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Short-Term Oil Market Outlook: Prospects, Risks and Uncertainty

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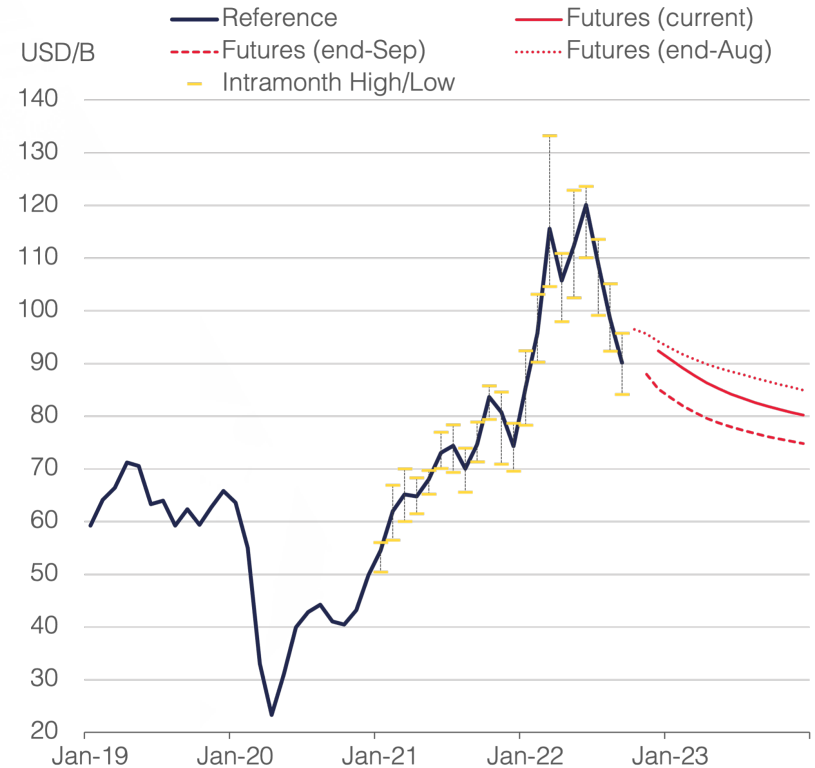
Oxford UK, 17 October 2022



Volatility is the name of the game

- Volatility, uncertainty (and confusion!)
- Market torn between a bullish micro-oil story and a bearish macro story
- Exacerbated by potential government intervention that could have big impact on oil market dynamics (price caps, embargoes, restrictions of products exports, additional release of stocks from SPR) and macro policy (aggressive tightening of monetary policy)
- Volatility also reflects tightness in some market segments (refining constraints; low diesel stocks)

Brent price

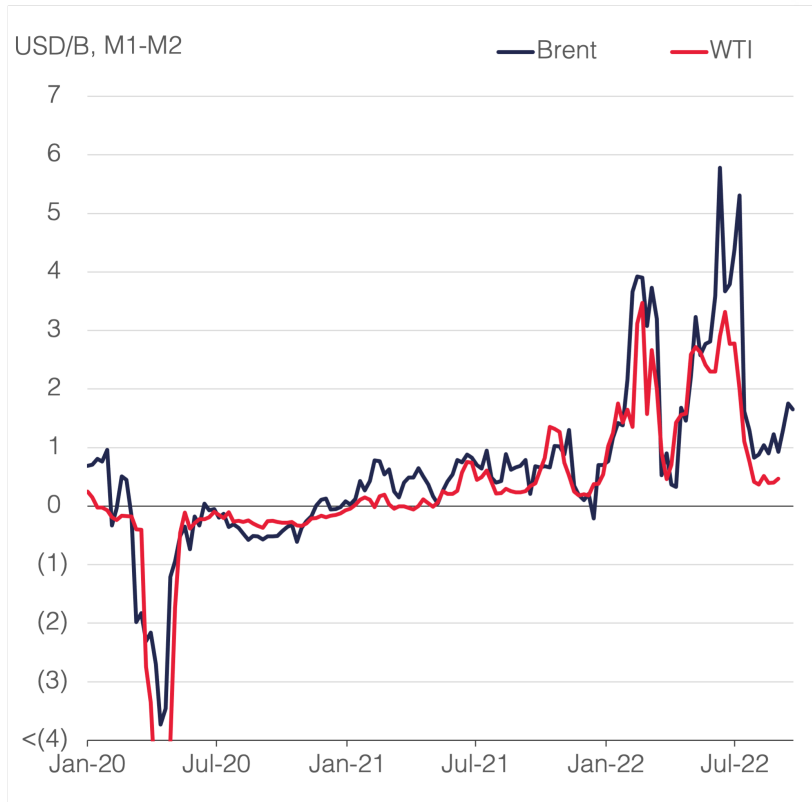


Notes: Brent price.
Source: OIES



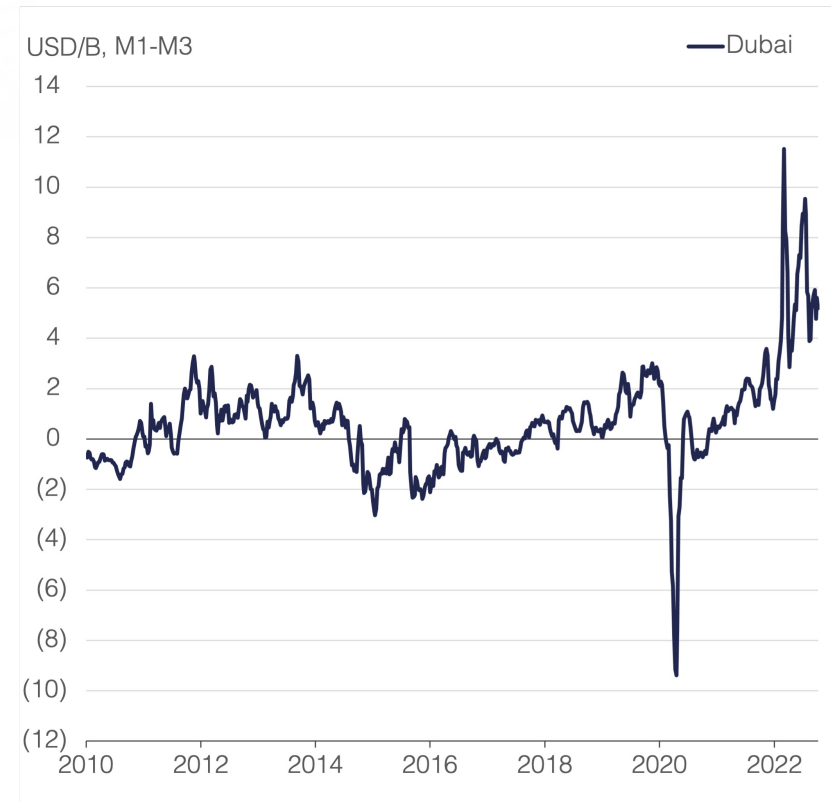
Volatility not limited to price levels but also to spreads

Brent and WTI, M1-M2



Source: Argus

Dubai, M1-M3



Source: Argus

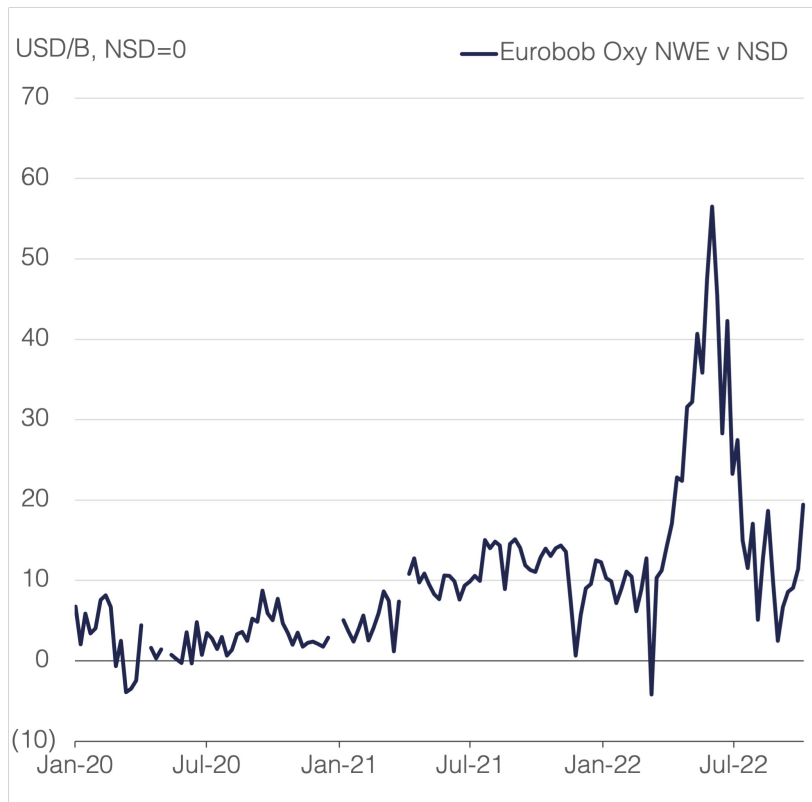
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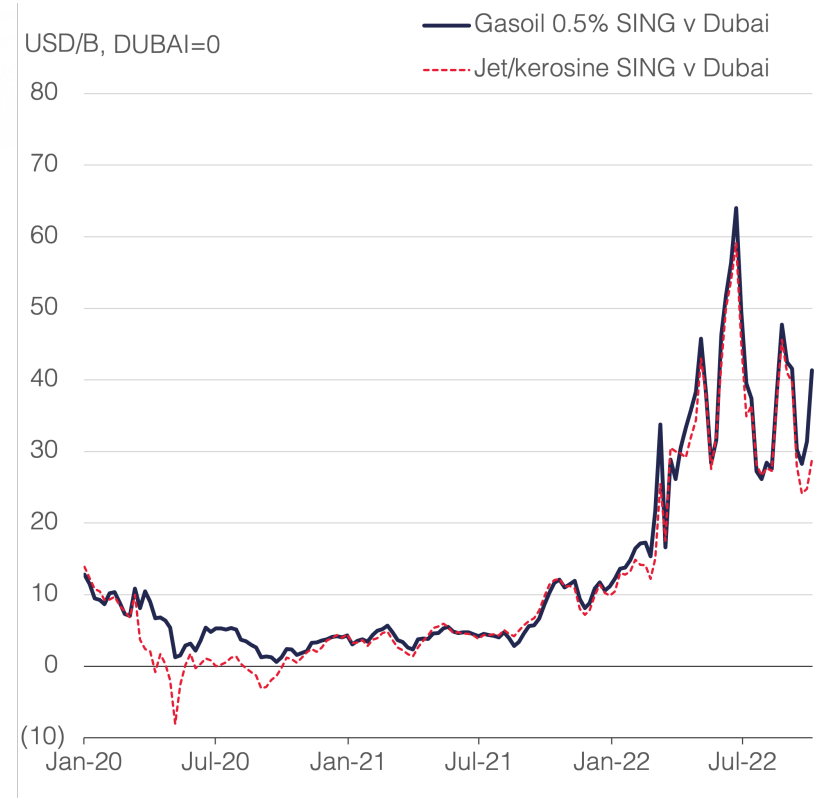
Volatility in products cracks

Gasoline margins NWE



Source: Argus

Gasoil/Diesel and jet margins SING



Source: Argus

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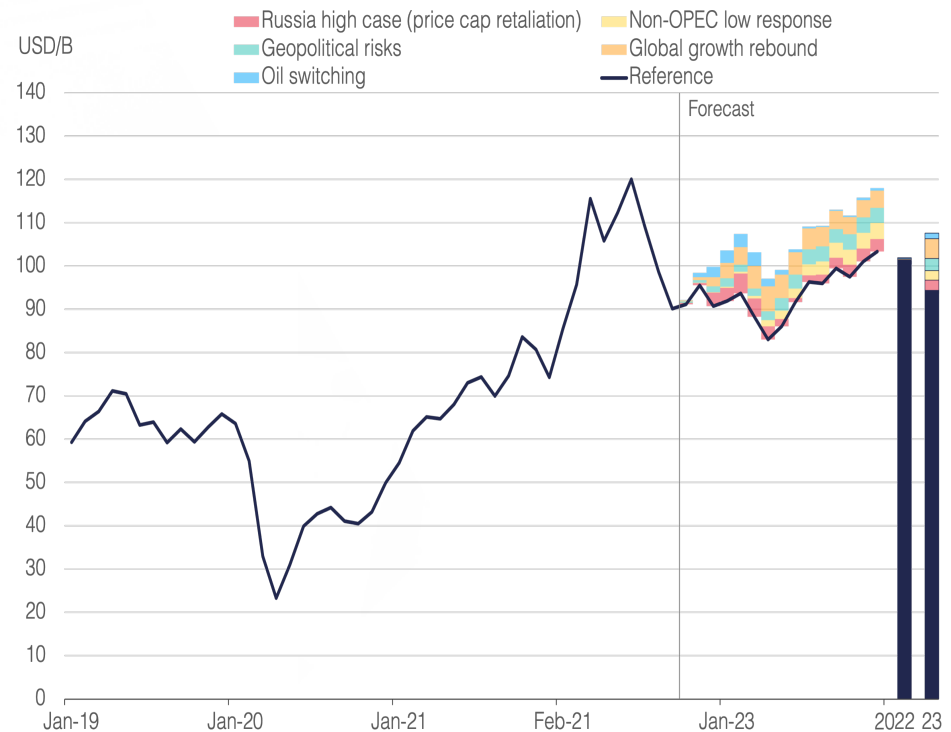
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Key elements of the micro-oil story

- Expectations of larger Russian crude and products disruptions as EU embargoes come into force
- End of crude stock releases from SPR
- OPEC+ will balance the market
- Moderate non-OPEC supply growth
- Geopolitical risks outside Russia (e.g, Libya, Iran, Nigeria)
- Low buffers in the system: Limited spare capacity; stocks well below the 5-year average (particularly products)
- Gas-to-oil substitution supporting demand

Decomposition of upside risks



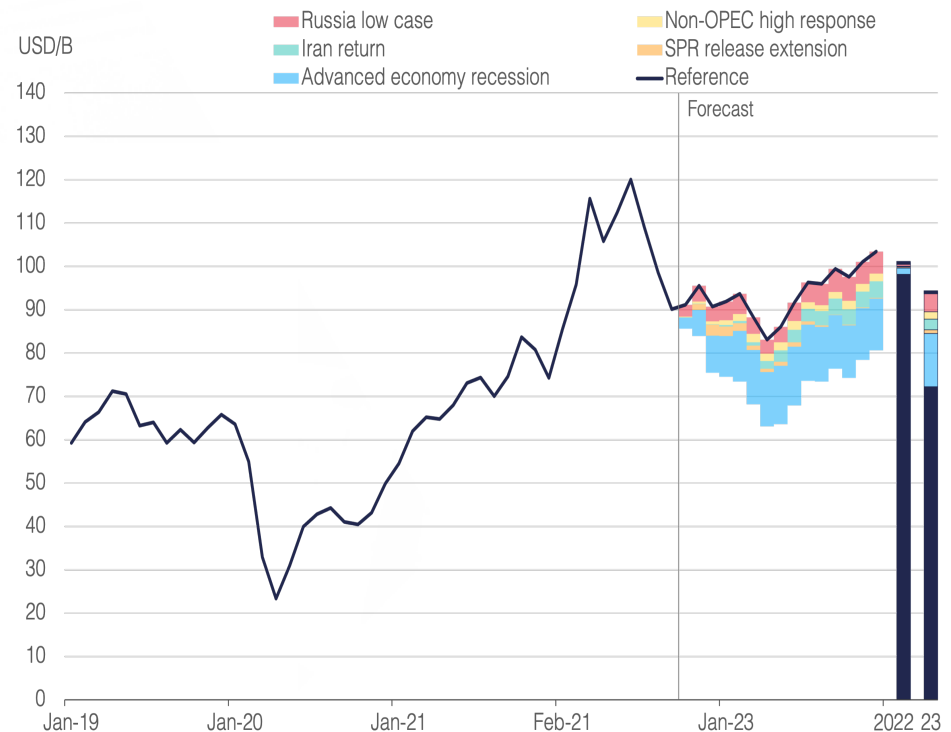
Notes: Brent price.
Source: OIES



Key elements of the macro story

- Global economic recession with big negative impact on oil demand
- Depth and duration of the recession
- No signs that China will alter its zero COVID-policy anytime soon
- Micro-oil factors (limited Russian supply disruption; continued release of stocks from SPR; high US shale response; until recently potential full return of Iran oil supplies)

Decomposition of downside risks



Key Factors Shaping Market Expectations I: Russian Disruption

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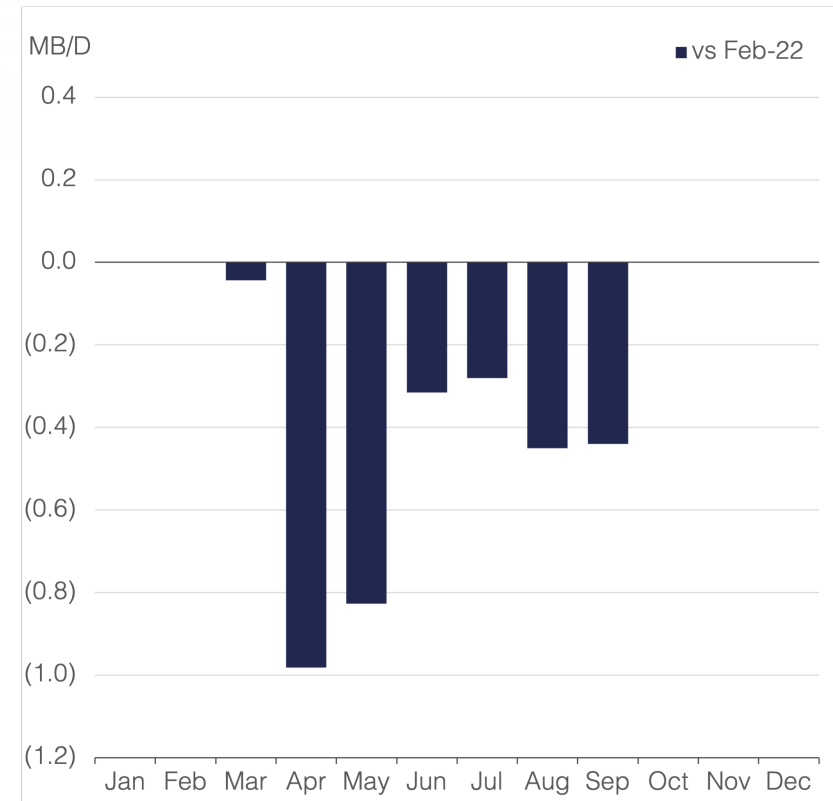




Prospects of Russian supply key factor

- Prospects of Russian supply disruption a key factor shaping expectations
- Disruption limited so far and well below initial expectations at the start of the Russia-Ukraine war (around 400,000 b/d)
- Ability to redirect crude exports away from Europe to other parts of the world (e.g., Asia, Med)
- Through offering discounts and easier payment conditions
- Services and logistics not acting as constraint so far (shipping, insurance)

Russian crude supply disruptions

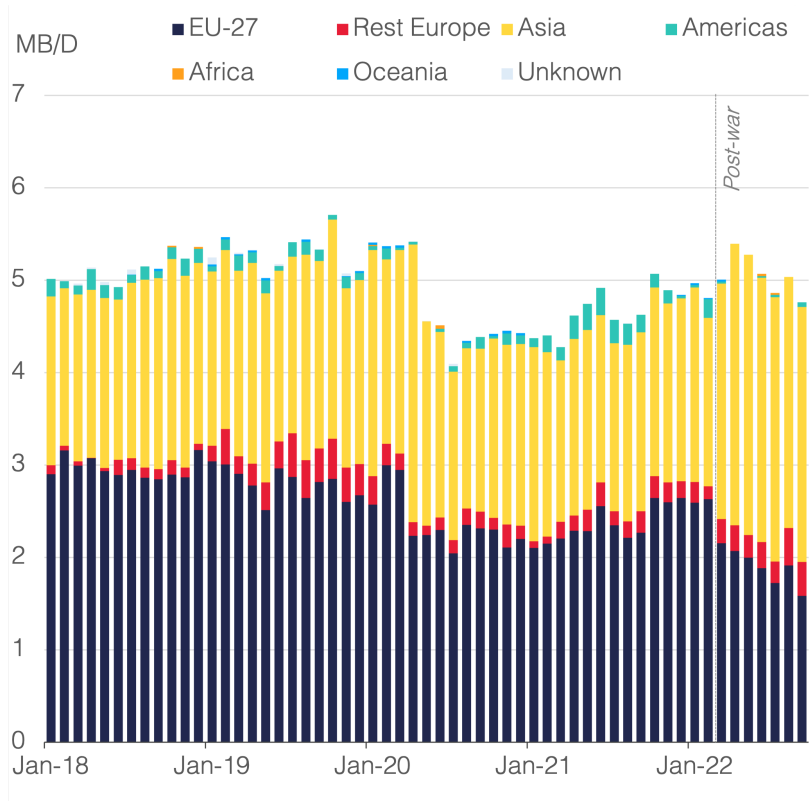


Source: OIES



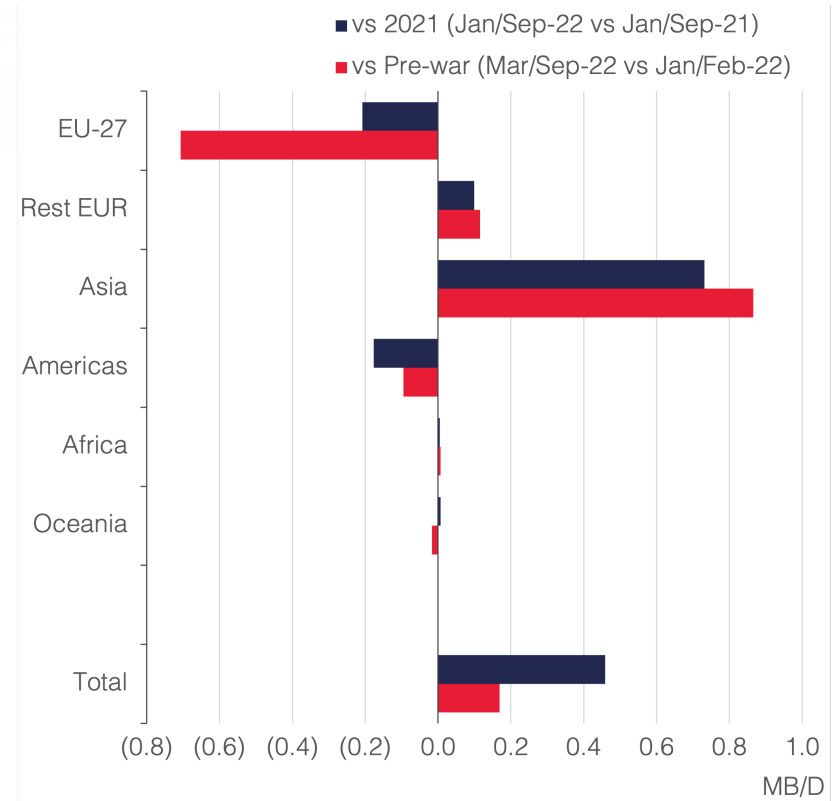
Crude exports are above pre-war levels

Russia crude exports by destination



Source: Argus, Kpler, OIES

Russia crude oil export shifts

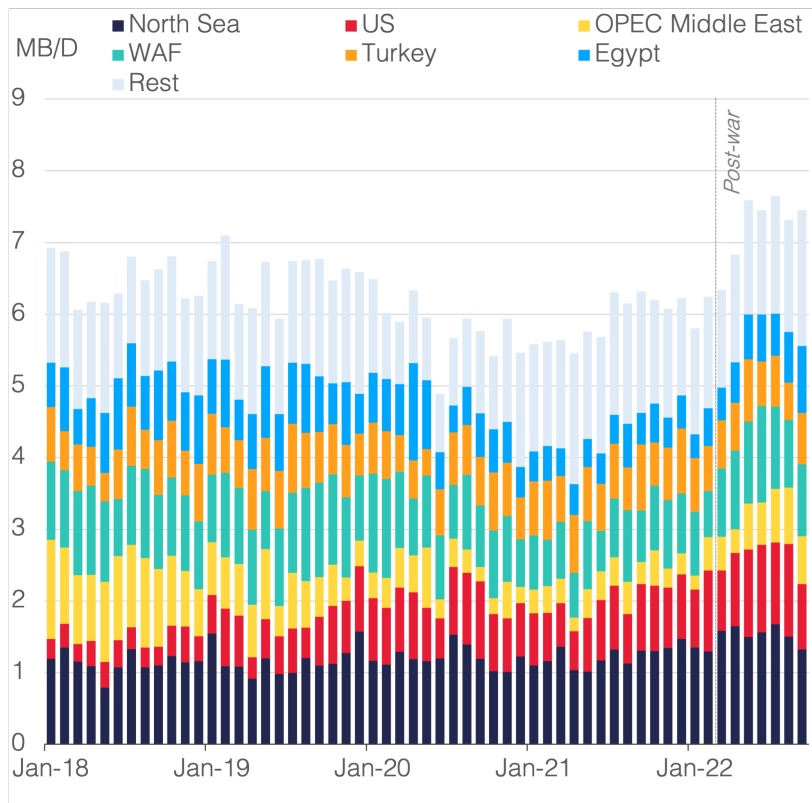


Source: OIES



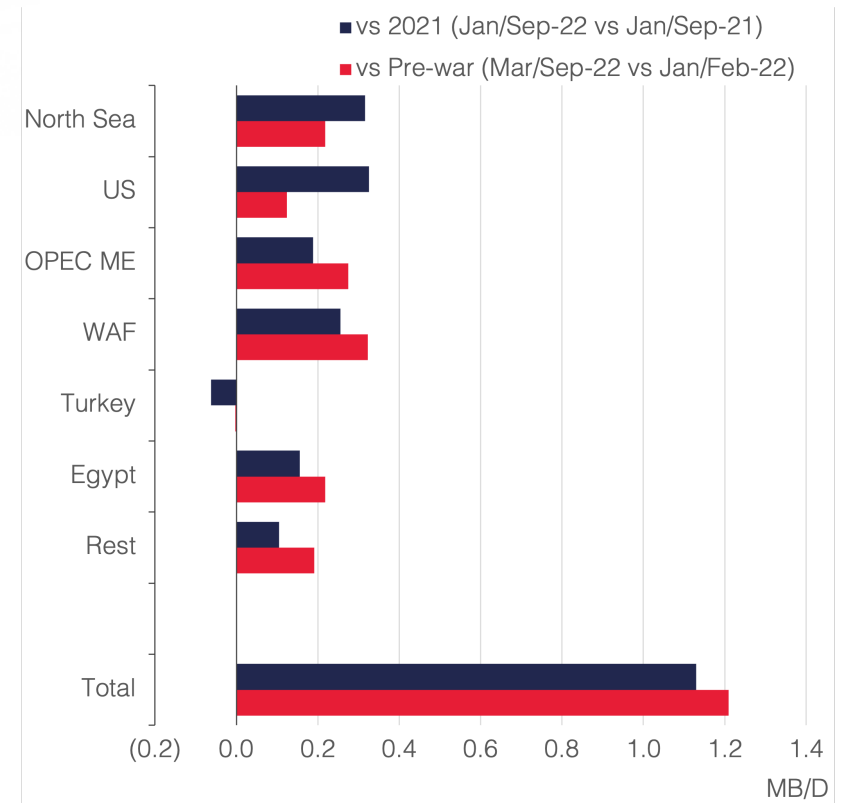
Alternative sources to cover loss of Russian supplies

EU-27 crude oil imports excl. Russia



Source: Kpler

EU-27 crude oil import shifts excl. Russia

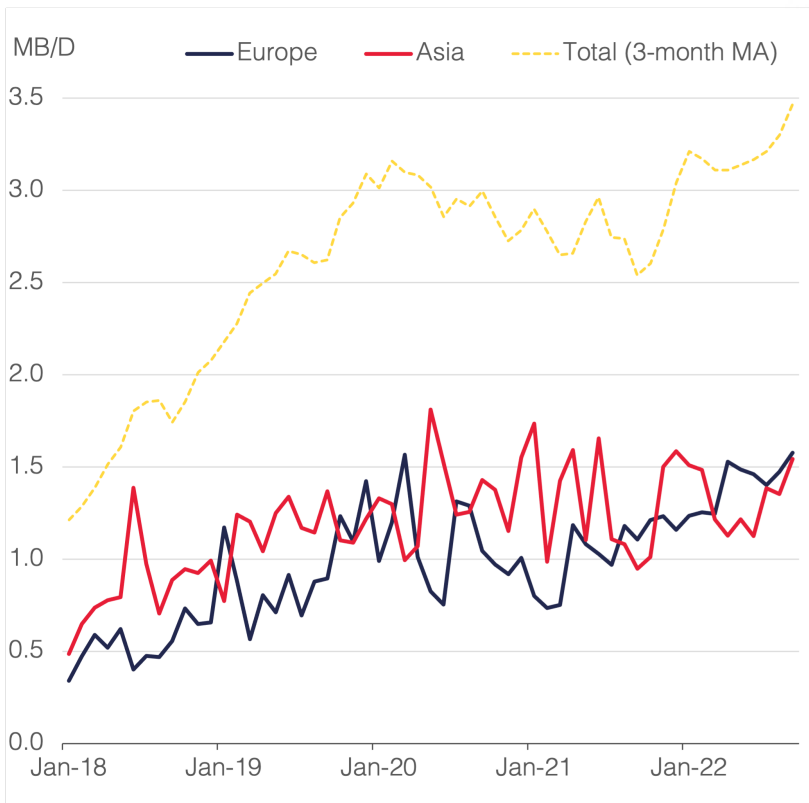


Source: Kpler, OIES



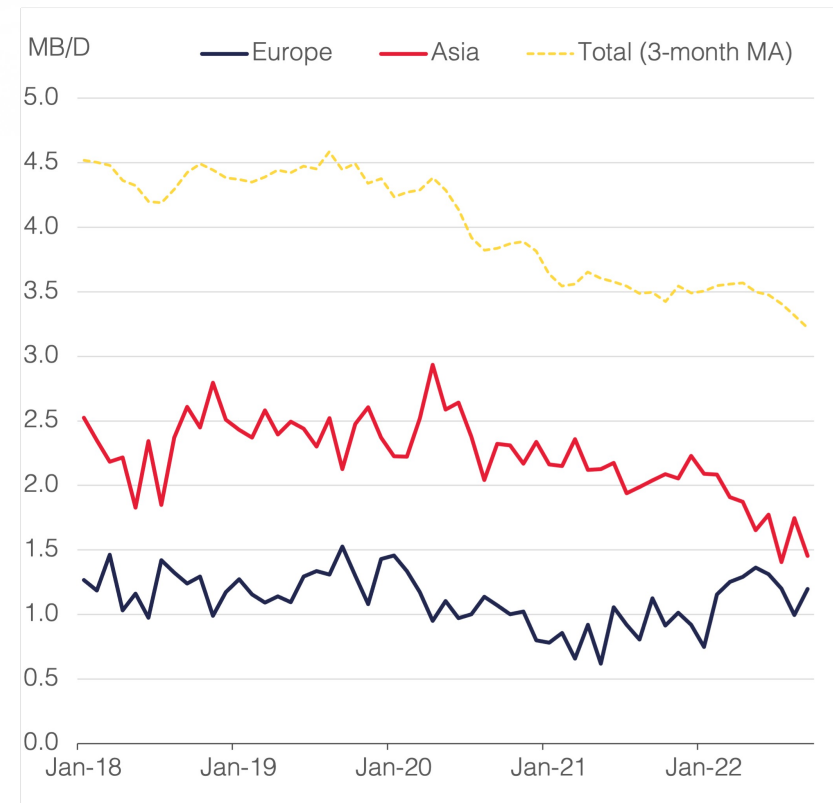
Filling the Russian crude gap

US crude exports to Europe and Asia



Source: Kpler, OIES

WAF crude exports to Europe and Asia

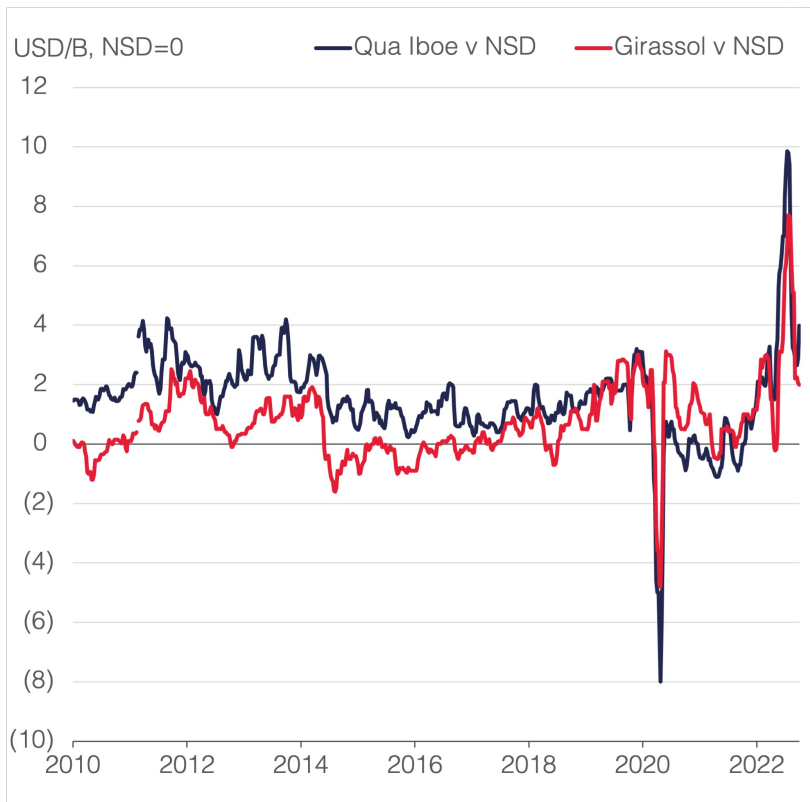


Source: Kpler, OIES



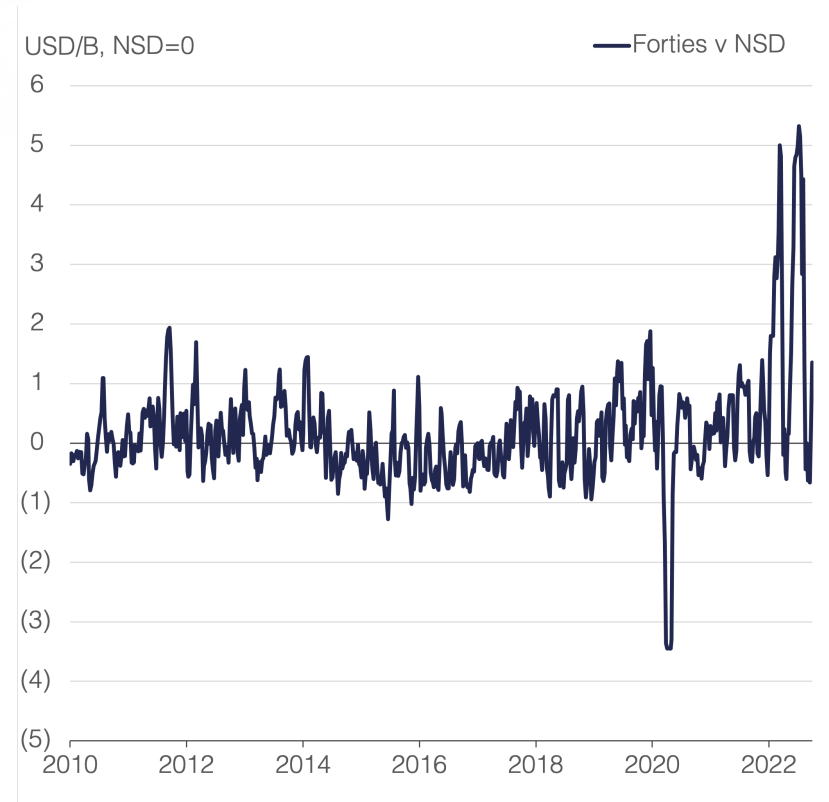
Reflected in sharp movements in differentials

WAF grades v North Sea Dated



Source: Argus

Forties v North Sea Dated



Source: Argus

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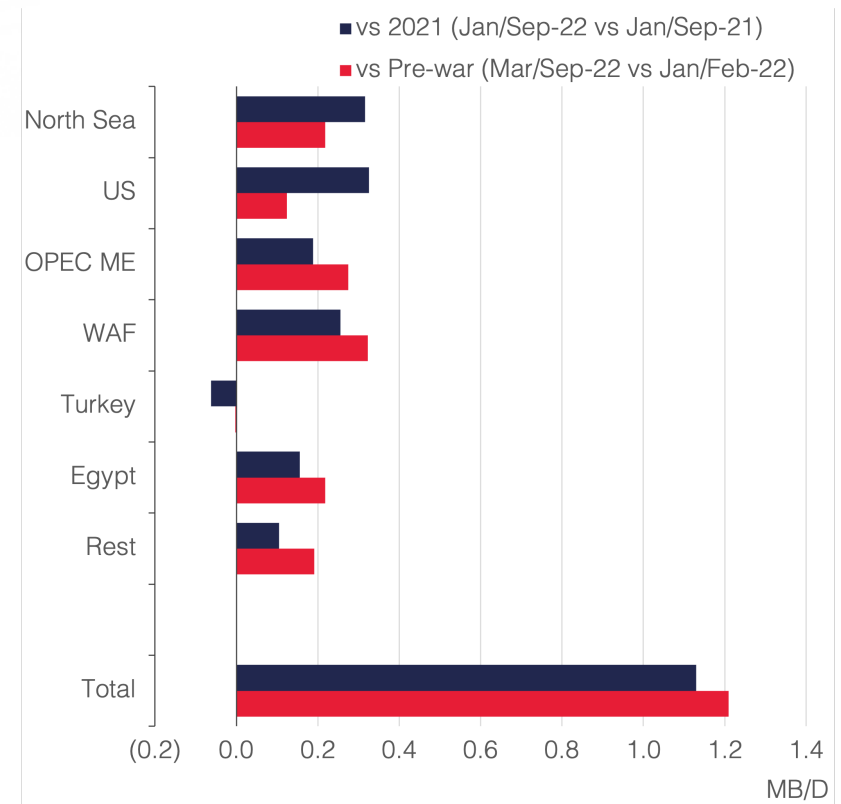
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Quality of EU crude imports changing

- European imports of medium/light sweet increased shifting the mix away from medium sour
 - Diesel cracks higher
 - Cost of desulfurization increased as gas prices increased
 - Imports of Russian Urals fallen

EU-27 crude oil import shifts excl. Russia

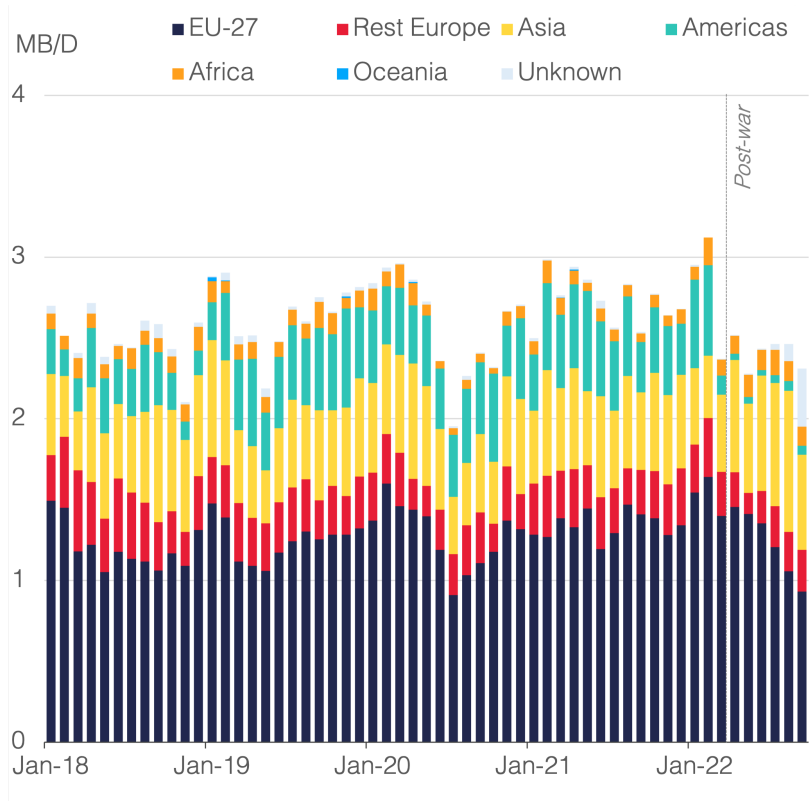


Source: Kpler, OIES



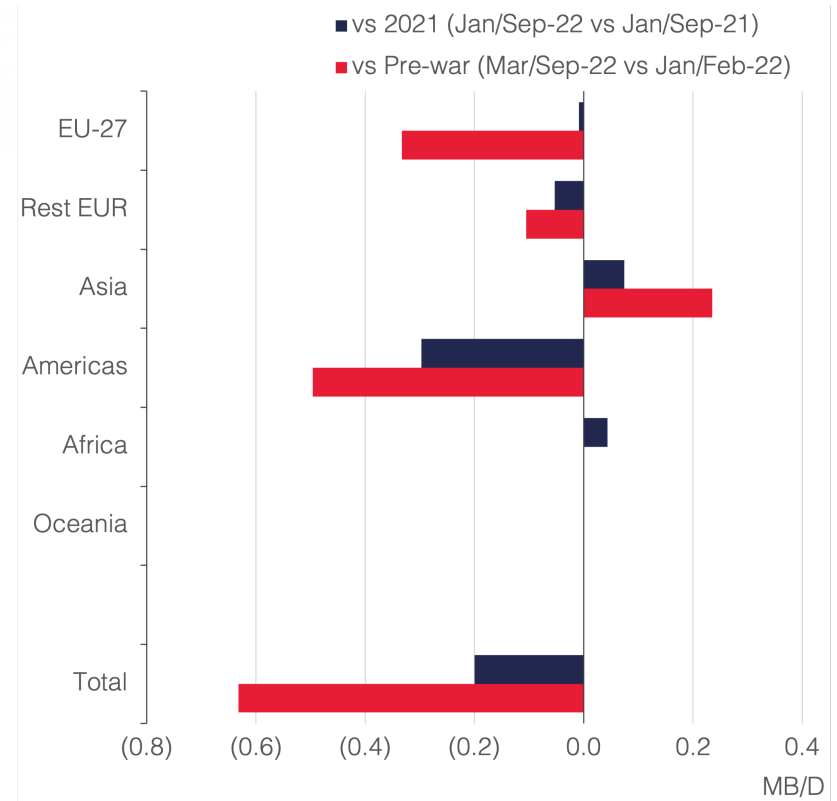
Russian product exports have declined

Russia product exports by destination



Source: Argus, Kpler, OIES

Russia product export shifts

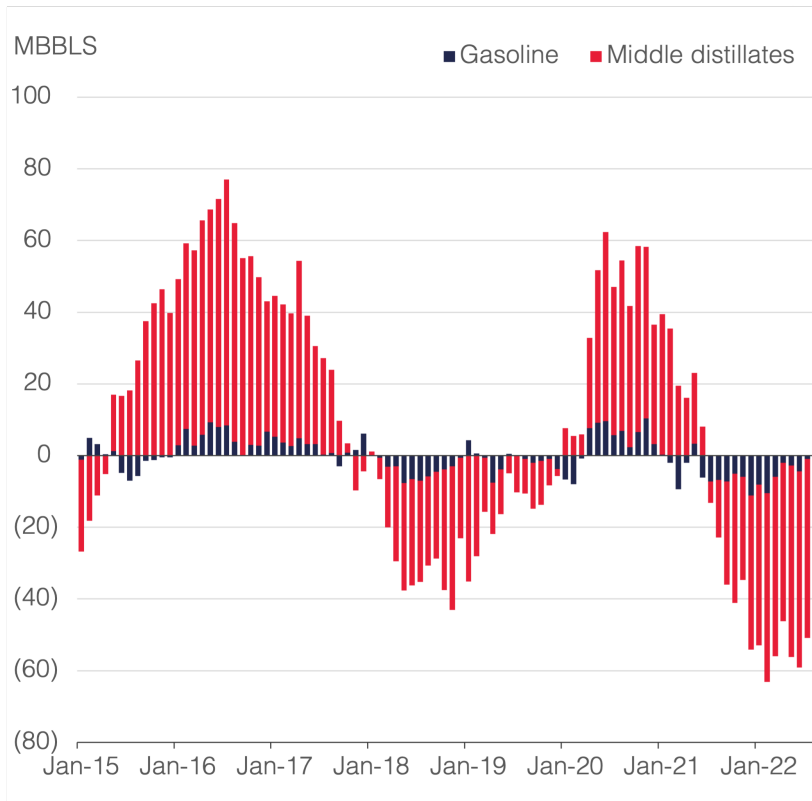


Source: OIES



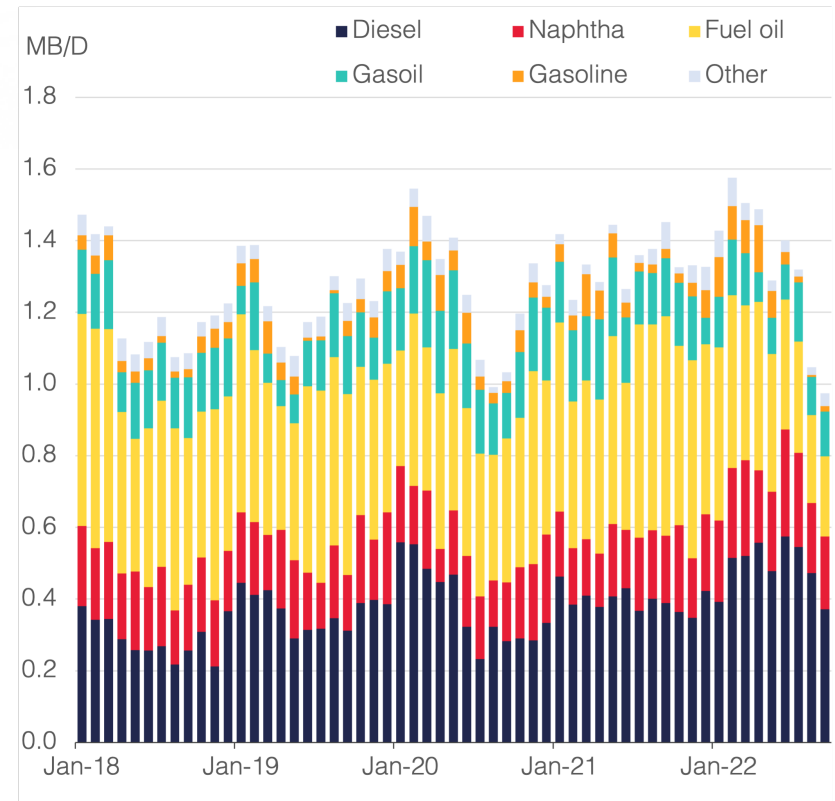
EU products market remains tight

OECD Europe product stocks v 5-year average



Source: IEA, OIES

EU-27 product imports from Russia

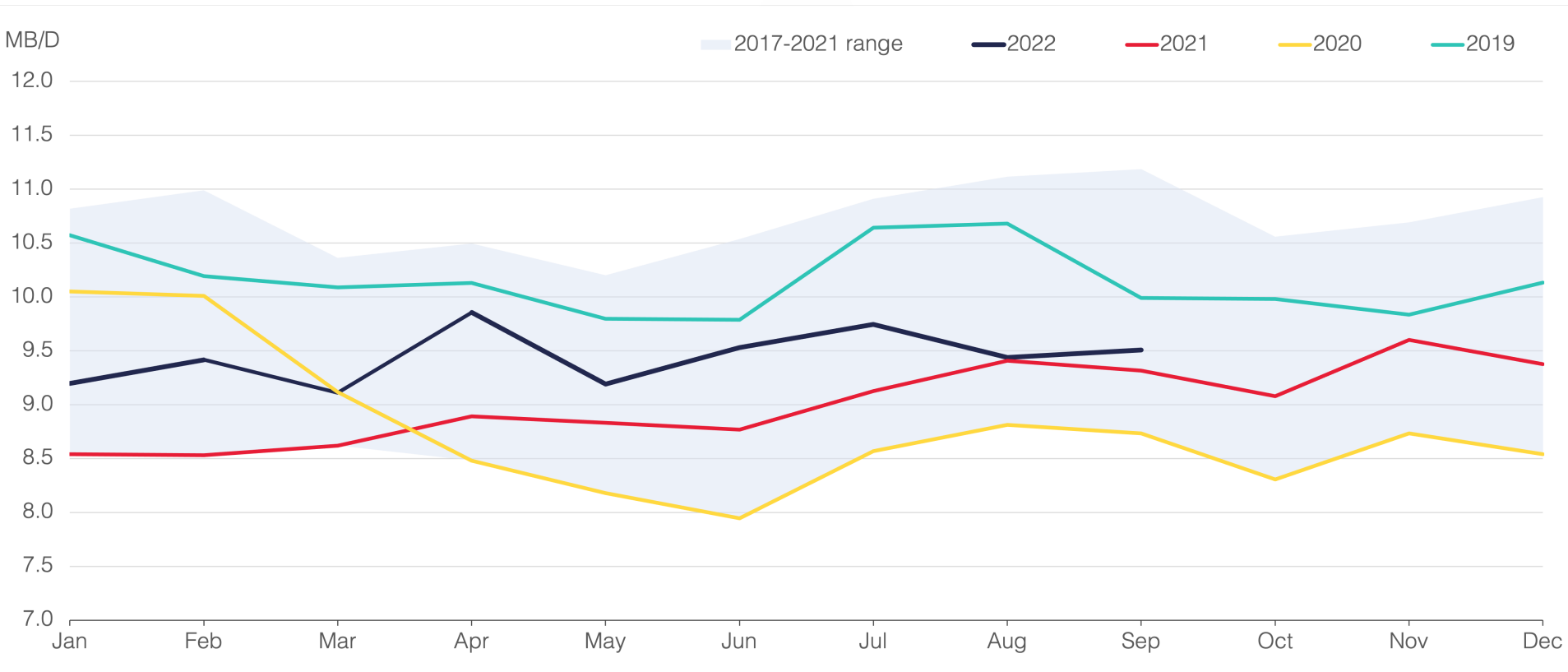


Source: Kpler



EU refinery constraints persist

EU-16 refinery runs



Notes: EU-16 refers to EU-15 plus Norway.

Source: Argus

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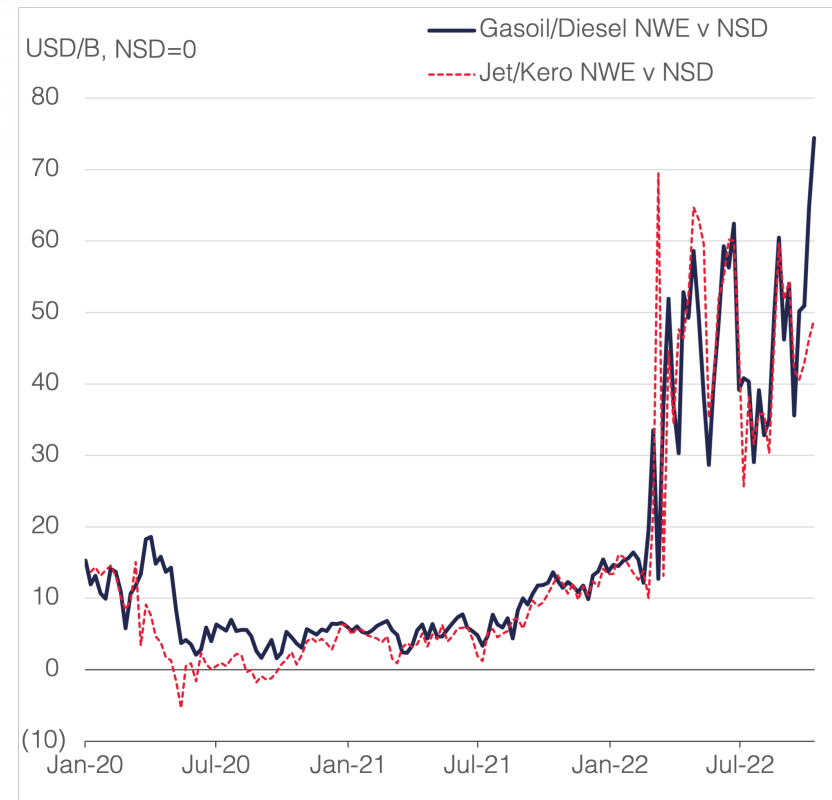
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Diesel situation worsened

- Strikes have paralyzed French refining sector
- Strikes have taken more than 800,000 b/d almost 5% of EU refining capacity (also seasonal wave of maintenance)
- Suppliers had to draw heavily from inventories
- This is contributing to high and volatile margins

Gasoil/Diesel and jet margins NWE

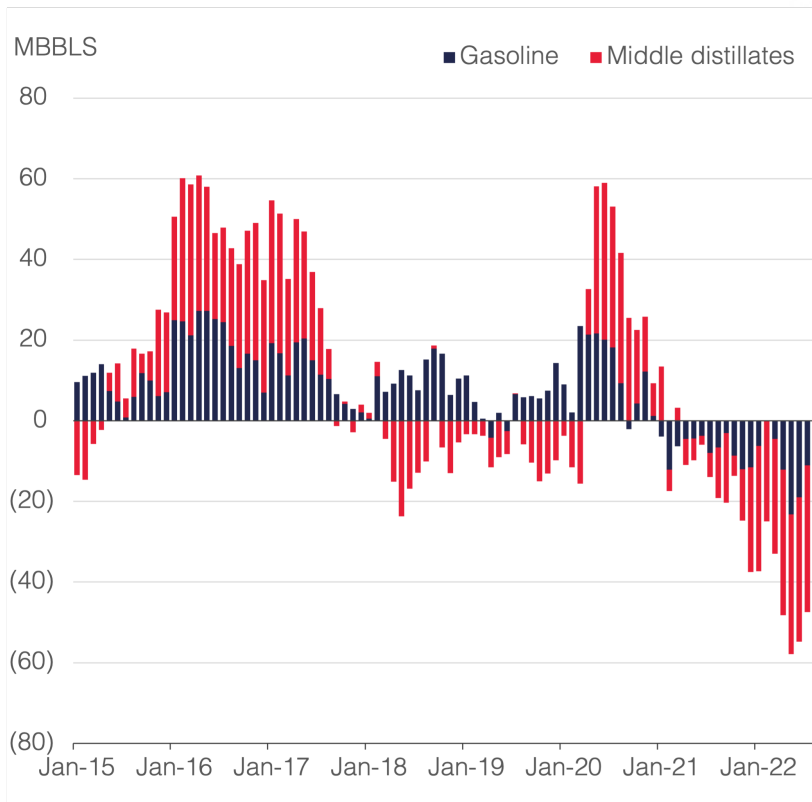


Source: Kpler, OIES



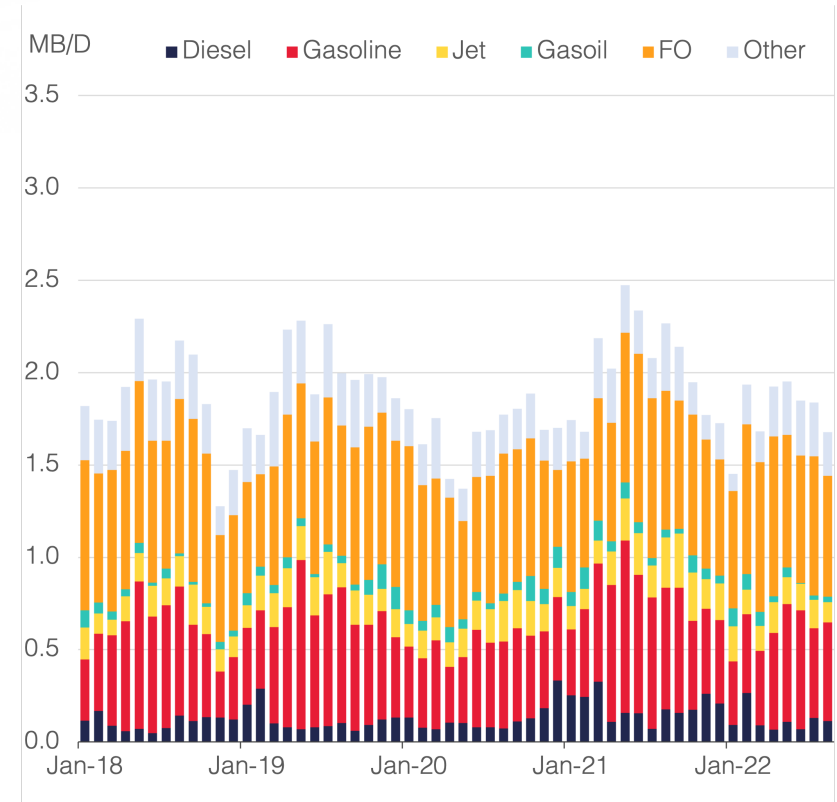
US products exports elevated

US product stocks v 5-year average



Source: IEA, OIES

US oil product exports



Notes: FO group includes cracked FO, SRFO, VGO, slurry, CBFS and cutter stock.

Source: Kpler

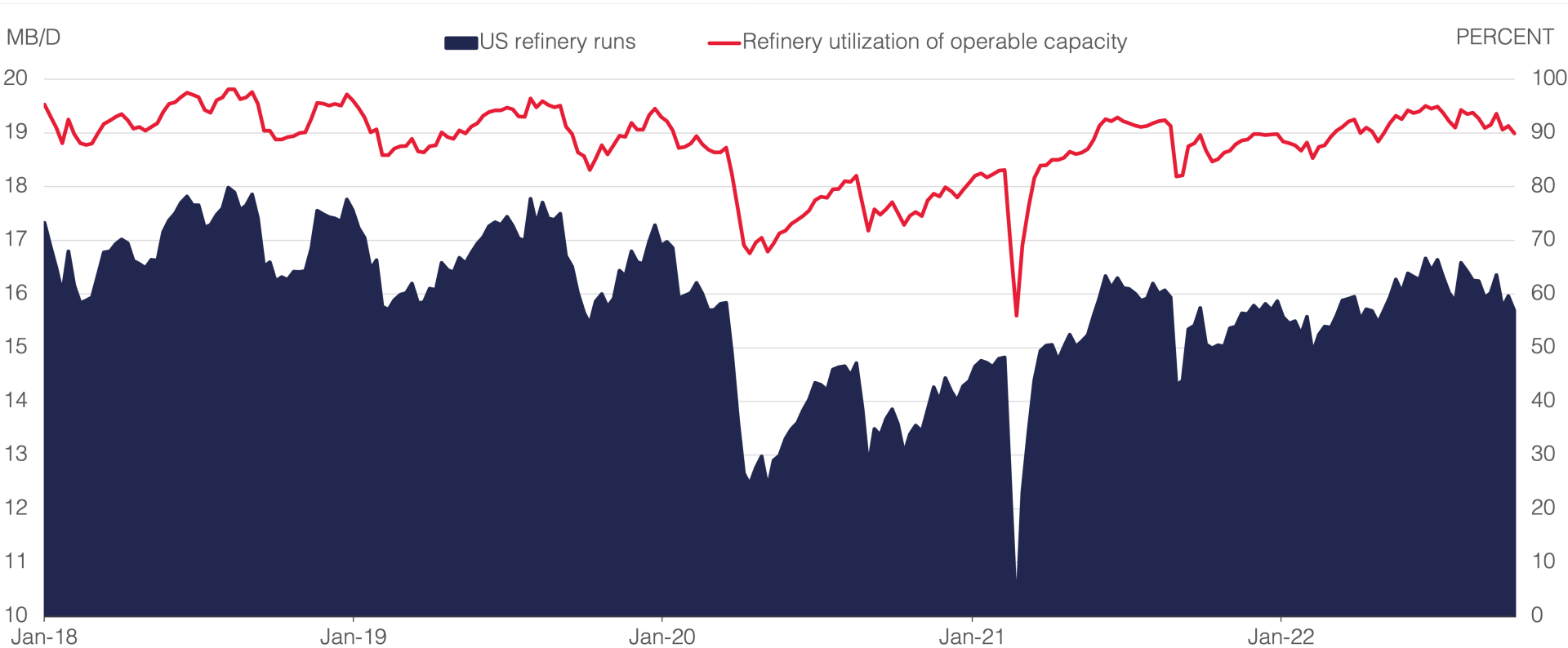
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US refinery utilization at high rate

US refinery runs and utilization



Source: US EIA

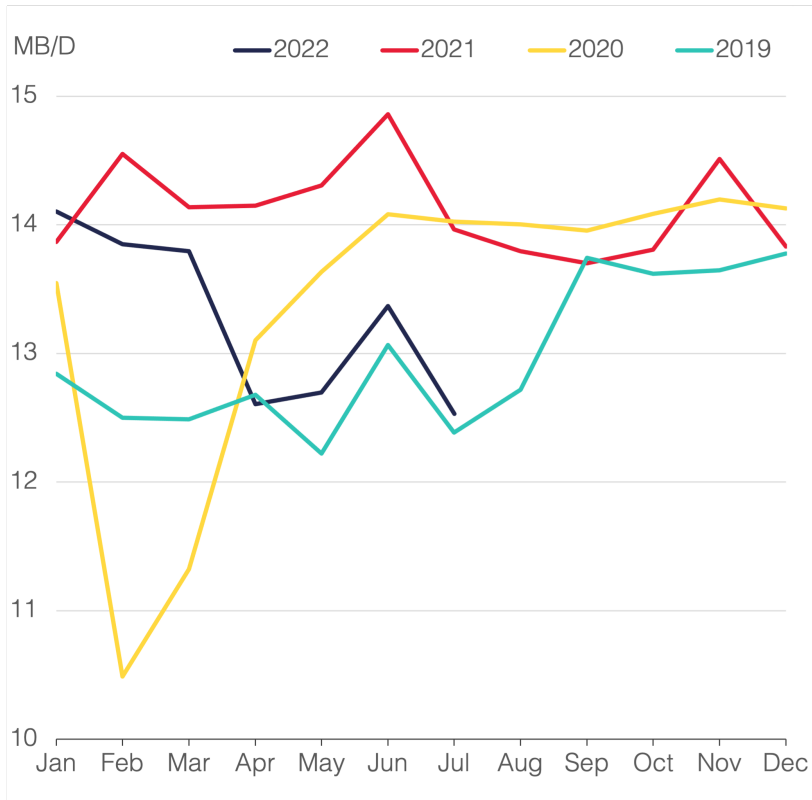
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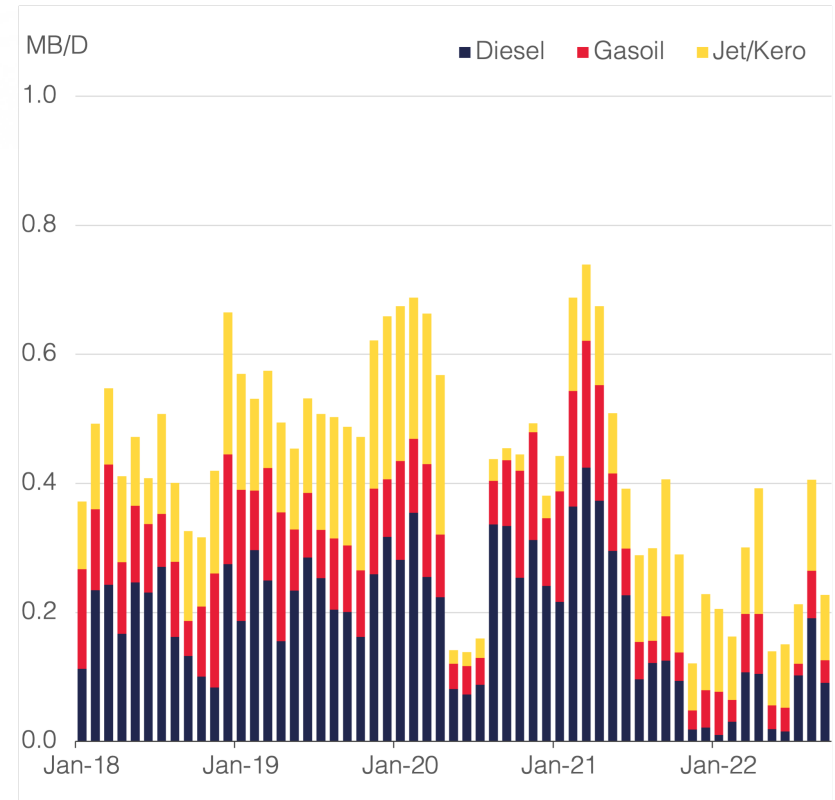
China's refineries come to the rescue?

China refinery runs



Source: Argus

China oil product exports

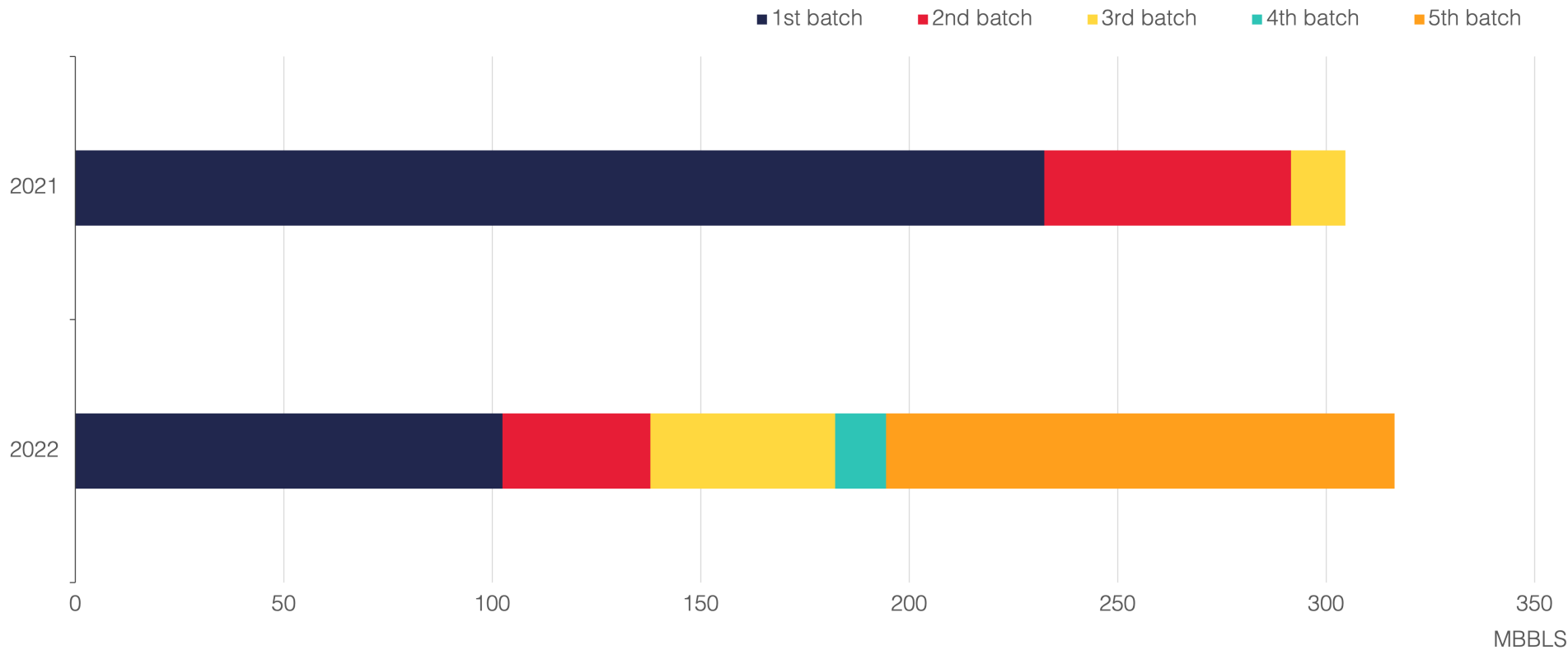


Source: Kpler



Export quotas raised but will China export more diesel?

China oil products export quotas



Source: Argus

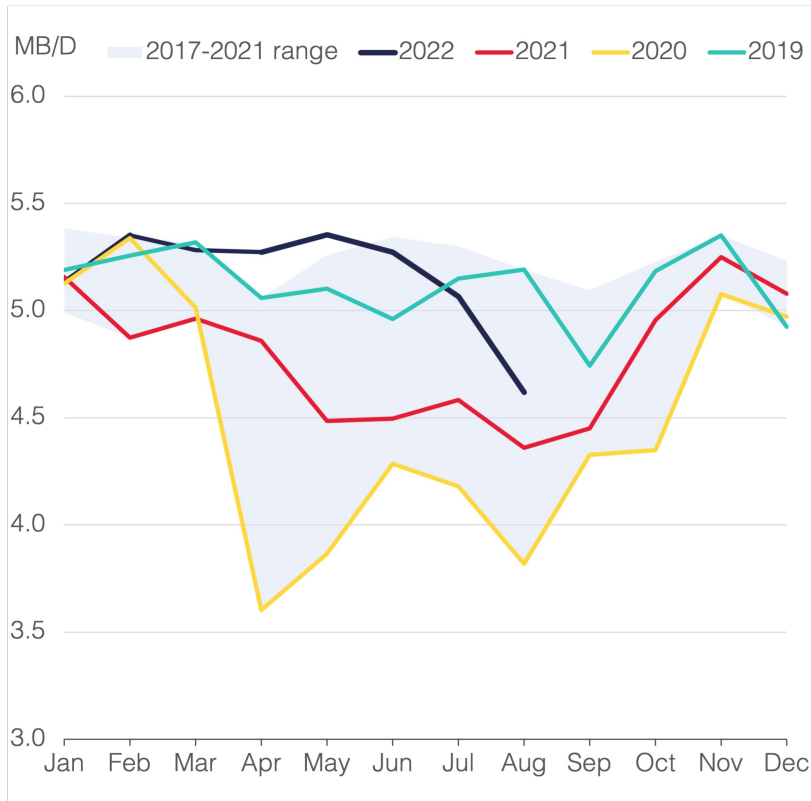
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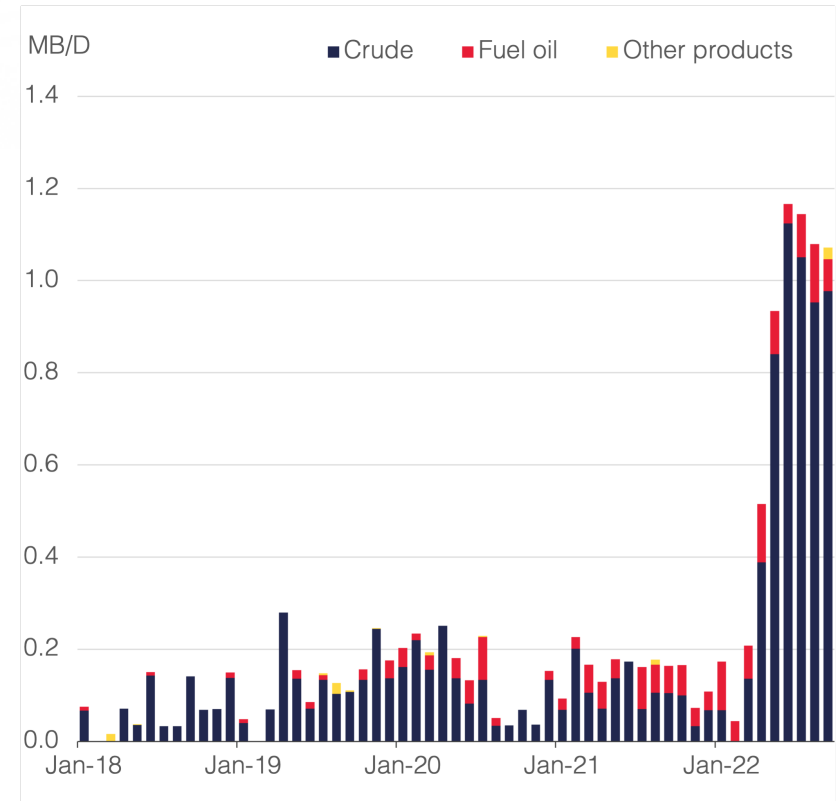
India refining have been a bright spot

India refinery runs



Source: PPAC

India oil imports from Russia



Source: Kpler

Key Factors Shaping Market Expectations II: The Macro Environment

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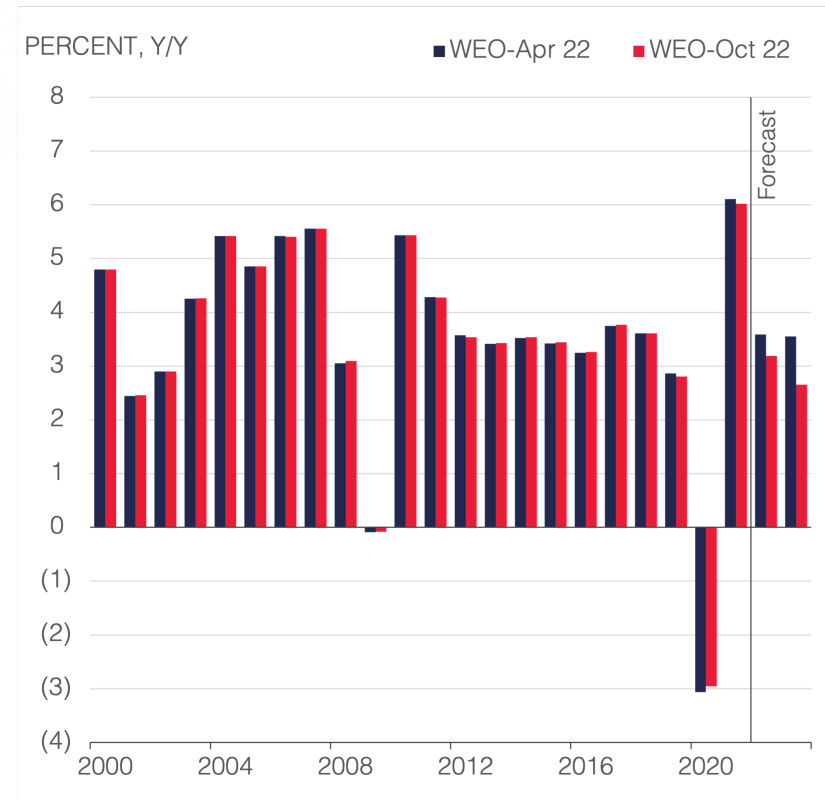




Recession and global oil demand

- Global growth prospects have been downgraded
- China's comeback will be delayed and more gradual than previously expected, due to COVID flare-ups, its strict zero-COVID policy and domestic economic challenges; A large stimulus remains unlikely, further weighing on the outlook
- Pent-up demand/ gas-to-oil substitution could offset some of the near-term demand pressures, but it is very challenging to quantify

IMF Growth Rates

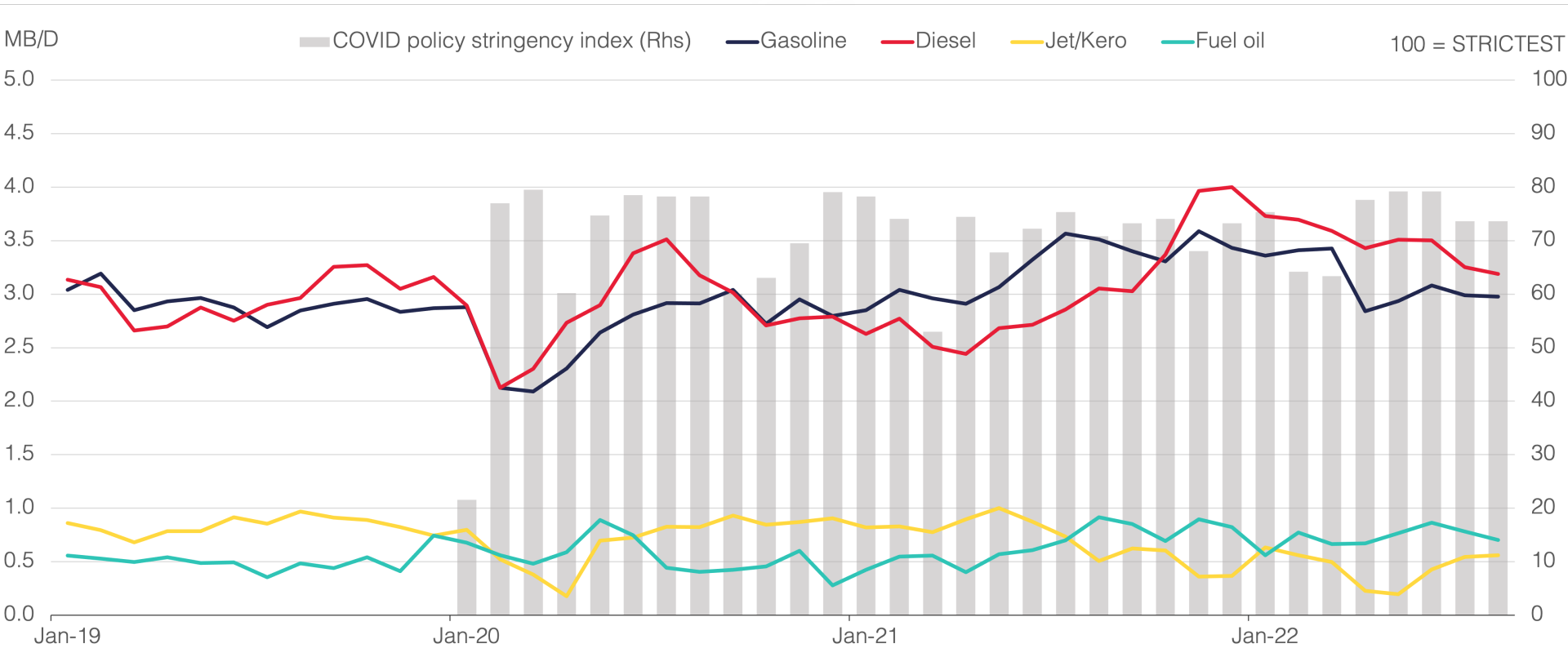


Source: IMF



China's demand contracts

China apparent products demand



Source: Argus, Blavatnik School of Government (University of Oxford), OIES

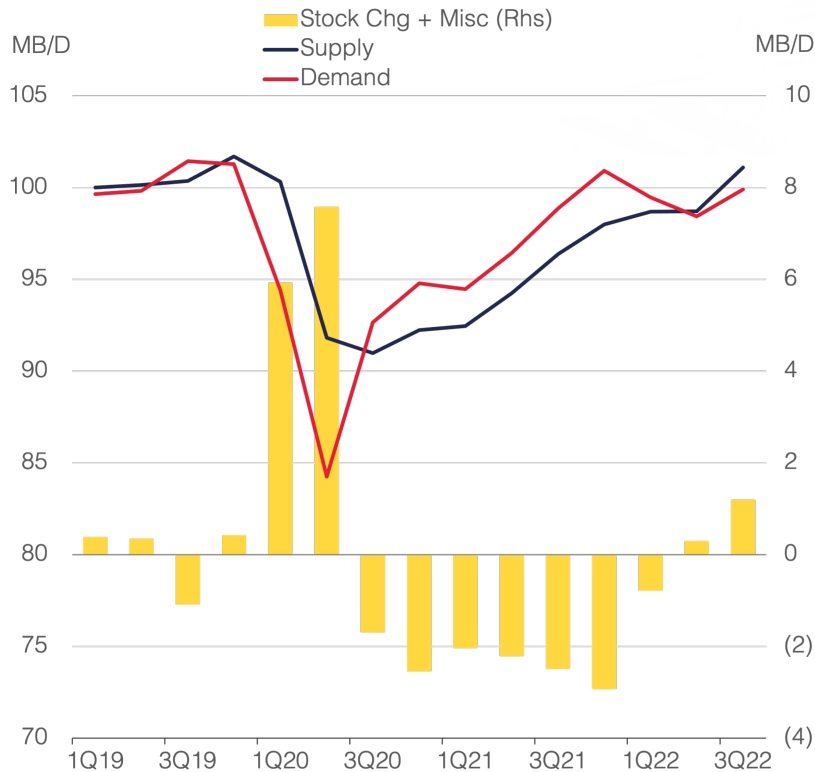
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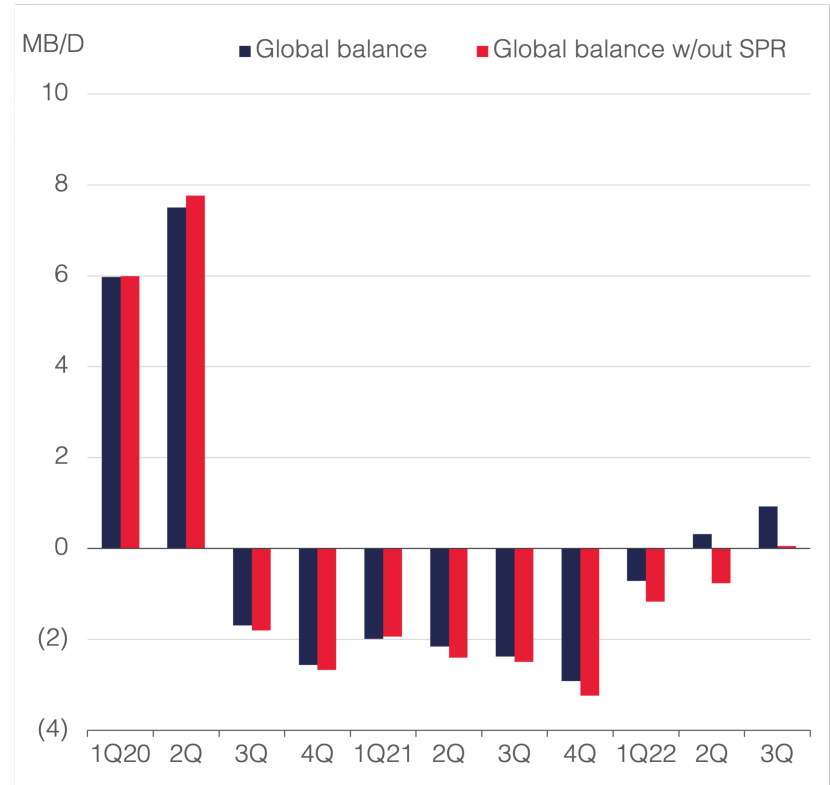
Market moves from deficit to surplus

Global supply/demand balance (consensus)



Notes: Consensus averages estimates from IEA, US EIA and OPEC.
Source: OIES

Global supply/demand (with and without SPR)



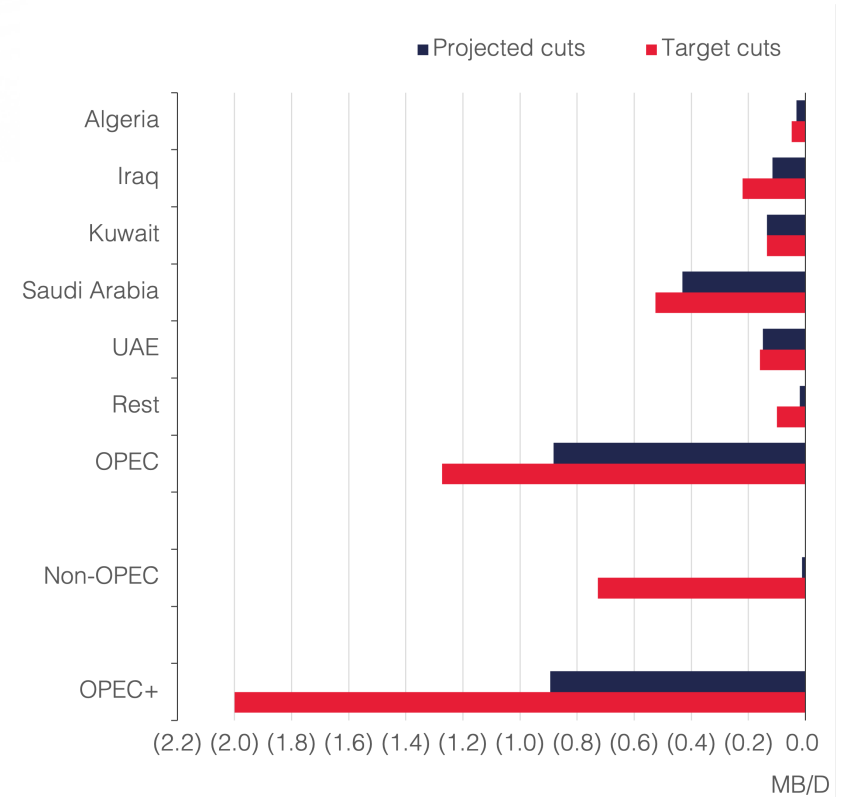
Source: IEA



The OPEC+ Response

- Real cut less than 2 million b/d announced (close to 1 million b/d)
- Decision not totally unexpected and consistent with previous cycles (in response to GFC)
- Consistent with most recent behavior during the COVID cycle (proactive and pre-emptive in face of deteriorating market balances)
- Cohesion of group (many members producing well below quota; no renegotiation of quotas)
- Context matters

OPEC+ projected vs target cuts



Source: OIES

Short-term oil outlook

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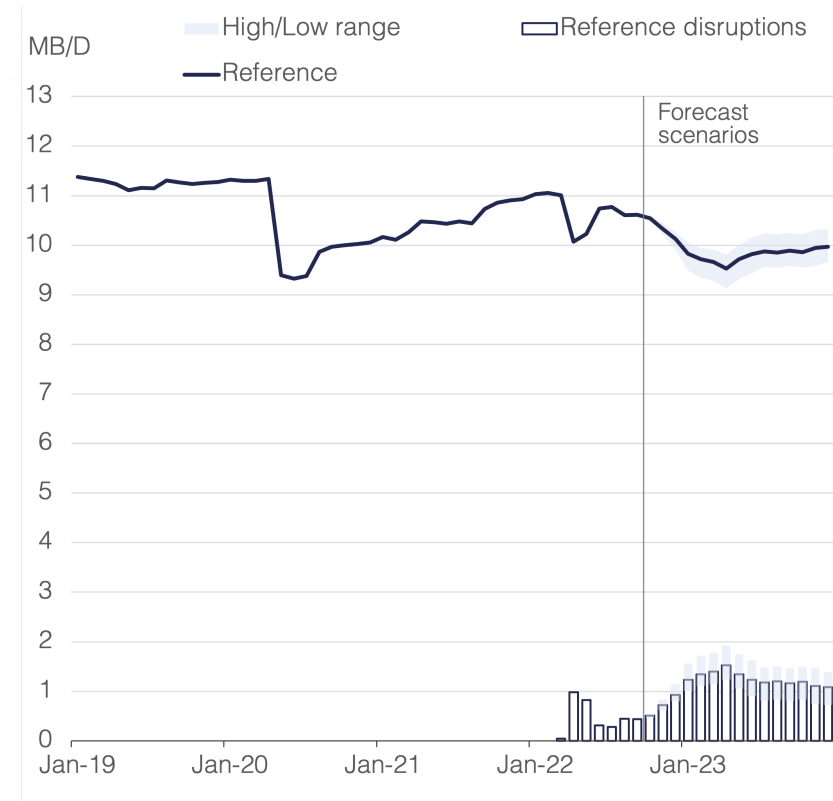




Key assumptions: Russian supply

- Russian oil production declines gradually towards year-end to reach close to 900,000 b/d below pre-war levels, before disruptions peak in February 2023 when EU sanctions are in full effect to average 1.25 mb/d in 2023
- Re-routing Russian crude from West to East can put strain on logistics (shipping; access to Aframax tankers)
- Finding insurance coverage outside EU/ G7 challenging

Russia oil production scenarios



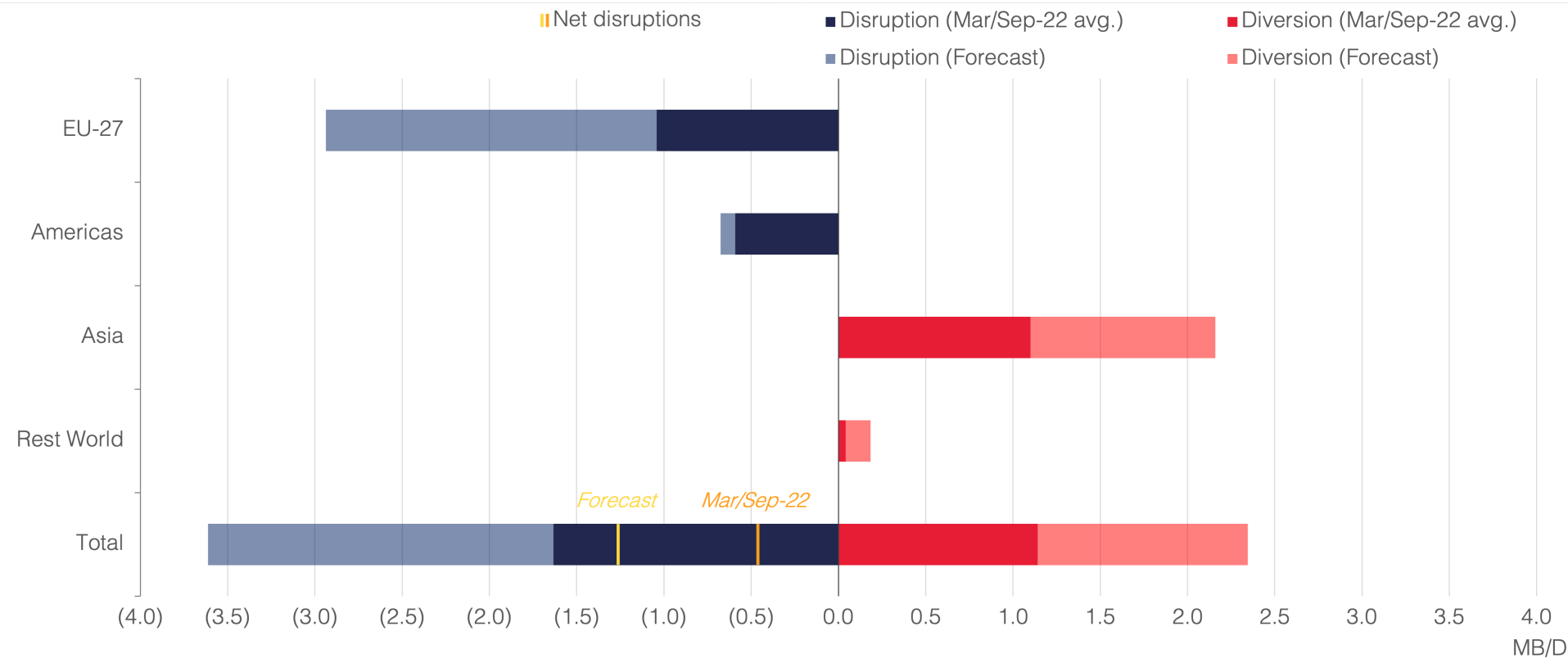
Source: OIES



Key assumptions: Russian exports

Under the full effect of the EU ban, Russian total oil exports (crude and products) to Europe decline by another 1.9 mb/d, 1.2 mb/d of which are diverted to Asia and the rest of world.

Russia oil exports curtailment assumptions



Notes: Compared to Jan/Feb-22 levels.

Source: OIES

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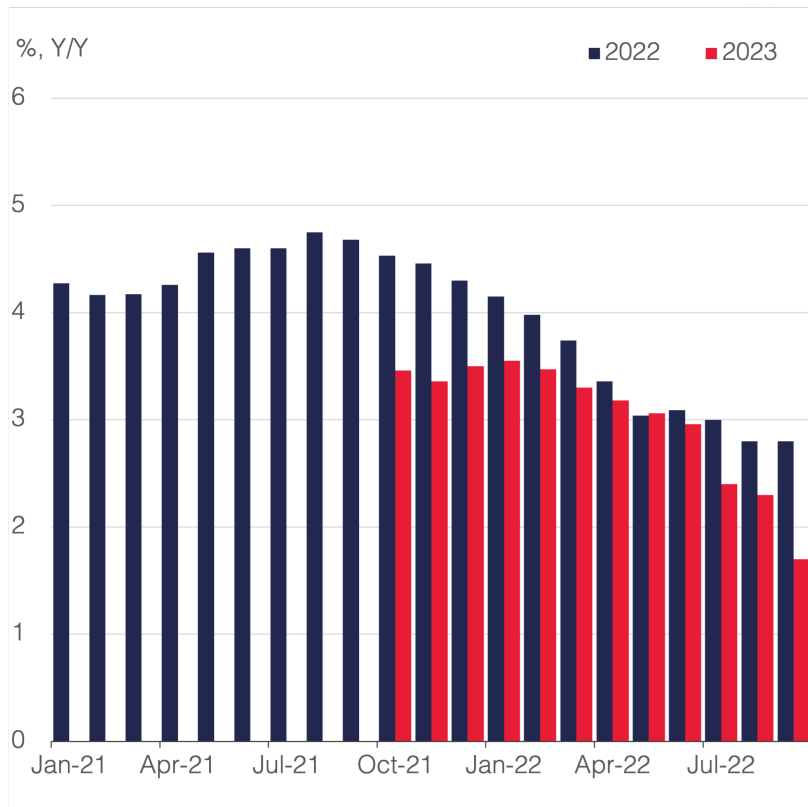
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Key assumptions: Economic prospects

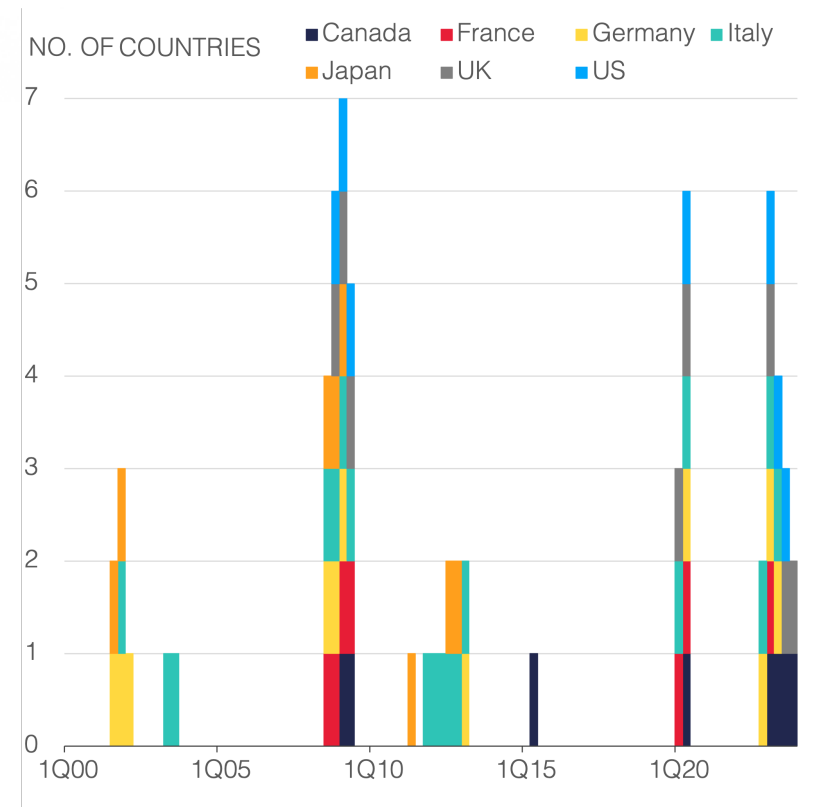
Monetary policy tightening and sticky inflation push several advanced economies into recession over the coming quarters.

Global GDP growth forecasts



Notes: Global GDP is forecast to 2.8% in 2022 and 1.7% in 2023.
Source: Oxford Economics

G7 economies recession indicators



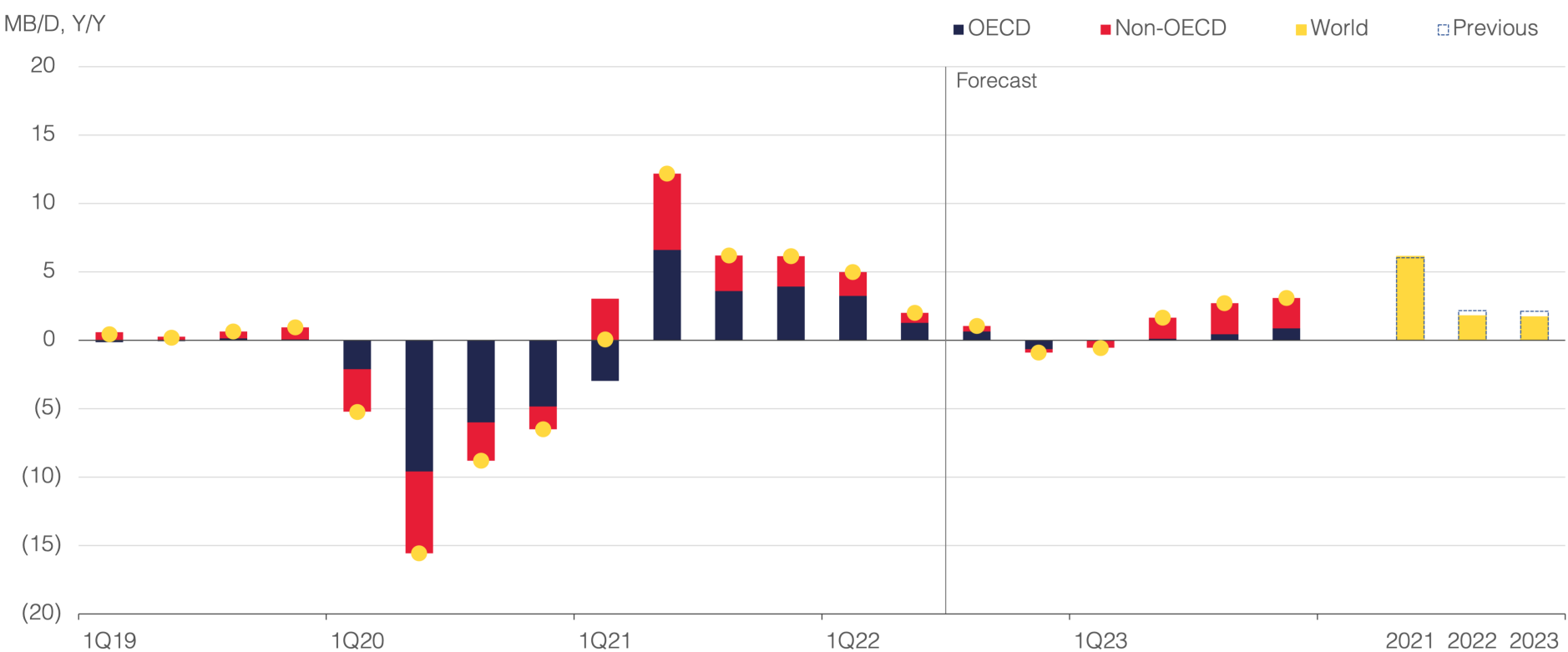
Notes: Shows simultaneous contractions in output, imports, exports, investments and industrial production in each member country.
Source: Oxford Economics, OIES



Oil demand outlook (1/2)

Global demand growth is forecast to 1.8 mb/d in 2022 and 1.7 mb/d in 2023, as y/y demand is expected to contract in the coming two quarters for the first time post-2020.

Global oil demand



Source: OIES

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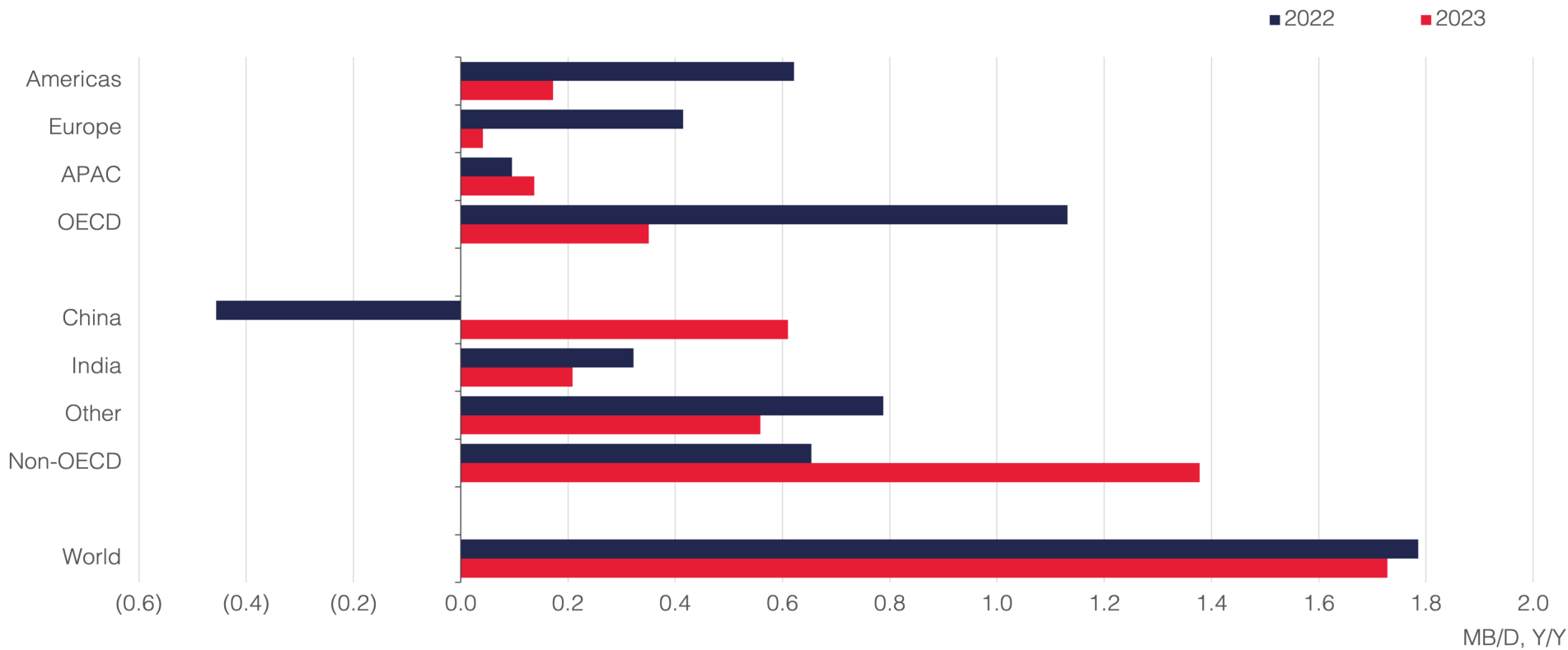
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Oil demand outlook (2/2)

OECD demand growth in 2023 is expected to fall to 400,000 b/d from 1.1 mb/d in 2022 and China's demand to contract y/y by 460,000 b/d in 2022 and rebound by 610,000 b/d in 2023.

Global oil demand growth by region/country



Source: OIES

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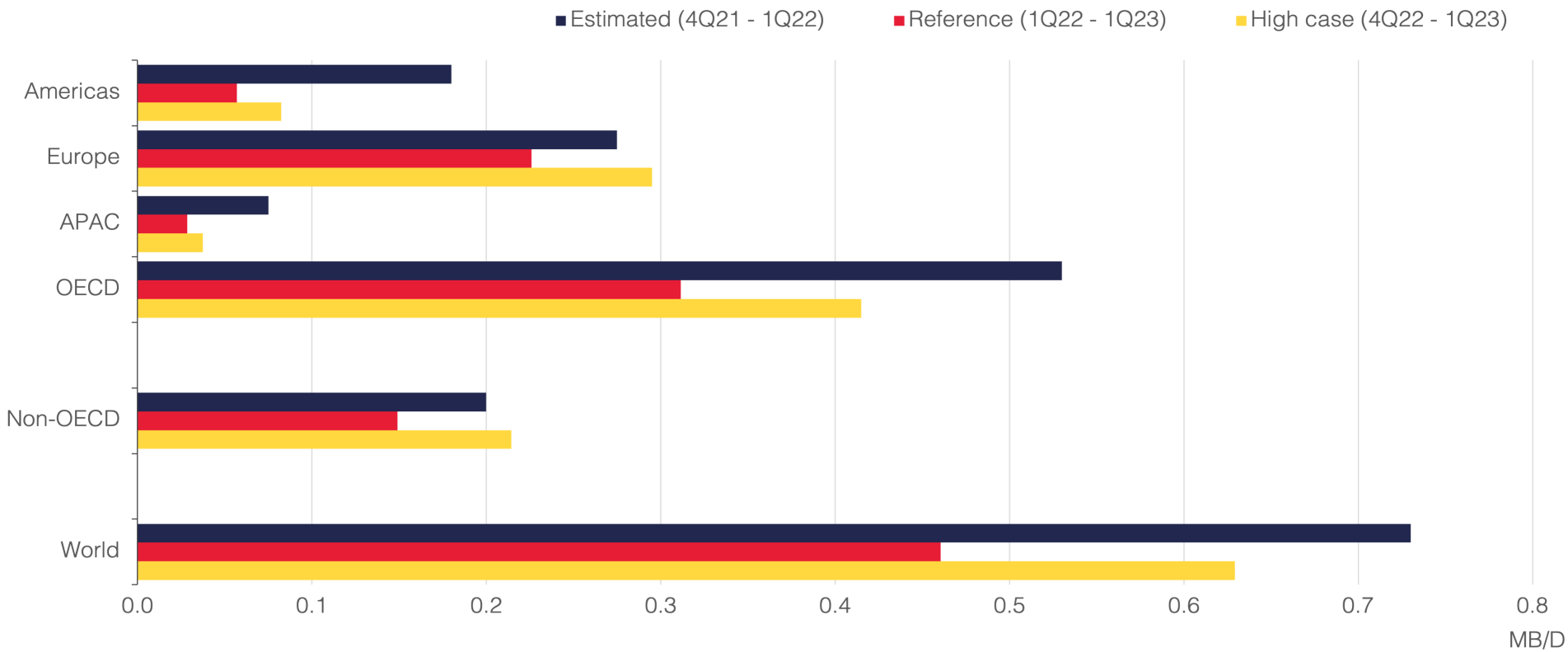
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Gas to Oil substitution

Oil substitution results to 460,000 b/d incremental demand over October 2022 and March 2023, with 50% of the gains concentrated in Europe.

Oil substitution assumptions



Source: OIES

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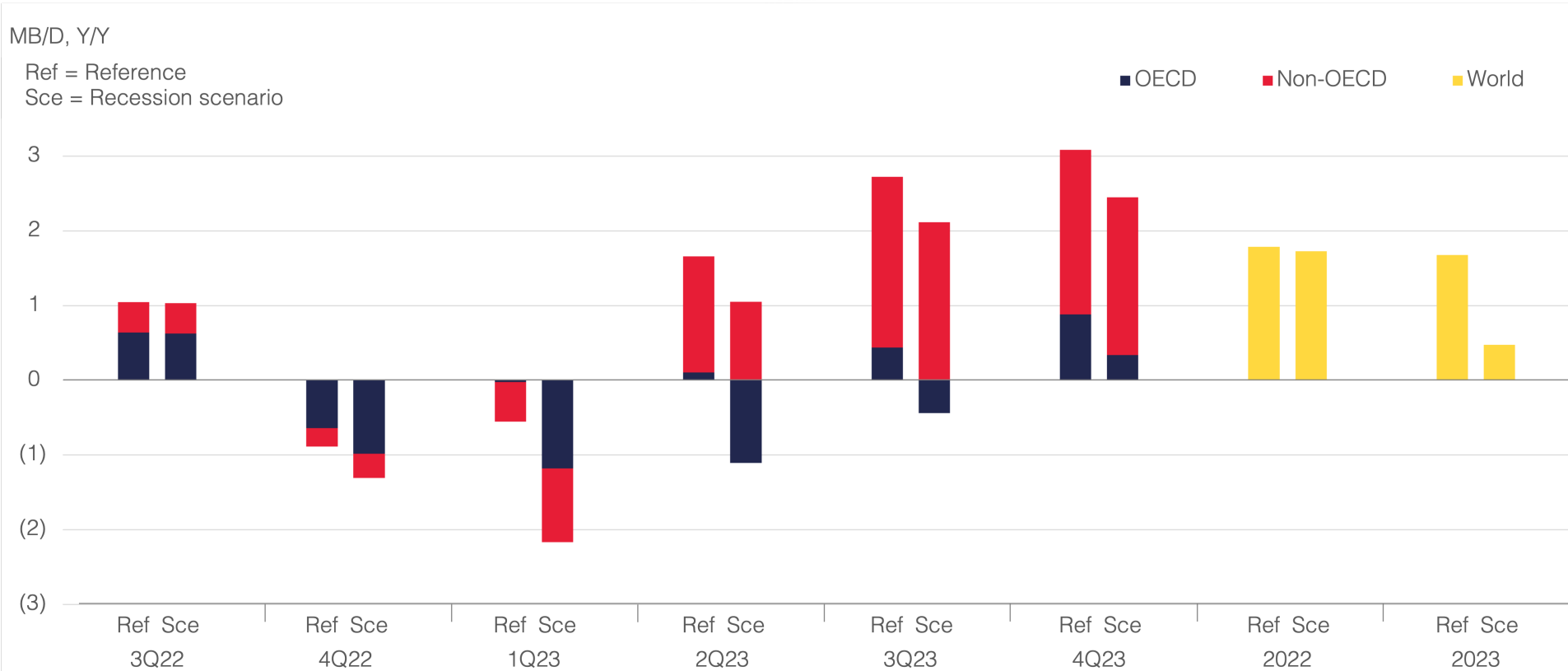
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Global balance risks

A global recession remains the largest downside risk in 2023 having the potential to induce a substantial negative impact on demand growth that could slow sharply to 0.5 mb/d versus the *Reference* 1.7 mb/d.

Global oil demand growth: Reference v Recession scenario



Notes: Modelled projections.
Source: OIES

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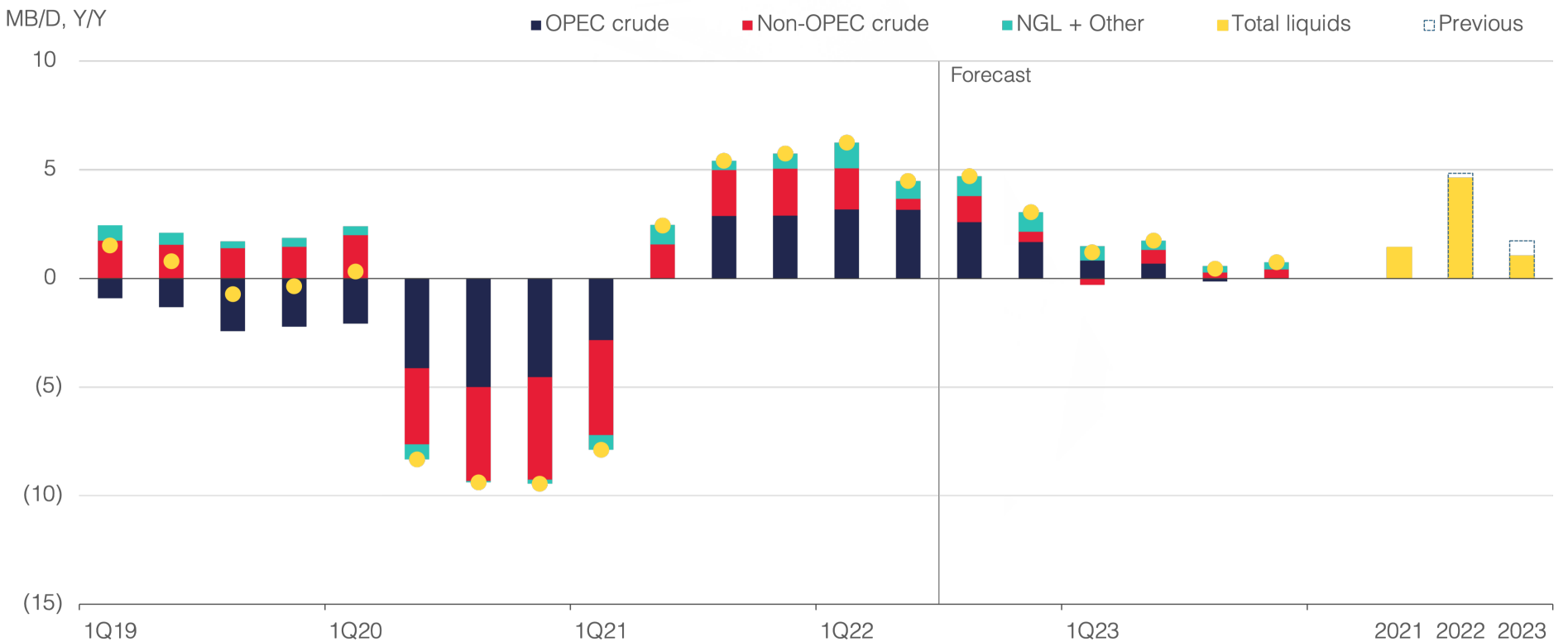
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Oil supply outlook (1/2)

Global oil supply is forecast to grow by 4.6 mb/d in 2022 and 1 mb/d in 2023, with non-OPEC crude adding 1 mb/d of growth this year.

Global oil supply



Source: OIES

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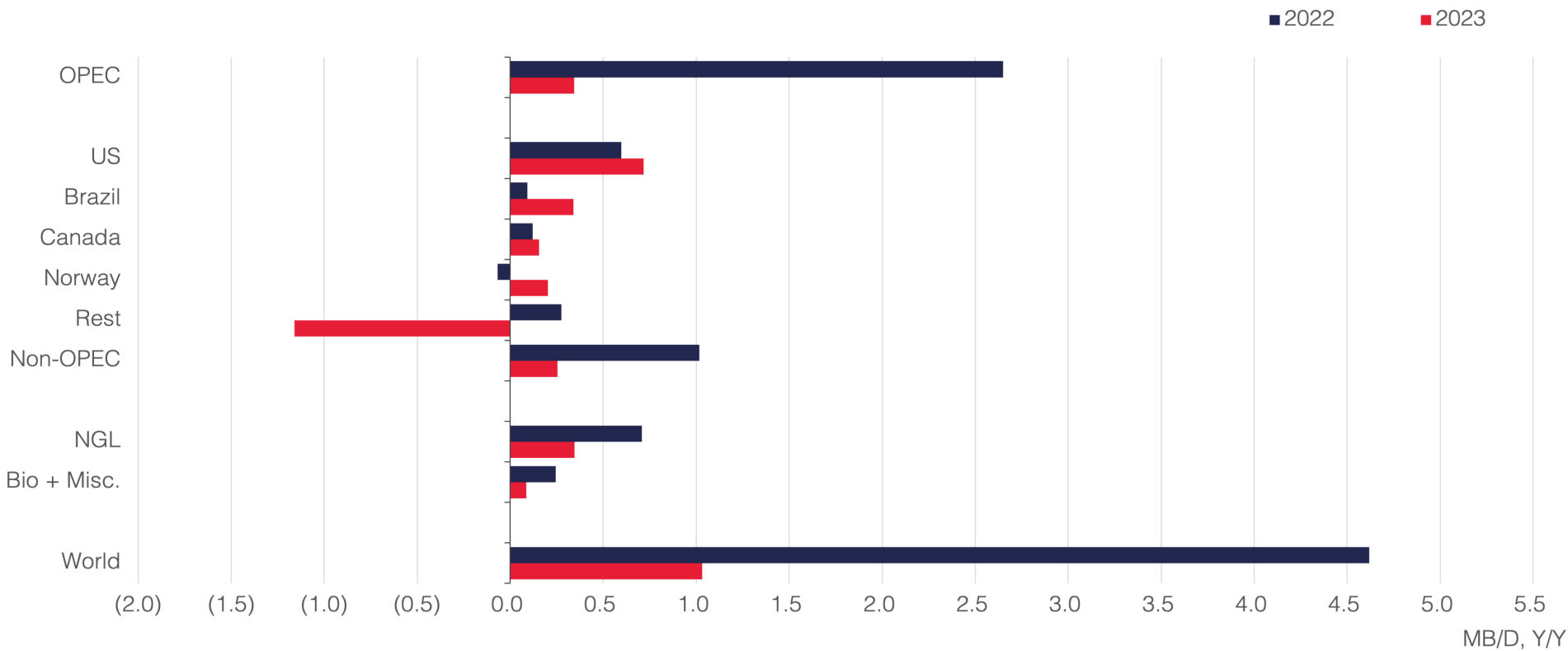
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Oil supply outlook (2/2)

US crude supply is seen leading growth by 700,000 b/d in 2023, followed by 300,000 b/d from Brazil and 200,000 b/d each from Canada and Norway, while further gains from elsewhere remain marginal.

Global oil supply growth by producer/liquids



Source: OIES

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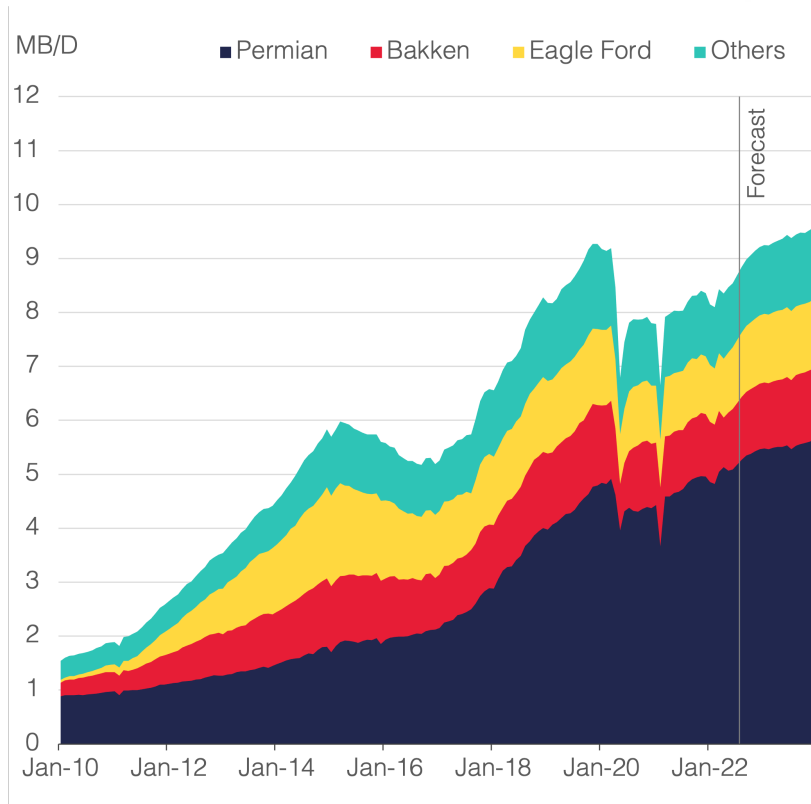
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US shale supply outlook

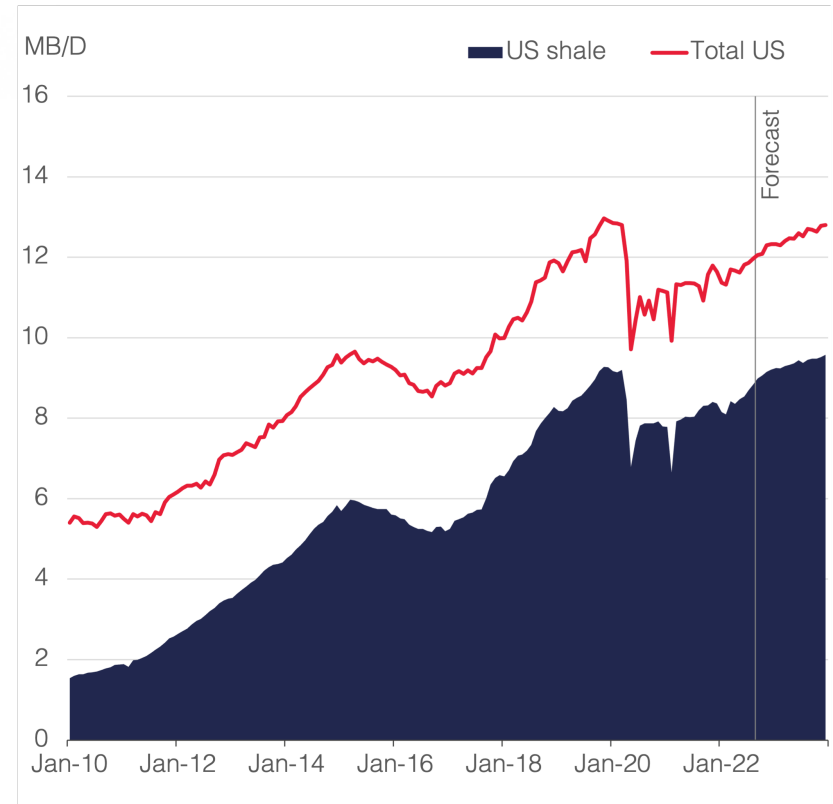
US crude supply in 2022 is expected to grow by 600,000 b/d, a rise by nearly 700,000 b/d exit-to-exit by December, and 720,000 b/d in 2023 albeit exit-to-exit growth falls to 460,000 b/d.

US shale production by play



Source: OIES

US crude supply



Source: OIES

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Price outlook (1/2)

Reference forecast for Brent stands at \$100 in 2022 and \$94/b in 2023, while the Brent Prospect that considers the uncertainty underlying the outlook edges slightly lower at \$93/b in 2023.

Brent price outlook



Source: OIES

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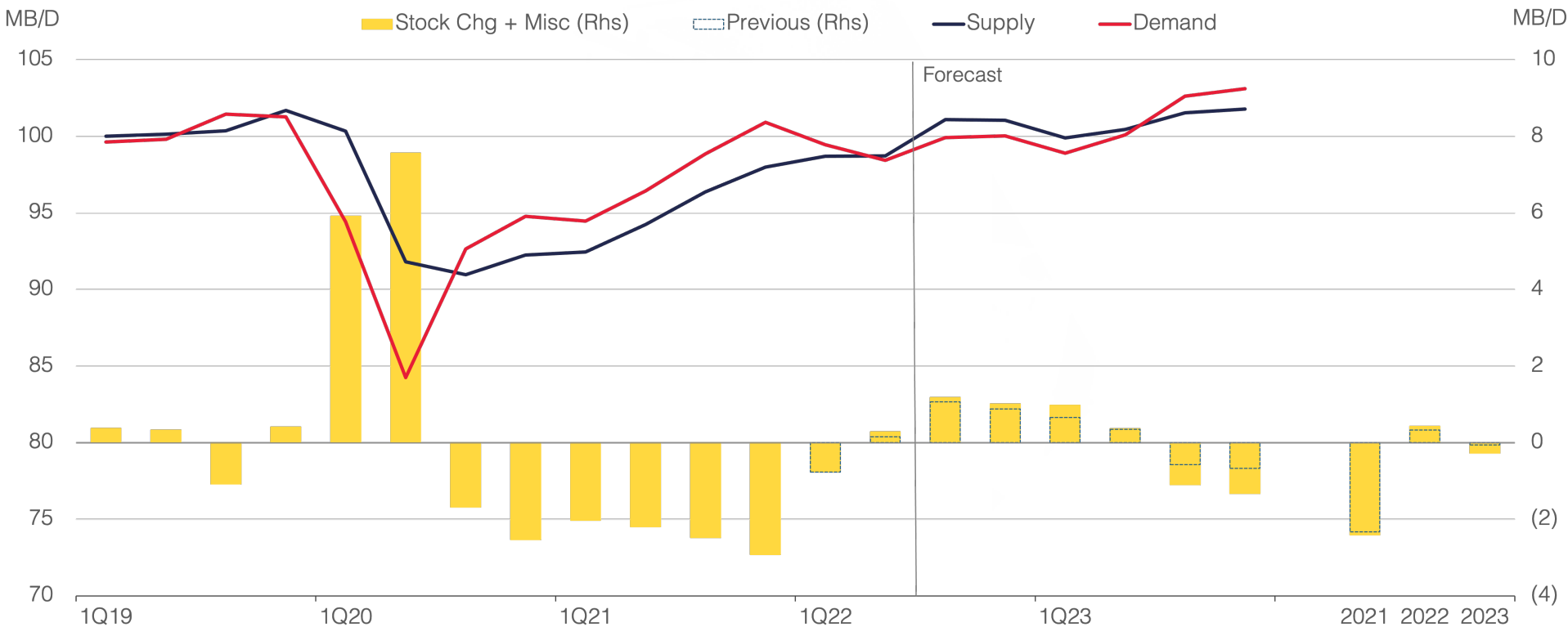
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Global balance

The oil market is expected to shift into surplus in 2022 by 430,000 b/d and return to a small deficit of -270,000 b/d in 2023, with deficits on a quarterly basis reappearing no sooner than H2 2023.

Global balance



Source: OIES

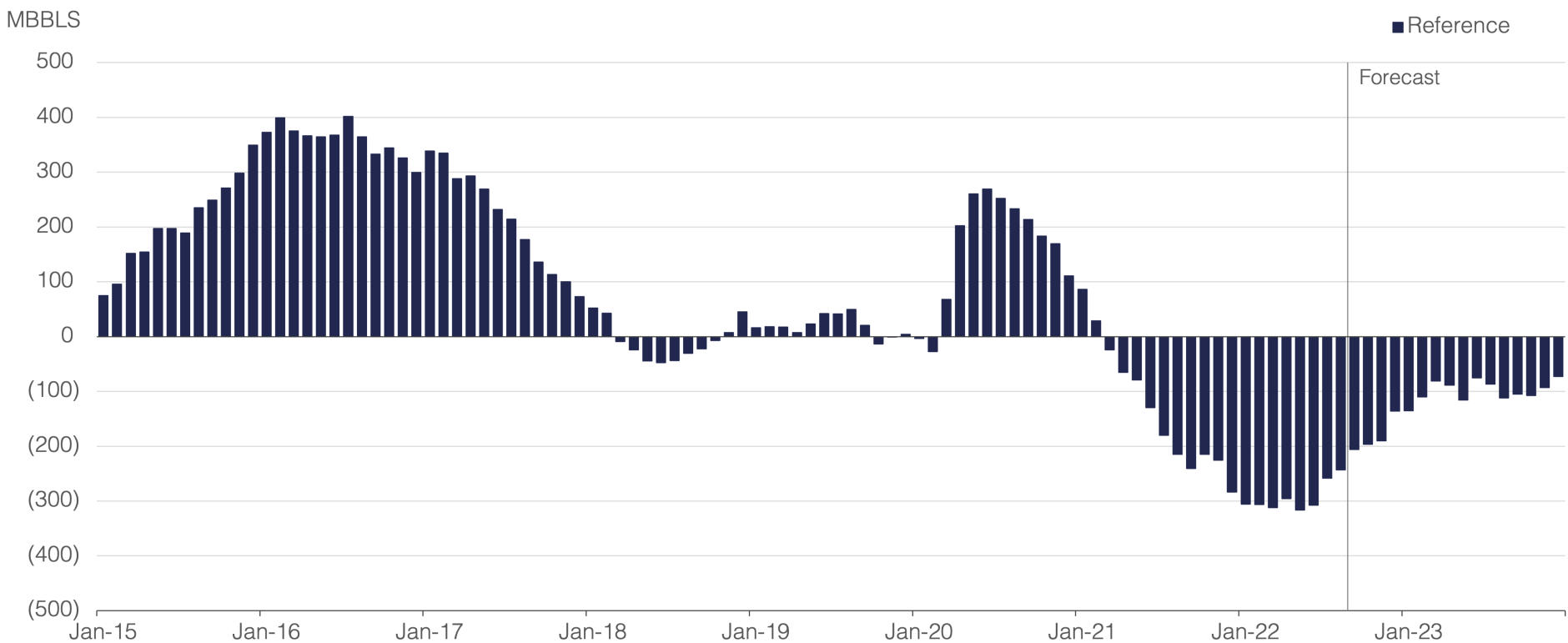
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Stocks remain below the 5-year average

OECD commercial stocks v 5-year average



Source: OIES

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Short-term oil market outlook

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