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Short-Term  
Outlook

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# OIES Oil Monthly

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**OIES OM: 05**

June 2021

## In Focus

### Iran's return: What lifting the US sanctions means for oil markets

As the nuclear talks for the revival of the JCPOA progress, the potential return of Iranian supplies is not expected to disrupt prices and oil balances as the oil market appears better suited to absorb the returning Iranian barrels in H2 2021, conditional that the strong demand expectations materialise. The biggest impact will be felt on spreads and condensate prices, given the expectation of destocking and discounts on offer.

In May 2018, the Trump administration announced the US exit from the Joint Comprehensive Plan of Action (JCPOA) and the gradual re-imposition of all unilateral nuclear sanctions against Iran for the first time since Iran, the P5+1 and the EU reached an agreement on Iran's nuclear program in return for sanctions relief back on July 14, 2015. Now, three years later, the US, under the new Biden administration, and Iran are holding talks in Vienna and seem to be closer than ever to reviving the JCPOA. At the time of writing, the so-called proximity meetings that started in April 2021 between the JCPOA's signatories are at an advanced stage<sup>1</sup> and all sides are expressing cautious optimism towards achieving progress in reviving the nuclear deal<sup>2</sup>, but the discussions have now reached several sticking points.

At stake is Iran's return to pre-sanction oil production and export levels, in the context of a healing oil market and OPEC+ unwinding its cuts, having entered the final stages of its historic 9.7 mb/d cut deal of April 2020. But with Iran's presidential elections looming on June 18, 2021, the shape of a deal will depend on whether the US-Iran negotiations conclude pre- or post-election day, with a pre-election deal still possible but increasingly unlikely. The question then is how fast Iran can ramp up its production to pre-sanction levels and the impact on market prices and balances.

#### Iran under US sanctions and COVID-19

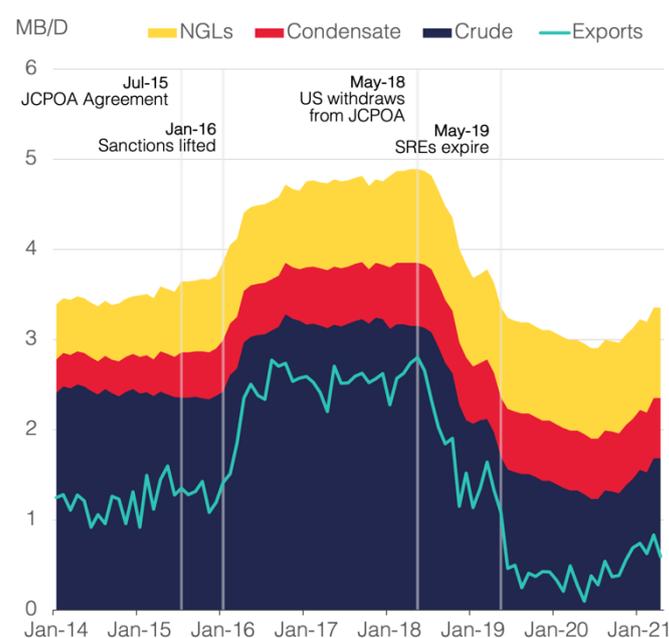
Iran's supply constraint under the Trump-era sanctions regime was much bigger than under the 2012 Obama-era sanctions both in terms of crude production and exports (Figure 1). While the sanctions were re-introduced in May 2018 and came into full force in November 2018, it was in May 2019 that Iran felt the full weight of the sanctions. This is because the temporary sanctions waivers (so called significant reduction exemptions, SREs) that had previously been issued to eight importers of Iranian oil including China and India—accounting for 71 per cent out of the total exemptions by 0.36 mb/d and 0.3 mb/d, respectively—expired and were not renewed.

Although the reimposition of US sanctions in 2018 dealt a blow to Tehran's ability to market its crude and condensates and heavily impacted the country's oil

revenues—which according to EIA halved in 2019 compared to 2018, to \$30 billion from \$66 billion—Iran responded to oil sanctions with a three-pronged strategy, building on its experience from the Obama-era sanctions.

First, the country sought to maintain exports to the maximum possible extent. On the physical side, Iran tried to escape the long reach of US sanctions by attempting to conceal export flows. Tehran employed a range of means including offshore ship-to-ship transfers and the blending of its oil with that from other countries. Secondary sources suggest Iran's exports of crude oil and condensate fell from pre-sanctions levels of 2.5 mb/d in 2017 to between 0.38 and 0.92 mb/d in 2020.<sup>3</sup> Part of the discrepancy in the data pertains to different approaches as to what is counted as exports (volumes that can be verified at the port of destination versus volumes that left the country) and the successful satellite tracking/identification of unknown shipments. The situation is further complicated by the fact that some of Iran's oil exports went into onshore storage in China but was not processed by Chinese customs as imports, and thus are technically designated as unknown shipments.

Fig 1: Iran oil supply and exports



Source: IEA, Kpler, OIES

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*Second*, Iran sought to increase the domestic utilization of oil to reduce its dependency on exports as well as to extend the downstream value-chain (similar to efforts by other countries in the region). Since 2011 (the US first imposed sanctions against Iranian oil exports in 2012), Iran increased refining throughput and capacity by 18 per cent (334 kb/d) and 29 per cent (545 kb/d), respectively. Between 2017 and 2019, refining throughput and capacity both grew by 13 per cent (249 kb/d and 275 kb/d, respectively).<sup>4</sup> These efforts allowed Iran to reduce its export dependency and turned the country into a net-exporter of gasoline. Moreover, the expansion of the petrochemical industry helped Iran to change the structure of its exports, both in terms of products and geography.<sup>5</sup> Iran has begun to diversify its foreign trade away from global maritime exports of unprocessed goods (e.g. crude oil, condensate) towards land-based regional exports of processed goods (e.g. petrochemicals – **Figure 2**). In this context, the expansion of condensate refining, which increased by 80,000-120,000 b/d (or 20-33%) between 2019 and 2020, played a crucial role, helping Iran to compensate for losses in exports, as well as to continue expanding supply at the South Pars natural gas field (which is central to domestic economic activity with respect to power generation and feedstock for the petrochemical industry).<sup>6</sup>

*Third*, Tehran worked to expand storage. Similar to the Obama-era sanctions Iran used its massive tanker fleet, one of the world’s largest, for floating storage. According to Kpler data, ending May 2021 Iran held nearly 44 mbbbls of oil at sea, of which 12 mbbbls are tracked idle (floating storage), as well as some 62 mbbbls in onshore inventories (**Figure 3**). Moreover, it built up onshore inventories in China, which amount to around 20 mbbbls. Parallel to this, Iran has begun to work on increasing the capacity of its onshore inventories. Once completed, the new oil terminal at Jask on the Gulf of Oman will be able to hold 10 mbbbls, which is equal to some 13% of Iran’s current onshore storage capacity (78.8 mbbbls). Moreover, during the past year, Iran added several gasoline storage facilities, including two bigger ones in Urmia (755 kbbls) and in Malayer (428 kbbls).

On the supply-side, meanwhile, Iran has sought to maintain production capacity, with a focus on the country’s various mature fields. In this context, cooperation with domestic companies and research facilities has become a priority to advance enhanced oil recovery solutions – technologies Iran initially hoped to obtain from IOCs in the wake of the JCPOA. Moreover, Iran has continued intensive exploration efforts.

Yet Iran’s efforts to soften the blow from US sanctions was undercut by the coronavirus pandemic, as this dealt

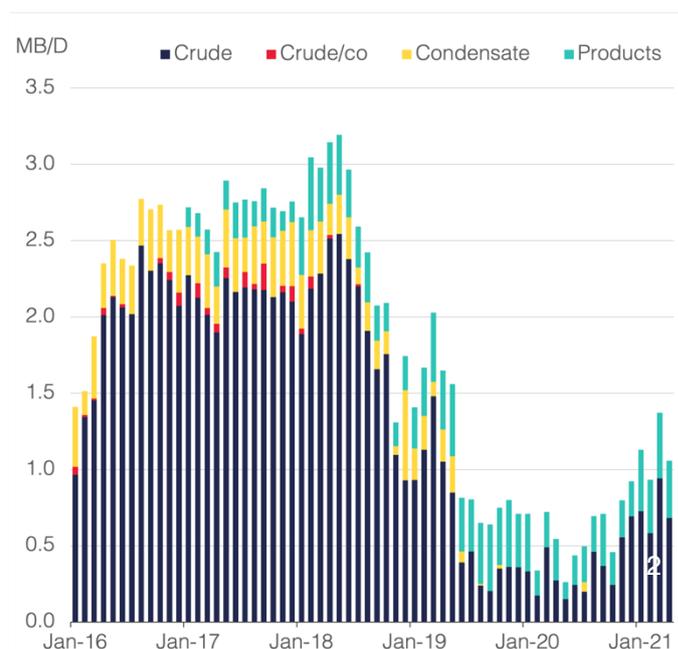
a double blow to Iran’s oil sector. The raging COVID-19 cases in Q2 2020 slashed domestic demand by 15 per cent y/y (to 1.69 mb/d versus 1.95 mb/d) and interrupted regional trade through the closure of land borders, hindering exports of oil and products further. Iranian oil production in 2020 slumped below 2 mb/d on annual terms for the first time since 1981, domestic refinery runs fell y/y by 17 per cent to 1.72 mb/d from 2.04 mb/d in 2019, while crude exports reached a record-low of 98,000 b/d in May 2020. But by Q4 2020, Iranian supply recovered to pre-pandemic levels and as of April 2021 Iran’s crude production rebounded to 2.35 mb/d with exports reaching between 0.6 mb/d and 1.2 mb/d. Refinery runs, however, stood at 1.9 mb/d, or 0.26 mb/d below 2019 levels, suggesting a more gradual recovery in domestic demand.

### JCPOA revival and oil market implications

Reviving the JCPOA would pave the way for Iran to increase oil production and exports, but the situation remains complicated. At the moment, it is neither clear how fast a deal could be reached nor what timeline would be agreed for US sanctions-relief and the scale-back of Iranian nuclear activity, although both sides are stating that good progress has been made.

The negotiations in Vienna revolve around three sets of issues: US sanctions, Iranian nuclear activity and a roadmap for both sides to synchronize their steps on the

**Fig 2: Iran oil exports by product**



Source: Kpler, OIES



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way back to full implementation of the JCPOA. Seemingly, the US now is prepared to lift all nuclear sanctions re-imposed after the 2018 withdrawal from the JCPOA. Washington has also indicated its readiness to waive additional (non-nuclear) sanctions imposed by the Trump administration, which impede Iranian trade allowed under the JCPOA.

Yet, several hurdles still stand in the way of a final deal. On the sanctions side, there is a dispute over the benchmark for the lifting of sanction: Iran insists on having a prerogative for verifying that sanctions have been lifted. In the eyes of Iranian officials, the verification hinges on Iran's ability to export oil *and* repatriate oil revenue as well as to access frozen funds. The US, however, refuses to assess compliance based on Tehran's judgement and uncertain market conditions. The removal of Iran's Revolutionary Guards from the designation list is also a contentious issue, which links to the Biden administration's goal of building on the JCPOA to negotiate with Iran on regional issues in the Middle East.

On the nuclear side, Iran's ability to continue using more advanced centrifuges – which it did not possess in 2015 when the JCPOA was agreed – is also contentious. Beyond this, it is still unclear how Iran's presidential elections will play into the timing of a deal. A first round of sanctions relief and scale-back of Iranian nuclear activity before the elections could give more moderate candidates a boost.

The negotiations are further complicated by the fact that Iran and the US continue to negotiate only indirectly through European intermediaries, at least formally.<sup>7</sup> Moreover, the two sides are so far only represented in Vienna at the level of deputy foreign minister (Iran) and special envoy (US). It is unclear whether both countries are prepared to reveal their endgame for the negotiations in the absence of their foreign ministers.

Looking forward, therefore, different dates for the conclusion of a deal are possible, which entails different timelines for sanctions-relief. Moreover, several alternatives need to be taken into account: a return to JCPOA compliance on a given day (with the full lifting of sanctions on "implementation day"), a phased return to JCPOA compliance (i.e. resulting in gradual sanctions-relief), and no deal/perpetuation of the status quo.

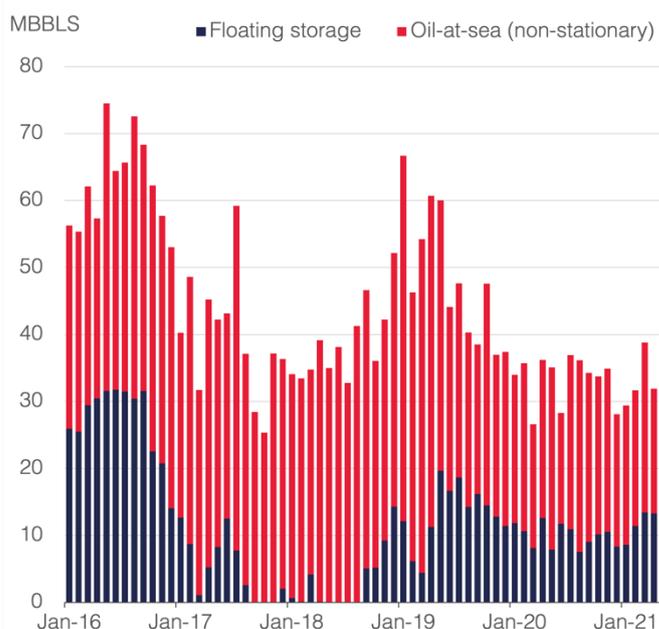
Against this backdrop, we outline three broader scenarios for the conclusion of the deal and assess their implications for an increase in Iranian oil production and exports.

**Scenario 1 – Pre-Election:** A deal is reached and announced in early-June, before peak election season in Iran. The agreement foresees a phased return to full JCPOA compliance, with first sanctions-relief either at some point in June or at the beginning of Q3 2021. Iran and the US return to full compliance under the JCPOA – i.e. full sanctions-relief – in Q4 2021.

On the Iranian side, the motivation to conclude a deal before the election would be to utilize the outgoing administration's experience regarding JCPOA-diplomacy as well as the agreement's technical details, including through well-versed staff at the expert-level. Moreover, the Iranian leadership may have an interest in creating a more positive atmosphere in the country ahead of the presidential elections, in the hope of increasing voter participation. Beyond the elections, decision-makers in Tehran could acknowledge the risks associated with the transition period and the uncertainty with respect to the character of the next government. Finally, reaching a deal before the elections would free the successor government from political responsibility for Iran's JCPOA commitments. This scenario is still possible but increasingly unlikely.

In this scenario we expect Iranian oil production to ramp up by 0.35 mb/d and 0.64 mb/d in Q3 and Q4 2021, respectively, to reach 3.5 mb/d in December and fully rebound to its pre-sanctions level of 3.8 mb/d by April 2022 (**Figure 4**). Compared to our baseline (no-deal) scenario, we expect the market to remain in deficits

**Fig 3: Iran oil-at-sea**



Source: Kpler, OIES

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in H2 2021 by -0.92 mb/d in Q3 and by -1.27 mb/d in Q4 compared to -1.17 mb/d and -2.01 mb/d under our base case, as well as in Q1 2022 by -0.67 mb/d versus -1.56 mb/d (Figure 5). The supply/demand gap however progressively builds into a very small surplus from Q2 2022 onwards to leave the oil market in 2022 as a whole balanced relative to a deficit of -1.03 mb/d under the base case. Our modelled projections show Brent prices remaining confined in the \$65/b-\$70/b range in H2 2021 with the upper bound rising to \$73/b in 2022 (Figure 6). In H2 2021, we project prices averaging \$1.6/b lower than our no-deal base case, while for 2022 prices average \$2.4/b lower relative to base.

**Scenario 2 – New government:** A deal is reached in Q4 2021, after the elections and the inauguration of Iran’s new government. The agreement could foresee both a phased or a full return. Under a phased return, some sanctions relief comes in 4Q 2021 with full sanctions relief in Q2 2022. Under a full return, full sanctions relief also happens in Q2 2022.

On the Iranian side, the rationale for a deal after the change in the presidency would be to put the new government in charge of the JCPOA. In light of the Biden administration’s demand to engage in follow-up negotiations on contentious issues outside the JCPOA (regional policy, Iran’s missiles), delaying the JCPOA would allow the new Iranian government to develop a holistic approach of its own. This scenario is assigned a high probability, but the timeline here assumes a best-case scenario. It may very well take longer for the new government to become operational after the formal change in the presidency in August and the confirmation of ministers that is most likely to occur in September.

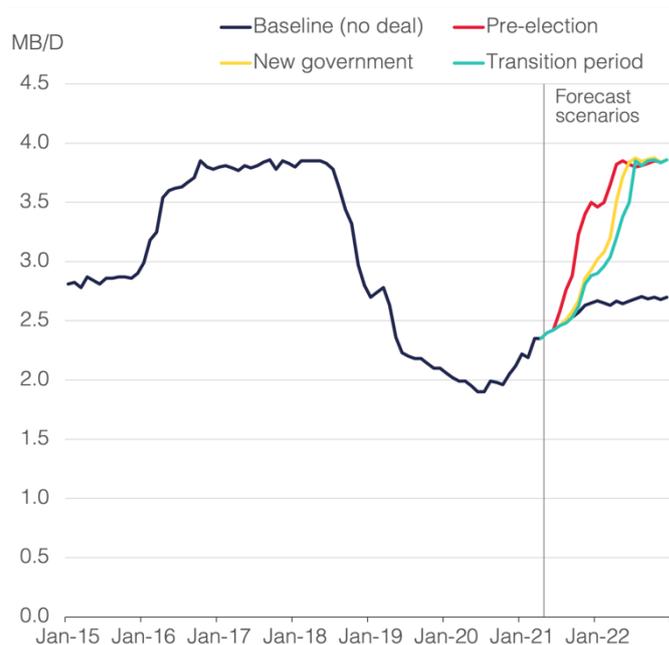
Under this scenario, the rebound in Iranian production accelerates in Q4 2021 by 0.3 mb/d to end the year at 2.9 mb/d, 0.6 mb/d higher than April levels, before seeing a material comeback in H1 2022 and a return to pre-shock levels of 3.8 mb/d no sooner than June 2022 (see Figure 4). Balances in 2021 remain largely unaffected with the deficit for the year as a whole contracting by 0.06 mb/d, but in 2022 the supply/demand gap is expected to shrink to -0.08 mb/d from -1.03 mb/d in our base case, bringing the market into balance (see Figure 5). Similarly, Brent in 2021 remains relatively unchanged relative to our base case (-\$0.3/b), with the impact in Q4 averaging \$1/b, but prices are expected to average lower in 2022 by \$3.2/b and remain capped at \$70/b (see Figure 6). That is \$1/b lower on annual terms than our *pre-election scenario*, with prices in Q2 and Q3 2022 declining q/q by a total of -\$3/b compared to -\$0.75/b in our pre-

election case. These results suggest that the oil market is better suited to absorb the returning Iranian barrels in H2 2021, assuming that the strong demand expectations materialise.

**Scenario 3 – Transition period:** A deal is reached in Q3 2021 by the outgoing government. The agreement foresees a phased return, with first sanctions relief in the same quarter. Full sanctions relief follows in Q1 2022. On the Iranian side, the rationale for a deal during the transition period would be to utilize the outgoing government’s know-how regarding the JCPOA to conclude a deal. Meanwhile, this would deny the more moderate forces a boost in the elections (which Iran’s leadership might aim for) and free the successor government from political responsibility for Iran’s JCPOA commitments. The probability attached to this scenario is low because this would mark the first time that a major policy-move would be made during a transition period.

In this scenario, the return of Iranian production is expected to be more gradual, with a material rebound commencing after full sanctions relief in Q1 2022. Output recovers to the 3.8 mb/d pre-sanction levels only in H2 2022 (see Figure 4). At first glance, this is the least disruptive scenario for balances in which the supply/demand gap remains in deficit in both 2021 and 2022 by -0.99 mb/d and -0.20 mb/d, respectively, but a closer look reveals that the buildup of surpluses in H2 2022 is much more aggressive and twice as large as the *new government scenario* (see Figure 5). In fact, while

Fig 4: Iran crude production scenarios



Source: IEA, OIES

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there is little impact on Brent in 2021 (-\$0.2/b), in 2022 it averages lower than any of the previous scenarios by -\$3.7/b compared to our no-deal base case, with prices in Q2 and Q3 dipping q/q by nearly \$5/b (see **Figure 6**).

A series of events could potentially affect these scenarios. Politically, it remains unclear what type of deal could be sold domestically. In Tehran, the hardline-controlled parliament is calling for a complete lifting of all Trump-era sanctions (not just those in the way of effective JCPOA sanctions-relief). While ultimately the Supreme Leader will decide based on consultations in the Supreme National Security Council, this may nevertheless complicate and delay the negotiations. In Washington, politicians across the aisle are lobbying against the lifting of the Trump administration's terrorism sanctions (which, if kept in place, would undercut JCPOA sanctions-relief). The Biden administration will need to weigh how much political capital it wants to spend on the JCPOA, in view of other policy objectives as well as next year's mid-term elections.

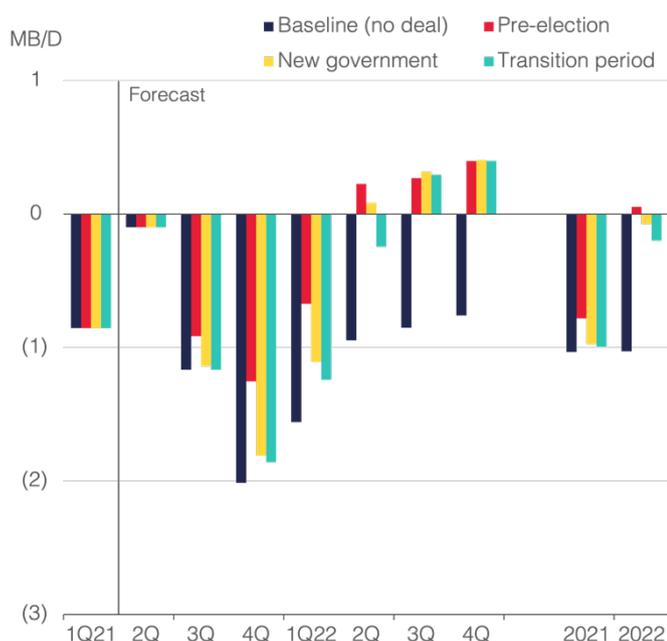
### Further issues

The lifting of sanctions on Iran will also exert pressure on condensate prices as many Asian refineries favour Iran's South Pars condensate, especially if condensate continues to be priced competitively. Currently, Asian refineries outside China rely mainly on Qatar and Australia, and despite their efforts to procure supplies from Norway or Nigeria, the limited availability has led to

high premiums for condensates.<sup>8</sup> With the return of South Pars condensates, Asian refineries and petrochemicals hope to boost their margins. According to Platts, South Pars condensates used to price at a discount to Qatar's Deodorized Field Condensate (DFC) where the outright price spread between South Pars and Australia's North West Shelf (NWS) condensate averaged minus \$5.83/b so far in 2021, compared with the average spread of minus \$3.04 in 2020.<sup>8</sup> Iran is also a big producer of heavy sour crudes and competes with grades such as Iraq's Basra Light, Basra Medium and Basrah Heavy; UAE's upper Zakkum; Kuwait Export Crude; Saudi Arabia's Arab Heavy and Arab Medium and Russia's Urals.<sup>9</sup> It remains to be seen whether Iran will continue to price its crude competitively in an attempt to restore market share and whether the region's exporters will adjust down their OSPs in response. The revival of the nuclear talks and the potential return of Iranian oil exports has already exerted pressure on the front end of the FO cracks curve (see page 27).

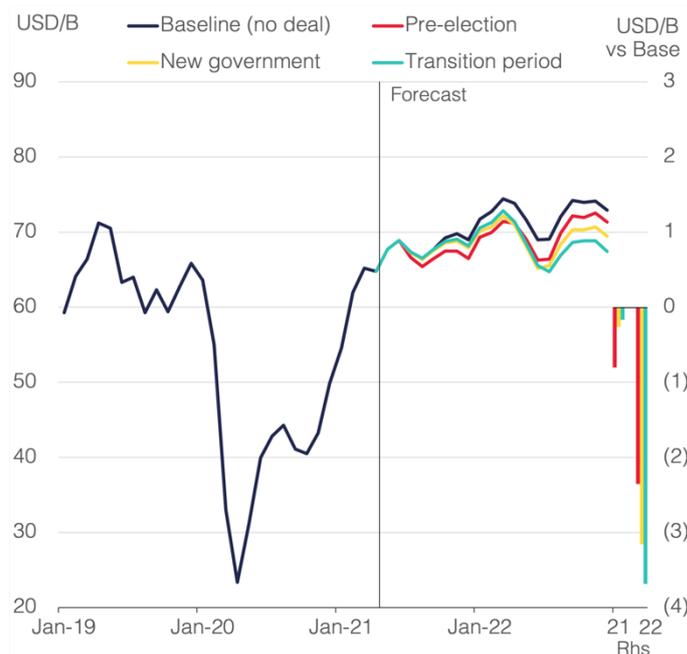
Before sanctions, in 2017, Iran's customer base was quite broad with China, India, and South Korea accounting for 57 per cent of total Iranian exports, followed by European customers that combined accounted for 18 per cent of total exports. It remains to be seen how fast Asian and European customers will buy Iranian oil again. Reports suggest that some of the Asian clients such as Japan, South Korea and Taiwan will not proceed unless they receive a green light from

**Fig 5: Impact on balances**



Source: OIES

**Fig 6: Brent forecasts by Iran return scenario**



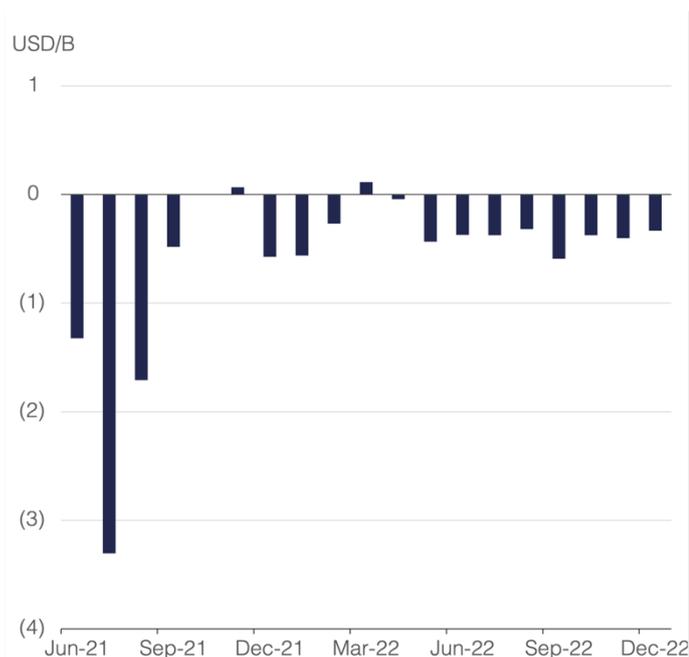
Source: OIES

## In Focus

the US administration and even then, some technical hurdles such as the ability to transfer funds and insuring cargoes need to be cleared. However, other importers such as China and India are likely to move faster, especially if Iran continues to price its crude competitively.

Finally, the volumes of Iranian barrels stored on land and in vessels, their composition (crude versus condensates), and location represent another source of uncertainty for the market. According to Kpler data, ending May 2021 Iran held nearly 44 mbbbls of oil-at-sea, of which 12 mbbbls are identified as idle floating storage (see **Figure 3**). Bloomberg puts the number somewhat higher with 29 VLCCs and between 8 and 11 Suezmax used for storage, most of it within Iranian waters, which implies higher volumes of around 60 mbbbls on water. In addition, around 10 million barrels are estimated to be in bonded storage in China. These volumes could hit the market relatively quickly—potentially even as soon as June as Asian buyers start precuring crude for arrival in August – while the speed at which Iran disposes of these volumes will impact prices and spreads. That said our modelled scenario for 20 mbbbls of stocks being released into the market from June 2021 onwards shows that the impact will be short-lived and mostly confined to Q3, depressing prices by nearly \$2/b relative to the pre-election scenario before progressively fading out (**Figure 7**). This is also confirmed by our balances in Q3 that show the supply/demand gap shrinking to -0.28 mb/d from -0.94 mb/d in the pre-election case.

**Fig 7: Brent impact from Iran stocks release**



Source: OIES

### Footnotes:

- <sup>1</sup> Bloomberg, 'Iran Now Hopes to See Nuclear Deal "Fully Revived" by August', June 1, 2021.
- <sup>2</sup> DIPLOMATIC newsletter by Laura Rozen, US: 'Meaningful progress' at latest Iran talks, May 20, 2021.
- <sup>3</sup> Based on data from Kpler and TankerTrackers, respectively.
- <sup>4</sup> BP, 'Statistical Review of World Energy', 2020.
- <sup>5</sup> See Esfandiyar Batmanghelidj, 'Resistance is Simple, Resilience is Complex: Sanctions and the Composition of Iranian Trade', Iran Under Sanctions series, SAIS Initiative for Research on Contemporary Iran, Johns Hopkins University, 2021.
- <sup>6</sup> See David Jalilvand, 'Iran: an inward-looking gas giant', in: Jonathan P. Stern, 'The Future of Gas in the Gulf: Continuity and Change', Oxford: Oxford Institute for Energy Studies, 2019.
- <sup>7</sup> It is not beknown whether there is a secret direct channel. In the early 2010s, before entering the negotiations which led to the JCPOA, there was a series of secret Iran-US talks, brokered by Oman.
- <sup>8</sup> Platts, 'Analysis: Asian refiners poised to heavily favor Iranian condensate for better product margins', May 25, 2021.
- <sup>9</sup> Platts, 'Sanctions relief for Iran would pressure rival heavy crude, condensate producers', May 14, 2021.

### David Jalilvand

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### Andreas Economou

Andreas Economou is a Senior Research Fellow at the Oxford Institute for Energy Studies and specializes on the empirical analysis of crude oil markets and oil price shocks, the real-time analysis of oil price risks and OPEC behaviour.



# Outlook

## Key insights

- **Our reference forecast for Brent is upgraded to \$65.2/b in 2021 and \$68.7/b in 2022.** The Brent prospect is now lifted above our reference forecast for the first time since the start of the pandemic and breaks in the \$70/b and \$75/b range in H1 2022, averaging \$65.6/b in 2021 and \$69.2/b in 2022.
- **The risks to our reference outlook in 2021 are broadly balanced, while they remain in negative territory in 2022.** The return of Libya alongside the potential return of Iran in 2021, mean that geopolitical pressures begin to build on the upside in both years. The uncertainty pertaining to OPEC+ next steps in 2022 persists.
- **Global oil demand growth in 2021 is downgraded by 0.19 mb/d to 5.5 mb/d and upgraded in 2022 by 0.27 mb/d to 3.2 mb/d.** Following a weaker Q1 2021, strong economic data and the acceleration of vaccine roll outs continue to paint a positive picture for a strong demand rebound in H2, albeit there remains considerable uncertainty as to whether the extent of the recovery will meet expectations. The worsening India outlook coupled by the slower than

expected non-OECD demand rebound outside China continue to weigh on the outlook. Strong momentum in OECD and China offsets near-term demand pressures.

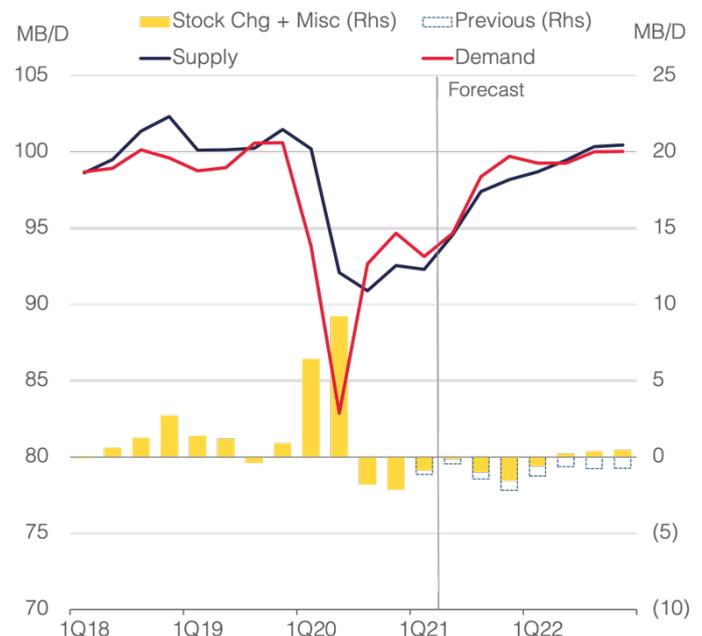
- **Global oil supply growth in 2021 is upgraded at 1.7 mb/d and at 4.1 mb/d in 2022, to average 1 mb/d below 2019 levels, from 1.8 mb/d projected last month.** Iran's return and higher output from OPEC+ as producers enter the final phase of their historic cut deal lead the growth, while non-OPEC supply continues to recover at a slow pace, with gains seen accelerating in H2 2021.
- **The market is expected to remain in deficit in 2021 by -0.9 mb/d, but the potential return of Iran will push the market near balance in 2022.** Preliminary estimates suggest that OECD stocks in April continued to draw near their 2015-2019 average and it is now becoming increasingly likely to see stocks clearing below the average within Q2 2021.

### Brent price outlook



Source: OIES

### Global balance



Source: OIES



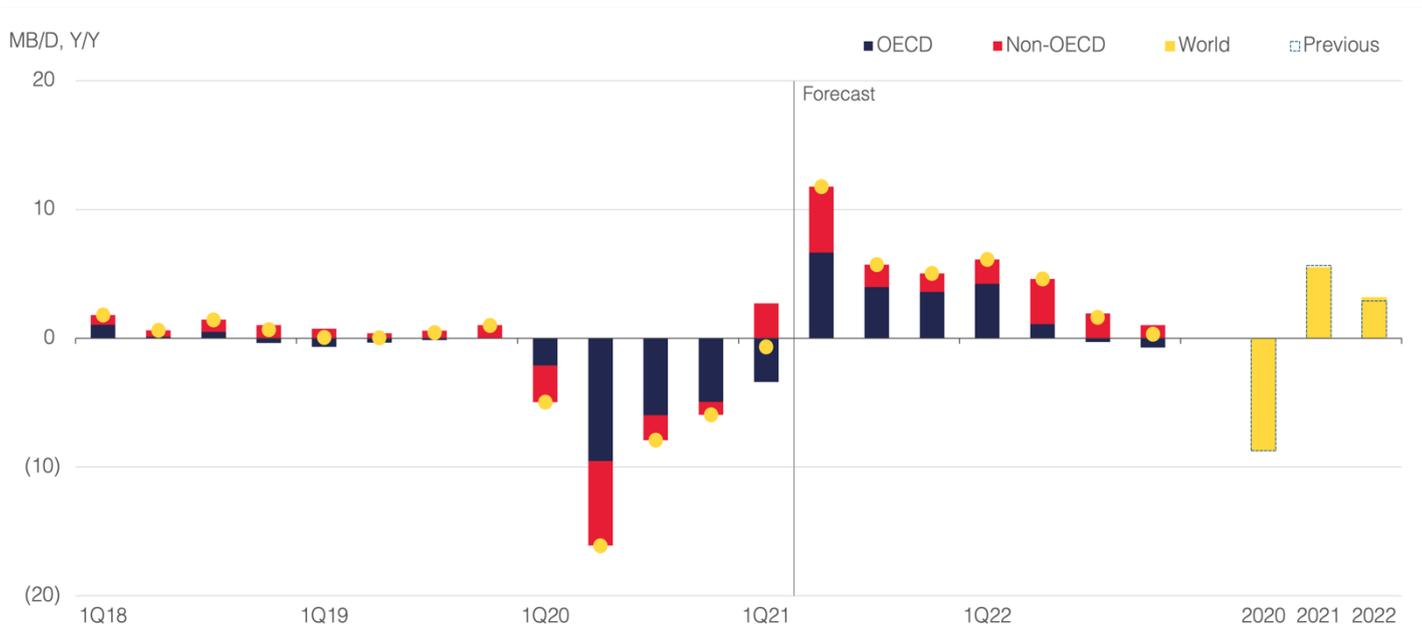
# Outlook

## Demand

### Optimism strengthens for a strong demand rebound in H2

Following a weaker Q1, strong economic data and the acceleration of vaccine rollouts continue to paint a positive picture for a strong demand rebound in H2.

#### Global oil demand



Source: OIES

#### Global oil demand

MB/D

	Total	Y/Y	vs 4Q19 <sup>1</sup>
<b>2020</b>	91.0	(8.7)	(5.9)
± prev	+0.01	+0.01	
<b>2021</b>	96.5	5.5	(0.9)
± prev	-0.18	-0.19	
<b>2022</b>	99.6	3.2	(0.5)
± prev	+0.10	+0.27	

<sup>1</sup> Compared to Q4 in each year.

### Global oil demand growth in 2021 is downgraded again by 0.19 mb/d to 5.5 mb/d

Although global demand in H1 2021 is downgraded by 1 mb/d compared to last month's forecast, mainly on weaker-than-anticipated demand estimates in Q1 and the downgrade of India's demand outlook, the pace of demand recovery in H2 is now seen accelerating by 0.4 mb/d to 5.1 mb/d from 4.7 mb/d forecasted previously.

# Outlook

## Non-OECD excluding China continue to weigh on the outlook

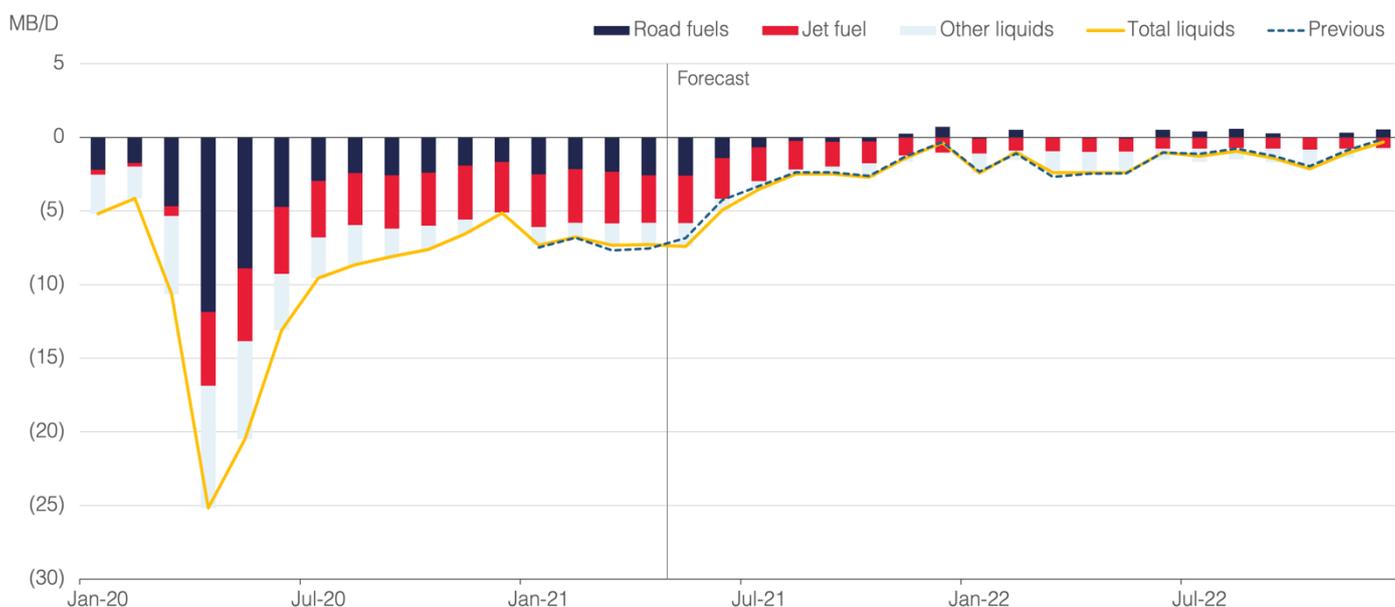
Despite worsening India demand outlook and a slowly catching non-OECD demand rebound, momentum strengthens in OECD and China.

### Global oil demand by region vs Dec 19



Source: OIES

### Global oil demand by sector vs Dec 19



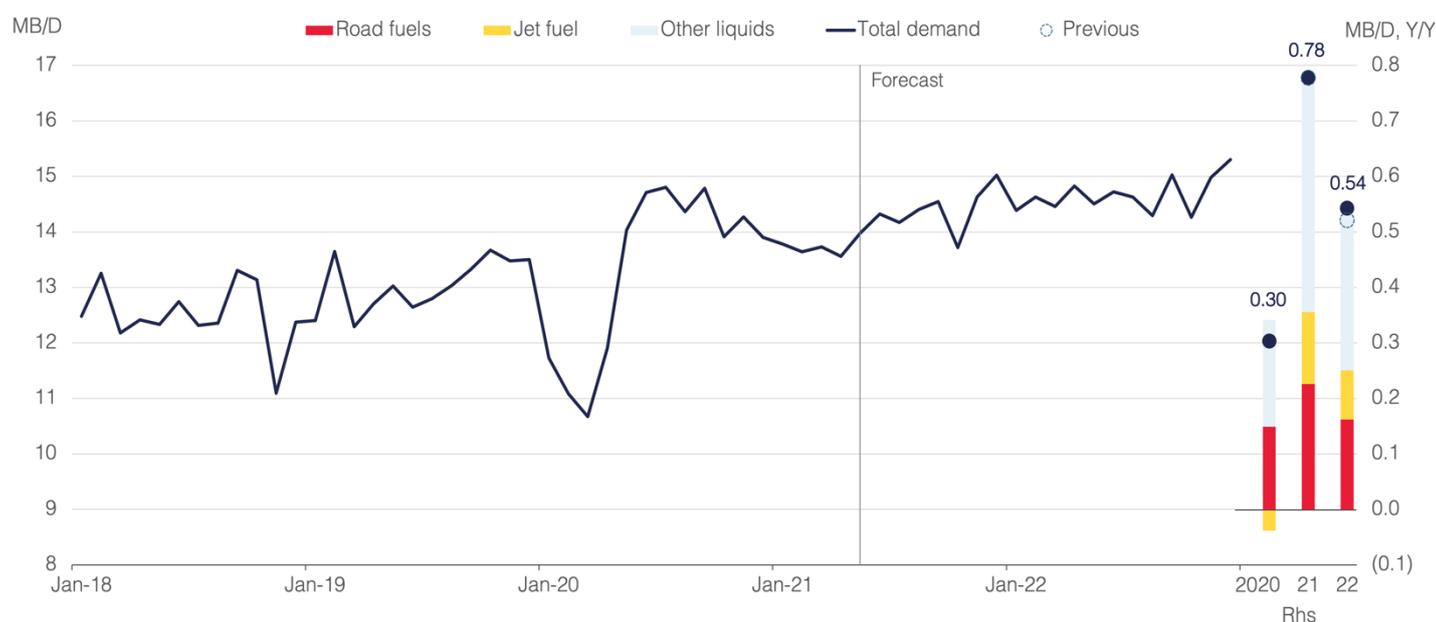
Notes: Other liquids include fuels for other transport, commercial/residential use, industry and other uses. Source: OIES

## China

### China's economic momentum remains healthy

Industrial activity and driving are both strong but concerns about rising commodity prices are starting to weigh.

#### 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 <sup>1</sup>
<b>2020</b>	13.3	0.3	0.5
± prev	0.00	0.00	
<b>2021</b>	14.1	0.8	0.9
± prev	0.00	0.00	
<b>2022</b>	14.7	0.5	1.3
± prev	+0.02	+0.02	

<sup>1</sup> Compared to Q4 in each year.

### China's product demand growth in 2021 remains to a solid 0.8 mb/d

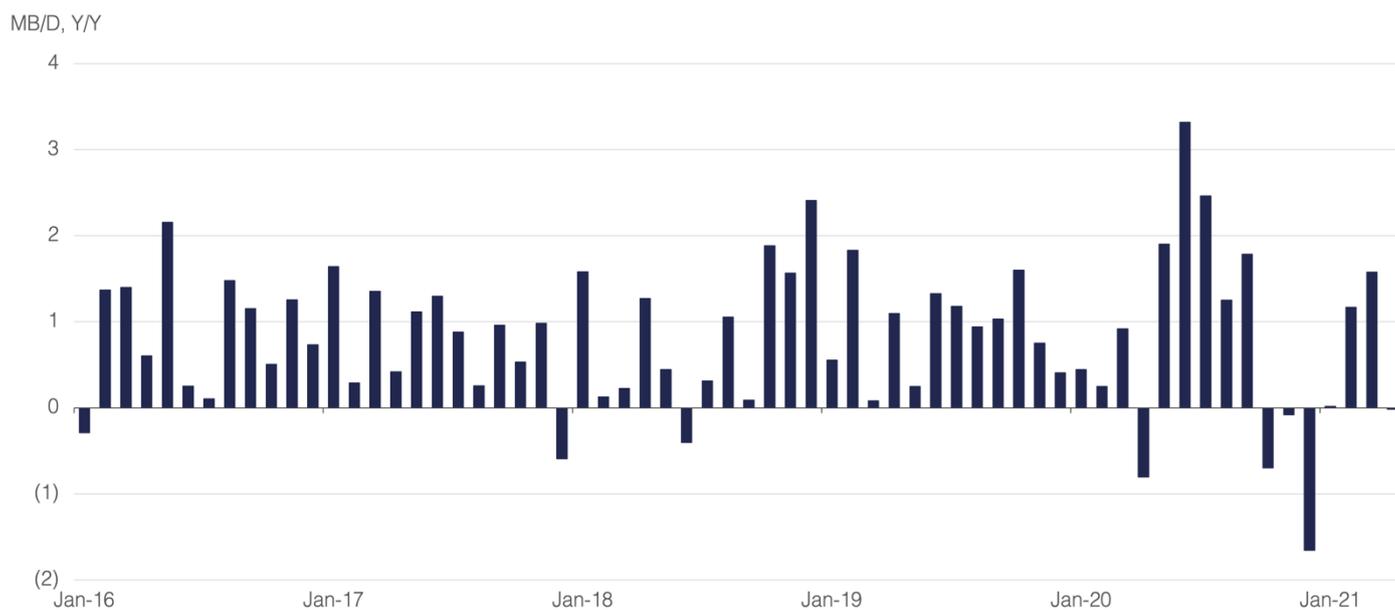
Domestic travel and a strong resurgence in industrial activity are supporting oil demand but a tightening government clampdown on pollution and the fishing ban will start to weigh on diesel.

# Outlook

## Imports have softened on maintenance and stocks are drawing

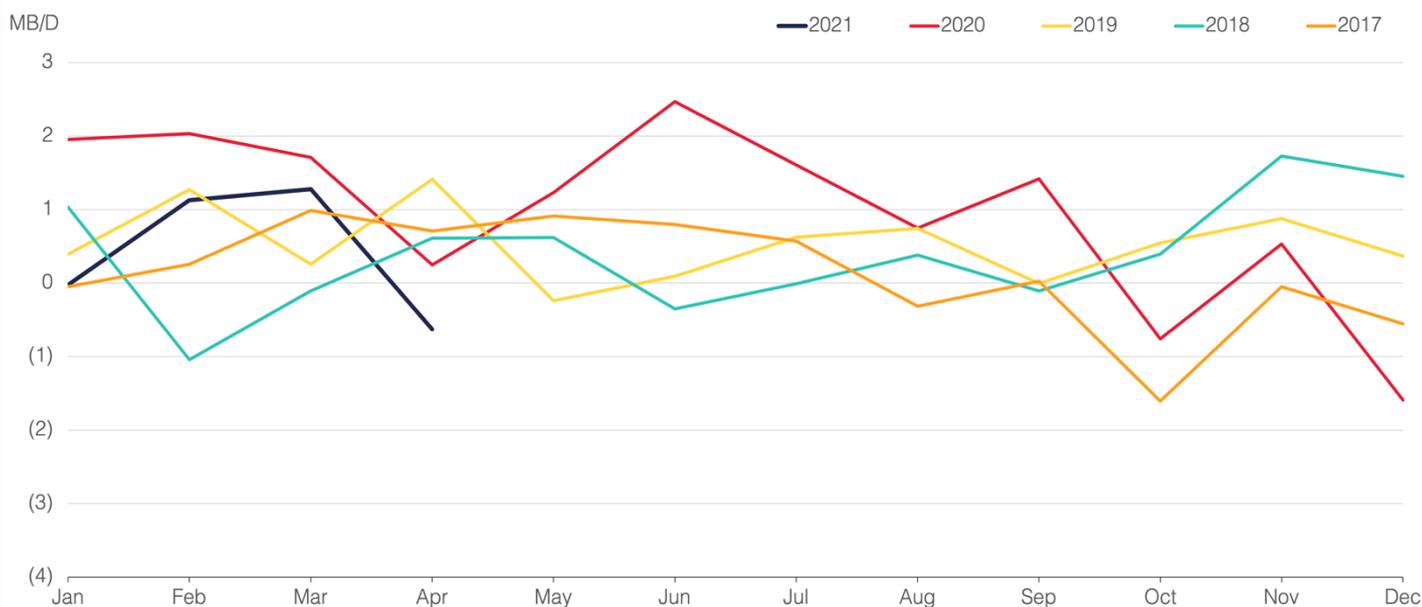
Crude imports are set to recover but large stocks of Iranian crude and a crackdown on Shandong independents could weigh.

### China crude imports



Source: China customs, OIES

### China implied stocks



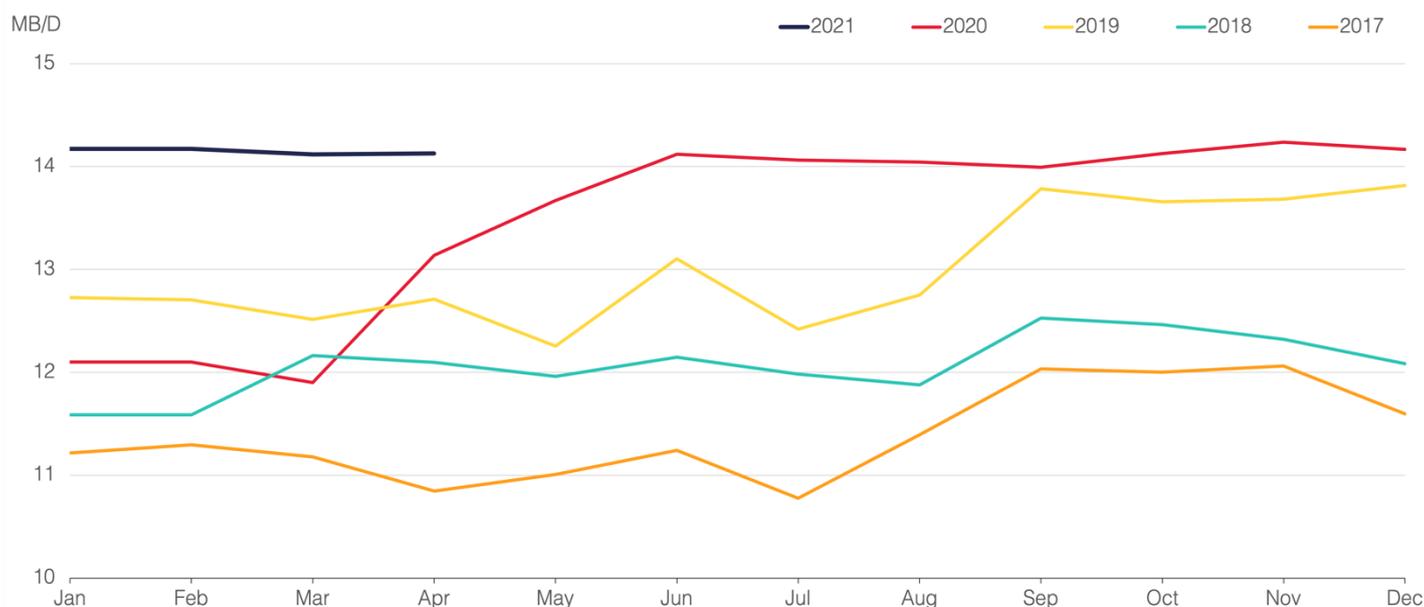
Source: China customs, OIES

# Outlook

## Strong margins and a recovering exports arb delayed maintenance

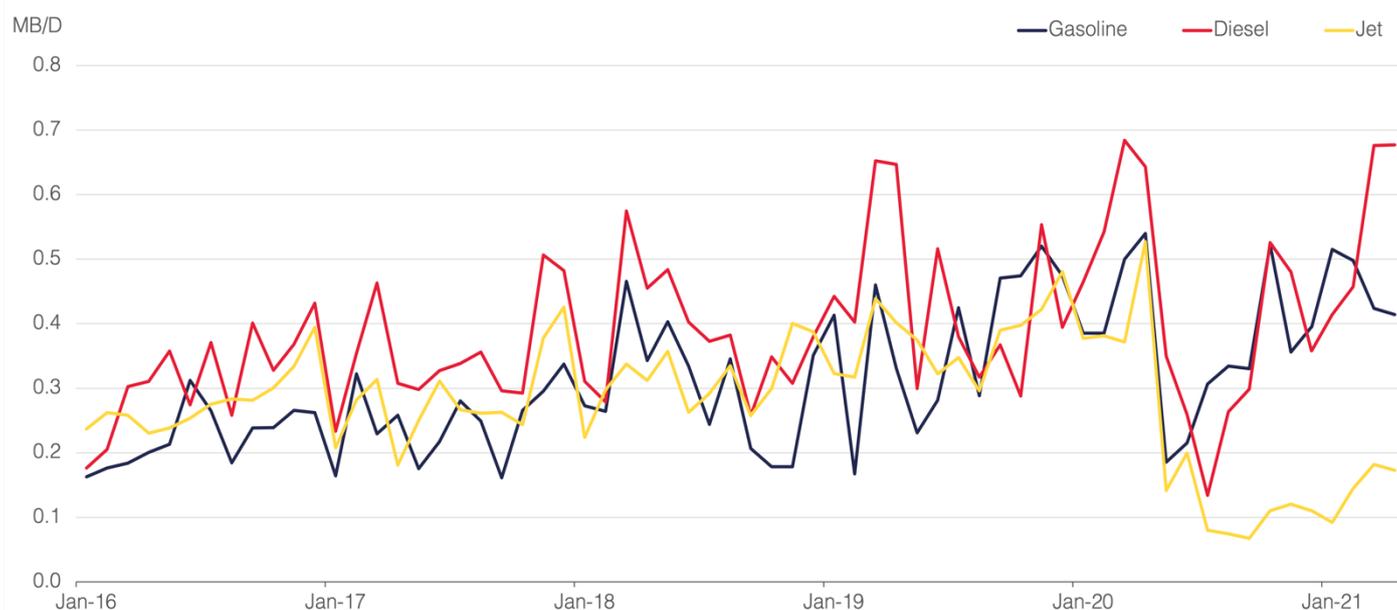
Refinery runs have remained high alongside strong demand and higher outflows, while runs are set to rise as blenders are squeezed out on new blendstock tax.

### China refinery runs



Source: NBS, OIES

### China product exports



Source: China customs, OIES



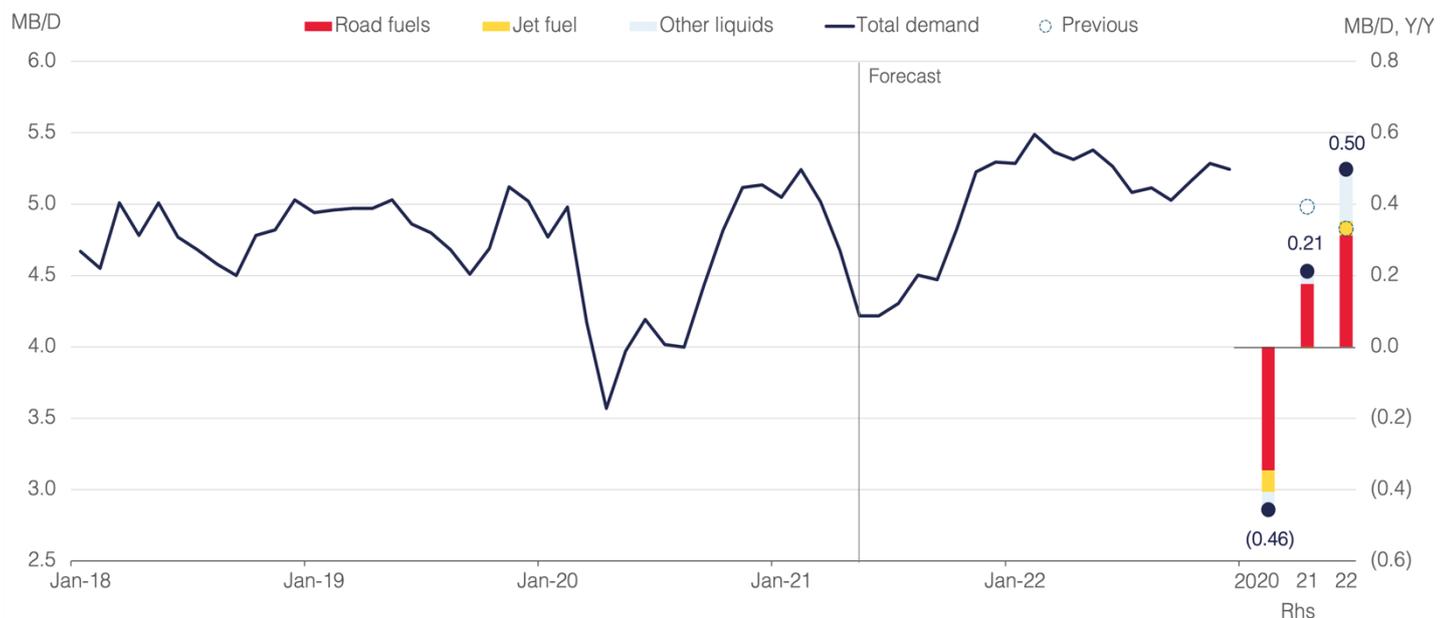
# Outlook

## India

### India's new COVID-19 wave burdens demand growth

The worsening health conditions and new wave of lockdowns, albeit less restrictive compared to last year, generalised the demand shock across all sectors.

#### 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 <sup>1</sup>
<b>2020</b>	4.5	(0.5)	0.0
± prev	0.00	0.00	
<b>2021</b>	4.7	0.2	0.1
± prev	-0.18	-0.18	
<b>2022</b>	5.2	0.5	0.2
± prev	-0.01	+0.17	

<sup>1</sup> Compared to Q4 in each year.

### India's product demand growth in 2021 is now halved to 0.21 mb/d

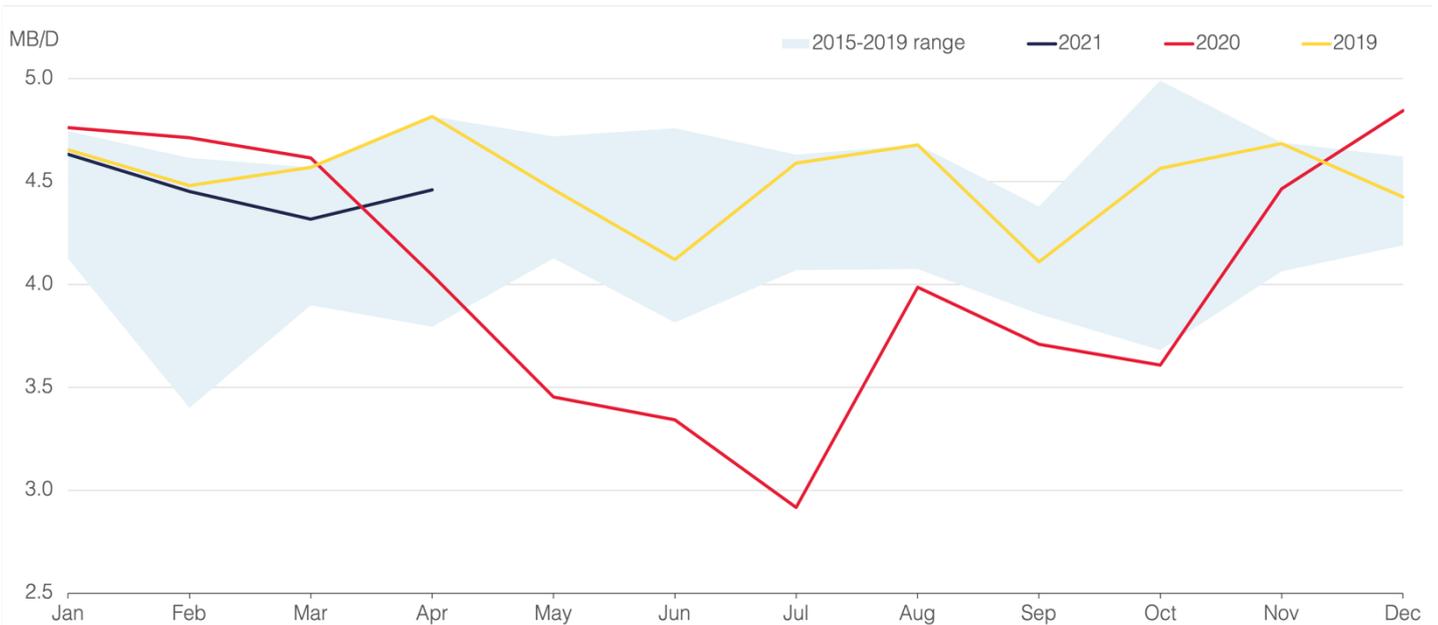
As the rate of infections and death toll began to slow, we expect the collapse in India's products demand to plateau in June before starting to recover from July onwards. In May, we estimate that gasoline, diesel and jet fuel demand collapsed m/m by 21%, 16.3% and 24.1%, respectively.

# Outlook

## India's demand squeeze starts to impact refining throughputs

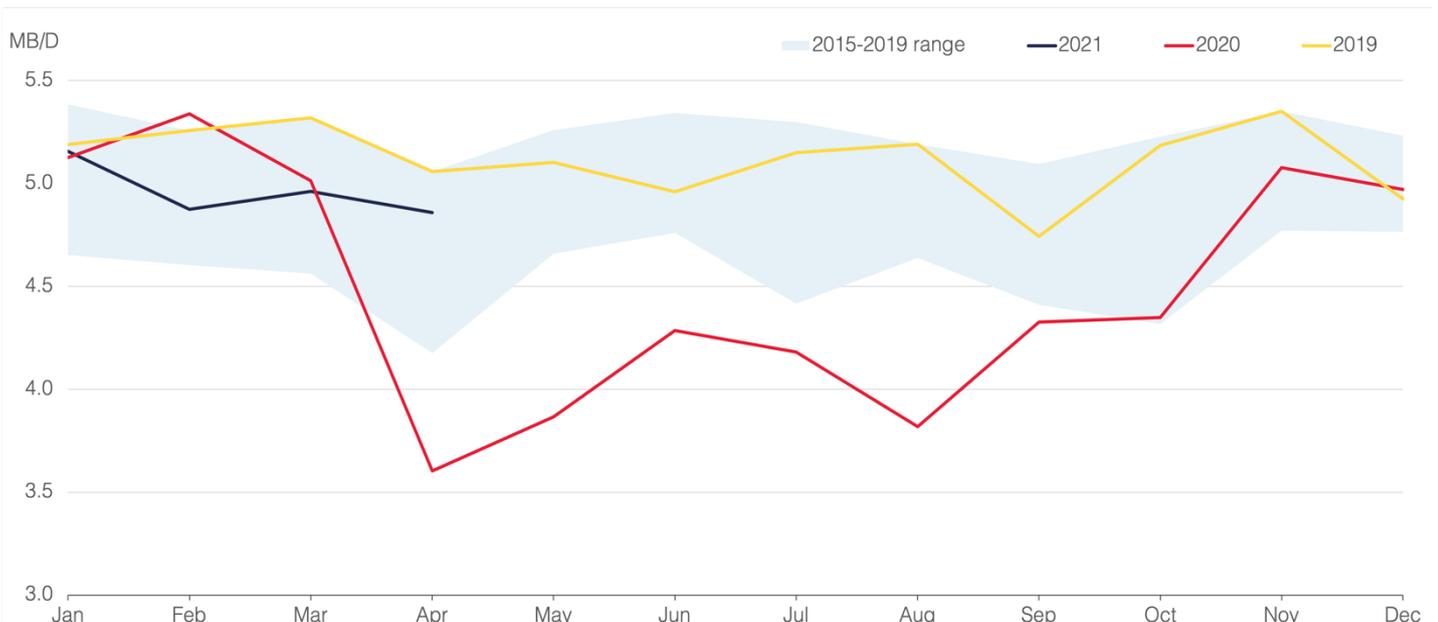
Crude imports remained robust in April on earlier scheduled shipments but alongside with runs they are expected to witness the full impact of the pandemic in May/June.

### India crude imports



Notes: Data for March/April are based on Kpler and OIES estimates. Source: PPAC, Kpler, OIES

### India refinery runs



Notes: Data for March are based on Kpler and OIES estimates. Source: PPAC, Kpler, OIES



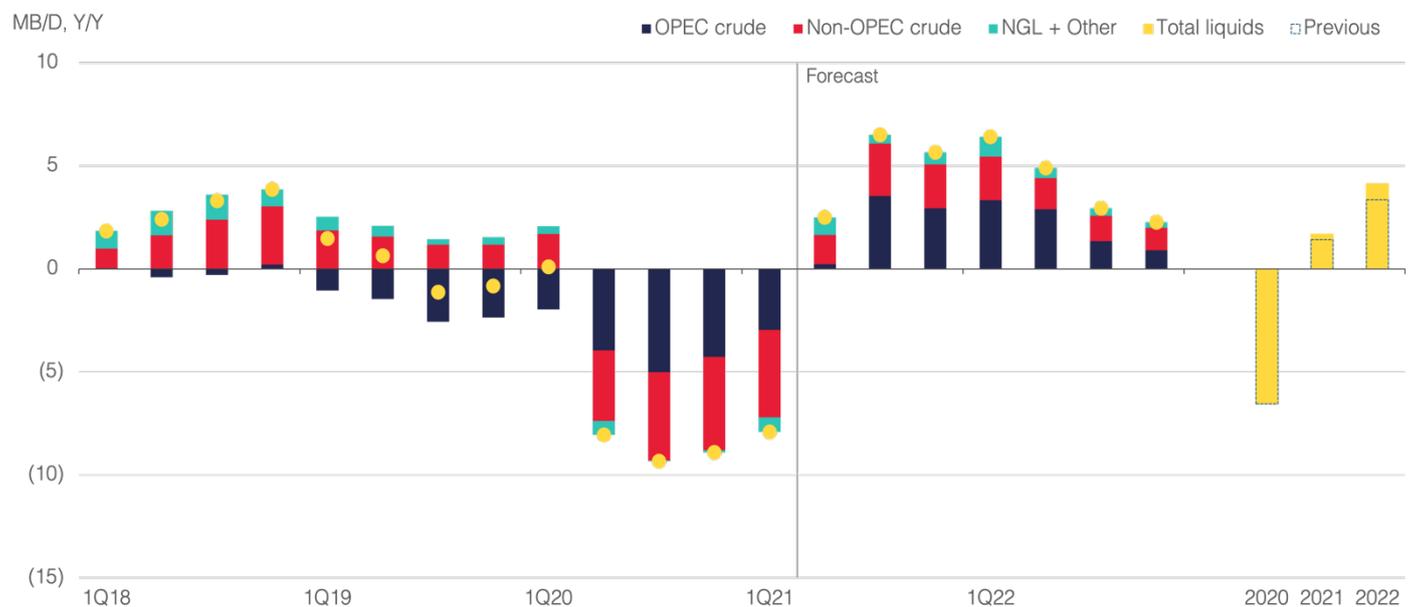
# Outlook

## Supply

### Iran's potential return in 2021 lifts global oil supply outlook

Iran's potential return and higher output from OPEC+ as producers enter the final phase of the cut deal lift supplies, while non-OPEC recovery continues at a slow pace.

#### Global oil supply



Source: OIES

#### Global oil supply

MB/D

	Total	Y/Y	vs Dec-19 <sup>1</sup>
<b>2020</b>	93.9	(6.6)	(8.9)
± prev	-0.01	-0.01	
<b>2021</b>	95.6	1.7	(3.3)
± prev	+0.26	+0.27	
<b>2022</b>	99.7	4.1	(1.0)
± prev	+1.03	+0.77	

<sup>1</sup> Compared to December in each year.

### Global supply growth in 2021 is upgraded to 1.7 mb/d and 4.1 mb/d in 2022

The upward revisions in 2021 stem mainly from OPEC (+0.16 mb/d) with Iranian production now expected to reach 3.1 mb/d in December 2021. In 2022, OPEC supply is now seen higher by 1.1 mb/d at 28.8 mb/d, compared to 27.6 mb/d projected last month.



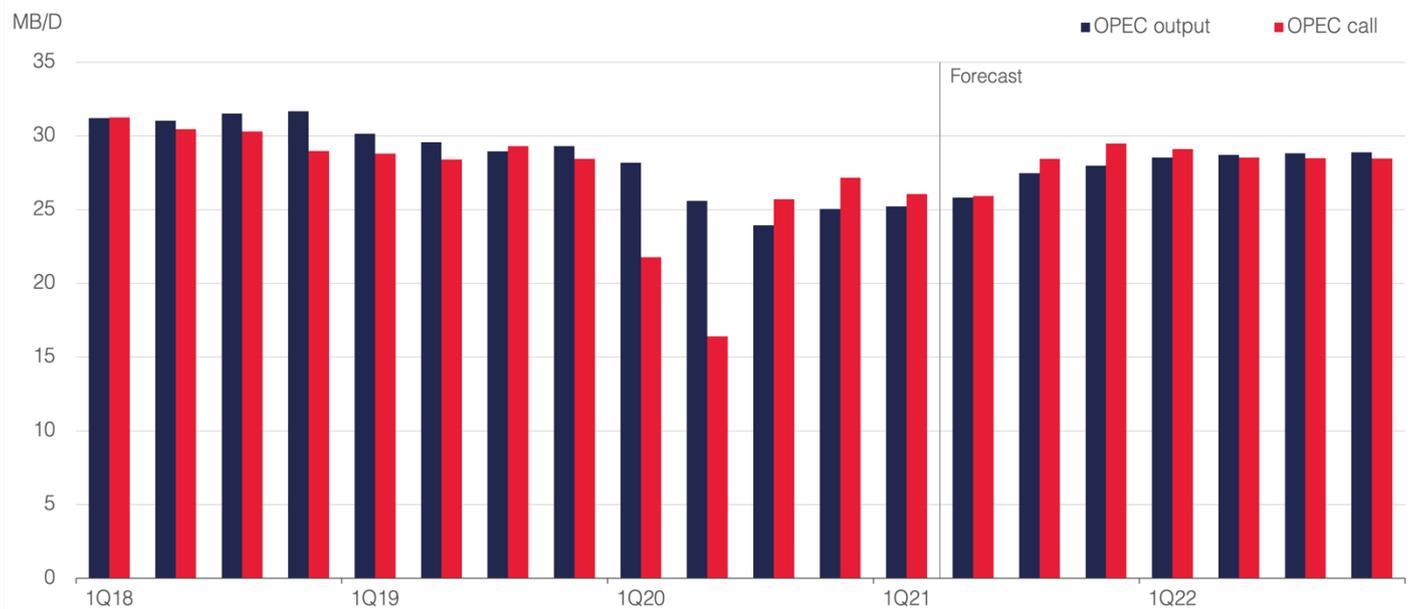
# Outlook

## OPEC

### OPEC+ maintains course towards the last phase of the deal

OPEC+ producers remain committed to gradually lift output in June/July on expectations of a strong demand rebound in H2.

#### OPEC supply



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

#### OPEC supply

MB/D

	Output	Call	± dif.
<b>2020</b>	25.7	22.8	2.9
± prev	0.00	+0.02	
<b>2021</b>	26.6	27.5	(0.9)
± prev	+0.16	-0.28	
<b>2022</b>	28.7	28.6	0.1
± prev	+1.11	+0.18	

### The OPEC call in 2021 stands at 27.5 mb/d, 0.9 mb/d below expected production

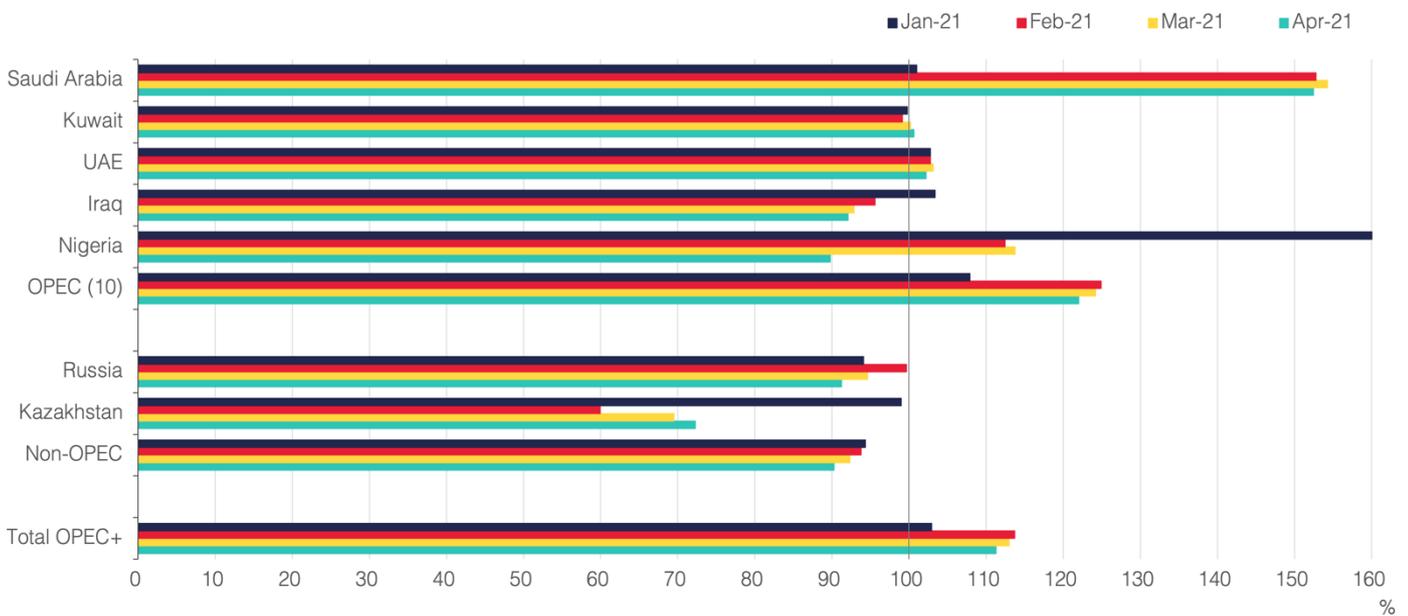
Despite sending a bullish signal for the first time since the start of the pandemic, OPEC+ will continue to monitor market fundamentals and continue to hold monthly meetings.

# Outlook

## High compliance persists

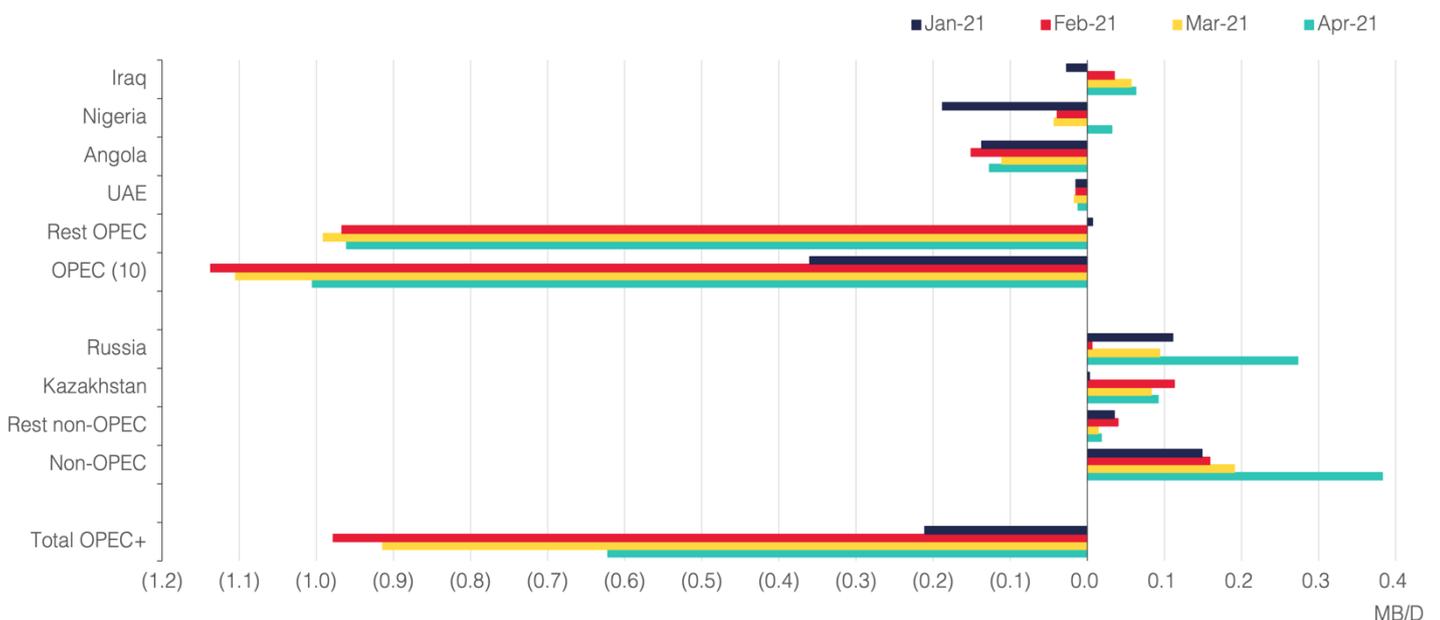
Despite another month of high OPEC+ output compliance in April of 111%, non-OPEC+ producers are beginning to show signs of low compliance.

### OPEC+ output compliance



Source: OIES

### OPEC+ over/under production



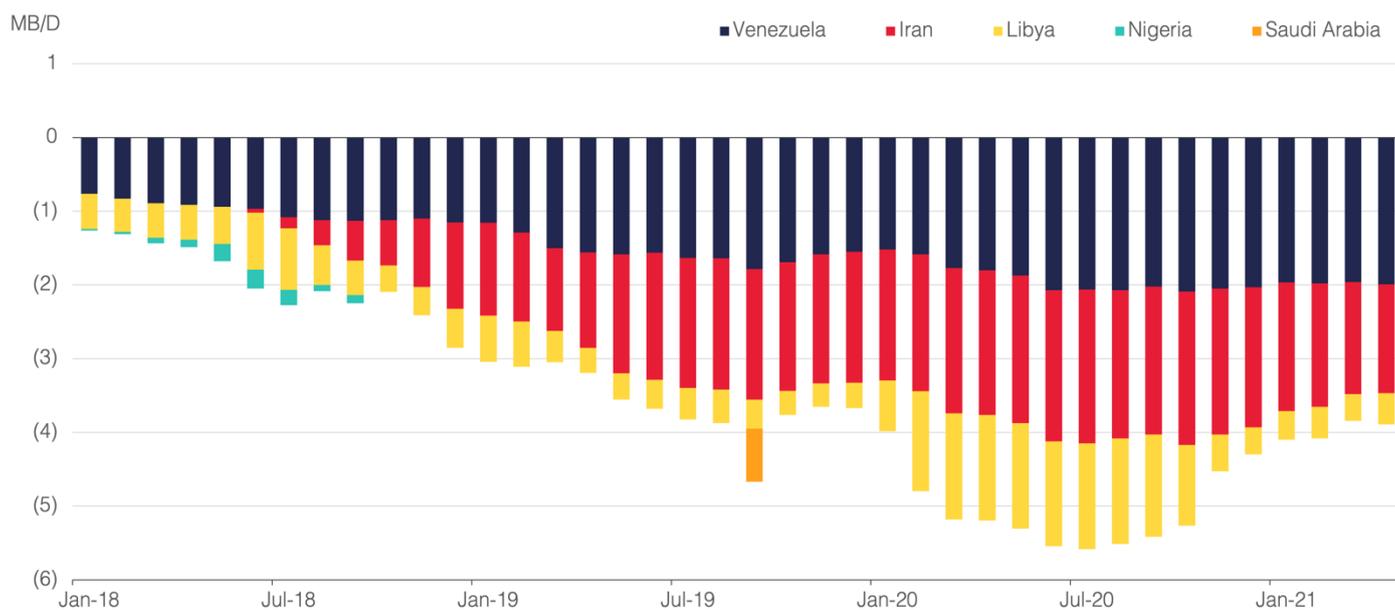
Source: OIES

# Outlook

## Iranian return will not disrupt market balances

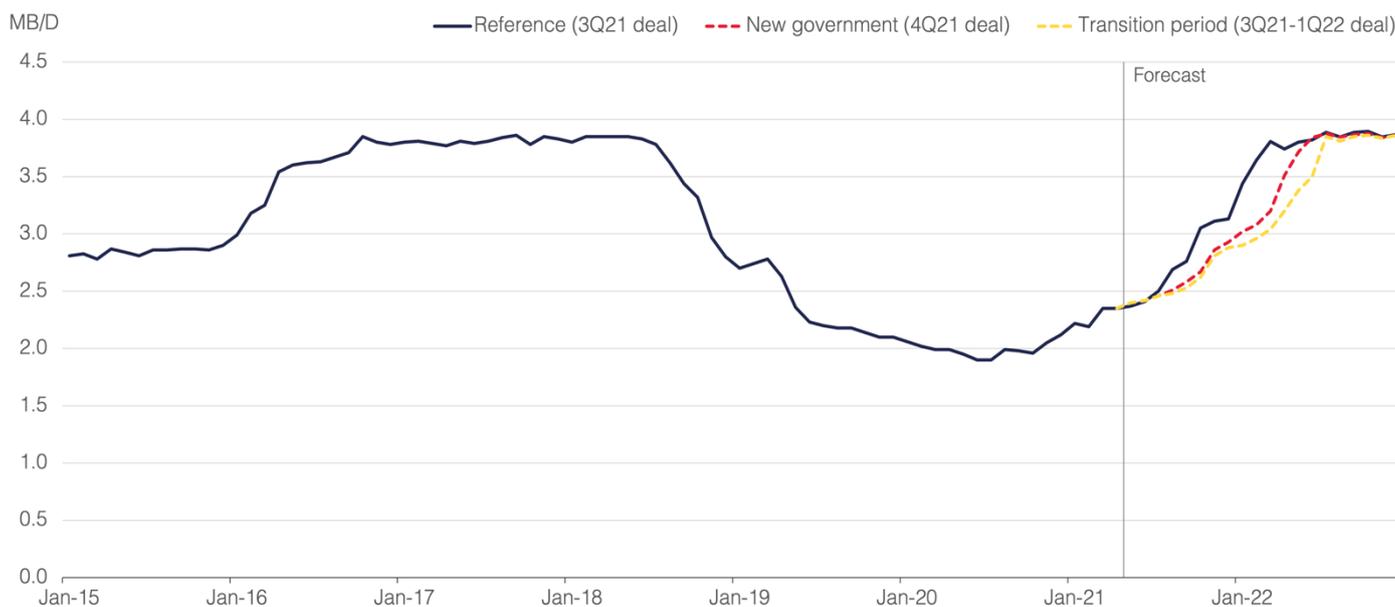
Return of Iranian barrels not expected to disrupt oil balances as the oil market appears better suited to absorb the returning Iranian barrels in H2 2021.

### OPEC geopolitical supply disruptions



Source: OIES

### Iran oil production scenarios



Source: Kpler, TankerTrackers, OIES

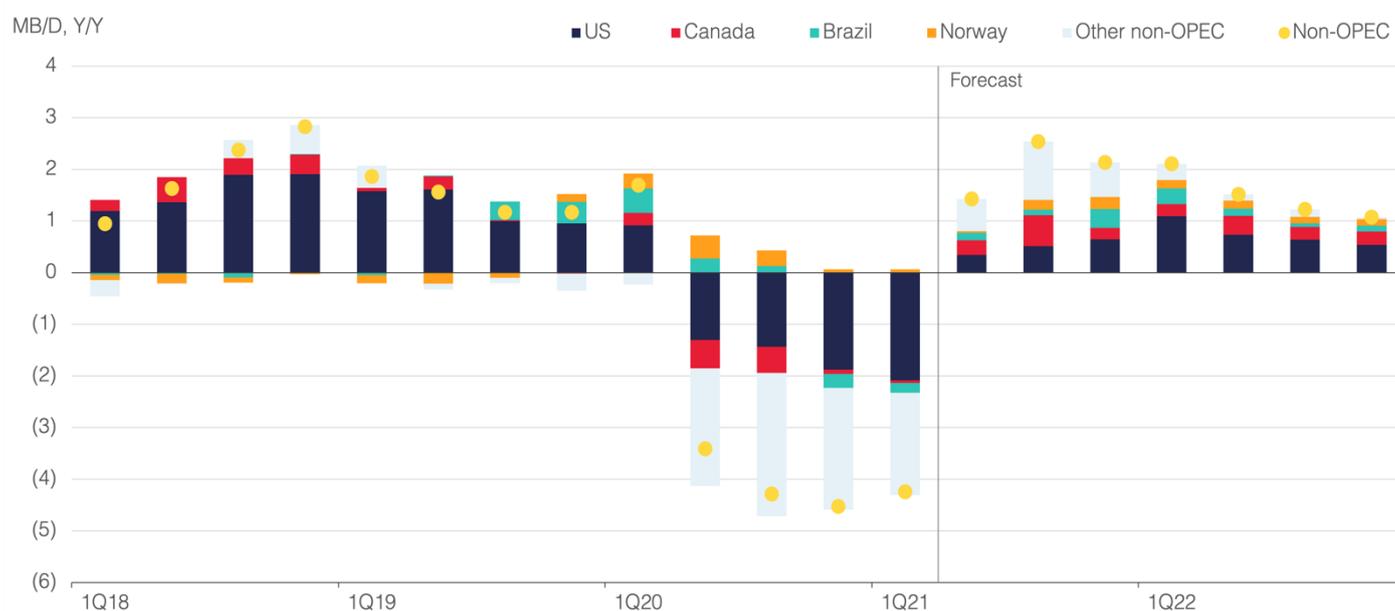
# Outlook

## Non-OPEC

### Non-OPEC supply rebound continues at a slow pace

Non-OPEC supply growth to strengthen in H2 supported by higher prices and the end of maintenance, but pace of recovery remains modest.

#### Non-OPEC supply



Notes: Crude oil only. Source: OIES

#### Non-OPEC supply<sup>1</sup>

MB/D

	Total	Y/Y	US	Y/Y
<b>2020</b>	51.2	(2.6)	11.3	(0.9)
± prev	0.00	0.00	0.00	0.00
<b>2021</b>	51.7	0.5	11.2	(0.1)
± prev	+0.04	+0.04	+0.02	+0.02
<b>2022</b>	53.2	1.5	11.9	0.8
± prev	-0.14	-0.18	-0.03	-0.06

<sup>1</sup> Includes crude oil and condensates only.

### Non-OPEC supply is seen growing by 0.5 mb/d in 2021 and 1.5 mb/d in 2022

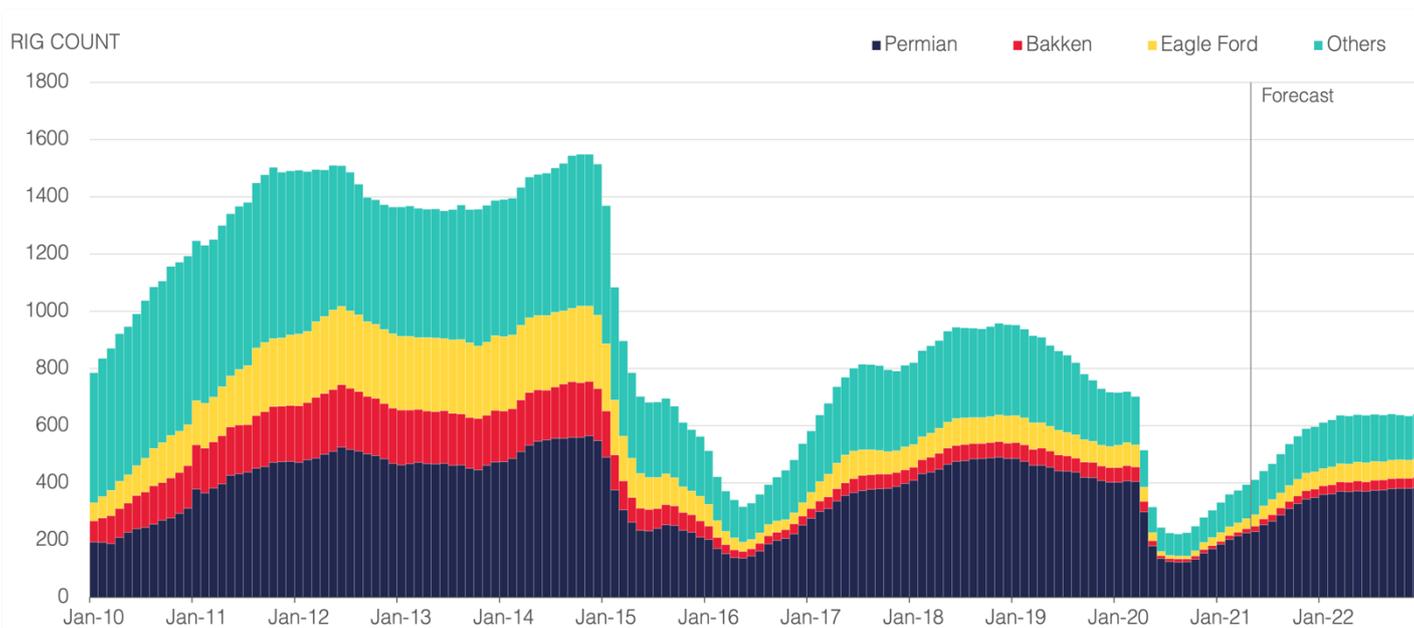
Canada continues to lead the supply growth in 2021 with 0.28 mb/d despite the heavy maintenance curbs in Q2, followed by Norway with 0.14 mb/d as momentum gains in H2, Brazil with 0.12 mb/d and Guyana (+0.1 mb/d). US supply growth is still seen contracting y/y by -0.15 mb/d in 2021 from -0.17 mb/d projected last month.

# Outlook

## Privates are stepping up

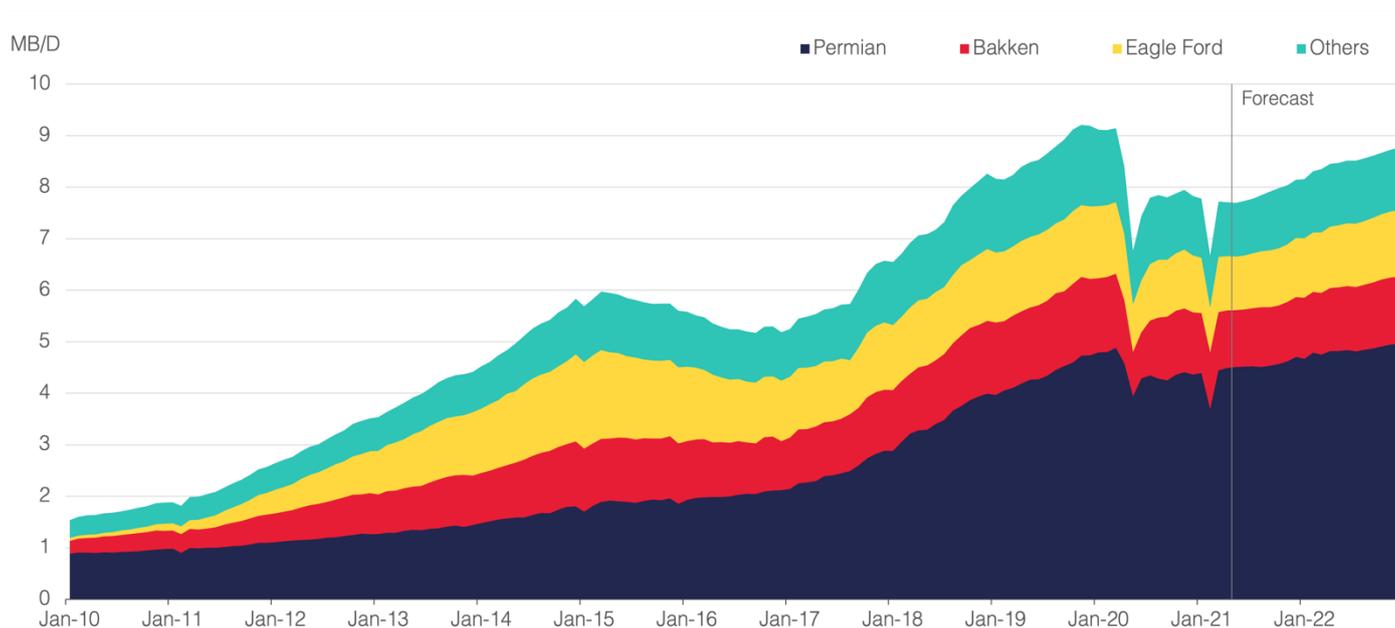
Permian leads the US recovery, but activity elsewhere remains slow as shale producers balance shareholder returns with volume growth.

### US shale drilling activity by play



Source: EIA, OIES

### US shale production by play



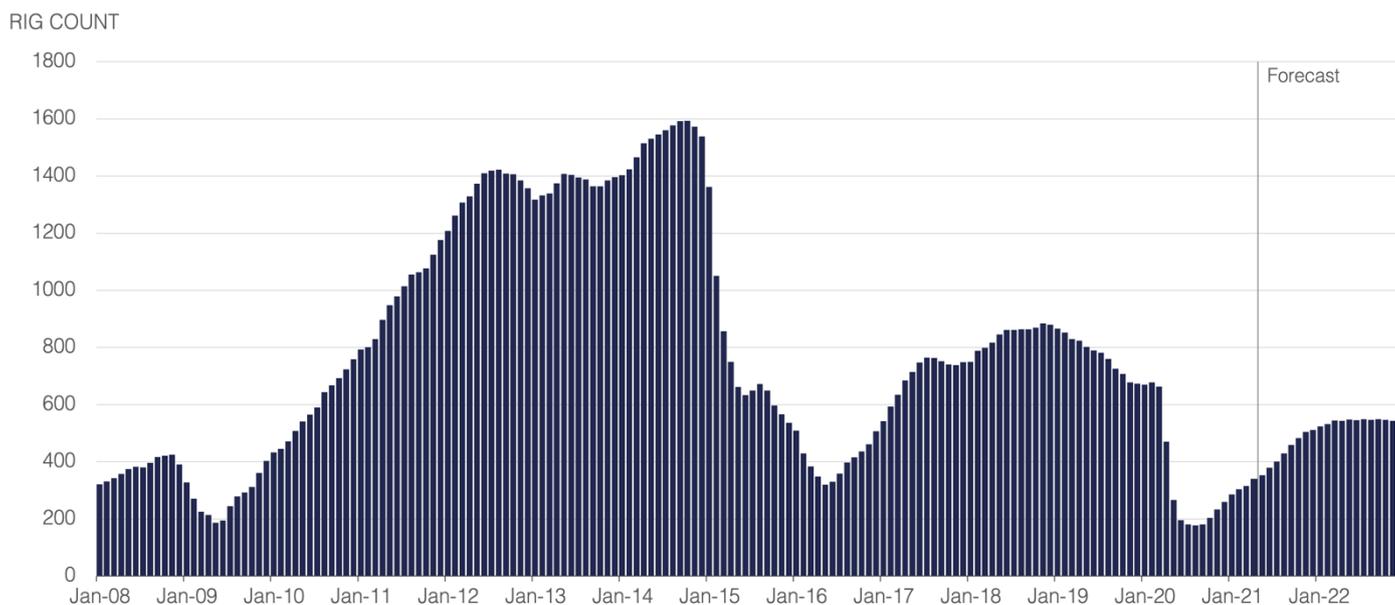
Source: EIA, OIES

# Outlook

## US recovery resists higher prices, for now

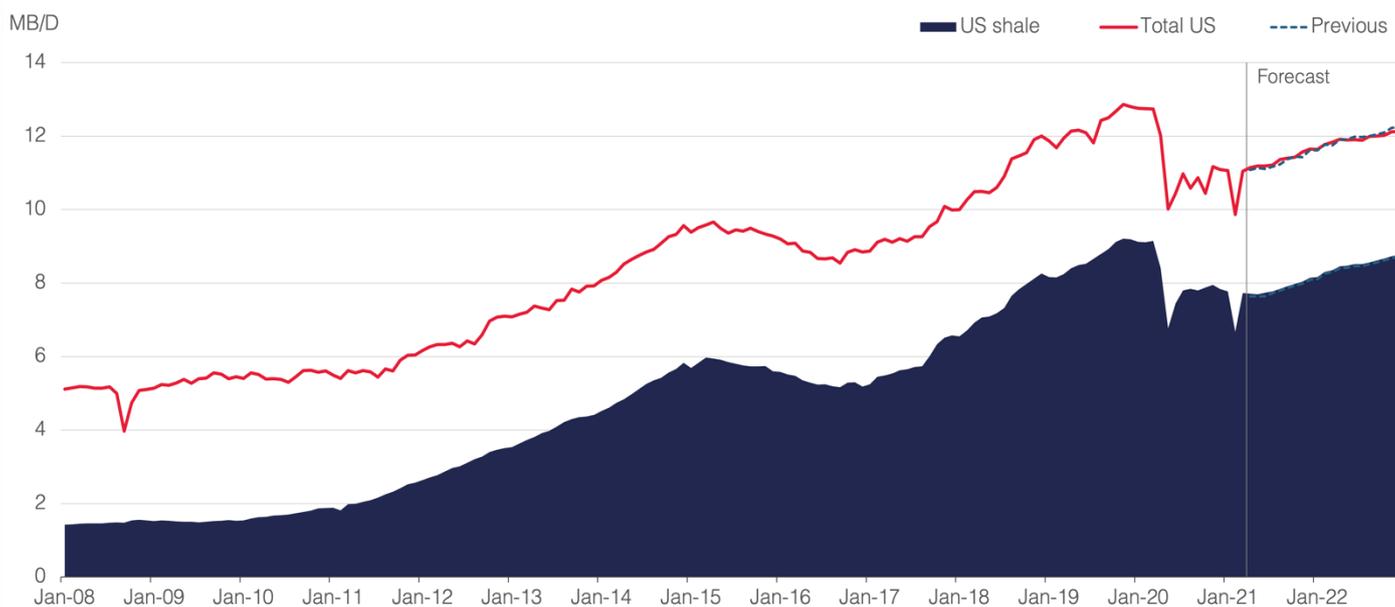
Despite higher prices, US activity so far remains disciplined but a push in US shale supplies towards year-end and into next year is becoming increasingly likely.

### US drilling activity



Notes: Baker Hughes, OIES

### US supply



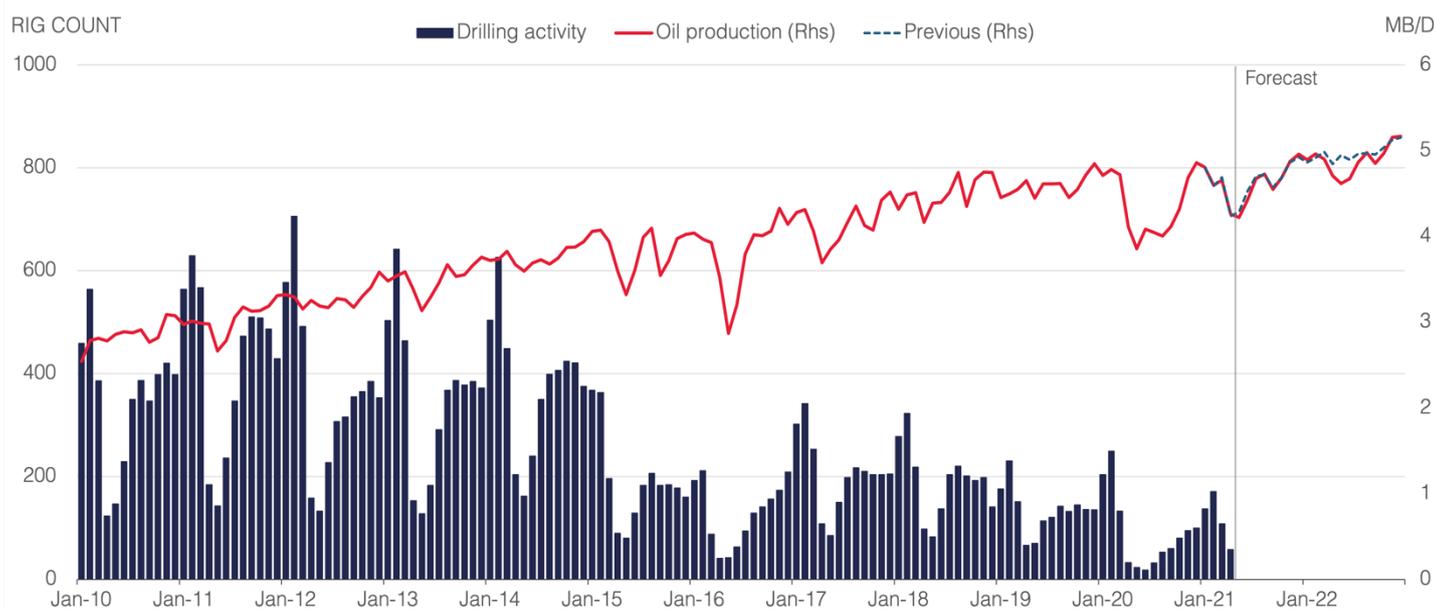
Notes: Crude oil only. Source: OIES

# Outlook

## Non-OPEC supply rebound to gain pace in H2

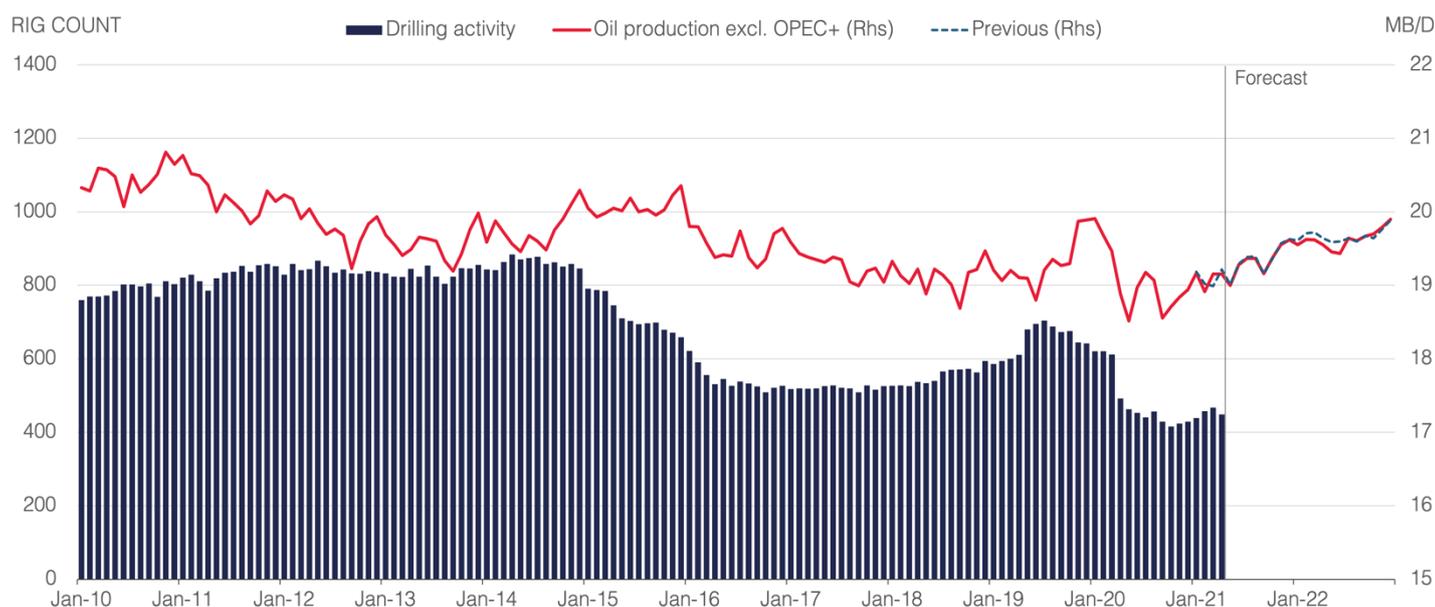
Non-OPEC supply outside OPEC+ and the US is seen building momentum in H2 but rebound remains gradual to 0.27 mb/d below pre-shock levels exit-2021.

### Canada supply



Source: Baker Hughes, OIES

### Non-OPEC supply outside NAM



Source: Baker Hughes, OIES



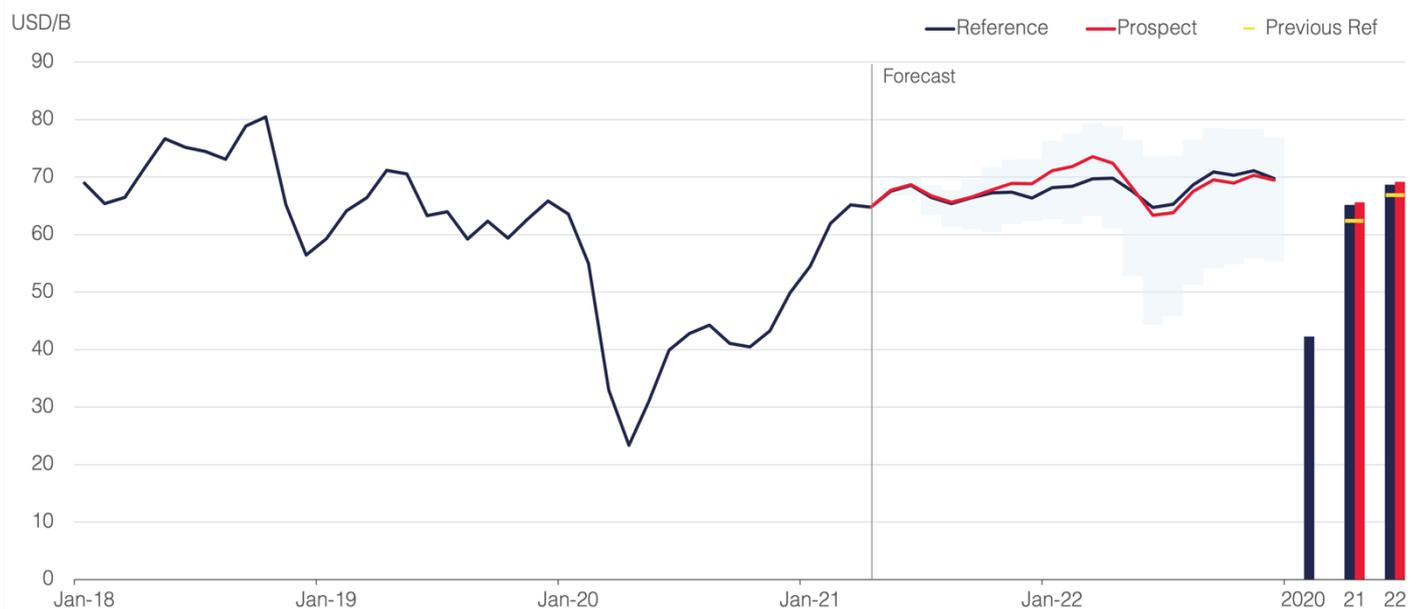
# Outlook

## Price Outlook

### Oil prices gain anew

The oil market continues to shake off near-term pressures on the back of high expectations of a strong demand rebound.

#### Brent price outlook



Source: OIES

#### Key assumptions

		2021	2022
<b>Geopolitics</b> MB/D	<b>IRN</b>	2.59	3.79
	<b>VEN</b>	0.54	0.60
	<b>LBY</b>	1.17	1.25
<b>Supply</b> %, Compliance <sup>1</sup>	<b>OPEC+</b>	100	100
	<b>GDP<sup>2</sup></b>	6.3	4.6

<sup>1</sup> Average OPEC+ compliance. <sup>2</sup> Based on Oxford Economics.

## Our Brent price outlook is lifted to \$65.2/b in 2021 and \$68.7/b in 2022

The revisions this month continue to reflect mainly the fact that the oil market continues to shake off near-term negative pressures on the back of high expectations of a strong demand rebound in H2 alongside the optimism stemming from the successful employment of vaccines in the US and Europe in lifting the mobility restrictions.



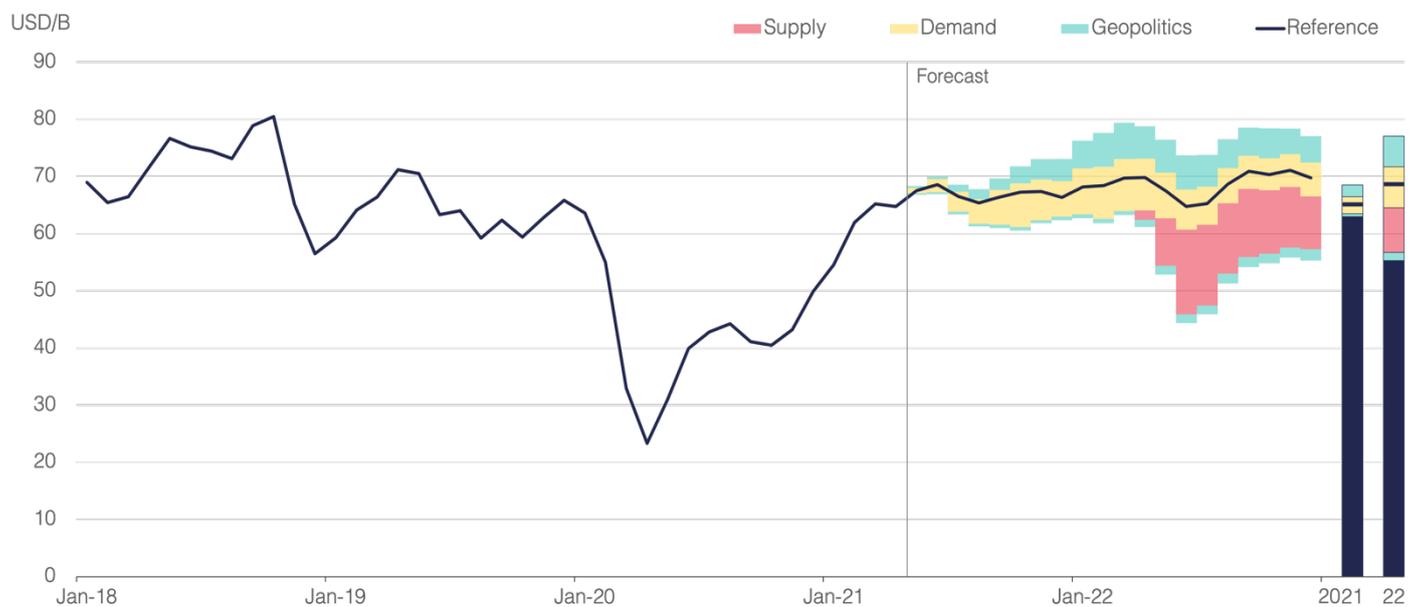
# Outlook

## Balance of Risks

### Risks to the outlook appear balanced in 2021

The balance of risks around the outlook is now balanced in 2021, with supply-driven concerns in 2022 remaining dominant.

#### Balance of risks



Notes: Brent price. Source: OIES

#### Balance of risks

USD/B

	2021	2022
<b>Reference</b>	<b>65.2</b>	<b>68.7</b>
Supply risks <sup>1</sup>	0.0	(7.8)
Demand risks <sup>1</sup>	(2.1)	(1.2)
Geopolitical risks <sup>1</sup>	1.5	3.9
<b>Balance of risks</b>	<b>(0.6)</b>	<b>(5.0)</b>

<sup>1</sup> On balance.

### The potential return of Iran means that geopolitical risks also return to positive territory

On balance, the risks around our outlook are now balanced in 2021 at a mere -\$0.6 /b from -\$1.1/b projected last month and appear to ease further in 2022 to -\$5/b from -\$5.5/b previously. With the return of Libya and Iran geopolitical pressures begin to build on the upside in both years by \$1.5/b and \$3.9/b, respectively.



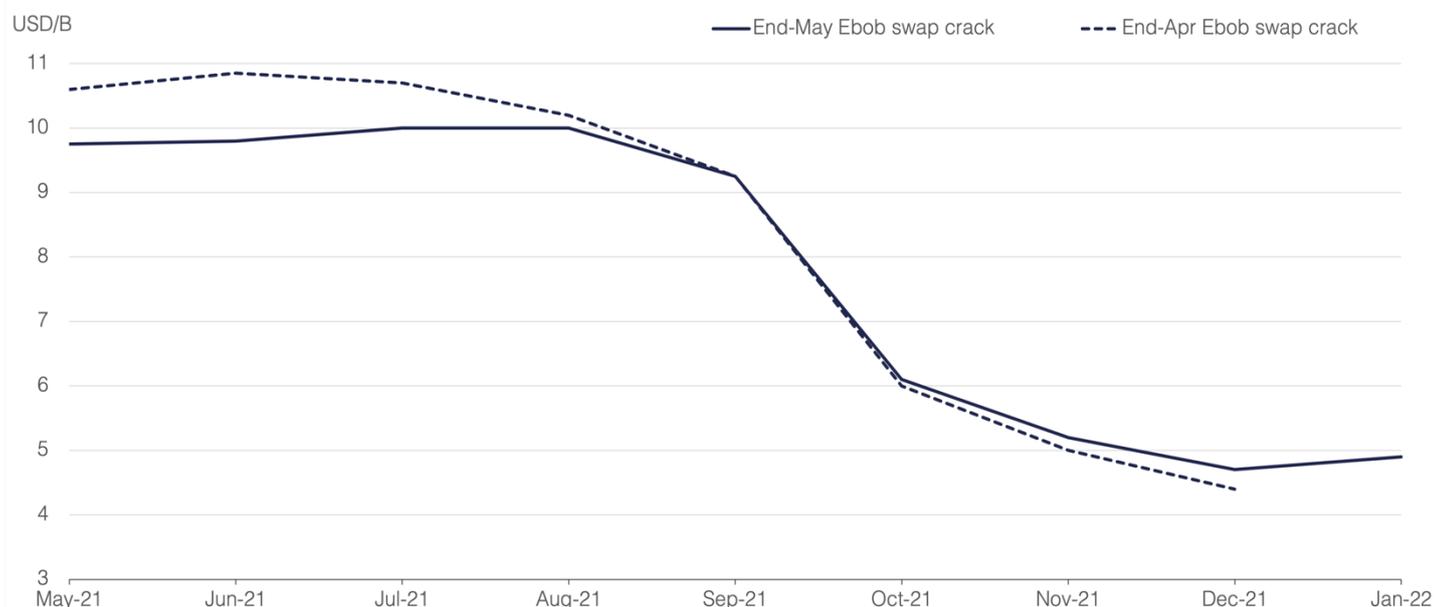
# Outlook

## Cracks

### Optimism builds down the road for product margins

Overall product margins remain little changed but optimism builds as the US driving season nears and the global economic growth picks up.

#### European gasoline (Ebob) cracks



Source: OIES

#### Key product cracks forward curves<sup>1</sup>

USD/B

	Gasoline	Naphtha	Gasoil	FO 3.5%
<b>May-21</b>	9.75	(1.75)	6.35	(11.10)
± end-Apr	-0.85	+0.45	+1.45	-2.50
<b>Jun-21</b>	9.80	(2.30)	6.75	(10.95)
± end-Apr	-1.05	+0.35	+1.00	-2.55
<b>Jul-21</b>	10.00	(2.75)	7.35	(10.57)
± end-Apr	-0.70	+0.15	+0.85	-2.22

<sup>1</sup> NWE as they appear on the graphs. OIES estimates.

### Clean products improvement remains muted

Gasoline cracks have seen little change, but all eyes are on the Memorial Day holiday driving in the US. Naphtha also little changed except from a slight pick up at the front end of the curve.

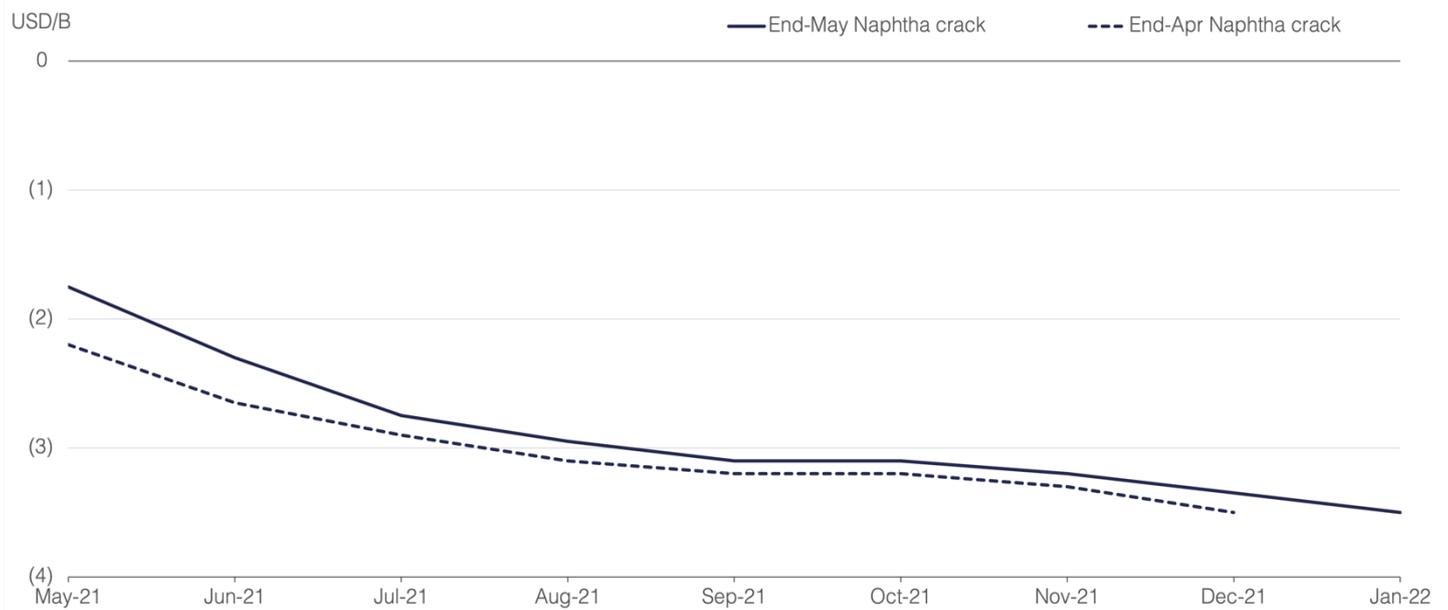


# Outlook

## Jet weakened at the front end of the curve on new variants concerns

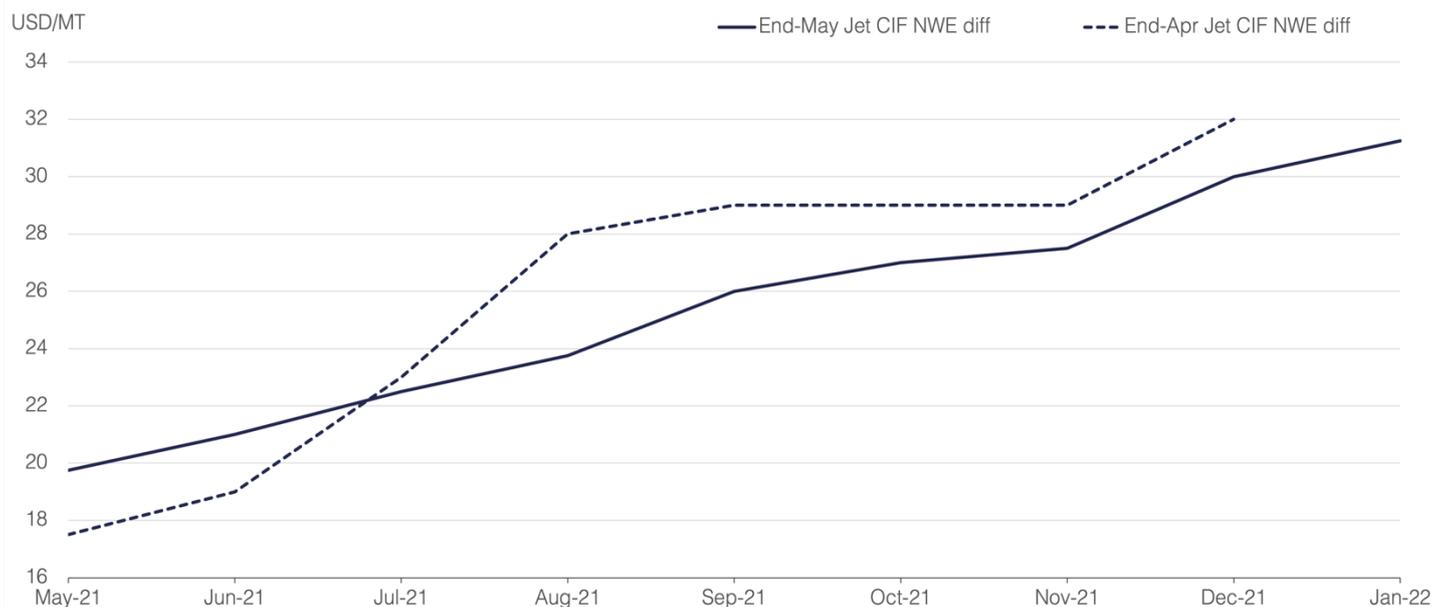
Despite renewed virus concerns, jet swaps have picked up further down the curve reflecting better holiday demand during the summer months.

### European naphtha CIF NWE cracks



Source: OIES

### Jet CIF NWE swap diffs to gasoil



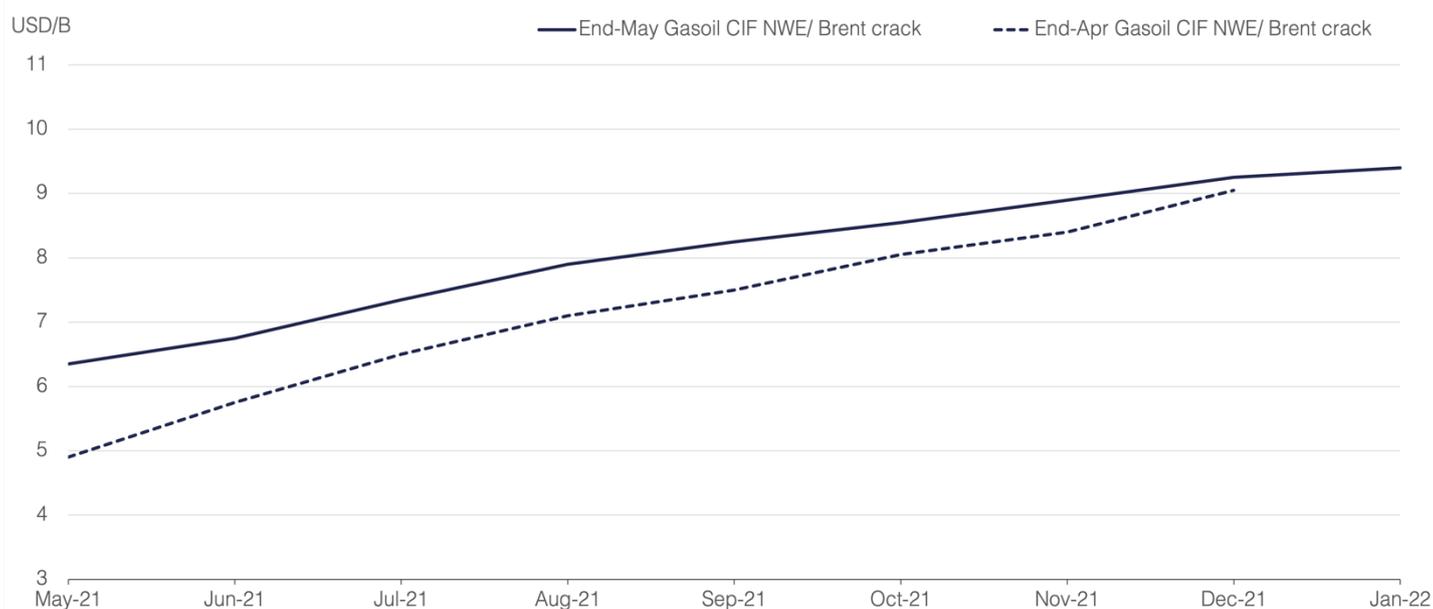
Source: OIES

# Outlook

## Gasoil cracks improve, but FO under renewed pressure

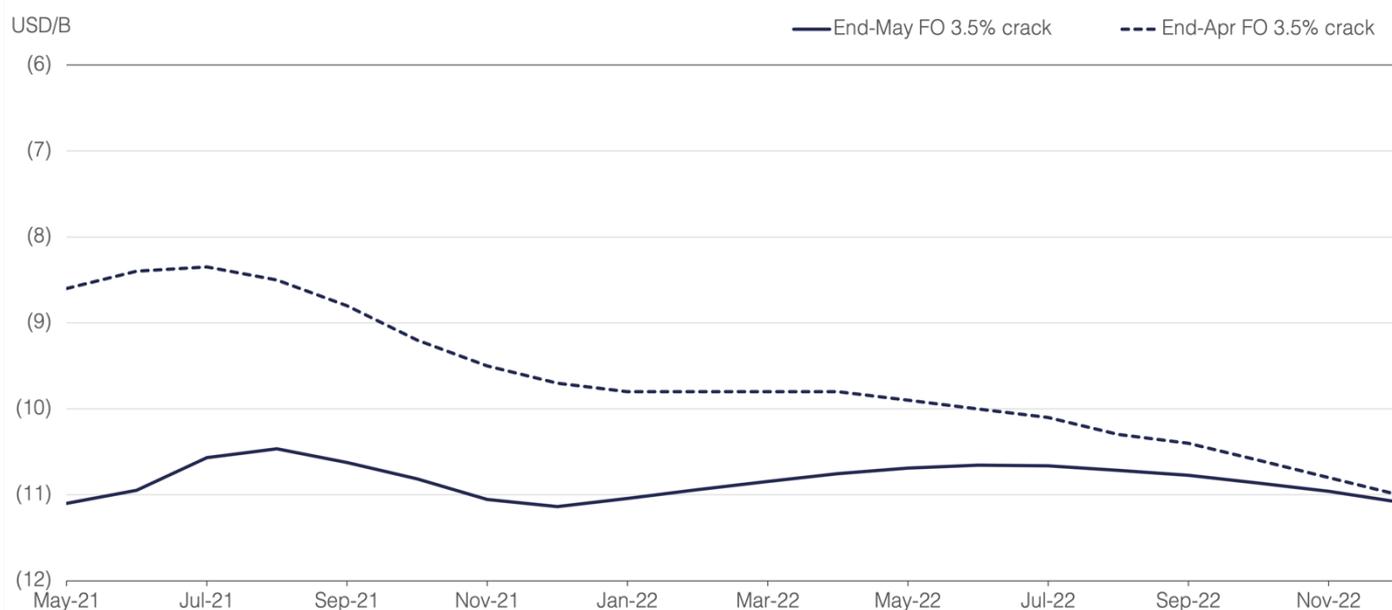
Gasoil cracks improve on growth prospects, but the front end of the FO curve came under pressure from expected Iranian exports and the planned OPEC+ output hike.

### Gasoil CIF NWE / Brent crack



Source: OIES

### Fuel oil barges NWE 3.5% crack



Source: OIES



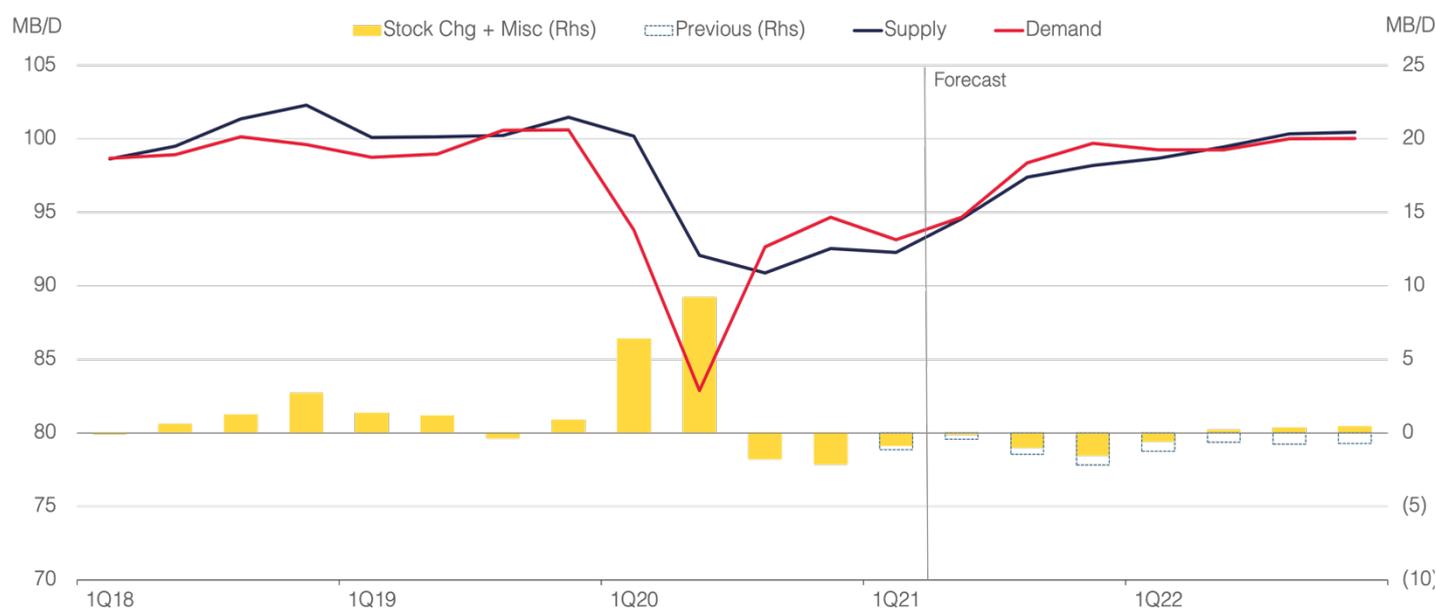
# Outlook

## Global Balance

### Market deficits persist in 2021 but balances on the tightrope in 2022

Market deficits are expected to persist throughout but the market shifts near balance in 2022 as a whole.

#### Global balance



Source: OIES

#### Global balance

MB/D

	Demand	Supply	Balance
<b>2020</b>	91.0	93.9	2.9
± prev	+0.01	-0.01	-0.02
<b>2021</b>	96.5	95.6	(0.9)
± prev	-0.18	+0.27	+0.44
<b>2022</b>	99.6	99.7	0.1
± prev	+0.10	+1.03	+0.93

### We now project the market deficit in 2021 to ease to 0.9 mb/d from 1.3 mb/d

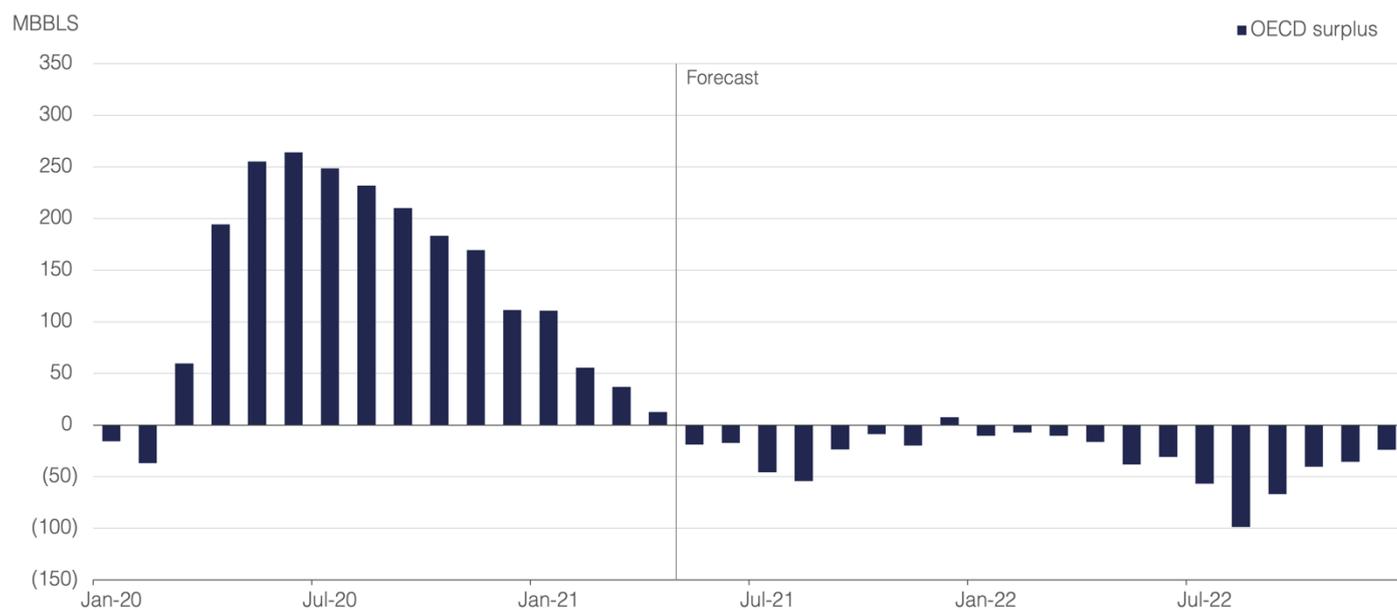
This month our reference forecast assumes the return of Iranian production from July 2021 onwards, with the full return to 3.8 mb/d reached no sooner than Q2 2022. Global balance assumes 100% OPEC+ compliance with the latest output cut deal, that sees the return of 2.14 mb/d of OPEC+ production back into the market in May-July. We assume no immediate return of OPEC+ production after April 2022.

# Outlook

## OECD stock edge closer to their 2015-2019 average

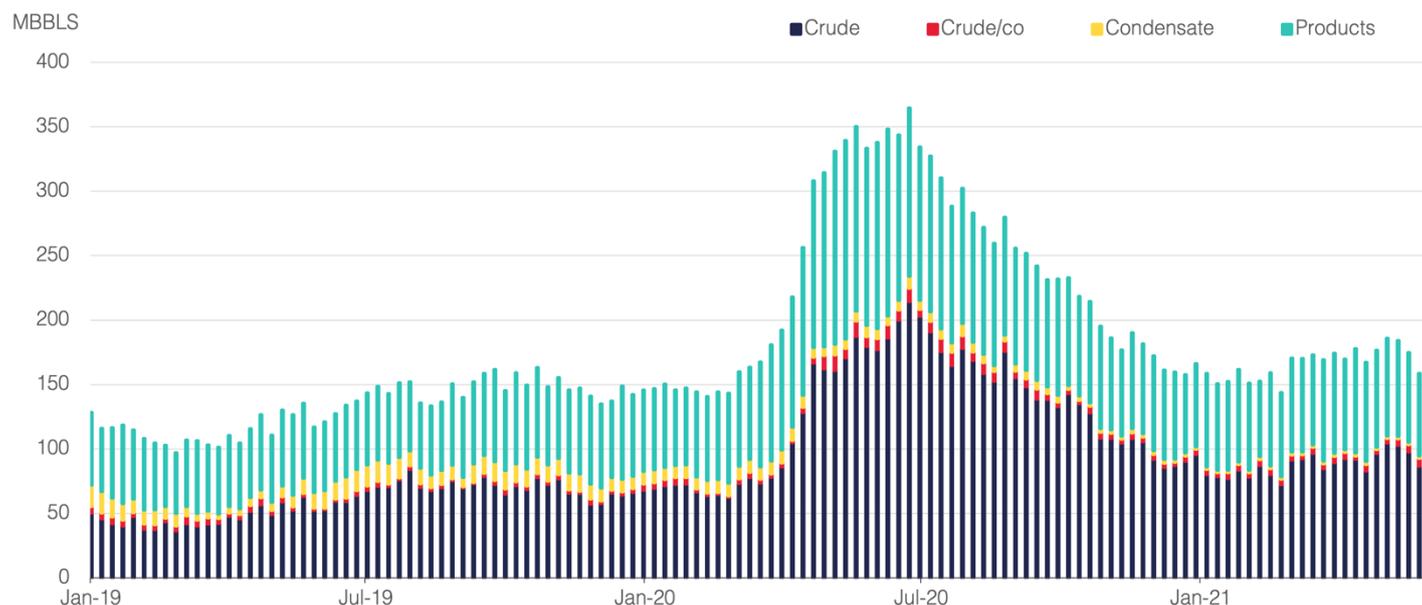
OECD stocks continue to decline with products leading the draws, while it is highly likely to see OECD stocks clearing below their 2015-2019 average in Q2 2021.

### OECD commercial stocks vs 2015-2019 average



Source: OIES

## Global floating storage



Source: Kpler, OIES



# Tables

## Oil prices

	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	Forecasts				
								2Q21	3Q21	4Q21	2021	2022
<b>Price outlook</b>												
USD/b												
Brent price	64.0	50.5	31.4	42.7	44.5	42.3	60.6	67.0	66.1	67.0	65.2	68.7
Brent prospect	64.0	50.5	31.4	42.7	44.5	42.3	60.6	67.1	66.3	68.5	65.6	69.2
<b>Price drivers</b>								<b>Price risks</b>				
USD/b								USD/b				
Geopolitics	2.3	1.3	1.0	-0.8	-2.1	-0.6	-0.7	0.1	1.1	2.9	1.5	3.9
Supply	4.0	-0.6	6.4	8.5	2.6	10.2	4.6	-0.1	-0.1	-0.1	-0.1	-7.8
Demand	-9.0	-8.7	-27.6	6.9	0.9	-21.2	5.7	-0.2	-2.8	-2.7	-2.1	-1.2
Speculative	-5.3	-4.1	1.1	-3.3	0.4	-10.1	6.4	-	-	-	-	-
Balance of risks	-	-	-	-	-	-	-	-0.1	-1.7	0.2	-0.6	-5.0
Brent low	-	-	-	-	-	-	-	66.2	61.9	61.6	62.5	55.3
Brent high	-	-	-	-	-	-	-	67.7	68.6	72.6	67.4	77.1

## Global balance

	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	Forecasts				
								2Q21	3Q21	4Q21	2021	2022
<b>Global balance</b>												
mb/d												
OECD	47.7	45.4	37.6	42.3	43.0	42.1	42.1	44.2	46.3	46.6	44.8	45.9
Non-OECD	52.0	48.4	45.3	50.4	51.7	48.9	51.1	50.4	52.1	53.2	51.7	53.8
Total Demand	99.7	93.8	82.9	92.7	94.7	91.0	93.1	94.7	98.4	99.7	96.5	99.6
(y/y chg.)	0.4	-5.0	-16.1	-7.9	-5.9	-8.7	-0.7	11.8	5.7	5.0	5.5	3.2
OPEC	29.5	28.2	25.6	23.9	25.0	25.7	25.2	25.8	27.5	28.0	26.6	28.7
Non-OPEC	53.8	55.1	49.8	49.4	50.5	51.2	50.9	51.2	52.0	52.6	51.7	53.2
Of which:												
US	12.2	12.7	10.8	10.8	10.9	11.3	10.7	11.2	11.3	11.5	11.2	11.9
Brazil	2.8	3.0	2.9	3.0	2.8	2.9	2.8	3.1	3.1	3.1	3.0	3.2
Canada	4.6	4.7	4.0	4.1	4.6	4.4	4.7	4.3	4.7	4.8	4.6	4.9
Norway	1.4	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.9	2.0	1.8	2.0
Others	32.8	32.9	30.4	29.9	30.4	30.9	30.9	31.0	31.0	31.1	31.0	31.2
<b>Total crude</b>	<b>83.3</b>	<b>83.3</b>	<b>75.4</b>	<b>73.4</b>	<b>75.5</b>	<b>76.9</b>	<b>76.1</b>	<b>77.1</b>	<b>79.5</b>	<b>80.6</b>	<b>78.3</b>	<b>81.9</b>
NGLs	13.6	13.9	13.4	13.6	13.7	13.6	13.3	13.8	13.9	14.0	13.8	14.2
Biofuels/Misc.	3.6	3.0	3.3	3.9	3.4	3.4	2.9	3.7	4.0	3.6	3.6	3.6
Total Supply	100.5	100.2	92.1	90.9	92.5	93.9	92.3	94.6	97.4	98.2	95.6	99.7
(y/y chg.)	0.0	0.1	-8.1	-9.3	-8.9	-6.6	-7.9	2.5	6.5	5.6	1.7	4.1
Global Balance	0.8	6.4	9.2	-1.8	-2.1	2.9	-0.9	-0.1	-1.0	-1.5	-0.9	0.1
Memo:												
OPEC call	28.7	21.8	16.4	25.7	27.2	22.8	26.1	25.9	28.5	29.5	27.5	28.6

**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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