China’s consumption tax: Storm in a teapot?

China’s crackdown on the Shandong teapots—through the imposition of a consumption tax on blendstocks and tighter scrutiny over import quota trading—bodes well for the state-owned refiners. And since it will take as much as 1.5 mb/d of products off the domestic markets, state-owned refiners will need to import more crude while exporting less products. But in the process of the stated-owned refiners regaining market share, both international crude flows and domestic product balances are about to be shaken up.

In a surprise move on 14 May, the Chinese government announced that effective 12 June 2021, it would impose duties on imports of light cycle oil (LCO), mixed aromatics (MA) and bitumen blend. The government has long threatened to crack down on tax evasion through the import of LCO and MA, following intense lobbying by the state-owned refiners (also known as majors) which have lost market share in the process. The teapots and blenders import blendstocks to make off-spec gasoline and diesel and since they escape tax, they are able to sell the blended transport fuels at a discount into the domestic market, thereby displacing the majors’ higher quality but also higher-priced output.

This year not only did the government impose duties on LCO and mixed aromatics, but also added diluted bitumen to the list. The diluted bitumen (or bitumen mixture) has been used to disguise imports of sanctioned crudes from third-party countries, which are favored by teapots (also known as independents) because they are cheaper and free from import quota restraints. In the past, the teapots would have worked around quota restraints by buying import quotas on the local market, but the tax on blendstocks has also coincided with a crackdown on the re-sale of import licenses, limiting the teapots’ ability to source crude.

The taxman is coming

Tax evasion is not new in China—hence the recurring rumors about a tax on blendstock—but this year, a number of factors converged, helping to turn what was often shrugged off as a hollow threat into reality. Every year, China’s state-owned giants, and especially Sinopec, the largest refiner, lobby the government to crack down on tax fraud as they have been losing domestic market share to the teapots, which undercut their product prices. Historically, the majors have exported products—as the teapots do not have export quotas—but with the slump in global demand, the majors have had to store products and limit their outflows. In addition, Sinopec’s pleas resonated with a government that is increasingly concerned about the lost tax revenues due to smuggling—with reports that tax evasion in Northeast China alone is roughly 400 billion yuan ($62.5 billion). The government is also looking to curb pollution in the refining and chemicals sector. Anecdotal reports suggest that Han Zheng, China’s environmental czar, who is taking the lead on implementing China’s 2030-2060 climate pledges (the commitment to peak emissions before 2030 and reach carbon neutrality by 2060) also ordered the Shandong scrutiny with the aim of enforcing these environmental goals. Lastly, the oversupply in the domestic refining system and the start of new greenfield refineries has given Beijing confidence that the crackdown on the independents will not jeopardize supply security.

Fig 1: China imports of mixed aromatics, LCO and diluted bitumen

Source: China customs, OIES
In Focus

imports—which averaged 0.30 mb/d in 2020 and rose to 0.38 mb/d between January and May 2021 (see Figure 1)—have in part displaced domestic gasoil output. Mixed aromatics, on the other hand, are used in gasoline blending, although changes to tax collection practices in 2018 have led to a sharp decline in imports, with refiners now mainly buying MA for chemical use rather than gasoline blending. Some blending still occurs though, and in 2020 imports averaged 0.13 mb/d, having fallen from over 0.20 mb/d in 2016-2017.

Finally, diluted bitumen is a much murkier category that tends to include sanctioned barrels such as Venezuelan Merey, Iranian crude (which has also been mis-categorized as Malaysian crude or fuel oil) and imported crude that is looking to escape quota scrutiny (see Figure 2).

By importing these blendstocks, refiners gain a margin equivalent to the consumption tax and can then sell the blended road fuels at a much lower price than refinery grades, which are taxed at the refinery gate. Imports of LCO and diluted bitumen in particular have surged since the collapse in oil prices in April 2020, when international crude prices plummeted but domestic product prices were not adjusted below $40/b. The guaranteed margins, alongside the low cost of blendstocks and sanctioned crudes, further bolstered the teapots’ and blenders’ margins, at the expense of the state-owned majors. The latest shakeup, that came into effect on 12 June, means that mixed aromatics and LCO will both be taxed at the higher rate of at 1.52 yuan/l ($38/bl – effectively making the tax on LCO more onerous than on diesel) while diluted bitumen will be taxed at Yn1.20/l, or $28/bl.

The short-term impact: a tighter domestic market

When the news of the new tax broke, refiners and blenders increased their stocks of LCO, mixed aromatics and diluted bitumen, hoping to maximise on blending before the tax kicked in. At the same time, concerns about the product shortfall that would ensue sent domestic diesel and gasoline prices surging, coinciding with rising concerns about inflation. In response to strong margins refiners delayed their planned maintenance and raised throughputs, and with Chinese gasoline and diesel prices trading at significant premiums to prices in Singapore, product exports started to fall.

In the coming months, as the dust settles and stocks are drawn, the product market in China is set to tighten. The tax is set to impact over 0.7 mb/d of feedstock and remove around 1 mb/d of diesel and gasoline out of the market. Indeed, LCO inflows are likely to slow reducing the volumes of off-spec gasoil sold on the domestic market, while greater scrutiny on the teapots could also lead to lower runs. When combining the lost LCO-blends as well as a drop in teapot output, the Chinese market could lose around 0.5-0.6 mb/d of distillates. The impact will be less pronounced for gasoline since MA blending and trading has decreased since the tax changes in 2018. But if the Shandong teapots reduce throughputs, this will also lead to lower gasoline production to the tune of around 0.3-0.4 mb/d. Finally, the 0.4 mb/d on average of diluted bitumen imported in the year-to-May has mainly been Venezuelan heavy sour Merey crude, imported through Malaysia and classed as a product to get around quota limits. But from 12 June, it has become unprofitable with an additional $30 per barrel tax, thereby eliminating an important feedstock for the Shandong independents. Venezuelan flows to China are likely to slow, until some other form of re-classification is found, but reduced Venezuelan output could also hurt the Chinese upstream investment in Venezuela.

Shandong shivers

The loss of Venezuelan Merey could lead independent refiners to source other heavy sour crudes such as Canadian Cold Lake and Iraqi Basrah Heavy, but this will require them to use up their import quotas.

Fig 2: Imports from Iran, Venezuela and Malaysia, customs vs tanker tracking (TT)

Source: Kpler, OIES
And since in May the teapots had all but exhausted their first batch of allowances (see Figure 3), the premium on quota trading was rising. The teapots, under normal circumstances, would still import even if they needed to store crude in bonded tanks, reassured that they would receive additional quotas or buy quotas from other refiners. This year, however, the new tax coincided with increased scrutiny on the Shandong independents and quotas are no longer a given. The central government has investigated quota trading—a practice whereby refineries with import quotas run at low capacity or even remain shut, making their profits by reselling the imported crude at a premium. Some state-owned trading firms are involved in this practice and have now been warned to stop doing so. It is estimated that this will starve the independents of around 0.30 mb/d of feedstock, in addition to the loss of diluted bitumen.

Going forward then, the teapots’ ability to trade import quotas and run imported crude in excess of their allowed volumes will be limited. This was already obvious in the second batch of import quotas awarded in June: Even though the Shandong independents received similar volumes to those given in the first two batches of 2020, last year the Shandong independents bought 0.60-0.80 mb/d above and beyond their authorized quotas through third parties’ import rights. Moreover, Shandong province as a whole has received volumes equivalent to 2020, but six independents—Wonfull, Qingyuan, Haiyou, Qingyishan, Zhonghai Jinxi and Yuhuang—received no quotas at all. The Shandong independents can no longer assume that they can buy crude when prices appear low and store it until they receive additional quotas.

Those independents that have stocked up in anticipation of additional quotas will need to decide whether to tap the seaborne market or use their new quotas to clear more crude from onshore storage tanks. Anecdotally, trading companies with crude in storage are anxious to sell rather than continue to pay tank rents. At the same time, much of the crude now in Shandong bonded storage tanks is of Iranian origin, and even though it is hard to prove the origin of crude stored in Chinese tanks after several months, refiners may choose to hold on to these barrels in the hope that US sanctions on Iran will be lifted toward the end of the year. With the state-owned majors now looking to replenish stocks as they plan to raise runs, many of their staple crudes are being bid up; the teapots could therefore limit their exposure to seaborne markets.

But this should not be taken to mean the end of the teapots. Some plants will be forced to shut down, but the larger teapots will find new strategies or new tax loopholes. In the near term, the teapots will import fuel oil as feedstock: while it incurs consumption tax and a 1 per cent import duty (vs 8 per cent applied to diluted bitumen), when running fuel oil as a feedstock refiners can apply for a rebate on the end-product consumption tax.

**Fig 3: Independent refiners’ quotas**

![Fig 3: Independent refiners’ quotas](image)

Source: MOFCOM, Argus, OIES

**Fig 4: Runs by province**

![Fig 4: Runs by province](image)

Source: NBS, OIES
At the same time, the state-owned refiners, mainly Sinopec, stand to benefit (see Figure 4). The majors can raise runs to fill the gap left by the independents, even at the expense of product exports. To make up for the loss of blended products, refiners will need to import more crude as they increase throughputs. What is more, the state-owned majors’ buying spree, as they look for crude with a high gasoil yield such as Middle Eastern crudes, Russian ESPO and Brazilian Tupi, are raising prices and limiting the teapots’ ability to source some of their staple feedstocks, such as Tupi and ESPO. And when China’s majors buy, the ripples are felt globally with tighter sour markets.

A balancing game for the state-owned majors

The short-term response is supportive for crude oil and product markets: China’s state-owned refiners will import more crude and export less products (Figure 5). But as they look to fill the gap left by the independents, there will also be some adjustments to Chinese product balances, and to the majors’ strategies.

For instance, even though China’s state-owned majors can produce more distillates, they have been reducing the diesel yields in favour of gasoline and lighter ends, looking to move with the market trend of greater demand from consumers, rather than industrial use. They will now need to shift yields once again in favour of distillates. As long as margins favour it, they will likely do so, but that could come at the expense of some of their longer-term strategic goals. At the same time, reduced gasoline output—through less MA imports and reduced production in Shandong—means that more low sulphur virgin gasoil from bunkers will need to go into the gasoline pool and the majors, who had sought to capture the growing VLSFO market, will need to balance their appetite for the nascent bunkering market with residue for producing refinery-grade motor fuels. Similarly, naphtha imports could also rise as domestic reformer utilization should increase to make up for lost imports.

All these adjustments will also reverberate in global markets. For one, even though the tax and tighter scrutiny on import quotas will weigh on the independents’ crude purchases and imports of blendstocks, it will spur the majors’ buying activities as they will raise throughputs to make up for the loss of blended products. Overall, China’s imports will therefore be higher than they would have otherwise been. And given that the impact will be felt mainly in distillates (and to a certain extent on asphalt/bitumen), buying will focus on heavier grades and distillate-rich crudes. This, in turn, will be felt most keenly in the Dubai market. So, any slowdown in crude imports later this year will likely be due to a cooling of domestic economic activity rather than the chilling effect of the tax. Finally, product markets will likely breathe a sigh of relief as the expected deluge of product outflows from China will not materialise. Given the loss of domestic output and higher prices, there will be fewer incentives to export gasoline and diesel. But jet outflows, despite weak arbs, could rise as less jet molecules will be blended with LCO, creating a surplus that will only partly be absorbed by the recovery in domestic travel. There will also be some unintended consequences: fuel oil markets could tighten as the teapots import more and the majors produce less, while naphtha imports will rise on higher reformer utilization. And as new trade patterns emerge, new tax loopholes are also likely to appear.

Michal Meidan

Dr. Michal Meidan is Director of the China Energy Programme at the Oxford Institute for Energy Studies. She specializes in China’s macroeconomic and political priorities and their implications for energy markets. Her research covers China and the geopolitics of energy, the energy transition in China as well as short-term developments in the oil and gas markets in China.
Key insights

- **Our reference forecast for Brent is nudged up at $68.7/b in 2021 and $68.9/b in 2022.** Oil prices are expected to remain in the $70/b and $80/b range for the rest of 2021 as global oil demand heads towards a strong second half of the year. But absent any upside surprises, they are seen to retreat to the $65/b and $70/b range in 2022 on the assumption that OPEC+ returns the withheld barrels and Iran ramps up its production in H1 2022. Demand growth remains a wildcard in 2022, but even assuming strong global economic performance, our analysis suggests that the oil price remains confined in the $60/b and $80/b range.

- **Risks to the outlook remain relatively balanced, but downside pressures persist with the OPEC+ deadlock increasing uncertainty on the supply path.** Oil prices remain confined in the $60/b and $80/b range, with new supply pressures keeping the balance of risks into negative territory. Demand risks remain fairly balanced in both years and tilted on the upside, standing at $0.8/b in 2021 and $1.7/b in 2022.

- **Global oil demand growth in 2021 is upgraded to 5.7 mb/d and to 3.2 mb/d in 2022.** Global oil demand heads to a strong second half of the year, with the demand rebound in the US, Europe and China taking over the growth baton, as other non-OECD consumers continue to underperform with slow vaccination progress. By Q4 2021, global oil demand is expected to rise to -0.8 mb/d below Q4 2019 levels, from -5.6 mb/d in Q2 2021.

- **Global oil supply growth is upgraded to 2.1 mb/d in 2021 and 6.3 mb/d in 2022.** The gradual easing of OPEC+ cuts amid the return of Iranian production are seen increasing supplies into 2022. Non-OPEC supply growth in 2021 remains modest, before gaining some momentum in 2022 with the US leading the growth.

- **Market deficits persist in 2021 by -0.7 mb/d, before the market flips into a 2.4 mb/d surplus in 2022.** This highlights the importance of OPEC+ balancing role, as OPEC+ supply management remains crucial to market dynamics.
Global oil demand heads towards a strong second half of the year

The global demand rebound is expected to accelerate sharply in Q3 by more than 3 mb/d q/q, recording the largest quarterly increase since Q3 2020 (+9.7 mb/d).

Global oil demand is set to grow by 5.7 mb/d in 2021 and 3.2 mb/d in 2022

Following a strong demand rebound in June by 2.5 mb/d m/m, we expect demand for transport fuels and other liquids linked to higher economic activity to continue driving the boost in July and August with overall products demand forecast to grow m/m by 1.6 mb/d and 0.9 mb/d, respectively.
Oil demand in Q4 rises to -0.8 mb/d below Q4 2019, from -5.6 mb/d in Q2

The demand rebound in the US, Europe and China takes over the growth baton, as other non-OECD continue to underperform with slow vaccination progress.

Global oil demand by region vs Dec 19

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

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China’s economic momentum is starting to lose steam

But for now, oil demand data continue to show strength, distorted, in part by large imports of blendstocks ahead of the 12 June consumption tax.

China implied product demand

![Graph showing China's oil demand](image)

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

China oil demand (MB/D)

| Year | Total | Y/Y | vs 4Q19
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>2020</td>
<td>13.3</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>2021</td>
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<td>0.9</td>
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<tr>
<td>2022</td>
<td>14.9</td>
<td>0.7</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>± prev</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

China’s product demand growth is upgraded to 0.9 mb/d in 2021

Macroeconomic data in May came in weaker than expected due to port disruptions following a COVID-19 flare up, power outages and chip shortages. Supply disruptions could continue in the coming months, but consumption could pick up with the ongoing vaccination programme.
Outlook

Imports weakened due to planned maintenance and limited import quotas

But with strong domestic margins ahead of the new consumption tax, refiners delayed maintenance and drew down stocks.

China crude imports

![China crude imports chart]

Source: China customs, OIES

China implied stocks

![China implied stocks chart]

Source: China customs, OIES
Refinery runs dominated by the majors

Independents received another round of import quotas, but inspections will weigh suggesting that the state-owned majors will drive imports/runs, over product exports.

**China refinery runs**

![Graph showing refinery runs from January 2017 to December 2021.](image)

Source: NBS, OIES

**China product exports**

![Graph showing product exports from January 2016 to January 2021.](image)

Source: China customs, OIES
India demand picks up in June after plunging in May

India’s demand is expected to rebound to pre-pandemic levels ending-2021, but downside risks persist with the slow vaccination rate aggravated by rising retail prices.

India implied product demand

![Graph showing India's oil demand trend]

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

### India oil demand

<table>
<thead>
<tr>
<th>Year</th>
<th>Total MB/D</th>
<th>Y/Y</th>
<th>vs 4Q19(^1)</th>
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</thead>
<tbody>
<tr>
<td>2020</td>
<td>4.5</td>
<td>(0.5)</td>
<td>0.0</td>
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<tr>
<td>± prev</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
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<tr>
<td>2021</td>
<td>4.8</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>± prev</td>
<td>+0.06</td>
<td>+0.06</td>
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</tr>
<tr>
<td>2022</td>
<td>5.3</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>± prev</td>
<td>+0.02</td>
<td>-0.05</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Compared to Q4 in each year.

India’s product demand growth in 2021 is forecast at 0.28 mb/d

Oil demand in India recovered strongly in June after declining sharply in May but it is still below June 2019 level. India’s oil demand is expected to recover to pre-pandemic level by end of this year.
India’s crude imports and refinery runs to gradually resume

Refiners are expected to ramp up throughput as restrictions ease and the demand recovery is underway, pushing imports higher in the coming months.

India crude imports

Source: PPAC, OIES

India refinery runs

Source: PPAC, OIES
OPEC+ and Iran lift the supply outlook, with ample supplies in 2022

The gradual easing of OPEC+ cuts amid the return of Iranian production and higher US shale activity are seen increasing supplies in 2022.

Global oil supply

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Y/Y</th>
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<tr>
<td>2020</td>
<td>93.9</td>
<td>(6.7)</td>
<td>(9.1)</td>
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<td>+0.01</td>
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<tr>
<td>2021</td>
<td>96.0</td>
<td>2.1</td>
<td>(2.2)</td>
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<tr>
<td>± prev</td>
<td>+2.56</td>
<td>+2.14</td>
<td></td>
</tr>
</tbody>
</table>

¹ Compared to December in each year.

Global supply growth is upgraded to 2.1 mb/d in 2021 and 6.3 mb/d in 2022

Our reference case considers the return of 2 mb/d of OPEC+ production between August and December 2021 and the further gradual return of the remaining barrels under the current agreement by the end of 2022. The forecast also assumes the return of Iranian production to 3.6 mb/d by the end of Q2 2022.
OPEC+ impasse leaves the market second-guessing

The current cycle was characterised by OPEC+ producers’ success to reach compromises, but the latest impasse increases the uncertainty about the supply path.

OPEC supply

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

The call on OPEC crude in 2021 stands at 27.4 mb/d and at 28.2 mb/d in 2022

OPEC+ supply path has become more uncertain. Unlike March 2020, there is an agreement in place until April 2022. A disorderly exit from the current deal is highly improbable.
OPEC+ high compliance persists

OPEC+ continues to record high compliance especially as some producers have hit maximum capacity.

**OPEC+ output compliance**

![Chart showing OPEC+ output compliance]

Source: OIES

**OPEC+ over/under production**

![Chart showing OPEC+ over/under production]

Source: OIES
Supply management remains crucial well into 2022

A gradual, cautious and flexible approach to easing OPEC+ cuts provides the lowest volatile path for OPEC+.

OPEC+ output scenarios impact on Brent

Notes: Baseline case assumes the default position; Disorderly exit case assumes that the deal is resolved altogether in 2021; Gradual exit case assumes the gradual easing of the entire OPEC+ cuts throughout 2021/2022. Source: OIES

OPEC+ output scenarios impact on balances

Notes: Baseline case assumes the default position; Disorderly exit case assumes that the deal is resolved altogether in 2021; Gradual exit case assumes the gradual easing of the entire OPEC+ cuts throughout 2021/2022. Source: OIES
Slow progress in nuclear talks delays the Iranian return

We now see Iranian production recovering to near its pre-shock levels reaching to 3.6 mb/d by Q2 2022.

OPEC geopolitical supply disruptions

Source: OIES

Iran oil exports and production

Source: Kpler, TankerTrackers, OIES

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Non-OPEC supply growth gains some momentum in 2022

Despite oil prices gaining sharply, non-OPEC supply growth in 2021 is expected to remain modest but will gain in 2022 with the US leading the growth.

Non-OPEC supply

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Y/Y</th>
<th>US Y/Y</th>
<th>Canada Y/Y</th>
<th>Brazil Y/Y</th>
<th>Norway Y/Y</th>
<th>Other non-OPEC Y/Y</th>
<th>Non-OPEC Y/Y</th>
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<td>-0.01</td>
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<td>2021</td>
<td>51.9</td>
<td>11.2</td>
<td>0.7</td>
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<td>2022</td>
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<td>0.65</td>
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<td>+0.46</td>
<td>+0.04</td>
<td>+0.09</td>
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</tr>
</tbody>
</table>

Notes: Crude oil only. Source: OIES

Non-OPEC supply is seen growing by 0.7 mb/d in 2021 and 1.9 mb/d in 2022

US production returns to growth in 2022 rising by 0.79 mb/d and leading non-OPEC growth, followed by Canada, that increases by 0.21 mb/d y/y. Outside North America and non-OPEC+, gains in Brazil (0.11 mb/d) and Norway (0.1 mb/d) are offset by declines elsewhere.
US shale recovery has been slower than previous cycles

US shale production is seen contracting by 0.33 mb/d y/y in 2021, before recovering by 0.77 mb/d next year but remaining nearly 0.5 mb/d below 2019 levels exit-2022.

**US shale drilling activity by play**

![Graph showing RIG COUNT by play from Jan-10 to Jan-22](Source: EIA, OIES)

**US shale production by play**

![Graph showing MB/D by play from Jan-10 to Jan-22](Source: EIA, OIES)
US recovery will strengthen in 2022

US supply is recovering at a slow and cautious pace and is still expected to contract by 0.1 mb/d in 2021, before rebounding by 0.79 mb/d in 2022.

US drilling activity

![Graph showing US drilling activity over time.](image)

Source: Baker Hughes, OIES

US supply

![Graph showing US supply over time.](image)

Notes: Crude oil only. Source: EIA, OIES

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Canada remains at the forefront of non-OPEC supply growth in 2021

Canadian production is set to resume strongly in H2 to drive non-OPEC supply growth in 2021 as a whole by 0.3 mb/d, while production elsewhere struggles.

Canada supply

Source: Baker Hughes, OIES

Non-OPEC supply outside NAM

Source: Baker Hughes, OIES
Outlook

Price Outlook

Oil price gains momentum in H2 2021 but retreats in 2022

Oil prices are expected to remain in the $70/b and $80/b range in 2021, but absent any upside surprises they are seen retreating in the mid-to-high $60s in 2022.

Brent price outlook

Source: OIES

Our Brent price forecast is upgraded to $68.7/b in 2021 and $68.9/b in 2022

Brent is expected to remain in the $70/b and $80/b range for the rest of 2021 as global oil demand heads towards a strong H2. But absent any upside surprises, they are seen to retreat to the $65/b and $70/b range in 2022 on the assumption that OPEC+ returns the withheld barrels and Iran ramps up its production in H1 2022.

Key assumptions

<table>
<thead>
<tr>
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<tbody>
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<td>Geopolitics</td>
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<td>VEN MB/D</td>
<td>0.54</td>
<td>0.60</td>
</tr>
<tr>
<td>LBY MB/D</td>
<td>1.15</td>
<td>1.22</td>
</tr>
<tr>
<td>Supply</td>
<td>OPEC+</td>
<td></td>
</tr>
<tr>
<td>%, Compliance</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Demand</td>
<td>GDP²</td>
<td></td>
</tr>
<tr>
<td>%, Y/Y</td>
<td>6.4</td>
<td>4.6</td>
</tr>
</tbody>
</table>

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

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Risks remain relatively balanced, but downside pressures persist

Oil prices remain confined in the $60/b and $80/b range, with downside supply risks increasing on the uncertainty of OPEC+ next steps.

**Balance of risks**

The balance of risks influenced by OPEC+ next steps, with risks mounting to the downside

On balance, the risks around our outlook are slightly skewed on the downside, with supply side pressures building in both years and pushing the balance into negative territory 2021 and in 2022.
Product margins improve, but recovery is uneven

Overall product margins appear somewhat improved, with the strong demand rebound in H2 expected to boost cracks down the curve.

**European gasoline (Ebob) cracks**

<table>
<thead>
<tr>
<th>Month</th>
<th>3 Jul-21</th>
<th>10.35</th>
<th>(0.95)</th>
<th>7.10</th>
<th>(10.57)</th>
</tr>
</thead>
<tbody>
<tr>
<td>± end-May</td>
<td>+0.35</td>
<td>+1.80</td>
<td>-0.50</td>
<td>+1.08</td>
<td></td>
</tr>
<tr>
<td>2 Aug-21</td>
<td>10.70</td>
<td>(1.15)</td>
<td>8.05</td>
<td>(10.46)</td>
<td></td>
</tr>
<tr>
<td>± end-May</td>
<td>+0.70</td>
<td>+1.80</td>
<td>-0.25</td>
<td>+0.44</td>
<td></td>
</tr>
<tr>
<td>3 Sep-21</td>
<td>10.00</td>
<td>(1.25)</td>
<td>8.00</td>
<td>(10.62)</td>
<td></td>
</tr>
<tr>
<td>± end-May</td>
<td>+0.75</td>
<td>+1.85</td>
<td>+0.15</td>
<td>-0.02</td>
<td></td>
</tr>
</tbody>
</table>

Source: OIES

Gasoline and naphtha cracks lead the recovery

Gasoline cracks find support from the peak of the driving season, but more restrictions in places such as Indonesia have capped the gains. In naphtha, strong European crackers demand has narrowed the East-West spread, closing the arbitrage and tightening the Asian market just as the region’s steam crackers are returning from maintenance and new units are coming online.

1 NWE as they appear on the graphs. OIES estimates.
Jet cracks ease

Higher refinery runs continue to cap distillate cracks in spite of signs of a pickup in short-haul air travel.

European naphtha CIF NWE cracks

Jet CIF NWE swap diffs to gasoil

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**Outlook**

**FO cracks need a boost**

FO cracks have recovered from May lows and may continue to strengthen with potential demand increase from the power sector in the Middle East and South Asia.

**Gasoil CIF NWE / Brent crack**

![Graph of Gasoil CIF NWE / Brent crack](source: OIES)

**Fuel oil barges NWE 3.5% crack**

![Graph of Fuel oil barges NWE 3.5% crack](source: OIES)
Market deficits to persist in 2021 before flipping into surplus in 2022

Despite OPEC+ production finding its way back into the market, market deficits remain large in 2021 but surplus pressures build anew in 2022.

Global balance

We now project a 0.7 mb/d market deficit in 2021 and a 2.4 mb/d surplus in 2022

Assuming OPEC+ eases its cuts in 2021 and 2022 and Iran ramps up its production in the first half of 2022, the market will shift to a surplus next year, but the expected strong demand rebound in H2 2021 will keep the market in deficit in 2021.
Another challenging year ahead

Balances in 2022 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.

**Iran no-deal scenario impact on balances**

Notes: The *Iran no-deal scenario* assumes that the nuclear discussions reach a deadlock and the Iranian sanctions are not lifted with Iran supplies failing to make a material comeback before 2023. Source: OIES

**High demand scenario impact on balances**

Notes: The *high demand scenario* sees global growth rising to 6.7% in 2021 from 6.3% under our reference case and by 5.8% from 4.6% in 2022. Source: OIES
OECD stocks clear below their 2015-2019 average

OPEC+ target is achieved but projected surpluses in 2022 push OECD stocks marginally above 2015-2019 average indicating importance of OPEC+ balancing role.

OECD commercial stocks vs 2015-2019 average

Global floating storage

Source: Kpler, OIES
## Oil prices

<table>
<thead>
<tr>
<th>Price outlook</th>
<th>2019</th>
<th>1Q20</th>
<th>2Q20</th>
<th>3Q20</th>
<th>4Q20</th>
<th>2020</th>
<th>1Q21</th>
<th>2Q21</th>
<th>3Q21</th>
<th>4Q21</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brent price</td>
<td>64.0</td>
<td>50.5</td>
<td>31.4</td>
<td>42.7</td>
<td>44.5</td>
<td>42.3</td>
<td>60.6</td>
<td>68.6</td>
<td>73.6</td>
<td>71.9</td>
<td>68.7</td>
<td>68.9</td>
</tr>
<tr>
<td>Brent prospect</td>
<td>64.0</td>
<td>50.5</td>
<td>31.4</td>
<td>42.7</td>
<td>44.5</td>
<td>42.3</td>
<td>60.6</td>
<td>68.6</td>
<td>73.6</td>
<td>71.9</td>
<td>68.7</td>
<td>68.9</td>
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</table>

<table>
<thead>
<tr>
<th>Price drivers</th>
<th>Price risks</th>
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<tbody>
<tr>
<td>USD/b</td>
<td>USD/b</td>
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<tr>
<td>Geopolitics</td>
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<td>Supply</td>
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<tr>
<td>Demand</td>
<td>-9.0</td>
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<tr>
<td>Speculative</td>
<td>-5.3</td>
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<tr>
<td>Balance of risks</td>
<td>-0.3</td>
</tr>
<tr>
<td>Brent low</td>
<td>-</td>
</tr>
<tr>
<td>Brent high</td>
<td>-</td>
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## Global balance

<table>
<thead>
<tr>
<th>Global balance</th>
<th>Forecasts</th>
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<tr>
<td>2019</td>
<td>1Q20</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
</tr>
<tr>
<td>Total Demand</td>
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<tr>
<td>(y/l chg.)</td>
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<tr>
<td>OPEC</td>
<td>29.6</td>
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<tr>
<td>Non-OPEC</td>
<td>53.8</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>12.2</td>
</tr>
<tr>
<td>Brazil</td>
<td>2.8</td>
</tr>
<tr>
<td>Canada</td>
<td>4.6</td>
</tr>
<tr>
<td>Norway</td>
<td>1.4</td>
</tr>
<tr>
<td>Others</td>
<td>32.8</td>
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<tr>
<td>Total crude</td>
<td>83.5</td>
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<tr>
<td>NGLs</td>
<td>13.6</td>
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<td>Biofuels/Misc.</td>
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<tr>
<td>Total Supply</td>
<td>100.6</td>
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<tr>
<td>(y/l chg.)</td>
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<td>Global Balance</td>
<td>1.0</td>
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<tr>
<td>Memo:</td>
<td>OPEC call</td>
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</tbody>
</table>

### 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.