A New Age for Oil Markets?

for 11th Oil Forum

JBC Energy

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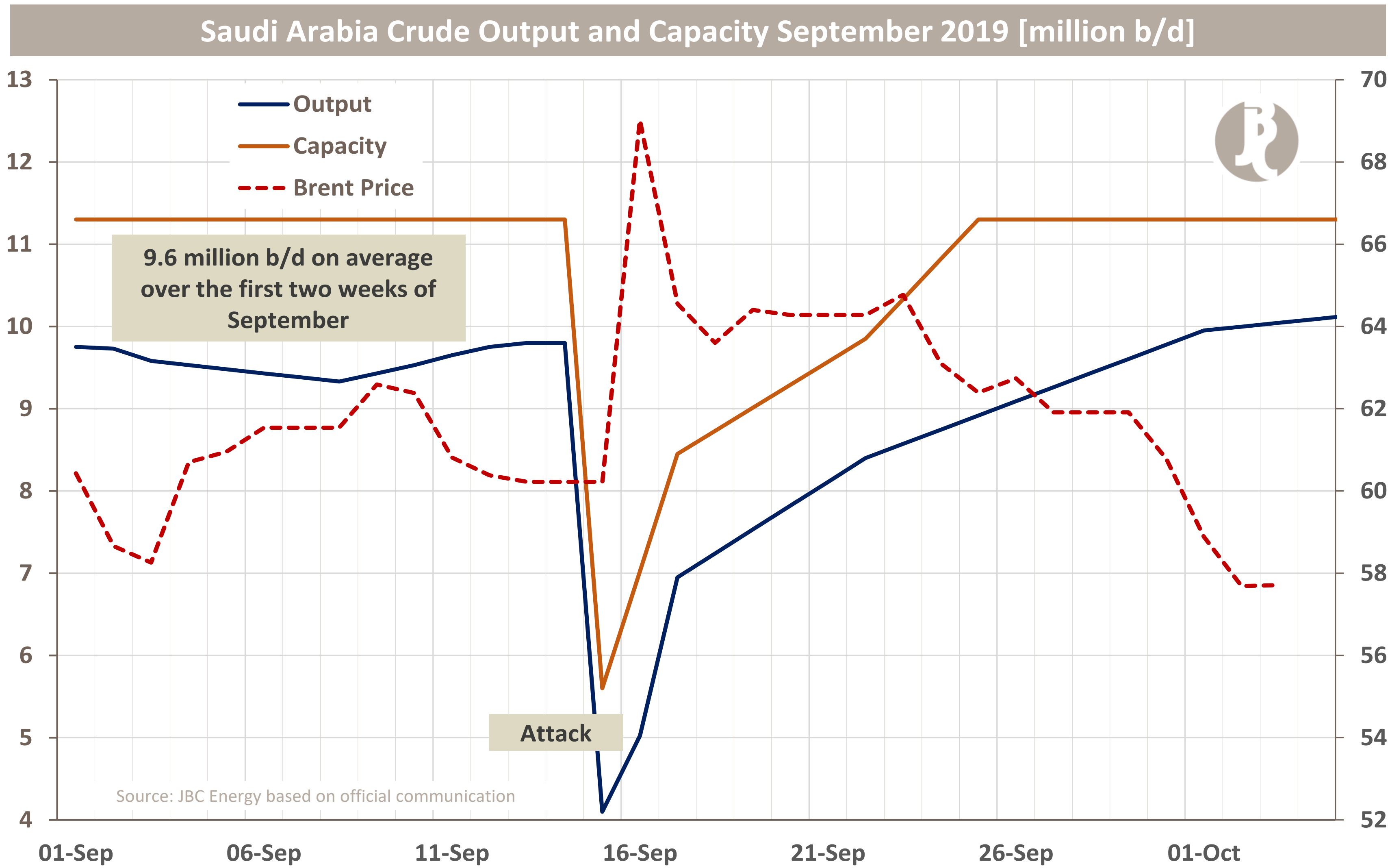
Agenda

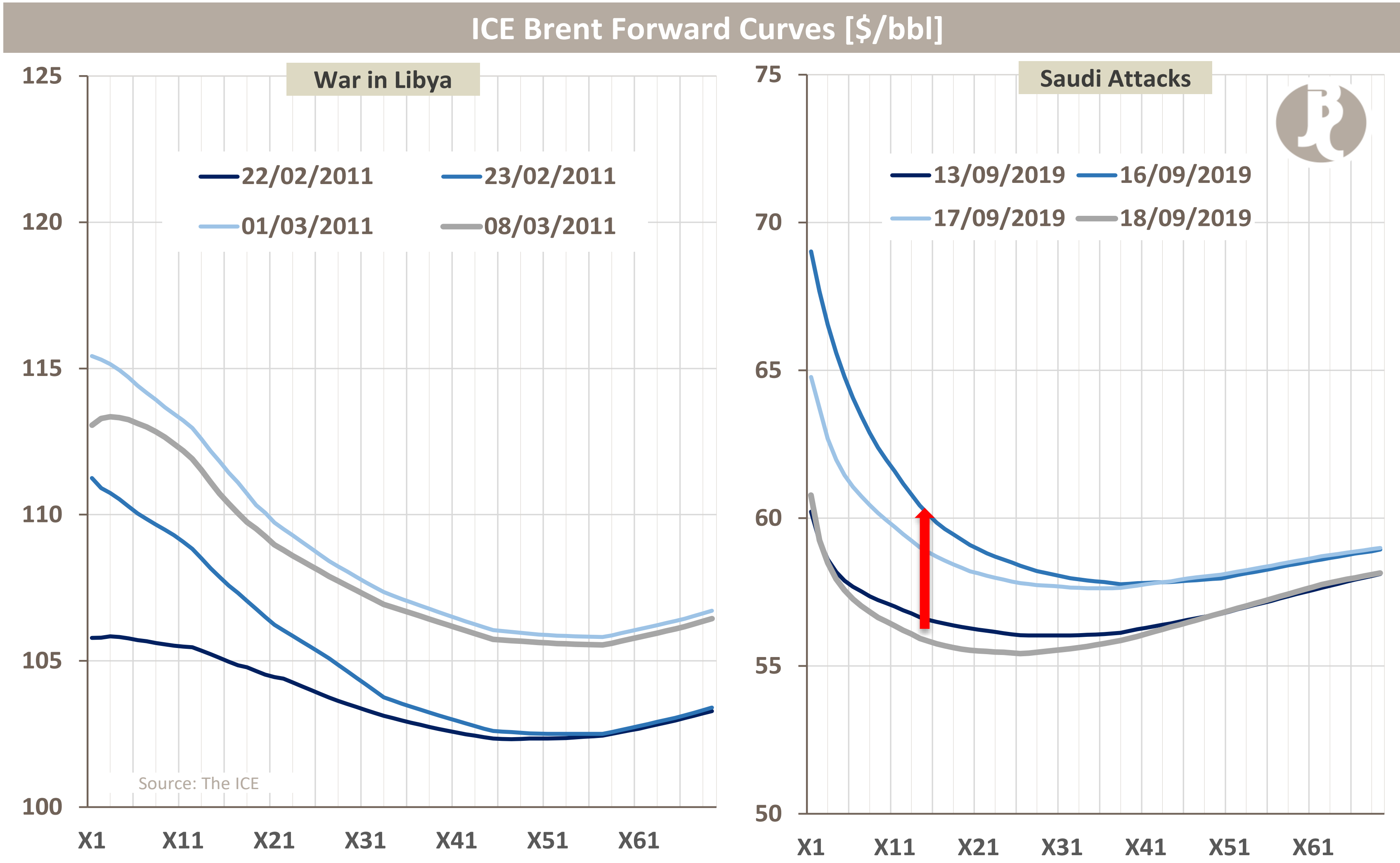
- Impact of attacks on Saudi Arabia
- Explaining the muted price reaction
  – Swift output recovery
  – US Shale Changes Everything
  – Demand/Economy Under Pressure
  – Stock Coverage at Unprecedented Levels

Impact of Attacks on Saudi Arabia



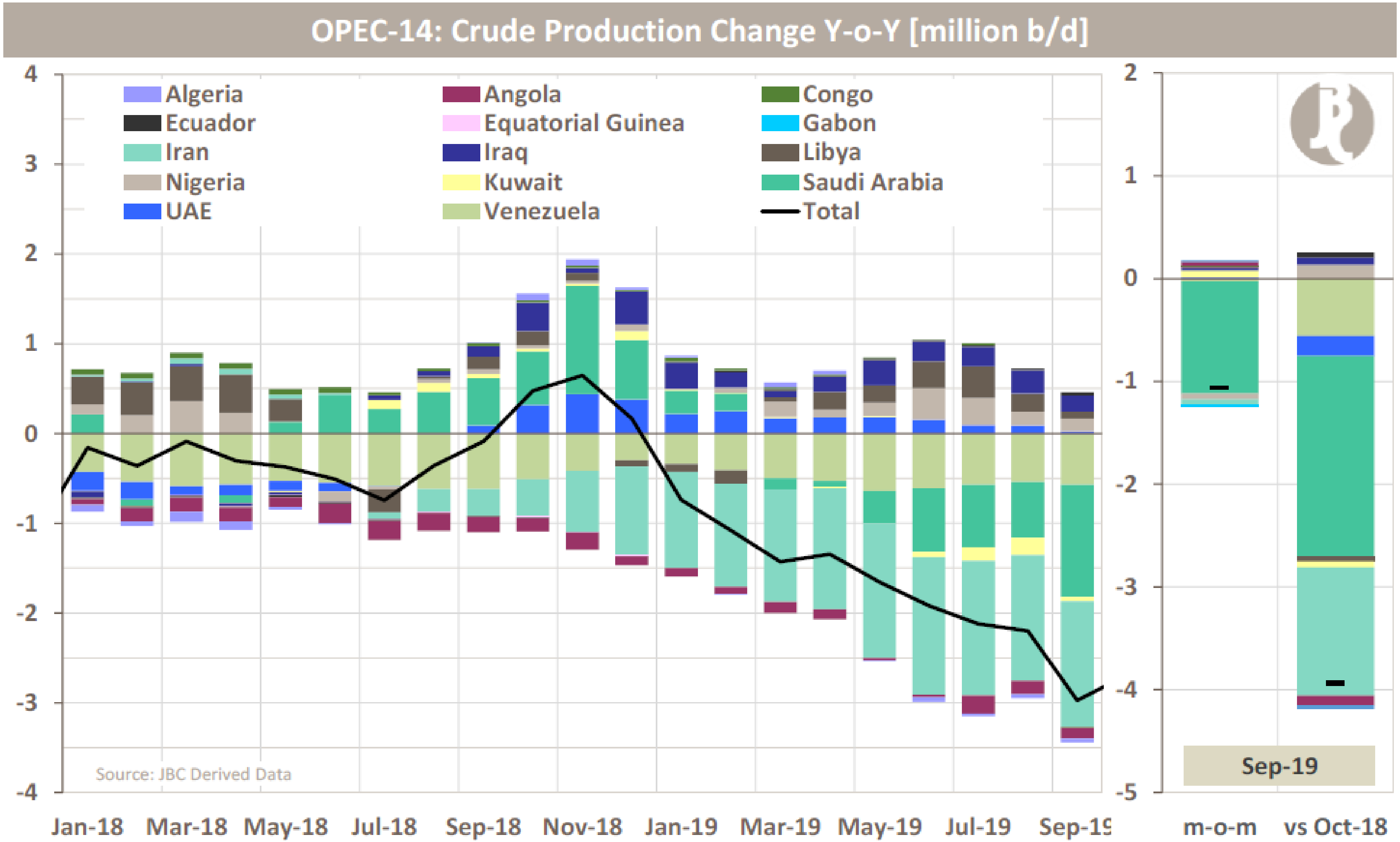
Prices spiked right after the attack on Abqaiq and Khurais, also driven by some kind of panic sentiment, but corrected very fast. What has been deemed for years as worst-case scenario is currently only a minor concern.

Impact of Attacks on Saudi Arabia



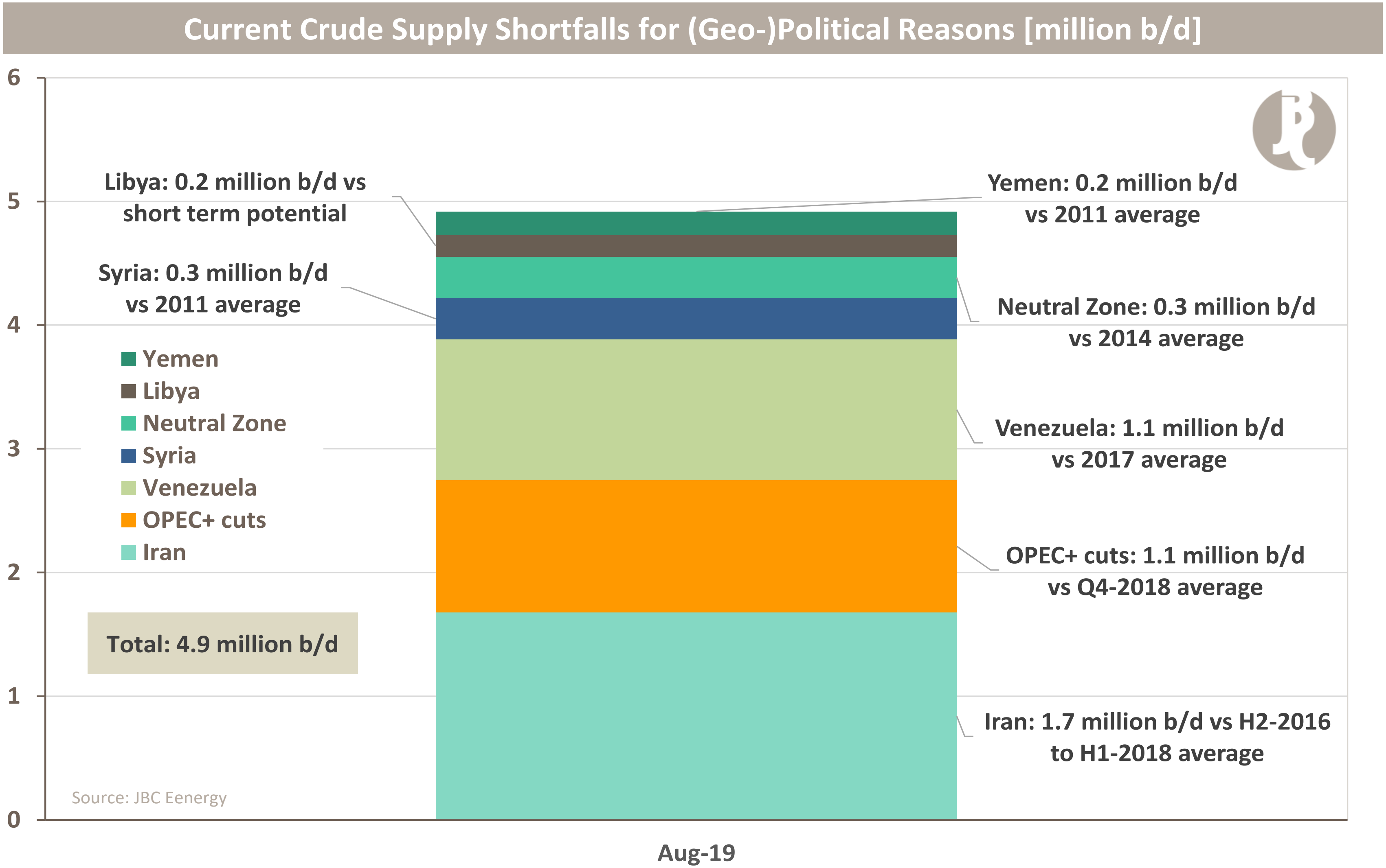
Compared to similar incidents a number of years ago, the forward curve was little changed and also corrected timely.

Impact of Attacks on Saudi Arabia



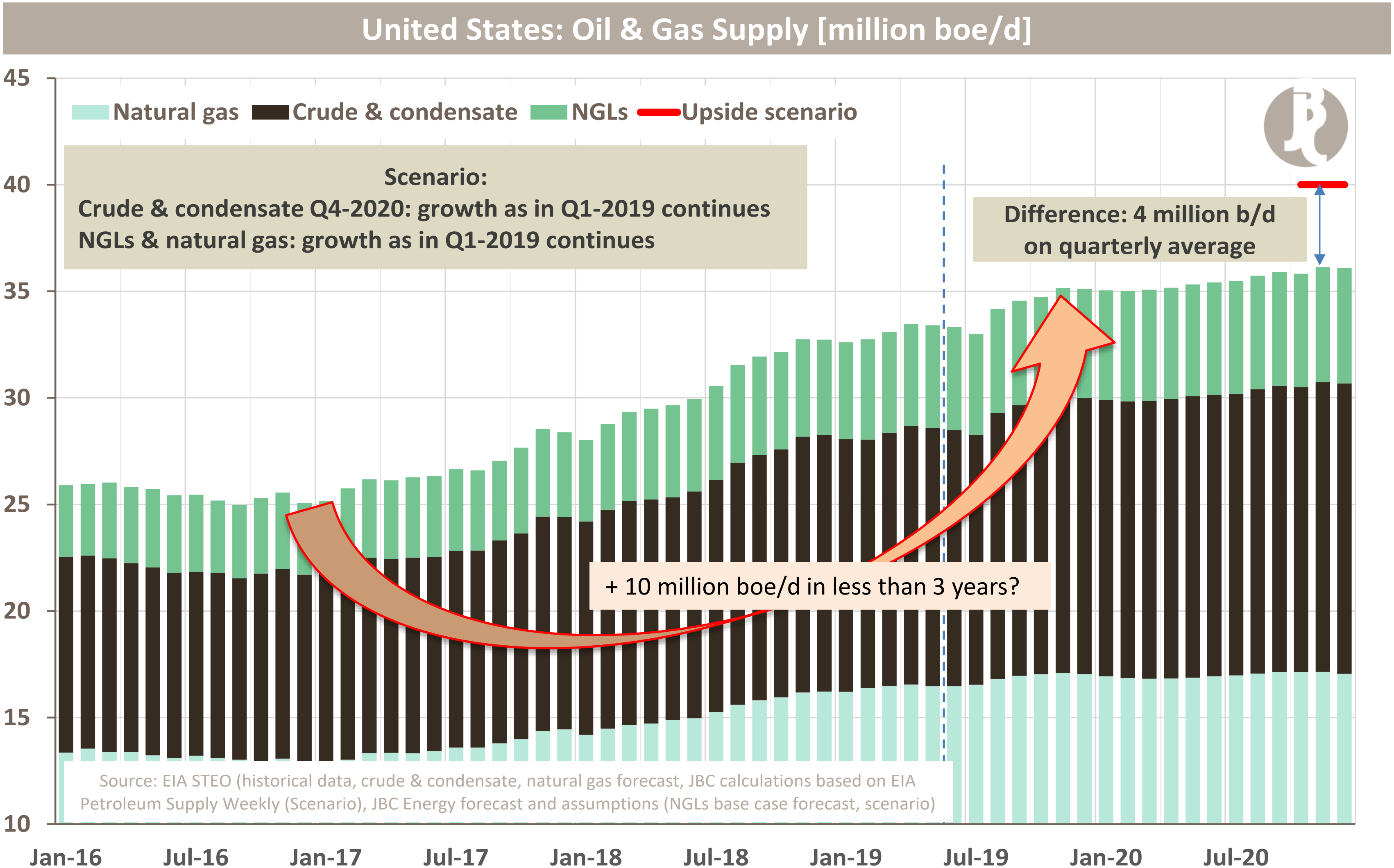
We are looking at a m-o-m downtick of 1 million b/d, in market already starved of OPEC crude.

Impact of Attacks on Saudi Arabia



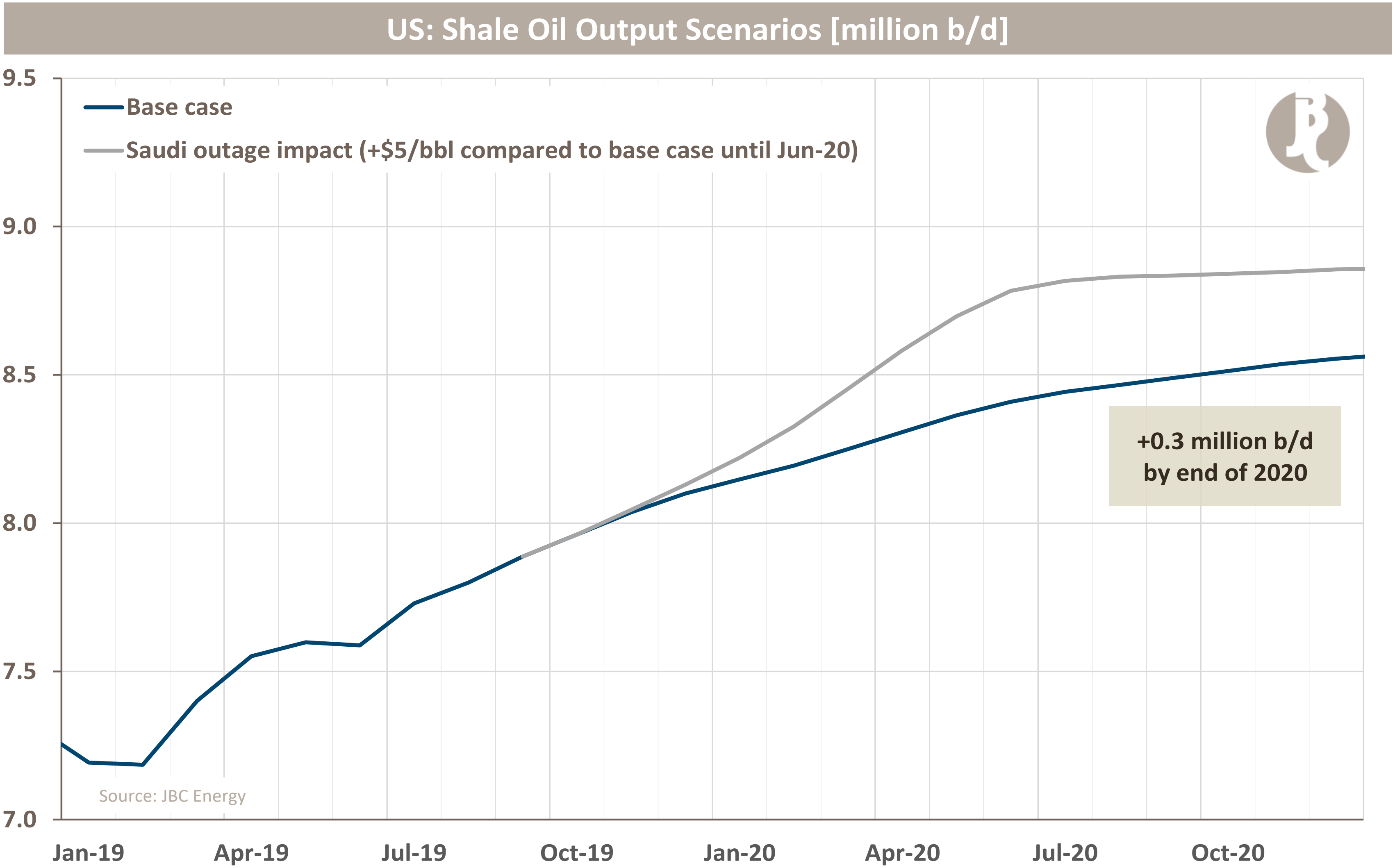
Already before the attacks on Saudi oil infrastructure, we accounted for outages of some 4 million b/d outside of deliberate OPEC+ cuts. All this has not really helped prices to rise on a consistent basis. Why is this?

US Shale Changes Everything



Generally we see the US shale sector transforming the industry, a process that is far from over and includes not only crude oil but also NGLs and natural gas. The next 12 months will be marked by fresh US infrastructure additions, spreading supplies and price pressure globally.

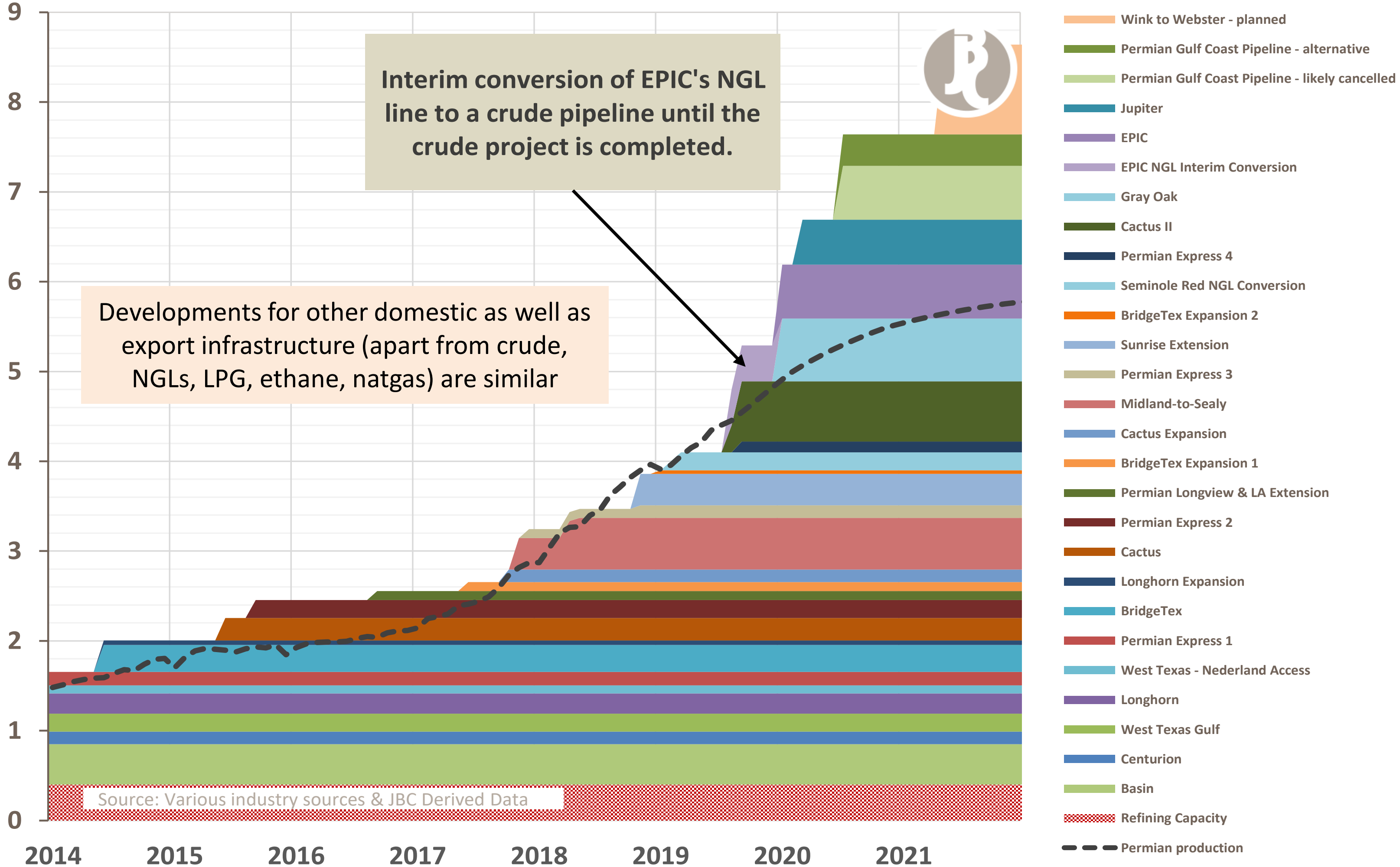
US Shale Changes Everything



Shale production growth is set to slow down 2021 as we see an equilibrium between the output of new well additions and declines. Even a relatively small and short-lived price spike may unlock 300,000 b/d of US shale oil over a 6-18-month time horizon (or more than 100 million barrels of oil.

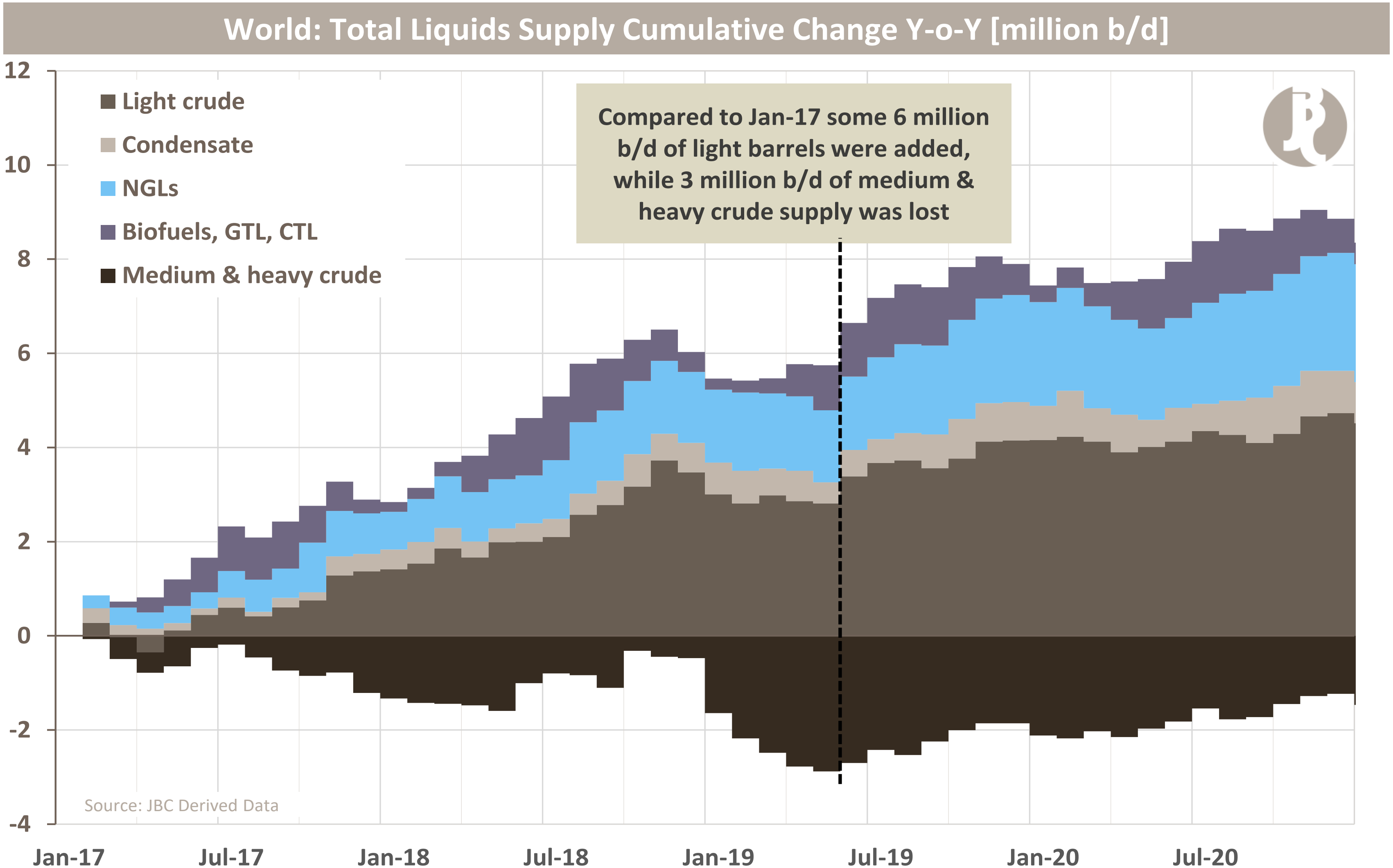
US Shale Changes Everything

US: Permian Basin Crude Production and Offtake Capacity [million b/d]



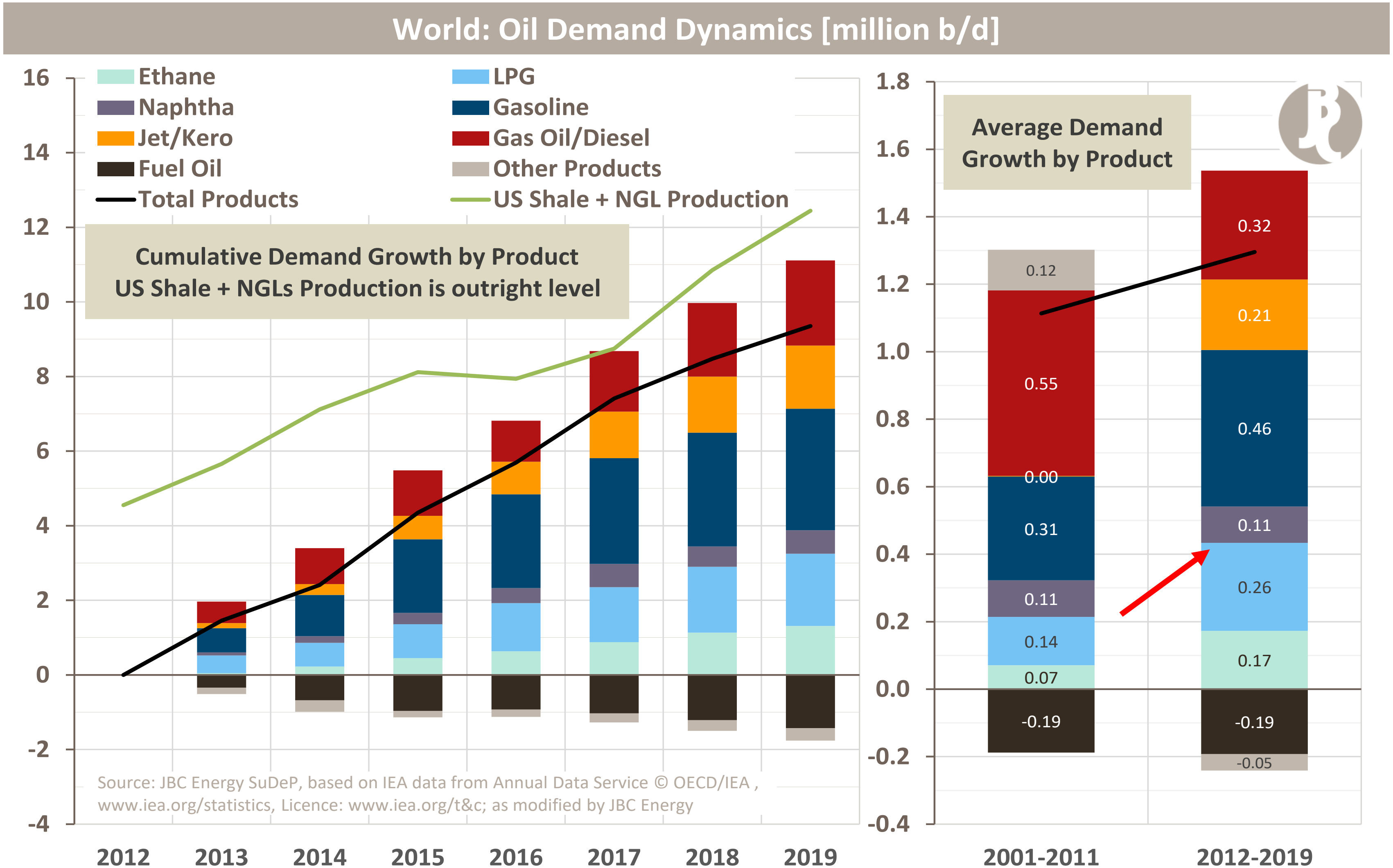
Shale production is skyrocketing and recent pipeline and export infrastructure additions now provide direct international market access to the various hydrocarbons.

US Shale Changes Everything



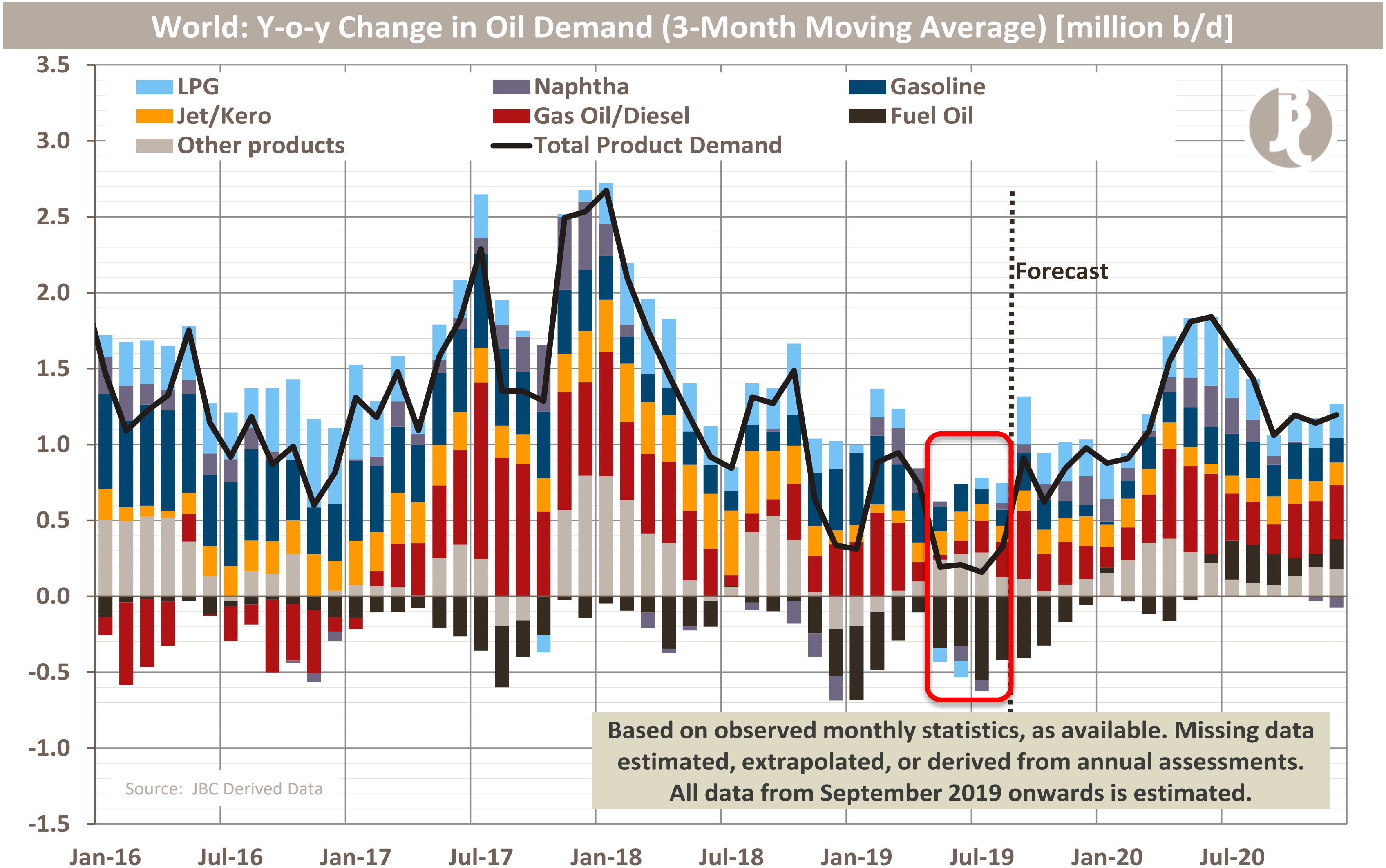
Shale saw the global supply picture changing drastically over recent years, also adding large volumes of non-crude liquids. This is in turn changing demand by growing shares of NGLs and biofuels.

US Shale Changes Everything



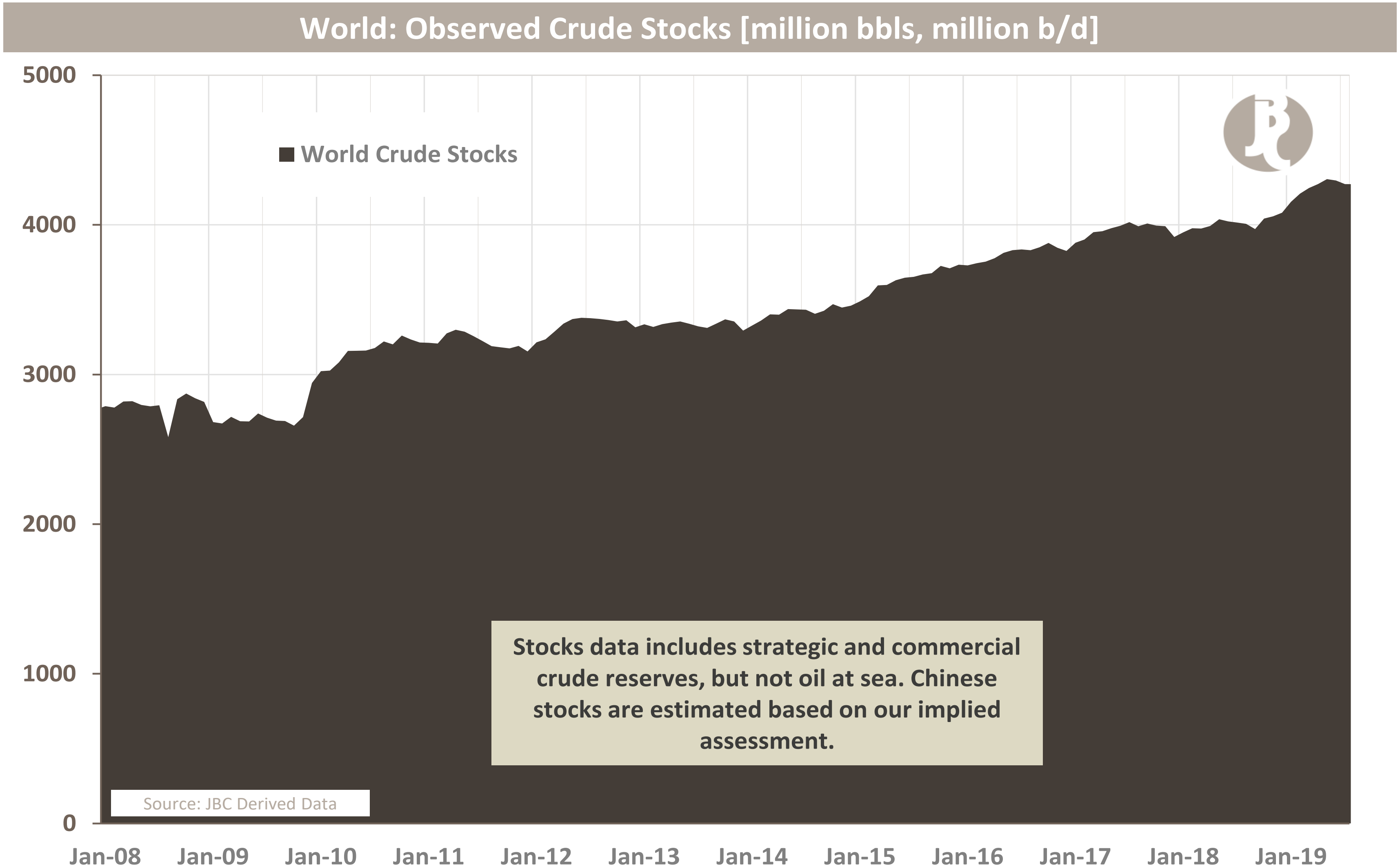
A look at the last two decades shows how strongly US shale has affected demand growth. 1) US shale was nearly growing fast enough to meet all marginal demand over 2012-19. 2) resulting price pressure has boosted gasoline and jet fuel consumption. Cheap NGLs caused LPG and ethane demand growth to double.

Demand/Economy Under Pressure



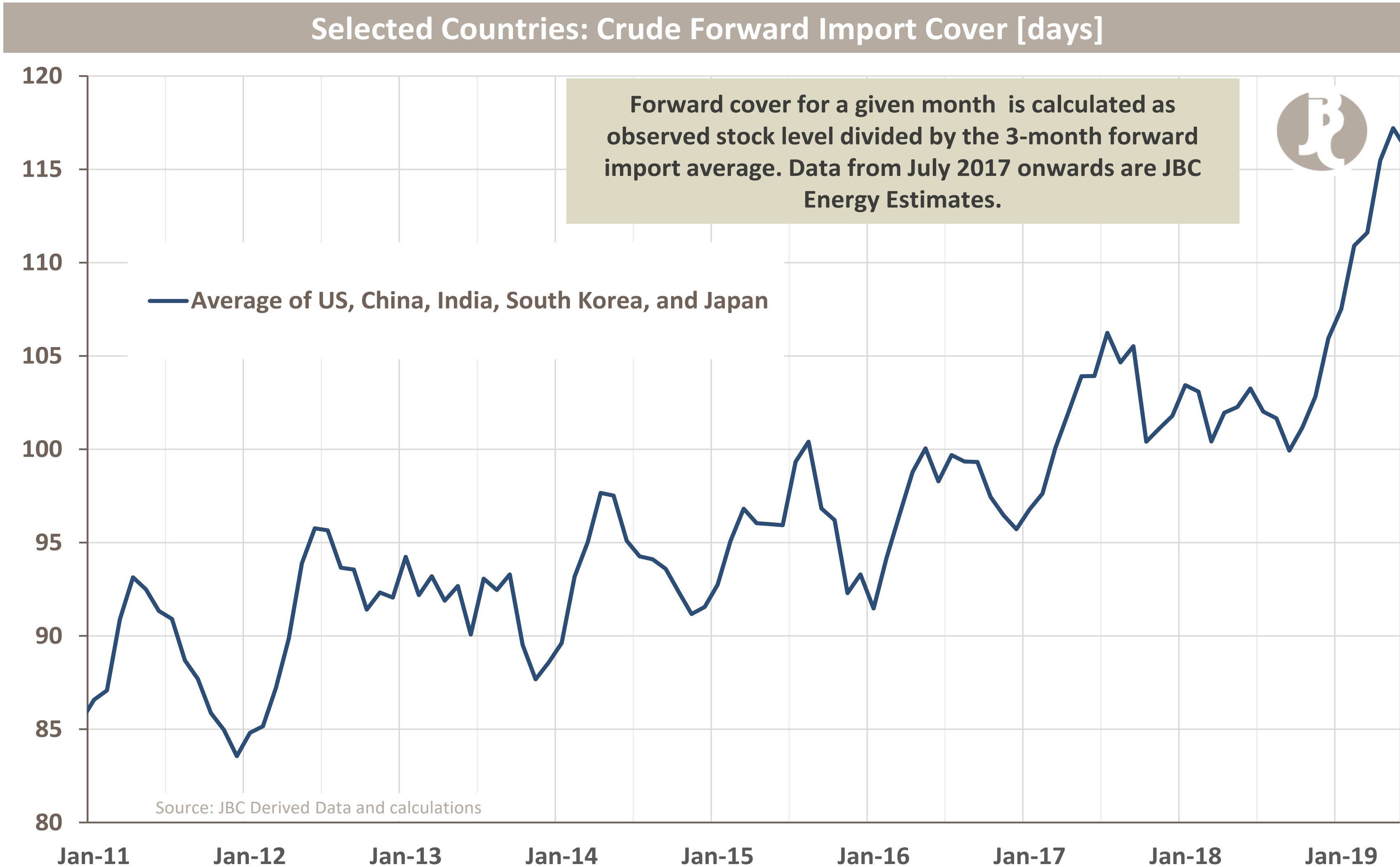
Furthermore, recent indications point to extremely weak demand dynamics, including key transportation fuels. In this environment, upside to prices is limited.

Stock Coverage at Unprecedented Levels



Another reason for the muted price reaction are the well filled global crude inventories. A substantial part are SPRs, which could be released during an outage.

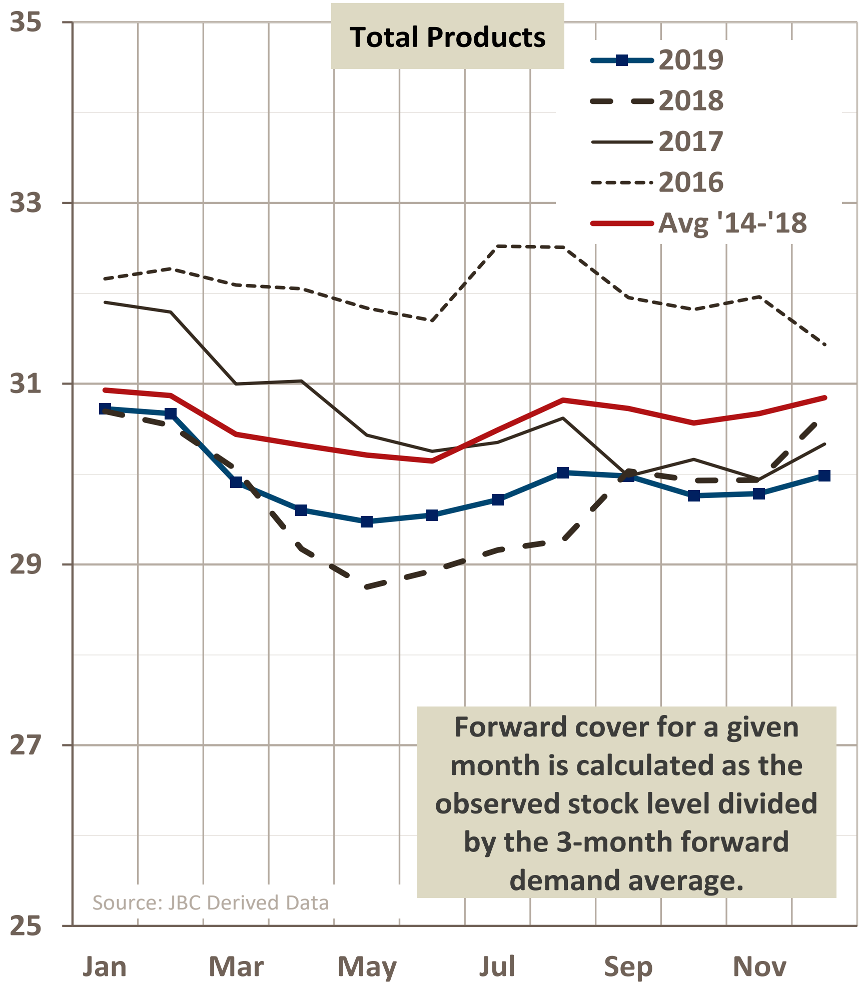
Stock Coverage at Unprecedented Levels

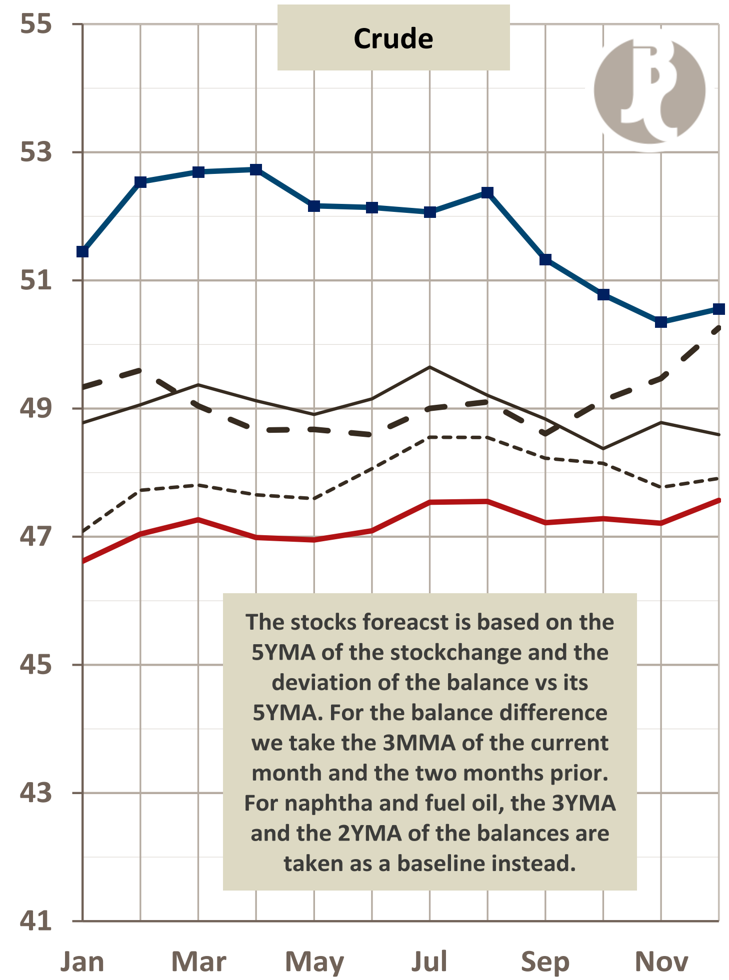


Stocks (strategic and commercial) in the main crude importers grew over the past years to over 115 days of forward import cover, showing a substantially different picture than in 2011.

Stock Coverage at Unprecedented Levels

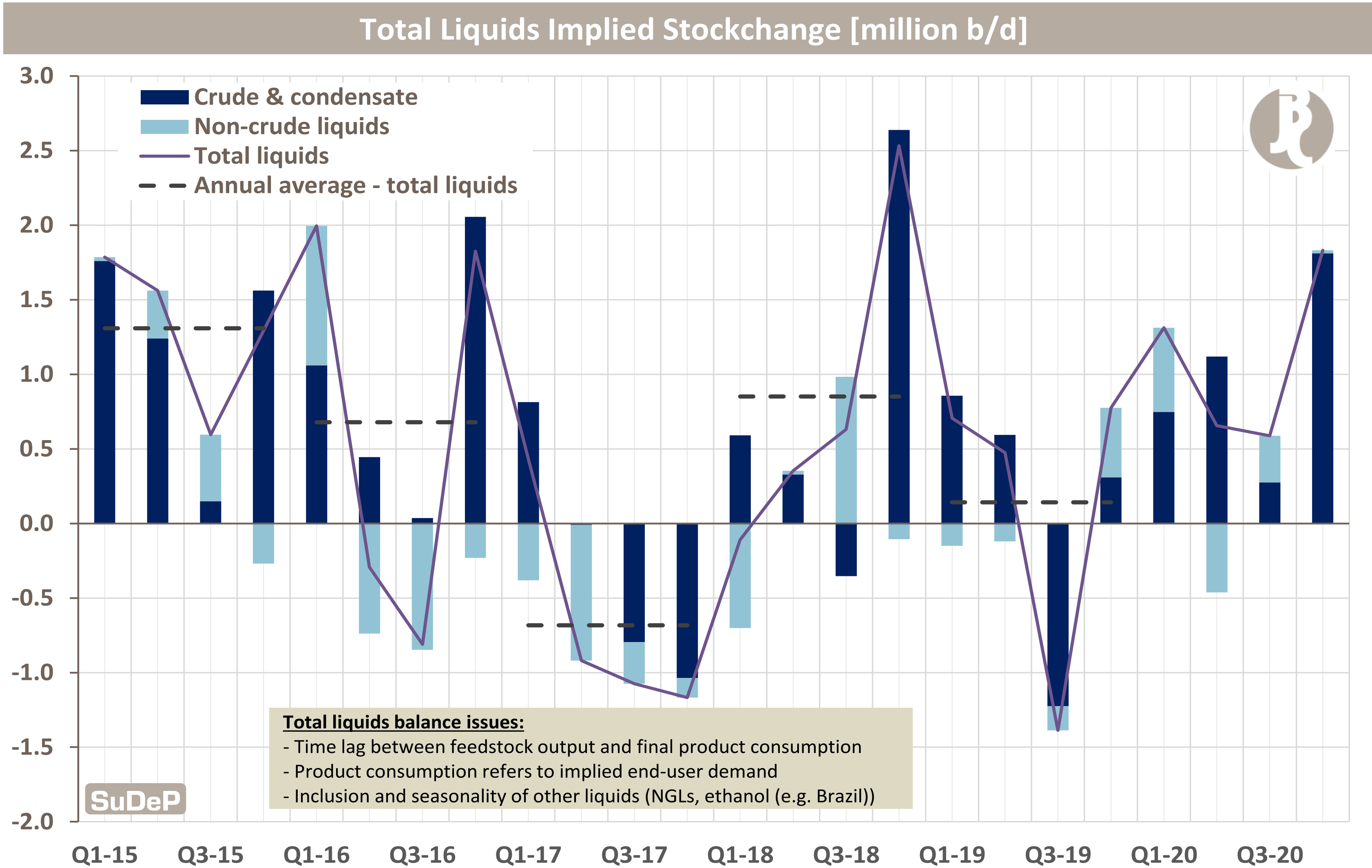
World: Total Products and Total Oil Stocks: Forward Demand Cover [days]





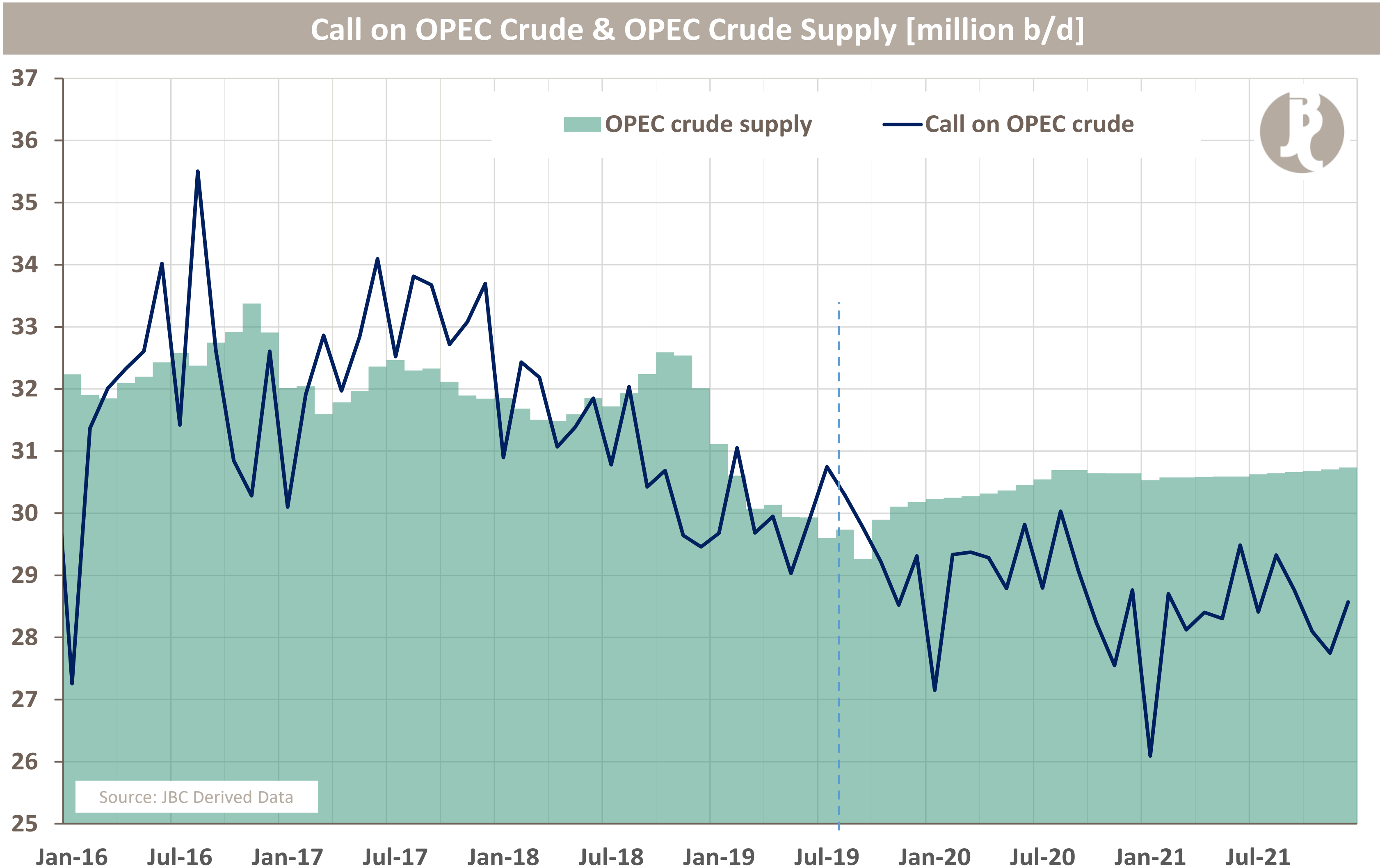
Also the forward demand cover for crude remains high, despite nine months of OPEC supply cuts and a tight Q3 balance. Total product stocks show a slightly more bullish picture, mainly due to low intake.

Stock Coverage at Unprecedented Levels



Apart from last quarter, the total liquids balance has been long since early 2018 and is expected to remain long moving forwards.

Stock Coverage at Unprecedented Levels



As such, OPEC cuts remain necessary to balance the market.

Key Messages

- Actual outage less and shorter than initially expected
- Prices did not react stronger because of
  – Shale (and other liquids)
  – Lower end-user demand
  – Well filled inventories

Key Messages

- What about the geopolitical risk premium?
  - Attacks on Saudi infrastructure has always been worst-case scenario
  - Increased risk of war in Middle East?

- The “new age of oil markets” has begun with the shale revolution.
  - Past: long-term upstream projects (3-10 years lead time) did not react on short-term price distortions
  - Present: in theory a single day of spiking prices could be used to hedge next years’ output

→ Political Risk Premium is difficult to maintain

→ OPEC cuts remain necessary to balance the market.

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