THE OXFORD INSTITUTE FOR ENERGY STUDIES

Short-Term Outlook

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India's uneven oil demand recovery still faces headwinds

The spread of the Delta variant had a devastating impact on India's oil demand. But as cases continued to decline from their peak, demand rebounded strongly between July and August with gasoline and jet fuel leading the recovery. In contrast, gasoil continues to show signs of weakness reflecting a very uneven recovery compounded by pre-COVID-19 economic challenges. Another headwind facing India's oil demand is the high domestic retail price in part due to rising crude prices but more importantly due to higher excise duties with taxation of petroleum products constituting a key source for federal government and states' revenues.

In March 2020, India's Prime Minister Narendra Modi imposed a nationwide lockdown to slow down the spread of COVID-19. The lockdown succeeded in controlling the spread of the virus, but it had a devastating impact across the economy, and consequently on oil demand. Characterised as one of the most stringent lockdowns anywhere in the world, India suffered the highest output losses in the region with its GDP in Q2 2020 plunging y/y by a staggering -24.4 per cent. The faster than expected re-opening of the economy in Q3 and Q4 eased India's average output loss for 2020 as a whole to -7 per cent.

In terms of oil demand, the negative impact from the stringent restrictions was equally severe with products demand overall nearly halving from the level of 4.58 mb/d in February 2020 to 2.29 mb/d in April 2020. Jet fuel sustained the heaviest losses, plunging by 80 per cent, followed by a 63 per cent and 56 per cent decline in gasoline and diesel consumption, respectively. The exception to this steep decline was LPG, which was the least affected, with demand falling by only 3 per cent between February and April 2020. This was in large part due to the government's support of household LPG use through the provision of subsidy payments to consumers during the lockdown period.

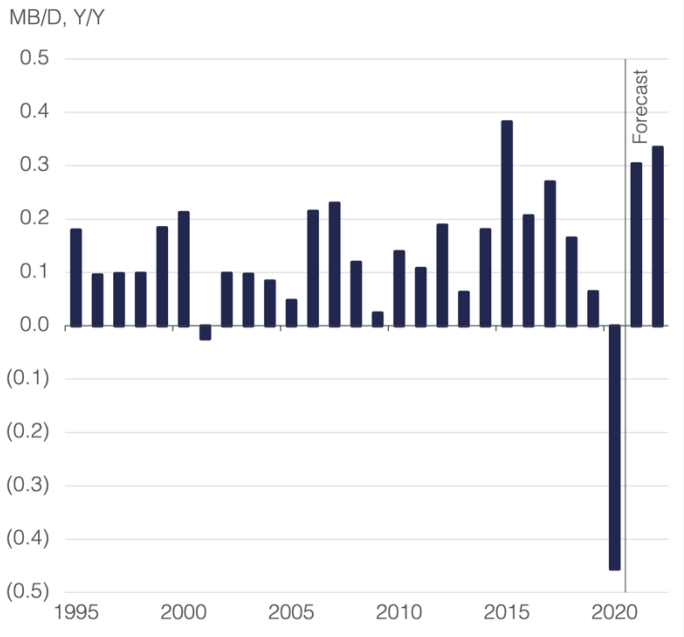
As restrictions started to ease, demand recovered to nearly 4 mb/d in June 2020 and approached close to pre-shock levels at 4.4 mb/d at year end, but for 2020 as a whole, oil demand contracted by 456,000 b/d, the first y/y negative growth in nearly two decades (the last contraction being -25,000 b/d in 2001 – see **Figure 1**).

First wave in the face of ongoing economic challenges

Even before the spread of COVID-19, India's economy was facing a challenging set of circumstances towards the end of 2019. Growth had slowed to a seven-year low of 3.3 per cent in Q4 2019 to average 4.8 per cent for the year, which was 2.5 per cent lower than 2018 and its slowest pace of expansion since the aftermath of the global Financial Crisis in 2009 (4.5 per cent). The underlying reasons for this economic slowdown from previous years – and whether they are structural or cyclical – have been widely debated. For instance, some have attributed the slowdown in part to two successive policy shocks in 2016 and 2017 – the demonetization of 86 per cent of India's currency, followed by the implementation of its Goods and Services Tax (GST) reform – which may have had an adverse impact on real economic output. Others argue that the slowdown is due to both structural and cyclical factors: the global financial crisis of 2008 precipitated a fall in India's export growth, whereas large infrastructure projects that were debt financed during the mid-2000s began running into financial problems by the late 2010s. Attempts were made to address the slowdown, including the recapitalization of public sector banks, the passing of a bankruptcy code, corporate tax cuts and efforts to support infrastructure investment, all of which had limited effect.

Although oil demand was supported through policy measures during the 2010s, the slowdown in India's economy was ultimately reflected in oil demand data over 2018 and 2019. After growing y/y by 164,000 b/d in 2018, the growth slowed down markedly in 2019 with

Fig 1: India oil demand



Source: OIES

average annual oil demand growth reaching a mere 64,000 b/d compared with the preceding few years in which demand growth had reached record levels e.g., touching 382,000 b/d in 2015 (see **Figure 1)**. Jet fuel, fuel oil and naphtha were particularly affected declining on average y/y by 7.2 per cent, 5 per cent and 2.3 per cent in 2019, with gasoline and LPG driving the growth by 8.7 per cent and 8.6 per cent, respectively, and diesel consumption growing only marginally by 1.6 per cent.

Against this background, the sharp recovery between the months of August and December 2020 came as a surprise to many. The swing in oil demand reached nearly 1 mb/d and in December 2020, with oil demand approaching its pre-COVID levels, lifting optimism about the contribution of India to the recovery in global oil demand. Crude imports and refining runs recovered from their lows of 2.92 mb/d and 3.6 mb/d, respectively, and by December 2020 they surpassed 2019 levels with crude imports rebounding to 4.84 mb/d and runs to 4.98 mb/d. Between 2010 and 2019, India contributed by 12 per cent, or by 1.76 mb/d, to the total growth of global oil demand, and at the start of 2021, the IEA was projecting India to contribute by 0.44 mb/d and 0.16 mb/d to the growth in oil demand in 2021 and 2022.

The impact of the second wave

The Delta variant, however, struck again in March, leading to a series of lockdowns at the state and district level impacting fuel demand, particularly gasoline, jet fuel and diesel. The strong m/m demand growth of gasoline and diesel in February 2021 was halted in March, and April saw a big contraction in the consumption of these fuels but still avoided a repetition of the April 2020 oil demand collapse. Gasoline consumption took a hit as restrictions on commuting were imposed, declining m/m by 10 per cent in April and by a further 19.2 per cent in May, declining to 471,000 b/d from 648,000 b/d in March (**Figure 2**).

Jet fuel consumption, which was showing some signs of recovery, contracted by 35.6 per cent between March and May 2021. Diesel consumption suffered less, declining to 1.33 mb/d in May from 1.74 mb/d in March 2021. **During the 2021 COVID-19 wave, India's oil demand fell by 946,000 b/d between February and May 2021, compared to the 2.29 mb/d demand decline seen during the first 2020 wave between the months of February and April 2020.**

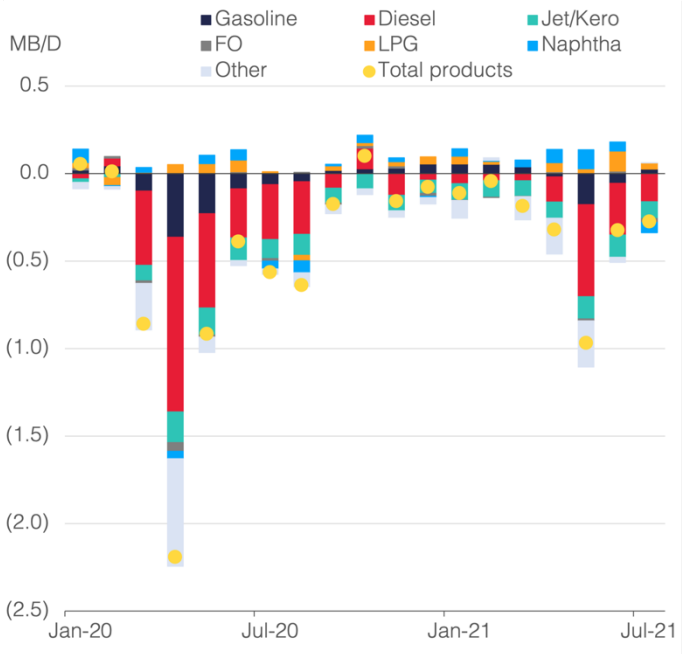
Faced with a renewed fall in demand, Indian refineries started deferring the purchase of crude cargoes. India's imports of crude have recovered to about 4.46 mb/d in April with imports over Q1 2021 averaging 4.47 mb/d. However, crude imports fell anew by 909,000 mb/d between April and July, hitting an 11-month low of 3.55 mb/d. Imports from Middle East and Latin America, particularly from Brazil, were impacted the most, falling by 536,000 b/d and 205,000 b/d, respectively, before recovering in August (**Figure 3**). At the same time, crude runs fell by 671,000 b/d to 4.48 mb/d in May 2021 after rebounding to a 10-month high of 5.16 mb/d in January, before slowly resuming in June.

Solid but uneven recovery

With the easing of restrictions by the various states as reported cases continued to decline from their peak in May 2021, India's oil demand recovered m/m in June by 419,000 b/d. The growth was concentrated in road fuels with gasoline and diesel consumption increasing m/m by 25 per cent and 15.9 per cent, respectively, followed by fuel oil that rose by 17.5 per cent and LPG by 7.9 per cent from their May figures. Jet fuel rebounded only marginally by less than 1 per cent from the previous month, while naphtha sales continued to decline.

In July, India's overall demand decreased slightly by 16,000 b/d as the m/m recovery in gasoline, jet fuel and LPG consumption was offset by losses in diesel, fuel oil and naphtha sales owing mainly to the monsoon season hitting mobility and industrial activity. According to preliminary data, a similar picture persisted in August with the m/m gains in gasoline (+2.5 per cent) and

Fig 2: India oil demand by product vs 2019



Source: PPAC, OIES

jet (+19.9 per cent) being offset by weaknesses in diesel (-9.3 per cent) and LPG (-1.7 per cent) sales.

As of July 2021, for which the latest complete data exist, India's demand remains 6.5 per cent or 275,000 b/d below 2019 levels, with gasoline and LPG consumption having rebounded above pre-COVID levels by 4.2 per cent and 6.7 per cent, respectively, but with all other fuels lagging behind – from jet fuel which remains worse off by 40.3 per cent below 2019 levels to, notably, diesel that fell to 9.9 per cent below pre-COVID shock levels. **This highlights the uneven recovery in India's oil demand.**

As the COVID-related restrictions began to ease in June 2021 and fuel demand picked up, runs resumed in June and July –albeit only gradually– increasing by 98,000 b/d to reach 4.58 mb/d. **We expect refinery runs to trend higher reaching January 2021 levels of around 5 mb/d during the rest of this year as the recovery consolidates and crude imports rise.** KPLER data show that in the month of August 2021 India's crude imports rose m/m by 623,000 b/d, rebounding to above 4 mb/d. In terms of composition, Iraq and Saudi Arabia remain the top two largest exporters year to date accounting for 23.5 per cent and 15.3 per cent of India's total imports, respectively, followed by the US (10.5 per cent) and the UAE (10 per cent) that compete closely for third place. Imports in the following months are bound to jump as refineries have already started a buying spree with Indian Oil Corporation Limited (IOCL), India's biggest refiner, being extremely active in the spot market in the month of July.

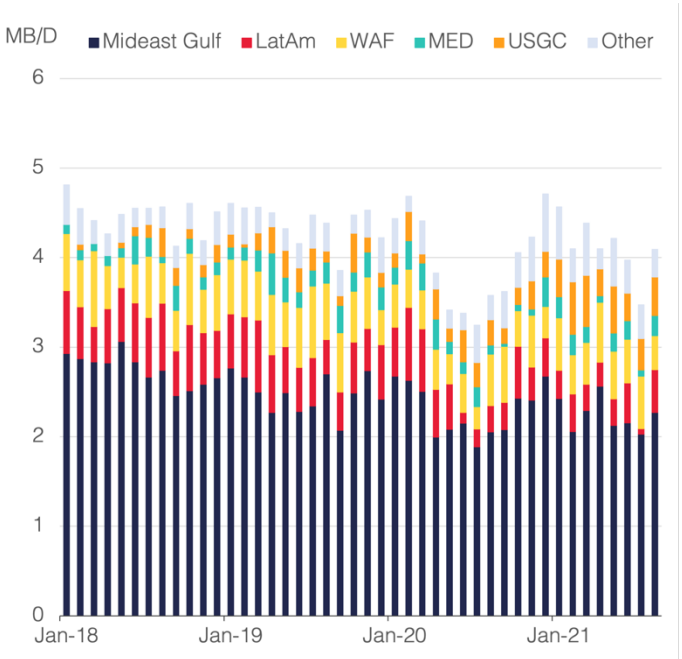
Taxes and high retail prices

Government policy levers have typically focused on mitigating the impact of volatility in crude prices and subsequently in demand on India's fiscal balances (including the current account, and the national budget). Oil imports have typically formed a major proportion of the total import bill (around 30 per cent in 2019, dropping to 20 per cent in 2020); at the same time, the government subsidizes specific petroleum products (e.g., LPG and kerosene) to consumers, including low-income households. Volatility has therefore been managed through adjustments in central excise duties on petroleum products, and adjustments (reductions or increases) in product subsidies – both of which impact retail prices. These buffers have perhaps also contributed to the fact that India has typically surprised on the upside with regards to both crude and product demand, as in the past taxes have been adjusted downward to mitigate the impact of price increases for consumers.

In addition to COVID-19 restrictions, a key factor impacting demand for the rest of the year and into 2022 will be the domestic retail price, including any adjustments to excise duties and subsidies. Over the last 10 years, there has been a process of gradual rationalization of petroleum product subsidies – petrol (gasoline) price subsidies were removed in June 2010, and diesel prices were gradually deregulated by October 2014. The channels of subsidy distribution were also restructured, by instituting direct benefit transfers to eligible consumers' bank accounts, and subsidy caps (e.g., limiting the number of subsidized LPG cylinders to each household based on need or income group). Policymakers took advantage of the fall in international oil prices in 2014 to gradually liberalize the retail prices of selected petroleum products. Consequently, the retail prices of most petroleum products (notably petrol and diesel) have been adjusted daily by India's oil marketing companies since June 2017.

At the same time the government raised revenues from higher excise duties imposed on these products, implying that the full effect of falling oil prices was not passed on to consumers, but instead the windfall was used to create fiscal headroom and the revenues collected have reportedly been used to finance infrastructure development, including highway construction. For instance, the length of national highways went up by 50 per cent between 2014 and 2021. This strategy of balancing between international price movements and adjustments in tax revenues has

Fig 3: India crude oil imports by trading region



Source: Kpler, OIES

continued through the pandemic; retail prices for petrol and diesel rose steadily between March 2020 and May 2021, even while the international crude oil price plunged from around $68/b to below $20/b between January and April 2020, before recovering back to January 2020 levels by the end of the year. Meanwhile, the federal and state governments have adjusted excise duties and VAT rates upwards on several occasions. It is estimated that the federal government and states raised some 5.56 trillion rupees ($75.22 billion) in revenues from the petroleum sector in the fiscal year ended March 31, 2020, and an estimated 6.72 trillion rupees ($90.74 billion) for the fiscal year ended March 31, 2021. **Excise duties on petroleum products have by far contributed the largest proportions (roughly 80 per cent) to federal revenues from the sector; similarly for states' revenues from the sector, the largest proportions (roughly 90 per cent) have come from sales taxes (VAT) on products.**

There have been reports that India's finance ministry is considering cutting excise duties on petrol and diesel to cushion the impact of record highs in domestic prices, and there has been public outcry over rising retail prices and inflationary pressures. But cutting duties is likely to be extremely difficult, especially as government finances are under severe pressure, given the likelihood that lockdowns and restrictions on economic activity will lead to declining collection from other fiscal instruments such as the Goods and Services Tax (GST). Petroleum products largely lie outside the ambit of the GST, as there is resistance to bringing them within it, particularly as the states, which are currently able to set their own VAT rates, are highly dependent on petroleum sector fiscal revenues. It has been estimated that placing petroleum products under the highest slab of GST (28 per cent) would still fall short of the revenues that are currently collected from the taxation of these products, and the shortfall would need to be made up elsewhere. **Taxes alone currently account for roughly 50 per cent of the retail selling price of petrol and diesel, which is comparable to or higher than the government take even in some developed economies** (**Figure 4**)**.**

Use of Strategic Petroleum Reserve (SPR)

In a clear indication of its concerns about higher oil prices, the government has plans to commercialise stocks from its SPR. India's existing SPR is 5.33 million tonnes (around 39 mmbls) at three locations. The aim is to generate revenue from leasing capacity and selling some of its crude stock to refineries that need crude. The Indian Strategic Petroleum Reserve (ISPRL) aims to trade 20 per cent of the reserve capacity and lease another 30 per cent to third parties. However, the impact of such a move on prices is limited, given the limited capacity that ISPRL aims to commercialise, which, according to Kpler is estimated at around 21.9 mmbls. At present, Abu Dhabi National Oil Co (ADNOC) has leased 750,000 tonnes of oil storage in the 1.5 million tonne (11 mmbls) Mangalore SPR, and last year ADNOC exported half of its Mangalore SPR holding.[1] In July, the government approved a further 6.5 million tonnes (around 48 mmbls) of commercial and strategic storage capacity to be built at two more locations, which is likely to take time to come online – but this strategy will be one to watch in coming years.

Demand outlook

Despite the rapid reopening of India's economy following a devastating second COVID-19 wave in April, the post-lockdown pace of economic recovery in 2021 is not expected to be as strong as in 2020, owing to slow progress with vaccination roll-out, weak investment recovery, slow fiscal consolidation and a widening trade deficit. Accordingly, in August, Oxford Economics downgraded India's GDP growth outlook in 2021 to 8.8 per cent from 11.8 per cent pre-second wave and upgraded its 2022 forecast to 7.1 per cent from 6.1 per cent. **Our reference case sees India's oil demand growing y/y by 304,000 b/d in 2021 and 334,000 b/d in 2022, with overall demand rebounding above its pre-COVID shock level of 5 mb/d in Q1 2022** (**Figure 5**)**.** In terms of products demand, demand for road fuels (in particular gasoline) is expected to drive growth by

Fig 4: Retail price breakdown

Source: PPAC, OIES

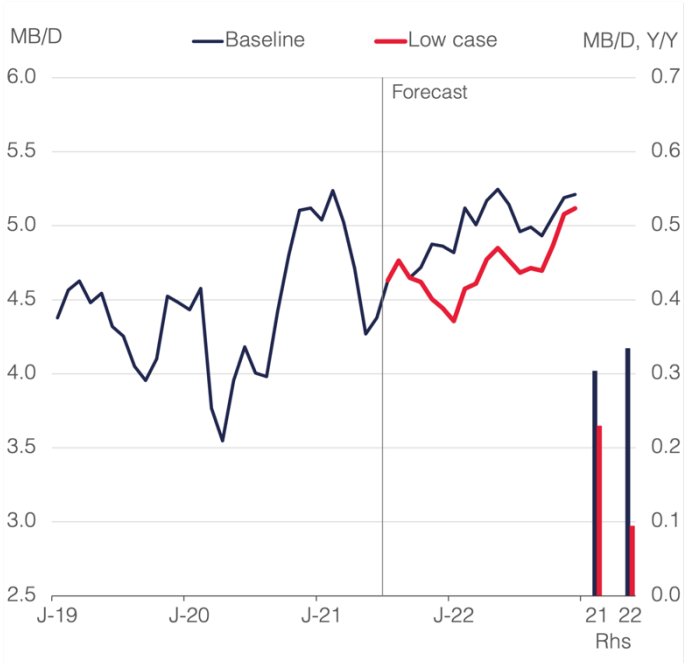
251,000 b/d in 2021 and 172,000 b/d in 2022, while jet fuel demand remains the weakest link which, by the end of 2022 is still expected to remain 20.9 per cent below 2019 levels versus 47.6 per cent in July 2021. But as risks to India's economic outlook remain elevated due to the slow progress with the vaccination roll-out and depressed sentiment, the output loss could be larger and, in turn, oil demand could take a bigger hit. In this scenario, oil demand is expected to grow by only 229,000 b/d in 2021 to 4.76 mb/d compared to 4.84 mb/d in our baseline case and 4.99 mb/d in 2019 (see **Figure 5**). In 2022, demand growth slows to a mere 94,000 b/d, with overall products demand rebounding above pre-shock levels only in H2 2022 and averaging 4.86 mb/d for the year as a whole compared to 5.17 mb/d in our baseline forecast.

Lessons from India's second wave

India's second COVID-19 wave revealed some interesting lessons regarding demand behaviour, some of which could be applied in other contexts:

- In countries where vaccination roll-out is proceeding slowly, new waves can't be excluded and therefore, looking forward, demand will continue to be impacted by restrictions causing volatility in oil demand patterns and increasing the uncertainty surrounding oil demand projections and therefore it is important to consider downside scenarios.

Fig 5: India oil demand forecast scenarios



Source: OIES

- Having said that, governments are now reluctant to impose generalised lockdowns and in the face of new COVID related virus outbreaks; central governments and states are likely to impose less restrictive and more targeted lockdown measures when compared to the first COVID-19 waves.
- The biggest impact of new waves of the virus will be felt on transport fuels (gasoline and jet fuel). But also, these are the fuels that tend to recover the fastest once restrictions are lifted, highlighting the uneven recovery across products.
- Gasoil demand will also be impacted by new virus outbreaks. However, the recovery in gasoil demand after the lifting of restrictions is slower indicating that gasoil demand is more susceptible to post-lockdown economic shocks beyond the near-term and the negative impacts on industrial activity. In the India context, it also reflects pre-COVID-19 economic weaknesses.
- Governments are becoming increasingly concerned about inflationary pressures originating from commodities and higher retail products prices. Lowering taxes on petroleum products could ease inflationary pressures and the burden on end-consumers, but governments are under severe fiscal pressures and adjustments in petroleum taxes are highly unlikely.

Footnotes:

[1] Mint, 'RIL ties up with ADNOC to set up facility in UAE', June 30, 2021.

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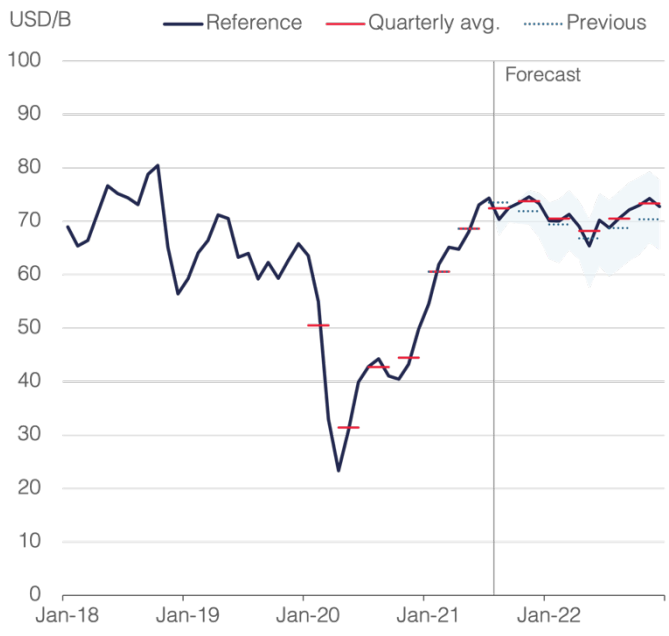
Outlook

Key insights

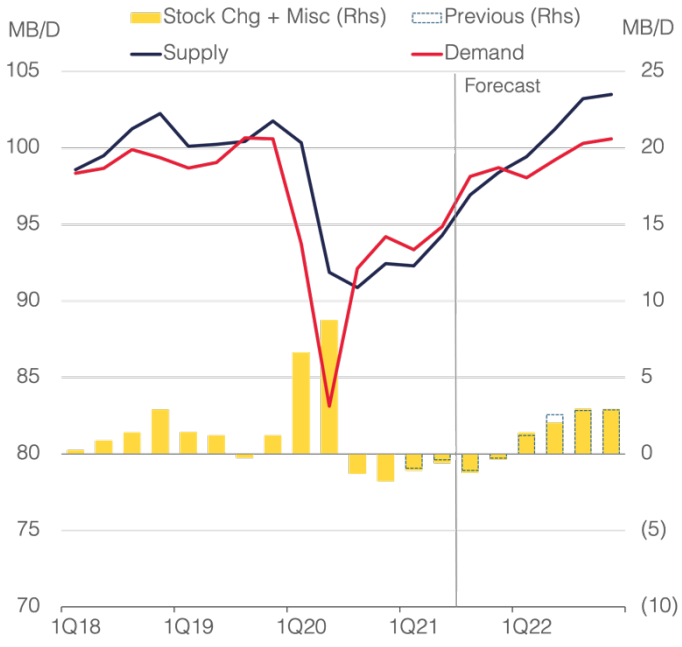
- **Our reference forecast for Brent is little changed to $68.9/b in 2021 and $70.7/b in 2022.** Absent any downside surprises pertaining mainly to demand-side risks, oil prices are still seen holding above $70/b in the remainder of 2021. But as we enter 2022, oil prices are expected to retreat in the mid-$60s before gaining momentum again towards the end of 2022 as the rebound of global demand accelerates, OPEC+ completes the return of its cuts shrinking the spare capacity cushion, while non-OPEC supply growth outside North America remains muted. Throughout 2021 and 2022, oil prices remain confined in the $60/b and $80/b range.
- **Risks to the outlook are fairly balanced in both 2021 and 2022.** On the supply-side the extent of OPEC+ return continues to dictate the balance of risks in both years pressuring the annual prices by -$2.3/b, respectively. On the demand-side, the risks appear fairly balanced to less than -$1/b in both years as concerns over renewed COVID waves leading to a protracted period of intermittent restrictions are confronted by expectations of fast recovery as vaccines continue to roll out.
- **Global oil demand growth in 2021 is downgraded to 5.5 mb/d from 5.7 mb/d and upgraded in 2022 to 3.3 mb/d from 3.2 mb/d.** Optimism for a strong second half of the year wanes, with y/y growth downgraded by 0.35 mb/d to 5.3 mb/d from 5.6 mb/d on renewed COVID restrictions and caution over the magnitude of policy responses to the pandemic. Despite the near-term softening, some catch-up is seen in 2022 with overall global demand still projected to recover above 2019 levels by year-end.
- **Global oil supply is expected to grow by 1.6 mb/d in 2021 and 6.4 mb/d in 2022.** The supply outlook is mainly driven by OPEC+ decision to gradually increase its output towards September 2022, the potential return of Iran and the US return to growth next year by a decent 0.8 mb/d y/y.
- **The market deficit in 2021 is estimated at -0.8 mb/d, followed by a 2.3 mb/d surplus in 2022.** The expected surplus in 2022 highlights the continuous importance of OPEC+ balancing role, as favourable supply/demand conditions could narrow the projected surplus by 1.6 mb/d to 0.75 mb/d.

Brent price outlook



Source: OIES

Global balance



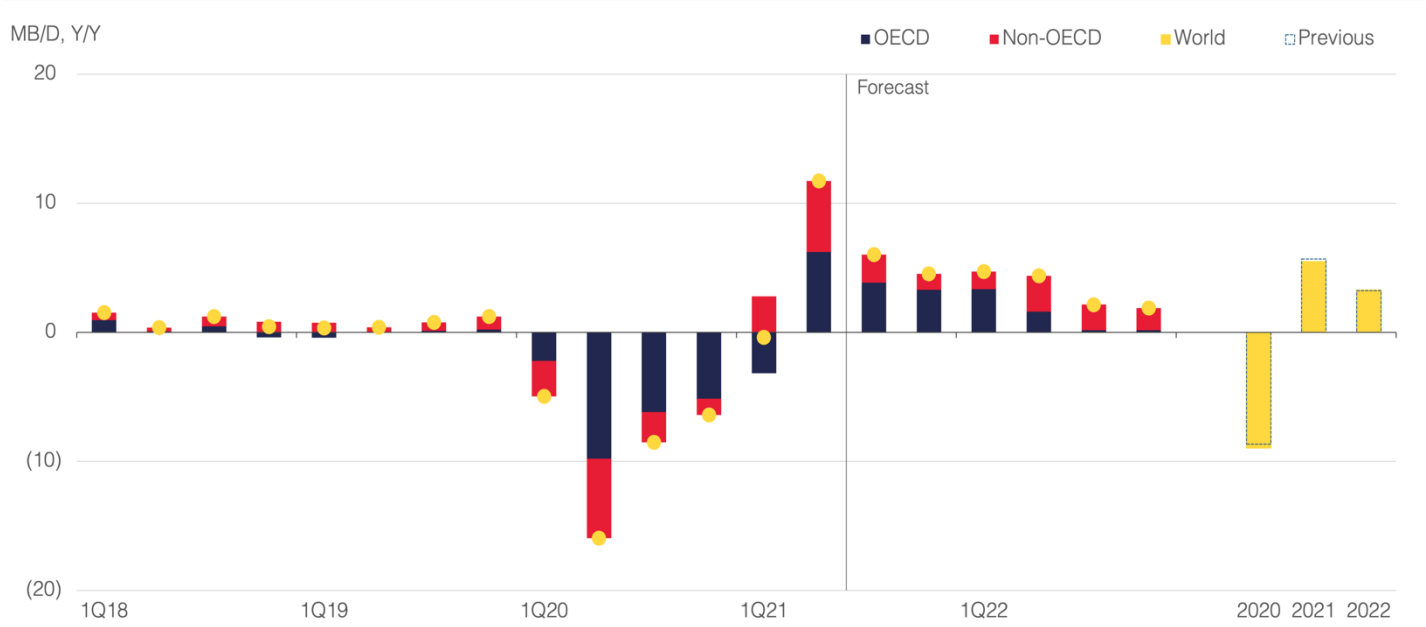
Source: OIES

Demand

High expectations for a strong H2 2020 demand growth take a hit

The uneven demand recovery across regions and products is dampening previous high expectations of a swift demand rebound in H2.

Global oil demand



Source: OIES

Global oil demand
MB/D

	Total	Y/Y	vs 4Q19[1]
2020	90.8	(8.9)	(6.4)
± prev	-0.21	-0.30	
2021	96.3	5.5	(1.9)
± prev	-0.42	-0.21	
2022	99.5	3.3	0.0
± prev	-0.37	+0.04	

[1] Compared to Q4 in each year.

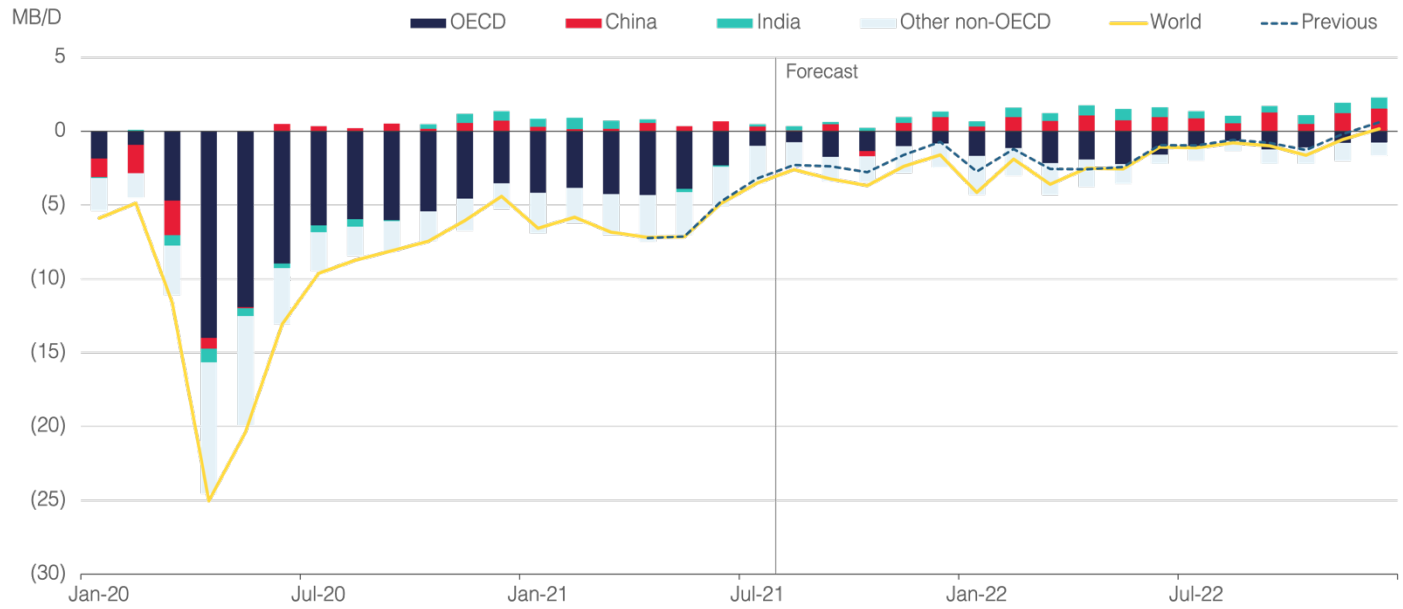
Global oil demand growth in 2021 is downgraded to 5.5 mb/d from 5.7 mb/d

Repeated pandemic waves resulting in restrictions and caution over the timeline and magnitude of policy responses to the pandemic are weighing on the global demand outlook in H2 2021, with y/y growth downgraded by 0.35 mb/d to 5.3 mb/d from 5.6 mb/d previously.

Despite near-term softening, some catch-up is seen in 2022

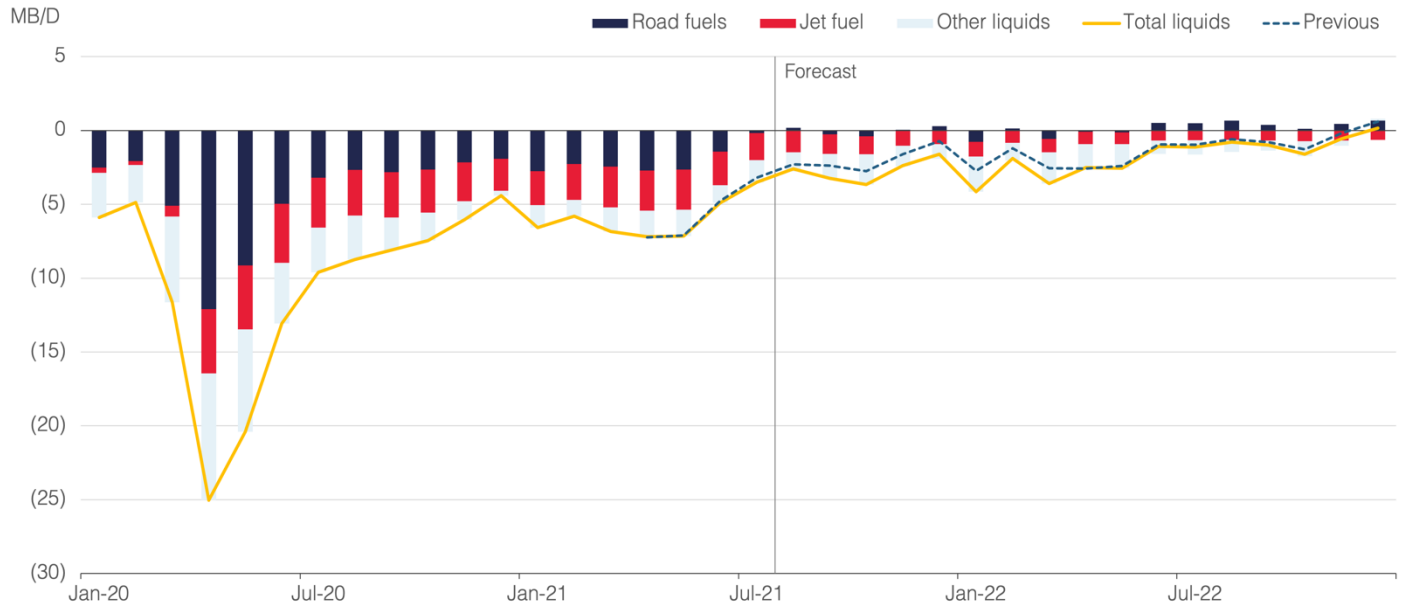
Global demand growth in 2022 remains strong and is slightly elevated to 3.3 mb/d from 3.2 mb/d, with expectations building for a relatively stronger rebound next year.

Global oil demand by region vs Dec 19



Source: OIES

Global oil demand by sector vs Dec 19



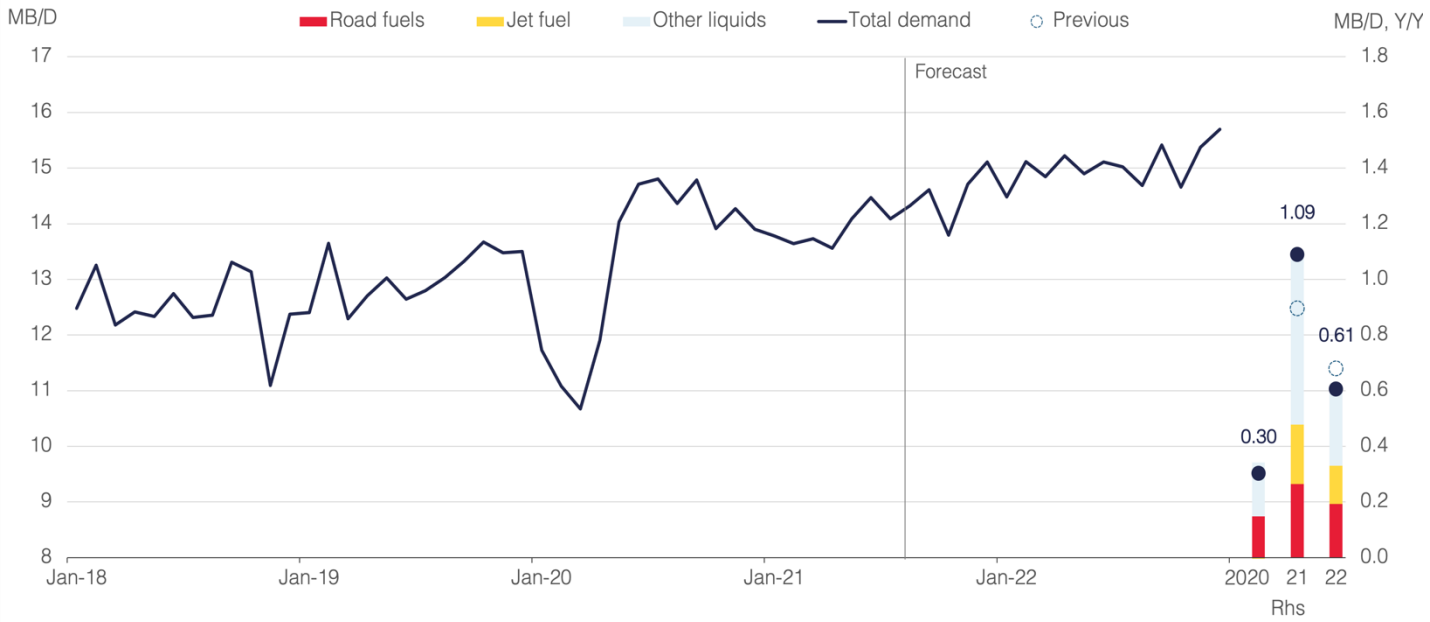
Notes: Other liquids include fuels for other transport, commercial/residential use, industry and other uses. Source: OIES

China

China's implied oil demand set to soften through end-Q3

Oil demand softened in July due to COVID restrictions as well as a slowdown in industrial activity on the back of measures to tame the real estate sector.

China implied product demand



Notes: Other liquids include fuels for other transport, commercial/residential use, industry and other uses. Source: OIES

China oil demand
MB/D

	Total	Y/Y	vs 4Q19[1]
2020	13.8	0.2	0.7
± prev		-0.03	
2021	14.8	1.1	0.9
± prev		+0.01	
2022	15.4	0.6	1.6
± prev		+0.07	

[1] Compared to Q4 in each year.

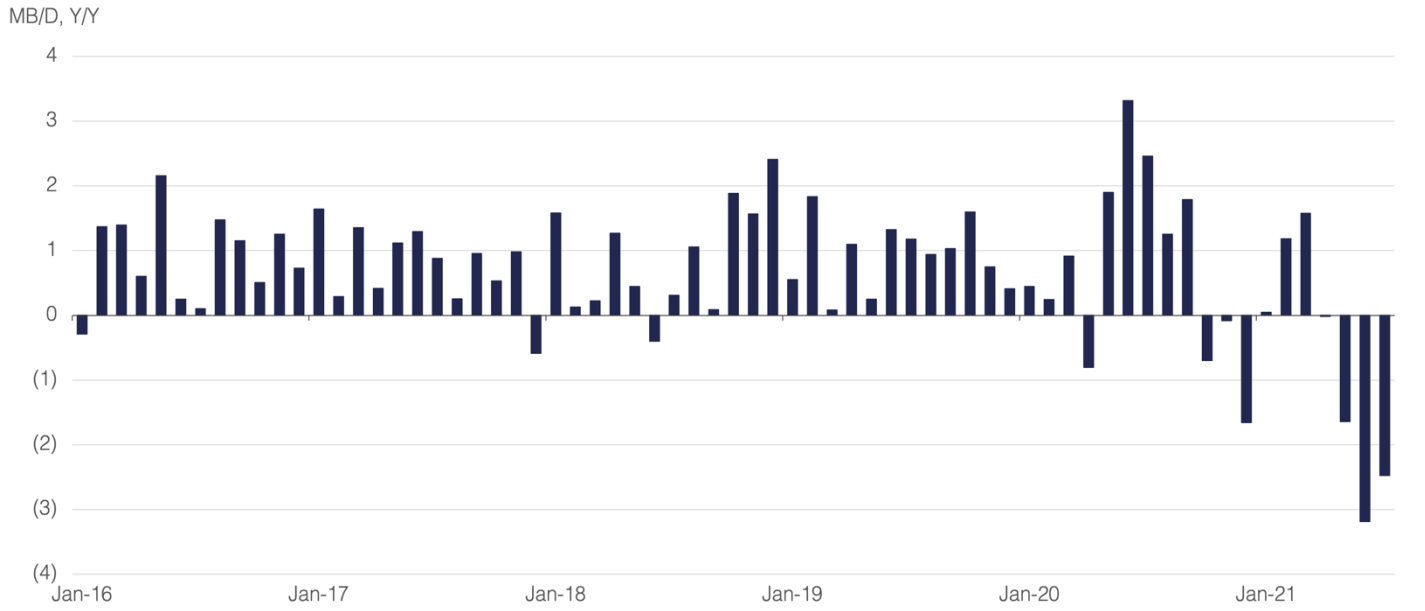
Product demand growth estimated at 1.1 mb/d in 2021, softening to 0.6 mb/d in 2022

Government efforts to tighten the property sector and control emissions from high-polluting industries combined with ongoing tightness in supply chains suggest slower oil demand growth through year-end. But efforts to boost consumption during the holiday season in September-October should offer a bright spot for demand, barring another COVID outbreak.

Imports to remain slow through Q3 on limited quotas and weak margins

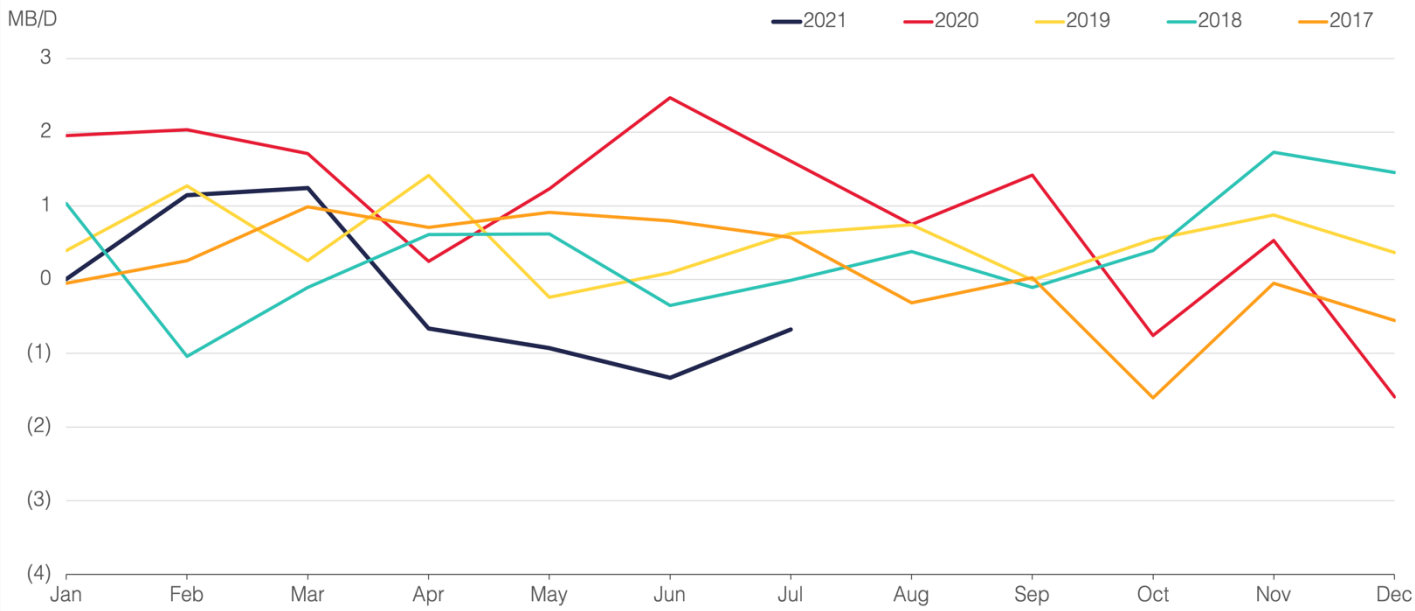
Independent refiners are drawing down stocks, but the Shandong independents return for Q4 deliveries and state-owned majors will likely return to fill inventories year-end.

China crude imports



Source: China customs, OIES

China implied stocks

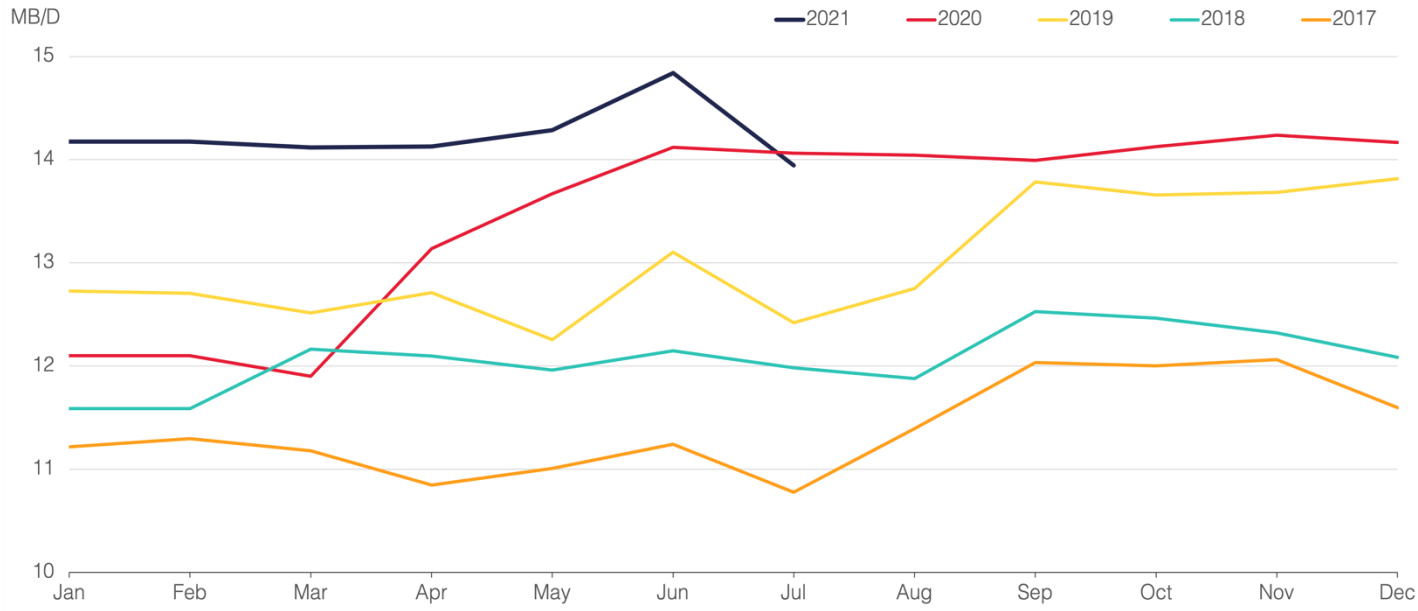


Source: China customs, OIES

Refinery runs likely to remain subdued in August

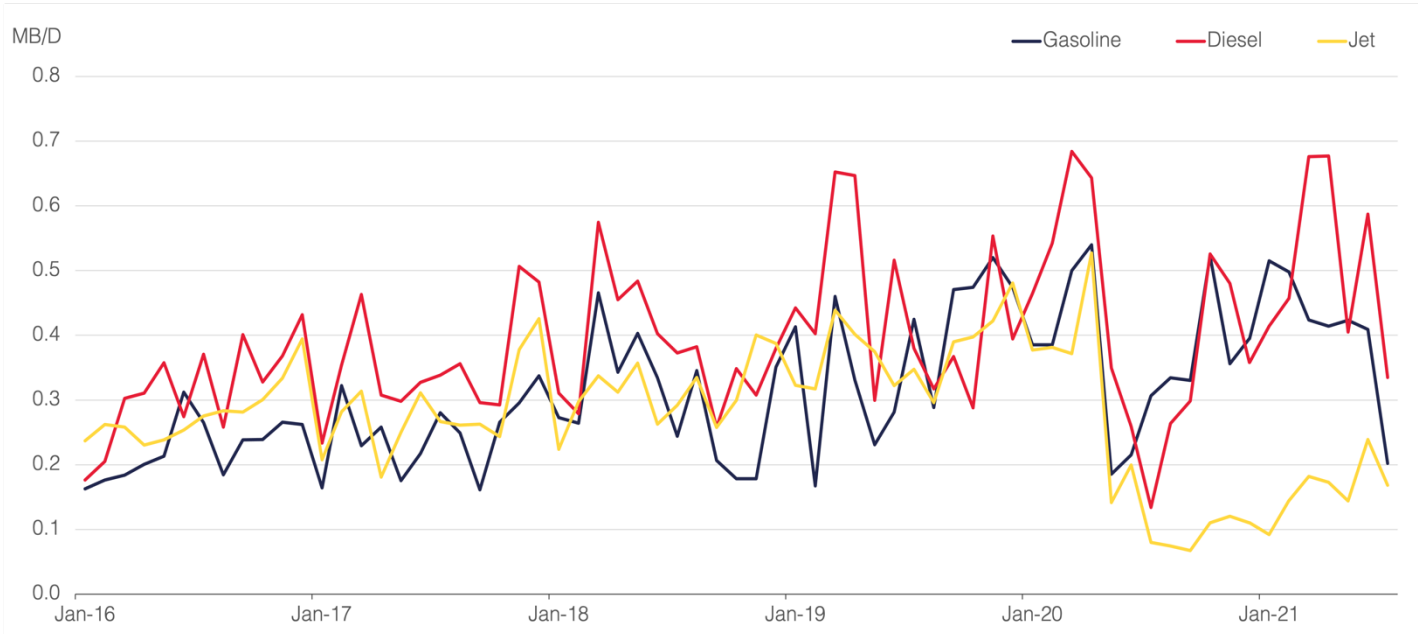
Independent refiners are cutting runs, but the majors set to raise throughputs in Q4 with focus on the domestic market as export quotas remain low.

China refinery runs



Source: NBS, OIES

China product exports



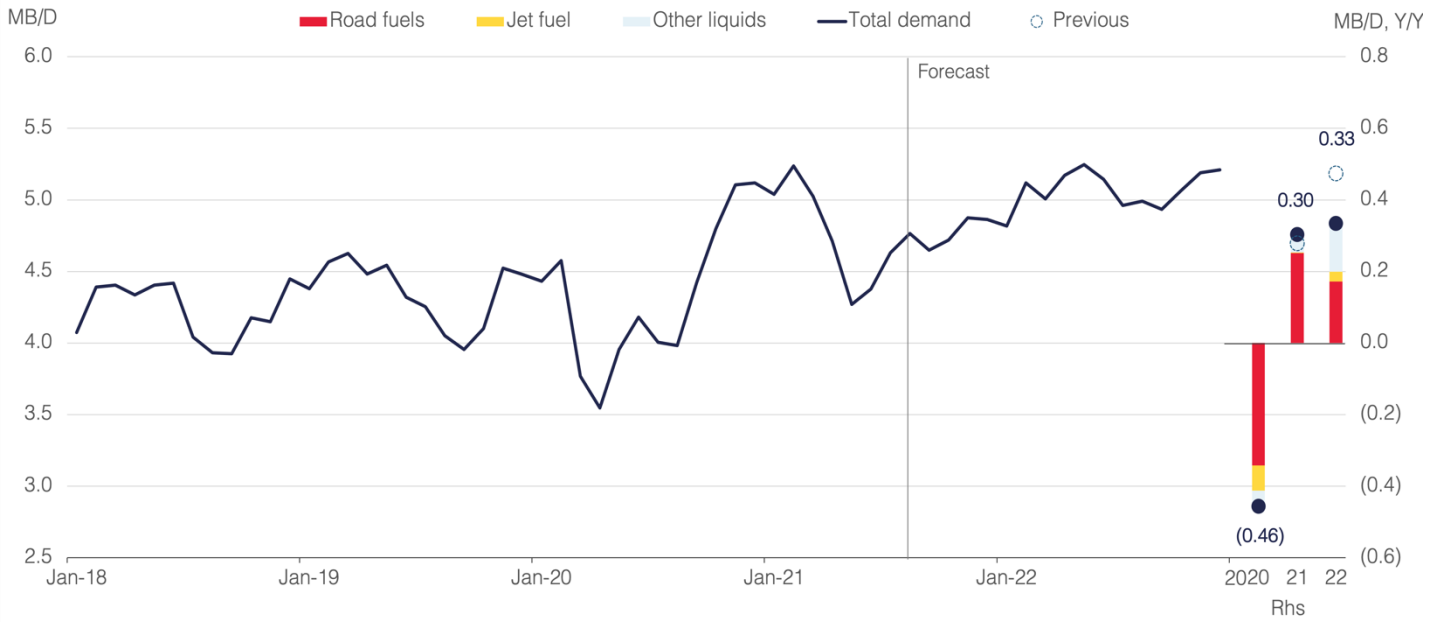
Source: China customs, OIES

India

India's oil demand recovery is solid but highly uneven

Slow vaccination rates that could lead to a renewed pandemic wave, high retail prices and the weak fiscal response continue to downplay India's demand outlook.

India implied product demand



Notes: Other liquids include fuels for other transport, commercial/residential use, industry and other uses. Source: OIES

India oil demand
MB/D

	Total	Y/Y	vs 4Q19[1]
2020	4.5	(0.5)	0.0
		0.00	
2021	4.8	0.3	(0.1)
		+0.03	
2022	5.2	0.3	0.2
		-0.14	

[1] Compared to Q4 in each year.

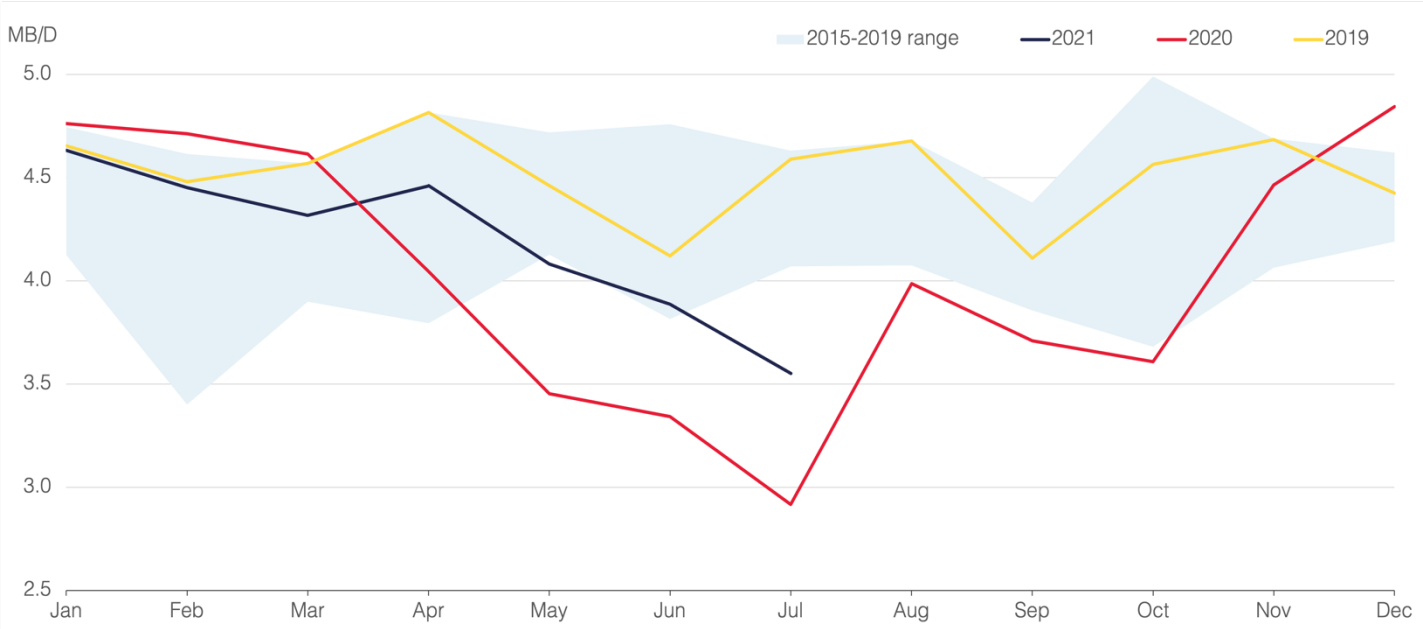
India's oil demand is set to grow by 0.30 mb/d in 2021 and 0.33 mb/d in 2022

Barring a renewed COVID-19 wave, oil demand in India is expected to recover to pre-second wave levels in Q1 2022, but the lack of effective government response and extent of pre- and post-COVID economic scars have led to a downgrade of oil demand growth in 2022 by 0.14 mb/d to 0.33 mb/d from 0.47 mb/d previously. Gasoline demand growth is expected to outperform all products, while ending-2022 jet fuel is still seen 10% below 2019 levels.

India's crude imports bottomed in July

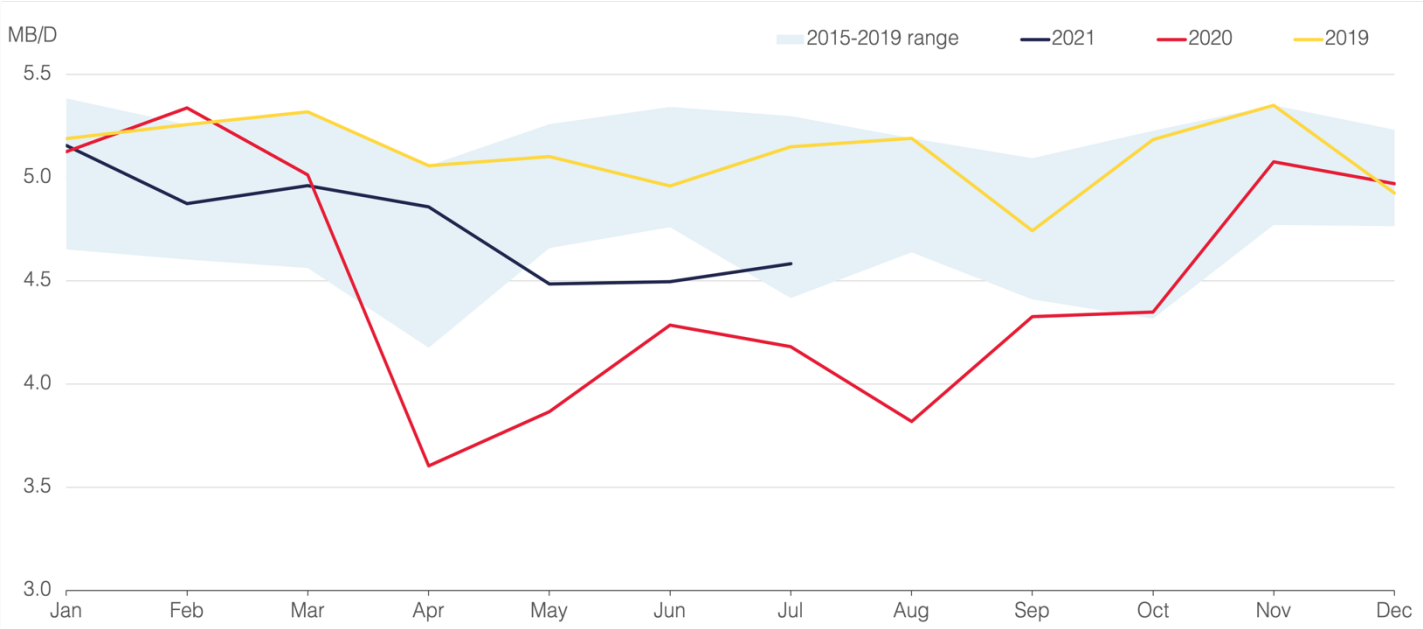
As restrictions eased, refinery runs increased in June/July, with the buying spree expected to have pushed crude imports back in the 2015-2019 range in August.

India crude imports



Source: PPAC, Kpler, OIES

India refinery runs



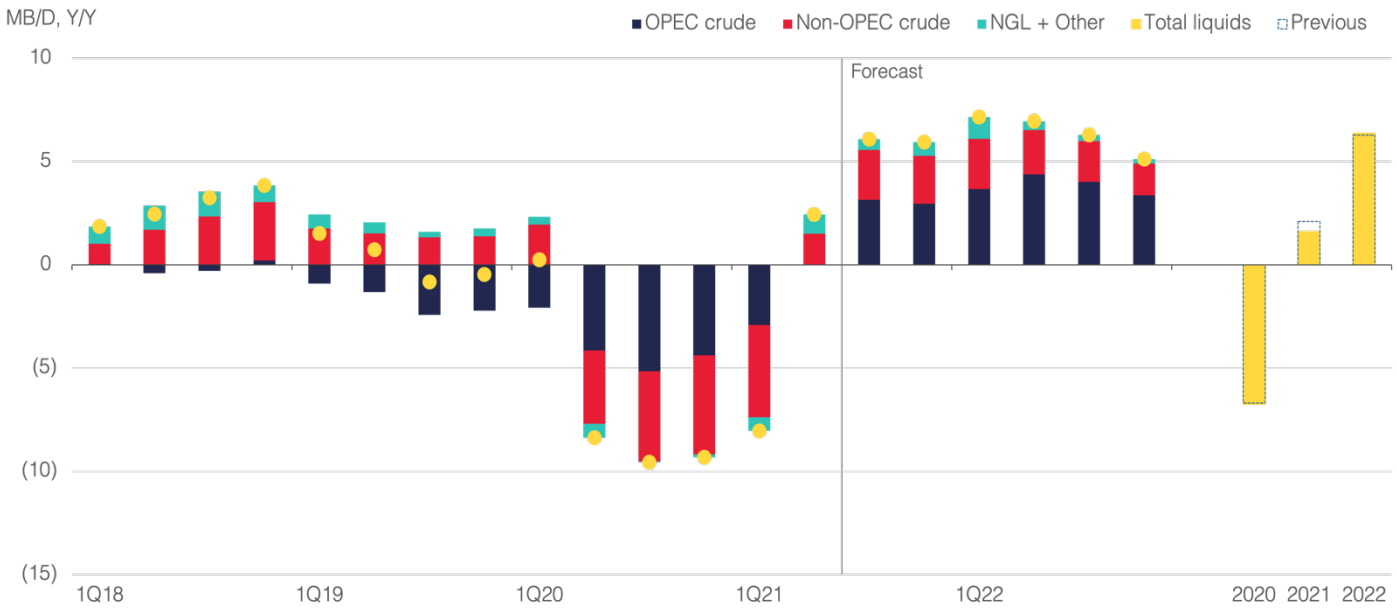
Source: PPAC, Kpler, OIES

Supply

Supply outlook in H2 2021 remains supportive despite OPEC+ return

The modest increase in non-OPEC production outside OPEC+ and delayed Iranian return leave room for the market to absorb the 2 mb/d hike from OPEC+ in H2.

Global oil supply



Source: OIES

Global oil supply
MB/D

	Total	Y/Y	vs 4Q19[1]
2020	93.9	(6.8)	(9.3)
± prev	-0.05	-0.06	
2021	95.5	1.6	(3.4)
± prev	-0.55	-0.49	
2022	101.8	6.4	1.7
± prev	-0.44	+0.10	

[1] Compared to Q4 in each year.

Global oil supply to grow by 1.6 mb/d in 2021 and 6.4 mb/d in 2022

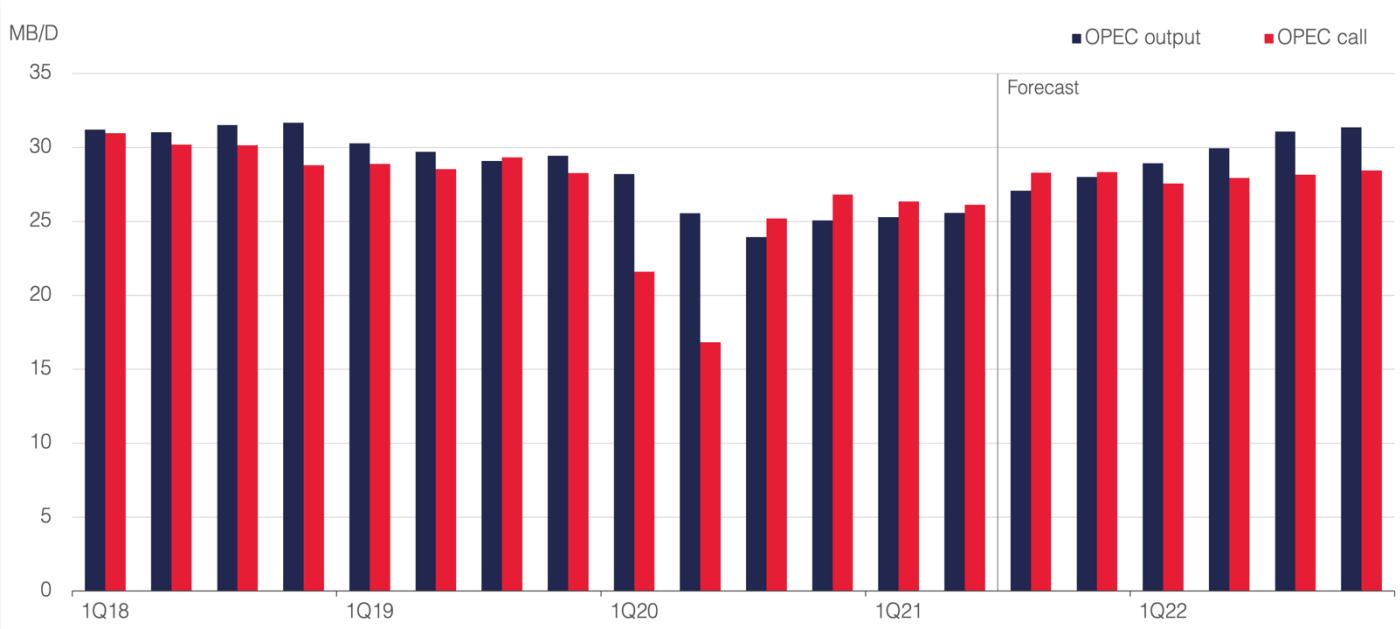
Global supply growth in 2021 is revised lower by 0.49 mb/d mainly due to weaker than expected historical data and a downgrade of Iranian production by 0.18 mb/d to 2.7 mb/d year-end. US production is also revised lower by 60,000 b/d to -0.16 mb/d y/y, with gains in H2 lowered by 0.14 mb/d. For 2022, global supply growth is upgraded by 0.1 mb/d due to higher non-OPEC growth (+70,000 b/d).

OPEC

The supply path for OPEC+ is clearer

The OPEC call in H2 2021 remains 0.77 mb/d below expected production, but in 2022 the outlook progressively builds into surpluses.

OPEC supply



Notes: Assumes 100% compliance with OPEC+ deal. Source: OIES

OPEC supply
MB/D

	Output	Call	± dif.
2020	25.7	22.6	3.1
± prev	0.00	-0.16	
2021	26.5	27.3	(0.8)
± prev	-0.24	-0.11	
2022	30.3	28.0	2.3
± prev	-0.20	-0.13	

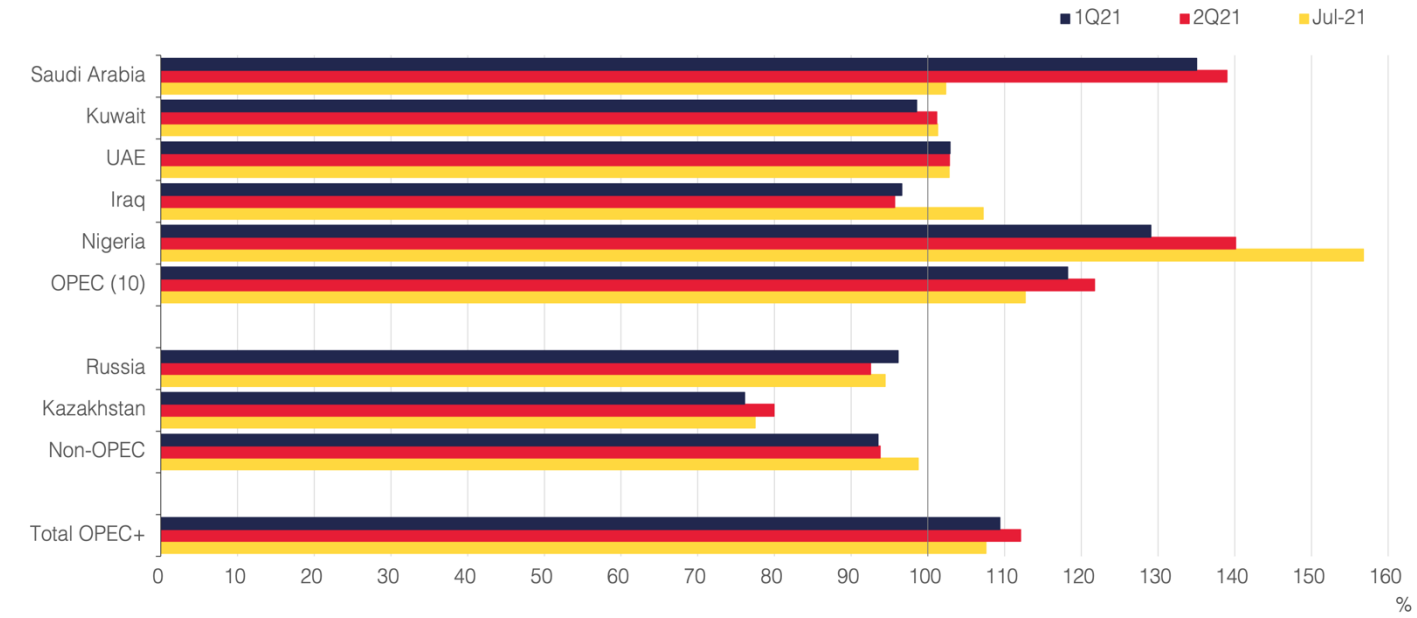
The OPEC call in 2021 stands at 27.3 mb/d and at 28 mb/d in 2022

OPEC+ supply management into next year remains crucial and the mechanisms set in place with the new deal (e.g., 3-month buffer, monthly meetings) could help support the market in 2022.

OPEC+ compliance for some producers becomes involuntary

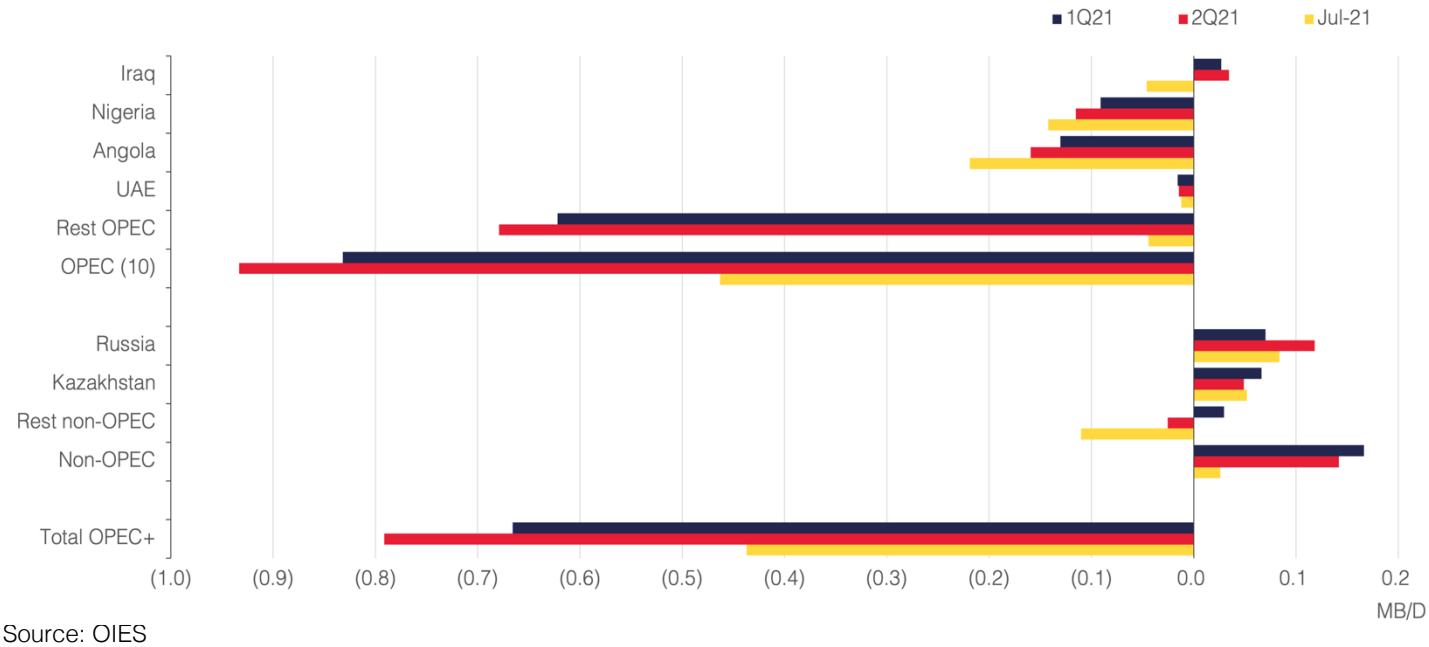
In July, OPEC+ compliance remained strong at 108% as some producers such as Angola, Nigeria and Azerbaijan are already struggling to keep up with their targets.

OPEC+ output compliance



Source: OIES

OPEC+ over/under production

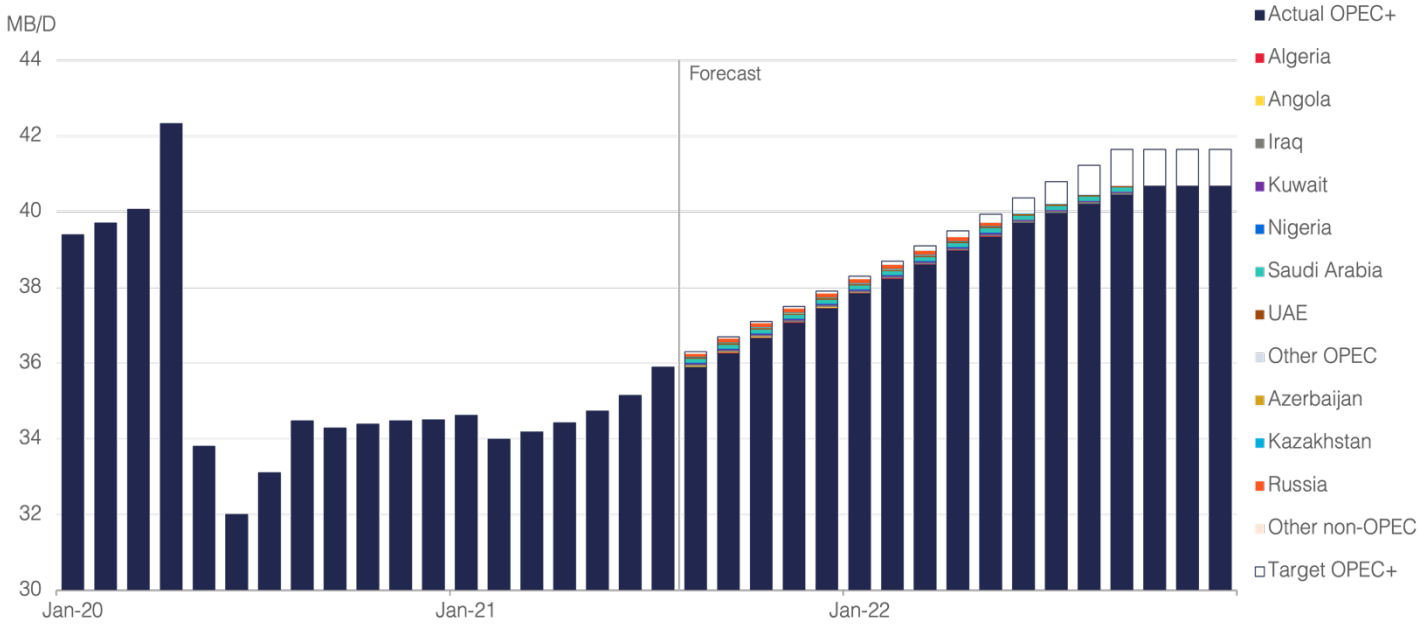


Source: OIES

Heading towards 2022 few countries are in a position to meet their quotas

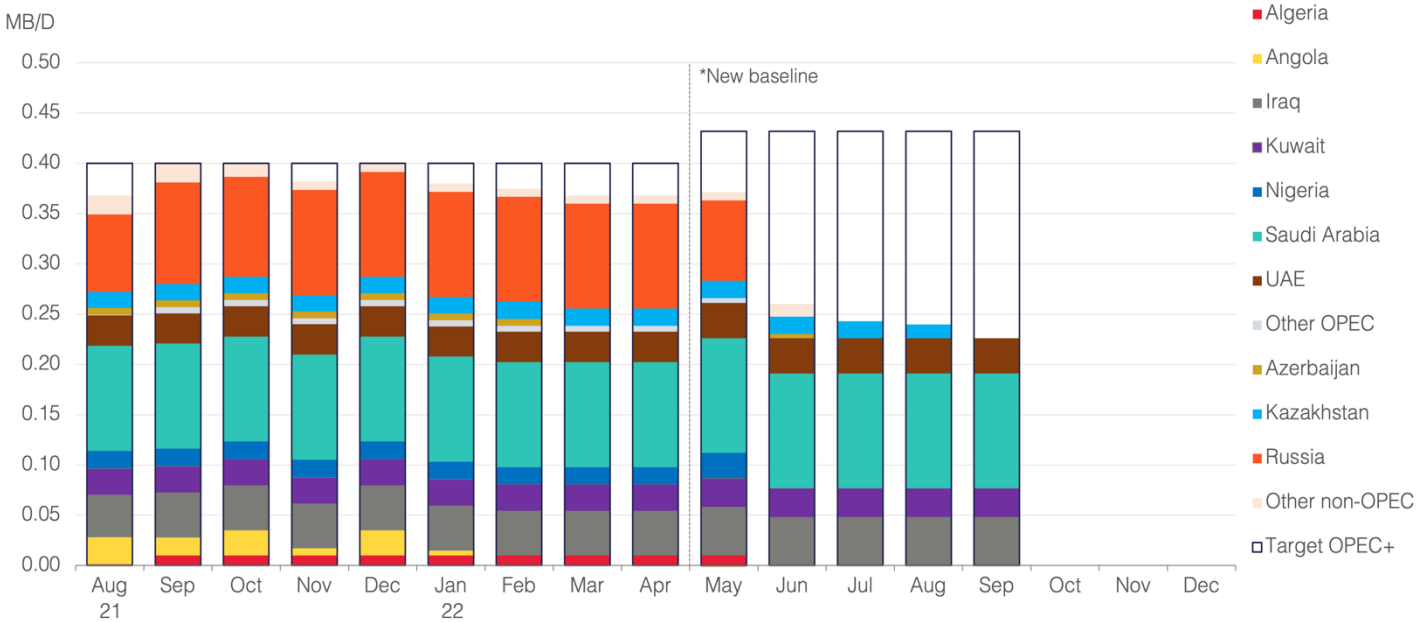
The actual OPEC+ barrels released back to the market in 2022 are likely to be less than the headline 5.76 mb/d figure of the agreement by some 1–1.2 mb/d.

Target versus projected OPEC+ production



Notes: Projected OPEC+ production levels consider implied production capacity and maximum historical production levels sustained over a period of 3 to 6 months. Source: OIES

Target vs projected OPEC+ production increases by country

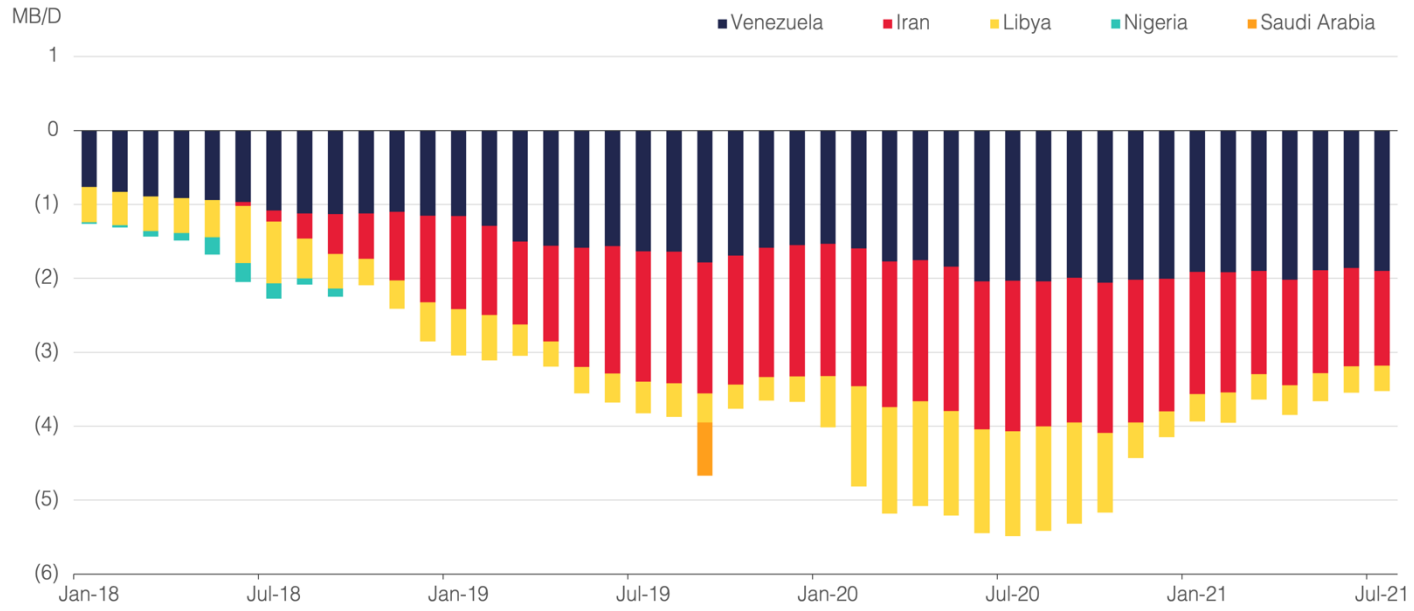


Notes: Projected OPEC+ production levels consider implied production capacity and maximum historical production levels sustained over a period of 3 to 6 months. Source: OIES

Iranian return faces delays

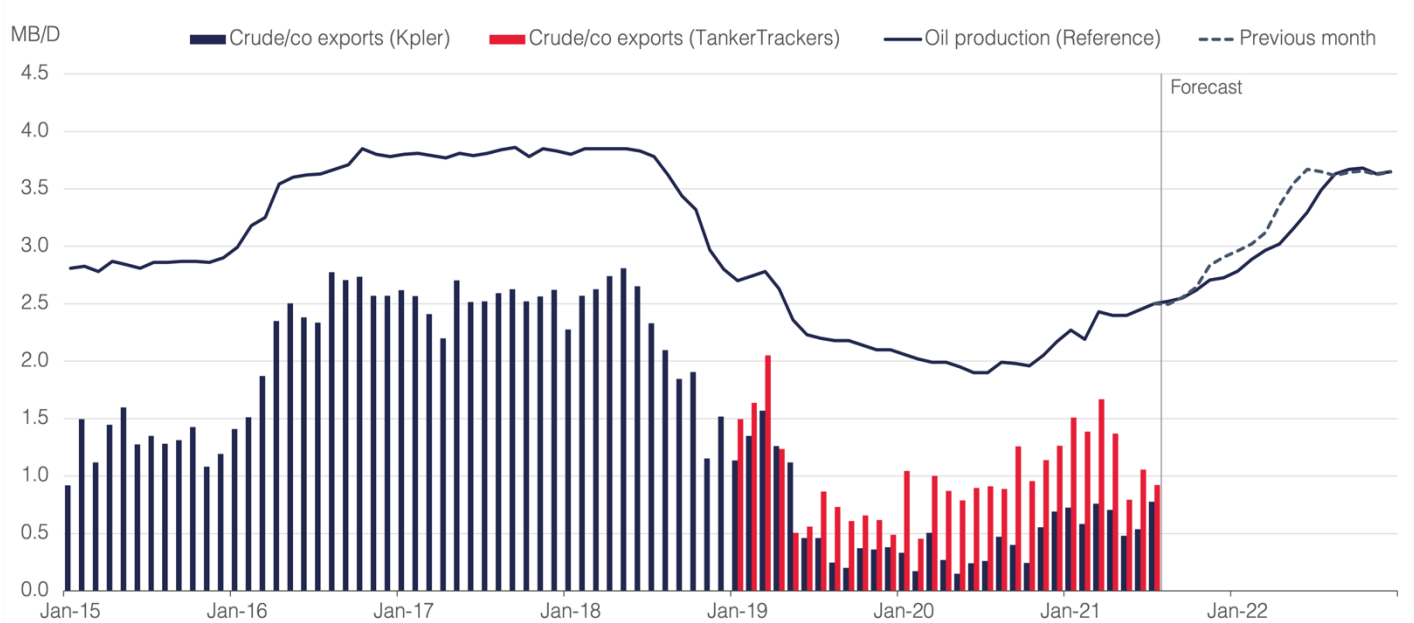
The JCPOA negotiations towards ending the US sanctions on Iran have stalled, with the resumption of full Iranian production now expected in H2 2022.

OPEC geopolitical supply disruptions



Source: OIES

Iran oil exports and production



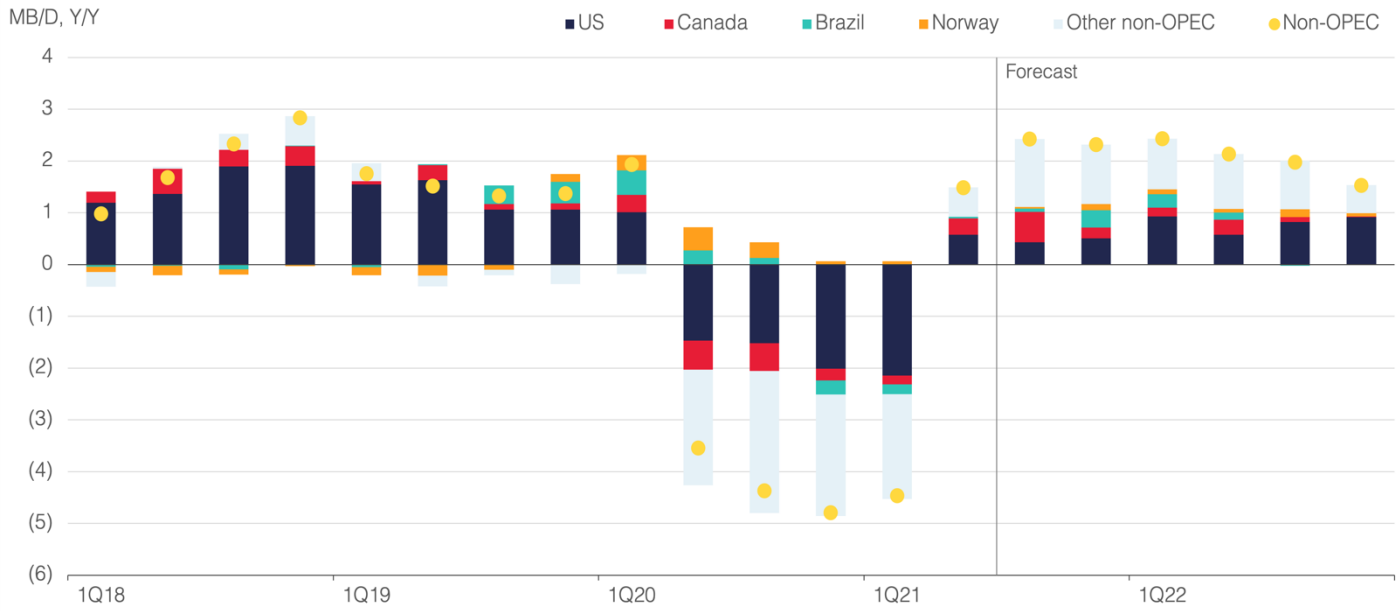
Source: Kpler, TankerTrackers, OIES

Non-OPEC

Non-OPEC supply recovery remains slow

Non-OPEC supply growth remain muted with growth concentrated only in a few countries.

Non-OPEC supply



Notes: Crude oil only. Source: OIES

Non-OPEC supply[1]
MB/D

	Total	Y/Y	US	Y/Y
2020	51.2	(2.7)	11.3	(1.0)
± prev	-0.02	-0.05	-0.03	-0.07
2021	51.6	0.4	11.1	(0.2)
± prev	-0.24	-0.22	-0.09	-0.06
2022	53.6	2.0	11.9	0.8
± prev	-0.17	+0.07	-0.07	+0.02

[1] Includes crude oil and condensates only.

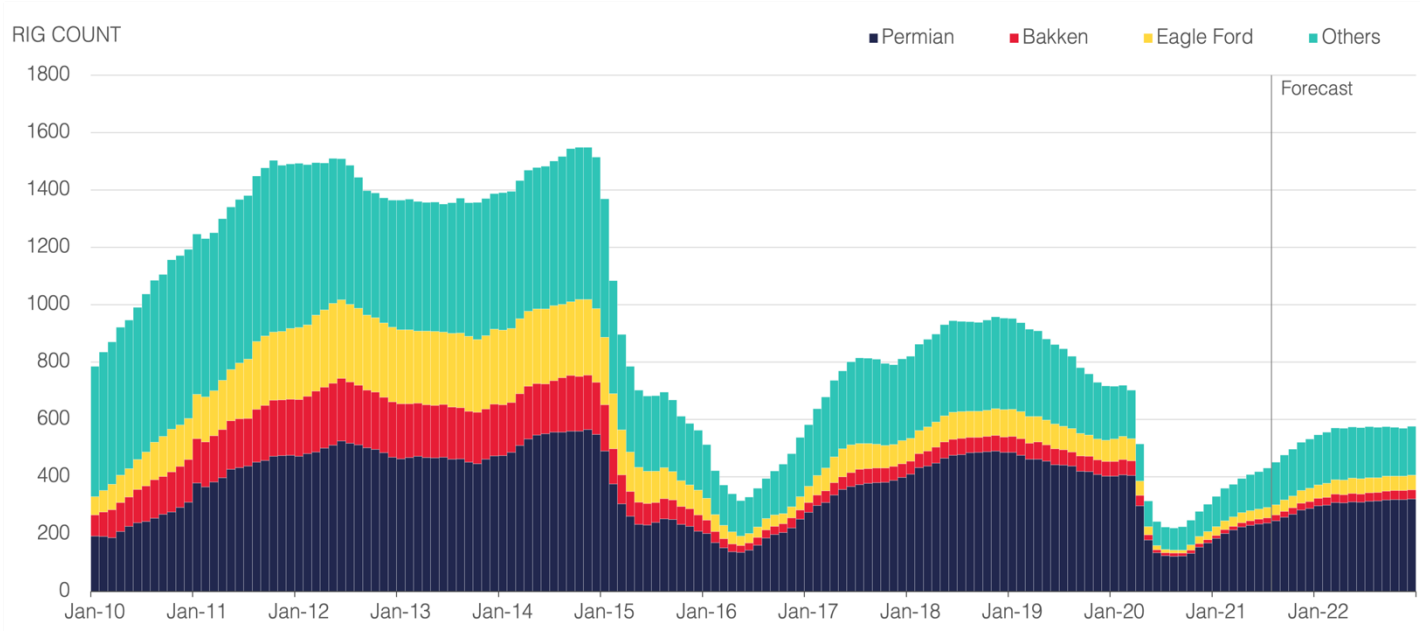
Non-OPEC crude supply to grow by 0.4 mb/d in 2021 and by 2 mb/d in 2022

Non-OPEC supply growth in 2021 is downgraded by 0.22 mb/d mainly reflecting lower expectations in the US in which production is expected to contract by 0.16 mb/d, as well as the slower turnaround of production in Norway following heavy maintenance.

US shale producers remain cautious weighing market conditions

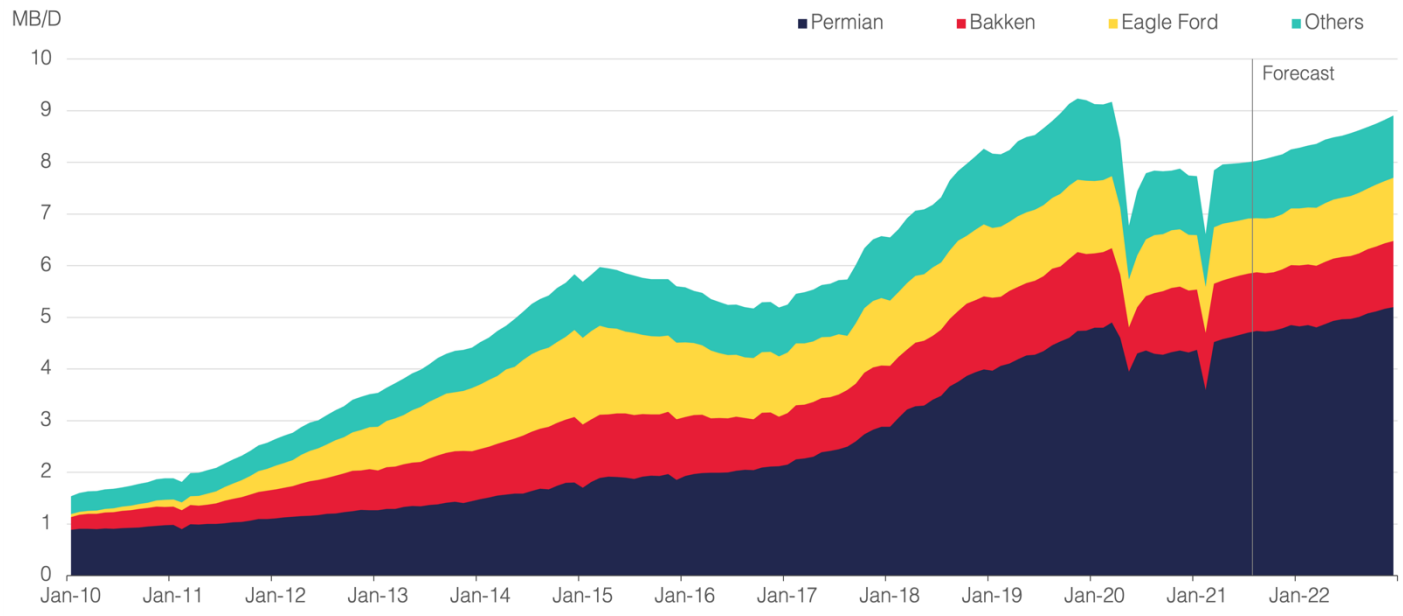
The US shale recovery is expected to remain constrained in the remainder of the year as producers continue to practice capital discipline.

US shale drilling activity by play



Source: OIES

US shale production by play



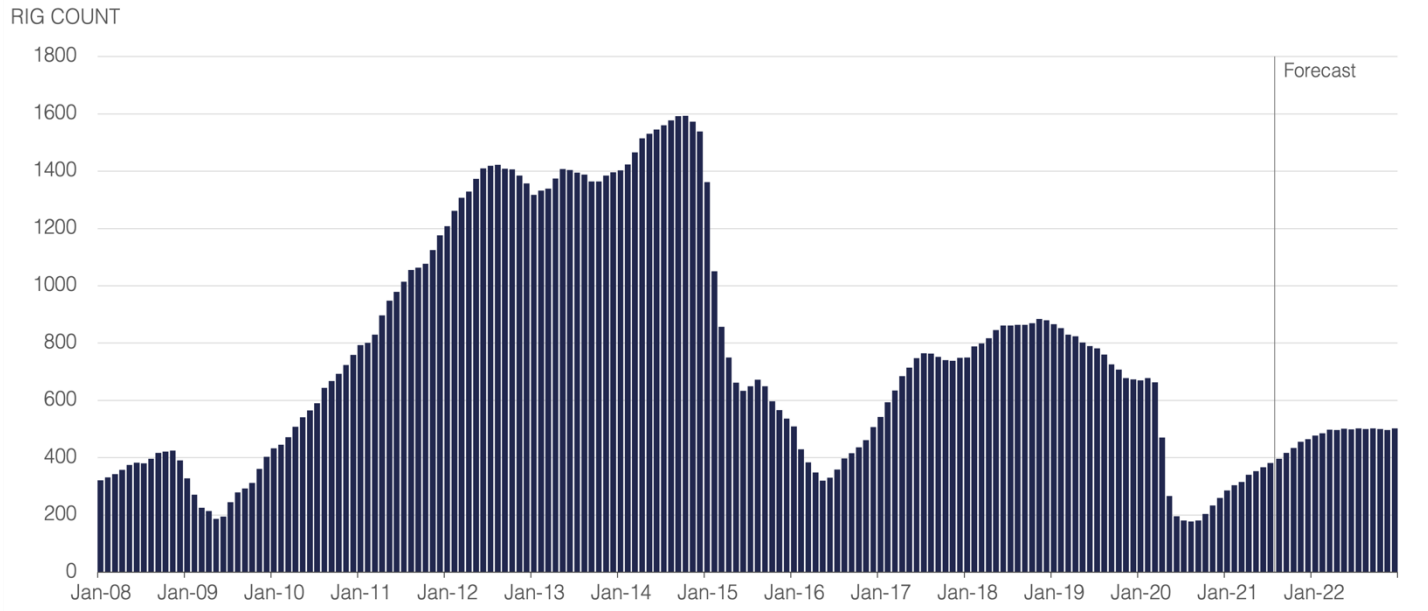
Source: OIES

Outlook

US outlook lowered in 2021, but growth to accelerate in 2022

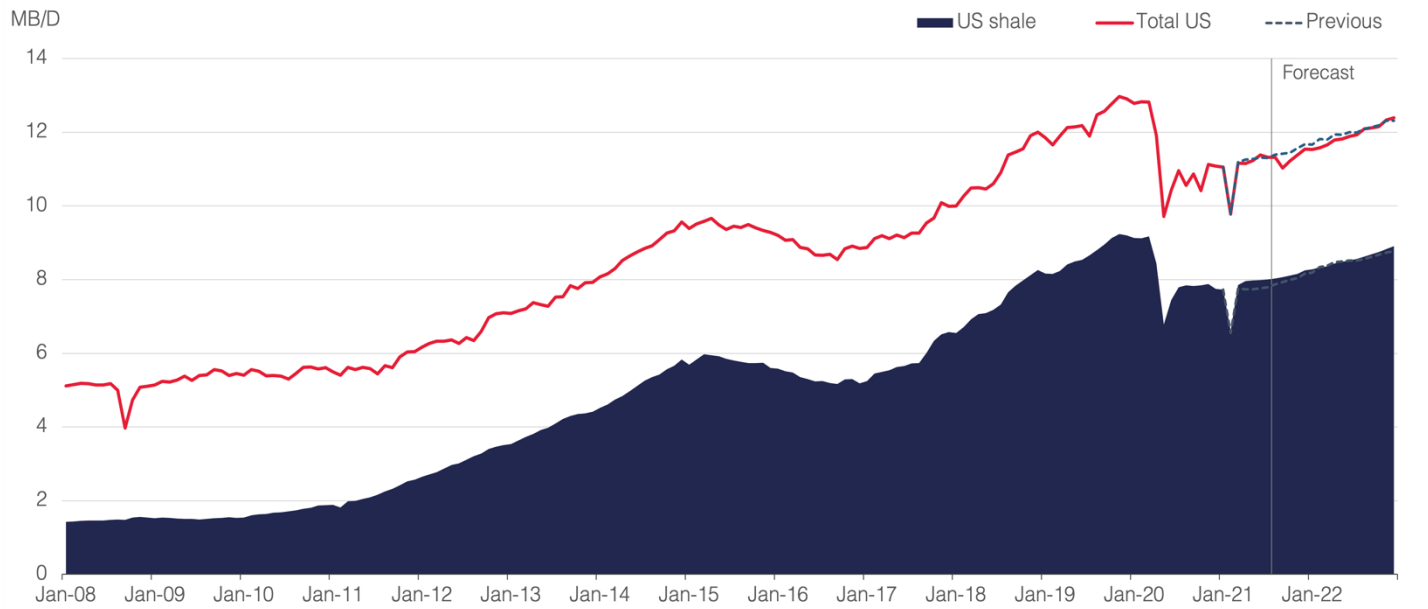
The US outlook in H2 is dampened by 0.14 mb/d due to the slow shale revival outside the Permian and the hurricane disruptions in GOM, but growth in 2022 to accelerate.

US drilling activity



Source: OIES

US supply

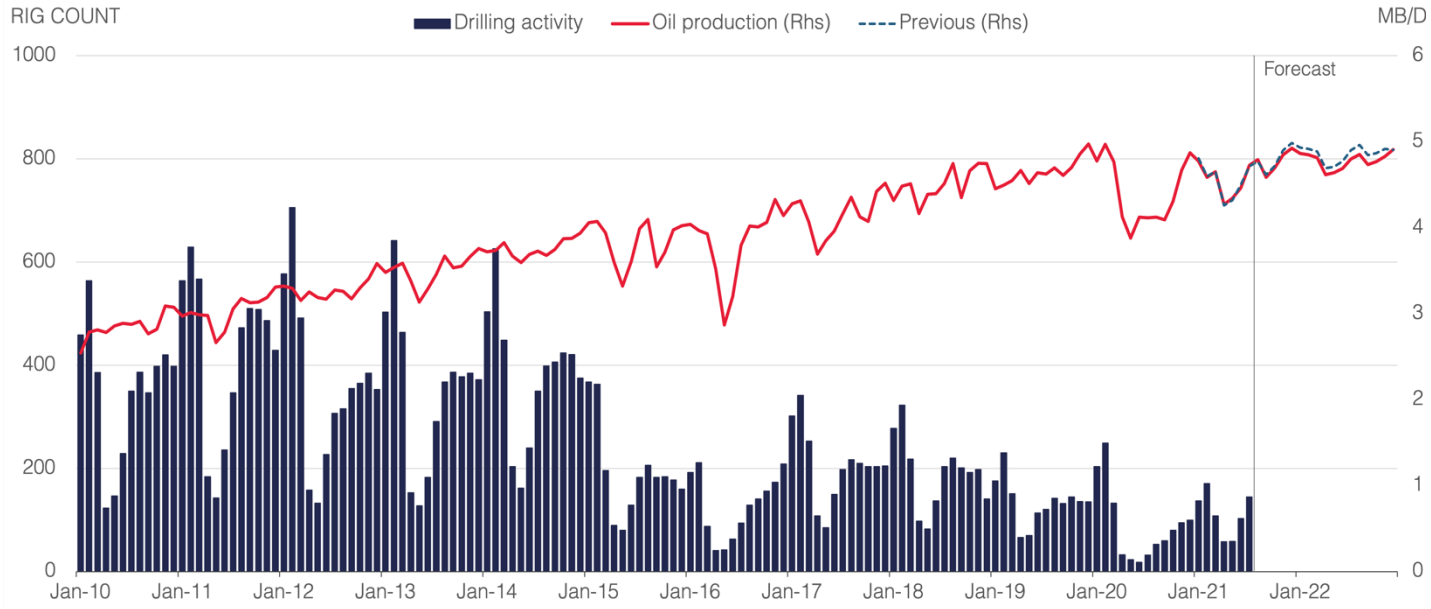


Notes: Crude oil only. Source: OIES

Non-OPEC revival lacks players outside the US and Canada

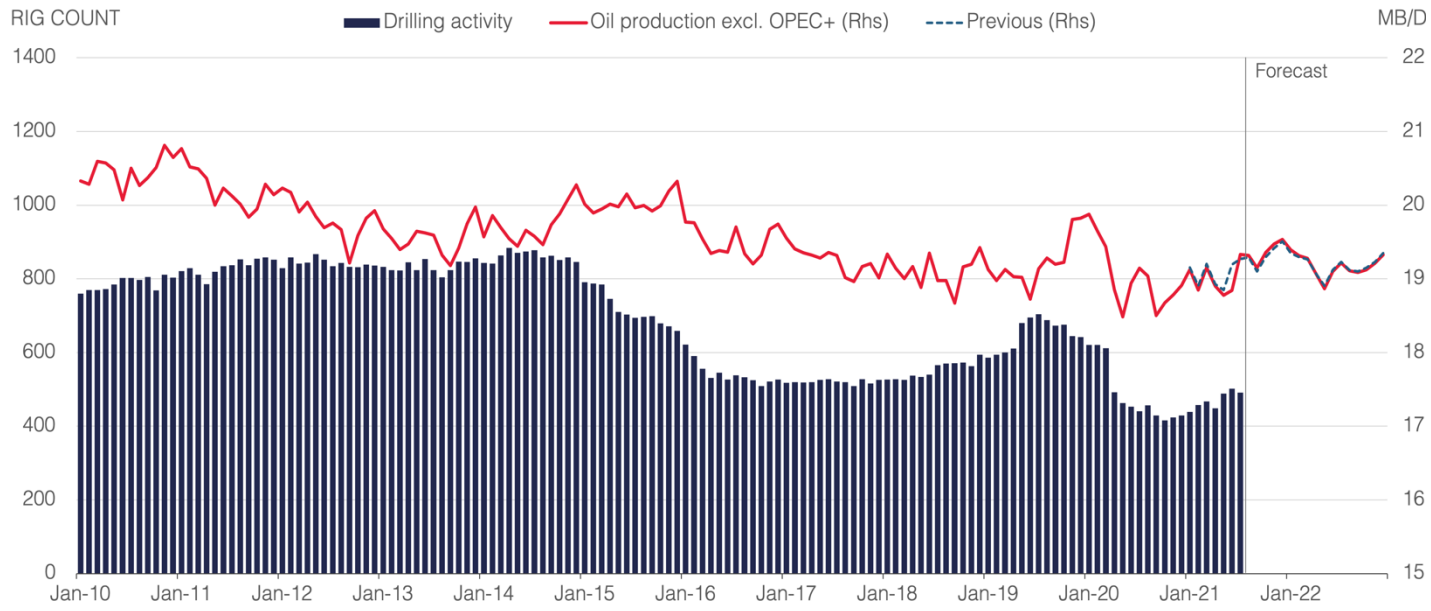
Canada remains the largest contributor of non-OPEC supply growth in 2021 and follows the US in 2022, while further gains from elsewhere remain limited at 0.1 mb/d.

Canada supply



Source: Baker Hughes, OIES

Non-OPEC supply outside NAM



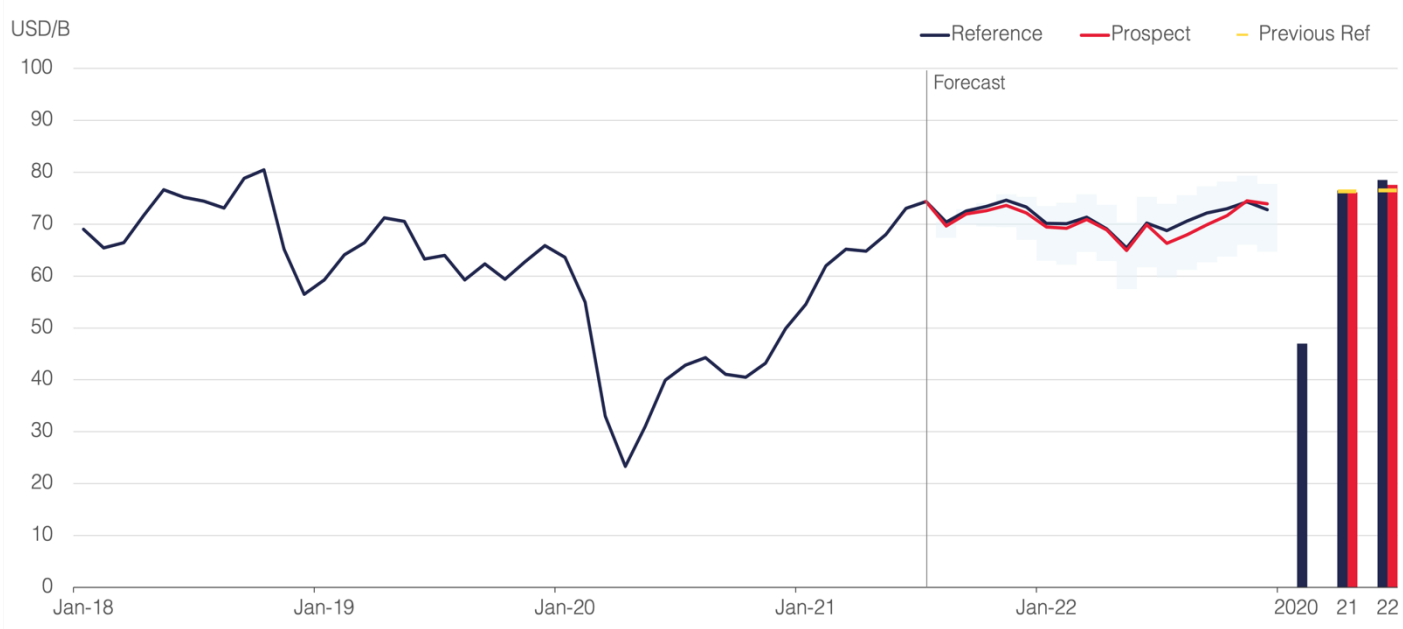
Source: Baker Hughes, OIES

Price Outlook

Oil prices to hold in 2021 but the $70/b floor to be challenged in 2022

Oil prices seen holding above $70/b in the remainder of 2021 and while they may retreat in early 2022, prices are expected to trend higher at year-end.

Brent price outlook



Source: OIES

Key assumptions

		2021	2022
Geopolitics MB/D	**IRN**	2.48	3.32
	VEN	0.56	0.64
	LBY	1.17	1.23
Supply %, Compliance[1]	**OPEC+**	100	100
Demand %, Y/Y	**GDP[2]**	5.9	4.8

[1] Average OPEC+ compliance. [2] Based on Oxford Economics.

Our Brent price outlook is little changed to $68.9/b in 2021 and $70.7/b in 2022

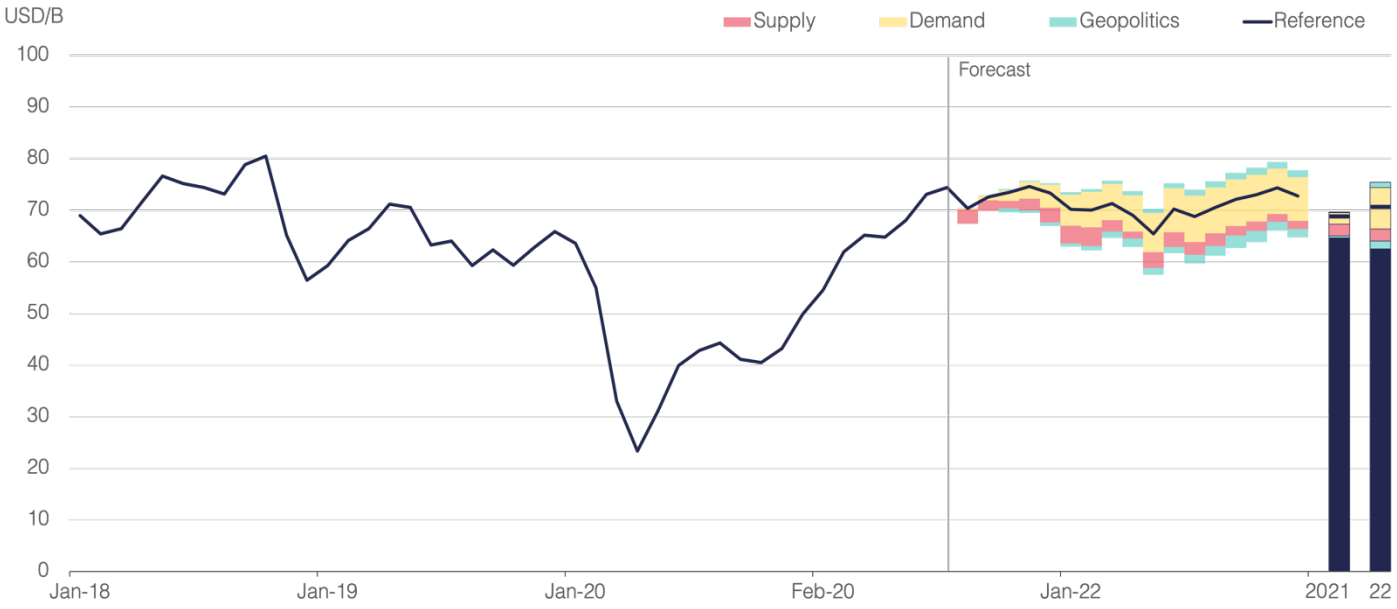
Despite oil prices retreating in the mid-$60s in the first half of 2022, momentum is expected to build again towards the end of the year as the rebound of global demand accelerates, OPEC+ completes the return of its cuts and the system is left with a low spare capacity cushion, as well as non-OPEC supply growth outside North America remains muted.

Balance of Risks

Risks to the outlook remain fairly balanced

Further to the supply-side pressures dictated by the OPEC+ return, downside demand pressures build anew on increasing concerns over repeated pandemic waves.

Balance of risks



Notes: Brent price. Source: OIES

Balance of risks
USD/B

	2021	2022
Reference	**68.9**	**70.7**
Supply risks[1]	(2.3)	(2.3)
Demand risks[1]	(0.9)	(0.5)
Geopolitical risks[1]	(0.2)	(0.5)
Balance or risks	**(3.4)**	**(3.4)**

[1] On balance.

Risks to the outlook remain in negative territory by -$3.4/b in both 2021 and 2022

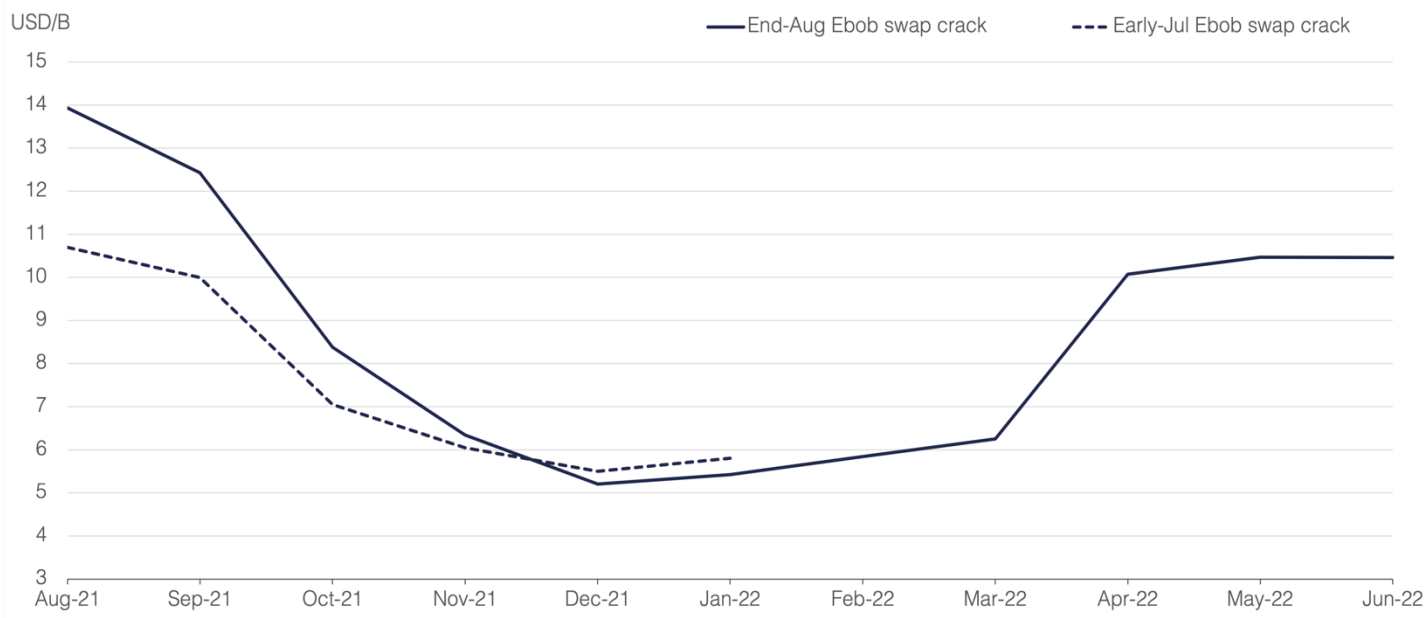
On the supply-side the extent of OPEC+ return continues to dictate the balance of risks, with our reference forecast assuming the return of 4.63 mb/d, 1.1 mb/d below the OPEC+ headline 5.76 mb/d target. On the demand-side, the risks appear fairly balanced as concerns over renewed COVID waves leading to a protracted period of intermittent restrictions are confronted by expectations of a fast recovery as vaccines continue to roll out.

Cracks

Product margins improve but gasoil and jet lack behind

A more normal gasoline summer season strengthened gasoline and naphtha cracks, but disappointment regarding the pandemic weighs on forward gasoil and jet curves.

European gasoline (Ebob) cracks



Source: OIES

Key product cracks forward curves[1]
USD/B

	Gasoline	Naphtha	Gasoil	FO 3.5%
Aug-21	13.93	1.60	7.25	(10.24)
± prev	+3.23	+2.75	-0.80	+0.23
Sep-21	12.43	1.42	7.73	(10.44)
± prev	+2.43	+2.67	-0.27	+0.18
Oct-21	8.38	1.13	8.20	(10.72)
± prev	+1.33	+2.33	+0.20	+0.10

[1] NWE as they appear on the graphs. OIES estimates.

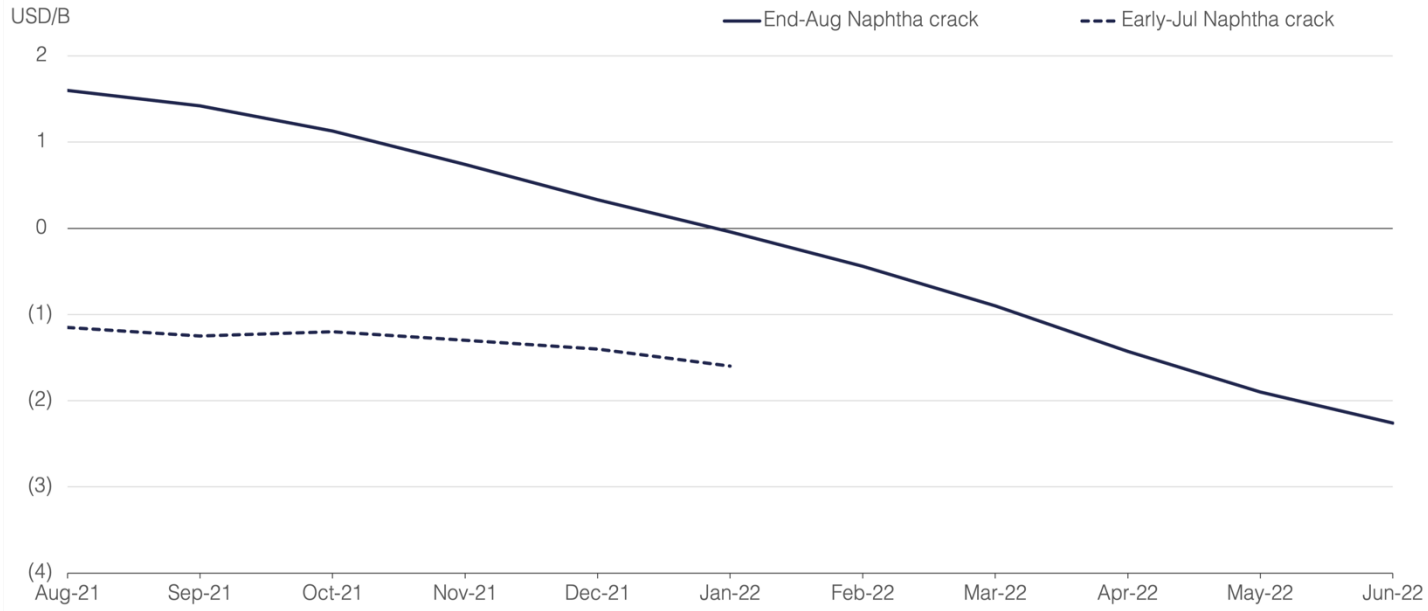
Product margins recovery remains uneven

Strong petrochemical demand and super-strong LPG market in the summer supported naphtha cracks and in turn gasoline cracks. Naphtha cracks jumped into positive territory, following year-low stocks in the ARA region in mid-July. Reportedly, the blending arbitrage into the Americas is wide open, further supporting the prompt cracks. Even October cracks remain solid, in spite of the change to the winter spec.

Repeated pandemic waves dampen forward jet and gasoil curves

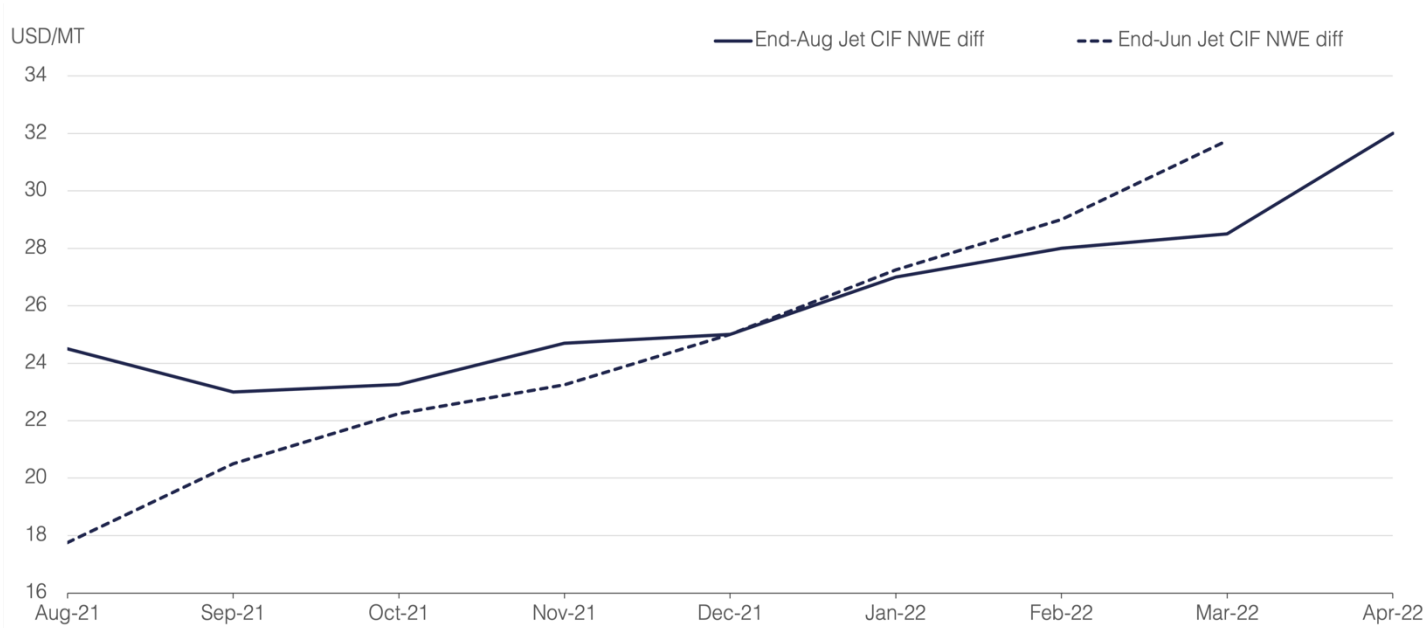
Jet started the holiday season well, but disappointment regarding the pandemic is reflected in the forward jet curve, while stocks remain at historical high levels.

European naphtha CIF NWE cracks



Source: OIES

Jet CIF NWE swap diffs to gasoil

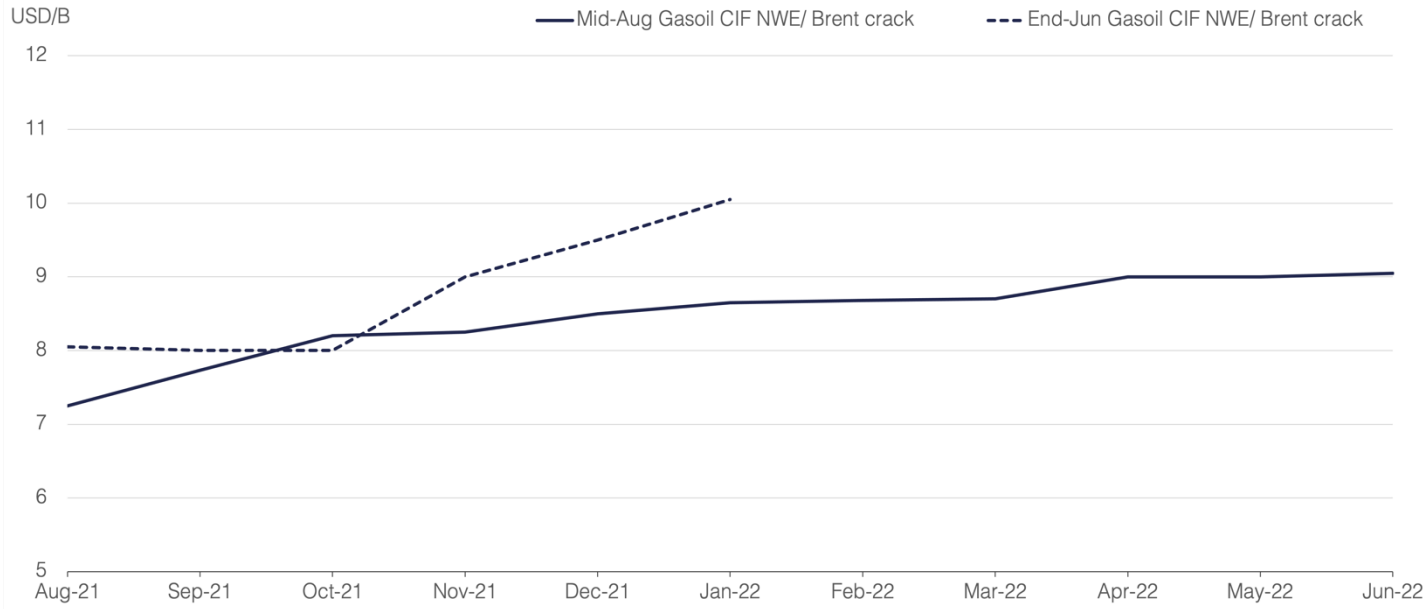


Source: OIES

Record high temperatures supported demand for FO in the power sector

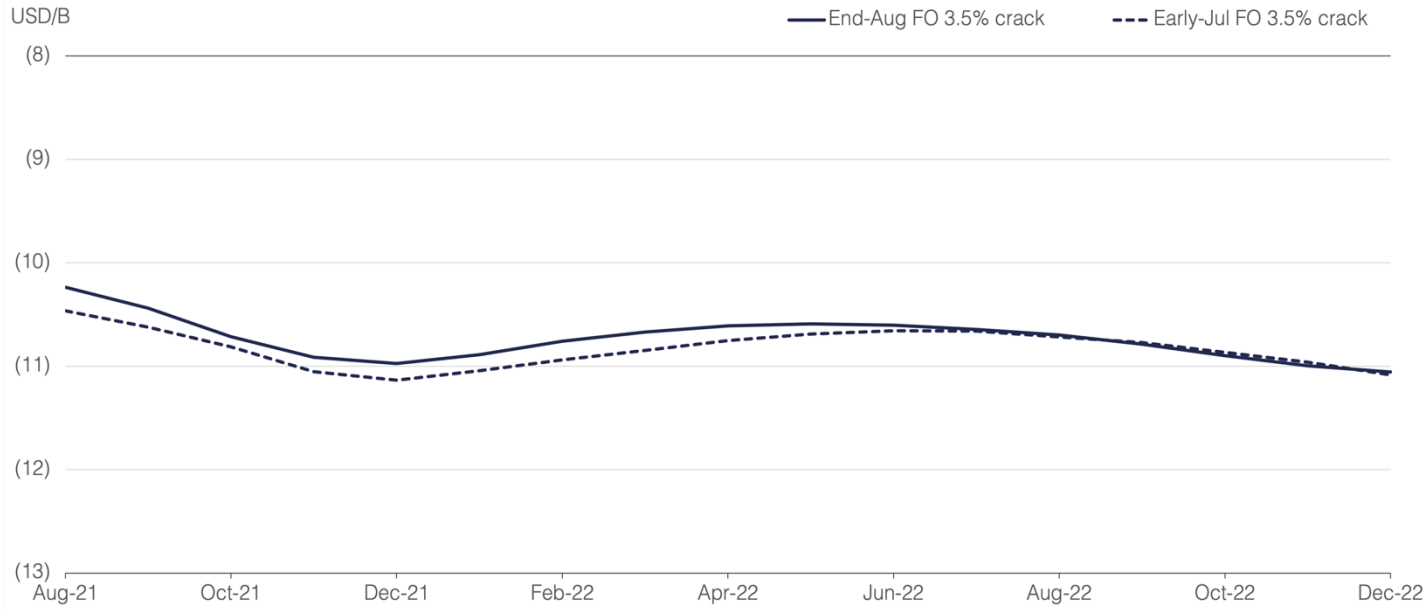
Given the shortage of natural gas and strong fuel oil market, heating oil may be in demand this winter, making the forward distillate curves look cheap.

Gasoil CIF NWE / Brent crack



Source: OIES

Fuel oil barges NWE 3.5% crack



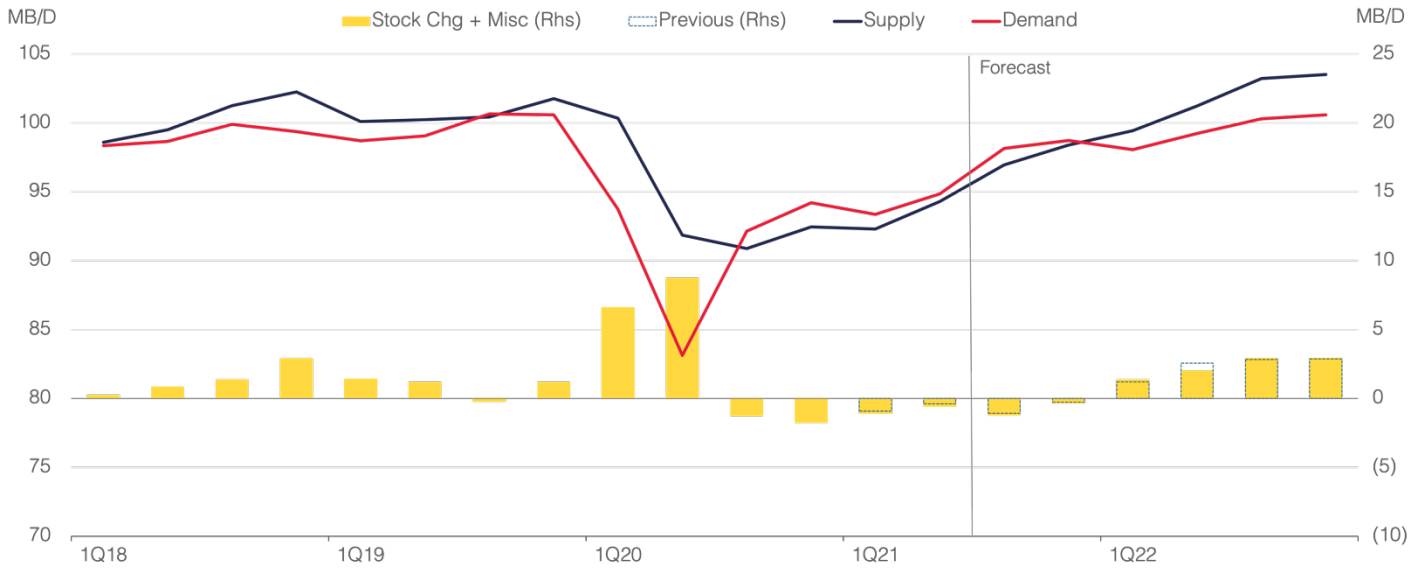
Source: OIES

Global Balance

Market to remain in deficit in 2021, but surplus in 2022 looms

Oil market can absorb the increase in OPEC+ output towards the end of the year, but the surpluses building in 2022 reaffirm the importance of OPEC+ supply management.

Global balance



Source: OIES

Global balance
MB/D

	Demand	Supply	Balance
2020	90.8	93.9	3.1
± prev	-0.21	-0.05	+0.16
2021	96.3	95.5	(0.8)
± prev	-0.42	-0.55	-0.13
2022	99.5	101.8	2.3
± prev	-0.37	-0.44	-0.07

The market deficit in 2021 is estimated at -0.8 mb/d, followed by a 2.3 mb/d surplus in 2022

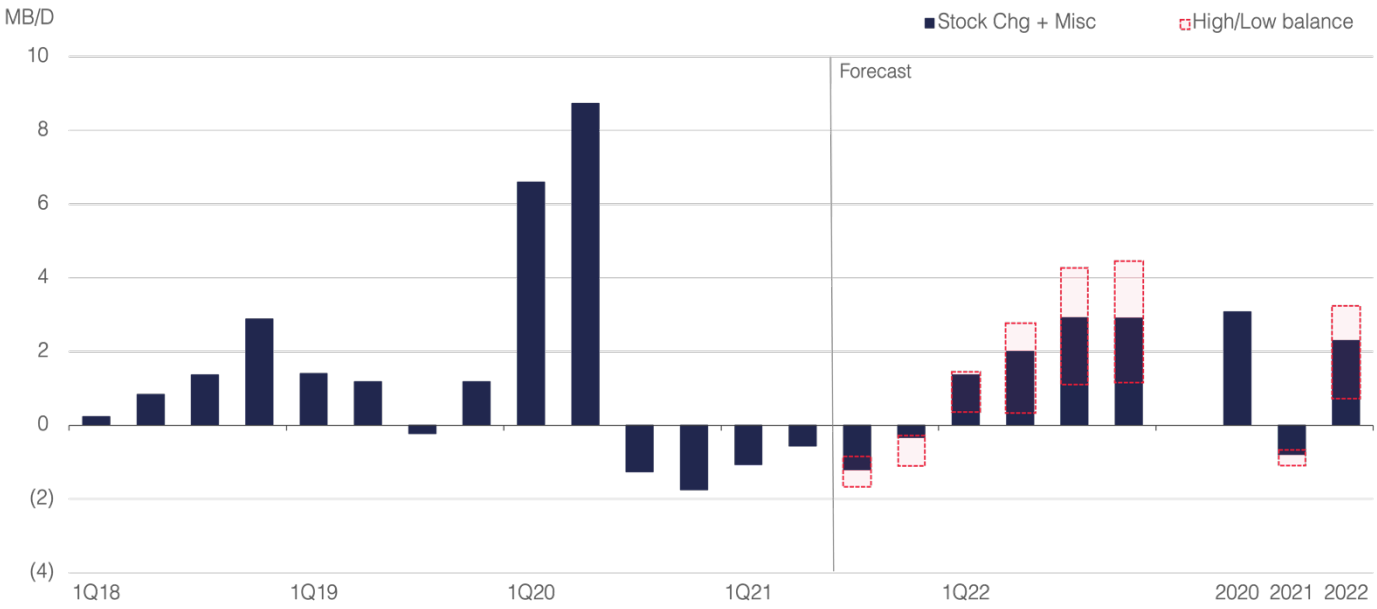
Despite the huge surpluses building in 2022, balances could still find support from either the supply or demand side of the market, or both, narrowing the surpluses and leading to a more balanced market.

Global balance risks

OPEC+ balancing role in an uncertain environment

Global demand outcomes in the remainder of 2021 and into 2022 will dictate OPEC+ output policy and in turn they will shape the outlook ahead.

Global balance risks



Source: OIES

Global balance
MB/D

	Reference	Low	High
2020	3.1	3.1	3.1
± ref			
2021	(0.8)	(1.1)	(0.7)
± ref		-0.30	+0.10
2022	2.3	0.7	3.2
± ref		-1.55	+0.93

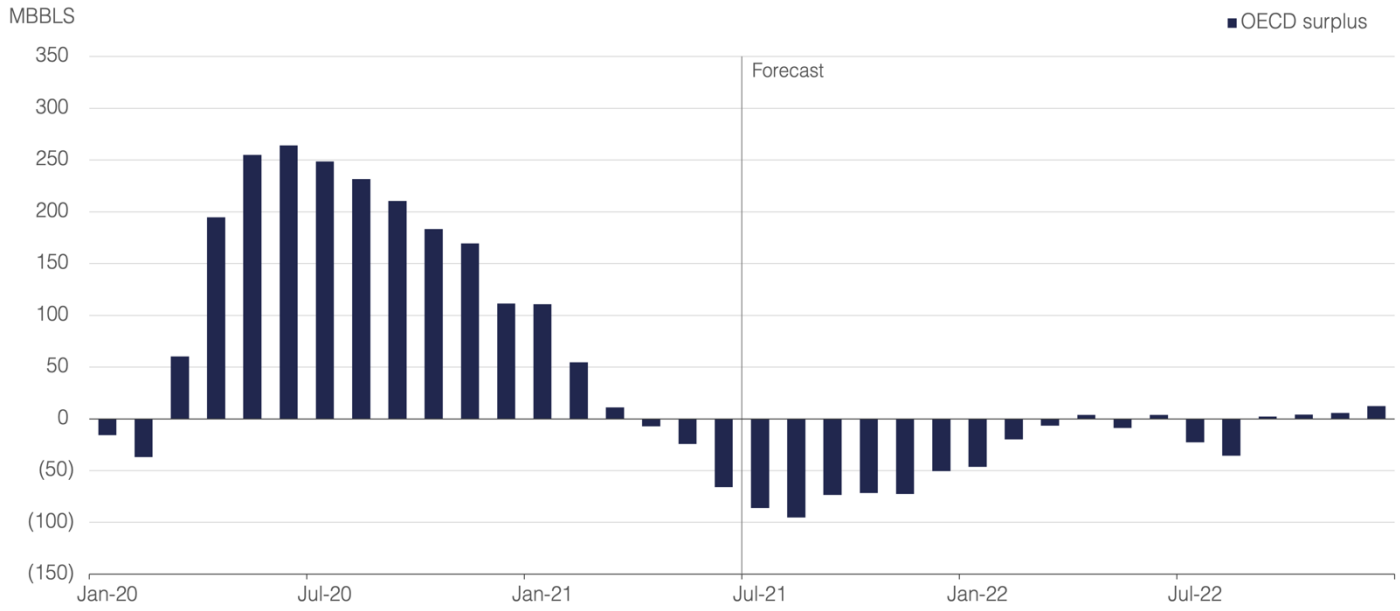
Favourable supply/demand conditions in 2022 could narrow the projected surplus by 1.6 mb/d to 0.75 mb/d

Optimistic scenarios include a high demand recovery case where global demand in 2022 grows by 4.1 mb/d, no Iranian deal and the reference OPEC+ return case. Pessimistic scenarios include a faster Iranian return, a low demand recovery case where growth in 2022 fails to exceed 3 mb/d and higher non-OPEC+ response.

OECD stocks well below their 2015-2019 average

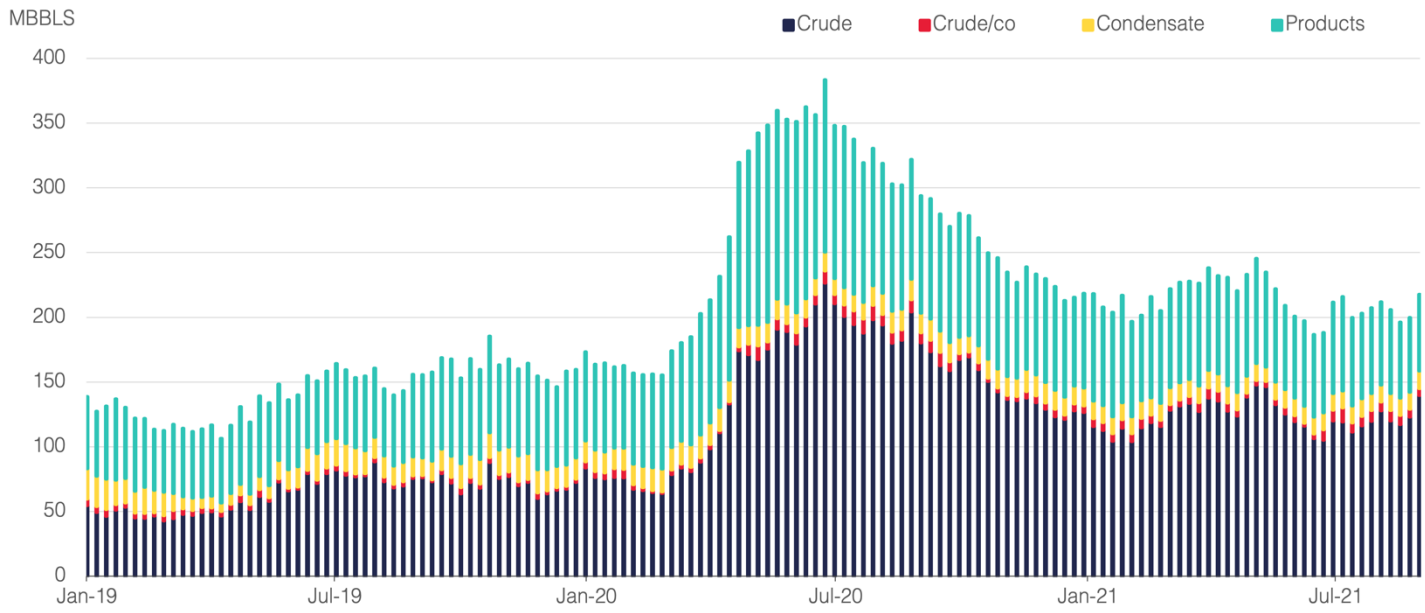
Even with a potential of a surplus in 2022, OECD stocks are not expected to reach anywhere near the elevated levels seen in 2020.

OECD commercial stocks vs 2015-2019 average



Source: OIES

Global floating storage



Source: Kpler, OIES

Tables

Oil prices

					Forecasts							
	2019	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Price outlook												
USD/b												
Brent price	**64.0**	**42.3**	60.6	68.6	72.4	73.8	**68.9**	70.5	68.2	70.5	73.4	**70.7**
Brent prospect	**64.0**	**42.3**	60.6	68.6	72.0	72.8	**68.5**	69.9	67.9	68.1	73.4	**69.8**
Price drivers					**Price risks**							
USD/b					USD/b							
Geopolitics	**2.3**	**-0.6**	-0.7	-0.6	0.1	-0.4	**-0.2**	-0.4	-0.5	-0.8	-0.5	**-0.5**
Supply	**4.0**	**10.2**	4.6	-1.1	-2.4	-2.2	**-2.3**	-3.1	-2.4	-2.2	-1.7	**-2.3**
Demand	**-9.0**	**-21.2**	5.7	8.2	-0.3	-1.2	**-0.9**	0.1	0.2	-1.2	-1.2	**-0.5**
Speculative	**-5.3**	**-10.1**	6.4	1.6	-	-	**-**	-	-	-	-	**-**
Balance of risks	**-**	**-**	-	-	-2.6	-3.9	**-3.4**	-3.3	-2.6	-4.2	-3.4	**-3.4**
Brent low	**-**	**-**	-	-	70.6	68.7	**67.1**	63.3	60.7	61.2	64.9	**62.5**
Brent high	**-**	**-**	-	-	72.6	75.0	**69.2**	74.4	73.1	75.6	78.4	**75.4**

Global balance

					Forecasts							
	2019	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
Global balance												
mb/d												
OECD	**47.9**	**42.1**	42.3	43.8	46.2	46.3	**44.7**	45.7	45.4	46.3	46.5	**46.0**
Non-OECD	**51.8**	**48.7**	51.0	51.0	52.0	52.4	**51.6**	52.3	53.8	53.9	54.1	**53.6**
Total Demand	**99.8**	**90.8**	93.4	94.9	98.2	98.7	**96.3**	98.1	99.2	100.3	100.6	**99.5**
(y/y chg.)	**0.7**	**-8.9**	-0.4	11.7	6.0	4.5	**5.5**	4.7	4.4	2.1	1.9	**3.3**
OPEC	**29.6**	**25.7**	25.3	25.6	27.1	28.0	**26.5**	28.9	29.9	31.1	31.4	**30.3**
Non-OPEC	**53.9**	**51.2**	50.8	51.2	51.9	52.7	**51.6**	53.2	53.3	53.9	54.2	**53.6**
Of which:												
US	**12.3**	**11.3**	10.7	11.3	11.2	11.4	**11.1**	11.6	11.8	12.0	12.3	**11.9**
Brazil	**2.8**	**2.9**	2.8	2.9	3.1	3.1	**3.0**	3.1	3.1	3.1	3.1	**3.1**
Canada	**4.6**	**4.4**	4.7	4.4	4.7	4.8	**4.6**	4.8	4.6	4.8	4.8	**4.8**
Norway	**1.4**	**1.7**	1.8	1.7	1.7	1.9	**1.8**	1.9	1.8	1.9	1.9	**1.9**
Others	**32.7**	**30.8**	30.8	30.9	31.2	31.5	**31.1**	31.8	32.0	32.1	32.1	**32.0**
Total crude	**83.5**	**76.9**	76.1	76.7	78.9	80.7	**78.1**	82.2	83.2	84.9	85.6	**84.0**
NGLs	**13.6**	**13.6**	13.3	13.9	13.9	14.0	**13.8**	14.0	14.2	14.2	14.2	**14.2**
Biofuels/Misc.	**3.5**	**3.4**	2.9	3.7	4.1	3.7	**3.6**	3.2	3.8	4.1	3.7	**3.7**
Total Supply	**100.6**	**93.9**	92.3	94.3	96.9	98.4	**95.5**	99.4	101.2	103.2	103.5	**101.8**
(y/y chg.)	**0.2**	**-6.8**	-8.1	2.4	6.1	5.9	**1.6**	7.1	6.9	6.3	5.1	**6.4**
Global Balance	**0.9**	**3.1**	-1.1	-0.6	-1.2	-0.3	**-0.8**	1.4	2.0	2.9	2.9	**2.3**
Memo:												
OPEC call	**28.7**	**22.6**	26.3	26.1	28.3	28.3	**27.3**	27.6	27.9	28.2	28.5	**28.0**

Notes:

1/ OPEC estimates are based on current membership throughout. Assumes 100% compliance with OPEC+ deal.
2/ Non-OPEC crude supply includes crude oil, condensate and processing gains. OPEC includes crude oil only.
3/ NGLs and biofuels/misc. are global estimates and are excluded from OPEC, non-OPEC and country-specific crude supply estimates.
4/ Global balance is equivalent to global stock change.
5/ The OPEC Call equals the arithmetic difference between total demand and non-OPEC crude plus NGLs and other liquids.

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