	-0.04 0.07	-0.03 0.03	-0.01 0.03	-0.12 -0.03	-0.05 0.02
Total OECD	-	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.14	0.04	0.01	0.08	0.13	0.05	0.02
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.04	-0.01	-0.01	-0.04	-0.04	-0.05	-0.04
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.06	-0.01	-0.04	0.00	0.00	-0.02	-0.02
Americas FSU	0.01 0.00	0.01	0.01	0.01	0.01	0.01	0.01 0.00	0.01	0.01	0.01 0.01	0.01 0.01	0.02 0.00	0.01 0.00	0.00	0.00	0.01
Africa	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.01	0.01	-0.02	0.00
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02	-0.05	0.00	-0.02	-0.03	-0.03	-0.09	-0.04
World	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.09	0.04	-0.02	0.05	0.10	-0.04	0.02
Revisions to Oil Den World	nand Growt 0.00	th from I 0.00	Last Mo 0.00	onth's R 0.01	eport (n 0.00	n <b>b/d)</b> 0.00	0.01	0.00	0.01	0.08	0.03	-0.03	0.03	0.07	-0.13	-0.01
US figures exclude US terri		5.00	0.00	0.01	0.00	0.00	0.01	5.00	0.01	0.00	0.00	-0.03	0.00	0.01	-0.10	-0.01

US figures exclude US territories.
 France, Germany, Italy, Spain and UK.

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

										Latest m	onth vs.
	2022	2023	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23 <sup>2</sup>	Oct 23	Nov 22
Americas											
LPG and ethane	3.90	4.04	3.93	4.07	3.93	3.89	3.71	4.32	4.29	-0.02	0.27
Naphtha	0.23	0.23	0.22	0.22	0.25	0.23	0.24	0.19	0.25	0.06	0.02
Motor gasoline	10.38	10.51	10.33	10.15	10.72	10.66	10.45	10.65	10.44	-0.21	0.02
Jet and kerosene	1.84	1.95	1.86	1.84	1.97	2.05	2.00	1.94	1.90	-0.03	0.06
Gasoil/diesel oil	5.17	5.04	5.17	5.13	4.97	5.02	5.06	5.21	5.14	-0.07	-0.12
Residual fuel oil	0.57	0.50	0.55	0.53	0.44	0.49	0.44	0.49	0.59	0.10	0.01
Other products	2.71	2.76	2.64	2.52	2.88	3.01	3.03	2.67	2.73	0.06	-0.03
Total	24.79	25.04	24.70	24.46	25.18	25.35	24.92	25.47	25.35	-0.12	0.23
Europe											
LPG and ethane	1.04	1.07	0.99	1.10	1.11	1.05	1.06	0.99	1.00	0.01	0.01
Naphtha	0.96	0.84	0.84	0.97	0.83	0.77	0.84	0.80	0.79	-0.01	-0.06
Motor gasoline	2.04	2.13	2.02	1.98	2.20	2.24	2.24	2.17	2.10	-0.06	0.06
Jet and kerosene	1.29	1.45	1.32	1.26	1.46	1.64	1.63	1.58	1.39	-0.19	0.16
Gasoil/diesel oil	6.25	6.04	6.31	5.98	6.06	5.99	6.05	6.29	6.19	-0.09	-0.18
Residual fuel oil	0.78	0.72	0.77	0.76	0.73	0.72	0.69	0.67	0.68	0.01	-0.08
Other products	1.16	1.14	1.11	1.05	1.16	1.22	1.26	1.19	1.12	-0.07	-0.03
Total	13.51	13.39	13.35	13.09	13.55	13.62	13.76	13.69	13.27	-0.41	-0.13
Asia Oceania											
LPG and ethane	0.79	0.79	0.80	0.90	0.70	0.74	0.74	0.73	0.81	0.08	0.01
Naphtha	1.85	1.80	1.84	1.94	1.69	1.74	1.77	1.74	1.89	0.14	0.01
Motor gasoline	1.44	1.45	1.49	1.41	1.43	1.51	1.48	1.43	1.44	0.01	0.00
Jet and kerosene	0.68	0.79	0.83	0.94	0.67	0.64	0.64	0.75	0.88	0.12	0.14
Gasoil/diesel oil	1.87	1.86	1.94	1.89	1.84	1.83	1.83	1.82	1.94	0.12	0.01
Residual fuel oil	0.50	0.46	0.51	0.54	0.42	0.42	0.42	0.41	0.42	0.00	-0.10
Other products	0.24	0.18	0.22	0.19	0.19	0.17	0.16	0.15	0.21	0.06	0.00
Total	7.38	7.34	7.63	7.81	6.95	7.05	7.04	7.04	7.57	0.53	0.07
OECD											
LPG and ethane	5.74	5.90	5.71	6.07	5.74	5.68	5.51	6.04	6.10	0.06	0.29
Naphtha	3.04	2.88	2.89	3.13	2.78	2.74	2.84	2.73	2.92	0.19	-0.03
Motor gasoline	13.85	14.10	13.84	13.54	14.34	14.41	14.16	14.25	13.98	-0.26	0.07
Jet and kerosene	3.81	4.19	4.01	4.03	4.10	4.34	4.27	4.28	4.17	-0.10	0.35
Gasoil/diesel oil	13.30	12.95	13.42	13.00	12.88	12.83	12.93	13.32	13.27	-0.05	-0.30
Residual fuel oil	1.84	1.68	1.83	1.83	1.60	1.63	1.55	1.57	1.69	0.11	-0.17
Other products	4.11	4.08	3.97	3.76	4.23	4.39	4.45	4.00	4.05	0.05	-0.06
Total	45.68	45.77	45.67	45.36	45.68	46.02	45.72	46.19	46.20	0.00	0.17

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. Americas comprises US 50 states, US territories, Mexico, Canada and Chile.

2 Latest official OECD submissions (MOS).

					ble 2b						
		OIL D	EMAND IN		CTED		COUNTRIES	S <sup>1</sup>			
				(	<b>,</b>	,,				Latest mo	nth ve
	2022	2023	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23 <sup>2</sup>		Nov 2
United States <sup>3</sup>											
LPG and ethane	3.08	3.17	3.08	3.24	3.08	2.99	2.91	3.32	3.53	0.20	0.36
Naphtha	0.14	0.14	0.13	0.13	0.15	0.14	0.15	0.12	0.17	0.04	0.02
Motor gasoline Jet and kerosene	8.81 1.56	8.94 1.66	8.74 1.58	8.67 1.57	9.13 1.68	9.05 1.73	8.83 1.70	9.09 1.69	8.84 1.62	-0.25 -0.07	0.02
Gasoil/diesel oil	4.03	3.94	4.00	4.01	3.93	3.90	3.92	4.07	4.01	-0.07	-0.05
Residual fuel oil	0.33	0.27	0.30	0.29	0.22	0.27	0.22	0.27	0.36	0.09	0.00
Other products	2.06	2.11	2.01	1.90	2.20	2.29	2.36	2.12	2.19	0.07	0.12
Total	20.01	20.24	19.85	19.80	20.38	20.37	20.09	20.68	20.71	0.03	0.5
Japan											
LPG and ethane	0.39	0.41	0.41	0.51	0.35	0.34	0.36	0.36	0.43	0.07	0.03
Naphtha	0.61	0.59	0.64	0.64	0.56	0.56	0.57	0.53	0.64	0.11	-0.02
Motor gasoline	0.80	0.81	0.82	0.77	0.79	0.86	0.83	0.78	0.78	0.00	-0.0
Jet and kerosene Diesel	0.38 0.42	0.42 0.42	0.47 0.43	0.57 0.41	0.33 0.41	0.28 0.42	0.27 0.44	0.37 0.42	0.47 0.43	0.11 0.01	0.07 -0.0
Other gasoil	0.42	0.30	0.32	0.34	0.28	0.42	0.27	0.28	0.30	0.02	-0.0
Residual fuel oil	0.26	0.24	0.27	0.30	0.21	0.22	0.22	0.20	0.20	0.00	-0.08
Other products	0.20	0.17	0.20	0.18	0.17	0.16	0.16	0.16	0.20	0.04	0.00
Total	3.38	3.35	3.57	3.73	3.10	3.10	3.11	3.09	3.44	0.35	-0.0
Germany											
LPG and ethane	0.11	0.09	0.09	0.10	0.10	0.10	0.09	0.07	0.07	0.00	-0.02
Naphtha	0.31	0.26	0.27	0.30	0.28	0.22	0.22	0.23	0.22	-0.01	-0.07
Motor gasoline	0.45	0.46	0.44	0.44	0.46	0.46	0.48	0.48	0.46	-0.02	0.00
Jet and kerosene Diesel	0.20 0.71	0.20 0.68	0.21 0.71	0.18 0.66	0.20 0.69	0.23 0.69	0.23 0.69	0.23 0.70	0.20 0.75	-0.02 0.05	0.02 -0.0
Other gasoil	0.28	0.06	0.71	0.00	0.09	0.09	0.09	0.70	0.73	0.03	0.00
Residual fuel oil	0.06	0.05	0.05	0.04	0.05	0.04	0.04	0.04	0.05	0.01	0.00
Other products	0.06	0.04	0.05	0.04	0.04	0.06	0.05	0.05	-0.07	-0.12	-0.12
Total	2.18	2.04	2.13	2.05	2.10	2.01	2.00	2.08	1.99	-0.09	-0.19
Italy											
LPG and ethane	0.11	0.11	0.11	0.12	0.09	0.10	0.10	0.10	0.12	0.02	0.02
Naphtha	0.06	0.05	0.05	0.06	0.05	0.04	0.05	0.04	0.03	-0.02	-0.03
Motor gasoline	0.18	0.19	0.18	0.16	0.19	0.20	0.20	0.19	0.18	-0.01	0.00
Jet and kerosene	0.09	0.10	0.08	0.07	0.10	0.12	0.12	0.12	0.09	-0.03	0.02
Diesel Other gasoil	0.49 0.05	0.48 0.05	0.50 0.05	0.47 0.03	0.49 0.04	0.49 0.05	0.50 0.05	0.49 0.06	0.49 0.06	0.00 0.00	-0.02 0.01
Residual fuel oil	0.06	0.05	0.06	0.05	0.04	0.06	0.05	0.05	0.05	0.00	-0.01
Other products	0.16	0.16	0.16	0.15	0.16	0.16	0.17	0.17	0.17	0.00	0.01
Total	1.19	1.18	1.18	1.13	1.18	1.22	1.23	1.22	1.20	-0.03	0.0
France											
LPG and ethane	0.10	0.11	0.07	0.11	0.11	0.11	0.11	0.11	0.12	0.00	0.05
Naphtha	0.10	0.11	0.08	0.11	0.11	0.11	0.12	0.13	0.12	0.00	0.04
Motor gasoline	0.23	0.24	0.23	0.22	0.25	0.26	0.25	0.25	0.23	-0.02	0.00
Jet and kerosene	0.14	0.17	0.14	0.15	0.17	0.19	0.18	0.18	0.16	-0.02	0.01
Diesel Other good!	0.73 0.11	0.69 0.10	0.72 0.11	0.69 0.14	0.71 0.08	0.70 0.08	0.71 0.08	0.72 0.11	0.68 0.10	-0.05 -0.01	-0.05 -0.01
Other gasoil Residual fuel oil	0.03	0.10	0.03	0.14	0.08	0.08	0.08	0.11	0.10	0.00	-0.01
Other products	0.09	0.08	0.08	0.07	0.10	0.09	0.09	0.07	0.08	0.01	-0.01
Total	1.54	1.55	1.47	1.53	1.55	1.58	1.59	1.60	1.52	-0.09	0.0
United Kingdom										0.00	0.02
LPG and ethane	0.10	0.08	0.08	0.10	0.09	0.07	0.08	0.08	0.06	-0.01	-0.02
Naphtha	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.01	0.00
Motor gasoline	0.28	0.29	0.27	0.28	0.30	0.29	0.31	0.29	0.30	0.00	0.01
Jet and kerosene	0.27	0.31	0.28	0.29	0.30	0.31	0.32	0.32	0.31	-0.01	0.05
Diesel	0.47	0.50	0.47	0.47	0.53	0.50	0.50	0.54	0.52	-0.02	0.02
Other gasoil Residual fuel oil	0.13 0.02	0.09 0.02	0.12 0.02	0.12 0.01	0.09 0.02	0.08 0.02	0.08 0.02	0.08 0.02	0.08 0.01	0.00 0.00	-0.02 0.00
Other products	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.00
Total	1.38	1.41	1.36	1.40	1.44	1.40	1.43	1.44	1.41	-0.03	0.0
Canada	- 1.00						113			3.00	5.5
LPG and ethane	0.38	0.42	0.41	0.38	0.41	0.46	0.34	0.55	0.29	-0.26	-0.12
Naphtha	0.06	0.06	0.06	0.06	0.07	0.07	0.06	0.05	0.07	0.02	0.02
Motor gasoline	0.78	0.80	0.80	0.73	0.83	0.83	0.83	0.80	0.82	0.02	0.02
Jet and kerosene	0.14	0.16	0.15	0.14	0.16	0.19	0.18	0.13	0.15	0.02	0.03
Diesel	0.32	0.31	0.34	0.31	0.28	0.33	0.35	0.34	0.34	-0.01	-0.02
Other gasoil Residual fuel oil	0.27 0.03	0.27 0.03	0.27 0.04	0.28 0.04	0.26 0.02	0.26 0.02	0.26 0.02	0.26 0.02	0.28 0.03	0.02 0.01	0.00
Other products	0.03	0.03	0.04	0.04	0.02	0.02	0.02	0.02	0.03	-0.01	-0.14
=	0.72	0.41	0.40	0.00	2.47	2.62	U	2.40	0.00	0.01	-0.14

Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils. 2 Latest official OECD submissions (MOS).

3 US figures exclude US territories.

2.33

2.47

2.63

2.49

2.49

2.31

-0.19

-0.19

2.47

2.41

2.46

Total

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				Table	3						
			WOR	LD OIL PR	ODUC.	TION					
				(million barrels p	oer day)						
	2022	2023	2024	3Q23	4Q23	1Q24	2Q24	3Q24	Nov 23	Dec 23	Jan 24
OPEC											
Crude Oil Saudi Arabia	10.53	9.63		9.02	8.95				8.92	8.95	8.97
Iran	2.55	2.99		3.11	3.15				3.21	3.15	3.15
Iraq	4.45	4.27		4.29	4.33				4.29	4.33	4.23
UAE	3.34	3.29		3.23	3.23				3.24	3.21	3.21
Kuwait	2.70	2.62		2.57	2.57				2.60	2.55	2.47
Nigeria	1.15	1.24		1.21	1.32				1.25	1.36	1.40
Libya	0.99	1.16		1.15	1.17				1.17	1.18	1.03
Algeria Congo	1.01 0.26	0.97 0.27		0.95 0.27	0.96 0.26				0.96 0.25	0.95 0.26	0.91 0.25
Gabon	0.20	0.21		0.27	0.23				0.23	0.20	0.23
Equatorial Guinea	0.13	0.06		0.06	0.25				0.05	0.22	0.25
Venezuela	0.70	0.77		0.79	0.79				0.80	0.80	0.83
Total Crude Oil	27.94	27.48		26.87	27.01				26.97	27.01	26.73
of which Neutral Zone	0.28	0.29		0.24	0.31	= 40			0.28	0.36	0.32
Total NGLs <sup>2</sup>	5.40	5.47	5.56	5.48	5.49	5.48	5.54	5.59	5.50	5.50	5.48
Total OPEC <sup>3</sup>	33.34	32.95		32.35	32.50				32.47	32.51	32.21
NON-OPEC <sup>4</sup>											
OECD											
Americas	25.70	27.40	28.29	27.71	28.32	27.89	28.13	28.37	28.50	28.37	27.48
United States	17.93	19.45	20.21	19.74	20.09	19.76	20.24	20.26	20.16	20.04	19.49
Mexico	2.01	2.10	2.06 6.01	2.09	2.08	2.07	2.06	2.05	2.09	2.06	2.08
Canada Chile	5.76 0.01	5.83 0.01	0.01	5.88 0.01	6.14 0.01	6.04 0.01	5.82 0.01	6.05 0.01	6.25 0.01	6.26 0.01	5.90 0.01
Europe	3.18	3.21	3.21	3.07	3.25	3.26	3.18	3.13	3.28	3.30	3.24
UK	0.84	0.73	0.68	0.63	0.73	0.68	0.68	0.65	0.76	0.72	0.68
Norway	1.90	2.02	2.05	1.98	2.04	2.10	2.02	2.00	2.04	2.10	2.09
Others	0.44	0.46	0.48	0.46	0.48	0.48	0.48	0.48	0.48	0.49	0.48
Asia Oceania	0.48	0.46	0.46	0.46	0.44	0.48	0.46	0.46	0.44	0.45	0.47
Australia	0.41	0.38	0.39	0.38	0.37	0.41	0.39	0.39	0.36	0.38	0.40
Others	0.07	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total OECD	29.36	31.07	31.96	31.24	32.01	31.62	31.77	31.96	32.23	32.13	31.20
NON-OECD											
Former USSR	13.90	13.83	13.72	13.59	13.79	13.69	13.75	13.70	13.76	13.81	13.74
Russia	11.09	10.96	10.84	10.81	10.92	10.85	10.84	10.84	10.92	10.92	10.87
Azerbaijan	0.67	0.62	0.62	0.62	0.61	0.61	0.62	0.63	0.61	0.61	0.60
Kazakhstan Others	1.82 0.32	1.93 0.31	1.95 0.30	1.85 0.31	1.95 0.31	1.92 0.31	1.99 0.30	1.93 0.30	1.92 0.31	1.97 0.31	1.97 0.31
Asia	6.88	6.94	6.88	6.84	6.89	6.93	6.93	6.85	6.94	6.90	6.93
China	4.18	4.28	4.31	4.21	4.25	4.33	4.35	4.27	4.30	4.27	4.32
Malaysia	0.56	0.56	0.55	0.54	0.58	0.56	0.55	0.55	0.58	0.58	0.57
India	0.70	0.69	0.69	0.69	0.68	0.68	0.69	0.69	0.68	0.68	0.68
Indonesia	0.63	0.63	0.59	0.62	0.61	0.60	0.60	0.59	0.61	0.61	0.60
Others	0.81	0.78	0.74	0.77	0.77	0.75	0.74	0.74	0.77	0.77	0.75
Europe	0.11	0.10	0.09	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.10
Americas	5.65	6.18	6.72	6.28	6.47	6.67	6.71	6.73	6.48	6.60	6.55
Brazil Argentina	3.12 0.71	3.49 0.77	3.74 0.82	3.64 0.76	3.69 0.80	3.68 0.81	3.73 0.82	3.74 0.83	3.77 0.80	3.67 0.81	3.57 0.81
Colombia	0.71	0.77	0.82	0.79	0.80	0.79	0.82	0.83	0.80	0.80	0.81
Ecuador	0.47	0.45	0.47	0.75	0.46	0.47	0.47	0.47	0.46	0.47	0.47
Others	0.59	0.43	0.91	0.64	0.73	0.91	0.91	0.91	0.66	0.85	0.91
Middle East	3.16	3.12	3.11	3.10	3.11	3.09	3.11	3.12	3.12	3.09	3.09
Oman	1.07	1.06	1.03	1.05	1.05	1.01	1.04	1.05	1.05	1.05	1.01
Qatar	1.80	1.81	1.81	1.81	1.81	1.82	1.81	1.81	1.81	1.81	1.82
Others	0.29	0.25	0.26	0.24	0.25	0.26	0.26	0.26	0.26	0.24	0.26
Africa	2.47	2.41	2.41	2.47	2.45	2.45	2.42	2.40	2.41	2.44	2.47
Angola	1.18 0.60	1.14	1.11 0.60	1.17	1.16 0.59	1.15 0.60	1.12	1.09 0.60	1.12	1.16 0.59	1.18 0.59
Egypt Others	1.87	0.60 1.81	1.82	0.60 1.87	1.85	1.86	0.60 1.82	1.80	0.60 1.81	1.85	1.88
Total Non-OECD	32.16	32.57	32.94	32.37	32.80	32.92	33.02	32.88	32.81	32.95	32.88
Processing gains <sup>5</sup>	2.31	2.35	2.44	2.38	2.37	2.44	2.44	2.44	2.37	2.39	2.44
Global biofuels	2.90	3.13	3.25	3.54	3.14	2.74	3.36	3.65	3.24	2.86	2.73
TOTAL NON-OPEC TOTAL SUPPLY	66.73 100.08	69.12	70.58	69.54 101.89	70.32 102.82	69.72	70.58	70.92	70.65 103.12	70.32 102.83	69.24 101.45

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.

OPEC data based on today's membership throughout the time series.
 Comprises crude oil, condensates, NGLs and oil from non-conventional sources.
 Net volumetric gains and losses in refining and marine transportation losses.

				Table 2							
		OII	CHDD	Table 3		INTOIC	e1				
		OIL	SUPP	LY IN OEC		NIKIE	5				
	2022	2023	2024	3Q23	4Q23	1Q24	2Q24	3Q24	Nov 23	Dec 23	Jan 24
United States				•							
Alaska	437	426	430	403	431	443	432	409	428	440	433
California	349	316	307	317	315	312	309	306	315	314	313
Texas New Mexico	5060 1589	5517 1818	5711 1936	5578 1797	5644 1848	5629 1855	5711 1938	5731 1977	5662 1884	5684 1823	5574 1807
Federal Gulf of Mexico <sup>2</sup>	1730	1879	1950	1940	1938	1982	1969	1881	1873	1989	1992
Other US Lower 48	2746	2981	3044	3035	3124	3038	3060	3041	3145	3119	2970
NGLs <sup>3</sup>	5933	6434	6757	6581	6710	6425	6747	6825	6764	6598	6331
Other Hydrocarbons	84	81	79	87	80	80	70	92	84	69	73
Total	17928	19452	20214	19738	20090	19764	20236	20262	20155	20036	19492
Canada		= 4.0	=00	==.			=0.4	=00		= 40	=00
Alberta Light/Medium/Heavy Alberta Bitumen	491 1995	519 2017	562 2062	521 2089	535 2163	567 2012	564 2010	560 2120	535 2144	542 2154	566 1947
Saskatchewan	454	453	446	450	453	452	448	444	455	449	454
Other Crude	432	384	424	316	414	435	495	390	445	441	418
NGLs Other Ungraders	1036 181	1055 183	1098 189	1051 183	1138 180	1106 198	1086 171	1065 184	1152 184	1112 183	1083 197
Other Upgraders Synthetic Crudes	1167	1222	1227	1255	1274	1269	1051	1270	1361	1404	1244
Total	5756	5831	6009	5876	6138	6038	5816	6045	6252	6263	5905
Mexico											
Crude	1843	1937	1906	1935	1917	1917	1911	1900	1928	1903	1919
NGLs	158	162	149	153	156	153	150	148	153	155	154
Total	2006	2103	2059	2092	2076	2074	2065	2051	2085	2062	2076
UK											
Brent Fields	23	19	11	14	15	15	14	7	15	15	15
Forties Fields Ninian Fields	210 20	176 26	141 23	143 22	180 27	173 24	102 23	134 23	181 29	179 27	175 24
Flotta Fields	40	29	28	23	30	30	26	28	33	30	30
Other Fields	474	427	424	378	420	384	460	405	439	410	376
NGLs	66	56	56	52	58	57	56	56	56	58	57
Total	833	732	684	632	730	683	682	652	753	720	676
Norway <sup>4</sup>											
Ekofisk-Ula Area Oseberg-Troll Area	122 192	118 174	127 160	110 161	119 165	130 163	128 161	119 159	119 197	127 160	129 162
Statfjord-Gullfaks Area	250	218	205	222	214	211	207	203	217	215	212
Haltenbanken Area	237	241	264	240	261	270	268	263	274	262	269
Sleipner-Frigg Area Other Fields	784 124	964 97	1019 54	970 84	981 89	1027 80	977 56	1031 17	948 74	997 107	1020 82
NGLs	190	204	217	189	212	217	219	213	214	228	212
Total	1899	2016	2047	1977	2042	2097	2015	2004	2043	2096	2085
Other OECD Europe											
Denmark	65	63	74	63	70	74	75	73	70	70	73
Italy	83	83	75	79	80	76	76	75	85	87	76
Türkiye Other	69 78	79 66	92 74	81 56	86 67	88 77	91 75	93 73	85 61	87 77	88 79
NGLs	76	6	6	5	7	6	6	6	7	6	79
Non-Conventional Oils	129	161	152	170	162	151	152	152	164	158	149
Total	431	457	472	454	472	473	474	473	472	484	472
Australia											
Gippsland Basin	8	9	9	9	9	9	9	9	9	9	9
Cooper-Eromanga Basin Carnarvon Basin	18 108	18 84	16 100	17 106	17 107	17 104	17 102	16 99	17 106	17 105	17 105
Other Crude	177	168	171	141	141	187	170	170	136	152	179
NGLs	102	102	92	107	95	94	93	91	97	97	94
Total	413	381	388	381	369	411	390	385	365	380	404
Other OECD Asia Oceania											
New Zealand	16	17	14	19	16	14	14	14	17	15	15
Japan NGLs	3 11	3 10	3 8	3 10	3 8						
Non-Conventional Oils	38	38	34	40	34	34	34	34	35	34	34
Total	68	68	59	72	62	60	59	59	63	60	60
OECD											
Crude Oil	20228	21334	21879	21327	21895	21811	21914	21788	21948	22022	21541
NGLs	7510	8037	8391	8155	8392	8075	8373	8419	8460	8271	7954
Non-Conventional Oils <sup>5</sup>	1605	1686	1686	1751	1715	1734	1474	1749	1807	1828	1696
Total	29342	31057	31955	31234	32001	31620	31760	31956	32215	32122	31191

Subcategories refer to crude oil only unless otherwise noted.
 Only production from Federal waters is included.
 To the extent possible, condensates from natural gas processing plants are included with NGLs, while field condensates are aggregated with crude oil.
 North Sea production is grouped into crude streams that include all fields being processed through the named field complex, i.e. the name corresponds to the crude stream not just the field of that name.
 Does not include biofuels.

wo	ORLD OI	L PROD	OUCTION	N (Includin	ble 3b g OPE( parrels per da		d on cu	rrent aç	jreemen	t')		
	2022	2023	2024	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	Nov 23	Dec 23	Jan 24
OPEC+												
Crude Oil												
Algeria	1.01	0.97	0.94	0.97	0.95	0.96	0.91	0.94	0.96	0.96	0.95	0.91
Azerbaijan	0.56	0.50	0.50	0.50	0.50	0.49	0.49	0.50	0.51	0.49	0.48	0.47
Bahrain Brunei	0.19 0.07	0.18 0.07	0.19 0.07	0.20 0.07	0.17 0.08	0.19 0.07	0.19 0.07	0.19 0.07	0.19 0.07	0.20 0.07	0.17 0.07	0.19 0.08
Congo	0.26	0.07	0.07	0.28	0.00	0.26	0.07	0.07	0.07	0.25	0.26	0.25
Equatorial Guinea	0.08	0.06	0.06	0.06	0.06	0.05	0.06	0.06	0.06	0.05	0.05	0.05
Gabon	0.19	0.21	0.20	0.20	0.23	0.23	0.21	0.20	0.20	0.23	0.22	0.23
Iran	2.55	2.99	3.15	3.00	3.11	3.15	3.15	3.15	3.15	3.21	3.15	3.15
Iraq	4.45	4.27	4.23	4.12	4.29	4.33	4.12	4.21	4.28	4.29	4.33	4.23
Kazakhstan Kuwait	1.50 2.70	1.60 2.62	1.60 2.51	1.62 2.63	1.53 2.57	1.60 2.57	1.58 2.43	1.65 2.50	1.58 2.55	1.57 2.60	1.62 2.55	1.62 2.47
Libya	0.99	1.16	1.16	1.16	1.15	1.17	1.12	1.18	1.18	1.17	1.18	1.03
Malaysia	0.40	0.37	0.35	0.36	0.36	0.38	0.36	0.35	0.35	0.38	0.38	0.37
Mexico	1.62	1.65	1.63	1.67	1.65	1.64	1.64	1.63	1.63	1.64	1.62	1.64
Nigeria	1.15	1.24	1.35	1.15	1.21	1.32	1.38	1.37	1.33	1.25	1.36	1.40
Oman	0.85	0.81	0.79	0.82	0.80	0.80	0.76	0.79	0.80	0.80	0.80	0.76
Russia	9.75	9.56	9.44	9.51	9.48	9.50	9.44	9.45	9.44	9.50	9.48	9.44
Saudi Arabia	10.53	9.63	9.65	10.14	9.02	8.95	8.98	9.65	9.98	8.92	8.95	8.97
South Sudan	0.14	0.15	0.15	0.14	0.17	0.15	0.16	0.15	0.15	0.15	0.15	0.16
Sudan UAE	0.06 3.34	0.06 3.29	0.05 3.28	0.06 3.27	0.05 3.23	0.05 3.23	0.05 3.24	0.05 3.29	0.05 3.30	0.05 3.24	0.05 3.21	0.05 3.21
Venezuela	0.70	0.77	0.84	0.79	0.79	0.79	0.82	0.83	0.84	0.80	0.80	0.83
Total Crude Oil	43.08	42.44	42.44	42.72	41.67	41.88	41.43	42.49	42.89	41.83	41.84	41.52
of which Neutral Zone	0.28	0.29		0.30	0.24	0.31				0.28	0.36	0.32
Total NGLs	7.98	8.24	8.33	8.22	8.15	8.29	8.27	8.31	8.35	8.31	8.33	8.30
TOTAL OPEC+	51.1	50.7	50.8	50.9	49.8	50.2	49.7	50.8	51.2	50.1	50.2	49.8
NON-OPEC+ OECD												
Americas <sup>2</sup>	23.69	25.29	26.23	24.71	25.62	26.24	25.81	26.06	26.32	26.42	26.31	25.41
United States	17.93	19.45	20.22	19.25	19.74	20.09	19.76	20.24	20.26	20.16	20.04	19.49
Canada	5.76	5.83	6.01	5.46	5.88	6.14	6.04	5.82	6.05	6.25	6.26	5.90
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.18	3.21	3.21	3.24	3.07	3.25	3.26	3.18	3.13	3.28	3.30	3.24
UK Norway	0.84 1.90	0.73 2.02	0.68 2.05	0.76 2.02	0.63 1.98	0.73 2.04	0.68 2.10	0.68 2.02	0.65 2.00	0.76 2.04	0.72 2.10	0.68 2.09
Others	0.44	0.46	0.48	0.46	0.46	0.48	0.48	0.48	0.48	0.48	0.49	0.48
Asia Oceania	0.48	0.46	0.46	0.46	0.46	0.44	0.48	0.46	0.46	0.44	0.45	0.47
Australia	0.41	0.38	0.39	0.38	0.38	0.37	0.41	0.39	0.39	0.36	0.38	0.40
Others	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07
Total OECD (non-OPEC+)	27.35	28.96	29.90	28.41	29.15	29.93	29.55	29.70	29.91	30.15	30.06	29.12
Non-OECD												
FSU	0.32	0.31	0.30	0.31	0.31	0.31	0.31	0.30	0.30	0.31	0.31	0.31
Asia	6.23	6.28	6.24	6.36	6.20	6.22	6.27	6.29	6.20	6.27	6.23	6.26
China	4.18	4.28	4.31	4.34	4.21	4.25	4.33	4.35	4.27	4.30	4.27	4.32
India	0.70	0.69	0.69	0.69	0.69	0.68	0.68	0.69	0.69	0.68	0.68	0.68
Indonesia	0.63	0.63	0.59	0.64	0.62	0.61	0.60	0.60	0.59	0.61	0.61	0.60
Others	0.71	0.69	0.65	0.69	0.68	0.68	0.66	0.65	0.64	0.68	0.67	0.66
Europe	0.11	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.10
Americas	5.65	6.18	6.72	6.00	6.28	6.47	6.67	6.71	6.73	6.48	6.60	6.55
Brazil	3.12	3.49	3.74	3.32	3.64	3.69	3.68	3.73	3.74	3.77	3.67	3.57
Argentina	0.71	0.77	0.82	0.76	0.76	0.80	0.81	0.82	0.83	0.80	0.81	0.81
Colombia	0.76	0.79	0.78	0.79	0.79	0.80	0.79	0.79	0.78	0.79	0.80	0.79
Ecuador	0.70	0.45	0.47	0.75	0.46	0.46	0.73	0.73	0.47	0.75	0.47	0.47
Others	0.59	0.43	0.47	0.43	0.40	0.40	0.47	0.47	0.47	0.46	0.47	0.47
Middle East	1.89	1.87	1.87	1.88	1.87	1.87	1.88	1.87	1.87	1.87	1.87	1.88
Qatar	1.80	1.81	1.81	1.81	1.81	1.81	1.82	1.81	1.81	1.81	1.81	1.82
Others	0.09	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Africa	2.27				2.24		2.24	2.21			2.24	2.26
Atrica Angola	2.27 1.17	2.21 1.13	2.21 1.10	2.20 1.13	1.16	2.24 1.15	1.15	1.11	2.19 1.09	2.20 1.11	1.15	2.26 1.17
Egypt	0.60	0.60	0.60	0.60	0.60	0.59	0.60	0.60	0.60	0.60	0.59	0.59
Egypt Others	0.50	0.60	0.60	0.60	0.60	0.59	0.50	0.50	1.59	0.60	0.59	0.59
Total non-OECD (non-OPEC+)	16.45	16.95	17.43	16.85	17.00	17.20	17.46	17.48	17.38	17.22	17.34	17.35
Processing gains	2.31	2.35	2.44	2.35	2.38	2.37	2.44	2.44	2.44	2.37	2.39	2.44
Global biofuels	2.90	3.13	3.25	3.21	3.54	3.14	2.74	3.36	3.65	3.24	2.86	2.73
TOTAL NON-OPEC+	49.02	51.39	53.02	50.82	52.08	52.64	52.19	52.97	53.38	52.99	52.65	51.64
TOTAL SUPPLY	100.08	102.07	103.79	101.76	101.89	102.82	101.88	103.78	104.61	103.12	102.83	101.45
1 From February 2024 OPEC+ supply reflect									104.01	103.12	102.03	101.45

<sup>1</sup> From February 2024, OPEC+ supply reflects latest OPEC+ deal and individual country's sustainable capacity. Libya and Iran held at most recent level through 202 2 Excludes Mexico.

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					Tal	ole 4						
			OECD S	TOCKS	AND QUA	RTERLY	STOCK	CHANGE	S			
			T MONTHL'	Y STOCKS <sup>2</sup>	2		YEARS' S			STOCK C		
	Aug2023	Sep2023	Oct2023	Nov2023	Dec2023 <sup>3</sup>	Dec2020	Dec2021	Dec2022	1Q2023	2Q2023	3Q2023	4Q2023
OECD INDUSTRY-	CONTROL	LED STOC	KS <sup>1</sup>									
OECD Americas												
Crude	570.2	565.8	581.3	602.5	593.3	642.3	588.4	594.8	0.29	-0.17	-0.43	0.30
Motor Gasoline	244.8	256.4	246.3	251.5	268.6	273.3	259.6	251.2	0.03	-0.07	0.10	0.13
Middle Distillate	189.1	192.1	177.9	182.2	201.7	231.5	195.8	183.8	-0.04	0.03	0.09	0.10
Residual Fuel Oil	31.9	34.0	33.2	31.5	30.1	38.0	32.2	37.3	-0.02	0.01	-0.03	-0.04
Total Products⁴	780.0	804.8	772.0	761.5	767.3	804.0	730.7	731.9	-0.30	0.47	0.62	-0.41
Total <sup>5</sup>	1514.2	1539.0	1521.6	1532.9	1526.6	1613.5	1470.0	1491.7	-0.03	0.27	0.28	-0.13
OECD Europe												
Crude	339.0	330.3	333.6	329.8	319.8	371.0	303.3	337.2	0.02	0.10	-0.19	-0.11
Motor Gasoline	86.3	86.2	86.0	87.1	87.0	98.7	86.1	87.8	0.02	-0.10	0.06	0.01
Middle Distillate	261.3	258.1	242.1	231.2	233.9	317.1	243.4	251.2	-0.05	-0.01	0.13	-0.26
Residual Fuel Oil	62.6	64.4	62.1	65.7	65.6	67.1	59.7	70.1	-0.03	-0.02	-0.01	0.01
Total Products⁴	522.8	520.2	502.2	493.5	494.8	595.3	485.9	518.5	-0.14	-0.11	0.26	-0.28
Total⁵	940.4	922.0	908.9	895.8	884.6	1042.9	857.4	936.2	-0.19	0.01	0.02	-0.41
OECD Asia Ocean	iia											
Crude	122.2	123.0	121.1	120.9	120.8	152.7	100.9	128.8	0.13	-0.07	-0.12	-0.02
Motor Gasoline	24.0	24.5	24.4	23.7	23.9	25.9	24.0	24.4	0.00	0.01	-0.01	-0.01
Middle Distillate	68.3	70.1	71.8	69.9	66.4	66.3	64.2	62.4	-0.09	0.06	0.11	-0.04
Residual Fuel Oil	18.7	18.8	18.2	17.8	16.5	15.6	16.9	16.6	0.00	0.01	0.02	-0.03
Total Products <sup>4</sup>	181.7	178.7	178.4	175.4	170.4	168.5	163.3	164.6	-0.08	0.11	0.12	-0.09
Total <sup>5</sup>	367.9	364.5	361.6	356.9	350.3	380.1	324.7	353.4	-0.03	0.09	0.06	-0.15
Total OECD												
Crude	1031.4	1019.1	1036.0	1053.2	1033.9	1165.9	992.6	1060.7	0.44	-0.15	-0.74	0.16
Motor Gasoline	355.0	367.0	356.7	362.3	379.5	397.9	369.6	363.3	0.04	-0.16	0.15	0.14
Middle Distillate	518.6	520.3	491.8	483.3	502.0	615.0	503.3	497.4	-0.17	0.08	0.34	-0.20
Residual Fuel Oil	113.3	117.2	113.6	114.9	112.2	120.6	108.7	123.9	-0.05	0.00	-0.02	-0.05
Total Products <sup>4</sup>	1484.4	1503.7	1452.6	1430.3	1432.5	1567.8	1379.8	1414.9	-0.52	0.47	1.01	-0.77
Total <sup>5</sup>	2822.4	2825.5	2792.0	2785.6	2761.5	3036.6	2652.1	2781.3	-0.25	0.37	0.36	-0.70
OECD GOVERNMI	ENT-CONT	ROLLED S	STOCKS									
OECD Americas												
Crude	350.3	351.3	351.3	351.9	354.7	638.1	593.7	372.0	-0.01	-0.26	0.04	0.04
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	191.1	191.4	191.7	191.2	191.3	205.2	200.3	193.0	-0.06	0.02	0.02	0.00
Products	279.5	278.1	276.5	275.3	275.1	280.1	277.0	266.4	0.05	0.09	-0.01	-0.03
OECD Asia Ocean	iia											
Crude	349.1	349.2	348.6	350.0	348.9	374.6	370.1	342.8	0.06	0.04	-0.02	0.00
Products	34.8	35.1	35.6	35.7	35.8	39.1	38.9	35.6	0.00	0.00	-0.01	0.01
Total OECD												
Crude	890.6	891.8	891.6	893.1	894.8	1217.9	1164.0	907.9	-0.01	-0.21	0.04	0.03
Products	316.3	315.2	314.0	313.0	312.9	321.2	317.9	304.0	0.04	0.09	-0.01	-0.02
Total⁵	1209.1	1208.9	1207.7	1208.0	1209.3	1541.2	1483.7	1213.8	0.03	-0.12	0.03	0.00

Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.
 Closing stock levels.
 Estmated.
 Total products includes gasoline, middle distillates, fuel oil and other products.
 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.
 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

		July			August			Septemb	er		Octobe	r	No	ovember	
	2022	2023	%	2022	2023	%	2022	2023	%	2022	2023	%	2022	2023	%
United States <sup>2</sup>															
Crude	424.1	439.8	3.7	419.8	417.3	-0.6	429.0	417.5	-2.7	439.7	426.1	-3.1	416.6	442.1	6.1
Motor Gasoline	225.1	222.1	-1.3	215.6	218.9	1.5	209.5	227.6	8.6	210.4	218.5	3.8	221.4	223.6	1.0
Middle Distillate	154.9	164.3	6.1	152.6	161.0	5.5	148.0	164.1	10.9	148.1	151.3	2.2	160.3	154.5	-3.6
Residual Fuel Oil Other Products	29.2 238.8	28.5	-2.4 13.9	28.6 254.6	26.0	-9.1 14.5	27.4 264.9	27.5 300.7	0.4	30.0 263.1	27.5 292.6	-8.3 11.2	29.4 258.5		-12.2 6.1
Total Products	648.0	272.1 687.0	6.0	651.4	291.5 697.4	7.1	649.8	719.9	13.5 10.8	651.6	689.9	5.9	669.6	274.2 678.1	1.3
Other <sup>3</sup>	143.2	144.7	1.0	141.5	143.5	1.4	136.8	146.0	6.7	139.2	148.0	6.3	140.6	146.8	4.4
Total	1215.3	1271.5	4.6	1212.7	1258.2	3.8	1215.6	1283.4	5.6	1230.5	1264.0	2.7	1226.8	1267.0	3.3
Japan															
Crude	66.7	91.3	36.9	76.2	78.0	2.4	86.2	82.7	-4.1	79.1	83.7	5.8	82.7	82.0	-0.8
Motor Gasoline	8.8	8.8	0.0	9.6	9.6	0.0	9.7	9.9	2.1	9.7	10.3	6.2	11.0	10.3	-6.4
Middle Distillate Residual Fuel Oil	28.8 6.2	28.2 7.6	-2.1 22.6	30.9 6.8	33.4 8.8	8.1 29.4	31.4 6.8	35.4 8.1	12.7 19.1	34.5 7.3	36.6 7.8	6.1 6.8	37.0 7.3	35.6 7.4	-3.8 1.4
Other Products	35.8	37.3	4.2	36.9	40.8	10.6	39.1	38.2	-2.3	39.8	37.1	-6.8	38.8	36.2	-6.7
Total Products	79.6	81.9	2.9	84.2	92.6	10.0	87.0	91.6	5.3	91.3	91.8	0.5	94.1	89.5	-4.9
Other	47.1	49.5	5.1	49.2	53.6	8.9	51.2	52.2	2.0	50.7	51.9	2.4	49.7	51.4	3.4
Total	193.4	222.7	15.1	209.6	224.2	7.0	224.4	226.5	0.9	221.1	227.4	2.8	226.5	222.9	-1.6
Germany															
Crude	48.4	51.8	7.0	47.9	50.9	6.3	47.8	46.9	-1.9	52.0	49.2	-5.4	49.8	47.9	-3.8
Motor Gasoline	10.5	10.2	-2.9 7.6	9.2 23.2	10.1	9.8	10.6	10.5	-0.9	10.4 24.2	10.5	1.0 -9.1	10.6	10.6	0.0
Middle Distillate Residual Fuel Oil	23.6 8.1	25.4 8.7	7.6	8.4	27.6 8.1	19.0 -3.6	23.5 9.5	25.7	9.4	9.1	22.0 7.9	-9.1	24.0 8.9	9.0	-20.4 1.1
Other Products	9.7	10.0	3.1	9.8	9.6	-2.0	9.9	9.5	-4.0	10.1	9.7	-4.0	10.1		-11.9
Total Products	51.9	54.3	4.6	50.6	55.4	9.5	53.5	53.2	-0.6	53.8	50.1	-6.9	53.6		-11.2
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
Total	100.3	106.1	5.8	98.5	106.3	7.9	101.3	100.1	-1.2	105.8	99.3	-6.1	103.4	95.5	-7.6
Italy															
Crude	34.3	37.3	8.7	36.2	36.7	1.4	40.0	39.7	-0.7	34.4	38.1	10.8	40.5	35.1	-13.3
Motor Gasoline	10.0	9.6	-4.0	10.2	9.9	-2.9	11.1	10.0	-9.9	10.2	10.3	1.0	9.7	10.6	9.3
Middle Distillate	22.6	23.5	4.0	21.7	26.7	23.0	22.8	25.7	12.7	24.0	24.7	2.9	23.4	22.1	-5.6
Residual Fuel Oil Other Products	7.2		-15.3	7.0	6.9	-1.4	8.1		-14.8	8.1	7.7	-4.9	7.9	7.4	-6.3
Total Products	11.6 51.4	11.2 50.4	-3.4 -1.9	10.7 49.6	11.7 55.2	9.3 11.3	11.6 53.6	11.7 54.3	0.9 1.3	11.3 53.6	11.9 54.6	5.3 1.9	10.8 51.8	11.2 51.3	3.7 -1.0
Other <sup>3</sup>	14.6	15.4	5.5	14.6	14.4	-1.4	14.3	13.7	-4.2	13.9	14.3	2.9	13.5	15.0	11.1
Total	100.3	103.1	2.8	100.4	106.3	5.9	107.9	107.7	-0.2	101.9	107.0	5.0	105.8	101.4	-4.2
France															
Crude	12.0	11.9	-0.8	11.5	11.7	1.7	11.6	10.7	-7.8	15.9	9.6	-39.6	13.7	8.4	-38.7
Motor Gasoline	5.6	5.2	-7.1	5.4	5.4	0.0	4.6	5.7	23.9	4.7	5.4	14.9	4.6	5.7	23.9
Middle Distillate	19.5	17.6	-9.7	21.8		-19.3	17.2	17.8	3.5	19.5		-20.5	21.0		-22.4
Residual Fuel Oil Other Products	2.6 3.7	4.1	-73.1 10.8	3.0 3.7	3.6	-76.7 -2.7	2.5 4.0		-40.0 -15.0	1.9 3.6	3.7	-26.3 2.8	2.4 3.6	1.6 3.7	-33.3 2.8
Total Products	31.4		-12.1	33.9		-19.5	28.3	28.4	0.4	29.7			31.6		-13.6
Other <sup>3</sup>	7.0	7.3	4.3	7.1	7.7	8.5	7.6	7.2	-5.3	7.7		-10.4	7.9		-15.2
Total	50.4	46.8	-7.1	52.5	46.7	-11.0	47.5	46.3	-2.5	53.3	42.5	-20.3	53.2	42.4	-20.3
United Kingdom															
Crude	27.4	26.9	-1.8	25.9	26.2	1.2	27.9	26.1	-6.5	21.1	26.2	24.2	21.6	26.5	22.7
Motor Gasoline	8.9	8.7	-2.2	9.1	8.8	-3.3	9.3	9.1	-2.2	8.9	8.8	-1.1	8.8	9.7	10.2
Middle Distillate	18.9	19.5	3.2	17.5	20.3	16.0	18.1	20.0	10.5	17.4	19.6	12.6	18.0	17.7	-1.7
Residual Fuel Oil	1.2	1.4	16.7	1.5		-13.3	1.4	1.4	0.0	1.4	1.4	0.0	1.6		-12.5
Other Products	6.7	6.2	-7.5	6.7	6.6	-1.5	6.9	6.6	-4.3	6.4	6.3	-1.6	6.8		-11.8
Total Products Other <sup>3</sup>	35.7 7.8	35.8 7.2	0.3 -7.7	34.8 7.4	37.0 9.2	6.3 24.3	35.7 7.5	37.1 8.0	3.9 6.7	34.1 9.0	36.1 8.4	5.9 -6.7	35.2 8.7	34.8 8.5	-1.1 -2.3
Total	70.9	69.9	-1.4	68.1	72.4	6.3	71.1	71.2	0.1	64.2	70.7	10.1	65.5	69.8	6.6
Canada <sup>4</sup>															
Crude	119.8	114.1	-4.8	120.3	116.4	-3.2	116.5	112.7	-3.3	120.8	119.5	-1.1	125.3	124.5	-0.6
Motor Gasoline	14.3	16.1		14.3	16.6	16.1	14.9		15.4	15.1	16.1	6.6	15.1	15.9	5.3
Middle Distillate	16.9		14.2	17.2	19.7	14.5	16.5		12.1	16.5	17.5	6.1	16.1		11.8
Residual Fuel Oil	1.6		12.5	1.9	1.9	0.0	2.4		-12.5	1.6	2.4		2.3	2.1	-8.7
Other Products	13.0	13.2	1.5	13.0	13.1	0.8	12.6	12.6	0.0	12.1	12.9	6.6	12.9	12.8	-0.8
Total Products Other <sup>3</sup>	45.8 23.5		10.0 -20.0	46.4 25.5		10.6 -20.0	46.4 25.2	50.4 22.3	8.6 -11.5	45.3 24.8	48.9 20.1	7.9 -19.0	46.4 23.9	48.8 22.1	5.2 -7.5
Total	189.1	183.3		192.2	188.1		188.1	185.4		190.9	188.5		195.6	195.4	
I Utal	105.1	103.3	-3.1	192.2	100.1	-Z. I	100.1	100.4	-1.4	150.9	100.5	-1.3	199.0	130.4	-0.1

Stocks are primary national territory stocks on land (excluding utilitity stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.
 US figures exclude US territories.
 Other includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.
 Canadian stock information for recent months is the administration's best estimate. Data are usually finalised three months after first publication.

				Tab	le 5					
		TOTA	L STOCK	S ON LAN		D COUNT	TRIES <sup>1</sup>			
_				('millions of barr	els' and 'days')					
_		ember 2022		larch 2023		June 2023	-	ember 2023		ember 2023 <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
OECD Americas										
Canada	199.8	86	188.3	76	180.0	68	185.4	-	-	-
Chile	10.6	28	10.8	29	10.9	29	11.3	-	-	-
Mexico	36.6	20	37.3	20	35.8	19	36.7	-	-	-
United States⁴	1596.6	81	1603.5	79	1613.6	79	1636.7	-	-	-
Total⁴	1865.7	76	1862.0	74	1862.3	73	1892.3	75	1883.3	77
OECD Asia Oceania										
Australia	38.7	35	39.8	35	38.9	35	39.8	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	513.9	138	492.5	159	510.7	165	520.8	-	-	-
Korea	173.8	68	196.0	84	190.8	78	182.5	-	-	-
New Zealand	5.5	36	5.8	38	5.4	38	5.5	-	-	-
Total	731.8	94	734.0	106	745.8	106	748.7	99	734.9	95
OECD Europe <sup>5</sup>										
Austria	21.3	91	22.6	91	22.0	89	22.2	-	-	-
Belgium	45.7	73	45.5	77	46.9	84	48.5	_	_	_
Czech Republic	23.1	116	23.6	113	22.0	98	23.4	_	_	_
Denmark	23.6	167	22.8	149	21.8	134	21.7	_	_	_
Estonia	3.4	120	3.2	110	3.0	95	2.5	-	-	-
Finland	38.0	222	35.9	198	36.4	223	35.1	-	-	-
France	151.3	99	138.7	89	151.8	96	154.7	-	-	-
Germany	271.7	132	264.3	126	264.8	131	261.9	-	-	-
Greece	31.9	118	32.1	107	31.6	93	32.6	-	-	-
Hungary	28.7	177	30.5	172	30.7	167	30.4	-	-	-
Ireland	11.0	70	10.3	67	10.3	71	10.2	-	-	-
Italy	120.0	106	122.9	104	117.7	96	123.8	-	-	-
Latvia	2.9	89	1.9	55	3.0	77	3.0	-	-	-
Lithuania	8.3	133	8.7	122	8.5	117	8.4	-	-	-
Luxembourg	0.5	11	0.5	10	0.5	11	0.5	-	-	-
Netherlands	139.8	155	130.1	142	126.3	145	119.2	-	-	-
Norway	27.2	123	27.8	115	26.1	120	27.7	-	-	-
Poland	83.8	128	88.5	125	87.5	117	84.3	-	-	-
Portugal	20.0	91	18.9	86	19.1	89	20.1	-	-	-
Slovak Republic	13.1	141	13.5	146	13.5	142	13.8	-	-	-
Slovenia	4.9	100	4.5	92	4.7	102	5.3	-	-	-
Spain	109.5	87	110.2	88	112.9	88	113.3	-	-	-
Sweden	36.0	121	36.9	121	39.2	137	38.3	-	-	-
Switzerland	27.4	145	28.4	144	29.0	154	30.3	-	-	-
Republic of Türkiye	88.6	92	87.9	82	93.9	77	91.2	-	-	-
United Kingdom	65.9	47	69.6	48	66.9	48	71.2	-	-	-
Total	1397.5	107	1379.7	102	1390.2	102	1393.4	105	1352.5	103
Total OECD	3995.0	88	3975.7	87	3998.2	87	4034.4	88	3970.7	88
DAYS OF IEA Net Imports <sup>6</sup>		242	_	243	_	143	_	144	-	-

DAYS OF IEA Net Imports\* - 242 - 1

Total Stocks are industry and government-controlled stocks (see breakdown in the table below). Stocks are industry and government-controlled stocks (see breakdown in the table below). Stocks are injuried in the stock of land (excluding utility stocks and including pipeline and entrepot 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 demmand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

3 End December 2023 forward demmand figures are IEA Secretarial 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/hetimports.asp). Net exporting IEA countries are excluded.

		TOTAL C	ECD STOCKS			
CLOSING STOCKS	Total	Government <sup>1</sup>	Industry	Total	Government <sup>1</sup>	Industry
		controlled			controlled	
		Millions of Barrels			Days of Fwd. Deman	d²
Q2020	4578	1541	3037	108	36	71
Q2021	4470	1546	2924	102	35	66
Q2021	4405	1524	2882	96	33	63
Q2021	4281	1513	2769	91	32	59
Q2021	4136	1484	2652	90	32	58
Q2022	4057	1442	2615	90	32	58
Q2022	4008	1343	2664	87	29	58
Q2022	3996	1246	2750	87	27	60
Q2022	3995	1214	2781	88	27	61
Q2023	3976	1217	2759	87	27	60
Q2023	3998	1206	2792	87	26	61
Q2023	4034	1209	2826	88	26	61
Q2023	3971	1209	2761	88	27	61

Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
 Days of forward demand calculated using actual demand except in 4Q2023 (where latest forecasts are used).

Table 6 IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS<sup>1</sup>

	2020											
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23	Nov 22	change
Saudi Light & Extra Light												
	0.26	0.34	0.46	0.41	0.39	0.39	0.24	0.03	-	0.27	0.44	-0.17
	0.59	0.48	0.62	0.67	0.73	0.67	0.48	0.45	0.40	0.37	0.58	-0.21
Asia Oceania	1.39	1.30	1.51	1.58	1.58	1.43	1.39	1.53	1.32	1.51	1.66	-0.15
Saudi Medium		0.04										
	0.14 0.02	0.01 0.01	0.02	0.01	0.01	-	0.01	-	-	-	-	
	0.25	0.21	0.23	0.23	0.25	0.16	0.24	0.18	0.18	0.17	0.26	-0.10
Canada Heavy												
	2.39	2.59	2.61	2.63	2.70	2.57	2.56	2.76	2.31	2.62	2.62	0.00
	0.03	0.03	0.08	0.11	0.07	0.14	0.10	0.06	0.11	0.15	0.09	0.06
Asia Oceania	0.00	0.02	0.01	-	-	-	-	-	-	-	-	-
Iraqi Basrah Light <sup>2</sup>	0.44	0.00	0.04	0.40	0.00	0.40	0.00	0.44	0.44	0.44	0.04	0.40
	0.11 0.58	0.08 0.62	0.21 0.69	0.13 0.69	0.33 0.71	0.18 0.75	0.22 0.82	0.14 0.89	0.14 1.02	0.11 0.71	0.21 0.76	-0.10 -0.05
	0.22	0.17	0.23	0.26	0.27	0.26	0.23	0.23	0.29	0.29	0.35	-0.05
Kuwait Blend												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
•	0.04	-	-	-	-	-	-		0.02	0.00	-	-
Asia Oceania	0.55	0.48	0.48	0.46	0.51	0.45	0.47	0.51	0.35	0.46	0.51	-0.04
Iranian Light												
Americas Europe	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Iranian Heavy <sup>3</sup>												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
BFOE		0.00					0.04		0.04	0.04		
Americas Europe	- 0.42	0.00 0.36	0.41	0.38	0.50	0.47	0.01 0.54	0.59	0.01 0.35	0.01 0.17	0.31	-0.14
•	0.03	0.05	0.03	-	-	-	-	-	0.04	0.10	-	-
Kazakhstan												
Americas	-	0.01	-	-	-	-	-	-	-	-	-	-
•	0.74	0.69 0.09	0.73	0.70	0.98	0.97	0.88 0.08	0.78	0.89 0.07	0.88	0.62	0.26 -0.07
	0.07	0.09	0.13	0.14	0.15	0.14	0.06	0.03	0.07	0.07	0.14	-0.07
Venezuelan 22 API and heavi	er		_	_	_	0.03	0.06	_	0.12	_	_	
Americas Europe	0.04		0.01	0.02	0.01	0.03	0.03	0.01	0.12	0.03	0.03	0.00
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
	0.48	0.40	0.40	0.36	0.43	0.38	0.40	0.44	0.46	0.39	0.28	0.11
•	0.16 0.12	0.14 0.14	0.10 0.06	0.12 0.08	0.09 0.05	0.10 0.05	0.07 0.05	0.09 0.10	0.03	0.07 0.03	0.17 0.04	-0.10 -0.01
	0.12	0.14	0.00	0.00	0.05	0.05	0.03	0.10	0.03	0.03	0.04	-0.01
Russian Urals Americas		_						_				
	1.12	1.05	0.74	0.40	0.13	0.09	0.09	0.08	0.08	0.06	0.47	-0.41
Asia Oceania	-	0.01	-	-	-	-	-	-	-	-	-	-
Cabinda and Other Angola												
	0.01		0.00		<del>.</del>	<del>.</del>		-				<u>-</u>
Europe Pacific	0.12	0.03	0.23 0.00	0.31 0.01	0.35	0.22	0.30	0.35	0.22	0.25	0.36	-0.12
			5.50	0.01				_	-			_
Nigerian Light <sup>4</sup> Americas	_	0.02	0.00	_	_	_	_	_	_	_	_	_
Europe	0.49	0.41	0.41	0.46	0.53	0.43	0.44	0.34	0.55	0.59	0.64	-0.06
Asia Oceania	0.02	0.01	0.01	0.02	0.00	0.00	-	-	0.03	0.04	-	-
Libya Light and Medium												
Americas	-	0.02	-	- 0.70	- 0.65	- 0.76	- 0.70	-	- 0.70	- 0.77	- 0.60	- 0.00
	0.19 0.01	0.80 0.02	0.63 0.01	0.76 0.01	0.65 0.02	0.76 0.00	0.79 0.01	0.64	0.79 0.02	0.77 0.01	0.69 0.03	0.09 -0.02

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

2 Iraqi Total minus Kritkuk.

3 Iranian Total minus Iranian Light.

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

					Tal	ole 7						
				REGIO	NAL OE	CD IMF	PORTS1.	,2				
						arrels per day						
											Year I	Earlier
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23	Nov 22	% change
Crude Oil												
Americas	1895	2077	2116	2129	2105	2182	2406	2364	1893	2187	2307	-5%
Europe	8349	8520	9090	8986	8368	8337	8819	9268	9156	8693	9105	-5%
Asia Oceania	5579	5526	5878	5731	5934	5407	5487	5812	5479	5555	6017	-8%
Total OECD	15823	16123	17084	16846	16408	15926	16713	17444	16529	16436	17429	-6%
LPG												
Americas	28	21	25	18	31	23	25	32	22	30	31	-3%
Europe	422	404	525	578	543	538	512	515	475	560	593	-6%
Asia Oceania	559	562	579	538	677	486	504	410	466	601	575	5%
Total OECD	1009	987	1130	1134	1251	1048	1042	956	962	1191	1198	-1%
Naphtha												
Americas	7	8	7	8	5	14	5	2	1	8	4	85%
Europe	409	513	306	195	176	134	158	111	224	139	151	-8%
Asia Oceania	1003	1146	1046	1074	1118	933	1021	1050	1073	1161	1074	8%
Total OECD	1419	1667	1359	1277	1298	1082	1183	1163	1299	1308	1230	6%
Gasoline <sup>3</sup>												
Americas	576	805	675	590	548	988	874	877	741	607	576	5%
Europe	109	106	101	69	63	53	56	49	57	65	61	7%
Asia Oceania	116	153	176	179	197	196	190	161	204	166	189	-12%
Total OECD	800	1064	953	838	808	1237	1120	1087	1001	838	827	1%
Jet & Kerosene												
Americas	159	165	134	177	178	160	136	130	131	94	162	-42%
Europe	337	329	453	536	383	478	605	606	541	529	568	-7%
Asia Oceania	60	69	87	139	161	113	128	161	153	104	137	-24%
Total OECD	556	563	674	852	722	751	869	897	825	727	867	-16%
Gasoil/Diesel												
Americas	134	197	99	120	158	59	51	58	92	70	163	-57%
Europe	1192	1188	1225	1486	1164	1261	1100	1094	952	994	1344	-26%
Asia Oceania	328	349	319	325	336	384	424	380	302	290	337	-14%
Total OECD	1654	1735	1644	1931	1658	1705	1576	1533	1346	1355	1845	-27%
Heavy Fuel Oil												
Americas	143	102	122	132	105	51	59	91	73	93	189	-51%
Europe	295	374	260	241	146	158	124	84	137	92	254	-64%
Asia Oceania	88	119	89	75	107	86	131	153	129	140	63	122%
Total OECD	526	594	470	448	358	295	314	328	339	325	506	-36%
Other Products												
Americas	592	581	498	457	473	477	411	384	417	439	469	-7%
Europe	574	605	629	605	561	615	630	603	484	502	638	-21%
Asia Oceania	207	199	189	188	167	193	182	188	141	206	186	11%
Total OECD	1373	1386	1316	1250	1201	1285	1222	1175	1043	1147	1294	-11%
Total Products												
Americas	1639	1879	1560	1502	1499	1772	1560	1573	1476	1341	1595	-16%
Europe	3339	3518	3500	3711	3035	3238	3184	3062	2871	2882	3610	-20%
Asia Oceania	2360	2598	2486	2517	2761	2391	2580	2504	2468	2668	2561	4%
Total OECD	7339	7995	7546	7730	7295	7401	7325	7139	6815	6891	7767	-11%
Total Oil												
Americas	3535	3957	3676	3632	3604	3954	3967	3937	3369	3529	3902	-10%
Europe	11688	12037	12590	12697	11403	11574	12004	12329	12028	11575	12715	-9%
Asia Oceania	7939	8124	8363	8247	8696	7799	8067	8317	7947	8223	8578	-4%
Total OECD	23162	24119	24630	24576	23703	23327	24038	24583	23344	23327	25196	-7%

Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels converson factors available at https://www.iea.org/articles/oil-market-report-glossary#a.
 Excludes intra-regional trade.
 Includes additives.

					Tab	le 7a						
		REGIO	ONAL OF	ECD IMPO	ORTS FI	ROM NO	ON-OEC	D COUNT	RIES <sup>1,</sup>	2		
					(unoucuma b	arrolo por da,	'/				Year E	Carlier
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23		% change
Crude Oil												
Americas	1835	1982	2049	2057	2053	2110	2358	2296	1860	2142	2232	-4%
Europe	7115	7265	7523	7251	6564	6441	6658	7102	7069	6796	7238	-6%
Asia Oceania	5051	4917	5299	5089	5380	4920	5028	5303	4798	4816	5447	-12%
Total OECD	14002	14164	14872	14398	13998	13472	14044	14701	13727	13754	14918	-8%
LPG												
Americas	22	20	25	18	31	23	25	32	22	30	31	-3%
Europe	252	243	256	283	263	275	246	239	224	235	287	-18%
Asia Oceania	58	46	62	52	50	34	24	25	14	25	87	-71%
Total OECD	331	309	343	353	345	332	295	296	259	291	405	-28%
Naphtha												
Americas	1	4	3	6	3	6	3	1	1	5	2	109%
Europe	390	426	272	194	162	103	136	91	197	101	151	-33%
Asia Oceania	832	974	945	958	1047	889	959	940	993	1032	964	7%
Total OECD	1223	1404	1220	1158	1212	998	1098	1032	1191	1138	1117	2%
Gasoline <sup>3</sup>												
Americas	195	248	174	137	155	329	279	291	264	197	103	91%
Europe	104	100	84	58	49	38	40	30	31	51	53	-5%
Asia Oceania	98	149	176	179	197	196	190	161	203	166	189	-12%
Total OECD	397	497	434	374	400	562	509	483	498	413	346	20%
Jet & Kerosene												
Americas	55	63	48	89	91	60	66	74	20	43	58	-25%
Europe	297	294	393	423	370	423	506	456	486	499	411	21%
Asia Oceania	60	69	87	139	161	113	128	161	153	104	137	-24%
Total OECD	413	426	528	650	622	597	701	691	659	646	605	7%
Gasoil/Diesel												
Americas	103	134	43	48	98	39	40	41	17	32	64	-49%
Europe	1062	1107	1120	1315	1008	1021	902	997	872	898	1203	-25%
Asia Oceania	323	349	319	325	336	384	424	380	302	290	337	-14%
Total OECD	1488	1591	1482	1688	1441	1444	1367	1419	1191	1220	1604	-24%
Heavy Fuel Oil												
Americas	110	86	90	96	86	38	54	91	38	93	128	-27%
Europe	279	347	239	220	126	133	103	64	72	80	227	-65%
Asia Oceania	88	119	89	75	107	86	131	153	129	140	63	122%
Total OECD	477	552	418	390	318	257	288	308	240	314	418	-25%
Other Products												
Americas	514	530	421	360	385	421	317	284	344	323	371	-13%
Europe	352	427	443	415	314	365	413	361	352	340	469	-28%
Asia Oceania	130	121	116	116	101	105	110	128	90	100	139	-28%
Total OECD	996	1078	980	890	800	890	840	774	786	763	979	-22%
Total Products	1001	1006	904	751	040	017	701	01/	706	704	757	-4%
Americas Europe	1001 2735	1086 2944	804 2806	754 2907	848 2291	917 2357	784 2346	814 2238	706 2234	724 2204	757 2801	-4% -21%
Asia Oceania	1590	1827	2606 1794	1843	1999	1807	1966	2236 1949	1885	1857	1915	-21% -3%
Total OECD	5325	5857	5404	5504	5138	5081	5097	5001	4825	4785	5473	-3% -13%
	3023											
Total Oil	2005	0000	0050	2011	0004	0007	0440	0446	0500	0005	2005	407
Americas	2836	3068	2853	2811	2901	3027	3143	3110	2566	2865	2990	-4%
Europe	9850 6641	10209	10330	10158	8855	8799 6727	9004	9340	9302	9000	10039	-10%
Asia Oceania	6641	6744	7094	6933	7379	6727	6994	7252	6683	6673	7362	-9%
Total OECD	19327	20020	20277	19902	19135	18553	19141	19702	18552	18539	20391	-9%

Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels converson factors available at https://www.iea.org/articles/oil-market-report-glossary#a.
 Excludes intra-regional trade.
 Includes additives.

					Tab	le 7b						
			INTE	ER-REGIO	ONAL C	DECD TI	RANSFE	RS <sup>1,2</sup>				
					(		,				Year	Earlier
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23	Nov 22	% change
Crude Oil												
Americas	60	95	66	72	52	71	48	68	33	46	74	-39%
Europe	1234	1255	1567	1735	1804	1895	2161	2166	2088	1897	1867	2%
Asia Oceania	527	610	578	641	554	487	459	510	681	739	570	30%
Total OECD	1821	1959	2212	2448	2410	2454	2668	2743	2802	2682	2511	7%
LPG												
Americas	6	1	1	0	0	0	0	0	0	0	0	na
Europe	171	161	269	296	280	264	267	276	251	325	306	6%
Asia Oceania	501	516	517	486	626	452	480	384	452	576	488	18%
Total OECD	678	678	787	782	906	716	747	660	703	900	794	13%
Naphtha												
Americas	6	4	3	2	2	8	2	1	0	3	2	57%
Europe	20	87	35	1	14	31	21	20	27	38	0	23670%
Asia Oceania	170	172	101	115	70	44	62	110	80	129	111	17%
Total OECD	196	263	139	119	86	83	85	131	108	170	113	51%
Gasoline <sup>3</sup>												
Americas	381	557	501	452	394	660	595	585	477	410	473	-13%
Europe	5	6	17	11	15	15	16	19	26	15	8	80%
Asia Oceania	18	5	0	0	0	0	0	0	0	0	0	39%
Total OECD	403	567	518	464	408	675	611	604	503	425	481	-12%
Jet & Kerosene												
Americas	103	102	87	88	87	99	69	57	110	51	105	-52%
Europe	40	35	60	114	12	54	99	150	56	30	157	-81%
Asia Oceania	0	0	0	0	0	0	0	0	0	0	0	na
Total OECD	144	137	147	202	100	154	168	207	166	80	262	-69%
Carall/Disast												
Gasoil/Diesel	31	63	56	72	61	20	11	17	75	38	99	-62%
Americas Europe	131	81	106	171	156	241	198	97	80	96	141	-32%
Asia Oceania	4	0	0	0	0	0	0	0	0	0	0	-79%
Total OECD	166	144	162	243	217	261	209	114	155	135	241	-44%
Heavy Fuel Oil	20	40	0.4	0.5		40	_		0.4		0.4	1000/
Americas	33 16	16	31 21	35 22	20	12 26	5	0	34	0	61	-100%
Europe Asia Oceania	0	27 0	0	0	21 0	26 0	21 0	20 0	65 0	12 0	27 0	-57%
Total OECD	49	42	52	57	40	38	26	20	99	12	88	na - <b>87%</b>
			<b>V-</b>	•								0.70
Other Products												
Americas	78	51	78	98	88	56	94	100	73	116	98	18%
Europe	222	178	186	190	247	250	217	242	133	163	170	-4% 422W
Asia Oceania	77	78	73	71	66	88	72	60	51	106	48	122%
Total OECD	377	307	336	359	401	394	383	402	256	384	315	22%
<b>Total Products</b>												
Americas	639	794	756	748	650	855	776	759	769	618	838	-26%
Europe	604	574	694	805	744	881	838	824	638	678	809	-16%
Asia Oceania	770	771	691	673	763	584	615	555	583	811	646	25%
Total OECD	2013	2139	2141	2226	2158	2320	2228	2138	1990	2106	2294	-8%
Total Oil												
Americas	699	889	823	820	702	927	824	827	803	663	912	-27%
Europe	1838	1829	2261	2539	2548	2776	2999	2989	2725	2575	2677	-4%
Asia Oceania	1297	1381	1270	1314	1317	1072	1073	1065	1264	1550	1216	27%
Total OECD	3834	4098	4353	4674	4568	4774	4897	4881	4792	4788	4805	0%

Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels converson factors available at https://www.iea.org/articles/oil-market-report-glossary#a.
 Excludes intra-regional trade.
 Includes additives.

				Table	e 8							
	REGIO	DNAL		CRUDE		RTS B	y sou	RCE <sup>1</sup>				
			()	thousand barre	eis per day)							
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sen 23	Oct 23	Nov 23	Year E Nov 22	
		2021	2022	70,22	1025	2020	3023	0ep 20	00120	1107 23	1107 22	onungo
OECD Americas												
Venezuela	- 745	710	- 045	- 070	69	151	154	163	166	148	-	-
Other Central & South America North Sea	745 59	719 92	845 64	879 72	837 52	808 63	1016 48	931 68	781 13	1069 46	1011 74	58 -29
Other OECD Europe	1	3	-	-	-	4	-	-	-	-	-	-
Non-OECD Europe Former Soviet Union	- 91	229	43	- 19	23	32	46	- 57	- 17	- 58	- 6	- 53
Saudi Arabia	588	427	535	516	487	434	425	388	236	285	506	-221
Kuwait Iran	21	21 3	27 1	42	14	19	37 11	25 18	24	22	39	-17
Iraq	177	152	244	245	257	190	235	251	235	137	265	-128
Oman	- 5	- 17	- 12	-	- 16	-	23	- 71	- 28	- 17	-	-
United Arab Emirates Other Middle East	-	-	-	-	16	-	-	-	-	-	-	-
West Africa <sup>2</sup>	145	228	186	160	264	288	283	242	177	263	174	89
Other Africa Asia	45 17	161 25	153 5	196	80	186 7	123	134	181 21	144	232	-88
Other	3	-	-	-	6	-	5	16	15	-	-	-
Total	1895	2077	2116	2129	2105	2182	2406	2364	1893	2187	2307	-119
of which Non-OECD	1835	1982	2049	2057	2053	2110	2358	2296	1860	2142	2232	-91
OECD Europe Canada	95	83	129	172	131	207	179	142	138	134	147	-14
Mexico + USA	1139	1172	1438	1562	1673	1689	1977	2024	1950	1763	1720	43
Venezuela	44	-	15	23	8	25	42	30	36	38	37	156
Other Central & South America Non-OECD Europe	208 25	219 23	409 15	443 15	610 19	580 17	566 12	603 5	834 29	484 18	328 18	156 0
Former Soviet Union	3504	3538	3179	2528	1813	1845	1815	1747	1725	1807	2731	-924
Saudi Arabia Kuwait	756 48	518 0	763	882	873	854	662	538	371 1	305 6	790	-485
Iran	6	1	-	-	-	-	-	-	-	-	-	-
Iraq	814	912	989	940	932	876	940	1096	1088	859	990	-130
Oman United Arab Emirates	-	-	48	76	11 75	11 49	21 89	34 63	0 107	44	- 78	-34
Other Middle East	8	9	7	10	22	-	22	-	80	32	-	-
West Africa <sup>2</sup> Other Africa	1074 596	822 1198	1001 1071	1055 1269	1090 1064	980 1186	1025 1213	1189 1045	1036 1126	1306 1242	1075 1187	231 55
Asia	0	0	1071	1209	1004	-	5	0	0	1242	-	-
Other	11	1	3	-	0	-	215	659	586	583	-	-
Total of which Non-OECD	8329 7115	8496 7265	9067 7523	8976 7251	8321 6564	8318 6441	8782 6658	9174 7102	9109 7069	8621 6796	9101 7238	-480 -442
or which Non-OLCD	7113	1203	7323	7231	0304	0441	0030	7102	1003	0730	7230	-442
OECD Asia Oceania												
Canada	1	16	6	-			0	0	-	-	-	-
Mexico + USA Venezuela	477 -	496	538	633	554	479	459 -	510	646	635	570	65
Other Central & South America	91	110	120	109	95	94	100	122	119	37	142	-105
North Sea Other OECD Europe	49	98 0	34 0	8	0	8	0	0	35 0	104 0	0	104 0
Non-OECD Europe	-	-	-	-	-	-	-	-	-	-	-	-
Former Soviet Union	300	336	239	161	154	145	79	34	98	69	178	-108
Saudi Arabia Kuwait	1867 584	1766 506	1991 534	2033 524	2128 586	1845 485	1865 536	1983 582	1769 403	2058 491	1925 554	133 -63
Iran	-	-	-	-	-	-	-	-	-	-	-	-
Iraq Oman	224 22	167 32	220 40	241 26	247 28	241 49	223 49	226 67	287	294 50	287 33	7 17
United Arab Emirates	1096	1083	1287	1288	1220	1325	1346	1424	1284	1320	1263	56
Other Middle East	387	362	370	289	371	394	338	349	189	221	291	-70
West Africa <sup>2</sup> Other Africa	65 42	71 56	64 40	55 43	35 44	5 27	10 31	35	84 29	14 35	29 30	-15 5
Non-OECD Asia	161	185	125	141	139	126	134	134	131	131	160	-29
Other	210	237	266	173	332	184	313	347	406	92	544	-452
Total of which Non-OECD	5577 5051	5522 4917	5874 5299	5726 5089	5934 5380	5407 4920	5484 5028	5812 5303	5479 4798	5550 4816	6006 5447	-456 -631
or which Non-OLCD	5051	4317	3433	5009	5300	4320	3020	5303	4/30	4010	744/	
Total OECD Trade	15801	16096	17057	16831	16361	15907	16672	17350	16482	16358	17413	-1055
of which Non-OECD	14002	14164	14872	14398	13998	13472	14044	14701	13727	13754	14918	-1164

of which Non-OECD 14002 14164 14872 14398 13998 13412 14044 14101

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.

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

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

											Year Ea	
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23	Nov 22	change
OECD Americas												
Venezuela	_	_	_	_	_		_	_	_		_	
Other Central & South America	40	41	45	62	49	65	56	84	61	125	52	73
ARA (Belgium Germany Netherlands)	148	194	170	100	97	216	214	174	109	109	106	3
Other Europe	213	327	293	320	259	389	337	346	336	242	333	-9 <sup>-</sup>
FSU	56	83	8			-	0		-		-	
Saudi Arabia	6	24	27	20	8	33	37	34	2	-	24	
Algeria	4	1	1	1	-	21	12	1	-	-	4	
Other Middle East & Africa	13	13	14	13	15	20	20	28	17	16	11	5
Singapore	1	4	2	2	10	29	38	50	49	20	-	
OECD Asia Oceania	21	37	38	32	38	63	47	67	35	62	34	28
Non-OECD Asia (excl. Singapore)	72	81	76	38	71	153	115	92	132	33	13	20
Other	-	0	0	0	-	-	-	-	-	-	-	
Total <sup>2</sup>	576	805	675	590	548	988	874	877	741	607	576	31
of which Non-OECD	195	248	174	137	155	329	279	291	264	197	103	94
OECD Europe												
OECD Americas	3	5	16	11	11	14	15	16	26	15	7	8
Venezuela	0	2	2	2	3	2	1	1	1	3	3	1
Other Central & South America	4	7	10	6	7	6	3	2	1	7	6	1
Non-OECD Europe	16	10	8	6	8	9	9	12	14	7	12	-5
FSU	31	8	9	2	7	1	1	1	2	2	2	C
Saudi Arabia	8	3	1	-	0	-	4	1	-	-	-	
Algeria	1	-	6	4	7	2	5	-	6	11	2	9
Other Middle East & Africa	3	5	8	5	5	5	4	5	2	11	6	5
Singapore	2	0	2	3	2	3	4	6	4	6	3	3
OECD Asia Oceania	1	1	1	1	4	1	1	2	0	0	1	-1
Non-OECD Asia (excl. Singapore)	0	3	3	3	3	4	4	-	0	0	1	-1
Other	37	63	36	26	8	6	6	3	2	1	17	-16
Total <sup>2</sup>	107	106	101	69	63	53	56	49	57	65	61	4
of which Non-OECD	104	100	84	58	49	38	40	30	31	51	53	-3
OECD Asia Oceania	4	4	0	0	0	0	0	0	0	0	0	(
OECD Americas	4	1	0	0	0	0	0	0	0	0	0	(
Venezuela Other Central & South America	-	-	-	-	-	0	-	-	-	-	-	
ARA (Belgium Germany Netherlands)	4	4	0	0	0	0	0	0	0	0	0	(
Other Europe	10	0	0	0	0	0	0	0	0	0	0	(
FSU	0	-	-	-	-	-	-	-	-	-	-	
Saudi Arabia	-	-	-	-	_	4	-	_	-	-	-	
Algeria	_	_	_	_	_	-	_	_	_	_	_	
Other Middle East & Africa	1	_	_	_	_	-	0	-	_	_	_	
Singapore	51	100	126	125	141	123	105	83	120	100	147	-46
Non-OECD Asia (excl. Singapore)	37	29	30	27	38	53	63	46	68	49	26	23
Other	9	20	21	27	17	17	21	32	16	17	17	C
Total <sup>2</sup>	116	153	176	179	197	196	190	161	204	166	189	-23
of which Non-OECD	98	149	176	179	197	196	190	161	203	166	189	-23
Total OECD Trade <sup>2</sup>	798	1064	953	838	808	1237	1120	1087	1001	838	827	12
of which Non-OECD	397	497	434	374	400	562	509	483	498	413	346	68

<sup>1</sup> Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes. 2 Total figure excludes intra-regional trade.

Table 10

#### REGIONAL OECD GASOIL/DIESEL IMPORTS BY SOURCE<sup>1</sup> Year Earlier 4Q22 1Q23 2Q23 3Q23 Sep 23 Oct 23 Nov 23 Nov 22 change **OECD Americas** Venezuela Other Central and South America ARA (Belgium Germany Netherlands) Other Europe FSU Saudi Arabia Algeria Other Middle East and Africa Singapore OECD Asia Oceania -46 Non-OECD Asia (excl. Singapore) Other -12 Total<sup>2</sup> -93 of which Non-OECD -32 **OECD Europe OECD** Americas -22 Venezuela Other Central and South America Non-OECD Europe FSU -372 Saudi Arabia -203 Algeria Other Middle East and Africa Singapore OECD Asia Oceania -22 Non-OECD Asia (excl. Singapore) Other Total<sup>2</sup> -350 of which Non-OECD -305 **OECD Asia Oceania OECD Americas** Venezuela Other Central and South America ARA (Belgium Germany Netherlands) Other Europe FSU Saudi Arabia Algeria Other Middle East and Africa Non-OECD Asia (excl. Singapore) -76 Other -4 Total<sup>2</sup> -47 of which Non-OECD -47 Total OECD Trade<sup>2</sup> -490 of which Non-OECD -384

<sup>1</sup> Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes. 2 Total figure excludes intra-regional trade.

### Table 11 REGIONAL OECD JET AND KEROSENE IMPORTS BY SOURCE<sup>1</sup>

									-		Year E	arlier
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23	Nov 22	change
OECD Americas												
Venezuela		-	-	-		-		-	-	-	-	
Other Central and South America	5	1	0	1	1	3	1	3	-	-	-	
ARA (Belgium Germany Netherlands)	-	5	0	0	-	1	1	-	-	-	-	
Other Europe	4	7	1	4	11	1	1	-	-	1	-	
FSU	0	4	1	-	-	-	-	-	-	-	-	
Saudi Arabia	6	6	1	1	3	5	5	-	3	-	-	
Algeria	1	4	0	1	-	-	-	-	-	-	4	
Other Middle East and Africa	11	18	16	38	33	32	27	22	16	28	19	
Singapore	4	2	1	2	-	5	2	3	1	2	2	_
OECD Asia Oceania	100	91	85	85	80	97	68	57	110	49	105	-5
Non-OECD Asia (excl. Singapore)	23	27	24	44	48	12	24	46	1	13	32	-1
Other	4	1	3	1	4	3	7	-	-	-	-	
Total <sup>2</sup>	159	165	134	177	178	160	136	130	131	94	162	-6
of which Non-OECD	55	63	48	89	91	60	66	74	20	43	58	-1
OECD Europe												
OECD Americas	13	3	6	11	6	6	9	3	2	3	15	-1
Venezuela	-	-	-	-	-	-	-	-	-	-	-	
Other Central and South America	0	0	0	-	3	-	1	3	-	-	-	
Non-OECD Europe	0	0	3	5	1	3	3	0	8	-	11	
FSU	21	27	16	14	15	19	11	13	18	14	17	-
Saudi Arabia	40	27	57	61	45	51	60	66	64	94	64	3
Algeria	9	5	4	-	-	-	-	-	-	-	-	
Other Middle East and Africa	155	153	172	145	186	199	282	201	262	220	151	6
Singapore	10	11	13	10	11	-	3	-	1	7	3	
OECD Asia Oceania	27	32	54	102	6	49	90	147	54	26	142	-11
Non-OECD Asia (excl. Singapore)	50	61	121	187	107	149	138	153	130	163	166	-
Other	10	9	5	0	1	0	1	0	-	-	0	
Total <sup>2</sup>	336	328	452	536	380	475	598	587	540	528	568	-4
of which Non-OECD	297	294	393	423	370	423	506	456	486	499	411	8
OECD Asia Oceania												
OECD Americas	-	0	0	0	0	0	0	0	0	-	0	
Venezuela	-	-	-	-	-	-	-	-	-	-	-	
Other Central and South America	-	-	-	-	-	-	-	-	-	-	-	
ARA (Belgium Germany Netherlands)	-	0	0	0	-	-	-	-	0	-	-	
Other France	-	0	0	-	-	0	0	-	-	-	-	
Other Europe			_	-	-	-	-	-	-	-	-	
FSU FSU	-	-						_	_	-	-	
·	-	-	-	-	-	-	-					
FSU	-	- -	-	-	-	-	-	-	-	-	-	
FSU Saudi Arabia	- - -	- - 1	- - 0	- - 0	- - 0	- 0	- 2		- 0	- 0	- 0	
FSU Saudi Arabia Algeria	- - - 14							-	0	0 28		
FSU Saudi Arabia Algeria Other Middle East and Africa		1	0	0	0	0	2	0	-	-	0	-2
FSU Saudi Arabia Algeria Other Middle East and Africa Singapore	14	1 16	0 34	0 39	0 44	0 41	2 34	0 39	37	28	0 49	-2 -3
FSU Saudi Arabia Algeria Other Middle East and Africa Singapore Non-OECD Asia (excl. Singapore)	14 28	1 16 34	0 34 38	0 39 72	0 44 83	0 41 41	2 34 66	0 39 77	37 71	28 39	0 49 71	-2 -3 2
FSU Saudi Arabia Algeria Other Middle East and Africa Singapore Non-OECD Asia (excl. Singapore) Other	14 28 18	1 16 34 19	0 34 38 15	0 39 72 27	0 44 83 33	0 41 41 32	2 34 66 26	0 39 77 45	37 71 45	28 39 36	0 49 71 17	-2 -3 2 <b>-3</b>
FSU Saudi Arabia Algeria Other Middle East and Africa Singapore Non-OECD Asia (excl. Singapore) Other Total <sup>2</sup>	14 28 18 <b>60</b>	1 16 34 19 <b>69</b>	0 34 38 15	0 39 72 27 <b>139</b>	0 44 83 33 <b>161</b>	0 41 41 32 <b>113</b>	2 34 66 26 <b>128</b>	0 39 77 45 <b>161</b>	37 71 45 <b>153</b>	28 39 36 <b>104</b>	0 49 71 17 <b>137</b>	-2 -3 2 <b>-3</b>
FSU Saudi Arabia Algeria Other Middle East and Africa Singapore Non-OECD Asia (excl. Singapore) Other Total <sup>2</sup>	14 28 18 <b>60</b>	1 16 34 19 <b>69</b>	0 34 38 15	0 39 72 27 <b>139</b>	0 44 83 33 <b>161</b>	0 41 41 32 <b>113</b>	2 34 66 26 <b>128</b>	0 39 77 45 <b>161</b>	37 71 45 <b>153</b>	28 39 36 <b>104</b>	0 49 71 17 <b>137</b>	-2 -3 2 <b>-3</b>

<sup>1</sup> Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes. 2 Total figure excludes intra-regional trade.

				Table					1_			
REGIO	ONAL C	ECD I	RESIDU (th	IAL FUE ousand barre	EL OIL Is per day)	IMPO	RTS B	Y SOUR	CE'			
											Year E	arlier
	2020	2021	2022	4Q22	1Q23	2Q23	3Q23	Sep 23	Oct 23	Nov 23	Nov 22	chang
OECD Americas												
Venezuela	-	-	-	-	-	-	-	-	-	-	-	
Other Central and South America	52	34	53	69	44	16	42	79	33	60	90	-2
ARA (Belgium Germany Netherlands)	12	6	12	18	9	4	1	0	19	-	35	
Other Europe	21	10	19	18	11	1	3	-	15	1	26	-2
FSU	43	34	21	9	1	4	-	-	-	-	6	
Saudi Arabia	2	0	7	6	3	0	-	-	-	-	15	
Algeria	2	7	4	1	18	4	-	-	-	-	3	
Other Middle East and Africa	10	8	4	5	15	10	9	13	-	7	10	-
Singapore	1	0	-	-	-	-	1	-	-	-	_	
OECD Asia Oceania	-	0	-	-	-	8	-	-	-	-	-	
Non-OECD Asia (excl. Singapore)	-	2	2	6	4	4	3	-	5	24	4	2
Other	_	_	-	_	-	-	0	-	-	-	_	
Total <sup>2</sup>	143	102	122	132	105	51	59	91	73	93	189	-90
of which Non-OECD	110	86	90	96	86	38	54	91	38	93	128	-3
or which non-ocob	110	00	30	30	00	30	<b>04</b>	31	30	55	120	-0.
OECD Europe												
OECD Americas	12	24	13	11	5	16	15	7	65	12	13	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	
Other Central and South America	6	4	5	10	4	11	6	1	-	0	21	-2
Non-OECD Europe	13	12	31	25	21	25	21	15	18	17	4	14
FSU .	141	247	121	63	45	59	61	40	32	35	42	-
Saudi Arabia	2	-	-	-	10	0	-	-	0	-	_	
Algeria	2	2	5	2	5	9	6	2	15	6	7	-
Other Middle East and Africa	13	14	21	31	27	26	4	4	6	8	46	-38
Singapore	3	3	2	0	1	_	-	_	_	_	_	
OECD Asia Oceania	4	3	8	11	16	10	6	13	_	0	14	-14
Non-OECD Asia (excl. Singapore)	_	0	2	6	8	-	-	-	0	0	7	-7
Other	93	59	45	67	2	1	2	1	1	1	100	-99
Total <sup>2</sup>	288	368	254	227	144	157	123	84	136	79	254	-17
of which Non-OECD	279	347	239	220	126	133	103	64	72	80	227	-14
OECD Asia Oceania												
OECD Americas	_	_	0	_	_	_	-	_	_	_	_	
Venezuela	_	_	_	_	_	_	_	_	_	_	_	
Other Central and South America	0	_	_	_	_	_	_	_	_	_	_	
ARA (Belgium Germany Netherlands)	-	0	0	0	_	_	_	_	_	_	_	
Other Europe	_	-	0	0	_	_	_	_	_	_	_	
FSU	5	0	-	-	_	_	_	_	_	_	_	
Saudi Arabia	1	13	16	7	7	11	13	_	19	_	22	
Algeria	-	-	-	-	-		-	-	.5	_	-	
Other Middle East and Africa	38	30	7	13	9	7	13	41	-	-	4	
Singapore	18	29	22	14	37	19	33	19	40	57	13	4
Non-OECD Asia (excl. Singapore)	26	47	44	41	54	49	68	87	70	84	24	6
Other	-	-	-	-	-	-	3	6	0	-	-	0
Total <sup>2</sup>												
	88	119	89	75	107	86	131	153	129	140	63	77
of which Non-OECD	88	119	89	75	107	86	131	153	129	140	63	7

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

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Total OECD Trade<sup>2</sup>

of which Non-OECD

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

					7	able 1	3						
A	VERA	GE IE	A CIF C	RUDE C	OST A		OT CR	UDE AND	PRODU	ICT PRI	CES		
						(\$/bbl)							
OBURE BRIGES	2021	2022	2023	1Q23	2Q23	3Q23	4Q23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24
CRUDE PRICES IEA CIF Average Impor	<sub>+</sub> 1												
IEA Europe	42.91	70.67	100.22	89.42	82.16	79.75	87.93	87.93	94.77	94.31	88.15		
IEA Europe IEA Americas	37.31	64.78	90.77	77.18	67.91	79.75	78.24	78.62	94.77 84.15	94.31 82.52	75.19		
IEA Ariericas	46.28	70.41	102.56	96.43	86.14	83.19	84.91	84.18	89.69	95.02	92.40		
IEA Total	40.20 <b>42.19</b>	68.87	98.2	90.43 <b>87.96</b>	79.25	78.03	84.49	84.35	90.6	95.02	92.40 <b>85.78</b>		
ILA TOTAL	42.13	00.07	30.2	07.90	19.25	70.03	04.43	04.55	30.0	31.30	05.70		
SPOT PRICES <sup>2</sup>													
North Sea Dated	70.82	101.10	82.61	81.11	78.02	86.74	84.30	86.18	93.96	91.12	83.05	77.85	80.26
North Sea Dated M1	71.51	101.17	82.83	82.37	78.02	86.69	83.94	85.87	93.76	90.62	82.60	77.77	79.96
WTI (Cushing) M1	68.10	94.58	77.65	75.96	73.54	82.51	78.60	81.41	89.57	85.57	77.44	72.08	73.93
WTI (Houston) M1	69.01	96.19	79.08	77.74	74.69	84.01	79.90	82.97	91.01	86.47	78.61	73.95	75.86
Urals	69.00	76.58	61.42	46.77	54.63	72.79	71.24	72.91	82.13	80.00	70.16	62.34	60.76
Dubai M1	69.35	96.27	82.05	80.20	77.56	86.54	83.71	86.44	93.19	89.81	83.41	77.31	78.73
										·			
PRODUCT PRICES <sup>2</sup>													
Northwest Europe													
Gasoline	80.07	117.01	100.24	96.17	99.44	112.44	92.75	116.85	114.93	97.21	93.53	86.69	89.70
Diesel	78.41	142.36	111.30	113.71	96.12	119.87	114.61	122.52	131.73	122.28	114.84	105.48	107.45
Jet/Kero	77.31	139.91	112.07	114.74	95.43	120.67	116.49	124.27	131.44	123.52	117.16	107.57	111.56
Naphtha	71.58	86.51	72.25	77.95	67.47	71.72	71.54	72.14	78.59	72.52	70.58	71.51	71.85
HSFO	61.18	76.58	70.63	60.51	67.96	82.63	71.27	85.20	88.93	76.14	70.01	67.09	67.03
0.5% Fuel Oil	76.78	107.05	84.43	83.99	79.21	88.17	86.04	89.91	92.59	90.09	86.22	81.16	83.58
Mediterranean Europe													
Gasoline	80.50	119.73	101.65	100.36	98.77	112.74	94.43	115.19	117.04	97.49	95.54	89.61	92.56
Diesel	77.93	136.11	109.33	112.08	94.97	118.10	111.28	120.94	128.88	120.24	109.55	102.91	106.29
Jet/Kero	77.19	140.02	112.06	114.89	95.43	120.60	116.33	124.27	131.28	123.52	116.93	107.31	111.33
Naphtha	70.65	84.62	70.40	75.83	65.93	69.99	69.56	70.50	76.51	70.88	68.46	69.31	70.10
HSFO	60.05	73.40	67.60	56.97	65.19	81.00	67.10	82.14	86.37	73.99	64.91	61.66	62.83
US Gulf Coast													
Gasoline	86.49	123.00	104.02	105.58	103.93	117.09	89.46	120.82	117.59	96.33	87.71	83.67	90.38
Diesel	84.73	145.74	114.46	120.39	100.11	124.92	112.43	128.02	135.95	124.95	111.15	99.94	107.59
Jet/Kero	77.95	140.05	112.85	125.00	94.79	120.40	111.22	125.34	129.27	119.20	113.64	100.03	108.36
Naphtha	72.24	91.24	74.96	80.92	74.87	72.92	71.13	71.31	77.91	74.40	71.31	67.36	73.86
HSFO	59.90	76.96	68.16	57.10	64.07	78.65	72.84	79.81	82.98	74.51	70.92	72.91	66.62
0.5% Fuel Oil	79.69	112.92	88.64	90.54	82.18	93.20	88.62	94.78	99.55	93.96	87.05	84.31	90.46
Singapore													
Gasoline	78.49	110.86	93.99	95.15	89.57	99.68	91.28	101.68	104.47	93.71	92.36	87.26	91.18
Diesel	77.80	135.47	106.49	108.44	93.09	115.23	108.32	119.07	125.32	117.46	106.48	99.78	102.85
Jet/Kero	75.29	126.90	104.71	106.38	91.57	112.47	107.58	116.28	122.77	113.58	106.63	101.70	101.58
Naphtha HSFO	71.02 63.20	83.79 77.65	69.50 70.39	74.21 62.36	63.26 68.53	69.18 80.28	70.96 70.26	70.65 83.93	74.73 82.46	70.80 72.99	69.57 69.51	72.69 67.93	73.03 68.00
0.5% Fuel Oil	80.81	116.78	92.15	90.95	86.97	94.06	96.31	95.78	99.72	100.04	99.03	88.96	90.21

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

<sup>2</sup> Copyright @ 2024 Argus Media Limited - All rights Reserved. Currently, no 0.5% Fuel Oil assessment for Mediterranean is available.

Table 14 MONTHLY AVERAGE END-USER PRICES FOR PETROLEUM PRODUCTS

			NATIONAL	CURRENCY	- 1					US DO	DLLARS		
	Total	% chan	ge from	Ex-Tax	% chan	ge from		Total	% char	ge from	Ex-Tax	% char	i
	Price	Dec-23	Jan-23	Price	Dec-23	Jan-23		Price	Dec-23	Jan-23	Price	Dec-23	
SASOLINE 2 (per	r litre)												
France	1.808	0.4	- 2.0	0.816	0.9	-3.5		1.972	0.4	-0.7	0.890	0.8	
Germany	1.793	0.8	0.5	0.750	-2.8	-6.6		1.955	0.7	1.8	0.818	-2.9	
Italy	1.780	0.2	- 2.7	0.731	0.4	-5.3		1.941	0.1	-1.5	0.797	0.3	
Spain	1.538	- 0.8	- 5.3	0.798	-1.2	-8.2		1.677	-0.9	-4.1	0.870	-1.3	
United Kingdom	1.399	- 2.1	- 6.4	0.636	-3.8	-11.0		1.777	-1.8	-2.7	0.808	-3.4	
Japan	175.3	0.2	4.2	102.8	0.3	6.7		1.202	-1.0	-6.7	0.705	-0.9	
Canada	1.470	- 0.1	- 3.9	0.972	-1.0	-8.6		1.096	-0.1	-3.8	0.725	-1.0	
United States	0.813	- 1.8	- 7.8	0.679	-2.2	-9.5		0.813	-1.8	-7.8	0.679	-2.2	
AUTOMOTIVE D	IESEL FOR	NON CO	MMERCIA	L USE (per li	tre)								
France	1.739	- 0.7	- 7.6	0.840	-1.3	-12.4		1.896	-0.8	-6.4	0.916	-1.4	
Germany	1.711	0.5	- 7.1	0.856	-3.3	-18.3		1.866	0.5	-5.9	0.933	-3.4	
Italy	1.737	- 0.6	- 7.7	0.807	-1.0	-12.8		1.894	-0.6	-6.5	0.880	-1.1	
Spain	1.490	- 1.7	- 11.5	0.852	-2.5	-15.8		1.625	-1.8	-10.4	0.929	-2.6	
United Kingdom	1.483	- 2.0	- 13.8	0.706	-3.6	-21.9		1.884	-1.7	-10.4	0.897	-3.2	
Japan	154.9	0.2	4.5	108.8	0.2	5.8		1.062	-1.0	-6.4	0.746	-1.0	
Canada	1.673	- 3.0	- 14.7	1.188	-4.7	-20.6		1.247	-3.0	-14.6	0.886	-4.7	
United States	1.018	- 3.0	- 15.8	0.862	-3.6	-18.4		1.018	-3.0	-15.8	0.862	-3.6	
DOMESTIC HEA	TING OIL (	per litre)											
France	1.231	0.2	- 9.8	0.870	0.2	-11.4		1.343	0.1	-8.7	0.949	0.1	
Germany	1.104	- 1.4	- 10.5	0.754	-5.6	-18.7		1.204	-1.4	-9.4	0.822	-5.7	
Italy	1.528	0.3	- 7.7	0.849	0.5	-11.0		1.667	0.2	-6.6	0.926	0.4	
Spain	1.001	- 1.9	- 14.6	0.730	-2.1	-16.3		1.091	-1.9	-13.6	0.796	-2.2	
United Kingdom	0.751	- 1.3	- 18.7	0.613	-1.5	-21.2		0.954	-0.9	-15.5	0.779	-1.1	
Japan <sup>3</sup>	116.9	0.3	5.6	103.5	0.3	5.8	1	0.802	-0.9	-5.4	0.709	-0.9	
Canada	1.620	- 0.9	- 17.7	1.467	-0.8	-16.4		1.208	-0.9	-17.7	1.094	-0.9	
United States	-	-	-	-	-	-		-	-	-	-	-	
OW SULPHUR	FUEL OIL	FOR INDU	JSTRY 4 (p	er kg)									
France	0.679	1.3	4.0	0.539	1.7	5.1	1	0.740	1.2	5.3	0.588	1.6	
Germany	-	-	-	-	-	-	1	-	-	-	-	-	
Italy	0.626	2.0	- 2.5	0.594	2.2	-2.7	1	0.682	2.0	-1.3	0.648	2.1	
Spain	0.596	- 5.0	1.5	0.579	-5.1	1.6	1	0.650	-5.0	2.8	0.631	-5.2	
United Kingdom	-	-	-	-	-	-	1	-	-	-	-	-	
Japan	-	-	-	-	-	-		-	-	-	-	-	
Canada	-	-	-	-	-	-	1	-	-	-	-	-	
United States	-	-	-	-	-	-	1	-	-	-	-	-	

Prices for France, Germany, Italy and Spain are in Euros; UK in British Pounds, Japan in Yen, Canada in Canadian Dollars
Unleaded premium (95 RON) for France, Germany, Italy, Spain, UK; regular unleaded for Canada, Japan and the United States.
Kerosene for Japan.
VAT excluded from prices for low sulphur fuel oil when refunded to industry.

		IF.	A Globa	Ta al Indica	ble 1		n Maro	ine					
		16	A GIODE	ai inuice	itol IX	smilli)	<del>y m</del> ary	1113	-"				
\$/bbl	2021	2022	2023	1Q23	2Q23	3Q23	4Q23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24
NW Europe													
Light sweet hydroskimming	2.54	10.05	7.82	8.41	4.42	11.90	6.31	14.96	12.36	4.76	7.43	6.81	6.17
Light sweet cracking	3.51	16.22	11.81	14.08	7.07	15.37	10.42	18.58	16.57	8.95	11.65	10.69	9.92
Light sweet cracking + Petchem	6.55	18.44	11.86	14.69	7.03	14.72	10.68	17.99	16.02	9.11	12.15	10.80	9.88
Medium sour cracking*	6.11	39.13	17.56	19.33	11.87	21.64	17.05	25.35	23.38	14.23	18.81	18.27	15.41
Mediumsour cracking + Petchem*	9.07	41.28	17.61	19.94	11.82	20.98	17.31	24.76	22.84	14.40	19.30	18.38	15.37
Mediterranean													
Light sweet hydroskimming	2.90	9.08	8.17	8.45	5.24	12.37	6.42	15.20	12.41	4.18	7.22	8.07	6.75
Light sweet cracking	4.97	16.82	13.97	15.80	9.42	18.58	11.75	21.71	19.31	10.03	12.47	12.89	11.86
Medium sour cracking	5.68	21.65	17.33	21.78	12.02	20.47	14.69	22.86	22.39	12.56	14.53	17.35	17.68
US Gulf Coast													
Light sweet cracking	11.04	26.64	20.47	25.53	18.83	26.07	11.44	30.40	23.53	12.40	11.73	10.10	14.61
Medium sour cracking	15.79	35.69	26.49	33.40	23.21	31.06	18.27	35.19	30.55	20.14	17.96	16.55	21.14
Heavy sour coking	19.98	45.92	34.61	44.90	28.64	38.57	26.35	43.60	38.46	27.26	27.18	24.51	29.22
US Midwest													
Light sweet cracking	12.33	29.90	19.52	25.23	22.00	20.43	10.43	25.99	16.66	10.18	16.07	5.06	5.89
Heavy sour coking	26.02	50.61	36.60	46.84	36.17	36.30	27.08	42.07	33.98	27.36	33.08	20.78	22.04
Singapore													
Light sweet cracking	3.10	11.46	7.26	9.94	3.19	8.94	6.73	11.93	8.89	4.49	7.72	8.23	8.35
Light sweet cracking + Petchem	4.82	12.94	8.07	10.83	4.45	9.44	7.35	12.34	9.24	5.23	8.58	8.43	8.67
Medium sour cracking	3.92	12.81	9.02	11.35	5.04	11.65	7.79	14.77	12.31	6.67	7.18	9.76	10.80
Medium sour cracking + Petchem	5.61	14.27	9.82	12.23	6.29	12.14	8.40	15.17	12.65	7.40	8.03	9.96	11.12

Source: IEA, Argus Media Ltd prices.

 $Methodology\ notes\ are\ available\ at\ https://www.iea.org/data-and-statistics/data-product/oil-market-report-omr\#documentation$ 

<sup>\*</sup>From 1 December 2022, the basis has changed from Urals NWE to Argus Brent Sour

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

	0	0-1-00	No. oo	N 00	Nov 23 vs Previous	Nov 23 vs Previous	Nov 23 vs 5 Year	5 Year
	Sep-23	Oct-23	Nov-23	Nov-22	Month	Year	Average	Average
OECD Americas								
Naphtha	1.0	0.9	1.1	1.0	0.2	0.1	-0.2	1.3
Motor gasoline	44.1	45.5	45.6	45.9	0.1	-0.3	-1.7	47.3
Jet/kerosene	9.2	8.9	9.0	8.7	0.0	0.3	0.6	8.3
Gasoil/diesel oil	26.8	28.4	29.2	29.2	0.8	0.0	0.3	28.8
Residual fuel oil	3.1	2.9	2.9	2.9	0.1	0.0	0.0	2.9
Petroleum coke	4.1	4.1	4.2	4.2	0.1	0.0	-0.1	4.3
Other products	12.3	11.7	10.5	11.3	-1.3	-0.8	-0.4	10.9
OECD Europe								
Naphtha	8.5	8.7	8.1	8.2	-0.6	-0.1	-0.3	8.4
Motor gasoline	21.2	20.8	20.9	20.5	0.1	0.4	-0.3	21.2
Jet/kerosene	9.2	9.1	8.8	7.5	-0.3	1.3	1.4	7.3
Gasoil/diesel oil	38.6	38.9	37.8	41.0	-1.1	-3.2	-2.9	40.7
Residual fuel oil	8.1	9.0	9.2	8.0	0.3	1.2	1.0	8.3
Petroleum coke	1.5	1.5	1.5	1.6	-0.1	-0.2	0.0	1.5
Other products	15.3	14.4	14.3	15.2	-0.1	-0.8	-0.8	15.1
OECD Asia Oceania								
Naphtha	16.2	16.8	17.1	16.6	0.4	0.5	0.9	16.2
Motor gasoline	22.1	22.5	21.7	21.2	-0.8	0.5	-0.5	22.1
Jet/kerosene	14.6	14.6	14.6	14.0	0.0	0.6	0.6	14.0
Gasoil/diesel oil	29.3	29.6	30.1	30.4	0.5	-0.3	-0.3	30.4
Residual fuel oil	7.7	7.3	7.6	9.0	0.3	-1.4	-0.2	7.8
Petroleum coke	0.3	0.3	0.3	0.3	0.0	0.0	-0.1	0.4
Other products	11.9	11.3	11.3	11.2	0.0	0.1	-0.7	12.0
OECD Total								
Naphtha	5.9	6.1	6.0	5.9	-0.1	0.1	-0.1	6.1
Motor gasoline	33.2	33.7	33.8	33.8	0.2	0.0	-0.7	34.6
Jet/kerosene	10.1	10.0	9.9	9.2	-0.1	0.7	0.9	9.0
Gasoil/diesel oil	31.0	31.9	32.0	33.1	0.1	-1.0	-0.9	32.9
Residual fuel oil	5.4	5.6	5.7	5.6	0.1	0.1	0.2	5.5
Petroleum coke	2.7	2.6	2.7	2.7	0.1	0.0	0.0	2.7
Other products	13.2	12.5	11.8	12.5	-0.7	-0.6	-0.6	12.4

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

		WORL	D BIOFUE	le 17 LS PRODU arrels per day)	JCTION				
	2022	2023	2024	2Q23	3Q23	4Q23	Nov 23	Dec 23	Jan 24
ETHANOL									
OECD Americas	1032	1047	1042	1039	1050	1063	1088	1038	1042
United States	1002	1012	1007	1005	1016	1028	1054	1004	1007
Other <sup>1</sup>	29	34	35	34	34	34			
OECD Europe	108	109	113	109	115	114	111	116	113
France	21	20	22	21	22	20	22	14	22
Germany	13	13	13	14	17	11	17	0	13
Spain	9	10	10	10	10	12	10	17	10
United Kingdom	8	9	9	8	8	11	8	17	9
Other <sup>1</sup>	57	57	59	56	58	60			
OECD Asia Oceania	4	4	4	4	4	5	5	5	4
Australia	4	4	4	4	4	4	4	4	4
Other <sup>1</sup>	0	1	1	1	1	1			
Total OECD Ethanol	1144	1161	1160	1152	1169	1181	1204	1159	1160
Total Non-OECD Ethanol	742	837	854	913	1227	823	908	520	333
Brazil	528	601	603	677	991	586	672	283	82
China <sup>1</sup>	81	136	146	136	136	136			
Argentina 1	21	22	23	22	22	22			
Other	112	79	82	79	79	79	237	237	251
TOTAL ETHANOL	1885	1998	2014	2066	2396	2004	2112	1679	1492
BIODIESEL									
OECD Americas	209	281	321	297	294	282	288	298	321
United States	203	271	306	288	285	269	279	279	306
Other <sup>1</sup>	6	10	14	9	9	13			
OECD Europe	291	298	306	293	299	309	301	332	306
France	28	39	39	42	42	35	47	22	39
Germany	70	65	64	62	65	68	65	78	64
Italy <sup>1</sup>	23	25	25	26	29	25			
Spain	35	32	33	31	31	36	36	39	33
Other	134	137	144	133	133	145	130	169	144
OECD Asia Oceania	15	13	13	17	17	11	8	13	13
Australia	0	0	0	0	0	0	0	0	0
Other <sup>1</sup>	15	13	13	17	17	11			
Total OECD Biodiesel	515	593	640	607	611	602	597	643	640
Total Non-OECD Biodiesel	501	535	596	535	535	535	535	535	596
Brazil	108	130	162	130	143	142	147	136	162
Argentina <sup>1</sup>	42	40	40	40	40	40			
Other <sup>1</sup>	352	366	394	365	352	353			
TOTAL BIODIESEL	1016	1128	1236	1142	1146	1137	1132	1179	1236
GLOBAL BIOFUELS	2901	3126	3250	3208	3542	3141	3244	2857	2728

<sup>1</sup> monthly data not available.

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### International Energy Agency

#### Oil Market Team

Editor Toril Bosoni Special Joel R. Couse +33 (0)1 40 57 67 18 Advisor +33 (0) 1 40 57 67 22

Toril.Bosoni@iea.org Joel.Couse@iea.org

Demand / Alexander Bressers Data Manager Ramiz Farishta
Prices +33 (0)1 40 57 65 16 +33 (0)1 40 57 65 56

Alexander.Bressers@iea.org Ramiz.Farishta@iea.org

Demand Ciarán Healy Data Officer Julien Canu

+33 (0)1 40 57 67 58 +33 (0)1 40 57 65 42

Ciaran. Healy@iea.org Julien. Canu@iea.org

OPEC+ Peg Mackey Supply +33 (0)1 40 57 65 81

Peg.Mackey@iea.org

 Non-OPEC+
 Jacob Messing
 OIMD
 Deven Mooneesawmy

 Supply
 +33 (0)1 40 57 66 98
 Assistant
 +33 (0)1 40 57 65 03

Jacob.Messing@iea.org Deven.Mooneesawmy@iea.org

Refining David Martin Data Enquiries to Oil Market Report:

+33 (0)1 40 57 66 05 OilMarketReport@iea.org

Stocks Yuya Akizuki Subscription & Delivery Enquiries +33 (0)1 40 57 67 30 +33 (0)1 40 57 66 90

Yuya.Akizuki@iea.org OMRSubscriptions@iea.org

Prices Jenny Thomson Media Enquiries/IEA Press Office

+33 (0)1 40 57 67 11 +33 (0)1 40 57 66 94

Jenny.Thomson@iea.org ieapressoffice@iea.org

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For information on the data sources, definitions, technical terms and general approach used in preparing the Oil Market Report (OMR), Market Report Series\_Oil and Annual Statistical Supplement (current issue of the Statistical Supplement dated 11 August 2023), readers are referred to the Users' Guide at <a href="https://www.iea.org/articles/oil-market-report-glossary">https://www.iea.org/articles/oil-market-report-glossary</a>. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2024 Argus Media group - all rights reserved).

