

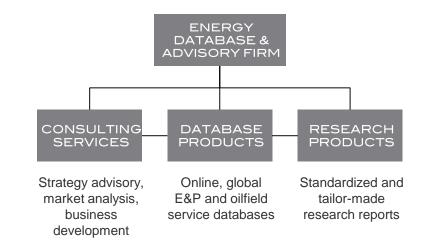
September 19th, 2017

Havar Blakset - Partner Rystad Energy



Introduction to Rystad Energy – an energy database and advisory firm

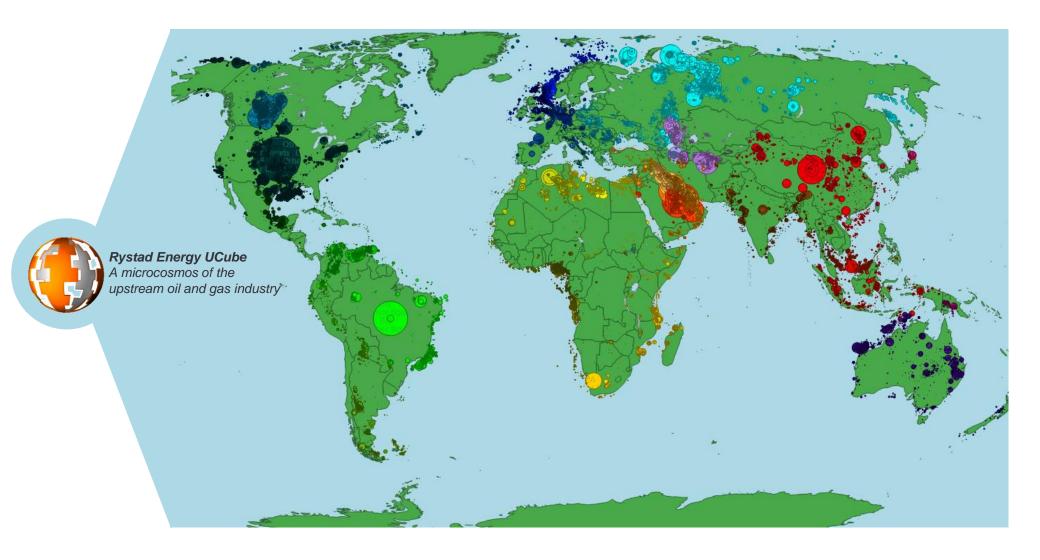
- Independent energy database & advisory firm established 2004
- Headquartered Oslo, Norway with offices in major oil & finance hubs globally.
- Vendor of business intelligence databases for the global oil & gas industry
- A leading energy advisor within E&P,
 MIDSTREAM and OFS strategy, market analysis and business development
- Publishing a number of industry reports on high impact topics





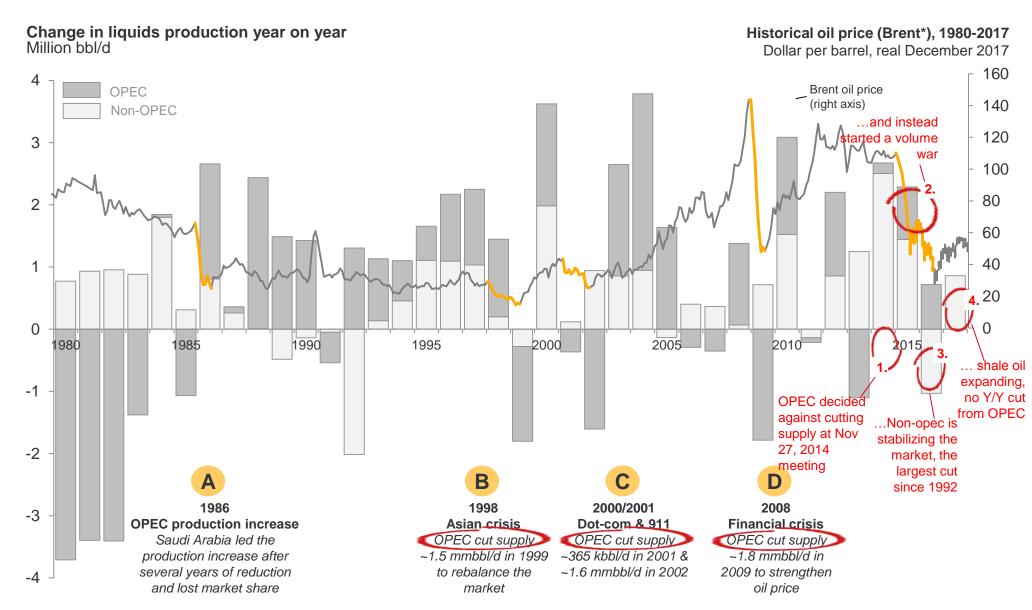


Our approach and heritage: A bottom-up database of ~65.000 upstream oil and gas projects





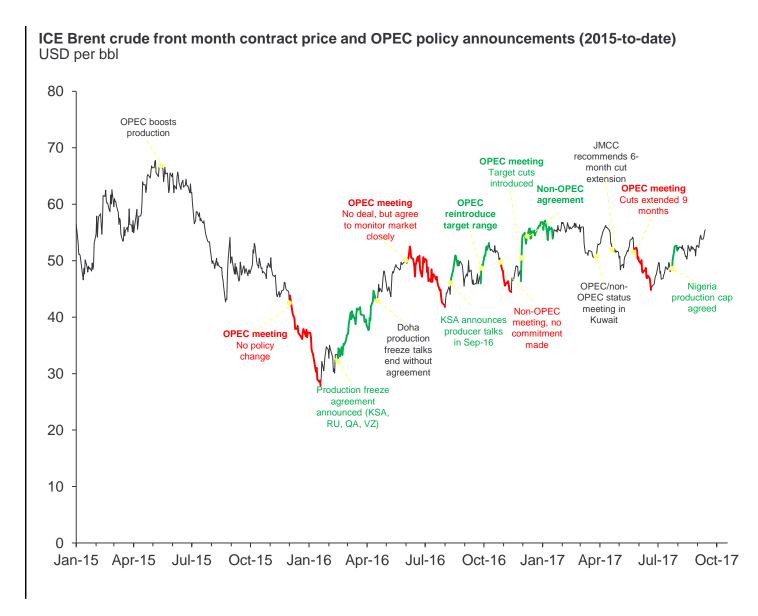
2017 OPEC cutting growth, Non-OPEC/shale oil is responding immediately to the cuts







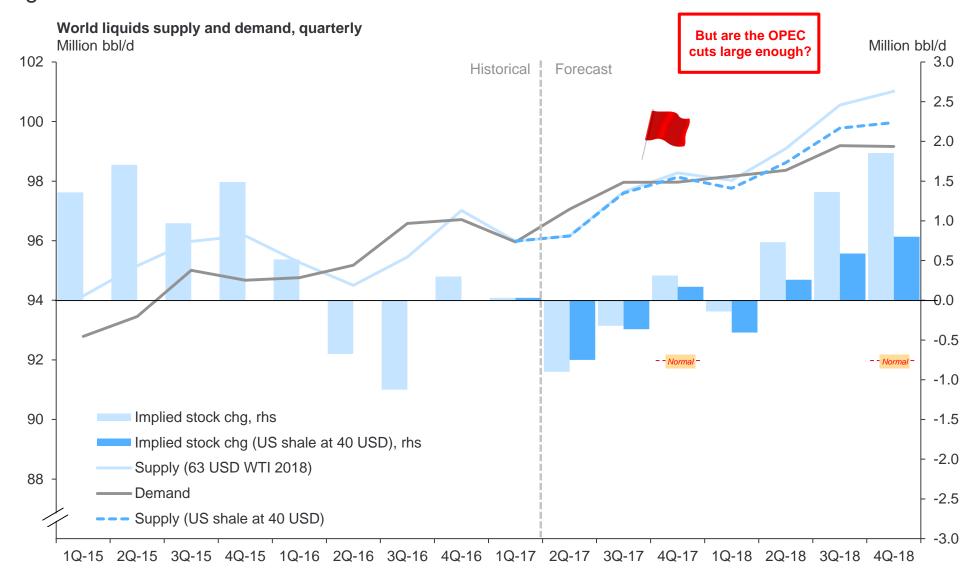
Despite no Y/Y cut from OPEC, the OPEC communication maters and moves the market



Source: Bloomberg, Rystad Energy research and analysis



March 2017 - OPEC needed to continue the cuts, if not 2014/15 all over again, 40 USD/bbl not clearing the market

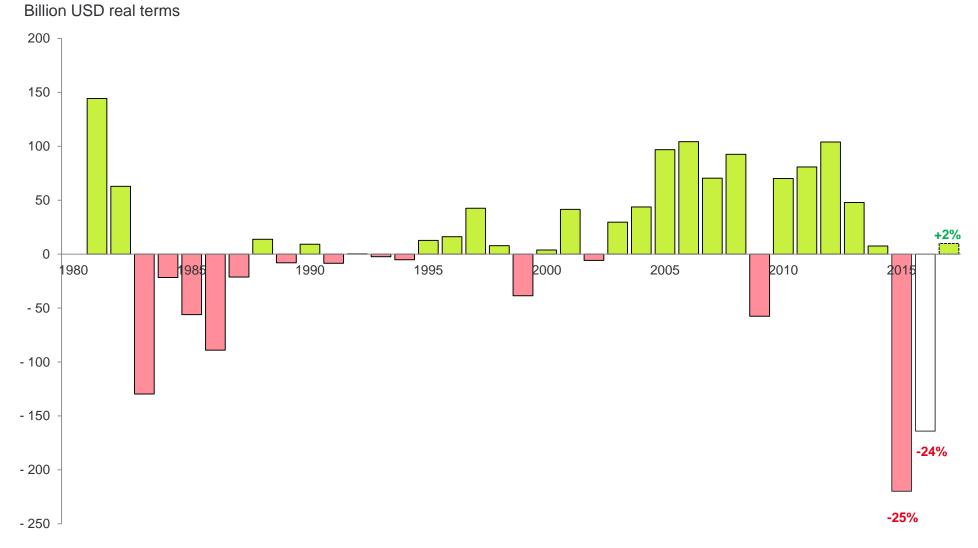


Note: The 1Q drop in global supply in 2017 and 2018 is partly driven by the ~400 kbbl/d seasonal drop q/q in biofuels production in Brazil. Source: Rystad Energy research and analysis



Spending vise the cycle turned in 2016

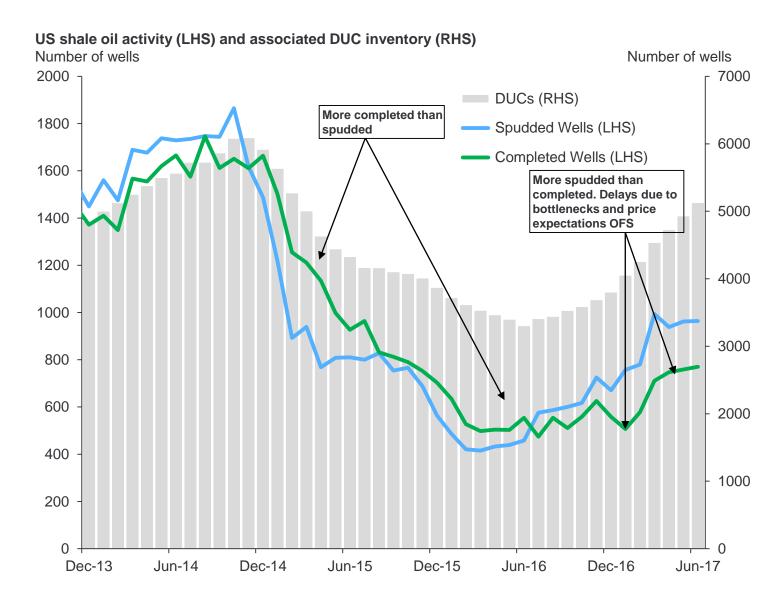
Change in upstream capex budgets, year-over-year



Source: Rystad Energy UCube



Driven by shale oil – already more then a doubling in spudded wells

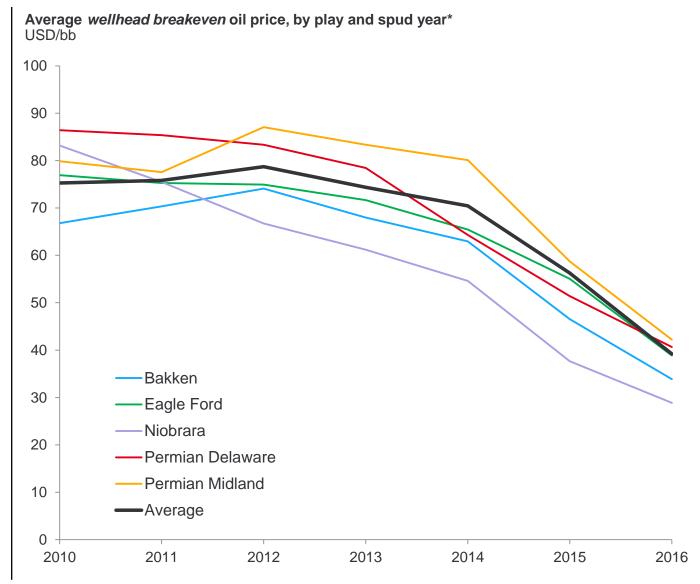


Source: Rystad Energy NASWellCube





Main driver for shale comeback – significant reduction in breakevens and oil price above 45

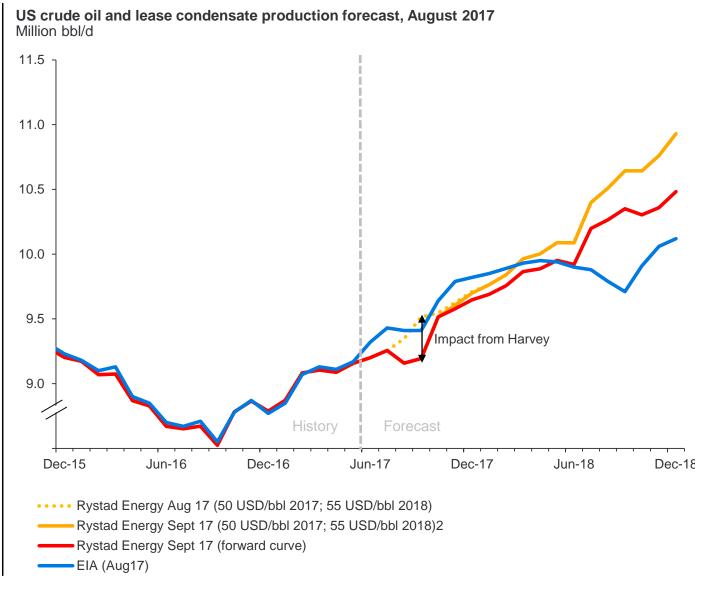


^{*}Does not include test activity, where well was shut-down after completion Source: Rystad Energy NASWellCube Premium



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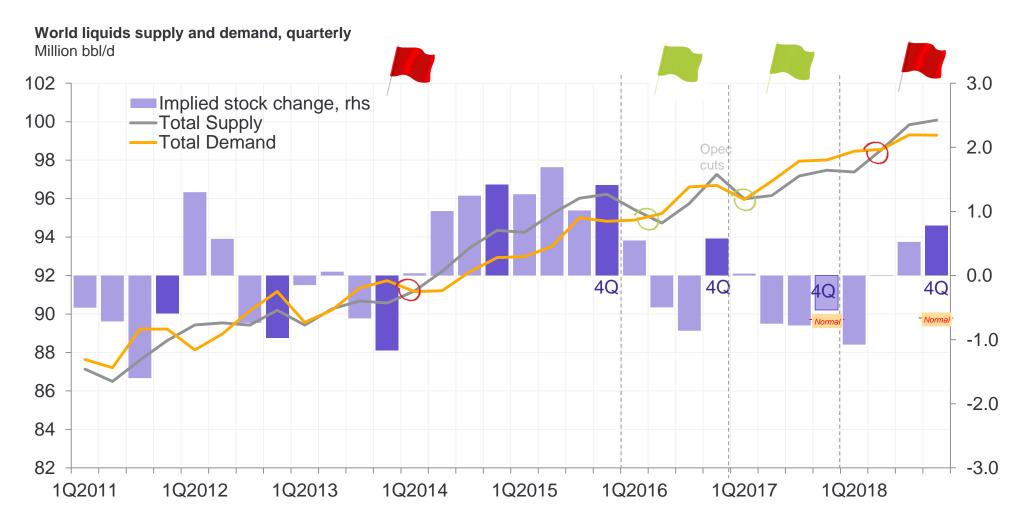
Total US supply up by 1.0 mbbl/d Dec17 vs Dec16 - first time EIA is overestimating



Source: Rystad Energy research and analysis, EIA



Stock draws through 1Q 18, OPEC will need to continue the cuts 2H 18 due to US shale surge



Source: Rystad Energy research and analysis, IEA OMR





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