Organization of the Petroleum Exporting Countries

OPEC Monthly Oil Market Report

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Feature article:

Global oil market fundamentals remain strong despite exaggerated negative sentiments

Organization of the Petroleum Exporting Countries

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Oil Market Highlights

Crude Oil Price Movements

In October, the OPEC Reference Basket (ORB) fell by $2.82, or 3.0%, m-o-m, to an average of $91.78/b. The ICE Brent front-month contract fell by $3.89, or 4.2%, m-o-m, to $88.70/b, and the NYMEX WTI front-month contract fell by $3.96, or 4.4%, m-o-m, to average $85.47/b. The DME Oman front-month contract fell by $4.06, or 4.3%, m-o-m, to settle at $89.31/b. The front-month ICE Brent/NYMEX WTI spread widened in October by 7¢ to average $3.23/b. The market structure strengthened further as the front end of futures forward curves for ICE Brent, NYMEX WTI and DME Oman steepened on concerns over geopolitical tensions in the Middle East. Hedge funds and other money managers heavily cut bullish positions, fuelling price volatility and contributing to the drop in futures prices.

World Economy

The forecast for world economic growth remains unchanged at 2.8% for 2023 and 2.6% for 2024. US economic growth is revised up to 2.3% for 2023 and 0.9% for 2024. Eurozone economic growth is revised down for both 2023 and 2024 to stand at 0.2% and 0.5%, respectively. Japan's economic growth forecast for 2023 is revised up to 1.9%, while growth in 2024 remains at 1.0%. The forecast for China remains unchanged at 5.2% for 2023 and 4.8% for 2024. India's growth forecast remains unchanged at 6.2% for 2023 and 5.9% for 2024. Brazil's forecast also remains unchanged at 2.5% in 2023 and 1.2% in 2024. Russia's economic growth forecast is revised up to 1.9% for 2023 and 1.2% for 2024.

World Oil Demand

The world oil demand growth forecast for 2023 is revised up marginally from the previous month's assessment to 2.5 mb/d. Revisions to data for the OECD countries throughout the first three quarters largely offset each other. In the non-OECD, the upward revisions to China's oil demand in both 3Q23 and 4Q23 outpaced the downward revisions in the non-OECD region in 3Q23. In 2023, OECD oil demand is expected to rise by around 0.1 mb/d, while non-OECD oil demand is expected to increase by 2.4 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 expand by about 0.3 mb/d in 2024, with OECD Americas contributing the largest increase. The non-OECD is set to drive next year's growth, increasing by about 2.0 mb/d, with China, the Middle East, Other Asia and India contributing the most.

World Oil Supply

Non-OPEC liquids supply growth forecast is revised up to 1.8 mb/d in 2023. Main drivers of liquids supply growth for 2023 include the US, Brazil, Kazakhstan, Norway, Guyana, Mexico and China. For 2024, non-OPEC liquids production is expected to grow by 1.4 mb/d, broadly 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. OPEC NGLs and non-conventional liquids are forecast to grow by around 50 tb/d in 2023 to average 5.4 mb/d and by another 65 tb/d to average 5.5 mb/d in 2024. OPEC-13 crude oil production in October increased by 80 tb/d m-o-m to average 27.90 mb/d, according to available secondary sources.

Product Markets and Refining Operations

In October, refinery margins remained strong but declined slightly, continuing the downward trend registered in the previous month. In the Atlantic Basin, the vast majority of the observed downturn is attributed to gasoline, as markets for the product weakened following the end of the summer season, amid reports of significant gasoline stock builds. In Singapore, the relatively weaker performance was also led by gasoline, although the weakness was more evenly distributed across the barrel, with naphtha seeing the smallest decline. Global refinery intake continued to decrease m-o-m in October, showing a 1.4 mb/d decline to an average of 80.1 mb/d. Y-o-y, however, intakes were 2.2 mb/d higher. In the coming months, refinery intakes are expected to start to recover as offline capacities begin to subside with the conclusion of a heavy autumn maintenance season.

Tanker Market

Dirty spot freight rates began to recover in October as refiners started preparing for winter demand following maintenance. Gains were strongest in the smaller class vessels. Suezmax spot freight rates surged to a five-month high during the month, with rates on the US Gulf Coast to Europe route increasing by 98%, m-o-m. Aframax spot freight rates also saw a significant increase, with rates around the Mediterranean up by around 74%, m-o-m. In contrast, VLCC spot freight rates saw a more moderate increase, with rates on the Middle East-to-East route up 26%, m-o-m, amid a return of long-haul demand from Asia. Meanwhile, clean rates saw mixed movement. East of Suez rates were broadly flat m-o-m, supported by an increase on the Middle East-to-East route, while West of Suez rates fell 19%, m-o-m, as margins weakened in the Atlantic basin amid high inventories of key products.

Crude and Refined Products Trade

Preliminary data shows US crude imports falling by around 10%, m-o-m, in October to stand at the lowest since December 2022. US crude exports increased to 4.6 mb/d, the highest since March 2023. China's crude imports fell back to 11.2 mb/d in September, after surging to the second-highest level on record the month before. China's product exports slipped 5% in September after reaching a six-month high, as product export quotas are constrained. India's crude imports fell further to an average of 4.3 mb/d in September, the lowest in a year, although are expected to recover with the start of 4Q23. India's product imports rose to a ten-month high ahead of the festive season, while exports fell from a five-month high the month before, on an expected return of domestic demand. Japan's crude imports rose further to an average of 2.6 mb/d in September. Product exports jumped 39%, m-o-m, to a seven-month high of 596 tb/d, with gains seen across all major products, except kerosene. Preliminary estimates show OECD Europe crude imports remaining relatively stable at the start of 3Q23, while product imports are expected to trend lower.

Commercial Stock Movements

Preliminary September 2023 data sees total OECD commercial oil stocks down by 15.6 mb, m-o-m. At 2,783 mb, they were 184 mb below the 2015–2019 average. Within the components, crude and products stocks fell by 9.3 mb and 6.3 mb, respectively, m-o-m. OECD commercial crude stocks stood at 1,336 mb in September, which is 99 mb lower than the 2015–2019 average. Total product stocks fell by 6.3 mb to stand at 1,447 mb in September, which is 84 mb below the 2015–2019 average. In terms of days of forward cover, OECD commercial stocks fell by 0.3 days, m-o-m, in September to stand at 60.6 days, which is 1.9 days below the 2015–2019 average.

Balance of Supply and Demand

Demand for OPEC crude in 2023 remained unchanged from the previous month's assessment to stand at 29.1 mb/d, which is 0.6 mb/d higher than in 2022. Demand for OPEC crude in 2024 is also remained unchanged from the previous month's assessment to stand at 29.9 mb/d, 0.8 mb/d higher than the estimated level in 2023.

Feature Article

Global oil market fundamentals remain strong despite exaggerated negative sentiments

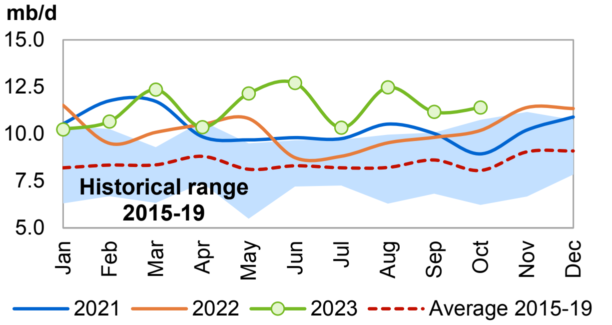
Recent data confirms robust major global growth trends and healthy oil market fundamentals. On the global economic growth front, and as the US economy continues the very strong growth it experienced in 3Q23, the IMF has recently upgraded Chinese economic growth projection for 2023 to 5.4%. However, potential downside risk to current robust global economic growth forecasts, although minor, may include sustained restrictive monetary policies to fight inflation, and geopolitical developments.

With this, and despite the overblown negative sentiment in the market regarding China's oil demand performance, and global oil market in general, the latest data shows Chinese crude imports increasing to 11.4 mb/d in October, and remaining on track to reach a new annual record high for this year, at around the same level.

In fact, the Chinese crude imports remained very healthy, at a record level that is well above the five-years average range, rising by around 240 tb/d, month-on-month, with year-on-year crude imports at 1.2 mb/d higher. Similarly, India's crude imports are also expected to pick up in 4Q23, reaching a record high this year (***Graph 1***).

As the global oil demand continues to demonstrate strength and resilience, with better-than-expected growth in 4Q23, mainly in non-OECD countries, the Secretariat's latest forecast for global oil demand growth for 2023 is revised up to reach at 2.5 mb/d.

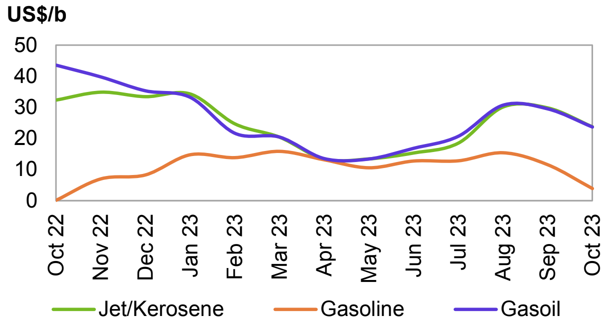
Graph 1: Chinese crude oil imports



Sources: China OGP and Argus China Petroleum.

Evidently, Asian refining margins remain strong compared to historical levels. Jet/kerosene crack averaged \$23.77/b against Dubai in Singapore. Expectations of an increase in international air travel activity during the holidays and possibly stronger export requirements to OECD Europe and Americas will most likely support jet/kerosene markets towards the year-end. The gasoil crack spread averaged \$23.67/b against Dubai in Singapore in October (***Graph 2***). Even the gasoline crack spread averaged \$3.90/b against Dubai in October, and improved to around \$5/b at the beginning of November.

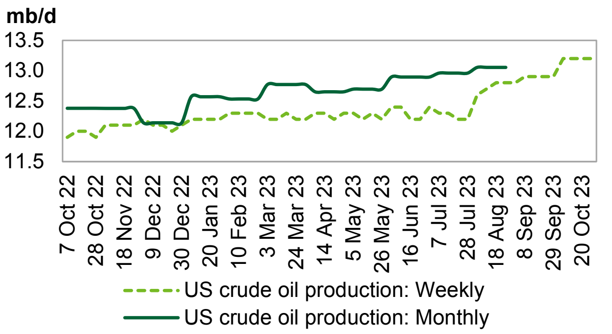
Graph 2: Singapore crack spreads vs. Dubai



Sources: Argus and OPEC.

The supply picture also remains strong with non-OPEC supply revised up slightly to reach 1.8 mb/d for 2023, the US being the main growth contributor. Clearly, the US liquids supply growth has been stronger than what is suggested by weekly data. In fact, the weekly data which has been underestimating US crude production since January, as this were followed by significant monthly data upward catch-up trend, especially since August. The more reliable monthly data indicates a very gradual increase in US crude production (***Graph 3***).

Graph 3: US crude oil production



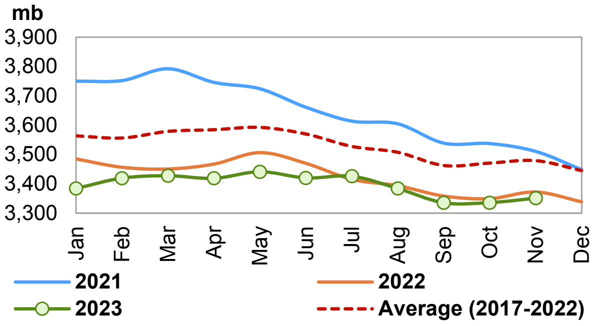
Sources: EIA and OPEC.

The robust physical crude market is further reflected in the strong crude differentials seen in almost all regions in October and continued in early November. At the same time, and based on the available secondary sources to date, the overall OPEC-11 crude production in October remained well-below the agreed level related to production adjustments under the Declaration of Cooperation (DoC). For example, Nigeria has seen some production increase, but remained well below its required production level. It is also important to add that the recent increase in OPEC crude exports reflects seasonal trends.

Shipments from OPEC producers in Middle East tend to decline in the summer, amid higher demand for cooling and then rise again in September and October, as these volumes return to the market. For example, Saudi crude exports increase is quite normal as local demand drops in line with expected seasonality trend. Among non-OPEC participants in the (DoC), and despite the increase in its seaborne crude exports, Russia's product exports have decreasing over the last few months.

With this supply/demand dynamics, global crude stocks have declined in 3Q23, reflecting high global crude runs, as well as the voluntary adjustments by DoC countries. Clearly, the recently overplayed observation of the increase in global inventories is simply due to the typical seasonal trends, particularly the heavy refinery maintenance. Overall, the global crude inventories remain below the 2017–2022 average (***Graph 4***).

Graph 4: Global crude inventories

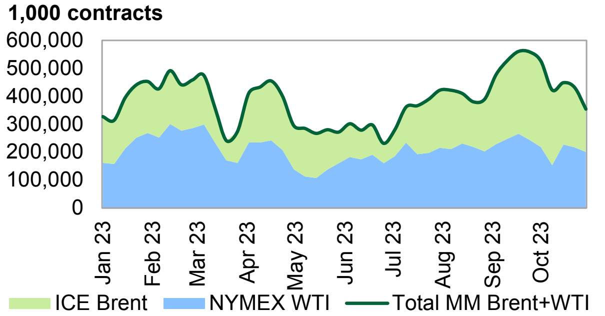


Source: Kpler.

Despite the above healthy and supportive market fundamentals, oil prices have trended lower in recent weeks, mainly driven by financial market speculators, as they have sharply reduced their net long positions over the month of October, compared to the late September, particularly in the NYMEX WTI futures and options contracts.

In fact, data shows that hedge funds and other money managers have heavily cut their bullish positions over the month of October, selling an equivalent of 161 mb and 43 mb of NYMEX-WTI and ICE-Brent futures and options contracts, respectively. In total, they have sold an equivalent of more than 200 mb of oil since late September, or about 37% of total bullish positions. This has fuelled market volatility and accelerated the price decline (***Graph 5***). The selloffs were also observed in speculative positions in petroleum products in October, specifically for ICE gasoil in Europe. ICE gasoil net long positions fell by an equivalent of around 28 mb since late September.

Graph 5: Speculative net long positions (Brent and WTI)



Sources: CFTC, CME, ICE and OPEC.

Indeed, the above strength in market fundamentals would not have been possible without the precautious, proactive, and pre-emptive approach adopted by OPEC and non-OPEC Participating Countries in the Declaration of Cooperation (DoC). Going forward, countries participating in DoC will continue their commitment to achieve and sustain a stable oil market and provide long-term guidance for the market, in line with their decisions most recently reaffirmed during the 35th OPEC and non-OPEC Ministerial Meeting, which extended the agreement until the end of 2024. Clearly, the voluntary production adjustments by many DoC countries as of November until end-2024, along with extended Saudi Arabian voluntary crude production adjustment of 1.0 mb/d until the end of 2023 and the Russian extended voluntary adjustment of 300 tb/d in crude oil exports over the same period, will contribute significantly to achieve and sustain global oil market stability.

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Crude Oil Price Movements

The OPEC Reference Basket (ORB) value declined last month, dropping by $2.82/b, or 3.0%, m-o-m to stand at $91.78/b, as all ORB component values dropped alongside their respective crude oil benchmarks.

The ICE Brent front-month averaged $3.89, or 4.2%, m-o-m lower in October to stand at $88.70/b, and the NYMEX WTI fell by $3.96, or 4.4%, m-o-m to average $85.47/b. DME Oman crude oil futures prices decreased in October by $4.06, or 4.3%, m-o-m to settle at $89.31/b.

In October, hedge funds and other money managers liquidated long positions built in the previous month. They were net sellers of about 204 mb last month in both ICE Brent and NYMEX WTI contracts. This fuelled price volatility and contributed to a drop in futures prices. Speculators sharply reduced net long positions in October.

The price structure of ICE Brent and NYMEX WTI remained strong in the first half of October, with the nearest-month time spread moving into stronger backwardation. This came amid worries about geopolitical developments in the Middle East and evidence that the oil market perception of the supply/demand balance outlook remained positive. The DME Oman price structure also strengthened last month amid firm demand from Asia Pacific refiners.

The premium of light sweet to medium sour crudes widened again in October in all major regions on better performance of light sweet crudes compared to heavier crudes. Sour crude came under downward pressure from the prospect of a higher supply of sour crude and weaker high sulfur fuel oil (HSFO) crack spreads amid lower demand. Meanwhile, light sweet crude remained supported by a robust demand and a high Brent-related risk premium.

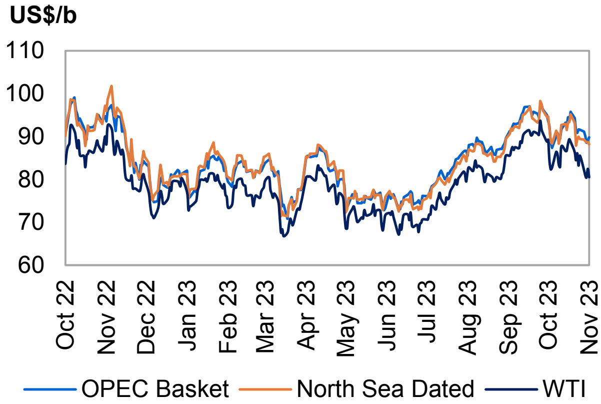
Crude spot prices

Crude oil spot prices fell in October, with the US spot benchmark WTI dropping the most by 4.3% on average m-o-m, mainly driven by sell-offs in futures markets over the month amid elevated volatility.

Spot prices declined less than futures prices, particularly for Brent, as tight supply in the North Sea in the first half of October and sustained demand limited the decline in spot prices.

The spread between the value of North Sea Dated and futures benchmark ICE Brent rose by $1.04 m-o-m in October, settling at a premium of $2.42/b compared to a premium of $1.38/b in September. This highlights the firm physical crude market despite seasonal refinery maintenance.

Graph 1 - 1: Crude oil price movements



Sources: Argus, OPEC and Platts.

All physical crude oil benchmarks fell m-o-m in October, with North Sea Dated decreasing by $2.84, or 3.0%, to settle at $91.12/b, while WTI and Dubai first month prices fell respectively by $3.81 and $3.12, or 4.3% and 3.4%, to settle at $85.57/b and $89.81/b.

Crude Oil Price Movements

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

OPEC Reference Basket (ORB)	Sep 23	Oct 23	Change Oct 23/Sep 23	%	Year-to-date 2022	2023
ORB	**94.60**	**91.78**	***-2.82***	***-3.0***	**103.13**	**83.11**
Arab Light	96.51	93.39	*-3.12*	*-3.2*	104.55	85.04
Basrah Medium	93.14	90.19	*-2.95*	*-3.2*	100.60	80.65
Bonny Light	95.53	94.03	*-1.50*	*-1.6*	106.97	83.52
Djeno	86.51	83.67	*-2.84*	*-3.3*	96.70	75.49
Es Sider	94.31	92.12	*-2.19*	*-2.3*	104.62	82.51
Girassol	97.46	95.72	*-1.74*	*-1.8*	107.21	85.04
Iran Heavy	94.63	91.55	*-3.08*	*-3.3*	103.09	83.31
Kuwait Export	95.70	92.85	*-2.85*	*-3.0*	104.35	84.44
Merey	75.51	72.54	*-2.97*	*-3.9*	79.82	63.64
Murban	93.86	91.00	*-2.86*	*-3.0*	101.54	83.28
Rabi Light	93.50	90.66	*-2.84*	*-3.0*	103.69	82.48
Sahara Blend	95.21	93.27	*-1.94*	*-2.0*	107.41	83.97
Zafiro	95.36	92.52	*-2.84*	*-3.0*	106.19	83.69
Other Crudes						
North Sea Dated	93.96	91.12	*-2.84*	*-3.0*	104.15	82.94
Dubai	92.93	89.81	*-3.12*	*-3.4*	99.24	82.32
Isthmus	87.24	84.04	*-3.20*	*-3.7*	95.52	73.00
LLS	91.37	87.63	*-3.74*	*-4.1*	99.52	80.53
Mars	88.80	84.23	*-4.57*	*-5.1*	94.84	77.48
Minas	91.12	88.25	*-2.87*	*-3.1*	99.47	80.89
Urals	84.23	83.37	*-0.86*	*-1.0*	82.11	63.35
WTI	89.38	85.57	*-3.81*	*-4.3*	97.38	78.11
Differentials						
North Sea Dated/WTI	4.58	5.55	*0.97*	-	6.77	4.83
North Sea Dated/LLS	2.59	3.49	*0.90*	-	4.63	2.41
North Sea Dated/Dubai	1.03	1.31	*0.28*	-	4.91	0.62

Sources: Argus, Direct Communication, OPEC and Platts.

Crude differentials strengthened last month in almost all markets and for all crude qualities, mirroring strong physical crude market fundamentals. In the **North Sea**, the Forties crude value against North Sea Dated jumped to its highest value since August 2022 on firm demand and lower availability in the first half of the month. The North Sea November loading program showed a lower volume. Higher freight rates raised demand for North Sea crude from refiners in Northwest Europe. The Forties and Ekofisk crude differentials rose 91¢ and $1.67 m-o-m, respectively, on a monthly average in October to settle at premiums of $1.95/b and $4.55/b. Sour crude Johan Sverdrup rose to a record high on strong demand for sour crude in Europe. On a monthly average, Johan Sverdrup crude differentials increased by 93¢ m-o-m to stand at an average of $2.75/b.

West African crude differentials rose on strong demand from European and Asian refiners as the west-to-east arbitrage improved amid a narrower Brent-Dubai spread. This made Brent-related crude more attractive in the east-Suez market. On a monthly average, Bonny Light and Forcados crude differentials to North Sea Dated rose by 49¢ and 86¢, respectively, to stand at premiums of $3.25/b and $4.98/b. The Cabinda crude differential also rose by 66¢ m-o-m to a premium of $3.16/b, compared with a premium of $2.50/b in September.

Likewise, in the **Mediterranean**, Saharan Blend crude differentials strengthened last month, increasing by 93¢ m-o-m to stand at a premium of $2.10/b. Azeri Light crude remained strong last month but weakened against the North Sea Dated by 88¢ m-o-m to stand at a premium of $4.93/b. The Caspian light sour CPC Blend crude weakened by 47¢ to stand at a $1.41/b discount to the North Sea Dated amid weaker naphtha cracks and limited arbitrage of the grade in the Asia Pacific.

In the **Middle East**, most crude differentials to Dubai strengthened in October on robust demand from major Asian refiners. The value of the Oman crude differential rose by 42¢ m-o-m to a premium of $2.67/b.

In the **USGC**, the crude differentials of Light Louisiana Sweet (LLS) and Mars sour were mixed amid higher supply in the US and soft demand from USGC refiners amid turnarounds. The sour market weakened, while light sweet crude found support from higher demand for exports. LLS crude differentials rose m-o-m by 8¢ on a monthly average, to a premium of $2.05/b, while Mars sour crude differentials fell by 69¢ to a $1.34/b discount to WTI.

OPEC Reference Basket (ORB)

The **ORB** value declined in October, dropping by $2.82/b, or 3.0%, to stand at $91.78/b, as all ORB component values dropped alongside their respective crude oil benchmarks. This largely offset a rise in most official selling prices in all regions. On a yearly average, the ORB was down $20.02, or 19.4%, from $103.13/b in 2022 to an average of $83.11/b in 2023 year-to-date.

All **ORB component** values fell last month alongside their respective crude oil benchmarks. West and North African Basket components – Bonny Light, Djeno, Es Sider, Girassol, Rabi Light, Sahara Blend, and Zafiro – declined by $2.27 m-o-m in October, or 2.4% on average, to $91.71/b.

Multiple region destination grades – Arab Light, Basrah Light, Iran Heavy, and Kuwait Export – fell by $3.00 m-o-m, or 3.2% on average, to settle at $92.00/b. Murban crude declined by $2.86 m-o-m, or 3.0% on average, to settle at $91.00/b, and the Merey crude component fell by $2.97 m-o-m, or 3.9% on average, to settle at $72.54/b.

The oil futures market

After three consecutive months of solid gains, crude oil futures prices retreated during a volatile October amid mixed signals from the market, witnessing about a 4% decline compared to September's monthly average. The market dynamics last month were influenced by a mixture of macroeconomic factors, geopolitical tensions, supply-demand factors, and sell-offs from money managers.

Crude oil futures prices sharply declined in the first week of October, fuelled by investors engaging in profit-taking, reacting to the significant price surge from September. This came amid a market narrative on concerns about the macroeconomic outlook and weaker-than-expected US consumer spending data for August. Additionally, investors anticipated that the Fed might keep borrowing rates high for an extended period. This sentiment led to the US dollar gaining strength against other major currencies, a factor that exerts downward pressure on oil prices. The US dollar index rose to nearly a year high. Further declines in prices were driven by heavy sell-offs in futures and options long positions from hedge funds and other money managers. The sell-off was fuelled by EIA data highlighting a substantial reduction in US gasoline demand on a weekly basis, and a larger-than-expected build-up in US crude oil stocks in the first week of October.

However, geopolitical developments in the Middle East added risk premiums to oil prices and fuelled volatility. Coupled with the Fed's optimistic remarks hinting at a more cautious approach to rate hikes, this limited the oil price decline. Positive physical market fundamentals also provided support.

In the third week of October, futures prices recouped some of the previous losses amid tensions in the Middle East and worries about a disruption in oil supplies. A seemingly resilient US economy, combined with a decrease in US crude stocks in the second week of October, provided additional support to oil prices.

Nonetheless, oil prices resumed their downward trend in the last week of October as investors shifted their focus to broader macroeconomic concerns, amid soft economic data from China that heightened concerns about slowing oil demand. Data indicating rising oil output, including from the US, further weighed on futures prices. On the other hand, weekly data indicating lower seasonal demand in the US, and refinery operations undergoing turnarounds – temporarily affecting demand for crude – also weighed on market sentiment.

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

			Change		*Year-to-date*	
Crude oil futures	**Sep 23**	**Oct 23**	**Oct 23/Sep 23**	**%**	**2022**	**2023**
NYMEX WTI	89.43	85.47	-3.96	-4.4	97.12	78.14
ICE Brent	92.59	88.70	-3.89	-4.2	101.61	82.63
DME Oman	93.37	89.31	-4.06	-4.3	99.28	82.41
Spread						
ICE Brent-NYMEX WTI	*3.16*	*3.23*	*0.07*	*2.2*	*4.49*	*4.49*

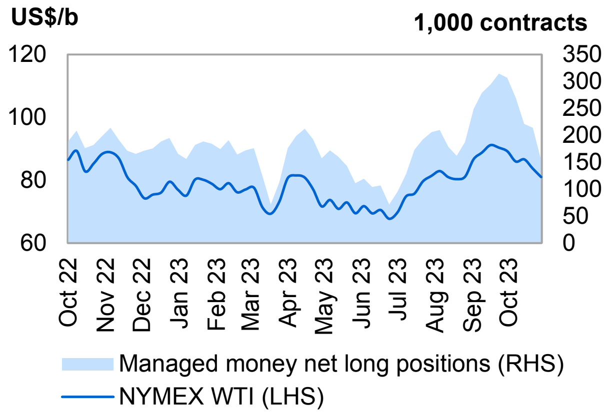
Note: Totals may not add up due to independent rounding.
Sources: CME, DME, ICE and OPEC.

The ICE Brent front-month averaged $3.89, or 4.2%, m-o-m lower in October to stand at $88.70/b, and the NYMEX WTI fell by $3.96, or 4.4%, m-o-m to average $85.47/b. Y-t-d, ICE Brent was $18.98, or 18.7%, lower at $82.63/b, while NYMEX WTI was lower by $18.98, or 19.5%, at $78.14/b, compared with the same period a year earlier. DME Oman crude oil futures prices decreased in October by $4.06, or 4.3%, m-o-m to settle at $89.31/b. Y-t-d, DME Oman was lower by $16.87, or 17.0%, at $82.41/b.

The **ICE Brent–NYMEX WTI first-month spread** widened slightly m-o-m in October but remained tight at around $3/b. Strong Brent backwardation amid robust fundamentals in Northwest Europe and worries about supply flows due to geopolitical tensions in the Middle East lent support to Brent compared to WTI. Nevertheless, the decline in the WTI futures benchmark was also limited by depleting crude stocks at Cushing. Crude stocks at Cushing dropped to a new low of 21 mb in mid-October, close to the minimum operational capacity. The ICE Brent-NYMEX WTI first month spread widened by 7¢ in October compared to the September average to stand at $3.23/b. The spread between North Sea Dated and WTI Houston widened last month, rising by $1.54 to a premium of $4.66/b, which supported US crude exports.

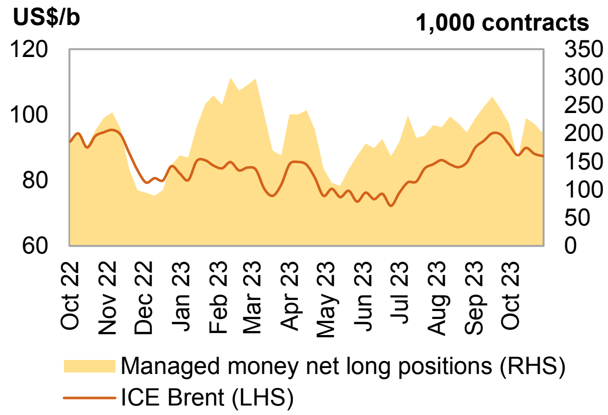
Hedge funds and other money managers turned less bullish on oil and heavily cut their bullish positions in October after they were net buyers in September. This fuelled price volatility and contributed to a drop in futures prices. Speculators sharply reduced net long positions over October, particularly in the NYMEX WTI futures and options contracts. They were net sellers of about 204 mb last month in both ICE Brent and NYMEX WTI contracts. Money managers liquidated long positions built the month before, amid a weakening in the broader financial market, and uncertainty about the Fed's policy and expectations that borrowing rates will remain high for an extended period. Over the month, money managers cut their futures and options net long positions in ICE Brent and NYMEX WTI by 204,304 lots, or 36.6% of total net long positions, between the weeks of 26 September and 31 October to 353,757 contracts.

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.

Money managers heavily cut bullish **NYMEX WTI** positions over October, selling an equivalent of 161 mb. Speculators reduced net long positions by 161.045 lots, or 51.2%, between the weeks of 26 September and 31 October, to stand at 153,474 contracts, its lowest since July 2023, according to the US Commodity Futures Trading Commission (CFTC). The drop in net long positions was mainly driven by a large decline in gross long positions by 107,056 lots, or 31.9%, to 228,870 contracts. During the same period, gross short positions rose by 53,989 lots, or 252.2%, to 75,396 contracts.

Money managers were sellers of the equivalent of about 43 mb of the **ICE Brent** contract in October. In mid-October, money managers recovered part of the contracts sold earlier in the month, but selling resumed in the second half of October. Combined futures and options net long positions related to Brent fell by 43,259 lots, or 17.8%, over the month, to stand at 200,283 contracts in the week of 31 October, according to the ICE Exchange. This is due to a rise in gross short positions by 2,134 lots, or 5.3%, to stand at 42,084 contracts, while gross long positions decreased by 41,125 lots, or 14.5%, to 242,367 contracts over the same period.

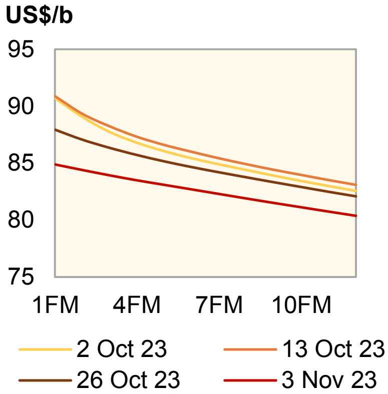
The **long-to-short ratio of speculative positions** in the NYMEX WTI contract declined sharply to 3:1 in the week of 31 October, compared with 16:1 in the week of 26 September. However, the ICE Brent long-to-short ratio was little changed in the week of 31 October at 6:1, compared with the week of 26 September at 7:1.

Open interest volumes related to NYMEX WTI futures and options fell sharply in October by 3.2%, or 74,041 lots, to stand at 2.25 million contracts in the week ending 31 October. Open interest volumes related to ICE Brent futures and options also fell by 3.8% m-o-m, or 112,968 contracts, to stand at 2.82 million contracts in the week ending 31 October.

The futures market structure

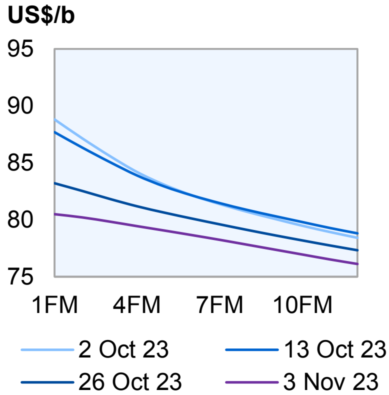
The **price structure** of ICE Brent and NYMEX WTI remained in strong backwardation in the first half of October, with the nearest-month time spread moving into stronger backwardation. Front-month prices declined less than forward contracts, amid the escalation of geopolitical tensions in the Middle East, and evidence that the oil market perception of the supply/demand balance outlook remained positive. This supported the front-month prices more compared to forward prices. The oil futures forward curves steepened, specifically in the front, despite a volatile market and the decline in oil futures prices. The DME Oman price structure also strengthened last month, moving into stronger backwardation. Firm demand from Asia Pacific refiners amid a well-supplied crude market buoyed the value of prompt-month prices compared with forward-month prices.

Graph 1 - 4: ICE Brent forward curves



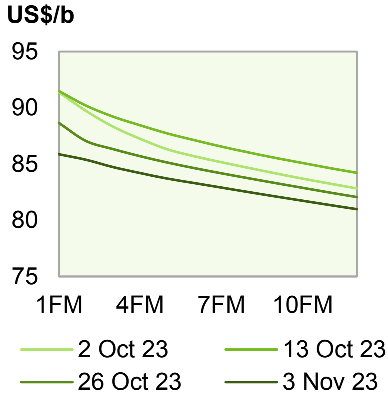
Sources: ICE and OPEC.

Graph 1 - 5: NYMEX WTI forward curves



Sources: CME and OPEC.

Graph 1 - 6: DME Oman forward curves



Sources: DME and OPEC.

The front end of the forward curve for **Brent futures** steepened further in October compared with the previous month, despite falling front-month prices amid elevated volatility. ICE Brent, as an international benchmark, was affected by the uncertain impact of the recent geopolitical developments on oil supply. Prompt prices were also buoyed by firm demand in the spot market and lower availability of prompt loading volumes for November, specifically North Sea benchmark grades. On a monthly average, the ICE Brent first-month premium to the third month rose by 8¢ m-o-m to a backwardation of $2.36/b in October. However, the ICE Brent M1-M6 spread contracted last month by 64¢ to stand at a backwardation of $4.37/b on average, compared with a backwardation of $5.02/b in September.

In the US, the backwardation structure of **NYMEX WTI** also strengthened last month, and the forward curve steepened in the front in the first month of October. This came amid a continued drawing down in Cushing crude stocks and the prospect of higher demand from US refiners in the coming month once the seasonal maintenance period is completed. The NYMEX WTI first-to-third month spread widened by 9¢ to a backwardation of $2.37/b on average in October, compared to a backwardation of $2.28/b one month earlier.

The market structure of **DME Oman** in October strengthened the most amid developments in the Middle East and firm buying interest from Asia Pacific refiners. On a monthly average, the DME Oman M1-M3 spread widened by 49¢ to a backwardation of $2.47/b in September, from a backwardation of $1.98/b in September.

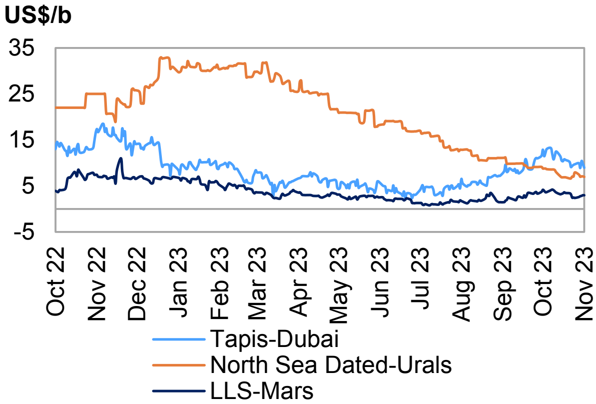
Regarding the **M1/M3 structure**, the **North Sea Brent** M1/M3 spread widened on a monthly average by $1.02 to a backwardation of $3.13/b, compared to $2.11/b in the month before. In the US, the **WTI** M1/M3 backwardation also widened by 17¢ to $2.35/b, compared to a backwardation of $2.18/b in September. The **Dubai** M1/M3 backwardation widened on average by 27¢ m-o-m to a backwardation of $2.69/b in October.

Crude spreads

The premium of light sweet to medium sour crudes widened again in October in all major regions on better performance of light sweet crudes compared to heavier crudes. Sour crude came under downward pressure from the prospect of a higher supply of sour crude and weaker value of the HSFO crack spreads amid lower demand, specifically in East of Suez markets. Meanwhile, Light sweet crude value remained supported by a robust light sweet crude market and a high Brent-related risk premium that makes the sweet crude value higher compared to sour.

In **Europe**, the decline of the value of light sweet crude was limited compared to sour crude amid a tight supply of the five North Sea benchmark grades and firm demand. The value of major North Sea crude benchmarks surged to fresh multi-month highs. High freight rates that reduce the competitiveness of light sweet crude outside Europe added support to light sweet grades in Northwest Europe. The sweet-sour crude spread represented by the Ekofisk-Johan Sverdrup differential rose by 74¢ m-o-m to stand at a premium of $1.80/b. However, the spread between North Sea Dated and Urals declined last month on the stronger value of Urals, which was mainly exported to Asia. Urals crude differentials rose respectively by $1.98 and 70¢ in the Mediterranean and Northwest Europe to stand at discounts of $7.75/b and $11.13/b.

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



Sources: Argus, OPEC and Platts.

In **Asia**, the Tapis premium over Dubai widened last month as the value of sour crude fell more than light sweet crude. Strong light sweet crude value in other regions, including in the Atlantic Basin, lent support to similar grades in the East of Suez market, amid a limited increase of Brent-Dubai differential that kept west-to-east arbitrage opportunities limited. At the same time, a sharp drop in the HSFO crack spread in Singapore to its lowest since February 2023 on a monthly basis, weighed on the value of sour crude. The Tapis-Dubai spread widened by $1.98 m-o-m in October to an average of $10.97/b. The Brent-Dubai differential rose by 28¢ on a monthly average to stand at a premium of $1.31/b, compared with a discount of $1.03/b in September. The Brent-Dubai exchange of futures for swaps contract (EFS) also widened last month by 49¢ m-o-m to stand at a $2.13/b premium.

In the **USGC**, the LLS premium over medium sour Mars also widened in October by 83¢ m-o-m to $3.40/b, its highest monthly average since last December. The sour crude market on the USGC coast was under pressure amid lower demand from domestic refiners and weak fuel oil margins. Meanwhile, light sweet crudes such as LLS were supported by healthy light product crack spreads, and as naphtha rose last month, in addition to increasing US crude exports.

Commodity Markets

All selected commodity price indices receded m-o-m in October. The energy and precious metals price indices fell after three consecutive months of increases. Meanwhile, the base metal index erased all gains from the previous month.

In the futures market, sentiment was largely bearish in October. Money managers' total net long positions decreased m-o-m, while open interest rose for a second consecutive month driven mainly by an increase in short positions.

The volatility of some commodity prices rose m-o-m amid geopolitical developments in the Middle East. Meanwhile, the decline in most prices underscores the challenges that commodity prices continue to experience from China's macroeconomic headwinds. Outside of China, the Fed announced a second consecutive pause in interest rate hikes at its 1 November meeting, but elevated interest rate levels remained a drag on prices amid a stronger US dollar.

Trends in selected commodity markets

The **energy price index** declined in October after three consecutive months of increases, falling by 1.8%, m-o-m. The decline was driven mainly by a retraction in coal and average crude oil prices but was partially offset by a strong performance of natural gas prices in both the US and EU. The index was down by 20.9%, y-o-y.

Table 2 - 1: Commodity prices

Commodity	Unit	*Monthly averages*			*% Change*	*Year-to-date*	
		Aug 23	Sep 23	Oct 23	Oct 23/Sep 23	2022	2023
Energy*	Index	**108.7**	**117.7**	**115.7**	**-1.8**	**156.1**	**107.8**
Coal, Australia	US$/mt	152.6	162.5	142.1	-12.5	336.4	184.7
Crude oil, average	US$/b	84.7	92.2	89.1	-3.4	101.0	80.3
Natural gas, US	US$/mbtu	2.6	2.6	3.0	13.2	6.7	2.5
Natural gas, Europe	US$/mbtu	11.2	11.5	14.6	26.2	41.5	13.0
Non-energy*	Index	**109.6**	**110.7**	**108.9**	**-1.6**	**126.3**	**112.8**
Base metal*	Index	**105.2**	**105.4**	**102.4**	**-2.9**	**124.5**	**109.9**
Precious metals*	Index	**145.8**	**145.3**	**144.6**	**-0.5**	**137.2**	**146.5**

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

Sources: World Bank and OPEC.

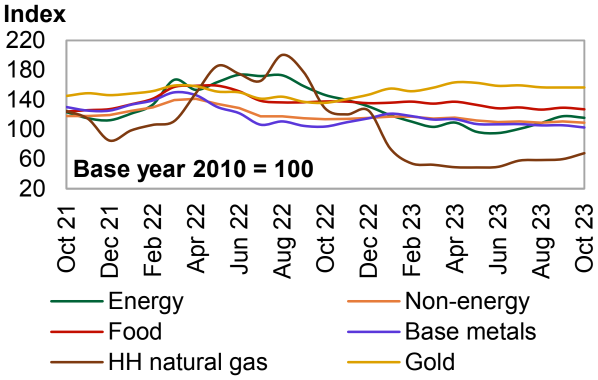
Average **crude oil** prices receded in October after three consecutive months of increases. Prices fell by 3.4%, m-o-m, under pressure from a combination of softer market fundamentals and China's macroeconomic headwinds. Prices were down by 1.4% y-o-y.

Henry Hub's natural gas prices increased for a fifth consecutive month against a backdrop of strong production, rising by 13.2% m-o-m in October. Prices rallied on the back of increased demand for residential heating amid colder weather across the US. Prices were further supported by solid US LNG exports amid higher prices in Asia and Europe. LNG spot prices in Asia were $13.29/mmbtu higher compared with Henry Hub prices in October, while natural gas prices in Europe were $11.58/mmbtu higher compared with Henry Hub prices over the same period. Prices were down by 46.9%, y-o-y.

Natural gas prices in **Europe** rose for a third consecutive month. The average Title Transfer Facility (TTF) price went from $11.5/mmbtu in September to $14.6/mmbtu in October, a 26.2% increase m-o-m. Data from Gas Infrastructure Europe shows EU storage almost at full capacity as of the end of October. However, prices were impacted by geopolitical developments in the Middle East, underscoring the increased susceptibility of TTF prices to global dynamics. Prices were down by 62.7%, y-o-y.

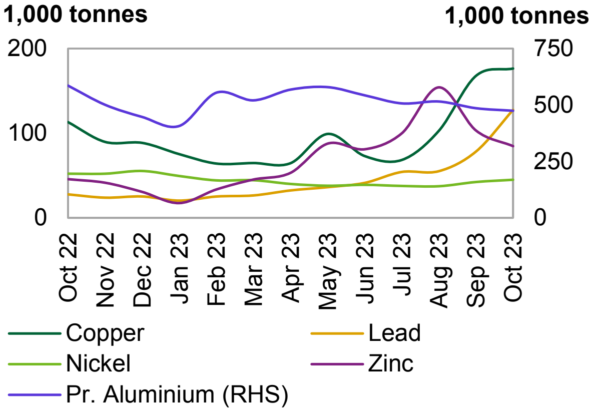
Australian thermal coal prices declined in October after three consecutive months of increases, falling sharply by 12.5% m-o-m. Prices rose earlier in the month amid a combination of high natural gas prices and increased buying interest from several Asian countries. However, reports of ample supplies in China and other consuming nations later in the month eased pressure on prices. Additionally, China reaffirmed its commitment to increasing domestic production, thus adding downward pressure on prices. Prices were down by 63.5%, y-o-y.

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.

The **non-energy price index** receded in October. The index declined by 1.6%, m-o-m, erasing gains from the previous month. The index fell following reports of an improved crop outlook from the US Department of Agriculture against a backdrop of adverse weather conditions in other regions. The index was down by 4.0%, y-o-y.

The **base metal** index fell in October, decreasing by 2.9%, m-o-m. All the index components fell but were partially offset by another monthly increase in aluminium prices. Metal prices were pressured by weaker China and global industrial activity in October. China's Manufacturing purchasing manager's index (PMI) fell from 50.2 in September to 49.5 in October. Meanwhile, global PMI continued its downward trajectory, falling to 48.8 in October from 49.2 in September. Both PMIs are below the expansion level. The base metal index was down by 1.2%, y-o-y.

Aluminium prices rose for a second consecutive month in October, increasing by 0.3% m-o-m. Prices rose amid China's production capacity reduction mandates. Outside of China, the London Metal Exchange (LME) warehouses reported a 2.6% m-o-m decrease in inventories, which further supported prices. Prices were up by 3.7%, y-o-y.

Average monthly **copper** prices declined for a third consecutive month, falling by 4.1% m-o-m in October. Copper prices remained under pressure from China's strong production capacity. Outside of China, rising inventories continued to weigh on prices as the LME reported a 5.2% increase in inventories m-o-m. Prices were up by 6.9%, y-o-y.

Lead prices declined in October after two consecutive months of increases, falling by 5.3% m-o-m. Softer industrial activity in China, as seen by the m-o-m decline in manufacturing PMI, weighed on prices. Outside of China, LME inventories rose by 63.0% m-o-m, thus adding more downward pressure on prices. Prices were up by 6.7%, y-o-y.

Nickel prices continued their downward trajectory, falling for a sixth consecutive month in October. Prices fell by 6.9% m-o-m amid weaker demand in China. Outside of China, LME warehouses showed an inventory build-up of 6.3% m-o-m. Prices were down by 17.0%, y-o-y.

Zinc prices receded in October after three consecutive months of increases, falling by 1.9%, m-o-m. Admittedly, zinc inventories at the LME declined by 17.9%, m-o-m, in October. However, LME reports of increased off-warrant inventories (inventories that are not stored at LME warehouses) in October weighed on prices. Prices were down by 1.9%, y-o-y.

Iron ore prices declined by 1.8% m-o-m in October. Prices fell on signs of Chinese demand weakness. China's steel industry PMI fell from 45.80 in September to 45.60 in October. Prices were up by 28.3%, y-o-y.

The **precious metals** index fell for a third consecutive month in October, declining by 0.5%, m-o-m. Gold prices remained essentially flat m-o-m in October, while both silver and platinum prices fell by 3.1% respectively over the same period. Precious metal prices rose earlier in the month amid geopolitical developments in the Middle East. However, the combination of a stronger US dollar and lower central bank buying offset the support from the geopolitical risk premium. Silver and platinum were further pressured by weaker global industrial activity. The index was up by 14.9%, y-o-y; gold and silver prices were also up by 15.1% and 15.2%, y-o-y, respectively; meanwhile, platinum prices were down by 2.5% over the same period.

Investment flows into commodities

Total money managers' net length fell in October, decreasing by 13.2%, m-o-m. Copper experienced the biggest decline in net long positions, followed by gold and crude oil, but the decline in net length was partially offset by an increase in natural gas.

Total open interest (OI) rose for a second consecutive month in October, increasing by 2.1%, m-o-m. Gold led the increase, followed by copper and natural gas, but the increases were partially offset by a decrease in crude oil.

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

Selected commodity	*Open interest*		*Net length*			
	Sep 23	Oct 23	Sep 23	% OI	Oct 23	% OI
Crude oil	2,318	2,297	284	12	253	11
Natural gas	1,174	1,193	-37	-3	-11	-1
Gold	586	661	55	9	29	4
Copper	218	233	-7	-3	-14	-6

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

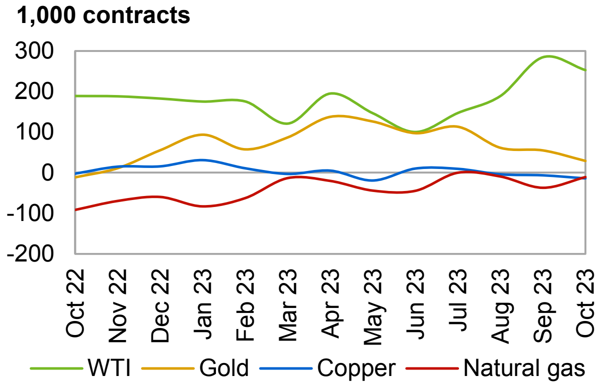
Total crude oil (WTI) OI decreased in October, falling by 0.9%, m-o-m. Meanwhile, money managers' net length fell sharply after three consecutive months of increases, decreasing by 11.1%, m-o-m. Money managers' sentiment was bearish amid softer market fundamentals.

Total Henry Hub natural gas OI rose in October after four consecutive months of decreases, increasing by 1.7%, m-o-m. Money managers also increased their net long positions by 71.2% over the same period. The sharp increase in net length was driven mainly by a reduction in short positions. Nonetheless, the ratio of short positions remained elevated.

Gold's OI fell for a third consecutive month in October, falling by 12.8%, m-o-m. Money managers also cut net length for a third consecutive month, which fell sharply by 47.5% over the same period. The strong performance of the US dollar remained a drag on money managers' sentiment on gold.

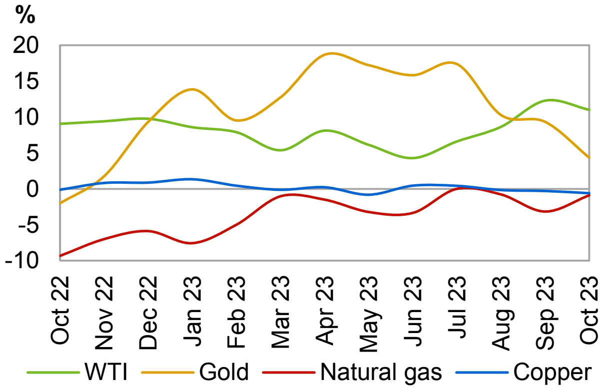
Copper's OI rose by 7.0%, m-o-m, in October. Meanwhile, money managers reduced their net length sharply by 113.6% over the same period. Money managers' sentiment remained bearish amid weaker global industrial activity.

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

Global economic growth remained resilient up to 3Q23. Following the recently released 3Q23 economic growth figures from several economies, adjustments have been made this month to incorporate these latest economic dynamics. The global economic growth forecast remains unchanged at 2.8% and 2.6% for 2023 and 2024, respectively, with the counterbalancing effect of these adjustments.

The US economy has sustained robust growth economy up to 3Q23, despite the continuation of stringent monetary policy. Japan's economy has surpassed its growth potential so far this year and is expected to be supported in the near term following the announcement of fiscal stimulus measures. The Eurozone experienced lower-than-expected growth up to 3Q23, primarily attributed to a decline in the industrial sector, notably affecting Germany, the largest economy in the Eurozone. In the non-OECD group of countries, India, Brazil, and Russia exhibited solid economic growth in the 1H23 and are likely to continue this trend into 3Q23. Moreover, in China, government counterbalancing measures have effectively supported the economy in likely achieving its growth target for this year.

Nevertheless, there are potential challenges to the economic growth forecasts, including persistently high core inflation rates, ongoing stringent monetary policies, labour market constraints in advanced economies, and geopolitical developments.

However, support may come from a less pronounced inflationary environment, enabling major central banks to consider accommodative monetary policies toward the end of this year and into 2024. Emerging economies in Asia, notably India, along with Brazil and Russia could exceed expectations with improvements in domestic demand and external trade. Additionally, an even more robust growth trajectory in China, backed by further fiscal and monetary stimulus measures, has the potential to bolster global economic growth this year and the next. Additionally, if the US sustains its recent momentum in 4Q23 and throughout 2024, economic growth could surpass initial expectations.

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

	World	OECD	US	Eurozone	UK	Japan	China	India	Brazil	Russia
2023	**2.8**	**1.4**	**2.3**	**0.2**	**0.2**	**1.9**	**5.2**	**6.2**	**2.5**	**1.9**
Change from previous month	0.0	0.0	0.3	-0.3	0.0	0.2	0.0	0.0	0.0	0.4
2024	**2.6**	**0.9**	**0.9**	**0.5**	**0.6**	**1.0**	**4.8**	**5.9**	**1.2**	**1.2**
Change from previous month	0.0	0.0	0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.2

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

Source: OPEC.

Update on the latest global developments

The **latest economic growth reports** from major economies confirm the continuation of a globally robust growth trend, albeit with varying dynamics. The US economy experienced very strong growth in 3Q23, following a healthy dynamic seen in 1H23. In contrast, the Eurozone experienced very low growth in 1H23, followed by a decline in 3Q23. European economies, particularly Germany, faced challenges with a decline in 1Q and 3Q23, coupled with low growth in 2Q and difficulties in the industrial sector in France and Italy, contributing to a persistently low growth level in 1Q and seemingly 3Q23. Japan’s economic growth in 1H23 surprised to the upside and, with the latest announcement of fiscal stimulus measures, the economy is expected to receive tangible support in the near term. China’s latest 3Q23 economic growth level, surpassing expectations, suggests that the targeted 5% growth for this year may be achieved. The positive growth trend observed in the first half of 2023 appears to be continuing in India, Brazil, and Russia as well.

On a positive note, recent data shows a continued easing of **core inflation** in most advanced economies. However, despite this favorable trend, inflation remains a concern for the US Federal Reserve (Fed), the European Central Bank (ECB) and the Bank of England (BoE). Consequently, these key central banks have opted to persist with their stringent monetary policies. In addition, the Bank of Japan (BoJ) has continued its measured tightening process, making a slight adjustment to its bond yield control policy while maintaining its current low-interest rate policy.

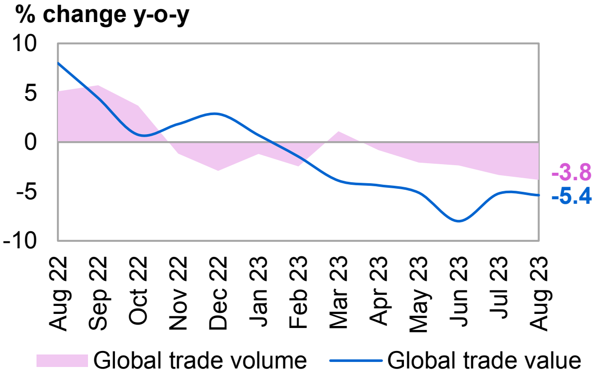
The consequences of elevated interest rates in advanced economies are becoming apparent, particularly in the context of the high debt levels in those countries. Data available from the US shows that bankruptcy filings have increased by around 15% annual growth rate on average up to 3Q23, and US delinquency rates in the consumer loan sector have risen significantly as well, moving from 1.5% in mid-2021 to 2.5% in 2Q23.

Global trade has continued its decelerating trend in both volume and value terms on an annual basis.

Trade in value terms declined by 5.4%, y-o-y, in August, following a decline of 5.2%, y-o-y, in July and -8%, y-o-y, in June, based on the CPB World Trade Monitor Index provided by the CPB Netherlands Bureau for Economic Policy Analysis. This yearly decline translated into a marginal August decline of 0.1%, m-o-m.

Trade in volume terms fell by 3.8%, y-o-y, in August, after a decline of 3.3%, y-o-y, in July, and after declining by 2.3%, y-o-y, in June, extending the deceleration.

Graph 3 - 1: Global trade



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

Near-term global expectations

Despite the persistent challenges, **global economic growth** has proven more resilient than anticipated up to 3Q23, as indicated by the latest economic growth reports from various economies. After a resilient 1H23 global economic growth trend, a steady, albeit globally diverse, growth dynamic has persisted into 3Q23. Global growth rates in 1Q23 and 2Q23 are estimated to have stood at 2.7%, y-o-y, and a more considerable 3.5% y-o-y, respectively. The estimated 3Q23 global economic growth is 2.6%, y-o-y. However, a forecast suggests a slight easing for 4Q23.

While the industrial sector's impact on the global economy is expected to improve in relative terms by year-end, this trend is yet to fully materialize as industrial output and, consequently, global goods trading continues to face challenges.

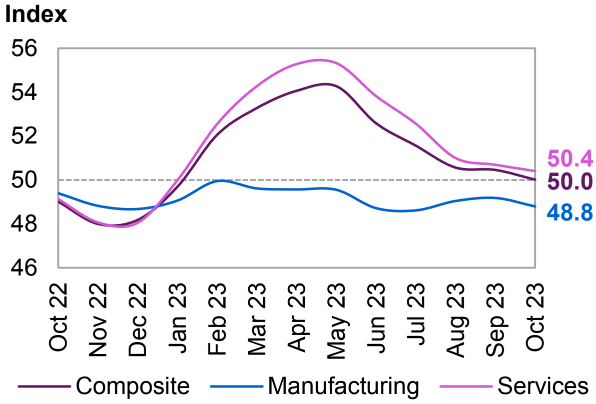
The near-term path of global economic growth will hinge on several factors, with the course of inflation, particularly in key economies, and the corresponding monetary policies by major central banks playing pivotal roles. Although the G4 central banks did not lift rates in their most recent meetings last week, interest rates in the US, the Eurozone and the UK are expected to remain at high levels at least up to 2H24. In Japan, there are indications that the BoJ may consider raising interest rates in the coming months to address inflation. The prevailing market consensus suggests that elevated interest rates and their resulting dampening effect will endure throughout much of 2024, with key policy rates projected to reach their peak by the year's end. While G4 central bank balance sheets are expected to gradually contract through 2024, the transition toward a more accommodative monetary stance may only materialize in 2H24. In this context, it is expected that headline inflation will continue to recede further in 4Q23 and into 2024. However, core inflation in major economies is expected to remain relatively persistent, with some moderation projected for 2024.

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

The global **manufacturing PMI** declined in October after it had slightly improved in September. It stood at 48.8 in October, following 49.2 in September and 49.0 in August, and has remained in contractionary territory since September of last year.

The global **services sector PMI** fell to 50.4 in October, after a level of 50.7 in September and 51 in August.

Graph 3 - 2: Global PMI



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

Considering the latest 3Q economic growth levels, the **2023 global economic growth forecast** remains unchanged to stand at 2.8%.

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

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

	World
2023	**2.8**
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** continued its strong growth dynamic as the 3Q23 growth number stood at 4.9% q-o-q SAAR, as released by the Bureau of Economic Analysis (BEA). Economic growth in 2Q23 and 1Q23 was reported at 2.2% q-o-q SAAR and 2.1% q-o-q SAAR, respectively. Private household consumption was reported as having held up particularly well in 3Q23 at 4% q-o-q SAAR, while it stood at 0.8% q-o-q SAAR in 2Q23. Furthermore, the momentum in 4Q23 is estimated to have demonstrated consistent growth thus far, at 2.1% q-o-q seasonally adjusted annual rate (q-o-q SAAR), as per the Atlanta branch of the Fed in its GDP Now forecast—a widely observed now-casting indicator. However, it is evident from this estimate that the growth momentum is likely to ease towards the year's end.

Several factors merit close monitoring with ongoing challenges related to interest rates and debt at the forefront. Additionally, political developments deserve close attention, particularly after a temporary resolution averted a **government shutdown** last Lawmakers reached an agreement on a temporary measure that funds the government until November 17, 2023. On a positive note, labour agreements were reached in the automobile industry, preventing an escalation of the strikes that were initiated by the United Auto Workers (UAW) labour union.

In the meantime, the **consumer confidence index,** as reported by the Conference Board, retracted again, reflecting some of the ongoing challenges that private household consumers need to deal with. The index stood at 102.6 in October, following an index level of 104.3 index points in September and 108.7 in August.

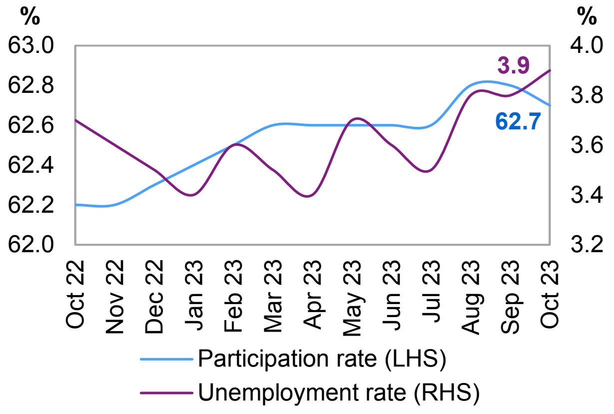
Headline **inflation** was unchanged at 3.7% y-o-y in September, the same level as in August. Core inflation slowed down to a level of 4.1% y-o-y in September, following 4.3% y-o-y in August. It is the lowest core inflation level in around two years. Furthermore, the Fed is also being steered by the personal consumption expenditures (PCE), pointing to a level of 3.7% y-o-y in September, after 3.8% y-o-y in August.

The labour market maintained a relatively healthy state in October but has softened somewhat thereafter. The **unemployment rate** rose to 3.9% in October after a level of 3.8% in September.

The **participation rate** fell slightly, standing at 62.7% in October, following 62.8% in September.

The earnings level remained sound as well, albeit retracting slightly. **Hourly earnings** rose by 4.1% y-o-y in October, compared with 4.3%, y-o-y, in September and August.

Graph 3 - 3: US monthly labour market



Sources: Bureau of Labor Statistics and Haver Analytics.

Near-term expectations

After strong growth up to 3Q23, the US economy's **growth dynamic** is forecast to moderate. 4Q23 growth is forecast to decelerate from the high growth levels in 1H23 and 3Q23, a dynamic that is forecast to carry over into 2024. The challenges for near-term growth are manifold. While the UAW strike has been averted, a more potentially significant concern could arise in the form of potential political gridlock on the US budget later in November, possibly leading to a government shutdown. To avert a potential shutdown by 17 November, Congress might resort to passing a temporary measure, such as a continuing resolution, as done previously. However, the extensive budget discussions could linger for weeks, potentially extending into 2024, triggering automatic funding reductions. Even if a temporary solution is found, failure to enact a full set of spending bills by the end of 2023 could trigger a 1% reduction in government funding starting in April 2024. Regardless of the risk of a government shutdown, US economic growth in 4Q23 will very likely moderate. This is anticipated due to various factors, including the increase in bond yields, tightening financial conditions, and the conclusion of the student loan moratorium. Moreover, rising interest rates will have implications for corporate borrowing costs and could increase the burden on households to repay consumer loans, including car loans and, certainly, mortgages. After strong growth of 2.2% q-o-q SAAR in 1Q23 and 2.1% q-o-q SAAR in 2Q23, economic growth rose sharply to a level of 4.9% q-o-q SAAR in 3Q23. 4Q23 growth is expected to be almost flat at 0.1% q-o-q SAAR.

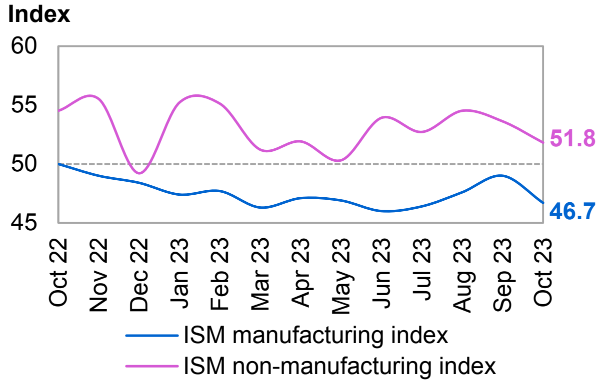
Based on the expected near-term growth trends, 2024 growth rates are forecast to be lower than the average quarterly growth seen this year. However, a rebound in economic growth is anticipated in 2H24, with growth rates around 1% q-o-q SAAR in both 3Q24 and 4Q24. This upswing in the latter half of 2024 is likely to be supported primarily by a more accommodative monetary policy, among other factors. Key policy rates are expected to reach their peak levels towards the end of 2023 and transition to a more accommodative policy stance by 2H24. This is based on the expectation that inflation for 2023 could reach around 4.2%, implying a solid deceleration towards the end of the year and reaching around 3% in 2024. The Fed is likely to maintain its existing monetary policies, however, with the key policy rate reaching 5.5% to 5.75% by year-end, as was also implied by the FOMC in its latest economic projections from September.

October **PMI** levels, as provided by the Institute for Supply Management (ISM), reflected a moderating trend, with an ongoing contraction in the manufacturing sector and a gradual slowdown in the services sector.

The October **manufacturing PMI** retracted to stand at 46.7, following 49 in September and 47.6 in August, also remaining below the growth-indicating level of 50.

The index level for the **services sector**, representing around 70% of the US economy, retracted as well to stand at 51.8 in October, following 53.6 in September and 54.5 in August.

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



Sources: Institute for Supply Management and Haver Analytics.

Considering the sound momentum in 1H23 and strong growth in 3Q23, the **2023 economic growth forecast** is revised up to stand at 2.3%.

Considering the dampening effect from high-interest rate levels and slowing, yet still elevated, inflation levels, the US economic growth estimate for **2024** is anticipated to moderate. However, with some improving momentum from 2023 carrying over into 2024, the forecast is adjusted up slightly to stand at 0.9%.

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

	US
2023	**2.3**
Change from previous month	0.3
2024	**0.9**
Change from previous month	0.2

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

OECD Europe

Eurozone

Update on the latest developments

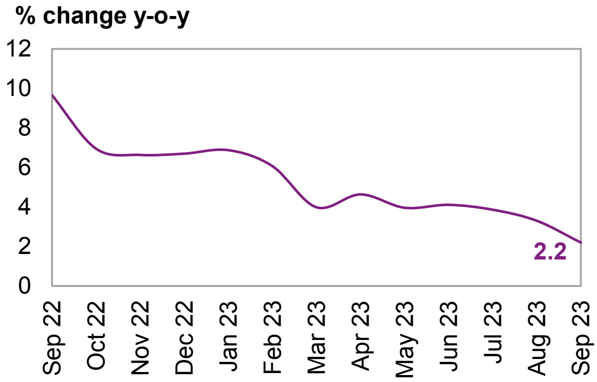
The economic conditions in the Eurozone remain challenging, with a recorded decline in economic growth during 3Q23. Furthermore, the region continues to grapple with high core inflation, although general inflation has receded again significantly due to lower energy prices this year. In Germany, a decline of 0.1% q-o-q SAAR during 1Q23, low growth in 2Q23 of only 0.6% q-o-q SAAR, and a decline of 0.3% q-o-q SAAR in 3Q23 economic growth impacted the Eurozone developments considerably. This was largely driven by a challenging situation in Germany's industrial sector. Similarly, struggling industrial sectors in France and Italy contributed to keeping growth in the Eurozone at a very low level in 1H23 and seemingly in 3Q23. Eurozone economic growth rose by only 0.2% q-o-q SAAR in 1Q23, followed by a somewhat rebounding 2Q23 dynamic, with economic growth of 0.6% q-o-q SAAR. In 3Q23, economic growth declined by 0.4% q-o-q SAAR. It appears that the effects of the ECB's subsequent monetary policy actions and the recent decline in industrial activity are still being absorbed. While the services sector, especially tourism and leisure, appeared to provide some support to activity throughout the year, overall indicators suggest ongoing subdued economic performance. Bank lending has also weakened further amid the strong rise in interest rates. Ultimately, lower confidence across the Eurozone's member countries and activities in retail sales and industrial production (IP) data for 3Q23 all point to ongoing low growth.

Inflation slowed down considerably in October to stand at 2.9% y-o-y, following a rise of 4.3% y-o-y in September and a level of 5.2% y-o-y in August. Core inflation retraced as well but remained high, standing at 4.9% y-o-y in October, after 5.4% y-o-y in September and following 6% y-o-y in August.

The **labour market** slightly weakened after it had maintained a relatively positive trajectory throughout 2023. According to the latest numbers from Eurostat, the unemployment rate stood at 6.5% in September, compared with 6.4% in August and 6.5% in July.

Growth in **retail sales** in value terms continued decelerating, rising by 2.2% y-o-y in September, after a growth level of 3.3% y-o-y in August and following 3.9% y-o-y in July.

Graph 3 - 5: Eurozone retail sales



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

Near-term expectations

After low growth of 0.2% q-o-q SAAR in 1Q23 and 0.6% q-o-q SAAR in 2Q23, economic growth declined by 0.4% in 3Q23. This is forecast to rebound only slightly in 4Q23, accelerating to 0.8% q-o-q SAAR. This forecast reflects a further considerable slowdown in bank lending and an expected deceleration of the services sector towards the end of the year. The ongoing soft Euro-US-dollar relationship may continue impacting inflation as the appreciation of the US dollar could lead to higher imported goods prices. The strength of the US dollar may endure in the near term.

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. With these assumptions and inflationary trends, rate cuts will likely materialize only in 2H24. The ECB is forecast to continue tightening its monetary policy towards the end of the year, maintaining the main key policy rate at least at the current 4.5%. The projected slowdown in lending activities is anticipated to have varied effects, potentially impacting sectors like real estate and broader business-related investments to some extent.

Quarterly growth in 2024 will likely stand within a relatively close range of between 0.4–1.2% annualized quarterly averages. The forecast for 2024 anticipates gradual progress in the industrial sector, driven by both domestic and external demand, particularly in 2H24. However, it remains to be seen if and to what extent the expected recovery in IP will materialize. An improvement would represent an important support factor for German economic growth.

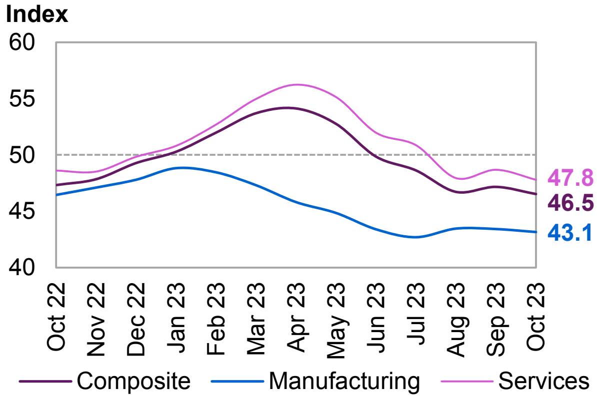
Elsewhere, the situation in Italy will warrant attention, particularly concerning the country's sovereign debt challenges. Italy's sovereign debt to GDP ratio increased to 140.2% in 2Q23 compared with a level of 137.4% in 1Q23. Although spreads over German Bunds have only risen modestly so far, the 10-year Italian sovereign bond yield now stands at a very high level compared to the past 10 years.

The **Eurozone's October 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, remained below the growth indicating level of 50 to stand at 47.8 in October, after 48.7 in September and 47.9 in August.

The **manufacturing PMI** retracted slightly – and remained deep in contractionary territory – standing at 43.1 in October, following 43.4 in September and 43.5 in August.

Graph 3 - 6: Eurozone PMIs



Sources: S&P Global and Haver Analytics.

Economic growth for 2023 is revised down to stand at 0.2%. This takes into consideration the low growth in 1H23, particularly the decline in 3Q23, and the additional impact of a variety of dampening factors, including inflation and ongoing monetary tightening. The forecast also anticipates some rebound in 4Q23.

With some carry-over of this lower 2H23 activity, **2024 economic growth** is also revised down to stand at 0.5%.

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

	Eurozone
2023	**0.2**
Change from previous month	-0.3
2024	**0.5**
Change from previous month	-0.2

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

OECD Asia Pacific

Japan

Update on latest developments

Following healthy growth in 1H23, Japan's economy faces ongoing challenges, particularly with the persistently high inflation and its consequent impact on real income. However, these challenges are expected to be counterbalanced by fiscal stimulus measures announced by the government at the beginning of November. The government announced a stimulus package of around ¥37.4 trillion, including long-term projects and private sector participation. Around ¥13.1 trillion are to be funded by a supplementary budget for the remainder of the fiscal year, ending in March 2024. While further details will be announced soon, many projects seem to be more of a medium to long-term nature. Based on analysis from Goldman Sachs, support to economic growth from the total package will be limited to less than 0.5% of GDP over both fiscal years of 2023 and 2024. Economic growth in 1Q23 was reported at 3.2% q-o-q SAAR, compared with the initial estimate of 2.7%, as reported by the Ministry of Economy, Trade and Industry (METI). Economic growth in 2Q23 was reported at 4.8% q-o-q SAAR. Growth in 3Q23 seems to have been steady but was lower than in 1H23, judging from the most recent output indicators.

The **industrial sector** recovered slightly in September, with industrial output declining by 3.7% y-o-y, after a decline of 4.4% y-o-y in August. This translates to monthly IP growth of 0.2% m-o-m, compared with a decline of 0.7% m-o-m in August. Inflation remains historically high but has decelerated slightly in recent months. The September level stood at 3% y-o-y, following 3.2% y-o-y in August and 3.3% y-o-y in July and June. Compared with the general inflationary trend, core inflation – excluding food and energy – a main guideline for central bank policies, was also relatively steady at 2.6% in September, compared with 2.7% y-o-y in August and July.

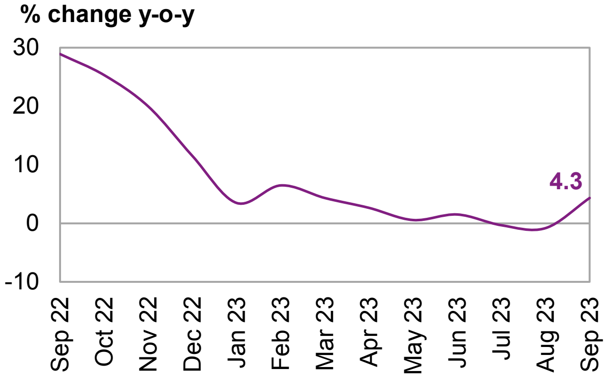
Over the past months, the **Bank of Japan** (BoJ) has already started to change its ultra-accommodative monetary policies, while, so far, it has kept its negative key policy rate unchanged at -0.1%. In the meantime, it has again adapted its yield curve control approach at its latest end-of-October meeting. The BoJ allowed yields on the 10-year Japanese government bond to rise above 1%, revising its yield curve control (YCC) policy for the second time in three months. It was mentioned that the most important factor behind this move was the larger-than-expected rise in US Treasury yields. However, it remains to be seen how the BoJ will attempt an exit from its current loose monetary policy. A disorderly exit may have unwanted consequences in Japanese government bond markets and further effects on Japanese asset markets and its economy. However, the relative strength of the Japanese economy during 1H23, ongoing high inflation and the weakening of the Japanese yen – as seen again at the beginning of November – will put further pressure on the BoJ to tighten monetary policy at a faster pace in the near term.

Goods **exports** rebounded somewhat after having faced a slowing trend. Exports rose by 4.3% in August, putting the 3Q23 exports at 1.6% y-o-y. July exports declined by 0.8% y-o-y. While there was a positive monthly trend, the quarterly development underlines the ongoing challenges in global trade.

Retail sales continued their expansionary trend, with robust domestic demand seen in 2Q23. Retail sales grew by 5.8% in September, following 7% y-o-y in August and after 6.9% y-o-y in July, in value terms and on a non-seasonally adjusted basis.

Consumer confidence remained sound and rose slightly. The consumer confidence index stood at 35.4 in October, after 35.2 in September and 35.5 in August.

Graph 3 - 7: Japan's exports



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

Near-term expectations

Annual growth for 2023 in Japan is forecast to remain healthy and above its growth potential. This is attributed to the baseline effects from 2022 and strong growth in 1H23. However, **economic growth** in 2H23 is forecast to decelerate on a quarterly basis, with an estimated further normalization towards its growth potential in 2024. After strong growth in 1Q23 of 3.2% q-o-q SAAR and 4.8% q-o-q SAAR in 2Q23, the 1H23 dynamic in economic expansion is expected to moderate in 2H23, and Japan's growth is forecast to revert to its low-growth pattern in 2H23 and also in 2024, with growth rates projected to be around 1% in 1H24. A slight pickup in activity is anticipated in the second half of 2024, aligning with global growth expectations. The services sector dynamic is expected to slow down in 2H23, given that much of the 1H23 growth had been primarily supported by pent-up demand in contact-intensive segments of the economy, such as tourism. However, as IP 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 and continue expanding in 2024. Also, the newly announced fiscal stimulus measures will lend some support to the Japanese economy and will counterbalance the slowing trend to some extent. With further details still to be announced, the quantified impact remains to be seen.

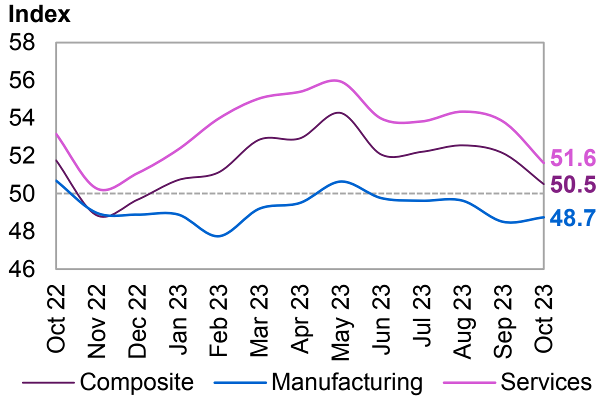
Considering this steady growth pattern, the weakening of the yen and rising inflation, among other factors, the BoJ is forecast to continue pursuing gradual tightening, potentially with ongoing emphasis on its YCC policies. The BoJ might adopt a more decisive stance in the near term if the economy's relative strength, persistent inflation, and the recent weakening of the yen persist. Inflation is estimated to have averaged 3.5% y-o-y in total during 1H23 but is forecast to trend downwards towards the end of the year.

October's PMI numbers indicate a slight improvement in the manufacturing sector, although it continues to experience a contractionary trend. In the services sector, a deceleration was seen in the latest available numbers, but the PMI remained above the growth-indicating level of 50.

The **services sector PMI**, which constitutes around two-thirds of the Japanese economy, retracted to stand at 51.6 in October, after 53.8 in September and 54.3 in August.

The **manufacturing PMI** rose to a level of 48.7 in October, following a level of 48.5 in September and 49.6 in August.

Graph 3 - 8: Japan's PMIs



Sources: S&P Global and Haver Analytics.

After strong growth in 1H23 and an ongoing steady dynamic in 3Q23, the **2023 economic growth forecast** for Japan is revised up to 1.9%. Growth 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	**1.9**
Change from previous month	0.2
2024	**1.0**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

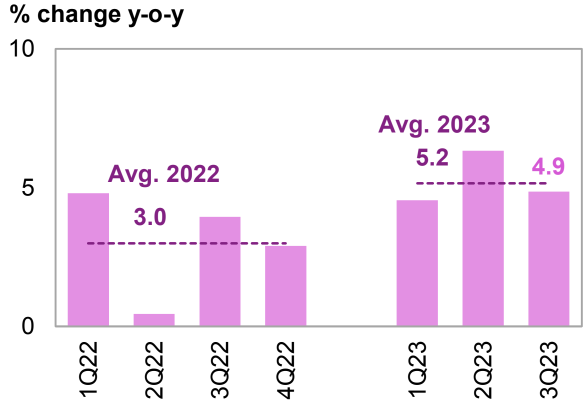
Source: OPEC.

Non-OECD

China

Update on the latest developments

Graph 3 - 9: China's economic growth



Sources: National Bureau of Statistics and Haver Analytics.

China's government stimulus measures, coupled with a gradually improving situation in exports, have supported the country's efforts to achieve its economic growth target of around 5% so far. While the economy has continued facing challenges, the government has introduced a series of counterbalancing and supportive measures to stimulate growth in 3Q23 and beyond. The 3Q23 economic growth level was at 4.9% y-o-y, while growth in 2Q23 was at 6.3% y-o-y, and in 1Q23, it stood at 4.5% y-o-y. There are indications of ongoing improvements in the economy in 4Q23, attributed to stimulus measures. This is evident in the gradual progress observed in domestic demand and industrial output. 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. Although the property sector continues to face challenges, there has been a recent uptick in activity outside of the property sector. This provides a foundation for the continuation of the cyclical rebound in 2H23. Retail trade growth recovered further, picking up by 5.5% y-o-y in September, compared with 4.6% y-o-y in August and following a rise of 2.5% y-o-y in July. Similarly positive, IP rose by 4.5% y-o-y in both September and August, after 3.7% y-o-y in July.

After an uneven dynamics this year, the latest momentum in **external trade** indicates an improving situation. Following a 2.3% decline in trade volumes in 2022, primarily impacted by prolonged COVID-19 lockdowns, there was a rebound in momentum at the beginning of the year with the reopening of the economy. Export volumes recovered particularly 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 up to July. On a positive note, there has been an improvement in export volumes for two consecutive months, with a 7.9% year-on-year increase in September, following a 5.9% year-on-year increase in August, as reported by China's General Administration of Customs.

Consumer price developments have remained deflationary in the past months, and this challenging trend was confirmed by the latest numbers from October. The headline **inflation rate** retracted again and fell into deflationary territory, declining by 0.2% y-o-y in October. This follows no growth in September, a negligible rise of 0.1% y-o-y in August, and a decline of 0.3% y-o-y in July. The widely watched inflation rate for urban areas fell by 0.1% y-o-y in October, after growth of 0.1% y-o-y in September. Hence, the price development is potentially becoming more challenging while also providing the government with increased flexibility for additional fiscal or monetary policy actions. Notably, the central bank could introduce additional stimulus measures after the one-year loan prime rate, the key policy rate, was already lowered in August by 10 bp to stand at 3.45%, a level that has remained since.

Near-term expectations

The current projections for **economic growth** suggest a relatively even distribution throughout the year. After 1Q23 growth was reported at 4.5% y-o-y, 2Q23 economic growth stood at 6.3%, followed by 4.9% y-o-y in 3Q23. This is expected to be followed by 5% in 4Q23. This is expected to result in the Chinese economy expanding by 5.2%, y-o-y, in 2023. In 2024, growth is forecast to slightly decelerate and be relatively evenly distributed on a quarterly basis, with some relative acceleration seen towards mid-year, before again slowing down towards the end of the year. The manufacturing sector is forecast to experience a modest improvement in 4Q23 and 2024, whereas the services sector is expected to continue its gradual slowdown into 2024.

The housing sector has witnessed an ongoing contraction in both the primary and secondary markets, and its stabilization is expected to be a gradual process. Moreover, the latest stimulus measures underline the government's determination to achieve the growth target of around 5% for this year and support weakening areas of the economy, especially the real estate sector. Also, further monetary policy and additional financial-sector-related support measures are likely to be undertaken. A further round of key policy rate cuts of around 10 bp across the key policy rates is likely. This would bring the one-year loan prime rate to 3.35% by year-end. This may be accompanied by another 25 bp cut of the reserve ratio requirement (RRR) in December. The RRR for financial institutions stood at around 7.4% in October, after the most recent cut of 25 bp in September. Maintaining accommodative liquidity conditions will be important to provide support for property developers, thus enabling the successful completion of projects and contributing to the vital real estate sector.

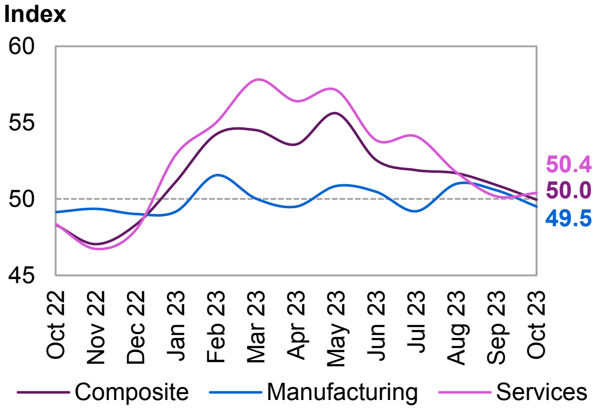
Inflation is forecast to maintain a low growth momentum throughout 4Q23, with a gradual pick-up in 2024. Headline CPI is forecast to pick up to around 0.5% y-oy- in 4Q23, reaching around 1% y-o-y in 1Q24 and averaging slightly below 2% in 2024. This will provide the government with some additional flexibility for implementing economic support measures through both monetary and fiscal channels. Thus far this year, there has been robust consumer expenditure within the services sector, while domestic demand for goods has been lacklustre, contributing to the slowing activity in the manufacturing sector. In addition, the slowdown in exports has impacted industrial activity this year. Improvements in exports are expected to support economic growth towards the end of the year and in 2024, given the most recent improving trend that is forecast to carry over into 2024.

October PMI readings, as provided by S&P Global, show that the services sector's activity continued to expand. Activity in the manufacturing sector fell into contractionary territory again and stood below the expansionary level of 50.

The **manufacturing PMI** retracted to a level of 49.5 in October, following a level of 50.6 in September and 51 in August.

The **services sector index** rose to stand at 50.4 in October, after a level of 50.2 in September and an index level of 51.8 in August.

Graph 3 - 10: China's PMI



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

The **2023 economic growth forecast** remains at 5.2%. This anticipates sustained pent-up demand and a continuation of the rebound in exports in 4Q23. This is expected to come along with additional measures implemented by authorities to bolster economic growth.

Economic growth in **2024** is forecast to decelerate from this year's level and remains unchanged at 4.8%. However, China is expected to account for 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

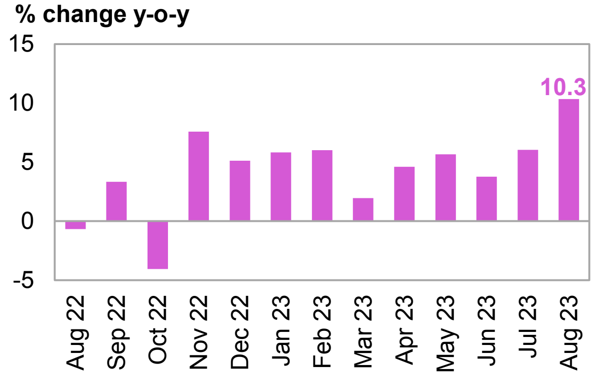
India

Update on the latest developments

The Indian economy seems to have continued a sound **growth trend in 3Q23** after the steady growth seen in 1H23. India's economic growth in 1Q23 stood at 6.1% y-o-y and accelerated further in 2Q23, standing at 7.8% y-o-y. After inflation rose sharply in the middle of the year, the price trend has started to normalize again in the recent months. However, inflationary uncertainties have kept the central bank from adopting a more accommodative monetary policy stance. The latest central bank meeting minutes show that the members maintained a cautious tone. The rate-setting committee emphasized their attention on upside risks to the headline inflation trajectory, particularly arising from food prices. Another uncertainty that will need close monitoring in relation to food prices is the El Niño phenomenon, which may pose unexpected challenges in food output due to potentially volatile weather conditions.

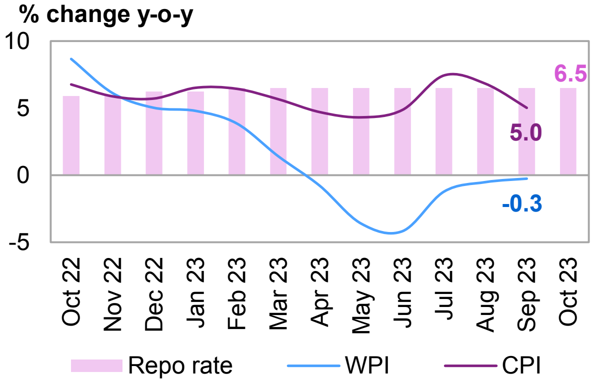
Thus far this year, economic growth in the Indian economy has been supported by a **broad-based expansion** across the major sub-sectors. Leading indicators and output metrics indicate an ongoing favourable trend in 3Q23 and towards the end of the year. The services sector is expected to remain the primary growth driver for the economy, but India has also benefited substantially from improvements in its manufacturing sector, with the latest PMI indicators from September and October indicating continued expansion. A major impulse for 1H23 growth seems to have come from investment in the economy, supported by government-led stimulus efforts and a robust export performance as well. **Industrial production** advanced by a considerable 10.3% y-o-y in August, after a rise of 6% y-o-y in July and following an already strong 3.8% y-o-y in June.

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.

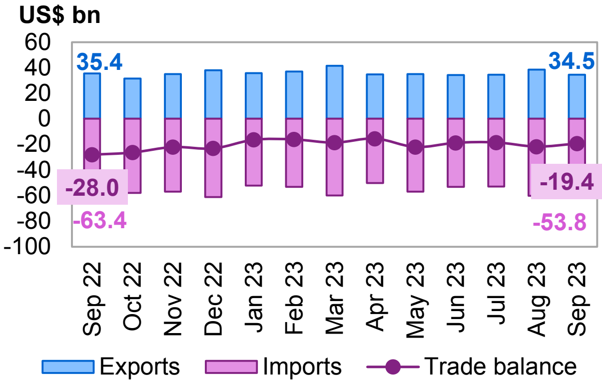
While India's **inflation** increased over the past months, it continued retracting in the latest available month of September. The **general CPI index** rose by 5% y-o-y in September, compared with 6.8% y-o-y in August and 7.4% y-o-y in July. The high level in July was fuelled by a potentially temporary surge in vegetable prices. Severe supply disruptions during the monsoon season caused steep price increases, particularly with tomatoes, among other important vegetable prices. Food and beverage inflation retracted in September, again rising by 6.3% y-o-y, following 9.2% y-o-y in August and 10.6% y-o-y in July. Core inflation, excluding fuel, food and light, declined further to stand at 4.5% y-o-y in September, after 4.8% y-o-y in August and 4.9% in July.

India's **trade balance** posted a smaller deficit of about $19.4 billion in September, compared with $28 billion in September of last year.

Monthly **exports** stood at $34.5 billion in September, compared with $35.4 billion in September of last year.

Monthly **imports** stood at $53.8 billion in September, after $63.4 billion was seen in September of last year.

Graph 3 - 13: India's trade balance



Sources: Ministry of Commerce and Industry and Haver Analytics.

Near-term expectations

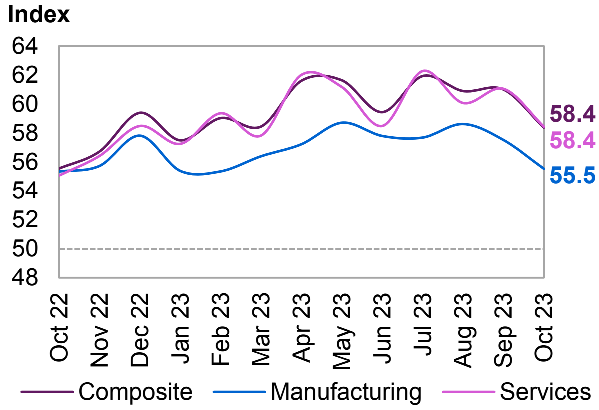
India's economy is expected to maintain sound economic growth towards the end of the year. While **economic growth** is expected to decelerate in 2024, the economy is projected to outpace other major economies. Growth in 2024 is forecast to see some acceleration from 4Q23, with all quarterly growth levels forecast to stand slightly above 6%, except in 1Q24. The services sector is projected to be the primary driver of economic growth in 2023, maintaining its leading role, supported by a robust export performance. Following the strong growth of 6.1% y-o-y in 1Q23 and 7.8% y-o-y in 2Q23, growth is forecast to remain strong but to decelerate somewhat in 2H23, standing at 5.6% y-o-y in 3Q23 and at 5.4% y-o-y in 4Q23. Some uncertainty remains concerning the inflationary developments and the potential impact of the El-Nino phenomenon on agricultural output. The strong rise in 3Q23 food-related inflation of 8.7% y-o-y is forecast to dampen households' disposable income in 2H23. Government spending is expected to continue providing support, with investments, strong in the first half of 2023, expected to persist in growth. Indicators for private investment demand, however, have varied. A further positive factor to note is the recent rise in consumer sentiment and the sustained high level of forward-looking business indicators.

The most recent rise in inflation is likely to spill over into core inflation in the near future, possibly leading the Reserve Bank of India (RBI) to keep its interest rates at the current level. The RBI's Monetary Policy Committee (MPC) voted to hold policy rates at 6.5% at its most recent meeting in October. The tone of the statement and the more recently available meeting minutes imply no near-term changes in monetary policy, highlighting that high inflation is a major risk. Although there is an expectation that inflation will adjust to considerably lower levels, primarily due to the reversal in vegetable prices, the RBI is expected to maintain careful oversight of price levels before considering a shift toward a more accommodative monetary policy.

The **S&P global manufacturing PMI** continued to point to solid expansion. The index level stood at 55.5 in October, compared with 57.5 in September and 58.6 in August.

The **services PMI** indicated ongoing steady dynamics in October but has retracted from the very high September level. It stood at 58.4 in October, after 61 in September and 60.1 in August.

Graph 3 - 14: India's PMIs



Sources: S&P Global and Haver Analytics.

The **economic growth forecast for 2023** remains unchanged at 6.2%. This projection accounts for robust 1H23 economic growth and a continued steady growth trend in 2H23. The primary driving forces behind growth this year are the services sector, fiscal stimulus initiatives and some – albeit decelerating – support in consumption during 2H23.

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

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

	India
2023	**6.2**
Change from previous month	0.0
2024	**5.9**
Change from previous month	0.0

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

Latin America

Brazil

Update on latest developments

The latest data from Brazil point to ongoing steady growth in 2H23, albeit at a lower level than in 1H23. Growth was above 3% on average in 1H23. Economic growth stood at 3.4% y-o-y in 1Q23 and was reported to have grown by 3.3% y-o-y in 2Q23 on a seasonally adjusted base. From a sectoral perspective, 2Q23 dynamics were mainly driven by the services sector, while industrial output improved as well. The latest available monthly GDP data index, as provided by the Fundação Getúlio Vargas Institute from August, confirmed a services-led slowdown in growth momentum. While the sector's growth stood at 2.5% in 2Q23 and 2.7% in 1Q23 based on the GDP index, it retracted to 1.9% y-o-y in July and 1.5% y-o-y in August. On a positive not, the industrial sector improved to a growth level of 2% y-o-y in August, compared with 1% y-o-y in July.

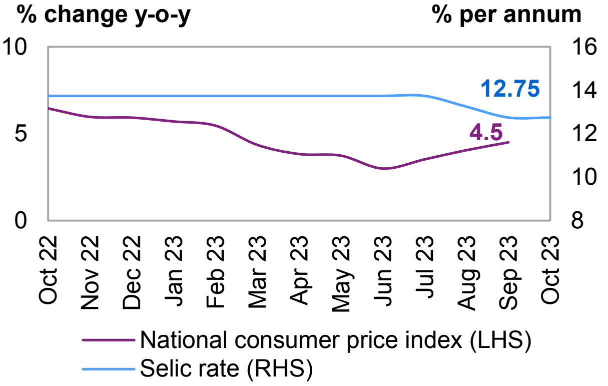
The **consumer confidence** index, as measured by the Fundação Getúlio Vargas Institute, rose to 3Q23, confirming ongoing positive momentum in the economy. Consumer confidence has improved further in 3Q23 and reached a level of 96.2, compared with 89.1 in 2Q23 and 85.8 in 1Q23. However, it retracted to stand at 93.2 in October.

After the Banco Central do Brazil (BCN) lowered the **SELIC key policy rate** by half a percentage point in August, the key policy rate was kept at a level of 12.75% after it was lowered further in September by 50 bp. These rate changes in support of the economy followed the considerable decline in the inflation rate in previous months, which in turn was the outcome of the forceful monetary tightening that started in 2021. However, most recently, inflation slightly accelerated in July and August again after support for fossil fuel prices ended.

Inflation rose to 4.5% y-o-y in September, following 4.1% y-o-y in August and 3.5% y-o-y in July. On a monthly basis, this was a rise of 0.1% in September and a rise of 0.2% in August. This most recent push in inflation came after the reintroduction of gasoline taxes, which resulted in a rise in fuel prices. However, the important core inflation rate subsided slightly to reach 5.9% y-o-y in September, after a level of 6.1% y-o-y in August and following 6.2% y-o-y in July. The central bank's inflation target stands at 3.25% for 2023.

The improvements 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 7.7% in September, following 7.8% in August and 7.9% in July. This may point to a further expansionary trend 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

As seen in the latest monthly **GDP indicators,** moderation in growth is expected to materialize in 2H23, albeit coming from strong growth levels in 1H23. This comes amid the continuation of high interest rate levels as well as the transitory nature of dynamics seen in 1H23, such as the exceptional growth in agricultural output during 1Q23. 3Q23 growth is forecast to stand at 2.2% y-o-y and 4Q23 economic growth is estimated to stand at 1.2% y-o-y. This follows growth of 3.4% y-o-y in 1Q23. 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. External trade in 1H23 was supported by China's ongoing recovery in combination with the strong export opportunities in agricultural output in 1Q23. However, these factors are anticipated to abate in the coming quarters. After growth in exports stood at almost 8% y-o-y in 1H23, this level is forecast to come down to below 3% in 2H23 and to further normalize in 2024. The latest progress in fiscal reform, the anticipation of further monetary easing towards 2024 and improving prospects for Brazil's investment environment are also factors expected to support sound growth in 2024.

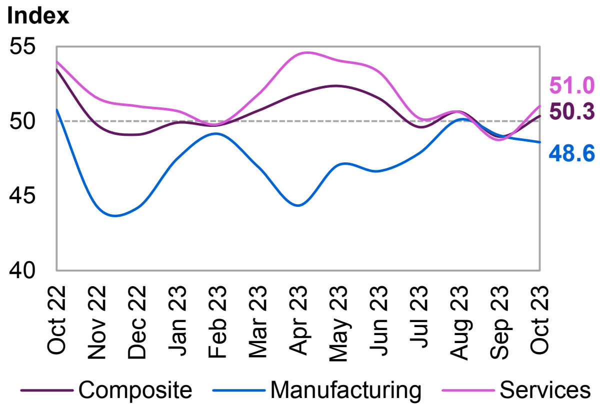
The SELIC rate is anticipated to reach 12.25% by the end of the year before subsequently declining to approximately 8% by the end of 2024. This anticipates inflation to stand at around 5% on average in 2023. Looking ahead to 2024, inflation is expected to settle at approximately 4%. Given the notable deceleration in the inflation trend, especially in core inflation, there is a possibility that an accommodative monetary policy approach may continue in 2H23.

October PMI indices indicate ongoing support, particularly from the services sector. The manufacturing sector's index level retracted slightly and remained below the growth indicating level of 50.

The **manufacturing PMI** fell to stand at 48.6 in October, following 49 in September and 50.1 in August.

The **services PMI** rose above 50 again to stand at 51 in October, after a level of 48.7 in September and 50.6 in August.

Graph 3 - 16: Brazil's PMIs



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

The **economic growth forecast for 2023** is unchanged at 2.5%. This takes into consideration the sustained, improved dynamics in 3Q23 and the sound base from 1H23. However, a slowdown in 2H23 is anticipated. On a positive note, the potential for more accommodative monetary policies in 4Q23, along with continued robust domestic demand towards the year-end, could potentially uplift growth beyond current expectations.

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

	Brazil
2023	**2.5**
Change from previous month	0.0
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, especially considering the expected lower interest rate regime.

Africa

South Africa

Update on the latest developments

South Africa's economy has continued its recovery, with the supply side showing resilience and increased private sector investments in electricity generation capacity supporting the demand side. However, household consumption remains under pressure due to rising prices and high interest rates.

Additionally, recent high-frequency data suggests a slowdown in manufacturing, which declined by 3.5%, y-o-y, in September, after a pick-up of 1.1%, y-o-y, in August and 2.8%, y-o-y, in July.

In September 2023, the annual inflation rate rose to 5.4%, up from 4.8% in August. However, it remained comfortably within the South African Reserve Bank's target range of 3% to 6%. Core inflation, which excludes volatile items, decreased to a 13-month low of 4.5% in September 2023, compared to 4.8% in the previous month. On a monthly basis, consumer prices increased by 0.6% in September, following a 0.3% rise in August. Hence, the South African Reserve Bank (SARB) kept the benchmark interest rate on hold at 8.25%.

Regarding external demand, South Africa recorded a trade surplus of ZAR 13.1 billion in September 2023, surpassing the revised ZAR 12.6 billion surplus in August. Exports decreased by 3.3% over the month to ZAR 174.7 billion, while imports dropped by 3.8% to ZAR 161.5 billion, primarily due to reduced purchases of original equipment components.

Near-term expectations

It is anticipated that household experience faster expansion, driven by easing inflation and the likely decrease in currently high-interest rates in 2024. This is expected to boost household consumption and credit uptake in the coming year.. Nevertheless, the economy may remain susceptible to challenges such as power shortages, transport bottlenecks, higher interest rates and fluctuations in commodity prices. Additionally, global geopolitical factors, such as tensions between the US and China and other flashpoints, may have implications for economic growth. Inflation is forecast to average almost 6% in 2023 and to stand above 5% in 2024.

Reflecting this uncertainty, the seasonally adjusted Absa Purchasing Managers' Index fell to 45.4 in October from an upwardly revised 46.2 in September. This indicates the ninth consecutive month of contraction in South Africa's factory activity, with the most significant impact observed in the sub-index of business activity.

The **2023 economic growth forecast** remains unchanged to stand at 0.6%, considering the 2Q23 improvements, a better situation in 3Q23 and the expectation of a gradual slowdown in inflation in 4Q23.

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

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

	South Africa
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.

Russia and Central Asia

Russia

Update on the latest developments

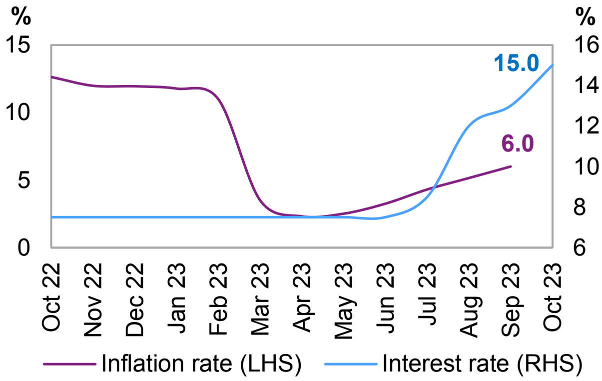
Russia's economy is estimated to have sustained a sound growth dynamic in 3Q23, building on its better-than-anticipated performance in 1H23. Despite some persistent external challenges, the economy seems to be garnering sound support from an improving domestic situation and a sound underlying growth dynamic from private households and the government. Growth in industrial production rose by 5.6% y-o-y in September, following 5.4% y-o-y in August and growth of 4.9% y-o-y in July. This was again very much supported by manufacturing, which rose by 10.9% y-o-y, following 10.3% y-o-y in August and 9.5% y-o-y in July. On a monthly basis, industrial output rose by 1% in September, after a rise of 2% in August and 1% in July.

On the **monetary policy** front, the Bank of Russia raised its key interest rate by another 2 pp to a level of 15% at its October 2023 meeting. This was an extension of the monetary tightening efforts of the central bank, following the 1 pp hike in September and the considerable 3.5 pp rate hike in the middle of August. The central bank's decision was primarily driven by inflationary pressures in the Russian economy, stemming from domestic demand outpacing limited capacity. This situation was further exacerbated by constraints in the labour force, coupled with concerns about the depreciation of the rouble, which now appears to have been mitigated.

Consumer inflation rose to stand at 6% y-o-y in September, following 5.2% y-o-y in August and 4.3% in July, marking the highest level since March this year. Core consumer prices accelerated to stand at 4.6% y-o-y in September, followed by 3.9% y-o-y in August and 3.2% y-o-y in July.

Moreover, Russia's **jobless rate** continued to stand at a historically low level of 3% in September, following a level of 3.1% in August and 3% in July.

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



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

Near-term expectations

Considering the ongoing positive trends in key drivers such as industrial production, the job market and consumer demand, the potential risks to Russia's **growth in 2023** and likely in 2024 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 continue. Russia's economic **growth** momentum suggests further improvements up to the end of the year, leading to steady growth in 2024. This positive trend is expected to be driven by the continued export of hydrocarbons and the favourable impact of an improving domestic situation, including solid growth in government expenditures. The government has submitted a medium-term budget that projects a rise in nominal spending by 26% compared to the 2023 budget, including a 15% rise in social spending.

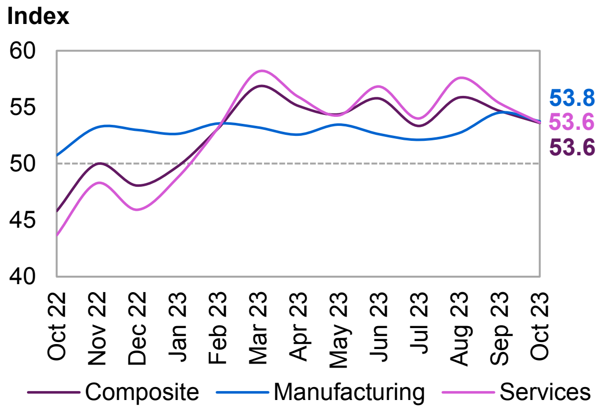
Inflation is expected to rise further. A recent macroeconomic survey of the Central Bank of Russia foresees **inflation** for the year of more than 6% y-o-y by December, a level that was already reached in September. While it seems that the decline of the rouble is in check, a further weakening of the currency poses an additional risk for inflation. The **central bank** will monitor these developments closely before considering further tightening. Furthermore, government-driven initiatives are projected to continue mitigating ongoing economic challenges. Additionally, The central bank possesses the flexibility to potentially implement a more accommodating monetary policy in 2024 if inflation aligns with the current projection of 4%, y-o-y. However, for the time being, the central bank is expected to maintain its tight monetary policy.

The **PMI index** for the manufacturing and services sectors exhibited a somewhat slowing dynamic in October.

In October, the S&P global **manufacturing PMI** fell to stand at 53.8, after 54.5 in September and 52.7 in August.

The **services PMI** dropped to stand at 53.6 in October, after 55.4 in September and 57.6 in August, amid a softer rise in new orders.

Graph 3 - 18: Russia's PMI



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

Considering the ongoing improving trend, Russia's **economic growth in 2023** is revised up to stand at 1.9%. 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 growth is forecast at 1.2% in **2024**.

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

	Russia
2023	**1.9**
Change from previous month	0.4
2024	**1.2**
Change from previous month	0.2

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

OPEC Member Countries

Saudi Arabia

According to preliminary estimates, the economy of Saudi Arabia contracted by 4.5% y-o-y in 3Q23, reversing y-o-y growth of 1.2% in 2Q23. On a seasonally adjusted quarterly basis, the economic growth declined by 3.9%, following a 0.4% fall in the previous quarter. While more detailed data is not currently available, non-oil private activities seem to have continued their upward momentum, as Saudi Arabia's Riyad Bank PMI rose to 58.4 in October from 57.2 in September — the highest reading since June. Moreover, annual inflation eased for the fourth consecutive month to 1.7% in September from 2% the previous month, recording the lowest rate level since February of last year. Finally, sentiment eased slightly but stayed positive.

Nigeria

Inflationary pressure continued to accelerate and was mainly attributed to second-round effects after the removal of petrol subsidies and devaluation of the naira. Consequently, the pace of inflation rose from September and was considerable. The inflation rate jumped to 26.7% in September, up from August's 25.8%. The annual core inflation rate, which excludes farm produce, climbed further to 22.1% in September, compared with 21.2% in August. On a monthly basis, consumer prices rose by 2.1% in September, following a 3.2% surge the prior month. Yet, recent data indicate unemployment decreased to 4.1% in 1Q23 from 5.30% in 4Q22. The unemployment rate in Nigeria averaged 4.16% between 1991 and 2023. October's Stanbic IBTC Bank of Nigeria PMI dropped to 49.1, down from September's reading of 51.1, reflecting a challenging situation in the economy.

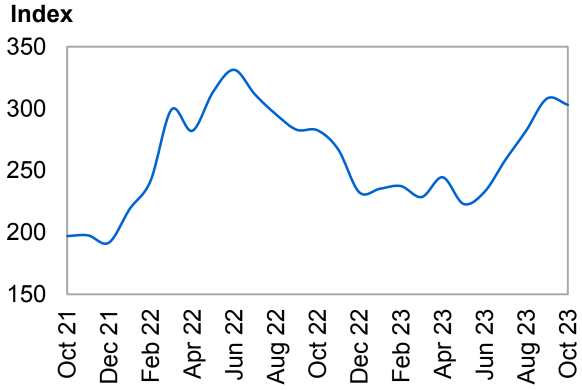
The United Arab Emirates (UAE)

The United Arab Emirates' non-oil economic activities continued to see robust performance and are expected to extend healthy development into 2024. This was supported by the October PMI, which increased to 57.7 from 56.7 in September, confirming the expansionary trend of the past few years. It also marked the strongest growth in the country's non-oil private sector since June, as new orders increased to their highest level since June 2019. Meanwhile, the tourism sector — which accounts for about 16% of the GDP — continued its strong performance, with the number of visitors to Dubai increasing by 19%, y-o-y, to stand at 8.5 million. An upward trend in non-oil activities is anticipated to continue supporting further growth for the next year. Looking ahead, growth prospects in the UAE's non-oil GDP may continue to build momentum, supported by increased business confidence, government reforms and an expansion in household spending.

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

The **US dollar** (USD) index rose for a third consecutive month in October, increasing by 1.0% m-o-m. The USD continued to advance on the back of a resilient US economy, which kept prospects of additional Fed rate hikes intact amid persistent inflationary pressures. Additionally, elevated US treasury yields and geopolitical developments in the Middle East added support to the currency, given its safe-haven status. Y-o-y, the index was down by 5.0%.

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



Sources: IMF and OPEC.

On **developed market** (DM) **currencies**, the USD advanced for a third consecutive month against all major DM currencies, rising by 1.1%, 1.2% and 1.8%, m-o-m, against the euro, yen and pound, respectively. The USD was down by 6.9% and 7.2%, y-o-y, against the euro and the pound, respectively. Nonetheless, it was up by 1.7% against the yen over the same period.

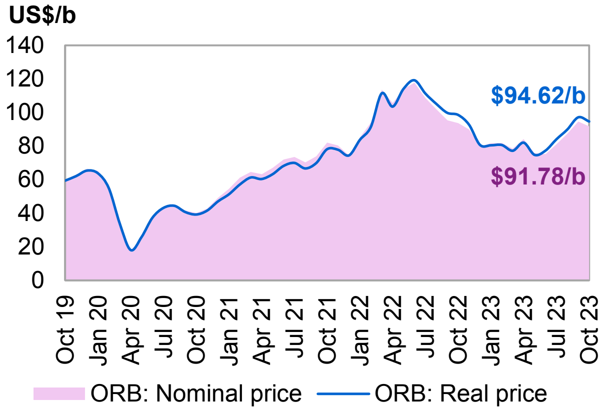
In terms of **emerging market** (EM) **currencies**, the USD also advanced against all major EM currencies in October. The USD rose by 0.2%, 0.2% and 2.4%, m-o-m, against the rupee, yuan and real, respectively. The USD was also up by 1% and 3.8%, y-o-y, against the rupee and yuan, respectively; however, it was down by 3.7% against the real over the same period.

The differential between nominal and real ORB prices widened m-o-m. Inflation (nominal price minus real price) went from a negative $2.51/b in September to a negative $2.84/b in October, a 13.1% increase m-o-m.

In **nominal terms**, accounting for inflation, the ORB price went from $94.60/b in September to $91.78/b in October, a 3.0% decrease m-o-m. The ORB was down by 2.0% y-o-y in nominal terms.

In **real terms** (excluding inflation), the ORB went from $97.11/b in September to $94.62/b in October, a 2.6% decrease m-o-m. The ORB was down by 4.0% y-o-y 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 is revised upward marginally from the previous assessment to 2.5 mb/d, to average 102.1 mb/d. Slight downward revisions to OECD data over the first three quarters of the year were more than offset by upward revisions to the non-OECD region. In the OECD region, oil demand in 2023 is expected to rise by 82 tb/d to average 45.8 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 increasing 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 close to 2.4 mb/d, to average 56.3 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 support oil consumption. World oil demand is expected to rise by more than 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 increase by 0.26 mb/d to average 46.1 mb/d. US oil demand is forecast to approach pre-pandemic levels at 20.4 mb/d, mainly due to growth in jet fuel and further 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 weak 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 58.3 mb/d. China and the Middle East are expected to see the largest growth in the non-OECD, followed by Other Asia and India. In terms of products, transportation 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

World oil demand	2022	1Q23	2Q23	3Q23	4Q23	2023	Change 2023/22 Growth	%
Americas	24.87	24.52	25.21	25.35	24.94	25.01	0.14	0.56
of which US	*20.16*	*19.92*	*20.50*	*20.47*	*20.05*	*20.24*	*0.08*	*0.37*
Europe	13.51	13.11	13.54	13.79	13.37	13.45	-0.05	-0.40
Asia Pacific	7.38	7.81	6.96	7.10	7.65	7.38	0.00	-0.02
Total OECD	**45.75**	**45.43**	**45.71**	**46.23**	**45.96**	**45.84**	**0.08**	**0.18**
China	14.95	15.73	16.06	16.27	16.29	16.09	1.14	7.61
India	5.14	5.40	5.40	5.17	5.50	5.37	0.23	4.48
Other Asia	9.06	9.34	9.48	9.03	9.18	9.26	0.19	2.13
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	4.59	4.24	4.30	4.88	4.50	0.10	2.32
Russia	3.70	3.83	3.59	3.74	4.01	3.79	0.09	2.40
Other Eurasia	1.15	1.24	1.21	1.02	1.23	1.17	0.02	2.03
Other Europe	0.77	0.79	0.77	0.75	0.83	0.79	0.02	2.29
Total Non-OECD	**53.90**	**56.15**	**55.76**	**55.88**	**57.32**	**56.28**	**2.37**	**4.40**
Total World	**99.66**	**101.58**	**101.47**	**102.11**	**103.28**	**102.11**	**2.46**	**2.47**
Previous Estimate	99.63	101.59	101.35	102.17	103.13	102.06	2.44	2.45
Revision	0.03	-0.01	0.13	-0.06	0.15	0.05	0.02	0.02

*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	25.01	24.70	25.38	25.55	25.10	25.19	0.18	0.72
of which US	*20.24*	*20.06*	*20.64*	*20.62*	*20.19*	*20.38*	*0.14*	*0.70*
Europe	13.45	13.16	13.60	13.86	13.41	13.51	0.06	0.41
Asia Pacific	7.38	7.84	6.98	7.13	7.65	7.40	0.02	0.29
Total OECD	**45.84**	**45.70**	**45.96**	**46.54**	**46.16**	**46.09**	**0.26**	**0.56**
China	16.09	16.30	16.52	16.89	16.96	16.67	0.58	3.61
India	5.37	5.63	5.64	5.40	5.69	5.59	0.22	4.10
Other Asia	9.26	9.60	9.73	9.39	9.54	9.57	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	4.50	4.70	4.42	4.48	5.01	4.65	0.15	3.33
Russia	3.79	3.89	3.70	3.89	4.08	3.89	0.10	2.65
Other Eurasia	1.17	1.27	1.24	1.08	1.28	1.22	0.04	3.77
Other Europe	0.79	0.81	0.78	0.77	0.84	0.80	0.01	1.75
Total Non-OECD	**56.28**	**57.90**	**57.68**	**58.25**	**59.22**	**58.27**	**1.99**	**3.53**
Total World	**102.11**	**103.60**	**103.64**	**104.79**	**105.38**	**104.36**	**2.25**	**2.20**
Previous Estimate	102.06	103.62	103.51	104.85	105.23	104.31	2.25	2.20
Revision	0.05	-0.01	0.13	-0.06	0.15	0.05	0.00	0.00

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

Source: OPEC.

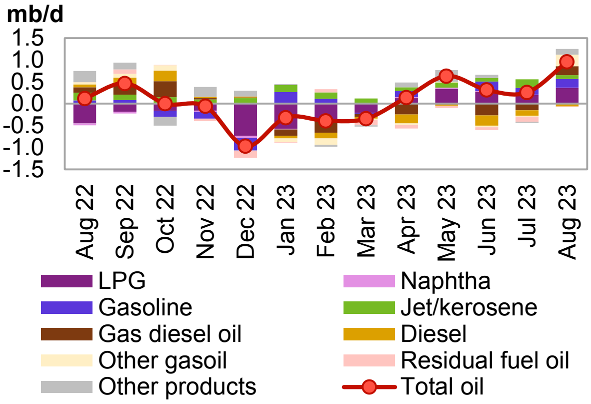
OECD

OECD Americas

Update on the latest developments

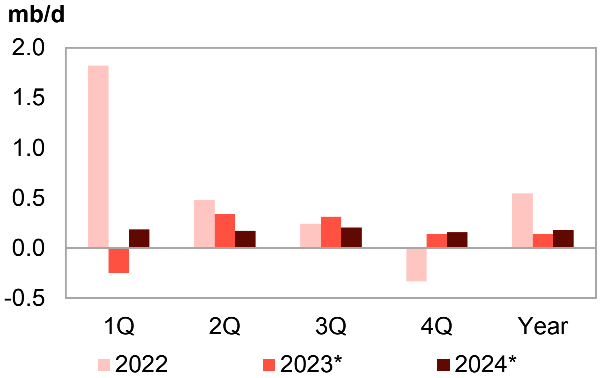
Oil demand in OECD Americas in August surged by around 1 mb/d, y-o-y. The increase in demand is almost entirely from the US and Canada.

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** soared by 616 tb/d, y-o-y, in August, up from 198 tb/d, y-o-y, growth seen in the previous month. This increase was supported mainly by transportation fuels combined with petrochemical feedstock.

Core inflation in the US slowed down to 4.3% y-o-y in August, after 4.7% in July. The services PMI continued in expansionary territory for the 14th month to stand at 54.5 points in August, slightly higher than the 52.7 points recorded in July. However, the manufacturing PMI stood at 47.6 points in August, slightly above the level of 46.4 in July, but remaining below the growth-indicating level of 50 points for the eleventh-consecutive month.

Data from the Federal Highway Administration shows that miles travelled on all roads increased by 2.4% (+6.8 billion vehicle miles) for August 2023, as compared with August 2022. In terms of air travel, according to a report from the International Air Travel Association (IATA), American airlines outperformed pre-pandemic levels for the fifth consecutive month, achieving 0.6% growth over August 2019. Regarding airline capacity, available seat-kilometres (ASKs) climbed by 9.6% y-o-y, while revenue passenger-kilometres (RPKs) increased by 11.2% y-o-y.

Diesel led August oil demand growth by 194 tb/d, y-o-y, growth, up from 74 tb/d, y-o-y, decline seen in the previous month. Supported by steady summer driving activity, gasoline demand grew by 184 tb/d, y-o-y. Buoyed by healthy petrochemical feedstock requirement, LPG saw 188 tb/d, y-o-y, growth, up from 38 tb/d, y-o-y, growth seen in the previous month. On the back of sustained air travel activity, jet/kerosene saw 58 tb/d, y-o-y, growth. Finally, naphtha saw slight 14 tb/d, y-o-y, growth, albeit up from a decline seen previous month.

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

			Change	Aug 23/Aug 22
By product	**Aug 22**	**Aug 23**	**Growth**	**%**
LPG	3.00	3.18	0.19	6.3
Naphtha	0.12	0.13	0.01	11.8
Gasoline	9.12	9.30	0.18	2.0
Jet/kerosene	1.65	1.71	0.06	3.5
Diesel	3.94	4.13	0.19	4.9
Fuel oil	0.38	0.33	-0.05	-13.3
Other products	2.36	2.38	0.03	1.2
Total	**20.56**	**21.17**	**0.62**	**3.0**

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

Near-term expectations

In the near term, US GDP is projected to remain healthy and the economy is projected to experience ongoing support from private household consumption. The forward-looking indicator, services PMI has been on a positive trajectory for a long period. These factors suggest that oil demand is expected to remain relatively healthy. In 4Q23, oil demand is expected to grow by 51 tb/d y-o-y. The beginning of winter will aid demand for heating fuels. In addition, continued steady growth in air travel demand will support jet/kerosene demand.

In 1Q24, US GDP growth is forecast to continue and expected to support oil demand. Specifically, further improvements in air travel are expected to support jet/kerosene demand. Heating fuels are also expected to see an uptick due to seasonal winter demand. However, industrial output has been on a prolonged downward trend, and road transportation is expected to soften during the winter season, thus dampening diesel and gasoline demand. Nevertheless, oil demand is projected to increase by about 140 tb/d, y-o-y, mostly supported by demand for jet/kerosene and LPG.

OECD Europe

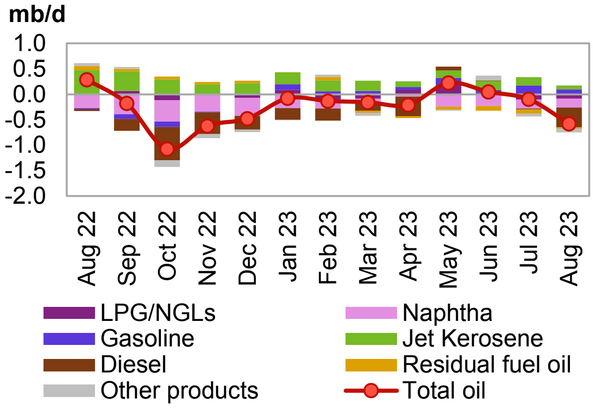
Update on the latest developments

Oil demand in OECD Europe in August declined further by 571 tb/d, y-o-y, compared to a 97 tb/d, y-o-y, decline in July. Oil product demand in OECD Europe has remained subdued for over a year, largely due to weaknesses in the European manufacturing and petrochemical sectors. Germany and other countries in the region, such as Italy, Spain, and the UK, have all experienced similar weaknesses in their manufacturing sector in recent months. In addition, persistently high core inflation compounded the problem. Eurozone annual inflation stood at 5.2%, y-o-y, in August, far above the inflation target of 2% set by the ECB.

The Eurozone's services and manufacturing PMIs were in contractionary territory in August. The services PMI stood at 47.9 in August, while the manufacturing PMI was at 43.5. An IATA Air Passenger Market Analysis reported that international RPKs performed by European carriers were 9.8% lower in August compared to pre-COVID levels, while the load factor remained 2.3 percentage points (pp) below pre-pandemic levels.

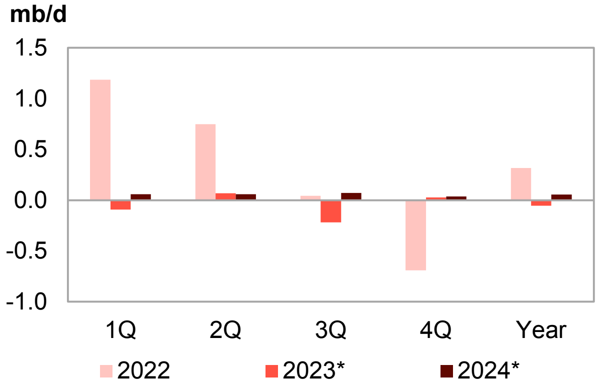
Subdued by weak manufacturing activity in the region, diesel demand recorded the largest contraction among the product categories, down by 388 tb/d, y-o-y, compared with a decline of 18 tb/d, y-o-y, in July. European ethylene and derivatives have also been under pressure due to low margins weighing on demand for petrochemical feedstock. Accordingly, demand for naphtha and LPG declined. Naphtha softened by 179 tb/d, y-o-y, and LPG declined by 83 tb/d, y-o-y. Residual fuel oil saw a y-o-y decline of 22 tb/d.

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.

On the positive side, healthy driving activity and continued improvements in airline travel supported transportation fuels demand. Gasoline saw growth of 101 tb/d, y-o-y, slightly below the 177 tb/d, y-o-y growth in the previous month. Jet/kerosene grew by 71 tb/d, y-o-y, down from the increase of 160 tb/d, y-o-y, recorded in July.

Near-term expectations

In the near term, economic activity in the region is projected to continue its negative trend, with weak manufacturing and petrochemical activity anticipated to continue into 4Q23. The PMI for services, the largest sector in the Eurozone, remained below the growth-indicating level of 50 at 47.8 in October. The manufacturing PMI also remained deep in contractionary territory, standing at 43.1 in October. Nevertheless, oil demand is anticipated to see a very slight uptick of 26 tb/d in 4Q23, compared to the 218 tb/d y-o-y decline recorded in 3Q23. Demand will mainly come from jet fuel, fuel oil and gasoline, while diesel and petrochemical feedstock are expected to remain weak.

Looking ahead to 2024, the region's economy is expected to show a gradual recovery. Activity in the manufacturing sector is expected to see some recovery. Furthermore, El Niño is expected to lead to a colder second half of winter in Northern Europe, supporting demand for heating oil in latter months. Accordingly, oil demand is projected to see 57 tb/d, y-o-y, growth in 1Q24, mainly supported by regional jet/kerosene and gasoline consumption on the back of air and road travel and heating oil demand. However, ongoing weak manufacturing and petrochemical activity are anticipated to weigh on industrial fuels and petrochemical feedstock. For the year, the region is expected to see 55 tb/d, y-o-y, growth in 2024.

OECD Asia Pacific

Update on the latest developments

Oil demand in the OECD Asia Pacific in August fell by 284 tb/d, y-o-y, compared with being flat y-o-y in July. Ongoing soft naphtha demand coupled with a decline in diesel more than offset the moderate gains in LPG and jet/kerosene demand. Within the regions, declines were recorded in Japan and South Korea.

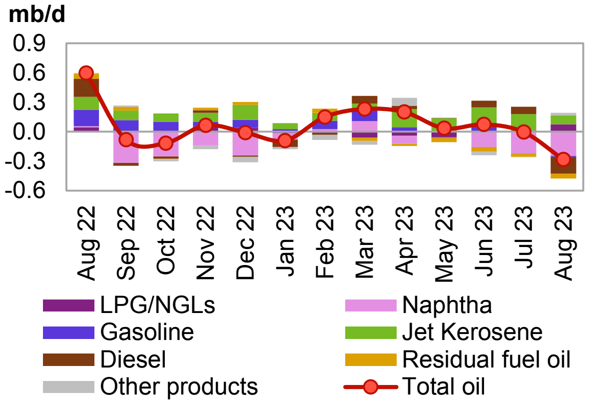
The Japanese industrial sector continued weakening in August, with industrial output declining further by 3.4%, y-o-y, after a decline of 2.5%, y-o-y, in July. Inflation remains historically high, though relatively unchanged at 3.2%, y-o-y, in August compared to the previous month. The manufacturing PMI also fell to 49.6 points in August. But the services PMI remains in expansionary territory at 54.3 points in August.

The Australian PMI entered contractionary territory with 49 points in August. But the services PMI was at 54.3 points. According to the latest data from the Australian Bureau of Statistics (ABS), the monthly Consumer Price Index (CPI) indicator rose 5.2%, y-o-y, in August, from 4.9%, y-o-y, in July.

South Korean manufacturing PMI stood at 48.9 points in August, remaining in contractionary territory for fourteen consecutive months. The annual inflation rate in South Korea climbed to 3.4%, y-o-y, in August from July's two-year low of 2.3%, surpassing market forecasts of 2.7%.

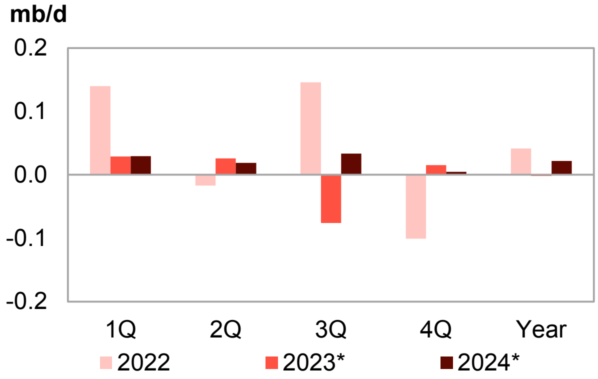
According to a report by the IATA, the international RPKs in the Asia Pacific region surged by 98.5%, y-o-y, in August, almost doubling when compared to the previous year, but still 24.5% below 2019 numbers.

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



Sources: IEA, JODI, METI and OPEC.

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



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

Weakening petrochemical sector requirements in the region pressured demand for naphtha, which declined further by 247 tb/d, y-o-y, from a decline of 222 tb/d, y-o-y, in July. Similarly, weak manufacturing activity also weighed on diesel, which declined by 172 tb/d, y-o-y, from growth of 75 tb/d, y-o-y, seen last month. Residual fuel declined by 49 tb/d, y-o-y, while gasoline demand remained flat, y-o-y. On the back of strengthening air traffic activity, jet/kerosene saw growth of 90 tb/d, y-o-y.

Near-term expectations

Looking ahead to 4Q23, the region's economy is expected to grow modestly, albeit with variations among the region's countries. The services PMI in Japan, the largest economy in the region, has been in expansionary territory for over a year. In August and September, Japan's services PMI stood at 54.3 and 53.8 points, respectively. In addition, steady air traffic recovery amid healthy driving activity and petrochemical industry operations are anticipated to support oil demand to grow by a slight 15 tb/d, y-o-y, in 4Q23, up from an annual decline of 76 tb/d, y-o-y, seen in 3Q23. Notable developments in the petrochemical sector of the region include South Korea's Hanwha Total Energies' plans to keep the operating rates at its steam crackers in Daesan at around 90%- 95% of capacity in November, steady from October and September. The company operates two steam crackers in Daesan. The No. 1 propane-fed steam cracker has an ethylene production capacity of 450,000 mt/year and the two naphtha-fed steam crackers that can produce 1.17 million mt/year of ethylene.

In 1Q24, sustained regional economic activity is anticipated to support the services sector. In addition, healthy air travel dynamics and recovering petrochemical sector requirements in the region are projected to support 1Q24 y-o-y oil demand to grow by 30 tb/d. Overall, in 2024, the region is anticipated to see y-o-y growth of 22 tb/d.

Non-OECD

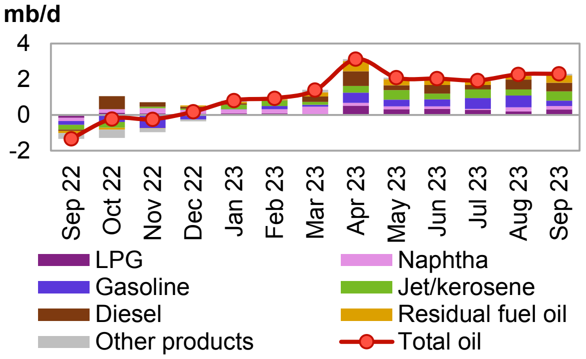
China

Update on the latest developments

Oil demand in China continued to surge in September by more than 2.3 mb/d, y-o-y, up from nearly 2.3 mb/d, y-o-y growth seen in August. However, it should be noted that this growth comes from a very low baseline, given that the country was under a strict lockdown during these months last year, which showed considerable yearly declines. Demand in September 2023, however, was supported by healthy economic activity, combined with steady petrochemical feedstock requirements.

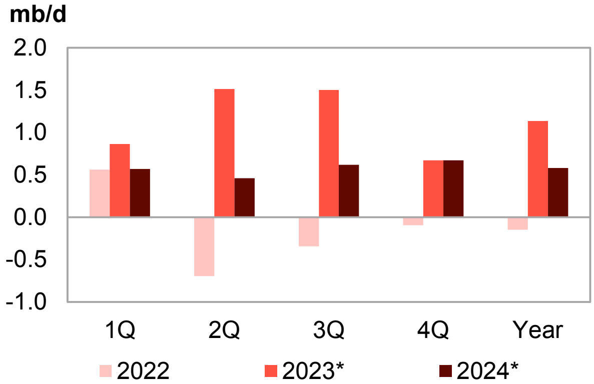
Forward-looking indicators remained positive, with China's services PMI standing at 50.2 points and the manufacturing PMI at 50.6 points in September. Road mobility in China continues to increase. According to China's National Bureau of Statistics/Haver Analytics, passenger turnover in terms of 100 million person-kilometres, recorded 83.49 % y-o-y growth in September. Similarly, air travel activity continued to remain strong, as a report from IATA's Air Passenger Monthly Analysis indicated that China has seen substantial growth in domestic RPKs over recent months. Air traffic has almost doubled compared to last year. With 93.6% annual growth in August, domestic air travel in the country stood 20.8% above pre-pandemic numbers.

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.

September oil product demand was driven by jet fuel, supported by other transportation fuels requirements, and petrochemical feedstock demand. On the back of steady air travel recovery, jet fuel led oil product demand by 519 tb/d, y-o-y, growth, up from 339 tb/d, y-o-y, growth witnessed in previous month. Diesel requirements saw 478 tb/d y-o-y growth, slightly below 554 tb/d, y-o-y growth recorded in August. Healthy petrochemical feedstock requirements supported LPG and naphtha demand. LPG posted 307 tb/d, y-o-y, growth, up from 206 tb/d, y-o-y growth seen a month earlier. Naphtha increased by 188 tb/d y-o-y, slightly below the 221 tb/d, y-o-y, growth seen in August. Finally, residual fuels demand soared by saw 407 tb/d, y-o-y, in September.

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

			Change	*Sep 23/Sep 22*
By product	**Sep 22**	**Sep 23**	**Growth**	**%**
LPG	2.44	2.75	0.31	12.6
Naphtha	1.43	1.62	0.19	13.1
Gasoline	3.55	3.86	0.32	8.9
Jet/kerosene	0.31	0.83	0.52	169.1
Diesel	3.50	3.98	0.48	13.7
Fuel oil	0.63	1.04	0.41	64.7
Other products	2.25	2.34	0.09	3.9
Total	**14.10**	**16.40**	**2.30**	**16.3**

*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

Looking ahead, a continued gradual pickup in economic activity in China is expected, supported by policy measures of the government to address weaker areas of the economy. With the benefit of the very low baseline during the months of lockdown in 2022 quickly fading as the year draws to a close, the momentum of oil demand is anticipated to slow compared to the strong growth seen in 1H23. Nevertheless, growing petrochemical capacity in China will lead to more domestic production of olefins and aromatics, boosting demand for naphtha in the near term. Furthermore, China is expected to have seen an increase in road traffic activity during the mid-Autumn Festival and National Day Golden Week holidays, leading to possible additional growth of demand for transportation fuels demand. Accordingly, oil demand in China in 4Q23 is anticipated to grow by 671 tb/d y-o-y. Overall, in 2023, oil demand in China is expected to record 1.1 mb/d y-o-y growth.

In 2024, China's GDP is expected to show healthy growth of 4.8%, y-o-y. Following the recovery from lockdowns seen in 2022, oil demand in 2024 is forecast to return to normal growth levels, supported by an expected improvement in manufacturing activity, as well as petrochemical sector requirements. In 1Q24, a further surge in international air travel out of China is expected, as the country has lifted the ban on overseas group tours, potentially encouraging more people to travel abroad. This is in addition to the usual seasonal hike in travel during the extended lunar holidays in the quarter. Furthermore, rising petrochemical capacity is expected to bolster petrochemical feedstock demand in China. Thus, oil demand is forecast to see 571 tb/d y-o-y growth in 1Q24. Jet fuel will again drive oil demand growth in this quarter. Light distillates are also expected to continue rising on the back of a sustained expansion of the petrochemical industry.

Increased mobility is expected to boost demand for gasoline and diesel. For the year, China's average y-o-y growth is anticipated to stand at 580 tb/d.

India

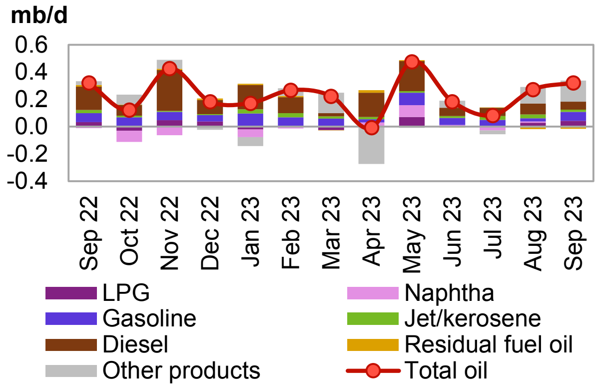
Update on the latest developments

Oil demand in India in September surged further by a healthy 320 tb/d, y-o-y, up from 272 tb/d, y-o-y, growth in the previous month. The main drivers of oil demand growth were the 'other products' category, consisting mostly of bitumen and lube oil, mostly coming from road construction activity.

A report from the Ministry of Statistics and Programme Implementation/Haver Analytics indicates that industrial production in India soared by 10.3%, y-o-y, in August 2023, up from a 5.7%, y-o-y, rise in the previous month and above market expectations of 9%. Similarly, annual inflation retracted to 5.0% in September from 6.8% the previous month.

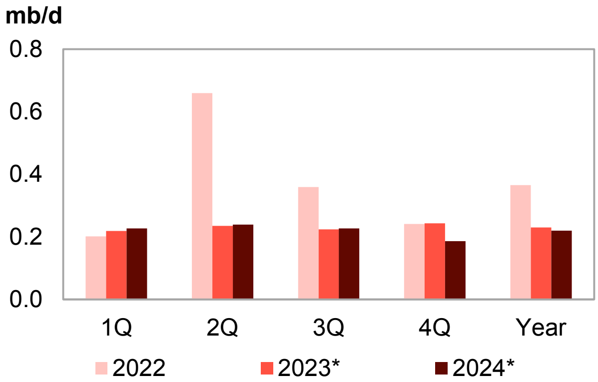
According to Federation of Automobile Dealers Association/Haver Analytics, vehicle sales in September in India increased by over 2%, y-o-y, and by 0.7%, m-o-m. Similarly, Indian, domestic air traffic stood above pre-pandemic levels for the 7th consecutive month, as RPKs increased 6.7% over 2019 levels and 23.2% y-o-y, according to the IATA. The S&P Global India services PMI stood at 61 points in September and the manufacturing PMI was at 57.5 points.

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.

In terms of oil products in September, 'other products', which includes bitumen and lube oil, led oil demand growth by 185 tb/d, y-o-y, higher than the 120 tb/d y-o-y increase recorded in August. Diesel grew by 59 tb/d, y-o-y, slightly below the 81 tb/d seen in the previous month. The Times of India reported that diesel demand decelerated by 5% in the first half of September, as a receding monsoon continued to reduce demand and slowed industrial activities in some parts of India. Gasoline saw 66 tb/d y-o-y growth, up from the 24 tb/d recorded in the previous month. The increase in India's road traffic activity was largely concentrated in the West Bengal region, due to the celebration of a major Hindu festival.

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

			Change	Sep 23/Sep 22
By product	**Sep 22**	**Sep 23**	**Growth**	**%**
LPG	0.95	0.99	0.04	4.2
Naphtha	0.33	0.30	-0.03	-9.8
Gasoline	0.80	0.87	0.07	8.2
Jet/kerosene	0.17	0.18	0.02	9.5
Diesel	1.57	1.63	0.06	3.7
Fuel oil	0.13	0.12	-0.01	-10.2
Other products	1.02	1.21	0.19	18.2
Total	**4.97**	**5.29**	**0.32**	**6.4**

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

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

On the back of steady air travel recovery, jet/kerosene demand saw 16 tb/d, y-o-y, growth in September. In terms of petrochemical feedstock, LPG expanded by 40 tb/d, y-o-y, up from 25 tb/d, y-o-y, growth in the previous month, while naphtha saw a decline of 32 tb/d, y-o-y. Residual fuel demand softened by 13 tb/d, y-o-y, albeit showing an improvement from a decline of 20 tb/d, y-o-y seen last month.

Near-term expectations

Looking forward, India's oil demand outlook in 4Q23 should continue to benefit from strong annual GDP growth in 2023, combined with robust manufacturing activity and a proposal by the Indian government to increase capital spending on construction. Furthermore, the post-monsoon harvesting season and construction activity are also expected to support oil demand growth. In addition, the forward-looking indicators show strong manufacturing and services PMIs, suggesting prospects for healthy oil demand in the near term. In 4Q23, oil demand is projected to grow by 243 tb/d, y-o-y. Distillates are expected to be the driver of oil demand growth, supported by harvesting, construction and manufacturing activity. Additionally, traditional festivities are expected to support mobility and boost gasoline demand, while increasing air travel is expected to support jet/kerosene demand.

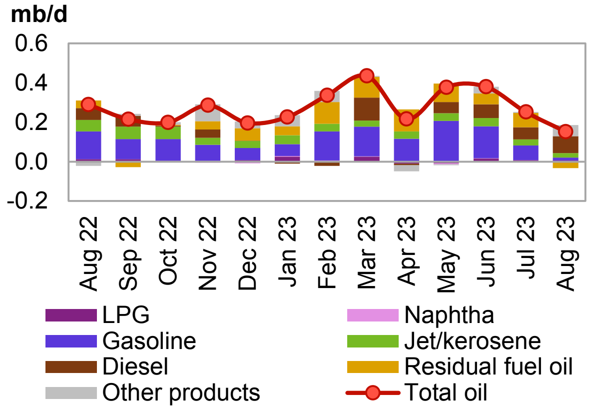
In 1Q24, India's oil demand is expected to remain healthy, growing on average by 227 tb/d, y-o-y. In 1Q24, demand growth is anticipated to be supported by increased mobility and steady demand for distillates in manufacturing and construction. The residential and petrochemical sectors' demand for light distillates are also expected to add support. Overall, in 2024, India is expected to see healthy oil demand growth of 220 tb/d, y-o-y.

Latin America

Update on the latest developments

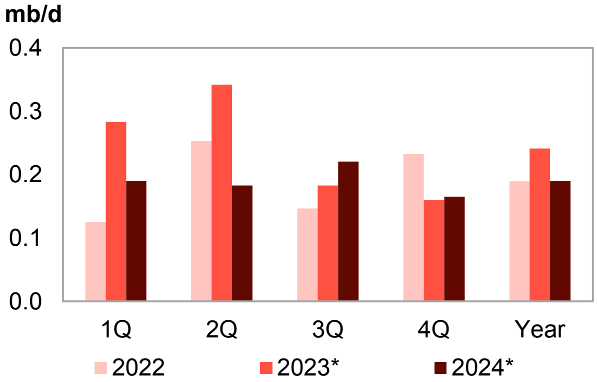
Oil demand in Latin America recorded 152 tb/d, y-o-y, growth in August, down from 252 tb/d, y-o-y, growth reported in July. Oil demand in the region was led by diesel requirements from Brazil.

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 rose to 4.1% in August, up from 3.5% in July. The Brazilian services PMI rose to 50.6 in August, from 50.2 points in July. At the same time, the Brazilian manufacturing PMI improved to reach 50.1 points in August, up from 47.8 points in July.

According to the IATA, airlines in Latin America in August achieved a full recovery in international passenger traffic for the first time, surpassing 2019 levels by 0.1% and growing 26.4%, y-o-y.

In terms of specific products, diesel was the main driver of demand with 84 tb/d, y-o-y, growth, up from 63 tb/d, y-o-y, growth seen in the previous month. In addition, the 'other products' category expanded by 57 tb/d, y-o-y. On the back of steady air travel, jet/kerosene saw 23 tb/d, y-o-y, growth, slightly below the increase of 30 tb/d, y-o-y, recorded a month earlier. Gasoline posted 14 tb/d, y-o-y, growth, down from the 74 tb/d, y-o-y, growth recorded in July. In terms of petrochemical feedstock, the demand for both LPG and naphtha has remained broadly flat for two consecutive months. Finally, demand for residual fuels softened by 33 tb/d, y-o-y.

Near-term expectations

Looking ahead, the positive economic development in the region in 3Q23 is expected to carry over somewhat into 4Q23, albeit to a lesser degree. Some upside potential remains, particularly in Brazil, leading to expectations that oil demand in the region will grow by 160 tb/d, y-o-y, in 4Q23.

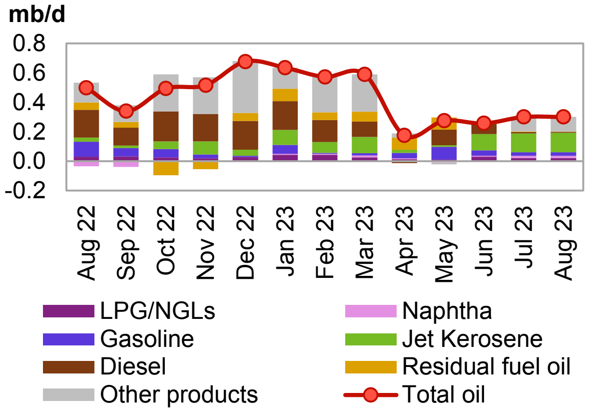
In 2024, steady economic activity, combined with expected improvements in both manufacturing activity and air travel, sees oil demand growth forecast at 190 tb/d y-o-y in 1Q24. For the year, the region's average growth is anticipated to stand at 190 tb/d y-o-y. The outlook for oil demand growth sees transportation fuel demand expanding the most, followed by diesel and petrochemical feedstock.

Middle East

Update on the latest developments

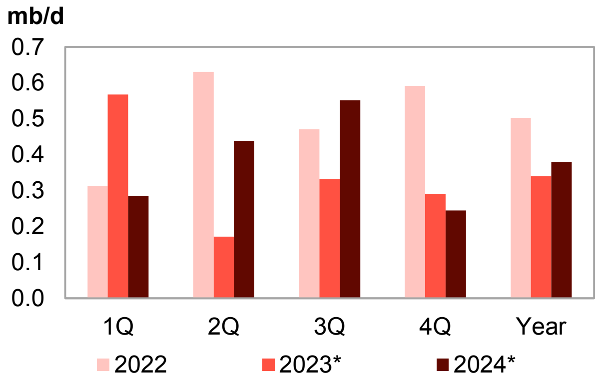
Oil demand in the Middle East in August expanded by 301 tb/d, y-o-y, for the second consecutive month. Demand growth was mostly supported by transportation fuels, particularly jet/kerosene in Iraq, Saudi Arabia and the UAE.

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.

Ongoing strong oil demand in the region is supported by overall healthy economic activity amid low inflation in the region. The composite PMIs in the region's largest economies, Saudi Arabia and the UAE, have been consistently in expansionary territory for more than one year. Moreover, in terms of air travel, the IATA reported that Middle Eastern carriers saw 26.1%, y-o-y growth in international RPKs in August, while traffic levels were only 3.7% below pre-pandemic levels.

For the third consecutive month, jet/kerosene was the main driver of oil demand in the region, recording 131 tb/d, y-o-y, growth, which was even higher than the 128 tb/d seen the previous month. Other fuels' recorded nearly 100 tb/d, y-o-y, growth. Gasoline grew by 25 tb/d, y-o-y, for the second consecutive month. In terms of petrochemical feedstocks, LPG posted 23 tb/d, y-o-y, growth and naphtha saw 14 tb/d, y-o-y, growth. Residual fuel demand in the Middle East was flat for the second consecutive month.

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

By product	Sep 22	Sep 23	Change Sep 23/Sep 22 Growth	%
LPG	0.07	0.07	0.00	-0.3
Naphtha	0.00	0.01	0.01	1,079.3
Gasoline	0.19	0.20	0.01	3.4
Jet/kerosene	0.01	0.03	0.02	184.6
Diesel	0.19	0.19	0.00	-0.3
Fuel oil	0.24	0.28	0.04	15.5
Other products	0.24	0.25	0.01	4.0
Total	**0.94**	**1.02**	**0.08**	**8.9**

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

Near-term expectations

Steady economic activity in the region is expected to be sustained. In addition, the continued strong recovery in international air traffic, combined with rising demand for heating, are expected to boost jet/kerosene and fuel oil demand. Oil demand growth in the region is expected to expand by an average of 290 tb/d y-o-y in 4Q23.

Regional economic activity is expected to remain healthy in 1Q24, with 2024 GDP growth rates forecast to surpass those of 2023. In addition, air travel is expected to surpass pre-pandemic levels. Gasoline, transportation diesel and jet kerosene are expected to lead oil demand growth, which is expected to stand at 285 tb/d, y-o-y, in 1Q24. Overall, in 2024, the Middle East is expected to see strong growth of nearly 380 tb/d, y-o-y. The bulk of demand growth is expected to come from Iraq, Saudi Arabia, and the UAE.

World Oil Supply

Non-OPEC liquids production in 2023 is expected to grow by 1.8 mb/d, y-o-y, reaching 67.6 mb/d. Upward revisions to the forecasts for Russia, the US and Brazil more than offset downward revisions to OECD Europe and Other Asia.

US crude and condensate production is estimated to reach the highest level ever in August, just passing the record of 13 mb/d set in November 2019. This brings total liquid output to about 21.2 mb/d in August, an increase of 1.7 mb/d, y-o-y. Accordingly, US liquids supply growth for 2023 is forecast at 1.3 mb/d. In addition to the US, the other main growth drivers for 2023 are expected to be Brazil, Norway, Kazakhstan, Guyana and China. Nonetheless, there are uncertainties related to weather-related disruptions and unplanned offshore maintenance for the rest of the year.

Non-OPEC liquids production in 2024 is forecast to grow by 1.4 mb/d to average 69.0 mb/d (including 50 tb/d in processing gains). OECD liquids supply is forecast to increase by 0.9 mb/d to average 33.3 mb/d, while non-OECD liquids supply is seen growing by 0.4 mb/d to average at 33.1 mb/d. The main drivers for the expected growth are the US, Canada, Guyana, Brazil, Norway and Kazakhstan. Along with the US shale basins, projected ramp-ups, especially in the offshore assets, are expected to be the main sources of growth. 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 about 50 tb/d to average 5.4 mb/d and to increase by 65 tb/d to average 5.5 mb/d in 2024. OPEC-13 crude oil production in October increased by 80 tb/d, m-o-m, to average 27.90 mb/d, according to available secondary sources.

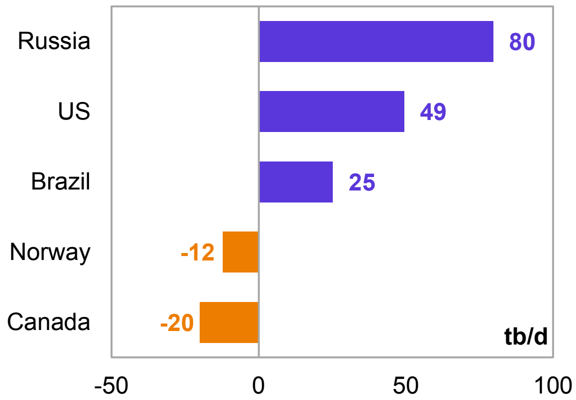
Non-OPEC liquids production in October, including OPEC NGLs, is estimated to have increased by 0.2 mb/d, m-o-m, to average 73.7 mb/d. This is an increase of 1.5 mb/d, y-o-y. As a result, preliminary data indicated that October's global oil supply is up by 0.27 mb/d, m-o-m, averaging 101.6 mb/d, down by 0.15 mb/d, y-o-y.

Non-OPEC liquids production in 2023 is forecast to expand by 1.8 mb/d. This is up 0.1 mb/d from the previous month's growth assessment, mainly due to upward revisions to Russia and the US. It is worth noting, that this takes into account all announced production adjustments of the countries in the DoC to the end of 2023.

Overall **OECD supply growth** for 2023 is revised up. While OECD Europe sees a downward revision due to Norway and the UK, OECD Americas is revised up mainly owing to the US. OECD Asia Pacific's output growth is expected to remain unchanged.

The **non-OECD supply growth** projection for 2023 was revised up by about 85 tb/d and is now expected to grow by 0.3 mb/d y-o-y. Latin America is expected to be the main growth driver in the non-OECD region followed by Other Eurasia and China.

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

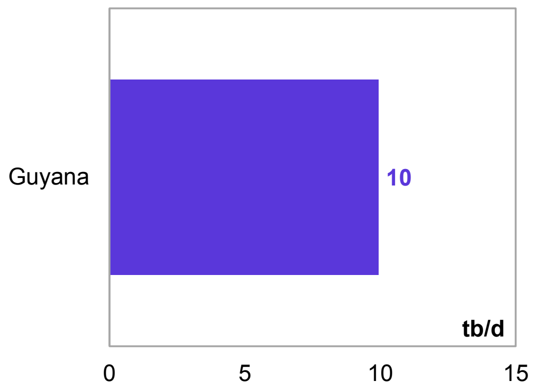


Note: * 2023 = Forecast. Source: OPEC.

Non-OPEC liquids production growth forecast in **2024** remained unchanged compared with the previous month's assessment at an average of 1.4 mb/d.

The upward revision to the supply forecast of Guyana offset downward revisions to a few other countries.

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

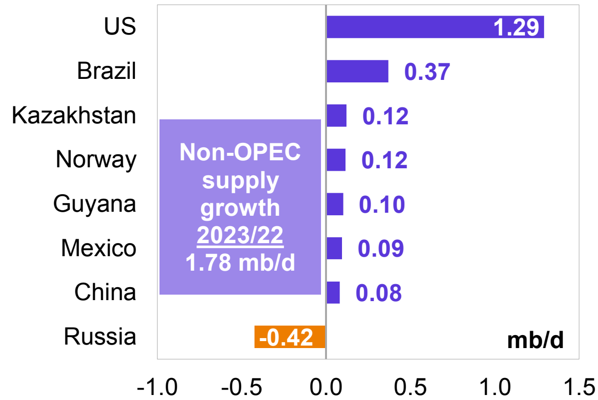


Note: * 2024 = Forecast. Source: OPEC.

Key drivers of growth and decline

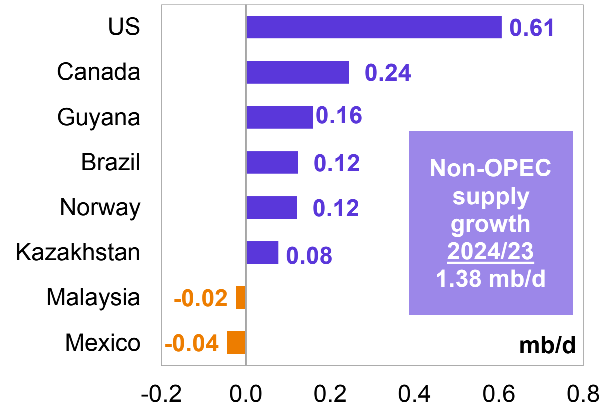
The **key drivers of non-OPEC liquids supply growth in 2023** are projected to be the US, Brazil, Kazakhstan, Norway, Guyana, Mexico and China, while oil production is projected to see the largest decline in Russia.

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

							Change 2023/22	
Non-OPEC liquids production	2022	1Q23	2Q23	3Q23	4Q23	2023	Growth	%
Americas	26.91	27.90	28.18	28.86	28.36	28.33	1.41	5.26
of which US	*19.28*	*20.10*	*20.70*	*21.05*	*20.44*	*20.58*	*1.29*	*6.70*
Europe	3.58	3.69	3.65	3.52	3.73	3.65	0.06	1.79
Asia Pacific	0.48	0.45	0.45	0.45	0.47	0.46	-0.02	-4.52
Total OECD	**30.97**	**32.04**	**32.27**	**32.84**	**32.56**	**32.43**	**1.46**	**4.70**
China	4.48	4.63	4.63	4.49	4.49	4.56	0.08	1.82
India	0.77	0.76	0.78	0.78	0.78	0.78	0.00	0.32
Other Asia	2.30	2.31	2.26	2.24	2.38	2.30	-0.01	-0.27
Latin America	6.34	6.69	6.76	7.06	6.92	6.86	0.52	8.24
Middle East	3.29	3.27	3.29	3.27	3.30	3.28	0.00	-0.13
Africa	1.29	1.24	1.27	1.27	1.30	1.27	-0.02	-1.85
Russia	11.03	11.19	10.86	10.77	9.63	10.61	-0.42	-3.83
Other Eurasia	2.83	2.99	2.93	2.82	2.99	2.93	0.11	3.73
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**	**32.89**	**32.80**	**31.89**	**32.69**	**0.25**	**0.78**
Total Non-OPEC production	63.41	65.25	65.16	65.64	64.45	65.12	1.71	2.69
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**	**67.63**	**68.11**	**66.92**	**67.59**	**1.78**	**2.70**
Previous estimate	65.81	67.72	67.61	67.77	66.88	67.49	1.68	2.55
Revision	0.00	0.00	0.02	0.34	0.04	0.10	0.10	0.15

*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	28.33	28.79	28.83	29.30	29.61	29.13	0.81	2.84
of which US	*20.58*	*20.84*	*21.06*	*21.33*	*21.49*	*21.18*	*0.61*	*2.95*
Europe	3.65	3.85	3.73	3.68	3.82	3.77	0.13	3.47
Asia Pacific	0.46	0.46	0.43	0.44	0.43	0.44	-0.01	-2.91
Total OECD	**32.43**	**33.11**	**33.00**	**33.42**	**33.86**	**33.35**	**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	1.70
Other Asia	2.30	2.28	2.25	2.23	2.23	2.25	-0.05	-2.06
Latin America	6.86	7.07	7.10	7.23	7.30	7.18	0.31	4.59
Middle East	3.28	3.33	3.32	3.31	3.32	3.32	0.04	1.17
Africa	1.27	1.26	1.27	1.32	1.35	1.30	0.03	2.35
Russia	10.61	10.43	10.55	10.67	10.78	10.61	0.00	-0.03
Other Eurasia	2.93	3.01	3.00	2.99	3.03	3.01	0.07	2.50
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	-1.15
Total Non-OECD	**32.69**	**32.85**	**32.95**	**33.18**	**33.43**	**33.11**	**0.41**	**1.26**
Total Non-OPEC production	65.12	65.96	65.95	66.60	67.29	66.46	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	**67.59**	**68.48**	**68.47**	**69.12**	**69.81**	**68.97**	**1.38**	**2.04**
Previous estimate	67.49	68.34	68.37	69.03	69.75	68.88	1.38	2.05
Revision	0.10	0.14	0.10	0.09	0.07	0.10	0.00	0.00

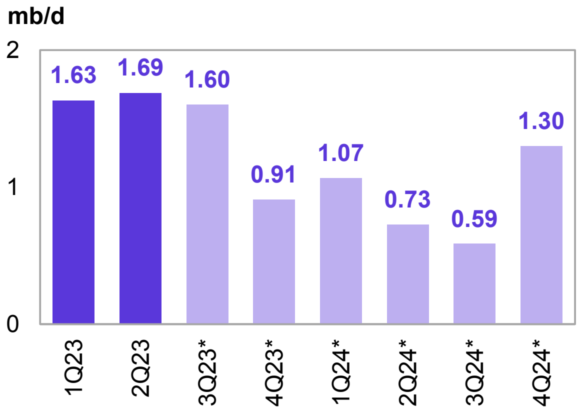
*Note: * 2024 = Forecast. Totals may not add up due to independent rounding.*
Source: OPEC.

OECD

OECD liquids production in 2023 is forecast to expand by 1.5 mb/d to average 32.4 mb/d. An upward adjustment was applied m-o-m following higher expectations for growth in OECD Americas.

Growth is set to be led by OECD Americas, which is forecast to expand by 1.4 mb/d to average 28.3 mb/d. This is revised up by about 40 tb/d compared with previous month's assessment. Yearly liquids production in OECD Europe is expected to grow by 0.1 mb/d to average 3.6 mb/d. This is down by about 20 tb/d compared with the previous month. OECD Asia Pacific is expected to decline by about 20 tb/d, y-o-y, to average 0.5 mb/d.

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



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

For **2024**, OECD liquid production is likely to grow by 0.9 mb/d to average 33.3 mb/d. Growth will once again be led by OECD Americas, with an expected increase of 0.8 mb/d for an average of 29.1 mb/d. Yearly liquid production in OECD Europe is expected 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, reaching an average of 0.4 mb/d.

OECD Americas

US

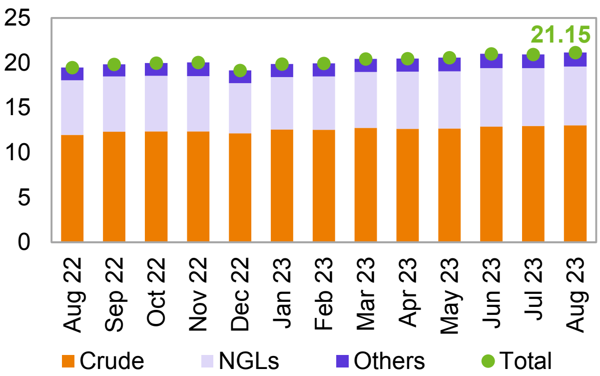
US liquids production in **August** rose by 188 tb/d, m-o-m, to average 21.2 mb/d, the highest level on record. This was up by 1.7 mb/d compared with August 2022.

Crude oil and condensate production rose by 94 tb/d, m-o-m, to average 13.1 mb/d in **August**. This was up by 1.1 mb/d, y-o-y.

In terms of **crude and condensate production breakdowns by region (PADDs)**, production increased on the US Gulf Coast (USGC) by about 30 tb/d to average 9.4 mb/d. Production in the Rocky Mountain and Midwest regions rose by 35 tb/d. Output on the West and East Coasts remained broadly unchanged, m-o-m.

Production growth in the main regions was primarily driven by robust output in New Mexico and North Dakota producing wells, while output in the Gulf of Mexico (GoM) mainly declined.

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



Sources: EIA and OPEC.

NGL production was up by about 100 tb/d, m-o-m, averaging 6.5 mb/d in August. This was higher by 0.5 mb/d, y-o-y. According to the US Department of Energy (DoE), the production of **non-conventional liquids** (mainly ethanol) fell by just 9 tb/d, m-o-m, to average 1.5 mb/d. Preliminary estimates see non-conventional liquids averaging about 1.5 mb/d in September, broadly unchanged m-o-m.

GoM production dropped by 42 tb/d, m-o-m, to average 1.9 mb/d in August, but highly supported by new project ramp-ups. Normal production was seen in most Gulf Coast offshore platforms following recent maintenance. In the **onshore Lower 48**, crude and condensate production increased by 137 tb/d, m-o-m, to average 10.8 mb/d in August.

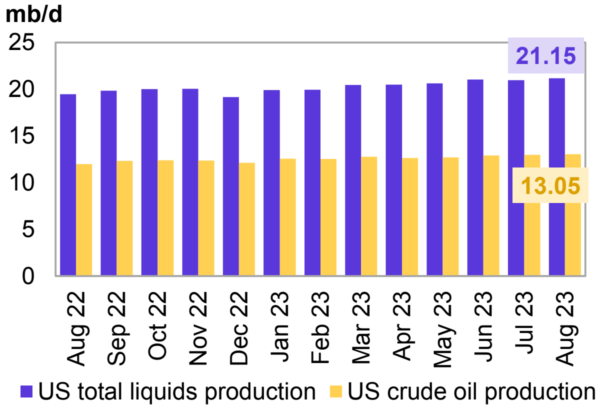
Table 5 - 3: US crude oil production by selected state and region, tb/d

State	Aug 22	Jul 23	Aug 23	Change m-o-m	Change y-o-y
Texas	5,092	5,606	5,631	*25*	*539*
Gulf of Mexico (GOM)	1,761	1,933	1,891	*-42*	*130*
New Mexico	1,609	1,757	1,797	*40*	*188*
North Dakota	1,062	1,180	1,217	*37*	*155*
Colorado	437	452	463	*11*	*26*
Oklahoma	414	438	428	*-10*	*14*
Alaska	413	397	396	*-1*	*-17*
Total	**11,985**	**12,959**	**13,053**	***94***	***1,068***

Sources: EIA and OPEC.

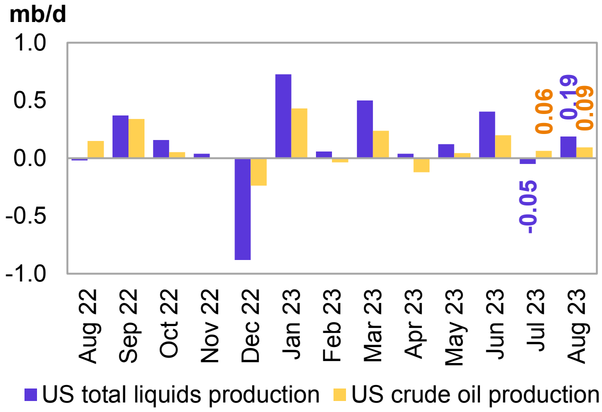
Looking at **individual US states**, New Mexico's oil production rose by 40 tb/d to average 1.8 mb/d, which is 188 tb/d higher than a year ago. Production from Texas was up by 25 tb/d to average 5.6 mb/d, which is 539 tb/d higher than a year ago. In the Midwest, North Dakota's production rose by 37 tb/d, m-o-m, to an average of 1.2 mb/d, up 155 tb/d, y-o-y, while Oklahoma production dropped by 10 tb/d, m-o-m, to an average of 0.4 mb/d. Production in Alaska remained unchanged, while output in Colorado rose by 11 tb/d.

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



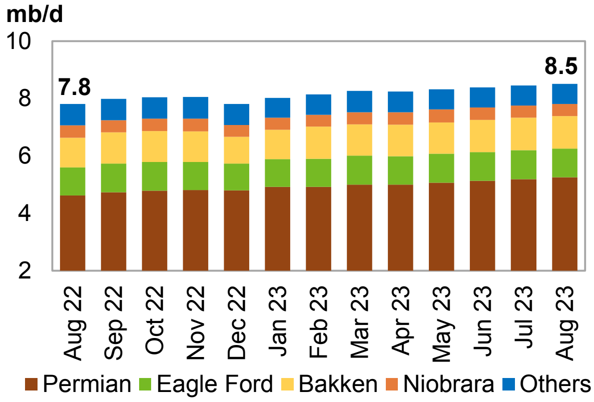
Sources: EIA and OPEC.

US tight crude output in **August** is estimated to have risen by 54 tb/d, m-o-m, to average 8.5 mb/d, according to the latest estimates. This was 0.7 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 and New Mexico, where output rose by 62 tb/d for an average of 5.3 mb/d. This was up by 634 tb/d, y-o-y.

In North Dakota, Bakken shale oil output remained largely unchanged m-o-m to average 1.1 mb/d, up by 104 tb/d, y-o-y. Tight crude output at Eagle Ford in Texas dropped by a minor 4 tb/d to average 1.0 mb/d, up by 20 tb/d, y-o-y. Production in Niobrara-Codell in Colorado and Wyoming was unchanged at an average of 422 tb/d.

Graph 5 - 9: US tight crude output breakdown

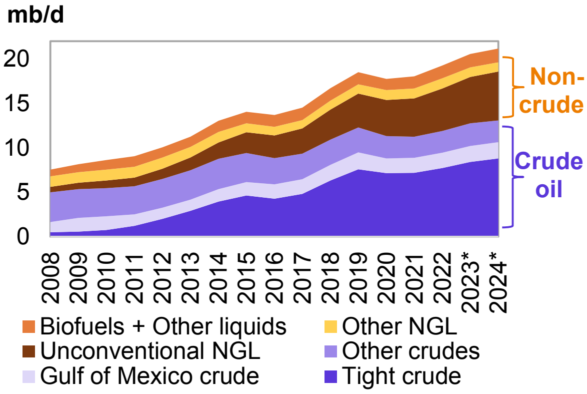


Sources: EIA and OPEC.

US liquids production in **2023**, excluding processing gains, is forecast to expand by 1.3 mb/d, y-o-y, to average 20.6 mb/d. This is up by about 50 tb/d compared with the previous month's assessment, due to stronger-than-expected output in previous months. Despite declining drilling activity since the start of this year, well productivity and operational efficiency have proved to boost production. 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 expected to increase by 0.8 mb/d, y-o-y, to average 12.8 mb/d. Average tight crude output in 2023 is forecast at 8.4 mb/d, up by 0.7 mb/d, y-o-y.

Graph 5 - 10: US liquids supply developments by component



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

At the same time, NGL production and non-conventional liquids, particularly ethanol, are forecast to increase by 0.4 mb/d and 61 tb/d, y-o-y, to average 6.3 mb/d and 1.5 mb/d, respectively.

US liquids production in **2024**, excluding processing gains, is expected to grow by 0.6 mb/d, y-o-y, to average 21.2 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 and condensate output is expected to jump by 0.3 mb/d, y-o-y, to average 13.1 mb/d. At the same time, NGL 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 8.8 mb/d, up by 0.4 mb/d, y-o-y. 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	7.73	0.55	8.40	0.67	8.80	0.40
Gulf of Mexico crude	1.73	0.02	1.82	0.09	1.85	0.03
Conventional crude oil	2.45	0.07	2.54	0.09	2.45	-0.09
Total crude	**11.91**	**0.64**	**12.76**	**0.85**	**13.10**	**0.34**
Unconventional NGLs	4.78	0.47	5.22	0.44	5.47	0.26
Conventional NGLs	1.15	0.04	1.10	-0.05	1.07	-0.03
Total NGLs	**5.93**	**0.51**	**6.32**	**0.38**	**6.55**	**0.23**
Biofuels + Other liquids	1.44	0.08	1.50	0.06	1.53	0.03
US total supply	**19.28**	**1.23**	**20.58**	**1.29**	**21.18**	**0.61**

*Note: * 2023 and 2024 = Forecast.*

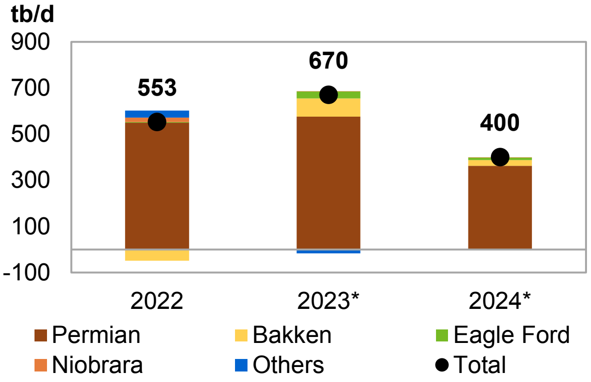
Sources: EIA, OPEC and Rystad Energy.

US tight crude production in the **Permian** during 2023 is expected to increase by 0.6 mb/d, y-o-y, to 5.1 mb/d, while in 2024, it is forecast to grow by 0.4 mb/d, y-o-y, to average 5.5 mb/d.

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 78 tb/d for an average of 1.1 mb/d. Growth of just 25 tb/d is expected for 2024 for an average of 1.1 mb/d, demonstrating signs of maturity in the basin.

The **Eagle Ford** in Texas saw an output of 1.2 mb/d in 2019, followed by declines in 2020 and 2021 and no growth in 2022. With an expected growth of about 30 tb/d for 2023, output rests at an average of 1.0 mb/d. At the same time, minor growth of 10 tb/d 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 remain unchanged y-o-y in 2023 with an average of 435 tb/d. Meanwhile, no growth is expected for 2024. With a modest pace of drilling and completion activities, production in other tight plays is expected to show a drop of 17 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	4.57	0.55	5.15	0.58	5.51	0.36
Bakken shale	1.03	-0.05	1.11	0.08	1.13	0.02
Eagle Ford shale	0.96	0.00	1.00	0.03	1.01	0.01
Niobrara shale	0.43	0.02	0.43	0.00	0.44	0.00
Other tight plays	0.73	0.03	0.71	-0.02	0.71	0.00
Total	**7.73**	**0.55**	**8.40**	**0.67**	**8.80**	**0.40**

*Note: * 2023 and 2024 = Forecast.*

Source: OPEC.

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

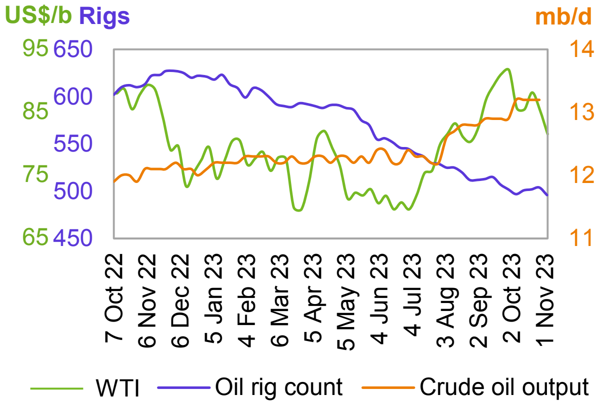
Total **active US drilling rigs** in the week ending 3 November 2023 fell by 7 to 618, according to Baker Hughes. This was 152 rigs less than a year ago. The number of active offshore rigs dropped by 3, w-o-w, to 21. This was higher by 7 compared with the same month a year earlier. Onshore oil and gas rigs were lower by 6, w-o-w, to stand at 594, with 3 rigs in inland waters. This is down by 160 rigs, y-o-y.

The **US horizontal rig count** dropped by 9, w-o-w, to 549, compared with 705 horizontal rigs a year ago. The number of drilling rigs for oil dropped by 8, w-o-w, to 496, while the number of gas-drilling rigs rose by 1, w-o-w, to 118.

The Permian's rig count fell by 3, w-o-w, to 310. Rig counts fell by 1 in Williston to 32 and remained unchanged in Eagle Ford at 51.

The rig count remained unchanged, w-o-w, in DJ-Niobrara at 14 and fell by 1 in Cana Woodford to 13. No operating oil or gas rigs have been reported in the Barnett Basin since 21 July.

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



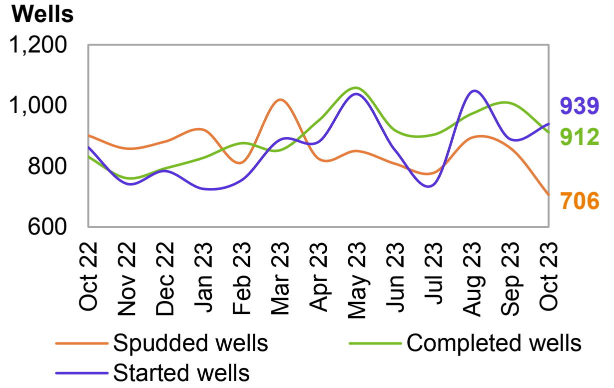
Sources: Baker Hughes, EIA and OPEC.

Drilling and completion (D&C) activities for spudded, completed and started oil-producing wells in all US shale plays included 860 horizontal wells spudded in September (as per preliminary data), based on EIA-DPR regions. This is down by 34, m-o-m, and 3% lower than in September 2022.

Preliminary data for September indicates a higher number of completed wells at 1,008, up by 15%, y-o-y. The number of started wells is estimated at 889, which is 2% higher than a year earlier.

Preliminary data for October 2023 saw 706 spudded, 912 completed and 939 started wells, according to Rystad Energy.

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

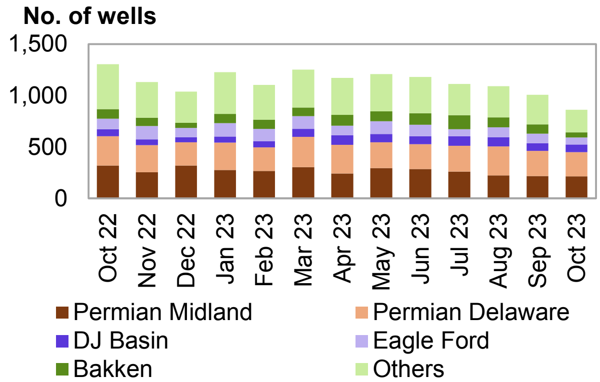


Note: Sep 23-Oct 23 = Preliminary data.
Sources: Rystad Energy and OPEC.

In terms of identified **US oil and gas fracking operations by region**, Rystad Energy reported that 1,089 wells were fracked in August. In September and October, it stated that 1,007 and 862 wells began fracking, respectively, according to preliminary numbers which are based on the analysis of high-frequency satellite data.

In regional terms, preliminary September data shows that 219 and 243 wells were fracked in Permian Midland and Permian Delaware, respectively. Compared with August, there was a decline of 6 wells in the Midland region and a drop of 37 in Delaware. Data also indicates that 73 wells were fracked in the DJ Basin, 95 in Eagle Ford and 89 in Bakken in September.

Graph 5 - 14: Fracked wells count per month



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

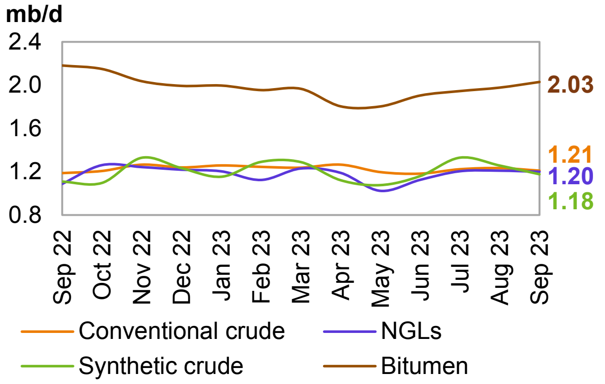
Canada

Canada's liquids production in **September** is estimated to have fallen by 61 tb/d, m-o-m, to average 5.7 mb/d, mainly due to the planned maintenance in a few oil sand upgraders.

Conventional crude production dropped by 23 tb/d, m-o-m, in September to average 1.2 mb/d, and NGL output decreased by a minor 10 tb/d to average 1.2 mb/d.

Crude bitumen production output rose by 52 tb/d, m-o-m, while synthetic crude decreased by 80 tb/d, m-o-m. Taken together, crude bitumen and synthetic crude production fell by 28 tb/d to 3.2 mb/d.

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



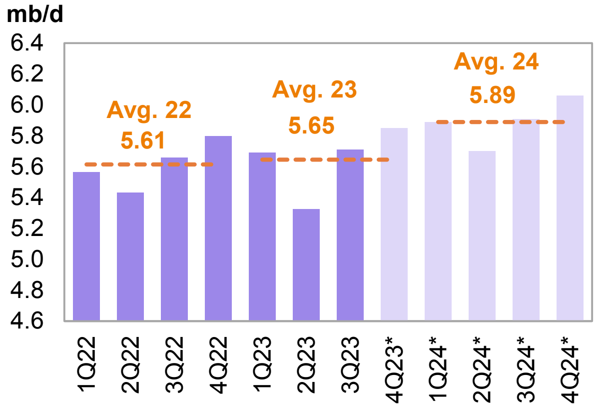
Sources: Statistics Canada, Alberta Energy Regulator and OPEC.

For **2023**, Canada's liquids production is forecast to increase by about 30 tb/d to average 5.6 mb/d. This is revised down by 20 tb/d compared with the previous month's assessment, mainly due to lower expected growth potential in 4Q23.

Oil sands output has not fully recovered from the heavy scheduled maintenance, but a full recovery is expected for 4Q23. At the same time, the Terra Nova Floating Production Storage and Offloading unit (FPSO) is also expected to restart production in the following months after prolonged and delayed repairs.

For **2024**, Canada's liquids production is forecast to increase at a much 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 debottlenecking, in areas like Montney, Kearl and Fort Hills, in addition to some conventional field growth.

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



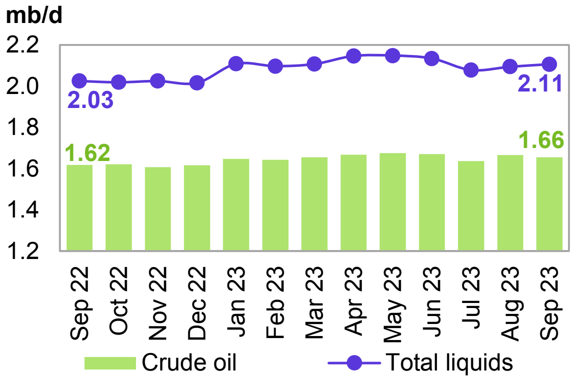
*Note: * 4Q23-4Q24 = Forecast. Source: OPEC.*

Mexico

Mexico's crude output decreased by 10 tb/d, m-o-m, in **September** to average 1.7 mb/d, while NGL output rose by 22 tb/d. Mexico's total September liquids output rose by 12 tb/d, m-o-m, to an average of 2.1 mb/d, according to the Comisión Nacional de Hidrocarburos (CNH). This was practically in line with previous expectations, as Cantarell production has not fully recovered and ramp-up of new gas condesate fields offset outages in some mature oil fields.

For **2023**, liquids production is forecast to rise by about 90 tb/d to an average of 2.1 mb/d. This is up by a minor 9 tb/d from the previous month's assessment. It is expected that the declines from mature fields could start offsetting monthly gains from new fields in the coming months.

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 2.1 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

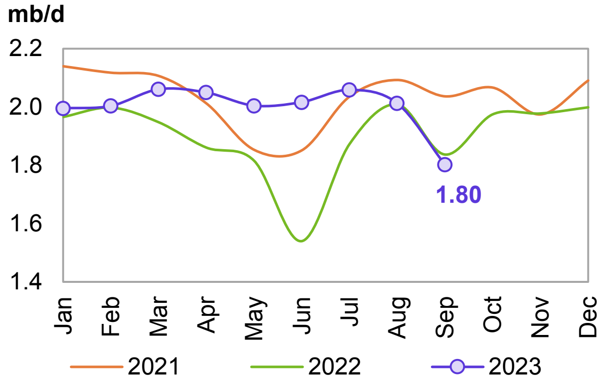
Norway

Norwegian liquids production in **September** fell by 0.2 mb/d, m-o-m, to average 1.8 mb/d due to unplanned shutdownd and equipment failure on a number of platforms.

Norway's crude production dropped by 145 tb/d, m-o-m, in September to average 1.6 mb/d, higher by a minor 5 tb/d, y-o-y. Monthly oil production was 4.7% lower than the Norwegian Petroleum Directorate's (NPD) forecast.

Production of NGLs and condensate, meanwhile, fell by 65 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.

In **2023**, Norwegian liquids production is forecast to expand by 0.1 mb/d, revised down by 12 tb/d compared with last month's forecast, for an average of 2.0 mb/d. Technical challenges, operational irregularities and periodical shut-downs have been the main causes of output declines in Norwegian production. Production from the Valhall area in the southern Norwegian North Sea as well as Skarv field output fell in the third quarter largely due to unplanned shutdowns. On the other side, production at the Breidablikk heavy crude field, operated by Equinor, was lauched in October, one year ahead of schedule. The field is one of the largest undeveloped oil discoveries on the Norwegian shelf and its producing wells will be tied back to the Grane platform for processing.

For **2024**, Norwegian liquids production is forecast to grow by 120 tb/d to average 2.1 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 as Balder/Ringhorne, Eldfisk, Kristin, Alvheim FPSO, Hanz, Aasgard FPSO and PL636. Norway's Equinor and its partners stated that they had raised the project cost estimate for their joint Johan Castberg oilfield in the Arctic Barents Sea due to a larger-than-expected scope of work and cost increases in the industry. Johan Castberg is projected to be the main source of output increases next year, with the first oil planned to be produced in 4Q24.

UK

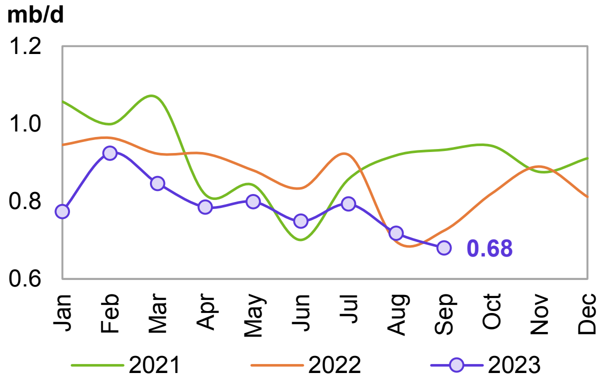
In **September**, **UK liquids production** fell by 38 tb/d, m-o-m, to average 0.7 mb/d. Crude oil output decreased by 43 tb/d, m-o-m, to average 0.5 mb/d, lower by 43 tb/d, y-o-y, according to official data. NGL output was up by a minor 5 tb/d and averaged at 68 tb/d. UK liquids output in September was down by 6% compared with September 2022, mainly due to natural declines and maintenance.

For **2023**, UK liquids production is forecast to drop by almost 60 tb/d to average 0.8 mb/d, down by about 9 tb/d from the previous month's assessment mainly due to lower-than-expected September 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 launch of Penguins redevelopment is now planned for 1Q24.

UK offshore operators have completed 12 Exploration and Appraisal (E&A) wells and 48 development wells this year, according to the North Sea Transition Authority's (NSTA) latest wells insight report from October to help ensure UK energy security.

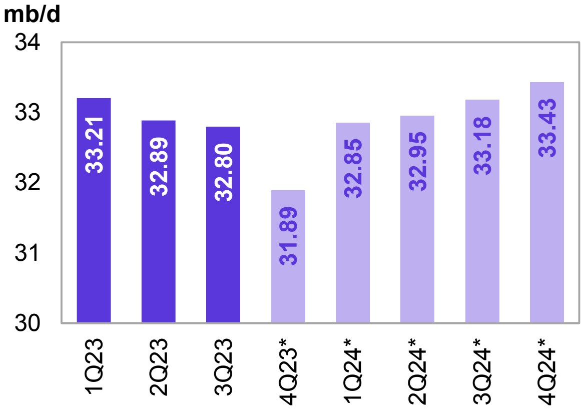
Graph 5 - 19: UK monthly liquids production development



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

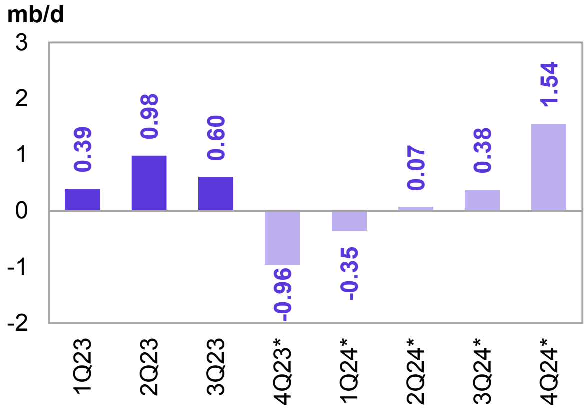
Non-OECD

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



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

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

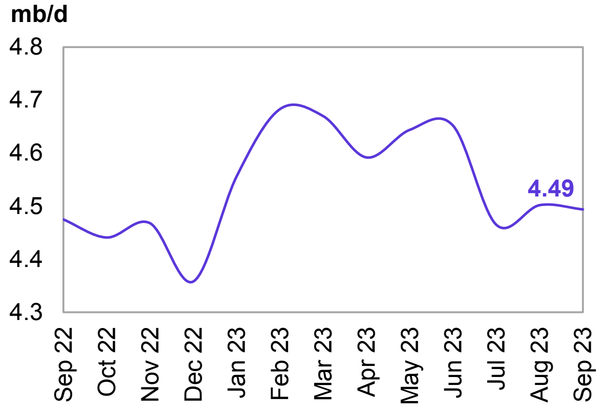


*Note: * 4Q23-4Q24 = Forecast. Source: OPEC.*

China

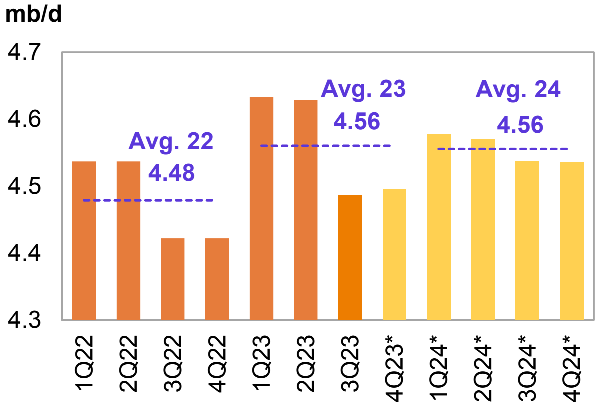
China's liquids production fell by a minor 8 tb/d, m-o-m, to average 4.5 mb/d in **September**. This is up by 19 tb/d, y-o-y, according to official data. Crude oil output in September averaged 4.1 mb/d, down by 8 tb/d compared with the previous month, and higher by 16 tb/d, y-o-y. NGL and condensate production was largely stable, m-o-m, averaging 48 tb/d.

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



Sources: CNPC and OPEC.

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



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

For **2023**, y-o-y growth of about 80 tb/d is forecast for an average of 4.6 m/d. This is roughly unchanged from the previous month's assessment. Natural decline rates are expected to be offset by additional growth through more infill wells and EOR projects amid efforts made by state-owned oil companies to safeguard energy supplies. CNOOC brought two new offshore oilfields in China onstream during 3Q23. The Bozhong 28-2 oilfield second adjustment project, located at a water depth of 21 m, was started up in the southern Bohai Sea. In the eastern south China Sea, the company launched the Lufeng 12-3 oilfield development project depths of about 240 m.

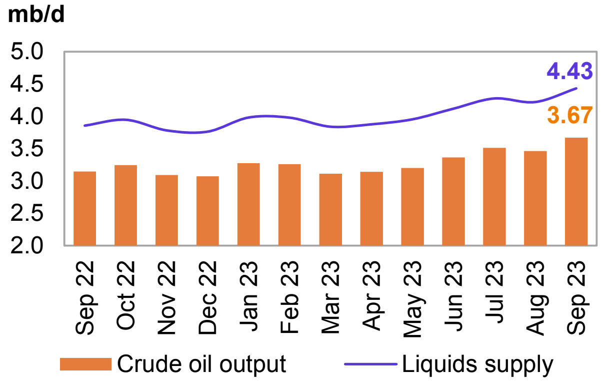
For **2024**, Chinese liquids production is expected to remain steady, y-o-y, and is forecast to average 4.6 m/d. For next year, Lingshui 17-2, Lufeng, Liuhua 11-1, Xi'nan, Shayan and Liuhua 4-1 (redevelopment) are planned to come on stream by CNOOC, PetroChina and Sinopec. At the same time, key ramp-ups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

Latin America

Brazil

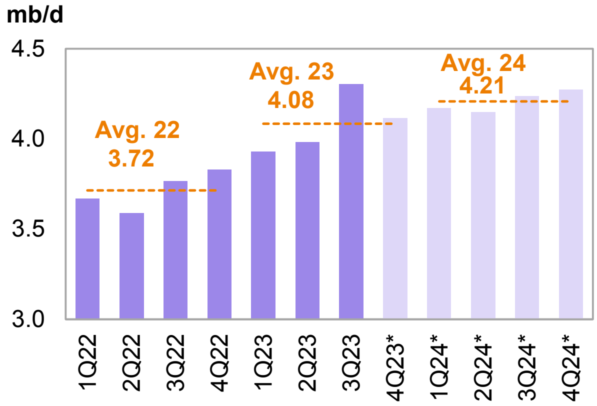
Brazil's crude output in **September** rose by 210 tb/d, m-o-m, to average 3.7 mb/d, mainly due to ramp-ups at four offshore platforms and less maintenance. NGL production, however, was broadly unchanged at an average of 80 tb/d and was expected to remain flat in October. Biofuel output (mainly ethanol) remained mostly unchanged at an average of 678 tb/d, with preliminary data showing a stable trend in October. The country's total liquids production increased by 210 tb/d in September to average 4.4 mb/d. This is the new highest liquids production rate on record, compared with 4.3 mb/d set in July 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: * 4Q23-4Q24 = Forecast. Sources: ANP and OPEC.*

For **2023**, Brazil's liquids supply, including biofuels, is forecast to rise by 0.4 mb/d, y-o-y, to average 4.1 mb/d, revised up by 25 tb/d from the previous month's assessment due to stronger-than-expected output in September and higher expected production in 4Q23.

By the end of October, the FPSO Almirante Barroso reached its nominal capacity of 150 tb/d on the Buzios field in the presalt Santos basin with three producing wells. The platform reached that figure in about 5 months after first striking oil, which is a presalt record. The achievement of the record shows the high productivity of the field's wells.

For **2024**, Brazil's liquids supply, including biofuels, is forecast to increase by about 120 tb/d, y-o-y, to average 4.2 mb/d. Crude oil output is expected to increase through production ramp-ups in the Buzios (Franco), Mero (Libra NW), Tupi (Lula), Peregrino and Itapu (Florim) fields. Oil project start-ups are expected at Atlanta, Pampo-Enchova Cluster and Vida.

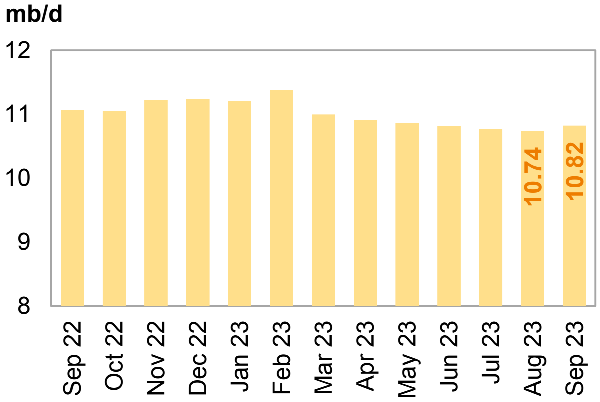
Russia

Russia's liquids production in September rose by about 85 tb/d, m-o-m, to average 10.8 mb/d. This includes 9.5 mb/d of crude oil and 1.3 mb/d of NGLs and condensate.

For **2023**, Russian liquids production is forecast to drop by 0.4 mb/d to an average of 10.6 mb/d, revised up by about 80 tb/d from the previous month's assessment. It is worth noting, that this takes into account all announced production adjustments of the countries in the DoC to the end of 2023.

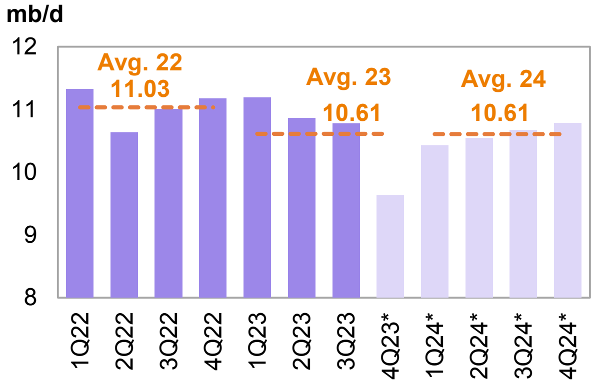
For **2024**, Russian liquids production is forecast to remain unchanged, y-o-y, to average 10.6 mb/d. In addition to project ramp-ups from several oil fields, there will be start-ups by Rosneft, Russneft, Lukoil, Gazprom, Neftisa and TenderResurs. However, overall additional liquids production is expected to be offset by declines at mature fields. It should be noted that the Russian oil forecast is still 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: * 4Q23-4Q24 = Forecast.*
Sources: Nefte Compass and OPEC.

Caspian

Kazakhstan & Azerbaijan

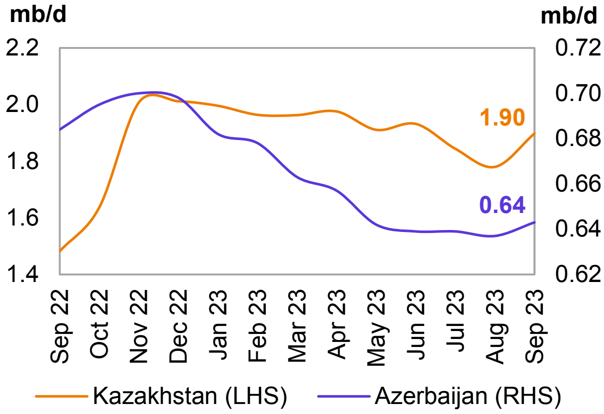
Liquids output in Kazakhstan rose by 118 tb/d, m-o-m, to average 1.9 mb/d in **September**. Crude production was up by 131 tb/d, m-o-m, to average 1.6 mb/d. NGL and condensate output dropped by 13 tb/d, m-o-m, to average 0.3 mb/d.

For **2023**, the liquids supply is forecast to increase by 0.1 mb/d to average 1.9 mb/d, revised up by a minor 5 tb/d from the previous forecast.

Gas condensate production in September was disrupted mainly due to scheduled maintenance at the Karachaganak field, while the Tengiz oil field production recovered in full following its planned maintenance.

For **2024**, the liquids supply is forecast to increase by about 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. In the latest update, Chevron announced that due to delays and more intensive commissioning, the project will produce about 50 tb/d less as it comes online over 2024 and 2025. Oil production in the Kashagan field and gas condensate output in the Karachaganak field are also expected to rise marginally.

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



Sources: Nefte Compass, JODI and OPEC.

Azerbaijan's liquids production in **September** rose by a minor 6 tb/d, m-o-m, averaging 0.6 mb/d, which is a drop of 41 tb/d, y-o-y. Crude production averaged 504 tb/d, with NGL output at 139 tb/d, according to official sources.

Azerbaijan's liquids supply for **2023** is forecast to drop by about 20 tb/d to average 0.7 mb/d. This is a downward revision of about 8 tb/d stemming from lower-than-expected production in major oil fields in September. The majority of declines in legacy reservoirs, like the Azeri-Chirag-Guneshli (ACG) oil fields, are expected to be primarily offset by ramp-ups in other fields this year.

Azerbaijan's liquids supply for **2024** is forecast to remain broadly stable at an average of 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 is expected to offset the planned ramp-ups.

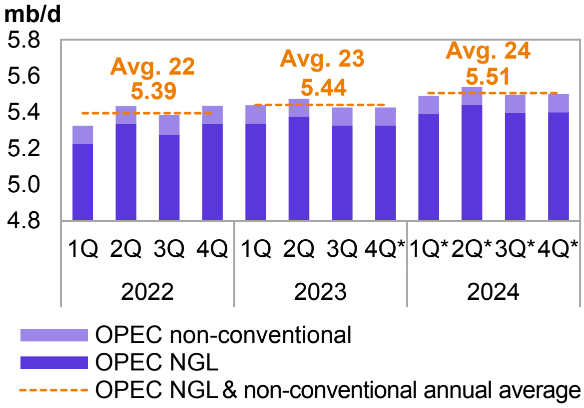
OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids are forecast to expand by about 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 forecast to remain unchanged at 0.1 mb/d.

Preliminary data shows NGL output in 3Q23 averaging 5.33 mb/d, while non-conventional output is forecast to remain steady at 0.1 mb/d. Taken together, 5.42 mb/d is expected for September, according to preliminary data.

The preliminary **2024** forecast indicates growth of 65 tb/d for 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: * 4Q23-4Q24 = 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 27.90 mb/d in October 2023, higher by 80 tb/d, m-o-m. Crude oil output increased mainly in Angola, IR Iran and Nigeria, while production in Libya, Saudi Arabia and Kuwait decreased.

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

Secondary sources	2021	2022	1Q23	2Q23	3Q23	Aug 23	Sep 23	Oct 23	Change Oct/Sep
Algeria	913	1,017	1,013	979	952	940	958	961	*3*
Angola	1,122	1,140	1,058	1,104	1,137	1,124	1,121	1,172	*51*
Congo	263	261	268	265	261	261	252	257	*5*
Equatorial Guinea	98	84	53	59	61	69	54	56	*2*
Gabon	182	197	194	206	207	211	206	216	*10*
IR Iran	2,392	2,554	2,572	2,698	2,996	3,050	3,069	3,115	*46*
Iraq	4,046	4,439	4,393	4,147	4,295	4,300	4,314	4,329	*15*
Kuwait	2,419	2,704	2,684	2,585	2,560	2,551	2,577	2,553	*-24*
Libya	1,138	981	1,157	1,164	1,152	1,159	1,169	1,143	*-26*
Nigeria	1,373	1,205	1,347	1,233	1,269	1,249	1,399	1,416	*17*
Saudi Arabia	9,114	10,531	10,358	10,149	8,993	8,920	9,018	8,992	*-26*
UAE	2,727	3,066	3,045	2,941	2,910	2,911	2,924	2,940	*16*
Venezuela	554	683	696	737	761	757	758	751	*-7*
Total OPEC	**26,340**	**28,863**	**28,840**	**28,268**	**27,555**	**27,501**	**27,820**	**27,900**	***80***

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	1Q23	2Q23	3Q23	Aug 23	Sep 23	Oct 23	*Change Oct/Sep*
Algeria	911	1,020	1,011	971	951	939	960	961	*1*
Angola	1,124	1,137	1,046	1,098	1,131	1,129	1,113	1,147	*34*
Congo	267	262	278	280	269	272	252	265	*13*
Equatorial Guinea	93	81	51	59	58	56	55	54	*-1*
Gabon	181	191	201	203	..	..	..	..	*..*
IR Iran	..	..	..	..	..	..	..	..	*..*
Iraq	3,971	4,453	4,288	3,959	4,101	4,073	4,138	4,189	*51*
Kuwait	2,415	2,707	2,676	2,590	2,548	2,548	2,548	2,548	*0*
Libya	1,207	..	1,195	1,181	1,187	1,192	1,196	1,188	*-8*
Nigeria	1,323	1,138	1,277	1,144	1,201	1,181	1,347	1,351	*4*
Saudi Arabia	9,125	10,591	10,456	10,124	8,969	8,918	8,975	8,940	*-35*
UAE	2,718	3,064	3,041	2,941	2,904	2,896	2,924	2,892	*-32*
Venezuela	636	716	731	808	797	820	762	786	*24*
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	***..***

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

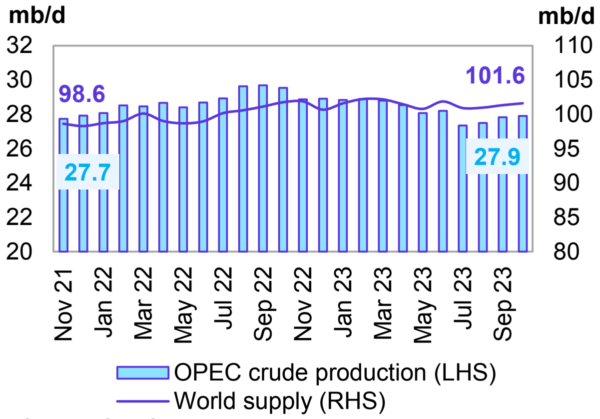
World oil supply

Preliminary data indicates that **global liquids production in October** increased by 0.3 mb/d to average 101.6 mb/d compared with the previous month.

Non-OPEC liquids production (including OPEC NGLs) is estimated to have increased by 0.2 mb/d, m-o-m, in October 2023 to average 73.7 mb/d. This is higher by 1.5 mb/d, y-o-y. Preliminary estimated production increases in October were mainly driven by Norway and OECD Americas, and were partially offset by drops in Russia and Brazil.

The **share of OPEC crude oil in total global production** in October, remained unchanged to stand at 27.5% 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

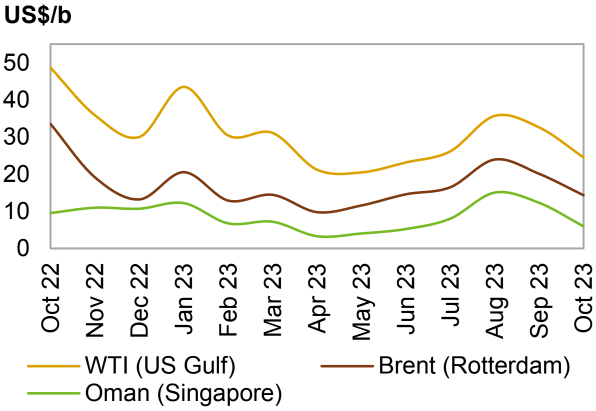
In October, refinery margins declined, continuing the downward trend registered in the previous month and defying the typical uplift associated with lower product output at this time of the year. In the Atlantic Basin, the vast majority of this downturn was attributed to gasoline, as markets for the product weakened following the end of the summer season. In Singapore, the poor performance was also led by gasoline, although the weakness was more evenly distributed across the barrel, with naphtha seeing the smallest decline.

Global refinery intake continued to decrease in October showing a 1.4 mb/d decline to average 80.1 mb/d compared to 81.5 mb/d in the previous month. Y-o-y, however, intakes were 2.2 mb/d higher. In the coming months, refinery intakes are expected to start to recover as offline capacities begin to subside, amid the conclusion of the heavy autumn maintenance season.

Refinery margins

USGC refining margins against WTI moved lower, showing a decline for the second consecutive month. This decline is notably influenced by the challenges in the gasoline sector, attributed to reduced demand following the conclusion of the driving season. Gasoline crack spreads fell 28%, m-o-m, and 46% relative to the y-t-d high registered in August. On the other hand, over the month, naphtha markets exhibited solid improvement due to localized naphtha tightness amid lower output due to heavy turnarounds. However, this positive development proved insufficient to offset the downturn in gasoline, coupled with comparatively smaller losses associated with jet fuel and gasoil.

Graph 6 - 1: Refining margins



Sources: Argus and OPEC.

US refiners are expected to shift focus on diesel production to increase heating oil production, while gasoline will likely continue to experience further stockbuilds, contributing to sustained pressure on margins.

Recent reports of declining refinery runs in South America due to plant aging, unplanned incidents and consequently a considerable increase in refinery offline capacities will likely provide partial support to US product markets through exports in the near term.

In terms of operations, US refinery intake declined further with the continuation of heavy maintenance works, resulting in a monthly loss of 970 tb/d, bringing the average to 15.64 mb/d in October. USGC margins against WTI averaged $24.52/b, down by $8.05, m-o-m, and $24.09 y-o-y.

Refinery margins in Rotterdam against Brent lost ground, although the decline was less pronounced compared to what was observed in the USGC and Singapore. A poor performance was evident all across the barrel, particularly gasoline. Lower gasoline exports to the US amplified the product's weakness, extending its influence to Europe. This situation exacerbated the existing pressure in the NWE market, compounded by subdued gasoline exports to Nigeria following the fuel subsidy removal and subsequent increase in Nigerian gasoline retail prices in early 2H23. Moreover, ongoing limitations to access foreign exchange in Nigeria further weighed on the fuels imports. Moreover, the recent relaxation of the diesel export ban implemented in Russia on September 21 alleviated concerns about diesel availability. The measure likely contributed to a downward correction from the eight-month high observed in the previous month.

Refinery throughput in Europe experienced a reversal, trending downward. According to preliminary data, it was 80 tb/d lower, at an average of 9.29 mb/d. Refinery margins against Brent in Europe averaged $14.30/b in October, $5.76 lower, m-o-m, and $19.20 lower y-o-y.

Singapore's refining margins against Oman eased as losses stemming from all across the barrel weighed on product markets and refining economics. Much like the trends observed in the USGC and in Rotterdam, gasoline was the main driver for the weakness affected by the end of the summer season in Europe and the US, despite reports of tight gasoline availability in the Middlea East, and a decline in gasoline stocks in Singapore during the month, amid stronger requirements from Australia. Market signals pointing to higher product supplies and a more limited diesel arbitrage to the Atlantic Basin contributed adversely to Asian refining economics.

Transport activities strengthened in China during Golden Week holiday, which took place the first week of October. This was the first such holiday after the relaxation of COVID-19 restrictions and boosted transportation fuel demand, especially for gasoline and jet fuel, according to Argus. However, the overall bearish market sentiment in the region and beyond due to rising product supplies amid softening seasonal demand prevented the manifestation of any significant gain on a regional basis.

Looking forward, the return of the western refineries from maintenance and the potential rise in product output should lead to downward pressure on product prices. On the other hand, the recent reports on Chinese product export quotas restraint for the remainder of the current year, may lead to a contaction in product availability which could lift prices. The two events are set to improve balance for product price differences between Singapore and the hubs located in the Atlantic Basin, which coupled with seasonality, could weigh on East-to-West arbitrage and Asian product crack spreads.

In October, the combined refinery intakes for Japan, China, India, Singapore and South Korea experienced a decline of 180 tb/d relative to the previous month, averaging 27.89 mb/d according to preliminary data. In China, both state-owned and independent refiners reduced throughputs in October, as the average utilization rate of 50 state-owned refineries fell to a four-month low of 83% in October, with four undergoing maintenance, according to Platts. Refinery margins against Oman in Asia experienced a decline of $6.34, m-o-m, to average $5.96/b, which was $3.58 lower, y-o-y.

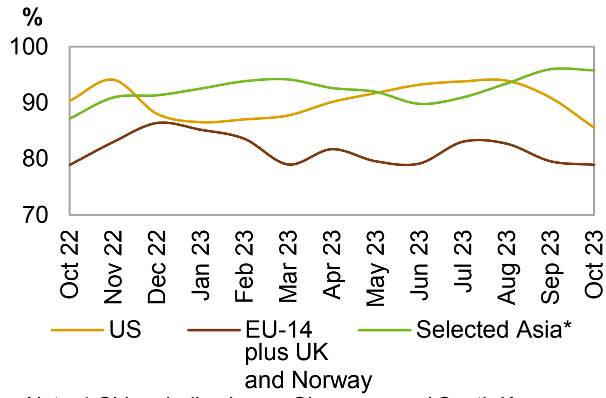
Refinery operations

US refinery utilization rates declined in October to an average of 85.53%, which corresponds to a throughput of 15.64 mb/d. This represented a drop of 5.4 pp and 970 tb/d compared with September. Y-o-y, the October refinery utilization rate was down by 4.8 pp, with throughput showing a 621 tb/d drop.

European refinery utilization averaged 78.93% in October, corresponding to a throughput of 9.29 mb/d. This is a m-o-m drop of 0.6 pp or 80 tb/d. On a y-o-y basis, the utilization rate and throughput remained unchanged.

In **Selected Asia** – comprising Japan, China, India, Singapore and South Korea – refinery utilization rates decreased to an average of 95.74% in October, corresponding to a throughput of 27.89 mb/d. Compared with the previous month, utilization rates were down by 0.2 pp, and throughput was lower by 180 tb/d. However, y-o-y utilization rates were higher by 8.6 pp, and throughput was up by 2.4 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, %			
	Aug 23	Sep 23	Oct 23	Change Oct/Sep	Aug 23	Sep 23	Oct 23	Change Oct/Sep
US	**17.16**	**16.61**	**15.64**	**-0.97**	**93.93**	**90.91**	**85.53**	**-5.4 pp**
Euro-14, plus UK and Norway	**9.74**	**9.37**	**9.29**	**-0.08**	**82.69**	**79.56**	**78.93**	**-0.6 pp**
France	1.08	1.02	1.01	-0.01	93.40	88.36	87.37	1.0 pp
Germany	1.62	1.61	1.58	-0.02	79.06	78.28	77.09	-1.2 pp
Italy	1.33	1.33	1.31	-0.01	69.74	69.79	69.07	-0.7 pp
UK	0.99	0.91	0.90	-0.01	84.23	77.83	77.00	-0.8 pp
Selected Asia*	**27.33**	**28.07**	**27.89**	**-0.18**	**93.41**	**95.93**	**95.74**	**-0.2 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	4Q22	1Q23	2Q23	3Q23	4Q23
OECD Americas	**16.60**	**17.79**	**18.68**	**18.56**	**18.04**	**19.05**	**19.37**	**18.79**
of which US	*14.73*	*15.66*	*16.48*	*16.35*	*15.78*	*16.75*	*16.97*	*16.11*
OECD Europe	**10.65**	**10.92**	**11.43**	**11.38**	**11.28**	**11.11**	**11.46**	**11.33**
of which:								
France	*0.67*	*0.69*	*0.84*	*0.78*	*0.83*	*0.87*	*1.04*	*0.99*
Germany	*1.72*	*1.72*	*1.83*	*1.87*	*1.64*	*1.59*	*1.65*	*1.69*
Italy	*1.11*	*1.23*	*1.32*	*1.29*	*1.28*	*1.26*	*1.29*	*1.26*
UK	*0.92*	*0.92*	*1.04*	*1.03*	*1.03*	*1.01*	*0.97*	*0.87*
OECD Asia Pacific	**5.87**	**5.77**	**6.08**	**6.01**	**6.13**	**5.60**	**5.54**	**5.92**
of which Japan	*2.48*	*2.49*	*2.71*	*2.73*	*2.77*	*2.38*	*2.67*	*2.84*
Total OECD	**33.12**	**34.47**	**36.20**	**35.95**	**35.45**	**35.77**	**36.38**	**36.04**
Latin America	**3.20**	**3.50**	**3.36**	**3.32**	**3.41**	**3.53**	**3.56**	**3.39**
Middle East	**6.10**	**6.80**	**7.28**	**7.40**	**7.31**	**7.44**	**7.75**	**7.81**
Africa	**1.79**	**1.77**	**1.76**	**1.73**	**1.71**	**1.71**	**1.78**	**1.63**
India	**4.42**	**4.73**	**5.00**	**4.89**	**5.35**	**5.22**	**5.13**	**5.34**
China	**13.48**	**14.07**	**13.49**	**14.14**	**14.57**	**14.78**	**15.19**	**15.16**
Other Asia	**4.72**	**4.72**	**4.89**	**4.77**	**4.86**	**5.21**	**4.89**	**5.01**
Russia	**5.39**	**5.61**	**5.46**	**5.59**	**5.67**	**5.40**	**5.49**	**5.50**
Other Eurasia	**1.10**	**1.23**	**1.15**	**1.15**	**1.23**	**1.07**	**1.08**	**1.05**
Other Europe	**0.43**	**0.41**	**0.48**	**0.49**	**0.44**	**0.42**	**0.50**	**0.46**
Total Non-OECD	**40.63**	**42.85**	**42.87**	**43.48**	**44.55**	**44.79**	**45.37**	**45.35**
Total world	**73.75**	**77.32**	**79.07**	**79.43**	**80.01**	**80.56**	**81.75**	**81.39**

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

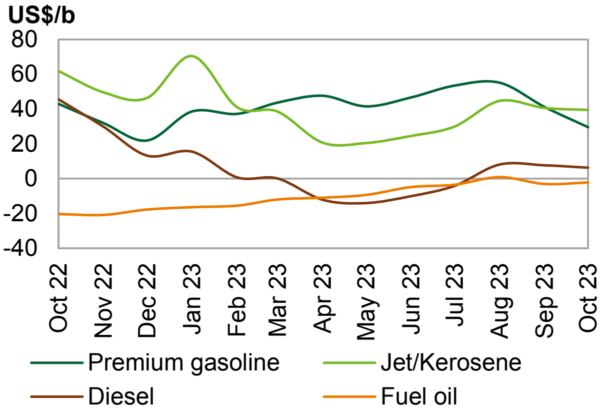
Sources: AFREC, APEC, EIA, IEA, Euroilstock, PAJ, Ministry data, including Ministry of Energy of the Russian Federation, Ministry of Petroleum and Natural Gas of India, OPEC and JODI.

Product markets

US market

The **USGC gasoline crack spread** fell sharply extending the downward trend started in the previous month. This was a reflection of weaker fundamentals as demand for the product continued to decline in line with seasonality. Total gasoline inventories in the US, did not contract anywhere near the levels witnessed one year earlier, suggesting considerably greater gasoline availability y-o-y. In addition, post summer inventory recovery this year started in August, much earlier than what was seen in the previous year. This y-o-y expansion in gasoline availability likely contributed to the sharp price drop registered in October, amid declining demand. USGC wholesale gasoline 93 prices dropped by $20.57/b, m-o-m, to an average of $109.99/b in October. The USGC gasoline crack spread lost $11.63, m-o-m, to average $29.55/b in October. This was $13.40 lower, y-o-y.

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



Sources: Argus and OPEC.

The USGC **jet/kerosene** crack spread eased but showed the smallest decline among the transport fuel pack. It emerged as the primary margin contributor, particularly as gasoline crack spreads significantly underperformed, settling at $9.90/b below that of jet fuel. Wholesale prices saw a decrease of $10.07/b m-o-m, averaging $119.89/b. The US jet/kerosene crack spread against WTI averaged $39.45/b, down by $1.13, m-o-m, and $22.29 y-o-y.

The USGC **gasoil** crack weakened slightly but managed to retain most of the gains achieved in the previous month. Over the month, there was some improvement in gasoil availability in the country compared to the end of the previous month, which likely contributed to pressure on prices. However, despite the slight monthly rise in gasoil inventories, the level remains low relative to historical patterns, indicating persistent market tightness. Going forward, gasoil markets are likely to benefit from partial support from rising heating demand as temperatures drop. Gasoil prices averaged $86.73/b in October, down $10.32 relative to September. The US gasoil crack spread against WTI averaged $6.29/b, down by $1.38 m-o-m and $39.38 y-o-y.

The USGC **fuel oil** crack spread against WTI showed a slight upturn, rebounding from the solid loss registered in the previous month. Residual fuel inventories in the US remained low compared with historical data and showed a slight m-o-m decline at the end of October, signalling tightness in the country. Despite this limited improvement, fuel oil markets are expected to remain under pressure going forward due to weakening high sulphur fuel oil requirements from nearly all main regions and eroded exports for power generation demand due to the end of the summer season. In addition, weaker gasoline markets may impact residual fuel-to-gasoline conversion, potentially maintaining pressure pressure on residual fuel markets. In October, the US fuel oil crack spread against WTI averaged -$2.12/b, higher by 88¢/b, m-o-m, and $18.21, y-o-y.

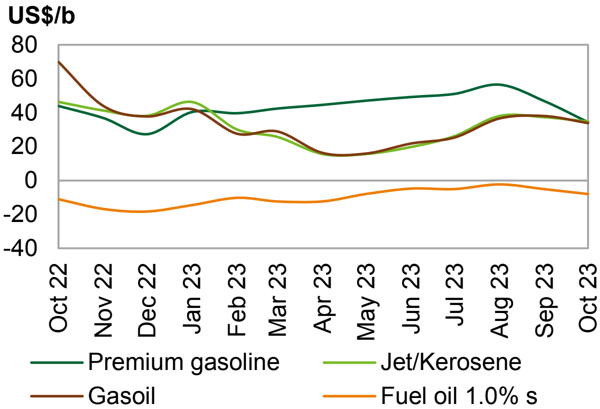
European market

Gasoline crack spreads in Rotterdam decreased, influenced by subdued demand from the US and West Africa. Gasoline exports to West Africa reportedly declined by around 28% following the fuel subsidy removal in Nigeria. Although gasoline refinery output levels declined with the start of heavy turnarounds, this supportive factor was overshadowed by the decline in demand, leading to strong gasoline stock builds in the Atlantic Basin. Going forward, gasoline crack spreads are expected to remain under pressure with the onset of the colder season. However, this downside risk will be challenged by the ongoing 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 $34.37/b in October, which was $12.36/b lower, m-o-m, and $9.54 lower, y-o-y.

In October, **jet/kerosene** crack spreads eased but managed to retain most of the previous months' gains, showing the second lowest loss, following naphtha, in NWE. This reflects the ongoing support from air travel activities and regional demand, with European aviation fuel consumption remaining robust despite the conclusion of the summer season. The demand-side resilience buoyed jet/kerosene markets in the region and likely overshadowed feedstock pricing pressures. In the coming months, jet/kerosene markets are expected to remain strong but slowly subside with the conclusion of the peak travelling season. The Rotterdam jet/kerosene crack spread against Brent averaged $34.70/b, down by $2.55, m-o-m, and $11.54, y-o-y.

Gasoil 10 ppm crack spreads experienced mild decrease but remained at a healthy level. Firm gasoil supplies in the region and softening demand amid the end of the harvest season weighed on the product's market. Gasoil production in Europe has been well sustained in recent months, contributing to stable availability. The resulting pressures from the supply-side dynamics are likely to weigh on the product's performance despite supply disruptions in Germany due to run cuts and reported damage in one of the countries' refineries. Moreover, weak European industrial indicators have affected gasoil/diesel requirements within the region, further hindering gains in the products' profitability. The gasoil crack spread against Brent averaged $33.80/b, down by $4.15, m-o-m, and by $35.99, y-o-y.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



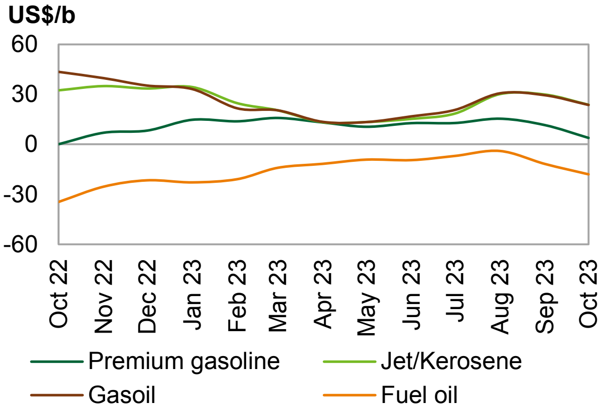
Sources: Argus and OPEC.

At the bottom of the barrel, **fuel oil 1.0%** crack spreads weakened, pressured by rising availability. Lower fuel oil refinery intakes resulted in higher supplies, as the residual fuel requirements declined due to secondary unit maintenance. In addition, substantial inflows to the region from the Middle East added to the product's lackluster performance. In terms of prices, fuel oil 1.0% decreased in value m-o-m to an average of $80.64/b, which was $8.19 lower relative to the previous month. In NWE, fuel oil 1.0% cracks against Brent averaged minus $8.00/b in October, experiencing a loss of $2.87, m-o-m, but gaining $3.05, y-o-y.

Asian market

The **Asian gasoline 92 crack** declined to single digits, reaching a 12-month low in October, although the loss was comparatively less than that observed for the same product in the USGC and NWE. The conclusion of the summer season and, consequently, the end of peak travel and driving transport fuel demand contributed to increased gasoline availability in the Atlantic Basin. As a result, gasoline exports to Europe and the US faced pressure. Recent reports indicating a temporary restraint in the release of the last batch of Chinese product export quotas could potentially limit the upside potential for gasoline surplus in the near term. However, the uncertainty surrounding the final decision of the measure and its durability is expected to become clearer going forward. The Singapore gasoline crack spread against Dubai in October averaged $3.90/b. This was down $7.64, m-o-m, but $3.78 higher, y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus and OPEC.

Asian naphtha crack spreads experienced a small decline m-o-m and moved deeper into negative territory. This was the outcome of ample availability, with firm flows from within the region coming from the Middle East amid relatively weak demand from the petrochemical industry. The Singapore naphtha crack spread against Oman averaged minus $19.01/b, 81¢ lower m-o-m but 17¢ higher y-o-y.

In the middle of the barrel, **jet/kerosene** crack spreads continued to trend downwards, as slower requirements from the West exerted pressure on product markets despite the continuation of healthy demand from the global aviation sector. Expectations of an increase in international air travel activity during the holidays and possibly stronger export requirements to OECD Europe and Americas will most likely support jet/kerosene markets towards the year-end. The Singapore jet/kerosene crack spread against Oman averaged $23.77/b, down by $6.07 m-o-m and by $8.59 y-o-y.

The Singapore **gasoil** crack spread weakened along with that of jet/kerosene. The end of the heavy turnaround season in the Atlantic Basin, points to pressure on East-to-West gasoil outflows going forward which may increase the supply-side pressures in Asian gasoil markets in the near term, unless refiners in the region decide to reduce runs. The Singapore gasoil crack spread against Oman averaged $23.67/b, down by $5.84 m-o-m and by $19.90 y-o-y.

The Singapore **fuel oil 3.5%** crack spread fell further, to reach the lowest level registered since February 2023. Weak demand from the bunker sector, amid seasonal demand loss for power generation, weakening FCC margins due to lower economic incentives to convert residual fuel into gasoline, affected the products' performance. In addition, strong supplies from the Middle East led to a surge in the product's availability in the region. Singapore's high sulphur fuel oil crack spreads against Oman averaged minus $17.95/b, which was down by $6.20 m-o-m but up by $16.52 y-o-y.

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

Event	Time frame	Observations	Asia	Europe	US
End of heavy maintenance season	Nov 23 – Dec 23	Gasoline margins have already plummeted from their summer highs but could come under added pressure as refineries increase runs as they return from maintenance.	↓ Pressure on product markets	↓ Pressure on product markets	↓ Pressure on product markets
Year-end holidays (jet fuel)	Nov 23 – Dec 23	A rise in air travel activities is expected to take place nearly globally during the year-end holiday season. This could be supportive for refinery runs.	↑ Upward pressure on jet fuel crack spreads	↑ Upward pressure on jet fuel crack spreads	↑ Upward pressure on jet fuel crack spreads
Year-end holidays (Naphtha)	Nov 23 – Dec 23	Naphtha markets in Asia could experience some improvement as plastic demands tend to pick up ahead of the holiday season due to a typical surge in packaging material.	↑ Upward pressure on naphtha crack spreads.	-	-
Weakening refining margins	Nov 23 – Dec 23	If refining margins continue to decline, refiners may have to respond by reducing run to mitigate their losses.	↓ Pressure on refinery runs	↓ Pressure on refinery runs	↓ Pressure on refinery runs
Gasoil markets (heating oil demand)	Nov 23 – Dec 23	Gasoil and kerosene markets are expected to respond positively as temperatures reach colder levels, providing support to middle distillates.	↑ Upward pressure on gasoil crack spreads	↑ Upward pressure on gasoil crack spreads	↑ Upward pressure on gasoil crack spreads

Source: OPEC.

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

		Sep 23	Oct 23	Change Oct/Sep	Annual avg. 2022	Year-to-date 2023
US Gulf (Cargoes FOB)						
Naphtha*		75.93	72.09	-3.84	89.24	73.60
Premium gasoline	(unleaded 93)	130.56	109.99	-20.57	134.59	121.13
Regular gasoline	(unleaded 87)	118.28	97.03	-21.25	123.34	108.23
Jet/Kerosene		129.96	119.89	-10.07	140.17	114.71
Gasoil	(0.2% S)	97.05	86.73	-10.32	122.10	77.47
Fuel oil	(3.0% S)	82.93	74.51	-8.42	76.84	67.38
Rotterdam (Barges FoB)						
Naphtha		77.27	71.27	-6.00	85.08	71.32
Premium gasoline	(unleaded 98)	140.69	123.01	-17.68	136.26	127.97
Jet/Kerosene		131.21	123.34	-7.87	139.86	111.69
Gasoil/Diesel	(10 ppm)	131.91	122.44	-9.47	142.32	111.37
Fuel oil	(1.0% S)	88.83	80.64	-8.19	88.77	74.53
Fuel oil	(3.5% S)	90.41	81.46	-8.95	78.86	72.97
Mediterranean (Cargoes FOB)						
Naphtha		74.24	69.13	-5.11	82.26	68.84
Premium gasoline**		117.33	97.72	-19.61	120.04	103.61
Jet/Kerosene		126.91	120.01	-6.90	135.36	107.79
Diesel		128.88	120.24	-8.64	135.91	109.65
Fuel oil	(1.0% S)	92.29	85.02	-7.27	94.51	78.93
Fuel oil	(3.5% S)	85.03	72.85	-12.18	72.30	67.30
Singapore (Cargoes FOB)						
Naphtha		74.73	70.80	-3.93	83.91	69.22
Premium gasoline	(unleaded 95)	109.92	98.91	-11.01	115.05	99.42
Regular gasoline	(unleaded 92)	104.47	93.71	-10.76	111.02	94.84
Jet/Kerosene		122.77	113.58	-9.19	126.76	104.79
Gasoil/Diesel	(50 ppm)	124.92	117.06	-7.86	134.94	106.64
Fuel oil	(180 cst)	121.42	112.78	-8.64	129.75	102.78
Fuel oil	(380 cst 3.5% S)	81.18	71.86	-9.32	76.63	69.54

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

Tanker Market

Dirty freight rates began to recover in October as refiners started preparing for winter demand following maintenance in 3Q23.

Gains were concentrated in the smaller class vessels. Suezmax rates jumped to a five-month high during the month, with rates on the US Gulf Coast-to-Europe route increasing by 98%, m-o-m. Aframax rates also saw a significant increase, with rates around the Mediterranean up 74%, m-o-m.

In contrast, VLCC spot freight rates saw a more moderate increase, with rates on the Middle East-to-East route up 26%, m-o-m, amid increased long-haul activity.

Meanwhile, clean rates saw slightly mixed movement. East of Suez rates were almost flat m-o-m, supported by an increase on the Middle East-to-East route, which rose 6%, m-o-m. West of Suez rates fell 19%, m-o-m, as margins weakened in the Atlantic basin amid high inventories of key products.

Spot fixtures

Global spot fixtures increased in October, up 0.2 mb/d, or almost 2%, m-o-m, to average 15.1 mb/d. Compared with the same month last year, spot fixtures were 0.4 mb/d or 3% higher.

OPEC spot fixtures declined 0.4 mb/d, or over 3%, to average 10.6 mb/d in October. Compared with the same month in 2022, fixtures were 0.4 mb/d, or 4% lower.

Middle East-to-East fixtures edged up by less than 1% to average 6.1 mb/d. Compared with the same month in 2022, eastward flows from the Middle East were broadly flat.

In contrast, spot fixtures on the **Middle East-to-West** fell by about 4%, m-o-m, to an average of 1.4 mb/d. Fixtures were broadly in line with year-ago levels.

Fixtures on routes **outside the Middle East** fell by 0.4 mb/d, or just over around 10%, m-o-m, to average 3.1 mb/d. Compared with the same month last year, fixtures were 0.4 mb/d, or 16% higher.

Table 7 - 1: Spot fixtures, mb/d

Spot fixtures	Aug 23	Sep 23	Oct 23	*Change* Oct 23/Sep 23
All areas	13.0	14.8	15.1	0.2
OPEC	8.6	11.0	10.6	-0.4
Middle East/East	4.5	6.1	6.1	0.0
Middle East/West	1.5	1.5	1.4	-0.1
Outside Middle East	2.6	3.5	3.1	-0.4

Sources: Oil Movements and OPEC.

Sailings and arrivals

OPEC sailings rose 0.5 mb/d or 2%, m-o-m, to average 23.6 mb/d in October. However, compared to the same month last year, OPEC sailings were down by 1.7 mb/d, or over 6%. **Middle East sailings** averaged 16.4 mb/d in October, representing a decline of 0.2 mb/d, or about 1%. Y-o-y, sailings from the region were 1.4 mb/d, or 8% lower.

Crude arrivals in October fell in all regions. **North American arrivals** fell by 0.3 mb/d, or about 3%, to average 8.8 mb/d. Y-o-y, arrivals in North America were also down 0.3 mb/d, or 3%. **Arrivals in Europe** declined 0.2 mb/d, or about 2%, to average 12.4 mb/d. Compared to the same month last year, arrivals to Europe registered a similar decline of 0.2 mb/d, or about 2%.

Far East arrivals also declined by about 0.2 mb/d, or almost 2%, m-o-m, to average 12.8 mb/d. Y-o-y, arrivals in the region were 2.5 mb/d or 16% lower. **Arrivals** in **West Asia** decreased by 0.2 mb/d, or around 3%, to an average of 6.9 mb/d. Y-o-y, arrivals in the region were 1.7 mb/d, or almost 20% lower.

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

Sailings	Aug 23	Sep 23	Oct 23	Change Oct 23/Sep 23
OPEC	21.8	23.0	23.6	0.5
Middle East	16.9	16.6	16.4	-0.2
Arrivals				
North America	9.6	9.1	8.8	-0.3
Europe	12.6	12.6	12.4	-0.2
Far East	17.0	13.0	12.8	-0.2
West Asia	8.0	7.1	6.9	-0.2

Sources: Oil Movements and OPEC.

Dirty tanker freight rates

Very large crude carriers

VLCC spot rates rose on all monitored routes, increasing 24%, m-o-m, on average, amid a pickup in longer haul demand. However, compared to the same month last year, VLCC rates were 41% lower.

On the **Middle East-to-East** route, rates gained 26%, m-o-m, to average WS53 points. This represented a y-o-y decline of 43%. Rates on the **Middle East-to-West** route gained 19%, m-o-m, to average WS32 points. Compared to the same month last year, rates on the route fell 41%.

West Africa-to-East spot rates increased 19%, m-o-m, to average WS56 points in October. Compared with the same month of 2022, rates were down 41%.

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

VLCC	Size *1,000 DWT*	Aug 23	Sep 23	Oct 23	Change Oct 23/Sep 23
Middle East/East	230-280	46	42	53	11
Middle East/West	270-285	31	27	32	5
West Africa/East	260	52	47	56	9

Sources: Argus and OPEC.

Suezmax

Suezmax rates experienced the strongest m-o-m gains compared to the other vessel classes. Spot rates rose 76%, m-o-m, but were still 27% lower than the elevated levels seen in the same month last year.

On the **West Africa-to-US Gulf Coast** (USGC) route, spot freight rates rose 58%, m-o-m, in October to average WS106 points. However, rates were still 29% lower, y-o-y.

Rates on the **USGC-to-Europe** route jumped 98%, m-o-m, to average WS99 points. Compared with the same month of 2022, they were 24% lower.

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

Suezmax	Size *1,000 DWT*	Aug 23	Sep 23	Oct 23	Change Oct 23/Sep 23
West Africa/US Gulf Coast	130-135	64	67	106	39
US Gulf Coast/ Europe	150	59	50	99	49

Sources: Argus and OPEC.

Aframax

Aframax spot freight rates also performed strongly in October. On average, Aframax rates increased 68% in October. Compared with the same month of 2022, rates were 27% lower.

Rates on the **Indonesia-to-East** route increased 24%, m-o-m, to average WS156 points in October. However, compared with the same month last year, rates were 23% lower.

Spot rates on the **Caribbean-to-US East Coast (USEC)** route saw the strongest m-o-m gain in the monitored Aframax routes, surging by 126%, m-o-m, to average WS192 points in October. However, y-o-y rates were still down by 33%.

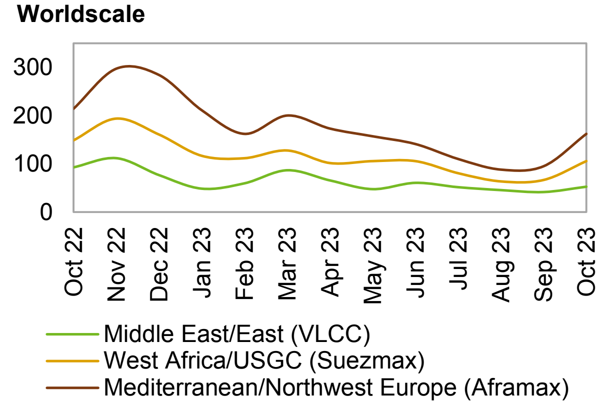
Table 7 - 5: Dirty Aframax spot tanker freight rates, WS

Aframax	Size 1,000 DWT	Aug 23	Sep 23	Oct 23	Change Oct 23/Sep 23
Indonesia/East	80-85	118	126	156	30
Caribbean/US East Coast	80-85	109	85	192	107
Mediterranean/Mediterranean	80-85	100	98	171	73
Mediterranean/Northwest Europe	80-85	88	95	162	67

Sources: Argus and OPEC.

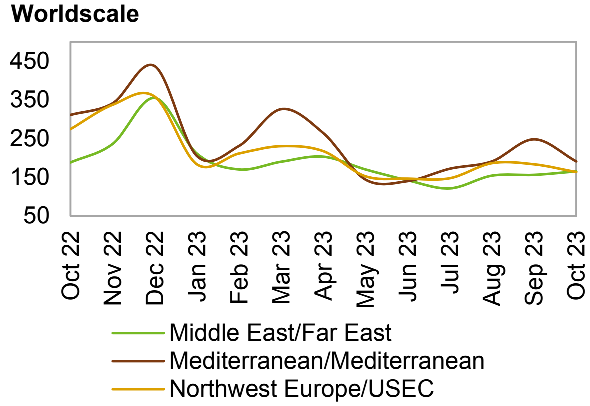
Cross-Med spot freight rates increased 74%, m-o-m, to average WS171 points. This represented a 25% decline, y-o-y. Meanwhile, rates on the **Mediterranean-to-Northwest Europe (NWE)** route rose 71%, m-o-m, to average WS162 points. Compared with the same month of 2022, rates were down by around 24%.

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 declines on all monitored routes except on the Middle East-to-East. On average, clean spot freight rates on East of Suez routes slipped 1% lower, m-o-m, while rates in the West of Suez market fell 19% over the same period. As a result, rates averaged 13% lower overall.

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

East of Suez	Size 1,000 DWT	Aug 23	Sep 23	Oct 23	Change Oct 23/Sep 23
Middle East/East	30-35	154	156	165	9
Singapore/East	30-35	177	229	217	-12
West of Suez					
Northwest Europe/US East Coast	33-37	186	183	163	-20
Mediterranean/Mediterranean	30-35	191	248	191	-57
Mediterranean/Northwest Europe	30-35	201	258	201	-57

Sources: Argus and OPEC.

Rates on the **Middle East-to-East** route edged up 6%, m-o-m, to average WS165 points. However, compared to the same month last year, rates were 12% lower. Clean spot freight rates on the **Singapore-to-East** route declined 5%, m-o-m, to average WS217 points. This was 32% lower when compared with the same month of 2022.

The **NWE-to-USEC** route declined 11%, m-o-m, to average WS163 points. This represents a 41% decline compared to October 2022.

Rates for the **Cross-Med** route decreased by 23%, m-o-m, to average WS191 points, while rates on the **Med-to-NWE** route dropped by 22%, m-o-m, to average WS201 points. Compared with the same month of 2022, rates fell by around 38% on both routes.

Crude and Refined Products Trade

Preliminary data shows US crude imports falling 10%, m-o-m, in October to average 6.2 mb/d, the lowest level since December 2022. US crude exports increased to 4.6 mb/d, the highest since March 2023.

China's crude imports retreated to 11.2 mb/d in September, after surging to their second highest on record the month before. China's product exports experienced an almost 5% decline after reaching a six-month high, with losses driven by gasoline and jet fuel, as product export quotas dwindled. Preliminary data for October shows crude imports averaging 11.4 mb/d, while product exports experienced a further slide of 5%.

India's crude imports declined further to average 4.3 mb/d in September, the lowest in a year. India's product imports reached a 10-month high boosted LPG inflows for cooking ahead of the festive season. Product exports fell from a five-month high the month before, amid an expected pickup in domestic demand.

Japan's crude imports rose further to average 2.6 mb/d in September. Product exports jumped 39%, m-o-m, to a seven-month high of 596 tb/d. Gains were seen across all major products except kerosene.

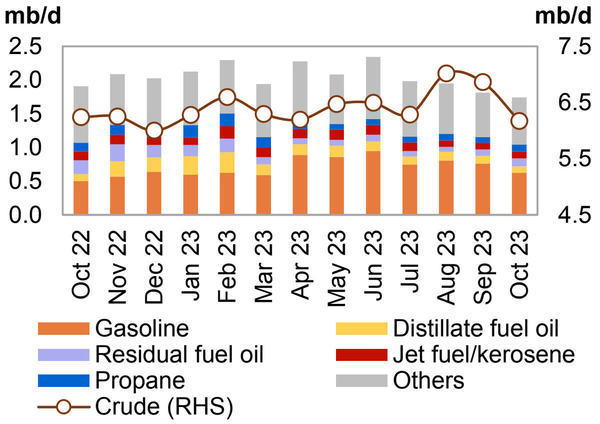
Preliminary estimates show OECD Europe crude imports remaining relatively stable at the start of 3Q23, while product imports are expected to trend lower.

US

Preliminary data shows **US crude imports** falling 0.7 mb/d or 10%, m-o-m, in October, averaging 6.2 mb/d, the lowest since December 2022. Kpler maritime trade flow data showed a number of regions contributing to the decline in crude imports, including the Middle East, South America and West Africa. Compared with the same month last year, crude imports declined by around 1%.

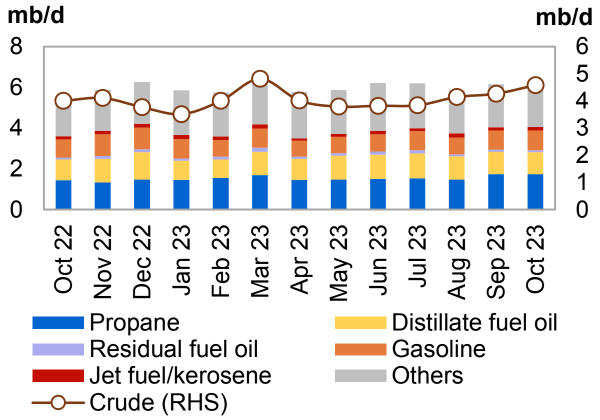
According to the latest official monthly data from the US Energy Information Administration (EIA), Canada remained the **top supplier** of crude in August, with a share of close to 58%. Mexico was second with more than 10%, and Saudi Arabia was third with about 6%.

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 rose further, averaging 4.6 mb/d, the highest since March 2023. Gains came amid higher flows to the Netherlands, India and Taiwan. Crude outflows rose 0.3 mb/d or over 7%, m-o-m, and were up 0.6 mb/d or over 14% compared to the same month last year.

In terms of **destination**, the latest EIA monthly data shows Europe receiving a 37% share of US crude exports in July. South Korea took 13% and Canada received 10%, while China brought in 7%.

Based on preliminary weekly data, US **net crude imports** were sharply lower, falling 1.0 mb/d compared to the previous month to average 1.6 mb/d in October. This compares with 2.6 mb/d in the previous month and 2.2 mb/d in the same month last year.

On the **products** side, **imports** declined by 71 tb/d or about 4%, m-o-m, in October to average around 1.7 mb/d, driven primarily by declines in gasoline. Compared with the same month last year, product inflows decreased by around 162 tb/d, or over 8%.

Product exports remained broadly steady m-o-m at 6.2 mb/d, as declines across most major products offset higher outflows of gasoline and jet fuel. Compared with the same month last year, exports were 0.6 mb/d or over 11% higher.

As a result, preliminary data showed **US net product exports** averaging 4.4 mb/d in October compared with 4.3 mb/d the month before and 3.7 mb/d in the same month last year.

Preliminary data indicates that US **net crude and product imports** averaged 2.8 mb/d in October. This compares with 1.7 mb/d from the month before and 1.4 mb/d in the same month last year.

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

US	Aug 23	Sep 23	Oct 23	*Change* Oct 23/Sep 23
Crude oil	2.88	2.60	1.59	-1.01
Total products	-3.91	-4.34	-4.42	-0.08
Total crude and products	**-1.03**	**-1.74**	**-2.83**	**-1.09**

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

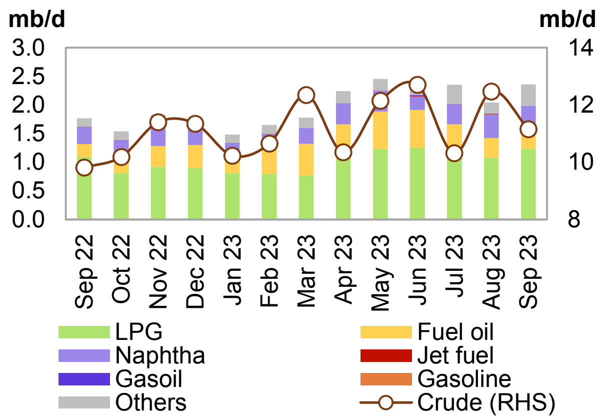
Sources: EIA and OPEC.

Looking ahead, US crude imports are likely to remain elevated, supported by US product exports. A record number of VLCCs headed to the US implies crude exports are likely to remain strong through the end of the year. If continued, soft demand for transport fuels is likely to weigh on US product imports.

China

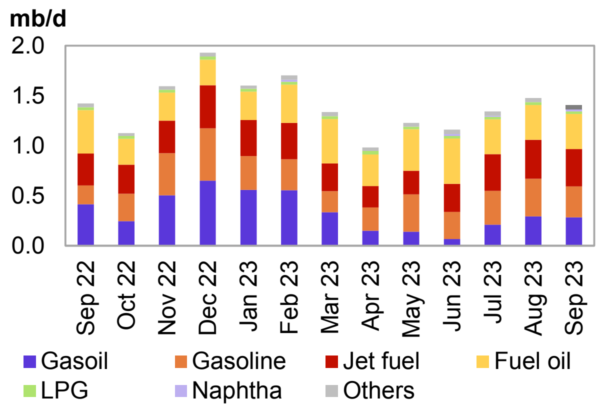
China's crude imports fell back to 11.2 mb/d in September after surging to the third highest on record the month before. This represented a decline of 1.3 mb/d or almost 11%, m-o-m. However, compared with the same month last year, China's crude imports were 1.3 mb/d, or almost 14%, higher.

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 remained in the top spot in September with a 19% share. Saudi Arabia was second with 14%, while Malaysia was third with just over 11%. Inflows from Oman jumped, while crude flows from Angola experienced a substantial decline.

Product imports recovered after declining over the last three months to average 2.4 mb/d in September. Inflows were up by 0.3 mb/d or 16%, m-o-m, with gains seen in other products, LPG, and, to a lesser extent, fuel oil. Compared to the same period last year, product imports were 0.6 mb/d, or around 34%, higher.

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

China	Jul 23	Aug 23	Sep 23	*Change* Sep 23/Aug 23
Crude oil	10.26	12.41	11.13	-1.29
Total products	1.01	0.55	0.95	0.40
Total crude and products	**11.27**	**12.97**	**12.08**	**-0.89**

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

Sources: China OGP and OPEC.

Product exports slipped 5% after reaching a six-month high, averaging a still strong 1.4 mb/d. Losses were driven by gasoline and jet fuel, partly offset by naphtha. Compared to the same period last year, product exports were just over 1% higher.

Net product imports averaged 953 tb/d in September, up sharply from the previous month's 0.5 mb/d and well ahead of the same month last year when net product imports averaged 341 tb/d.

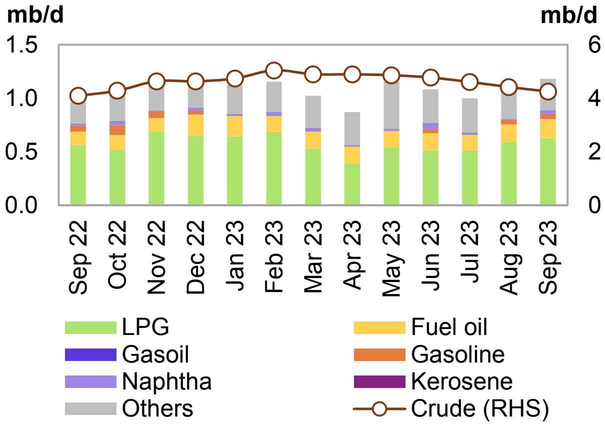
Looking ahead, preliminary data for October shows China's crude imports rebounding to average 11.4 mb/d. While a lack of crude import quotas could crimp inflows in the final months of the year, China's crude imports are still expected to set a new record high for the year in 2023. Preliminary October data shows product exports falling a further 5%. A potential shortage of export quotas adds some uncertainty to product exports for the remainder of this year.

India

India's crude imports fell further to average 4.3 mb/d in September, the lowest in a year. Compared to the previous month, crude inflows were down 166 tb/d, or 4%. However, y-o-y, crude imports were up 0.2 mb/d, or almost 4%.

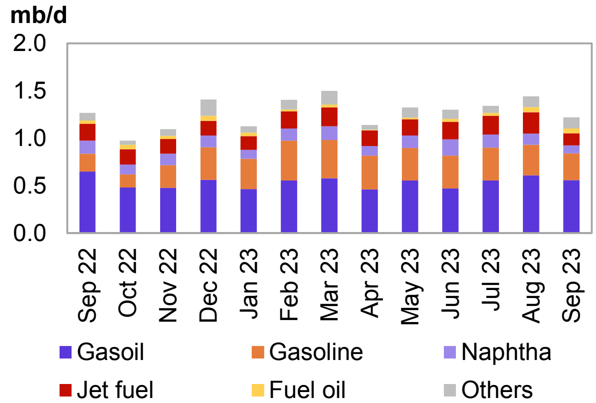
In terms of **crude imports by source**, Kpler data shows Russia was the top supplier of crude to India in September, with a share of 36%. Iraq and Saudi Arabia were second and third, respectively, each with about 20%.

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** rose by about 4%, m-o-m, to average 1.2 mb/d to mark a 10-month high. Gains were seen across all major products, particularly LPG and naphtha. Compared with the same month last year, India's product imports increased 219 tb/d, or almost 23%.

Product exports fell 15%, m-o-m, to average 1.2 mb/d, down from a five-month high the month before. Declines were seen across all major products, except kerosene, which was broadly flat. Compared to the same month last year, product outflows from India were about 4% lower.

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

India	Jul 23	Aug 23	Sep 23	Change Sep 23/Aug 23
Crude oil	4.61	4.42	4.25	-0.17
Total products	-0.34	-0.30	-0.04	0.26
Total crude and products	**4.27**	**4.12**	**4.21**	**0.09**

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.

As a result, India's **net product exports** averaged 39 tb/d in September, compared to 300 tb/d the month before. In September 2022, India's net product exports averaged 303 tb/d.

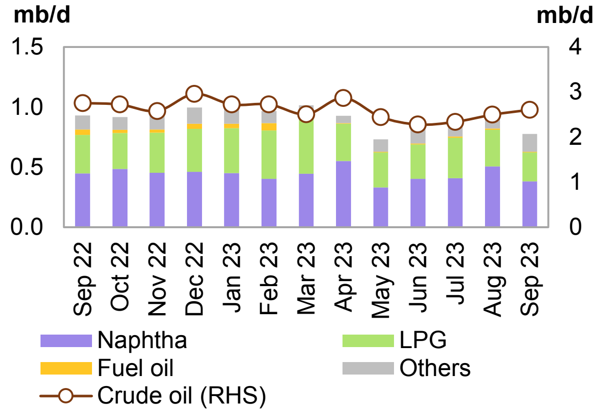
Looking ahead, India's crude imports are expected to pick up finally in October as the start of the festival season improves domestic requirements. LPG imports are seen higher, while product exports are expected to moderate due to strengthening domestic demand.

Japan

Japan's crude imports rose further in September, averaging 2.6 mb/d, an increase of 0.1 mb/d or almost 5%, m-o-m. Compared with the strong levels seen in the same month last year, crude inflows were 0.2 mb/d, or over 5%, lower y-o-y.

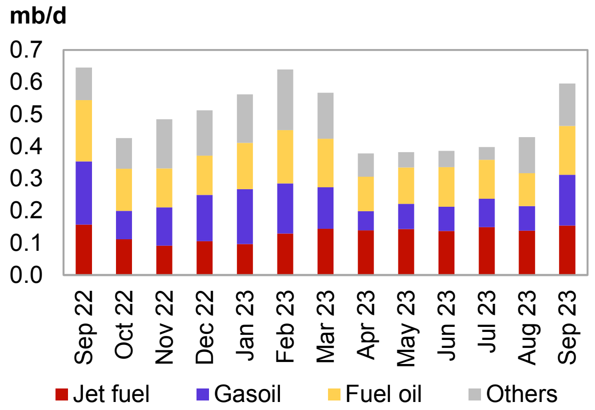
In terms of **crude imports by source**, the UAE remained in the top spot in September, with a share of close to 40%. Saudi Arabia was second with 37%, followed by Kuwait, which experienced the biggest increase, to now reach 11%.

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, declined by around 146 tb/d or 16% to average 775 tb/d. Declines were led by naphtha and LPG, offset by higher inflows of gasoline and kerosene. Compared with September 2022, product inflows were 155 tb/d or almost 17% lower.

Product exports in September, including LPG, rose 167 tb/d or 39%, m-o-m, in September to average 596 tb/d, a seven-month high. Gains were seen across all major products except kerosene. Compared with the same month last year, product exports fell 50 tb/d, or about 8%.

Consequently, Japan's **net product imports**, including LPG, averaged 179 tb/d in September. This compares with 492 tb/d the month before and 284 tb/d in September 2022.

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

Japan	Jul 23	Aug 23	Sep 23	*Change* Sep 23/Aug 23
Crude oil	2.34	2.50	2.61	0.11
Total products	0.46	0.49	0.18	-0.31
Total crude and products	**2.80**	**2.99**	**2.79**	**-0.20**

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

Sources: METI and OPEC.

Looking ahead, tanker tracking data shows Japan's crude imports edging lower in October. Product exports are seen declining in October, amid lower diesel outflows to Australia, which were partially offset by higher gasoline exports to Singapore and South Korea.

OECD Europe

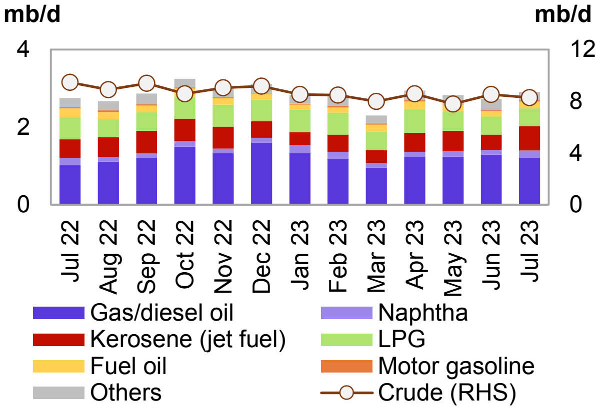
The latest regional data shows **OECD Europe imports** receded by over 0.2 mb/d or 3%, m-o-m, in **July** to average 8.3 mb/d as higher production in the region displaced inflows. Compared with the same month last year, crude imports were down 1.2 mb/d, or 13%.

In terms of **import sources** from outside the region, the US was the top supplier in July, with close to 1.7 mb/d. Libya was second with 0.9 mb/d, followed by Kazakhstan with 0.8 mb/d.

Crude exports retreated from a 7-month high in the previous month to average 80 tb/d in **July**. This represented a decline of about 100 tb/d, m-o-m, and a 15% drop from the levels seen last year. China was the main destination for crude exports outside the region in July, taking in 60 tb/d.

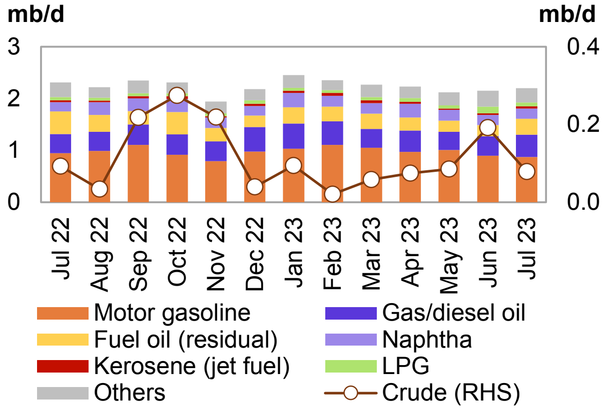
Net crude imports averaged 8.2 mb/d in July, compared with 8.3 mb/d the month before and about 9.4 mb/d in July 2022, when imports were elevated due to trade dislocations.

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** increased by 0.2 mb/d or about 7%, m-o-m, to average 2.9 mb/d. A jump in jet/kero led gains, with further support from naphtha, gasoline and fuel oil. Compared with July 2022, product inflows were 0.2 mb/d or around 6% higher.

Product exports continued to edge higher, gaining 2%, m-o-m, to average 2.2 mb/d. Diesel and fuel oil led gains, offset by declines in LPG and naphtha. Compared to the same month last year, product outflows were 0.1 mb/d, or 5%, higher.

Net product imports averaged 700 tb/d in July, compared with net imports of 570 tb/d the month before and 436 tb/d in July 2022.

Combined, **net crude and product imports** averaged 8.9 mb/d in July, unchanged from the previous month and 9.8 mb/d in July 2022.

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

OECD Europe	May 23	Jun 23	Jul 23	*Change* Jul 23/Jun 23
Crude oil	7.69	8.33	8.20	-0.13
Total products	0.70	0.57	0.70	0.13
Total crude and products	**8.39**	**8.90**	**8.90**	**0.00**

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

Sources: IEA and OPEC.

Looking ahead, preliminary estimates show OECD Europe crude imports remaining relatively stable at the start of 3Q23. Product imports are expected to trend lower prior to the start of the winter season, amid lower inflows of diesel and jet fuel.

Eurasia

Total crude oil exports from Russia and Central Asia averaged 6.4 mb/d in September, following a gain of 0.3 mb/d or 5%, m-o-m. In terms of the same month last year, outflows were less than 0.1 mb/d or about 2% lower.

Crude exports through the **Transneft system** increased in September, with gains in Western ports offsetting declines in the East and on the Druzhba pipeline. Outflows averaged 3.7 mb/d, representing a m-o-m increase of 159 tb/d, or 4%. However, exports were sharply lower than in the same month last year, down 407 tb/d, or 10%. Exports from the **Baltic Sea** showed the largest increase, up 239 tb/d, or almost 19%, to average 1.5 mb/d. Flows from Primorsk were up 54 tb/d, or 7%, to average 0.8 mb/d. In contrast, exports from Ust-Luga increased 185 tb/d, or about 35%, to average 723 tb/d. Shipments from the **Black Sea** port of Novorossiysk were slightly higher, rising about 2% to 514.

Shipments via the **Druzhba** pipeline declined 24 tb/d, or 7%, to average 316 tb/d in September. Compared to the same month last year, exports on the pipeline were 0.5 mb/d, or 62% lower. Exports to mainland China via the **ESPO pipeline** declined 37 tb/d or 6%, m-o-m, to average 581 tb/d in September. This was about 1%, higher than the same month last year. Flows to the Pacific port of **Kozmino** averaged 0.8 mb/d, representing a gain of 28 tb/d, or more than 3%. This was about 88 tb/d or 12% lower than the same month last year.

In the **Lukoil system**, exports via the Varandey offshore platform in the Barents Sea rose m-o-m by 3% to average 100 tb/d in September. There were no exports from the Kaliningrad terminal.

On other routes, the combined **Russia's Far East** exports from the De Kastri and Aniva ports fell by 28 tb/d or about 12% to average 219 tb/d in September. This was 121 tb/d higher than the volumes shipped in the same month last year, during a period when De Kastri flows were at zero.

Central Asian exports averaged 222 tb/d in September, a decline of about 2% from the month before and a 4% increase over the same month last year.

Black Sea total exports from the **CPC terminal** rose by about 7%, or 89 tb/d, to average 1.4 mb/d in September. This was an increase of 364 tb/d, or 35%, compared with the same month last year. Flows on the Supsa pipeline remained at zero in September. Exports via the **Baku-Tbilisi-Ceyhan (BTC) pipeline** increased by 12% in September, or 72 tb/d, to average 671 tb/d.

Total product exports from Russia and Central Asia fell by 2%, m-o-m, to average 2.4 mb/d in September. M-o-m declines were driven primarily by gasoil. This was partially offset by a 112 tb/d increase in gasoil. Y-o-y, total product exports were broadly flat.

Commercial Stock Movements

Preliminary September 2023 data show total OECD commercial oil stocks down by 15.6 mb, m-o-m. At 2,783 mb, they were 33 mb higher than the same time one year ago, but 118 mb lower than the latest five-year average and 184 mb below the 2015–2019 average. Within the components, crude and products stocks fell by 9.3 mb and 6.3 mb, m-o-m, respectively.

OECD commercial crude stocks stood at 1,336 mb in September. This was 13 mb lower than the same time a year ago, 46 mb below the latest five-year average and 99 mb lower than the 2015–2019 average. Total product stocks also fell by 6.3 mb in September to stand at 1,447 mb. This is 46 mb above the same time a year ago, but 72 mb lower than the latest five-year average and 84 mb below the 2015–2019 average.

In terms of days of forward cover, OECD commercial stocks fell by 0.3 days, m-o-m, in September to stand at 60.6 days. This is 0.5 days above the September 2022 level, but 2.4 days lower than the latest five-year average and 1.9 days less than the 2015–2019 average.

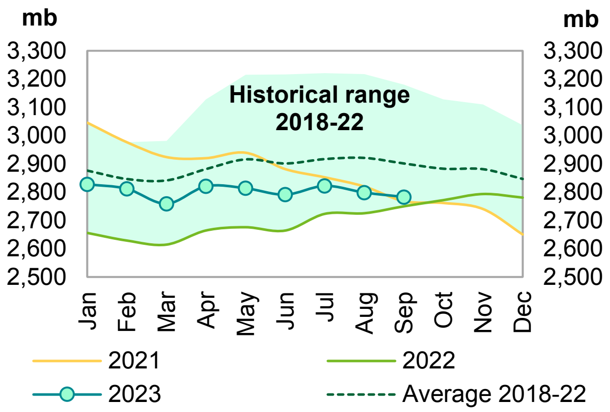
Preliminary data for October 2023 showed that total US commercial oil stocks fell by 9.1 mb, m-o-m, to stand at 1,263 mb. This is 32.0 mb, or 2.6%, higher than the same month in 2022, but 20.6 mb, or 1.6%, below the latest five-year average. Crude stocks rose by 7.8 mb, while product stocks fell by 17.0 mb, m-o-m.

OECD

Preliminary **September 2023** data show **total OECD commercial oil stocks** down by 15.6 mb, m-o-m. At 2,783 mb, they were 33 mb higher than the same time one year ago, but 118 mb lower than the latest five-year average and 184 mb below the 2015–2019 average.

Within the components, crude and products stocks fell by 9.3 mb and 6.3 mb, m-o-m, respectively. Within the OECD regions, total commercial oil stocks in September fell in OECD Americas and OECD Europe, while they increased in OECD Asia Pacific.

Graph 9 - 1: OECD commercial oil stocks



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

OECD commercial **crude stocks** stood at 1,336 mb in September. This was 13 mb lower than the same time a year ago, 46 mb below the latest five-year average and 99 mb lower than the 2015–2019 average. M-o-m, OECD Americas and OECD Europe saw crude stock draws of 3.2 mb and 8.7 mb, respectively, while stocks in OECD Asia Pacific rose by 2.6 mb.

Total product stocks fell by 6.3 mb in September to stand at 1,447 mb. This is 46 mb above the same time a year ago, but 72 mb lower than the latest five-year average and 84 mb below the 2015–2019 average. M-o-m, product stocks in OECD Americas and OECD Asia Pacific witnessed stock draws of 9.3 mb and 0.2 mb, respectively, while OECD Europe product stocks rose by 3.2 mb.

Table 9 - 1: OECD commercial stocks, mb

OECD stocks	Sep 22	Jul 23	Aug 23	Sep 23	*Change* Sep 23/Aug 23
Crude oil	1,349	1,379	1,345	1,336	-9.3
Products	1,401	1,444	1,454	1,447	-6.3
Total	**2,750**	**2,823**	**2,799**	**2,783**	**-15.6**
Days of forward cover	**60.1**	**61.1**	**60.8**	**60.6**	**-0.3**

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 fell by 0.3 days, m-o-m, in September to stand at 60.6 days. This is 0.5 days above the September 2022 level, but 2.4 days lower than the latest five-year average and 1.9 days less than the 2015–2019 average.

Within the OECD regions, OECD Americas stood 3.0 days and OECD Europe 1.5 days below the latest five-year average, at 59.6 days and 69.3 days, respectively. OECD Asia Pacific was 0.9 days below the latest five-year average, standing at 48.5 days.

OECD Americas

OECD Americas' total commercial stocks fell by 12.5 mb, m-o-m, in September to settle at 1,486 mb. This is 13 mb higher than the same month in 2022, but 71 mb below the latest five-year average.

Commercial **crude oil stocks** in OECD Americas dropped by 3.2 mb, m-o-m, in September to stand at 727 mb, which is 15 mb lower than in September 2022 and 33 mb below the latest five-year average.

Total product stocks in OECD Americas also fell m-o-m, dropping by 9.3 mb in September to stand at 759 mb. This is 28 mb higher than the same month in 2022, but 38 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 by 5.4 mb, m-o-m, in September to settle at 927 mb. This is 9 mb higher than the same month in 2022, but 35 mb below the latest five-year average.

OECD Europe's **commercial crude stocks** dropped by 8.7 mb, m-o-m, to end September at 415 mb. This is 2.4 mb below one year ago and 7.6 mb less than the latest five-year average.

By contrast, Europe's **product stocks** rose by 3.2 mb, m-o-m, to end September at 512 mb. This is 11.0 mb above the same time a year ago, but 27.0 mb below the latest five-year average.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks rose by 2.4 mb, m-o-m, in September to stand at 371 mb. This is 11.6 mb higher than the same time a year ago, but 13.0 mb below the latest five-year average.

OECD Asia Pacific's **crude stocks** rose by 2.6 mb, m-o-m, to end September at 194 mb. This is 4.1 mb higher than one year ago, but 5.8 mb below the latest five-year average.

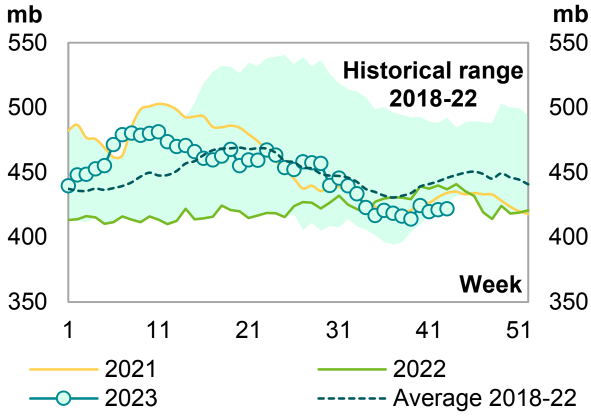
By contrast, OECD Asia Pacific's **product stocks** fell by 0.2 mb, m-o-m, to end September at 176 mb. This is 7.5 mb higher than one year ago, but 7.1 mb below the latest five-year average.

US

Preliminary data for **October 2023** showed that **total US commercial oil stocks** fell by 9.1 mb, m-o-m, to stand at 1,263 mb. This is 32.0 mb, or 2.6%, higher than the same month in 2022, but 20.6 mb, or 1.6%, below the latest five-year average. Crude stocks rose by 7.8 mb, while product stocks fell by 17.0 mb, m-o-m.

US commercial **crude stocks** in October stood at 421.9 mb. This is 17.8 mb, or 4.0%, lower than the same month of 2022 and 27.6 mb, or 6.1%, less than the latest five-year average. The monthly build in crude oil stocks came on the back of a 970 tb/d m-o-m decline in crude runs to a level of 15.64 mb/d.

Graph 9 - 2: US weekly commercial crude oil inventories



Sources: EIA and OPEC.

By contrast, **total product stocks** fell in October to stand at 840.7 mb. This is 49.8 mb, or 6.3%, higher than October 2022 levels and 7.0 mb, or 0.4%, higher than the latest five-year average. The product stock draw can be attributed to higher product consumption.

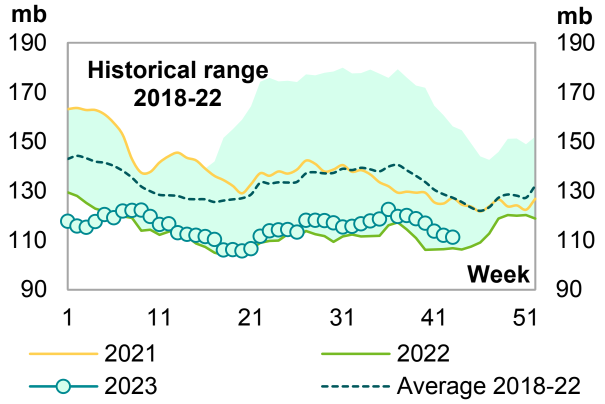
Gasoline stocks fell by 3.5 mb, m-o-m, in October to settle at 223.5 mb. This is 13.1 mb, or 6.2%, higher than the same month of 2022 and 1.1 mb, or 0.5%, above the latest five-year average.

Distillate stocks also fell by 7.5 mb, m-o-m, in October to stand at 111.3 mb. This is 0.8 mb, or 0.75%, higher than the same month of 2022, but 17.6 mb, or 13.6%, below the latest five-year average.

Jet fuel stocks dropped by 2.2 mb, m-o-m, ending October at 40.5 mb. This is 4.0 mb, or 11.0%, higher than the same month in 2022, and 1.2 mb, or 3.0%, higher than the latest five-year average.

Meanwhile, **residual fuel oil stocks** remained unchanged m-o-m in September. At 27.5 mb, this was 2.6 mb, or 8.5%, lower than a year earlier and 2.3 mb, or 7.8%, below the latest five-year average.

Graph 9 - 3: US weekly distillate inventories



Sources: EIA and OPEC.

Table 9 - 2: US commercial petroleum stocks, mb

US stocks	Oct 22	Aug 23	Sep 23	Oct 23	Change Oct 23/Sep 23
Crude oil	**439.7**	**417.3**	**414.1**	**421.9**	***7.8***
Gasoline	210.4	218.9	227.0	223.5	*-3.5*
Distillate fuel	110.5	116.9	118.8	111.3	*-7.5*
Residual fuel oil	30.0	26.0	27.5	27.5	*0.0*
Jet fuel	36.5	42.6	42.7	40.5	*-2.2*
Total products	**790.8**	**840.9**	**857.6**	**840.7**	***-17.0***
Total	**1,230.5**	**1,258.2**	**1,271.7**	**1,262.6**	***-9.1***
SPR	**398.6**	**350.3**	**351.3**	**351.3**	***0.0***

Sources: EIA and OPEC.

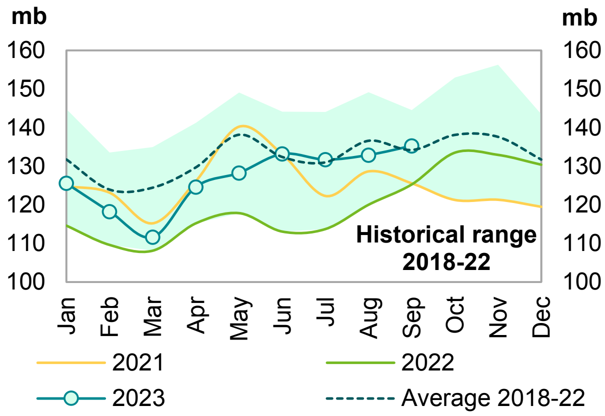
Japan

In **Japan**, **total commercial oil stocks** in **September** rose by 2.4 mb, m-o-m, to settle at 135.3 mb. This is 10.0 mb, or 8.0%, higher than the same month in 2022 and 1.1 mb, or 0.8%, above the latest five-year average. Crude stocks rose by 2.6 mb m-o-m, while product stocks fell by 0.2 mb.

Japanese **commercial crude oil stocks** rose by 2.6 mb, m-o-m, in September to stand at 63.0 mb. This is 4.9 mb, or 7.3%, higher than the same month of 2022 and 0.9 mb, or 1.2%, above the latest five-year average.

Gasoline stocks rose m-o-m by 0.3 mb to stand at 10.0 mb in September. This is 0.2 mb, or 2.2%, higher than a year earlier, but 0.4 mb, or 4.1%, lower than the latest five-year average. The build came on the back of lower domestic gasoline sales, which declined by 11.0%, m-o-m.

Graph 9 - 4: Japan's commercial oil stocks



Sources: METI and OPEC.

Distillate stocks also rose by 1.9 mb, m-o-m, to end September at 30.5 mb. This is 3.5 mb, or 13.0%, above the same month of 2022, but 0.1 mb, or 0.3%, below the latest five-year average. Within distillate components, kerosene stocks rose by 21.7%, while jet fuel and gasoil stocks fell by 1.2% and 11.9%, respectively.

By contrast, **total residual fuel oil stocks** fell m-o-m by 0.7 mb to end September at 13.4 mb. This is 1.9 mb, or 16.8%, higher than the same month of 2022 and 1.1 mb, or 9.1%, above the latest five-year average. Within the components, fuel oil A stocks rose by 2.2%, while fuel oil BC stocks fell by 7.3%, m-o-m.

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

Japan's stocks	Sep 22	Jul 23	Aug 23	Sep 23	*Change Sep 23/Aug 23*
Crude oil	**67.5**	**77.5**	**69.7**	**72.4**	***2.6***
Gasoline	9.8	8.9	9.7	10.0	*0.3*
Naphtha	9.5	9.2	10.8	9.0	*-1.8*
Middle distillates	27.0	23.8	28.7	30.5	*1.9*
Residual fuel oil	11.5	12.4	14.1	13.4	*-0.6*
Total products	**57.8**	**54.3**	**63.2**	**63.0**	***-0.2***
Total**	**125.3**	**131.8**	**132.9**	**135.3**	***2.4***

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

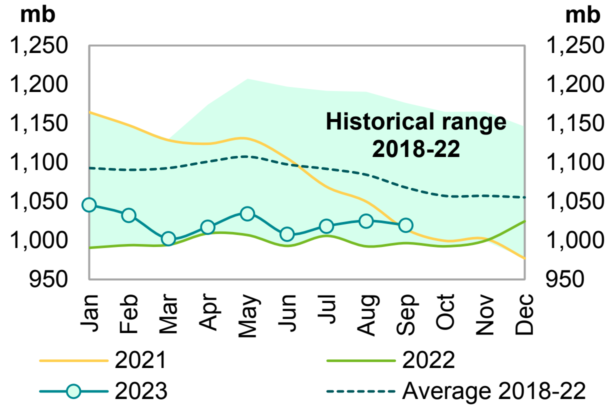
Sources: METI and OPEC.

EU-14 plus UK and Norway

Preliminary data for **September** showed that **total European commercial oil stocks** fell by 5.4 mb m-o-m to stand at 1,020 mb. At this level, they were 23.0 mb, or 2.3%, above the same month of 2022, but 48.1 mb, or 4.5%, lower than the latest five-year average. Crude stocks fell by 8.7 mb, while product stocks rose by 3.2 mb.

European **crude stocks** stood at 436.4 mb in September. This is 4.4 mb, or 1.0%, higher than the same month in 2022, but 23.3 mb, or 5.1%, below the latest five-year average. The draw in crude oil stocks came despite lower refinery throughput in the EU-14, as well as the UK and Norway, which fell by around 370 tb/d, m-o-m, to stand at 9.37 mb/d.

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



Sources: Argus, Euroilstock and OPEC.

By contrast, **total European product stocks** rose by 3.2 mb, m-o-m, to end September at 583.2 mb. This is 18.6 mb, or 3.3%, higher than the same month of 2022, but 24.8 mb, or 4.1%, below the latest five-year average. The build could be attributed to lower demand in the region.

Gasoline stocks rose by 2.3 mb, m-o-m, in September to stand at 105.9 mb. At this level, they were 0.1mb, or 0.1%, lower than the same time in 2022, but 0.3 mb, or 0.3%, above the latest five-year average.

Middle distillate stocks rose by 1.9 mb, m-o-m, in September to stand at 391.1 mb. This is 22.8 mb, or 6.2%, higher than the same month in 2022, but 20.4 mb, or 4.9%, lower than the latest five-year average.

By contrast, **residual fuel stocks** fell by 0.4 mb, m-o-m, in September to stand at 58.6 mb. This is 1.0 mb, or 1.7%, lower than the same month in 2022 and 4.2 mb, or 6.7%, below the latest five-year average.

Naphtha stocks also fell by 0.5 mb, m-o-m, in September, ending the month at 27.5 mb. This is 3.1 mb, or 10.1%, lower than the September 2022 level and 0.5 mb, or 1.8%, less than the latest five-year average.

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

EU stocks	Sep 22	Jul 23	Aug 23	Sep 23	*Change Sep 23/Aug 23*
Crude oil	**431.9**	**438.7**	**445.1**	**436.4**	***-8.7***
Gasoline	106.0	104.8	103.6	105.9	*2.3*
Naphtha	30.6	28.5	28.1	27.5	*-0.5*
Middle distillates	368.3	386.4	389.3	391.1	*1.9*
Fuel oils	59.7	60.0	59.0	58.6	*-0.4*
Total products	**564.6**	**579.7**	**580.0**	**583.2**	***3.2***
Total	**996.6**	**1,018.4**	**1,025.0**	**1,019.6**	***-5.4***

Sources: Argus, Euroilstock and OPEC.

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

Singapore

In **September**, **total product stocks in Singapore** rose m-o-m by 1.1 mb to stand at 42.1 mb. This is 3.7 mb, or 8.0%, lower than the same month in 2022 and 2.3 mb, or 5.2%, below the latest five-year average.

Light distillate stocks fell by 0.2 mb, m-o-m, in September to stand at 12.9 mb. This is 0.2 mb, or 1.2%, lower than the same month of 2022, but 0.3 mb, or 2.7%, higher than the latest five-year average.

Residual fuel oil stocks also fell by 0.2 mb, m-o-m, ending September at 19.6 mb. This is 2.9 mb, or 12.9%, lower than in September 2022 and 0.9 mb, or 4.5%, less than the latest five-year average.

By contrast, **middle distillate stocks** rose by 1.5 mb, m-o-m, in September to stand at 9.6 mb. This is 2.1 mb, or 28.3%, higher than in September 2022, but 1.7 mb, or 15.1%, lower than the latest five-year average.

ARA

Total product stocks in ARA in September rose by 0.6 mb, m-o-m. At 40.4 mb, they were 0.5 mb, or 1.2%, below the same month in 2022, but 3.9 mb, or 8.8%, lower than the latest five-year average.

Gasoil stocks rose by 0.8 mb, m-o-m, ending September at 14.7 mb. This is 1.1 mb, or 8.3%, higher than in September 2022, but 3.6 mb, or 19.8%, less than the latest five-year average.

Jet oil stocks rose by 0.9 mb, m-o-m, to stand at 6.0 mb. This is 0.2 mb, or 2.5%, lower than in September 2022 and 0.2 mb, or 3.7%, less than the latest five-year average.

By contrast, **gasoline stocks** in September fell by 0.1 mb, m-o-m, to stand at 11.4 mb. This is 0.5 mb, or 4.9%, higher than the same month of 2022, and 2.2 mb, or 23.7%, higher than the latest five-year average.

Fuel oil stocks also dropped by 0.2 mb, m-o-m, in September to stand at 6.7 mb, which is 0.1 mb, or 1.8%, lower than in September 2022, and 1.2 mb, or 15.3%, below the latest five-year average.

Fujairah

During the week ending 30 October 2023, **total oil product stocks in Fujairah** rose by 0.24mb, w-o-w, to stand at 17.05 mb, according to data from FEDCom and S&P Global Commodity Insights. At this level, total oil stocks were 4.9 mb lower than at the same time a year ago.

Light distillate stocks fell by 1.59 mb, w-o-w, to stand at 4.23 mb, which is 2.12 mb lower than a year ago.

Middle distillate stocks also fell w-o-w, dropping by 0.35 mb to stand at 1.79 mb, which is 0.90 mb lower than the same time last year.

By contrast, **heavy distillate stocks** increased by 2.18 mb, w-o-w, to stand at 11.02 mb, which is 1.89 mb below the same period a year ago.

Balance of Supply and Demand

Demand for OPEC crude in 2023 remained unchanged from the previous assessment to stand at 29.1 mb/d. This is around 0.6 mb/d higher than in 2022.

According to secondary sources, OPEC crude production averaged 28.8 mb/d in 1Q23, which is 0.4 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. In 3Q23, OPEC crude production averaged 27.6 mb/d, which is 1.0 mb/d lower than demand for OPEC crude.

Demand for OPEC crude in 2024 remained unchanged from the previous monthly assessment to stand at 29.9 mb/d, which is 0.8 mb/d higher than the estimated level in 2023.

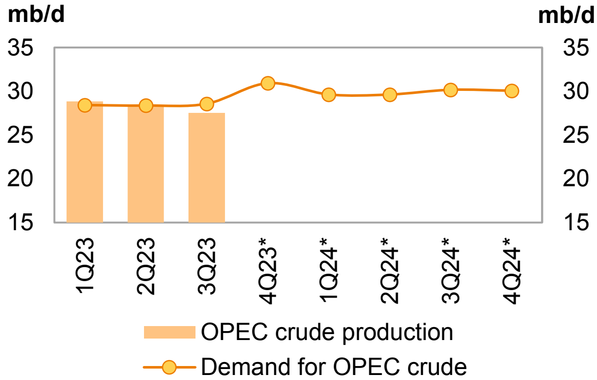
Balance of supply and demand in 2023

Demand for OPEC crude in 2023 remained unchanged from the previous assessment to stand at 29.1 mb/d. This is around 0.6 mb/d higher than in 2022.

Compared with the previous month's assessment, 3Q23 is revised down by 0.4 mb/d, while 2Q23 and 4Q23 are revised up by 0.1 mb/d each. Meanwhile, 1Q23 remained unchanged compared to last month's assessment.

Compared with the same quarters in 2022, demand for OPEC crude in 2Q23, 3Q23 and 4Q23 is estimated to be higher by 0.2 mb/d, 0.4 mb/d and 2.2 mb/d, respectively. Demand for OPEC crude in 1Q23 is estimated to be down by 0.3 mb/d.

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



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

According to secondary sources, OPEC crude production averaged 28.8 mb/d in 1Q23, which is 0.4 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. In 3Q23, OPEC crude production averaged 27.6 mb/d, which is 1.0 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	**99.66**	**101.58**	**101.47**	**102.11**	**103.28**	**102.11**	***2.46***
Non-OPEC liquids production	65.81	67.72	67.63	68.11	66.92	67.59	*1.78*
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**	**73.15**	**73.10**	**73.53**	**72.35**	**73.03**	***1.83***
Difference (a-b)	**28.45**	**28.42**	**28.37**	**28.58**	**30.93**	**29.08**	***0.63***
OPEC crude oil production	**28.86**	**28.84**	**28.27**	**27.56**			
Balance	**0.41**	**0.42**	**-0.10**	**-1.02**			

*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 remained unchanged from the previous month's assessment to stand at 29.9 mb/d, which is 0.8 mb/d higher than the estimated level in 2023.

Compared with the previous month's assessment, demand for OPEC crude is revised down by 0.2 mb/d each for 1Q24 and 3Q24, while demand for OPEC crude is revised up by 0.1 mb/d for 4Q24. Demand for OPEC crude remained unchanged for 2Q24.

Compared with the same quarters in 2023, demand for OPEC crude in 1Q24 and 2Q24 is forecast to be 1.2 mb/d and 1.3 mb/d higher, respectively. The demand for OPEC crude in 3Q24 is expected to be 1.6 mb/d higher, while demand for OPEC crude in 4Q24 is forecast to be lower by 0.9 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	**102.11**	**103.60**	**103.64**	**104.79**	**105.38**	**104.36**	***2.25***
Non-OPEC liquids production	67.59	68.48	68.47	69.12	69.81	68.97	*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	**73.03**	**73.97**	**74.01**	**74.62**	**75.31**	**74.48**	***1.45***
Difference (a-b)	**29.08**	**29.63**	**29.63**	**30.17**	**30.07**	**29.88**	***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	22.49	24.32	24.87	24.52	25.21	25.35	24.94	25.01	24.70	25.38	25.55	25.10	25.19
of which US	*18.35*	*20.03*	*20.16*	*19.92*	*20.50*	*20.47*	*20.05*	*20.24*	*20.06*	*20.64*	*20.62*	*20.19*	*20.38*
Europe	12.41	13.19	13.51	13.11	13.54	13.79	13.37	13.45	13.16	13.60	13.86	13.41	13.51
Asia Pacific	7.16	7.34	7.38	7.81	6.96	7.10	7.65	7.38	7.84	6.98	7.13	7.65	7.40
Total OECD	**42.06**	**44.85**	**45.75**	**45.43**	**45.71**	**46.23**	**45.96**	**45.84**	**45.70**	**45.96**	**46.54**	**46.16**	**46.09**
China	13.94	15.10	14.95	15.73	16.06	16.27	16.29	16.09	16.30	16.52	16.89	16.96	16.67
India	4.51	4.77	5.14	5.40	5.40	5.17	5.50	5.37	5.63	5.64	5.40	5.69	5.59
Other Asia	8.13	8.67	9.06	9.34	9.48	9.03	9.18	9.26	9.60	9.73	9.39	9.54	9.57
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	4.59	4.24	4.30	4.88	4.50	4.70	4.42	4.48	5.01	4.65
Russia	3.39	3.62	3.70	3.83	3.59	3.74	4.01	3.79	3.89	3.70	3.89	4.08	3.89
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	0.79	0.77	0.75	0.83	0.79	0.81	0.78	0.77	0.84	0.80
Total Non-OECD	**49.16**	**52.38**	**53.90**	**56.15**	**55.76**	**55.88**	**57.32**	**56.28**	**57.90**	**57.68**	**58.25**	**59.22**	**58.27**
(a) Total world demand	**91.22**	**97.23**	**99.66**	**101.58**	**101.47**	**102.11**	**103.28**	**102.11**	**103.60**	**103.64**	**104.79**	**105.38**	**104.36**
Y-o-y change	***-9.12***	***6.01***	***2.43***	***1.91***	***3.01***	***2.72***	***2.18***	***2.46***	***2.03***	***2.17***	***2.68***	***2.10***	***2.25***
Non-OPEC liquids production													
Americas	24.87	25.46	26.91	27.90	28.18	28.86	28.36	28.33	28.79	28.83	29.30	29.61	29.13
of which US	*17.76*	*18.06*	*19.28*	*20.10*	*20.70*	*21.05*	*20.44*	*20.58*	*20.84*	*21.06*	*21.33*	*21.49*	*21.18*
Europe	3.92	3.79	3.58	3.69	3.65	3.52	3.73	3.65	3.85	3.73	3.68	3.82	3.77
Asia Pacific	0.52	0.51	0.48	0.45	0.45	0.45	0.47	0.46	0.46	0.43	0.44	0.43	0.44
Total OECD	**29.31**	**29.77**	**30.97**	**32.04**	**32.27**	**32.84**	**32.56**	**32.43**	**33.11**	**33.00**	**33.42**	**33.86**	**33.35**
China	4.16	4.32	4.48	4.63	4.63	4.49	4.49	4.56	4.58	4.57	4.54	4.54	4.56
India	0.78	0.78	0.77	0.76	0.78	0.78	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	2.24	2.38	2.30	2.28	2.25	2.23	2.23	2.25
Latin America	6.02	5.96	6.34	6.69	6.76	7.06	6.92	6.86	7.07	7.10	7.23	7.30	7.18
Middle East	3.15	3.19	3.29	3.27	3.29	3.27	3.30	3.28	3.33	3.32	3.31	3.32	3.32
Africa	1.41	1.34	1.29	1.24	1.27	1.27	1.30	1.27	1.26	1.27	1.32	1.35	1.30
Russia	10.54	10.80	11.03	11.19	10.86	10.77	9.63	10.61	10.43	10.55	10.67	10.78	10.61
Other Eurasia	2.91	2.93	2.83	2.99	2.93	2.82	2.99	2.93	3.01	3.00	2.99	3.03	3.01
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**	**32.89**	**32.80**	**31.89**	**32.69**	**32.85**	**32.95**	**33.18**	**33.43**	**33.11**
Total Non-OPEC production	60.95	61.61	63.41	65.25	65.16	65.64	64.45	65.12	65.96	65.95	66.60	67.29	66.46
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**	**67.63**	**68.11**	**66.92**	**67.59**	**68.48**	**68.47**	**69.12**	**69.81**	**68.97**
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**	**73.15**	**73.10**	**73.53**	**72.35**	**73.03**	**73.97**	**74.01**	**74.62**	**75.31**	**74.48**
Y-o-y change	***-2.54***	***0.91***	***2.03***	***2.21***	***2.79***	***2.31***	***0.01***	***1.83***	***0.82***	***0.91***	***1.08***	***2.96***	***1.45***
OPEC crude oil production (secondary sources)	25.72	26.34	28.86	28.84	28.27	27.56							
Total liquids production	94.00	95.52	100.07	101.99	101.37	101.09							
Balance (stock change and miscellaneous)	2.78	-1.71	0.41	0.42	-0.10	-1.02							
OECD closing stock levels, *mb*													
Commercial	3,037	2,651	2,781	2,759	2,792	2,783							
SPR	1,541	1,484	1,214	1,217	1,206	1,209							
Total	**4,578**	**4,135**	**3,995**	**3,976**	**3,997**	**3,993**							
Oil-on-water	1,148	1,202	1,399	1,413	1,302	1,220							
Days of forward consumption in OECD, *days*													
Commercial onland stocks	68	58	61	60	60	61							
SPR	34	32	26	27	26	26							
Total	**102**	**90**	**87**	**87**	**86**	**87**							
Memo items													
(a) - (b)	**22.95**	**28.05**	**28.45**	**28.42**	**28.37**	**28.58**	**30.93**	**29.08**	**29.63**	**29.63**	**30.17**	**30.07**	**29.88**

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	0.03	-	0.03	-0.01	0.06	0.03	0.07	0.04	-0.01	0.06	0.03	0.07	0.04
of which US	*-*	*-*	*-*	*-*	*0.05*	*-*	*-*	*0.01*	*-*	*0.05*	*-*	*-*	*0.01*
Europe	-	-	-	-0.01	0.07	-0.06	-	-	-0.01	0.07	-0.06	-	-
Asia Pacific	-	-	-	-	-	-0.06	-	-0.02	-	-	-0.06	-	-0.02
Total OECD	**0.03**	**-**	**0.03**	**-0.01**	**0.13**	**-0.09**	**0.07**	**0.02**	**-0.01**	**0.13**	**-0.09**	**0.07**	**0.02**
China	-	-	-	-	-	0.20	0.08	0.07	-	-	0.20	0.08	0.07
India	-	-	-	-	-	-0.04	-	-0.01	-	-	-0.04	-	-0.01
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-0.13	-	-0.03	-	-	-0.13	-	-0.03
Russia	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Eurasia	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**0.03**	**0.08**	**0.03**	**-**	**-**	**0.03**	**0.08**	**0.03**
(a) Total world demand	**0.03**	**-**	**0.03**	**-0.01**	**0.13**	**-0.06**	**0.15**	**0.05**	**-0.01**	**0.13**	**-0.06**	**0.15**	**0.05**
Y-o-y change	***0.03***	***-0.03***	***0.03***	***-0.04***	***0.07***	***-0.03***	***0.08***	***0.02***	***-***	***-***	***-***	***-***	***-***
Non-OPEC liquids production													
Americas	-	-	-	-	0.03	0.28	-0.16	0.04	0.04	0.04	0.04	0.04	0.04
of which US	*-*	*-*	*-*	*-*	*-*	*0.26*	*-0.06*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*
Europe	-	-	-	-	-	-0.07	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
Asia Pacific	-	-	-	-	-	-0.01	-	-	-	-	-	-	-
Total OECD	**-**	**-**	**-**	**-**	**0.03**	**0.20**	**-0.18**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
China	-	-	-	-	-	-0.01	-	-	-	-	-	-	-
India	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-0.01	-0.05	-	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Latin America	-	-	-	-	-0.01	0.07	0.04	0.03	0.07	0.03	0.03	0.02	0.03
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-0.01	-0.03	-0.01
Russia	-	-	-	-	-	0.15	0.16	0.08	0.08	0.08	0.08	0.08	0.08
Other Eurasia	-	-	-	-	-	-0.03	0.01	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-0.02**	**0.14**	**0.22**	**0.09**	**0.13**	**0.09**	**0.08**	**0.05**	**0.08**
Total Non-OPEC production	-	-	-	-	0.02	0.34	0.04	0.10	0.14	0.10	0.09	0.07	0.10
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC liquids production	**-**	**-**	**-**	**-**	**0.02**	**0.34**	**0.04**	**0.10**	**0.14**	**0.10**	**0.09**	**0.07**	**0.10**
OPEC NGL + non-conventional oils	-	-	-	-	-	-	-	-	-	-	-	-	-
(b) Total non-OPEC liquids production and OPEC NGLs	**-**	**-**	**-**	**-**	**0.02**	**0.34**	**0.04**	**0.10**	**0.14**	**0.10**	**0.09**	**0.07**	**0.10**
Y-o-y change	***-***	***-***	***-***	***-***	***0.02***	***0.34***	***0.04***	***0.10***	***0.14***	***0.08***	***-0.25***	***0.03***	***-***
OPEC crude oil production (secondary sources)	-	-	-	-	-	0.03							
Total liquids production	-	-	-	-	0.02	0.36							
Balance (stock change and miscellaneous)	-0.03	-	-0.03	0.01	-0.11	0.43							
mb													
Commercial	-	-	4	3	4								
SPR	-	-	-	-	-								
Total	**-**	**-**	**4**	**3**	**4**								
Oil-on-water	-	-	-	-	-								
Days of forward consumption in OECD, *days*													
Commercial onland stocks	-	-	-	-	-								
SPR	-	-	-	-	-								
Total	**-**	**-**	**-**	**-**	**-**								
Memo items													
(a) - (b)	**0.03**	**0.00**	**0.03**	**-0.01**	**0.11**	**-0.40**	**0.11**	**-0.05**	**-0.15**	**0.03**	**-0.15**	**0.08**	**-0.05**

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the October 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	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23
Closing stock levels, mb											
OECD onland commercial	**3,037**	**2,651**	**2,781**	**2,651**	**2,615**	**2,664**	**2,750**	**2,781**	**2,759**	**2,792**	**2,783**
Americas	1,614	1,470	1,492	1,470	1,408	1,435	1,473	1,492	1,489	1,513	1,486
Europe	1,043	857	936	857	890	911	918	936	919	920	927
Asia Pacific	380	324	353	324	317	318	359	353	351	359	371
OECD SPR	**1,541**	**1,484**	**1,214**	**1,484**	**1,442**	**1,343**	**1,246**	**1,214**	**1,217**	**1,206**	**1,209**
Americas	640	596	374	596	568	495	418	374	373	349	353
Europe	487	479	461	479	468	452	448	461	460	470	472
Asia Pacific	414	409	378	409	406	395	380	378	383	387	384
OECD total	**4,578**	**4,135**	**3,995**	**4,135**	**4,057**	**4,008**	**3,996**	**3,995**	**3,976**	**3,997**	**3,993**
Oil-on-water	**1,148**	**1,202**	**1,399**	**1,202**	**1,231**	**1,304**	**1,407**	**1,399**	**1,413**	**1,302**	**1,220**
Days of forward consumption in OECD, days											
OECD onland commercial	**68**	**58**	**61**	**58**	**58**	**58**	**60**	**61**	**60**	**60**	**61**
Americas	66	59	60	59	57	57	59	61	59	60	60
Europe	79	63	70	65	66	65	69	71	68	67	69
Asia Pacific	52	44	48	42	46	44	47	45	50	51	48
OECD SPR	**35**	**34**	**34**	**32**	**32**	**29**	**27**	**27**	**27**	**26**	**26**
Americas	26	24	24	24	23	20	17	15	15	14	14
Europe	37	35	35	36	35	32	34	35	34	34	35
Asia Pacific	56	55	55	53	59	55	50	48	55	55	50
OECD total	**103**	**93**	**95**	**90**	**90**	**87**	**87**	**88**	**87**	**86**	**87**

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	21.1	20.4	20.6	1.3	20.8	21.1	21.3	21.5	21.2	0.6
Canada	5.6	0.2	5.7	5.3	5.7	5.9	5.6	0.0	5.9	5.7	5.9	6.1	5.9	0.2
Mexico	2.0	0.1	2.1	2.1	2.1	2.1	2.1	0.1	2.1	2.1	2.1	2.0	2.1	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**	**28.2**	**28.9**	**28.4**	**28.3**	**1.4**	**28.8**	**28.8**	**29.3**	**29.6**	**29.1**	**0.8**
Norway	1.9	-0.1	2.0	2.0	2.0	2.1	2.0	0.1	2.2	2.1	2.1	2.2	2.1	0.1
UK	0.9	0.0	0.8	0.8	0.7	0.8	0.8	-0.1	0.8	0.8	0.7	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**	**3.5**	**3.7**	**3.6**	**0.1**	**3.9**	**3.7**	**3.7**	**3.8**	**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**	**0.4**	**0.5**	**0.5**	**0.0**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.0**
Total OECD	**31.0**	**1.2**	**32.0**	**32.3**	**32.8**	**32.6**	**32.4**	**1.5**	**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	0.9	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	0.3	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**	**2.2**	**2.4**	**2.3**	**0.0**	**2.3**	**2.3**	**2.2**	**2.2**	**2.2**	**0.0**
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	4.3	4.1	4.1	0.4	4.2	4.1	4.2	4.3	4.2	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	0.5	0.5	0.6	0.6	0.5	0.2
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**	**7.1**	**6.9**	**6.9**	**0.5**	**7.1**	**7.1**	**7.2**	**7.3**	**7.2**	**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**	**3.3**	**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	0.1	0.2	0.2	0.1	0.0
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**	**10.8**	**9.6**	**10.6**	**-0.4**	**10.4**	**10.5**	**10.7**	**10.8**	**10.6**	**0.0**
Kazakhstan	1.8	0.0	2.0	1.9	1.8	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	0.6	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**	**2.8**	**3.0**	**2.9**	**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**	**32.8**	**31.9**	**32.7**	**0.3**	**32.9**	**33.0**	**33.2**	**33.4**	**33.1**	**0.4**
Non-OPEC	63.4	1.8	65.2	65.2	65.6	64.5	65.1	1.7	66.0	66.0	66.6	67.3	66.5	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**	**67.6**	**68.1**	**66.9**	**67.6**	**1.8**	**68.5**	**68.5**	**69.1**	**69.8**	**69.0**	**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**	**73.1**	**73.5**	**72.3**	**73.0**	**1.8**	**74.0**	**74.0**	**74.6**	**75.3**	**74.5**	**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*	1Q23	2Q23	3Q23	Sep 23	Oct 23	Change *Oct/Sep*
US	436	475	722	*247*	761	719	648	631	622	*-9*
Canada	90	133	174	*41*	221	119	188	188	193	*5*
Mexico	41	45	47	*2*	48	60	54	56	58	*2*
OECD Americas	**567**	**654**	**945**	***291***	**1,033**	**900**	**892**	**876**	**873**	***-3***
Norway	16	17	17	*0*	16	13	19	17	20	*3*
UK	6	8	10	*2*	11	13	10	10	10	*0*
OECD Europe	**59**	**58**	**65**	***7***	**67**	**67**	**64**	**60**	**67**	***7***
OECD Asia Pacific	**22**	**23**	**24**	***1***	**23**	**27**	**25**	**24**	**24**	***0***
Total OECD	**648**	**735**	**1,034**	***299***	**1,123**	**994**	**981**	**960**	**964**	***4***
Other Asia*	187	174	186	*12*	193	210	206	205	205	*0*
Latin America	58	91	119	*28*	127	122	118	117	115	*-2*
Middle East	57	57	62	*5*	62	61	59	57	62	*5*
Africa	43	42	57	*15*	60	56	56	54	57	*3*
Other Europe	12	9	10	*1*	11	11	10	9	9	*0*
Total Non-OECD	**357**	**373**	**434**	***61***	**453**	**460**	**449**	**442**	**448**	***6***
Non-OPEC rig count	**1,005**	**1,108**	**1,468**	***360***	**1,576**	**1,454**	**1,430**	**1,402**	**1,412**	***10***
Algeria	31	26	32	*6*	32	33	37	40	43	*3*
Angola	3	4	7	*3*	9	9	10	10	10	*0*
Congo	1	0	1	*1*	1	2	2	1	0	*-1*
Equatorial Guinea**	0	0	0	*0*	0	0	0	0	0	*0*
Gabon	3	2	3	*1*	3	3	3	3	2	*-1*
Iran**	117	117	117	*0*	117	117	117	117	117	*0*
Iraq	47	39	51	*12*	60	62	62	62	62	*0*
Kuwait	45	25	27	*2*	24	25	24	23	23	*0*
Libya	12	13	7	*-6*	11	15	14	14	18	*4*
Nigeria	11	7	10	*3*	14	13	16	15	13	*-2*
Saudi Arabia	93	62	73	*11*	78	83	85	83	86	*3*
UAE	54	42	47	*5*	53	57	56	59	60	*1*
Venezuela	15	6	3	*-3*	3	3	5	1	2	*1*
OPEC rig count	**432**	**343**	**377**	***34***	**405**	**422**	**431**	**428**	**436**	***8***
World rig count***	**1,437**	**1,451**	**1,845**	***394***	**1,980**	**1,877**	**1,861**	**1,830**	**1,848**	***18***
of which:										
Oil	1,116	1,143	1,462	*319*	1,567	1,484	1,480	1,462	1,472	*10*
Gas	275	275	352	*77*	376	347	338	330	336	*6*
Others	46	33	31	*-2*	37	46	43	38	40	*2*

*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

down 2.82 in October

October 2023	91.78
September 2023	94.60
Year-to-date	**83.11**

October OPEC crude production

mb/d, according to secondary sources

up 0.08 in October

October 2023	27.90
September 2023	27.82

Economic growth rate

per cent

	World	OECD	US	Euro–zone	Japan	China	India
2023	2.8	1.4	2.3	0.2	1.9	5.2	6.2
2024	2.6	0.9	0.9	0.5	1.0	4.8	5.9

Supply and demand

mb/d

2023		**23/22**	**2024**		**24/23**
World demand	102.1	2.5	World demand	104.4	2.2
Non-OPEC liquids production	67.6	1.8	Non-OPEC liquids production	69.0	1.4
OPEC NGLs	5.4	0.0	OPEC NGLs	5.5	0.1
Difference	**29.1**	**0.6**	**Difference**	**29.9**	**0.8**

OECD commercial stocks

mb

	Jul 23	**Aug 23**	**Sep 23**	**Sep 23/Aug 23**
Crude oil	1,379	1,345	1,336	-9.3
Products	1,444	1,454	1,447	-6.3
Total	**2,823**	**2,799**	**2,783**	**-15.6**
Days of forward cover	61.1	60.8	60.6	-0.3

Next report to be issued on 13 December 2023.