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Oil Supply Shock in the time of the Coronavirus

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Oxford Institute for Energy Studies



OIES Oxford, UK, 25 March 2020



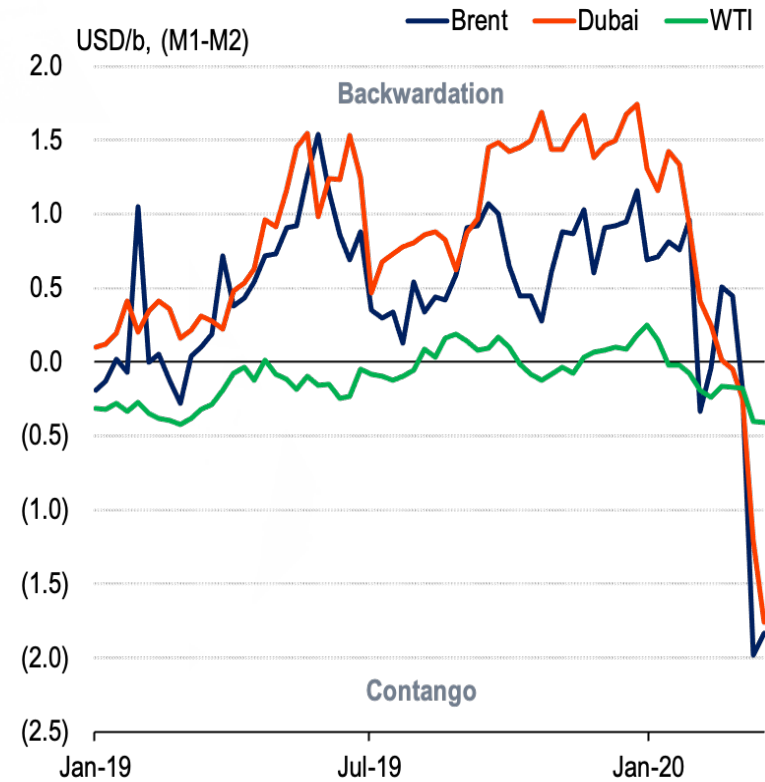
Combination of demand and supply shocks having severe impact on prices and spreads

Brent spot price



Source: OIES, EIA

Time spreads



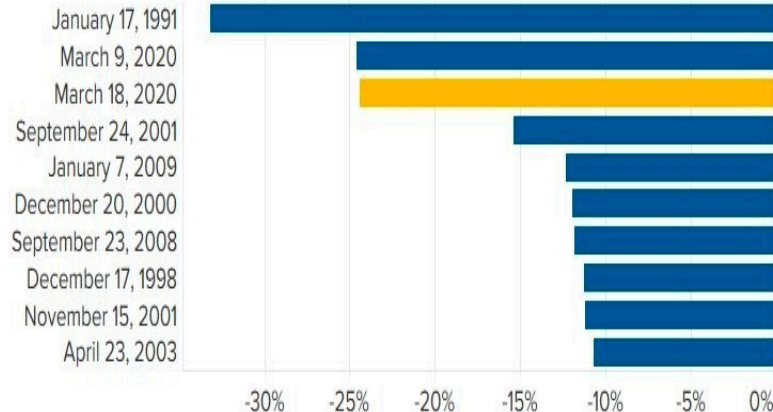
Source: OIES



Extreme price movements and heightened volatility

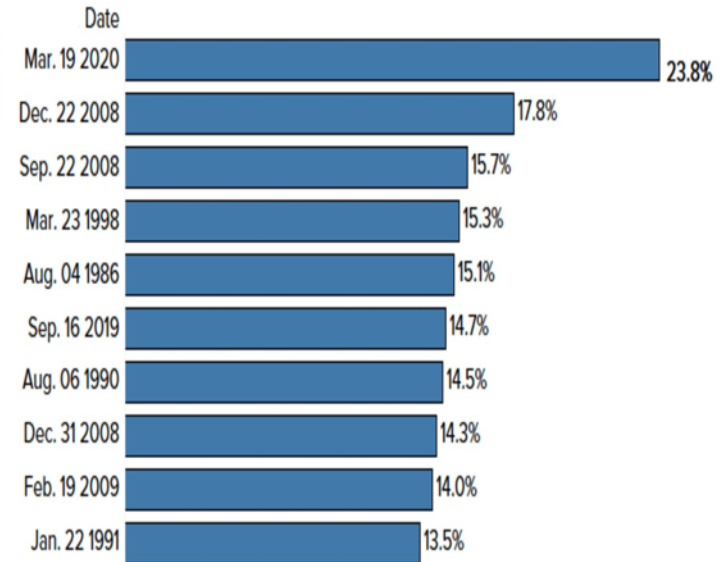
Biggest one-day percent drops in WTI

West Texas Intermediate (WTI) had its third-worst day in history on March 18, measured by one-day percent decline



Source: CNBC

One day percentage change in WTI



Source: CNBC

▲ **Oil surges 23% to post best day ever, rebounding from Wednesday's steep losses**

PUBLISHED THU, MAR 19 2020-11:33 AM EDT | UPDATED MOMENTS AGO

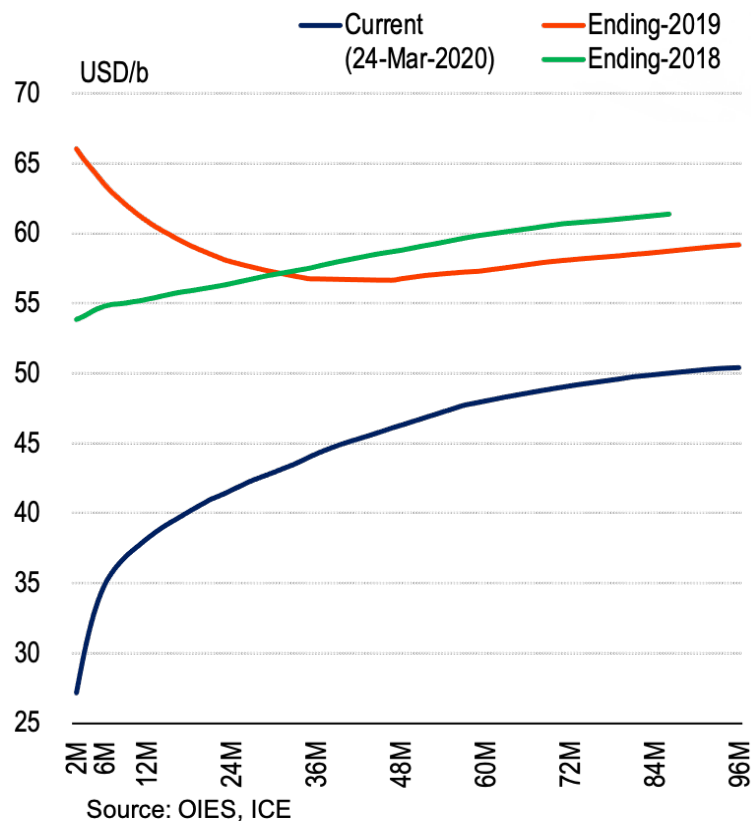
▼ **Oil falls 24% in 3rd worst day on record, sinks to more than 18-year low**

PUBLISHED WED, MAR 18 2020-8:16 AM EDT | UPDATED WED, MAR 18 2020-3:41 PM EDT

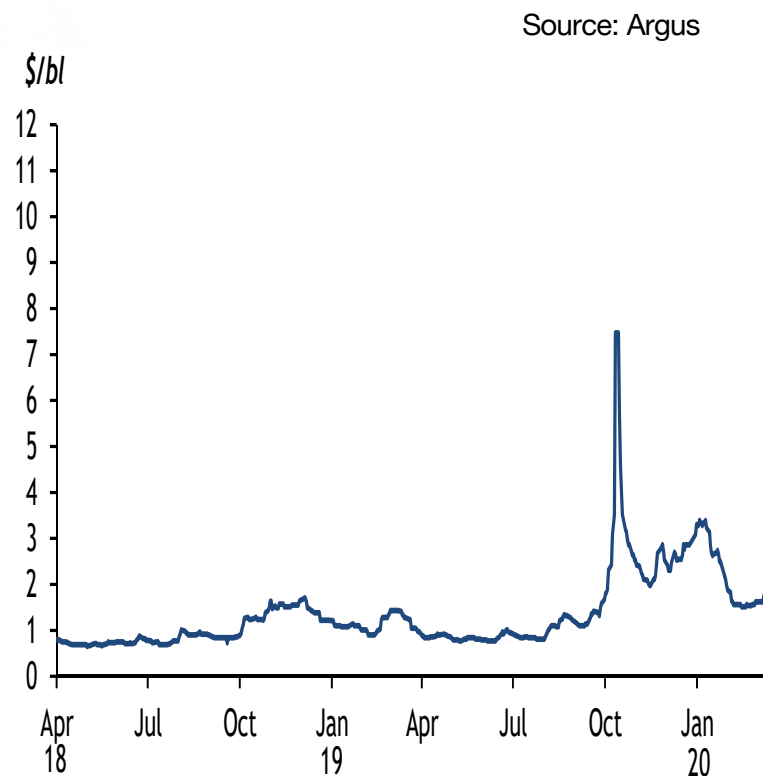


Forward curve flips into contango and freight rates jump

ICE Brent forward curves



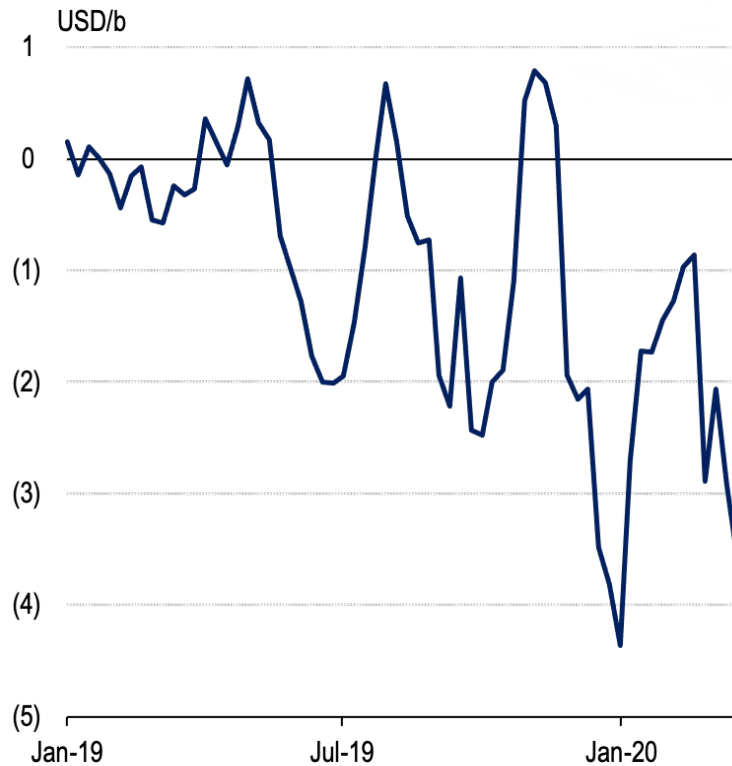
Mideast Gulf westbound VLCC rates





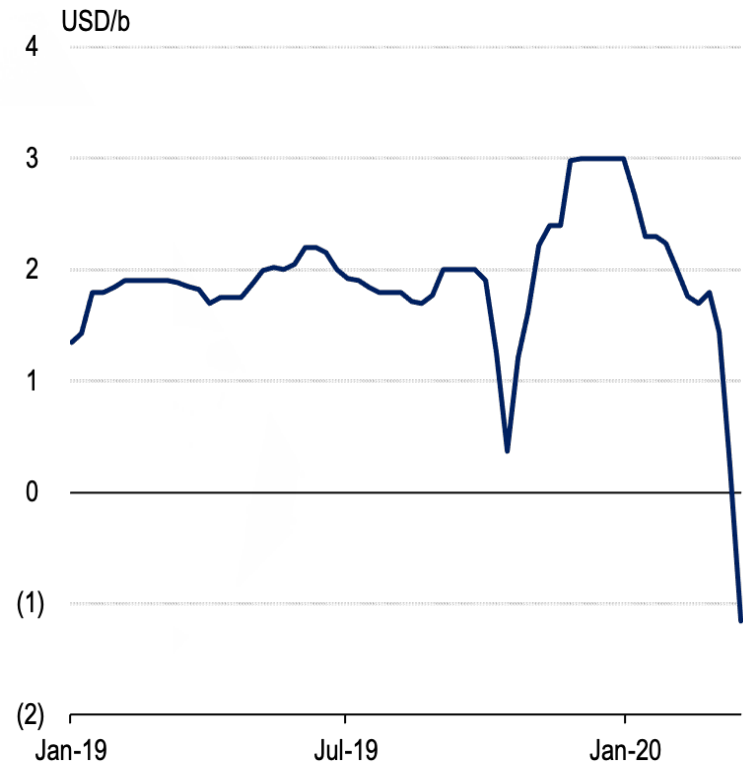
Physical differentials weaken as some buyers struggle to place their barrels

Urals NWE v Dated Brent



Source: OIES, Argus

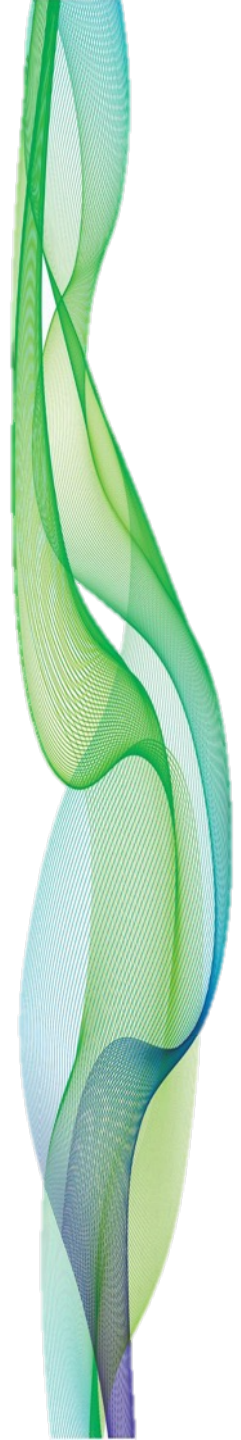
Bonny Light v Dated Brent



Source: OIES, Argus



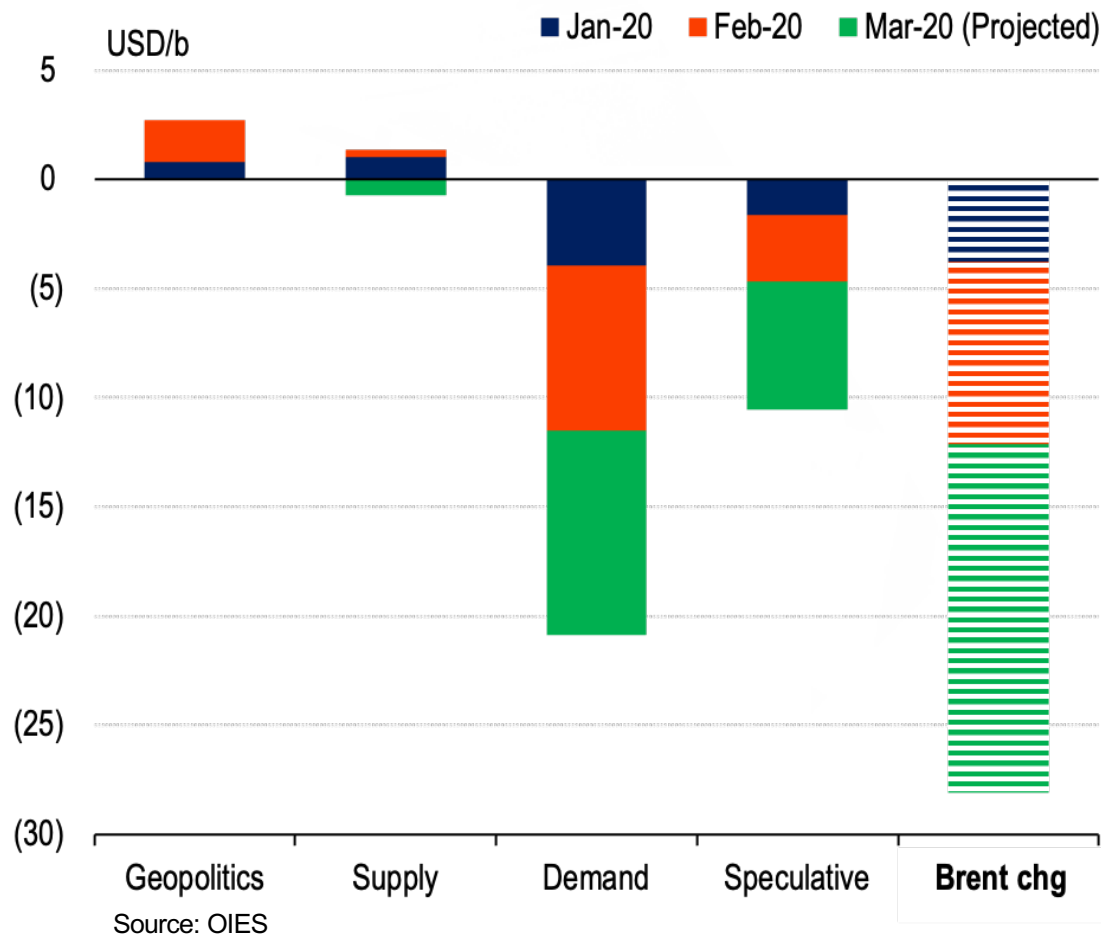
An oil demand crisis





Demand factors key in shaping prices

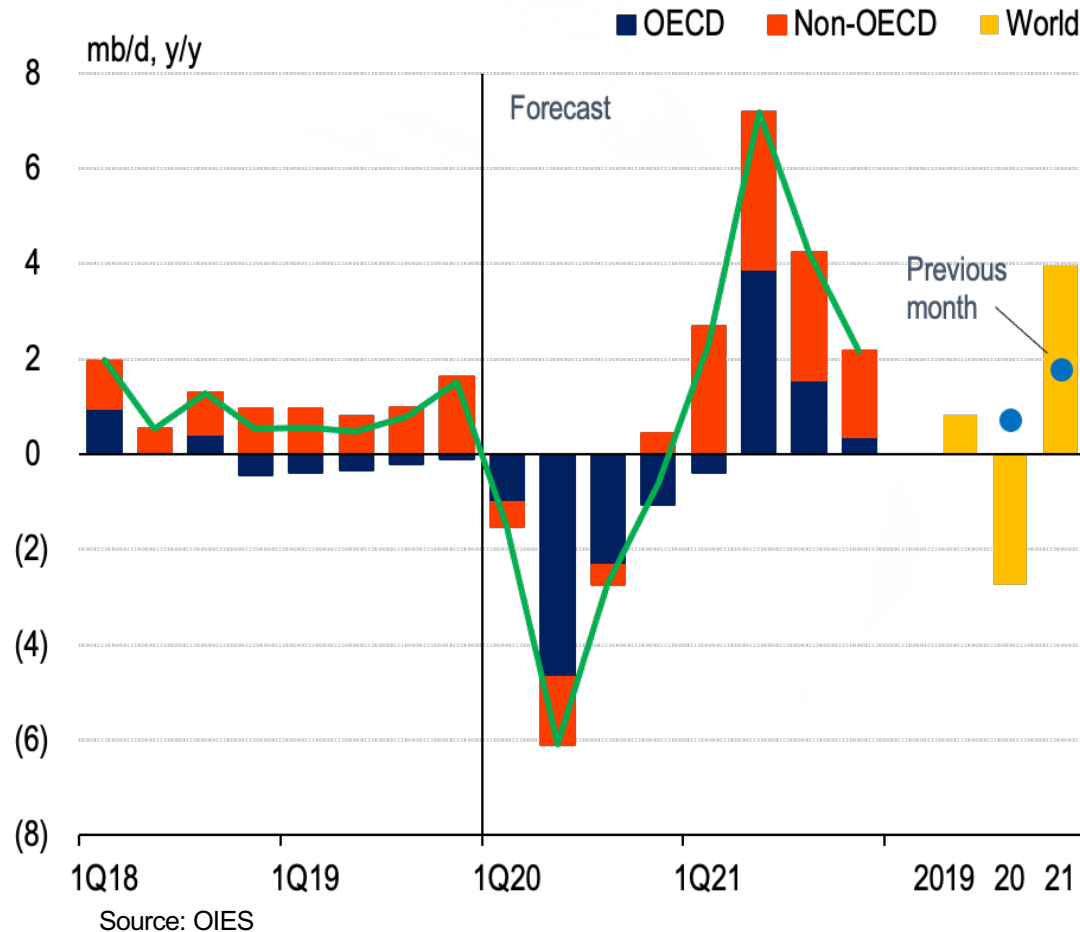
Oil price drivers in Q1 2020E





Annual oil demand to contract in 2020, but strong rebound in 2021

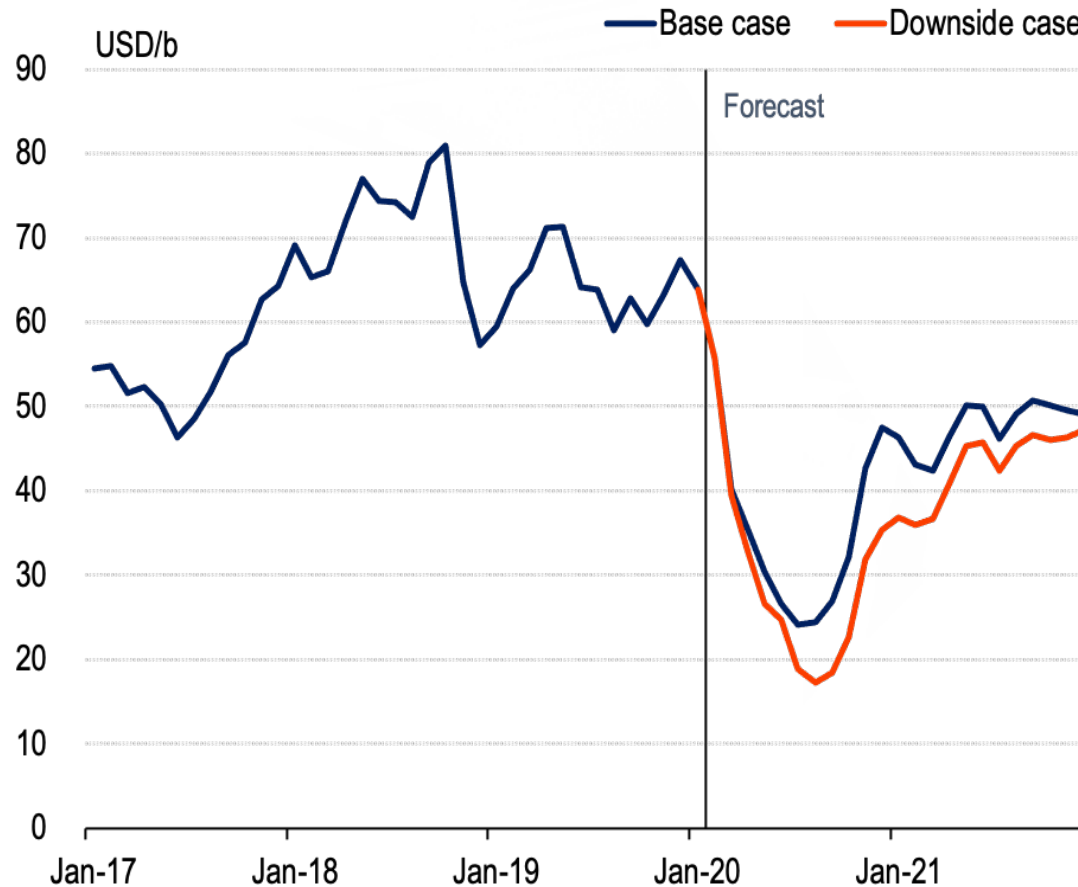
Global oil demand growth by scenario





Even in the absence of the imminent oil supply shock, prices would have tested the low-\$20/b

Global growth risks: Brent price forecast scenarios



Source: OIES

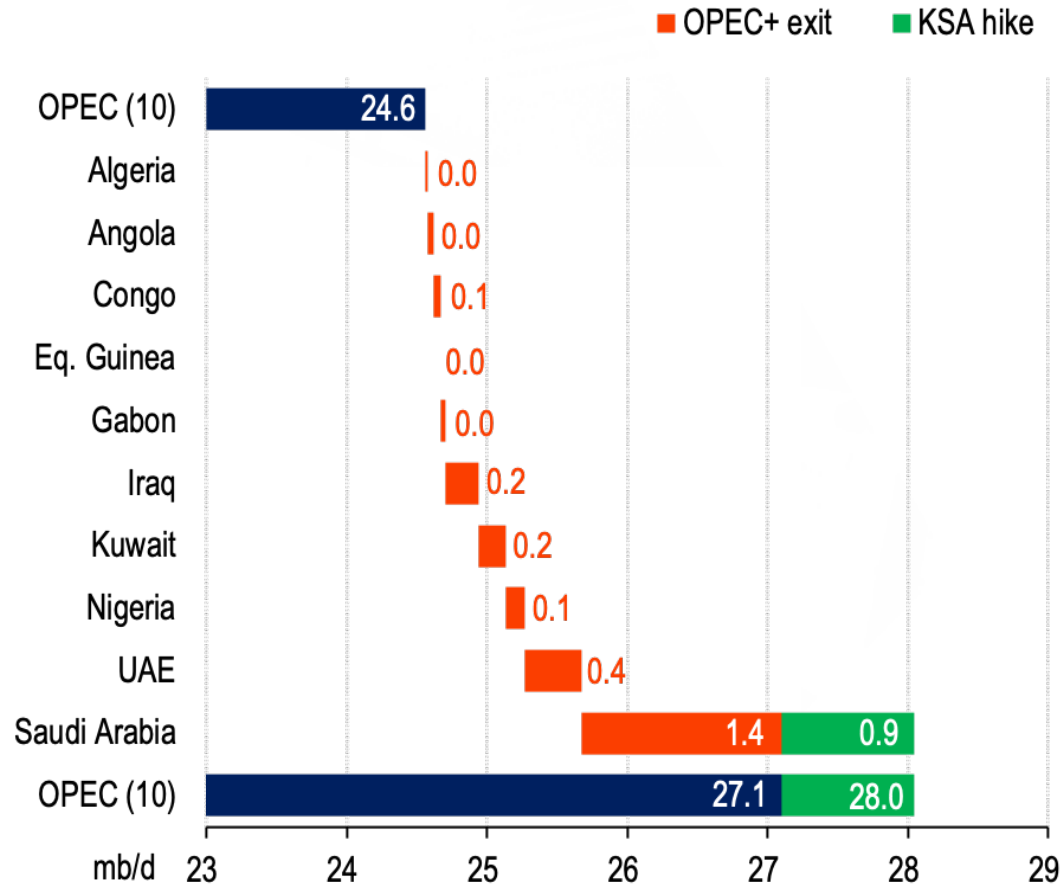


The oil supply shock



Saudi Arabia opens the floodgate

OPEC(10) crude production adjustments as of April 2020

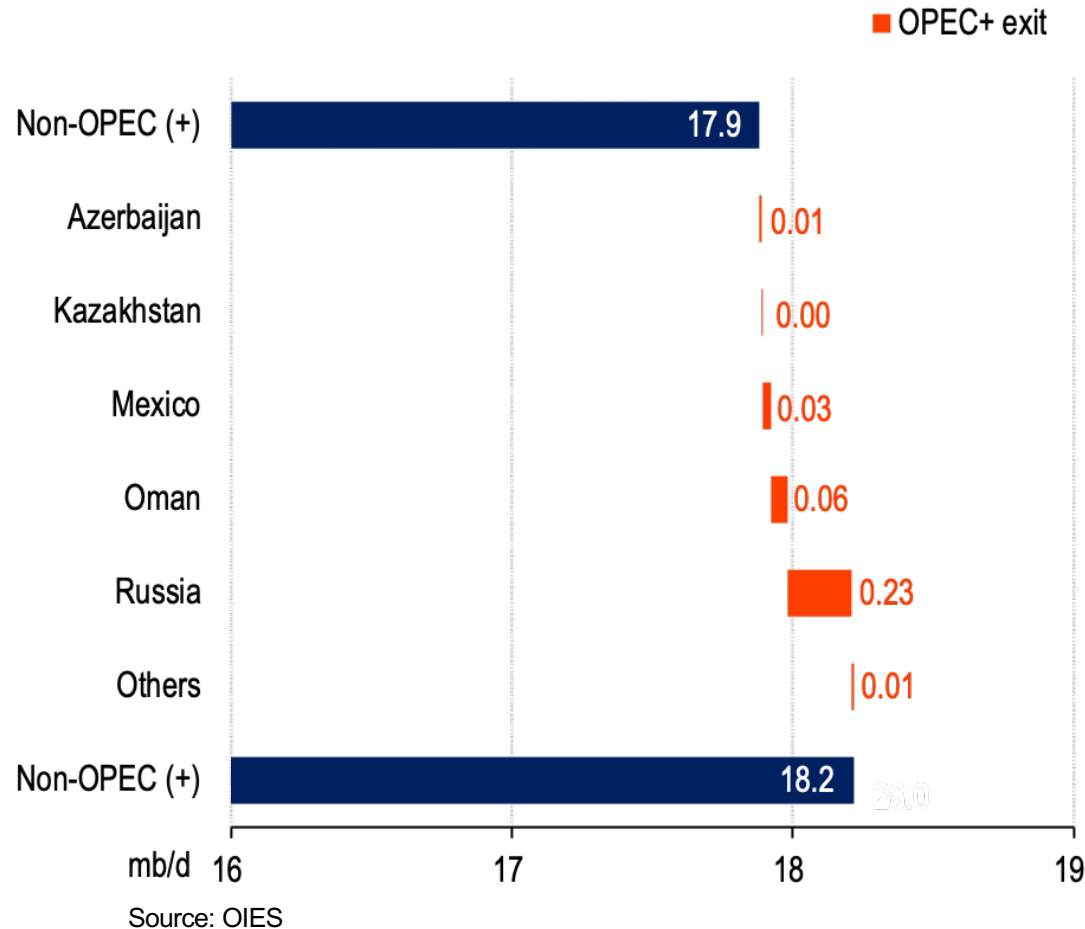


Source: OIES



Non-OPEC⁺ potential to increase output is limited

Non-OPEC(+) crude production adjustments as of April 2020





Saudi decision in perspective

Saudi Arabia's constant red line

Manage the market but only through collective action

Formation of OPEC+

Collective action should include non-OPEC producers (i.e. Russia)

Recent trends

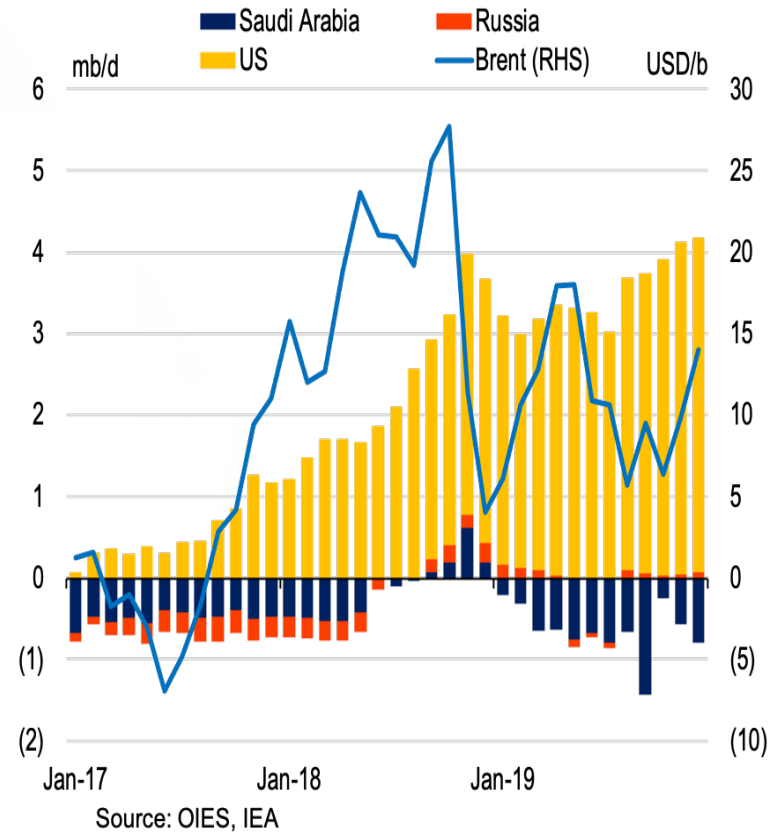
More proactive approach and lower tolerance for non-compliance

Pro-active in face of acute demand shock

JTC first recommended 0.6 mb/d and then increased it to 1.5 mb/d for rest 2020 with main purpose to moderate the build-up of stocks

Russia showed no intent to deepen the cut (internal dynamics, concerns about losing share to US shale, free ride, cuts in current context will have no impact)

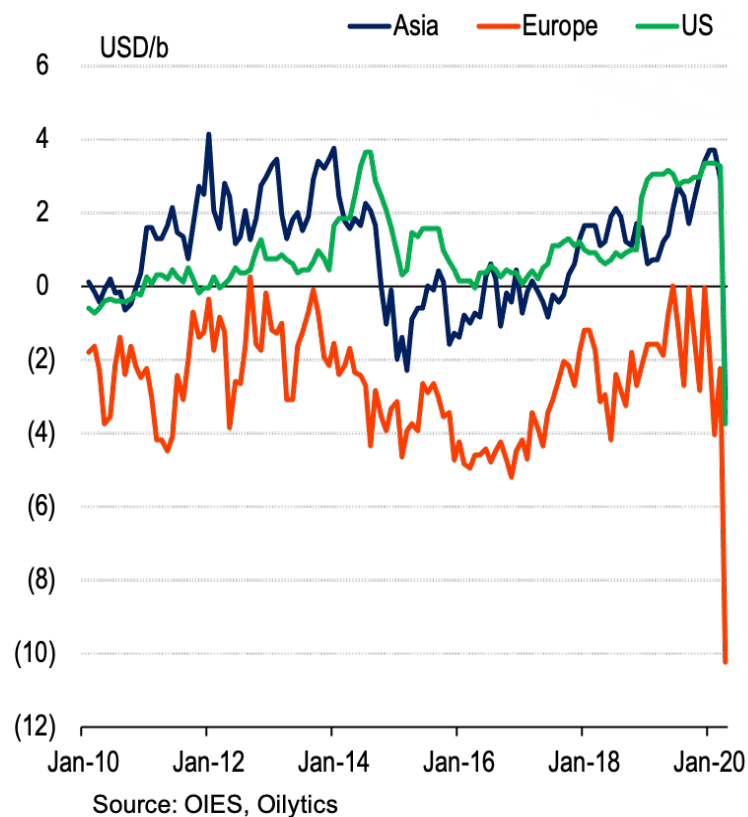
Big-3 production growth v Dec 16



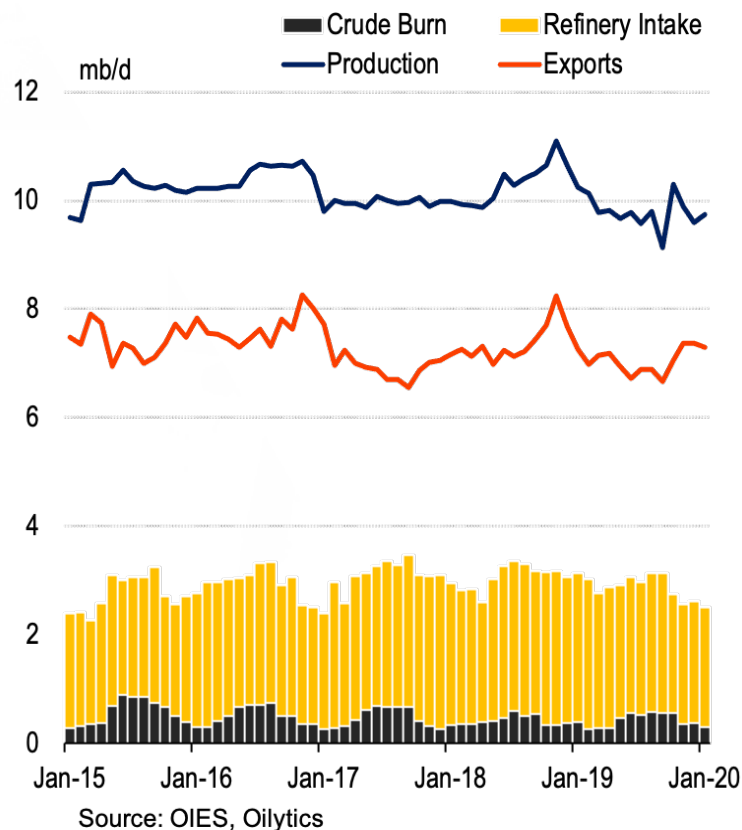


Awe campaign of maximum impact

Saudi Arabia OSP, Arab Light



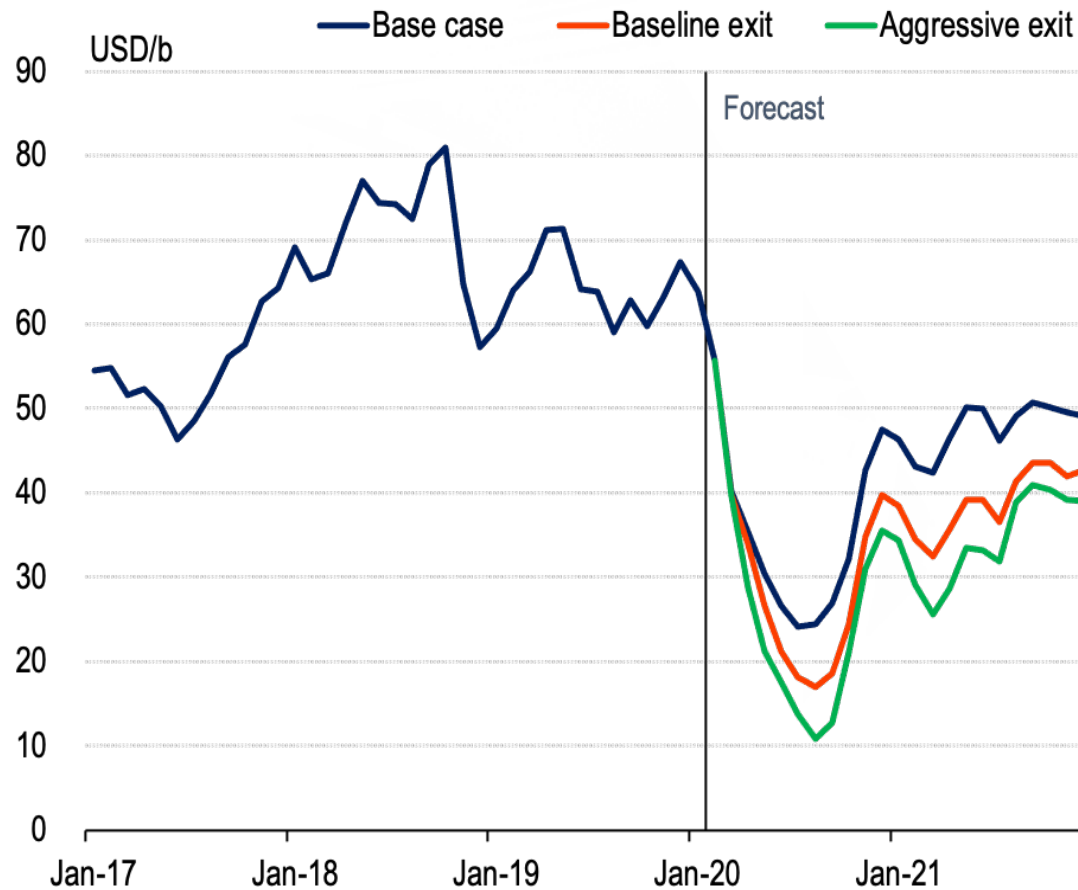
Saudi Arabia oil supply/demand profile





Oil prices could test new lows before recovering

OPEC+ exit: Brent price forecast scenarios

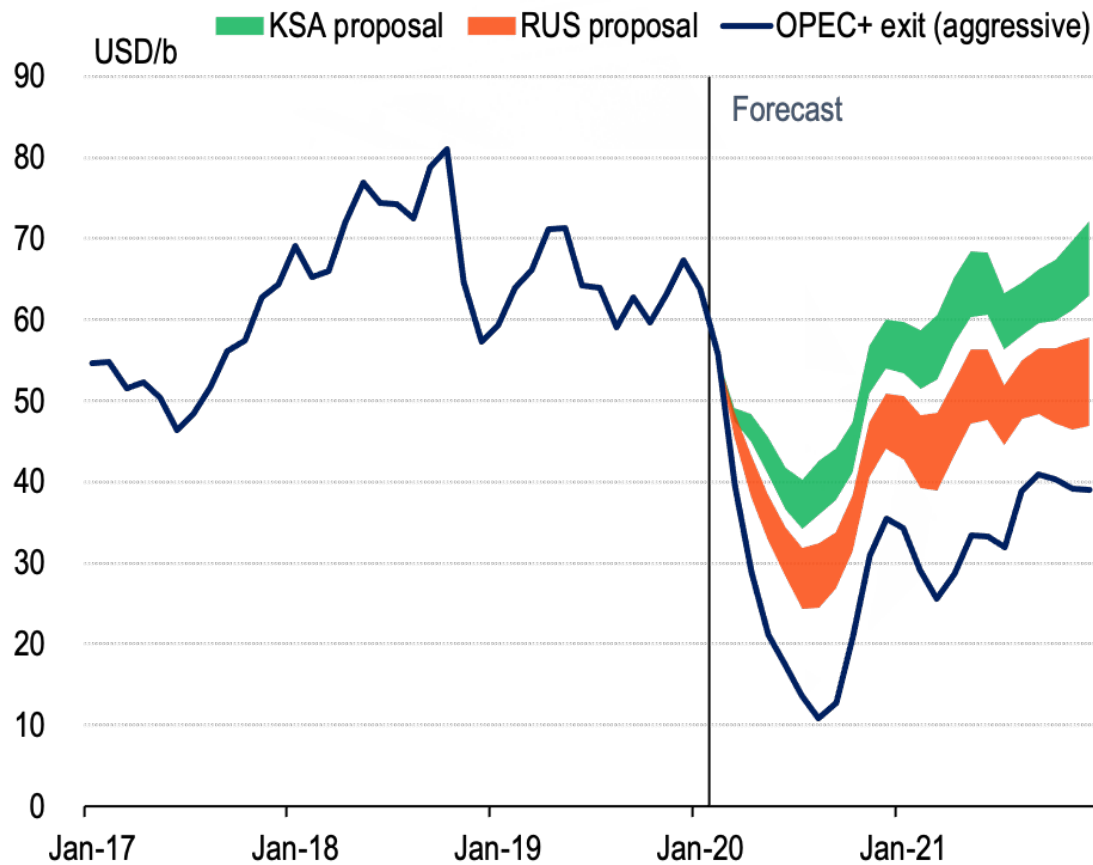


Source: OIES



Oil price behavior under different proposals

OPEC+ proposals: Brent price forecast scenarios

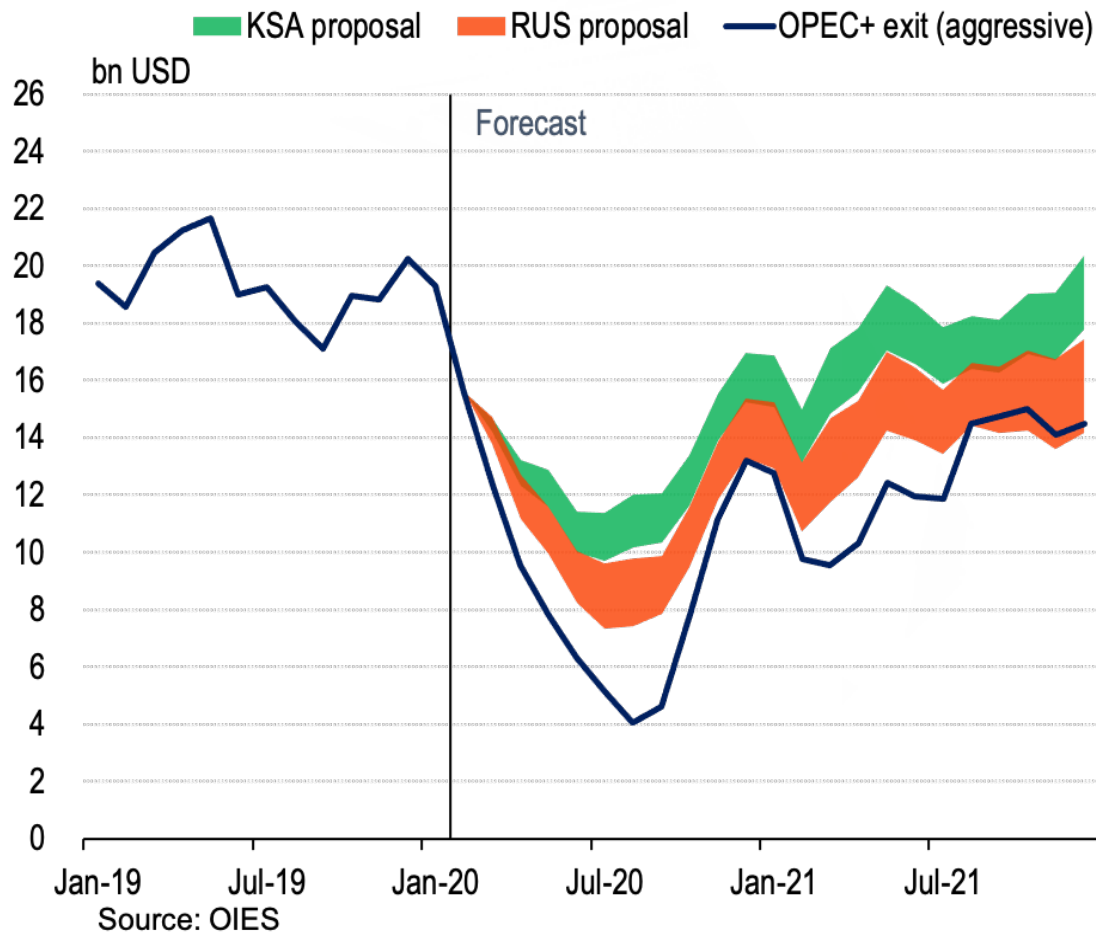


Source: OIES



Short-term revenue calculus

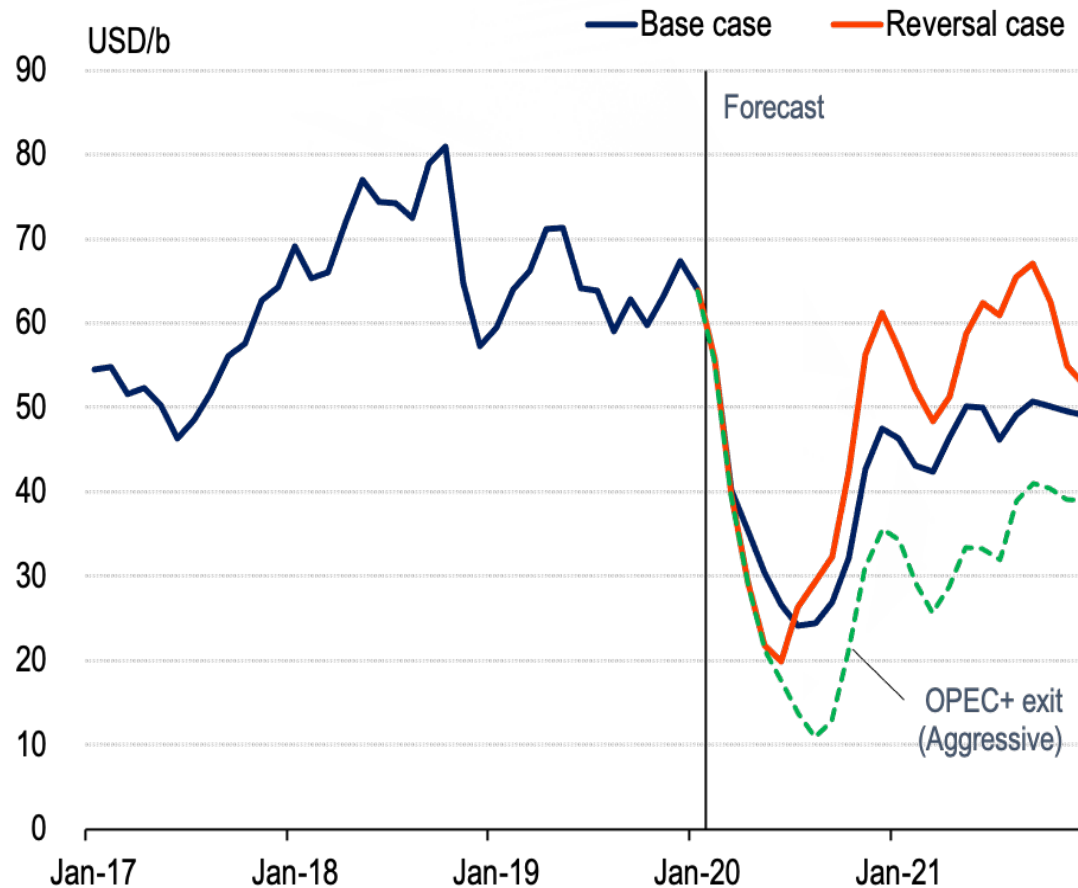
OPEC+ proposals: KSA gross revenues





Supply restriction only effective mechanism to balance the oil market in the short-term

OPEC+ policy reversal: Brent price forecast scenarios

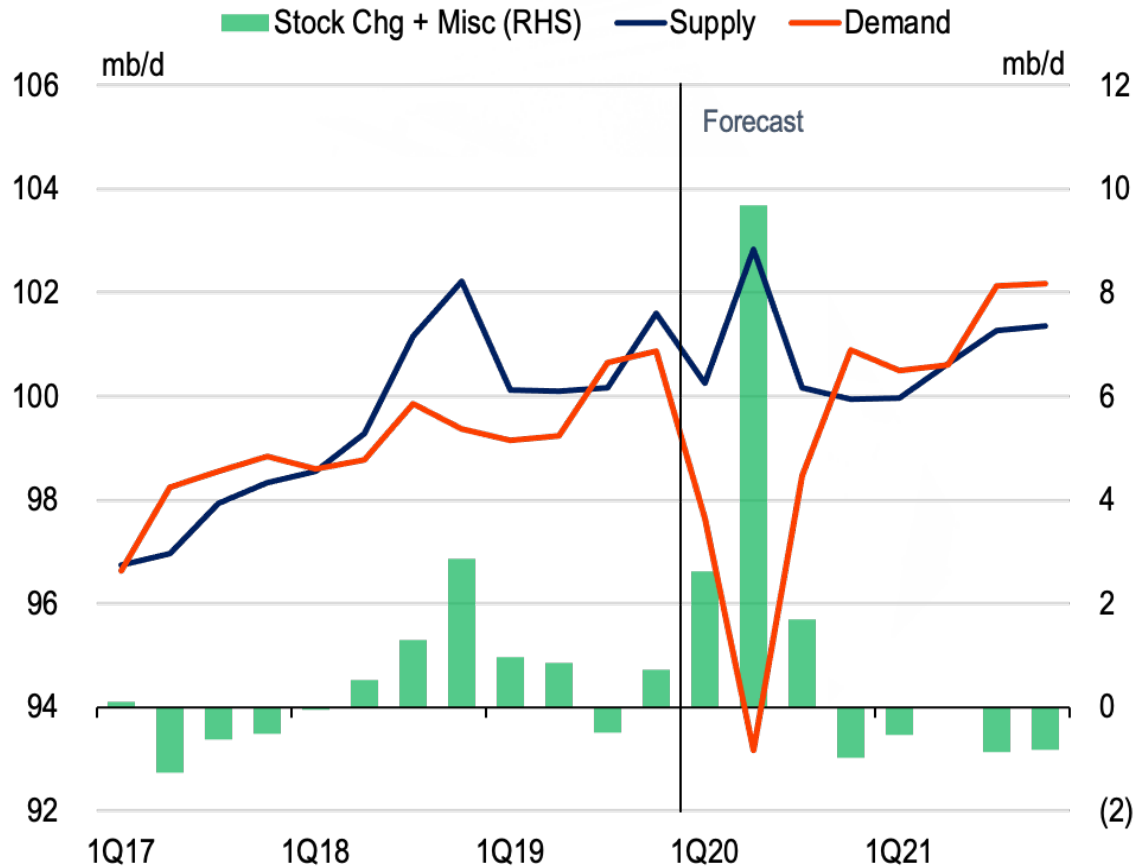


Source: OIES



If OPEC+ delivers a new output cutback agreement, the imbalance can correct

OPEC+ policy reversal: Global balance

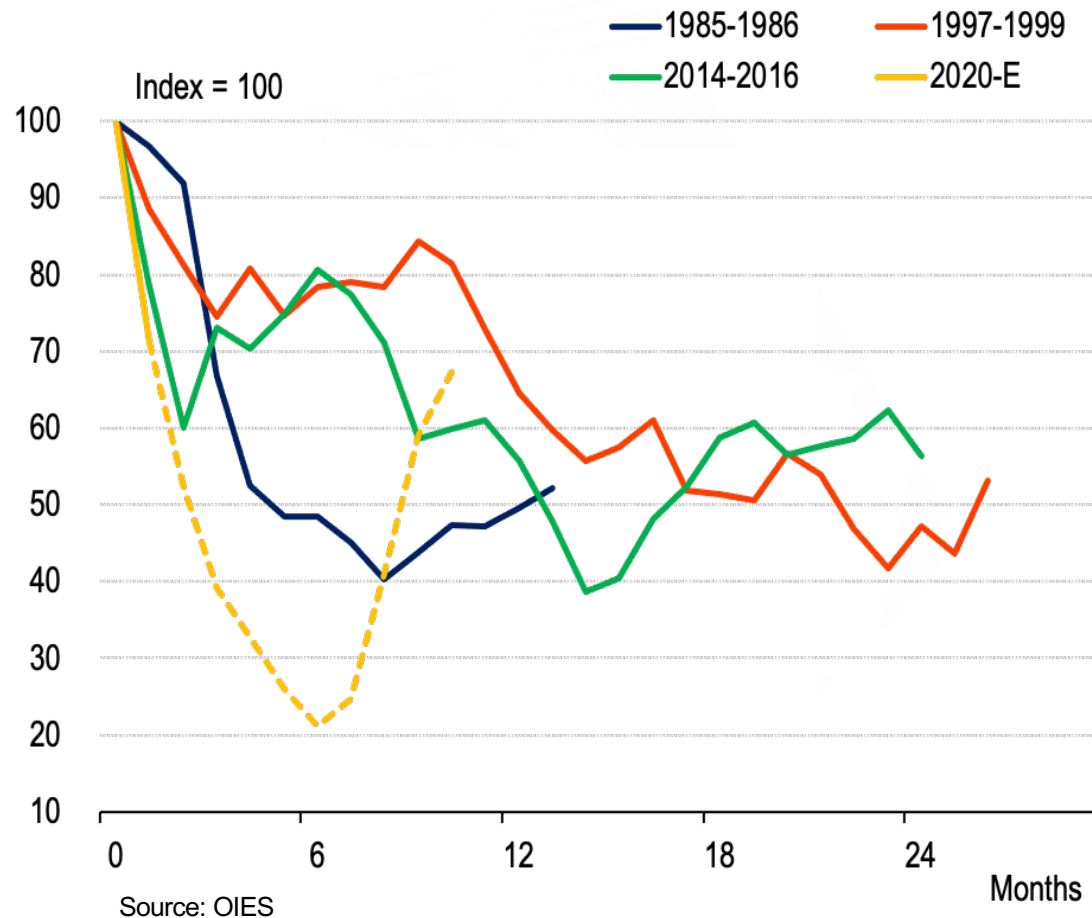


Source: OIES



If not, the current crisis could turn out to be one of the sharpest downturn cycles in the oil market history

Historical price wars, Brent index



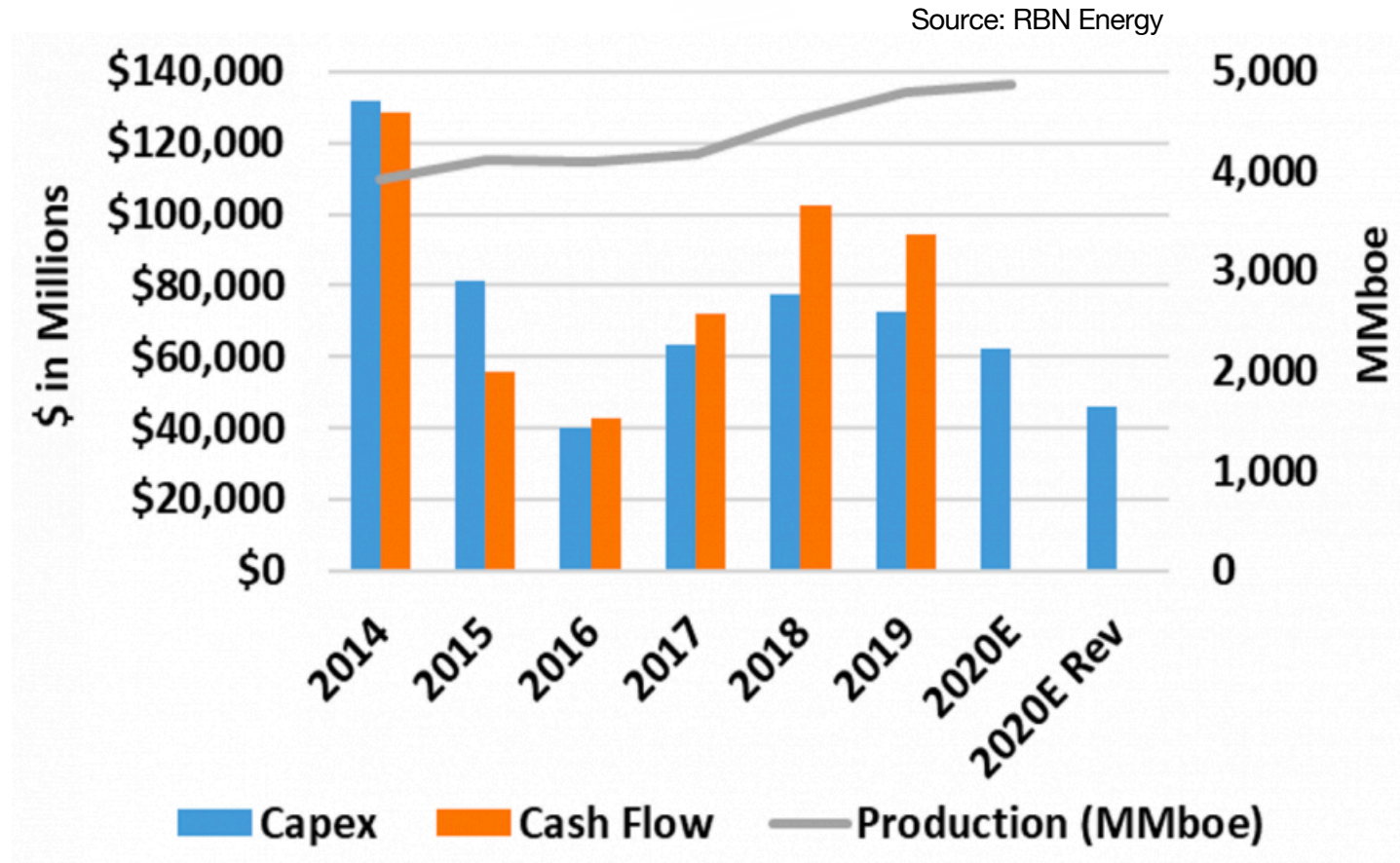


Reliance on price/market mechanism



Capex has already been falling prior the recent price crash

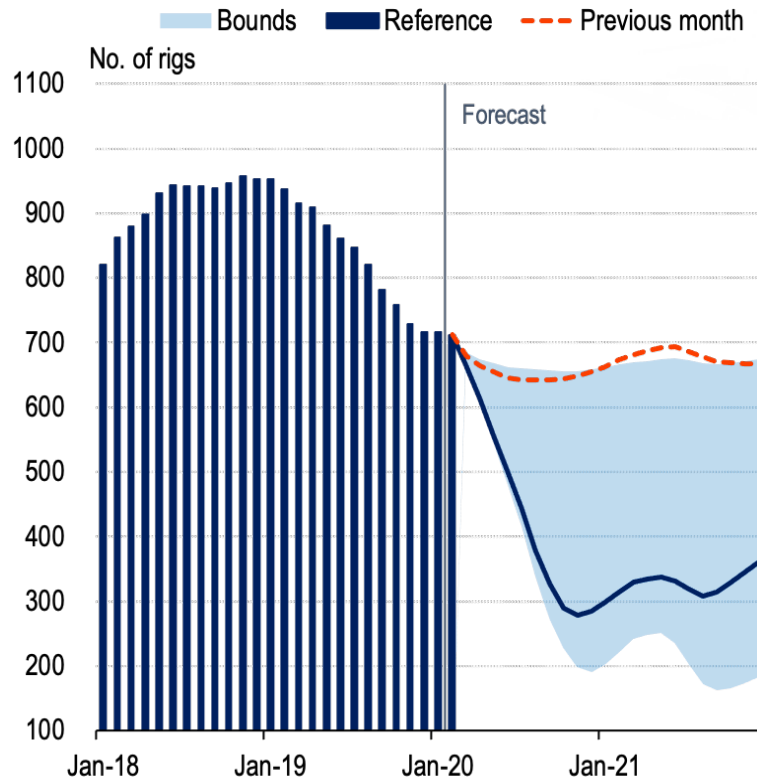
US shale capex revisions for 2020





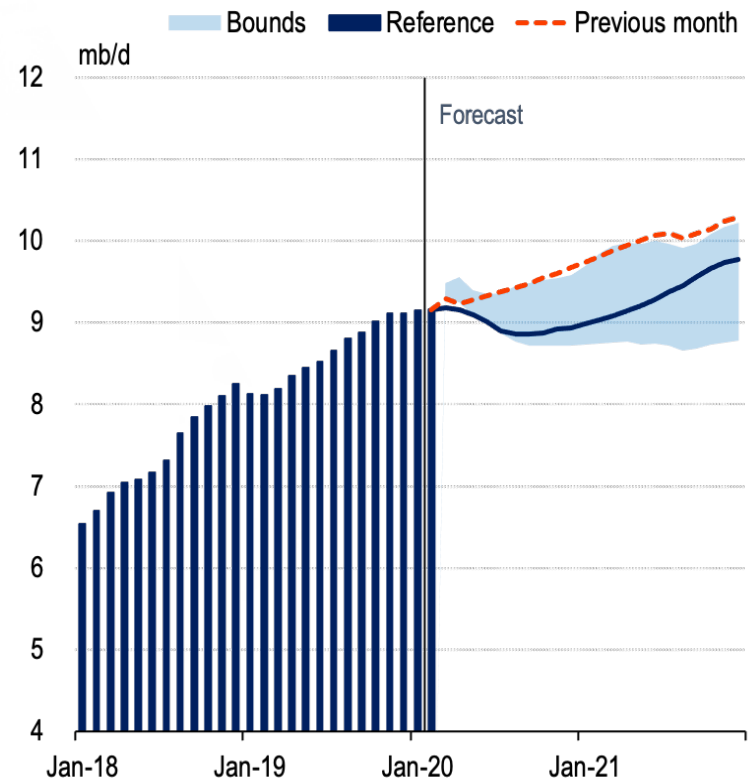
US shale expected to carry the burden of adjustment, but is it enough?

US shale drilling activity



Source: OIES

US shale supply

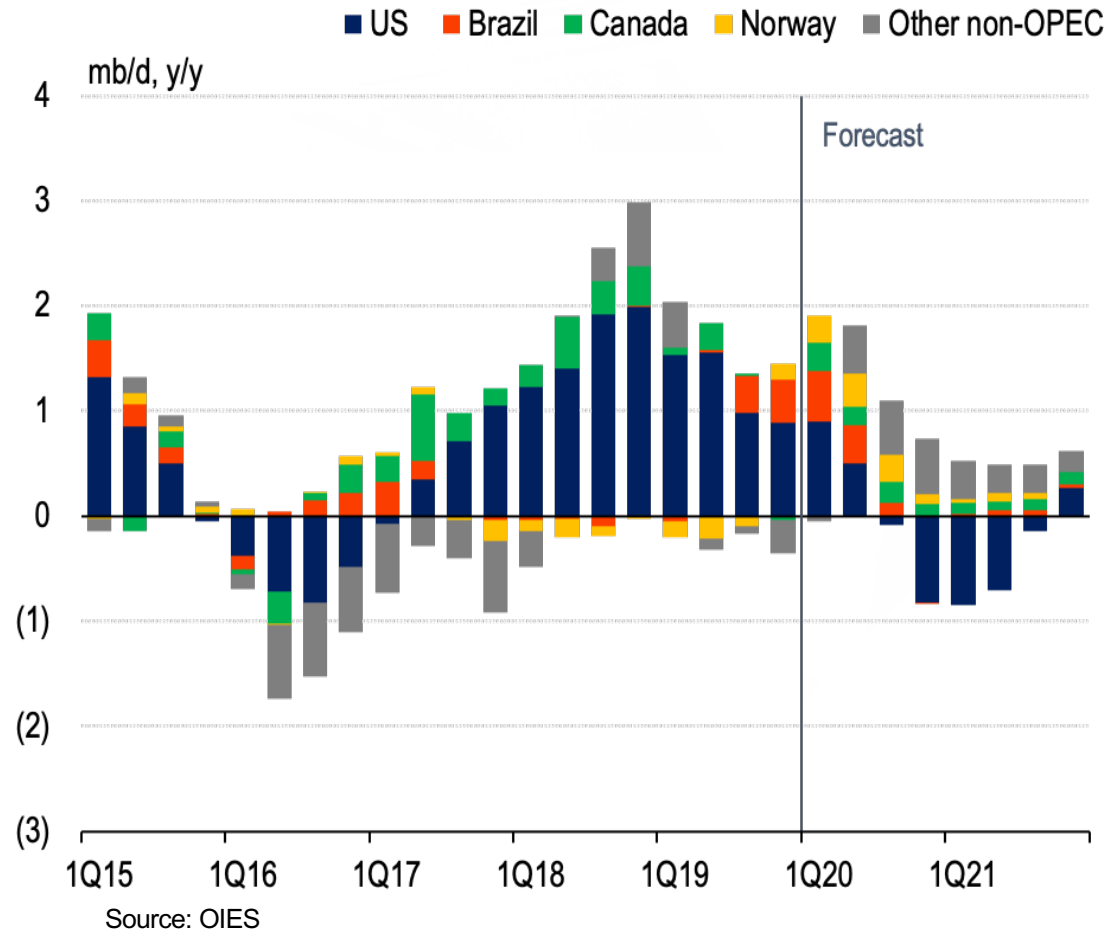


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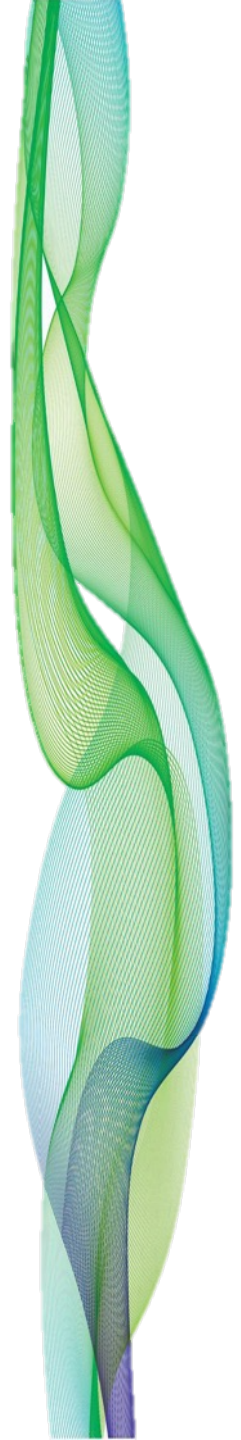
Non-OPEC supply outside the US will play a role, but only post-2021

Non-OPEC crude supply





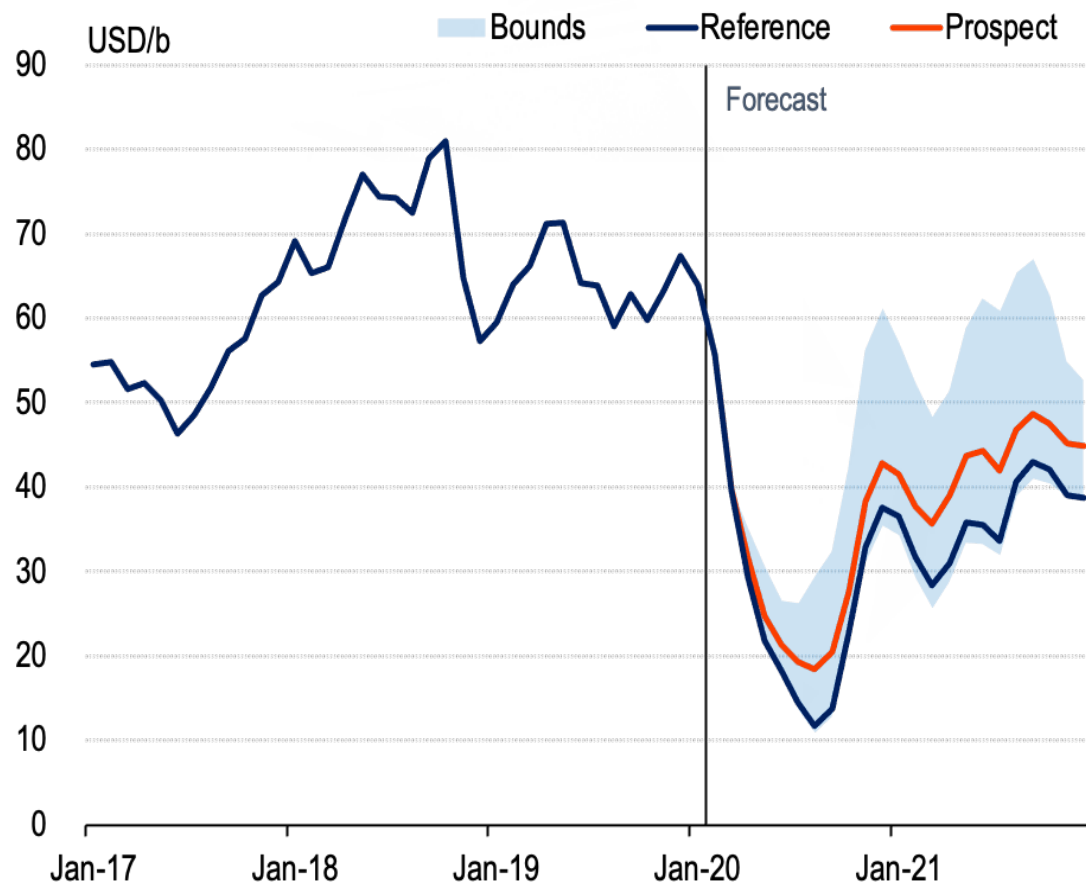
Outlook in 2020/2021





Brent to deteriorate sharply in 2020 and only to gradually recover in 2021

Brent price outlook

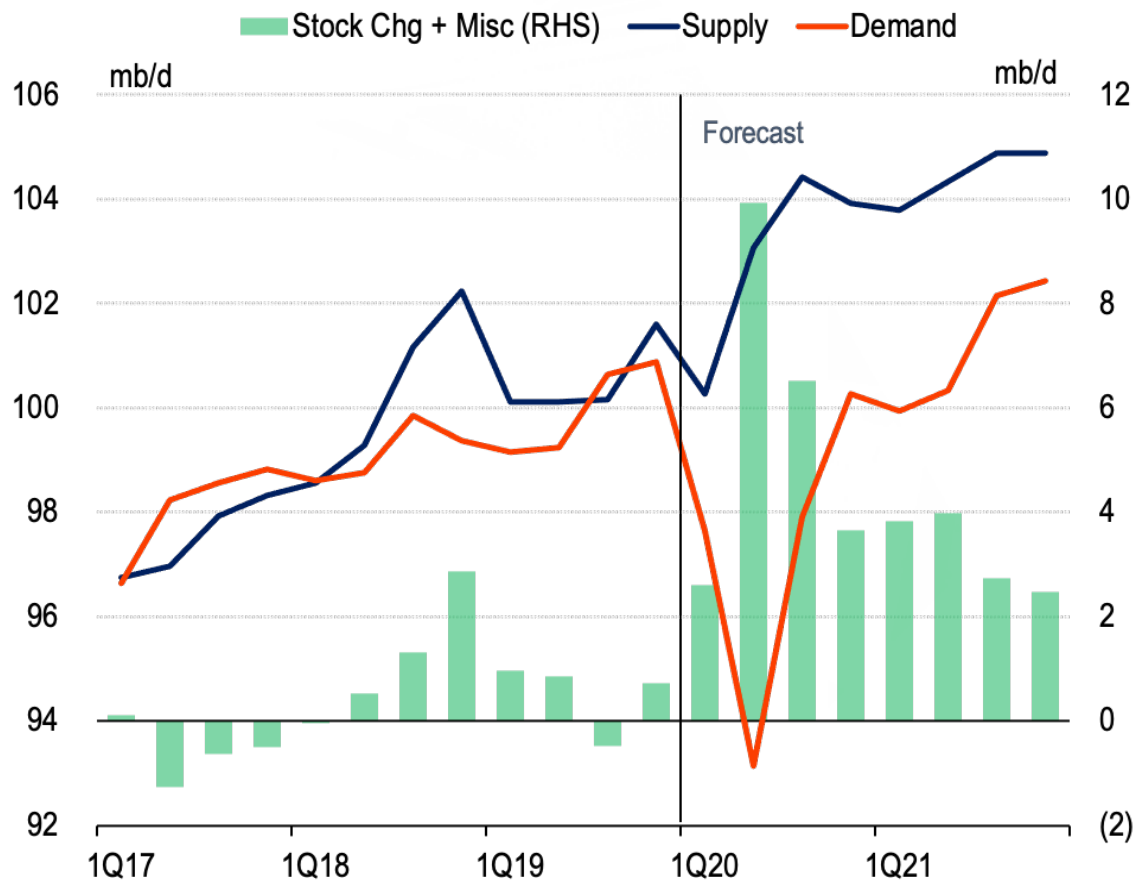


Source: OIES



Market out of balance with extreme surpluses in 2020

Global supply/demand balance



Source: OIES

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Oxford Institute for Energy Studies

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