Organization of the Petroleum Exporting Countries

OPEC Monthly Oil Market Report

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Feature article:
A review of world economic developments

Organization of the Petroleum Exporting Countries

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Oil Market Highlights

Crude Oil Price Movements

In August, the OPEC Reference Basket (ORB) increased by $6.27, or 7.7%, m-o-m to average of $87.33/b. The ICE Brent front-month contract rose by $4.94, or 6.2%, m-o-m to average $85.10/b, and the NYMEX WTI front-month contract increased by $5.29, or 7.0%, m-o-m to average $81.32/b. The DME Oman front-month contract rose by $5.30, or 6.5%, m-o-m to settle at $86.46/b. The front-month ICE Brent/NYMEX WTI spread narrowed by 35¢ m-o-m to average $3.78/b. The futures forward curves of ICE Brent, NYMEX WTI and DME Oman steepened further on the improving outlook for oil market fundamentals. At the same time, hedge funds and other money managers cut their total net long positions in ICE Brent and NYMEX WTI.

World Economy

World economic growth forecast remains unchanged at 2.7% for 2023 and at 2.6% for 2024. US economic growth forecast remains at 1.8% for 2023 and 0.7% for 2024. Similarly, the Euro-zone economic growth forecast for 2023 and 2024 remains at 0.6% and 0.8%, respectively. Japan's economic growth forecast is revised up to stand at 1.5%, while forecast growth for 2024 is unchanged at 1.0%. China's 2023 economic growth forecast remains at 5.2%, with 2024 slightly lower at 4.8%, both unchanged from last month. India's 2023 economic growth forecast is revised up to 6%, while growth for 2024 remains at 5.9%. Brazil's economic growth forecast is revised up to 2.1% in 2023, while growth for 2024 is unchanged at 1.2%. For Russia, the 2023 economic growth forecast is revised up to 1.0%, while the growth forecast for 2024 remains at 1.0%.

World Oil Demand

World oil demand growth forecast in 2023 remains unchanged at 2.4 mb/d. Upward revisions made are all based on actual data received for China, US and OECD Europe, while Other Asia is revised downwards. In the OECD region, oil demand in 2023 is expected to rise by 0.1 mb/d, while in the non-OECD region, oil demand is expected to rise by about 2.3 mb/d. For 2024, world oil demand is expected to grow by a healthy 2.2 mb/d, unchanged from the previous month's assessment. The OECD is expected to grow by about 0.3 mb/d, with OECD Americas contributing the largest increase. The non-OECD is set to drive growth, increasing by about 2.0 mb/d, with China, India, Middle East and Other Asia contributing the most.

World Oil Supply

Non-OPEC liquids supply growth forecast is revised up slightly to 1.6 mb/d in 2023. Main drivers of liquids supply growth for 2023 include the US, Brazil, Norway, Kazakhstan, Guyana and China. For 2024, non-OPEC liquids production is expected to grow by 1.4 mb/d, unchanged from the previous month's assessment. Main drivers for liquids supply growth next year are set to be the US, Canada, Guyana, Brazil, Norway and Kazakhstan. The largest declines are anticipated in Mexico and Malaysia. OPEC NGLs and non-conventional liquids are forecast to grow by around 50 tb/d in 2023 to average 5.44 mb/d and by another 65 tb/d to average 5.51 mb/d in 2024. OPEC-13 crude oil production in August increased by 113 tb/d m-o-m to an average 27.45 mb/d, according to available secondary sources.

Product Markets and Refining Operations

In August, refinery margins strengthened and reached their largest monthly gains since January 2023. In the US Gulf Coast (USGC), margins trended upwards for the third consecutive month given robust middle distillates performance, which drove margins to new highs. In Rotterdam, strong diesel exports to the US, amid healthy jet/kerosene requirements, led to lower availability for both products in the region. In Singapore, margins received support from a tighter product balance as delays in product export quotas limited product supplies from China to Singapore. The global refinery intake showed a 1.1 mb/d m-o-m gain in August to an average of 82.9 mb/d, resulting in a year-on-year intake growth of about 3.9 mb/d. In the coming months, refinery intakes are expected to come under pressure from rising offline capacities, amid the start of a heavy maintenance season.

Tanker Market

The tanker market showed a mixed performance in August. Dirty tanker freight rates continued to decline across all monitored routes, as long tonnage lists and reduced activities weighed on rates. VLCCs were down 12% m-o-m on the Middle East-to-East route. In the Suezmax market, rates on the US to Europe route fell 20%, despite the region seeing slightly more activity. Aframax rates on the Mediterranean-to-Northwest Europe route declined 20%. Limited activities also prompted increased competition between the various vessel classes, further weighing on rates. In contrast, clean spot freight rates saw another month of improvements across the board on all monitored routes, amid increased activities toward the end of the month.

Crude and Refined Products Trade

Preliminary data shows US crude imports in August averaged 6.9 mb/d, the highest since August 2019 amid increased flows from Latin America, while US crude exports moved back above 4 mb/d supported by higher flows to South Korea. Japan's crude imports edged up m-o-m in July to average 2.34 mb/d after witnessing a 12 month low in June, while the country’s product flows experienced marginal adjustments. China’s crude imports have shown some volatility in recent months, although with an overall good performance so far this year. Crude inflows fell to 10.3 mb/d in July, following two months above 12 mb/d, as refiners leaned on inventories. However, recently released August data show China’s crude imports rebounded again to average 12.4 mb/d, with summer gasoline demand and positive export margins for diesel providing support. India's July crude imports declined m-o-m for the fifth month in a row to average 4.6 mb/d. India’s product exports remained flat for the third month in a row, averaging 1.3 mb/d. Preliminary estimates show OECD Europe crude imports strengthened further in August, amid higher inflows from Brazil. Product imports were down slightly, as a sharp fall in diesel imports outpaced an uptick in jet and LPG.

Commercial Stock Movements

Preliminary data for July 2023 sees total OECD commercial oil stocks down by 7.9 mb m-o-m. At 2,779 mb, they were 190 mb below the 2015–2019 average. Within the components, crude stocks fell by 14.2 mb m-o-m, while products stocks rose by 6.3 mb m-o-m. OECD commercial crude stocks stood at 1,348 mb in July, which is114 mb lower than the 2015–2019 average. Total product stocks stood at 1,430 mb in July, which is 77 mb below the 2015–2019 average. In terms of days of forward cover, OECD commercial stocks in July remained unchanged at 59.5 days m-o-m, which is 3.0 days below the 2015–2019 average.

Balance of Supply and Demand

Demand for OPEC crude in 2023 is revised down by 0.1 mb/d from the previous month’s assessment to stand at 29.2 mb/d, which is around 0.8 mb/d higher than in 2022. Demand for OPEC crude in 2024 is also revised down by 0.1 mb/d from the previous month’s assessment to stand at 30.0 mb/d, which is 0.8 mb/d higher than the estimated 2023 level.

Feature Article

A review of world economic developments

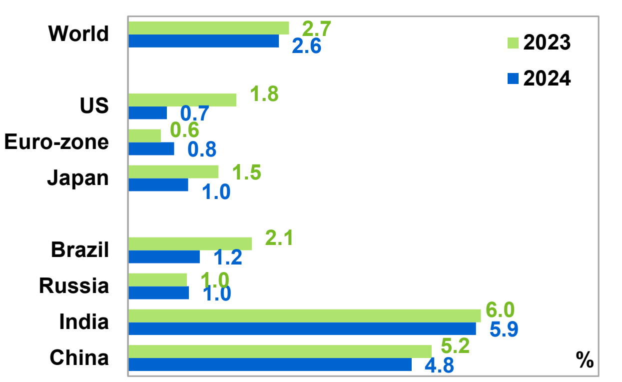
The global economic growth dynamics in 1H23 have been resilient despite the numerous challenges, including high inflation, elevated interest rates and geo-political tensions. This steady global economic growth trend continued into 3Q23, supported by buoyant consumer spending, especially in the services sector. With this, the global growth is expected at 2.7% for 2023 and 2.6% for 2024 (***Graph 1***).

The downside risk for this projection include the elevated key interest rates in G7 except Japan, challenges in China's growth dynamic, and a continuation of the conflict in Eastern Europe. Sovereign debt levels have reached record highs in many economies, are also a rising concern.

However, an upside potential may come from less-accentuated inflation, providing central banks with room for accommodative monetary policies in the near-term.

Emerging Asia, particularly India, Brazil and Russia, could further surprise to the upside, with domestic demand and external trade accelerating. An even stronger-than-anticipated growth trend in China, supported by further fiscal and monetary stimulus, may provide additional support to global economic growth. Moreover, if the US continues to keep its current momentum, growth could turn out to be higher than expected.

Graph 1: GDP growth forecast for 2023–24



Source: OPEC.

Most of the support to global economic growth this year came from the ongoing rebound in the services sector. In particular, the contact-intensive areas of the services sector, including leisure, travel and tourism, experienced an extended boom after the long period of pandemic-related lockdowns. As China and Japan withdrew their COVID-19-related restrictions only at the start of this year, positive economic activity has been especially strong in East-Asia.

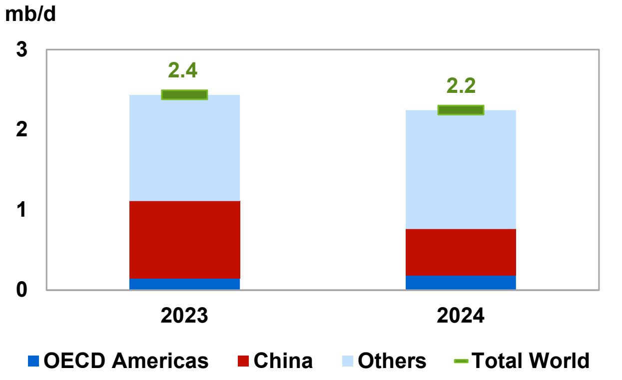
Going forward, an important dynamic in shaping the trajectory of the global economy will be the balance between the sectorial contributions of the industrial and services sectors. Economies that are skewed towards the industrial sector, which were more successful during the pandemic years, are currently lagging in terms of growth dynamic. The current large weight of the services sector contribution is forecast to gradually taper off while the industrial input to the global economy is expected to gain momentum towards the end of the year.

The ongoing global economic growth is forecast to drive oil demand, especially given the recovery in tourism, air travel and steady driving mobility. Oil demand is expected to grow by 2.4 mb/d y-o-y in 2023 and 2.2 mb/d in 2024 (***Graph 2***).

Pre-COVID-19 levels of total global oil demand will be surpassed in 2023 to average at 102.1 mb/d and rise further to 104.3 mb/d in 2024.

On the supply side, OPEC and non-OPEC countries participating in the Declaration of Cooperation (DoC) continue to assess the market conditions, address its challenges and take necessary measure at any time and as needed in an effort to ensure market stability for the benefit of producers, consumers and the global economy.

Graph 2: World oil demand growth in 2023–24



Source: OPEC.

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Crude Oil Price Movements

Crude spot prices extended their gains in August, buoyed by robust physical crude market fundamentals. Firm demand for crude in the spot market, rising global refinery intakes, stronger refining margins, and a large draw in US crude stocks boosted spot prices.

In August, the OPEC Reference Basket (ORB) value increased, rising by $6.27, or 7.7%, m-o-m to average $87.33/b, due to the rise in all ORB component-related crude benchmarks and higher official selling prices and crude differentials of all crude qualities.

Crude oil futures prices sustained their upward momentum, building upon the rebound witnessed in July, as investors exhibited renewed optimism regarding the global oil market outlook in the short term. A surge in middle distillates margins amid a tight diesel market lent support. Concerns about the impact of Hurricane Idalia on oil supply also supported oil futures. However, the rally in prices was capped by sentiments about the US and China's economic outlooks.

In August, the ICE Brent front-month averaged $4.94, or 6.2%, higher m-o-m to stand at $85.10/b, and NYMEX WTI rose by $5.29, or 7.0%, m-o-m to average $81.32/b. DME Oman crude oil futures prices increased in August by $5.30, or 6.5%, m-o-m to settle at $86.46/b.

The speculative activity showed mixed movements in August in the two major futures and options contracts ICE Brent and NYMEX WTI, but total net long positions declined over the last month. Hedge funds and other money managers accelerated the selling of bullish positions in the second and third weeks of August as oil prices retreated and uncertainties about China and US economic outlooks were amplified by official data.

The market structure of all three major oil benchmarks strengthened further in August. The near-month contract spreads moved into deeper backwardation, amid investors' sentiment about the improving global oil demand outlook for the remainder of this year. A decline in OECD crude stocks for three consecutive months to June and a continued large decline in US crude stocks for several consecutive weeks boosted the value of front-month contracts compared to forward-month contracts.

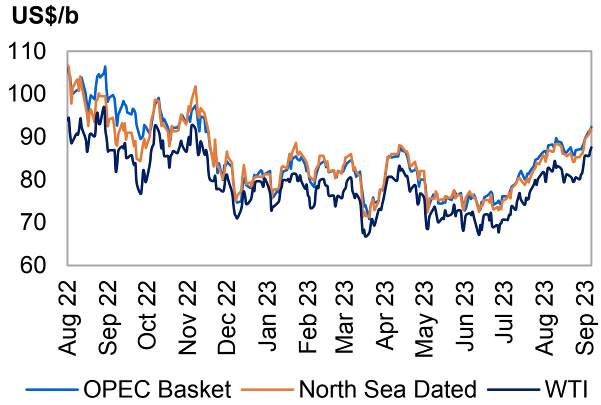
After narrowing for several months to historically low levels, the sweet-sour crude differentials widened slightly in August m-o-m, but they remained narrow compared to historical levels. Higher margins for light distillate products, such as naphtha and gasoline, and increased demand for blending buoyed light sweet crude. However, a tight sour crude market kept the sweet/sour differentials narrow.

Crude spot prices

In **August**, crude spot prices were buoyed by the rally in futures prices, which gained momentum on the back of healthy oil supply and demand expectations. Physical crude market fundamentals remained solid throughout August and September's trading cycles, characterized by firm demand for crude in the spot market and a decline in US crude stocks.

The increase in global refinery intake, particularly in the US and China, along with a sharp rise in global refining margins signalled a heightened demand for crude oil to meet the growing need for refined products, providing substantial impetus to spot prices.

Graph 1 - 1: Crude oil price movements



Sources: Argus, OPEC and Platts.

China showed robust oil demand during the summer travel season. Simultaneously, the surge in refining margins in Asia further incentivized Chinese refineries to process more crude oil. The healthy demand from Asian buyers, including independent refiners in China, buoyed the value of sour crude prices. Data from the National Bureau of Statistics (NBS) showed a 3.6% month-on-month increase in China's oil refinery throughput in July to 63.1 million metric tons.

In the US, the substantial drawdown in national commercial crude stocks had a positive impact on market dynamics, amid robust demand from domestic refiners and strong demand for exports that remained buoyed by favourable export economics.

A sharp rise in refining margins, specifically for diesel and jet fuel cracks, which was witnessed in all major hubs, along with the tight diesel market lent support to the oil complex.

Moreover, lower loading programs for some grades, particularly medium sour, in various regions contributed to the upward momentum in spot prices. This added to concerns regarding the potential impact of hurricanes on oil supply.

In August, a rise in spot prices was evident in North Sea Dated and Dubai, which increased by $6.05 and $6.13, respectively, or 7.6% in both cases, to settle at $86.14/b and $86.46/b. WTI's first month rose by $5.56, or 7.3%, to settle at $81.41.

Table 1 - 1: OPEC Reference Basket and selected crudes, US$/b

			Change		*Year-to-date*	
OPEC Reference Basket (ORB)	**Jul 23**	**Aug 23**	***Aug 23/Jul 23***	***%***	**2022**	**2023**
ORB	**81.06**	**87.33**	***6.27***	***7.7***	**105.29**	**80.60**
Arab Light	83.45	89.55	*6.10*	*7.3*	106.23	82.57
Basrah Medium	78.82	85.38	*6.56*	*8.3*	103.17	77.90
Bonny Light	79.92	86.52	*6.60*	*8.3*	109.87	80.71
Djeno	72.64	78.69	*6.05*	*8.3*	99.88	73.10
Es Sider	79.69	86.39	*6.70*	*8.4*	107.74	79.84
Girassol	82.09	89.05	*6.96*	*8.5*	110.54	82.16
Iran Heavy	81.48	87.58	*6.10*	*7.5*	105.06	80.88
Kuwait Export	82.39	88.77	*6.38*	*7.7*	106.24	81.98
Merey	63.28	68.48	*5.20*	*8.2*	81.61	61.05
Murban	80.78	87.24	*6.46*	*8.0*	103.68	81.00
Rabi Light	79.63	85.68	*6.05*	*7.6*	106.87	80.09
Sahara Blend	80.29	86.69	*6.40*	*8.0*	110.72	81.41
Zafiro	81.45	87.54	*6.09*	*7.5*	109.71	81.13
Other Crudes						
North Sea Dated	80.09	86.14	*6.05*	*7.6*	107.33	80.55
Dubai	80.33	86.46	*6.13*	*7.6*	101.30	80.07
Isthmus	72.56	79.56	*7.00*	*9.6*	98.78	69.85
LLS	78.39	84.00	*5.61*	*7.2*	102.36	78.30
Mars	77.19	82.05	*4.86*	*6.3*	97.70	75.24
Minas	77.47	84.97	*7.50*	*9.7*	101.85	78.70
Urals	65.12	74.54	*9.42*	*14.5*	85.25	58.23
WTI	75.85	81.41	*5.56*	*7.3*	100.33	75.78
Differentials						
North Sea Dated/WTI	4.24	4.73	*0.49*	-	7.01	4.77
North Sea Dated/LLS	1.70	2.14	*0.44*	-	4.97	2.25
North Sea Dated/Dubai	-0.24	-0.32	*-0.08*	-	6.03	0.48

Sources: Argus, Direct Communication, OPEC and Platts.

Consequently, most of the crude differentials strengthened in August, specifically rich-distillate grades. In the **North Sea**, **crude differentials** rose m-o-m on demand from European refiners and more profitable refining margins, although high WTI crude arrivals limited gains. Forties and Ekofisk crude differentials rose on a monthly average in August by 86¢ and 52¢, respectively, to settle at premiums of 90¢/b and 52¢/b.

The value of **West African crude differentials** also strengthened last month, boosted by lower availability of unsold cargoes, higher middle distillates margins, and firm demand from European and Asian refiners. Favourable west-to-east arbitrage economics amid lower freight rates raised demand for West African crudes.

Bonny Light and Qua Iboe crude differentials to North Sea Dated increased by $1.30 and $1.41, respectively, to stand at premiums of $2.42/b and $3.36/b. However, Forcados averaged slightly lower m-o-m, down by 9¢ due to loading issues at the Forcados export terminal but stood at a strong premium of $2.50/b. The crude differential of Cabinda also rose by $1.22 m-o-m to a premium of $2.45/b.

In the **Mediterranean and Caspian regions**, crude differentials strengthened on higher demand, higher diesel and gasoline margins, and improved naphtha margins. Azeri Light and Saharan Blend differentials rose 23¢ and 46¢ m-o-m, respectively to average a premium of $4.46/b and 51¢/b to North Sea Dated. CPC Blend also rose by 28¢ but remained pricing at a $2.21/b discount to North Sea Dated.

In the **USGC**, crude differentials were mixed last month. Lower crude stocks and higher demand for exported boosted the value of light sweet crude, with Light Louisiana Sweet (LLS) rising by 6¢ last month on a monthly basis to stand at a premium of $2.59/b to the WTI benchmark, while Mars sour crude differentials decreased by 70¢ to an average, but stood at a premium of 64¢/b.

In the **Middle East**, firm demand from Asian refiners, higher fuel oil margins, specifically high-sulphur fuel oil (HSFO) weighed on the value of spot prices. The value of Oman crude differentials to Dubai rose by 39¢ for the month to a premium of $2.04/b.

OPEC Reference Basket (ORB)

The **ORB value** increased in August, rising by $6.27, or 7.7%, m-o-m to average $87.33/b, due to the rise in all ORB component-related crude benchmarks and higher official selling prices and crude differentials of all crude qualities. Light and medium sweet and Brent-related components rose the most amid higher light distillate margins and an improving market outlook in the Atlantic Basin market. Compared with the previous year, the ORB was lower by $24.69, or 23.4%, m-o-m from $105.29/b in 2022, to an average of $80.60/b so far this year.

All **ORB component values** rose in August. West and North African Basket components – Bonny Light, Djeno, Es Sider, Girassol, Rabi Light, Sahara Blend and Zafiro – increased by $6.41, or 8.1% m-o-m on average to $85.79/b. Multiple region destination grades – Arab Light, Basrah Light, Iran Heavy, and Kuwait Export – rose by $6.29, or 7.7% m-o-m to average $87.82/b. Murban crude rose by $6.46, or 8.0% m-o-m to average $87.24/b. The Merey component increased by $5.20, or 8.2% m-o-m to average $68.48/b.

The oil futures market

In August, the **crude oil futures prices** sustained their upward momentum, building upon the rebound witnessed in July, as investor sentiment exhibited renewed optimism regarding the global oil market outlook in the short term. Market sentiment was bolstered by several forecasting reports predicting an increase in oil demand in the second half of the year. This was further buoyed by a healthy physical oil market that was reflected by firm demand for the August and September trading cycles and strong refining margins and a notable rally in petroleum product cracks, particularly middle distillates and gasoline. The tight diesel market that was exacerbated by a large refinery shutdown in the US following a storage tank fire further supported the oil complex. These indicators underscored the strength of the overall market environment, lending additional support to oil prices.

Market sentiment was reinforced by a substantial drawdown in US crude oil inventories by 35 mb between the weeks of 7 July and 25 August, driven by heightened demand from refiners and strong exports. According to the EIA weekly data, US gross inputs into refineries reached their highest weekly level since January 2020, affirming strong demand.

Worries about supply due to weather also played a role in supporting the oil market. Hurricane Idalia and a temporary shutdown of the Novorossiysk port, one of the largest ports in the Black Sea, contributed to the bullish sentiment.

Moreover, growing expectations that central banks were nearing the conclusion of their monetary tightening cycles, coupled with easing inflation data in the US, added a positive backdrop to the oil market.

However, the rally of oil prices was somewhat dampened by broader financial market trends, particularly major US equities. Lower financial market performance acted as a counterbalance to the positive momentum in the oil market. The value of the US dollar rebounded during this period, acting as a headwind to the rise in oil prices. A robust dollar typically makes commodities priced in dollars, such as crude oil, more expensive for international buyers. This comes in addition to mild economic data and a widening housing slump in China weighed on risk assets, including oil. Slower-than-expected growth in Chinese industrial output raised concerns about the strength of oil demand recovery in the second half of 2023. This uncertainty was further amplified by a notable decline in China's crude imports in July by about 19% m-o-m, although these worries eased slightly after the government moved to bolster investor confidence. A modest interest rate cut by the People’s Bank of China raised uncertainties about economic growth.

The **ICE Brent** front-month averaged $4.94, or 6.2%, higher in August to stand at $85.10/b, and **NYMEX WTI** rose by $5.29, or 7.0%, to average $81.32/b. Y-t-d, ICE Brent was $23.36, or 22.5%, lower at $80.64/b, while NYMEX WTI was lower by $24.23, or 24.2%, at $75.83/b, compared with the same period a year earlier. **DME Oman** crude oil futures prices increased by $5.30, or 6.5%, m-o-m to settle to average $86.46/b in August. Y-t-d, DME Oman was higher by $21.29, or 21.0%, at $80.18/b.

Table 1 - 2: Crude oil futures, US$/b

Crude oil futures	Jul 23	Aug 23	*Change* Aug 23/Jul 23	%	*Year-to-date* 2022	2023
NYMEX WTI	76.03	81.32	5.29	7.0	100.06	75.83
ICE Brent	80.16	85.10	4.94	6.2	104.00	80.64
DME Oman	81.16	86.46	5.30	6.5	101.47	80.18
Spread						
ICE Brent-NYMEX WTI	*4.13*	*3.78*	*-0.35*	*-8.5*	*3.94*	*4.81*

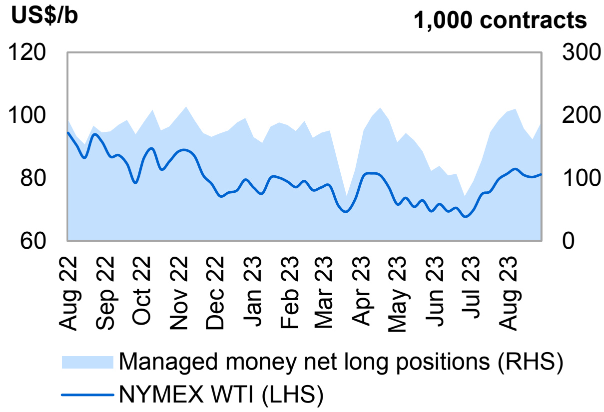
Note: Totals may not add up due to independent rounding.
Sources: CME, DME, ICE and OPEC.

The **ICE Brent–NYMEX WTI first-month spread** narrowed further in August after significantly contracting in the previous month, falling below $4/b, as the rise of the NYMEX WTI contract was more than the ICE Brent contract. The WTI crude benchmark remained firmly supported by a large draw in crude stocks in the US, including at the Cushing trading hub. This draw came amid higher demand from the US refinery operations as gross inputs of crude oil into refineries rose to 17.3 mb/d in the week of 11 August, and sustained a high volume of US crude exports, according to EIA weekly data. The ICE Brent–NYMEX WTI first month spread narrowed by 35¢ in August compared to the July average to stand at $3.78/b.

However, the spread between North Sea Dated and WTI Houston widened last month compared to the previous month, rising by 54¢ on a monthly average to stand at a premium of $3.17/b, as high light sweet crude availability in the USGC limited gains. Meanwhile, robust demand from Europe and Asia for Brent-related crude in the Atlantic Basin boosted the value of North Sea Dated.

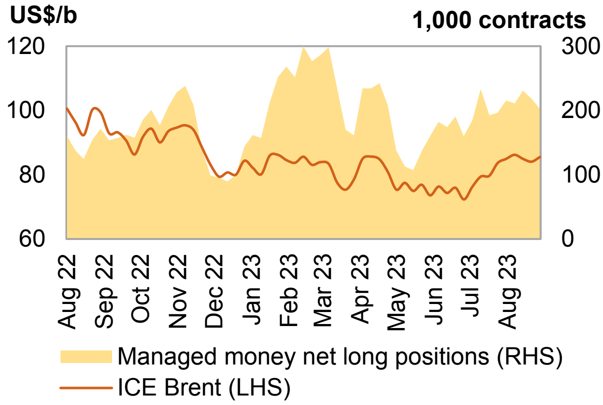
The speculative activity showed mixed movement in August in the two major futures and options contracts ICE Brent and NYMEX WTI, but total net long positions declined over the last month. Hedge funds and other money managers accelerated the selling of bullish positions in the second and third week of August as oil prices retreated and uncertainties about China and US economic outlooks were increased by official data. Between the weeks of 1 and 29 August, speculators reduced net long positions by 31,451 lots in the two major futures contracts ICE Brent and NYMEX WTI, and were sellers of a net of about 32 mb. The drop in money managers' net long positions was more accentuated in futures and options related to WTI by reducing long positions. In the decline in Brent's related futures and options net long positions were driven by the rise of short positions.

Graph 1 - 2: NYMEX WTI vs. Managed Money net long positions



Sources: CFTC, CME and OPEC.

Graph 1 - 3: ICE Brent vs. Managed Money net long positions



Sources: ICE and OPEC.

NYMEX WTI futures and options net long positions declined by 18,310 lots, or 8.9%, between the weeks of 1 and 29 August, to stand at 187,649 contracts, according to the US Commodity Futures Trading Commission (CFTC). During the same period, gross short positions fell by 2,346 lots, or 4.6%, to 48,509 contracts, and gross long positions declined by 20,656 lots, or 8.0%, to 236,158 contracts.

Money managers were sellers of a net of the equivalent of about 13 mb of the **ICE Brent contract** in August, and combined futures and options net long positions related to Brent fell by 13,141 contracts, or 6.1%, to stand at 202,227 lots in the week of 29 August, according to the ICE Exchange. During the same period, gross short positions rose by 15,342 lots, or 41.3%, to 52,446 contracts, and gross long positions increased by 2,201 lots, or 0.9%, to 254,673 contracts.

The **long-to-short ratio of speculative positions** in the NYMEX WTI contract declined to 3:1 in the week of 22 August, but recovered to 5:1 in the week of 29 August, the same level registered early in August. The ICE Brent long-to-short ratio fell to 5:1 in the week of 29 August, compared with 7:1 in the week of 1 August.

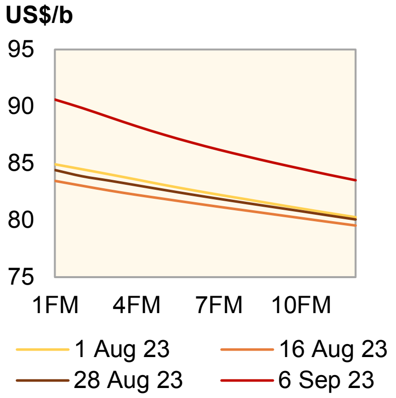
Total futures and options open interest volumes on the two exchanges fell in August, decreasing by 3.1%, or 155,286 contracts, m-o-m to stand at 4.9 million contracts in the week ending 29 August. The decline in open interest was mainly in WTI futures and options contracts.

The futures market structure

The **market structure** of all three major oil benchmarks strengthened further in August and the near-month contract spreads moved into deeper **backwardation** amid investors' prospects of strengthening global oil supply and demand outlooks in the remainder of this year. Moreover, several reports forecasting robust oil demand in the short term. Signs of healthy demand in the spot market and a reduction in prompt loading volumes added support to prompt month contracts and contributed to strengthening the futures forward curve of major crude contracts. A decline in OECD crude stocks for three consecutive months to June and a continued large decline in US crude stocks for several consecutive weeks, along with a sharp rise in refining margins, specifically middle distillates, boosted the value of front-month contracts compared to forward-month contracts. Front prices were further buoyed by worries about weather-related supply disruptions in August.

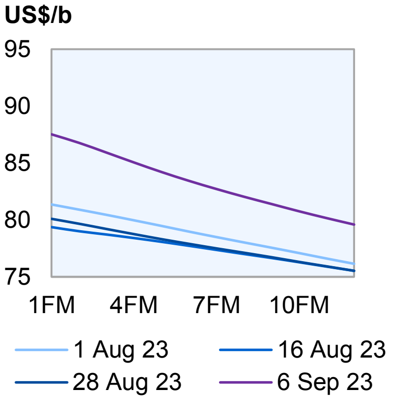
The backwardation in **Brent** firmed significantly in August compared to the previous month, with the ICE Brent M1/M3 rising above $1/b on a daily basis, evidence that investors were anticipating stronger global oil market fundamentals in the short term. On a monthly average, the ICE Brent M1-M3 spread widened by 27¢, from a backwardation of 65¢/b in July, to a backwardation of 92¢/b in August. The ICE Brent's first to the sixth month also widened in August by 37¢ to $2.19/b backwardation.

Graph 1 - 4: ICE Brent forward curves



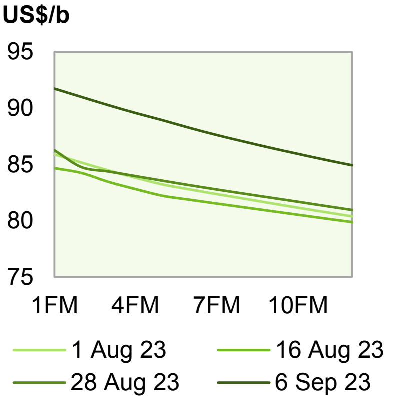
Sources: ICE and OPEC.

Graph 1 - 5: NYMEX WTI forward curves



Sources: CME and OPEC.

Graph 1 - 6: DME Oman forward curves



Sources: DME and OPEC.

In the US, the backwardation structure of **NYMEX WTI** also strengthened over the last month and the forward curve steepened on the front on the prospect of robust supply/demand fundamentals in the US oil market. Furthermore, low crude stocks in the US in May including in Cushing, Oklahoma, a trading hub, also added support to the front-month NYMEX WTI contract compared to forward-month contracts. The NYMEX WTI first-to-third month spread widened by 50¢ to a backwardation of 97¢/b on average in August, compared to a backwardation of 47¢/b one month earlier.

The market structure of **DME Oman** and Dubai strengthened in August on firm buying interest from Asia-Pacific refiners, tight sour market, and the prospect of lower export volumes in the Middle East, which buoyed the value of prompt contracts. On a monthly average, the DME Oman M1-M3 spread widened by $2.03 to a backwardation of $4.52/b in May, from a backwardation of $2.49/b in July.

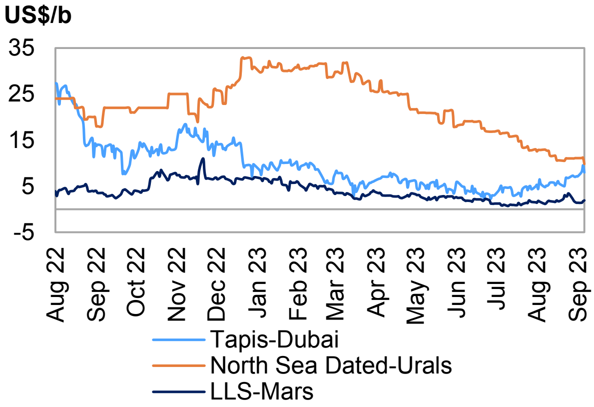
Regarding the **M1/M3 structure**, the North Sea Brent M1/M3 spread widened in August on a monthly average by 56¢ to a backwardation of $1.20/b, compared to 64¢/b in July. In the US, the WTI M1/M3 backwardation also widened last month by 59¢ to $1.01/b, compared to a backwardation of 41¢/b in July. The Dubai M1/M3 backwardation widened on average in August by 54¢ to a backwardation of $1.97/b.

Crude spreads

After narrowing for several months to historically low levels, the **sweet-sour crude differentials widened slightly in August** m-o-m, but they remained narrow compared to the historical levels. Higher margins for light distillate products, such as naphtha and gasoline, and increased demand for blending buoyed light sweet crude were some of the key drivers behind the widening of sweet-sour crude differentials. However, a tight sour crude market kept the sweet/sour differentials narrow amid the prevailing tight sour market and narrow spreads between heavy and light distillate cracks. The Naphtha-HSFO spread continued to fall to a deep discount in all major refining hubs, as the value of HSFO cracks rose to premium levels in Europe and the USGC.

In **Europe**, the sweet-sour crude differentials widened as the value of Brent-related light sweet crudes in the Atlantic Basin was supported by higher demand from European and Asian refiners. Higher naphtha, gasoline, and diesel cracks in Europe added support to the value of light and medium sweet crudes. The Ekofisk-Johan Sverdrup differential rose by $2.67 m-o-m, rising from a discount of $1.10/b in July to a premium of $1.57/b premium in August. However, the North Sea Dated-Urals crude spread widened in August, as the assessment of Urals value against North Sea Dated was seen higher last month from reporting agencies, amid lower August loading volumes. The North Sea Dated-Urals crude differential narrowed by $3.37 m-o-m to average $11.60/b in August.

Graph 1 - 7: Differentials in Asia, Europe and USGC



Sources: Argus, OPEC and Platts.

In the **USGC**, the value of light sweet crude also strengthened last month against the value of sour crude. Sustained demand for light sweet crude from the US refiners in the USGC and exports boosted the value of light sweet crude. Strong diesel margins in the USGC also boosted the value of LLS compared to sour crude. However, the sour crude market remained supported by tight global supply. The LLS premium over medium sour Mars narrowed on average in July by $1.73 to stand at $5.64/b.

In **Asia**, the sweet-sour crude differential represented in the Tapis-Dubai spread widened last month as light sweet crude value found support from improving naphtha and gasoline margins. A higher value of light sweet crude in the Atlantic Basin also lent support to light sweet crude in the East Suez market. However, the spread remained narrow as the value of sour crude remained buoyed by stronger high sulphur fuel oil crack, and further narrowing spread between the light and heavy distillate products. The Tapis/Dubai spread widened by $1.64 in August to a premium of $5.90/b from a $4.26/b premium in the previous month.

Commodity Markets

The movement of commodity price indices was mixed in August. The energy price index continued its upward movement for the second month in a row, while non-energy price indices declined during the same period, reversing the gains made in the previous month.

In the futures market, the sentiment was heavily skewed towards the bearish side as money managers cut total net long positions and total open interest declined for a third consecutive month.

The commodity demand outlook improved following an upward revision of global economic growth for 2023 by major reporting agencies. However, China's macroeconomic headwinds, a stronger US dollar and weaker industrial demand remained as downside risks for commodity prices, offsetting any support received from China's monetary and fiscal policy announcements in August.

Trends in selected commodity markets

The **energy price index** rose for a second consecutive month, increasing by 7.8% m-o-m in August. All of the index components advanced m-o-m, driven by a rally in EU natural gas prices and strong performances of average crude oil and coal prices. Y-o-y, the index was down by 37.1%.

Table 2 - 1: Commodity prices

Commodity	Unit	*Monthly averages*			*% Change*	*Year-to-date*	
		Jun 23	Jul 23	Aug 23	Aug 23/Jul 23	2022	2023
Energy*	Index	**95.2**	**100.9**	**108.7**	**7.8**	**157.0**	**105.5**
Coal, Australia	US$/mt	139.4	140.6	152.6	8.5	312.8	192.5
Crude oil, average	US$/b	73.3	79.0	84.7	7.3	103.6	78.0
Natural gas, US	US$/mbtu	2.2	2.6	2.6	1.2	6.2	2.4
Natural gas, Europe	US$/mbtu	10.4	9.5	11.2	17.3	34.9	13.4
Non-energy*	Index	**110.0**	**110.3**	**109.1**	**-1.2**	**129.2**	**113.4**
Base metal*	Index	**106.7**	**107.0**	**105.2**	**-1.6**	**129.6**	**111.4**
Precious metals*	Index	**147.4**	**148.6**	**145.8**	**-1.9**	**140.0**	**146.9**

*Note: * World Bank commodity price indices (2010 = 100).*
Sources: World Bank and OPEC.

Average crude oil prices experienced a consecutive monthly increase in August, rising by 7.3% m-o-m, underpinned by strong market fundamentals. Y-o-y, prices were down by 11.7%.

Henry Hub's natural gas prices advanced for a third consecutive month, increasing by 1.2% m-o-m in August. Prices fell earlier in the month amid a combination of lower demand and increased production in the US. Nonetheless, increased buying interest in US LNG outside the US amid rising concerns over supply helped offset the downward pressure. Additionally, US LNG demand continued to benefit from lower Henry Hub prices compared with other benchmarks. Prices were down by 70.6% y-o-y.

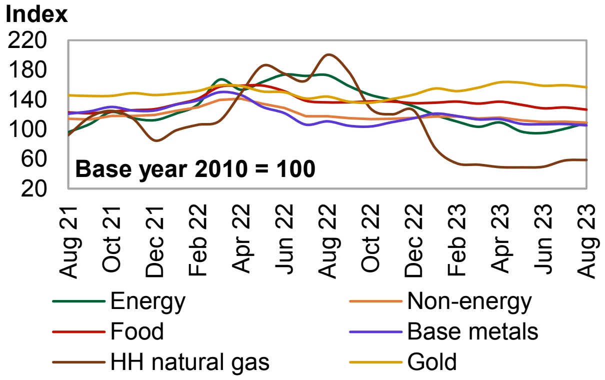
Natural gas prices in Europe recovered from a decline in July. **The average Title Transfer Facility (TTF)** price went from $9.5/mmbtu in July to $11.2/mmbtu in August, a 17.3% increase m-o-m. Prices rallied despite data from Gas Infrastructure Europe showing EU inventories at over 90% as of August 31, which underscores the increased susceptibility of TTF prices to market dynamics. Prices rose amid ongoing planned maintenance at Norwegian facilities, which weighed on pipeline gas deliveries. Additionally, labour strikes at Australian LNG facilities during the month added upward pressure on prices amid concerns over supply disruptions. Y-o-y, prices were down by 84.0%.

Australian thermal coal prices increased for a second consecutive month in August, rising by 8.5% m-o-m. The combination of rising natural gas prices and rising temperatures in some Asian countries renewed the demand for coal and offset the decline of China's coal imports in August. Prices were down by 62.5% y-o-y.

The **non-energy price index** receded in August, declining by 1.2% m-o-m. Agricultural commodity prices rose earlier in the month amid ongoing geopolitical developments in Eastern Europe. Prices fell following the EU and US's pledge to support exports of Agricultural commodities from the Black Sea and ongoing improvements in Latin America's crop outlook. The index was down by 6.8% y-o-y.

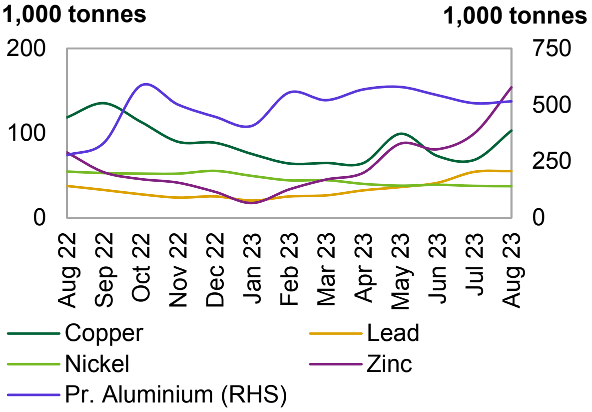
The **base metal index** fell by 1.6% m-o-m in August, erasing gains from the previous month. All components of the index fell m-o-m except zinc and lead. China's recent policy announcements provided limited support to base metal prices while, outside of China, reported inventory increases of most metals at the London Metal Exchange (LME) underscored the ongoing trend of weaker global industrial activity. Furthermore, a stronger US dollar added downward pressure on the index. Y-o-y, the index was down by 4.8%.

Graph 2 - 1: Major commodity price indices



Sources: World Bank, S&P Goldman Sachs, Haver Analytics and OPEC.

Graph 2 - 2: Inventories at the LME



Sources: LME, Thomson Reuters and OPEC.

Aluminium prices fell for the fourth consecutive month in August, declining by 1.1% m-o-m. Softer industrial demand in China combined with rising inventories outside of China weighed on prices. LME warehouses reported a 1.6% increase in inventories m-o-m and an 86.2% increase y-o-y. Prices were down by 12.1% y-o-y.

Average monthly copper prices declined in August after two consecutive months of increases, falling by 1.5% m-o-m. Demand for copper remained sluggish despite China's recent monetary and fiscal support to its construction and property sectors. Outside of China, prices were further pressured by an increase in inventories. According to the LME, inventories rose by 50.5% m-o-m. Prices were up by 4.6% y-o-y.

Lead prices rebounded in August, increasing by 2.1% m-o-m. Higher global electric vehicle sales in August supported the demand for the metal despite bearish signals from the LME inventory report. According to the LME, inventories rose by 1.7% m-o-m and 46.8% y-o-y. Prices were up by 3.9% y-o-y.

The movement of **nickel and zinc prices** was mixed for another consecutive month. Nickel prices fell for a fourth consecutive month, declining by 3.1% m-o-m in August, while zinc prices advanced for a second consecutive month, increasing by 0.1% over the same period. Nickel prices rose on the back of tighter inventories. According to the LME, inventories were down by 0.9% m-o-m and by 31.9% y-o-y. Meanwhile, zinc inventories rose by 54.5% m-o-m and by 99.8% y-o-y. Nickel prices were down by 7.3%, while those for zinc were down by 32.9% y-o-y.

Iron ore prices declined in August by 3.7% m-o-m, pressured by regulatory cuts to steel capacity in China amid high inventories. Outside of China, weak industrial demand continued to weigh on prices. Prices were up by 1.2% y-o-y.

The **precious metals index** declined in August, falling by 1.9% m-o-m. All of the index components fell m-o-m. Gold, silver and platinum fell by 1.7%, 3.4% and 2.7% m-o-m, respectively. Higher US Treasury yields amid high interest rates weighed on the attractiveness of precious metals, exacerbated by weaker industrial demand. Y-o-y, the index was up by 10.0%, with gold up by 8.7%, silver up by 18.8% and platinum up by 1.8% over the same period.

Investment flows into commodities

Total money managers' net length decreased in August by 12.3% m-o-m. Natural gas led the decline in net long positions, followed by copper and gold, which was partially offset by an increase in crude oil.

Meanwhile, **total open interest (OI)** decreased for the third consecutive month over the same period, falling by 3.1% m-o-m. Gold led the decline in OI, followed by natural gas and crude oil, which was partially offset by an increase in copper.

Table 2 - 2: CFTC data on non-commercial positions, 1,000 contracts

Selected commodity	Open interest		Net length			
	Jul 23	Aug 23	Jul 23	% OI	Aug 23	% OI
Crude oil	2,233	2,189	147	7	189	9
Natural gas	1,240	1,193	0	0	-9	-1
Gold	650	594	113	17	61	10
Copper	226	237	9	4	-4	-2

Note: Data on this table is based on a monthly average.

Sources: CFTC and OPEC.

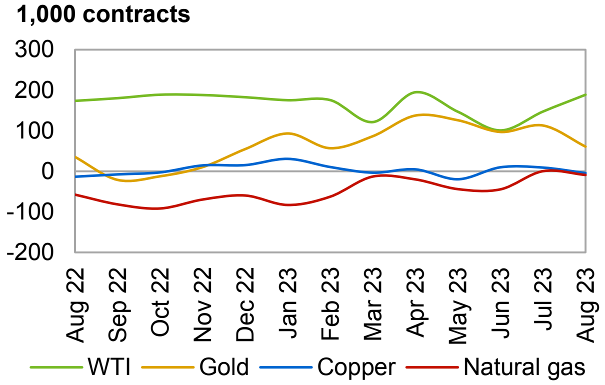
Total crude oil (WTI) OI decreased for the third consecutive month in August, falling by 2.0% m-o-m. Meanwhile, money managers' net length rose sharply for a second consecutive month over the same period, increasing by 28.3% m-o-m. The increase in net length continued to be driven mainly by a reduction in short positions.

Total Henry Hub natural gas OI fell for the third consecutive month, decreasing by 3.8% m-o-m in August. Meanwhile, money managers cut net long positions by reducing both long and short positions over the same period. Despite the recent increase in prices, money managers remained bearish amid increased production.

Gold's OI decreased in August by 8.6% m-o-m. Money managers also cut their net length sharply by 46.0% m-o-m over the same period, driven by a stronger US dollar.

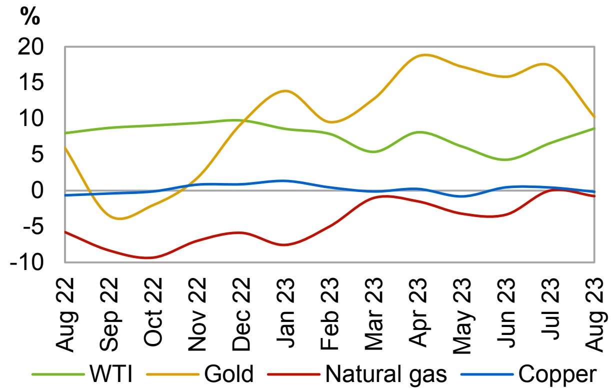
Copper's OI rose by 4.7% m-o-m in August, while money managers decreased their net length sharply over the same period by adding short positions against a backdrop of weaker industrial demand for the metal.

Graph 2 - 3: Money managers' activity in key commodities, net length



Note: Data on this graph is based on a monthly average.
Sources: CFTC and OPEC.

Graph 2 - 4: Money managers' activity in key commodities, as % of open interest



Note: Data on this graph is based on a monthly average.
Sources: CFTC and OPEC.

World Economy

The global economic growth forecast for 2023 remains at 2.7%. The global economic growth trend during 1H23 demonstrated notable resilience. Economic growth in Japan, India, Brazil and Russia surpassed initial expectations in 1H23. The sound 1H23 growth trend in the US is anticipated to remain steady in 3Q23. In China, the prospect of counterbalancing measures by the government will likely support the economy in achieving this year's growth target. The Eurozone witnessed somewhat lower-than-expected growth in 1H23, mainly due to a decline in the industrial sector.

Global economic growth in 2024 is forecast to stand at 2.6%, unchanged from last month. The downside risks to these projections include high inflation, the possibility of further monetary tightening, tighter labour markets in advanced economies, as well as the continuation of the conflict in Eastern Europe.

Potential for positive developments could arise from a less pronounced inflationary environment, allowing central banks to maintain accommodating monetary policies toward the end of this year and in 2024. Emerging economies in Asia, notably India, as well as Brazil and Russia, may surprise further to the upside with continued improvements in domestic demand and external trade. Additionally, an even more robust growth trajectory in China, backed by additional fiscal and monetary stimulus measures, has the potential to bolster global economic growth this year. Furthermore, if the US sustains its momentum from 1H23, economic growth could surpass initial expectations.

Table 3 - 1: Economic growth rate and revision, 2023–2024*, %

	World	OECD	US	Euro-zone	UK	Japan	China	India	Brazil	Russia
2023	**2.7**	**1.3**	**1.8**	**0.6**	**0.0**	**1.5**	**5.2**	**6.0**	**2.1**	**1.0**
Change from previous month	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.4	0.4	0.4
2024	**2.6**	**0.9**	**0.7**	**0.8**	**0.7**	**1.0**	**4.8**	**5.9**	**1.2**	**1.0**
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*Note: * 2023 and 2024 = Forecast. The GDP numbers have been adjusted to reflect 2017 ppp.*

Source: OPEC.

Update on the latest global developments

Despite a variety of ongoing challenges, global economic growth has kept its resilient trend in most major economies in 1H23. Again, better-than-expected growth recently seen in Japan, India, Brazil and Russia defied concerns of a downturn in light of high inflation, consequently elevated interest rate levels and the ongoing geopolitical tensions in Eastern Europe. And while the global services' sector driven post-pandemic momentum seems to be slowing down, it has held up well in 1H23 and seems to be carrying some of the global growth momentum towards 3Q23. Only the European economies showed a more negative trend. A decline in Germany during 1Q23, stagnant growth in 2Q23, and a challenging situation in the industrial sector, including in France and Italy, kept growth in the Eurozone at only around an average of 0.5% q-o-q SAAR in 1H23. This stood in strong contrast to the US economy, which showed an average economic growth of 2% q-o-q SAAR in 1H23.

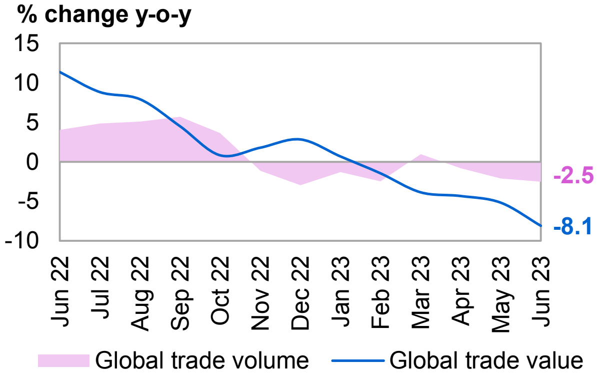
Inflation continued to abate in most advanced economies according to the latest data available. However, continuing high core inflation remains a concern for the US Federal Reserve (Fed), the European Central Bank (ECB) and the BoE, which may lead these central banks to continue their tight monetary policies.

Global trade continued its normalising trend in volume terms, while global trade values continue to be impacted by the relative decline of global commodity price levels in 1H23. Commodity prices fell by around 27% y-o-y in 1Q23 and 13% y-o-y in 2Q23, based on the Standard and Poor's Goldman Sachs Commodity Index.

Trade in value terms declined by 8.1% y-o-y in June, following a decline of 5.2% y-o-y in May, based on the CPB World Trade Monitor Index provided by the CPB Netherlands Bureau for Economic Policy Analysis.

Trade in volume terms fell by 2.5% y-o-y in June, after declining by 2.1% y-o-y in May.

Graph 3 - 1: Global trade



Sources: Netherlands Bureau for Economic Policy Analysis, and Haver Analytics.

Near-term global expectations

Despite a variety of ongoing challenges, global growth has held up better than expected so far in 2023. After resilient 1H23 **global economic growth**, a steady growth trend is forecast to be maintained in 3Q23. Global growth rates in 1Q23 and 2Q23 are estimated to have stood at 2.7% y-o-y and 3.1% y-o-y, respectively. While 3Q23 global economic growth is estimated to stand at 2.6% y-o-y, global economic growth in 4Q23 is forecast to ease to a level of 2.4% y-o-y. This tapering is possible to materialise in anticipation of the tighter monetary policies, particularly in the US and Europe, which are expected to gradually dampen the momentum of growth in private household consumption, investments, and, consequently, global trade. Moreover, going forward a significant factor impacting the global economic growth trajectory will be the likely change in growth contributions coming from the industrial and services sectors. The substantial contribution from the services sector is projected to gradually moderate, and the industrial sector's impact on the global economy is anticipated to strengthen by year end in relative terms. Furthermore, regarding consumption, the reduction in economic activity will be impacted by the discontinuation of financial aid to households, particularly in advanced economies, which was initially provided during the pandemic. Additionally, the significant advantage previously enjoyed by companies and governments of ultra-low interest rates is no longer available.

The possible tapering of global economic growth may lead to lower average quarterly growth rates in 2024, while some acceleration towards the end of next year is anticipated, coinciding with a somewhat more accommodative monetary policy in the US and Europe in 2H24. Growth in 1H24 is forecast at around 2.4% y-o-y, while it is forecast to accelerate to 2.6% y-o-y in 3Q24 and 3.1% y-o-y in 4Q24.

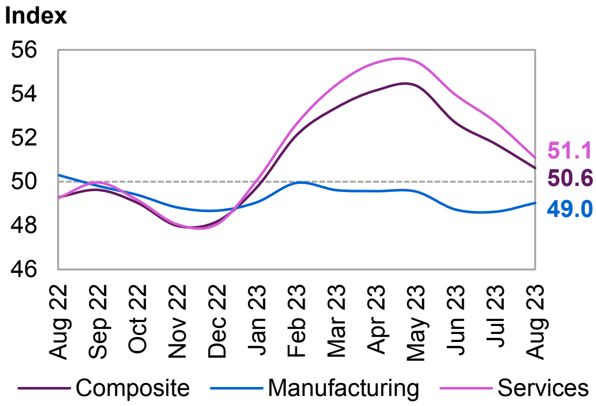
Near-term global growth prospects will be influenced very much by the trajectory of inflation and the inflation outlook held by central banks, which will subsequently influence monetary policies in key economies, notably the US and Euro-zone. It is anticipated that general inflation will continue to recede in 2H23 and into 2024. However, core inflation in major economies is expected to remain relatively stable, with a gradual moderation projected for 2024. Consequently, short-term expectations suggest that stringent monetary measures may persist, with key policy rates anticipated to reach their peak by the end of the year. While G4 central bank balance sheets are expected to gradually shrink through 2024, a shift toward a more accommodative monetary stance may only materialize in the latter half of 2024.

Global purchasing managers' indices (PMIs) in August reflect some decelerating trends in the services sector and an ongoing challenging situation in manufacturing.

The global **manufacturing PMI** improved slightly to stand at 49.0 in August, compared with 48.6 in July, remaining in contractionary territory since September of last year.

The **global services sector PMI** fell to 51.1 in August, compared with 52.7 in July.

Graph 3 - 2: Global PMI



Sources: JP Morgan, S&P Global and Haver Analytics.

The **global growth forecast for 2023** remains unchanged at 2.7%, unchanged from the previous month.

Global economic growth for **2024** remains at 2.6%, unchanged from the previous month as well.

Table 3 - 2: World economic growth rate and revision, 2023–2024*, %

	World
2023	**2.7**
Change from previous month	0.0
2024	**2.6**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

OECD

OECD Americas

US

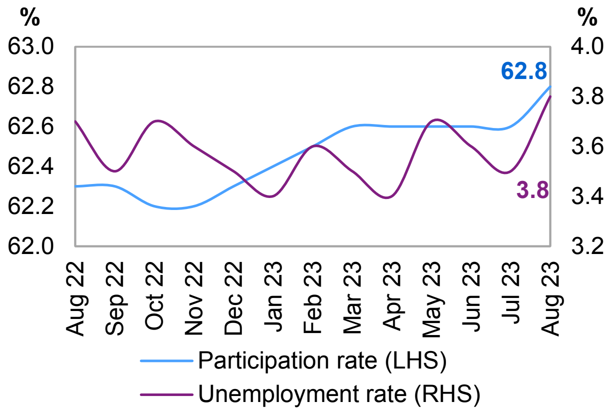
Update on the latest developments

The US economy was confirmed to have continued expanding at a steady growth rate, based on the second estimate of 2Q24 economic growth rates, as published by the Bureau of Economic Analysis (BEA).

Economic growth in 2Q23 was reported at 2% q-o-q SAAR, albeit this is slightly below the BEA's first estimate of 2.4% q-o-q SAAR. This follows 2% q-o-q SAAR in 1Q23. While private household consumption is holding up very well, pandemic-related savings have shrunk and debt-financed consumption in the US may become more challenging, as delinquencies in consumer credit-related financing have risen. The **consumer confidence index,** as reported by the Conference Board, retracted significantly in August, standing at 106.1 points, compared with downwardly revised 114 in July.

General **inflation** has increased, while core inflation has retracted slightly but remained at an elevated level. The general price index increased to 3.2% y-o-y in July, after it had slowed to 3% in June. Core inflation remained at a relatively higher level of 4.7% in July, following 4.8% y-o-y in June, again clearly surpassing general inflation. The Fed is also being steered by its guideline, the core index of personal consumption expenditures (PCE). This inflation index stood at 4.2% y-o-y in July, following 4.1% y-o-y in June.

Graph 3 - 3: US monthly labour market



Sources: Bureau of Labor Statistics and Haver Analytics.

The labour market improved further in August, albeit the **unemployment rate** increased to a level of 3.8%, following a level of 3.5% in July. An important reason for the rise in the unemployment rate, however, was the positive news that the **participation rate** increased, standing at 62.8% in August, after 62.6% in July. **Hourly earnings** rose by 4.3% y-o-y in August, after a robust 4.4% was recorded in July.

Near-term expectations

After strong growth in both 1Q23 and 2Q23, the US economy is expected to remain in relatively sound shape in 3Q23. As an indication of strong growth in the current quarter, the 3Q23 economic growth estimate of the Atlanta Fed branch stood at 5.6% q-o-q SAAR at the beginning of September. This comes after reported average growth of 2% q-o-q SAAR in 1H23.

The Fed's elevated key-policy interest rate level is likely to impact private household consumption and reduce investments. The trajectory of growth in 2024 remains uncertain, but given the current trend of deceleration, it is highly likely that growth levels in 2024 will fall below the quarterly growth pattern observed this year on average. An acceleration of the economic growth dynamic is forecast to materialise in 2H24, with economic growth rates of 1.3% q-o-q SAAR and 1.6% q-o-q SAAR in 3Q24 and 4Q24, respectively. This positive momentum towards 2H24 is considered to be driven especially by a more accommodative monetary policy, among other factors.

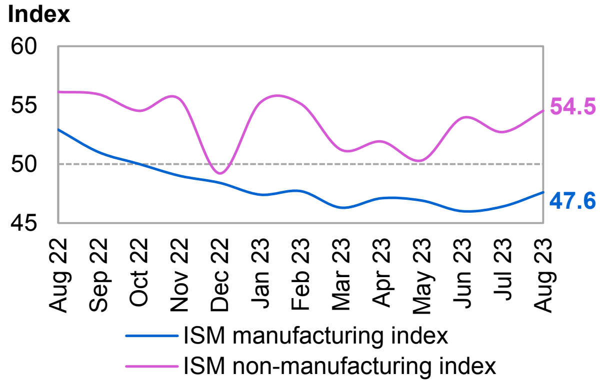
Interest rates are forecast to peak at the end of 2023. Following core inflation of 6.1% in 2022, the inflation forecast for 2023 remains at around 4.5% and around 3% in 2024. This will likely lead the Fed to continue its tight monetary policies, and the key policy rate may reach 5.75% by the end of the year. Key policy rates are forecast to peak by then and experience a more accommodative policy stance by 2H24.

August **PMI** levels, as provided by the Institute for Supply Management (ISM), reflect an ongoing contraction in the manufacturing sector and a recovery in the services sector.

The August **manufacturing PMI** stood at 47.6, after a level of 46.4 in July, and while showing an improving trend it nevertheless remains below the growth-indicating level of 50 for the tenth consecutive month.

The index level for the **services sector**, representing around 70% of the US economy, rose as well in August to stand at 54.5, after 52.7 in July,

Graph 3 - 4: US-ISM manufacturing and non-manufacturing indices



Sources: Institute for Supply Management and Haver Analytics.

As uncertainties remain and some positivity in the growth trend has already been incorporated in the forecast, the **2023 economic growth forecast** remains unchanged to stand at 1.8%.

Considering the dampening effect from high interest rate levels and, albeit slowing, still elevated inflation levels, the US economic growth estimate for **2024** is anticipated to stand at 0.7%, also unchanged from the previous month.

Table 3 - 3: US economic growth rate and revision, 2023–2024*, %

	US
2023	**1.8**
Change from previous month	0.0
2024	**0.7**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

OECD Europe

Euro-zone

Update on the latest developments

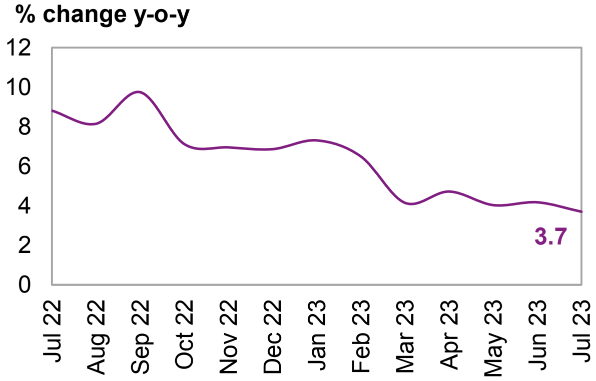
The Euro-zone's economy continues to be impacted by ongoing high inflation, fallout from the ECB's consequent monetary policy and the recent decline in industrial activity. In particular, Germany – the largest economy in the Euro-zone – experienced a recession in 4Q22 and 1Q23, followed by stagnant growth in 2Q23. A major part of this recessionary development in Germany came from its industrial base, with industrial activity broadly in decline since 4Q22. Germany's latest seasonally adjusted manufacturing order number from July declined by 11.7% m-o-m, according to data from the Deutsche Bundesbank. Industrial production (IP) in the Euro-zone also remained negative in May and June, declining by 1.7% y-o-y and 2.4% y-o-y, respectively.

Inflation remained unchanged in August, rising by 5.3% y-o-y, the same as in July and compared with 5.5% y-o-y in June. Core inflation retraced but remained high, standing at 6.2% y-o-y in August, after a level of 6.6% y-o-y was seen in July.

The **labour market** maintained its positive trajectory. According to the latest numbers from Eurostat, the unemployment rate remained at 6.4% in July, unchanged from June and following 6.5% in May.

Growth in **retail sales** in value terms maintained good momentum, rising by 3.7% y-o-y in July although at a slightly slower pace compared to the 4.2% y-o-y growth observed in June.

Graph 3 - 5: Euro-zone retail sales



Sources: Statistical Office of the European Communities and Haver Analytics.

Near-term expectations

The growth momentum of the Euro-zone's economy continues to face challenges. High inflation, showing only a gradual decline, is expected to keep key policy rates at relatively elevated levels throughout 2024. Additionally, the aftermath of the Eastern European conflict is possibly having renewed effects as the winter season approaches. Some dampening effect of the highly industrialized German economy is predicted to persist for the remainder of 2023, with a gradual recovery expected in 2024. Thus far, the services sector has been the primary driver of economic activity in the Euro-zone, while the crucial industrial segment has experienced a slowdown. The forecast anticipates gradual progress in the industrial sector, driven by both domestic and external demand. Consequently, the Euro-zone's economic growth is projected to comparatively improve for the latter part of 2023, following a contraction in 4Q22 and a period of stagnant growth in 2Q23. Furthermore, this growth is expected to gain some momentum moving into 2024. Inflation levels remained elevated in July, with core inflation, in particular, expected to remain high in 2023 before gradually slowing down in 2024. Core inflation is forecast to exceed 5% y-o-y in 2023, compared to 3.9% y-o-y in 2022, and is anticipated to retreat to slightly over 2% in 2024.

As a result, the ECB is forecast to continue tightening its monetary policy towards the end of the year, with the main key policy rate reaching approximately 4.5%. This, in turn, is poised to trigger a further deceleration in debt-financed investments. This projected slowdown in lending activities is anticipated to have varying effects, potentially impacting sectors like real estate and broader business-related investments to some extent.

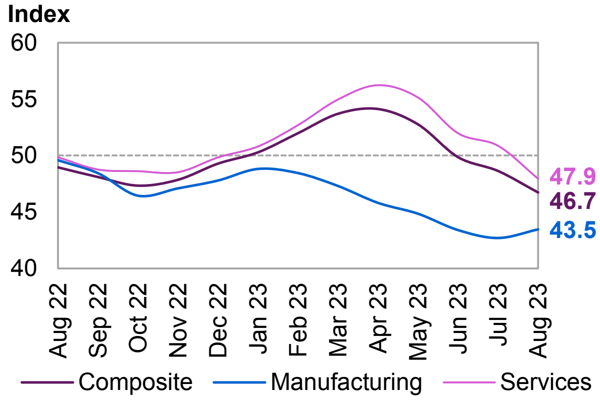
After 1Q23 economic growth was stagnant at 0% q-o-q SAAR, growth in 2Q23 picked up by 1% q-o-q SAAR. In 3Q23, economic growth is forecast to accelerate to stand at 1.6% q-o-q SAAR and to slow to 1.2% q-o-q SAAR in 4Q23. Quarterly growth in 2024 will stand within a very close range of between 0.4–0.8% annualised quarterly averages.

The **Euro-zone's August PMIs** pointed to continuing challenges in both the manufacturing sector – which remained in contractionary territory – and downward momentum in the services sector.

The **PMI for services**, the largest sector in the Eurozone, retracted and moved below the growth indicating level of 50, to stand at 47.9 in August, following a level of 50.9 in July.

The **manufacturing PMI** improved slightly, but remained deep in contractionary territory, standing at 43.5 in August, following 42.7 in July.

Graph 3 - 6: Euro-zone PMIs



Sources: S&P Global and Haver Analytics.

Economic growth for 2023 remains at 0.6%, taking into consideration the low growth in 1H23 economic and the further impact of a variety of dampening factors, including inflation and ongoing monetary tightening. The forecast also anticipates some rebound in 2H23, amid rising services sector activity in the summer months and improving industrial activity in 2H23.

Despite numerous remaining challenges, **2024 economic growth** is forecast to recover slightly and stand at 0.8%, unchanged from the previous month.

Table 3 - 4: Eurozone economic growth rate and revision, 2023–2024*, %

	Euro-zone
2023	**0.6**
Change from previous month	0.0
2024	**0.8**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

OECD Asia Pacific

Japan

Update on latest developments

Japan's economic growth from 1H23 is revised up to much higher-than-expected levels. Economic growth in 1Q23 is reported at 3.2% q-o-q SAAR, compared with the initial estimate that stood at 2.7%, as reported by the Ministry of Economy, Trade and Industry (METI). Economic growth in 2Q23 is reported at 4.8% q-o-q SAAR. However, the high 2Q23 economic growth rate is also very much impacted by the reopening of Japan's tourism sector and thus also represents a late consequence of the pandemic. Growth in 3Q23 seems solid so far but is nevertheless much lower than in 1H23, judging from the most recent output indicators.

The industrial sector continued weakening in July, with industrial output declining by 2.5% y-o-y following stagnant development in June. Inflation remains historically high, though relatively unchanged over recent months at 3.3% y-o-y in July and June, following 3.2% y-o-y in May. Compared with the general inflationary trend, core inflation – excluding food and energy – a main guideline for central bank policies, was also steady but increased slightly, reaching 2.7% y-o-y in July, after 2.6% y-o-y in June and May.

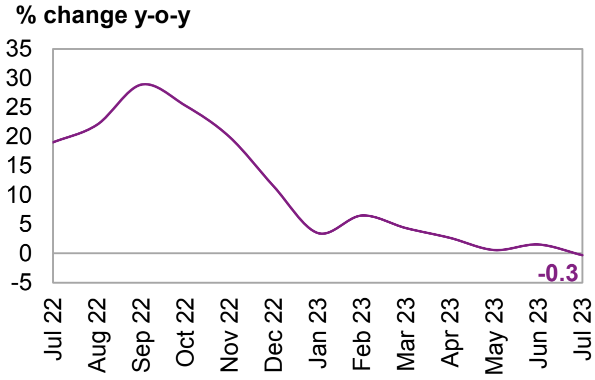
Given the rising price environment, the Bank of Japan (BoJ) has already changed its course and started to gradually tighten its monetary policy. Though negative key-policy levels remained unchanged, it adapted its yield curve control approach. Moreover, when considering the relative 1H23 strength of the Japanese economy, ongoing high inflation – particularly services producer prices – and the weakening of the Japanese yen, there will be greater pressure on the BoJ to tighten monetary policy at a faster pace.

Goods **exports** remained sluggish and have witnessed a slowing trend in recent months. They rose by 4.8% in 1Q23, but growth slowed to 1.6% y-o-y in 2Q23, and declined by 0.3% in July, all on a non-seasonally adjusted basis. This relates to the challenging conditions witnessed in the global goods sector over the past few months.

Retail sales continued their expansionary trend, with robust domestic demand seen in 2Q23. Retail sales grew by 6.8% y-o-y in July, after 5.6% y-o-y in June, in value terms and on a seasonally adjusted basis.

Consumer confidence remained sound but retracted slightly. The consumer confidence index stood at 35.5 in August, following a level of 36.4 in July and June, which at that time marked the highest index point since February 2022.

Graph 3 - 7: Japan's exports



Sources: Ministry of Finance, Japan Tariff Association and Haver Analytics.

Near-term expectations

After low growth in 4Q22 of 0.2% q-o-q SAAR, growth picked up considerably in 1Q23 to stand at 3.2% q-o-q SAAR and 4.8% q-o-q SAAR in 2Q23. This 1H23 surge in economic expansion might not be sustained in 2H23, with the economic growth pattern forecasted to potentially remain slightly negative on a quarterly basis. Hence, Japan's growth is forecast to mean revert to its low-growth pattern in 2H23 and also in 2024, when growth rates are forecast at around 1% in 1H24. This is forecast to be followed by a slight pickup in activity in 2H24, when growth is forecast at around 1.5%, in line with the global growth expectations. The ongoing services sector support trend is projected to continue, but to decelerate in 2H23, after the dynamic was very much driven by pent-up demand in contact-intensive segments of the economy, including tourism. As pandemic restrictions have been lifted, tourist arrivals have surged in different regions of Japan, re-establishing tourism as a significant driver of the country's economic development, marking a remarkable 27.7% y-o-y increase, according to the Japan Tourism Agency. This is expected to slow in 3Q23 and 4Q23 and beyond. Although, as industrial production and exports are forecast to gradually pick up towards the end of the year, there is potential for Japan's growth trajectory to stabilize in 2H23.

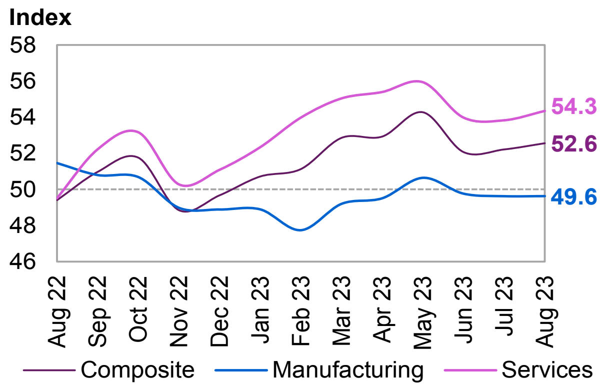
The **BoJ** is forecast to continue pursuing gradual tightening, with a focus on yield curve control, and to maintain relatively accommodative monetary policy. However, it may turn more decisive in the near term given the continued relative strength of the economy, sticky inflation and the most recent weakening of the yen. Inflation is estimated to have averaged 3.6% y-o-y in total in 1H23, but is forecast to trend downwards towards the end of the year, when it may hover around 1.5%.

August's PMI numbers reflect an ongoing contraction in the manufacturing sector, but a stable positive trend in the services sector. Importantly, the manufacturing sector remained in contractionary territory, below the index level of 50.

The **services sector PMI**, which constitutes around two-thirds of the Japanese economy, expanded slightly to stand at 54.3 in August, following 53.8 in July.

The **manufacturing PMI** was unchanged from the previous month and remained at 49.6 in August.

Graph 3 - 8: Japan's PMIs



Sources: S&P Global and Haver Analytics.

After strong growth in 1H23 and the expectation of ongoing steady growth for the remainder of the year, the **2023 economic growth forecast** was revised up to 1.5%, compared with 1.1% in the previous month. The growth dynamic is forecast to be supported by domestic demand, mainly from the services sector, and by a gradual improvement in exports.

The projection for **2024** sees a slight deceleration to 1.0%, unchanged from the previous month.

Table 3 - 5: Japan's economic growth rate and revision, 2023–2024*, %

	Japan
2023	**1.5**
Change from previous month	0.4
2024	**1.0**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

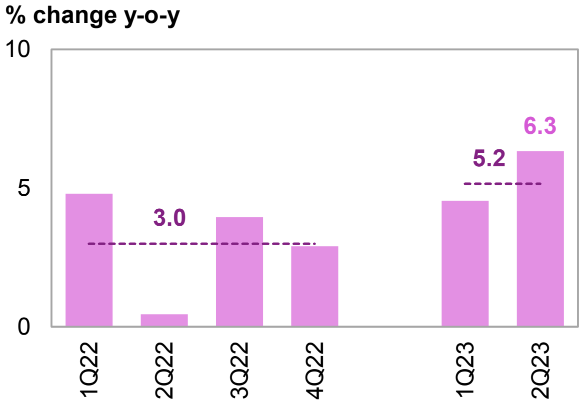
Non-OECD

China

Update on the latest developments

Following some indicators pointing at a weakening of the Chinese economy, several counterbalancing and supportive measures have been announced to support growth in 3Q23 and towards the end of the year, in order to achieve this year's growth target of around 5% or more. Output measures, export trends and lead indicators highlight an ongoing mixed picture regarding contemporary developments in the Chinese economy. China's **2Q23 economic growth** was reported at 6.3% y-o-y, following growth of 4.5% in 1Q23 and will need to remain at around the 5% level in 2H23. An important driver for the 1H23 dynamic was pent-up demand in the services sector, particularly the contact-intensive sector, including leisure, tourism and transportation, which has enjoyed strong support.

Graph 3 - 9: China's economic growth



Sources: National Bureau of Statistics and Haver Analytics.

Also, some actions were undertaken to support the most recent weakening of the Chinese renminbi. The People's Bank of China (PBOC) announced that it would cut the amount of foreign currency that financial institutions are required to hold in reserve. Moreover, measures were introduced to ease mortgage conditions for first-time buyers. In addition to the reduction in minimum mortgage down-payments and supporting cuts to existing mortgage rates, adjustments were made to increase personal income tax allowances for expenses related to children's education and the care of infants and the elderly. On the stock market front, policymakers also implemented measures such as reducing trading fees.

As **export volumes** declined considerably over most of 2022 and in the first two months of 2023, they recovered strongly in March and April, rising y-o-y by 15.3% and 10.9%, respectively. However, export volumes declined in the three consecutive months, in May by 0.3% y-o-y, in June by 1.8% y-o-y, and in July by 4% y-o-y, as reported by China's General Administration of Customs.

The **annual inflation rate** retracted again and fell into deflationary territory. It stood at -0.3% y-o-y in July, following 0% in June and 0.2% y-o-y in May. While this development has raised concerns about potential deflationary trends in China, it provides the government with increased flexibility of additional fiscal or monetary policy actions are deemed necessary. Given the nearly negligible inflation rate, there appears to be a possibility that the central government, in collaboration with the PBOC, could embark on additional and more forceful stimulus measures. Retail trade growth continued decelerating, though it picked up by 2.5% y-o-y in July, following 3.1% y-o-y in June and 12.7% y-o-y in May.

Near-term expectations

The latest stimulus measures undertaken by Chinese authorities underline their determination to achieve their growth target of around 5% for this year and support weakening areas of the economy, especially the real-estate sector, which accounts for more than a quarter in the Chinese economy. Current projections for **economic growth** suggest a relatively even distribution throughout the year. After 1Q23 growth was reported at y-o-y, 2Q23 economic growth stood at 6.3%. This will be followed by around 5% in 2H23. This will lead the Chinese economy to expand by 5.2% y-o-y in 2023. In 2024, growth is forecast to slightly decelerate and be relatively equally distributed on a quarterly basis.

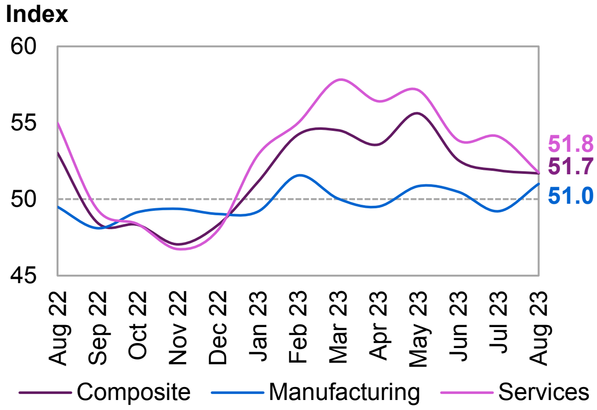
However, there is still ample room for manoeuvre to support the economy. Projected inflation is expected to maintain a low growth dynamic throughout 2023, which provides a degree of flexibility for implementing additional economic support measures through both monetary and fiscal channels. The need for further support is also underscored by elevated levels of youth unemployment and the possibility of deflationary pressures that could constrain short-term consumer spending. Thus far this year, there has been robust consumer expenditure within the services sector, while domestic demand for goods has shown limited dynamism, resulting in subdued activity in the manufacturing sector. This lessening activity on the industrial side was certainly also due to slowing exports and also triggered by inventories that were built up during the pandemic. However, the combination of reopening effects and continued government support is expected to facilitate progress towards the targeted growth rate of approximately 5% for this year.

August PMI readings, as provided by S&P Global, show the services sector performing very well, but activity has slowed down recently. Activity in the manufacturing sector has improved, moving again above the expansionary territory of 50.

The **manufacturing PMI** stood at 51 in August, after reaching 49.2 in July.

The **services sector index** retracted to stand at an index level of 51.8 in August, following 54.1 in July.

Graph 3 - 10: China's PMI



Sources: Caixin, S&P Global and Haver Analytics.

The **2023 economic growth forecast** remains at 5.2%. In anticipation of sustained pent-up demand in the second half of 2023 and a steadily improving economy, along with additional measures implemented by authorities to bolster economic growth, the forecast seems to be well supported.

Economic growth in 2024 remains unchanged as well at 4.8%, a slight deceleration from this year's level. However, with such a growth rate, China will provide the largest single share of global economic growth next year.

Table 3 - 6: China's economic growth rate and revision, 2023–2024*, %

	China
2023	**5.2**
Change from previous month	0.0
2024	**4.8**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

Other Asia

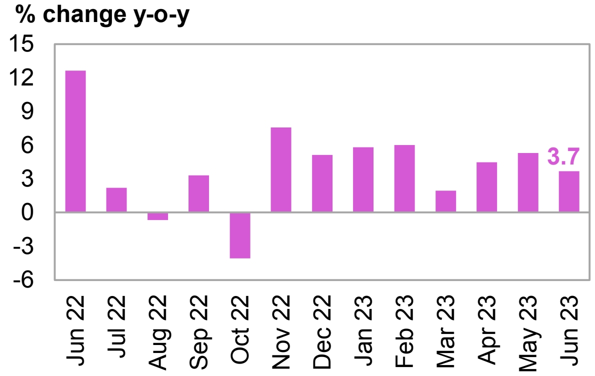
India

Update on the latest developments

India's economic growth in 1Q23 was reported to have stood at 6.1% y-o-y, representing a distinct improvement from growth rates of 3.3% in 3Q22 and 4.4% in 4Q22. Moreover, economic growth accelerated further in 2Q23, standing at 7.8% y-o-y. The latest release of 1H23 economic growth for the Indian economy indicated a broad-based expansion across all sub-sectors, with the services sector continuing to post robust growth across financial, real estate and government services. India's economy has demonstrated robust resilience and is likely to have surpassed the performance of most major economies during 1H23. Following stronger-than-anticipated growth in 1H23, leading indicators and output metrics indicate an ongoing favourable trend in 3Q23. As seen in many major economies, the services sector remains the primary growth driver for the economy, but India has also benefitted substantially from improvements in its manufacturing sector, with the latest PMI indicator from August pointing at a further acceleration. Some dampening factors in 3Q23, and probably towards the end of the year, may come from the recent pickup in inflation due to an unfavourable monsoon season, leading to rising food prices. This comes after inflation had exhibited a notable deceleration. The inflationary uncertainties have led the central bank to keep its key policy rates unchanged.

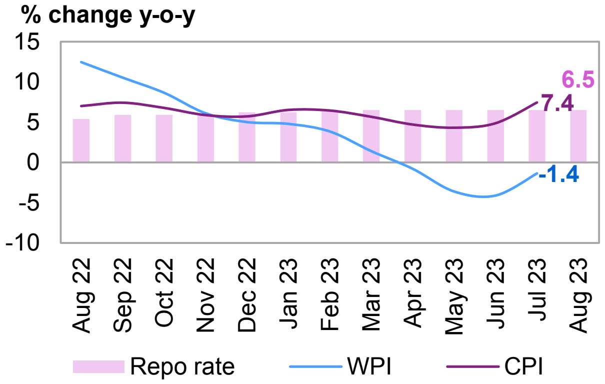
A major impulse for 1H23 growth seems to have come from investment in the economy, supported by government-led stimulus efforts and robust export performance. **Industrial production (IP)** advanced by 3.7% y-o-y in June, following a strong rise of 5.3% y-o-y in May and 4.5% y-o-y in April. This puts 2Q23 IP at 4.5% y-o-y, the same level as in 1Q23, confirming a steady trend.

Graph 3 - 11: India's industrial production



Sources: Ministry of Statistics and Program Implementation of India and Haver Analytics.

Graph 3 - 12: Repo rate and inflation in India



Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.

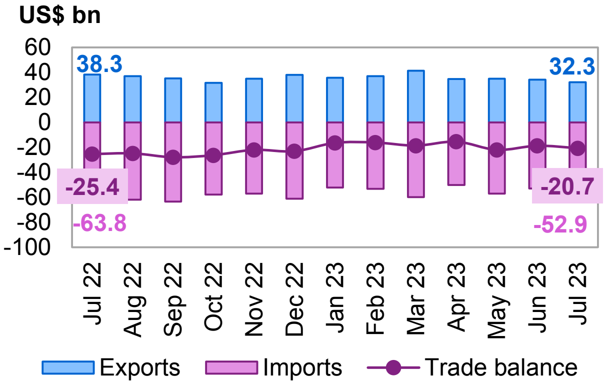
However, India's **inflation** increased recently, after it had slowed considerably in past months. The **general CPI index** rose to stand 7.4% y-o-y, following 4.9% y-o-y in June and compared with 4.3% y-o-y in May. A major reason was a steep increase in food, especially vegetable prices, mainly led by tomatoes, but also in rice prices, due to flooding and consequent supply disruptions during the current monsoon season. Food and beverage inflation rose sharply to 10.6%y-o-y from 4.7% y-o-y in June. However, core inflation excluding fuel, food and light declined to 4.9% in August, after 5.2% in July. It remains to be seen how this will continue, but the risk for inflation in 3Q23 is skewed to the upside.

India's **trade balance** posted a deficit of about $20.7 billion in July, compared with $25.4 billion in July of last year.

Monthly **exports** stood at $32.3 billion in July, compared with $38.3 billion in July of last year.

Monthly **imports** stood at $52.9 billion in July, after $63.8 billion was seen in July of last year.

Graph 3 - 13: India's trade balance



Sources: Ministry of Commerce and Industry and Haver Analytics.

Near-term expectations

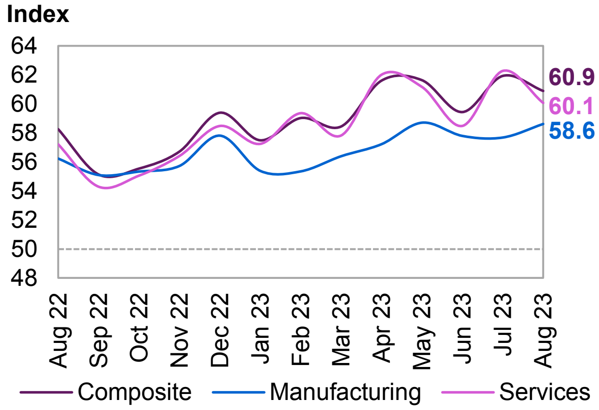
After sound and somewhat better-than-expected growth in 1H23, India's economy is forecast to outgrow its major economies' peers on an annual base. After reported growth of 6.1% y-o-y in 1Q23 and 7.8% y-o-y in 2Q23, growth is forecast to remains strong but slow down somewhat in 2H23, standing at 5% y-o-y quarterly growth in both 3Q23 and 4Q23. In particular, 3Q23 inflation is forecast to dampen disposable income of households. Moreover, the negative economic impact of income and property loss due to continuous rains and floods in the northern states of India is likely to keep consumption subdued. It remains to be seen how this will also impact growth in 4Q23, but an extension of the relative slowdown is likely. Growth in 2024 is forecast to see some acceleration from 4Q23, with all quarterly growth levels to stand slightly above 6%, except in 1Q24, in a carryover of 2H23. An additional support factor for the economy may come from the government-led capital expenditure initiatives in the current fiscal year, which could provide a boost to construction activities as well. The services sector is projected to be the primary driver of economic growth in 2023, maintaining its leading role, supported by strong export performance.

The most recent rise in inflation and its likely spill over into core inflation is also possibly leading the Reserve Bank of India to keep its interest rates at the current level. The RBI, at its latest meeting in August, held the repo rate steady at 6.5%. The central bank will likely maintain this rate for the coming months, with room for a first-rate cut in 2024, depending on the near-term inflationary developments.

The **S&P Global manufacturing PMI** picked up considerably, indicating that the industrial sector seems to be further accelerating. The index level stood at 58.6 in August, compared with an already high level of 57.7 in July.

The **services PMI** indicates an ongoing steady dynamic, but retracted slightly. It stood at a still very high level of 60.1 in August, compared with 62.3 in July.

Graph 3 - 14: India's PMIs



Sources: S&P Global and Haver Analytics.

By taking into consideration the strong 1H23 economic growth level, the **economic growth forecast for 2023** was revised up to stand at 6%, following last month's forecast of 5.6%. Given the noticeable acceleration in growth during 1H23, there is potential for this trend to gather further speed in 1H23 and beyond, which could potentially surpass current economic growth projections. The primary driving forces behind this are expected to be the services sector, fiscal stimulus initiatives, and a resurgence in consumption during 2H23.

Table 3 - 7: India's economic growth rate and revision, 2023–2024*, %

	India
2023	**6.0**
Change from previous month	0.4
2024	**5.9**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

With this dynamic expected to carry over into **2024**, the growth forecast for the next year stands at 5.9%, unchanged from the previous month's forecast.

Latin America

Brazil

Update on latest developments

Brazil's economy has continued to expand strongly in 2Q23, growing by 3.3% y-o-y on a seasonally adjusted base. This follows growth of 3.4% y-o-y in 1Q23. After strong support from the agricultural sector in 1Q23, 2Q23 growth was bolstered by both private and public consumption as well as sound inventory accumulation. Investment remained soft. Gross fixed capital formation declined by 2.5% y-o-y with net exports slightly dampening economic activity. From a sectorial perspective, the 2Q23 dynamic was mainly driven by services and improved industrial output, contributing 1.2 and 1.1 percentage points (pp) to 2Q23 economic growth, respectively.

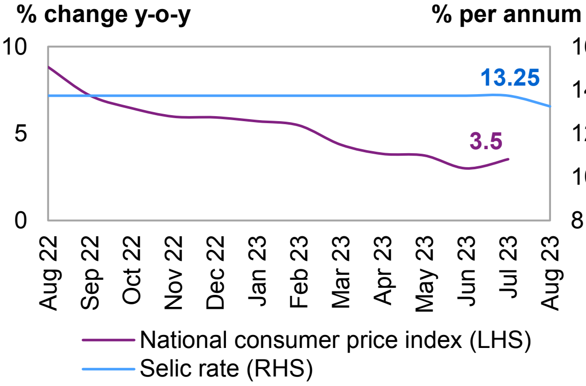
In a positive carry-over into 3Q23 consumer confidence has further improved. The **consumer confidence** index, as measured by the Fundação Getúlio Vargas Institute, rose to 95.3 index points in August, marking the highest level since the beginning of 2019. As a point of comparison, the index stood at 93 and 90.6 in July and June, respectively.

After the Banco Central do Brazil (BCN) lowered the **SELIC key policy rate** by half a percentage point in August, the rate is expected to remain unchanged at the BCN's upcoming September meeting. The rate move in July was possible given the considerable decline in the inflation rate in previous months resulting from forceful monetary tightening which started as early as 2021. However, most recently inflation has accelerated again slightly in July.

Inflation rose to 3.5% y-o-y in July, compared with 3% y-o-y in June. On a monthly basis this was still a 0.1% decline in July. This compares with a 2022 inflation rate of 9.4%. Core inflation subsided to reach 6.3% y-o-y in July, compared with 6.6% y-o-y in June. The central bank's inflation target stands at 3.25% for 2023.

Encouraging developments in the Brazilian economy had a positive effect on the labour market as well. Based on the usual three-month moving average, Brazil's **unemployment rate** declined to stand at 7.9% in July, compared with 8% in June and 8.3% in May. This may be an indication of a further improvement in private household consumption.

Graph 3 - 15: Brazil's inflation vs. interest rate



Sources: Banco Central do Brasil, Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

Near-term expectations

Brazil's economy continued to expand well into 2Q23 with growth of 3.3% y-o-y, supported by both industrial activity and the services sector. By contrast agricultural activity contributed the most to economic growth in 1Q23, leading to a 3.4% y-o-y increase in the first three months of the year. Additionally, external trade has been supported by China's ongoing recovery, which is foreseen to provide additional support going forward. The latest progress in fiscal reform, the anticipation of further monetary easing and improving prospects for Brazil's investment environment are all factors supporting sound growth in 2023, and possibly in the coming year. Particularly high consumer confidence points to strong private household consumption, while the PMI indices highlight continued improvements in both manufacturing and the services sector. However, considering the impact of sustained high interest rate levels as well as the transitory nature of the 1Q23 dynamic, some slow-down of economic growth is forecast for 2H23. 3Q23 growth is forecast at stand at 1.2% y-o-y and 4Q23 economic growth is estimated to stand at 0.5% y-o-y.

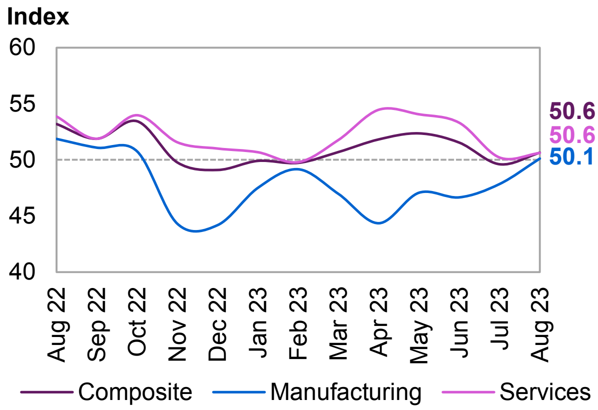
Inflation is expected to decelerate and stand at around 5% throughout 2023, which contrasts with the central bank's current inflation target of 3.25%. Looking ahead to 2024, inflation is expected to settle at approximately 4%. Given the notable deceleration in the inflation trend observed up to June, there is a possibility that an accommodative monetary policy approach may continue in 2H23. The SELIC rate is anticipated to reach 12.25% by the end of the year and subsequently decline to approximately 8% by the end of 2024.

July PMI indices indicate ongoing support from the services sector The manufacturing sector's index level improved slightly, and – more importantly – exceeded the growth indicating level of 50 for the first time since October 2022.

The **manufacturing PMI** rose by a significant 2.3 index points to stand at 50.1, after 47.8 in July.

The **services PMI** improved as well to stand at 50.6, following a level of 50.2 in July.

Graph 3 - 16: Brazil's PMIs



Sources: HSBC, S&P Global and Haver Analytics.

Taking into consideration the sustained improved dynamic, the forecast for **economic growth in 2023** was revised up to 2.1%, compared with a forecast of 1.7% last month. While a slow-down in 2H23 is anticipated, further upside potential could materialise. Additionally, the possibility of more accommodative monetary policies in 2H23, coupled with expanding export opportunities, could lift growth beyond current expectations.

Table 3 - 8: Brazil's economic growth rate and revision, 2023–2024*, %

	Brazil
2023	**2.1**
Change from previous month	0.4
2024	**1.2**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

The steady growth momentum from 2H23 is forecast to be carried over into **2024**, leading to economic growth of 1.2%, unchanged from the previous month. The 2024 growth forecast anticipates some acceleration from 4Q23, considering in particular the expected lower interest rate regime.

Africa

South Africa

Update on the latest developments

Although a variety of issues has impacted the South African economy, 2Q23 economic growth was better-than-expected, standing at 1.6% y-o-y, rebounding sharply from 1Q23 when economic growth stood at 0.2% y-o-y. On the demand side, fixed investment growth accelerated significantly, expanding by 7.7% y-o-y from 4% y-o-y in 1Q23, on a non-seasonally adjusted base. Private household consumption grew by only 0.7% y-o-y, the same level as in 1Q23. The robust growth seen in 2Q23 can be attributed to the ongoing recovery from the economic downturn in the fourth quarter of 2022, rising investments in renewable energy, and a lessening in the severity of power outages. A key factor supporting the growth momentum is the notable decrease in power outages since the beginning of June. According to Eskom, the private sector's increased interest in rooftop solar installations has significantly contributed to the reduction in demand. With that said, power outages have recently intensified and their future likelihood remains uncertain due to the variable nature of unplanned breakdowns.

Headline inflation continues to gradually ease, after periods of elevated price growth in 2022 and in 1H23. Inflation stood at 6.9% in 2022 and at 6.6% y-o-y in 1H23. Inflation receded to a level of 4.7% y-o-y in July. Core inflation also retracted in July to stand at 4.7% y-o-y, following 5% y-o-y in June, the lowest level since September 2023. As a result of the easing inflation experienced in recent months, the central bank has lessened its stringent monetary policy, abstaining from raising interest rates since June. The **central bank's** key policy rate stands at 8.25%.

Near-term expectations

Muted growth in 1Q23 of only 0.2% y-o-y was followed by a strong rebound of 1.6% y-o-y in 2Q23. By taking into account that most recent power cuts have re-intensified, the average quarterly economic growth rate is forecast to hover around the stagnant growth levels observed in 2H23. Given the gradual reduction in inflation, it is expected that the central bank will keep interest rates at 8.25% in 2H23. In anticipation of a sustained slowdown in inflation, interest rates may be lowered by 1H24.

Signals of improvement come from the forward-looking seasonally adjusted composite **PMI,** as provided by S&P Global. The PMI for August rose considerably by 2.8 index points, rising to 51, after it had remained in contractionary territory, i.e. below the index level of 50, since the beginning of the year, with the expectation of February.

Given the uncertainty surrounding the sustained nature and magnitude of the economic rebound as well as the potential level of power supply issues in 2H23, the **2023 economic growth forecast** remains unchanged at 0.2%.

Growth in **2024** remains at 0.8%. Improvements in both the domestic situation and external demand, driven by increased commodity exports, are anticipated.

Table 3 - 9: South Africa's economic growth rate and revision, 2023–2024*, %

	South Africa
2023	**0.2**
Change from previous month	0.0
2024	**0.8**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

Russia and Central Asia

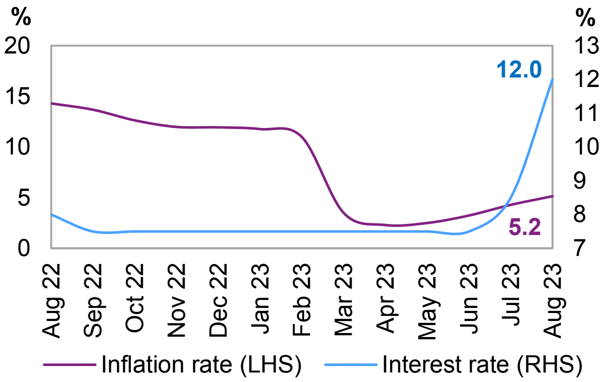
Russia

Update on the latest developments

Economic growth in 2Q23 was reported to have stood at 4.9% y-o-y. While details are not available in this first estimate, it is very likely that momentum was driven by rising domestic demand due to fiscal policy support, as was seen in the last quarters. Thus, Russia's economy saw better-than-anticipated performance, despite persistent external challenges and amid an improving domestic situation. However, the consequences of the Eastern European conflict remain apparent in a variety of indicators such as exports. Monetary policy remains cautious, with the central bank lifting its key policy rate again by 3.5 percentage points in its latest move in August, after a hike of 1 percentage point was seen in July. This comes after ongoing weakening of the Russian rouble, a risk that was highlighted by the Russian central bank, as the rouble's depreciation constitutes an inflationary risk. The combination of high growth, strong consumer demand, and recently again rising inflation raises the likelihood of future increases in the key policy rate. By the end of August, the exchange rate stood at almost 96 roubles per US dollar, a decline of more than a third since the beginning of the year.

Consumer inflation continued to rise in August to stand at 5.2% y-o-y, above the central bank's inflation target of 4%, and following 4.3% in July. An important factor for the rise was the continued increase in inflation for goods. In response to rising prices and in support of the rouble, Russia's central bank increased its **policy rate** to 12% in August, after already lifting its key interest rate from 7.5% to 8.5% in July. An accommodating fiscal policy has significantly supported domestic demand and resulted in a tight labour market. The economy's current full capacity operation is also exerting upward pressure on prices. Additionally, robust consumer demand is fuelling an increased appetite for imports, which when combined with a depreciating rouble contributes to upward price trends.

Graph 3 - 17: Russia's inflation vs. interest rate



Sources: Federal State Statistics Service, Central Bank of Russian Federation and Haver Analytics.

Moreover, Russia's **jobless rate** continued to stand at the very low level of 3% in July, after reaching 3.1% in June and following 3.3% in both May and April.

Near-term expectations

Following a reported 1Q23 economic decline of 1.8% y-o-y, **economic growth** rebounded significantly in 2Q23, up by 4.9% y-o-y. It is forecast to improve further in 3Q23, rising by 1.5% y-o-y, while growth in 4Q23 is seen slightly declining again, after a huge surge seen mid-year. Private household consumption is expected to continue its steady growth dynamic and government counterbalancing measures are also predicted to compensate for the negative impact of external pressure to a significant extent. However, some uncertainties related to the impact of sanctions and the trend in the commodities sector remain.

The forecast suggests a gradual improvement in the country's growth momentum over the course of the year, leading to steady growth in 2024. This upswing is expected to be fuelled by hydrocarbon exports and the favourable impact of a bettering domestic situation. However, inflation is likely to continue its upward trajectory throughout the year the macroeconomic survey of the Central Bank of Russia foresees inflation for the year of 6.3% y-o-y in December.

Considering ongoing supportive trends in key indicators like industrial production, the job market and consumer demand, the potential risks to Russia's growth in 2023 currently lean towards the upside. With income levels demonstrating resilience and steady momentum in consumer spending remaining on course in the near term, the drive in private household expenditures is expected to endure.

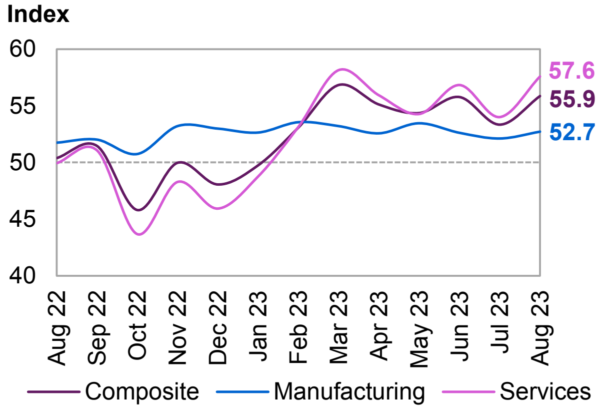
Furthermore, government-driven initiatives are projected to continue mitigating ongoing economic challenges. While the central bank possesses the flexibility to potentially implement a more accommodating monetary policy in 2024, assuming that inflation moves down to the current December 2024 projection of 4.5% y-o-y, it is anticipated to continue with its tight monetary policy for a while. Unless the rouble's weakness abates, the central bank could implement additional interest rate hikes in 2023.

Both the PMI index for manufacturing and the services sector highlight a further upside in August, while the services sector reflects an ongoing strong trend.

August's S&P global **manufacturing PMI** improved slightly to stand at 52.7, compared with 52.1 in July.

The **services PMI** rose strongly to stand at 57.6 in August, after reaching 54 in July.

Graph 3 - 18: Russia's PMI



Sources: HSBC, S&P Global and Haver Analytics.

By taking strong 2Q23 growth into account and due to the ongoing steady growth trend towards the end of the year, **economic growth in 2023** was revised up to stand at 1%, compared with last month's projection of 0.6%. The risk to the forecast is tilted towards the upside, but remains subject to high levels of uncertainty amid ongoing challenges for the Russian economy.

Economic the economic growth appreciation in 2023 is forecast to be followed by a similar growth dynamic in **2024**, when it is anticipated to be 1%, the same projection as in the previous month.

Table 3 - 10: Russia's economic growth rate and revision, 2023–2024*, %

	Russia
2023	**1.0**
Change from previous month	0.4
2024	**1.0**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

OPEC Member Countries

Saudi Arabia

Economic activity in Saudi Arabia remains steady, albeit it is expected to slow down after a growth of 8.7% in 2022, on a seasonally non-adjusted base. The PMI index is holding up well, but retracted slightly, albeit from a very high level. It stood at 56.6 in August, following 57.7 in July. The unemployment rate stood at a low 5.1% in 1Q23, slightly above the 4Q22 level of 4.8%, the lowest quarterly level in 2022. Inflation stood at 2.3% y-o-y in July, after 2.7% y-o-y in June and 2.8% y-o-y in May. The economy expanded 3.8% y-o-y in 1Q23 on a non-seasonally adjusted base, followed by growth of 1.1% y-o-y in 2Q23. The rise in non-oil activities stood at 5.5% y-o-y in 2Q23, after 5.4% y-o-y in 1Q23. In August, the Saudi Central Bank kept the key policy rate at 6%, aligning with the US dollar interest rate regime. In the near term, a sustained period of robust growth is anticipated, with support from both the oil and non-oil sectors, all driven by a strong commitment to government reform initiatives.

Nigeria

After **Nigeria's economy** grew by 2.4% y-o-y in 1Q23, growth stood at 2.6% y-o-y in 2Q23. Economic performance in the non-oil sector showed a significant rebound, with noticeable increases in services, manufacturing, and agricultural output during 2Q23. High inflation continues to burden the economy. Inflation data for July shows ongoing acceleration, with an annual rate of 24.1% y-o-y, following 22.8% y-o-y in June and 22.4% in May. Food inflation continued rising, reaching 27% y-o-y in July, after 25.3% y-o-y in June, and 24.8% y-o-y in May. In response to the concern of food insecurity, the President declared a state of emergency. The government is making efforts to tackle Nigeria's cost-of-living crisis and the escalating inflation. In this regard, the government unveiled a stimulus package of 500 billion Naira to finance mass transit buses and provide loans to farmers and small businesses. In the meantime and to lower inflation, the Central Bank of Nigeria lifted the key policy rate by 25 pp to 18.75% in July. As a consequence of the ongoing challenges, the

Stanbic IBTC Bank Nigeria PMI retracted further to stand at 50.2 in August, only slightly above the growth indicating level of 50. In comparison, the July and June levels were 51.7 and 53.2, respectively.

The United Arab Emirates (UAE)

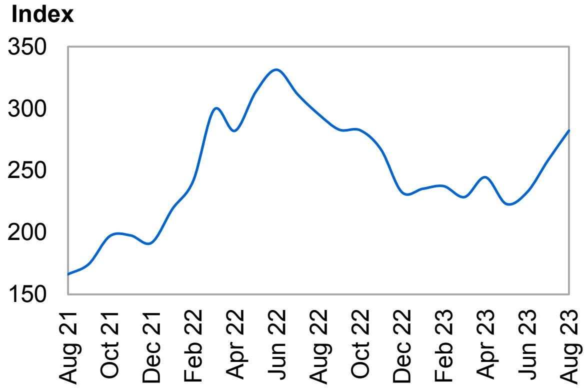
The economy of the United Arab Emirates saw a yearly expansion of 3.8% in 1Q23, marking a deceleration from the 5.5% y-o-y growth observed in 4Q22. Notably, crucial sectors of the UAE's economy exhibited substantial growth, with the economic in transport and storage registering a 10.9% y-o-y increase, construction growing by 9.2% y-o-y, and accommodation and food services showing a 7.8% y-o-y uptick. The country's PMI retraced slightly to 55 from56 in July. This suggests that the expansionary trend will be maintained, albeit at a slower pace. Travel and tourism continued to play a significant role in driving growth, with passenger numbers at Dubai International Airport and international visitors to Dubai surpassing pre-pandemic levels in the first half of 2023. It is anticipated that the number of international visitors to the UAE will grow by nearly 40% this year, according to Oxford Economics, exceeding the 2019 level by 17%. Finally, the Central Bank of the UAE mirrored the interest rate policy of the US Federal Reserve, keeping the key-policy rate unchanged at 5.4%.

The impact of the US dollar (USD) and inflation on oil prices

The **US dollar (USD) index** recovered from the previous month's decline, increasing by 1.7% m-o-m in August. Hawkish comments by US Federal Reserve officials and a recent downgrade of the US debt rating buoyed the USD amid underlying inflationary pressures and risk adverse sentiment. Y-o-y, the index was down by 3.8%.

USD movement continued to be mixed **against major developed market currencies** in August; nonetheless, it was heavily skewed towards the upside. The USD receded against the euro by 1.5% m-o-m in August, but rebounded against the yen and the pound by 2.8% and 1.5%, respectively, over the same period. Y-o-y, the USD was up by 7.7% and 7.0% against the euro and yen respectively; however, it remained down by 5.6% against the pound over the same period.

Graph 3 - 19: The Modified Geneva I + US$ Basket (base June 2017 = 100)



Sources: IMF and OPEC.

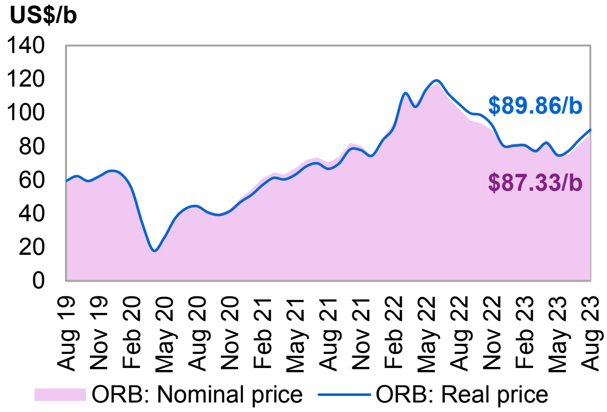
The USD advanced against all major **emerging market currencies** in August. M-o-m, it rose by 0.7%, 0.9% and 2.1% against the rupee, yuan and real, respectively. Y-o-y, the USD was up by 4.1% and 6.6% against the rupee and yuan respectively; however, it was down by 4.7% against the real over the same period.

The differential between nominal and real ORB prices narrowed m-o-m. **Inflation** (nominal price minus real price) went from negative $2.93/b in July to negative $2.53/b in August, a 13.7% decrease m-o-m.

In **nominal terms**, accounting for inflation, the ORB price went from $81.06/b in July to $87.33/b in August, a 7.7% increase m-o-m. Y-o-y, the ORB was down by 14.3% in nominal terms.

In **real terms** (excluding inflation), the ORB went from $83.99/b in July to $89.86/b in August, a 7.0% increase m-o-m. Y-o-y, the ORB was down by 14.5% in real terms.

Graph 3 - 20: Impact of inflation and currency fluctuations on the spot ORB price (base June 2017 = 100)



Source: OPEC.

World Oil Demand

For 2023, world oil demand growth remains at 2.4 mb/d, broadly unchanged from last month's assessment, to average 102.1 mb/d. Some upward adjustments were made to the estimate for 3Q23 based on actual July data, and this was offset by some downward revisions to 2H23 data, mainly in Other Asia.

In the OECD region, oil demand in 2023 is expected to rise by 120 tb/d to average 46.1 mb/d. Demand in OECD Americas is expected to witness the largest regional rise, led by the US, on the back of growing jet fuel demand and expanding gasoline requirements. Light distillates are also projected to support demand growth this year.

In the non-OECD region, total oil demand is expected to rise by about 2.3 mb/d to average 55.9 mb/d in 2023. A steady increase in transportation and industrial fuel demand, supported by a recovery in China's activity, as well as other non-OECD regions, is projected to boost demand in the region in 2023.

In 2024, solid global economic growth, amid continued improvements in China, is expected to further boost oil consumption. World oil demand is expected to rise by 2.2 mb/d y-o-y, with total world oil demand projected to average 104.3 mb/d.

In the OECD, oil demand is expected to rise by 0.26 mb/d to average 46.4 mb/d. US oil demand is forecast to exceed pre-pandemic levels at 20.7 mb/d, mainly due to the recovery in jet fuel and improvements in gasoline and light distillate demand. OECD Europe and the OECD Asia Pacific are expected to remain below pre-pandemic levels at 13.5 mb/d and 7.4 mb/d, respectively. This is due to expectations for slower economic activity in the two regions and ongoing supply chain bottlenecks that would weigh on industrial activity, particularly in OECD Europe.

In the non-OECD, oil demand in 2024 is forecast to increase by almost 2.0 mb/d y-o-y to average 57.9 mb/d. China and India are expected to see the largest growth. Other regions, particularly the Middle East and Other Asia, are also set to see considerable gains, supported by a positive economic outlook. In terms of fuels, jet kerosene, gasoline and diesel are assumed to lead non-OECD oil demand growth in 2024.

Table 4 - 1: World oil demand in 2023*, mb/d

							Change 2023/22	
World oil demand	**2022**	**1Q23**	**2Q23**	**3Q23**	**4Q23**	**2023**	**Growth**	**%**
Americas	25.11	24.71	25.42	25.68	25.19	25.25	0.15	0.58
of which US	*20.43*	*20.11*	*20.72*	*20.83*	*20.37*	*20.51*	*0.08*	*0.39*
Europe	13.52	13.10	13.40	13.99	13.39	13.47	-0.05	-0.35
Asia Pacific	7.38	7.81	6.93	7.22	7.65	7.40	0.02	0.31
Total OECD	**46.00**	**45.62**	**45.75**	**46.89**	**46.22**	**46.12**	**0.12**	**0.26**
China	14.85	15.63	15.96	15.57	16.11	15.82	0.97	6.51
India	5.14	5.40	5.40	5.21	5.50	5.38	0.24	4.69
Other Asia	9.02	9.40	9.44	8.99	9.14	9.24	0.22	2.41
Latin America	6.44	6.60	6.70	6.73	6.68	6.68	0.24	3.75
Middle East	8.30	8.63	8.32	8.86	8.73	8.64	0.34	4.09
Africa	4.40	4.69	4.27	4.43	4.88	4.57	0.17	3.79
Russia	3.56	3.69	3.45	3.60	3.87	3.65	0.09	2.49
Other Eurasia	1.15	1.24	1.21	1.02	1.23	1.17	0.02	2.03
Other Europe	0.77	0.84	0.77	0.75	0.83	0.80	0.03	4.00
Total Non-OECD	**53.62**	**56.12**	**55.51**	**55.17**	**56.96**	**55.94**	**2.32**	**4.32**
Total World	**99.62**	**101.74**	**101.26**	**102.06**	**103.18**	**102.06**	**2.44**	**2.45**
Previous Estimate	99.57	101.65	101.18	101.96	103.21	102.01	2.44	2.45
Revision	0.05	0.08	0.08	0.09	-0.04	0.05	0.00	0.00

*Note: * 2023 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Table 4 - 2: World oil demand in 2024*, mb/d

World oil demand	2023	1Q24	2Q24	3Q24	4Q24	2024	Change 2024/23 Growth	%
Americas	25.25	24.90	25.59	25.89	25.34	25.43	0.18	0.71
of which US	*20.51*	*20.25*	*20.86*	*20.99*	*20.51*	*20.65*	*0.14*	*0.69*
Europe	13.47	13.15	13.46	14.06	13.42	13.52	0.06	0.41
Asia Pacific	7.40	7.84	6.95	7.25	7.65	7.42	0.02	0.29
Total OECD	**46.12**	**45.89**	**46.00**	**47.20**	**46.42**	**46.38**	**0.26**	**0.56**
China	15.82	16.20	16.42	16.19	16.78	16.40	0.58	3.67
India	5.38	5.63	5.64	5.44	5.69	5.60	0.22	4.09
Other Asia	9.24	9.66	9.69	9.35	9.50	9.55	0.31	3.35
Latin America	6.68	6.79	6.88	6.95	6.84	6.87	0.19	2.84
Middle East	8.64	8.91	8.76	9.41	8.98	9.02	0.38	4.40
Africa	4.57	4.80	4.45	4.60	5.01	4.72	0.15	3.28
Russia	3.65	3.75	3.56	3.75	3.94	3.75	0.10	2.75
Other Eurasia	1.17	1.27	1.24	1.08	1.28	1.22	0.04	3.77
Other Europe	0.80	0.86	0.78	0.77	0.84	0.81	0.01	1.72
Total Non-OECD	**55.94**	**57.88**	**57.43**	**57.54**	**58.86**	**57.93**	**1.99**	**3.55**
Total World	**102.06**	**103.76**	**103.43**	**104.74**	**105.28**	**104.31**	**2.25**	**2.20**
Previous Estimate	102.01	103.68	103.35	104.64	105.32	104.25	2.25	2.20
Revision	0.05	0.08	0.08	0.09	-0.04	0.05	0.00	0.00

*Note: * 2024 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

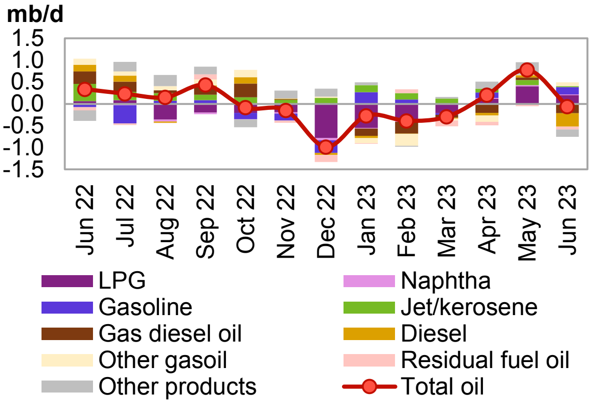
OECD

OECD Americas

Update on the latest developments

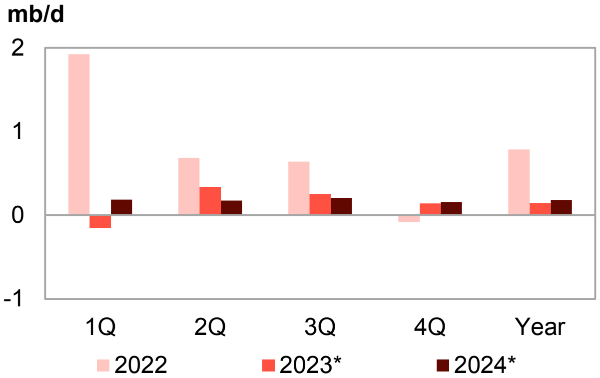
Oil demand in OECD Americas in **June** softened y-o-y by 58 tb/d, a significant decline from y-o-y growth of 781 tb/d in May. Details of the contribution of various products are discussed in the sub-section for the US.

Graph 4 - 1: OECD Americas oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, OPEC and national sources.

Graph 4 - 2: OECD Americas oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

Oil demand in the **US** was almost flat y-o-y in June following strong growth of 556 tb/d in May. Demand for diesel and residual fuel oil declined, while demand for gasoline and LPG saw healthy y-o-y gains.

General inflation has continued to retract significantly in the US, with the general price index slowing further to 3% in June, down from 4% in May. The services PMI has been in expansion territory for more than 14 months, with a level of 53.0 points in June, up from 50.3 in May. However, the June manufacturing PMI stood at 46.0, remaining below the growth-indicating level of 50.0 for the tenth consecutive month.

Data from the Federal Highway Administration shows that travelled miles on all roads increased by 3.1% (+8.4 billion vehicle miles) for June 2023, when compared with June 2022. The International Air Transport Association's (IATA) Air Passenger Market Analysis reported that North America's revenue passenger-kilometres (RPKs) outperformed pre-pandemic traffic by 0.8% in June. Furthermore, the international RPKs in June were 2.0% higher than in June 2019.

The largest y-o-y decline in June was recorded by the ´other products´ category, which fell by 273 tb/d, down from y-o-y growth of 197 tb/d in the previous month. Diesel also softened y-o-y by 91 tb/d, down from the 54 tb/d y-o-y increase in May. Residual fuels witnessed an annual decline of 57 tb/d in June, compared to a 98 tb/d y-o-y decline in May. Naphtha was almost flat in June, down from 12 tb/d, y-o-y growth seen in May.

On the positive side, steady driving mobility and the continued recovery in air travel supported transportation fuels and petrochemical feedstock demand in June. Gasoline saw y-o-y growth of 204 tb/d. LPG saw y-o-y growth of 160 tb/d, supported by a weak baseline and lower prices relative to naphtha, which led to increased demand as a feedstock in petrochemical plants. On the back of sustained air travel activity, jet/kerosene posted y-o-y growth of 53 tb/d, slightly down on the 91 tb/d y-o-y growth in May.

Table 4 - 3: US oil demand, mb/d

			Change Jun 23/Jun 22	
By product	**Jun 22**	**Jun 23**	**Growth**	**%**
LPG	3.24	3.40	0.16	4.9
Naphtha	0.13	0.13	0.00	-3.1
Gasoline	9.08	9.28	0.20	2.2
Jet/kerosene	1.69	1.74	0.05	3.1
Diesel	4.05	3.96	-0.09	-2.2
Fuel oil	0.32	0.26	-0.06	-17.9
Other products	2.22	1.95	-0.27	-12.3
Total	**20.72**	**20.72**	**-0.01**	**0.0**

Note: Totals may not add up due to independent rounding. Sources: EIA and OPEC.

Near-term expectations

In **3Q23**, annual **US** economic growth is expected to remain on a positive trajectory. The US economy is expected to experience continued strong support from private household consumption due to an ongoing tight labour market, as well as from steadily robust disposable income levels. In terms of oil demand, the US is expected to see a gradual decline of driving activity in the coming months, in line with the usual seasonal pattern. But air travel is expected to remain stable. Thereby, transportation fuels – gasoline and jet kerosene – are expected to continue to drive growth. Accordingly, in 3Q23, oil demand is expected to expand by 215 tb/d y-o-y. However, the continued weakening in manufacturing activity is likely to impact on demand for industrial fuels, particularly diesel

In **4Q23**, oil demand will be set to grow marginally by 51 tb/d y-o-y. During the quarter, mobility activity is expected to slow due to the winter weather, which will weigh on transportation fuels. On the back of the healthy air travel recovery, jet kerosene is expected to continue to drive oil demand.

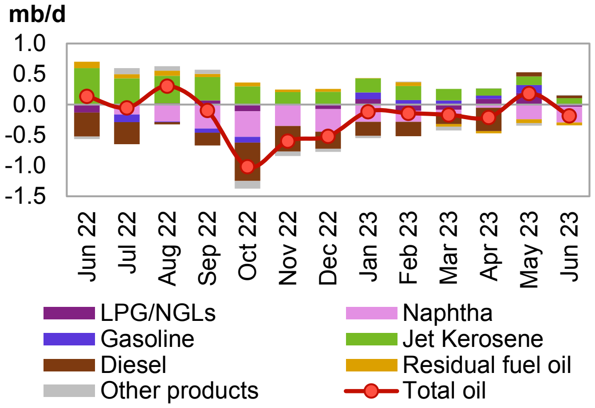
In **2024**, US economic growth is expected to remain positive. By 1Q24, economic activity is expected to improve and support the petrochemical sector and mobility levels, which is set to support oil demand growth of 135 tb/d. Transportation fuels and petrochemical feedstock, particularly LPG, are expected to be the main drivers of products demand. Overall, in 2024, the US is expected to see y-o-y growth of around 140 tb/d.

OECD Europe

Update on the latest developments

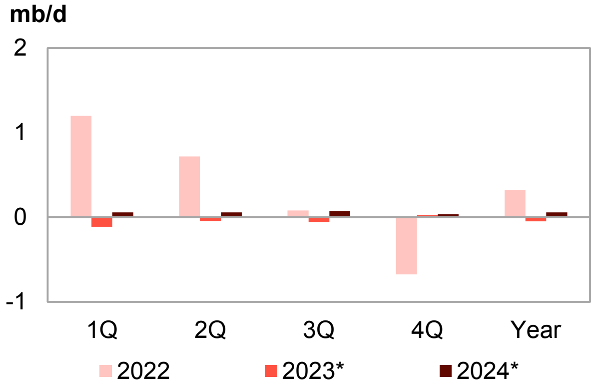
Oil demand in OECD Europe retracted y-o-y by 185 tb/d in **June**, down from the y-o-y growth of 183 tb/d in May. Oil products demand in the Eurozone has been on a generally declining trend for more than a year, affected by weak industrial sector performance and persistently high core inflation that stood at 6.8% y-o-y in June. The apparent weakness in industrial and petrochemical sector activity is impacting diesel and feedstock demand, whereas the services sector and personal consumption are supporting gasoline and jet/kerosene demand.

Graph 4 - 3: OECD Europe's oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, OPEC and national sources.

Graph 4 - 4: OECD Europe's oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

Naphtha demand recorded the largest y-o-y contraction of 256 tb/d in June, a further drop from the 243 tb/d y-o-y decline seen in May. European ethylene and derivatives have been under pressure due to low margins. Furthermore, the region's macroeconomic challenges, such as rising interest rates by the European Central Bank (ECB) to combat persistent high inflationary pressures, have weighed on growth for ethylene in the region. Residual fuels and LPG saw y-o-y declines of around 49 tb/d and 37 tb/d in June

On the positive side, diesel has shown recovery signs for two consecutive months after 11 months of general decline. In June, diesel witnessed y-o-y growth of 39 tb/d, although this was slightly below growth of 69 tb/d in May. Continued improvements in airline activity and driving activity supported transportation fuels. Accordingly, jet/kerosene grew by 94 tb/d y-o-y, albeit down from 141 tb/d recorded in May. Gasoline saw y-o-y growth of around 12 tb/d, but this was well below the 131 tb/d growth in the previous month. The 'other products' category saw a slight y-o-y increase of 12 tb/d, up from the 43 tb/d y-o-y decline the previous month.

Near-term expectations

In **3Q23** and **4Q23**, economic growth in the region is projected to remain positive. Additionally, supply chain bottlenecks combined with sluggish manufacturing activity are expected to continue into the third quarter. These factors are set to weigh on oil demand leading to an expected y-o-y decline of 58 tb/d in 3Q23. In the 4Q23, however, oil demand is set to see a slight y-o-y uptick of 26 tb/d, mainly supported by jet fuel and gasoline, while diesel is set to remain weak.

In **2024**, the region's economic growth is projected to slightly improve, compared with the current year, with activity in the services sector expected to remain healthy. However, the ongoing geopolitical situation in Eastern Europe and supply chain bottlenecks are likely to continue to impact oil demand prospects in 1Q24. As a result, oil demand in 1Q24 is expected to rise by 57 tb/d y-o-y, with demand for air travel and driving mobility set to remain fairly stable for jet/kerosene and gasoline consumption. Overall, the region is expected to see y-o-y growth of 55 tb/d in 2024.

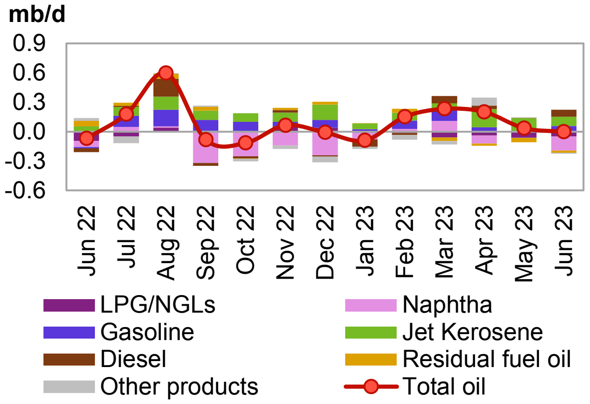
OECD Asia Pacific

Update on the latest developments

Oil demand in OECD Asia Pacific was broadly unchanged y-o-y in June, down from four months of uninterrupted y-o-y growth. Despite positive oil demand growth in Australia and South Korea, a large decline was recorded in Japan that subdued regional oil demand growth.

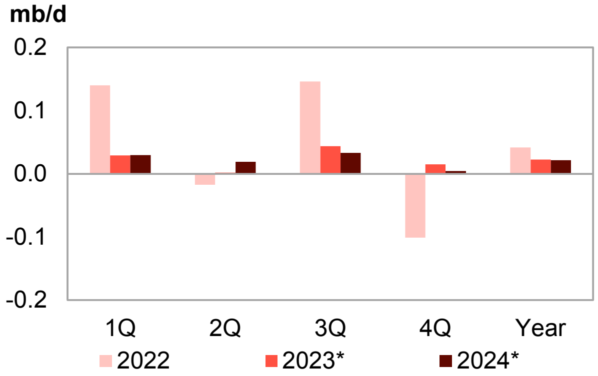
In Japan, the services sector PMI, which constitutes around two-thirds of the Japanese economy, retracted slightly to 54 points in June from 55.9 in May. The manufacturing PMI fell to 49.8 points in June, following 50.6 in May.

Graph 4 - 5: OECD Asia Pacific's oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, METI and OPEC.

Graph 4 - 6: OECD Asia Pacific's oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

The Australian services PMI decelerated to 50.6 points in June, from 51.8 in May, but at this level it remained in expansionary territory. The manufacturing PMI, however, stayed in the contraction zone, albeit with an improvement from 48 points in May to 48.6 in June. According to the latest data from the Australian Bureau of Statistics (ABS), annual CPI inflation was 6.0 per cent in the 2Q23, lower than the 7.0 pp annual rise in 1Q23.

The South Korean manufacturing PMI in June stood at 47.8 points, slightly below the 48-point level it had been at for the previous three months. The consumer price index in South Korea increased 2.7% in June 2023 from a year ago, easing for the fifth consecutive month to its lowest level since September 2021, supporting the central bank's move to pause its tightening cycle earlier this year.

Airline activity in the OECD Asia Pacific region remains healthy, according to a report from IATA. Asia Pacific carriers saw a noticeable improvement in their load factors to 80.4%, an increase of 7.1 points compared to June 2022. It should be noted, however, that while the region's domestic RPKs were 8.0% above pre-pandemic levels in June, international RPKs were still 29.0% lower.

The continued weakening of petrochemical sector requirements in the region subdued demand for naphtha and LPG in June, with y-o-y declines of 143 tb/d and 50 tb/d, respectively. Similarly, residual fuels and the 'other products' category saw y-o-y declines of 23 tb/d and 8 tb/d, respectively.

On the positive side, jet kerosene led oil demand with a y-o-y increase of 95 tb/d. Diesel saw y-o-y growth of 71 tb/d, up from 4 tb/d seen the previous month. Gasoline was up y-o-y by 57 tb/d, an improvement from a marginal 2 tb/d annual decline seen in May.

Near-term expectations

OECD Asia Pacific economic growth is projected to remain positive in 2023, albeit with variations among the region's countries. The services PMI in Japan was in the expansion zone in July and August, reaching levels of 58 and 56 points, respectively. However, both services and manufacturing PMIs in South Korea contracted. Furthermore, the region's relatively healthy economic activity, combined with improvements in air traffic, driving and petrochemical industry operations, are expected to support oil demand that is set to grow y-o-y by 44 tb/d in **3Q23**. However, by **4Q23**, the oil demand growth momentum is expected to ease, with the region seeing a y-o-y growth of 15 tb/d.

In **2024**, the economic growth rate of the region is expected to remain on a positive trajectory. In addition, air travel recovery and petrochemical sector requirements in the region is projected to support oil demand with an expected y-o-y expansion of 30 tb/d in 1Q24. Overall, in 2024, the region is expected to see y-o-y growth of 22 tb/d.

Non-OECD

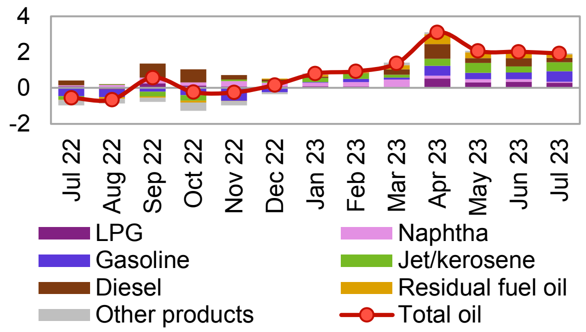
China

Update on the latest developments

Oil demand in China in July posted y-o-y growth of almost 2.0 mb/d, for the third consecutive month. Oil demand growth was mostly driven by transportation fuels amid steady driving activity, a continuing recovery in air travel and robust petrochemical feedstock requirements. Additionally, it must be noted that oil demand growth in July was supported by a weak baseline from a year earlier.

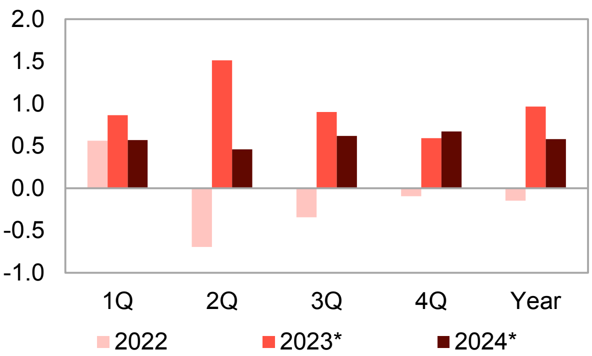
The annual inflation rate in China turned negative in July, following 0% y-o-y in June. China's June PMI for the services sector was at 54.1 points, following 53.9 in June. The manufacturing PMI retracted into contractionary territory to stand at 49.2, following 50.5 in June. Driving mobility continued to increase, with data from the Ministry of Transport showing that a total of 8.21 billion passenger trips were made in urban areas in July, a y-o-y expansion of 14.7%. Similarly, air travel activity remained healthy. A report from China's Civil Aviation Industry in June indicates that domestic passenger volumes in the country increased y-o-y by 131% and international passenger volumes by a staggering 2,067% y-o-y, due to the fact that international air travel was in lockdown a year ago.

Graph 4 - 7: China's oil demand by main petroleum product category, y-o-y change



Sources: Chinese Petroleum Data Monthly, Chinese National Bureau of Statistics, JODI, Non-OECD Energy Statistics, Argus Global Markets, Argus China, and OPEC.

Graph 4 - 8: China's oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

In terms of oil products in July, transportation fuels were the main drivers of demand growth. Gasoline posted y-o-y growth of 606 tb/d, compared to 385 tb/d, y-o-y growth in June. On the back of the steady air travel recovery, jet kerosene posted y-o-y growth of 487 tb/d, up from 327 tb/d y-o-y growth the previous month. Diesel grew by about 259 tb/d y-o-y, albeit down from 473 tb/d y-o-y growth in June. Healthy petrochemical feedstock requirements supported LPG, which posted y-o-y growth of 292 tb/d, slightly below the 342 tb/d y-o-y growth in June. Naphtha also witnessed a monthly deceleration to grow by 46 tb/d, down from 146 tb/d y-o-y growth in June. Finally, residual fuels saw y-o-y growth of 201 tb/d, slightly less than the 278 tb/d level of June, while the 'other products' category increased by 43 tb/d y-o-y, down from 82 tb/d growth the previous month.

Table 4 - 4: China's oil demand*, mb/d

			Change Jul 23/Jul 22	
By product	**Jul 22**	**Jul 23**	**Growth**	**%**
LPG	2.63	2.92	0.29	11.1
Naphtha	1.49	1.53	0.05	3.1
Gasoline	2.85	3.46	0.61	21.2
Jet/kerosene	0.38	0.86	0.49	129.7
Diesel	3.43	3.69	0.26	7.5
Fuel oil	0.83	1.03	0.20	24.2
Other products	2.47	2.52	0.04	1.8
Total	**14.08**	**16.01**	**1.93**	**13.7**

*Note: * Apparent oil demand. Totals may not add up due to independent rounding.*
Sources: Argus Global Markets, China OGP (Xinhua News Agency), Facts Global Energy, JODI, National Bureau of Statistics China and OPEC.

Near-term expectations

China's economic growth is expected to remain firm in 2023. With inflation at almost zero, it seems likely that the central government, together with the People's Bank of China (PBOC), may become engaged in near-term stimulus measures that seek to boost consumption in support of economic recovery. This is particularly likely when considering that youth unemployment stood above the 20% level for the second consecutive month, at 20.8% in May. Oil demand in **3Q23** is expected to grow by 902 tb/d y-o-y and by 591 tb/d y-o-y in **4Q23**, slightly down from the strong y-o-y growth seen in the first half of the year. Overall, in 2023, oil demand in China is expected to grow by 0.97 mb/d.

In **2024**, China's economic growth momentum is expected to ease slightly. Continued healthy services sector activity, including leisure, travel and tourism, as well as a recovery in the manufacturing activity and petrochemical sector requirements are expected to support oil demand. Thereby, oil demand is forecast to see y-o-y growth of 571 tb/d in 1Q24. Jet fuel will again drive oil demand growth in this quarter, with millions of air passengers expected to support air travel activity for local and business travellers from and into China throughout the 40-day spring festival travel season. Light distillates are also set to continue rising, with the continued expansion of petrochemical industries. Increased mobility and construction activity will boost demand for gasoline and diesel. For the year, China is expected to see y-o-y growth of 580 tb/d.

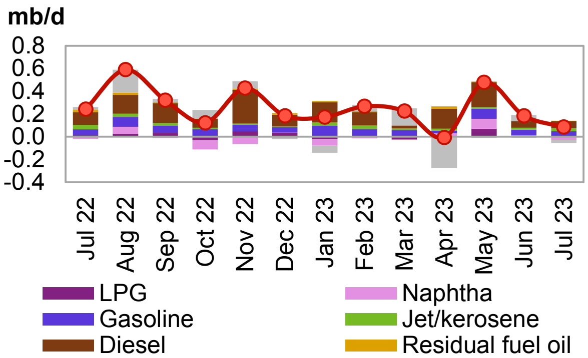
India

Update on the latest developments

Oil demand in India in **July** grew by 83 tb/d y-o-y, down from an annual increase of 184 tb/d in June. July's demand growth was affected by a comparison with a strong baseline from a year earlier, as well as heavy rains in some northern and north western states that partially affected economic activity.

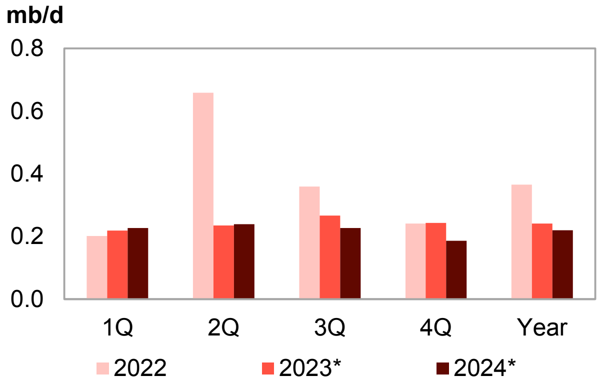
India's manufacturing PMI was at a high level of 57.7 in July, almost unchanged from 57.8 in June. The services PMI rose to 62.3, compared with 58.5 in June. India's annual consumer inflation rate has accelerated in recent months and reached 6.4% in July, on the back of surging food prices. At this level, the rate breaches the upper end of the Reserve Bank of India's 2%-6% tolerance band for the first time in five months.

Graph 4 - 9:India's oil demand by main petroleum product category, y-o-y change



Sources: PPAC, JODI, Non-OECD Energy Statistics and OPEC.

Graph 4 - 10: India's oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

According to the Indian automotive content creator, autopunditz.com, India's car sales increased by over 3.2% in July when compared to the same period last year. It was also up 7.4% on a m-o-m comparison with June 2023.

In terms of air travel, a report from Travel World.com, noted that domestic air passenger traffic in July was estimated to be 2.2% lower than in June 2023. However, the y-o-y growth was at 26%. Domestic passenger traffic in July 2023 was higher by 3% compared to pre-COVID levels.

Table 4 - 5: India's oil demand, mb/d

By product	Jul 22	Jul 23	*Change Jul 23/Jul 22* Growth	%
LPG	0.93	0.92	-0.01	-0.6
Naphtha	0.32	0.30	-0.02	-7.1
Gasoline	0.79	0.84	0.05	6.2
Jet/kerosene	0.18	0.20	0.03	16.0
Diesel	1.62	1.69	0.06	3.8
Fuel oil	0.16	0.16	0.00	1.5
Other products	0.91	0.88	-0.03	-3.2
Total	**4.91**	**4.99**	**0.08**	**1.7**

Note: Totals may not add up due to independent rounding.

Sources: JODI, Petroleum Planning and Analysis Cell of India and OPEC.

In terms of oil products in July, diesel led y-o-y oil demand growth at 61 tb/d, slightly higher than the 59 tb/d y-o-y growth seen in June. Gasoline grew y-o-y by 49 tb/d, down from 52 tb/d in June. On the back of the steady air travel recovery, jet/kerosene saw y-o-y growth of 28 tb/d, up from 15 tb/d in June. In terms of petrochemical feedstock, LPG demand growth softened, y-o-y by 5 tb/d in July, while naphtha saw a y-o-y decline of 23 tb/d and the 'other products' category posted an annual decline of 29 tb/d. Finally residual fuel demand was unchanged y-o-y in July.

Near-term expectations

Looking forward, with steady and healthy economic activity and the ongoing air travel recovery, India's oil demand in **3Q23** is projected to rise y-o-y by around 270 tb/d. The government's proposed increase in capital spending for construction and manufacturing is expected to boost the economic activity momentum. These factors, combined with a steady rise in airline activity, are set to support healthy oil demand growth. Transportation fuels – gasoline and jet fuel – are expected to be the main demand growth drivers in this quarter. However, diesel demand is anticipated to be affected by the impact of the monsoon season from July to September.

In **4Q23**, oil demand is expected to decelerate slightly, but is forecast to show y-o-y growth of 243 tb/d, with transportation fuels – notably gasoline, diesel for transportation, and jet/kerosene – driving the growth.

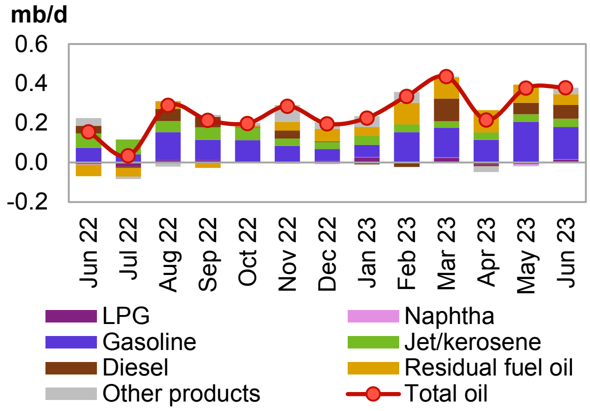
In **2024**, India's oil demand is expected to expand on average by 227 tb/d y-o-y in 1Q24, on the back of vigorous economic growth at 5.9%. Healthy economic growth will support mobility and enable steady demand for distillates in the manufacturing sector. For the year, India is expected to see an average y-o-y oil demand growth of 220 tb/d.

Latin America

Update on the latest developments

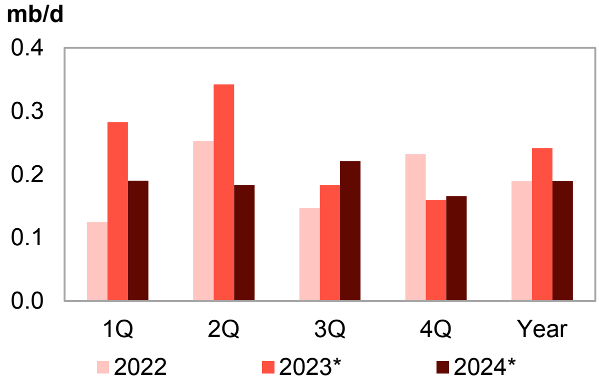
Oil demand in Latin America increased y-o-y by 379 tb/d in **June**, similar to the 377 tb/d y-o-y growth seen in May. Brazil and Venezuela continue to be the main drivers of oil demand growth in the region.

Graph 4 - 11: Latin America's oil demand by main petroleum product category, y-o-y change



Sources: JODI, Non-OECD Energy Statistics and OPEC.

Graph 4 - 12: Latin America's oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

The annual inflation rate in Brazil receded to 3.16% in June 2023 from 3.94% in May. This is the lowest level since September 2020 and was broadly in line with market forecasts. The services PMI in Brazil stood at 53.03 in June. However, the manufacturing PMI index in June at 46.6 points, still below the 50-point growth-indicating level, to stand, and down from 47.1 in May.

In terms of domestic RPKs, Latin American carriers continued to outperform their pre-pandemic levels by around 6% in June. Notably, passenger traffic in Brazil in June was 8.5% higher than pre-COVID levels, with an expansion of 13.3% y-o-y.

For the sixth consecutive month, gasoline remained the main oil demand driver in the region, supported by steady mobility. Gasoline grew y-o-y by 163 tb/d, although this was a decline from the 206 tb/d y-o-y growth in May. Diesel saw 70 tb/d y-o-y growth in June, up from 57 tb/d y-o-y growth in May. Residual fuels and the ‘other products’ category recorded y-o-y growth in June of 55 tb/d and 33 tb/d, respectively.

On the back of steady air travel recovery, jet kerosene saw y-o-y growth of 42 tb/d, similar to the 39 tb/d y-o-y growth in May. In terms of petrochemical feedstock, LPG saw an improvement of 15 tb/d, from an annual decline of 8 tb/d the previous month. Finally, demand for naphtha saw an uptick of 2 tb/d y-o-y, from an annual decline of 5 tb/d in May.

Near-term expectations

The region’s oil demand is expected to remain relatively healthy in 2H23 amid projected healthy economic growth and a steady air travel recovery. Positively, improved services PMI in the region’s big consuming countries, combined with rising consumer and business confidence, are anticipated to support oil demand in the region. Latin America’s oil demand is projected to grow y-o-y by 183 tb/d in **3Q23** and by 160 tb/d in **4Q23**.

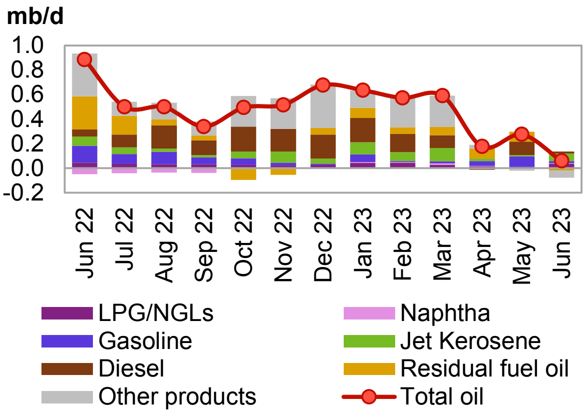
In **2024**, oil demand growth is forecast at 190 tb/d in 1Q24, amid healthy economic growth, combined with expected improvements in air travel. On average, the region is expected to grow by 190 tb/d y-o-y. The outlook for oil demand growth sees transportation fuels expand the most, followed by diesel and petrochemical feedstock.

Middle East

Update on the latest developments

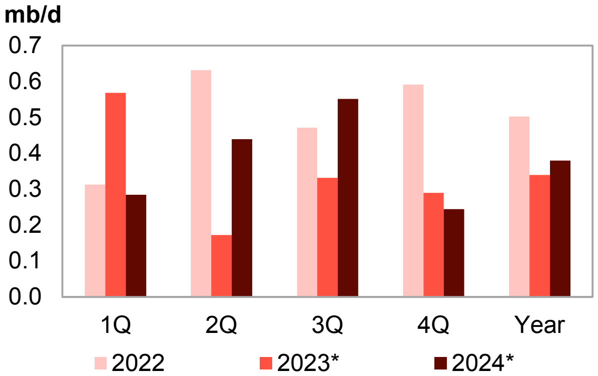
Oil demand in the Middle East grew y-o-y by 60 tb/d in June, down from 275 tb/d y-o-y growth in May. The demand growth was affected by a strong baseline comparison with same period last year, as well as a large decline in Saudi Arabia’s oil demand in June.

Graph 4 - 13: Middle East’s oil demand by main petroleum product category, y-o-y change



Sources: JODI, Non-OECD Energy Statistics and OPEC.

Graph 4 - 14: Middle East’s oil demand, y-o-y change



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

The economic activity in the two largest economies of the region – Saudia Arabia and the UAE – has been healthy and supportive of the region’s oil demand. The Saudi Arabian economy is estimated to have expanded by 3.8% y-o-y in 1Q23, with indications of a 5.4% rise in non-oil activities. Government expenditures in the 1Q23 remained strong and rose by 16.2% y-o-y. Similarly, the composite purchasing managers’ indices (PMIs) for June stood at 59.5, up from 58.5 in May.

The UAE’s economy remains robust, with constant contributions from the non-oil sector, especially from tourism, leisure and real estate. The country's composite PMI rose again in June to stand at 56.9 points, up from 55.5 in May.

In terms of air travel, the IATA reported that Middle East carriers have made remarkable progress in recovering from the pandemic. Middle Eastern carriers experienced a significant surge in international traffic growth in June, although the international RPKs for this region's carriers was still 4.2% below pre-pandemic levels.

The contributions of oil products to Middle East demand in June show that jet/kerosene was the main driver, up by 61 tb/d y-o-y, which was higher than the 10 tb/d y-o-y growth seen the previous month. LPG saw y-o-y growth of 36 tb/d, from 11 tb/d, y-o-y growth in May. Gasoline recorded y-o-y growth of 17 tb/d, down from 87 tb/d in May. Residual fuels saw a y-o-y decline of 20 tb/d, down from the 81 tb/d y-o-y growth in May. The 'other products' category softened further by 56 tb/d y-o-y, from the 13 tb/d annual decline recorded the previous month.

Table 4 - 6: Saudi Arabia's oil demand, mb/d

			Change Jul 23/Jul 22	
By product	**Jul 22**	**Jul 23**	**Growth**	**%**
LPG	0.05	0.05	0.00	9.8
Gasoline	0.49	0.49	0.00	-0.1
Jet/kerosene	0.07	0.11	0.04	59.8
Diesel	0.60	0.62	0.02	3.5
Fuel oil	0.65	0.66	0.01	1.0
Other products	0.75	0.66	-0.09	-11.7
Total	**2.60**	**2.59**	**-0.02**	**-0.6**

Note: Totals may not add up due to independent rounding.

Sources: JODI and OPEC.

Near-term expectations

Ongoing steady economic activity, combined with strong composite PMIs, continues to support the major consuming countries in the Middle East. In addition, the hot summer months are expected to boost electricity demand due to requirements for air conditioning. The strong recovery in international traffic also continues to boost jet/kerosene demand in the region. Accordingly, oil demand in the region is projected to grow by 332 tb/d y-o-y in **3Q23** and by 290 tb/d in **4Q23**.

In **2024**, the region's economic growth momentum is expected to be stable and support consumer confidence, which will increase regional demand for social services and consumer goods. Gasoline, transportation diesel and jet kerosene are expected to lead oil demand growth. Gasoil/diesel and fuel oil demand for power generation are also set to play a significant role in demand.

In 1Q24, the region is anticipated to see y-o-y growth of 285 tb/d. Overall, in 2024, the Middle East is expected to see y-o-y growth of 380 tb/d. The bulk of demand growth is expected to come from Iraq and Saudi Arabia.

World Oil Supply

The non-OPEC liquids production in 2023 is expected to grow by 1.6 mb/d y-o-y, reaching 67.4 mb/d. Upward revisions in Russia, the US and Brazil more than offset downward revisions to OECD Europe, Canada and Africa.

Slow and steady growth is currently expected for US shale oil production throughout the year. Accordingly, US liquids supply growth for 2023 is forecast at 1.2 mb/d. The main growth drivers for 2023 are anticipated to be the US, Brazil, Norway, Kazakhstan, Guyana and China. Nonetheless, there uncertainties related to US shale oil output potential and unplanned maintenance across the rest of the year.

Non-OPEC liquids production in 2024 is forecast to grow by 1.4 mb/d to average 68.8 mb/d (including 50 tb/d in processing gains), broadly unchanged from the previous month. The OECD liquids supply is forecast to increase by 0.9 mb/d next year, while non-OECD liquids supply is seen growing by 0.4 mb/d. The main drivers for the expected growth are the US, Canada, Guyana, Brazil, Norway and Kazakhstan, with the majority of the upsurge seen coming from existing project ramp-ups. At the same time, production is forecast to see the largest declines in Mexico and Malaysia.

OPEC NGLs and non-conventional liquids production in 2023 is forecast to grow by around 50 tb/d to average 5.4 mb/d. For 2024, it is forecast to grow by 65 tb/d to average 5.5 mb/d. OPEC-13 crude oil production in August increased by 113 tb/d m-o-m to average 27.45 mb/d, according to available secondary sources.

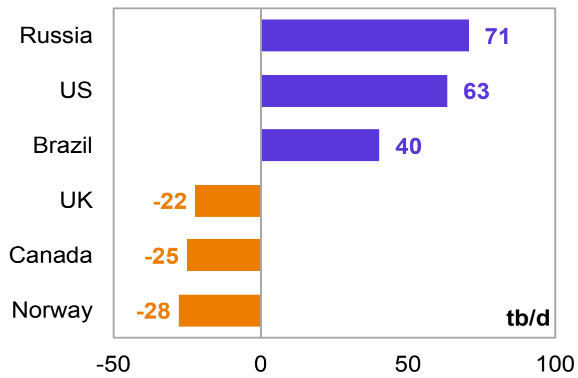
Non-OPEC liquids production in August, including OPEC NGLs, is estimated to have dropped by 0.1 mb/d m-o-m to average 73.3 mb/d. This is up by 2.3 mb/d y-o-y. As a result, preliminary data indicate that August's global oil supply remained unchanged m-o-m to average 100.7 mb/d, up by 0.16 mb/d y-o-y.

Non-OPEC liquids production in 2023 is forecast to expand by 1.6 mb/d. This is up by around 70 tb/d from the previous month's growth assessment, mainly due to upward revisions in Russia and the US. It is worth noting that this takes into account all announced prodcution adjustments of the countries in the DoC to the end of 2023.

Overall **OECD supply growth** expectations for 2023 remained largely unchanged. While OECD Europe saw a downward revision due to Norway and the UK, OECD Americas was revised up owing to the US and Mexico. OECD Asia Pacific's output growth expectation remained unchanged.

The **non-OECD supply growth** projection for 2023 has been revised up by around 70 tb/d. It is now expected to grow by about 60 tb/d y-o-y.

Graph 5 - 1: Major revisions to annual supply change forecast in 2023*, MOMR Sep 23/Aug 23

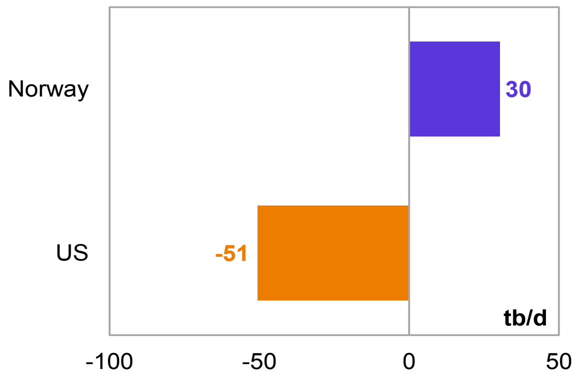


*Note: * 2023 = Forecast. Source: OPEC.*

Non-OPEC liquids production growth in **2024** remained broadly unchanged compared with the previous month's assessment.

The upward revision to the supply forecast of Norway and a few other countries was entirely offset by a downward revision to US supply.

Graph 5 - 2: Major revisions to annual supply change forecast in 2024*, MOMR Sep 23/Aug 23

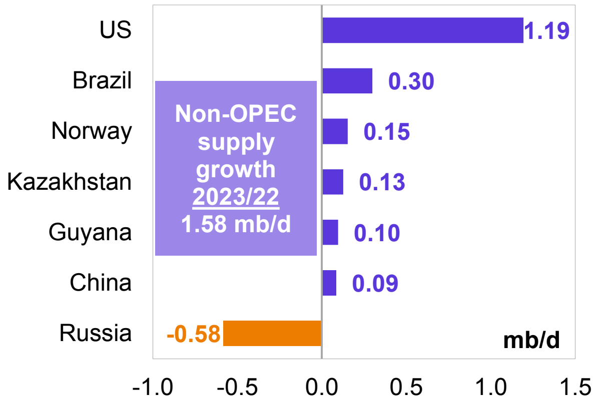


*Note: * 2024 = Forecast. Source: OPEC.*

Key drivers of growth and decline

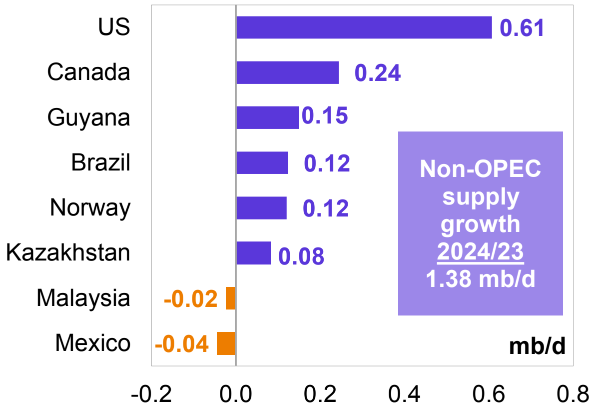
The **key drivers of non-OPEC liquids supply growth in 2023** are projected to be the US, Brazil, Norway, Kazakhstan, Guyana and China, while oil production is projected to see the largest decline in Russia.

Graph 5 - 3: Annual liquids production changes y-o-y for selected countries in 2023*



*Note: * 2023 = Forecast. Source: OPEC.*

Graph 5 - 4: Annual liquids production changes y-o-y for selected countries in 2024*



*Note: * 2024 = Forecast. Source: OPEC.*

For **2024**, the key drivers of non-OPEC supply growth are forecast to be the US, Canada, Guyana, Brazil, Norway and Kazakhstan, while oil production is projected to see the largest declines in Mexico and Malaysia.

Non-OPEC liquids production in 2023 and 2024

Table 5 - 1: Non-OPEC liquids production in 2023*, mb/d

Non-OPEC liquids production	2022	1Q23	2Q23	3Q23	4Q23	2023	Change 2023/22 Growth	%
Americas	26.92	27.90	28.00	28.53	28.52	28.24	1.33	4.93
of which US	*19.28*	*20.10*	*20.66*	*20.64*	*20.50*	*20.48*	*1.19*	*6.19*
Europe	3.58	3.69	3.64	3.65	3.87	3.71	0.13	3.70
Asia Pacific	0.48	0.45	0.45	0.48	0.47	0.46	-0.01	-2.83
Total OECD	**30.97**	**32.04**	**32.09**	**32.67**	**32.87**	**32.42**	**1.45**	**4.67**
China	4.48	4.63	4.63	4.50	4.50	4.56	0.09	1.91
India	0.77	0.76	0.78	0.79	0.78	0.78	0.00	0.58
Other Asia	2.30	2.31	2.26	2.31	2.37	2.31	0.01	0.47
Latin America	6.34	6.69	6.76	6.88	6.80	6.78	0.45	7.05
Middle East	3.29	3.27	3.29	3.25	3.30	3.28	-0.01	-0.32
Africa	1.29	1.24	1.27	1.28	1.30	1.27	-0.02	-1.65
Russia	11.03	11.19	10.85	10.22	9.57	10.45	-0.58	-5.27
Other Eurasia	2.83	3.00	2.93	2.94	2.98	2.96	0.13	4.61
Other Europe	0.11	0.11	0.10	0.10	0.10	0.10	0.00	-2.73
Total Non-OECD	**32.44**	**33.21**	**32.87**	**32.26**	**31.70**	**32.50**	**0.06**	**0.19**
Total Non-OPEC production	63.42	65.25	64.96	64.93	64.57	64.92	1.51	2.38
Processing gains	2.40	2.47	2.47	2.47	2.47	2.47	0.07	2.96
Total Non-OPEC liquids production	**65.81**	**67.72**	**67.43**	**67.39**	**67.04**	**67.39**	**1.58**	**2.40**
Previous estimate	65.76	67.70	67.39	66.96	67.03	67.27	1.51	2.30
Revision	0.06	0.02	0.04	0.43	0.01	0.13	0.07	0.10

*Note: * 2023 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Table 5 - 2: Non-OPEC liquids production in 2024*, mb/d

Non-OPEC liquids production	2023	1Q24	2Q24	3Q24	4Q24	2024	Change 2024/23 Growth	%
Americas	28.24	28.71	28.75	29.21	29.52	29.05	0.81	2.85
of which US	*20.48*	*20.74*	*20.96*	*21.23*	*21.39*	*21.08*	*0.61*	*2.96*
Europe	3.71	3.92	3.80	3.75	3.89	3.84	0.13	3.39
Asia Pacific	0.46	0.47	0.44	0.45	0.44	0.45	-0.01	-2.87
Total OECD	**32.42**	**33.10**	**32.99**	**33.41**	**33.85**	**33.34**	**0.92**	**2.83**
China	4.56	4.58	4.57	4.54	4.54	4.56	-0.01	-0.11
India	0.78	0.79	0.79	0.79	0.78	0.79	0.01	1.69
Other Asia	2.31	2.29	2.27	2.25	2.25	2.26	-0.05	-2.18
Latin America	6.78	6.95	7.02	7.15	7.23	7.09	0.31	4.50
Middle East	3.28	3.33	3.32	3.31	3.31	3.32	0.04	1.30
Africa	1.27	1.28	1.31	1.34	1.35	1.32	0.05	3.92
Russia	10.45	10.27	10.39	10.52	10.63	10.45	0.00	-0.02
Other Eurasia	2.96	3.02	3.02	3.00	3.04	3.02	0.06	2.10
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	-1.15
Total Non-OECD	**32.50**	**32.63**	**32.80**	**33.00**	**33.24**	**32.92**	**0.41**	**1.28**
Total Non-OPEC production	64.92	65.73	65.79	66.41	67.09	66.26	1.33	2.05
Processing gains	2.47	2.52	2.52	2.52	2.52	2.52	0.05	2.03
Total Non-OPEC liquids production	**67.39**	**68.25**	**68.31**	**68.93**	**69.61**	**68.78**	**1.38**	**2.05**
Previous estimate	67.27	68.14	68.16	68.84	69.48	68.66	1.39	2.06
Revision	0.13	0.11	0.15	0.09	0.13	0.12	-0.01	-0.01

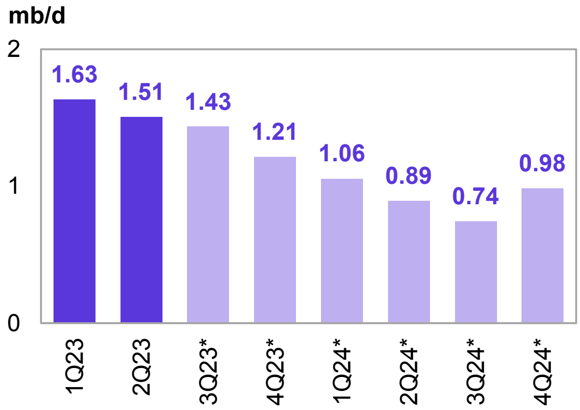
*Note: * 2024 = Forecast. Totals may not add up due to independent rounding.*
Source: OPEC.

OECD

OECD liquids production in 2023 is forecast to expand by 1.4 mb/d to average 32.4 mb/d. Growth remained unchanged m-o-m following an upward revision in OECD Americas and a downward adjustment in OECD Europe.

Growth is set to be led by OECD Americas, which is forecast to expand by 1.3 mb/d to an average of 28.2 mb/d. This was revised up by around 50 tb/d compared with last month's assessment. Yearly liquids production in OECD Europe is anticipated to grow by 0.1 mb/d to average 3.7 mb/d. This is down by 45 tb/d compared with the previous month. OECD Asia Pacific is expected to drop by around 10 tb/d to an average of 0.5 mb/d.

Graph 5 - 5: OECD quarterly liquids supply, y-o-y changes



*Note: * 3Q23-4Q24 = Forecast. Source: OPEC.*

For **2024**, OECD oil production is likely to grow by 0.9 mb/d to an average of 33.3 mb/d. Growth will once again be led by OECD Americas, with an expected increase of 0.8 mb/d to an average of 29.0 mb/d. Yearly oil production in OECD Europe is anticipated to grow by 0.1 mb/d to average 3.8 mb/d, while OECD Asia Pacific is expected to decline by 13 tb/d y-o-y to average 0.5 mb/d.

OECD Americas

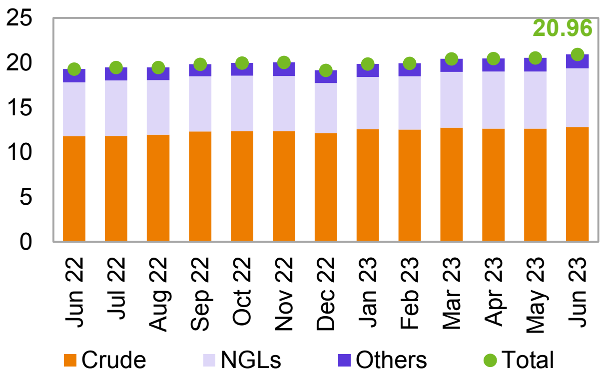
US

US liquids production in **June** jumped by 0.4 mb/d m-o-m to an average of 21.0 mb/d, the new highest level on record. This was up by 1.7 mb/d compared with June 2022.

Crude oil and condensate production rose by 207 tb/d m-o-m to average 12.8 mb/d in **June**. This was up by 1.0 mb/d y-o-y.

In terms of **crude and condensate production breakdown by region (PADDs)**, production increased mainly on the US Gulf Coast (USGC), where it rose by 169 tb/d to average 9.3 mb/d. Production in the Midwest and Rocky Mountain regions rose by around 30 tb/d and 11 tb/d, respectively. Output on the East and West Coasts remained broadly unchanged m-o-m.
Production growth in the main regions was primarily driven by a strong recovery in Texas and Gulf of Mexico (GoM) producing fields, while output in onshore New Mexico declined.

Graph 5 - 6: US monthly liquids output by key component



Sources: EIA and OPEC.

NGL production was up by 151 tb/d m-o-m to average 6.5 mb/d in June. This was higher y-o-y by 0.5 mb/d. According to the US Department of Energy (DoE), the production of **non-conventional liquids** (mainly ethanol) rose by 92 tb/d to average 1.6 mb/d. Preliminary estimates see non-conventional liquids averaging around 1.6 mb/d in July, largely unchanged from June.

GoM production rose by 147 tb/d m-o-m to average 1.9 mb/d in June, following new project ramp-ups. Normal production was seen in most Gulf Coast offshore platforms following recent planned maintenance. In the **onshore Lower 48**, crude and condensate production increased by 67 tb/d m-o-m to average 10.6 mb/d in June.

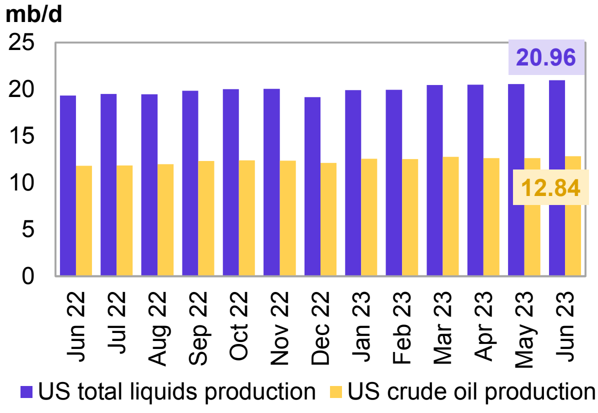
Table 5 - 3: US crude oil production by selected state and region, tb/d

				Change	
State	**Jun 22**	**May 23**	**Jun 23**	**m-o-m**	**y-o-y**
Texas	4,975	5,460	5,518	*58*	*543*
New Mexico	1,554	1,801	1,764	*-37*	*210*
Gulf of Mexico (GOM)	1,735	1,706	1,853	*147*	*118*
North Dakota	1,087	1,118	1,155	*37*	*68*
Colorado	433	454	462	*8*	*29*
Oklahoma	419	444	440	*-4*	*21*
Alaska	419	430	423	*-7*	*4*
Total	**11,800**	**12,637**	**12,844**	***207***	***1,044***

Sources: EIA and OPEC.

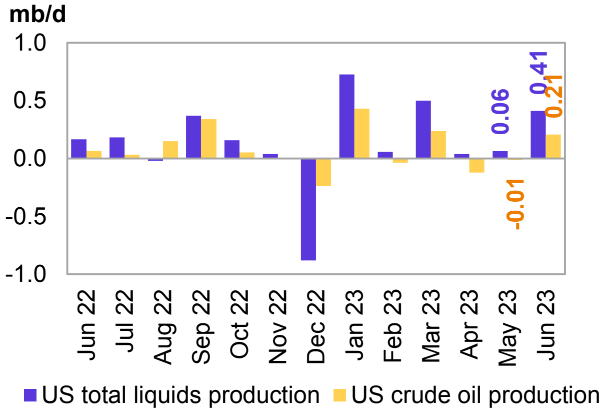
Looking at **individual states**, New Mexico's oil production fell by 37 tb/d to average 1.8 mb/d, which is 210 tb/d higher than a year ago. Production from Texas was up by 58 tb/d to average 5.5 mb/d, which is 543 tb/d higher than a year ago. In the Midwest, North Dakota's production rose by 37 tb/d m-o-m to an average of 1.2 mb/d, up by 68 tb/d y-o-y. Oklahoma's production was down by a minor 4 tb/d m-o-m to average 0.4 mb/d. Production in Alaska and Colorado remained largely unchanged.

Graph 5 - 7: US monthly crude oil and total liquids supply



Sources: EIA and OPEC.

Graph 5 - 8: US monthly crude oil and total liquids supply, m-o-m changes



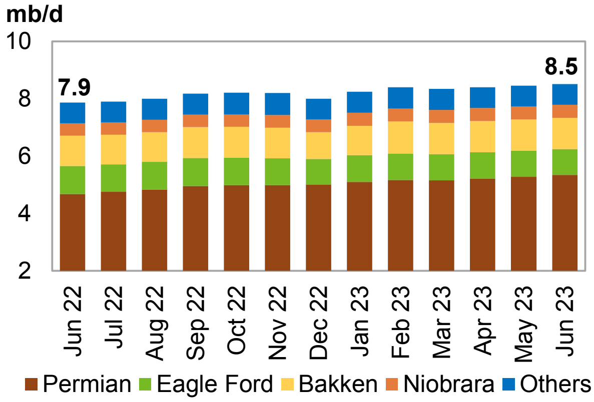
Sources: EIA and OPEC.

US tight crude output in **June** is estimated to have risen by 55 tb/d m-o-m to average 8.5 mb/d, according to the latest estimate from the US Energy Information Administration (EIA). This was 0.6 mb/d higher than in the same month last year.

The m-o-m increase from shale and tight formations using horizontal wells came mainly from Permian shale production in Texas, where output rose by 64 tb/d to an average of 5.3 mb/d. This was up y-o-y by 666 tb/d.

In North Dakota, Bakken shale oil output remained largely unchanged m-o-m to average 1.1 mb/d, up by 33 tb/d y-o-y. Tight crude output at Eagle Ford in Texas dropped by a minor 4 tb/d to average 0.9 mb/d, down 75 tb/d y-o-y. Production in Niobrara-Codell in Colorado and Wyoming was unchanged at an average of 451 tb/d.

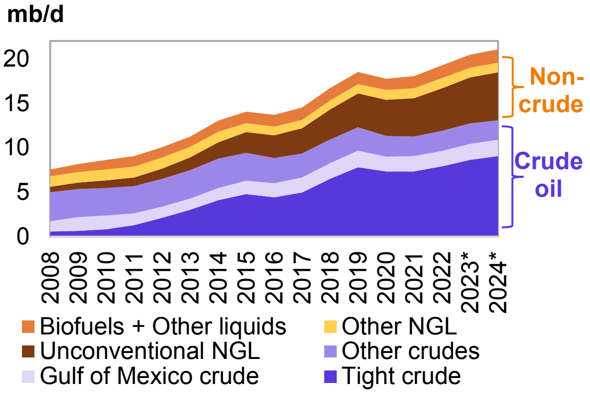
Graph 5 - 9: US tight crude output breakdown



Sources: EIA and OPEC.

US liquids production in 2023, excluding processing gains, is forecast to expand y-o-y by 1.2 mb/d to average 20.5 mb/d. This is up by 63 tb/d compared with the previous assessment, due to higher-than-expected output in previous months. Despite declining drilling activity since the start of this year, well productivity has improved. In addition, it is assumed there will be fewer supply chain/logistical issues in major prolific shale sites for the remainder of 2023. Given a sound level of oil field drilling and well completions, **crude oil and condensate** output is anticipated to increase y-o-y by 0.8 mb/d to average 12.7 mb/d. Average tight crude output in 2023 is forecast at 8.6 mb/d, up y-o-y by 0.7 mb/d. At the same time, NGL production and non-conventional liquids, particularly ethanol, are forecast to increase y-o-y by 0.3 mb/d and 40 tb/d, to average 6.3 mb/d and 1.5 mb/d, respectively.

Graph 5 - 10: US liquids supply developments by component



*Note: * 2023 and 2024 = Forecast.*
Source: OPEC.

US liquids production in 2024, excluding processing gains, is expected to grow y-o-y by 0.6 mb/d to average 21.1 mb/d, assuming a modest level of drilling activity and less supply chain issues at the prolific Permian, Bakken and Eagle Ford shale sites. Crude oil output is anticipated to jump by 0.4 mb/d y-o-y to average 13.1 mb/d. At the same time, NGLs production and that of non-conventional liquids, particularly ethanol, are projected to increase by 0.2 mb/d and 30 tb/d y-o-y to average 6.5 mb/d and 1.5 mb/d, respectively. Average tight crude output in 2024 is expected to reach 9.1 mb/d, up by 0.4 mb/d.

The 2024 forecast assumes ongoing capital discipline and less inflationary pressure, as well as moderating supply chain issues and oil field service constraints (labour and equipment).

Table 5 - 4: US liquids production breakdown, mb/d

US liquids	2022	*Change 2022/21*	2023*	*Change 2023/22*	2024*	*Change 2024/23*
Tight crude	7.91	0.56	8.62	0.72	9.07	0.44
Gulf of Mexico crude	1.73	0.02	1.82	0.09	1.84	0.02
Conventional crude oil	2.27	0.06	2.28	0.01	2.19	-0.10
Total crude	**11.91**	**0.64**	**12.73**	**0.81**	**13.09**	**0.37**
Unconventional NGLs	4.78	0.47	5.17	0.39	5.40	0.24
Conventional NGLs	1.15	0.04	1.10	-0.05	1.07	-0.03
Total NGLs	**5.93**	**0.51**	**6.27**	**0.33**	**6.48**	**0.21**
Biofuels + Other liquids	1.44	0.08	1.48	0.04	1.52	0.03
US total supply	**19.28**	**1.23**	**20.48**	**1.19**	**21.08**	**0.61**

*Note: * 2023 and 2024 = Forecast.*

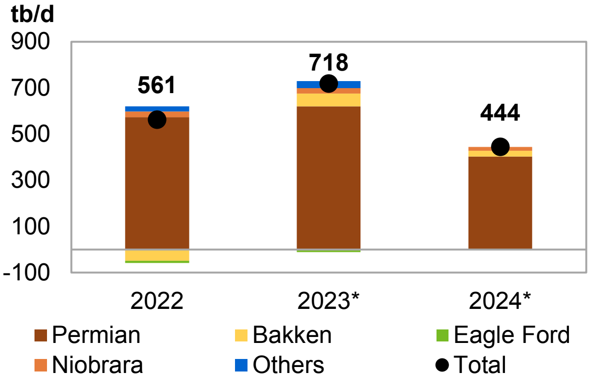
Sources: EIA, OPEC and Rystad Energy.

US tight crude production in the **Permian** in 2023 is expected to increase y-o-y by 0.6 mb/d to 5.4 mb/d. It is forecast to grow y-o-y by 0.4 mb/d to average 5.8 mb/d in 2024.

In **North Dakota**, **Bakken** shale production is still expected to remain below the pre-pandemic average of 1.4 mb/d. In 2023, growth is forecast at 55 tb/d to an average of 1.1 mb/d. Growth of just 25 tb/d is anticipated for 2024, to average 1.1 mb/d, demonstrating signs of maturity in the basin.

The **Eagle Ford** in Texas saw output of 1.2 mb/d in 2019, followed by declines from 2020 to 2022. With an expected decline of around 10 tb/d for 2023, output rests at an average of 0.94 mb/d. At the same time, basically no growth is expected for 2024.

Graph 5 - 11: US tight crude output by shale play, y-o-y changes



*Note: * 2023 and 2024 = Forecast.*
Sources: EIA and OPEC.

Niobrara's production is expected to have grown y-o-y by 23 tb/d in 2023 to average 460 tb/d. It is also forecast to increase by 17 tb/d in 2024 to average 477 tb/d. With a moderate pace of drilling and completion activities, production in other tight plays is expected to show an increase of 30 tb/d in 2023, then remain steady in 2024.

Table 5 - 5: US tight oil production growth, mb/d

US tight oil	2022	*Change 2021/20*	2023*	*Change 2023/22*	2024*	*Change 2024/23*
Permian tight	4.76	0.57	5.38	0.62	5.79	0.40
Bakken shale	1.03	-0.05	1.09	0.06	1.11	0.03
Eagle Ford shale	0.95	-0.01	0.94	-0.01	0.94	0.00
Niobrara shale	0.44	0.02	0.46	0.02	0.48	0.02
Other tight plays	0.72	0.02	0.75	0.03	0.75	0.00
Total	**7.91**	**0.56**	**8.62**	**0.72**	**9.07**	**0.44**

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

US rig count, spudded, completed, DUC wells and fracking activity

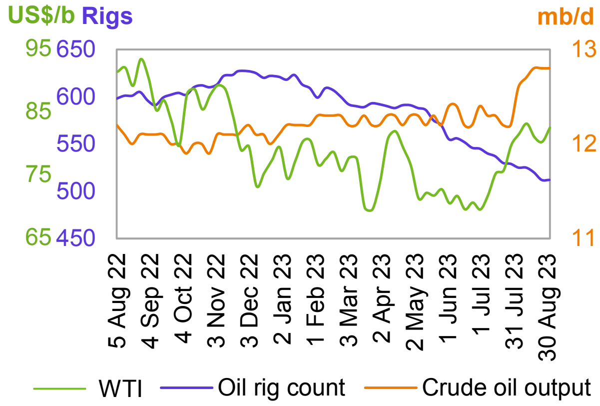
Total **active US drilling rigs** in the week ending 1 September 2023 fell by 1 to 631, according to Baker Hughes. This was down by 129 rigs compared with a year ago. The number of active offshore rigs rose by one w-o-w to 17. This was higher by one compared with the same month a year earlier. Onshore oil and gas rigs were lower w-o-w by two to stand at 611, with three rigs in inland waters. This is down by 130 rigs y-o-y.

The **US horizontal rig count** fell w-o-w by one to 566, compared with 695 horizontal rigs a year ago. The number of drilling rigs for oil remained unchanged w-o-w at 512, while gas-drilling rigs fell w-o-w by one to 114.

The Permian's rig count fell by one w-o-w to 319. Rig counts dropped by two in Eagle Ford to 50. The rig count remained unchanged w-o-w in Williston at 33, while it rose by one to 17 and 15 in Cana Woodford and DJ-Niobrara, respectively.

No operating oil or gas rig has been reported in the Barnett Basin since 21 July.

Graph 5 - 12: US weekly rig count vs. US crude oil output and WTI price



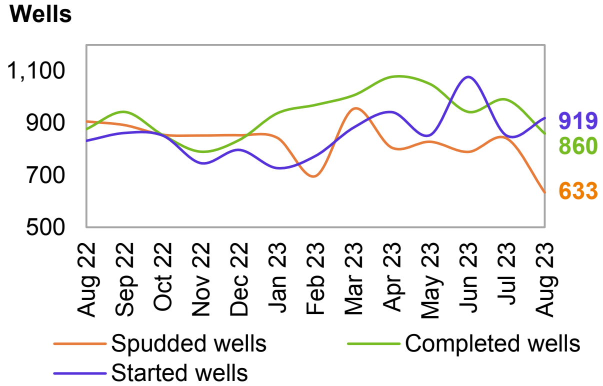
Sources: Baker Hughes, EIA and OPEC.

Drilling and completion (D&C) activities for spudded, completed and started oil-producing wells in all US shale plays included 841 horizontal wells spudded in July (as per preliminary data), based on EIA-DPR regions. This is up by 52 m-o-m, but 15% lower than in July 2022.

Preliminary data for July indicates a higher number of completed wells at 990, up y-o-y by 16%. The number of started wells is estimated at 852, which is 1% higher than a year earlier.

Preliminary data for August 2023 saw 633 spudded, 860 completed and 919 started wells, according to Rystad Energy.

Graph 5 - 13: Spudded, completed and started wells in US shale plays

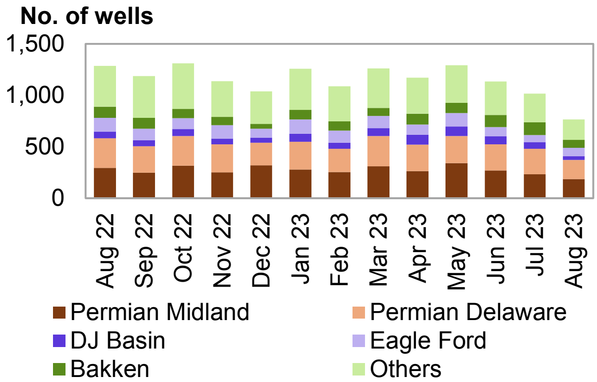


Note: Jul 23-Aug 23 = Preliminary data.
Sources: Rystad Energy and OPEC.

In terms of identified **US oil and gas fracking operations by region**, Rystad Energy reported that 1,133 wells were fracked in June. In July and August, it stated that 1,017 and 765 wells began fracking, respectively. Preliminary numbers are based on the analysis of high-frequency satellite data.

Preliminary July data show that 233 and 249 wells were fracked in Permian Midland and Permian Delaware, respectively. Compared with June, there was a decline of 36 wells in the Midland region and a drop of 5 in Delaware. Data also indicate that 64 wells were fracked in the DJ Basin, 67 in Eagle Ford and 126 in Bakken in July.

Graph 5 - 14: Fracked wells count per month



Note: Jul 23-Aug 23 = Preliminary data.
Sources: Rystad Energy Shale Well Cube and OPEC.

Canada

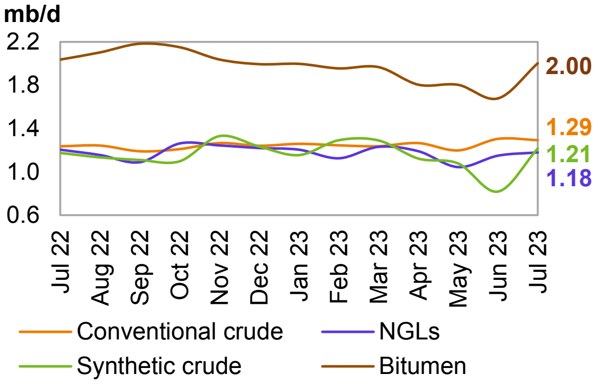
Canada's liquids production in **July** is estimated to have jumped significantly by 737 tb/d m-o-m to an average of 5.7 mb/d, mainly recovered from recent maintenance and disruptions.

Conventional crude production fell by 12 tb/d m-o-m in July to average 1.3 mb/d, while NGLs output increased by 30 tb/d to average 1.2 mb/d.

Crude bitumen production output rose by 323 tb/d m-o-m, and synthetic crude increased by 396 tb/d m-o-m. Taken together, crude bitumen and synthetic crude production jumped by 719 tb/d to 3.2 mb/d.

Growth in July was related to significant recovery after maintenance was completed at oil sands mines and upgraders, as well as production recovery in areas affected by wildfire.

Graph 5 - 15: Canada's monthly liquids production development by type

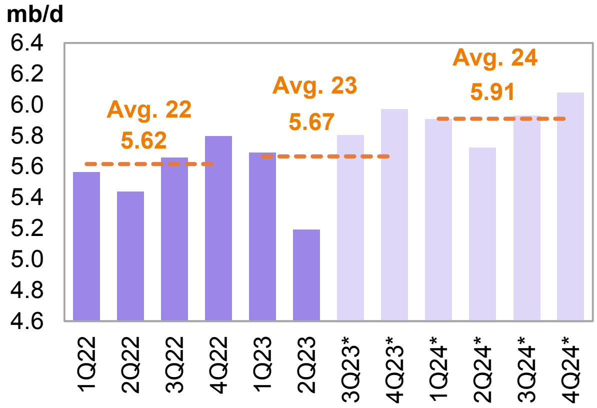


Sources: Statistics Canada, Alberta Energy Regulator and OPEC.

For **2023**, Canada's liquids production is forecast to increase by around 50 tb/d to average 5.7 mb/d. This is down by 25 tb/d compared with the previous assessment, mainly due to downward revisions in 2Q23 output following the latest data by national sources.

Less maintenance is expected for 3Q23 and the Terra Nova Floating Production Storage and Offloading unit (FPSO) is also expected to restart production in mid-2023. Some larger sources of near-term growth include Cenovus Energy's Foster Creek and Christina Lake (FCCL) SAGD projects, both of which are set to bring on three new well pads in the second half of 2023.

Graph 5 - 16: Canada's quarterly liquids production and forecast



*Note: * 3Q23-4Q24 = Forecast. Source: OPEC.*

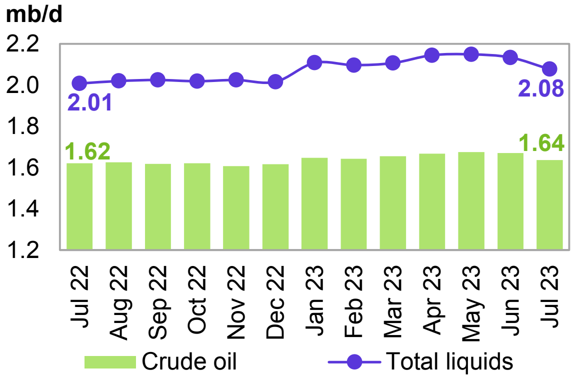
For **2024**, Canada's liquids production is forecast to gradually increase at a faster pace compared with 2023, rising by 0.2 mb/d to average 5.9 mb/d. Incremental production is expected to come through oil sands project ramp-ups and debottlenecks, in areas like Montney, Kearl and Fort Hills, together with some conventional field growth.

Mexico

Mexico's crude output decreased by 34 tb/d m-o-m in **July** to average 1.6 mb/d, and NGLs output fell by 23 tb/d. Mexico's total July liquids output dropped by 57 tb/d m-o-m to an average of 2.1 mb/d, according to the Comisión Nacional de Hidrocarburos (CNH). This was in line with previous expectations, as the ramp-up of new fields was more than offset by outages after an explosion at the Nohoch Alfa oil platform at the Bay of Campeche.

For **2023**, liquids production is now forecast to rise by around 85 tb/d to an average of 2.1 mb/d. This is higher by 9 tb/d from the previous assessment. In addition to minor offline capacity due to a recent explosion, declines from other fields could start offsetting monthly gains from new fields once again in 2H23.

Graph 5 - 17: Mexico's monthly liquids and crude production development



Sources: Mexico Comision Nacional de Hidrocarburos (CNH) and OPEC

For **2024**, liquids production is forecast to decline by 45 tb/d to average 2.0 mb/d. In general, it is expected that declines from mature fields will offset gains from new fields. Pemex's total crude production decline in mature areas like Ku-Maloob-Zaap and Integral Yaxche-Xanab is forecast to outweigh production ramp-ups in Area-1 and El Golpe-Puerto Ceiba, and from a few start-ups, namely TM-01, Paki and AE-0150-Uchukil.

OECD Europe

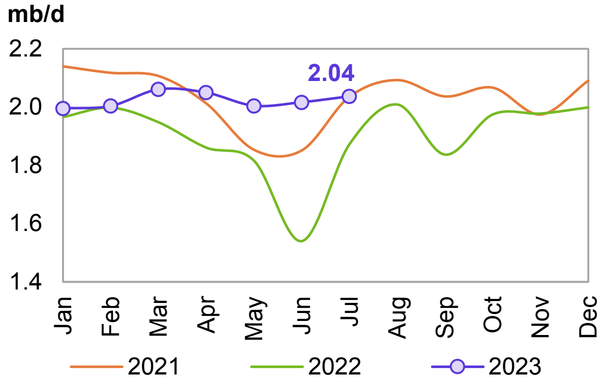
Norway

Norwegian liquids production in **July** rose by 20 tb/d m-o-m to average 2.0 mb/d. While main oil fields produced on schedule, there was some unexpected maintenance at a number of fields.

Norway's crude production increased by 10 tb/d m-o-m in July to average 1.8 mb/d, higher by 187 tb/d y-o-y. Monthly oil production was 0.6% less than the Norwegian Petroleum Directorate's (NPD) forecast.

Production of NGLs and condensates, meanwhile, rose by 10 tb/d m-o-m to average 0.2 mb/d, according to NPD data.

Graph 5 - 18: Norway's monthly liquids production development



Sources: The Norwegian Petroleum Directorate (NPD) and OPEC.

For **2023**, Norwegian liquids production is forecast to expand by 0.2 mb/d, revised down by around 30 tb/d compared with last month's forecast, to an average of 2.1 mb/d. Several technical challenges, operational irregularities and periodical shut-downs have affected Norwegian production in 1H23. However, the Johan Sverdrup ramp-up is still estimated to be the main source of growth following its Phase 2 start-up in December 2022.

For **2024**, Norwegian liquids production is forecast to grow by 120 tb/d to average 2.2 mb/d. Some small-to-large projects are scheduled to ramp up in 2024. At the same time, project start-ups are expected at offshore projects like Balder/Ringhorne, Eldfisk, Kristin, Alvheim FPSO, Hanz, Aasgard FPSO and PL636. Kobra East and Gekko (KEG) are planning to come online in early 2024 and will be tied back to the Alvheim FPSO. Johan Castberg is projected to be the main source of output increase, with first oil planned for 4Q24. Norwegian oil and gas companies plan to bring forward investments to 2023 and 2024, earlier than previously thought, driven mainly by rising activity as well as cost inflation.

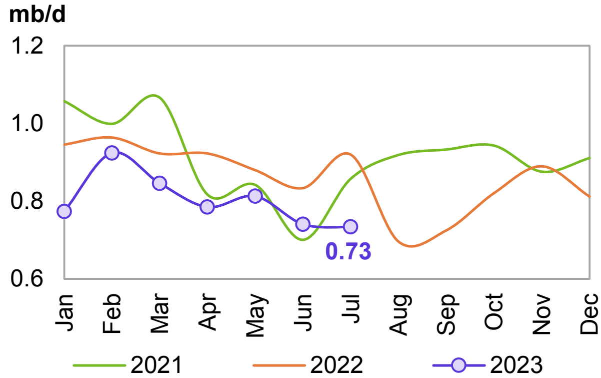
UK

In **July, UK liquids production** fell by a minor 7 tb/d m-o-m to average 0.7 mb/d. Crude oil output decreased by 8 tb/d m-o-m to average 0.6 mb/d, lower by 171 tb/d y-o-y, according to official data. NGLs output was largely unchanged at an average of 71 tb/d. UK liquids output in July was down by 20% compared with July 2022, mainly due to natural declines and outages.

For **2023**, UK liquids production is forecast to average 0.8 mb/d, down by around 30 tb/d from the previous assessment due to lower-than-expected July output.

For **2024**, UK liquids production is forecast to stay steady at an average of 0.8 mb/d. Production ramp-ups will be seen at the ETAP and Clair, as well as the Anasuria and Captain enhanced oil recovery (EOR) start-up projects. The start-up for Penguins redevelopment is now planned in 1Q24. However, liquids production in the UK is expected to continue to face challenges, given the inadequate number of new projects and low investment.

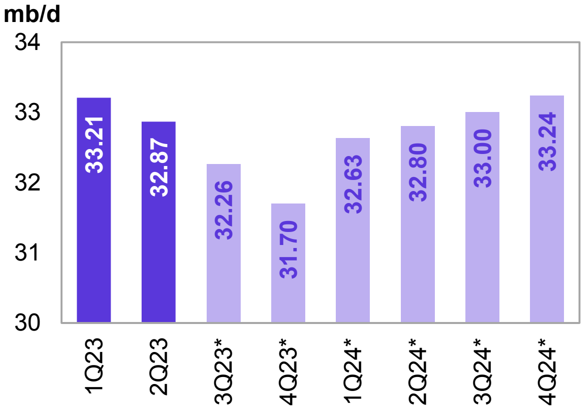
Graph 5 - 19: UK monthly liquids production development



Sources: UK Department for Business, Energy and Industrial Strategy and OPEC.

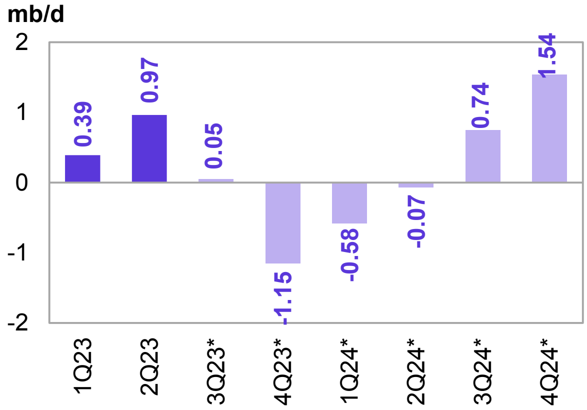
Non-OECD

Graph 5 - 20: Non-OECD quarterly liquids production and forecast



*Note: * 3Q23-4Q24 = Forecast. Source: OPEC.*

Graph 5 - 21: Non-OECD quarterly liquids supply, y-o-y changes



*Note: * 3Q23-4Q24 = Forecast. Source: OPEC.*

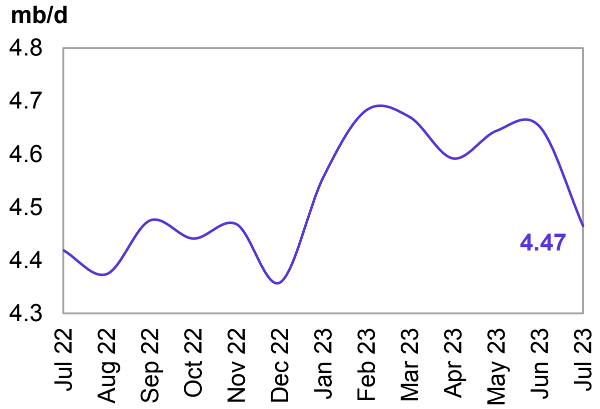
China

China's liquids production fell by 187 tb/d m-o-m to average 4.5 mb/d in **July**. This is up by 46 tb/d y-o-y, according to official data. Crude oil output in July averaged 4.1 mb/d, down by 187 tb/d compared with the previous month, but higher by 43 tb/d y-o-y. NGL and condensate production was largely stable m-o-m, averaging 48 tb/d.

For **2023**, y-o-y growth of 85 tb/d is forecast for an average of 4.6 m/d. This is unchanged from last month's assessment. Natural decline rates are expected to be offset by additional growth through more infill wells and EOR projects amid efforts by state-owned oil companies to safeguard energy supplies. Almost all national Chinese oil and gas companies are expected to stick to the 2023 production target outlined earlier this year, with plans to boost output. State-controlled firm CNOOC recently reported an 11.3% drop in profit for the first half of 2023, as lower oil prices squeezed margins, despite output rising by 8.9%.

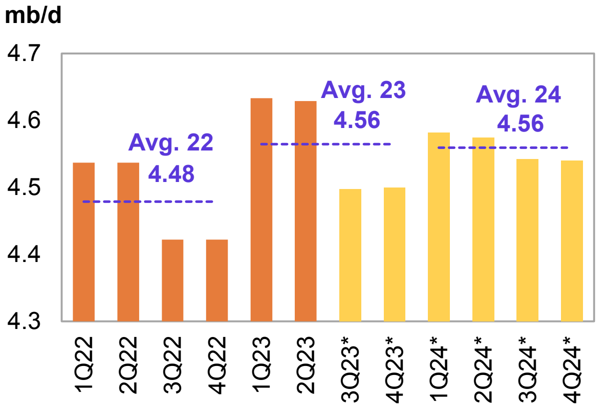
For **2024**, Chinese liquids production is expected to remain steady y-o-y and is forecast to average 4.6 m/d. For next year, Liuhua 11-1, Shayan and Liuhua 4-1 (redevelopment) are planned to come on stream under CNOOC and PetroChina. At the same time, main ramp-ups are expected from the Changqing, Kenli 10-2, Wushi 17-2 and Kenli 6-4.

Graph 5 - 22: China's monthly liquids production development



Sources: CNPC and OPEC.

Graph 5 - 23: China's quarterly liquids production and forecast



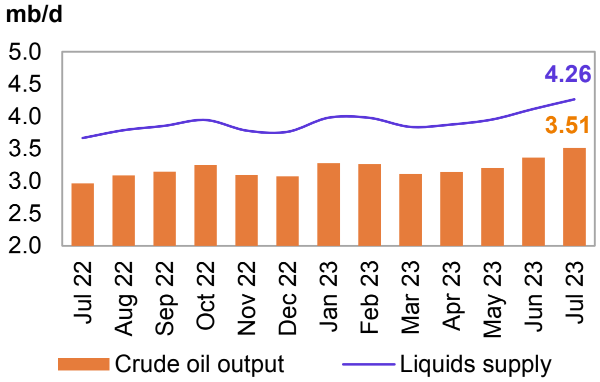
*Note: * 3Q23-4Q24 = Forecast. Sources: CNPC and OPEC.*

Latin America

Brazil

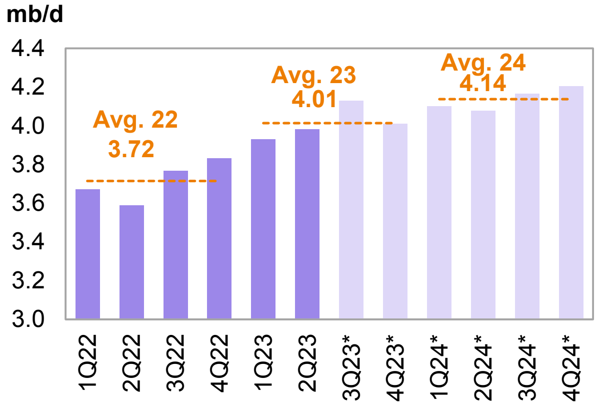
Brazil's crude output in **July** jumped by 146 tb/d m-o-m to an average of 3.5 mb/d, mainly due to new project ramp-ups and a recovery in pre-salt and post-salt production. NGLs production, however, was broadly unchanged at an average of 80 tb/d and is expected to remain flat in August. Biofuel output (mainly ethanol) remained broadly unchanged at an average of 671 tb/d, with preliminary data showing a stable trend in August. The country's total liquids production increased by 149 tb/d in July to average 4.3 mb/d. This is the new highest liquids production rate on record after a peak of 4.0 mb/d was seen in January 2023.

Graph 5 - 24: Brazil's monthly liquids production development by type



Sources: Brazilian National Agency of Petroleum, Natural Gas and Biofuels (ANP) and OPEC.

Graph 5 - 25: Brazil's quarterly liquids production



*Note: * 3Q23-4Q24 = Forecast. Sources: ANP and OPEC.*

For **2023**, Brazil's liquids supply, including biofuels, is forecast to rise by 0.3 mb/d y-o-y to an average of 4.0 mb/d, revised up by 40 tb/d from the previous forecast due to strong output in July, which led to a monthly jump of about 150 tb/d.

Recent monthly growth is attributed to two new FPSOs, which started production in May. This includes Anna Nery, installed at the Marlim complex in the offshore Campos Basin, and Almirante Barroso in the Buzios subsalt field. M-o-m recovery in Tupi and some post-salt fields also improved Brazil's performance. Overall, crude oil output is expected to be supported by offshore start-ups announced since the beginning of the year.

For **2024**, Brazil's liquids supply forecast, including biofuels, is forecast to increase by around 120 tb/d y-o-y to an average of 4.1 mb/d. Crude oil output is expected to increase through production ramp-ups in the Mero (Libra NW), Buzios (Franco), Tupi (Lula), Peregrino and Itapu (Florim) fields. Oil project start-ups are anticipated at Atlanta, Pampo-Enchova Cluster and Vida.

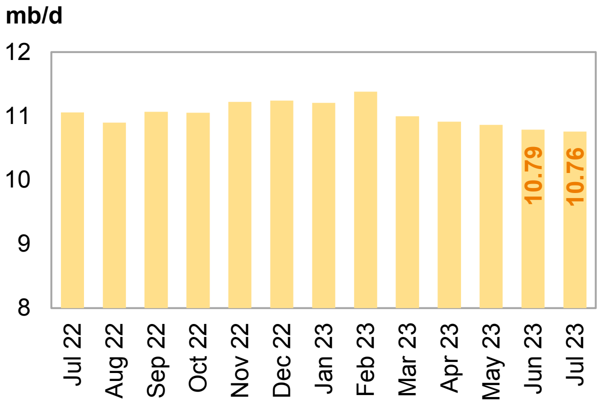
Russia

Russia's liquids production in July fell by around 30 tb/d m-o-m to average 10.8 mb/d. This includes 9.5 mb/d of crude oil and 1.2 mb/d of NGLs and condensate.

For **2023**, Russian liquids production is forecast to drop by 0.6 mb/d to an average of 10.5 mb/d, revised up by around 70 tb/d from the previous month's assessment. It is worth noting that the expected contraction takes into account recently announced voluntary production adjustments to the end of 2023.

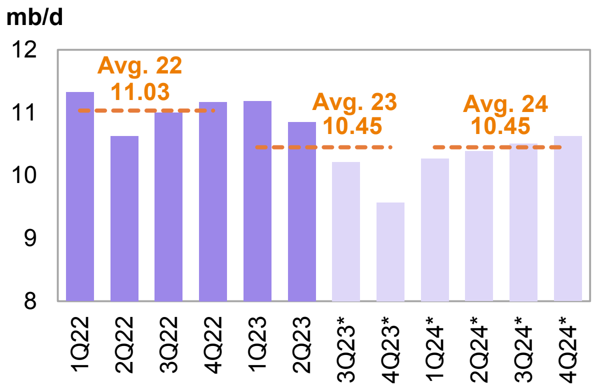
For **2024**, Russian liquids production is forecast to remain unchanged y-o-y to average 10.5 mb/d. In addition to project ramp-ups from several oil fields, there will be start-ups by Rosneft, Russneft, Lukoil, Gazprom, Neftisa and TenderResurs. However, overall additional liquids production is expected to be offset by declines from mature fields. It should be noted that the Russian oil forecast is subject to uncertainty.

Graph 5 - 26: Russia's monthly liquids production



Sources: Nefte Compass and OPEC.

Graph 5 - 27: Russia's quarterly liquids production



*Note: * 3Q23-4Q24 = Forecast.*
Sources: Nefte Compass and OPEC.

Caspian

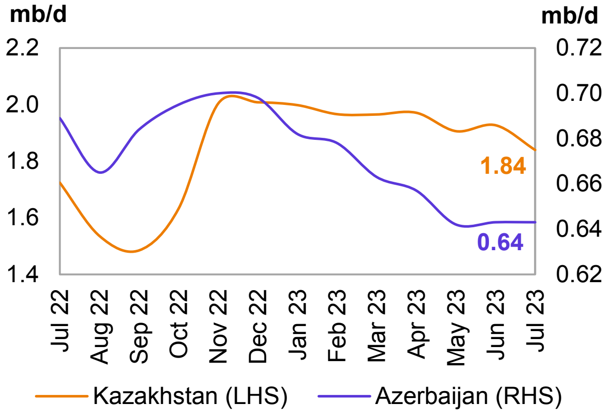
Kazakhstan & Azerbaijan

Liquids output in Kazakhstan fell by 87 tb/d m-o-m to an average of 1.8 mb/d in **July**. Crude production was down by 59 tb/d m-o-m to average 1.5 mb/d. At the same time, NGL and condensate output dropped by 28 tb/d m-o-m to average 0.3 mb/d.

For **2023**, the liquids supply is forecast to increase by 0.1 mb/d to average 1.9 mb/d, largely unchanged from the previous forecast.

Oil production in early July was disrupted due to the emergency shutdown of a large generation unit at a key power plant in Kazakhstan's western Mangistau region. Power supply problems also affected crude pumping stations on the Caspian Pipeline Consortium (CPC) system, resulting in a brief reduction in crude intake on Kazakhstan's main export route.

Graph 5 - 28: Caspian monthly liquids production development by selected country



Sources: Nefte Compass, JODI and OPEC.

For **2024**, the liquids supply is forecast to increase by around 80 tb/d to average 2.0 mb/d, mainly due to production ramp-ups in the Tengiz oil field through an expansion at the Tengizchevroil Future Growth Project (FGP) and wellhead pressure management project. Oil production in the Kashagan field and gas condensate output in the Karachaganak field are also expected to rise marginally.

Azerbaijan's liquids production in **July** remained broadly stable m-o-m, averaging 0.6 mb/d, which is a drop of 46 tb/d y-o-y. Crude production averaged 501 tb/d, with NGL output at 142 tb/d, according to official sources.

Azerbaijan's liquids supply for **2023** is forecast to remain unchanged at an average of 0.7 mb/d. This is a downward revision of 10 tb/d, due to lower-than-expected major oil field production in July. Declines in legacy reservoirs, like the Azeri-Chirag-Guneshli (ACG) oil fields, are expected to be offset by ramp-ups in other fields this year. TotalEnergies has started producing gas from the first phase of the Absheron project in Azerbaijan's sector of the Caspian Sea in July.

Azerbaijan's liquids supply for **2024** is forecast to decline by around 20 tb/d to average 0.7 mb/d. Growth is forecast to come partly from the Shah Deniz, Absheron and Umid-Babek gas condensate projects. Production in Azerbaijan's ACG oil fields should also get a boost next year, with a seventh ACG platform. However, the overall decline rate will be higher than planned ramp-ups.

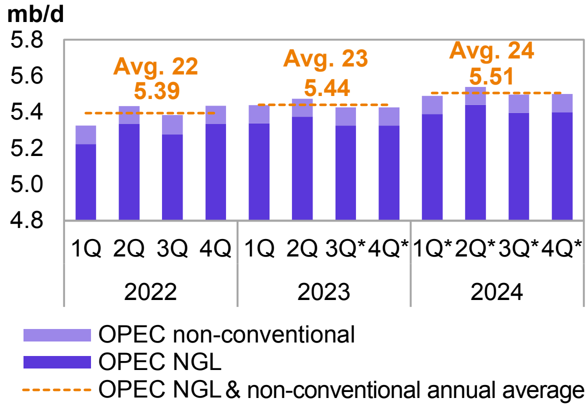
OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids are forecast to expand by around 50 tb/d in **2023** to average 5.4 mb/d. NGL production is projected to grow by 50 tb/d to average 5.3 mb/d, while non-conventional liquids are projected to remain unchanged at 0.1 mb/d.

Preliminary data shows NGL output in 2Q23 is expected to average 5.37 mb/d, while non-conventional output remained steady at 0.1 mb/d. Taken together, 5.44 mb/d is expected for July, according to preliminary data.

The preliminary **2024** forecast indicates growth of 65 tb/d to an average of 5.5 mb/d. NGL production is projected to grow by 65 tb/d to average 5.4 mb/d, while non-conventional liquids are projected to remain unchanged at 0.1 mb/d.

Graph 5 - 29: OPEC NGLs and non-conventional liquids quarterly production and forecast



*Note: * 3Q23-4Q24 = Forecast. Source: OPEC.*

Table 5 - 6: OPEC NGLs + non-conventional oils, mb/d

OPEC NGL and non-coventional oils	2022	Change 22/21	2023	Change 23/22	1Q24	2Q24	3Q24	4Q24	2024	Change 24/23
OPEC NGL	**5.29**	*0.11*	**5.34**	*0.05*	5.39	5.44	5.40	5.40	**5.41**	*0.07*
OPEC non-conventional	**0.10**	*0.00*	**0.10**	*0.00*	0.10	0.10	0.10	0.10	**0.10**	*0.00*
Total	**5.39**	***0.11***	**5.44**	***0.05***	**5.49**	**5.54**	**5.50**	**5.50**	**5.51**	***0.07***

Note: 2023 and 2024 = Forecast.
Source: OPEC.

OPEC crude oil production

According to secondary sources, total **OPEC-13 crude oil production** averaged 27.45 mb/d in August 2023, higher by 113 tb/d m-o-m. Crude oil output increased mainly in IR Iran, Nigeria and Iraq, while production in Saudi Arabia, Angola and Venezuela decreased.

Table 5 - 7: OPEC crude oil production based on *secondary sources*, tb/d

Secondary sources	2021	2022	4Q22	1Q23	2Q23	Jun 23	Jul 23	Aug 23	*Change Aug/Jul*
Algeria	913	1,017	1,030	1,013	979	953	959	933	*-26*
Angola	1,123	1,140	1,084	1,062	1,106	1,114	1,175	1,115	*-60*
Congo	263	261	251	269	264	261	270	255	*-15*
Equatorial Guinea	98	84	63	53	62	66	61	67	*7*
Gabon	182	197	199	194	206	203	204	215	*11*
IR Iran	2,392	2,554	2,568	2,572	2,697	2,765	2,857	3,000	*143*
Iraq	4,046	4,439	4,505	4,393	4,147	4,183	4,239	4,277	*38*
Kuwait	2,419	2,704	2,712	2,684	2,585	2,550	2,552	2,554	*2*
Libya	1,143	981	1,153	1,157	1,164	1,162	1,126	1,154	*28*
Nigeria	1,372	1,205	1,172	1,347	1,235	1,320	1,171	1,269	*98*
Saudi Arabia	9,114	10,531	10,602	10,358	10,150	9,988	9,055	8,967	*-88*
UAE	2,727	3,066	3,094	3,045	2,941	2,895	2,896	2,913	*17*
Venezuela	560	681	670	703	741	739	772	730	*-42*
Total OPEC	**26,352**	**28,861**	**29,102**	**28,851**	**28,276**	**28,200**	**27,336**	**27,449**	***113***

Notes: Totals may not add up due to independent rounding, given available secondary sources to date.
Source: OPEC.

Table 5 - 8: OPEC crude oil production based on *direct communication*, tb/d

Direct communication	2021	2022	4Q22	1Q23	2Q23	Jun 23	Jul 23	Aug 23	*Change Aug/Jul*
Algeria	911	1,020	1,030	1,011	971	953	955	939	*-16*
Angola	1,124	1,137	1,071	1,046	1,098	1,119	1,149	1,129	*-20*
Congo	267	262	261	278	280	277	282	272	*-9*
Equatorial Guinea	93	81	56	51	59	67	62	56	*-7*
Gabon	181	191	183	201	203	193	193	..	*..*
IR Iran	..	..	..	..	..	..	..	..	*..*
Iraq	3,971	4,453	4,505	4,288	3,959	3,985	4,094	4,073	*-21*
Kuwait	2,415	2,707	2,721	2,676	2,590	2,548	2,548	2,548	*0*
Libya	1,207	..	..	1,195	1,181	1,186	1,173	1,192	*18*
Nigeria	1,323	1,138	1,137	1,277	1,144	1,249	1,081	1,181	*100*
Saudi Arabia	9,125	10,591	10,622	10,456	10,124	9,956	9,013	8,918	*-95*
UAE	2,718	3,064	3,093	3,041	2,941	2,893	2,894	2,896	*2*
Venezuela	636	716	693	731	808	796	810	820	*10*
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	***..***

Notes: .. Not available. Totals may not add up due to independent rounding.
Source: OPEC.

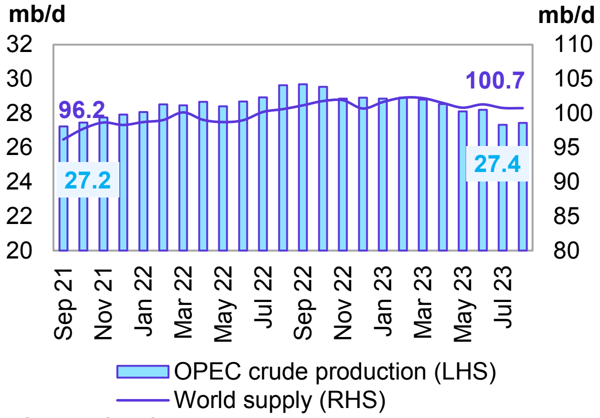
World oil supply

Preliminary data indicates that **global liquids production in August** remained broadly unchanged averaged 100.7 mb/d compared with the previous month.

Non-OPEC liquids production (including OPEC NGLs) is estimated to have decreased by 0.1 mb/d m-o-m in August 2023 to average 73.3 mb/d. This was higher by 2.3 mb/d y-o-y. Preliminary estimated production rises in August were mainly driven by Other Eurasia and China, and were more than offset by drops in Russia.

The **share of OPEC crude oil in total global production** in August, increased by 0.1 pp to stand at 27.2% compared with the previous month. Estimates are based on preliminary data for non-OPEC supply, OPEC NGLs and non-conventional oil, while assessments for OPEC crude production are based on secondary sources.

Graph 5 - 30: OPEC crude production and world oil supply development



Source: OPEC.

Product Markets and Refinery Operations

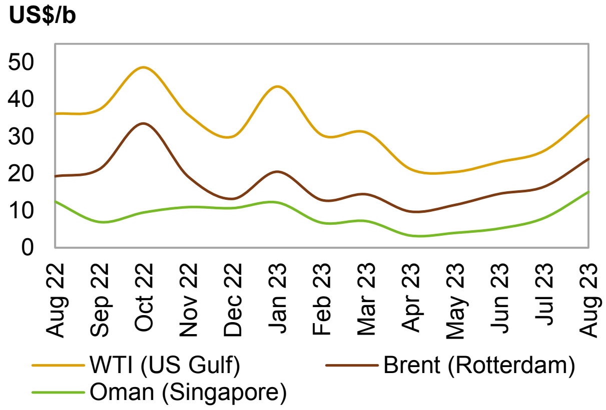
In August, refinery margins soared, mainly driven by outstanding strength at the middle section of the barrel that pushed margins to their largest monthly gains since January 2023 in some regions. In the USGC, margins trended upwards for the third consecutive month despite considerably smaller gains associated with gasoline markets as robust middle distillates performance drove margins to new highs. In Rotterdam, strong diesel exports to the US, amid healthy jet/kero requirements, led to lower availability for both products in the region. Meanwhile, in Singapore, margins received support from a tighter product balance y-o-y as delays in product export quotas limited product supplies from China to Singapore.

Global refinery intake increased to show a 1.1 mb/d gain in August and averaged 82.9 mb/d compared to 81.8 mb/d in the previous month. Y-o-y, intakes were 3.9 mb/d higher. In the coming months, refinery intakes are expected to come under pressure due to rising offline capacities amid the start of the heavy maintenance season.

Refinery margins

USGC refining margins against WTI rose for the third consecutive month, with gains seen all across the barrel with the exception of naphtha. Most of this improvement was attributed to healthy transport fuel performance, with middle distillates outperforming all other products by showing a notable jump in their respective crack spreads. This outcome was a result of both demand and supply-side dynamics. For most of the month, a seasonal boost in transport fuels led to massive gains. However, some support also stemmed from limited product outputs due to somewhat suppressed refinery product output levels linked to unplanned refinery shutdowns in the US. A fire incident at Marathon's 590 tb/d refinery in Garyville, Louisiana, likely contributed to the limited upside for US refinery runs in August.

Graph 6 - 1: Refining margins



Sources: Argus and OPEC.

Consequently, the expected product stock builds typically seen at this time of the year, particularly for middle distillates, did not materialize, and product availability remained somewhat constrained. Moreover, the shutdown of several major reformers and FCC units continued to suppress production levels for high-value blending components over the last several weeks and kept octane and, consequently, gasoline prices elevated. In terms of operations, US refinery intake continued to increase slightly and gained 70 tb/d m-o-m to an average of 17.16 mb/d in August. USGC margins against WTI averaged $35.66/b, up by $9.53 m-o-m, but this was down 45¢ y-o-y.

Refinery margins in Rotterdam against Brent increased for the fourth consecutive month, on a 10-month high, with substantial strength derived from the middle section of the barrel. However, gains showed a better gain distribution across the barrel compared to the USGC. An Antwerp refinery fire, as well as FCC unit outages at the start of the month, occurred at a time when gasoline and diesel balances appeared to undergo a contraction, which likely contributed to driving crack spreads higher. Middle distillates, especially jet/kerosene, represented the main margin contributor in NWE in line with considerable inventory declines at the Amsterdam-Rotterdam-Antwerp trading hub in July in response to supportive air travel activities, regional demand and exports. European aviation fuel consumption surged in line with summer air travel demand, approaching pre-pandemic levels. EUROCONTROL data shows flight traffic reached 93% of pre-pandemic levels in the previous month, a rise from 87% a year ago, according to secondary sources. Healthy product export volumes to the US provided further support despite weaker exports to West Africa as fuel demand in Nigeria declined following the fuel subsidy removal. Refinery throughput in Europe continued to rise in August. According to preliminary data, it was 210 tb/d higher, at an average of 9.73 mb/d. Refinery margins against Brent in Europe averaged $23.91/b in August, $7.47 higher compared with a month earlier but $4.64 higher y-o-y.

Singapore's refining margins against Oman continued to trend upward and reached the highest value recorded since June 2022. Similar to what was observed in the Atlantic Basin, middle distillates crack spreads showed the largest monthly gain across the barrel in Singapore, although significant gains were registered all across the barrel. Strong product export margins for deliveries to the Atlantic Basin, as gasoline and middle distillate inventories in the OECD Europe and Americas remained below the five-year average, led to strong arbitrage openings and solid economic incentives for East-to-West product flows. Furthermore, the delay of the third batch of product export quotas raised uncertainty over product supplies from China, prompting a bullish market sentiment for most of the month until the quotas were finally awarded during the last week of August. Throughout the reporting month, naphtha markets showed a solid gain for the first time following five consecutive months of declines.

In August, refinery intakes for Japan, China, India, Singapore and South Korea combined had an increase of 120 tb/d relative to the previous month, averaging 27.78 mb/d according to preliminary data. Refinery margins against Oman in Asia gained $7.01 m-o-m to average $15.03/b, which was $2.58 higher y-o-y.

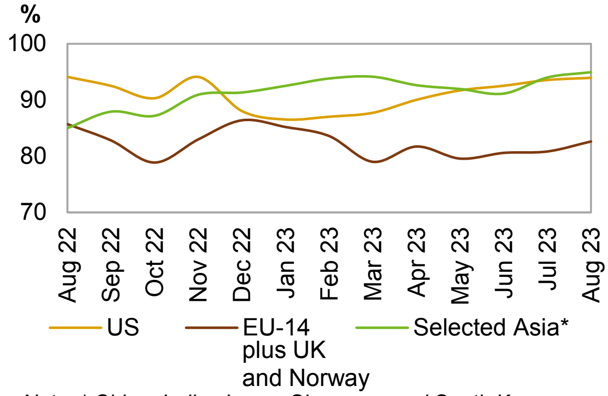
Refinery operations

US refinery utilization rates increased in August to an average of 93.93%, which corresponds to a throughput of 17.16 mb/d. This represented a rise of 0.4 pp and 70 tb/d compared with June. Y-o-y, the August refinery utilization rate was down by 0.2 pp, with throughput showing a 254 tb/d rise.

European refinery utilization averaged 82.61% in August, corresponding to a throughput of 9.73 mb/d. This is a m-o-m rise of 1.8 pp or 210 tb/d. On a y-o-y basis, the utilization rate was down by 3.1 pp, while throughput was lower by 362 tb/d.

In **Selected Asia** – comprising Japan, China, India, Singapore and South Korea – refinery utilization rates increased to an average of 94.93% in August, corresponding to a throughput of 27.78 mb/d. Compared with the previous month, utilization rates were up by 0.9 pp, and throughput was higher by 270 tb/d. However, y-o-y utilization rates were higher by 10.0 pp, and throughput was up by 3.3 mb/d.

Graph 6 - 2: Refinery utilization rates



*Note: * China, India, Japan, Singapore and South Korea.*
Sources: Argus, EIA, Euroilstock, PAJ and OPEC.

Table 6 - 1: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				Refinery utilization, %			
	Jun 23	Jul 23	Aug 23	Change Aug/Jul	Jun 23	Jul 23	Aug 23	Change Aug/Jul
US	**16.91**	**17.09**	**17.16**	**0.07**	**92.52**	**93.55**	**93.93**	**0.4 pp**
Euro-14, plus UK and Norway	**9.49**	**9.52**	**9.73**	**0.21**	**80.58**	**80.83**	**82.61**	**1.8 pp**
France	0.99	0.97	1.00	0.02	85.84	84.63	86.49	1.9 pp
Germany	1.68	1.71	1.75	0.04	81.70	83.45	85.29	1.8 pp
Italy	1.21	1.20	1.24	0.04	63.74	63.04	65.05	2.0 pp
UK	0.95	0.98	1.00	0.02	80.56	83.27	85.14	1.9 pp
Selected Asia*	**26.66**	**27.50**	**27.78**	**0.27**	**91.12**	**93.99**	**94.93**	**0.9 pp**

*Note: * Includes Japan, China, India, Singapore and South Korea.*
Sources: Argus Media, EIA, Euroilstock, NBS, PAJ and OPEC.

Table 6 - 2: Refinery crude throughput, mb/d

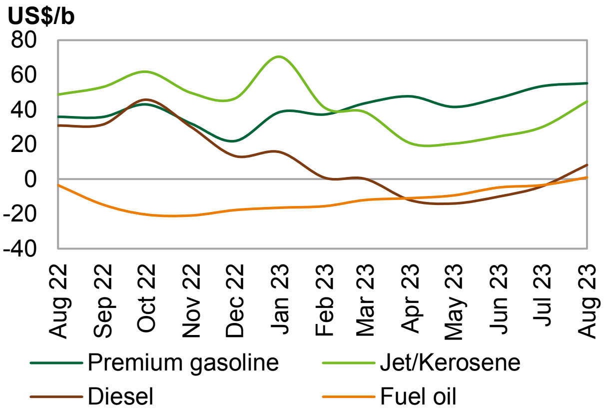
Refinery crude throughput	2020	2021	2022	3Q22	4Q22	1Q23	2Q23	3Q23
OECD Americas	**16.59**	**17.79**	**18.66**	**19.00**	**18.53**	**18.04**	**18.88**	**19.10**
of which US	*14.72*	*15.66*	*16.46*	*16.82*	*16.35*	*15.78*	*16.71*	*16.95*
OECD Europe	**10.65**	**10.92**	**11.43**	**11.79**	**11.38**	**11.28**	**11.30**	**11.25**
of which:								
France	*0.67*	*0.69*	*0.84*	*0.96*	*0.78*	*0.83*	*0.87*	*0.97*
Germany	*1.72*	*1.72*	*1.83*	*1.83*	*1.87*	*1.64*	*1.59*	*1.75*
Italy	*1.11*	*1.23*	*1.32*	*1.41*	*1.29*	*1.28*	*1.27*	*1.23*
UK	*0.92*	*0.92*	*1.04*	*1.02*	*1.03*	*1.03*	*1.01*	*0.98*
OECD Asia Pacific	**5.87**	**5.77**	**6.08**	**6.21**	**6.01**	**6.13**	**5.70**	**6.04**
of which Japan	*2.48*	*2.49*	*2.71*	*2.73*	*2.73*	*2.77*	*2.38*	*2.89*
Total OECD	**33.12**	**34.47**	**36.17**	**36.99**	**35.92**	**35.45**	**35.87**	**36.39**
Latin America	**3.20**	**3.50**	**3.36**	**3.38**	**3.32**	**3.41**	**3.69**	**3.62**
Middle East	**6.10**	**6.80**	**7.28**	**7.34**	**7.40**	**7.31**	**7.35**	**7.65**
Africa	**1.79**	**1.77**	**1.76**	**1.76**	**1.73**	**1.72**	**1.87**	**1.83**
India	**4.42**	**4.73**	**5.00**	**4.69**	**4.89**	**5.35**	**5.34**	**5.44**
China	**13.48**	**14.07**	**13.49**	**13.00**	**14.14**	**14.57**	**14.78**	**14.90**
Other Asia	**4.72**	**4.72**	**4.89**	**4.87**	**4.77**	**4.86**	**4.87**	**4.76**
Russia	**5.39**	**5.61**	**5.46**	**5.50**	**5.59**	**5.67**	**5.40**	**5.58**
Other Eurasia	**1.10**	**1.23**	**1.15**	**1.13**	**1.15**	**1.23**	**1.26**	**1.29**
Other Europe	**0.43**	**0.41**	**0.48**	**0.54**	**0.49**	**0.44**	**0.49**	**0.50**
Total Non-OECD	**40.63**	**42.85**	**42.87**	**42.21**	**43.48**	**44.56**	**45.06**	**45.57**
Total world	**73.75**	**77.32**	**79.04**	**79.20**	**79.40**	**80.01**	**80.93**	**81.96**

Note: Totals may not add up due to independent rounding.
Sources: AFREC, APEC, EIA, IEA, Euroilstock, PAJ, Ministry data, including Ministry of Energy of the Russian Federation, Ministry of Petroleum and Natural Gas of India, OPEC and JODI.

Product markets

US market

Graph 6 - 3: US Gulf crack spread vs. WTI



Sources: Argus and OPEC.

The **USGC gasoline crack spread** demonstrated a positive performance, although the monthly increment was significantly more limited than the previous month. Seasonal support from firm demand continues to sustain gasoline markets in the US, although gasoline balances experienced a slowdown in demand during the last week of the month that could potentially signal a softening of seasonal support as the summer season approaches its end. USGC wholesale gasoline 93 prices rose by $7.24/b m-o-m to an average of $136.53/b in August. In the coming month, gasoline prices could find some downward relief as the blending mandates to switch for winter grade gasoline allow a larger component of the lower priced naphtha-derived components in the final gasoline pool. On the other hand, total US gasoline balances in the US remain contracted as inventory levels approach the record lows seen at the same time last year and remain positioned well below the five-year average.

The USGC gasoline crack spread gained $1.68 m-o-m to average $55.12/b in August. This was $19.28 higher y-o-y.

The USGC **jet/kerosene** crack spread jumped to post a sizeable improvement, showing the largest monthly gain across the barrel in the USGC. Despite firm, healthy support from the seasonal pickup in aviation fuel requirements in the Atlantic Basin, a large portion of the jump in crack spreads could be attributed to lower supply levels as refinery shutdowns over the month limited the fuels' availability. Wholesale prices increased by $20.24/b over the month to an average of $126.03/b. The US jet/kerosene crack spread against WTI averaged $44.62/b, up by $14.68 m-o-m, albeit down by $4.02 y-o-y.

The USGC **gasoil** crack spread continued to trend upward and entered positive territory in August following four consecutive months of negative figures. This improvement pointed to solid recovery from the collapse registered in 1H23 induced by previous industrial recession fears in the US and the subsequent forward-looking adverse effect on US gasoil markets. Although the economic outlook has not improved that much since then, the currently low inventories triggered some bullish market sentiment. The gasoil stock builds that the market expected this time of the year failed to materialize, while the somewhat suppressed output levels due to rising offline capacities further prevented any significant stock builds, adding to the support in gasoil pricing and crack spreads. Going forward, the approaching end of the summer season is raising concerns over gasoil availability, as refinery runs are expected to remain suppressed in the coming months due to heavy refinery turnarounds. This points to an already unusually low availability going into the winter season amid expected seasonal heating oil demand. This, in turn, indicates a solid and strong upward potential for US gasoil crack spreads in the near term. Gasoil prices averaged $89.51/b in August, up $17.83 relative to July. The US gasoil crack spread against WTI averaged $8.10/b, up by $12.27 m-o-m but down by $22.67 y-o-y.

The USGC **fuel oil** crack spread against WTI broke into positive territory with a robust performance following 15 consecutive months of negative margins. There was a continued contraction in the product's domestic balance over the month due to supportive FCC margins, as gasoline market improvements provided better economic incentives for fuel oil to gasoline conversion. Concerns over lower heavy crude production levels contributed to worries over fuel oil output levels and likely exerted upward pressure on crack spreads. In August, the US fuel oil crack spread against WTI averaged at a premium of 96¢/b, higher by $4.40/b m-o-m, and by $4.41 y-o-y.

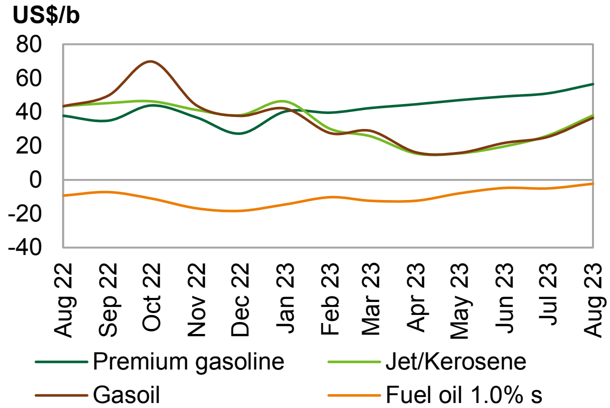
European market

Gasoline crack spreads in Rotterdam increased, benefitting from exports of gasoline to the US, although gasoline exports to West Africa were reported to have declined by around 28% following the fuel subsidy removal in Nigeria. Although gasoline refinery output levels were on the rise and were likely higher compared to that seen in the US – based on the preliminary refinery throughput data – gasoline balances remained under pressure, partly due to limited imports, while exports remained somewhat supportive. Going forward, gasoline crack spreads are set to come under pressure with a potential rise in Asian exports and amid slower demand as the summer season starts to end. However, this downside risk will be challenged by the impending refinery maintenance season and the subsequent decline in gasoline production levels, which could partially offset some of the aforementioned weaknesses. The gasoline crack spread against Brent averaged $56.46/b in August, which was $5.43/b higher m-o-m and higher by $18.63 y-o-y.

In August, **jet/kerosene** crack spreads increased considerably in line with considerable inventory declines at the Amsterdam-Rotterdam-Antwerp trading hub. This, in turn, was in response to supportive air travel activities, regional demand and exports. European aviation fuel consumption surged in line with summer air travel demand, approaching pre-pandemic levels. EUROCONTROL data shows that flight traffic reached 93% of pre-pandemic levels in the previous month, a rise from 87% a year ago, according to secondary sources. In the coming months, jet/kerosene markets are expected to remain strong but slowly start to subside with the end of the peak travelling season. The Rotterdam jet/kerosene crack spread against Brent averaged $37.98/b, up by $11.80 m-o-m but down by $5.44 y-o-y.

Gasoil 10 ppm crack spreads moved nearly at parity compared to jet/kerosene, with the robust outcome attributed to both a tightening balance and strong exports and inventory drawdowns. Despite a significant rise in refinery throughputs and product output in the region, inventory levels at the Amsterdam-Rotterdam-Antwerp storage hub suffered significant declines in July. This provided further backing for gasoil markets in the region. The gasoil crack spread against Brent averaged $36.54/b, up by $11.24 m-o-m but down $6.84 y-o-y.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus and OPEC.

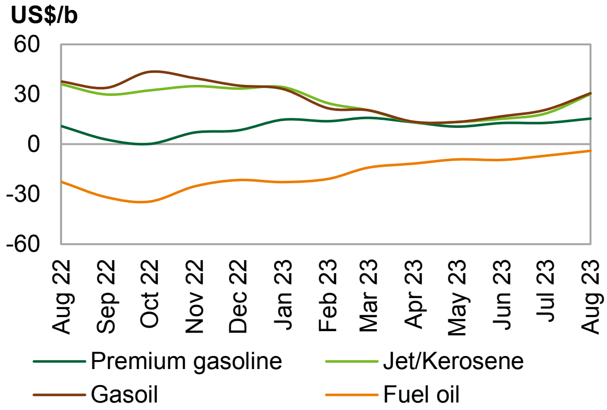
At the bottom of the barrel, **fuel oil 1.0%** crack spreads recovered from the mild loss witnessed in the previous month, as improvement in demand amid the volumes pull for the residual fuel for blending and power generation in the Middle East lent support and contributed to this positive performance.

In terms of prices, fuel oil 1.0% increased in value m-o-m to an average of $83.81/b, which was $8.79 higher relative to the previous month. In NWE, 1% fuel oil cracks against Brent averaged minus $2.33/b in August, having gained $2.74 m-o-m and $6.98 y-o-y.

Asian market

The **Asian gasoline 92 crack** saw a considerable improvement as supportive arbitrage economics continued to provide an open window for deliveries to the US and Europe. The delay of Chinese product export quotas caused concerns over supplies from China, which may have exerted upward pressure on regional gasoline markets and crack spreads. The Singapore gasoline crack spread against Dubai in August averaged $15.38/b. This was up $2.58 m-o-m and $4.46 higher y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus and OPEC.

Asian naphtha crack spreads recovered and added some ground m-o-m, although it remains deep in negative territory. This improvement represented the first month of gains following five consecutive months of declines and was attributed to lower naphtha supplies from Russia due to increased blending demand, as well as price cap-related challenges, despite modest steam cracking demand in Asia.

The Singapore naphtha crack spread against Oman averaged minus $15.76/b, higher by $2.14 m-o-m and by $7.93 y-o-y.

In the middle of the barrel, **jet/kerosene** crack spreads increased. This was backed largely by demand improvements from the region’s aviation sector. Expectations of further improvement in international air travel activity in the coming months and stronger export requirements to OECD Europe and Americas will most likely keep regional jet/kerosene markets well supported in the near term. The Singapore jet/kerosene crack spread against Oman averaged $30.13/b, up by $11.61 m-o-m but down by $5.93 y-o-y.

The Singapore **gasoil** crack spread extended its upward trend for the second consecutive month and exhibited robust performance, with gasoil representing the largest source of strength in the Asian product market, followed by jet/kerosene. Strong exports to OECD Europe and Americas provided support, while consumption levels within the region remained somewhat capped due to soft industrial and manufacturing gasoil demand. The Singapore gasoil crack spread against Oman averaged $30.69/b, up by $10.00 m-o-m but down by $7.07 y-o-y.

The Singapore **fuel oil 3.5%** crack spread continued to exhibit considerable improvement but remained in negative territory. Lower heavier crude availability and strong residual fuel buying interest for feedstock blending amid supportive demand for residual conversion most likely boosted fuel oil processing rates and led to stronger markets for the same product. Going forward, high sulphur fuel oil requirements for power generation – particularly in the Middle East – are expected to subside as the summer season begins to end. This is likely to free up higher volumes for residual conversion that could help replenish transport fuel inventories, particularly in the Atlantic Basin. Singapore's high sulphur fuel oil crack spreads against Oman averaged minus $3.98/b, which was up by $2.96 m-o-m and by $18.57 y-o-y.

Table 6 - 3: Short-term prospects for product markets and refinery operations

Event	Time frame	Observations	Asia	Europe	US
End of Summer and peak holiday season	Sep 23-Oct 23	US gasoline demand is expected to slowly subside going forward. However, this weakness could be partly offset by a reduction in supplies in the immediate near term.	↓ Pressure on gasoline markets	↓ Pressure on gasoline markets	↓ Pressure on gasoline markets
Heavy refinery maintenance season	Sep 23–Oct 23	Lower product availability will likely lead to upward pressure on product prices and crack spreads.	↑ Support product markets	↑ Support product markets	↑ Support product markets
Hurricane season	Sep 23–Oct 23	The risk of product supply disruptions could exacerbate the impact of potential summer improvements in demand by exerting pressure on product availability and pushing up fuel values, particularly in the US.	↑ Upward pressure on product crack spreads	↑ Upward pressure on product crack spreads	↑ Upward pressure on product crack spreads

Source: OPEC.

Table 6 - 4: Refined product prices, US$/b

		Jul 23	Aug 23	*Change* Aug/Jul	*Annual avg.* 2022	*Year-to-date* 2023
US Gulf (Cargoes FOB)						
Naphtha*		66.45	68.86	2.41	89.24	73.49
Premium gasoline	(unleaded 93)	129.29	136.53	7.24	134.59	121.35
Regular gasoline	(unleaded 87)	112.75	121.51	8.76	123.34	108.37
Jet/Kerosene		105.79	126.03	20.24	140.17	112.15
Gasoil	(0.2% S)	71.68	89.51	17.83	122.10	73.87
Fuel oil	(3.0% S)	72.52	79.81	7.29	76.84	64.54
Rotterdam (Barges FoB)						
Naphtha		63.22	70.90	7.68	85.08	70.58
Premium gasoline	(unleaded 98)	131.12	142.60	11.48	136.26	127.00
Jet/Kerosene		106.27	124.12	17.85	139.86	107.80
Gasoil/Diesel	(10 ppm)	105.39	122.68	17.29	142.32	107.42
Fuel oil	(1.0% S)	75.02	83.81	8.79	88.77	71.98
Fuel oil	(3.5% S)	75.34	86.18	10.84	78.86	69.73
Mediterranean (Cargoes FOB)						
Naphtha		61.32	68.74	7.42	82.26	68.13
Premium gasoline**		106.13	115.46	9.33	120.04	102.63
Jet/Kerosene		102.93	120.75	17.82	135.36	103.87
Diesel		104.35	120.94	16.59	135.91	105.93
Fuel oil	(1.0% S)	78.65	87.46	8.81	94.51	76.50
Fuel oil	(3.5% S)	73.28	80.86	7.58	72.30	64.39
Singapore (Cargoes FOB)						
Naphtha		62.43	70.70	8.27	83.91	68.33
Premium gasoline	(unleaded 95)	98.60	107.23	8.63	115.05	98.17
Regular gasoline	(unleaded 92)	93.13	101.84	8.71	111.02	93.78
Jet/Kerosene		98.85	116.59	17.74	126.76	101.45
Gasoil/Diesel	(50 ppm)	101.39	118.88	17.49	134.94	103.05
Fuel oil	(180 cst)	99.55	116.01	16.46	129.75	99.20
Fuel oil	(380 cst 3.5% S)	73.39	82.48	9.09	76.63	67.80

*Note: * Barges. ** Cost, insurance and freight (CIF).*
Sources: Argus and OPEC.

Tanker Market

The tanker market showed a mixed performance in August. Dirty tanker freight rates continued to decline across all monitored routes as long tonnage lists and reduced activities weighed on rates.

In the very large crude carriers (VLCC) market, spot freight rates on the Middle East-to-East route declined 12% m-o-m and were down 16% on the Middle East-to-West route. In the Suezmax market, rates on the US to Europe route fell 20%, despite the region seeing slightly more activity. Aframax rates on the Mediterranean-to-Northwest Europe route declined by 20%. Limited activities also prompted increased competition between the various vessel classes, further weighing on rates.

In contrast, clean spot freight rates saw another month of improvements across the board in monthly terms on all monitored routes. East of Suez spot rates rose 13%, while West of Suez rates were up 15% on average. Rates were supported by increased activities toward the end of the month.

Spot fixtures

Global spot fixtures recovered from the previous month's decline, averaging 14.6 mb/d in August, a gain of 2.0 mb/d or 16% m-o-m. However, compared with the same month last year, spot fixtures were down 0.7 mb/d or about 5%.

OPEC spot fixtures partly recovered the previous month's decline, up 0.9 mb/d, or about 10%, to average 9.7 mb/d in August. Compared with the same month in 2022, fixtures were 0.7 mb/d, or 7% lower.

Middle East-to-East fixtures were broadly unchanged, edging roughly 1% higher, to average 4.9 mb/d. Compared with the same month in 2022, eastward flows from the Middle East were 1.1 mb/d, or 18% lower.

Spot fixtures on the **Middle East-to-West** route rose m-o-m by 0.5 mb/d, or about 39%, to an average of 1.7 mb/d. Y-o-y, fixtures were up by just over 1%.

Fixtures on routes **outside the Middle East** also picked up after last month's losses, to average 3.1 mb/d. Fixtures were up 0.4 mb/d, or about 14%, m-o-m, and some 0.3 mb/d, or 11% higher, y-o-y.

Table 7 - 1: Spot fixtures, mb/d

Spot fixtures	Jun 23	Jul 23	Aug 23	*Change* Aug 23/Jul 23
All areas	14.10	12.56	14.57	2.02
OPEC	10.20	8.76	9.66	0.90
Middle East/East	5.28	4.83	4.88	0.05
Middle East/West	1.23	1.23	1.70	0.48
Outside Middle East	3.69	2.71	3.08	0.37

Sources: Oil Movements and OPEC.

Sailings and arrivals

OPEC sailings reversed the previous month's losses to average 22.8 mb/d. This represents a m-o-m increase of 0.6 mb/d or over 2%. However, compared to the same month last year, OPEC sailings were down by 2.2 mb/d or almost 9%. **Middle East sailings** averaged 17.6 mb/d in August, representing a gain of 0.8 mb/d, or about 5%. Y-o-y, sailings from the region declined by almost 1 mb/d, or around 5%.

Crude arrivals in August rose in all regions except West Asia. **North American arrivals** saw a gain of 0.4 mb/d, or about 4%, to average 9.7 mb/d. Y-o-y, arrivals in North America were 0.4 mb/d, or 4% higher. **Arrivals in Europe** were marginally higher, averaging 12.9 mb/d. Compared to the same month last year, arrivals to Europe were 0.3 mb/d, or over 2% higher.

Far East arrivals averaged 17.3 mb/d, representing a gain of 0.6 mb/d, or about 3%, compared with the previous month. This was around 2.1 mb/d, or close to 14%, higher y-o-y. In contrast, **arrivals** in **West Asia** declined 1.0 mb/d, or around 11%, to an average of 8.2 mb/d. Y-o-y, arrivals in the region were 0.1 mb/d, or about 2% lower.

Table 7 - 2: Tanker sailings and arrivals, mb/d

Sailings	Jun 23	Jul 23	Aug 23	*Change* Aug 23/Jul 23
OPEC	22.72	22.22	22.77	0.55
Middle East	17.17	16.79	17.60	0.81
Arrivals				
North America	9.31	9.27	9.65	0.38
Europe	12.57	12.89	12.91	0.02
Far East	17.08	16.76	17.33	0.57
West Asia	7.90	9.27	8.23	-1.04

Sources: Oil Movements and OPEC.

Dirty tanker freight rates

Very large crude carriers

VLCC spot rates fell on all monitored routes, down 9% m-o-m on average, as vessel availability weighed on rates. VLCC rates were 27% lower compared to the same month last year.

On the **Middle East-to-East** route, rates declined m-o-m by 12% to average WS46 points. This represented a y-o-y decrease of 32%. Rates on the **Middle East-to-West** route declined 16% m-o-m to average WS31 points. However, compared to the same month last year, rates on the route were up 24%.

West Africa-to-East spot rates declined just 2% m-o-m to average WS52 points in August. Compared with the same month of 2022, rates were 26% higher.

Table 7 - 3: Dirty VLCC spot tanker freight rates, Worldscale (WS)

VLCC	Size *1,000 DWT*	Jun 23	Jul 23	Aug 23	*Change* Aug 23/Jul 23
Middle East/East	230-280	61	52	46	-6
Middle East/West	270-285	41	37	31	-6
West Africa/East	260	60	53	52	-1

Sources: Argus and OPEC.

Suezmax

Suezmax rates fell a further 21% m-o-m in August amid limited activities and a build-up in tonnage lists. Compared with the same month of 2022, rates were down 50%.

Spot freight rates on the **West Africa-to-US Gulf Coast** (USGC) route declined by 21% m-o-m in August to average WS64 points, representing a y-o-y decline of 35%.

Rates on the **USGC-to-Europe** route declined 20% m-o-m to average WS59 points. Compared with the same month of 2022, they were 52% lower.

Table 7 - 4: Dirty Suezmax spot tanker freight rates, WS

Suezmax	Size *1,000 DWT*	Jun 23	Jul 23	Aug 23	*Change* Aug 23/Jul 23
West Africa/US Gulf Coast	130-135	106	81	64	-17
US Gulf Coast/ Europe	150	83	74	59	-15

Sources: Argus and OPEC.

Aframax

Aframax spot freight rates continued to retreat in August, with declines on all routes for the third month in a row. On average, Aframax rates fell 16% in August. Compared with the same month of 2022, rates were down by 54%.

Rates on the **Indonesia-to-East route** dropped just 6% m-o-m to an average WS118 in August. Compared with the same month last year, rates were 48% lower.

Spot rates on the **Caribbean-to-US East Coast** (USEC) **route** continued to decline from the very strong levels seen in May, down by 18% m-o-m to average WS109 points in August. Y-o-y rates were down by around 64%.

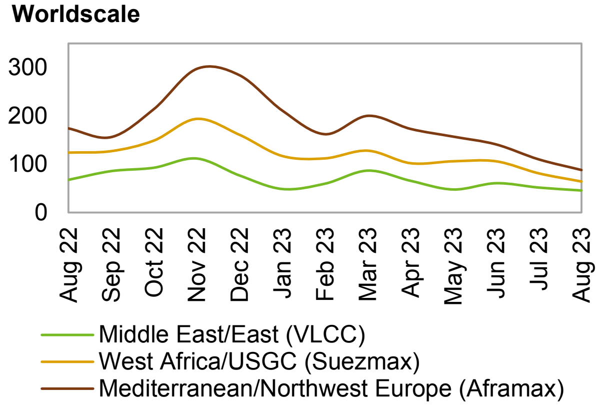
Table 7 - 5: Dirty Aframax spot tanker freight rates, WS

Aframax	Size 1,000 DWT	Jun 23	Jul 23	Aug 23	Change Aug 23/Jul 23
Indonesia/East	80-85	146	125	118	-7
Caribbean/US East Coast	80-85	169	133	109	-24
Mediterranean/Mediterranean	80-85	145	120	100	-20
Mediterranean/Northwest Europe	80-85	141	110	88	-22

Sources: Argus and OPEC.

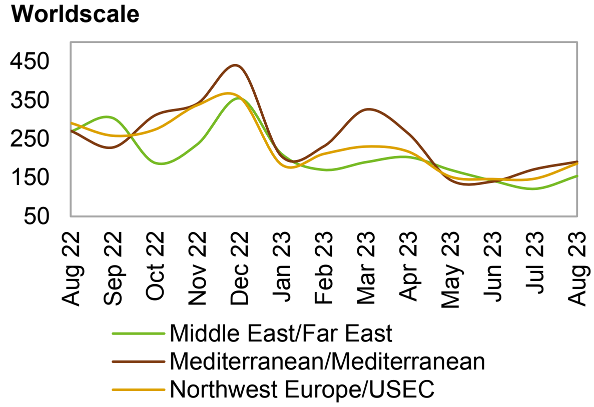
Cross-Med spot freight rates declined by 17% m-o-m to average W100 points. This represented a 50% decline y-o-y. On the **Mediterranean-to-Northwest Europe (NWE)** route, rates fell 20% m-o-m to average WS88 points. Compared with the same month of 2022, rates were down by around 49%.

Graph 7 - 1: Crude oil spot tanker freight rates, monthly average



Sources: Argus and OPEC.

Graph 7 - 2: Products spot tanker freight rates, monthly average



Sources: Argus and OPEC.

Clean tanker freight rates

Clean rates saw an improved performance on all monitored routes. On average, clean spot freight rates were 13% higher m-o-m East of Suez, while rates in the West of Suez market rose 15% over the same period. However, rates were still lower than the previous year's elevated levels, down by 38% overall.

Table 7 - 6: Clean spot tanker freight rates, WS

East of Suez	Size 1,000 DWT	Jun 23	Jul 23	Aug 23	Change Aug 23/Jul 23
Middle East/East	30-35	142	121	154	33
Singapore/East	30-35	181	171	177	6
West of Suez					
Northwest Europe/US East Coast	33-37	146	147	186	39
Mediterranean/Mediterranean	30-35	140	172	191	19
Mediterranean/Northwest Europe	30-35	150	182	201	19

Sources: Argus and OPEC.

Rates on the **Middle East-to-East** route gained 27% m-o-m to average WS154. Y-o-y rates were 43% lower. Clean spot freight rates on the **Singapore-to-East** route increased 4% m-o-m to average WS177. This was still 48% lower when compared with the same month of 2022.

Spot freight rates on the **NWE-to-USEC** route rose 27% m-o-m to average WS186 points in August but were 36% lower y-o-y. Rates for the **Cross-Med** route were up 11% m-o-m to average WS191 points, while rates on the **Med-to-NWE** route increased 10% m-o-m to average WS201 points. Compared with the same month of 2022, rates were lower by 30% and 29%, respectively.

Crude and Refined Products Trade

Preliminary data shows US crude imports in August averaged 6.9 mb/d, the highest since August 2019 amid increased flows from Latin America. US crude exports moved back above 4 mb/d, with higher flows to South Korea contributing.

China's crude imports have shown some volatility in recent months, although with an overall robust performance so far this year. Crude inflows fell to 10.3 mb/d in July, following two months above 12 mb/d, as refiners leaned on inventories. However, preliminary August data show China's crude imports rebounded again to average 12.4 mb/d, with summer gasoline demand, as well as positive export margins for diesel, providing support. China's product imports remained close to near-record levels in July, amid increased inflows of refinery feedstocks. Product exports jumped 16% in July, led by diesel, jet fuel and gasoline outflows.

India's July crude imports declined m-o-m for the fifth month in a row to average 4.6 mb/d. India's product exports remained flat for the third month in a row, averaging 1.3 mb/d.

Japan's crude imports edged up m-o-m in July to average 2.34 mb/d after witnessing a 12-month low in June. Japan's product flows experienced marginal adjustments.

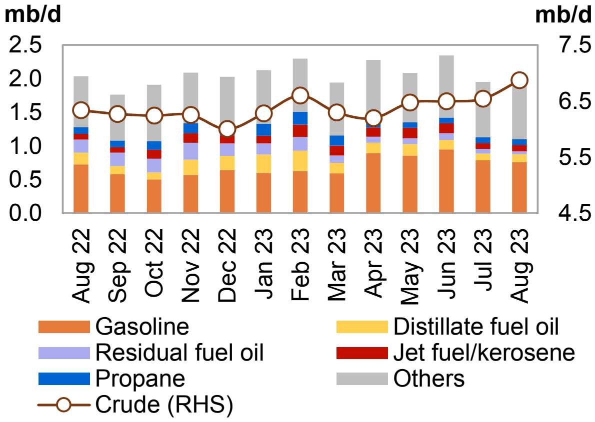
Preliminary estimates show OECD Europe crude imports strengthened further in August, amid higher flows from Brazil. Product imports were down slightly, as a sharp fall in diesel imports outpaced an uptick in jet and LPG.

US

Preliminary data shows **US crude imports** in August averaged 6.9 mb/d, the highest since August 2019. Kpler data showed gains supported by increased inflows from Latin America, as well as from Iraq. Crude imports rose 0.3 mb/d, or 5%, m-o-m. Compared with the same month last year, crude imports were 0.5 mb/d, or over 8% higher.

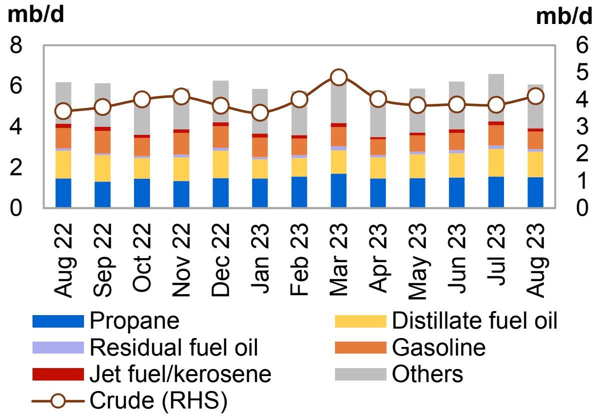
According to the latest monthly data from the US Energy Information Administration (EIA), Canada remained the **top supplier** of crude in June with a share of 58%. Mexico was second with 13% and Saudi Arabia was third with 6%.

Graph 8 - 1: US imports of crude and products



Sources: EIA and OPEC.

Graph 8 - 2: US exports of crude and products



Sources: EIA and OPEC.

US crude exports returned above 4 mb/d in August for the first time in three months, amid higher flows to South Korea. Crude outflows erased the previous month's decline, rising 0.3 mb/d, or over 8% m-o-m. Compared to the same month last year, exports were about 0.6 mb/d, or almost 16%, higher.

In terms of **destination**, the latest EIA monthly data shows Europe receiving a 45% share of US crude exports in June. South Korea took 9%, while Canada received 8%.

Based on preliminary weekly data, US **net crude imports** were broadly unchanged compared to the previous month, averaging 2.7 mb/d in August. This compares with a slightly higher level of 2.8 mb/d in the same month last year.

On the **products** side, **imports** remained below 2 mb/d in August, as declines in gasoline and fuel oil imports outweighed an uptick in distillate imports. Compared with the same month last year, product inflows decreased by 0.1 mb/d, or about 7%.

Product exports fell from record levels, averaging 6.1 mb/d in August, amid a drop in flows to China and South Korea. Compared with the previous month, exports declined by 0.5 mb/d, or around 8%. Y-o-y product outflows were down around 0.1 mb/d, or almost 2%.

As a result, preliminary data showed **US net product exports** averaging 4.2 mb/d in August, compared with 4.6 mb/d the month before and 4.1 mb/d in the same month last year.

Preliminary data indicates that US **net crude and product imports** averaged 1.4 mb/d in August. This compares with 1.9 mb/d the month before and about 1.4 mb/d in the same month last year.

Table 8 - 1: US crude and product net imports, mb/d

US	Jun 23	Jul 23	Aug 23	Change Aug 23/Jul 23
Crude oil	2.67	2.73	2.74	0.01
Total products	-3.87	-4.64	-4.17	0.46
Total crude and products	**-1.19**	**-1.90**	**-1.43**	**0.47**

Note: Totals may not add up due to independent rounding.

Sources: EIA and OPEC.

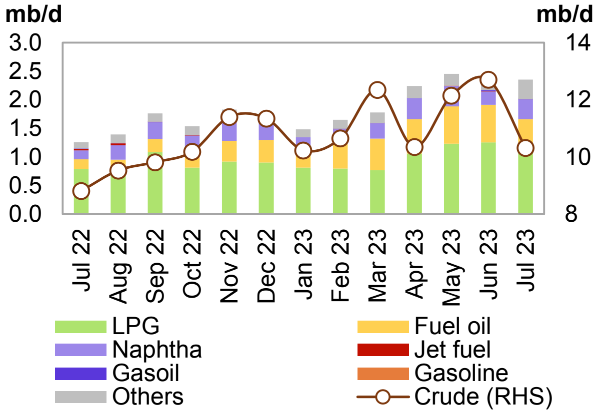
Looking ahead, US crude imports are likely to see a decline from the high levels witnessed in August, while US crude exports are likely to remain at healthy levels amid positive demand from Asia. US product exports are expected to see similar support.

China

China's crude imports have shown some volatility in recent months, although with an overall robust performance so far this year. Crude inflows fell to 10.3 mb/d in **July,** after two months above 12 mb/d, as refiners leaned on inventories. This represented a m-o-m decline of 2.4 mb/d, or almost 19%. Y-o-y, China's crude imports were 1.5 mb/d, or 17%, higher.

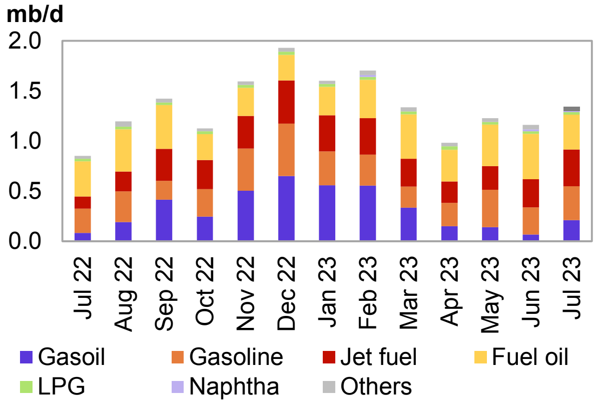
However, recently released data for **August** show China's crude imports rebounded again to average 12.4 mb/d, with summer gasoline demand, as well as positive export margins for diesel, providing support.

Graph 8 - 3: China's import of crude and total products



Sources: China OGP and OPEC.

Graph 8 - 4: China's export of total products



Sources: China OGP and OPEC.

In terms of **crude imports by source**, Russia retained the top spot in July with around 19%. Saudi Arabia was second with a share of 13%, while Iraq was third with 12%.

Product imports remained close to the record high seen in May, slipping a little over 2% to remain at 2.4 mb/d. Declines in fuel oil inflows were partly offset by gains in naphtha and other refinery feedstocks. Compared to the same period last year, imports were 1.1 mb/d, or around 87%, higher.

Table 8 - 2: China's crude and product net imports, mb/d

China	May 23	Jun 23	Jul 23	Change Jul 23/Jun 23
Crude oil	12.11	12.67	10.26	-2.41
Total products	1.23	1.25	1.01	-0.24
Total crude and products	**13.33**	**13.92**	**11.27**	**-2.65**

Note: Totals may not add up due to independent rounding.

Sources: China OGP and OPEC.

Product exports jumped 16%, or 0.2 mb/d, to average 1.3 mb/d, led by gains in diesel, jet fuel and gasoline outflows. Compared to the same period last year, product exports were almost 0.5 mb/d higher, or 58%.

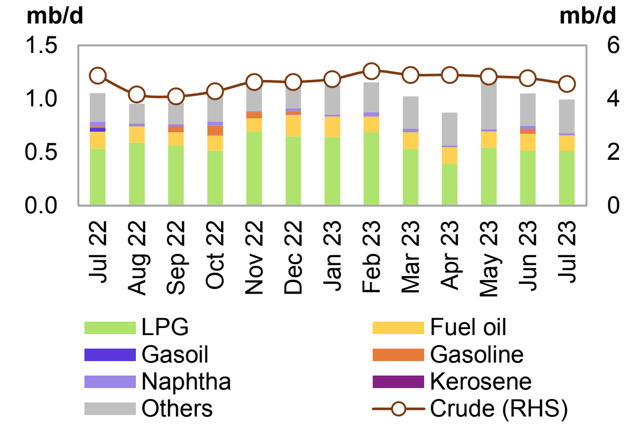
Looking ahead, China's crude imports are expected to remain supported by the new round of export quotas, amid uncertainties regarding the pace of China's oil demand recovery. The new quotas will increase product exports and provide export revenue at a time when the government is seeking to stimulate the economy.

India

India's crude imports declined m-o-m for the fifth month in a row to average 4.6 mb/d in July, as the country moved further into the lower demand monsoon season. Compared to the previous month, crude inflows were down 210 tb/d, or over 4%. Y-o-y, crude imports declined by 0.3 mb/d, or more than 6%.

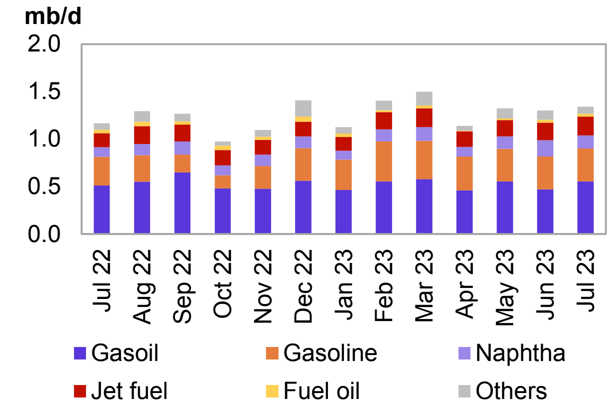
In terms of **crude imports by source**, Kpler data shows Russia was the top supplier of crude to India in July, with a share of 44%. Iraq was second with 20%, followed by Saudi Arabia with 11%.

Graph 8 - 5: India's imports of crude and products



Sources: PPAC and OPEC.

Graph 8 - 6: India's exports of products



Sources: PPAC and OPEC.

In terms of **products**, **imports** slipped below 1.0 mb/d, with the decline driven by reduced inflows of gasoline and naphtha. Compared with the previous month, India's product imports fell 6% and were down by roughly the same amount in July 2022.

Product exports remained broadly flat in July, averaging 1.3 mb/d for the third month in a row. Y-o-y, product exports were down by 172 tb/d, or almost 15%.

As a result, India remained a **net product exporter** in July at 346 tb/d, which compares to 251 tb/d the month before. In July 2022, India's net exports averaged 113 tb/d.

Table 8 - 3: India's crude and product net imports, mb/d

India	May 23	Jun 23	Jul 23	Change Jul 23/Jun 23
Crude oil	4.84	4.77	4.56	-0.21
Total products	-0.17	-0.25	-0.35	-0.10
Total crude and products	**4.67**	**4.52**	**4.22**	**-0.30**

Note: Totals may not add up due to independent rounding.

India data table does not include information for crude import and product export by Reliance Industries.

Sources: PPAC and OPEC.

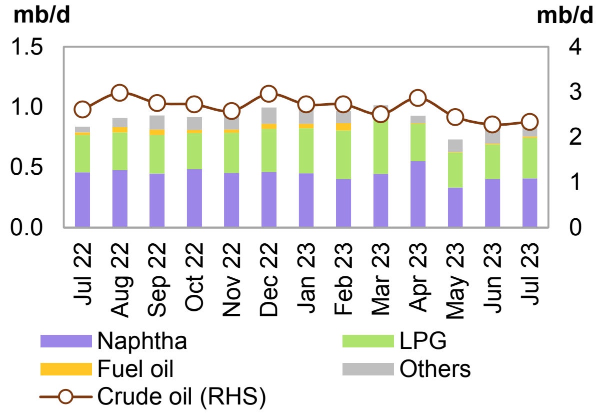
Looking ahead, India's crude imports are expected to be lower in August, with Russian crude inflows down by about 25% and total crude imports down by about 7%. Product exports are seen increasing, amid higher diesel outflows as the monsoon season curbs domestic demand.

Japan

Japan's crude imports edged up m-o-m in July to average 2.34 mb/d after seeing a 12-month low the previous month. Compared to the previous year, crude imports were 0.3 mb/d lower, or almost 11%.

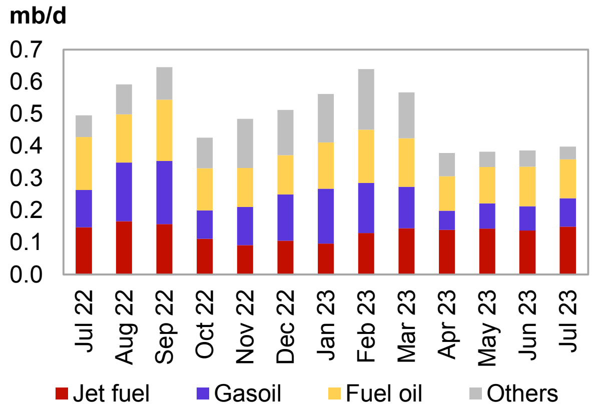
In terms of **crude imports by source**, the United Arab Emirates returned to the top spot in July with a share of over 41%. Saudi Arabia was second with 38%, followed by Kuwait with almost 11%.

Graph 8 - 7: Japan's imports of crude and products



Sources: METI and OPEC.

Graph 8 - 8: Japan's exports of products



Sources: METI and OPEC.

Product imports, including LPG, fell 4% m-o-m to average 0.86 mb/d. Gains in LPG were offset by declines in gasoline and gasoil, which saw record high levels in the previous month following a series of refinery outages. Compared to the same month last year, imports rose 22 tb/d, or about 3%.

Product exports, including LPG, rose 3% to average 0.4 mb/d in July. Gains in jet fuel and gasoil were offset by declines in kerosene and gasoline. Compared with the same month last year, outflows declined by 97 tb/d, or almost 20%.

Consequently, Japan's **net product imports**, including LPG, averaged 460 tb/d in July. This compares with 509 tb/d the month before and 341 tb/d in July 2022.

Table 8 - 4: Japan's crude and product net imports, mb/d

Japan	May 23	Jun 23	Jul 23	*Change* Jul 23/Jun 23
Crude oil	2.45	2.28	2.34	0.06
Total products	0.35	0.51	0.46	-0.05
Total crude and products	**2.79**	**2.79**	**2.80**	**0.01**

Note: Totals may not add up due to independent rounding.
Sources: METI and OPEC.

Looking ahead, Japan's crude imports are expected to continue to pick up in August, but remain below levels seen over most of last year. Product exports are seen declining on the back of a drop-off in fuel oil exports to China.

OECD Europe

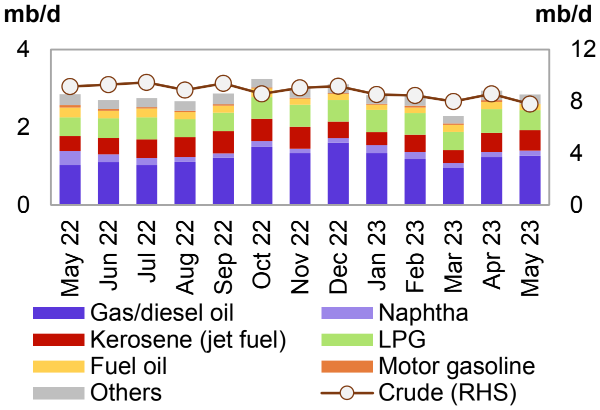
The latest regional data shows **OECD Europe imports** declined m-o-m to average 7.8 mb/d in **May**. Crude flows into the region dropped by almost 0.8 mb/d, or about 9% m-o-m. Crude imports were down 1.4 mb/d, or 15%, from the elevated levels seen in the same month last year.

In terms of **import sources** from outside the region, the US was the top supplier in May, with over 1.5 mb/d. Kazakhstan was second with 0.9 mb/d, followed by Libya with 0.8 mb/d.

Crude exports averaged 85 tb/d as local crude continued to be consumed in the region. This represented a marginal increase m-o-m. Y-o-y, crude exports out of the region were 38 tb/d lower. The US was the top destination for May crude exports outside the region, with about 20 tb/d, followed by Korea with around 16 tb/d.

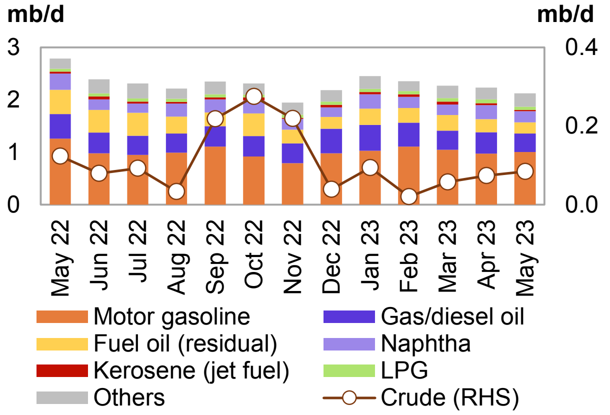
Net crude imports averaged 7.7 mb/d in May, compared with 8.5 mb/d the month before and almost 9.0 mb/d in May 2022.

Graph 8 - 9: OECD Europe imports of crude and products



Sources: IEA and OPEC.

Graph 8 - 10: OECD Europe exports of crude and products



Sources: IEA and OPEC.

In terms of **products**, **imports** declined 3% m-o-m, or 0.1 mb/d, to average 2.8 mb/d in May. LPG was the main contributor to the decline. Compared with May 2022, product inflows were broadly unchanged.

Product exports fell to 2.1 mb/d amid declines in diesel and naphtha flows. Compared to the previous month, product outflows were 0.1 mb/d higher, or about 5%, while y-o-y exports were lower by 0.7 mb/d, or 24%.

Net product imports averaged 0.7 mb/d in May, compared with net imports of 0.7 mb/d the month before and 57 tb/d in May 2022.

Combined, **net crude and product imports** averaged 8.4 mb/d in May. This compares with 9.2 mb/d the month before and 9.1 mb/d in May 2022.

Table 8 - 5: OECD Europe's crude and product net imports, mb/d

OECD Europe	Mar 23	Apr 23	May 23	Change May 23/Apr 23
Crude oil	7.92	8.49	7.69	-0.79
Total products	0.03	0.71	0.71	0.01
Total crude and products	**7.95**	**9.19**	**8.41**	**-0.79**

Note: Totals may not add up due to independent rounding.

Sources: IEA and OPEC.

Looking ahead, preliminary estimates show OECD Europe crude imports strengthened further in August, amid higher flows from Brazil. Product imports were down slightly, as a sharp fall in diesel imports outpaced an uptick in jet and LPG.

Eurasia

Total crude oil exports from Russia and Central Asia averaged 6.1 mb/d in July. This represents a decline of over 0.4 mb/d, or almost 7%, compared to the previous month. However, flows were still over 0.5 mb/d, or about 7% higher, compared with the same month last year.

Crude exports through the **Transneft system** fell in July, with losses on Western outlets overwhelming gains in the East. Outflows averaged almost 3.5 mb/d, representing a m-o-m decline of 408 tb/d, or over 10%. However, exports outperformed the same month last year, being higher by 549 tb/d, or 15%. Exports from the **Baltic Sea** led declines, falling by 0.3 mb/d, or almost 20%, to average 1.2 mb/d. Flows from Primorsk fell 241 tb/d, or over 27%, to average 0.6 mb/d. Exports from Ust-Luga declined 61 tb/d, or about 9%, to average 592 tb/d. Shipments from the **Black Sea** port of Novorossiysk fell 189 tb/d, or 27%, to average 505 tb/d.

Shipments via the **Druzhba** pipeline were marginally lower, averaging 299 tb/d in July. Compared to the same month last year, exports on the pipeline slipped 18 tb/d, or 2%. Exports to mainland China via the **ESPO pipeline** declined 51 tb/d, or about 9%, to average 620 tb/d in July. This was broadly in line with the levels seen in the same month last year. Flows to the Pacific port of **Kozmino** rose m-o-m by 32 tb/d, or about 4%, to average 864 tb/d. This was about 12% higher than the same month last year.

In the **Lukoil system**, exports via the Varandey offshore platform in the Barents Sea declined m-o-m by 27% to average 90 tb/d in June. There were no exports from the Kaliningrad terminal for the eighth month in a row.

On other routes, the combined **Russia's Far East** exports from the De Kastri and Aniva ports rose by about 10% to average 257 tb/d in July. This was 158 tb/d, or 48%, higher than the volumes shipped in the same month last year, during a period when De Kastri flows were exceptionally low.

Central Asian exports averaged 243 tb/d in July, an increase of 31 tb/d, or almost 15%, from the month before, albeit a decline of about 2% y-o-y.

Black Sea total exports from the **CPC terminal** dropped by about 2%, or 22 tb/d, to average 1.4 mb/d in July. This was a decline of 96 tb/d, or almost 7%, compared with the same month last year. Flows on the Supsa pipeline remained at zero in June. Exports via the **Baku-Tbilisi-Ceyhan (BTC) pipeline** declined by 6% in July, or 40 tb/d, to average 612 tb/d.

Total product exports from Russia and Central Asia rose m-o-m by 0.2 mb/d, or 9%, to average 2.4 mb/d in July. M-o-m gains were driven primarily by naphtha but also gasoil and jet fuel. This was partially offset by smaller m-o-m declines in gasoline and fuel oil. Y-o-y, total product exports declined 7%, or 193 tb/d, with losses led by jet fuel, but also distributed across fuel oil, VGO and naphtha.

Commercial Stock Movements

Preliminary July 2023 data sees total OECD commercial oil stocks down by 7.9 mb m-o-m. At 2,779 mb, they were 57 mb higher than the same time one year ago but 138 mb lower than the latest five-year average and 190 mb below the 2015–2019 average. Within the components, crude stocks fell by 14.2 mb m-o-m, while products stocks rose by 6.3 mb.

OECD commercial crude stocks stood at 1,348 mb in July. This was 61 mb below the latest five-year average and 114 mb lower than the 2015–2019 average. Total product inventories stood at 1,430 mb in July. This is 77 mb lower than the latest five-year average and 77 mb below the 2015–2019 average.

In terms of days of forward cover, OECD commercial stocks remained unchanged m-o-m in July to stand at 59.5 days. This is 0.8 days above the July 2022 level but 4.0 days lower than the latest five-year average and 3.0 days less than the 2015–2019 average.

Preliminary data for August 2023 showed that total US commercial oil stocks decreased by 10.9 mb m-o-m to stand at 1,255 mb. This is 42.5 mb, or 3.5%, higher than the same month in 2022 but 31.4 mb, or 2.4%, below the latest five-year average. Crude stocks fell by 23.1 mb, while product stocks rose by 12.2 mb m-o-m.

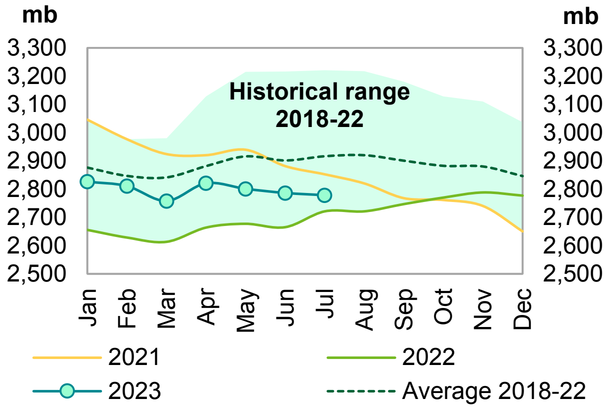
OECD

Preliminary **July 2023** data sees **total OECD commercial oil stocks** down m-o-m by 7.9 mb. At 2,779 mb, they were 57 mb higher than the same time one year ago but 138 mb lower than the latest five-year average and 190 mb below the 2015–2019 average.

Within the components, crude stocks fell by 14.2 mb, m-o-m, while products stocks rose by 6.3 mb. Within OECD regions, total commercial oil stocks in July decreased in all three regions.

OECD commercial **crude stocks** stood at 1,348 mb in July. This was 32 mb higher than the same time a year ago but 61 mb below the latest five-year average and 114 mb lower than the 2015–2019 average.

Graph 9 - 1: OECD commercial oil stocks



Sources: Argus, EIA, Euroilstock, IEA, METI and OPEC.

M-o-m, OECD Americas and OECD Asia Pacific saw a crude stock draw of 15.0 mb and 0.3 mb, respectively, while stocks in OECD Europe rose by 1.0 mb.

By contrast**, total product inventories** rose by 6.3 mb in July to stand at 1,430 mb. This is 25 mb above the same time a year ago but 77 mb lower than the latest five-year average and 77 mb below the 2015–2019 average.

M-o-m, product stocks in OECD Americas witnessed a stock build of 14.0 mb, while OECD Asia Pacific and OECD Europe product stocks fell by 1.2 mb and 6.5 mb, respectively.

Table 9 - 1: OECD commercial stocks, mb

OECD stocks	Jul 22	May 23	Jun 23	Jul 23	*Change* Jul 23/Jun 23
Crude oil	1,316	1,379	1,362	1,348	*-14.2*
Products	1,405	1,423	1,424	1,430	*6.3*
Total	**2,722**	**2,801**	**2,787**	**2,779**	***-7.9***
Days of forward cover	**58.7**	**59.9**	**59.4**	**59.5**	***0.0***

Note: Totals may not add up due to independent rounding.

Sources: Argus, EIA, Euroilstock, IEA, METI and OPEC.

In terms of **days of forward cover**, OECD commercial stocks remained unchanged m-o-m in July to stand at 59.5 days. This is 0.8 days above the July 2022 level but 4.0 days lower than the latest five-year average and 3.0 days less than the 2015–2019 average.

Within OECD regions, OECD Americas stood 4.3 days and OECD Europe 4.0 days below the latest five-year average, standing at 58.6 days and 66.4 days, respectively. OECD Asia-Pacific was 2.9 days below the latest five-year average, standing at 49.0 days.

OECD Americas

OECD Americas' total commercial stocks fell by 1.0 mb m-o-m in July to settle at 1,504 mb. This is 33 mb higher than the same month in 2022 but 53 mb below the latest five-year average.

Commercial **crude oil stocks** in OECD Americas dropped m-o-m by 15.0 mb in July to stand at 731 mb, which is 9.4 mb lower than in July 2022 and 38 mb below the latest five-year average. The monthly drop in crude oil stocks can be attributed to higher US crude runs, which increased by 180 tb/d to 17.1 mb/d.

Total product stocks in OECD Americas increased m-o-m by 14.0 mb in July to stand at 773 mb. This is 43 mb higher than the same month in 2022 but 15 mb below the latest five-year average. Lower overall consumption in the region was behind the product stock build.

OECD Europe

OECD Europe's total commercial stocks fell m-o-m by 5.5 mb in July to settle at 922 mb. This is 0.9 mb higher than the same month in 2022 but 60 mb below the latest five-year average.

OECD Europe's **commercial crude stocks** rose by 1.0 m-o-m to end July at 430 mb. This is 16.3 mb higher than one year ago but 7.0 mb below the latest five-year average.

By contrast, Europe's **product stocks** fell m-o-m by 6.5 mb to end July at 492 mb. This is 15.4 mb below the same time a year ago and 53 mb below the latest five-year average.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks fell m-o-m by 1.4 mb in July to stand at 353 mb. This is 23 mb higher than the same time a year ago but 25 mb below the latest five-year average.

OECD Asia Pacific's **crude inventories** fell m-o-m by 0.3 mb to end July at 187 mb. This is 25 mb higher than one year ago but 16 mb below the latest five-year average.

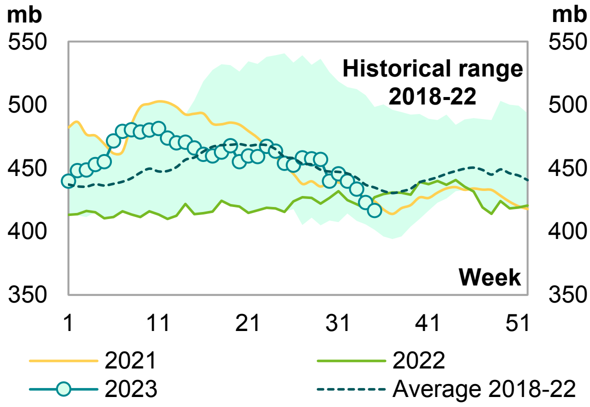
OECD Asia Pacific's **product inventories** fell by 1.2 mb m-o-m to end July at 166 mb. This is 2.3 mb lower than one year ago and 9.2 mb below the latest five-year average.

US

Preliminary data for **August 2023** showed that **total US commercial oil stocks** fell m-o-m by 10.9 mb to stand at 1,255 mb. This is 42.5 mb, or 3.5%, higher than the same month in 2022 but 31.4 mb, or 2.4%, below the latest five-year average. Crude stocks fell by 23.1 mb, while product stocks rose by 12.2 mb m-o-m.

US commercial **crude stocks** in August stood at 416.6 mb. This is 3.1 mb, or 0.7%, lower than the same month of 2022 and 20.0 mb, or 4.6%, less than the latest five-year average. The monthly drop in crude oil stocks can be attributed to higher crude runs, which increased by 66 tb/d to 17.16 mb/d.

Graph 9 - 2: US weekly commercial crude oil inventories



Sources: EIA and OPEC.

By contrast, **total product stocks** rose in August to stand at 838.5 mb. This is 45.6 mb, or 5.8%, higher than August 2022 levels but 11.4 mb, or 1.3%, lower than the latest five-year average. The product stock build could be attributed to lower product consumption.

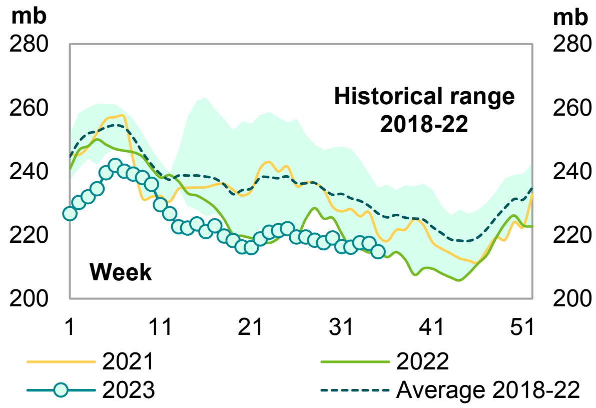
Gasoline stocks fell m-o-m by 4.3 mb in August to settle at 214.7 mb. This is 0.8 mb, or 0.4%, less than the same month of 2022, and 14.3 mb, or 6.3%, below the latest five-year average.

Residual fuel oil stocks also fell by 1.2 mb m-o-m in August. At 26.3 mb, this was 2.3 mb, or 8.1%, lower than a year earlier, and 3.6 mb, or 12.1%, below the latest five-year average.

By contrast, distillate stocks rose m-o-m, increasing by 1.4 mb in August to stand at 118.6 mb. This is 5.5 mb, or 4.8%, higher than the same month of 2022, but 21.1 mb, or 15.1%, below the latest five-year average.

Jet fuel stocks also rose by 0.9 mb m-o-m, ending August at 42.0 mb. This is 3.6 mb, or 9.4%, higher than the same month in 2022 and 0.8 mb, or 2.0%, higher than the latest five-year average.

Graph 9 - 3: US weekly gasoline inventories



Sources: EIA and OPEC.

Table 9 - 2: US commercial petroleum stocks, mb

US stocks	Aug 22	Jun 23	Jul 23	Aug 23	*Change Aug 23/Jul 23*
Crude oil	**419.8**	**454.7**	**439.8**	**416.6**	***-23.1***
Gasoline	215.6	223.2	219.1	214.7	*-4.3*
Distillate fuel	113.1	112.6	117.2	118.6	*1.4*
Residual fuel oil	28.6	30.4	27.5	26.3	*-1.2*
Jet fuel	38.4	42.7	41.1	42.0	*0.9*
Total products	**792.9**	**809.7**	**826.3**	**838.5**	***12.2***
Total	**1,212.7**	**1,264.4**	**1,266.1**	**1,255.2**	***-10.9***
SPR	**445.1**	**347.2**	**346.8**	**350.3**	***3.6***

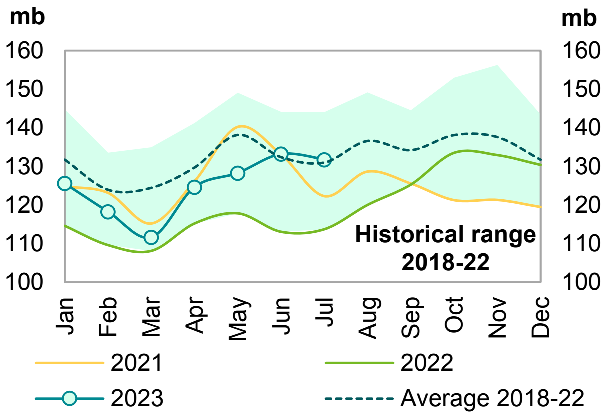
Sources: EIA and OPEC.

Japan

In **Japan**, **total commercial oil stocks** in **July** fell by 1.4 mb m-o-m to settle at 131.8 mb. This is 18.0 mb, or 15.9%, higher than the same month in 2022 and 0.7 mb, or 0.6%, above the latest five-year average. Crude and products stocks fell m-o-m by 0.3 mb and 1.2 mb, respectively.

Japanese **commercial crude oil stocks** fell by 0.3 mb m-o-m in July to stand at 77.5 mb. This is 17.4 mb, or 28.9%, higher than the same month of 2022 and 4.0 mb, or 5.4%, above the latest five-year average. This crude stock draw came on the back of higher crude runs, which increased by 403 tb/d m-o-m, or 18.5%, to stand at 2.59 mb/d.

Graph 9 - 4: Japan's commercial oil stocks



Sources: METI and OPEC.

Gasoline stocks fell m-o-m by 1.3 mb to stand at 8.9 mb in July. This is in line with a year earlier, but 1.1 mb, or 10.7%, lower than the latest five-year average. The fall came on the back of higher domestic gasoline sales, which increased m-o-m by 11.2%.

Total residual fuel oil stocks also fell by 0.3 mb m-o-m to end June at 12.4 mb. This is 1.6 mb, or 14.9%, higher than in the same month of 2022 and 0.5 mb, or 3.9%, above the latest five-year average. Within the components, fuel oil A stocks rose by 2.4%, while fuel oil BC stocks fell by 4.8% m-o-m.

By contrast, **distillate stocks** rose by 0.6 mb m-o-m to end July at 23.8 mb. This is 0.8 mb, or 3.3%, below the same month of 2022 and 2.5 mb, or 9.6%, below the latest five-year average.

Within distillate components, jet fuel and kerosene stocks rose by 5.5% or 12.9%, respectively, while gasoil stocks fell m-o-m by 10.2%.

Table 9 - 3: Japan's commercial oil stocks*, mb

Japan's stocks	Jul 22	May 23	Jun 23	Jul 23	*Change* Jul 23/Jun 23
Crude oil	**60.1**	**74.2**	**77.8**	**77.5**	***-0.3***
Gasoline	8.9	10.6	10.2	8.9	*-1.3*
Naphtha	9.3	8.3	9.4	9.2	*-0.2*
Middle distillates	24.7	23.2	23.2	23.8	*0.6*
Residual fuel oil	10.8	12.0	12.7	12.4	*-0.3*
Total products	**53.6**	**54.1**	**55.5**	**54.3**	***-1.2***
Total**	**113.7**	**128.3**	**133.2**	**131.8**	***-1.4***

*Note: * At the end of the month. ** Includes crude oil and main products only.*

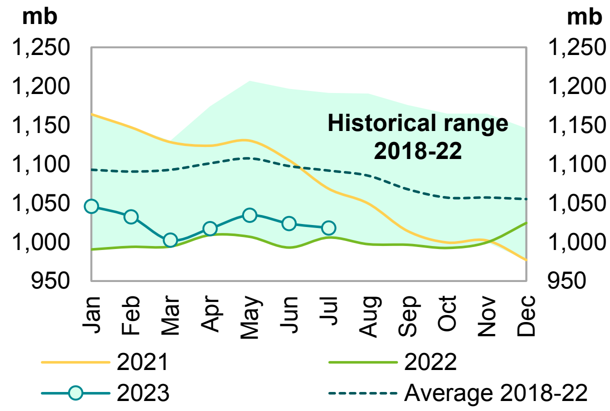
Sources: METI and OPEC.

EU-14 plus UK and Norway

Preliminary data for **July** showed that **total European commercial oil stocks** fell by 5.5 mb m-o-m to stand at 1,018 mb. At this level, they were 12.3 mb, or 1.2%, above the same month of 2022 but 73.5 mb, or 6.7%, lower than the latest five-year average. Crude stocks rose by 1.0 mb m-o-m, while product stocks fell by 6.5 mb.

European **crude inventories** stood at 438.6 mb in July. This is 3.0 mb, or 0.7%, lower than the same month in 2022 and 35.8 mb, or 7.5%, below the latest five-year average. The build in crude oil inventories in July came despite higher refinery throughput in the EU-14, as well as the UK and Norway, increasing by around 30 tb/d m-o-m to stand at 9.52 mb/d in July.

Graph 9 - 5: EU-14 plus UK and Norway total oil stocks



Sources: Argus, Euroilstock and OPEC.

By contrast, **total European product stocks** fell by 6.5 mb m-o-m to end July at 579.6 mb. This is 15.3 mb or 2.7% higher than the same month of 2022 but 37.8 mb, or 6.1%, below the latest five-year average.

Gasoline stocks fell m-o-m by 1.5 mb in July to stand at 105.7 mb. At this level, they were 2.0 mb, or 1.9%, lower than the same time in 2022, and 2.4 mb, or 2.2%, below the latest five-year average.

Middle distillate stocks also fell m-o-m by 2.4 mb in July to stand at 385.4 mb. This is 18.9 mb, or 5.2%, higher than the same month in 2022 but 30.4 mb, or 7.3%, lower than the latest five-year average.

Residual fuel stocks fell by 2.8 mb m-o-m in July to stand at 59.9 mb. This is 1.1 mb, or 1.8%, higher than the same month in 2022 but 4.5 mb, or 7.0%, below the latest five-year average.

By contrast, **naphtha stocks** rose by 0.2 mb in July, ending the month at 28.7 mb. This is 2.7 mb, or 8.5%, lower than the July 2022 level, and 0.5 mb, or 1.8%, below the latest five-year average.

Table 9 - 4: EU-14 plus UK and Norway's total oil stocks, mb

EU stocks	Jul 22	May 23	Jun 23	Jul 23	*Change* Jul 23/Jun 23
Crude oil	**441.6**	**445.7**	**437.6**	**438.6**	***1.0***
Gasoline	107.7	102.3	107.2	105.7	*-1.5*
Naphtha	31.4	27.6	28.5	28.7	*0.2*
Middle distillates	366.4	395.6	387.8	385.4	*-2.4*
Fuel oils	58.8	63.3	62.7	59.9	*-2.8*
Total products	**564.3**	**588.7**	**586.1**	**579.6**	***-6.5***
Total	**1,005.9**	**1,034.4**	**1,023.7**	**1,018.2**	***-5.5***

Sources: Argus, Euroilstock and OPEC.

Singapore, Amsterdam-Rotterdam-Antwerp (ARA) and Fujairah

Singapore

In **July**, **total product stocks in Singapore** rose by 0.8 mb m-o-m to reach 43.2 mb. This is 0.4 mb, or 0.9%, lower than the same month in 2022 and 1.7 mb, or 3.7%, below the latest five-year average.

Light distillate stocks fell by 0.5 mb m-o-m in July to stand at 13.7 mb. This is 4.0 mb, or 22.5%, lower than the same month of 2022 and 0.8 mb, or 5.6 %, less than the latest five-year average.

Middle distillate stocks also fell by 0.8 mb m-o-m in July to stand at 7.1 mb. This 0.8 mb or 10.0% lower than in July 2022, and 3.5 mb, or 33.3%, lower than the latest five-year average.

By contrast, **residual fuel oil stocks** rose by 2.1 mb m-o-m, ending July at 22.4 mb. This is 4.4 mb, or 24.3% higher than July 2022, and 2.7 mb, or 13.6%, above the latest five-year average.

ARA

Total product stocks in ARA in July fell by 0.5 mb m-o-m. At 43.2 mb, they were 03.0 mb, or 7.5%, above the same month in 2022 but 1.4 mb, or 3.1%, lower than the latest five-year average.

Gasoline stocks in July fell by 0.3 mb m-o-m to stand at 11.2 mb. This is 0.5 mb, or 4.3%, lower than the same month of 2022 but 1.4 mb, or 14.4%, higher than the latest five-year average.

Fuel oil stocks also dropped by 1.0 mb m-o-m in July to stand at 8.2 mb, which is 0.8 mb, or 10.1%, higher than in July 2022 and 0.5 mb, or 6.8% above the latest five-year average.

By contrast, **gasoil stocks** rose by 0.7 mb m-o-m, ending July at 15.6 mb. This is 4.5 mb, or 41.1%, higher than in July 2022 but 1.7 mb, or 10.0%, less than the latest five-year average.

Jet oil stocks also fell by 0.1 mb m-o-m to stand at 5.9 mb. This is 0.6 mb, or 8.7%, lower than in July 2022, and 1.0 mb, or 14.4%, less than the latest five-year average.

Fujairah

During the week ending 4 September 2023, **total oil product stocks in Fujairah** fell w-o-w by 1.32 mb to stand at 16.00 mb, according to data from Fed Com and S&P Global Commodity Insights. At this level, total oil stocks were 5.74 mb lower than at the same time a year ago.

Light distillate stocks rose w-o-w by 0.44 mb to stand at 5.96 mb, which is 1.12 mb lower than a year ago.

By contrast, **middle distillate stocks** fell w-o-w by 0.58 mb to stand at 1.44 mb, which is 1.24 mb lower than the same time last year.

Heavy distillate stocks also fell by 1.19 mb w-o-w to stand at 8.61 mb, which is 3.39 mb lower than the same period a year ago.

Balance of Supply and Demand

Demand for OPEC crude in 2023 was revised down by 0.1 mb/d from the previous assessment to stand at 29.2 mb/d. This is around 0.8 mb/d higher than in 2022.

According to secondary sources, OPEC crude production averaged 28.8 mb/d in 1Q23, which is 0.3 mb/d higher than the demand for OPEC crude. In 2Q23, OPEC crude production averaged 28.3 mb/d, which is 0.1 mb/d lower than the demand for OPEC crude.

Demand for OPEC crude in 2024 was also revised down by 0.1 mb/d from the previous assessment to stand at 30.0 mb/d, 0.8 mb/d higher than the estimated level in 2023.

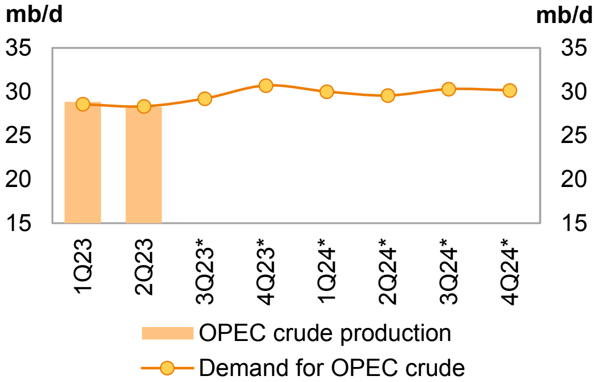
Balance of supply and demand in 2023

Demand for OPEC crude in 2023 was revised down by 0.1 mb/d from the previous assessment to stand at 29.2 mb/d. This is around 0.8 mb/d higher than in 2022.

Compared with the previous assessment, both 2Q23 and 4Q23 remained unchanged, while 1Q23 was revised up by 0.1 mb/d. Meanwhile, 3Q23 was revised down by 0.3 mb/d when compared to the previous month.

Compared with the same quarters in 2022, demand for OPEC crude in 2Q23, 3Q23 and 4Q23 are estimated to be higher by 0.3 mb/d, 0.9 mb/d and 2.0 mb/d, respectively. Meanwhile, OPEC crude in 1Q23 is estimated to remain at the same level as in 1Q22.

Graph 10 - 1: Balance of supply and demand, 2023–2024*



*Note: * 3Q23-4Q24 = Forecast.*
Source: OPEC.

According to secondary sources, OPEC crude production averaged 28.8 mb/d in 1Q23, which is 0.3 mb/d higher than demand for OPEC crude. In 2Q23, OPEC crude production averaged 28.3 mb/d, which is 0.1 mb/d lower than demand for OPEC crude.

Table 10 - 1: Supply/demand balance for 2023*, mb/d

	2022	1Q23	2Q23	3Q23	4Q23	2023	Change 2023/22
(a) World oil demand	**99.62**	**101.74**	**101.26**	**102.06**	**103.18**	**102.06**	***2.44***
Non-OPEC liquids production	65.81	67.72	67.43	67.39	67.04	67.39	*1.58*
OPEC NGL and non-conventionals	5.39	5.44	5.47	5.43	5.43	5.44	*0.05*
(b) Total non-OPEC liquids production and OPEC NGLs	**71.21**	**73.16**	**72.91**	**72.82**	**72.46**	**72.83**	***1.62***
Difference (a-b)	**28.41**	**28.58**	**28.35**	**29.23**	**30.71**	**29.23**	***0.81***
OPEC crude oil production	**28.86**	**28.85**	**28.28**				
Balance	**0.45**	**0.27**	**-0.08**				

*Note: * 2023 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Balance of supply and demand in 2024

Demand for OPEC crude in 2024 was revised down by 0.1 mb/d from the previous assessment to stand at 30.0 mb/d, 0.8 mb/d higher than the estimated level in 2023.

Compared with the previous assessment, both 1Q24 and 3Q24 remained unchanged, while 2Q24 and 4Q24 were revised down by 0.1 mb/d and 0.2 mb/d, respectively.

Compared with the same quarters in 2023, demand for OPEC crude in 1Q24, 2Q24 and 3Q24 is forecast to be 1.4 mb/d, 1.2 mb/d and 1.1 mb/d higher, respectively, while 4Q24 is expected to be lower by 0.5 mb/d.

Table 10 - 2: Supply/demand balance for 2024*, mb/d

	2023	1Q24	2Q24	3Q24	4Q24	2024	*Change 2024/23*
(a) World oil demand	**102.06**	**103.76**	**103.43**	**104.74**	**105.28**	**104.31**	***2.25***
Non-OPEC liquids production	67.39	68.25	68.31	68.93	69.61	68.78	*1.38*
OPEC NGL and non-conventionals	5.44	5.49	5.54	5.50	5.50	5.51	*0.07*
(b) Total non-OPEC liquids production and OPEC NGLs	**72.83**	**73.74**	**73.85**	**74.43**	**75.11**	**74.28**	***1.45***
Difference (a-b)	**29.23**	**30.03**	**29.58**	**30.31**	**30.17**	**30.02**	***0.80***

*Note: * 2024 = Forecast. Totals may not add up due to independent rounding.*

Source: OPEC.

Appendix

Table 11 - 1: World oil demand and supply balance, mb/d

World oil demand and supply balance	2020	2021	2022	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024
World demand													
Americas	22.45	24.32	25.11	24.71	25.42	25.68	25.19	25.25	24.90	25.59	25.89	25.34	25.43
of which US	*18.35*	*20.03*	*20.43*	*20.11*	*20.72*	*20.83*	*20.37*	*20.51*	*20.25*	*20.86*	*20.99*	*20.51*	*20.65*
Europe	12.41	13.19	13.52	13.10	13.40	13.99	13.39	13.47	13.15	13.46	14.06	13.42	13.52
Asia Pacific	7.16	7.34	7.38	7.81	6.93	7.22	7.65	7.40	7.84	6.95	7.25	7.65	7.42
Total OECD	**42.03**	**44.85**	**46.00**	**45.62**	**45.75**	**46.89**	**46.22**	**46.12**	**45.89**	**46.00**	**47.20**	**46.42**	**46.38**
China	13.94	15.00	14.85	15.63	15.96	15.57	16.11	15.82	16.20	16.42	16.19	16.78	16.40
India	4.51	4.77	5.14	5.40	5.40	5.21	5.50	5.38	5.63	5.64	5.44	5.69	5.60
Other Asia	8.13	8.67	9.02	9.40	9.44	8.99	9.14	9.24	9.66	9.69	9.35	9.50	9.55
Latin America	5.90	6.25	6.44	6.60	6.70	6.73	6.68	6.68	6.79	6.88	6.95	6.84	6.87
Middle East	7.45	7.79	8.30	8.63	8.32	8.86	8.73	8.64	8.91	8.76	9.41	8.98	9.02
Africa	4.08	4.22	4.40	4.69	4.27	4.43	4.88	4.57	4.80	4.45	4.60	5.01	4.72
Russia	3.39	3.62	3.56	3.69	3.45	3.60	3.87	3.65	3.75	3.56	3.75	3.94	3.75
Other Eurasia	1.07	1.21	1.15	1.24	1.21	1.02	1.23	1.17	1.27	1.24	1.08	1.28	1.22
Other Europe	0.70	0.75	0.77	0.84	0.77	0.75	0.83	0.80	0.86	0.78	0.77	0.84	0.81
Total Non-OECD	**49.16**	**52.28**	**53.62**	**56.12**	**55.51**	**55.17**	**56.96**	**55.94**	**57.88**	**57.43**	**57.54**	**58.86**	**57.93**
(a) Total world demand	**91.19**	**97.13**	**99.62**	**101.74**	**101.26**	**102.06**	**103.18**	**102.06**	**103.76**	**103.43**	**104.74**	**105.28**	**104.31**
Y-o-y change	***-9.15***	***5.94***	***2.49***	***2.23***	***2.90***	***2.51***	***2.10***	***2.44***	***2.03***	***2.17***	***2.68***	***2.10***	***2.25***
Non-OPEC liquids production													
Americas	24.87	25.46	26.92	27.90	28.00	28.53	28.52	28.24	28.71	28.75	29.21	29.52	29.05
of which US	*17.76*	*18.06*	*19.28*	*20.10*	*20.66*	*20.64*	*20.50*	*20.48*	*20.74*	*20.96*	*21.23*	*21.39*	*21.08*
Europe	3.92	3.79	3.58	3.69	3.64	3.65	3.87	3.71	3.92	3.80	3.75	3.89	3.84
Asia Pacific	0.52	0.51	0.48	0.45	0.45	0.48	0.47	0.46	0.47	0.44	0.45	0.44	0.45
Total OECD	**29.31**	**29.77**	**30.97**	**32.04**	**32.09**	**32.67**	**32.87**	**32.42**	**33.10**	**32.99**	**33.41**	**33.85**	**33.34**
China	4.16	4.32	4.48	4.63	4.63	4.50	4.50	4.56	4.58	4.57	4.54	4.54	4.56
India	0.78	0.78	0.77	0.76	0.78	0.79	0.78	0.78	0.79	0.79	0.79	0.78	0.79
Other Asia	2.53	2.42	2.30	2.31	2.26	2.31	2.37	2.31	2.29	2.27	2.25	2.25	2.26
Latin America	6.02	5.96	6.34	6.69	6.76	6.88	6.80	6.78	6.95	7.02	7.15	7.23	7.09
Middle East	3.15	3.19	3.29	3.27	3.29	3.25	3.30	3.28	3.33	3.32	3.31	3.31	3.32
Africa	1.41	1.34	1.29	1.24	1.27	1.28	1.30	1.27	1.28	1.31	1.34	1.35	1.32
Russia	10.54	10.80	11.03	11.19	10.85	10.22	9.57	10.45	10.27	10.39	10.52	10.63	10.45
Other Eurasia	2.91	2.93	2.83	3.00	2.93	2.94	2.98	2.96	3.02	3.02	3.00	3.04	3.02
Other Europe	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total Non-OECD	**31.64**	**31.85**	**32.44**	**33.21**	**32.87**	**32.26**	**31.70**	**32.50**	**32.63**	**32.80**	**33.00**	**33.24**	**32.92**
Total Non-OPEC production	60.95	61.61	63.42	65.25	64.96	64.93	64.57	64.92	65.73	65.79	66.41	67.09	66.26
Processing gains	2.16	2.29	2.40	2.47	2.47	2.47	2.47	2.47	2.52	2.52	2.52	2.52	2.52
Total Non-OPEC liquids production	**63.11**	**63.90**	**65.81**	**67.72**	**67.43**	**67.39**	**67.04**	**67.39**	**68.25**	**68.31**	**68.93**	**69.61**	**68.78**
OPEC NGL + non-conventional oils	5.17	5.28	5.39	5.44	5.47	5.43	5.43	5.44	5.49	5.54	5.50	5.50	5.51
(b) Total non-OPEC liquids production and OPEC NGLs	**68.27**	**69.18**	**71.21**	**73.16**	**72.91**	**72.82**	**72.46**	**72.83**	**73.74**	**73.85**	**74.43**	**75.11**	**74.28**
Y-o-y change	***-2.54***	***0.91***	***2.03***	***2.21***	***2.58***	***1.60***	***0.13***	***1.62***	***0.58***	***0.94***	***1.61***	***2.64***	***1.45***
OPEC crude oil production (secondary sources)	25.73	26.35	28.86	28.85	28.28								
Total liquids production	94.00	95.53	100.07	102.01	101.18								
Balance (stock change and miscellaneous)	2.81	-1.60	0.45	0.27	-0.08								
OECD closing stock levels, *mb*													
Commercial	3,037	2,651	2,777	2,758	2,787								
SPR	1,541	1,484	1,214	1,217	1,206								
Total	**4,578**	**4,135**	**3,991**	**3,975**	**3,993**								
Oil-on-water	1,148	1,202	1,399	1,413	1,302								
Days of forward consumption in OECD, *days*													
Commercial onland stocks	68	58	60	60	59								
SPR	34	32	26	27	26								
Total	**102**	**90**	**87**	**87**	**85**								
Memo items													
(a) - (b)	**22.91**	**27.95**	**28.41**	**28.58**	**28.35**	**29.23**	**30.71**	**29.23**	**30.03**	**29.58**	**30.31**	**30.17**	**30.02**

Note: Totals may not add up due to independent rounding.

Source: OPEC.

Table 11 - 2: World oil demand and supply balance: changes from last month's table*, mb/d

World oil demand and supply balance	2020	2021	2022	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024
World demand													
Americas	-	0.01	0.10	0.11	0.20	0.10	0.09	0.12	0.11	0.20	0.10	0.09	0.12
of which US	-	-	-	-	*0.13*	-	-	*0.03*	-	*0.13*	-	-	*0.03*
Europe	-	0.09	0.01	0.03	0.15	0.01	0.01	0.05	0.03	0.15	0.01	0.01	0.05
Asia Pacific	-0.01	-0.05	-0.05	-0.05	-0.14	-0.05	-0.05	-0.07	-0.05	-0.14	-0.05	-0.05	-0.07
Total OECD	**-**	**0.05**	**0.05**	**0.08**	**0.21**	**0.05**	**0.06**	**0.10**	**0.08**	**0.21**	**0.05**	**0.06**	**0.10**
China	-	-	-	-	-	0.19	-	0.05	-	-	0.19	-	0.05
India	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-0.12	-0.15	-0.10	-0.09	-	-0.12	-0.15	-0.10	-0.09
Latin America	-	-	-	-	0.15	-	-	0.04	-	0.15	-	-	0.04
Middle East	-	-	-	-	-0.15	-	-	-0.04	-	-0.15	-	-	-0.04
Africa	-	-	-	-	-0.05	-	-	-0.01	-	-0.05	-	-	-0.01
Russia	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Eurasia	-	-	-	-	0.04	-	-	0.01	-	0.04	-	-	0.01
Other Europe	-	-	-	-	0.01	-	-	-	-	0.01	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-0.13**	**0.04**	**-0.10**	**-0.05**	**-**	**-0.13**	**0.04**	**-0.10**	**-0.05**
(a) Total world demand	**-**	**0.05**	**0.05**	**0.08**	**0.08**	**0.09**	**-0.04**	**0.05**	**0.08**	**0.08**	**0.09**	**-0.04**	**0.05**
Y-o-y change	***-0.06***	***0.05***	***0.01***	***0.04***	***0.02***	***0.04***	***-0.10***	***-***	***-***	***-***	***-***	***-***	***-***
Non-OPEC liquids production													
Americas	-	-	0.05	-	0.04	0.28	0.07	0.10	0.05	0.05	0.05	0.05	0.05
of which US	-	-	*0.05*	-	*0.10*	*0.29*	*0.05*	*0.11*	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*
Europe	-	-	0.01	0.03	0.02	-0.14	-0.06	-0.04	-0.02	0.02	-0.04	-	-0.01
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	**-**	**-**	**0.06**	**0.03**	**0.06**	**0.14**	**0.01**	**0.06**	**0.03**	**0.07**	**0.01**	**0.05**	**0.04**
China	-	-	-	-	-	-	-	-	-	-	-	-	-
India	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-0.01	-0.03	0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Latin America	-	-	-	-	-	0.18	0.01	0.05	0.05	0.05	0.05	0.05	0.05
Middle East	-	-	-	-	-	-0.04	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Africa	-	-	-	-	-0.01	-0.06	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
Russia	-	-	-	-0.01	-	0.29	-	0.07	0.07	0.07	0.07	0.07	0.07
Other Eurasia	-	-	-	-	-	-0.04	-	-0.01	-	-	-	-	-
Other Europe	-	-	-	-	-0.01	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-0.01**	**-0.02**	**0.29**	**-**	**0.07**	**0.08**	**0.08**	**0.08**	**0.08**	**0.08**
Total Non-OPEC production	-	-	0.06	0.02	0.04	0.43	0.01	0.13	0.11	0.15	0.09	0.13	0.12
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC liquids production	**-**	**-**	**0.06**	**0.02**	**0.04**	**0.43**	**0.01**	**0.13**	**0.11**	**0.15**	**0.09**	**0.13**	**0.12**
OPEC NGL + non-conventional oils	-	-	-	-	-	-	-	-	-	-	-	-	-
(b) Total non-OPEC liquids production and OPEC NGLs	**-**	**-**	**0.06**	**0.02**	**0.04**	**0.43**	**0.01**	**0.13**	**0.11**	**0.15**	**0.09**	**0.13**	**0.12**
Y-o-y change	***-***	***-***	***0.06***	***-0.02***	***-***	***0.38***	***-0.08***	***0.07***	***0.09***	***0.11***	***-0.34***	***0.12***	***-0.01***
OPEC crude oil production (secondary sources)	-	0.01	0.01	0.03	0.02								
Total liquids production	0.01	0.01	0.06	0.05	0.06								
Balance (stock change and miscellaneous)	0.01	-0.04	0.01	-0.03	-0.02								
mb													
Commercial	-	2	1	2									
SPR	-	-	-	-									
Total	**-**	**2**	**1**	**2**									
Oil-on-water	-	-	-	-									
Days of forward consumption in OECD, *days*													
Commercial onland stocks	-	-	-	-									
SPR	-	-	-	-									
Total	**-**	**-**	**-**	**-**									
Memo items													
(a) - (b)	**0.00**	**0.05**	**0.00**	**0.06**	**0.04**	**-0.34**	**-0.05**	**-0.07**	**-0.03**	**-0.07**	**0.00**	**-0.17**	**-0.07**

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the August 2023 issue.*
This table shows only where changes have occurred.

Source: OPEC.

Table 11 - 3: OECD oil stocks and oil on water at the end of period

OECD oil stocks and oil on water	2020	2021	2022	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23
Closing stock levels, mb											
OECD onland commercial	**3,037**	**2,651**	**2,777**	**2,768**	**2,651**	**2,614**	**2,666**	**2,747**	**2,777**	**2,758**	**2,787**
Americas	1,613	1,470	1,487	1,523	1,470	1,407	1,436	1,469	1,487	1,486	1,505
Europe	1,043	857	937	890	857	890	912	919	937	922	928
Asia Pacific	380	324	353	355	324	317	318	359	353	351	354
OECD SPR	**1,541**	**1,484**	**1,214**	**1,513**	**1,484**	**1,442**	**1,343**	**1,245**	**1,214**	**1,217**	**1,206**
Americas	640	596	374	620	596	568	495	418	374	373	350
Europe	487	479	461	485	479	468	452	447	461	460	469
Asia Pacific	414	409	378	408	409	406	395	380	378	383	388
OECD total	**4,578**	**4,135**	**3,991**	**4,281**	**4,135**	**4,056**	**4,009**	**3,993**	**3,991**	**3,975**	**3,993**
Oil-on-water	**1,148**	**1,202**	**1,399**	**1,169**	**1,202**	**1,231**	**1,304**	**1,407**	**1,399**	**1,413**	**1,302**
Days of forward consumption in OECD, days											
OECD onland commercial	**68**	**58**	**60**	**59**	**58**	**58**	**57**	**60**	**61**	**60**	**59**
Americas	66	59	59	61	59	56	56	59	60	58	59
Europe	79	63	70	63	65	66	65	69	72	69	66
Asia Pacific	52	44	48	46	42	46	44	47	45	51	49
OECD SPR	**35**	**34**	**34**	**32**	**32**	**32**	**29**	**27**	**27**	**27**	**26**
Americas	26	24	23	25	24	23	19	17	15	15	14
Europe	37	35	35	35	36	35	32	33	35	34	33
Asia Pacific	56	55	55	53	53	59	55	50	48	55	54
OECD total	**103**	**92**	**95**	**91**	**90**	**89**	**86**	**87**	**87**	**87**	**85**

Sources: Argus, EIA, Euroilstock, IEA, JODI, METI and OPEC.

Table 11 - 4: Non-OPEC liquids production and OPEC natural gas liquids, mb/d*

Non-OPEC liquids production and OPEC NGLs	2022	*Change 2022/21*	1Q23	2Q23	3Q23	4Q23	2023	*Change 2023/22*	1Q24	2Q24	3Q24	4Q24	2024	*Change 2024/23*
US	19.3	*1.2*	20.1	20.7	20.6	20.5	20.5	*1.2*	20.7	21.0	21.2	21.4	21.1	*0.6*
Canada	5.6	*0.2*	5.7	5.2	5.8	6.0	5.7	*0.1*	5.9	5.7	5.9	6.1	5.9	*0.2*
Mexico	2.0	*0.1*	2.1	2.1	2.1	2.0	2.1	*0.1*	2.1	2.1	2.0	2.0	2.0	*0.0*
Chile	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*
OECD Americas	**26.9**	***1.5***	**27.9**	**28.0**	**28.5**	**28.5**	**28.2**	***1.3***	**28.7**	**28.7**	**29.2**	**29.5**	**29.0**	***0.8***
Norway	1.9	*-0.1*	2.0	2.0	2.0	2.1	2.1	*0.2*	2.2	2.1	2.1	2.2	2.2	*0.1*
UK	0.9	*0.0*	0.8	0.8	0.8	0.9	0.8	*0.0*	0.9	0.8	0.8	0.8	0.8	*0.0*
Denmark	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
Other OECD	0.8	*0.0*	0.8	0.8	0.8	0.8	0.8	*0.0*	0.8	0.8	0.8	0.8	0.8	*0.0*
OECD Europe	**3.6**	***-0.2***	**3.7**	**3.6**	**3.7**	**3.9**	**3.7**	***0.1***	**3.9**	**3.8**	**3.7**	**3.9**	**3.8**	***0.1***
Australia	0.4	*0.0*	0.4	0.4	0.4	0.4	0.4	*0.0*	0.4	0.4	0.4	0.4	0.4	*0.0*
Other Asia Pacific	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
OECD Asia Pacific	**0.5**	***0.0***	**0.5**	**0.4**	**0.5**	**0.5**	**0.5**	***0.0***	**0.5**	**0.4**	**0.5**	**0.4**	**0.5**	***0.0***
Total OECD	**31.0**	***1.2***	**32.0**	**32.1**	**32.7**	**32.9**	**32.4**	***1.4***	**33.1**	**33.0**	**33.4**	**33.9**	**33.3**	***0.9***
China	**4.5**	***0.2***	**4.6**	**4.6**	**4.5**	**4.5**	**4.6**	***0.1***	**4.6**	**4.6**	**4.5**	**4.5**	**4.6**	***0.0***
India	**0.8**	***0.0***	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**	***0.0***	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**	***0.0***
Brunei	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
Indonesia	0.8	*0.0*	0.9	0.8	0.8	0.8	0.8	*0.0*	0.8	0.8	0.8	0.8	0.8	*0.0*
Malaysia	0.6	*0.0*	0.6	0.6	0.6	0.6	0.6	*0.0*	0.6	0.6	0.6	0.6	0.6	*0.0*
Thailand	0.4	*-0.1*	0.4	0.3	0.4	0.4	0.4	*0.0*	0.4	0.4	0.3	0.3	0.4	*0.0*
Vietnam	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*
Asia others	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*
Other Asia	**2.3**	***-0.1***	**2.3**	**2.3**	**2.3**	**2.4**	**2.3**	***0.0***	**2.3**	**2.3**	**2.2**	**2.2**	**2.3**	***-0.1***
Argentina	0.8	*0.1*	0.8	0.8	0.8	0.8	0.8	*0.1*	0.8	0.9	0.9	0.9	0.9	*0.0*
Brazil	3.7	*0.1*	3.9	4.0	4.1	4.0	4.0	*0.3*	4.1	4.1	4.2	4.2	4.1	*0.1*
Colombia	0.8	*0.0*	0.8	0.8	0.8	0.8	0.8	*0.0*	0.8	0.8	0.8	0.8	0.8	*0.0*
Ecuador	0.5	*0.0*	0.5	0.5	0.5	0.5	0.5	*0.0*	0.5	0.5	0.5	0.5	0.5	*0.0*
Guyana	0.3	*0.2*	0.4	0.4	0.4	0.4	0.4	*0.1*	0.4	0.5	0.5	0.6	0.5	*0.1*
Latin America	0.3	*0.0*	0.3	0.3	0.3	0.3	0.3	*0.0*	0.3	0.3	0.3	0.3	0.3	*0.0*
Latin America	**6.3**	***0.4***	**6.7**	**6.8**	**6.9**	**6.8**	**6.8**	***0.4***	**7.0**	**7.0**	**7.2**	**7.2**	**7.1**	***0.3***
Bahrain	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*
Oman	1.1	*0.1*	1.1	1.1	1.0	1.0	1.0	*0.0*	1.1	1.1	1.1	1.1	1.1	*0.0*
Qatar	1.9	*0.0*	1.9	1.9	1.9	1.9	1.9	*0.0*	1.9	1.9	1.9	1.9	1.9	*0.0*
Syria	0.0	*0.0*	0.0	0.0	0.0	0.1	0.0	*0.0*	0.1	0.0	0.0	0.0	0.0	*0.0*
Yemen	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
Middle East	**3.3**	***0.1***	**3.3**	**3.3**	**3.2**	**3.3**	**3.3**	***0.0***	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	***0.0***
Cameroon	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
Chad	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
Egypt	0.6	*0.0*	0.6	0.6	0.6	0.6	0.6	*0.0*	0.6	0.6	0.6	0.6	0.6	*0.0*
Ghana	0.2	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
South Africa	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
Sudans	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*	0.2	0.2	0.2	0.2	0.2	*0.0*
Africa other	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.2	0.2	0.2	0.2	*0.1*
Africa	**1.3**	***0.0***	**1.2**	**1.3**	**1.3**	**1.3**	**1.3**	***0.0***	**1.3**	**1.3**	**1.3**	**1.4**	**1.3**	***0.0***
Russia	**11.0**	***0.2***	**11.2**	**10.9**	**10.2**	**9.6**	**10.5**	***-0.6***	**10.3**	**10.4**	**10.5**	**10.6**	**10.5**	***0.0***
Kazakhstan	1.8	*0.0*	2.0	1.9	1.9	1.9	1.9	*0.1*	2.0	2.0	2.0	2.0	2.0	*0.1*
Azerbaijan	0.7	*0.0*	0.7	0.6	0.7	0.8	0.7	*0.0*	0.7	0.7	0.7	0.7	0.7	*0.0*
Eurasia others	0.3	*0.0*	0.3	0.3	0.3	0.3	0.3	*0.0*	0.3	0.3	0.3	0.3	0.3	*0.0*
Other Eurasia	**2.8**	***-0.1***	**3.0**	**2.9**	**2.9**	**3.0**	**3.0**	***0.1***	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	***0.1***
Other Europe	**0.1**	***0.0***	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	***0.0***	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	***0.0***
Total Non-OECD	**32.4**	***0.6***	**33.2**	**32.9**	**32.3**	**31.7**	**32.5**	***0.1***	**32.6**	**32.8**	**33.0**	**33.2**	**32.9**	***0.4***
Non-OPEC	63.4	*1.8*	65.2	65.0	64.9	64.6	64.9	*1.5*	65.7	65.8	66.4	67.1	66.3	*1.3*
Processing gains	2.4	*0.1*	2.5	2.5	2.5	2.5	2.5	*0.1*	2.5	2.5	2.5	2.5	2.5	*0.1*
Non-OPEC liquids production	**65.8**	***1.9***	**67.7**	**67.4**	**67.4**	**67.0**	**67.4**	***1.6***	**68.2**	**68.3**	**68.9**	**69.6**	**68.8**	***1.4***
OPEC NGL	5.3	*0.1*	5.3	5.4	5.3	5.3	5.3	*0.0*	5.4	5.4	5.4	5.4	5.4	*0.1*
OPEC Non-conventional	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*	0.1	0.1	0.1	0.1	0.1	*0.0*
OPEC (NGL+NCF)	**5.4**	***0.1***	**5.4**	**5.5**	**5.4**	**5.4**	**5.4**	***0.0***	**5.5**	**5.5**	**5.5**	**5.5**	**5.5**	***0.1***
Non-OPEC & OPEC (NGL+NCF)	**71.2**	***2.0***	**73.2**	**72.9**	**72.8**	**72.5**	**72.8**	***1.6***	**73.7**	**73.8**	**74.4**	**75.1**	**74.3**	***1.4***

Note: Totals may not add up due to independent rounding.
Source: OPEC.

Table 11 - 5: World rig count, units

World rig count	2020	2021	2022	*Change 2022/21*	4Q22	1Q23	2Q23	Jul 23	Aug 23	*Change Aug/Jul*
US	436	475	722	*247*	775	761	719	671	643	*-28*
Canada	90	133	174	*41*	186	221	119	186	189	*3*
Mexico	41	45	47	*2*	50	48	60	56	51	*-5*
OECD Americas	**567**	**654**	**945**	***291***	**1,014**	**1,033**	**900**	**915**	**884**	***-31***
Norway	16	17	17	*0*	17	16	13	18	22	*4*
UK	6	8	10	*2*	10	11	13	11	10	*-1*
OECD Europe	**59**	**58**	**65**	***7***	**67**	**67**	**67**	**68**	**65**	***-3***
OECD Asia Pacific	**22**	**23**	**24**	***1***	**25**	**23**	**27**	**29**	**23**	***-6***
Total OECD	**648**	**735**	**1,034**	***299***	**1,106**	**1,123**	**994**	**1,012**	**972**	***-40***
Other Asia*	187	174	186	*12*	188	193	210	207	207	*0*
Latin America	58	91	119	*28*	130	127	122	117	119	*2*
Middle East	57	57	62	*5*	65	62	61	60	59	*-1*
Africa	43	42	57	*15*	60	60	56	57	56	*-1*
Other Europe	12	9	10	*1*	13	11	11	11	11	*0*
Total Non-OECD	**357**	**373**	**434**	***61***	**456**	**453**	**460**	**452**	**452**	***0***
Non-OPEC rig count	**1,005**	**1,108**	**1,468**	***360***	**1,562**	**1,576**	**1,454**	**1,464**	**1,424**	***-40***
Algeria	31	26	32	*6*	33	32	33	35	37	*2*
Angola	3	4	7	*3*	9	9	9	10	10	*0*
Congo	1	0	1	*1*	1	1	2	2	2	*0*
Equatorial Guinea**	0	0	0	*0*	0	0	0	0	0	*0*
Gabon	3	2	3	*1*	3	3	3	3	4	*1*
Iran**	117	117	117	*0*	117	117	117	117	117	*0*
Iraq	47	39	51	*12*	55	60	62	62	62	*0*
Kuwait	45	25	27	*2*	28	24	25	27	22	*-5*
Libya	12	13	7	*-6*	8	11	15	15	14	*-1*
Nigeria	11	7	10	*3*	10	14	13	14	18	*4*
Saudi Arabia	93	62	73	*11*	80	78	83	86	86	*0*
UAE	54	42	47	*5*	52	53	57	52	57	*5*
Venezuela	15	6	3	*-3*	3	3	3	7	7	*0*
OPEC rig count	**432**	**343**	**377**	***34***	**398**	**405**	**422**	**430**	**436**	***6***
World rig count***	**1,437**	**1,451**	**1,845**	***394***	**1,959**	**1,980**	**1,877**	**1,894**	**1,860**	***-34***
of which:										
Oil	1,116	1,143	1,462	*319*	1,552	1,567	1,484	1,493	1,486	*-7*
Gas	275	275	352	*77*	374	376	347	353	332	*-21*
Others	46	33	31	*-2*	33	37	46	48	42	*-6*

*Note: * Other Asia includes India and offshore rigs for China.*
*** Estimated data when Baker Hughes Incorporated did not reported the data.*
**** Data excludes onshore China as well as Russia and other Eurasia.*
Totals may not add up due to independent rounding.
Sources: Baker Hughes and OPEC.

Glossary of Terms

Abbreviations

b	barrels
b/d	barrels per day
bp	basis points
bb	billion barrels
bcf	billion cubic feet
cu m	cubic metres
mb	million barrels
mb/d	million barrels per day
mmbtu	million British thermal units
mn	million
m-o-m	month-on-month
mt	metric tonnes
q-o-q	quarter-on-quarter
pp	percentage points
tb/d	thousand barrels per day
tcf	trillion cubic feet
y-o-y	year-on-year
y-t-d	year-to-date

Acronyms

ARA	Amsterdam-Rotterdam-Antwerp
BoE	Bank of England
BoJ	Bank of Japan
BOP	Balance of payments
BRIC	Brazil, Russia, India and China
CAPEX	capital expenditures
CCI	Consumer Confidence Index
CFTC	Commodity Futures Trading Commission
CIF	cost, insurance and freight
CPI	consumer price index
DoC	Declaration of Cooperation
DCs	developing countries
DUC	drilled, but uncompleted (oil well)
ECB	European Central Bank
EIA	US Energy Information Administration
Emirates NBD	Emirates National Bank of Dubai
EMs	emerging markets
EV	electric vehicle

FAI	fixed asset investment
FCC	fluid catalytic cracking
FDI	foreign direct investment
Fed	US Federal Reserve
FID	final investment decision
FOB	free on board
FPSO	floating production storage and offloading
FSU	Former Soviet Union
FX	Foreign Exchange
FY	fiscal year
GDP	gross domestic product
GFCF	gross fixed capital formation
GoM	Gulf of Mexico
GTLs	gas-to-liquids
HH	Henry Hub
HSFO	high-sulphur fuel oil
ICE	Intercontinental Exchange
IEA	International Energy Agency
IMF	International Monetary Fund
IOCs	international oil companies
IP	industrial production
ISM	Institute of Supply Management
JODI	Joint Organisations Data Initiative
LIBOR	London inter-bank offered rate
LLS	Light Louisiana Sweet
LNG	liquefied natural gas
LPG	liquefied petroleum gas
LR	long-range (vessel)
LSFO	low-sulphur fuel oil
MCs	(OPEC) Member Countries
MED	Mediterranean
MENA	Middle East/North Africa
MOMR	(OPEC) Monthly Oil Market Report
MPV	multi-purpose vehicle
MR	medium-range or mid-range (vessel)
NBS	National Bureau of Statistics
NGLs	natural gas liquids
NPC	National People's Congress (China)
NWE	Northwest Europe
NYMEX	New York Mercantile Exchange
OECD	Organisation for Economic Co-operation and Development
OPEX	operational expenditures
OIV	total open interest volume
ORB	OPEC Reference Basket
OSP	Official Selling Price
PADD	Petroleum Administration for Defense Districts
PBoC	People's Bank of China
PMI	purchasing managers' index
PPI	producer price index

RBI	Reserve Bank of India
REER	real effective exchange rate
ROI	return on investment
SAAR	seasonally-adjusted annualized rate
SIAM	Society of Indian Automobile Manufacturers
SRFO	straight-run fuel oil
SUV	sports utility vehicle
ULCC	ultra-large crude carrier
ULSD	ultra-low sulphur diesel
USEC	US East Coast
USGC	US Gulf Coast
USWC	US West Coast
VGO	vacuum gasoil
VLCC	very large crude carriers
WPI	wholesale price index
WS	Worldscale
WTI	West Texas Intermediate
WTS	West Texas Sour

OPEC Basket average price *US$/b*

up 6.27 in August

August 2023	87.33
July 2023	81.06
Year-to-date	**80.60**

August OPEC crude production *mb/d, according to secondary sources*

up 0.11 in August

August 2023	27.45
July 2023	27.34

Economic growth rate *per cent*

	World	OECD	US	Euro-zone	Japan	China	India
2023	2.7	1.3	1.8	0.6	1.5	5.2	6.0
2024	2.6	0.9	0.7	0.8	1.0	4.8	5.9

Supply and demand *mb/d*

2023		**23/22**	**2024**		**24/23**
World demand	102.1	2.4	World demand	104.3	2.2
Non-OPEC liquids production	67.4	1.6	Non-OPEC liquids production	68.8	1.4
OPEC NGLs	5.4	0.0	OPEC NGLs	5.5	0.1
Difference	**29.2**	**0.8**	**Difference**	**30.0**	**0.8**

OECD commercial stocks *mb*

	May 23	Jun 23	Jul 23	Jul 23/Jun 23
Crude oil	1,379	1,362	1,348	–14.2
Products	1,423	1,424	1,430	6.3
Total	**2,801**	**2,787**	**2,779**	**–7.9**
Days of forward cover	59.9	59.4	59.5	0.0

Next report to be issued on 12 October 2023.