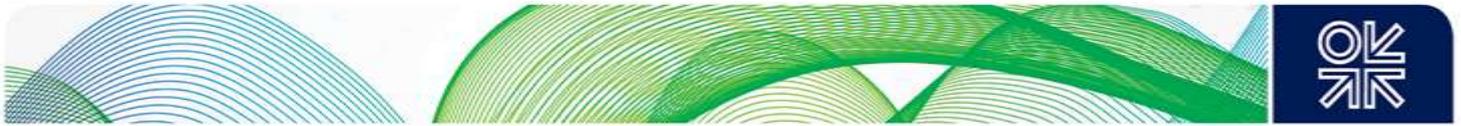


Oil Price Paths in 2019: Navigating Volatile Markets

Executive Summary
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In this Energy Insight, we revisit the main factors that shaped oil market dynamics in 2018 and analyse how the oil price path could evolve in 2019 by evaluating the prevailing risks underlying the world oil market using the real-time forecast scenarios of the Brent price. Forecast scenarios are not predictions of what will happen, but rather modelled projections of various oil price risks conditional on certain events that are known at the time of the forecast or some other hypothetical events. Our results reveal the following:

- Geopolitical (or exogenous) supply disruptions exerted significant upward pressure on the Brent price throughout 2018, adding about \$10/b between January and December. On the other hand, the positive contribution of about \$6/b on the price recovery due to the OPEC+ output cutbacks in the first half of the year was offset in the second half by the reversal of the producers' output policy and the continued expansion of US shale. Global demand has been less supportive in the first three quarters compared to last year but nevertheless its net contribution remained positive by almost \$1/b. During the final quarter however negative oil demand shocks exerted significant downward pressure on the oil price and accounted for \$13/b out of the cumulative \$23/b price decline in November/December. The fact however that the cumulative oil price decline of 25% on average in the same period, was far steeper compared to other industrial commodities such as metals (the latter averaged near 5%) suggests that the oil price collapse must have been aggravated by additional oil-market specific factors. Indeed, our results show that positive speculative demand pressures associated with increased stock demand amid fears of high losses of Iranian barrels prior the November enforcement of the US sanctions added about \$10/b to the oil price during September/October and hence, they were the primary contributors of prices jumping above \$80/b. That said, the November shift in these expectations (due to the US oil waivers) and the realization of weaker-than-expected market conditions pushed prices lower by about \$4/b and \$6/b in December, returning the Brent price in the \$50/b range. This underscores the role of expectations and why the nature of the supply shock matters. It is well established that, on impact, stock releases help mitigate the impact of geopolitical supply disruptions on oil prices. What is less recognized is that the anticipation of a geopolitical episode and fears of a future supply shortage also trigger a large positive price response prior to the expected event by increasing the stock demand for oil.
- Looking ahead into 2019, the *conditional baseline forecast* that takes into account the OPEC+ production cuts amid 100% compliance for the entire year and the expected growth of the global economy by 3.5% in 2019, Brent price are projected to recover towards \$60/b in the first quarter, before gaining about \$5/b to jump near \$65/b in the second quarter and return back to the high-\$50/b where it settles for the remainder of the year. The balance of risks to the baseline forecast in 2019 is mostly tilted to the downside, with the potential for upside surprises mostly confined in the second half of the year. On the downside, a weaker-than-expected expansion of the global economy, which is the most pronounced risk throughout, can cause oil prices to plunge by \$10/b on annual terms relative to the baseline case and suppress prices in the mid-\$40/b for most of

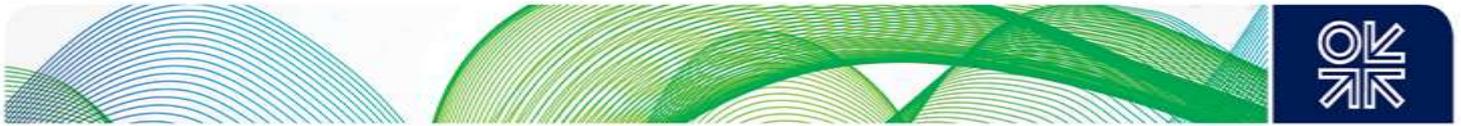


2019. The negative impact on prices from another year of an unanticipated strong performance of US shale production, is by comparison limited to \$1.5/b and extends mostly in the second half as pipeline capacity constraints are resolved. On the upside, the potential of geopolitical supply disruptions from Iran and Venezuela risk pushing prices well above \$65/b on a monthly basis, adding to the annual average about \$4/b each. The potential of both these risks materializing in parallel, increases the likelihood of prices shooting well above \$70/b ending-2019.

- In our *reference case* scenario, we make the following assumptions:
 - (1) OPEC+ enforces the December 2018 output cut agreement throughout the year, maintaining 100% compliance to their pledged target of 1.2 mb/d
 - (2) US shale production grows by 1.1 mb/d
 - (3) the global economy expands by 3.5% on a year ago
 - (4) Venezuelan output continues to slip by 0.4 mb/d
 - (5) Iranian production declines by 0.5 mb/d from May-onwards, as the US waivers allow some buyers to resume imports in the first quarter of the year

Under these assumptions, the Brent price in 2019 is expected to average at \$68/b, \$3/b lower than a year ago. Specifically, the Brent price is expected to rise just above \$60/b in the first quarter before picking up in April by \$5/b on average and hover around \$68/b for two consecutive quarters. In the final quarter, the monthly price is expected to exceed \$70/b for the first time in 2019, to end the year at \$76/b about \$20/b higher than December 2018. In terms of stocks, OECD stocks are expected to persist above their 5-year average in the first quarter, although at a declining trajectory towards the average, before reversing below the average in April. Stocks are expected to be drawn significantly in the second half of the year due to the continued OPEC+ output cutbacks in conjunction with the supply disruptions in Iran and Venezuela.

- Many in the market are skeptical as to whether Saudi Arabia can sustain its output policy independent of external pressures, which is a key assumption in our forecast scenario. The influence of such external factors did play a role in shaping Saudi Arabia's oil policy in 2018, but the view that these will dictate Saudi oil policy in 2019 and that they are the most important or only factors in shaping Saudi output decisions are misguided. In 2018, Saudi Arabia faced hard choices and some unique circumstances, which may not necessarily be repeated in 2019 (US mid-term elections, market's doubts about the Kingdom's ability to hike production above 11 mb/d, fears that high oil prices will accelerate the global economic slowdown). In effect, Saudi Arabia was trying to play a balancing act between multiple objectives and keep the oil price within a narrow band. The record budget announced by Saudi Arabia in big part to stimulate the domestic economy and private sector, implies that domestic factors and the need for higher revenues will be important in shaping oil policy in 2019. Also, the unpredictability of the US administration witnessed in 2018 and ambiguous signals from the US regarding the Iranian waiver policy, as well as the increasing difficulties in reaching the renewed output cut agreement with other producers in December 2018 will make Saudi Arabia more cautious in reversing its oil policy this time around.
- Unlike 2017, the OPEC+ balancing act behind the price recovery in 2019 is expected to be supported to a larger extent by geopolitical supply disruptions and to a lesser extent by favourable demand conditions. This fact makes the oil market rebalancing in 2019 increasingly volatile and much more complicated, than in the previous years. Geopolitical episodes are largely unpredictable and can lead to larger- or smaller-than-expected supply gaps, for which it is extremely difficult to form accurate expectations. As witnessed in 2018, market expectations in such cases and shifts in these expectations can confuse the signals and aggravate price volatility that in turn can lead to oil producers over- or under-balancing the market. Also, the rising downside risks clouding the prospects of global demand imply that any response from OPEC and Saudi Arabia to fill the supply gap due to a geopolitical episode must be viewed with extreme



caution, as any downward revision in global demand will be met with the market entering into a downward spiral anew, pushing prices lower and the stocks back in excess.

- To highlight the importance of global growth prospects, we consider the *global economic downturn case* in which global growth in 2019 weakens to 3.2%, relative to the 3.5% in the reference forecast. Under this scenario, the reference price in the first half of the year is expected to lose all its momentum, remaining subdued in the mid-\$50/b and OPEC+ and Saudi Arabia will find it extremely difficult to lift prices in the first half, even if they decide to deepen their cuts in May, though the geopolitical disruptions in the second half soften the blow and they are expected to push prices well into \$60/b. Annually, the price ends at \$60/b on average, \$8/b lower than the reference case. In the event that OPEC+ and in particular Saudi Arabia decides to reverse its output cuts as of May, recognizing that any gains from the current policy are only temporary and short-lived, the reference price will slide into the high-\$40/b in the first half of 2019, before recovering in the second half only to \$53/b. The price is expected to end lower for the year by \$17/b relative to the reference price just above \$50/b. Although the probability of the latter scenario is low, the market should not rule out such a downside risk.