Chart of the Week #33:
Long-Term Underinvestment in Upstream Oil & Gas Production Foreshadows High Prices as Global Demand Returns

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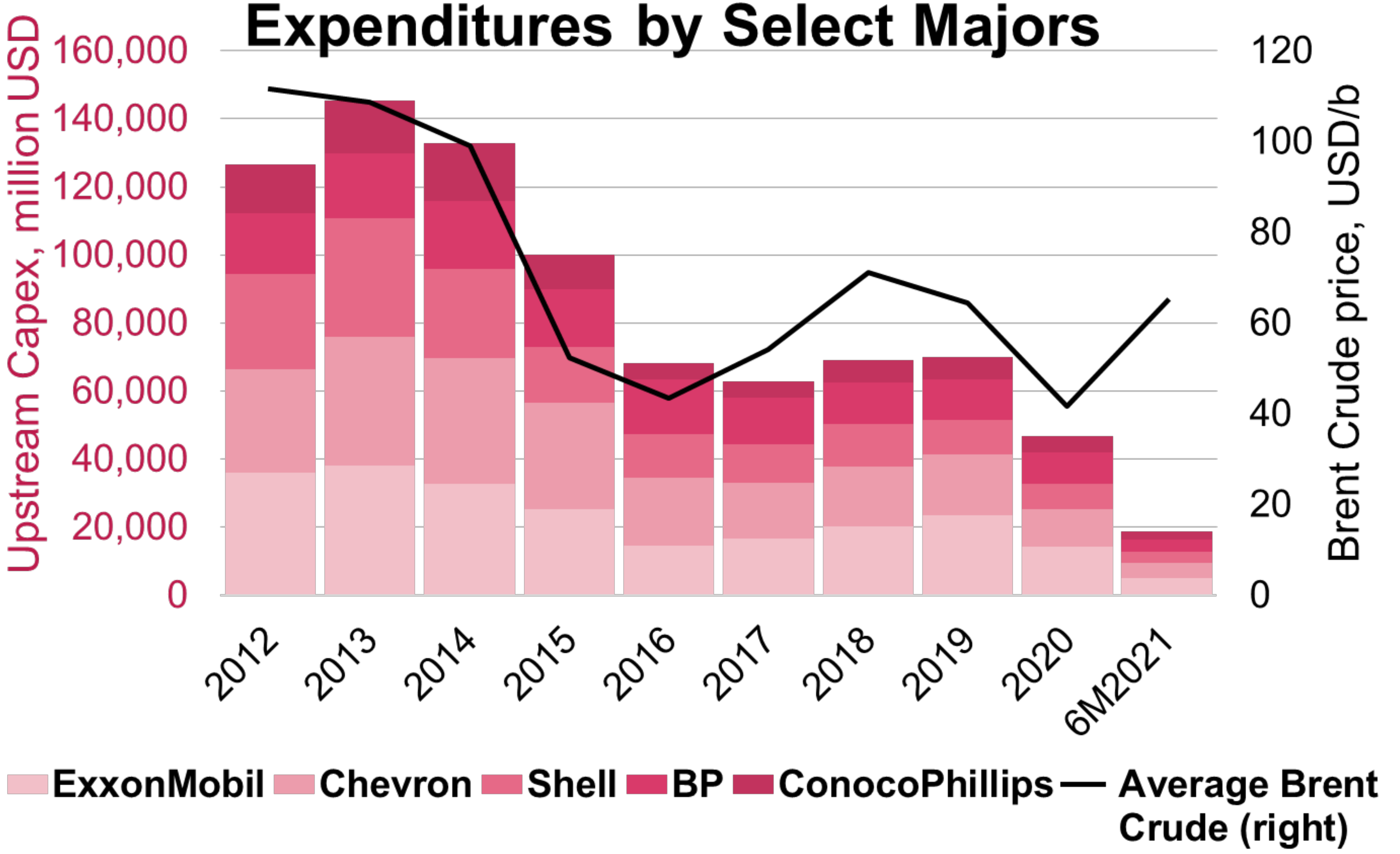
Source: Bayne Stanley
Zuma Press

Upstream Oil & Gas Capital Expenditures by Select Majors



Data: Company annual and quarterly reports and SEC filings; EIA's historical oil price data
Note: BP 2021 Q1 and Q2 upstream Capex are estimates based on previous quarters' ratios.

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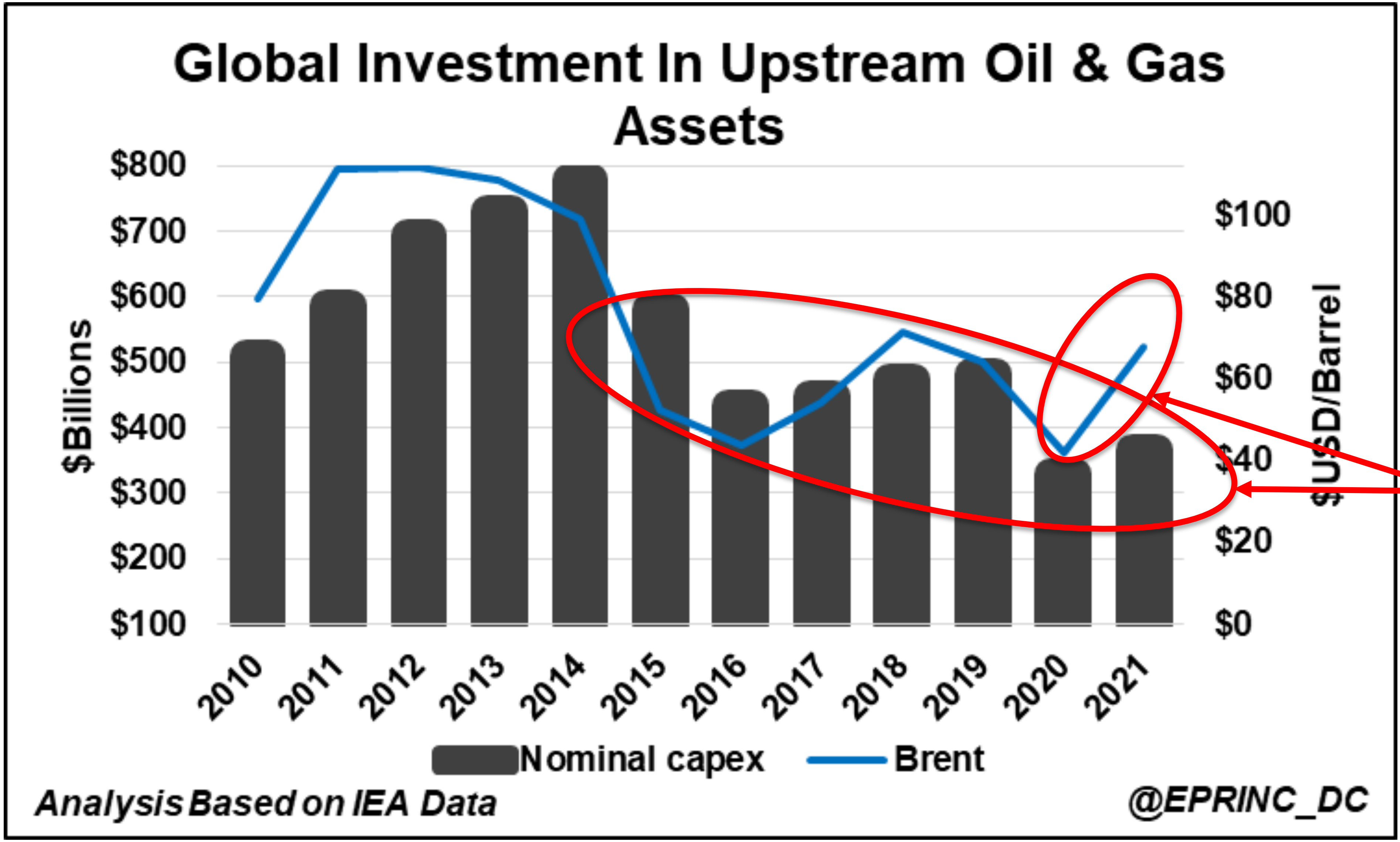
Annual financial reports from some of the major oil and gas companies show that despite growing oil prices, upstream capital expenditures continue to remain low, exacerbating the already tight market and contributing to a prolonged price rally in the coming years.

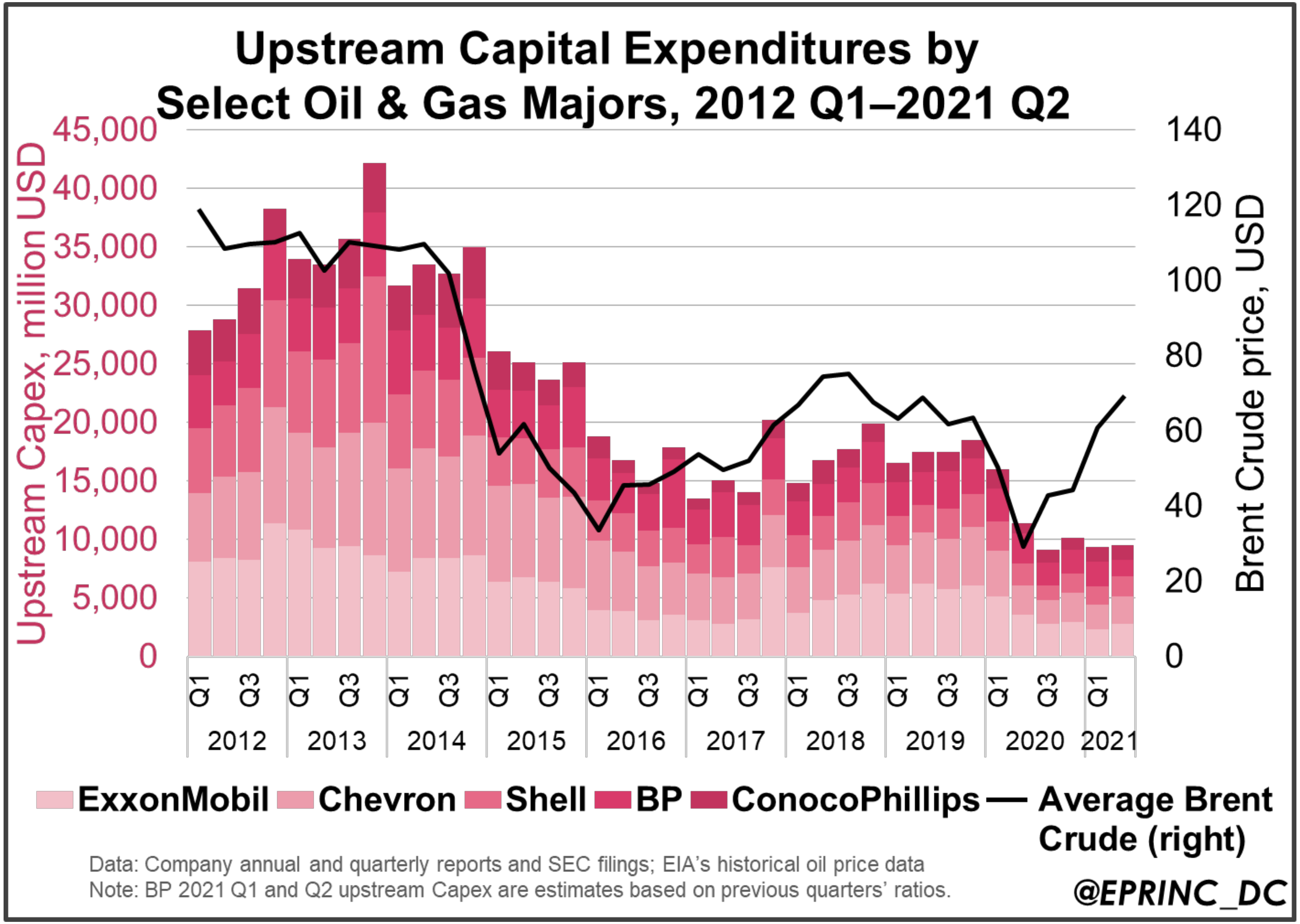


Low long-term global capex investment that began in 2015 has set the stage for an extended period of higher oil & natural gas prices

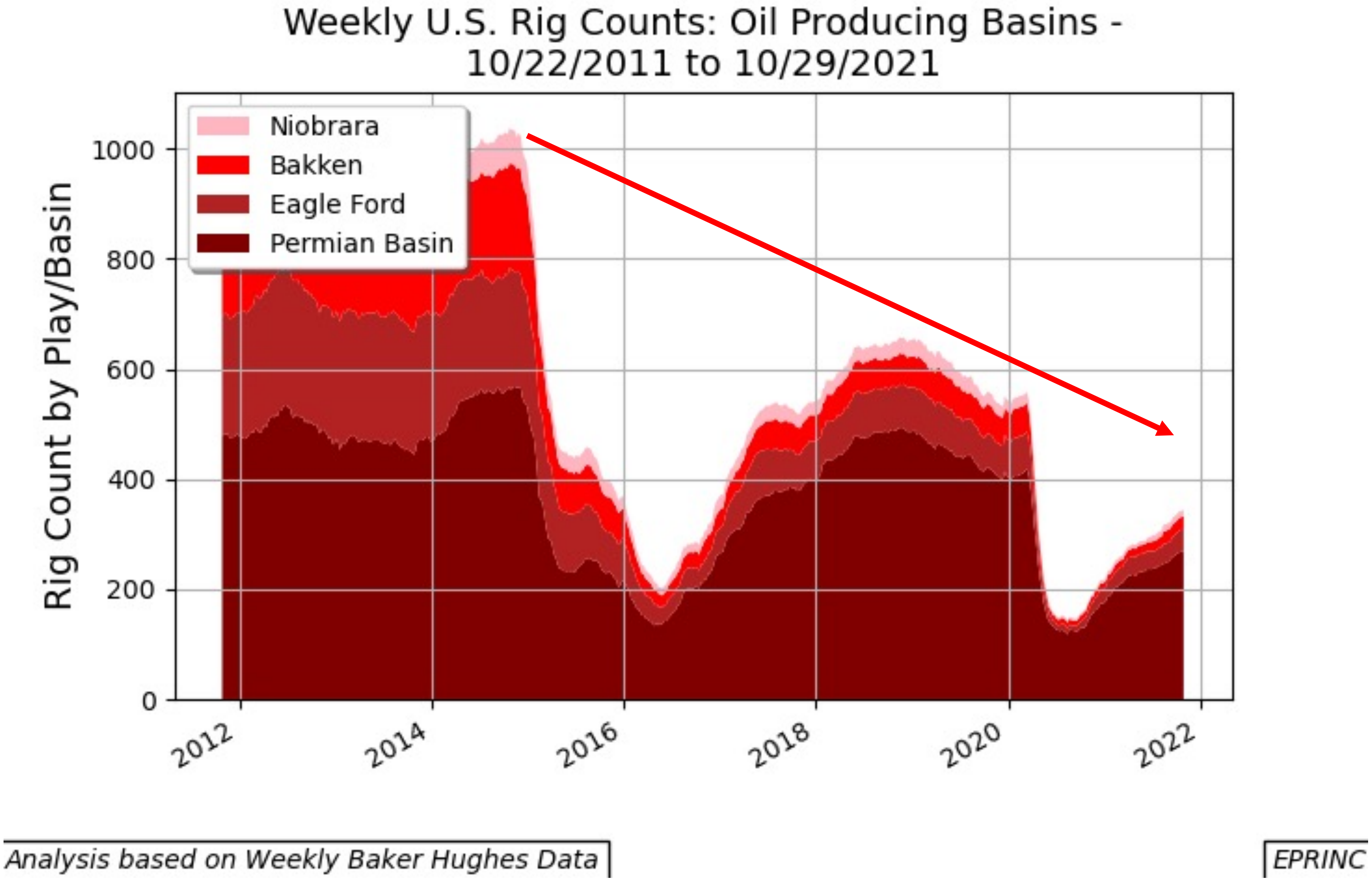
Long-Term Underinvestment in Upstream Oil & Gas Production Foreshadows High Prices as Global Demand Returns

- Oil and natural gas account for 57% of primary energy demand. Any sort of transition away from this is expected to take place over an extended period of time.
- Global oil & natural gas expenditures are 60% below their peak in 2014.
- New discoveries have only replaced a third of demand at current rates of oil consumption.
- Sources such as Wood Mackenzie and Rystad see a 5-to-7-year lag between capital expenditures and new production.
- In the current environment, with emphasis on qualitative (ESG – Environmental, Social, Governance) criteria coupled with increased emphasis on financial returns, raising capital for new exploration and production has become challenging.
- In addition, organizations such as the IEA are advocating the challenging, full-scale adoption of non-fossil, variable intermittent energy sources, thereby moving away from their original and primary mandate of energy security.
- Investment imbalances between new developments of supply and demand are expected to lead to an extended period of higher prices.
- The expanded version of this slide deck is available at: https://eprinc.org/chart-of-the-week/
- For more information on this chart, please contact Batt Odgerel (batto@eprinc.org), Rafael Sandrea (sandrear66@gmail.com), or Max Pyziur (maxp@eprinc.org).

Additional Slides



Quarterly financial reports from some of the major oil and gas companies show that despite growing oil prices, upstream capital expenditures continue to remain low, exacerbating the already tight market and contributing to a prolonged price rally in the coming years.



Trends in U.S. rig counts in oil producing basins due to lower capex investment support the view for rising and high oil & natural gas prices. However, it is important to note that rig productivity rates have continued to increase.