Organization of the Petroleum Exporting Countries

OPEC Monthly Oil Market Report

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Feature article:
Monetary policies and their impact on the oil market

Organization of the Petroleum Exporting Countries

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Oil Market Highlights

Crude Oil Price Movements

Both crude oil spot and futures prices fell for the second-consecutive month in December. Major physical crude benchmarks decreased about 9%, m-o-m, on growing concerns that the rapid spread of the Omicron COVID-19 variant may have an impact on the global economy and oil demand. The OPEC Reference Basket fell $5.99, or 7.5%, to settle at a three-month low of $74.38/b. Crude oil futures prices extended losses in December, declining on both sides of the Atlantic, with the ICE Brent front month down $6.05, or 7.5%, to average $74.80/b and NYMEX WTI declining by $6.96, or 8.8%, to average $71.69/b. Consequently, the Brent/WTI futures spread widened 91¢ to average $3.11/b. The market structure of all three crude benchmarks – ICE Brent, NYMEX WTI and DME Oman – weakened in December, m-o-m. Hedge funds and other money managers extended sharp sell-offs in the first half of December, cutting combined futures and options net long positions related to ICE Brent and NYMEX WTI by about 30% between early November and mid-December.

World Economy

The global GDP growth forecasts for 2021 and 2022 remain unchanged at 5.5% and 4.2%, respectively. The US is estimated to grow by 5.5% in 2021, while growth for 2022 is slightly lowered to 4%. Euro-zone economic growth for 2021 is revised up to 5.2%, while growth for 2022 remains unchanged at 3.9%. Japan's economic growth forecast for 2021 is revised down to 1.8%, while growth for 2022 remains unchanged at 2.2%. Growth forecasts in emerging economies remain largely unchanged, with China's forecast at 8% for 2021 and 5.6% for 2022. India's forecast for 2021 stands at 8.8%, and is forecast at 7% in 2022. Russia's GDP growth forecast remains unchanged at 4% for 2021 and 2.7% for 2022. Brazil's economic growth forecast for 2021 is unchanged at 4.7%, while growth for 2022 was revised down to 1.5%. The spread of COVID-19 variants and the effectiveness of vaccines, as well as the pace of vaccine rollouts worldwide, remain key uncertainties. Moreover, supply chain bottlenecks and sovereign debt levels in many regions, together with rising inflationary pressures and the responses of central banks, remain key factors that require close monitoring.

World Oil Demand

World oil demand growth in 2021 is unchanged from last month's assessment at 5.7 mb/d to average 96.6 mb/d. An upward revision in 4Q21, amid better-than-anticipated transportation fuel consumption in the OECD, was offset by a downward revision in 3Q21 given the latest actual data. Oil demand growth in the OECD is estimated to have averaged 2.5 mb/d and, in the non-OECD region, oil demand growth is estimated at 3.1 mb/d for the year. In 2022, the forecast for world oil demand growth also remains unchanged at 4.2 mb/d, with total global consumption at 100.8 mb/d. In the OECD, oil demand is forecast to grow by 1.8 mb/d, while in the non-OECD oil demand is projected to increase by 2.3 mb/d. While the impact of the Omicron variant is projected to be mild and short-lived, uncertainties remain regarding new variants and renewed mobility restrictions, amid an otherwise steady global economic recovery.

World Oil Supply

Non-OPEC liquids supply growth in 2021 remains unchanged at around 0.7 mb/d, y-o-y, to average 63.6 mb/d. Upward revisions in the US and Kazakhstan were offset by downward adjustments to Brazil, Canada, Ecuador and Norway. The 2021 oil supply estimate primarily sees growth in Canada, Russia, China, the US, Guyana, Norway, Argentina and Qatar, while output is expected to have declined in the UK, Brazil, Colombia and Indonesia. Similarly, the non-OPEC supply growth forecast for 2022 is also unchanged at around 3.0 mb/d, to average 66.7 mb/d. The main drivers of liquids supply growth are expected to be the US and Russia, followed by Brazil, Canada, Kazakhstan, Norway and Guyana. OPEC NGLs are forecast to grow by 0.1 mb/d both in 2021 and 2022 to average 5.1 mb/d and 5.3 mb/d, respectively. In December, OPEC crude oil production increased by 0.2 mb/d m-o-m, to average 27.9 mb/d, according to available secondary sources.

Product Markets and Refining Operations

Refinery margins in all main trading hubs rebounded in December from the downturn seen in the previous month. Margins reached their second highest levels since May 2020 and inched closer to the record highs seen in October 2021. An increasingly tighter product balance in all regions and a pick-up in fuel consumption levels, amid the end-of-the-year holidays, combined to provide positive stimulus to product markets and ultimately led to a robust performance by jet fuel, kerosene and fuel oil, despite a significant rise in global product output levels and rising COVID-19 cases. In addition, strong heating fuel demand, as well as prevailing high gas prices, particularly in Europe, lent further backing to middle distillate markets. In contrast, temporary lockdowns in December exacerbated the seasonal gasoline weakness in the Atlantic Basin, thus limiting further gains in refining economics.

Tanker Market

The long-expected year-end recovery in dirty tanker spot freight rates failed to materialize in December, as lockdowns at the end of the year and softer Chinese buying limited tonnage demand. On average, VLCCs and Aframax slipped 5% and 3%, respectively, m-o-m in December. Suezmax managed a 7% gain over the month before, but remained well below pre-COVID-19 levels. For the year 2021, average VLCC and Suezmax spot freight rates witnessed their worst performance going back more than a decade. Clean rates enjoyed a better performance in December, particularly West of Suez, supported by demand on the Mediterranean routes.

Crude and Refined Products Trade

Preliminary data shows US crude imports edged lower in the final month of the year, but managed to end 4% higher, y-o-y, in 2021, averaging 6.1 mb/d. US crude exports remained below 3.0 mb/d in December and averaged 2.9 mb/d in 2021, representing a 9% decline. The latest data for China shows the country's crude imports recovered from the low level seen in October to average 10.2 mb/d in November, as state-owned refiners returned to the market. Preliminary data for December shows crude imports increasing further to 10.9 mb/d in the final month of the year. This would result in China's crude imports in 2021 averaging 10.3 mb/d, down around 5% from the inflated levels seen in 2020 when Chinese buyers snapped up excess volumes in the market. In India, crude imports jumped to a 10-month high in November to average 4.5 mb/d as refiners sought to replenish inventories in preparation for higher runs in 1Q22, following holidays in October and early November. Product exports from India remained steady, averaging 1.3 mb/d in November, as diesel outflows remained strong and jet fuel exports increased, reflecting tightness in the Asian market due to constrained exports from China. Japan's crude imports jumped in November to the highest since March 2020, averaging 2.8 mb/d, amid higher refinery runs to meet winter heating demand. The latest data shows crude imports into OECD Europe slipped in September, although tanker tracking data shows inflows picking up through November and then easing in December amid lockdown measures.

Commercial Stock Movements

Preliminary November data sees total OECD commercial oil stocks down by 16.0 mb, m-o-m. At 2,721 mb, OECD commercial oil stocks were 389 mb lower than the same period in 2020, 247 mb lower than the latest five-year average, and 221 mb below the 2015-2019 average. Within the components, crude and products stocks fell, m-o-m, by 12.7 mb and 3.3 mb, respectively. At 1,317 mb, crude stocks in the OECD were 143 mb less than the latest five-year average and 137 mb below the 2015-2019 average. OECD product stocks stood at 1,405 mb, representing a deficit of 104 mb compared with the latest five-year average and 84 mb below the 2015-2019 average. In terms of days of forward cover, OECD commercial stocks fell, m-o-m, in November by 0.2 day to stand at 60.7 days. This is 13.2 days below November 2020 levels, 3.6 days less than the latest five-year average and 1.5 days lower than the 2015-2019 average.

Balance of Supply and Demand

Demand for OPEC crude in 2021 remains unchanged from the previous month to stand at 27.8 mb/d, around 4.9 mb/d higher than in 2020. Demand for OPEC crude in 2022 also remains unchanged from the previous month to stand at 28.9 mb/d, around 1.0 mb/d higher than in 2021.

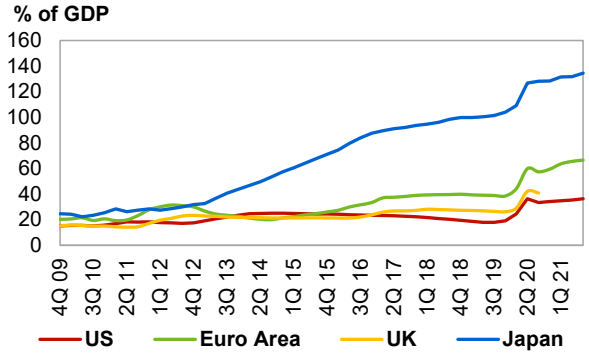
Feature Article

Monetary policies and their impact on the oil market

In 2021, the world economy rebounded considerably from the outbreak of COVID-19 pandemic in 2020. However, the pandemic continued to be a major challenge throughout 2021, particularly with the emergence of new variants such as Delta in 2Q21 and Omicron in 4Q21. At the same time, major central banks, including the US Federal Reserve (Fed), the European Central Bank (ECB), the Bank of England (BoE) and the Bank of Japan (BoJ), carried over their respective efforts of extraordinary quantitative easing (QE) programmes into 2021. In parallel, the global oil market continued its impressive recovery in 2021, driven by strong global oil demand, given worldwide lockdowns gradually easing and mobility increasing, and supported by the relentless efforts of the Declaration of Cooperation (DoC), which continued to rebalance oil markets.

The massive monetary stimulus programmes launched by the major central banks led their balance sheets to expand significantly in 2020 and 2021 ***(Graph 1)***. However, these QE efforts, in combination with strong underlying global demand and supply-chain bottlenecks, have resulted in higher inflation levels, which are now persisting in major economies. To curtail the potentially long-lasting impact of inflation, the major central banks have announced that they would adjust their QE programmes and consider reducing their very accommodative monetary policies.

Graph 1: Major central bank balance sheets as % of GDP

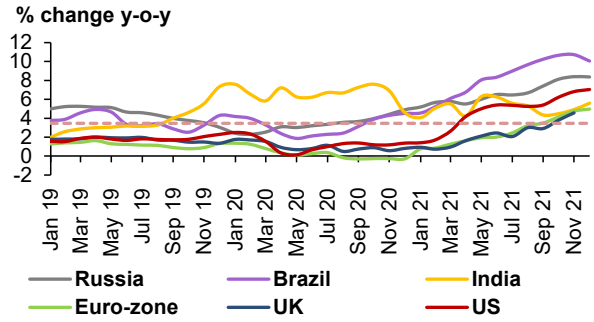


*Note: * UK data ia available until 3Q 20.*
Sources: BEA, BOE, Fed, ECB, BoJ, CAO and Haver Analytics.

Meanwhile, higher inflation levels have impacted economies to varying degrees. In developed, economies, US inflation has picked up strongly. In the emerging economies, particularly Russia and Brazil, inflation has been significant and led to rate hikes. In key Asian economies, including China and Japan, inflation has remained relatively low ***(Graph 2)***.

In the US, the Fed announced a faster tapering of already ongoing reductions in QE measures and is likely to raise key policy rates in 2022 multiple times. On the other hand, the ECB announced that it would only gradually start reducing its QE measures in March 2022 and does not plan to hike interest rates before 2023. The BoE is pursuing the fastest path, having already announced a rate increase in its December meeting, front-running the other major central banks, while ending QE measures in 2021. The BoJ, with the relatively largest monetary stimulus and an extensive history of QE policies, has announced a reduction in pandemic-related QE, but will continue with general ultra-loose monetary policy and non-pandemic-related QE.

Graph 2: High inflation economies (CPI)



Sources: Federal State Statistics Service, Instituto Brasileiro de Geografia e Estatística, Office for National Statistics, Ministry of Statistics & Programme Implementation, European Central Bank, Bureau of Labor Statistics, Haver Analytics and OPEC.

Higher interest rates, compounded by the ongoing US economic growth recovery, will most likely appreciate the value of the US dollar relative to other currencies. This may have a few implications on the oil market. Historically, a strong dollar would cause non-US-dollar denominated net-importing economies to require more of their local currency to import crude oil. However, in the past, a gradually strengthening US dollar had a limiting effect on oil price. Moreover, significant key US interest rate hikes are expected for 2Q22, which coincides with the run-up to northern hemisphere's driving season. Therefore, any demand decrease in the oil market as a result of tighter monetary policies will likely be offset by an increase in demand associated with the driving season at a time of slowing of COVID-19 infections in the northern hemisphere should support an acceleration in oil demand.

In summary, monetary actions are not expected to hinder underlying global economic growth momentum, but rather serve to recalibrate otherwise overheating economies. With an ongoing robust oil demand forecast, and the continuing efforts of OPEC Member Countries and non-OPEC countries participating in the DoC, the oil market is expected to remain well-supported throughout 2022.

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Crude Oil Price Movements

Spot crude oil prices closed 2021 significantly higher y-o-y, witnessing the best yearly performance in a decade, with North Sea Dated and Dubai prices recording the largest yearly average increase since 2011. On a yearly average, North Sea Dated and Dubai rose in 2021 by $29.13 and $27.07, or 69.9% and 64.0% respectively y-o-y, to stand at $70.80/b and $69.38/b, while WTI rose by $28.74/b, or 72.9%, to average $68.17/b.

However, major spot crude oil benchmarks dropped about 9% in December m-o-m, extending November's losses. The drop was driven by a sharp decline in the futures markets amid concerns about record-high COVID-19 cases, including in several major oil-consuming countries. Nonetheless, the fundamentals of the physical crude oil market remained relatively robust in December.

The OPEC Reference Basket (ORB) averaged lower in December m-o-m, falling for the second consecutive month on lower related crude benchmarks. The ORB fell by $5.99, or 7.5%, to settle at $74.38/b, its lowest monthly value since September 2021. However, on a yearly average, the ORB value rose by $28.42, or 68.5%, in 2021 to $69.89/b, its highest yearly average since 2014.

Crude oil futures prices ended 2021 markedly higher compared with late 2020, with major oil futures contracts ICE Brent and NYMEX WTI rising 50% and 55%, respectively. However, in December, crude oil futures prices declined for the second consecutive month, falling from multi-year highs registered in October, amid persistent market volatility that remained fuelled by rising uncertainty regarding the impact of the rapidly spreading COVID-19 Omicron variant on the global economy and oil demand. The ICE Brent front-month decreased by $6.05, or 7.5%, in December to average $74.80/b, and NYMEX WTI fell by $6.96, or 8.8%, to average $71.69/b. DME Oman crude oil futures prices decreased in December by $6.30 m-o-m, or 7.9%, to settle at $73.40/b. Consequently, the ICE Brent/NYMEX WTI spread widened by 91¢ to an average of $3.11/b.

Hedge funds and other money managers extended sharp selling in the first half of December, cutting combined futures and options net long positions related to ICE Brent and NYMEX WTI by about 30% between early November and mid-December, representing the sale of equivalent to 174 mb. The selloff came amid a decline in oil futures prices, while speculators were probably considering the worst-case scenario regarding the impact of the Omicron variant on global oil demand.

The market structure of all three crude benchmarks – ICE Brent, NYMEX WTI and DME Oman – weakened in December compared with the previous month. This is mainly due to concerns about the rapid surge of global COVID-19 cases to record high levels in several major consuming countries. However, a continuing decline in global oil stocks and a robust physical crude market kept the market structure in backwardation, while supply disruptions in some countries in December lent support to the structure.

The premium of light sweet to medium sour crudes recorded different trends in December in key markets. Sweet/sour differentials in Europe and the US Gulf Coast (USGC) narrowed as outright prices from light sweet Brent fell markedly compared with sour grades. However, the spread widened in Asia on strong demand for light sweet crude amid robust margins for low sulphur fuel oil and high desulphurization costs.

Crude spot prices

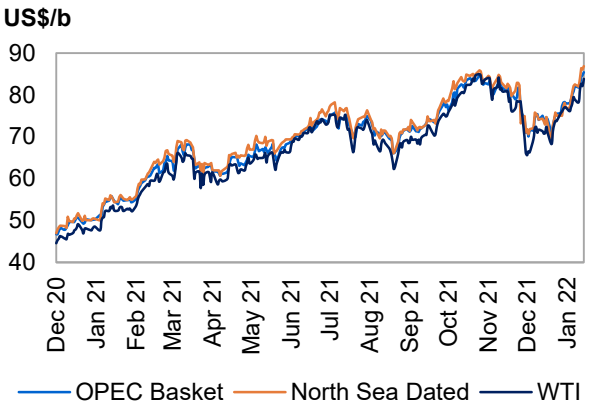
Spot crude oil prices closed 2021 on a positive note, witnessing the best yearly performance in a decade, with North Sea Dated and Dubai prices recording their highest yearly average increases since 2011, recovering from 2020's lows. On a yearly average, North Sea Dated and Dubai rose in 2021 by $29.13 and $27.07, or 69.9% and 64.0% respectively y-o-y, to stand at $70.80/b and $69.38/b, while WTI rose $28.74/b, or 72.9%, to average $68.17/b.

Spot prices continued to rise for several consecutive months in 2021, supported by easing global oil market oversupply, more balanced supply/demand fundamentals, and depleting record-high oil stock levels. A strong global oil demand recovery, along with gradually rising global refinery intakes and wide-ranging support for production adjustments by OPEC Member Countries and non-OPEC countries participating in the Declaration of Cooperation (DoC), strongly supported the oil market. The DoC, which celebrated its fifth anniversary in December, played a major role in stabilizing the market last year and reducing volatility, despite uncertainty regarding global oil demand amid the emergence of several waves of COVID-19 variants.

However, major spot crude oil benchmarks dropped by about 9% in December m-o-m, extending November's losses. The drop was driven by a sharp decline in futures markets amid concerns about record-high COVID-19 cases, including in several major oil-consuming countries, which could affect oil demand.

Nonetheless, physical crude oil market fundamentals remained relatively robust in December, reflected in firm buying from refineries and healthy refining margins in all major refining hubs, combined with several crude supply outages that reduced short-term availability. Declining commercial OECD stocks – to below the last five-year average – continued to support the crude market.

Graph 1 - 1: Crude oil price movement



Sources: Argus, OPEC and Platts.

The North Sea Dated premium to ICE Brent in the first half of December averaged 32¢/b, but the spread flipped to a discount in the second half of the month after ICE Brent recovered.

In Europe 16 nations, crude stocks fell in November by 11.97 mb compared with the previous month to 426.83 mb. Declines additionally took place in gasoline, naphtha and fuel oil stocks. Meanwhile, the European refinery crude intake in November rose by 0.28 mb/d m-o-m to 9.62 mb/d.

Similarly, crude stocks in the US fell for six consecutive weeks, declining by 16.2 mb between the weeks of 19 November and 31 December.

Firm buying for January and February loadings from Europe and Asia buoyed spot crude markets amid favourable west-to-east arbitrage and a weakening Brent backwardation structure. China's crude imports rose strongly in November from an October multi-month low. Data from the General Administration of Customs shows that China's crude imports in November rose to 41.79 million mt, representing a 10.5% increase m-o-m, while that of the National Bureau of Statistics (NBS) shows the output of processing volumes of crude oil in the same month rose by 2.1% m-o-m to 59.64 million mt.

In December, North Sea Dated fell by $7.27, or 8.9%, to an average of $74.10/b. WTI and Dubai first month figures decreased respectively by $7.24 and $6.98, or 9.2% and 8.7%, to settle at $71.87/b and $73.31/b.

Supportive fundamentals in the physical crude market offset concerns about lower demand due to the spread of the Omicron variant, which helped keep crude differentials buoyed in December and most light sweet grades priced on a monthly average at premiums to their respective benchmarks. Firm light and middle distillate margins in Europe, specifically for naphtha and gasoline, supported light sweet crude in the Atlantic Basin. In the North Sea, although Forties and Ekofisk crude differentials fell slightly on a monthly average, they traded at a premium to North Sea Brent before weakening on the availability of unsold prompt loading cargoes. Forties and Ekofisk crude differentials averaged 42¢ and 9¢ lower, respectively, in November to stand at 23¢/b and $1.29/b. North Sea crude flow to Asia lowered availability in Northwest Europe, adding support to prices. West African and Mediterranean crude differentials were also supported by healthy European refining margins, good demand from refiners in both Europe and Asia, and supply outages in Libya that supported similar crude quality.

Bonny Light and Qua Iboe crude differentials were unchanged in December m-o-m, averaging premiums of 40¢/b and 88¢/b, respectively, to North Sea Dated, while Forcados crude differentials fell by 15¢/b m-o-m to a 72¢/b premium to North Sea Dated. During the same period, Cabinda crude differentials fell by 9¢ on average to a 34¢/b premium, while the crude differential of Dalia rose 3¢ to a premium of 31¢/b. Saharan Blend crude differentials were on average 14¢ higher m-o-m in December, to an average premium of $1.01/b to North Sea Brent. The Caspian CPC Blend differential fell in December by 3¢ to a discount of 34¢/b on average.

In the US, the value of crude differentials in the USGC rose strongly in December on rising regional demand and sustained exports amid lower freight rates, which offset the availability of additional sour crude from strategic petroleum reserves (SPR). Light Louisiana Sweet (LLS) and Mars crude differentials increased in December, rising on monthly average by $1.70 and $2.87, respectively, to a premium of $1.99/b and a discount of 51¢/b. In the Middle East, however, the value of Oman crude differentials fell m-o-m by $1.85¢ in December to a premium of $1.50/b.

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

OPEC Reference Basket (ORB)	Nov 21	Dec 21	Change Dec/Nov	Change %	Annual average 2020	Annual average 2021
ORB	**80.37**	**74.38**	**-5.99**	**-7.5**	**41.47**	**69.89**
Arab Light	80.81	75.49	-5.32	-6.6	41.91	70.65
Basrah Light	79.62	74.09	-5.53	-6.9	41.55	69.86
Bonny Light	80.73	74.43	-6.30	-7.8	41.53	70.63
Djeno	73.92	66.66	-7.26	-9.8	35.77	63.35
Es Sider	80.32	73.35	-6.97	-8.7	40.06	69.16
Girassol	82.29	75.16	-7.13	-8.7	42.64	71.31
Iran Heavy	80.50	74.68	-5.82	-7.2	40.77	69.80
Kuwait Export	81.13	75.38	-5.75	-7.1	41.49	70.50
Merey	61.21	54.89	-6.32	-10.3	28.12	51.45
Murban	82.06	74.57	-7.49	-9.1	42.98	70.09
Rabi Light	80.91	73.65	-7.26	-9.0	40.22	70.34
Sahara Blend	81.97	75.50	-6.47	-7.9	42.12	70.89
Zafiro	82.25	74.35	-7.90	-9.6	41.54	71.09
Other Crudes						
North Sea Dated	81.37	74.10	-7.27	-8.9	41.67	70.80
Dubai	80.29	73.31	-6.98	-8.7	42.31	69.38
Isthmus	75.50	68.50	-7.00	-9.3	36.61	66.20
LLS	79.42	73.83	-5.59	-7.0	41.33	69.66
Mars	75.73	71.27	-4.46	-5.9	40.17	67.31
Minas	79.35	72.44	-6.91	-8.7	41.08	68.75
Urals	80.08	73.14	-6.94	-8.7	41.83	69.45
WTI	79.11	71.87	-7.24	-9.2	39.43	68.17
Differentials						
North Sea Dated/WTI	2.26	2.23	-0.03	-	2.24	2.64
North Sea Dated/LLS	1.95	0.27	-1.68	-	0.33	1.14
North Sea Dated/Dubai	1.08	0.79	-0.29	-	-0.64	1.42

Sources: Argus, Direct Communication, OPEC and Platts.

OPEC Reference Basket (ORB)

The **ORB** averaged lower in December m-o-m, falling for the second consecutive month on lower related crude benchmarks, though higher official selling prices and sustained crude differentials led to a smaller decline compared with major crude benchmarks. In December, the ORB fell by $5.99, or 7.5%, to settle at $74.38/b, its lowest monthly value since September 2021. However, on a yearly average, the ORB rose by $28.42, or 68.5%, in 2021 to $69.89/b, the highest yearly average since 2014. All ORB component values declined in December, with West and North African Basket components – Bonny Light, Djeno, Es Sider, Girassol, Rabi Light, Sahara Blend and Zafiro – falling $7.04, or 8.8% m-o-m on average, to $73.30/b. Multiple region destination grades – Arab Light, Basrah Light, Iran Heavy and Kuwait Export – decreased by $5.61, or 7.0% m-o-m on average, to settle at $74.91/b. Murban crude fell by $7.49, or 9.1% m-o-m on average, to settle at $74.57/b. Merey crude also fell by $6.32, or 10.3% m-o-m on average, to settle at 54.89/b.

The oil futures market

Crude oil futures prices ended 2021 markedly higher compared with late 2020, with major oil futures contracts ICE Brent and NYMEX WTI rising by 50% and 55%, respectively, amid robust global economic growth of 5.5%, and a strong rebound in global oil demand in both OECD and non-OECD regions, which held at 6.2%, driven by the road transportation and petrochemical sectors. Accelerating the rollout of COVID-19 vaccines across the world helped ease strict lockdowns and mobility restrictions. The oil market was also widely supported by an easing global supply overhang and more balanced oil supply/demand fundamentals, due to ongoing crude oil supply adjustments by OPEC Member Countries and non-OPEC countries participating in the DoC, resulting in sharp drawdowns in global oil stocks, with commercial OECD stocks falling to below the 2015-2019 five-year

average. On a yearly average, ICE Brent rose by $27.74, or 64%, to $70.95/b, its highest level since 2018, while the NYMEX WTI rose by $28.76, or 73%, to $68.11/b, its highest level since 2014.

However, in December, crude oil futures prices declined for the second consecutive month, falling from multi-year highs registered in October, amid persistent market volatility that remained fuelled by rising uncertainty regarding the impact of the rapid spread of the Omicron variant and its effect on the global economy and oil demand. Uncertainties about the effectiveness of available vaccines against Omicron and a warning from the World Health Organization stating that “the overall risk related to the new variant of concern Omicron remains very high” added worries to the oil market.

On a monthly average, ICE Brent and NYMEX WTI declined by 7.5% and 8.8% respectively m-o-m, recording their largest monthly loss since April 2020.

Oil prices came under further downward pressure after some countries introduced stricter mobility restrictions, especially in Europe, while in China the government imposed a lockdown on a major city of 13 million people. Moreover, relatively warm temperatures in the early days of winter in some northern hemisphere countries – including the US – cooled optimistic expectations regarding gas-to-liquids switching. Some agencies lowered their 2021 and 2022 global oil demand growth forecasts last month.

A signal from the US Federal Reserve (Fed) Chairman in early December on the potential end of the asset purchase programme from the central bank sooner than expected, and the ongoing high value of the US dollar in December compared with previous months, also weighed on market sentiment.

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

			Change		Annual average	
Crude oil futures	Nov 21	Dec 21	Dec/Nov	%	2020	2021
NYMEX WTI	78.65	71.69	-6.96	-8.8	39.34	68.11
ICE Brent	80.85	74.80	-6.05	-7.5	43.21	70.95
DME Oman	79.70	73.40	-6.30	-7.9	43.03	69.50
Spread						
ICE Brent-NYMEX WTI	2.20	3.11	0.91	41.4	3.87	2.84

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

However, oil prices pared some losses in the last ten days of December, as fears of a large negative impact by the Omicron variant on oil demand eased amid signs of sustained demand in major oil-consuming countries. Mobility data showed a further recovery in some Asian and Latin American countries, while in Europe and the US mobility indices showed resilient seasonal levels, remaining well above last year's figures. Oil prices were also supported by supply outages in several regions, including declarations of force majeure in Ecuador and Libya.

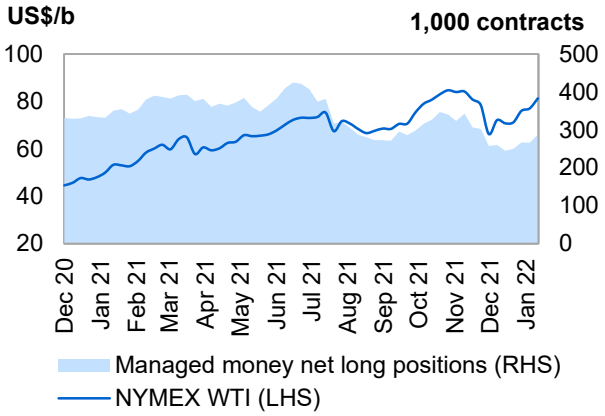
The ICE Brent front-month decreased by $6.05, or 7.5%, in December to average $74.80/b, while the NYMEX WTI fell by $6.96, or 8.8%, to average $71.69/b. Y-t-d, ICE Brent was $27.74, or 64.2% lower, at $70.95/b, while NYMEX WTI was higher by $28.77, or 73.1%, at $68.11/b, compared with the same period a year earlier. DME Oman crude oil futures prices decreased in December by $6.30 m-o-m, or 7.9%, to settle at $73.40/b. Y-t-d, DME Oman was higher by $26.47, or 61.5%, at $69.50/b.

On 17 January, ICE Brent stood at $86.48/b. Due to a public holiday in the US, the data for NYMEX WTI is not available. On 14 January, NYMEX WTI stood at $83.82/b.

The **ICE Brent/NYMEX WTI spread** rose in December to above $3/b, widening from recent monthly lows, as the NYMEX WTI price fell by more than ICE Brent last month. This is partly due to low stock levels registered at Cushing, Oklahoma, since late August, which supported the NYMEX WTI price. In December, the ICE Brent/NYMEX WTI spread widened by 91¢ to an average of $3.11/b. Cushing stocks fell in November to 26 mb, the lowest level since September 2018, while by the end of 2021 they rose to 37 mb. The availability of up to 50 mb of crude supply from US SPR also weighed briefly on domestic oil prices. Meanwhile, US gasoline stocks rose sharply in December, while the weekly US refiner net input of crude oil registered a slight increase last December compared with the previous month, according to US Energy Information Administration (EIA) weekly data. However, the North Sea Dated-WTI Houston's first-month spread narrowed in December, and the value of North Sea Dated was 75¢/b lower than WTI Houston on a monthly average, compared with a premium of $1.81/b in November. Meanwhile, US crude oil exports were little changed m-o-m in December, remaining at about 3 mb/d, according to weekly EIA data.

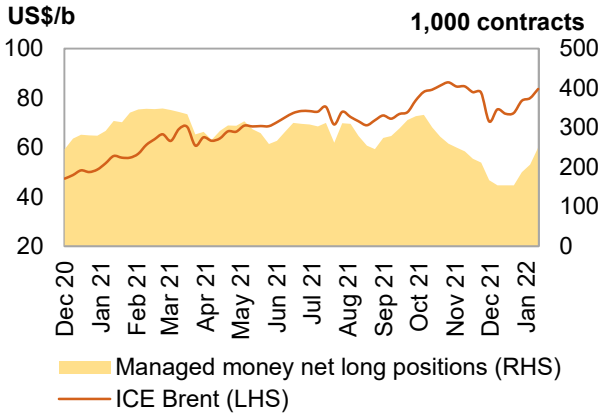
Hedge funds and other money managers extended sharp selling in the first half of December, cutting combined futures and options net long positions related to ICE Brent and NYMEX WTI by about 30% between the week of 14 December and early November, representing the sale of an equivalent of about 174 mb. The selloff came amid a decline in oil futures prices, while speculators probably considered a worst-case scenario related to the impact of the Omicron variant on global oil demand. However, in the second half of December, money managers recovered part of their long position on expected higher prices amid supply disruptions in several regions that could reduce oil availability in the short term. By the end of the week of 28 December, money managers held net long positions equivalent to about 454 mb in the two main crude oil futures and options contracts. Money managers were net buyers of about 30 mb between the week ending 28 December and the week of 30 November, a decline of 7.0%.

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.

In the first three weeks of December, money managers kept combined futures and options net long positions in ICE Brent at their lowest level since November 2020. However, in the last week of the month, the net long position rose by 21.4%. Consequently, between the week of 28 December and 30 November, speculators raised their futures and options net long positions in ICE Brent by 20,488 contracts, or 12.3%, to reach 187,654 lots, according to the ICE Exchange. During the same period, gross long positions rose by 4,722 lots, or 1.8%, to 263,790 contracts, while gross short positions fell by 15,766 lots, or 17.2%, to 76,136 contracts.

Hedge funds and other money managers raised their NYMEX WTI net long positions in December, adding 9,209 lots, or 3.6%, to stand at 266,840 lots in the week of 28 December. This is due to a decline in short positions by 6,443 lots, or 12.2%, to 46,448 contracts, and an increase of 2,766 lots, or 0.9%, in long positions to 313,288 contracts, according to the US Commodity Futures Trading Commission (CFTC).

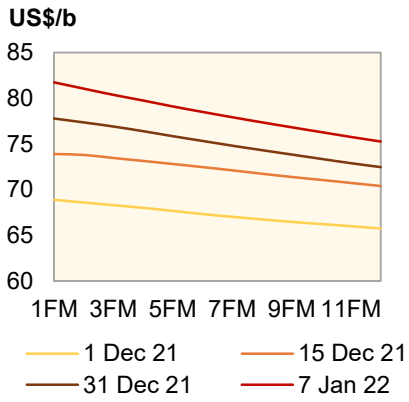
The **long-to-short ratio of speculative positions** in the NYMEX WTI contract fell to 5:1 in the week between 14 and 21 December, down from about 6:1 in late November before rising to about 7:1 in the week of 28 December. However, the ICE Brent long-to-short ratio was as low as 3:1 in December, the same level as in November. **Total futures and options open interest volumes** on the two exchanges declined in December, falling by 4.6%, or 250,280 contracts, to stand at 5.2 million contracts in the week ending 28 December.

The futures market structure

The **market structure** of all three crude benchmarks, ICE Brent, NYMEX WTI and DME Oman, weakened in December compared with the previous month, suggesting that the optimistic market perception of the supply-demand balance outlook softened. This is mainly due to concerns about the rapid surge in COVID-19 cases to record highs in several major consuming countries, along with the reinstatement of lockdowns and mobility restrictions in some European countries, which darkened short-term oil demand outlooks and weighed on near-month futures prices. However, a continuing decline in global oil stocks and the robust physical crude market kept the market structure in backwardation, while supply disruptions in Ecuador and Libya in December lent some support to the structure. In the first week of January, the futures forward curve steepened on near-term supply risks in the Mediterranean and the Caspian.

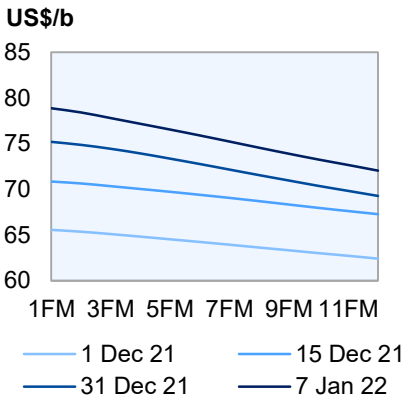
The **ICE Brent** crude futures structure weakened in December, with the ICE Brent first-to-third month spread narrowing by $1.21 to an average of 56¢/b, mirroring fears about a near-term market oversupply. Deterioration in the COVID-19 situation in Europe over the last month and reinstatement of tighter pandemic-related restrictions raised concerns about the demand outlook, adding to lower seasonal demand. However, low commercial OECD oil stocks compared with the latest five-year average and a decline in European oil stocks in November, along with lower supply availability of unsold barrels in the Atlantic Basin, kept the Brent structure in backwardation. ICE Brent's M1-M6 backwardation also narrowed in December, falling by $2.18 on a monthly average to settle at $1.74/b on average, compared with backwardation of $3.92/b in November.

Graph 1 - 4: ICE Brent forward curves



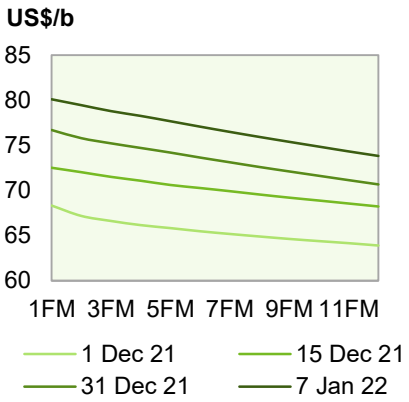
Sources: ICE and OPEC.

Graph 1 - 5: NYMEX WTI forward curves



Sources: CME and OPEC.

Graph 1 - 6: DME Oman forward curves



Sources: DME and OPEC.

In the US, the backwardation structure of the **NYMEX WTI** also eased and the forward curve flattened on concerns over the fast spread of Omicron. First-month prices fell more than forward prices in a sell-off in the first half of the month and an increase in Cushing crude stocks, the delivery point for WTI futures contracts. The NYMEX WTI first-to-third month spread narrowed to a backwardation of 57¢/b on average in December, compared with a backwardation of $1.96/b in November.

DME Oman and Dubai's backwardation structures also weakened in December, despite healthy crude demand from Asian refiners. Similar to other major price references, prompt-month Asian benchmark contracts came under pressure from worries about lower demand after COVID-19 cases reached record-high levels in several countries. Meanwhile, the authorities locked down a major city in China to curb rising COVID-19 cases. On a monthly average, the DME Oman M1-M3 backwardation weakened m-o-m in December, narrowing by $1.15 to $1.10/b on average, from a backwardation of $2.25/b in November.

The physical Brent market showed a weaker structure in December, despite less supply in the Mediterranean. Regarding the M1/M3 structure, the North Sea Brent M1/M3 spread narrowed in December on a monthly average by $1.67 to a backwardation of 37¢/b, compared with $2.05/b in November. In the US, the WTI M1/M3 backwardation also narrowed in December by $1.28 to 52¢/b, compared with a backwardation of $1.80/b in November. The Dubai M1/M3 backwardation weakened on average in December, narrowing by $1.75 to a backwardation of $1.58/b.

Crude spreads

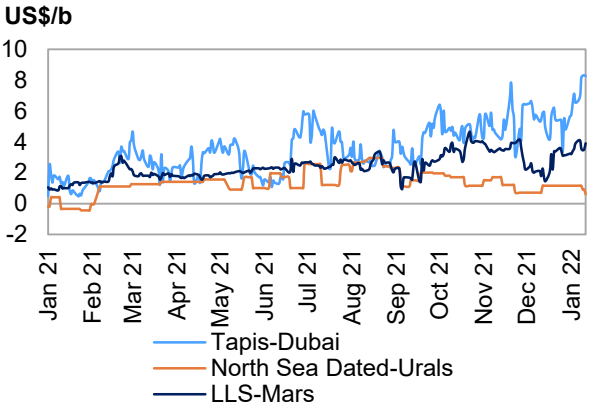
The **premium of light sweet to medium sour crudes** recorded different trends in December in key markets. Sweet/sour differentials in Europe and the USGC narrowed as outright prices from light sweet Brent fell markedly compared with sour grades, despite the positive performance of light distillate margins. In Asia, the spread widened on strong demand for light sweet crude amid robust margins for low sulphur fuel oil and high desulphurization costs.

In **Europe**, the Urals sour grade stand at discount level in December against light sweet benchmark North Sea Dated, although the discount narrowed by 34¢ to 95¢/b on average in December. The Urals crude value was supported in the first half of December by healthy European demand for the grade, lower loading volumes in Northwest Europe and lower availability of similar foreign grades. However, the discount of Urals to North Sea Dated deepened in the second half of December. Meanwhile, the value of light sweet crude in the North Sea weakened on soft demand for January loading cargoes. The Urals crude oil differential to Dated also rose in

Northwest Europe and the Mediterranean by 36¢ and 16¢ on average m-o-m, respectively, to stand at a discount of 94¢/b and $1.31/b.

In the **USGC**, the LLS premium over medium sour Mars also narrowed in December, despite a decision to release mainly medium sour crude from the SPR. The LLS-Mars crude spread narrowed by $1.13 to average a premium of $2.57/b after widening significantly in October and November to above $4/b on a daily basis. This is partly because Mars sour crude was supported by similar strengthening sour crudes in other regions and strengthening high sulphur fuel oil margins. Meanwhile, gasoline margins weakened and the gasoline-diesel spread declined. The narrowing spread between North Sea Dated and WTI in the USGC probably added downward pressure to light sweet grades in the region.

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



Sources: Argus, OPEC and Platts.

In **Asia**, the value of sweet/sour crude differentials widened again in December, with the Tapis premium over Dubai rose on a monthly average by 55¢ in December to reach $5.63/b, as light sweet crude value in the Asia Pacific region was supported by robust regional demand and strong demand for low sulphur fuel oil. This is despite better west-to-east arbitrage economics and higher demand from the Atlantic Basin. The Brent/Dubai exchange of futures for swaps narrowed by $1.64 on a monthly average in December to stand at $2.94/b, the lowest monthly average since March 2021.

Commodity Markets

Commodity prices receded in December, amid inflationary pressures in major economies, which led to announcements of monetary policy revisions by the G4, namely, the US Federal Reserve (Fed), the Bank of England, the European Central Bank and the Bank of Japan. Additionally, the production of selected commodities increased month-on-month amid increases in manufacturing activity. These production increases also reduced supply uncertainties except for EU natural gas, which continues to face supply challenges.

The energy commodity index experienced the biggest decline, m-o-m, led by the decline in average crude oil and US natural gas prices, which were partially offset by an increase in EU natural gas prices. The non-energy commodity index increased, m-o-m, supported by the agricultural sector, but was offset by price declines in precious metals, while base metals prices remained essentially flat over the same period.

Implications of the pandemic were largely shrugged off in December, as production increases across most commodities was the main contributor for price declines, except for average crude oil prices. As seen in November when news of the Omicron variant was first released, average crude oil prices declined in December m-o-m amid uncertainties around the pandemic. However, even in the face of a record-breaking increase in cases, investors are now more focused on the impact monetary policies will have on the short-term outlook of commodity markets as increases in US interest rates will increase the cost of capital and hinder commodity producers expansion plans while favouring low-cost and equity based commodity producers.

Trends in selected commodity markets

The **energy price index** continued its m-o-m decline, but at a slower rate of 3.1% in December. The December decline was mainly due to decreases in US natural gas and crude oil average prices, which were partially offset by gains in Australian coal and outlier EU natural gas prices. The average index level ended 2021 82% higher than in 2020, signalling a strong recovery after the 2020 slump.

The **non-energy index** climbed 1.3% m-o-m, supported by strong agricultural and mineral indices, which were partially offset by a decline in precious metals, while base metals remained essentially flat over the same period. The index closed 2021 19% higher than the previous year, mainly due to a strong recovery in base metals (46.8%) as industrial activity recovered from the 2020 lockdowns.

Table 2 - 1: Commodity prices

Commodity	Unit	*Monthly averages*			*% Change*	*Annual average*	
		Oct 21	Nov 21	Dec 21	Dec 21/Nov 21	2020	2021
Energy*	Index	**122.3**	**114.7**	**111.2**	**-3.1**	**51.9**	**94.5**
Coal, Australia	US$/mt	224.5	157.5	169.7	7.7	60.8	138.1
Crude oil, average	US$/b	82.1	79.9	72.9	-8.8	41.3	69.1
Natural gas, US	US$/mbtu	5.5	5.0	3.7	-25.6	2.0	3.9
Natural gas, Europe	US$/mbtu	31.1	27.6	38.0	37.7	3.2	16.1
Non-energy*	Index	**115.6**	**115.4**	**116.9**	**1.3**	**93.5**	**111.3**
Base metal*	Index	**130.0**	**125.2**	**125.2**	**0.0**	**80.2**	**117.7**
Precious metals*	Index	**136.9**	**140.5**	**136.8**	**-2.6**	**133.5**	**140.2**

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

The **Henry Hub natural gas price** continued to decline m-o-m. The average monthly price went from $5/MMbtu in November to $3.7/MMbtu in December, a 25.6% fall. The price decline was mainly due to production increases in December in most US producing regions amid a 2021-2022 winter season that began with the lowest inventory levels seen since 2018. US working gas underground storage went from 14,449 billion cubic feet per day (bcf/d) in November to 16,705 bcf/d in December, a 15.6% increase m-o-m. As reported in last month's MOMR, temperature forecasts for the month of December were reported to be warmer than average, also contributing to the decline in prices.

The year 2021 ended with US natural gas prices on average 91.5% higher than in 2020. Lower inventories and demand outpacing supply for much of 2021 in the US were the main contributors. The weekly average for

US working underground gas storage went from 3,050 bcf/d in 2020 to 2,707 bcf/d in 2021, a 11.3% decline y-o-y, while consumption averaged 83.5 bcf/d in 2021 compared with 83.3 bcf/d in 2020.

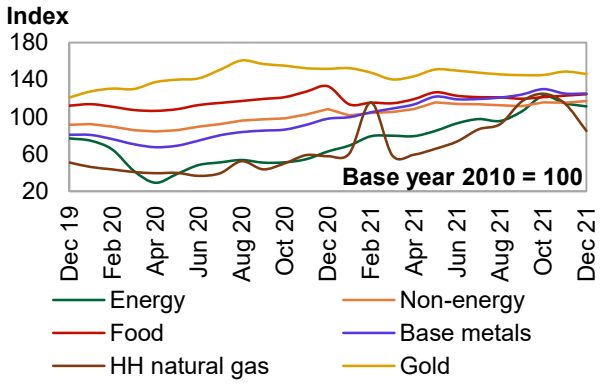
Natural gas prices in Europe climbed back in December, following November's decline. The average **Title Transfer Facility price** increased by 37.7% m-o-m to $38/mmbtu. The increase in price was mainly due to lower inventory levels and underdelivery from Russia across the main supply routes. Average injection capacity to storage went up by 36.8% m-o-m from 1.9 bcf in November to 2.6 bcf in December. However, this was not enough to counter a 45% increase in withdrawals, which led to a 19.8% decline in average monthly storage from 2,796 bcf to 2,268 bcf amid the arrival of seasonal colder weather.

Natural gas prices in Europe ended 2021 at a record high average increase of 397.1% compared with 2020. This was mainly due to inventories remaining consistently lower in 2021; Inventories went from averaging 3,003 bcf in 2020 to averaging 2,039 bcf in 2021, a 32.1% decline. Injections were higher in 2021, averaging 11.3%, but were offset by higher average withdrawals in 2021 of around 20% compared with 2020.

Australian thermal coal prices bounced back to a 7.7% average increase in December on the heels of an announcement by the Indonesian government of an export ban on coal to ensure adequate supplies for state-run power plants. The ban led to a rise in China's coal futures, as Indonesia accounts for about 40% of global seaborne exports, according to Bloomberg.

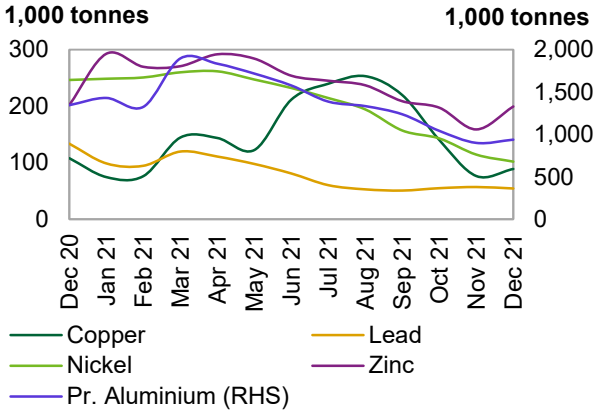
Prices for thermal coal closed 2021 127.1% higher than the previous year. According to data from the National Bureau of Statistics, coal output only grew by 1.1% on average in the January–November timeframe y-o-y, while thermal power output grew by 6% on average in the same timeframe y-o-y. The average percentage growth gap between prices and supply indicates that growth in prices was mainly driven by the demand side.

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 **base metal price index** remained essentially flat m-o-m, with mixed movement across group components. The index was carried by an increase in **aluminium** prices, which was offset by declines in copper (1.8%) and lead (1.2%). **Aluminium** prices rebounded by 2.2% following a decline the previous month**.** Inventories went up 4.2% at the London Metal Exchange (LME) following coal production increases for power generation in Asian markets. The 2021 inventory, however, remained lower compared with 2020. The LME registered 400,000 tons less in December 2021 compared with December 2020, which represents a 30% decline in inventories.

Average monthly copper prices continued declining m-o-m to fall 1.8% in December, while the LME posted 88,950 tons in December, up from 76,450 in November. Prices continued to be impacted by the financial markets amid a rising dollar value. Nonetheless, the 16.4% increase in stock levels shows that physical markets remained supportive m-o-m, as industrial activity picked up in the Asian markets. Y-o-y, December stocks were down 18% compared with stocks held at the end of December 2020 (107,950 tonnes).

In the group of **precious metals**, all three metals declined m-o-m following the announcements of interest rate increases in the coming months by the US Fed to curb inflation. Gold prices declined by 1.7% m-o-m, while silver and platinum fell 6.8% and 9%, respectively. Gold prices remained relatively stable throughout 2021, only growing by 1.7% on average compared with 2020.

Investment flows into commodities

Money managers' net length positions declined across the board in selected commodities following news of tighter monetary policies ahead. Investors' focus is shifting to the economic recovery ahead of 2022 and the implications that future interest rates will have on commodities overall.

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

Selected commodity	*Open interest*		*Net length*			
	Nov 21	Dec 21	Nov 21	% OI	Dec 21	% OI
Crude oil	2,742	2,512	307	11	256	10
Natural gas	1,315	1,174	-12	-1	-34	-3
Gold	737	653	127	17	88	13
Copper	212	181	23	11	14	8

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

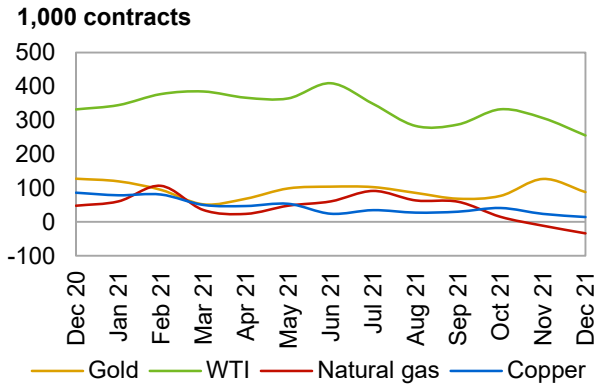
Sources: CFTC and OPEC.

Henry Hub's natural gas open interest (OI) declined by 10.7% during the month of December. Money managers continued to increase their net short positions, going from 11,517 contracts in November to 34,008 lots in December, amid physical market indications of production increases in most producing regions across the US.

Gold' OI declined by 11.4% in December amid announcements by the US Fed of short-term increases in interest rates. Money managers' net length declined from 126,594 contracts to 88,085 lots.

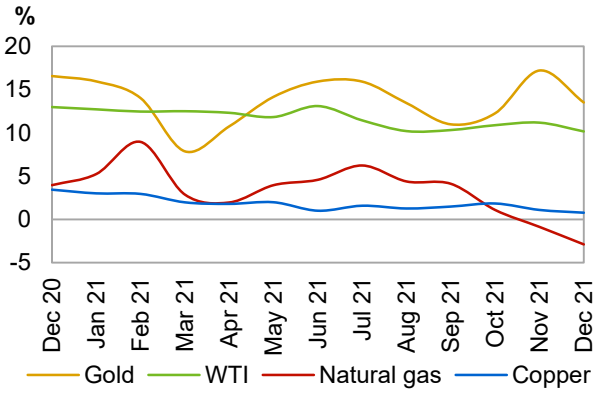
Copper's OI declined by 15% in December. Money managers decreased their net length m-o-m from 23,424 contracts in November to 14,155 lots in December, as receding financial market sentiment continued.

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



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

World Economy

While the latest Omicron-related COVID-19 challenges may have some impact on growth, particularly in 1H22, the magnitude depends on the scale of further lockdown measures in key economies. The OPEC Secretariat's economic growth forecasts have already anticipated some seasonal effect from COVID-19 with slowing activity in the northern hemisphere's winter season and challenges stemming from supply chain bottlenecks. Keeping this in mind, the global GDP growth forecast for both 2021 and 2022 remains unchanged at 5.5% and 4.2%, respectively.

However, diverging growth trends continue among the various economies and regions. Strong momentum in the commodities sector, which supported growth particularly in 2H21, led to 2021 upward revisions in Latin America except for Brazil, OPEC and other developing economies. Also in 2H21, COVID-19-related constraints and corresponding supply chain issues led to some 2021 downward revisions in Japan and Asia-Pacific, while China and India remain unchanged but will need to be monitored in the coming weeks. In addition, the Euro-zone's 2021 growth estimate was revised up after stronger-than-expected growth in 2Q21 and 3Q21, while the US growth forecast was revised down slightly for 2022 as the rapid rise of Omicron infections is expected to lower the 1Q22 forecast and the negotiations on additional fiscal stimulus have stalled in Congress. In the emerging markets, Brazil's 2022 forecast was lowered as well, given very high inflation and corresponding high interest rates, political uncertainties and reduced fiscal support, as well as expected dampening effects from the Omicron variant in 1Q22.

In the OECD, the 2021 US GDP growth forecast remains at 5.5%, but growth was lowered slightly for 2022 to 4% from 4.1%, considering some impact from the current Omicron wave. Euro-zone economic growth in 2021 was revised up to 5.2% from 5.1%, taking into consideration stronger-than-previously reported 3Q21 growth, while growth for 2022 remains unchanged at 3.9%. Japan's economic growth forecast for 2021 is revised down to 1.8% from 2%, after a stronger decline in 3Q21 than previously reported, while growth for 2022 remains unchanged at 2.2%. Growth forecasts in emerging economies remain largely unchanged, with China's growth forecast for 2021 at 8% and 5.6% for 2022. India's forecast for 2021 stands at 8.8%, and is forecast at 7% in 2022. Russia's GDP growth forecast remains unchanged at 4% for 2021 and 2.7% for 2022. Brazil's economic growth forecast for 2021 is unchanged at 4.7%, while growth for 2022 was revised down to 1.5% from 2% given the already-anticipated slowing momentum in 4Q21, which is expected to carry over into 2022.

The robust growth in the world economy continues to be challenged by uncertainties related to the spread of COVID-19 variants, the effectiveness of vaccines against the Omicron variant, and general uncertainties about the pace of vaccine rollouts worldwide. Moreover, supply chain bottlenecks will likely continue holding back some of the momentum. Finally, major central banks have stepped up their efforts to reign-in rising inflation. High sovereign debt levels in many regions, together with rising inflationary pressures and the consequent central bank responses, remain key factors to monitor.

Table 3 - 1: Economic growth rate and revision, 2021–2022*, %

	World	OECD	US	Euro-zone	UK	Japan	China	India	Brazil	Russia
2021	**5.5**	**5.1**	**5.5**	**5.2**	**6.7**	**1.8**	**8.0**	**8.8**	**4.7**	**4.0**
Change from previous month	0.0	0.1	0.0	0.1	0.0	-0.2	0.0	0.0	0.0	0.0
2022	**4.2**	**3.6**	**4.0**	**3.9**	**4.0**	**2.2**	**5.6**	**7.0**	**1.5**	**2.7**
Change from previous month	0.0	0.0	-0.1	0.0	0.1	0.0	0.0	0.0	-0.5	0.0

*Note: * 2021-2022 = Forecast. The GDP numbers have been adjusted to reflect 2017 ppp.*

Source: OPEC.

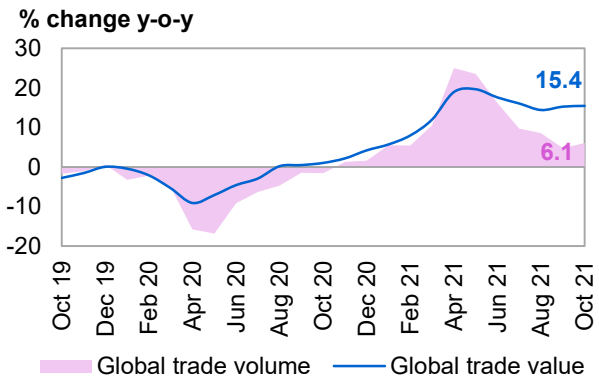
Update on latest global developments

While the global Omicron wave has gained pace, the global economy seems to be well supported and has remained above average pre-pandemic growth levels in 2021 thanks to unprecedented fiscal and monetary stimulus. Omicron, in combination with ongoing supply chain bottlenecks, is forecast to dent the economic dynamic in the US and Euro-zone and to some extent China. But the effect so far has been minor and the largest impact may come from a further, albeit temporary, disruption in the already tight labour market, considering that infected people will be away from work for a short period of time while recovering.

Inflationary pressures have remained and are another important issue, primarily in the US and the Euro-zone given the importance to the US dollar and the Euro. Quantitative easing (QE) efforts in combination with the strong underlying global demand and supply chain bottlenecks have brought about new concerns on the impact of inflation as it is becoming persistent in major economies. To curtail the potential long-lasting impact of inflation, the major central banks have made announcements about adjusting their QE programmes and have all started considering the reduction of their very accommodative **monetary policies**, taking significant decisions particularly at the G4 central bank meetings in December. While the Fed announced a faster tapering of already ongoing reductions in QE measures and that key policy rates are likely to rise in 2022, the European Central Bank (ECB) said it would gradually start reducing its QE measures in March 2022 and does not plan to hike interest rates before 2023. The Bank of England (BoE) has been the most aggressive and announced a rate increase at its December meeting, moving out in front of the other major central banks. The BoE's QE measures also ended in 2021. The Bank of Japan (BoJ), with the largest monetary stimulus and an extensive history of QE policies, has announced a reduction of pandemic-related QE measures, but will continue its general ultra-loose monetary policy and non-pandemic-related QE measures. Rising inflation led central banks in Brazil and Russia to further hike interest rates, likely impacting the progress of their recoveries in 2022. While India also experienced rising inflation in 2021, price rises have retracted to more reasonable levels in recent months, in line with the central bank's expectations, allowing it not to hike interest rates.

Global trade has been impacted by supply chain disruptions, but has continued to support the global economic recovery amid strong demand. In a positive sign, trade has picked up again. In October, world trade volumes increased by 6.1% y-o-y, compared with 4.7% y-o-y growth in September, based on the CPB World Trade Monitor Index provided by the CPB Netherlands Bureau for Economic Policy Analysis. Supported by the increase of world commodity prices, trade in value terms rose by a much higher level on a yearly basis, increasing by 15.4% y-o-y from 15.3% y-o-y in September.

Graph 3 - 1: Global trade



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

Near-term global expectations

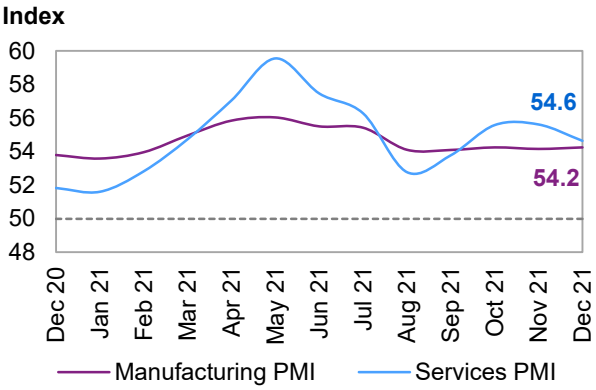
COVID-19-related challenges continue and constitute the key element for near-term economic growth. Some slowing momentum in the Northern Hemisphere winter period has already been anticipated in the OPEC Secretariat's economic growth forecast, while the rapid spread of Omicron has led to some additional minor 1Q22 adjustments especially in the US, but also in some other economies. For the time being, some additional recovery is forecast to materialize in 2Q22 after a softening in 1Q22. General COVID-19-related uncertainties will likely need to be considered for the whole year of 2022, as will progress in the fight to end the pandemic. Not only has the global vaccination rollout gained pace and has already prevented the more severe impact from new variants, it is furthermore expected that newly updated vaccines will be more effective in reducing the impact of Omicron and possibly new variants. In addition, new medicines for treating COVID-19 will likely be approved soon that will also lessen the impact of COVID-19. Finally, the world has quickly adapted and the impact of the challenges stemming from COVID-19 are far less disruptive than they were before. It is anticipated that following relatively lower growth in 1Q22, the dynamic will gain pace towards the end of 2Q22.

However, as long as COVID-19 in combination with the **challenges of supply-chain bottlenecks and inflation** will impact the global economic momentum, a volatile growth pattern will remain. While some economic production and logistic indicators currently imply a gradual improvement in the supply chain, inflation is likely to be of a more sustained nature. In the first wave, inflation was primarily driven by temporary factors spurred by pent-up demand and temporary supply chain bottlenecks. That has primarily pushed up prices in the leisure and hospitality sector as well as transportation. A more sustained effect has now started to kick in through a rise in wages and salaries in combination with an increase in rents or rent-equivalent prices, especially in the developed economies. These effects are forecast to have a more sustained impact in the coming months and it remains to be seen if inflation will retract as much as is currently assumed by market participants. Furthermore, the efforts related to the energy transition are important to consider as they seem to have gained pace recently and will likely have an inflationary effect through tax increases, especially on fossil fuels. With these developments taken together, inflation is expected to remain and likely to be above

consensus levels on a global basis. These pressures may further lead central banks, especially the US Fed and the ECB, to envisage a more aggressive tightening and key interest rate cycle than is currently foreseen.

Global purchasing managers' indices (PMIs) for both the manufacturing and services sectors were relatively stable in December. The global manufacturing PMI stood at 54.2, basically unchanged from the previous month. The global services sector PMI stood at 54.6, one index point lower than in November, when a level of 55.6 was recorded. This indicates some slowdown in the services sector due to a tightening labour market and a likely slowdown stemming from additional social distancing measures across the globe that were stepped up in December due to Omicron.

Graph 3 - 2: Global PMI



Sources: JP Morgan, IHS Markit, Haver Analytics and OPEC.

With some counterbalancing adjustments, especially a downward revision in Japan and an upward revision in the Euro-zone, the 2021 **GDP growth** forecast remains at 5.5%. Growth levels in 2022 are forecast to normalize at lower levels and to remain relatively divergent. GDP growth in 2022 is forecast at 4.2%, unchanged from the previous month. This implies that, among other issues, COVID-19-related challenges will not derail the recovery. Moreover, it is assumed that inflation will retract somewhat and will not continue at the high levels seen in 2H21, particularly in the US and the Euro-zone.

Table 3 - 2: World economic growth rate and revision, 2021–2022*, %

	World
2021	**5.5**
Change from previous month	0.0
2022	**4.2**
Change from previous month	0.0

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

OECD

OECD Americas

US

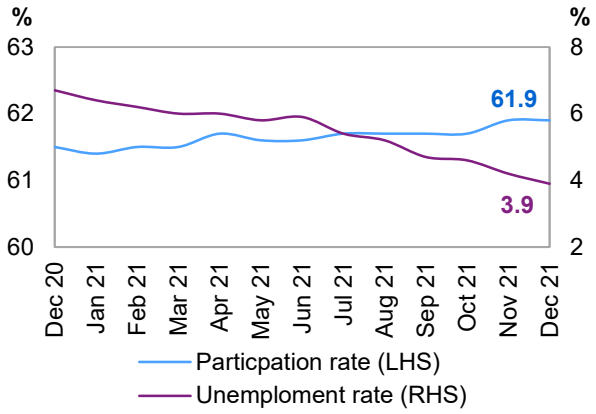
Update on the latest developments

While the 3Q21 GDP growth level was revised up slightly, the latest numbers for retail sales and US industrial production pointed to a slowing effect in December. **GDP growth** in **3Q21** was revised up to 2.3% q-o-q on a seasonally adjusted annualized rate (SAAR), compared with 2.1% q-o-q SAAR in the previous estimate by the Bureau of Economic Analysis (BEA). Central bank policies point to continued tapering of the current monthly $120 billion quantitative easing measures after the US Federal Reserve (the Fed) announced an increase of the monthly $15 billion tapering to $30 billion. Thus it is now expected to end in March, when the first key interest rate rise will materialise, given that the latest inflation number has reached over 7% y-o-y. Moreover, no agreement was found on the latest fiscal stimulus initiative of the US administration, called the Build Back Better plan. However, the overarching topic remains the new Omicron COVID-19 variant and how it might impact growth in the near term.

Consumer confidence recovered well in December, despite the rise of the Omicron variant. The index provided by the Conference Board rose to 115.1 in December, compared with 111.9 in November. US inflation continued rising to stand at 7% in December, after reaching 6.9% y-o-y in November. The strongest appreciation came once again from the sub-sector of transportation, pointing to the possibility of a transitory effect after the reopening of the economy. Prices in the transportation sector rose by 21.4% y-o-y in December, compared with 21.3% y-o-y in November. Excluding the volatile components of energy and food, inflation stood at 5.5% y-o-y in December, compared with 5% y-o-y in November.

The **unemployment rate** fell again to stand at only 3.9% in December, compared with 4.2% in November. The **participation rate** remained low, standing at 61.9% in December, the same as in November, though a lower level of 61.7% was seen in October and September, a signal that tightness in the labour market may gradually start easing. The participation rate before the pandemic stood at almost 63%.

Graph 3 - 3: US monthly labour market



Sources: Bureau of Labor Statistics and Haver Analytics.

Non-farm payrolls improved less in December than expected, marking an increase of 199,000 job additions compared with an upwardly revised increase of 249,000 in November. With ongoing tightness in the labour market, wage developments need close monitoring as they could materially lift inflation. Hourly earnings rose by 4.7% y-o-y in December, compared with 5.1% y-o-y in November, continuing a rising trend substantially above pre-COVID-19 yearly growth of between 2% and 3%.

Near-term expectations

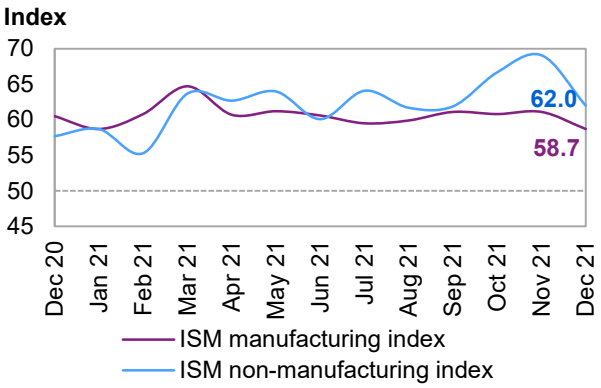
Near-term expectations remain relatively bright in the US, albeit with a slightly negative impact due to Omicron-related developments and associated slowing in 1Q22. A slow-down in domestic demand was already seen in the latest decline in December retail sales levels due, it would seem, mainly to Omicron-related social distancing. In addition, some uncertainty remains about the Build Back Better stimulus package. It remains to be seen if it will be implemented at all, as negotiations are stalling. Finally, tightness in the US labour market continued, limiting expansion. Some labour market-related disruptions may be expected in the health care sector with respect to mandatory vaccination for healthcare workers, as recently confirmed by the Supreme Court. Hence, 1Q21 growth expectations were revised down slightly.

Another uncertainty is an **ongoing rise in inflation**. US inflation is at the centre of an ongoing inflation debate, given the importance of US interest rates and consequent repercussions an interest rate rise cycle may have on capital markets, global investment and the US dollar value. Inflationary momentum is forecast to decelerate somewhat in the coming months, though the magnitude of the retraction remains to be seen. Reopening effects, including rising demand for leisure, hospitality and transportation after the 2020 and 2021 lockdowns may wane and supply chain bottlenecks are gradually easing. However, a rise in wages and salaries, as well as rent and rent equivalents, which accounts for around 40% of US core inflation, may keep inflation at above the 2% to 2.5% range. Also, potentially rising taxes on fossil fuel-related energy products due to the energy transition may further lift inflationary trends. Hence, while the Fed's near-term path in hiking interest rates and tapering quantitative easing measures has been well communicated, numerous uncertainties remain.

In terms of **quarterly growth** developments, 1Q22 GDP growth is now forecast at a slightly lower rate than anticipated the previous month, now standing at 3.5% q-o-q SAAR, compared with expected growth of 4% q-o-q SAAR the previous month, held back by the impact of Omicron, delayed fiscal stimulus and the associated effects of lower-than-anticipated consumption and investment in 1Q22. In 2Q22, growth is forecast to remain unchanged at 4.5% q-o-q SAAR, followed by a slight slowdown to 4.1% q-o-q SAAR in 3Q22. Growth in 4Q22 is expected to reach 2.3% q-o-q SAAR.

December PMI levels, as provided by the Institute for Supply Management (ISM), point to an ongoing recovery, albeit at a slowing rate amid the latest COVID-19 developments, continued labour market tightness and the political challenges facing implementation of a further fiscal stimulus package. The index level for the services sector, representing around 70% of the US economy, retracted significantly to stand at 62, compared with 69.1 in November and 66.7 in October. The manufacturing PMI also fell in December to stand at 58.7, after reaching 61.1 in November and 60.8 in October.

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



Sources: Institute for Supply Management and Haver Analytics.

While the forecast for **2021 US GDP growth** remains unchanged at 5.5%, **2022**'s forecast was revised down slightly. Following a slight downward revision in 1Q22 growth, the full year forecast was revised down to stand at 4%, compared with last month's forecast of 4.1%.

Table 3 - 3: US economic growth rate and revision, 2021–2022*, %

	US
2021	**5.5**
Change from previous month	0.0
2022	**4.0**
Change from previous month	-0.1

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

OECD Europe

Euro-zone

Update on the latest developments

The **growth dynamic in 4Q21 remained resilient,** despite the rise of COVID-19 infections and associated necessary social distancing measures. In the meantime, growth in 2Q21 and 3Q21 was revised up by the statistical office, Eurostat, to now stand at a considerable level of 9.1% q-o-q SAAR in both quarters. It seems the combination of fiscal stimulus and accommodative monetary policy continued to support consumption and investment. The global trade recovery has been another supportive factor, especially for major exporters such as Germany, France and Italy.

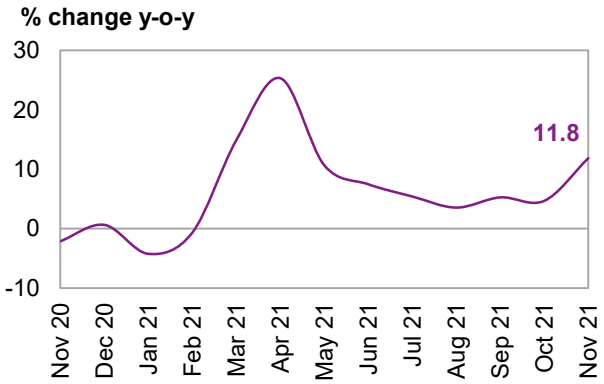
Inflation rose further in December, continuing the rising trend seen in November and October. Despite this, the European Central Bank (ECB) currently appears to be willing to continue monetary stimulus. It is clear that inflationary developments have been further accentuated by global supply issues that have led to price rises for input goods, which has especially impacted the manufacturing sector. Inflation in the Euro-zone rose to 5% y-o-y in December, compared with 4.8% y-o-y in November and 4.1% y-o-y in October. When excluding volatile items such as food and energy, inflation stood at 2.6% y-o-y in December, compared with 2.4% y-o-y in November and 2.1% y-o-y in October. Positively, supported by ECB monetary easing, lending to the private sector by financial institutions continued expanding again in November, rising by a further 3.3% y-o-y, after reaching 2.8% y-o-y in October.

The **labour market** continued to see improvements. According to the latest numbers from Eurostat, the unemployment rate stood at 7.2% in November, compared with 7.3% in October and 7.4% in September.

Retail sales rose on a yearly base in value terms, with growth of 11.8% y-o-y seen in November. However, this still represents a decline over November last year. Hence, the monthly development is of greater importance as a comparison. November saw an increase of 1.2% m-o-m, compared with a rise of 0.8% m-o-m in October.

Industrial production declined in November, falling by 1.2% y-o-y, compared with a small rise of 0.4% y-o-y in October and 3.9% y-o-y in September. This translates into a monthly rise of 2.2% m-o-m in November, compared with a monthly decline of 1.3% m-o-m in October and 0.9% m-o-m in September.

Graph 3 - 5: Euro-zone retail sales



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

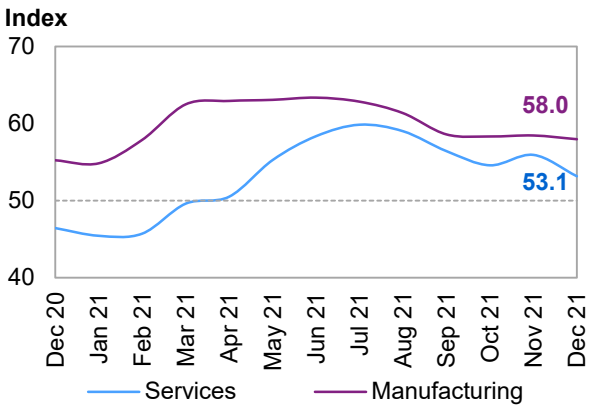
Near-term expectations

The **Euro-zone is forecast to remain impacted by a rise in COVID-19 infections** due to the Omicron variant. Thus, after experiencing an already lacklustre 4Q21, 1Q22 is forecast to see slowing activity, especially in consumption and investment. It is, however, expected that after relatively lower growth in winter, activity will gain pace again, as it did the previous two years. Hence, the seasonality of COVID-19 is forecast to materialise again this year, considerably gaining momentum in 2Q22 and 3Q22. Meanwhile, the ECB has announced ongoing monetary support for the economy, which is expected to be only gradually reduced throughout 2022. Moreover, ongoing fiscal stimulus is forecast to counterbalance some of the negative impacts of the COVID-19 situation in 4Q21 and 1Q22.

The **underlying assumptions** for the near-term GDP growth dynamic have not changed. It is anticipated that COVID-19 containment efforts in 4Q21 and beyond will be effective enough to avoid derailment of the economy. Moreover, supply chain issues are expected to be temporary in nature and not negatively impact growth. Importantly, no major lockdown measures are forecast in the Euro-zone for 1Q22. With these assumptions, 1Q22 growth is forecast to rise by 2% q-o-q SAAR, impacted by the requirement for social distancing due to the rise in COVID-19 infections. A considerable gain in momentum is expected for 2Q22 of 3.2% q-o-q SAAR. This momentum is also forecast to gain pace for all of 2H22, reaching growth in both 3Q22 and 4Q22 of 3.6% q-o-q SAAR.

The Euro-zone's December **PMI** pointed to ongoing momentum in the manufacturing and services sectors, albeit reflecting a slow-down in activity due to COVID-19. The PMI for services, the largest sector in the Euro-zone, fell to 53.1 in December, compared with 55.9 in November and 54.6 in October. The manufacturing PMI remained almost unchanged to stand at 58 in December, compared with 58.4 in November.

Graph 3 - 6: Euro-zone PMIs



Sources: IHS Markit and Haver Analytics.

The easing of lockdown measures once again led to stronger-than-expected growth figures in 2Q21 and 3Q21. Hence, **2021 GDP growth** was revised up to stand at 5.2% compared with 5.1% from last month.

GDP growth in **2022** is forecast to slow, similar to other OECD economies, though remaining at 3.9%, unchanged from November's MOMR.

Table 3 - 4: Euro-zone economic growth rate and revision, 2021–2022*, %

	Euro-zone
2021	**5.2**
Change from previous month	0.1
2022	**3.9**
Change from previous month	0.0

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

OECD Asia Pacific

Japan

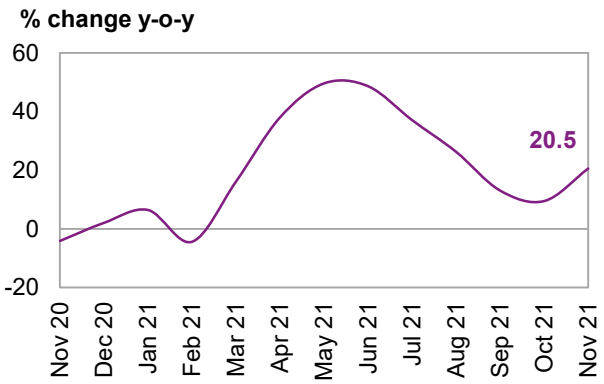
Update on latest developments

While the **most recent 4Q21 indicators show strong momentum**, the Japanese economy's strong decline in 3Q21 GDP growth was revised down even further in the most recently published set of numbers, mainly due to COVID-19 restrictions lowering domestic consumption. For 3Q21, GDP was reported to have declined by 3.6% q-o-q SAAR. While government stimulus continued in 3Q21, with government expenditures growing by 4.1% q-o-q SAAR, private consumption declined by 5.1% q-o-q SAAR. As Japan entered 4Q21 in a largely improved situation, with vaccination rates now around 80%, consumer confidence strongly increased and leading business sentiment indicators point to an improvement in 4Q21. Considering the ongoing US recovery, exports should also be well supported in the current quarter. In addition, ongoing fiscal and monetary stimulus is forecast to support the recovery in 4Q21.

After **industrial production (IP)** declined significantly in October on a yearly basis, falling by 3.5% y-o-y, it recovered in November, rising by 2.5% y-o-y. On a monthly basis, the IP rose even more significantly, by 6.5% in November, after seeing a monthly rise of 1.8% y-o-y in October.

Closely correlated to IP, **exports** in November rose considerably as well, showing a yearly growth level of 20.5% y-o-y, after rising by 9.4% y-o-y in October and 13% y-o-y in September, all on a non-seasonally adjusted basis. On a monthly basis, November exports rose by a seasonally adjusted 5.3% m-o-m, compared with a rise of 2.9% m-o-m in October.

Graph 3 - 7: Japan's exports



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

Retail sales rose as well in November, at a rate of 1.9% y-o-y, after rising by 0.9% y-o-y in October and declining by 0.5% y-o-y in September. This rising trend in the last two months comes after a 3Q21 declining trend, which was seemingly impacted by the emergency measures implemented in large swathes of the country to counter rising infection rates, following the Summer Olympics in Tokyo, and some tapering off in retail activity.

Consumer confidence also held up well. The consumer confidence index level, as reported by the Cabinet Office, remained almost unchanged at 38.9 in December, compared with 39.3 in November and 39.2 in October, though lower at 37.9 in September. This points to a continued rebound in domestic consumption, which is likely to be supported by further stimulus measures.

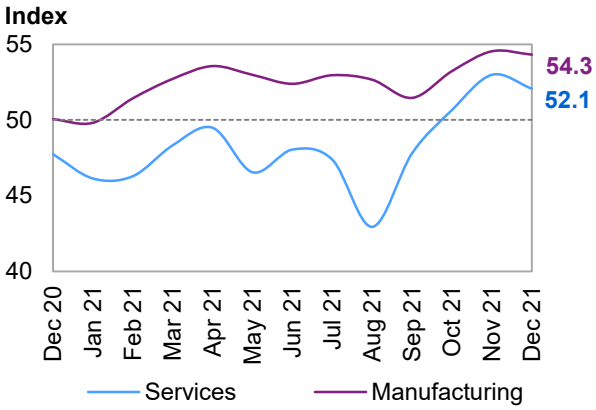
Near-term expectations

Japan will follow a slightly different track in the near term than its OECD peer economies. While both the US and the Euro-zone experienced strong growth in 2Q21 and 3Q21, the Japanese economy was locked down over large parts of the country and growth was dampened by emergency measures, in addition to supply-chain bottlenecks. Vaccination rates were also still very low in 3Q21, but reached around 80% in Japan in 4Q21. With these developments, the economy is estimated to have staged a strong rebound in 4Q21 and shows ongoing momentum in 1Q22, despite the latest global Omicron wave, which may cause a delayed effect. This dynamic was already seen in economic measures taken in 4Q21, a trend that is forecast to continue. However, its trajectory will depend on supply-chain developments and COVID-19-related issues.

Taking into consideration a reported decline in 3Q21 GDP growth, the **GDP growth** forecast for 2021 was lowered considerably again. As reported by Japan's statistical office, 1Q21 GDP declined by 2.9% q-o-q SAAR. Despite lockdown measures in 2Q21, growth was reported to have recovered, reaching 2% q-o-q SAAR. As reported, quarterly growth in 3Q21 declined significantly, falling by 3.6% q-o-q SAAR. Supported by high vaccination rates, fiscal stimulus and an ongoing recovery in global trade, 4Q21 is forecast to rebound significantly, reaching 8.3% q-o-q SAAR. In 2022, 1Q22 GDP growth is forecast to stand at 2.3% q-o-q SAAR and move towards 1% q-o-q SAAR entering 4Q22.

Ongoing economic momentum is also reflected in **December PMI numbers**, albeit with somewhat of a retraction in both the manufacturing and services sectors. The PMI for the service sector, which constitutes around two-thirds of the Japanese economy, fell back slightly to stand at 52.1, compared with 53 in November. The manufacturing PMI fell slightly as well, to stand at 54.3 in December, compared with 54.5 in November.

Graph 3 - 8: Japan's PMIs



Sources: IHS Markit, Nikkei and Haver Analytics.

By taking into consideration the strong decline in 3Q21, and despite assuming a significant and reasonable rebound in 4Q21, the 2021 GDP growth forecast was revised down to stand at 1.8%, compared with 2% the previous month. In addition to the ongoing recovery in external trade, GDP growth is expected to remain supported by domestic demand in the near term, although COVID-19-related developments remain influential. Ongoing stimulus measures are expected to support a recovery in private household consumption and investment, leading to a carry-over of 4Q21 momentum into 2022.

Table 3 - 5: Japan's economic growth rate and revision, 2021–2022*, %

	Japan
2021	**1.8**
Change from previous month	-0.2
2022	**2.2**
Change from previous month	0.0

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

Hence, GDP growth for **2022** remains at 2.2%, unchanged from the previous month. However, COVID-19-related developments, and most recently the Omicron variant, pose a downside risk to the expected recovery.

Non-OECD

China

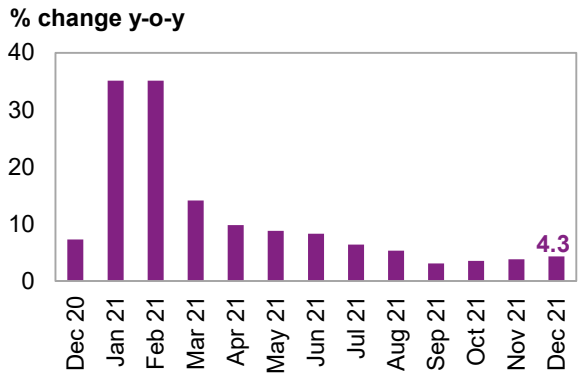
Update on the latest developments

China's real GDP grew by 4.0% y-o-y in 4Q21, following growth of 4.9% y-o-y in 3Q21. The slowest pace of expansion in China's economy since 2Q20 took place in 4Q21, due to multiple headwinds which hit the economy, including a property crisis, supply chain issues and COVID-19 outbreaks. Over 2021, China's economy expanded by 8.1% y-o-y, the fastest expansion seen in a decade and in line with the Secretariat's forecast, also exceeding the government's target of above 6%. Nevertheless, recovery momentum is currently slowing amid a "zero-COVID-19" policy that authorities decided to apply in 2022, even in the face of the less severe Omicron variant. As a result, both private consumption and supply will remain disrupted. Additionally, the real estate downturn might affect consumption. However, the macroeconomic policy response to muted growth might be more accommodative. In November, retail trade growth dropped to 3.9% y-o-y from 4.9% the previous month. However, retail sales grew by 13.7% y-o-y from January to November 2021.

Industrial production in China expanded 4.3% y-o-y in December 2021, accelerating from a 3.8% growth in the previous month. The current uptick was supported by a recovery in energy production and moderation in raw materials prices. For the first eleven months of 2021, industrial production expanded by 10.1% y-o-y. Indeed, manufacturing investment was on the high side due to robust external demand, government incentives and improved profitability.

External demand continued to strongly support the economic recovery as the trade surplus widened sharply to $94.46 billion in December 2021 from $75.8 billion in December 2020. **Exports** extended $340.50 billion, marking growth of 20.9% y-o-y, while imports grew at a softer rate of 19.5% to $246.04 billion.

Graph 3 - 9: China's industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

China's **trade surplus** with the US stood at $39.23 billion in December and $396.58 billion over 2021, marking a 25% increase compared with 2020.

Over 2021, China's trade surplus widened to $676.4 billion, the highest figure on record and up from $524 billion in 2020. Exports surged by 29.9% and imports by 30.1%.

On the inflationary pressure front, government efforts to secure supply helped China's CPI to drop to 1.5% y-o-y in December from 2.3% in November. On a monthly basis, consumer prices unexpectedly declined by 0.3%, after seeing a 0.4% gain in November. Similarly, producer price inflation eased to 10.3% y-o-y in December from 12.9% in November, marking the lowest rate since August. On a monthly basis, producer prices dropped by 1.2% compared with November. Over the whole of 2021, PPI inflation stood at 8.1% y-o-y.

Currently, external demand still supports the economic recovery, but the trade surplus fell to $71.7 billion in November from $74.25 billion the same month a year earlier. Export growth slowed due to the strong yuan exchange rate, weakening demand due to the emergence of Omicron and higher costs. Meanwhile, imports rose at a faster pace following easing of the power crunch. Over the first 11 months of 2021, the trade surplus widened to $582.3 billion from $448.2 billion over the same period in 2020.

Similar to other economies around the globe, inflationary pressures on the producer side have increased noticeably, mirroring the power crunch impact as it reached a 25-year high of 13.5% y-o-y in October. In November, producer price inflation eased to 12.9% y-o-y, reflecting the government's efforts to control surging commodity prices and an easing power crunch. Meanwhile, China's 2021 consumer price inflation accelerated to 2.3% y-o-y from 1.5% y-o-y a month earlier.

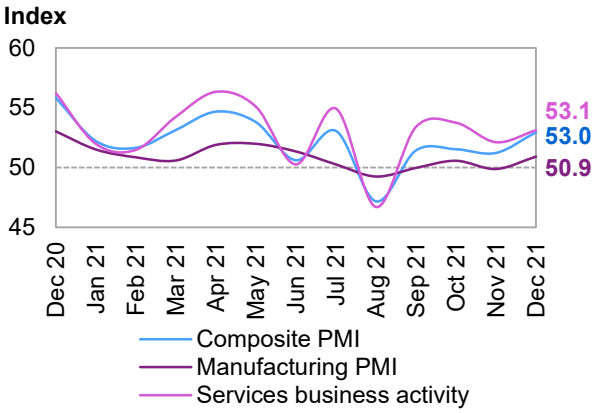
Near-term expectations

A power shortage and property sector crisis in 3Q21, along with the lingering effects of ongoing COVID-19 outbreaks, combined with supply chain disruptions, might continue to weigh on the short-term economic outlook. However, the easing of electricity shortages may help disruptions in manufacturing output, though government-housing control policies are weighing on property investment, which might lead to a further slowdown. Despite there being more room for additional policy support, policymakers need to maintain balance and shore up short-term growth and may face a critical challenge in finding the right balance between controlling the latest COVID-19 outbreak and maintaining normal economic activity. In the meantime, People's Bank of China (PBOC) policy is likely to try to ensure ample liquidity in the inter-banking market. On the fiscal policy front, the government may ease its stance on local government bond use and accelerate project approvals.

All December **PMI** indices have risen. The composite PMI increased to 53.0 in December from 51.2 a month earlier, marking the fourth-straight month of growth in private sector activity and the strongest pace since July, amid stronger output growth across both the manufacturing and service sectors. The manufacturing PMI increased to 50.9 in December from 49.9 in November, as the impact of scattered COVID-19 cases seemed to be under control. Similarly, the services PMI edged up to 53.1 in December from 52.1 in November, as services business activity and new orders expanded at a faster pace, supported by a rise in export orders.

However, business sentiment in both the manufacturing and services sectors deteriorated to its lowest point in 15 months amid worries and uncertainty over the pandemic.

Graph 3 - 10: China's PMI



Sources: Caixin, IHS Markit and Haver Analytics.

As uncertainty regarding the short-term economic outlook for China is still very high, the country's real **GDP forecasts for 2021 and 2022** were kept unchanged from the last MOMR at 8.0% and 5.6%, respectively.

Table 3 - 6: China's economic growth rate and revision, 2021–2022*, %

	China
2021	**8.0**
Change from previous month	0.0
2022	**5.6**
Change from previous month	0.0

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

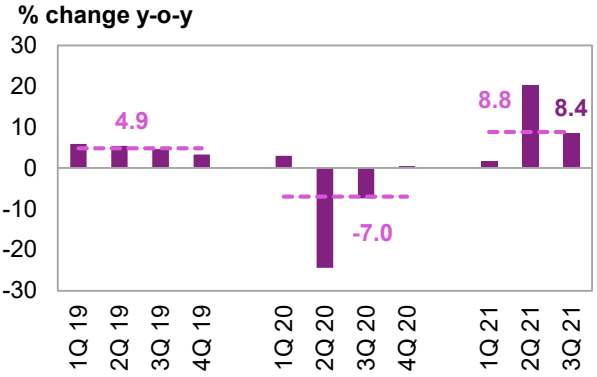
Other Asia

India

Update on the latest developments

The economic recovery momentum in India has been slowing since 3Q21 amid a rising new wave of infection, as well as the lingering impact of the Delta wave in 2021. On the consumption front, auto sales contracted 6.6% m-o-m seasonally adjusted (SA) in November, following a contraction of 6.3% in October amid a decline in two-wheeler sales, which is more representative of rural demand. Meanwhile, passenger vehicle sales increased by 4.6% m-o-m SA after seeing growth of 25% in October.

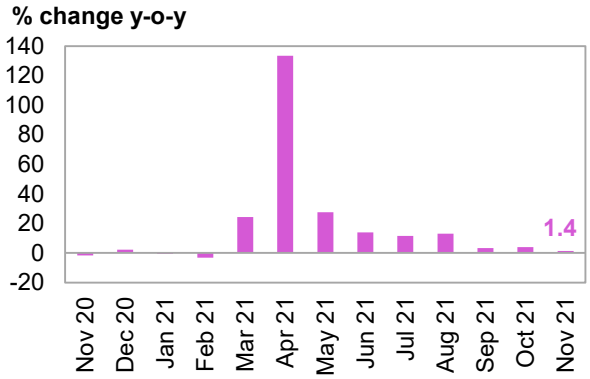
Graph 3 - 11: India's GDP quarterly growth



Sources: National Informatics Centre (NIC) and Haver Analytics.

Industrial production grew by 1.4% y-o-y in November, a slowdown from upwardly revised growth of 4% in October. This was the smallest growth in industrial output seen since the sector started to recover in March 2021, with production slowing in all sectors. The sharp slowdown in industrial growth took place amid a backdrop of several factors, including the fading impact of a low base of comparison from the corresponding period in 2020. Supply chain disruptions, associated with higher-cost raw materials, also constrained manufacturing activity. Moreover, there were fewer working days in November, due to the Diwali holiday in the first week of the month. On a monthly basis, industrial output dropped by 4.7%, following upwardly revised growth of 5.1% in October.

Graph 3 - 12: India's industrial production



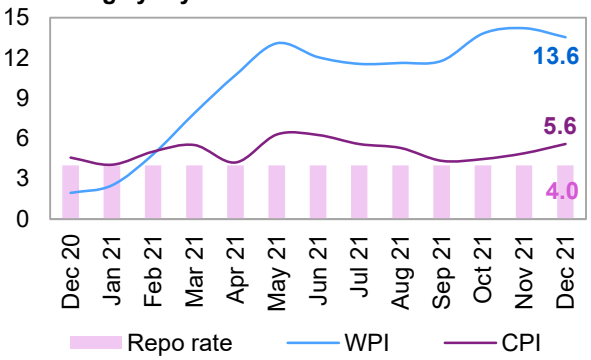
Sources: Ministry of Statistics and Program Implementation of India and Haver Analytics.

On the employment front, pressure on the labour market eased as the **unemployment rate** decreased to 6.9% in September from 8.3% in August. Yet the 3Q21 jobless rate averaged 7.4%, which is on the high end.

The **consumer price index (CPI)** jumped to 5.6% in December from 4.9% in November, recording the highest rate since July and remaining within the central bank's 2-6% target range for the sixth-consecutive month. On a monthly basis, consumer prices fell by 0.36% in December, the first decline in 11 months. The **Whole Price Index (WPI)** inched down to 13.6% in December from 14.2% the previous month. On a monthly basis, wholesale prices fell to 0.35% in December from growth of 1.56% in November.

On the monetary policy front, the Reserve Bank of India (RBI) kept the **repo rate** at 4% in December, and the reverse repo rate at 3.4%, maintaining an accommodative monetary policy stance to support the economic recovery and help mitigate the negative impacts of COVID-19.

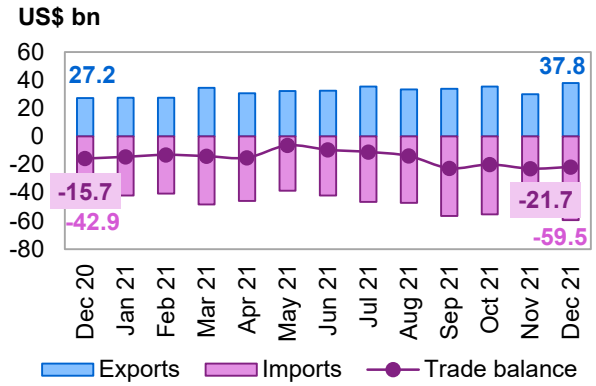
Graph 3 - 13: Repo rate and inflation in India



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

On the external demand outlook, the **trade deficit** lowered to $21.68 billion in December, compared with a preliminary estimate of $21.99 billion in November and $15.72 billion a year earlier. Imports jumped by 38.55% y-o-y to $59.48 billion, mostly due to an increase in the purchase of silver, sulphur and iron pyrites, fertilizers, crude and manufactured products. Meanwhile, exports surged by 38.91% to an all-time high of $37.81 billion over the April-December period and the trade gap widened to $142.44 billion compared with $61.38 billion over the same period the previous year.

Graph 3 - 14: India's trade balance



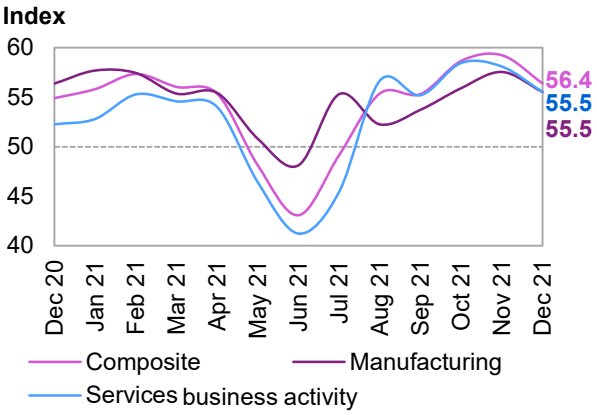
Sources: Ministry of Commerce and Industry and Haver Analytics.

Near-term expectations

The slowdown in industrial and consumption activities might keep India's economic outlook cautious, especially as the new Omicron variant of COVID-19 may increase uncertainties entering 1Q22. Nevertheless, the postponed recovery may materialize in the coming year.

In the meantime, December's **PMI indices** mirrored a cautious outlook, as the **manufacturing PMI** dropped to 55.5 in December from 57.6 in November. This still suggests robust manufacturing conditions that are elevated by historical standards. Similarly, the services PMI dropped to 55.5 in December from 58.1 in November – the weakest reading since September – amid concerns over another wave of COVID-19. Overall, sentiment in both the services and manufacturing sectors have improved, but remain subdued amid inflationary pressures and potential new waves of COVID-19.

Graph 3 - 15: India's PMIs



Sources: IHS Markit and Haver Analytics.

A slowdown in infections and pickup in the vaccination rate are factors that support a further recovery for India that should carry on in 2022. However, India's economic outlook is still clouded by a high level of uncertainty and potential state-level restrictions.

For this MOMR, **India's 2021 and 2022 growth forecasts** were kept unchanged at 8.8% and 7.0%, respectively.

Table 3 - 7: India's economic growth rate and revision, 2021–2022*, %

	India
2021	**8.8**
Change from previous month	0.0
2022	**7.0**
Change from previous month	0.0

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

Latin America

Brazil

Update on latest developments

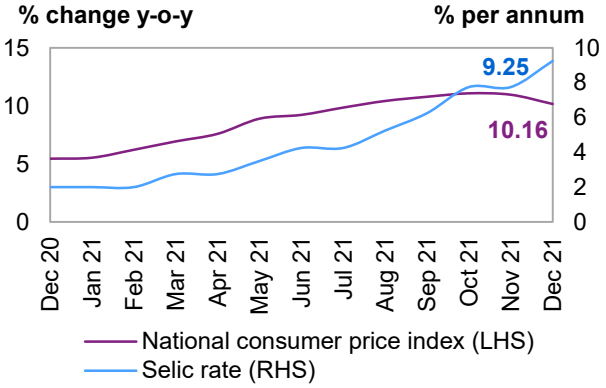
Economic indicators suggest that the recovery in Brazil slowed significantly in 4Q21 as inflation squeezed household activities while manufacturing and service sector activities were disappointingly slow. Industrial production shrank 4.4% y-o-y in November 2021, marking the fourth-straight month of contraction.

Brazil's unemployment rate eased slightly to 12.1% in the three months to October 2021, from 13.7% in the three months to July 2021, marking the lowest rate recorded since February 2020. The unemployed population dropped by 1.5 million to 12.9 million, while the number of employed surged by 3.3 million to 94 million.

Inflation eased to 10.16% y-o-y in December 2021 from the 18-year high of 10.74% y-o-y in November 2021, registering the first decrease in the inflation rate since May 2020, taking into account the low base effect, as consumer prices for housing and utilities rose at a slower pace. On a monthly basis, consumer prices increased by 0.73% compared to 0.95% in the previous month.

In response to inflationary concerns, the central bank on 8 December raised the **Selic rate** for the seventh time in 2021 as it unanimously decided to raise the rate by 150 basis points to 9.25%. The forecasts from the monetary authorities suggest that inflation in 2022 could come close to the central bank's 5% target.

Graph 3 - 16: Brazil's inflation vs. interest rate



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

Near-term expectations

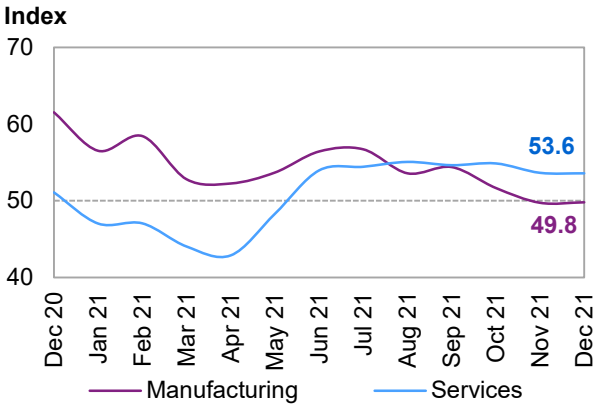
Brazil's economic activity has slowed considerably, a trend that is more likely to continue in 1Q22 due to political uncertainty related to the 2022 election along with the ongoing global supply disruptions as well as a new wave of COVID-19. These factors could also dampen the 2022 outlook. Additionally, elevated inflation

rates could continue to be a major drag on economic recovery. Monetary policy would be highly contractionary and the tighter credit conditions might slow domestic demand at a time when fiscal policy might be relaxed marginally due to high public debt levels. Indeed, the high debt load could compromise the Brazilian economy's ability to grow faster than its peers in Latin American region.

Recent composite **PMIs** suggested that a weakening private sector recovery might carry over into 2022. The manufacturing PMI stood at 49.8 in December 2021, unchanged from the prior month. Similarly, the services PMI remained at 53.6 in December 2021, pointing to the seventh month of expansion in the services sector amid the continued progress in vaccine distribution and the easing of pandemic-related restrictions.

Overall, manufacturing and services business sentiment for 2022 remains positive, linked to the growing vaccine coverage, reduced COVID-19 cases, and improved market confidence.

Graph 3 - 17: Brazil's PMIs



Sources: IHS Markit and Haver Analytics.

Considering the recent developments, the **GDP growth forecast** for 2021 remains the same as in the last MOMR at 4.7%. The 2022 GDP growth forecast is lowered to 1.5% from 2.0% taking into account the slowdown in economic activity. Uncertainty remains high and tends more to the downside due to heightened concerns over higher inflation, high fiscal stress following COVID-19 support efforts, and most importantly developments related to the pandemic both domestically and globally. Political uncertainties associated with the upcoming 2022 election have also been taken into consideration.

Table 3 - 8: Brazil's economic growth rate and revision, 2021–2022*, %

	Brazil
2021	**4.7**
Change from previous month	0.0
2022	**1.5**
Change from previous month	-0.5

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

Africa

South Africa

Update on the latest developments

Despite the limited economic impact of the Omicron variant, the uncertainty associated with new wave of infections has made the economic outlook in South Africa very gloomy. South Africa's travel ban and cancellations by foreign tourists have a significant impact on the tourism sector. Latest indicators suggested that household consumer spending dropped by 2.4% q-o-q in 3Q21, as a result of lower expenditures on durable and non-durable goods, while public spending rose by 0.1% q-o-q in 3Q21. Additionally, exports of goods and services fell by 5.9% q-o-q, while quarterly imports declined by 2.8% in the three months ending September.

Labour market pressures grew as unemployment rose to 34.9% in 3Q21, up from 34.4% in 2Q21, the highest jobless rate since comparable data began in 2008. Indeed in 3Q21, the youth unemployment rate, measuring job-seekers between 15 and 24 years old, hit a new record high of 66.5%.

The annual inflation rate accelerated to 5.5% in November 2021, from 5% in October, above the 4.5% midpoint of the South African Reserve Bank's monetary policy target range of 3-6%. This marked the highest rate since March 2017, amid increasing transport prices as well as the hike in fuel and food prices. On a monthly basis, consumer prices went up by 0.5% following growth of 0.2% in October 2021.

Near-term expectations

Considering the uncertainties surrounding Omicron, the outlook for South Africa's economy is skewed more to the downside amid increasing infection and vaccination rates. Moreover, recent political instability, along with

headwinds in main trading partner China, could have a significant impact on the economic outlook in 1Q22. In the meantime, the seasonally-adjusted Absa Purchasing Managers' Index dropped to 54.1 in December 2021 from 57.2 in November, pointing to a slower expansion of South Africa's manufacturing activity. Moreover the current reading captured the slowdown in services sector activity in the major trading partners, namely Eurozone amid the surge in COVID-19 infections.

Taking into account recent macroeconomic indicators, the **GDP forecast** for 2021 and 2022 is kept unchanged from last month's MOMR at 4.5% and 2.5%, respectively. High levels of uncertainty exist, particularly with regard to the recent COVID-19 wave. Potential upside factors include post-pandemic planning priorities such as investment and job creation.

Table 3 - 9: South Africa's economic growth rate and revision, 2021–2022*, %

	South Africa
2021	**4.5**
Change from previous month	0.0
2022	**2.5**
Change from previous month	0.0

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

Russia and Central Asia

Russia

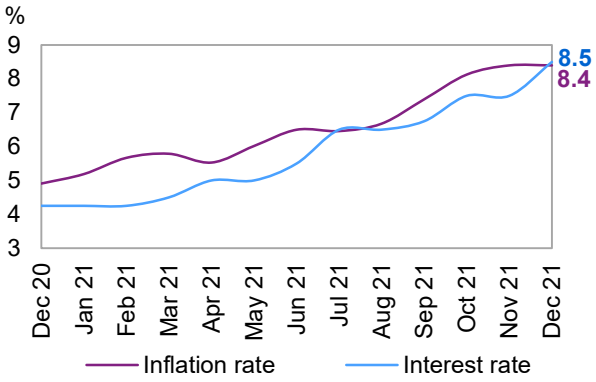
Update on the latest developments

Despite the surge in Omicron cases, Russia's economic recovery remains on track, supported by commodity prices. Labour market indicators suggested less pressure as the unemployment rate remained unchanged at 4.3% in November 2021 compared to August 2021. Meanwhile, industrial production grew 7.0% y-o-y in November 2021, easing from downwardly revised growth of 7.4% in the previous month. On a monthly basis, industrial activity rose 0.5%, and during the January-November 2021 period, the growth was 5.2% y-o-y. On the consumption side, retail sales growth eased to 3.1% y-o-y in November 2021 from 4.1% y-o-y in October 2021 as fiscal handouts provided prior to the Duma elections in September ended.

On the inflation front, the **consumer price index** fell slightly to 8.39% y-o-y in December 2021, from 8.40% in November 2021. In 2021, inflation rose to a level that is more than twice the central bank's target of 4%, amid the rapid economic recovery from the COVID-19, labour shortages across many industries and ongoing supply chain disruptions. Moreover, food prices might increase further in 2022 following a weaker-than-expected agricultural season.

In response to these inflationary pressures, the Russian central bank raised its **benchmark policy rate** by 100 bps to 8.5% in December 2021, the highest since September. A further key rate increase at its upcoming meeting is most likely considering the monetary policy stance to bring down inflation to 4.0-4.5% by late 2022.

Graph 3 - 18: Russia's inflation vs. interest rate



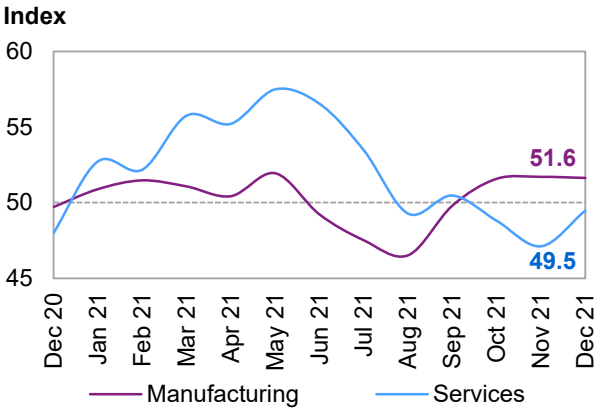
Sources: Federal State Statistics Service, Central Bank of Russia and Haver Analytics.

Near-term expectations

In 2021, Russia's economy was back to pre-pandemic levels and the short-term outlook is more resilient and optimistic, supported by the increase in commodity prices and the relative decline in COVID-19 infections. However, the uncertainties related to the current global increase of Omicron cases, as well as the global supply chain disruptions and a slow rate of vaccination, might hinder this progress. Moreover, elevated inflation might add another downside risk, as it may lead to secondary effects, such as a lowering of individual savings and exports.

Recent **PMI** indictors signalled a slowdown in private business activity. Indeed, the manufacturing PMI fell to 51.6 in December 2021 from 51.7 in the previous month. Yet it marked the third-straight month of expansion in the manufacturing sector, amid steady growth in output and new orders. By contrast, the services PMI increased to 49.5 in December 2021 from 47.1 in November 2021. However, the index has been within contraction territory for three-straight months amid further COVID-19 restrictions.

Graph 3 - 19: Russia's PMI



Sources: IHS Markit and Haver Analytics.

Considering the developments in fossil fuels, Russia's 2021 and 2022 **GDP forecasts** have been kept unchanged from last month at 4.0% and 2.7%, respectively. In addition to the trajectory of Omicron infections and the overall increase in prices, recent political developments in the region might add another recovery risk factor.

Table 3 - 10: Russia's economic growth rate and revision, 2021–2022*, %

	Russia
2021	**4.0**
Change from previous month	0.0
2022	**2.7**
Change from previous month	0.0

*Note: * 2021-2022 = Forecast.*

Source: OPEC.

OPEC Member Countries

Saudi Arabia

Recent GDP data suggests that the COVID-19 related economic recovery is well underway in OPEC Member Countries. In 3Q21, Saudi Arabia's real GDP grew by 7.0% y-o-y — the strongest growth rate since 1Q12, following expansion of 1.9% y-o-y in 2Q21. However, the Omicron variant and fear of fresh restrictions may slow this recovery. Recent PMI indices already reflect this sentiment, as the IHS manufacturing PMI dropped to 53.9 in December 2021 from 56.9 in November. However, the recent reading is still well above the 50-point threshold, according to the IHS survey. New order growth rose in the last nine months, implicitly indicating positive business sentiment.

Nigeria

According to recently released statistics from the Central Bank of Nigeria (CBN), the country's current account registered its highest surplus since early 2018, amid a strong trade position. In 3Q21, the current account posted a surplus of US$3.6 billion compared with US$348 million in 2Q21 and a shortfall of US$3.6billion in 3Q20. In 3Q21, exports exceeded imports by about US$1.8 million, recording the largest excess since late 2019. Additionally, improving oil prices continued to support the economic recovery, coupled with easing of the inflation rate, which marginally fall for the second month in a row to 15.4% from 15.9%, marking the lowest rate since November 2020, largely due to sustained moderation in food prices. However, on a monthly basis, consumer prices increased by 1.08%, following a 0.98% increase the previous month. In the meantime, the Stanbic IBTC Bank Nigeria PMI reflected solid expansion in business conditions, rising to 56.4 in December from 55 in November amid stronger output and new order growth.

The United Arab Emirates (UAE)

The postponed Dubai 2020 Expo contributed to boosting the country's economic recovery as anticipated. However, rising Omicron cases may challenge those gains. Indeed, the IHS Markit United Arab Emirates PMI fell to 55.6 in December from 55.9 in November. The recent reading followed the 13th-straight month of rising non-oil private sector activity. Nonetheless, confidence dropped to a three-month low, highlighting the risk of tightening business amid the Omicron infection wave.

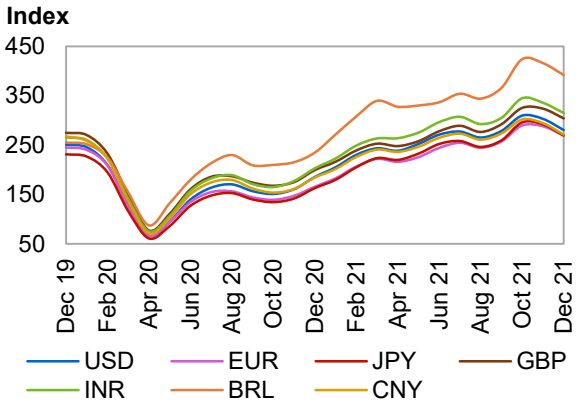
The impact of the US dollar (USD) and inflation on oil prices

As US inflation continues to soar (currently hovering around 7%), the **US dollar (USD) has continued to strengthen** against major currencies amid US Fed announcements that interest rate increases may come sooner rather than later. The dollar rose on average by 1.2% against the euro from November to December, 1.5% against the pound sterling, 1.4% against the Indian rupee and 1.8% against the Brazilian real.

The USD declined by 0.4% against the Japanese yen, and by the same percentage against the Chinese yuan. The declines come on the heels of decisions by both the BoJ and the Chinese government to leave key interest rates unchanged.

Inflation (nominal price minus real price) declined by 9% m-o-m, from $31.2/b to $28.4/b, amid announcements of interest rate increases.

Graph 3 - 20: ORB crude oil price index compared with different currencies (base January 2016 = 100)

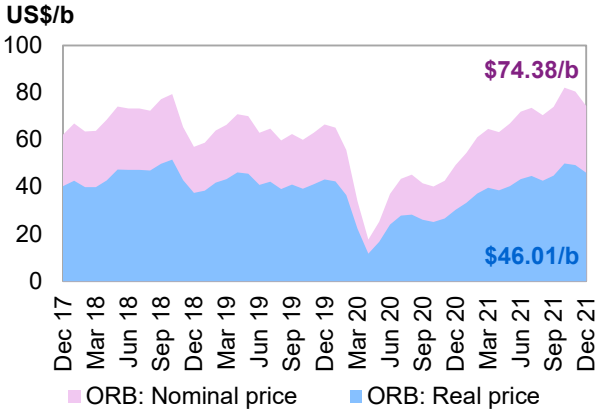


Sources: IMF and OPEC.

In **nominal terms**, accounting for inflation, the price of the ORB fell by 7.5%, from $80.37/b in November to reach $74.38/b in December.

In **real terms** (excluding inflation) the ORB declined by 6.5% to $46.01/b from a revised $49.20/b (base June 2001=100) the previous month.

Graph 3 - 21: Impact of inflation and currency fluctuations on the spot ORB price (base June 2001 = 100)



Source: OPEC.

World Oil Demand

For 2021, world oil demand growth remains unchanged at 5.7 mb/d. Within the year, growth was adjusted higher in 4Q21 amid better than anticipated OECD transportation fuel consumption, while adjusted downward in 3Q21, due to the implementation of the latest actual data. The 4Q21 OECD oil demand was adjusted higher mainly to account for stronger-than-expected demand in Americas and the Asia Pacific and despite the emergence of the new COVID -19 variant (Omicron). During the same quarter, firm oil demand in China also led to slight upward revisions, while slower transportation fuel demand in India, amid heavy rainfall, called for downward revisions. Weaker actual demand data for October and November 2021, saw slight downward revisions in the Middle East, Latin America and Africa. Total world oil demand is anticipated to reach 96.6 mb/d on an annualized basis in 2021.

In 2022, world oil demand growth has been kept unchanged at 4.2 mb/d with total global consumption at 100.8 mb/d. While the new Omicron variant may have an impact in 1H22, which is dependent on any further lockdown measures and rising hospitalizations levels impacting the workforce, projections for economic growth remain robust. This is despite the current inflation levels, which are being addressed through monetary policy by key central banks. Moreover, supply chain bottlenecks, ongoing trade issues and their impact on industrial and transportation fuel requirements remain key factors of uncertainty. In terms of fuels, light distillates, mainly for the petrochemical industry, are expected to continue to drive oil demand, while gasoline and diesel, particularly for road transportation, are forecast to continue to recover and reach pre-pandemic levels during the year. With regard to jet fuel, while the private travel sector has seen some considerable gains, business travel continues to lag and may not see a full recovery in 2022.

Table 4 - 1: World oil demand in 2021*, mb/d

							Change 2021/20	
World oil demand	**2020**	**1Q21**	**2Q21**	**3Q21**	**4Q21**	**2021**	**Growth**	**%**
Americas	22.44	22.73	24.33	24.71	24.84	24.16	1.72	7.66
of which US	*18.35*	*18.65*	*20.21*	*20.39*	*20.51*	*19.95*	*1.60*	*8.73*
Europe	12.44	11.91	12.63	13.85	13.49	12.98	0.54	4.37
Asia Pacific	7.14	7.67	7.04	7.12	7.73	7.39	0.25	3.46
Total OECD	**42.02**	**42.31**	**44.00**	**45.67**	**46.06**	**44.53**	**2.51**	**5.98**
China	13.52	13.79	14.55	14.52	15.16	14.50	0.99	7.29
India	4.51	4.94	4.50	4.59	5.32	4.84	0.33	7.30
Other Asia	8.13	8.56	8.98	8.34	8.62	8.63	0.50	6.10
Latin America	6.01	6.25	6.16	6.46	6.35	6.30	0.29	4.88
Middle East	7.55	7.95	7.77	8.24	8.00	7.99	0.45	5.95
Africa	4.08	4.37	4.08	4.15	4.43	4.26	0.17	4.28
Russia	3.39	3.65	3.42	3.63	3.74	3.61	0.22	6.55
Other Eurasia	1.07	1.23	1.24	1.09	1.28	1.21	0.14	12.70
Other Europe	0.70	0.78	0.72	0.73	0.79	0.75	0.06	8.29
Total Non-OECD	**48.96**	**51.52**	**51.43**	**51.74**	**53.69**	**52.10**	**3.14**	**6.42**
Total World	**90.98**	**93.83**	**95.43**	**97.41**	**99.75**	**96.63**	**5.66**	**6.22**
Previous Estimate	90.98	93.83	95.45	97.66	99.49	96.63	5.65	6.22
Revision	0.00	0.00	-0.02	-0.24	0.26	0.00	0.00	0.00

*Note: * 2021 = Forecast. Totals may not add up due to independent rounding. Source: OPEC.*

Table 4 - 2: World oil demand in 2022*, mb/d

World oil demand	2021	1Q22	2Q22	3Q22	4Q22	2022	Change 2022/21 Growth	Change 2022/21 %
Americas	24.16	24.04	25.42	25.73	25.65	25.22	1.06	4.37
of which US	*19.95*	*19.69*	*21.07*	*21.36*	*21.23*	*20.85*	*0.90*	*4.50*
Europe	12.98	12.63	13.21	14.49	14.01	13.59	0.61	4.73
Asia Pacific	7.39	7.91	7.22	7.25	7.83	7.55	0.17	2.26
Total OECD	**44.53**	**44.58**	**45.86**	**47.47**	**47.49**	**46.37**	**1.84**	**4.13**
China	14.50	14.64	15.44	15.00	15.60	15.17	0.66	4.58
India	4.84	5.48	4.82	4.97	5.64	5.23	0.39	8.07
Other Asia	8.63	9.25	9.59	8.93	8.95	9.18	0.55	6.38
Latin America	6.30	6.49	6.33	6.61	6.51	6.48	0.18	2.85
Middle East	7.99	8.30	8.01	8.49	8.24	8.26	0.27	3.34
Africa	4.26	4.54	4.21	4.27	4.56	4.40	0.14	3.22
Russia	3.61	3.75	3.47	3.68	3.79	3.67	0.07	1.81
Other Eurasia	1.21	1.30	1.29	1.12	1.32	1.26	0.05	3.72
Other Europe	0.75	0.80	0.73	0.74	0.81	0.77	0.02	2.18
Total Non-OECD	**52.10**	**54.55**	**53.90**	**53.82**	**55.40**	**54.42**	**2.32**	**4.45**
Total World	**96.63**	**99.13**	**99.75**	**101.28**	**102.90**	**100.79**	**4.15**	**4.30**
Previous Estimate	96.63	99.13	99.77	101.53	102.64	100.79	4.15	4.30
Revision	0.00	0.00	-0.02	-0.25	0.26	0.00	0.00	0.00

*Note: * 2021-2022 = Forecast. Totals may not add up due to independent rounding. Source: OPEC.*

OECD

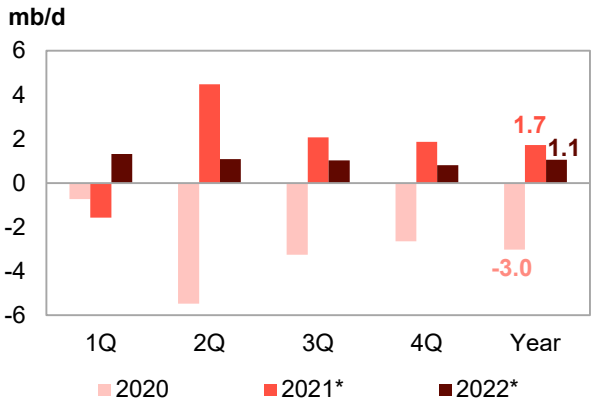
OECD Americas

Update on the latest developments

The latest available **OECD Americas** oil demand data shows an increase of 1.7 mb/d y-o-y in **October,** following a rise of 2.1 mb/d y-o-y in September. Gasoline demand in the region rose for the eighth month in a row, accounting for 0.8 mb/d, or around 50% of the overall increase, despite rising retail prices. Jet/kerosene demand rose by 0.5 mb/d, accounting for a 31% growth share.

October 2021 oil demand gains made up for around 95% of the demand seen during the same month in 2020. However, oil demand was still lower by 1.3 mb/d from October 2019 levels. All countries in the region posted demand gains, and this was on top of a lower baseline in 2020.

Graph 4 - 1: OECD Americas oil demand, y-o-y change



*Note: * 2021-2022 = Forecast. Source: OPEC.*

The latest available **US** monthly demand data for **October** implies a strong y-o-y increase of approximately 1.3 mb/d. This makes up around 60% of the losses incurred during October 2020, but remains lower than the October 2019 level by 0.8 mb/d. Gasoline, jet kerosene and residual fuel oil requirements contributed to the bulk of the increases, with gasoline and jet/kerosene gained 0.6 mb/d and 0.4 mb/d, respectively, y-o-y, while LPG and diesel demand each fell y-o-y by 0.1 mb/d. According to the Federal Highway Administration (FHA), vehicle miles travelled in the US increased y-o-y by 7.9% in October after rising by 7.7% y-o-y in September. In October 2020, the indicator was down by 8.8% y-o-y. Light vehicle retail sales, as reported by Autodata and Haver Analytics, were at 13.2 million units in October according to seasonally adjusted annual rates (SAAR), compared with 12.4 million units in September. In October 2020, total sales were 16.4 million units, while 16.8 million units were sold in October 2019. Industrial production was higher by 4.9% y-o-y in October 2021 after increasing by 4.6% y-o-y in September. Preliminary figures for November 2021, based on weekly data, indicate a continuation of the recovery in transportation fuel performance, with gasoline and jet/kerosene demand increasing by a combined 1.5 mb/d y-o-y.

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

By product	Oct 20	Oct 21	Change Oct 21/Oct 20 Growth	%
LPG	2.99	2.91	-0.08	-2.8
Naphtha	0.19	0.15	-0.04	-22.1
Gasoline	8.32	8.95	0.63	7.6
Jet/kerosene	1.01	1.45	0.44	43.8
Diesel	4.04	3.89	-0.15	-3.6
Fuel oil	0.26	0.38	0.12	47.8
Other products	2.11	2.46	0.35	16.7
Total	**18.90**	**20.18**	**1.28**	**6.8**

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

Near-term expectations

Despite the surge in COVID-19 cases and hospitalization rates in the US due to the Omicron variant, the overall picture for oil demand in the short term remains healthy, as the country has become more experienced in handling the challenges associated with the pandemic. Recent announcements by the US Federal Reserve to manage monetary policy to curb inflation, in combination with key economic indicators holding steady at robust levels, lend optimism to the ongoing oil demand recovery, despite business travel not expected to recover to pre-pandemic levels any time soon.

In **2022**, OECD Americas oil demand is forecast to rise y-o-y by around 1.1 mb/d, with US oil demand accounting for 0.9 mb/d. The petrochemical and transportation sectors will continue to be the main drivers of oil demand in 2022 on the back of expansions in the petrochemical industry, as well as continued robust increases in vehicle sales and strong economic growth. The main downside risks continue to relate to the COVID-19 pandemic, albeit to a much lesser degree than at the beginning of 2021, as well as inflationary and supply chain challenges.

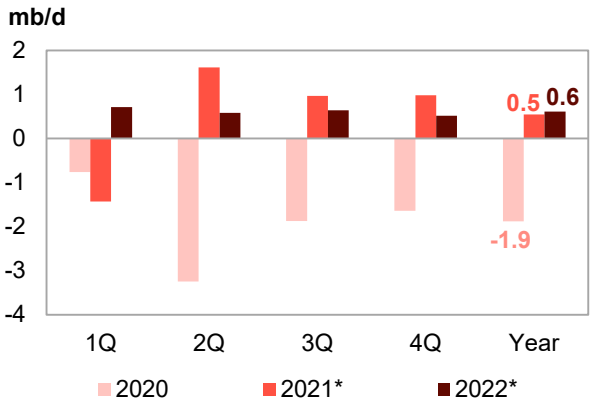
OECD Europe

Update on the latest developments

Oil demand in **OECD Europe** rose by 1.0 mb/d y-o-y in **October,** driven by a steady recovery in transportation fuel consumption, and follows slightly higher growth in September of 1.1 mb/d y-o-y. However, oil demand in OECD Europe remained below October 2019 levels by more than 0.6 mb/d. This was mainly due to the lag in jet fuel recovery in light of reduced travel, notably business related, within and outside the continent.

Demand for jet fuel rose by around 0.4 mb/d y-o-y in October. This was mainly due to a large distortion in the baseline as demand for the product had fallen y-o-y by around 1.0 mb/d in October 2020. This implies a recovery of only around 26%. Other transportation fuels, gasoline and on road diesel, again performed relatively better in October, as driving activities, both locally and across borders continued to improve.

Graph 4 - 2: OECD Europe's oil demand, y-o-y change



*Note: * 2021-2022 = Forecast. Source: OPEC.*

Gasoline saw growth of around 0.1 mb/d y-o-y, slightly up from September growth levels. This petroleum product category has practically recovered to October 2019 levels. Petrochemical feedstock demand, led by naphtha, also recorded healthy y-o-y gains in October of 0.1 mb/d after y-o-y rising by 0.2 mb/d in September. Naphtha has benefited from high LPG prices and healthy petrochemical margins, with demand for the product now above October 2019 levels by around 0.2 mb/d. Petrochemical demand is supported by stable plastics requirements in the health sector, packaging, construction and end-user demand.

October's initial oil demand data suggests a softening, but still positive, momentum in oil requirements in the big four consuming countries, Germany, France, Italy and the UK. Demand is assumed to have increased by 0.3 mb/d y-o-y in October compared to an increase of around 0.6 mb/d y-o-y in September.

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

By product	Oct 20	Oct 21	Change Growth	Oct 21/Oct 20 %
LPG	0.39	0.37	-0.02	-5.4
Naphtha	0.59	0.57	-0.02	-4.1
Gasoline	1.13	1.19	0.07	5.9
Jet/kerosene	0.38	0.55	0.17	44.4
Diesel	3.21	3.42	0.21	6.4
Fuel oil	0.18	0.16	-0.02	-10.8
Other products	0.52	0.47	-0.06	-10.9
Total	**6.40**	**6.72**	**0.32**	**5.0**

*Note: * Germany, France, Italy and the UK. Totals may not add up due to independent rounding.*

Sources: JODI, UK Department for Business, Energy & Industrial Strategy, Unione Petrolifera and OPEC.

Near-term expectations

Looking ahead, mobility has been trending down again recently in Europe on account of the rapid spread of the Omicron variant and the resulting re-imposition of government restrictions and lockdown measures, potentially exerting further downward pressure on oil demand during 1Q22. The seasonal easing of transportation fuel demand in winter could be expected to extend further due to measures to contain the virus. However, it should be noted that other countries in the region may opt not to impose restrictions to avoid further negative impacts on their economies.

Uncertainties remain high and tilted rather to the downside as the region moves through the winter season. Nevertheless, **2022** projections continue to be supported by a steady rebound in OECD Europe macroeconomic indices, including industrial production and the ongoing resolution of supply chain issues, with momentum expected to gather strength particularly in 2H22. Additionally, the ECB appears willing to continue its considerable monetary support, despite signs of higher inflation. As a result, oil demand is anticipated to rise in 2022, mostly supported by transportation and industrial fuels.

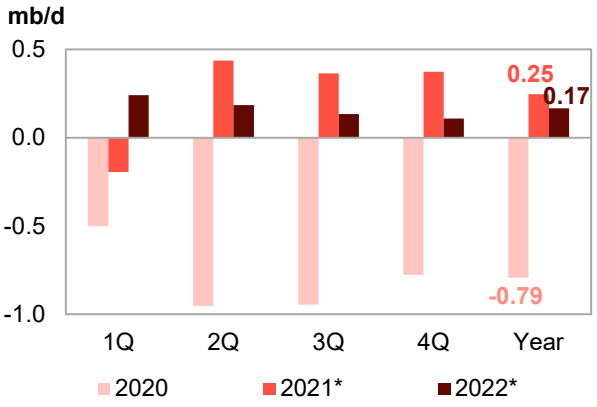
OECD Asia Pacific

Update on the latest developments

Asia-Pacific oil demand in **October** rose y-o-y by more than 0.5 mb/d, after posting an increase of 0.4 mb/d in September. This was mostly on the back of another solid increase in demand for naphtha, which saw a second consecutive monthly rise of 0.3 mb/d y-o-y. Despite this solid y-o-y rise, demand remained slightly lower than October 2019 levels due to a lagging transportation fuel recovery, jet fuel, in particular.

The strength for naphtha was on the back of its demand as a feedstock for steam cracker operators in light of high LPG prices and continued healthy petrochemical margins. Naphtha stood above pre-pandemic levels, higher by nearly 0.2 mb/d compared to October 2019. At the same time, LPG demand dropped y-o-y in October due to the preference to consume naphtha in the petrochemical sector.

Graph 4 - 3: OECD Asia Pacific oil demand, y-o-y change



*Note: * 2021-2022 = Forecast. Source: OPEC.*

For transportation fuels, gasoline consumption declined marginally in October, while jet fuel was higher y-o-y by around 50 tb/d. Gasoline continues to be pressured by increased efficiency in new vehicles, particularly in Japan, where total demand for gasoline has dropped from around 1.0 mb/d in 2010 to around 0.7 mb/d in 2021. However, demand for jet fuel increased in October backed by a continued recovery in the aviation sector, although it remains below the levels seen in October 2019.

Preliminary data from Japan's Ministry of Economy, Trade and Industry (METI) indicates a slight y-o-y oil demand drop of around 50 tb/d in November, mainly driven by weaker gasoline, jet kerosene and diesel demand.

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

By product	Nov 20	Nov 21	Change Nov 21/Nov 20 Growth	%
LPG	0.42	0.42	0.00	-0.4
Naphtha	0.75	0.78	0.04	4.8
Gasoline	0.76	0.72	-0.04	-5.1
Jet/kerosene	0.39	0.34	-0.04	-10.9
Diesel	0.73	0.70	-0.03	-4.0
Fuel oil	0.24	0.26	0.02	9.3
Other products	0.19	0.20	0.00	2.3
Total	**3.48**	**3.43**	**-0.05**	**-1.4**

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

Near-term expectations

With the negative developments in 3Q21, particularly in Japan, now left behind, 4Q21 promises to see some upside, with high vaccination rates, improving consumer confidence and business sentiment indicators lending support. Moreover, improving exports are expected to boost demand for industrial fuels and petrochemical feedstock in the coming months.

Ongoing strong support by the Bank of Japan, as well as the ongoing recovery in external trade, are expected to see the positive momentum projected for 4Q21 carry over into **2022**. Most oil product categories are anticipated to return to pre-pandemic levels, with LPG assumed to be the main contributor to oil demand growth. However, jet kerosene demand is projected to continue to lag 2019 levels, as international business travel remains under pressure.

Non-OECD

China

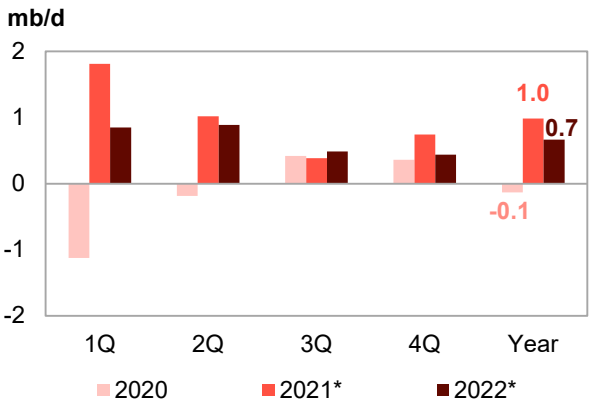
Update on the latest developments

China's oil demand saw another strong y-o-y rise in **November**, increasing by more than 0.5 mb/d on the back of continued healthy petrochemical feedstock demand and rebounding mobility. Demand exceeded the November 2019 level by almost 1.3 mb/d, driven by strong naphtha and LPG requirements.

In November, naphtha demand rose y-o-y by only 0.1 mb/d following a 0.3 mb/d y-o-y increase in October, while LPG demand grew y-o-y by 0.3 mb/ in November following a 0.2 mb/d y-o-y rise a month earlier. Solid consumption over the past few months has raised combined naphtha and LPG demand above pre-pandemic levels by around 0.8 mb/d.

Transportation fuels saw gasoline post strong gains supported by increasing mobility, while jet fuel continued to lag. Gasoline grew y-o-y by 0.2 mb/d in November and diesel increased by 0.2 mb/d too. Gasoline has surpassed pre-pandemic November 2019 levels by around 0.3 mb/d and diesel by almost 0.4 mb/d.

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



*Note: * 2021-2022 = Forecast. Source: OPEC.*

Jet fuel continues to be impacted by the reduction in local and international flights to counter the spread of COVID-19, as the country holds fast to its zero-COVID policy. According to China's National Bureau of Statistics and Haver Analytics, passenger turnover in civil aviation declined further y-o-y in November, dropping by 51.5% after posting declines of 22.6% in October.

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

By product	Nov 20	Nov 21	Change Growth	Nov 21/Nov 20 %
LPG	1.97	2.30	0.33	16.5
Naphtha	1.57	1.65	0.08	5.2
Gasoline	3.10	3.30	0.20	6.5
Jet/kerosene	0.82	0.65	-0.17	-20.9
Diesel	3.48	3.70	0.22	6.4
Fuel oil	0.55	0.50	-0.05	-9.6
Other products	1.81	1.75	-0.06	-3.3
Total	**13.30**	**13.85**	**0.55**	**4.1**

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

Near-term expectations

While macroeconomic indicators, such as manufacturing and services PMIs indicate an expansion trend, the recent emergence of the Omicron variant in select Chinese cities and the ensuing strict government measures to curb a potential spread could pose some downside risks to oil demand in early 2022.

The development of the spread of the virus variant in China is also likely to have an impact on the impending Winter Olympic Games and upcoming Chinese New Year festivities, which otherwise should provide support to oil demand in 1Q22, particularly transportation fuels. Petrochemical feedstock, especially naphtha and LPG, are assumed to be supported by strong end-user demand and by capacity additions in recent years. Gasoline and diesel are forecast to surpass pre-pandemic levels, while jet fuel demand is expected to recover more slowly to just about reach 2019 levels, albeit this is dependent on travel restrictions.

India

Update on the latest developments

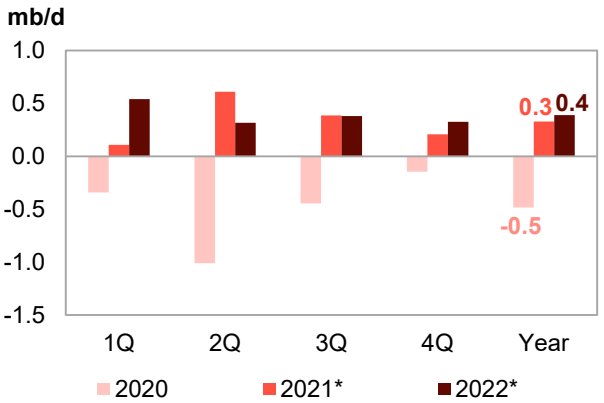
Oil demand in India declined by around 0.4 mb/ in **November** impacted by extreme and particularly heavy rainfall, following a marginal 0.04 mb/d y-o-y rise in October. In comparison with November 2019 levels, oil demand is lower by around 0.5 mb/d. In November, diesel oil saw the largest drop of 0.1 mb/d, while gasoline also declined marginally. Jet fuel saw a small y-o-y increase of 20 tb/d on the back of a pickup in domestic flights.

However, jet fuel demand remained nearly 0.1 mb/d lower than November 2019 levels, still affected by a slower recovery in international flights. At the same time, kerosene continues to be substituted by LPG in the residential sector.

The other product category, which includes bitumen for road construction, declined by around 0.2 mb/d y-o-y, as construction activities were impacted by the extreme weather during November.

LPG fell only marginally and benefited primarily from usage for household cooking in line with past trends. Diesel dropped by around 0.1 mb/d y-o-y after a similar decrease in October. The weather phenomenon in November outweighed other improvements seen in macroeconomic indicators.

Graph 4 - 5: India's oil demand, y-o-y change



*Note: * 2021-2022 = Forecast. Source: OPEC.*

Table 4 - 7: India's oil demand, mb/d

By product	Nov 20	Nov 21	Change Nov 21/Nov 20 Growth	%
LPG	1.02	1.01	0.00	-0.3
Naphtha	0.36	0.28	-0.08	-21.6
Gasoline	0.68	0.68	-0.01	-0.8
Jet/kerosene	0.18	0.20	0.02	12.9
Diesel	1.93	1.80	-0.13	-6.7
Fuel oil	0.28	0.28	0.00	1.5
Other products	0.80	0.63	-0.16	-20.3
Total	**5.24**	**4.89**	**-0.35**	**-6.7**

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

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

Near-term expectations

India's oil demand is poised to recover considerably in 2021, almost returning to the level seen in 2019. Over the short term, demand is assumed to be supported by steady macroeconomic indicators, despite some inflation concerns, which are in part being addressed by the government.

For **2022**, total oil demand is projected to exceed 2019 levels by more than 0.2 mb/d on average for the year. This is due to the ongoing healthy economic outlook and the continued improvement in demand for transportation and industrial fuels, with the exception of jet fuel, which is still projected to lag. While ongoing stimulus packages, as well as better management of COVID-19, are projected to offer further support in the year, uncertainties related to COVID-19 developments and possible further extreme weather conditions pose a downward risk.

Latin America

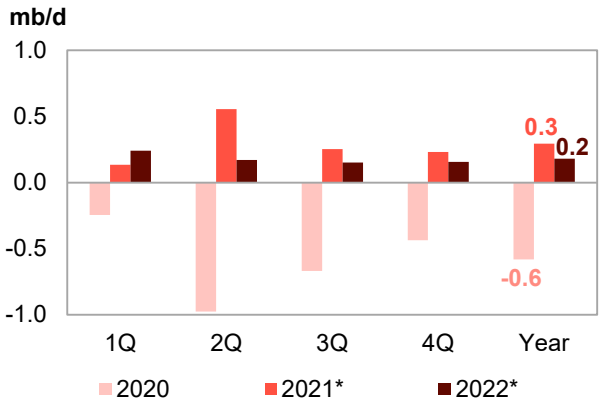
Update on the latest developments

Oil demand in Latin America showed a y-o-y increase of 0.1 mb/d in **October**, compared to more than 0.2 mb/d y-o-y in September.

Despite showing y-o-y growth for the eighth consecutive month, Latin America's October 2021 oil demand remained marginally lower than October 2019.

Gasoline and diesel demand led the increases in October, rising y-o-y by 0.1 mb/d each, driven by rising mobility across the region's main economies. Jet fuel also saw a 0.04 mb/d y-o-y rise in October, however, the overall level remains around 0.1 mb/d below October 2019.

Graph 4 - 6: Latin America's oil demand, y-o-y change



*Note: * 2021-2022 = Forecast. Source: OPEC.*

Brazil led the positive recovery in mobility with an increase from 112% in September to 118% in October, compared with January 2020, as reported by Google Maps and Apple's mobility indicator. Despite a slowdown in industrial production and disappointing numbers from manufacturing and services sectors in November, diesel continued to show growth in Brazil and increased by around 0.04 mb/d y-o-y. Demand for diesel in Brazil has already exceeded pre-pandemic levels in November.

Table 4 - 8: Brazil's oil demand*, mb/d

By product	Nov 20	Nov 21	Change Growth	Nov 21/Nov 20 %
LPG	0.23	0.22	0.00	-1.9
Naphtha	0.14	0.14	0.00	2.9
Gasoline	0.68	0.72	0.05	6.8
Jet/kerosene	0.07	0.09	0.03	39.6
Diesel	1.03	1.07	0.04	4.2
Fuel oil	0.10	0.11	0.01	11.1
Other products	0.44	0.31	-0.13	-30.1
Total	**2.67**	**2.67**	**0.00**	**-0.2**

*Note: * = Inland deliveries. Totals may not add up due to independent rounding.*

Sources: JODI, Agencia Nacional do Petroleo, Gas Natural e Biocombustiveis and OPEC.

Near-term expectations

Going forward, oil demand expectations for the region show a continued recovery for most fuels from the historical decline in 2020, led mostly by diesel and gasoline. Demand for fuel oil is assumed to benefit from shortages in hydropower generation due to expected droughts.

Despite the recent pressures from soaring inflation and slowing economic activity, particularly in 4Q21, and a possible spill-over to 1Q22, Brazil is assumed to lead 2022 oil demand growth in the region. Y-o-y growth is expected in all product categories led by transportation fuels followed by industrial fuels, namely diesel, gasoline and jet fuel. Uncertainties, however, have shifted to the downside and specifically related to economies. This includes inflation, unemployment and currency challenges, all of which could potentially weigh on oil demand projections going forward.

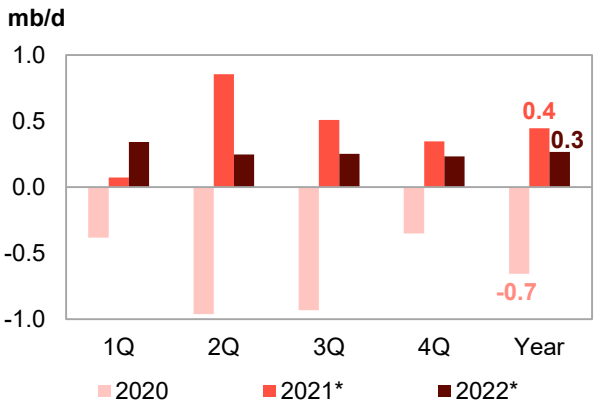
Middle East

Update on the latest developments

Middle Eastern oil demand rose y-o-y by 0.2 mb/d in **October** following an increase of around 0.5 mb/d y-o-y in September. The mobility index reached 104% when compared to January 2020, according to Google Maps and the Apple mobility index.

Gasoline demand increased by more than 0.1 mb/d in October after rising by more than 0.2 mb/d in September. Increases in gasoline demand in some countries of the region, point to a more relaxed or a lifting of mobility restrictions.

Graph 4 - 7: Middle East's oil demand, y-o-y change



*Note: * 2021-2022 = Forecast. Source: OPEC.*

In **Saudi Arabia**, oil demand data for November showed a decline of 0.1 mb/d, despite a y-o-y rise in some products, such as diesel and jet/kerosene. Residual fuel oil demand dropped by 0.1 mb/d y-o-y, while crude oil for power generation rose slightly y-o-y. Diesel expanded by around 0.1 mb/d, supported by a pick-up in industrial activities, while jet fuel posted marginal gains supported by increases in domestic and international flights. Compared with November 2019, total oil demand levels were slightly higher.

Table 4 - 9: Saudi Arabia's oil demand, mb/d

By product	Nov 20	Nov 21	Change Growth	Nov 21/Nov 20 %
LPG	0.05	0.05	0.00	1.0
Gasoline	0.51	0.48	-0.03	-5.9
Jet/kerosene	0.04	0.04	0.01	16.2
Diesel	0.41	0.50	0.09	20.9
Fuel oil	0.76	0.64	-0.12	-15.9
Other products	0.41	0.42	0.01	1.9
Total	**2.19**	**2.13**	**-0.06**	**-2.8**

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

Sources: JODI and OPEC.

The latest available data for November 2021 in **Iraq** shows a y-o-y oil demand increase of 0.1 mb/d. Fuel oil saw the largest y-o-y increase of 0.1 mb/d, followed by gasoline with 0.04 mb/d and diesel at 0.03 mb/d. At the same time, jet fuel saw a y-o-y decline of 65 tb/d. Fuel oil and diesel demand was mostly supported by industrial sector demand improvements, while the decline in jet fuel was due to ongoing travel restrictions.

Near-term expectations

Going forward, oil demand in the Middle East is projected to continue to recover in the final months of 2021. Industrial fuels, on the back of steady economic developments, are forecast to drive growth in 2022, with feedstock requirements for the petrochemical industry further supporting the recovery.

The further easing of COVID-19 measures are projected to provide support for transportation fuel, with jet fuel expected to gain support from the resumption of international flights in the region's main travel hubs. However, jet fuel demand is not anticipated to reach pre-pandemic levels in 2022, amid lagging intercontinental business travel.

World Oil Supply

Non-OPEC liquids supply growth in 2021 (including processing gains of 0.13 mb/d) is kept unchanged at around 0.7 mb/d y-o-y, to average of 63.6 mb/d. Upward revisions mainly to the US were offset by downward revisions in the supply forecasts of other countries such as Brazil, Canada, Ecuador and Norway, due to unexpected lower output in 4Q21. Following an upward revision to production estimates in 4Q21, due to a faster-than-expected production recovery in the Gulf of Mexico (GoM) and steady monthly growth in the main shale plays, particularly in the Permian, the US liquids supply forecast was revised up to show growth of 0.13 mb/d y-o-y. The 2021 oil supply forecast primarily sees growth in Canada, Russia, China, the US, Guyana, Norway and Argentina, while output is projected to decline in the UK, Brazil, Colombia and Indonesia.

Non-OPEC supply growth for 2022 also remains broadly unchanged at 3.0 mb/d y-o-y, to average 66.7 mb/d. Upward revisions to the supply forecast of Other Asia were offset by downward revisions in Other Eurasia. The main drivers of liquids supply growth are expected to be the US, Russia, Brazil, Canada, Kazakhstan, Norway and Guyana.

OPEC NGLs and non-conventional liquids production in 2021 is unchanged from the previous assessment to show growth of 0.1 mb/d y-o-y for an average of 5.1 mb/d. Growth of 0.1 mb/d y-o-y is forecast in 2022 for an average of 5.3 mb/d. OPEC-13 crude oil production in December increased by 0.17 mb/d m-o-m to average 27.88 mb/d, according to available secondary sources.

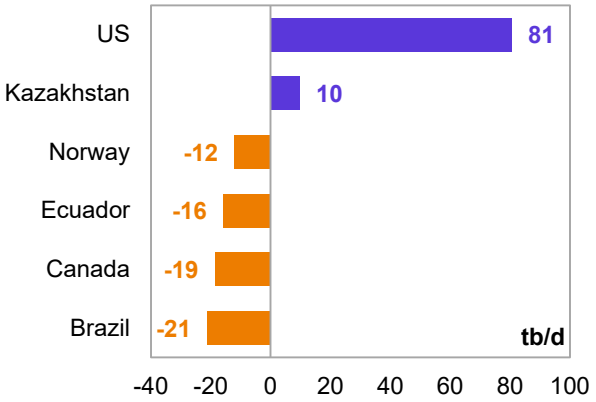
Preliminary non-OPEC liquids production in December, including OPEC NGLs, is estimated to have grown by 0.48 mb/d m-o-m to average 70.63 mb/d, up by 2.99 mb/d y-o-y. As a result, preliminary data indicates that global oil supply in December grew by 0.65 mb/d m-o-m to average 98.51 mb/d, up by 5.58 mb/d y-o-y.

Non-OPEC liquids production growth in 2021 was revised down by a minor 5 tb/d from the previous month's assessment to average 0.67 mb/d.

In the OECD, a downward revision of 24 tb/d in 3Q21 was more than offset by an upward revision of 211 tb/d in 4Q21, which led to an upward revision of 47 tb/d for the year in the region. The driver for the upward revision was the US with 81 tb/d for the year, while Canada and Norway saw the main downward revisions with 19 tb/d and 12 tb/d, respectively.

The non-OECD supply forecast for 2021 was revised down by 52 tb/d, mainly due to downward revisions in Brazil and Ecuador by 21 tb/d and 16 tb/d, respectively, as well as several other countries in Latin America and other regions.

Graph 5 - 1: Major revisions to annual supply change forecast in 2021*, MOMR Jan 22/Dec 21



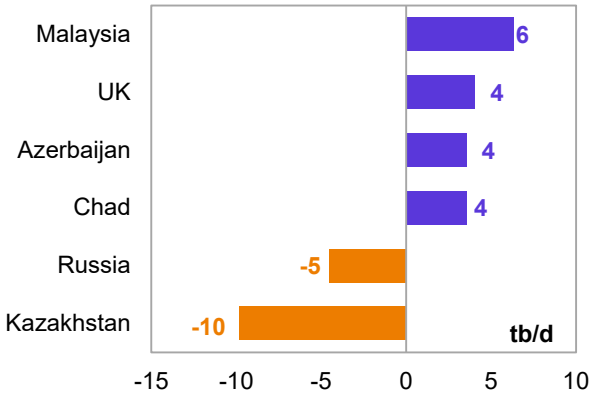
*Note: * 2021 = Forecast. Source: OPEC.*

The **non-OPEC supply growth forecast for 2022,** despite showing a few very minor upward and downward revisions, remained unchanged to average 3.02 mb/d.

The main upward revision was seen in Other Asia, of which Malaysia saw the largest adjustment.

This month's upward revisions were slightly more than offset by downward adjustments, mainly in Kazakhstan. With the revisions, mainly to 4Q21, the non-OPEC absolute liquids supply forecast for 2022 was revised down by 5 tb/d to average 66.66 mb/d, but in terms of growth, it remains unchanged at 3.02 mb/d.

Graph 5 - 2: Major revisions to annual supply change forecast in 2022*, MOMR Jan 22/Dec 21

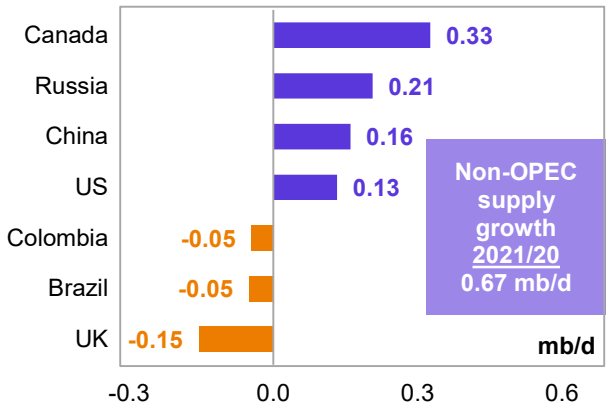


*Note: * 2022 = Forecast. Source: OPEC.*

Key drivers of growth and decline

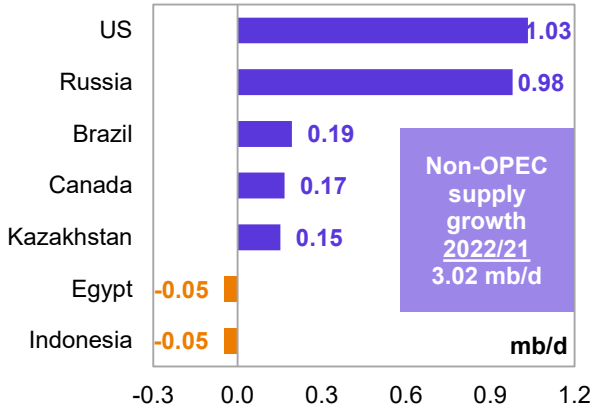
The **key drivers of non-OPEC liquids supply growth in 2021** are estimated to have been Canada, Russia, China, the US, Guyana, Norway and Argentina, while output is projected to have declined in the UK, Brazil, Colombia and Indonesia.

Graph 5 - 3: Annual liquids production changes for selected countries in 2021*



*Note: * 2021 = Forecast. Source: OPEC.*

Graph 5 - 4: Annual liquids production changes for selected countries in 2022*



*Note: * 2022 = Forecast. Source: OPEC.*

For **2022**, the key drivers of non-OPEC supply growth are forecast to be the US, Russia, Brazil, Canada, Kazakhstan, Norway, Guyana and other non-OPEC countries participating in the Declaration of Cooperation (DoC), while oil production is projected to decline, mainly in Indonesia, Egypt, Thailand and Colombia.

Non-OPEC liquids production in 2021 and 2022

Table 5 - 1: Non-OPEC liquids production in 2021*, mb/d

Non-OPEC liquids production	2020	1Q21	2Q21	3Q21	4Q21	2021	Change 2021/20 Growth	Change 2021/20 %
Americas	24.70	24.10	25.17	25.19	26.21	25.17	0.47	1.91
of which US	*17.61*	*16.63*	*17.93*	*17.84*	*18.53*	*17.74*	*0.13*	*0.75*
Europe	3.90	3.96	3.52	3.81	3.86	3.79	-0.11	-2.90
Asia Pacific	0.52	0.50	0.45	0.53	0.52	0.50	-0.02	-3.47
Total OECD	**29.12**	**28.56**	**29.13**	**29.53**	**30.58**	**29.46**	**0.34**	**1.17**
China	4.16	4.30	4.34	4.33	4.32	4.32	0.16	3.86
India	0.77	0.76	0.75	0.75	0.74	0.75	-0.01	-1.78
Other Asia	2.51	2.52	2.46	2.34	2.37	2.42	-0.08	-3.39
Latin America	6.04	5.96	5.99	6.11	5.90	5.99	-0.05	-0.79
Middle East	3.19	3.22	3.23	3.24	3.28	3.24	0.05	1.53
Africa	1.41	1.37	1.35	1.32	1.32	1.34	-0.07	-5.21
Russia	10.59	10.47	10.74	10.81	11.17	10.80	0.21	1.95
Other Eurasia	2.91	2.96	2.89	2.79	3.06	2.93	0.01	0.38
Other Europe	0.12	0.12	0.11	0.11	0.11	0.11	-0.01	-4.66
Total Non-OECD	**31.71**	**31.67**	**31.86**	**31.80**	**32.29**	**31.91**	**0.20**	**0.64**
Total Non-OPEC production	60.82	60.23	61.00	61.34	62.87	61.37	0.54	0.89
Processing gains	2.15	2.28	2.28	2.28	2.28	2.28	0.13	6.03
Total Non-OPEC liquids production	**62.97**	**62.51**	**63.28**	**63.62**	**65.15**	**63.65**	**0.67**	**1.07**
Previous estimate	62.97	62.51	63.28	63.64	65.15	63.65	0.68	1.08
Revision	0.00	0.00	0.00	-0.02	0.01	0.00	0.00	-0.01

*Note: * 2021 = Forecast. Totals may not add up due to independent rounding. Source: OPEC.*

Table 5 - 2: Non-OPEC liquids production in 2022*, mb/d

Non-OPEC liquids production	2021	1Q22	2Q22	3Q22	4Q22	2022	Change 2022/21 Growth	Change 2022/21 %
Americas	25.17	26.08	26.13	26.50	26.88	26.40	1.23	4.89
of which US	*17.74*	*18.43*	*18.68*	*18.83*	*19.14*	*18.77*	*1.03*	*5.83*
Europe	3.79	3.86	3.75	3.81	4.13	3.89	0.10	2.69
Asia Pacific	0.50	0.54	0.54	0.53	0.53	0.53	0.03	6.08
Total OECD	**29.46**	**30.48**	**30.41**	**30.84**	**31.55**	**30.82**	**1.36**	**4.63**
China	4.32	4.33	4.33	4.37	4.45	4.37	0.04	1.02
India	0.75	0.73	0.75	0.78	0.80	0.77	0.01	1.59
Other Asia	2.42	2.44	2.41	2.39	2.38	2.41	-0.01	-0.56
Latin America	5.99	6.30	6.24	6.18	6.39	6.27	0.28	4.71
Middle East	3.24	3.34	3.34	3.36	3.36	3.35	0.11	3.33
Africa	1.34	1.29	1.27	1.25	1.22	1.25	-0.09	-6.38
Russia	10.80	11.51	11.83	11.88	11.88	11.78	0.98	9.08
Other Eurasia	2.93	3.10	3.12	3.16	3.22	3.15	0.22	7.63
Other Europe	0.11	0.11	0.11	0.10	0.10	0.10	-0.01	-6.90
Total Non-OECD	**31.91**	**33.14**	**33.39**	**33.46**	**33.80**	**33.45**	**1.54**	**4.83**
Total Non-OPEC production	61.37	63.62	63.80	64.31	65.35	64.27	2.91	4.74
Processing gains	2.28	2.39	2.39	2.39	2.39	2.39	0.11	4.91
Total Non-OPEC liquids production	**63.65**	**66.01**	**66.19**	**66.70**	**67.74**	**66.66**	**3.02**	**4.74**
Previous estimate	63.65	66.02	66.20	66.70	67.74	66.67	3.02	4.74
Revision	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00

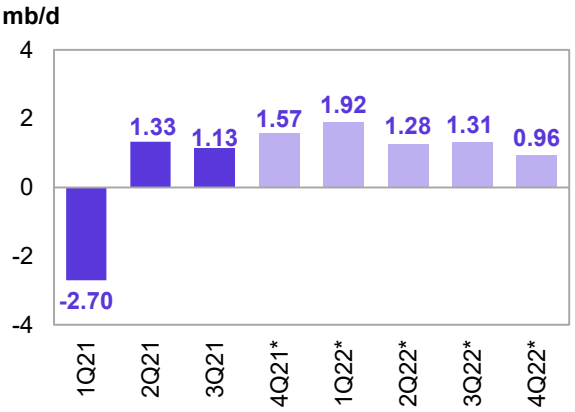
*Note: * 2021-2022 = Forecast. Totals may not add up due to independent rounding. Source: OPEC.*

OECD

OECD liquids production in 2021 is estimated to increase by 0.34 mb/d y-o-y to average 29.46 mb/d, revised up by 0.05 mb/d m-o-m owing to an upward revision of 0.06 mb/d in the production forecast for OECD Americas, which is now projected to grow by 0.47 mb/d to average 25.17 mb/d. OECD Europe is forecast to decline by 0.11 mb/d, with an average supply of 3.79 mb/d. The supply forecast in OECD Asia Pacific is also forecast to decline by 0.02 mb/d y-o-y, to average 0.50 mb/d.

For **2022**, oil production in the OECD is forecast to increase by 1.36 mb/d y-o-y to average 30.82 mb/d, revised up by 0.05 mb/d compared to a month earlier, amid upward revisions in OECD Americas by 64 tb/d, which are offset by a downward adjustment in the supply forecast of OECD Europe by 12 tb/d.

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



*Note: * 4Q21-4Q22 = Forecast. Source: OPEC.*

Based on these revisions, OECD Americas is forecast to grow by 1.23 mb/d to average 26.40 mb/d. Oil production in OECD Europe and OECD Asia Pacific is anticipated to grow respectively by 0.10 mb/d and 0.03 mb/d y-o-y to average 3.89 mb/d and 0.53 mb/d.

OECD Americas

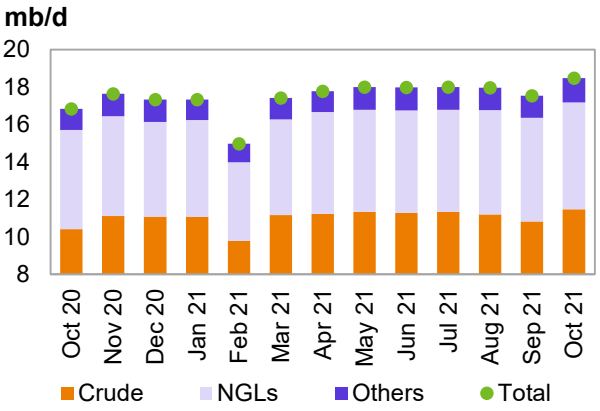
US

US liquids production rose in October 2021 by 0.94 mb/d m-o-m to average 18.49 mb/d, up by 1.64 mb/d compared with October 2020.

Crude oil and condensate production increased in October 2021 by 651 tb/d m-o-m to average 11.47 mb/d, up by 1.06 mb/d y-o-y. Regarding the crude and condensate production breakdown by region (PADDs), production rose the most on the US Gulf Coast (USGC) by 629 tb/d to average 8.12 mb/d, and also increased slightly in the Midwest, Rocky Mountains and West Coast. Production on the East Coast declined by 7 tb/d m-o-m in October.

NGL production was up by 173 tb/d m-o-m to average 5.71 mb/d in October, higher by 0.42 mb/d y-o-y. Meanwhile, production of **non-conventional liquids** (mainly ethanol) in September decreased by 9 tb/d m-o-m to average 1.18 mb/d, according to the Department of Energy (DOE). According to a preliminary estimate, non-conventional liquids are estimated to average 1.3 mb/d in October.

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



Source: OPEC.

Production in the Gulf of Mexico (GoM) rose by 680 tb/d m-o-m in October to average 1,744 tb/d, showing a rebound from the impact of Hurricane Ida.

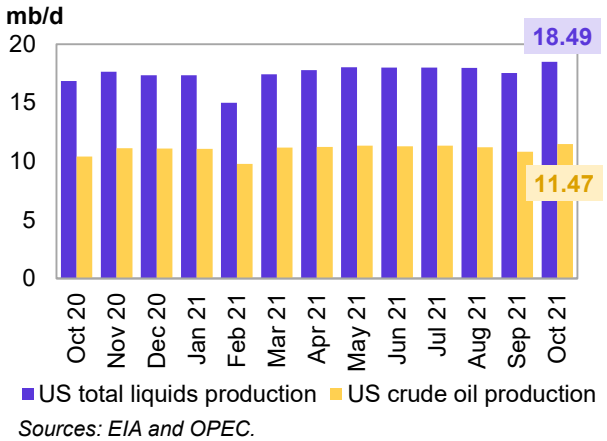
Looking at states, oil production in New Mexico declined by 23 tb/d m-o-m to average 1.33 mb/d, and production in Texas decreased by 44 tb/d to average 4.91 mb/d, 260 tb/d higher than a year ago. Production in North Dakota decreased by a marginal 1 tb/d m-o-m to average 1.1 mb/d, but was lower by 130 tb/d y-o-y. Production in Alaska was up by 7 tb/d at an average of 0.44 mb/d. Oil output in Oklahoma and Colorado showed an increase m-o-m by 5 tb/d and 15 tb/d, respectively. In the onshore lower 48, September production decreased by 36 tb/d m-o-m to average 9.3 mb/d.

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

State	Sep 21	Oct 21	Change Oct 21/Sep 21
Oklahoma	397	402	*5*
Colorado	396	411	*15*
Alaska	430	437	*7*
North Dakota	1,102	1,101	*-1*
New Mexico	1,356	1,333	*-23*
Gulf of Mexico (GoM)	1,064	1,744	*680*
Texas	4,950	4,906	*-44*
Total	**10,822**	**11,473**	***651***

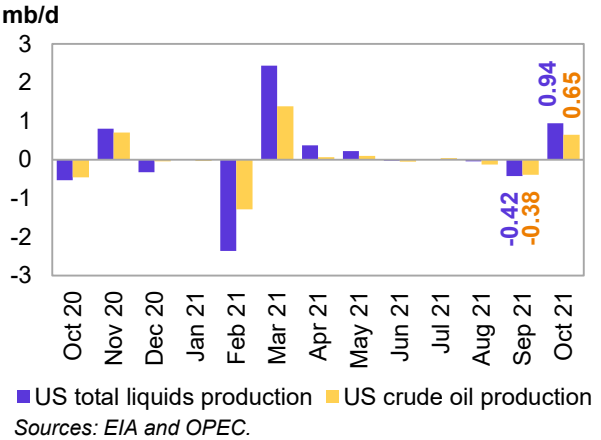
Sources: EIA and OPEC.

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.

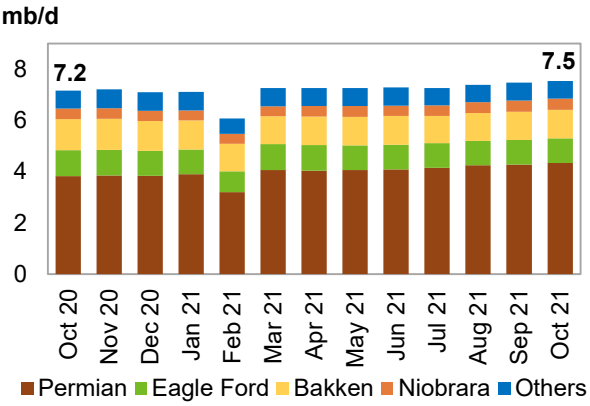
US tight crude output in October increased by 66 tb/d m-o-m to average 7.54 mb/d, which was 376 tb/d higher than the same month a year earlier, according to Energy Information Administration (EIA) estimates.

The m-o-m increase from shale and tight formations through horizontal wells came mostly from the Permian, which increased by 56 tb/d to average 4.37 mb/d, and was up by 0.51 mb/d y-o-y.

In the Williston Basin, production in the Bakken shale rose by 11 tb/d to average 1.1 mb/d, down by 103 tb/d y-o-y. Tight crude output at Eagle Ford in Texas declined by a minor 1 tb/d to average 0.96 mb/d, while production in Niobrara-Codell in Colorado and Wyoming was up by 7 tb/d, to average 0.44 mb/d.

Average tight crude output in the first ten months of the year was estimated at 7.19 mb/d.

Graph 5 - 9: US tight crude output breakdown

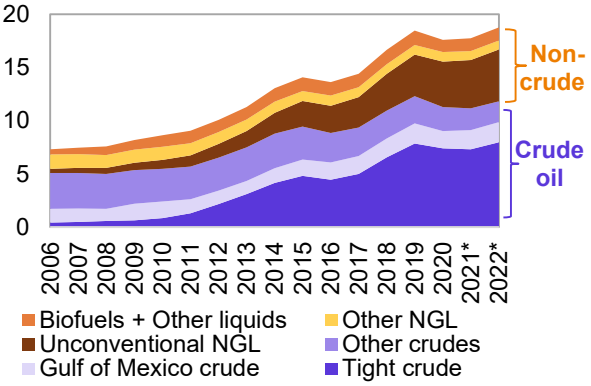


Sources: EIA, Rystad Energy and OPEC.

The **US liquids production growth forecast for 2021** was revised up by 81 tb/d and now stands to grow by 0.13 mb/d y-o-y to average 17.74 mb/d. The US liquids supply 2021 exit rate has been adjusted higher due to an upward revision to 4Q21 by 305 tb/d, compared to a previously projected growth of 0.05 mb/d. 3Q21 was also revised upward by a minor 15 tb/d.

Regarding the liquids breakdown, US crude and condensate production for 2021 is expected to decline by 0.12 mb/d to average 11.17 mb/d. Growth of NGLs and non-conventional liquids is forecast at 0.22 mb/d and 0.03 mb/d to average 5.39 mb/d and 1.18 mb/d, respectively.

Graph 5 - 10: US liquids supply developments by component, including forecast for 2021 and 2022



*Note: * 2021-2022 = Forecast. Source: OPEC.*

US crude oil production is expected to exit December 2021 at 11.70 mb/d. US tight and conventional crude oil production are forecast to see contractions of 0.08 mb/d and 0.19 mb/d in 2021, to average 7.31 mb/d and 2.06 mb/d, respectively.

US liquids production in 2022, excluding processing gains, is anticipated to grow by 1.03 mb/d y-o-y to average 18.77 mb/d, revised up by 0.08 mb/d. The 2022 gains are due primarily to forecast tight crude production growth of 0.7 mb/d and projected growth of 0.08 mb/d in the GoM. However, the expected growth from shale and tight formations as well as from the GoM will be partially offset by natural declines in onshore conventional fields by 0.10 mb/d y-o-y.

Given the current pace of drilling and well completion in oil fields, **production of crude oil** is forecast to grow by 0.65 mb/d y-o-y to average 11.82 mb/d. This forecast assumes ongoing capital discipline, limited active drilling rigs, completion crews and labour shortages.

Production of NGLs, mainly from unconventional shale sources, is forecast to increase by 0.34 mb/d to average 5.7 mb/d, and non-conventional liquids are projected to grow by 0.04 mb/d.

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

US liquids	2020	Change 2020/19	2021*	Change 2021/20	2022*	Change 2022/21
Tight crude	7.39	-0.45	7.31	-0.08	7.98	0.67
Gulf of Mexico crude	1.64	-0.25	1.80	0.16	1.88	0.08
Conventional crude oil	2.25	-0.30	2.06	-0.19	1.96	-0.10
Total crude	11.28	-1.01	11.17	-0.11	11.82	0.65
Unconventional NGLs	4.27	0.35	4.53	0.26	4.89	0.36
Conventional NGLs	0.91	0.00	0.86	-0.05	0.84	-0.02
Total NGLs	5.17	0.35	5.39	0.22	5.73	0.34
Biofuels + Other liquids	1.15	-0.20	1.18	0.03	1.22	0.04
US total supply	**17.61**	**-0.86**	**17.74**	**0.13**	**18.77**	**1.03**

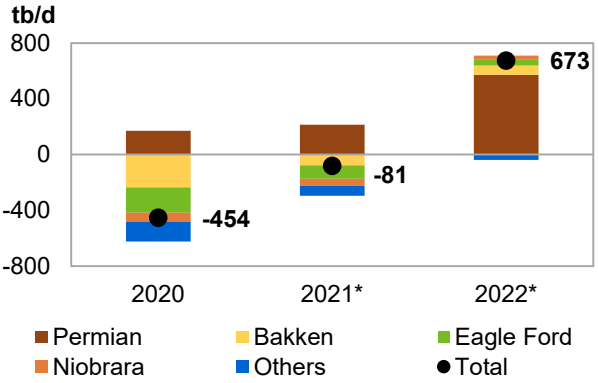
*Note: * 2021-2022 = Forecast. Sources: EIA, OPEC and Rystad Energy.*

US tight crude production in 2021 and 2022 is expected to show continuous y-o-y growth in the Permian Basin by 219 tb/d and 572 tb/d to average 4.14 mb/d and 4.71 mb/d, respectively.

The decline rate in Bakken shale production slowed in 2021 compared to 2020, from a contraction of 235 tb/d to a decline of 71 tb/d, and is now expected to stand at an average of 1.1 mb/d in 2021. For 2022, tight crude production from the Bakken shale is forecast to grow by 66 tb/d on the back of increased drilling activities in North Dakota.

The Eagle Ford in Texas is expected to decline this year by 0.08 mb/d to average 0.96 mb/d, but is forecast to grow next year by 0.04 mb/d to average 1.0 mb/d. According to the EIA-DPR (Drilling Productivity Report) forecast for January 2022, production is forecast to decrease by 7 tb/d in January m-o-m.

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



*Note: * 2021-2022 = Forecast.*
Sources: EIA, Rystad Energy and OPEC.

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

US tight oil	2020	Change 2020/19	2021*	Change 2021/20	2022*	Change 2022/21
Permian tight	3.92	0.17	4.14	0.21	4.71	0.57
Bakken shale	1.18	-0.23	1.10	-0.08	1.17	0.07
Eagle Ford shale	1.05	-0.18	0.96	-0.10	1.00	0.04
Niobrara shale	0.47	-0.07	0.42	-0.05	0.45	0.03
Other tight plays	0.76	-0.14	0.69	-0.07	0.65	-0.04
Total	**7.39**	**-0.45**	**7.31**	**-0.08**	**7.98**	**0.67**

*Note: * 2021-2022 = Forecast. Source: OPEC.*

Production in the Niobrara, following an expected decline of 51 tb/d this year, is likely to grow by 31 tb/d y-o-y in 2022, to average 0.45 mb/d. Other shale plays are not expected to show growth in 2021 or 2022, given current drilling and completion activities.

US tight crude saw a contraction of 453 tb/d in 2020 and is expected to decline by 72 tb/d y-o-y this year. In 2022, production is forecast to grow by 673 tb/d to average 7.98 mb/d.

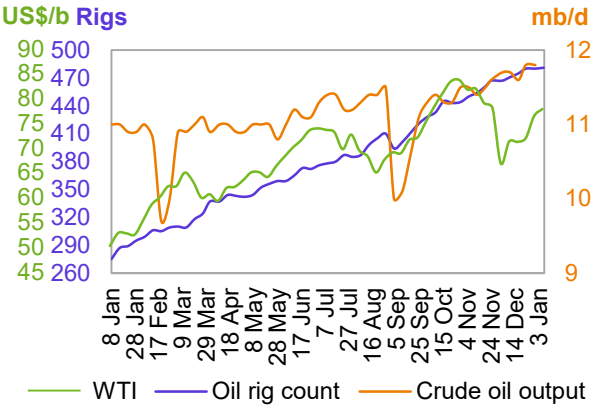
US rig count, spudded, completed, DUC wells and fracking activity

Total **US active drilling rigs** remained unchanged w-o-w at 586 rigs in the week ended 31 December. The number of active offshore rigs was steady w-o-w at 15, two rigs down from 2020. Moreover, 570 rigs (oil and gas) were active onshore and one in inland waters.

The US horizontal rig count rose by two rigs w-o-w to 530 rigs, compared to 313 horizontal rigs in 2020 a year ago.

While the rig count in the Permian dropped by one w-o-w to 293 rigs, the number of active rigs increased by one to 28 rigs in Cana Woodford and remains unchanged at 27 in the Williston, 44 in the Eagle Ford, and 11 rigs in the DJ-Niobrara basins.

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



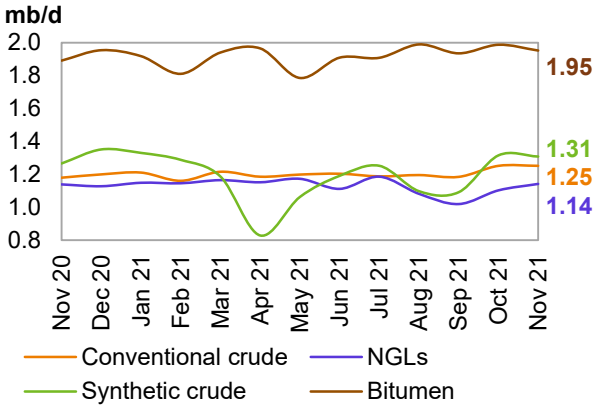
Sources: Baker Hughes, EIA and OPEC.

Canada

Canada's liquids production in November is estimated to have remained flat m-o-m, to average 5.69 mb/d.

Crude bitumen and synthetic crude output decreased slightly, by 42 tb/d, while production of conventional crude was unchanged at an average of 1.25 mb/d. At the same time, production of and NGLs was up by 39 tb/d m-o-m to average 1.14 mb/d.

Graph 5 - 13: Canada's monthly liquids production development by type

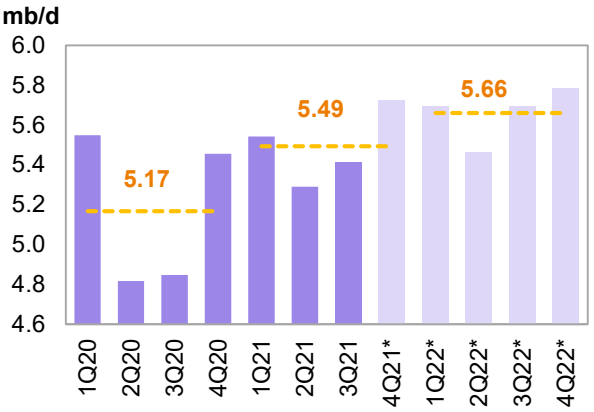


Sources: National Energy Board and OPEC.

Lower-than-forecast monthly liquids output in both October and November have necessitated a slight downward revision to Canadian liquids supply for **2021** by 19 tb/d, to show growth of 0.33 mb/d and average 5.49 mb/d.

For **2022**, Canada's liquids production is forecast to increase at a slower pace compared with the current year, rising by 0.17 mb/d to average 5.66 mb/d, revised down by 0.02 mb/d from the previous month's assessment.

Graph 5 - 14: Canada's quarterly liquids production and forecast



*Note: * 4Q21-4Q22 = Forecast. Source: OPEC.*

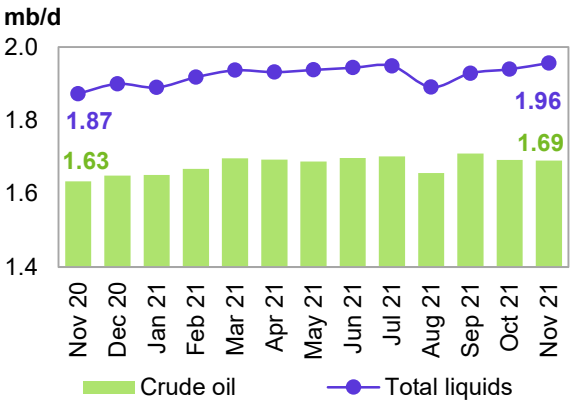
Mexico

Mexico's crude output was broadly flat in **November** to average 1.69 mb/d. However, NGL output rose by 18 tb/d. Therefore, Mexico's total liquids output in November increased by 17 tb/d m-o-m to average 1.96 mb/d.

For **2021**, liquids production in Mexico is forecast to grow by 0.01 mb/d to average 1.93 mb/d, unchanged from the previous assessment.

For **2022**, growth is forecast at 0.03 mb/d to average 1.96 mb/d.

Graph 5 - 15: Mexico's monthly liquids and crude production development



Sources: PEMEX and OPEC.

OECD Europe

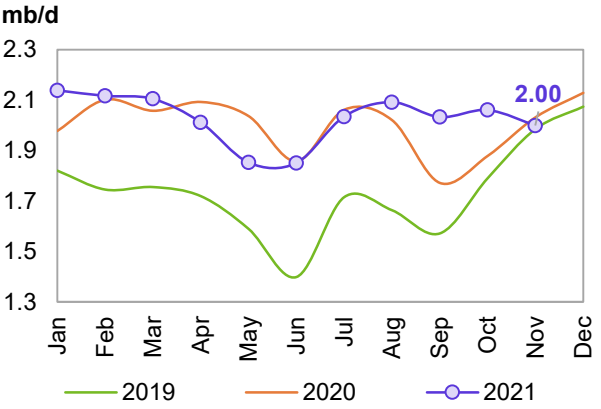
Norway

Norwegian crude production declined by 89 tb/d m-o-m in **November** to average 1.73 mb/d, and was flat y-o-y. Production of NGLs and condensates rose by 27 tb/d m-o-m, to average 0.27 mb/d.

For **2021**, Norway's liquids supply growth forecast has been revised down by 12 tb/d m-o-m due to lower-than-expected output in 4Q21, which saw a downward revision of 48 tb/d. Production is now expected to average 2.03 mb/d, with growth of 0.03 mb/d y-o-y.

For **2022**, Norwegian liquids production is expected to grow by 0.12 mb/d to average 2.16 mb/d, a downward revision of 0.01 mb/d from last month's assessment. It is worth noting that the second phase of the Johan Sverdrup facility is planned to start up in 4Q22. Thereby, oil production capacity of the field will increase by 0.22 mb/d to 0.76 mb/d at the peak.

Graph 5 - 16: Norway's monthly liquids production development



Sources: NPD and OPEC.

UK

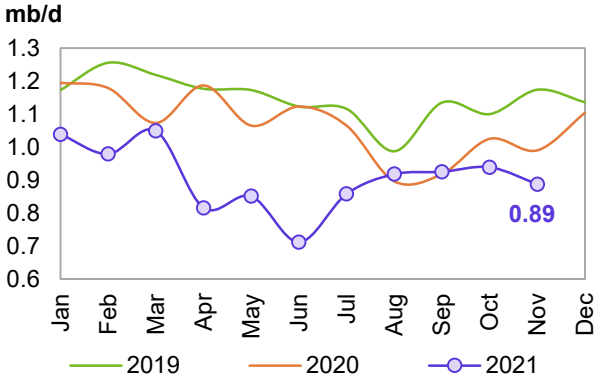
UK liquids production declined in November, by 52 tb/d m-om, to average 0.89 mb/d.

Crude oil output fell by 52 tb/d m-o-m to average 0.76 mb/d, according to official data, and was down by 91 tb/d y-o-y. NGL output held steady m-o-m in November, to average 93 tb/d.

For **2021**, UK liquids production is forecast to contract by 0.15 mb/d to average 0.91 mb/d.

For **2022**, UK liquids production is forecast to grow by a minor 0.01 mb/d to average 0.93 mb/d, following two consecutive years of heavy declines.

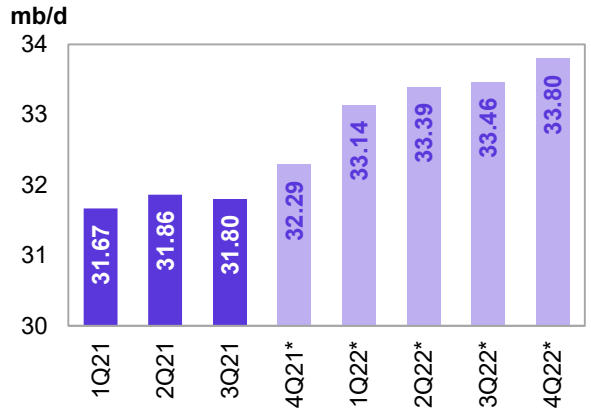
Graph 5 - 17: UK monthly liquids production development



Sources: Department of Energy & Climate Change and OPEC.

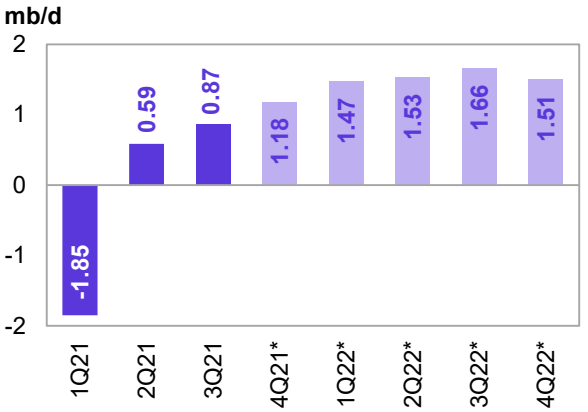
Non-OECD

Graph 5 - 18: Non-OECD quarterly liquids production and forecast



*Note: * 4Q21-4Q22 = Forecast. Source: OPEC.*

Graph 5 - 19: Non-OECD quarterly liquids supply, y-o-y changes

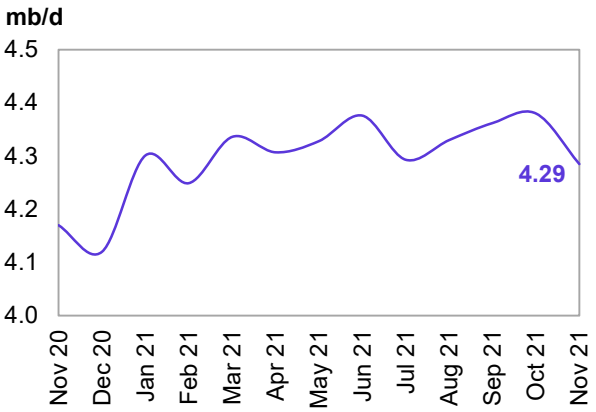


*Note: * 4Q21-4Q22 = Forecast. Source: OPEC.*

China

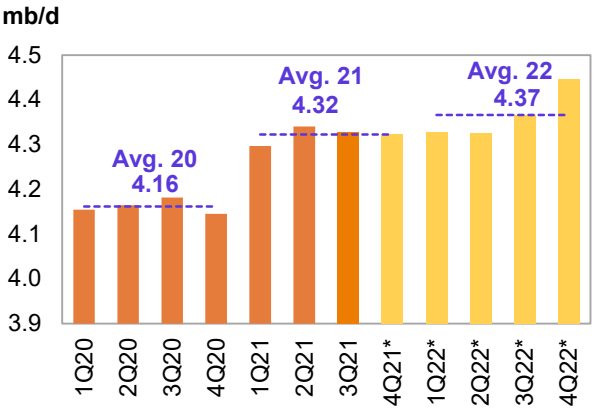
China's liquids production declined by 0.9 mb/d m-o-m in November to average 4.29 mb/d, but showed a y-o-y increase of 0.12 mb/d, according to official data. Crude oil output in November dropped up by 91 tb/d to average 3.97 mb/d and was higher by 85 tb/d y-o-y. Crude oil output in January-November averaged 4.0 mb/d, up by 117 tb/d from the same period in 2020.

Graph 5 - 20: China's monthly liquids production development



Sources: CNPC and OPEC.

Graph 5 - 21: China's quarterly liquids production and forecast



*Note: * 4Q21-4Q22 = Forecast. Sources: CNPC and OPEC.*

For **2021**, China's liquids supply is projected to see growth of 0.16 mb/d to average 4.32 mb/d, unchanged from the previous assessment.

For **2022**, growth of 0.04 mb/d is anticipated for an average of 4.37 mb/d.

Latin America

Brazil

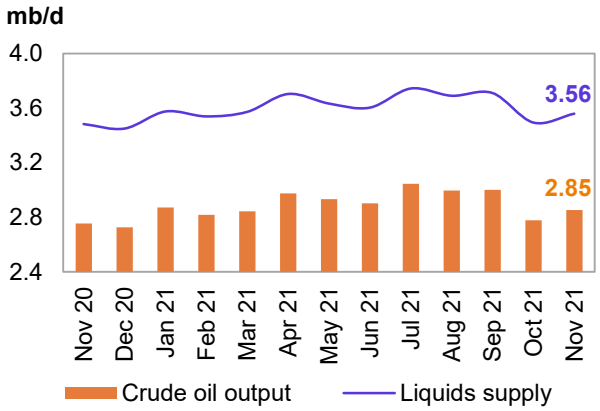
Brazil's crude output in November increased by 74 tb/d m-o-m to average 2.85 mb/d. NGLs declined by 9 tb/d to average 84 tb/d, and biofuel output remained steady at 623 tb/d. Therefore, in November, total liquids production rose by 65 tb/d to average 3.56 mb/d, which was higher by 76 tb/d y-o-y.

Average crude production in Brazil during January-November 2021 shows a decline of 48 tb/d compared with the same period in 2020, despite the production ramp-up in the Sepia and Buzios fields. This is far from the initial expected growth for 2021. Maintenance impacted crude production in 2021, and this is expected to continue until the end of 2021. Moreover, COVID-19-related health and safety measures at production platforms, delays in project start-ups and heavy natural declines at offshore mature fields, particularly in the Campos Basin, have also contributed to under-performance in production.

Hence, the initial liquids supply forecast for **2021** has been revised down by 21 tb/d m-o-m to average 3.62 m/d, a decline of 0.05 mb/d y-o-y, including non-crude, mainly biofuels.

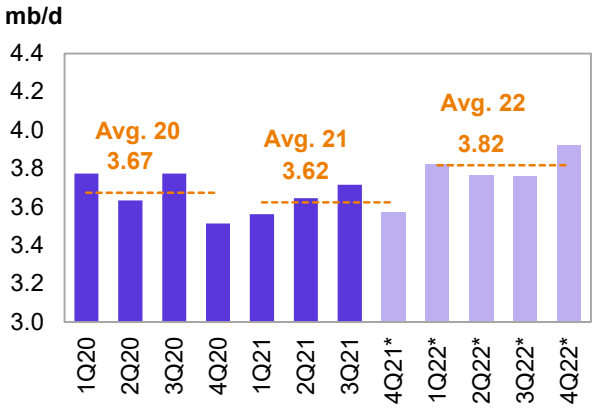
For **2022**, Brazil's liquids supply forecast, including biofuels, is forecast to increase by 0.19 mb/d y-o-y to average 3.82 mb/d, revised down by 0.02 mb/d. Crude oil production is expected to rise through two new project start-ups: Mero-1 (Guanabara), which was initially planned to start in 2021, and Peregrino-Phase 2. Moreover, in Buzios, a fifth unit, the Almirante Barroso FPSO — to be supplied by Japan's Modec — is due to begin operation in 2022.

Graph 5 - 22: Brazil's monthly liquids production development by type



Sources: ANP, Petrobras and OPEC.

Graph 5 - 23: Brazil's quarterly liquids production



*Note: * 4Q21-4Q22 = Forecast. Sources: ANP and OPEC.*

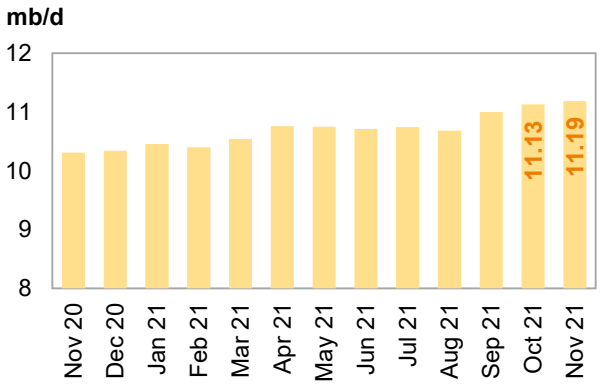
Russia

Russia's liquids production in November increased by 54 tb/d m-o-m to average 11.19 mb/d. This includes 9.96 mb/d of crude oil and 1.23 mb/d of condensate and NGLs. A preliminary estimate for Russia's crude and condensates production in December based on the Ministry of Energy's production data shows an increase of 0.01 mb/d m-o-m.

Annual liquids production in **2021** is forecast to increase by 0.21 mb/d y-o-y to average 10.80 mb/d, revised up marginally m-o-m.

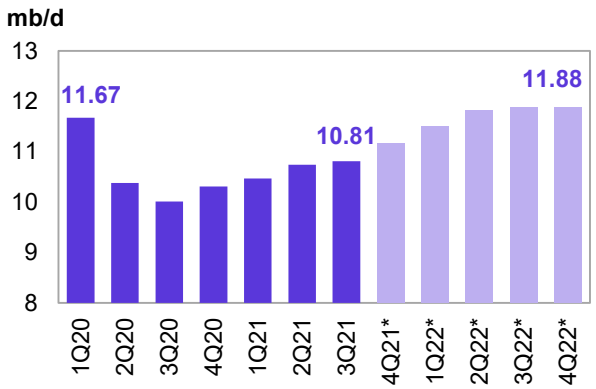
For **2022**, Russian liquids output is expected to increase by 0.98 mb/d to average 11.78 mb/d, with 3Q22 and 4Q22 both expected to reach 11.88 mb/d, unchanged from the previous assessment.

Graph 5 - 24: Russia's monthly liquids production



Sources: Nefte Compass, The Ministry of Energy of the Russian Federation and OPEC.

Graph 5 - 25: Russia's quarterly liquids production



*Note: * 4Q21-4Q22 = Forecast.*
Sources: Nefte Compass and OPEC.

Caspian

Kazakhstan & Azerbaijan

Liquids output in Kazakhstan increased by 74 tb/d m-o-m to average 2.0 mb/d in **November**. Oil output from Tengiz, the country's largest oil field, averaged 0.6 mb/d prior to maintenance in August and September. Kazakh crude production inched up by 14 tb/d m-o-m in November to average 1.62 mb/d, the highest output since April 2020, and up by 0.2 mb/d y-o-y. At the same time, production of condensate and

NGLs was up by 60 tb/d m-o-m to average 381 tb/d in November. This was broadly in line with the 373 tb/d average seen in 1Q21.

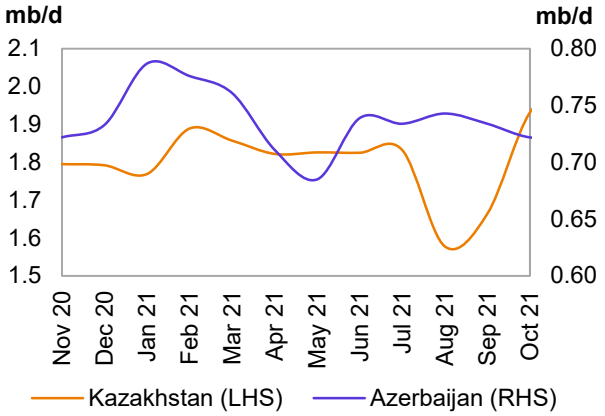
Kazakhstan's liquids supply estimate for **2021** was revised up by 10 tb/d from the previous assessment and is now estimated to average 1.83 mb/d, unchanged y-o-y, while for **2022**, liquids supply is forecast to grow by 0.15 mb/d to average 1.98 mb/d.

Azerbaijan's liquids production in November held steady at a m-o-m average of 0.72 mb/d and broadly unchanged y-o-y. Crude production inched up by a minor 2 tb/d m-o-m to average 584 tb/d as maintenance continued on the Chirag platform. Condensate output held steady at 140 tb/d, according to official sources.

Oil production is expected to increase in December to average 0.79 mb/d, following the completion of maintenance.

Azerbaijan's liquids supply is expected to show growth of 0.01 mb/d y-o-y to average 0.74 mb/d in **2021**, while for **2022**, growth of 0.08 mb/d y-o-y is anticipated for an average of 0.82 mb/d.

Graph 5 - 26: Caspian monthly liquids production development by selected country



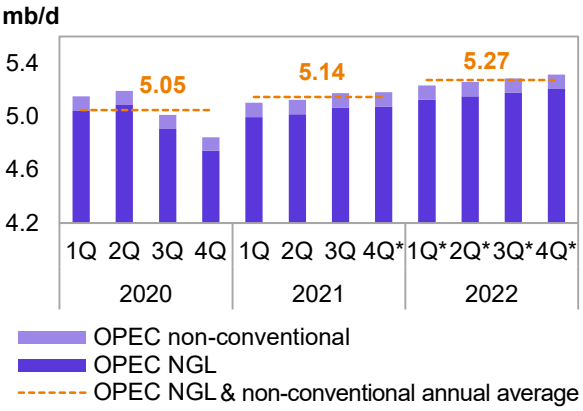
Sources: Nefte Compass and OPEC.

OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids in 2021 are estimated to have grown by 0.10 mb/d, following a decline of 0.17 mb/d in 2020, to average 5.14 mb/d, unchanged from last month's assessment.

For **2022**, OPEC NGLs and non-conventional liquids production is expected to grow by 0.13 mb/d to average 5.27 mb/d.

Graph 5 - 27: OPEC NGLs and non-conventional liquids quarterly production and forecast



*Note: * 4Q21-4Q22 = Forecast. Source: OPEC.*

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

OPEC NGL and non-coventional oils	2020	Change 20/19	2021	Change 21/20	1Q22	2Q22	3Q22	4Q22	2022	Change 22/21
OPEC NGL	**4.94**	*-0.18*	**5.04**	*0.09*	5.12	5.15	5.18	5.20	**5.16**	*0.13*
OPEC non-conventional	**0.10**	*0.01*	**0.11**	*0.00*	0.11	0.11	0.11	0.11	**0.11**	*0.00*
Total	**5.05**	***-0.17***	**5.14**	***0.10***	**5.23**	**5.26**	**5.29**	**5.31**	**5.27**	***0.13***

Note: 2021-2022 = Forecast. Source: OPEC.

OPEC crude oil production

According to secondary sources, total **OPEC-13 crude oil production** averaged 27.88 mb/d in December 2021, higher by 0.17 mb/d m-o-m. Crude oil output increased mainly in Angola, Saudi Arabia, Iraq and the UAE, while production in Libya and Nigeria declined.

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

Secondary sources	2020	2021	2Q21	3Q21	4Q21	Oct 21	Nov 21	Dec 21	*Change* Dec/Nov
Algeria	897	908	886	922	954	945	954	964	*10*
Angola	1,255	1,120	1,109	1,106	1,123	1,120	1,082	1,166	*85*
Congo	288	265	261	258	269	275	262	270	*7*
Equatorial Guinea	115	101	106	99	93	86	89	103	*14*
Gabon	195	186	186	186	186	177	185	196	*11*
IR Iran	1,988	2,404	2,440	2,479	2,476	2,480	2,470	2,478	*8*
Iraq	4,049	4,024	3,940	4,053	4,218	4,144	4,242	4,270	*28*
Kuwait	2,430	2,415	2,356	2,445	2,528	2,502	2,531	2,552	*21*
Libya	367	1,149	1,151	1,154	1,115	1,155	1,137	1,053	*-84*
Nigeria	1,579	1,381	1,424	1,349	1,342	1,308	1,381	1,338	*-43*
Saudi Arabia	9,182	9,090	8,502	9,536	9,856	9,766	9,871	9,932	*61*
UAE	2,802	2,718	2,644	2,762	2,853	2,829	2,852	2,880	*28*
Venezuela	500	554	513	538	652	614	661	681	*20*
Total OPEC	**25,648**	**26,315**	**25,520**	**26,885**	**27,665**	**27,400**	**27,715**	**27,882**	***166***

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	2020	2021	2Q21	3Q21	4Q21	Oct 21	Nov 21	Dec 21	*Change* Dec/Nov
Algeria	899	911	886	924	958	949	959	966	*7*
Angola	1,271	1,124	1,125	1,114	1,122	1,106	1,110	1,150	*40*
Congo	300	267	265	266	260	269	253	257	*4*
Equatorial Guinea	114	94	99	94	79	81	71	85	*14*
Gabon	207	181	179	180	183	171	188	189	*1*
IR Iran	..	..	..	..	..	..	..	..	*..*
Iraq	3,997	3,971	3,890	3,979	4,167	4,070	4,208	4,225	*17*
Kuwait	2,438	2,415	2,355	2,447	2,528	2,503	2,532	2,549	*17*
Libya	389	1,207	1,213	1,220	1,182	1,244	1,211	1,092	*-119*
Nigeria	1,493	1,312	1,343	1,270	1,233	1,228	1,275	1,197	*-78*
Saudi Arabia	9,213	9,125	8,535	9,565	9,905	9,780	9,912	10,022	*110*
UAE	2,779	2,718	2,645	2,758	2,854	2,833	2,852	2,878	*26*
Venezuela	569	636	556	635	817	756	824	871	*47*
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	***..***

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

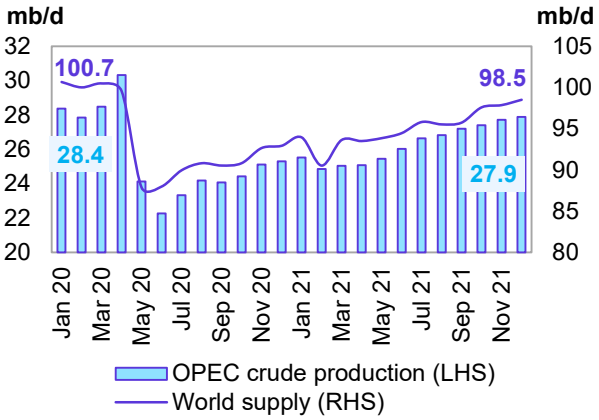
World oil supply

Preliminary data indicates that **global liquids production in December** increased by 0.65 mb/d to average 98.51 mb/d compared with the previous month.

Non-OPEC liquids production (including OPEC NGLs) is estimated to have increased in December by 0.48 mb/d compared with the previous month to average 70.63 mb/d, higher by 2.99 mb/d y-o-y. Preliminary December increases in production of 0.32 mb/d were driven by the OECD, mainly Norway and Canada, while output in the non-OECD was up by 0.12 mb/d, primarily driven by Brazil and Guyana.

The **share of OPEC crude oil in total global production** remains unchanged at 28.3% in December compared with the previous month. Estimates are based on preliminary data from direct communication for non-OPEC supply, OPEC NGLs and non-conventional oil, while estimates for OPEC crude production are based on secondary sources.

Graph 5 - 28: OPEC crude production and world oil supply development



Source: OPEC.

Product Markets and Refinery Operations

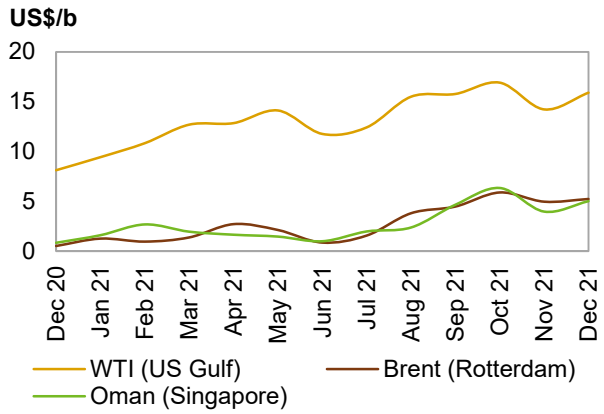
In December, refinery margins in all main trading hubs rebounded from the downturn witnessed in the previous month and reached the second-highest level recorded since May 2020, as they inched closer to the record high marks seen on October 2021. A tight product balance in all regions and a pick-up in fuel consumption levels amid the end of the year holidays provided positive stimulus to product markets and ultimately led to robust jet/kerosene and fuel oil performance, despite a significant rise in global product output levels and rising COVID-19 cases.

In addition, firm requirements for space heating as well as prevailing high gas prices, particularly in Europe, lent further backing for middle distillate markets. Meanwhile, in contrast, temporary lockdowns in December – as well as higher gasoline refinery output – exacerbated the seasonal gasoline weakness in the Atlantic Basin, thus limiting further gains to refining economics.

Refinery margins

US Gulf Coast (USGC) refining margins rebounded following a downturn witnessed the previous month. Stronger fundamentals, mainly linked to firm manufacturing amid the year-end holiday season, provided backing to USGC product markets, particularly those linked to the middle and bottom sections of the barrel. At the same time, refineries continued to ramp up refinery processing rates in line with historical trends. Total US refinery intakes were up by 270 tb/d in December relative to the previous month. However, the rise in intakes was somewhat limited, as several unplanned refinery shut-downs capped a further upside. The largest positive contribution to USGC refining economics emerged from the jet/kerosene complex in response to an increasingly narrow jet/kerosene balance in the country, as stock levels declined significantly for the 4th consecutive month in December. USGC margins against WTI averaged $15.89/b in December, up by $1.68 m-o-m and by $7.78/b y-o-y.

Graph 6 - 1: Refining margins



Sources: Argus and OPEC.

Refinery margins in **Europe** trended upward, supported by a short product balance within the region as product inventory levels remained relatively low, while refiners appeared to cautiously manage their processing rates to safeguard margins. This positive performance was also driven by an improvement in fuel consumption levels amid solid exports ahead of the holiday season, with robust support derived from the middle and bottom sections of the barrel. Demand-driven support contributed to lower product availability in the region and ultimately lifted refining economics to the second-highest monthly average registered in 2021.

European refinery run rates in December increased by 150 tb/d m-o-m, according to preliminary data, as refiners continue to recover from the most recent peak maintenance season. In the near term, concerns over renewed mobility restrictions due to the high number of COVID-19 cases could weigh on regional refinery intakes. Refinery margins for Brent in Europe averaged $5.24/b in December, up by 27¢ compared with a month earlier and by $4.72 y-o-y.

In **Asia**, margins strengthened, as strong regional product demand amid supressed product deliveries from China contributed to considerable gains at the middle and bottom sections of the barrel. The overall estimated rise in Asian product output was estimated to be 140 tb/d higher relative to the previous month. A recent rise in COVID-19 infection rates, mainly in China and India, has triggered concerns over the possibility of a renewed lockdown and mobility restrictions, which could lead to pressure on product markets for both countries in the coming month.

Investigations into Chinese independent refiners launched in early December by the Chinese government possibly affected 45 refiners in Shandong and triggered concerns of further import quota reductions going forward. The denial of first round crude import allocations to five independent refiners, along with recent reports of slower crude purchases by independent refiners, sets the stage for further refinery consolidation in 2022 as Beijing commits to safeguard operational and tax discipline amid environmental mandates that limit fuel

consumption ahead of the Beijing winter Olympics. Refinery margins for Oman in Asia gained $1.05 m-o-m to average $5.02/b in December, higher by $4.18 y-o-y.

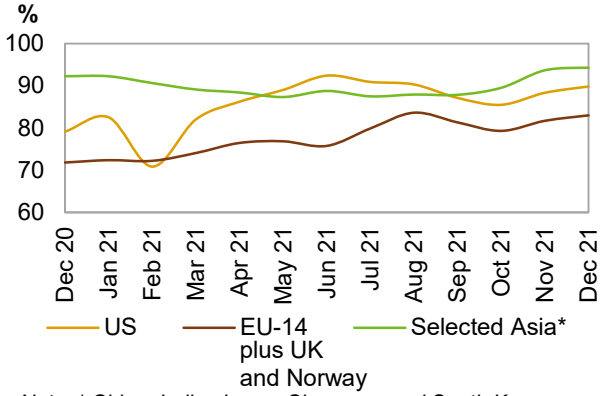
Refinery operations

US refinery utilization rates increased in December to average 89.8%, which corresponds to a throughput of 16.28 mb/d. This represented a rise of 1.5 pp and 270 tb/d, respectively, compared with the previous month. Y-o-y, the December refinery utilization rate was up by 10.7 pp, with throughput showing a rise of 1.7 mb/d.

European refinery utilization averaged 83.0%, corresponding to a throughput of 9.77 mb/d. This is a m-o-m rise of 1.3 pp or 150 tb/d. On a y-o-y basis, utilization rates increased by 11.2 pp, while throughput was up by 980 tb/d.

In **selected Asia** – comprising Japan, China, India, Singapore and South Korea – refinery utilization rates rose to average 94.2% in December, corresponding to a throughput of 26.89 mb/d. Compared with the previous month, throughput was up by 0.6 pp and 140 tb/d. Meanwhile, it rose y-o-y by 2.0 pp and 664 tb/d.

Graph 6 - 2: Refinery utilization rates



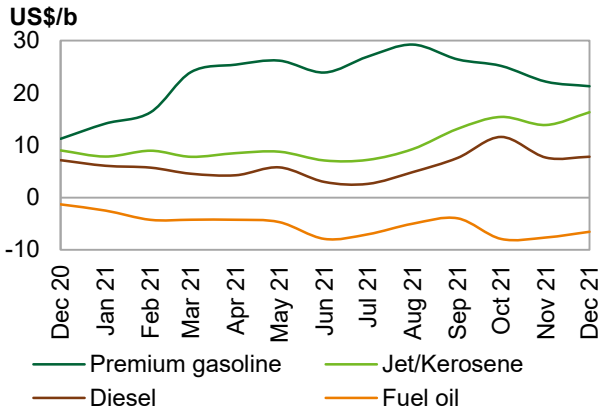
*Note: * China, India, Japan, Singapore and South Korea.*
Sources: Argus, EIA, Euroilstock, PAJ and OPEC.

Product markets

US market

US gasoline crack spreads declined further for the fifth consecutive month, pressured by a considerable stock build amid softer mobility indicators, mainly towards the second half of the month. Moreover, a rise in COVID-19 cases, and a hike in US COVID-19 related hospitalizations likely raised mobility concerns and may have contributed to further suppression of gasoline consumption. A recovery in gasoline inventories is most likely to see an extension in the coming months amid seasonal demand-side pressure typical during the winter months. This points to further downside risks for the USGC gasoline price, as well as its crack spread, over the coming month. The USGC gasoline crack spread lost 87¢ m-o-m to average $21.27/b in December, but was up by $10.04 y-o-y.

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



Sources: Argus and OPEC.

USGC **jet/kerosene crack spreads** reversed trend to show notable gains in December with a significant boost to air travel seen at the end of the year. Jet fuel inventories continued to trend downwards over the month, signalling prevailing balance tightness in the region. The US jet/kerosene crack spread against WTI averaged $16.28/b, up by $2.43 m-o-m and higher by $7.28 y-o-y.

The US **gasoil crack spread** against WTI gained some ground, supported by a rise in US gasoil exports during the month of December amid an already relatively tight gasoil balance in the region. In addition, requirements for heating oil in the US remained subdued as thus far temperatures were mostly mild which likely limited gains. Positive global manufacturing and industrial indicators likely provided further support to the US gasoil market. The US gasoil crack spread against WTI averaged $7.80/b, up by 17¢ m-o-m and 66¢ y-o-y.

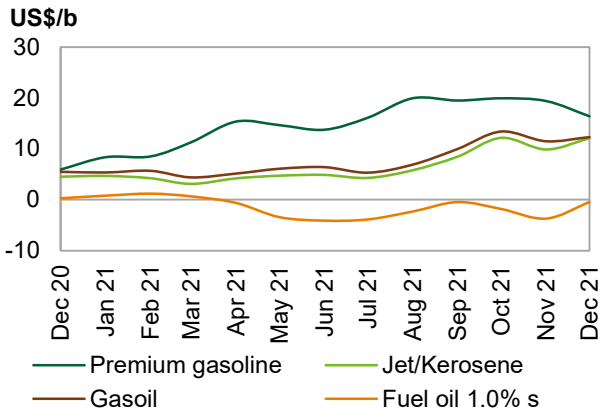
US **fuel oil crack spreads** against WTI rose in December, supported by a combination of supply- and demand-side factors. Strong conversion margins, relatively low barrel availability, as well as open arbitrage contributed to the positive performance. Going forward, fuel oil markets are expected to benefit from the prevailing need for fuel oil conversion to gasoil to replenish gasoil stock levels. In December, the US fuel oil crack spread against WTI averaged minus $6.54/b, higher by $1.09 m-o-m, but lower by $5.25 y-o-y.

European market

Gasoline crack spreads saw a downfall affected by the re-implementation of lockdowns and mobility restrictions in Europe in response to a hike in COVID-19 infection rates, which had a negative impact on mobility levels in key European countries and ultimately weighed on gasoline margins. This resulting negative impact was further exacerbated by a rise in refinery output levels, which signalled further upward pressure on ARA gasoline inventory levels. The gasoline crack spread against Brent averaged $16.39/b in December, down by $3.01 m-o-m, but was up by $10.49 y-o-y.

In December, **jet/kerosene crack spreads** against Brent showed substantial gains, mainly attributed to supply-side dynamics as middle distillate inventories at the Amsterdam-Rotterdam-Antwerp storage hub were reported lower.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus and OPEC.

Less optimistic market sentiment due to the highly contagious Omicron COVID-19 variant will most likely slow the recovery in the European jet/kerosene market in the coming months, amid concerns of tighter air travel restrictions in response to a rise in COVID-19 infection rates. The Rotterdam jet/kerosene crack spread against Brent averaged $12.10/b, up by $2.21 m-o-m and by $7.59 y-o-y.

Gasoil crack spreads showed positive performance in December as the diesel balance in the Atlantic Basin contracted. Strong support from the freight and agricultural sector amid rising heating oil demand continued to provide limited support. European gasoil prices fell by $6.45 relative to the previous month to average $86.38/b in December. The gasoil crack spread against Brent averaged $12.28/b, which was higher by 82¢ m-o-m and up by $6.82 y-o-y.

At the bottom of the barrel, **fuel oil 1.0% crack spreads** saw strengthened supported through stronger demand and favourable conversion economics. Although natural gas prices trended downwards, they remained relatively high, which may have provided some support to fuel oil consumption for the power generation sector. In Europe, fuel oil cracks averaged minus 46¢/b in December, having lost $3.26 m-o-m and 74¢ y-o-y.

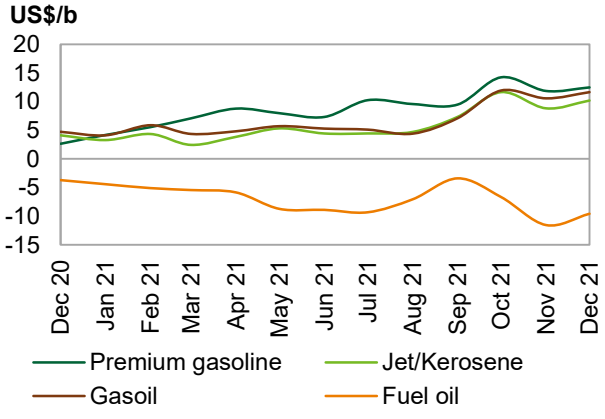
Asian market

The **Asian gasoline 92 crack spread** gained some ground backed by a pick-up in consumption levels as driving activity in the economies of Malaysia, India, Australia and Indonesia stayed above baseline levels, according to mobility indicators.

The hefty reduction in Chinese gasoline exports have largely contributed to lower volume availability in the region, which provided support to the Asian gasoline complex.

The Singapore **gasoline crack spread** against Oman in December averaged $12.48/b, up by 62 ¢ m-o-m and up by $9.86 y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus and OPEC.

Asia **naphtha crack spreads** continued to trend upwards and benefited from the strength seen in the Asian gasoline market while prices for gasoline blending components remained well sustained, in addition to firm naphtha demand from the petrochemical sector. The Singapore naphtha crack spread against Oman averaged $4.51/b, having increased by 59¢ m-o-m, and $6.49 y-o-y.

In the middle of the barrel, **jet/kerosene crack spreads** gained solid ground in line with a decline in inventories levels for the same product. Renewed concerns given a rise in COVID-19 infection rates amid the highly contagious Omicron variant could lead governments to impose lockdowns and travel restrictions again in the

near term. The Singapore jet/kerosene crack spread against Oman averaged $10.16/b, up by $1.36 m-o-m and by $6.07 y-o-y.

The Singapore **gasoil crack** spread trended upwards reflective of strong regional demand, firm industrial and manufacturing activity as well as a contraction in gasoil availability in the region. The Singapore gasoil crack spread against Oman averaged $11.63/b, up by $1.08 m-o-m and up by $6.91 y-o-y.

The Singapore **fuel oil 3.5% crack spread** strengthened in response to stronger FCC margins, which boosted the incentive for refiners to convert fuel oil into gasoline and gasoil. Moreover, positive maritime shipping activities ahead of the holiday season, particularly in the first half of December, may likely have supported bunker fuel requirements, providing further backing to high sulphur fuel oil markets in Asia. Singapore fuel oil cracks against Oman averaged minus $9.56/b, up by $1.97 m-o-m but lower by $5.86 y-o-y.

Table 6 - 1: Short-term prospects for product markets and refinery operations

Event	Time frame	Asia	Europe	US	Observations
Potential reinforcement of mobility restrictions	Jan-Mar 22	↓ Negative impact on product markets	↓ Negative impact on product markets	↓ Negative impact on product markets	Refining economics could come under pressure during winter due to the reinforcement of mobility restrictions and could exert pressure on fuel consumption levels and lead to product surplus in the near term.
Omicron/ jet fuel	Jan-Mar 22	↓ Negative impact on jet fuel	↓ Negative impact on jet fuel	↓ Negative impact on jet fuel	Concerns over the spread of new COVID-19 variants from heightened air travel restrictions, may slow or reverse the robust jet fuel witnessed in the recent months.
Current product tightness	Jan-Mar 22	↑ Positive impact on product markets	↑ Positive impact on product markets	↑ Positive impact on product markets	This is set to support processing rate in the immediate short term as refiners, traders, are expected to replenish product stock levels.

Source: OPEC.

Table 6 - 2: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				*Refinery utilization, %*			
	Oct 21	Nov 21	Dec 21	Change Dec/Nov	Oct 21	Nov 21	Dec 21	Change Dec/Nov
US	**15.50**	**16.01**	**16.28**	**0.27**	**85.47**	**88.33**	**89.82**	**1.5 pp**
Euro-14, plus UK and Norway	**9.34**	**9.62**	**9.77**	**0.15**	**79.30**	**81.69**	**82.98**	**1.3 pp**
France	0.72	0.74	0.77	0.02	62.65	64.56	66.71	2.2 pp
Germany	1.74	1.77	1.78	0.02	84.91	86.03	86.91	0.9 pp
Italy	1.38	1.39	1.40	0.01	72.84	73.37	73.80	0.4 pp
UK	0.91	0.98	1.00	0.02	77.49	83.54	85.44	1.9 pp
Selected Asia*	**25.61**	**26.75**	**26.89**	**0.14**	**89.51**	**93.63**	**94.25**	**0.6 pp**

*Note: * Includes Japan, China, India, Singapore and South Korea.*

Sources: Argus Media, EIA, EuroilStock, NBS, PAJ and OPEC.

Table 6 - 3: Refinery crude throughput, mb/d

Refinery crude throughput	2018	2019	2020	4Q20	1Q21	2Q21	3Q21	4Q21
OECD Americas	**19.31**	**18.96**	**16.54**	**16.24**	**16.29**	**18.18**	**18.32**	**18.07**
of which US	*17.31*	*16.99*	*14.72*	*14.32*	*14.20*	*16.17*	*16.22*	*15.93*
OECD Europe	**12.17**	**12.13**	**10.64**	**10.36**	**10.17**	**10.66**	**11.35**	**11.26**
of which:								
France	*1.10*	*1.00*	*0.67*	*0.71*	*0.58*	*0.65*	*0.79*	*0.74*
Germany	*1.80*	*1.78*	*1.72*	*1.67*	*1.58*	*1.66*	*1.75*	*1.76*
Italy	*1.35*	*1.35*	*1.11*	*1.08*	*1.06*	*1.24*	*1.27*	*1.39*
UK	*1.06*	*1.08*	*0.92*	*0.89*	*0.75*	*0.94*	*0.99*	*0.96*
OECD Asia Pacific	**6.98**	**6.79**	**5.89**	**5.88**	**5.82**	**5.49**	**5.78**	**5.94**
of which Japan	*3.11*	*3.02*	*2.48*	*2.51*	*2.56*	*2.22*	*2.51*	*2.83*
Total OECD	**38.46**	**37.88**	**33.08**	**32.48**	**32.28**	**34.33**	**35.45**	**35.28**
Latin America	**4.31**	**4.09**	**3.27**	**3.37**	**3.48**	**3.30**	**3.44**	**3.49**
Middle East	**6.98**	**6.84**	**6.02**	**6.37**	**6.46**	**6.49**	**6.78**	**6.82**
Africa	**2.16**	**2.12**	**1.96**	**1.94**	**2.08**	**2.02**	**2.01**	**2.04**
India	**4.89**	**5.04**	**4.42**	**4.73**	**4.93**	**4.55**	**4.40**	**4.99**
China	**12.03**	**13.02**	**13.48**	**14.14**	**14.12**	**14.38**	**13.76**	**14.26**
Other Asia	**5.18**	**4.95**	**4.62**	**4.49**	**4.47**	**4.70**	**4.69**	**4.74**
Russia	**5.72**	**5.70**	**5.39**	**5.29**	**5.55**	**5.52**	**5.63**	**5.75**
Other Eurasia	**1.32**	**1.30**	**1.11**	**1.24**	**1.16**	**1.24**	**1.37**	**1.42**
Other Europe	**0.63**	**0.62**	**0.49**	**0.50**	**0.46**	**0.53**	**0.51**	**0.52**
Total Non-OECD	**43.23**	**43.68**	**40.75**	**42.07**	**42.70**	**42.72**	**42.59**	**44.03**
Total world	**81.70**	**81.56**	**73.83**	**74.55**	**74.98**	**77.04**	**78.05**	**79.31**

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.

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

		Nov 21	Dec 21	Change Dec/Nov	Annual average 2020	2021
US Gulf (Cargoes FOB)						
Naphtha*		82.41	75.90	-6.51	38.31	70.70
Premium gasoline	(unleaded 93)	101.25	93.14	-8.11	51.89	91.41
Regular gasoline	(unleaded 87)	95.98	89.36	-6.62	47.72	86.72
Jet/Kerosene		92.96	88.15	-4.81	46.83	78.32
Gasoil	(0.2% S)	86.74	79.67	-7.07	44.92	73.94
Fuel oil	(3.0% S)	66.27	63.45	-2.82	34.72	59.84
Rotterdam (Barges FoB)						
Naphtha		81.41	77.40	-4.01	39.00	70.15
Premium gasoline	(unleaded 98)	100.77	90.49	-10.28	51.34	85.89
Jet/Kerosene		91.26	86.20	-5.06	45.72	77.17
Gasoil/Diesel	(10 ppm)	92.83	86.38	-6.45	49.17	78.31
Fuel oil	(1.0% S)	77.65	73.64	-4.01	40.87	69.12
Fuel oil	(3.5% S)	66.93	64.48	-2.45	37.71	61.38
Mediterranean (Cargoes FOB)						
Naphtha		80.76	75.50	-5.26	37.58	69.40
Premium gasoline**		91.69	84.94	-6.75	45.41	80.46
Jet/Kerosene		89.29	83.07	-6.22	43.06	75.06
Diesel		91.88	84.96	-6.92	48.55	77.73
Fuel oil	(1.0% S)	79.64	75.70	-3.94	43.54	70.51
Fuel oil	(3.5% S)	64.50	61.24	-3.26	33.31	58.98
Singapore (Cargoes FOB)						
Naphtha		84.21	77.82	-6.39	40.66	70.83
Premium gasoline	(unleaded 95)	95.01	87.92	-7.09	46.59	80.28
Regular gasoline	(unleaded 92)	92.15	85.79	-6.36	44.99	78.28
Jet/Kerosene		89.09	83.47	-5.62	44.75	75.10
Gasoil/Diesel	(50 ppm)	91.14	85.66	-5.48	49.19	77.36
Fuel oil	(180 cst)	90.65	84.50	-6.15	47.86	75.71
Fuel oil	(380 cst 3.5% S)	68.76	63.75	-5.01	36.75	62.07

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

Sources: Argus and OPEC.

Tanker Market

The long-expected year-end recovery in dirty tanker spot freight rates failed to materialize in December, as lockdowns at the end of the year and softer Chinese buying limited tonnage demand. On average, VLCCs and Aframax slipped 5% and 3%, respectively, m-o-m in December. Suezmax managed a 7% gain over the month before, but remained well below pre-COVID-19 levels. For the year 2021, average VLCC and Suezmax spot freight rates witnessed their worst performance going back more than a decade, while Aframax rates marked an eight-year low.

Clean rates fared better in December, particularly West of Suez, supported by demand on the Mediterranean routes amid tighter vessel availability.

Similar to last year, a continued imbalance is expected to weigh on the tanker market in 1H22, with hopes for more sustained incremental support in the 2H22. Much will depend on a revival on the tanker demand side, as the supply-side remains overweighed. If lockdown measures do not occur in the various key demand centres, the case for cautious optimism might turn out to be more credible this time around.

Spot fixtures

The latest estimates show **global spot fixtures** fell in December, dropping for the third-straight month. Fixtures averaged 13.94 mb/d, representing a decline of just under 1.0 mb/d, or around 6%. The drop was driven by the fall in Middle East-to-West fixtures, as an increase was seen to the East and outside the Middle East. Compared to the previous year, spot fixtures were 2.4 mb/d lower, or around 15%.

Table 7 - 1: Spot fixtures, mb/d

Spot fixtures	Oct 21	Nov 21	Dec 21	*Change* Dec 21/Nov 21
All areas	15.75	14.90	13.94	-0.96
OPEC	9.94	8.98	9.63	0.65
Middle East/East	5.68	5.57	5.86	0.29
Middle East/West	1.32	0.79	0.59	-0.20
Outside Middle East	2.94	2.62	3.18	0.56

Sources: Oil Movements and OPEC.

Spot fixtures from the **Middle East-to-West** plunged by 25% m-o-m in December, down 0.2 mb/d in volume terms, to average 0.6 mb/d. Y-o-y, rates were around 0.2 mb/d, or over 23%, lower.

In contrast, **OPEC spot fixtures** rose m-o-m in December, increasing 0.7 mb/d, or around 7%, to average 9.63 m/b. However, compared with the same month in 2020, OPEC spot fixtures were about 0.6 mb/d, or 6%, lower.

Middle East-to-East fixtures increased m-o-m by 0.3 mb/d, or around 5%, to average 5.9 mb/d. This was a marginal decline of less than 1% compared to the same month of 2020.

Outside the Middle East, fixtures rose 0.6 mb/d m-o-m, or more than 21%, to average 3.2 mb/d in December. Y-o-y, fixtures were down around 0.4 mb/d, or around 11%.

Sailings and arrivals

OPEC sailings increased m-o-m in December to average 22.5 mb/d, a rise of more than 0.4 mb/d or 2%. Compared to the same month of the previous year, OPEC sailings declined by 0.2 mb/d or less than 1%.

Middle East sailings rose m-o-m in December, up by about 0.8 mb/d, or around 5%, to average 17.2 mb/d. Y-o-y, sailings from the region rose 1.0 mb/d, or around 6%, compared with December 2020.

Crude arrivals were mixed in December. Arrivals in North America declined slightly to average 9.0 mb/d. However, compared with the same month of 2020, North American arrivals were 1.6 mb/d, or over 21%, higher. Arrivals in Europe were unchanged m-o-m in December, averaging 12.8 mb/d, but this was almost 2.8 mb/d, or 28%, higher than in the same month of 2020.

In the Far East, arrivals increased m-o-m by 0.3 mb/d, or around 2%, to average 15.3 mb/d. Y-o-y, arrivals were 4.5 mb/d, or around 41%, higher. West Asian arrivals showed the biggest m-o-m gain in December,

increasing by around 0.9 mb/d, or 11%, to average 9.0 mb/d. This represented a y-o-y gain of 2.9 mb/d, or over 48%, compared to the same month in 2020.

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

Sailings	Oct 21	Nov 21	Dec 21	*Change* Dec 21/Nov 21
OPEC	22.04	22.08	22.52	0.44
Middle East	16.48	16.44	17.23	0.79
Arrivals				
North America	8.76	9.07	9.02	-0.05
Europe	12.59	12.78	12.78	0.00
Far East	13.62	14.98	15.28	0.30
West Asia	7.34	8.11	9.02	0.91

Sources: Oil Movements and OPEC.

Dirty tanker freight rates

Very large crude carriers (VLCCs)

The anticipated year-end upward momentum failed to materialize in December, with **VLCC** spot rates fading from the modest gains seen the month before. On average, VLCC spot freight rates declined 5% m-o-m, with rates to the west remaining flat for the third consecutive month and rates to the east moving lower. However, y-o-y, VLCC rates in December were up 21% compared with the very poor performance seen in the same month in 2020.

Rates on the **Middle East-to-East** route declined 7% m-o-m to average WS40 points. Y-o-y, rates were 18% higher than the torpid levels seen in 2020. Rates on the **Middle East-to-West** route were unchanged m-o-m, averaging WS24 points. Y-o-y, rates were 20% higher.

The **West Africa-to-East** route dropped 9% m-o-m to average WS41 in December. Rates were 17% higher compared with December 2020.

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

VLCC	Size *1,000 DWT*	Oct 21	Nov 21	Dec 21	*Change* Dec 21/Nov 21
Middle East/East	230-280	42	43	40	-3
Middle East/West	270-285	24	24	24	0
West Africa/East	260	44	45	41	-4

Sources: Argus and OPEC.

Suezmax

Suezmax rates showed the best performance amongst the classes, increasing 7% m-o-m. This was largely due to a stronger – though still historically weak – performance in the Atlantic Basin in early December. Rates were 82% higher than the exceptional lows seen in December 2020.

Rates on **West Africa-to-USGC** route recovered some of the previous month's loss, edging up 2% m-o-m to average WS62. Compared to the same month of 2020, rates were 88% higher.

Spot freight rates on the **USGC-to-Europe** route experienced a better performance from the perspective of ship owners, gaining 11% m-o-m to average WS62 points. This was 77% higher than in the same month of 2020.

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

Suezmax	Size *1,000 DWT*	Oct 21	Nov 21	Dec 21	*Change* Dec 21/Nov 21
West Africa/US Gulf Coast	130-135	65	61	62	1
US Gulf Coast/ Europe	150	59	56	62	6

Sources: Argus and OPEC.

Aframax

Aframax rates slipped at the end of the year, declining 3% m-o-m in December, although y-o-y, rates were still 88% higher.

The **Indonesia-to-East** route edged lower m-o-m in December, declining 2% to average WS103. Y-o-y, rates on the route were still 102% higher.

Med routes continued their recent fall in December, dropping around 10% m-o-m, with the **Cross-Med** route averaging WS105 and the **Mediterranean-to-NWE** route averaging WS94. Compared with the same month of the previous year, rates on both routes were around 76% higher.

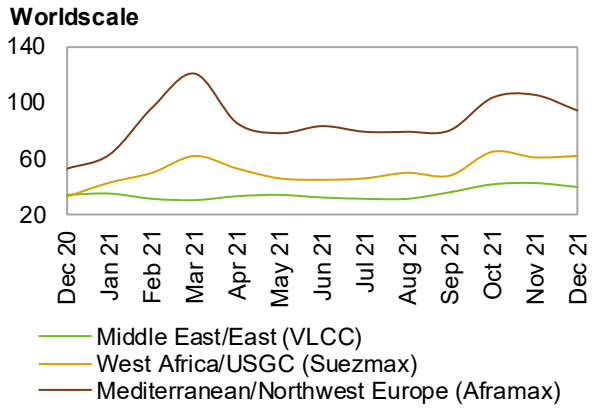
Table 7 - 5: Dirty Aframax spot tanker freight rates, WS

	Size				Change
Aframax	1,000 DWT	Oct 21	Nov 21	Dec 21	Dec 21/Nov 21
Indonesia/East	80-85	98	105	103	-2
Caribbean/US East Coast	80-85	130	124	134	10
Mediterranean/Mediterranean	80-85	109	117	105	-12
Mediterranean/Northwest Europe	80-85	103	105	94	-11

Sources: Argus and OPEC.

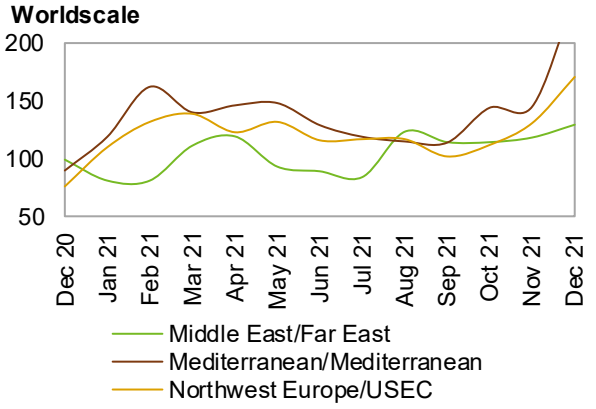
The **Caribbean-to-US East Coast (USEC)** route was a bright spot for ship owners. Rates increased 8% m-o-m to average WS134. Y-o-y, rates were 94% higher.

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

Average **clean spot freight rates** jumped m-o-m in December, up 35%, driven primarily by a strong performance West of Suez, particularly around the Mediterranean. Clean rates in the west increased 53% m-o-m, while East of Suez rates rose 5% m-o-m.

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

	Size				Change
East of Suez	1,000 DWT	Oct 21	Nov 21	Dec 21	Dec 21/Nov 21
Middle East/East	30-35	114	118	129	11
Singapore/East	30-35	139	138	139	1
West of Suez					
Northwest Europe/US East Coast	33-37	112	131	171	40
Mediterranean/Mediterranean	30-35	145	146	240	94
Mediterranean/Northwest Europe	30-35	154	156	250	94

Sources: Argus and OPEC.

In the East of Suez, rates on the **Middle East-to-East** route averaged WS129, representing a m-o-m gain of 9% and a 30% increase y-o-y. Freight rates on the **Singapore-to-East** route edged up 1% m-o-m to average WS139. Rates were 11% higher compared with December 2020.

In the West of Suez market, rates on the **NWE-to-USEC** route rose 31% m-o-m to average WS171 points. Compared to the same month of 2020, rates have more than doubled.

Rates in the **Cross-Med** and **Med-to-NWE** surged m-o-m, gaining 60% 64%, respectively, to average WS240 and WS250 points. Y-o-y, rates have more than doubled on both routes.

Crude and Refined Products Trade

Preliminary data shows US crude imports edged lower in the final month of the year, but managed to end 4% higher y-o-y for the year in 2021. US crude exports remained below 3.0 mb/d in December and averaged 2.9 mb/d in 2021, a decline of 9% y-o-y. Using preliminary data to complete the picture, crude imports were up 4% y-o-y in 2021, averaging 6.1 mb/d, while crude exports declined by around 13% to average 2.9 mb/d for the year. The shifts in US crude trade flows in 2021 came amid heathy domestic demand, fiscal discipline by US producers, and the impact of weather disruptions at the start of the year and during the hurricane season.

The latest data for China shows the country's crude imports recovered from low levels seen in October to average 10.2 mb/d in November, as state-owned refiners returned to the market after curtailing buying the month before. Preliminary data for December shows crude imports increasing further to 10.9 mb/d in the final month of the year. This would result in China's crude imports averaging 10.3 mb/d in 2021, down around 5% from the inflated levels seen in 2020 when Chinese buyers snapped up excess volumes in the market, and the first y-o-y decline since 2001. In 2021, scrutiny of the independent refining sector and government efforts to dampen upward price pressures on commodities in general, as well as the ability of refiners to draw on high inventories, have weighed on crude imports.

Meanwhile, India's crude imports jumped to a 10-month high in November to average 4.5 mb/d as refiners sought to replenish crude inventories in preparation for higher runs in 1Q22, following holidays in October and early November. Product exports from India held steady, averaging 1.3 mb/d in October, as diesel outflows remained strong and jet fuel exports increased, reflecting strength in the Asian market, as well as constrained exports from China.

Japan's crude imports surged in November to the highest since March 2020, averaging 2.8 mb/d, amid higher refinery runs required to meet expected heating demand and avoid the tightness seen last winter.

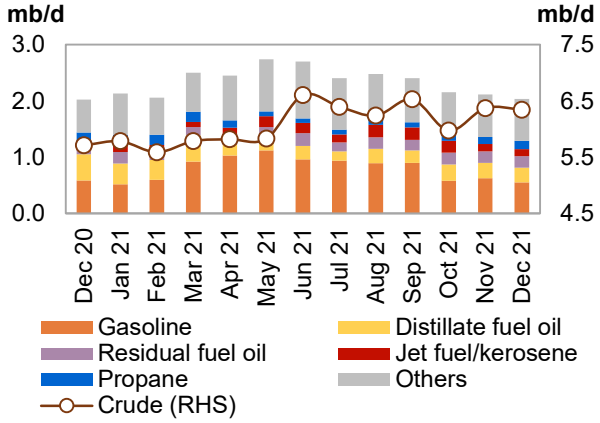
The latest data shows crude imports to OECD Europe slipped in September with the end of the driving season, although tanker tracking data shows inflows picking up through November before easing again in December amid renewed lockdown measures. OECD crude exports slipped in September amid reduced Asian flows, with Chinese independents lacking crude import quotas.

US

Preliminary data shows **US crude imports** were broadly stable in the final month of the year, edging down by less than 1% to average 6.3 mb/d in **December**. Compared with the same month of the previous year, crude imports were 0.6 mb/d, or 11%, higher.

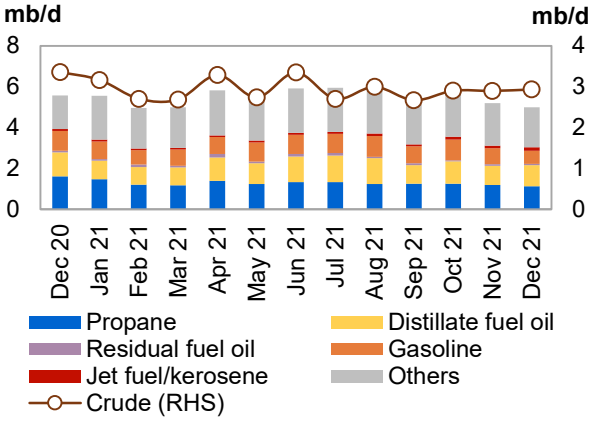
Using preliminary data to complete the picture, US crude imports in **2021** averaged 6.1 mb/d, representing an increase of around 4%, or 0.2 mb/d, compared with the previous year. Higher inflows for the year were due to weather-related supply disruptions from a cold snap at the start of the year and during the hurricane season, as well as rising domestic needs, with US demand providing an important source of support for the market in 2021.

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 remained below 3.0 mb/d in **December**, averaging 2.9 mb/d after a gain of just over 1% m-o-m. Exports declined by 0.4 mb/d, or almost 13%, compared with the same month of the previous year.

For the year, US crude exports averaged 2.9 mb/d in **2021**, representing a decline of 9%, or close to 0.3 mb/d, compared with the previous year. The lower outflows in 2021 reflect weather-related disruptions, muted demand from export destinations amid recurring lockdowns, as well as efforts by US producers to maintain fiscal discipline at a time of market rebalancing.

The latest monthly data for **US crude imports by source** shows ongoing declines in inflows from Canada (-152 tb/d), Mexico (-149 tb/d) and Saudi Arabia (-138 tb/d) in October. Iraq and Columbia showed higher volumes, up by 156 tb/d and 56 tb/d, respectively. **US crude exports by destination** showed mixed trends. The Netherlands remained in the lead, despite a slight drop, to 330 tb/d. Flows to China saw the biggest gain, jumping to 298 tb/d from just 82 tb/d the month before. In contrast, South Korea saw the biggest decline, dropping to 208 tb/d from 351 tb/d, closely followed by Singapore, which fell to 67 tb/d from 199 tb/d the month before.

US net crude imports averaged 3.4 mb/d in **December**, compared with 3.5 mb/d the month before and 2.4 mb/d in the same month of the previous year.

On the **products** side, **US imports** fell for the fourth month in a row, averaging 2.0 mb/d. This represents a m-o-m decline of about 4%. Compared with the same period the previous year, product imports were broadly unchanged. For the year, product imports averaged 2.3 mb/d in 2021, representing a gain of 0.4 mb/d, or 18%, over 2020. The increase, which came from a broad range of sources, was driven by improving economic activity, which lifted demand. Inflows were also supported by disruptions such as weather-related outages impacting the refining complex on the US Gulf Coast (USGC) and the cyberattack on the Colonial Pipeline in May 2021.

Product exports declined in December, averaging just under 5.0 mb/d. Product outflows were 0.2 mb/d, or about 4%, lower m-o-m. Compared with December 2020, product exports declined by 0.6 mb/d, or 10%. For the year 2021, product exports were 0.2 mb/d, or about 4%, higher y-o-y, averaging 5.5 mb/d. The increase reflects improving y-o-y demand for US product exports from Latin America and Asia, particularly China and Mexico.

As a result, preliminary data shows **US net product exports** averaged just under 3.0 mb/d in December, compared with 3.1 mb/d the previous month and 3.5 mb/d in the same month of the previous year.

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

US	Oct 21	Nov 21	Dec 21	*Change* Dec 21/Nov 21
Crude oil	3.07	3.48	3.41	-0.06
Total products	-3.61	-3.08	-2.96	0.13
Total crude and products	**-0.54**	**0.39**	**0.46**	**0.07**

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

Sources: EIA and OPEC.

Preliminary data indicates that US **net crude and product imports** averaged 0.5 mb/d in December. This compares with net imports of 0.4 mb/d the month before and net exports of almost 1.2 mb/d in December 2020.

Looking ahead, while it remains to be seen how US crude imports will be impacted by factors such as weather disruptions, improving economic conditions should support inflows in 2022. US crude exports are likely to recover some of the previous year's losses in 2022 as US tight oil producers increase supply.

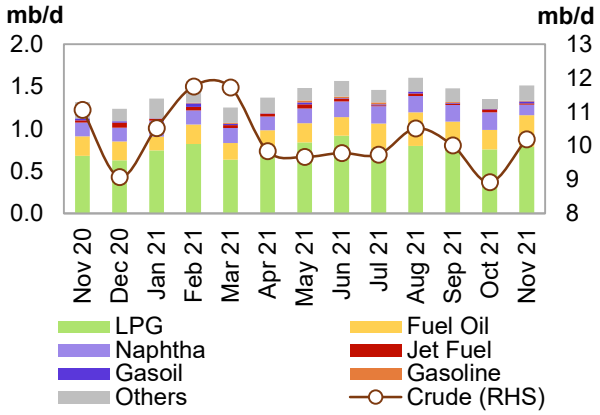
China

China's crude imports recovered from especially low levels seen the previous month to average 10.2 mb/d in November, as state-owned refiners returned to the market after curtailing purchases the month before. M-o-m, crude imports were around 1.3 mb/d, or 14%, higher. The rebound was also supported by issuance of the final round of crude import quotas.

Preliminary data for **December** shows crude imports increasing further to 10.9 mb/d in the final month of the year. This would result in China's crude imports in 2021 averaging 10.3 mb/d, down by around 5% from the inflated levels seen in 2020 when Chinese buyers snapped up excess volumes in the market, and the first y-o-y decline since 2001. This year, scrutiny by the independent refining sector and government efforts to dampen upward price pressure on commodities in general, as well as the ability of refiners to draw on high inventories, curtailed crude imports in 2021.

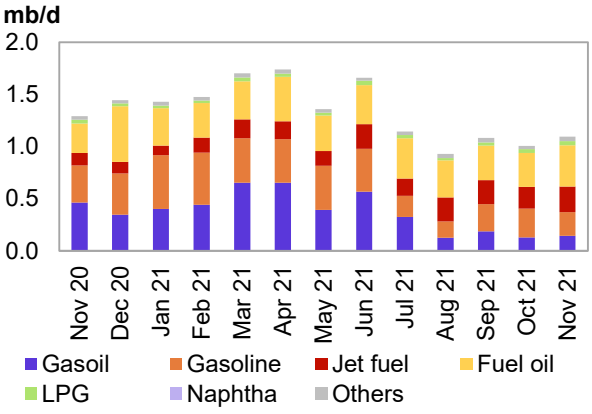
In terms of **crude imports by source**, Saudi Arabia retained the top position in November, with a share of close to 18%. Russia was second with a share of 16% and the UAE third with almost 11%.

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



Sources: China, Oil and Gas Petrochemicals and OPEC.

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



Sources: China, Oil and Gas Petrochemicals and OPEC.

Product imports rose by 0.2 mb/d, or almost 12%, in November to average 1.5 mb/d, as independent refiners increased purchases of fuel oil for use as a feedstock. Compared with the same month of the previous year, product imports were 0.2 mb/d, or around 15%, higher.

Product exports were slightly higher in November, averaging 1.1 mb/d, as an increase in most major products outweighed a decline in diesel exports. Product outflows rose 9% m-o-m but were almost 0.2 mb/d, or 15%, lower y-o-y.

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

China	Sep 21	Oct 21	Nov 21	*Change* Nov 21/Oct 21
Crude oil	10.00	8.90	10.02	1.11
Total products	0.40	0.35	0.42	0.07
Total crude and products	**10.39**	**9.25**	**10.43**	**1.18**

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

Sources: China, Oil and Gas Petrochemicals and OPEC.

As a result, China remained a **net product importer** for the fifth-consecutive month in November, with net product imports averaging 416 tb/d, compared with net imports of 347 tb/d the month before and just 25 tb/d in the same month of the previous year.

Looking ahead, product exports are expected to fall in 2022, as export quotas have been reduced by more than half in the first round of allocations. Crude import quotas for independents were 9% lower compared with the first round of the previous year, reflecting the governments stated policy of reigning in this segment of the sector.

India

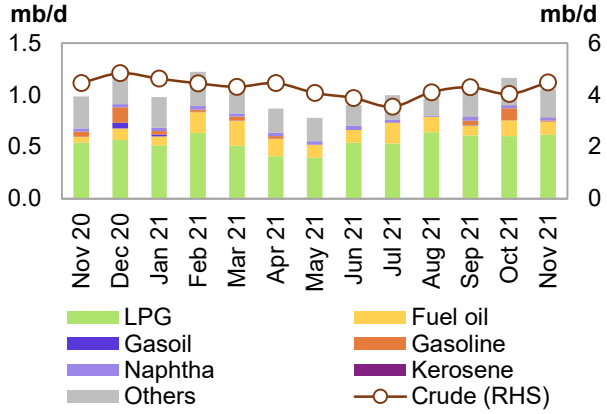
India's crude imports jumped to a 10-month high in November, averaging 4.5 mb/d as refiners sought to replenish inventories in preparation for higher runs in 1Q22 following holidays in October and early November. Compared with the previous month, crude imports increased by about 0.5 mb/d, or 11%, but were only marginally higher compared with the same month of the previous year, edging up by less than 1%.

In terms of **crude imports by source**, the latest data for October shows Iraq continuing to hold the top position with a share of 21%. Saudi Arabia was second with around 16%, followed by the UAE with just under 10%. The US was fourth with about 9%.

Regarding **products**, **imports** fell m-o-m, averaging 1.1 mb/d in November, as gasoline inflows declined with travel winding down from the holidays in October and early November. This represents a drop of 0.1 mb/d, or about 10%, m-o-m. Compared with the same month in 2020, inflows were about 7% higher.

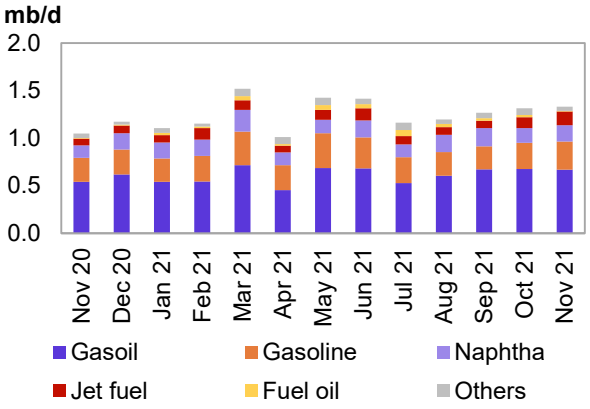
Product exports remained broadly steady m-o-m, averaging 1.3 mb/d in November, as diesel outflows remained strong and jet fuel exports increased. Outflows were supported by constrained exports from China and healthy demand. Y-o-y, product exports were 0.3 mb/d, or 27%, higher.

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.

As a result, **net product exports** averaged 279 tb/d in November, compared with 151 tb/d the month before and just 64 tb/d in the same month of the previous year.

Looking ahead, crude imports are likely to remain supported by economic activities and increased refinery runs, although the impact of measures to curtail the Omicron variant adds some uncertainty. Meanwhile, product exports are likely to be supported by reduced product flows out of China, providing export-oriented refiners, such as those in India, the opportunity to fill the gap.

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

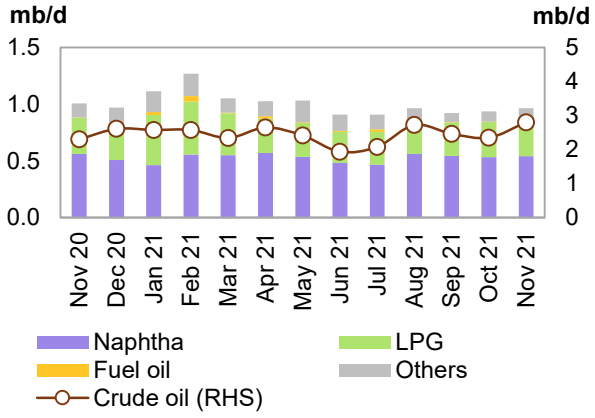
India	Sep 21	Oct 21	Nov 21	*Change* Nov 21/Oct 21
Crude oil	4.30	4.03	4.48	0.45
Total products	-0.20	-0.15	-0.28	-0.13
Total crude and products	**4.09**	**3.88**	**4.20**	**0.32**

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.

Japan

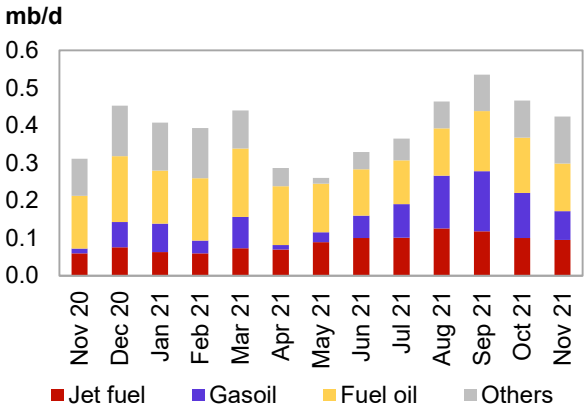
Japan's crude imports in November jumped to the highest since March 2020, averaging 2.8 mb/d as refiners boosted runs to meet winter heating demand. Crude imports were 452 tb/d, or around 19%, higher than in the previous month and were 501 tb/d, or about 22%, higher y-o-y.

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.

In terms of shares of **crude imports by source**, Saudi Arabia remained in the top spot with a share of over 38%. The UAE was second, with a share of just under 38%, followed by Kuwait with around 9%.

Product imports, including LPG, edged higher m-o-m to average 965 tb/d in November, as lower gasoline and naphtha inflows were offset by the increased import of heating fuels. Compared with the previous month, product imports were 28 tb/d, or around 3%, higher. Y-o-y, product inflows fell 43 tb/d, or 4%.

Product exports, including LPG, slipped in November, averaging 424 tb/d amid a drop in gasoil, jet fuel and fuel oil exports. Product outflows were down by 43 tb/d, or around 9%, from the previous month, but rose by 112 mb/d, or 36%, compared with the same month of the previous year.

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

Japan	Sep 21	Oct 21	Nov 21	*Change* Nov 21/Oct 21
Crude oil	2.47	2.35	2.81	0.45
Total products	0.39	0.47	0.54	0.07
Total crude and products	**2.85**	**2.82**	**3.35**	**0.52**

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

As a consequence, Japan's **net product imports** averaged 541 tb/d in November, up from 470 tb/d the month before and 696 tb/d in November 2020.

Looking ahead, crude imports may slip in the next months, unless the mild winter begins to turn toward colder temperatures. Product exports could pick up if lockdown measures are avoided in the region.

OECD Europe

The most recent available official data shows that **OECD Europe crude imports** from outside the region slipped in September with the winding down of summer demand to average 8.3 mb/d. Imports fell by 0.5 mb/d, or 5%, m-o-m but were down just 0.2 mb/d, or 2%, compared with the same month in 2020.

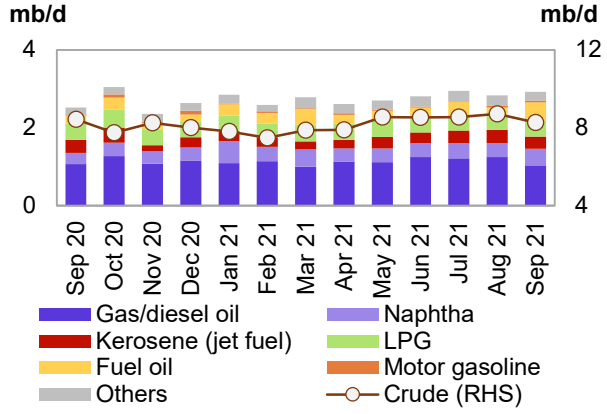
In terms of **source of imports** from outside the region, Russia took over the top spot in September with 3.0 mb/d, followed by Libya, which supplied 1.2 mb/d, and then Iraq with 0.9 mb/d.

After increasing for three consecutive months, **crude exports** outside the region dipped in September, amid reduced buying by Chinese independents as well as state-run refiners, averaging 0.4 mb/d. This represents a decline of 180 tb/d or more than 33%. Compared with the same period of the previous year, crude exports were 76 tb/d, or 27%, higher.

In terms of **destination**, China remained the top buyer of OECD Europe crude exports outside the region in September, purchasing 166 tb/d. South Korea was second with 57 tb/d, followed by India with 36 tb/d.

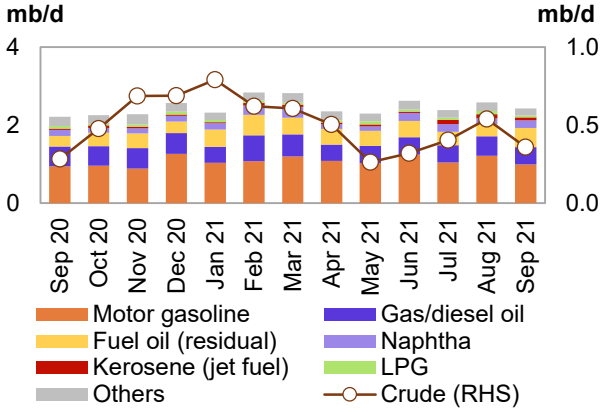
Net crude imports averaged around just under 8.0 mb/d in September, down 0.3 mb/d, or 3%, from the month before and 0.2 mb/d, or 3%, lower than the same month of 2020.

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.

On the **product** side, **imports** strengthened in September, averaging 2.9 mb/d, amid higher inflows of fuel oil and LPG. Product imports rose 3% m-o-m and were 0.4 mb/d, or 16%, higher than levels seen in September 2020.

Meanwhile, **product exports** erased the previous month's gains to average 2.4 mb/d, due to reduced outflows of gasoline and diesel, as driving demand tapered off. Outflows declined by around 0.2 mb/d, or 6%, compared with the previous month, but were 0.2 mb/d, or close to 10%, higher y-o-y.

Net product imports averaged 491 tb/d in September, compared with 250 tb/d the previous month and 301 tb/d in September 2020.

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

OECD Europe	Jul 21	Aug 21	Sep 21	*Change* Sep 21/Aug 21
Crude oil	8.15	8.18	7.90	-0.27
Total products	0.56	0.25	0.49	0.24
Total crude and products	**8.70**	**8.43**	**8.40**	**-0.03**

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

Sources: IEA and OPEC.

Combined, **net crude and product imports** averaged 8.4 mb/d in August, broadly in line with the previous month and compared with 8.5 mb/d in September 2020.

Looking ahead, tanker tracking data from Vortexa shows crude imports staying strong through November before easing in December amid lockdown measures. Crude exports are seen to be lower y-o-y in 4Q21 due to reduced Asian flows.

Eurasia

Total crude oil exports from Russia and Central Asia declined in November, averaging 6.4 mb/d. M-o-m, crude exports from the region declined by around 0.2 mb/d, or close to 3%. However, compared with the same month of the previous year, total crude exports from the region were about 0.5, or 9%, higher.

Crude exports through the **Transneft system** contributed to the decline in November, with lower volumes across almost all outlets. Outflows fell by 0.2 mb/d, or about 6%, to average 3.8 mb/d. Compared with the same month the previous year, however, exports were 0.4 mb/d, or 12%, higher.

Within the system, total shipments from the **Black Sea** declined by 62 tb/d m-o-m, or 16%, to average 337 tb/d. **Baltic Sea** exports declined by 72 tb/d m-o-m, or about 5%, to average 1.3 mb/d. This was the result of shipments from Ust-Luga falling 54 tb/d, or 10%, to 476 tb/d, while outflows from Primorsk edged down 18 tb/d, or about 2%, m-o-m to average 854 tb/d. Meanwhile, shipments via the **Druzhba** pipeline dropped 56 tb/d m-o-m, or 7%, to average 732 tb/d. **Kozmino** shipments edged down 14 tb/d, or over 2%, m-o-m, to average 750 tb/d. Exports to China via the **ESPO pipeline** also dropped 14 tb/d m-o-m to average 619 tb/d in November.

In the **Lukoil system**, exports via the Barents Sea declined by 36 tb/d, or around 26%, m-o-m to average 103 tb/d in November, while those from the Baltic Sea remained broadly unchanged.

On other routes, **Russia's Far East** exports managed to show gains, increasing by almost 10% m-o-m in November to average 329 tb/d. This was still 15% lower compared with the same month of the previous year.

Central Asian exports via the Lukoil system averaged around 0.2 mb/d in November, representing a drop of about 4% compared with the month before but a gain of 5% y-o-y.

Black Sea total exports improved further in November, with a marginal m-o-m increase and a gain of 11% compared with the same month of the previous year. Outflows from the Novorossiysk port terminal (CPC) were slightly higher, while exports from Supsa rose 4%. Exports via the **Baku-Tbilisi-Ceyhan (BTC) pipeline** increased by 43 tb/d, or almost 10%, but were down 8% y-o-y.

Total product exports from Russia and Central Asia declined by 2% m-o-m to average 2.9 mb/d in November. Larger m-o-m losses were prevented by healthy gains in gasoil and gasoline, as naphtha, fuel oil, VGO and jet shared declines. Y-o-y, total product exports declined by 1% in November, as increases in gasoline, fuel oil and gasoil offset a stronger decline in naphtha and jet fuel.

Commercial Stock Movements

Preliminary November data sees total OECD commercial oil stocks down by 16.0 mb m-o-m. At 2,721 mb, they were 389 mb lower than the same month in 2020, 247 mb lower than the latest five-year average and 221 mb below the 2015-2019 average. Within the components, crude and products stocks fell m-o-m by 12.7 mb and 3.3 mb, respectively.

At 1,317 mb, crude stocks in the OECD were 143 mb lower than the latest five-year average and 137 mb below the 2015-2019 average. OECD product stocks stood at 1,405 mb, representing a deficit of 104 mb compared with the latest five-year average and 84 mb below the 2015-2019 average.

In terms of days of forward cover, OECD commercial stocks fell m-o-m by 0.2 days in November to stand at 60.7 days. This is 13.2 days below November 2020 levels, 3.6 days less than the latest five-year average and 1.5 days lower than the 2015-2019 average.

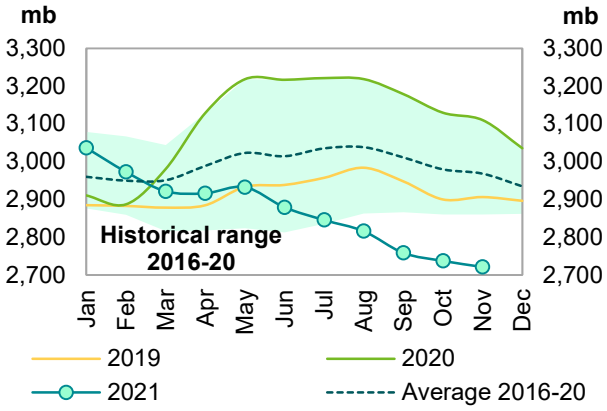
Preliminary data for December showed that total US commercial oil stocks fell m-o-m by 24.4 mb to stand at 1,195 mb. This is 148.6 mb lower than the same month a year earlier and 93.9 mb below the latest five-year average. Crude and product stocks fell m-o-m by 15.3 mb and 12.1 mb, respectively.

OECD

Preliminary November data sees **total OECD commercial oil stocks** down by 16.0 mb m-o-m. At 2,721 mb, they were 389 mb lower than the same time one year ago, 247 mb lower than the latest five-year average and 221 mb below the 2015-2019 average.

Within the components, crude and products stocks fell m-o-m by 12.7 mb and 3.3 mb, respectively. Total commercial oil stocks in November fell in OECD Americas and OECD Europe, while they rose slightly in OECD Asia Pacific.

Graph 9 - 1: OECD commercial oil stocks



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

OECD **commercial crude stocks** fell m-o-m in November by 12.7 mb to stand at 1,317 mb. This is 185 mb lower than the same time a year ago and 143 mb below the latest five-year average. Compared with the previous month, OECD Americas saw a stock draw of 3.5 mb, OECD Europe fell by 12.0 mb, and OECD Asia Pacific had a stock build of 2.8 mb.

Total product inventories fell m-o-m in November by 3.3 mb to stand at 1,405 mb. This is 204 mb less than the same time a year ago, and 104 mb lower than the latest five-year average. Product stocks in OECD Asia Pacific and OECD Europe fell m-o-m by 2.7 mb and 3.0 mb, respectively, while OECD Americas rose by 2.4 mb.

Table 9 - 1: OECD's commercial stocks, mb

OECD stocks	Nov 20	Sep 21	Oct 21	Nov 21	*Change* Nov 21/Oct 21
Crude oil	1,502	1,308	1,329	1,317	*-12.7*
Products	1,608	1,450	1,408	1,405	*-3.3*
Total	**3,110**	**2,758**	**2,737**	**2,721**	***-16.0***
Days of forward cover	**73.9**	**60.5**	**60.9**	**60.7**	***-0.2***

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 m-o-m by 0.2 days in November to stand at 60.7 days. This is 13.2 days below November 2020 levels, 3.6 days less than the latest five-year average and 1.5 days lower than the 2015-2019 average. All three OECD regions were below the latest five-year average: the Americas by 1.9 days at 62.6 days, Asia Pacific by 4.2 days at 45.0 days and Europe by 7.0 days at 66.3 days.

OECD Americas

OECD Americas total commercial stocks fell by 1.1 mb m-o-m in November to settle at 1,513 mb. This is 144 mb less than the same month in 2020 and 59 mb lower than the latest five-year average.

Commercial crude oil stocks in OECD Americas fell m-o-m by 3.5 mb in November to stand at 772 mb, which is 67 mb lower than in November 2020 and 24 mb less than the latest five-year average. The stock drawn came on the back of higher November crude runs.

In contrast, **total product stocks** in OECD Americas rose m-o-m by 2.4 mb in November to stand at 741 mb. This was 77 mb lower than the same month of the previous year and 35 mb below the latest five-year average. Lower total consumption in the region was behind the stock draw.

OECD Europe

OECD Europe total commercial stocks fell m-o-m by 14.9 mb in November to settle at 863 mb. This is 194 mb less than the same month in 2020 and 120 mb below the latest five-year average.

OECD Europe's **commercial crude stocks** in November fell m-o-m by 12.0 mb to end the month at 381 mb, which is 64 mb lower than one year ago and 48 mb below the latest five-year average. The fall in crude oil inventories came on the back of higher m-o-m refinery crude runs in the EU-14, plus the UK and Norway.

OECD Europe's **commercial product stocks also** fell m-o-m by 3.0 mb to end November at 481 mb. This is 131 mb lower than a year ago and 72 mb below the latest five-year average.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks rose m-o-m by 0.1 mb in November to stand at 346 mb. This is 50 mb lower than a year ago and 68 mb below the latest five-year average.

OECD Asia Pacific's **crude inventories** rose by 2.8 mb m-o-m to end November at 164 mb, which is 54 mb lower than one year ago and 71 mb below the latest five-year average.

In contrast, OECD Asia Pacific's **total product inventories** fell by 2.7 mb m-o-m to end November at 182 mb. This is 4.0 mb higher than the same time a year ago and 2.9 mb above the latest five-year average.

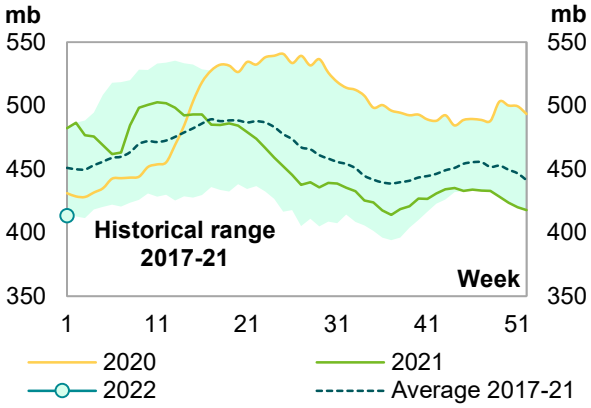
US

Preliminary data for December showed that **total US commercial oil stocks** fell m-o-m by 27.4 mb to stand at 1,195 mb. This is 148.6 mb, or 11.1%, lower than the same month in 2020 and 93.9 mb, or 7.3%, below the latest five-year average. Crude and product stocks fell m-o-m by 15.3 mb and 12.1 mb, respectively.

US **commercial crude stocks** in December fell m-o-m by 15.3 mb to stand at 417.9 mb. This is 67.6 mb, or 13.9%, lower than the same month of the previous year, and 35.6 mb, or 7.8%, below the latest five-year average. The stock draw came on the back of higher crude runs.

Total product stocks in December fell m-o-m by 12.1 mb to stand at 776.9 mb. This is 81.0 mb, or 9.4%, below December 2020 levels, and 58.3 mb, or 7.0%, lower than the latest five-year average. The stock draw was mainly driven by higher overall US consumption.

Graph 9 - 2: US weekly commercial crude oil inventories



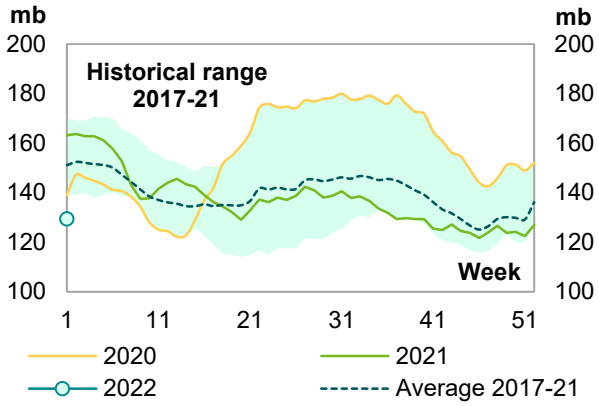
Sources: EIA and OPEC.

Gasoline stocks in December, however, rose m-o-m by 17.4 mb to settle at 232.8 mb. This is 10.6 mb, or 4.4%, below the same month in 2020, and 11.1 mb, or 4.5%, lower than the latest five-year average. The monthly stock build came mainly on the back of lower gasoline consumption, which dropped considerably in the last week of the month.

Distillate stocks also rose m-o-m in December by 3.0 mb to stand at 126.8 mb. This is 34.3 mb, or 21.3%, lower than the same month of the previous year, and 23.8 mb, or 15.8%, below the latest five-year average.

In contrast, **jet fuel stocks** fell m-o-m by 1.1 mb, ending December at 35.0 mb. This is 3.7 mb, or 9.5%, lower than the same month of the previous year, and 6.0 mb, or 14.7%, below the latest five-year average.

Graph 9 - 3: US weekly distillate inventories



Sources: EIA and OPEC.

Residual fuel oil stocks also fell m-o-m in December, decreasing by 2.0 mb. At 25.9 mb, this was 4.3 mb, or 14.1%, lower than a year earlier, and 6.1 mb, or 18.9%, below the latest five-year average.

Table 9 - 2: US commercial petroleum stocks, mb

US stocks	Dec 20	Oct 21	Nov 21	Dec 21	Change Dec 21/Nov 21
Crude oil	**485.5**	**436.6**	**433.1**	**417.9**	***-15.3***
Gasoline	243.4	216.7	215.4	232.8	*17.4*
Distillate fuel	161.2	132.6	123.9	126.8	*3.0*
Residual fuel oil	30.2	28.4	27.9	25.9	*-2.0*
Jet fuel	38.6	40.3	36.1	35.0	*-1.1*
Total products	**857.9**	**810.8**	**789.0**	**776.9**	***-12.1***
Total	**1,343.3**	**1,247.4**	**1,222.2**	**1,194.8**	***-27.4***
SPR	**638.1**	**610.6**	**602.6**	**593.7**	***-8.9***

Sources: EIA and OPEC.

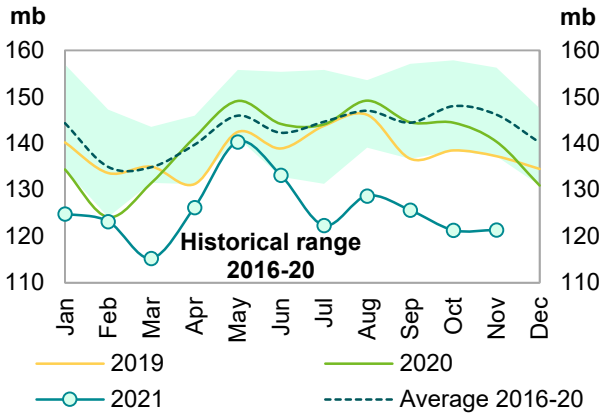
Japan

In **Japan**, **total commercial oil stocks** in November rose slightly m-o-m by 0.1 mb to settle at 121.4 mb. This is 19.0 mb, or 13.5%, lower than the same month in 2020, and 24.8 mb, or 17.0%, below the latest five-year average. Crude stocks rose by 2.8 mb, while products stocks fell m-o-m by 2.7 mb.

Japanese **commercial crude oil stocks** rose in November to stand at 58.7 mb. This is 13.7 mb, or 18.9%, below the same month of the previous year, and 21.7 mb, or 27.0%, lower than the latest five-year average. The build came on the back of lower crude runs, which decreased by 0.2%.

In contrast, Japan's **total product inventories** fell m-o-m by 2.7 mb to end November at 62.7 mb. This is 5.3 mb, or 7.8%, lower than the same month in 2020, and 3.1 mb, or 4.7%, below the latest five-year average.

Graph 9 - 4: Japan's commercial oil stocks



Sources: METI and OPEC.

Gasoline stocks fell m-o-m by 1.2 mb to stand at 10.5 mb. This was 2.1 mb, or 17.0%, lower than a year earlier, and 0.5 mb, or 4.3%, below the latest five-year average. Higher exports, which rose by 23.4%, were behind the gasoline stock draw.

Total residual fuel oil stocks fell m-o-m by 0.4 mb to end November at 11.7 mb. This is 0.7 mb, or 5.6%, lower than in the same month of the previous year, and 1.7 mb, or 12.4%, below the latest five-year average. Within the components, fuel oil A stocks rose by 2.7%, while fuel oil B.C stocks fell by 56.8%.

In contrast, **distillate stocks** rose m-o-m by 0.2 mb to end November at 32.1 mb. This is 1.5 mb, or 4.6%, lower than the same month in 2020, and 0.1 mb, or 0.2%, below the latest five-year average. Within the distillate components, **jet fuel and kerosene** rose m-o-m by 3.1% and 1.8%, respectively, while **gasoil** stocks fell by 2.3%.

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

Japan's stocks	Nov 20	Sep 21	Oct 21	Nov 21	Change Nov 21/Oct 21
Crude oil	**72.4**	**62.0**	**55.9**	**58.7**	***2.8***
Gasoline	12.6	10.3	11.7	10.5	*-1.2*
Naphtha	9.4	9.4	9.8	8.5	*-1.4*
Middle distillates	33.6	31.4	31.9	32.1	*0.2*
Residual fuel oil	12.4	12.5	12.0	11.7	*-0.4*
Total products	**68.0**	**63.6**	**65.4**	**62.7**	***-2.7***
Total**	**140.4**	**125.6**	**121.3**	**121.4**	***0.1***

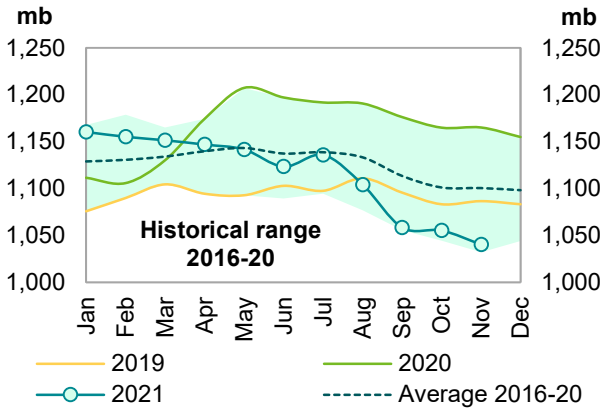
*Note: * At the end of the month. ** Includes crude oil and main products only.*
Sources: METI and OPEC.

EU-14 plus UK and Norway

Preliminary data for November showed that **total European commercial oil stocks** fell m-o-m by 14.9 mb to stand at 1,040.3 mb. At this level, they were 124.8 mb, or 10.7%, below the same month a year earlier, and 60.4 mb, or 5.5%, lower than the latest five-year average. Crude and product stocks fell m-o-m by 12.0 mb and 3.0 mb, respectively.

European **crude inventories** fell in November to stand at 426.8 mb. This is 56.0 mb, or 11.6%, lower than the same month in 2020 and 52.0 mb, or 10.9%, lower than the latest five-year average. The fall in crude oil inventories came on the back of higher m-o-m refinery throughputs in the EU-14, plus the UK and Norway, which rose by around 280 tb/d to 9.62 mb/d in November.

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



Sources: Argus, Eurolstock and OPEC.

Total European product stocks fell m-o-m by 3.0 mb to end November at 613.5 mb. This is 68.8 mb, or 10.1%, lower than the same month of the previous year, and 8.4 mb, or 1.4%, below the latest five-year average.

Gasoline stocks fell m-o-m by 4.7 mb in November to stand at 104.0 mb. At this level, they were 19.2 mb, or 15.6%, lower than the same time a year earlier and 10.4 mb/d, or 9.1%, less than the latest five-year average.

Residual fuel stocks also fell m-o-m by 0.6 mb in November to 62.0 mb. This is 3.4 mb, or 5.2%, lower than the same month in 2020, and 3.6 mb, or 5.5%, below the latest five-year average.

Naphtha stocks fell by 0.3 mb in November, ending the month at 25.1 mb. This is 6.3 mb, or 20.1%, below November 2020 levels, and 2.1 mb, or 7.7%, below the latest five-year average.

In contrast, **distillate stocks** increased m-o-m by 2.5 mb in November to stand at 422.4 mb. This is 40.0 mb, or 8.6%, below the same month in 2020, but 7.6 mb, or 1.8%, above the latest five-year average.

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

EU stocks	Nov 20	Sep 21	Oct 21	Nov 21	*Change* Nov 21/Oct 21
Crude oil	**482.8**	**441.4**	**438.8**	**426.8**	***-12.0***
Gasoline	123.1	99.9	108.6	104.0	*-4.7*
Naphtha	31.4	26.2	25.3	25.1	*-0.3*
Middle distillates	462.4	428.3	419.9	422.4	*2.5*
Fuel oils	65.4	62.6	62.6	62.0	*-0.6*
Total products	**682.3**	**617.0**	**616.4**	**613.5**	***-3.0***
Total	**1,165.1**	**1,058.4**	**1,055.2**	**1,040.3**	***-14.9***

Sources: Argus, Euroilstock and OPEC.

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

Singapore

In November, **total product stocks in Singapore** fell m-o-m by 2.7 mb to 40.4 mb. This is 12.9 mb, or 24.2%, lower than the same month in 2020.

Light distillate stocks rose m-o-m by 1.1 mb in November to stand at 12.1 mb. This is 0.2 mb, or 1.7%, lower than the same month of the previous year.

In contrast, **middle distillate stocks** fell m-o-m by 1.9 mb in November to stand at 8.1 mb. This is 7.7 mb, or 48.7%, lower than a year earlier.

Residual fuel oil stocks also fell m-o-m by 1.9 mb, ending November at 20.3 mb, which is 5.0 mb, or 19.8%, lower than in November 2020.

ARA

Total product stocks in ARA fell for the ninth consecutive month in November, down by 1.0 mb m-o-m to 37.1 mb. This is 11.5 mb, or 23.7%, lower than the same month in 2020.

Gasoline stocks in November fell m-o-m by 0.3 mb to stand at 7.2 mb, which is 3.9 mb, or 35.0%, lower than the same month of the previous year.

Gasoil stocks also fell by 1.7 mb to end November at 13.3 mb. This is 5.1 mb, or 27.7%, lower than the level seen in November 2020.

Jet oil stocks fell m-o-m by 0.6 mb to end November at 6.4 mb. This is 1.1 mb, or 15.2%, below the level registered one year earlier.

In contrast**, fuel oil stocks** rose m-o-m by 1.4 mb in November to stand at 7.9 mb, which is 0.9 mb, or 10.5%, lower than in November 2020.

Fujairah

During the week ending 3 January 2022, **total oil product stocks in Fujairah** rose w-o-w by 0.53 mb to stand at 16.52 mb, according to data from Fed Com and S&P Global Platts. At this level, total oil stocks were 6.85 mb lower than the same time a year ago. While middle distillates witnessed a stock draw w-o-w, light and heavy distillate stocks saw a stock build.

Light distillate stocks rose by 0.41 mb w-o-w to stand at 4.75 mb in the week to 3 January 2022, which is 2.55 mb lower than the same period a year ago. **Heavy distillate stocks** increased by 0.61 mb to stand at 10.12 mb, which is 1.48 mb lower than the same time last year. In contrast, **middle distillate stocks** fell by 0.49 mb to stand at 1.65 mb, which is 2.82 mb lower than a year ago.

Balance of Supply and Demand

Demand for OPEC crude in 2021 remained unchanged from the previous MOMR to stand at 27.8 mb/d, around 4.9 mb/d higher than in 2020.

According to secondary sources, OPEC crude production averaged 25.2 mb/d in 1Q21, 1.1 mb/d lower than demand for OPEC crude in the same period. In 2Q21, OPEC crude production averaged 25.5 mb/d, which was 1.5 mb/d lower than demand for OPEC crude. In 3Q21, OPEC crude oil production averaged 26.9 mb/d, 1.7 mb/d lower than demand for OPEC crude.

Demand for OPEC crude in 2022 remained also unchanged from the previous month to stand at 28.9 mb/d, around 1.0 mb/d higher than in 2021.

Balance of supply and demand in 2021

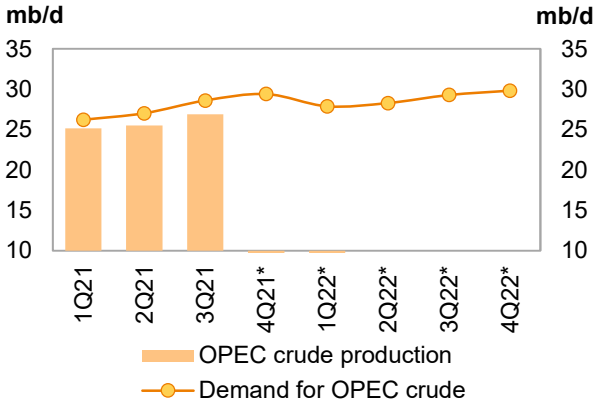
Demand for OPEC crude in 2021 remained unchanged from the previous MOMR to stand at 27.8 mb/d, around 4.9 mb/d higher than in 2020.

Compared with the previous assessment, 1Q21 and 2Q21 remained unchanged, while 3Q21 was revised down by 0.2 mb/d. Meanwhile, 4Q21 was revised up by 0.3 mb/d.

When compared with the same quarters in 2020, demand for OPEC crude in 1Q21 and 2Q21 were higher by 3.8 mb/d and 9.6 mb/d, respectively. 3Q21 and 4Q21 are estimated to show an increase of 3.7 mb/d and 2.3 mb/d, respectively.

According to secondary sources, OPEC crude production averaged 25.2 mb/d in 1Q21, 1.1 mb/d lower than demand for OPEC crude in the same period. In 2Q21, OPEC crude production averaged 25.5 mb/d, which was 1.5 mb/d lower than demand for OPEC crude. In 3Q21, OPEC crude oil production averaged 26.9 mb/d, 1.7 mb/d lower than demand for OPEC crude.

Graph 10 - 1: Balance of supply and demand, 2021–2022*



*Note: * 4Q21-4Q22 = Forecast. Source: OPEC.*

Table 10 - 1: Supply/demand balance for 2021*, mb/d

	2020	1Q21	2Q21	3Q21	4Q21	2021	Change 2021/20
(a) World oil demand	**90.98**	**93.83**	**95.43**	**97.41**	**99.75**	**96.63**	***5.66***
Non-OPEC liquids production	62.97	62.51	63.28	63.62	65.15	63.65	*0.67*
OPEC NGL and non-conventionals	5.05	5.10	5.12	5.17	5.18	5.14	*0.10*
(b) Total non-OPEC liquids production and OPEC NGLs	**68.02**	**67.61**	**68.40**	**68.79**	**70.34**	**68.79**	***0.77***
Difference (a-b)	**22.96**	**26.22**	**27.03**	**28.62**	**29.42**	**27.84**	***4.88***
OPEC crude oil production	**25.65**	**25.15**	**25.52**	**26.88**			
Balance	**2.69**	**-1.06**	**-1.51**	**-1.74**			

*Note: * 2021 = Forecast. Totals may not add up due to independent rounding. Source: OPEC.*

Balance of supply and demand in 2022

Demand for OPEC crude in 2022 remained unchanged from the previous month to stand at 28.9 mb/d, around 1.0 mb/d higher than in 2021.

Compared with the previous assessment, 1Q22 and 2Q22 remained unchanged, while 3Q22 was revised down by 0.2 mb/d. Meanwhile, 4Q22 was revised up by 0.3 mb/d.

Compared with the same quarters in 2021, demand for OPEC crude in 1Q22 and 2Q22 is forecast to be higher by 1.7 mb/d and 1.3 mb/d, respectively. Meanwhile, 3Q22 and 4Q22 are projected to show an increase of 0.7 mb/d and 0.4 mb/d, respectively.

Table 10 - 2: Supply/demand balance for 2022*, mb/d

	2021	1Q22	2Q22	3Q22	4Q22	2022	Change 2022/21
(a) World oil demand	**96.63**	**99.13**	**99.75**	**101.28**	**102.90**	**100.79**	***4.15***
Non-OPEC liquids production	63.65	66.01	66.19	66.70	67.74	66.66	*3.02*
OPEC NGL and non-conventionals	5.14	5.23	5.26	5.29	5.31	5.27	*0.13*
(b) Total non-OPEC liquids production and OPEC NGLs	**68.79**	**71.24**	**71.45**	**71.98**	**73.05**	**71.94**	***3.15***
Difference (a-b)	**27.84**	**27.89**	**28.30**	**29.30**	**29.84**	**28.85**	***1.01***

*Note: * 2021-2022 = 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	2018	2019	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
World demand													
Americas	25.41	25.47	22.44	22.73	24.33	24.71	24.84	24.16	24.04	25.42	25.73	25.65	25.22
of which US	*20.60*	*20.65*	*18.35*	*18.65*	*20.21*	*20.39*	*20.51*	*19.95*	*19.69*	*21.07*	*21.36*	*21.23*	*20.85*
Europe	14.31	14.31	12.44	11.91	12.63	13.85	13.49	12.98	12.63	13.21	14.49	14.01	13.59
Asia Pacific	8.01	7.93	7.14	7.67	7.04	7.12	7.73	7.39	7.91	7.22	7.25	7.83	7.55
Total OECD	**47.73**	**47.72**	**42.02**	**42.31**	**44.00**	**45.67**	**46.06**	**44.53**	**44.58**	**45.86**	**47.47**	**47.49**	**46.37**
China	13.01	13.65	13.52	13.79	14.55	14.52	15.16	14.50	14.64	15.44	15.00	15.60	15.17
India	4.93	4.99	4.51	4.94	4.50	4.59	5.32	4.84	5.48	4.82	4.97	5.64	5.23
Other Asia	8.91	9.06	8.13	8.56	8.98	8.34	8.62	8.63	9.25	9.59	8.93	8.95	9.18
Latin America	6.53	6.59	6.01	6.25	6.16	6.46	6.35	6.30	6.49	6.33	6.61	6.51	6.48
Middle East	8.13	8.20	7.55	7.95	7.77	8.24	8.00	7.99	8.30	8.01	8.49	8.24	8.26
Africa	4.33	4.35	4.08	4.37	4.08	4.15	4.43	4.26	4.54	4.21	4.27	4.56	4.40
Russia	3.55	3.57	3.39	3.65	3.42	3.63	3.74	3.61	3.75	3.47	3.68	3.79	3.67
Other Eurasia	1.21	1.19	1.07	1.23	1.24	1.09	1.28	1.21	1.30	1.29	1.12	1.32	1.26
Other Europe	0.74	0.76	0.70	0.78	0.72	0.73	0.79	0.75	0.80	0.73	0.74	0.81	0.77
Total Non-OECD	**51.34**	**52.38**	**48.96**	**51.52**	**51.43**	**51.74**	**53.69**	**52.10**	**54.55**	**53.90**	**53.82**	**55.40**	**54.42**
(a) Total world demand	**99.07**	**100.10**	**90.98**	**93.83**	**95.43**	**97.41**	**99.75**	**96.63**	**99.13**	**99.75**	**101.28**	**102.90**	**100.79**
Y-o-y change	***1.40***	***1.03***	***-9.12***	***-0.72***	***11.82***	***5.96***	***5.48***	***5.66***	***5.30***	***4.32***	***3.87***	***3.14***	***4.15***
Non-OPEC liquids production													
Americas	24.03	25.81	24.70	24.10	25.17	25.19	26.21	25.17	26.08	26.13	26.50	26.88	26.40
of which US	*16.66*	*18.47*	*17.61*	*16.63*	*17.93*	*17.84*	*18.53*	*17.74*	*18.43*	*18.68*	*18.83*	*19.14*	*18.77*
Europe	3.84	3.71	3.90	3.96	3.52	3.81	3.86	3.79	3.86	3.75	3.81	4.13	3.89
Asia Pacific	0.41	0.52	0.52	0.50	0.45	0.53	0.52	0.50	0.54	0.54	0.53	0.53	0.53
Total OECD	**28.28**	**30.04**	**29.12**	**28.56**	**29.13**	**29.53**	**30.58**	**29.46**	**30.48**	**30.41**	**30.84**	**31.55**	**30.82**
China	3.98	4.05	4.16	4.30	4.34	4.33	4.32	4.32	4.33	4.33	4.37	4.45	4.37
India	0.86	0.82	0.77	0.76	0.75	0.75	0.74	0.75	0.73	0.75	0.78	0.80	0.77
Other Asia	2.73	2.69	2.51	2.52	2.46	2.34	2.37	2.42	2.44	2.41	2.39	2.38	2.41
Latin America	5.79	6.08	6.04	5.96	5.99	6.11	5.90	5.99	6.30	6.24	6.18	6.39	6.27
Middle East	3.19	3.19	3.19	3.22	3.23	3.24	3.28	3.24	3.34	3.34	3.36	3.36	3.35
Africa	1.49	1.51	1.41	1.37	1.35	1.32	1.32	1.34	1.29	1.27	1.25	1.22	1.25
Russia	11.52	11.61	10.59	10.47	10.74	10.81	11.17	10.80	11.51	11.83	11.88	11.88	11.78
Other Eurasia	3.08	3.07	2.91	2.96	2.89	2.79	3.06	2.93	3.10	3.12	3.16	3.22	3.15
Other Europe	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10
Total Non-OECD	**32.75**	**33.14**	**31.71**	**31.67**	**31.86**	**31.80**	**32.29**	**31.91**	**33.14**	**33.39**	**33.46**	**33.80**	**33.45**
Total Non-OPEC production	61.03	63.19	60.82	60.23	61.00	61.34	62.87	61.37	63.62	63.80	64.31	65.35	64.27
Processing gains	2.34	2.36	2.15	2.28	2.28	2.28	2.28	2.28	2.39	2.39	2.39	2.39	2.39
Total Non-OPEC liquids production	**63.37**	**65.55**	**62.97**	**62.51**	**63.28**	**63.62**	**65.15**	**63.65**	**66.01**	**66.19**	**66.70**	**67.74**	**66.66**
OPEC NGL + non-conventional oils	5.29	5.21	5.05	5.10	5.12	5.17	5.18	5.14	5.23	5.26	5.29	5.31	5.27
(b) Total non-OPEC liquids production and OPEC NGLs	**68.66**	**70.76**	**68.02**	**67.61**	**68.40**	**68.79**	**70.34**	**68.79**	**71.24**	**71.45**	**71.98**	**73.05**	**71.94**
Y-o-y change	***3.05***	***2.10***	***-2.74***	***-4.54***	***2.20***	***2.22***	***3.15***	***0.77***	***3.63***	***3.05***	***3.19***	***2.72***	***3.15***
OPEC crude oil production (secondary sources)	31.35	29.36	25.65	25.15	25.52	26.88							
Total liquids production	100.01	100.13	93.67	92.77	93.92	95.67							
Balance (stock change and miscellaneous)	0.94	0.03	2.69	-1.06	-1.51	-1.74							
OECD closing stock levels, *mb*													
Commercial	2,873	2,896	3,035	2,921	2,879	2,758							
SPR	1,552	1,535	1,541	1,546	1,524	1,513							
Total	**4,425**	**4,432**	**4,577**	**4,467**	**4,402**	**4,271**							
Oil-on-water	1,058	1,033	1,148	1,138	1,131	1,169							
Days of forward consumption in OECD, *days*													
Commercial onland stocks	60	69	68	66	63	60							
SPR	33	37	35	35	33	33							
Total	**93**	**105**	**103**	**102**	**96**	**93**							
Memo items													
(a) - (b)	**30.41**	**29.34**	**22.96**	**26.22**	**27.03**	**28.62**	**29.42**	**27.84**	**27.89**	**28.30**	**29.30**	**29.84**	**28.85**

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	2018	2019	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
World demand													
Americas	-	-	-	-	-	-0.23	0.38	0.04	-	-	-0.23	0.38	0.04
of which US	-	-	-	-	-	*-0.08*	*0.31*	*0.06*	-	-	*-0.08*	*0.31*	*0.06*
Europe	-	-	-	-	-0.02	0.03	-	-	-	-0.02	0.03	-	-
Asia Pacific	-	-	-	-	-	-0.04	0.10	0.02	-	-	-0.04	0.10	0.02
Total OECD	**-**	**-**	**-**	**-**	**-0.02**	**-0.24**	**0.48**	**0.05**	**-**	**-0.02**	**-0.24**	**0.48**	**0.05**
China	-	-	-	-	-	-	0.05	0.01	-	-	-	0.05	0.01
India	-	-	-	-	-	-	-0.20	-0.05	-	-	-	-0.20	-0.05
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-0.05	-0.01	-	-	-	-0.05	-0.01
Middle East	-	-	-	-	-	-	-0.02	-0.01	-	-	-	-0.02	-0.01
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-
Russia	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Eurasia	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-0.22**	**-0.06**	**-**	**-**	**-**	**-0.22**	**-0.06**
(a) Total world demand	**-**	**-**	**-**	**-**	**-0.02**	**-0.24**	**0.26**	**-**	**-**	**-0.02**	**-0.25**	**0.26**	**-**
Y-o-y change	***-***	***-***	***-***	***0.01***	***-0.02***	***-0.24***	***0.26***	***-***	***-***	***-***	***-***	***-***	***-***
Non-OPEC liquids production													
Americas	-	-	-	-	-	-0.02	0.27	0.06	0.06	0.06	0.06	0.06	0.06
of which US	-	-	-	-	-	*0.01*	*0.31*	*0.08*	*0.08*	*0.08*	*0.08*	*0.08*	*0.08*
Europe	-	-	-	-	-	-	-0.05	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Asia Pacific	-	-	-	-	-	-	-0.01	-	-	-	-	-	-
Total OECD	**-**	**-**	**-**	**-**	**-**	**-0.02**	**0.21**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
China	-	-	-	-	-	-	-	-	-	-	-	-	-
India	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-0.05	-0.01	-	-	-0.01	-	-0.01
Latin America	-	-	-	-	-	-	-0.20	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	0.01	-	-	-	-	-	-
Russia	-	-	-	-	-	-	0.02	-	-	-	-	-	-
Other Eurasia	-	-	-	-	-	-	0.02	0.01	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	**-**	**-**	**-**	**-**	**-**	**-**	**-0.21**	**-0.05**	**-0.05**	**-0.05**	**-0.05**	**-0.05**	**-0.05**
Total Non-OPEC production	-	-	-	-	-	-0.02	0.01	-	-0.01	-0.01	-0.01	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC liquids production	**-**	**-**	**-**	**-**	**-**	**-0.02**	**0.01**	**-**	**-**	**-**	**-0.01**	**-**	**-**
OPEC NGL + non-conventional oils	-	-	-	-	-	-	-	-	-	-	-	-	-
(b) Total non-OPEC liquids production and OPEC NGLs	**-**	**-**	**-**	**-**	**-**	**-0.02**	**0.01**	**-**	**-**	**-**	**-0.01**	**-**	**-**
Y-o-y change	***-***	***-***	***-***	***-***	***-***	***-0.02***	***0.01***	***-***	***-***	***-***	***0.02***	***-0.01***	***-***
OPEC crude oil production (secondary sources)	-	-	-	-	-	-							
Total liquids production	-	-	-	-	-	-0.02							
Balance (stock change and miscellaneous)	-	-	-	-	0.02	0.22							
OECD closing stock levels, *mb*													
Commercial	-	-	-	-	-	-5							
SPR	-	-	-	-	-	-1							
Total	**-**	**-**	**-**	**-**	**-**	**-5**							
Oil-on-water	-	-	-	-	-	-							
Days of forward consumption in OECD, *days*													
Commercial onland stocks	-	-	-	-	-	-1							
SPR	-	-	-	-	-	-							
Total	**-**	**-**	**-**	**-**	**1**	**-1**							
Memo items													
(a) - (b)	**-**	**-**	**-**	**-**	**-0.02**	**-0.22**	**0.25**	**-**	**-**	**-0.01**	**-0.24**	**0.26**	**-**

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the December 2021 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	2018	2019	2020	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21
Closing stock levels, mb												
OECD onland commercial	**2,873**	**2,896**	**3,035**	**2,948**	**2,896**	**2,980**	**3,217**	**3,179**	**3,035**	**2,921**	**2,879**	**2,758**
Americas	1,542	1,525	1,612	1,559	1,525	1,581	1,718	1,688	1,612	1,573	1,548	1,514
Europe	930	978	1,043	988	978	1,033	1,099	1,079	1,043	1,002	973	889
Asia Pacific	402	394	380	401	394	366	400	411	380	346	358	355
OECD SPR	**1,552**	**1,535**	**1,541**	**1,544**	**1,535**	**1,537**	**1,561**	**1,551**	**1,541**	**1,546**	**1,524**	**1,513**
Americas	651	637	640	647	637	637	658	644	640	640	623	620
Europe	481	482	488	482	482	484	487	490	488	493	487	485
Asia Pacific	420	416	414	416	416	416	416	417	414	413	413	408
OECD total	**4,425**	**4,432**	**4,577**	**4,492**	**4,432**	**4,517**	**4,778**	**4,730**	**4,577**	**4,467**	**4,402**	**4,271**
Oil-on-water	**1,058**	**1,033**	**1,148**	**1,012**	**1,033**	**1,187**	**1,329**	**1,174**	**1,148**	**1,138**	**1,131**	**1,169**
Days of forward consumption in OECD, days												
OECD onland commercial	**60**	**69**	**68**	**62**	**64**	**80**	**76**	**74**	**72**	**66**	**63**	**60**
Americas	61	68	67	61	63	80	76	73	71	65	63	61
Europe	65	79	80	70	73	94	85	86	88	79	70	66
Asia Pacific	51	55	51	49	50	55	59	56	50	49	50	46
OECD SPR	**33**	**37**	**35**	**32**	**34**	**41**	**37**	**36**	**36**	**35**	**33**	**33**
Americas	26	30	28	25	26	32	29	28	28	26	25	25
Europe	34	39	38	34	36	44	38	39	41	39	35	36
Asia Pacific	53	59	57	51	53	63	62	57	54	59	58	53
OECD total	**94**	**107**	**104**	**94**	**97**	**121**	**113**	**110**	**108**	**102**	**96**	**93**

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	2018	2019	2020	3Q21	4Q21	2021	Change 21/20	1Q22	2Q22	3Q22	4Q22	2022	Change 22/21
US	16.7	18.5	17.6	17.8	18.5	17.7	0.1	18.4	18.7	18.8	19.1	18.8	1.0
Canada	5.3	5.4	5.2	5.4	5.7	5.5	0.3	5.7	5.5	5.7	5.8	5.7	0.2
Mexico	2.1	1.9	1.9	1.9	1.9	1.9	0.0	1.9	2.0	2.0	2.0	2.0	0.0
Chile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OECD Americas	**24.0**	**25.8**	**24.7**	**25.2**	**26.2**	**25.2**	**0.5**	**26.1**	**26.1**	**26.5**	**26.9**	**26.4**	**1.2**
Norway	1.9	1.7	2.0	2.0	2.1	2.0	0.0	2.1	2.1	2.1	2.3	2.2	0.1
UK	1.1	1.1	1.1	0.9	0.9	0.9	-0.2	0.9	0.9	0.9	1.0	0.9	0.0
Denmark	0.1	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	0.7	0.7	0.8	0.8	0.8	0.8	0.0	0.7	0.7	0.7	0.7	0.7	0.0
OECD Europe	**3.8**	**3.7**	**3.9**	**3.8**	**3.9**	**3.8**	**-0.1**	**3.9**	**3.8**	**3.8**	**4.1**	**3.9**	**0.1**
Australia	0.3	0.5	0.5	0.5	0.4	0.4	0.0	0.5	0.5	0.5	0.5	0.5	0.0
Other Asia Pacific	0.1	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	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0**
Total OECD	**28.3**	**30.0**	**29.1**	**29.5**	**30.6**	**29.5**	**0.3**	**30.5**	**30.4**	**30.8**	**31.5**	**30.8**	**1.4**
China	**4.0**	**4.0**	**4.2**	**4.3**	**4.3**	**4.3**	**0.2**	**4.3**	**4.3**	**4.4**	**4.4**	**4.4**	**0.0**
India	**0.9**	**0.8**	**0.8**	**0.8**	**0.7**	**0.8**	**0.0**	**0.7**	**0.8**	**0.8**	**0.8**	**0.8**	**0.0**
Brunei	0.1	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	0.9	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	0.7	0.7	0.6	0.6	0.6	0.6	0.0	0.6	0.6	0.6	0.7	0.6	0.1
Thailand	0.5	0.5	0.5	0.5	0.4	0.5	0.0	0.4	0.4	0.4	0.4	0.4	0.0
Vietnam	0.3	0.3	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	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Other Asia	**2.7**	**2.7**	**2.5**	**2.3**	**2.4**	**2.4**	**-0.1**	**2.4**	**2.4**	**2.4**	**2.4**	**2.4**	**0.0**
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	3.3	3.6	3.7	3.7	3.6	3.6	-0.1	3.8	3.8	3.8	3.9	3.8	0.2
Colombia	0.9	0.9	0.8	0.8	0.8	0.8	0.0	0.8	0.8	0.7	0.7	0.7	0.0
Ecuador	0.5	0.5	0.5	0.5	0.4	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.0
Guyana	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.3	0.2	0.1
Latin America	0.4	0.4	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Latin America	**5.8**	**6.1**	**6.0**	**6.1**	**5.9**	**6.0**	**0.0**	**6.3**	**6.2**	**6.2**	**6.4**	**6.3**	**0.3**
Bahrain	0.2	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	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.1	1.1	1.0	0.1
Qatar	1.9	1.9	1.9	2.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Syria	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
Yemen	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0
Middle East	**3.2**	**3.2**	**3.2**	**3.2**	**3.3**	**3.2**	**0.0**	**3.3**	**3.3**	**3.4**	**3.4**	**3.4**	**0.1**
Cameroon	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0
Chad	0.1	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	0.7	0.7	0.6	0.6	0.6	0.6	0.0	0.6	0.6	0.5	0.5	0.5	0.0
Ghana	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.0
South Africa	0.1	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	0.2	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	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Africa	**1.5**	**1.5**	**1.4**	**1.3**	**1.3**	**1.3**	**-0.1**	**1.3**	**1.3**	**1.2**	**1.2**	**1.3**	**-0.1**
Russia	**11.5**	**11.6**	**10.6**	**10.8**	**11.2**	**10.8**	**0.2**	**11.5**	**11.8**	**11.9**	**11.9**	**11.8**	**1.0**
Kazakhstan	1.9	1.9	1.8	1.7	2.0	1.8	0.0	1.9	2.0	2.0	2.0	2.0	0.2
Azerbaijan	0.8	0.8	0.7	0.7	0.7	0.7	0.0	0.8	0.8	0.8	0.8	0.8	0.1
Eurasia others	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Other Eurasia	**3.1**	**3.1**	**2.9**	**2.8**	**3.1**	**2.9**	**0.0**	**3.1**	**3.1**	**3.2**	**3.2**	**3.1**	**0.2**
Other Europe	**0.1**	**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	**32.8**	**33.1**	**31.7**	**31.8**	**32.3**	**31.9**	**0.2**	**33.1**	**33.4**	**33.5**	**33.8**	**33.5**	**1.5**
Non-OPEC	61.0	63.2	60.8	61.3	62.9	61.4	0.5	63.6	63.8	64.3	65.3	64.3	2.9
Processing gains	2.3	2.4	2.2	2.3	2.3	2.3	0.1	2.4	2.4	2.4	2.4	2.4	0.1
Non-OPEC liquids production	**63.4**	**65.5**	**63.0**	**63.6**	**65.2**	**63.6**	**0.7**	**66.0**	**66.2**	**66.7**	**67.7**	**66.7**	**3.0**
OPEC NGL	5.2	5.1	4.9	5.1	5.1	5.0	0.1	5.1	5.2	5.2	5.2	5.2	0.1
OPEC Non-conventional	0.1	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)	**5.3**	**5.2**	**5.0**	**5.2**	**5.2**	**5.1**	**0.1**	**5.2**	**5.3**	**5.3**	**5.3**	**5.3**	**0.1**
Non-OPEC & OPEC (NGL+NCF)	**68.7**	**70.8**	**68.0**	**68.8**	**70.3**	**68.8**	**0.8**	**71.2**	**71.5**	**72.0**	**73.1**	**71.9**	**3.1**

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

Table 11 - 5: World rig count, units

World rig count	2019	2020	2021	Change 2021/20	1Q21	2Q21	3Q21	4Q21	Nov 21	Dec 21	Change Dec/Nov
US	944	436	475	39	393	452	498	559	560	580	20
Canada	134	90	133	43	145	73	151	161	167	149	-18
Mexico	37	41	45	4	46	42	43	48	48	47	-1
OECD Americas	**1,116**	**567**	**654**	**87**	**585**	**568**	**694**	**770**	**776**	**778**	**2**
Norway	17	16	17	1	16	18	17	18	17	18	1
UK	15	6	8	2	8	8	9	8	8	8	0
OECD Europe	**74**	**59**	**58**	**-1**	**54**	**59**	**59**	**61**	**62**	**61**	**-1**
OECD Asia Pacific	**29**	**22**	**23**	**1**	**16**	**21**	**28**	**25**	**26**	**23**	**-3**
Total OECD	**1,219**	**648**	**735**	**87**	**656**	**648**	**781**	**856**	**864**	**862**	**-2**
Other Asia*	221	187	174	-13	161	170	181	182	184	185	1
Latin America	128	58	91	33	76	89	93	105	106	109	3
Middle East	68	57	57	0	57	56	57	59	60	60	0
Africa	55	43	42	-1	33	39	47	49	50	52	2
Other Europe	14	12	9	-3	12	7	9	9	9	9	0
Total Non-OECD	**486**	**357**	**373**	**16**	**338**	**362**	**385**	**404**	**409**	**415**	**6**
Non-OPEC rig count	**1,705**	**1,005**	**1,108**	**103**	**994**	**1,010**	**1,166**	**1,260**	**1,273**	**1,277**	**4**
Algeria	45	31	26	-5	22	27	24	31	31	34	3
Angola	4	3	4	1	4	4	4	5	6	6	0
Congo	3	1	0	-1	0	0	0	1	1	1	0
Equatorial Guinea**	1	0	0	0	0	0	0	1	1	1	0
Gabon	7	3	2	-1	1	1	3	4	4	4	0
Iran**	117	117	117	0	117	117	117	117	117	117	0
Iraq	74	47	39	-8	32	36	42	45	44	44	0
Kuwait	46	45	25	-20	28	23	25	23	24	25	1
Libya	14	12	13	1	12	12	14	14	14	14	0
Nigeria	16	11	7	-4	6	5	10	7	7	6	-1
Saudi Arabia	115	93	62	-31	62	62	59	64	60	65	5
UAE	62	54	42	-12	43	44	39	42	43	42	-1
Venezuela	25	24	25	1	25	25	25	25	25	25	0
OPEC rig count	**529**	**441**	**362**	**-79**	**352**	**356**	**361**	**380**	**377**	**384**	**7**
World rig count* **	**2,234**	**1,446**	**1,470**	**24**	**1,346**	**1,366**	**1,527**	**1,640**	**1,650**	**1,661**	**11**
of which:											
Oil	1,788	1,125	1,162	37	1,044	1,076	1,212	1,316	1,326	1,344	18
Gas	415	275	275	0	269	257	281	293	294	288	-6
Others	31	46	33	-13	33	33	34	31	30	29	-1

*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 5.99 in December

December 2021	74.38
November 2021	80.37
Annual average	**69.89**

December OPEC crude production

mb/d, according to secondary sources

up 0.17 in December

December 2021	27.88
November 2021	27.72

Economic growth rate

per cent

	World	OECD	US	Euro–zone	Japan	China	India
2021	5.5	5.1	5.5	5.2	1.8	8.0	8.8
2022	4.2	3.6	4.0	3.9	2.2	5.6	7.0

Supply and demand

mb/d

2021		**21/20**	**2022**		**22/21**
World demand	96.6	5.7	World demand	100.8	4.2
Non-OPEC liquids production	63.6	0.7	Non-OPEC liquids production	66.7	3.0
OPEC NGLs	5.1	0.1	OPEC NGLs	5.3	0.1
Difference	**27.8**	**4.9**	**Difference**	**28.9**	**1.0**

OECD commercial stocks

mb

	Nov 20	Sep 21	Oct 21	Nov 21	Nov 21/Oct 21
Crude oil	1,502	1,308	1,329	1,317	–12.7
Products	1,608	1,450	1,408	1,405	–3.3
Total	**3,110**	**2,758**	**2,737**	**2,721**	**–16.0**
Days of forward cover	74	61	61	61	–0.2

Next report to be issued on 10 February 2022.