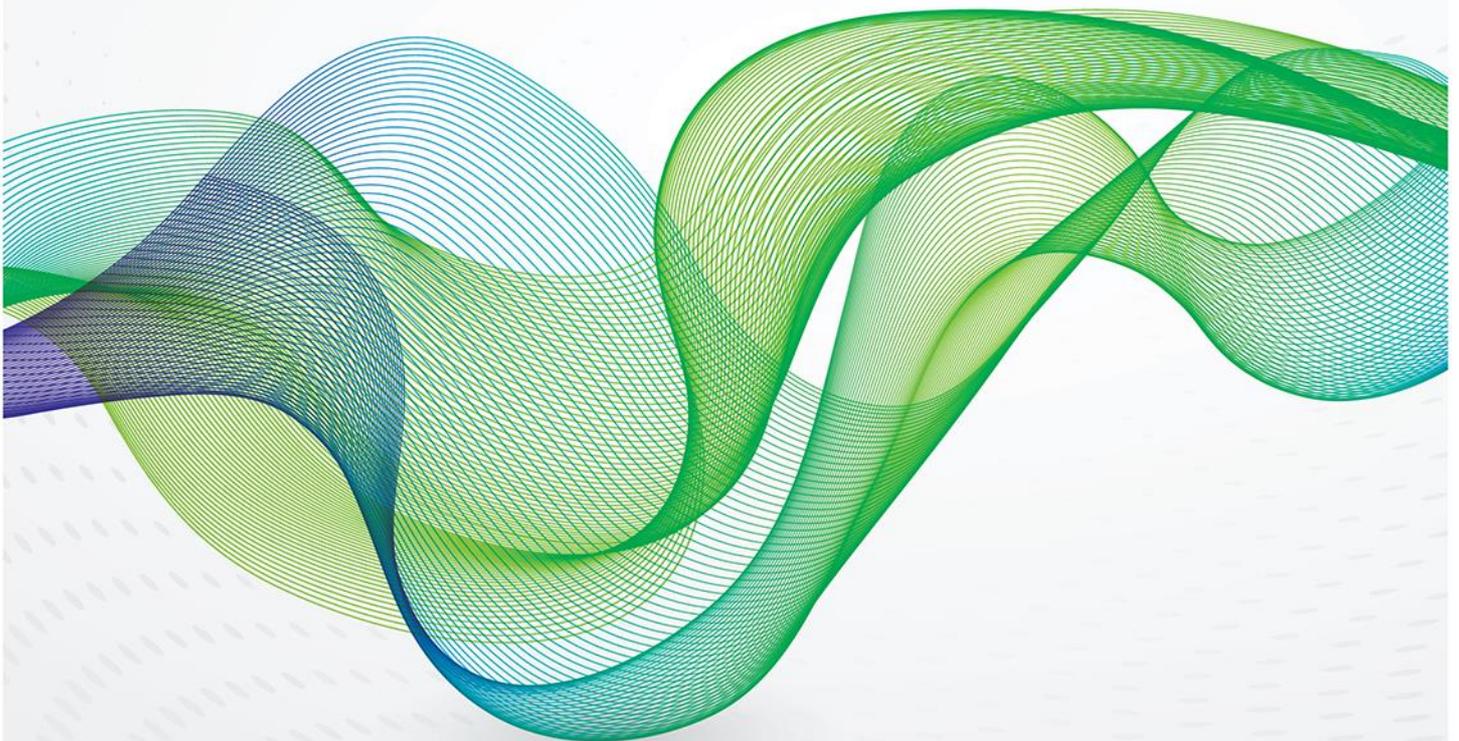




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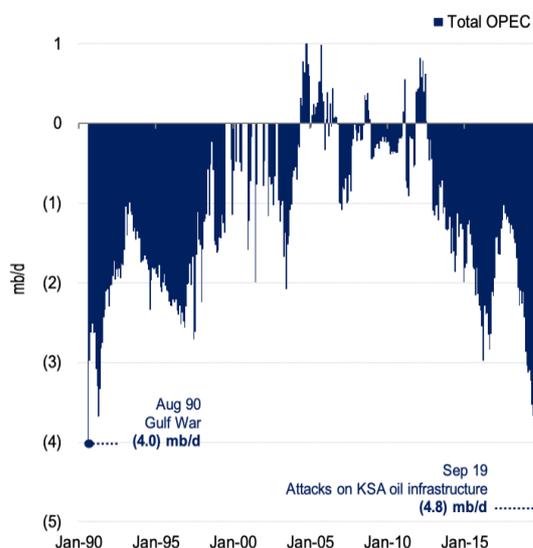
November 2019

The Dilemma Continues: OPEC choices amidst high uncertainty



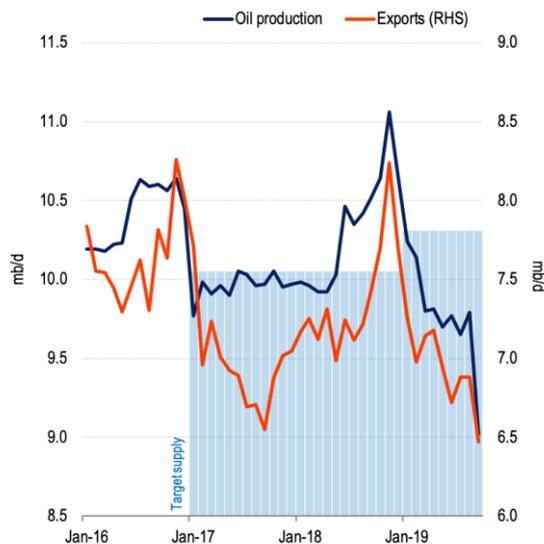
As we approach the OPEC meeting in December, a consensus view is emerging that OPEC and its allies need to cut their output deeper to keep Brent prices supported at the current levels of low \$60s per barrel.¹ This view is based on the premise that weak oil demand due to slower global economic growth and the escalation of US-China trade tensions as well as an increase in non-OPEC supply from the US and other parts of the world would result in an oversupply in 2020, keeping downward pressure on the oil price. This oversupply could emerge despite the fact that OPEC outages have reached a record level in 2019 due to the sharp fall in Venezuelan and Iranian output (see Figure 1), the over-compliance from Saudi Arabia which has been producing well below its agreed quota (see Figure 2), the slowdown in US shale growth, the rising geopolitical tensions in the Middle East and the increase in the number of attacks on oil facilities and oil tankers. According to this view, in the absence of further cuts from OPEC, the main way to balance the market in the short-term would be for US shale production to fall and this requires that prices fall sharply to induce a further decline in rig count and well completion.

Figure 1: OPEC supply disruptions, Jan 90–Sep 19



Source: OIES.

Figure 2: Saudi Arabia supply profile, Jan 16–Sep 19

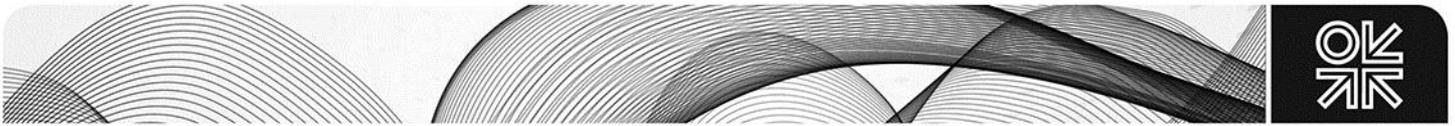


Source: IEA, Oilytics, OIES.

Alongside this view, others argue that the current price is not reflecting any rise in the geopolitical risk premium resulting from the deterioration in the geopolitical backdrop in many parts of the world and the latest attacks on Saudi Aramco facilities.² In a way, this view implies that the market price is not efficiently reflecting all the available information, particularly that 'there is a shortage of insurance'. Empirical analysis however shows that geopolitical supply disruptions have exerted significant pressure on oil prices thus far in 2019, in the absence of which the Brent price would have been lower by more than \$10 per barrel (Figure 3). That said, there is also the view that given Trump's volatile approach to foreign policy, some of the current supply outages may always come back exerting downward pressure on the price, though the probability of this occurring remains low. What is more surprising is that following the attacks on Saudi Aramco facilities, increase in demand for inventories for precautionary and speculative purposes did not materialise and the speculative shock did not exert much influence on the oil price during September (Figure 4). This could reflect a number of factors including the success of Saudi Arabia in easing consumers' concerns, the large volume of commercial and government stocks, the depth and maturity of crude oil markets, and/or change in perceptions

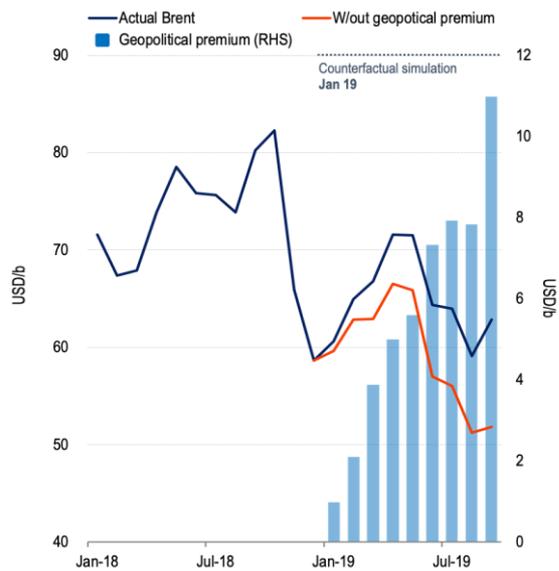
¹ See for instance, Morgan Stanley, 'Quo Vadis, Oil Market?', The Oil Manual, October 24, 2019; Reuters, 'OPEC, allies to mull deeper oil cut amid worries over demand growth', October 22, 2019.

² Tom Kool, 'Are Oil Markets Ignoring the Geopolitical Risk Premium', OilPrice.com, September 24, 2019.



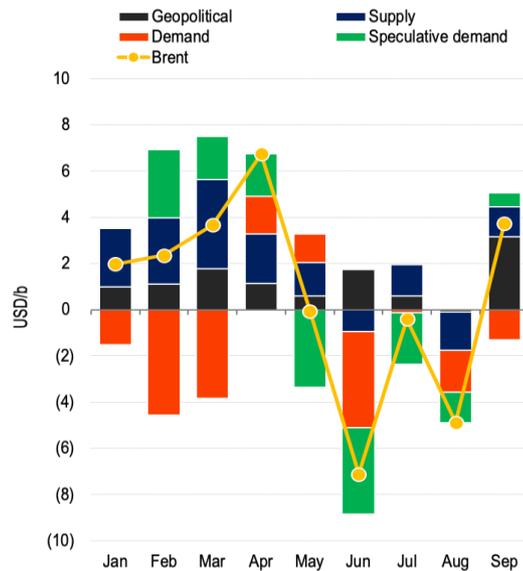
about the importance of geopolitical risks in oil price formation, especially in an environment of weak demand.

Figure 3: Brent price w/ and w/out geopolitical premium, Jan 18–Sep 19



Source: OIES.

Figure 4: Brent price drivers in 2019



Source: OIES.

If one is to look slightly beyond 2020, the picture regarding non-OPEC supply potential is even more pessimistic according to many analysts. For instance, there have been a number of reports arguing that output growth from US shale is set to decline sharply as rig activity falls and, more importantly, as gains in well productivity peak and producers are forced to move to areas with lower quality reserves (i.e. downgrading; Figure 5).³ In the absence of productivity gains, the only way to increase output is to increase rig count and well completion activity.⁴ This would require higher capex and opex, but at a time when US shale players are facing severe financial constraints, funding opportunities are limited, forcing some of the small producers into bankruptcy,⁵ while others are seeking to raise funds through potentially risky financial instruments increasing their funding costs.⁶ Some of the largest banking lenders to the U.S. oil and gas sector have marked down their expectations for oil and gas prices which underpin their loans, putting financial pressure on US shale producers especially small ones.⁷ This view of a major slowdown in US shale growth has been echoed in a recent report by Goldman Sachs, which predicts short-cycle shale production will slow ‘abruptly over the next 12 months as a result of increasing declines, tightening financial conditions and resource downgrades’.⁸ According to the same report, the long-cycle project delivery will also drop as the last projects from the mega investments cycle, undertaken in the high price environment of 2009-2014, come online by 2020. Beyond 2020, as a result of low investment in upstream oil, there are no new mega projects in the pipeline and consequently, non-OPEC supply growth will come to an end. To meet the projected increase in demand, the call on OPEC would have to rise.⁹

³ See for instance, Nick Cunningham, ‘U.S. Shale Braces For Brutal Earnings Season’, OilPrice.com, October 28, 2019; John Kemp, ‘U.S. shale oil boom ends as lower prices take toll’, Reuters, October 1, 2019

⁴ Rob West (2019), Prospects for US shale productivity gains, OIES Energy Comment, Oxford: Oxford Institute for Energy Studies.

⁵ Financial Times, ‘Investors starve US shale drillers of capital’, 26 October 2019.

⁶ Wall Street Journal, ‘Frackers Float ‘Shale Bonds’ as Traditional Investors Flee’, October 20, 2019.

⁷ Reuters, ‘Small U.S. oil and gas companies get cold shoulder from large banks’, October 28, 2019.

⁸ Goldman Sachs, The End of non-OPEC Growth, Equity Research, October 16, 2019.

⁹ Goldman Sachs, The End of non-OPEC Growth, Equity Research, October 16, 2019.

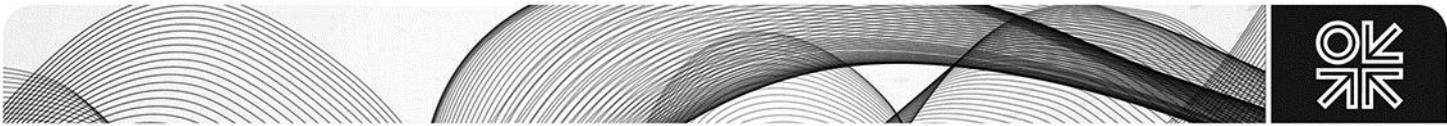
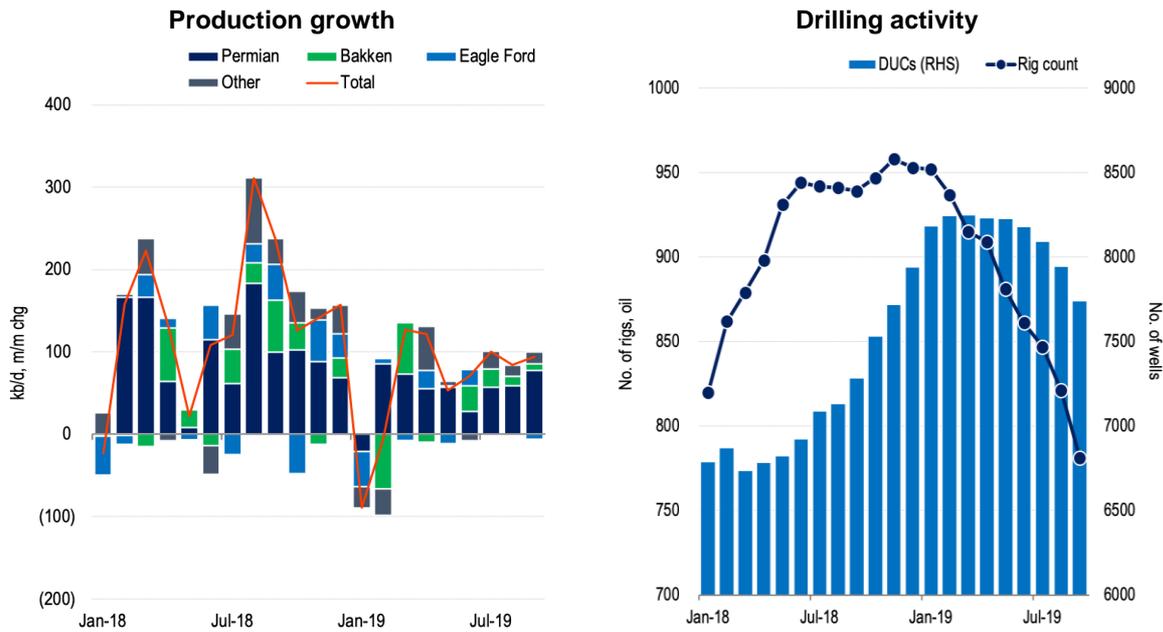


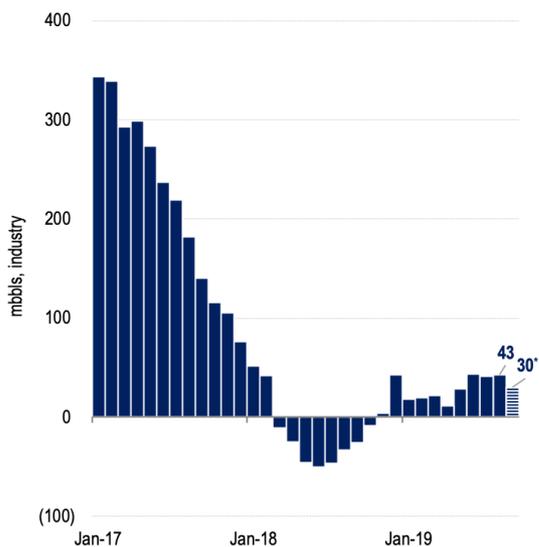
Figure 5: US shale supply, Jan 18–Sep 19



Source: EIA, OIES.

Given the prevalent bleak view on supply prospects inside and outside OPEC, especially beyond 2020, it is surprising that there have been calls for OPEC to deepen its output cut. After all, OECD crude stocks are close to their five-year average with expectations of large stock drawdowns by end 2019 as refineries ramp up to meet the IMO 2020 requirements for cleaner shipping fuels (Figure 6). Also, both the Brent and Dubai benchmarks are in backwardation and despite a gloomy economic outlook, Brent is trading above \$60 per barrel (Figure 7). Thus, the key question is: what would a further cut help OPEC and its allies achieve in the current market context and would such a cut be effective in reversing the negative market sentiment and lifting oil prices?

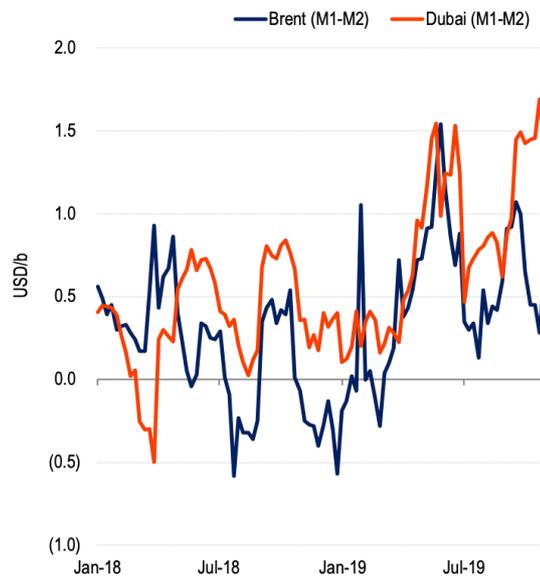
Figure 6: OECD stocks v 5-year avg, Jan 17–Sep 19E



* Stocks for September are based on preliminary estimates for US, EU16 and Japan.

Source: IEA, OIES.

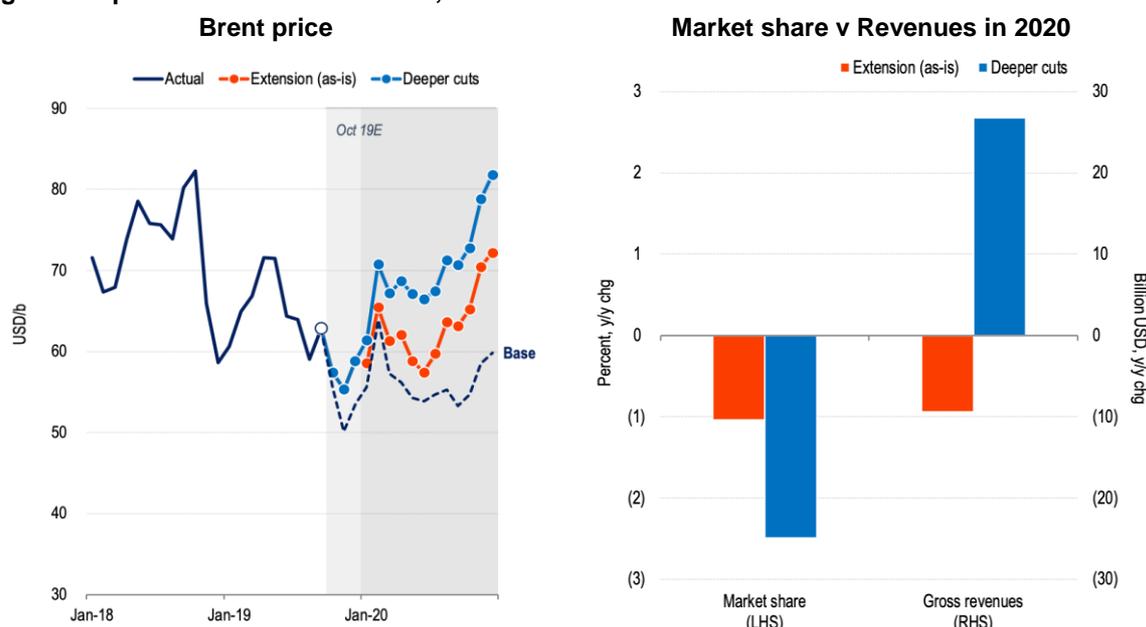
Figure 7: Time spreads, Jan 18–Oct 19



Source: Argus, OIES.

One argument in favor of deeper cuts is that if the decline in non-OPEC supply beyond 2020 is structural and the associated rebound in the oil price would not induce any short-term non-OPEC and/or US shale supply response (i.e. the short-run price elasticity of non-OPEC supply is close to zero), by cutting output, OPEC would be responding to a temporary supply surplus in 2020. Indeed, as Figure 8 shows, assuming that OPEC deepens its cuts and non-OPEC supply fails to respond to the price increase then prices are expected to hover in the high-60s per barrel before surpassing the \$80/b mark towards the end of 2020. While its market share declines, OPEC would post higher revenues in 2019 compared to 2020. Beyond 2020, and if the rise in oil price does not induce a slowdown in demand, OPEC can reverse the output decline and achieve both higher market share and higher revenues. In this favorable scenario, such an inter-temporal management of the market allows OPEC to exercise market power and increase its revenues.

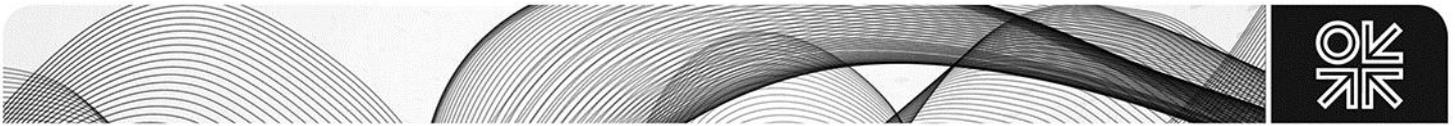
Figure 8: Optimistic forecast scenario, Jan 18–Dec 20E



Notes: Forecast scenarios assume that the global economy grows by 3.4% y/y in 2020 and non-OPEC supply grows only by 1.0 mb/d y/y and fails to respond further to the price increase. The *extension scenario* assumes that OPEC+ output cuts extend in 2020 but the target remains unchanged, while the *deeper cuts scenario* assumes that OPEC+ producers collectively cut output by an additional 1.2 mb/d as of January 2020. Source: OIES.

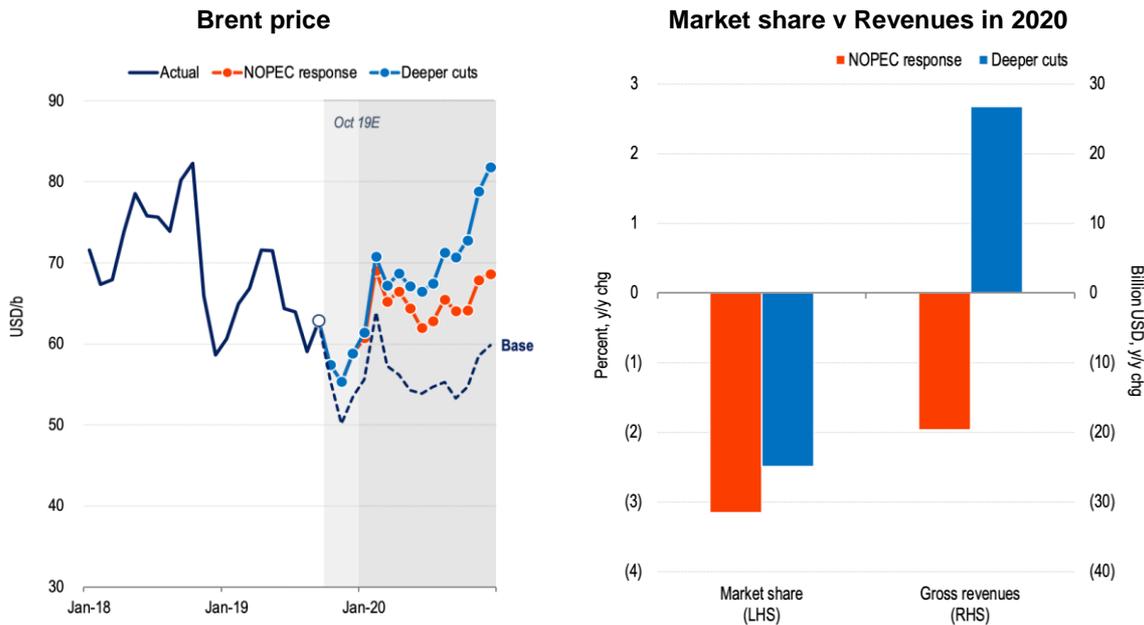
But OPEC can't afford the luxury of relying on such 'certainties'. In the current market context, many uncertainties on the supply side remain unresolved. Although the view that non-OPEC supply (and particularly US shale growth) is coming to an end has gained momentum recently, this view is not new. The idea of a supply gap emerging due to a lack of investment in upstream has been floating around since 2015 when oil prices and investments collapsed. The projection of a 'supply gap' just keeps being moved forward year after year. Also, the concept that the current decline in US shale is due to structural factors only and has no cyclical elements is not credible. In fact, it could be argued that prices need to stay lower for longer in order to sustain the financial pressures on many of the US shale producers and for the rig count and completion activity to fall further. A recent report argues that there may be 'an incentive for OPEC to hold its fire for now, and instead to allow the current financial stress in the US oil industry to run on through the capex and drilling planning season'.¹⁰ Any signal that OPEC is willing to cut further and in the process underwrite US shale producers could reverse some of the recent dynamics affecting US shale supply growth. Such a reversal could adversely

¹⁰ Standard Chartered, Commodity Road Map, 8 October 2019.



undermine OPEC’s efforts to rebalance the market and could lead to a scenario in which OPEC loses both market share and revenues (see Figure 9).

Figure 9: Non-OPEC supply response forecast scenario, Jan 18–Dec 20E



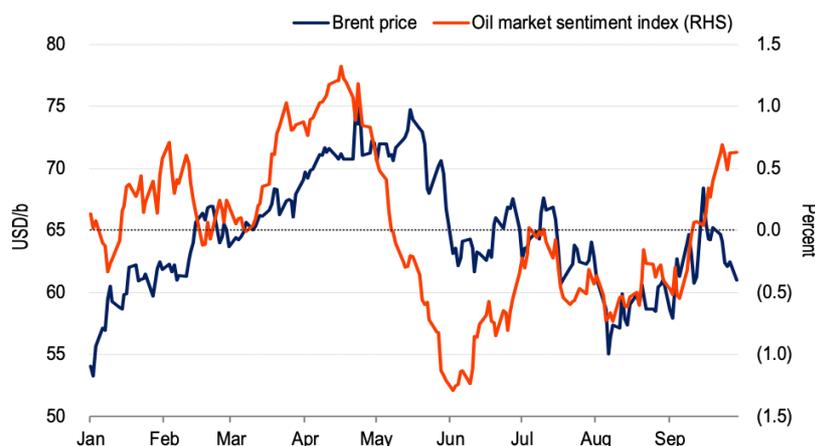
Notes: Forecast scenarios assume that the global economy grows by 3.4% y/y in 2020. The *NOPEC response scenario* assumes that non-OPEC supply grows by 1.9 mb/d on annual terms in response to higher oil prices as OPEC+ deepen their cuts according to the *deeper cuts scenario*.

Source: OIES.

The decision facing OPEC becomes even more complex if one takes into account the uncertainty on the demand side. Part of the reason why oil prices have failed to recover despite the tighter supply picture and rising geopolitical tensions is the negative macro sentiment engulfing the market since the second quarter of 2019 (Figure 10). Cutting oil output to counter the negative macro sentiment would have limited impact on oil prices and actually could have an adverse effect, as the impact of the higher oil prices on global growth would reinforce the negative sentiment. In fact, one of the key successes of Saudi Arabia and the new energy minister Prince Abdulaziz Bin Salman following the attacks on Saudi Aramco facilities has been to ease consumers’ concerns, meeting their clients’ demand for crude from existing stocks and cutting supplies to domestic refineries to make more crude available for exports. This had the impact of limiting the increase in precautionary demand and the associated accumulation of inventories, keeping a lid on the price and avoiding a future downturn when these stocks are released back into the market (see Figure 4 above). This is also reflected in Figure 10 that shows the divergence of the bullish sentiment following the attacks on Saudi oil infrastructure in September 2019 (e.g. reflecting pessimism about the timing of the recovery of Saudi oil production and concerns about the security of supplies) and the oil price evolution.

But beyond the deterioration in the macro sentiment, the oil demand fundamentals also weakened considerably in the first three quarters of 2019. The global economy, international trade and global manufacturing activity have been slowing down and this is already having an impact on oil demand growth. In 2019, global demand is expected to grow by 1 per cent, its slowest pace since 2011. In some of the key growth centers such as China and India, oil demand growth is showing clear signs of deceleration. In other words, while recessionary fears may have been exaggerated, the current slowdown reflects a shock to sentiment, fundamentals and expectations about these fundamentals. So, if part of the current shock represents a change in demand fundamentals, is there a case for OPEC to offset the slowdown in oil demand growth by cutting output?

Figure 10: Daily Brent price v oil market sentiment in 2019



Notes: The *oil market sentiment index* is derived based on information signals that are processed using Machine-Learning approach to quantify the impact of text-based information on daily oil price movements. Positive index values represent bullish sentiment and negative values bearish sentiment. The magnitude of the deviation from zero in the index has no intrinsic meaning and the index should only be viewed in relation to its own past.

Source: OIES.

The answer to this question is not straightforward. If the adverse shock to global growth is not persistent and is expected to be offset by governments easing monetary policy and pursuing fiscal expansionary policies, then the imbalance projected for 2020 will only be temporary and there is a case for OPEC to cut output along the cycle. The short-term impact of the associated rise in oil price on growth from the output cut would be rather limited. But if the slowdown in global economic growth is protracted and reflects some structural trends related to de-globalization, slowdown in global trade and the decoupling of China from the global economy¹¹, then the needed cuts will have to be deeper and for longer and the impact on prices will be muted and short lived. Moreso, in this scenario, the impact of higher oil prices would have stronger impact on growth. Figure 11 shows that to the extent that the global economy surprises further on the downside in 2020, the impact of deeper output cuts by the OPEC+ producers will be short-lived and would have limited effect in arresting the fall in revenues.

But beyond these market-related factors, OPEC also faces internal constraints. Any call for further cuts would likely be resisted by some key players, especially since the pool of countries that could, and are willing to, cut is rather limited (Saudi Arabia, UAE, Kuwait and Iraq within OPEC and Russia within OPEC+), and within this limited pool, countries like Russia and Iraq are yet to achieve full compliance with agreed quotas. Saudi Arabia has made it clear on many occasions that it would not act unilaterally to balance the market, especially given that it is already cutting well below its agreed quota. Some have suggested that Saudi Arabia may have no choice but to consider deeper cuts with the UAE and Kuwait,¹² as Russia has shown signs that it is satisfied with the current price range and argues that it is premature to discuss further cuts. But Saudi Arabia is wary that deepening cuts unilaterally could disincentive full compliance by other OPEC+ partners. Figure 12 shows that if only Saudi Arabia undertakes the burden of cutting output further (see *KSA cuts + 100PC scenario*), its revenues will increase but by less than if compared to all OPEC+ members achieving 100 per cent output compliance (see *100PC compliance scenario*). This perhaps explains why Saudi Arabia has been keeping the pressure on non-compliant members to abide by the quotas.

¹¹ Bloomberg, 'China Doubts Long-Term Trade Deal Possible With Trump', October 28, 2019.

¹² Jacquelyn Melinek, 'Oil Falls on Expectations of Swelling U.S. Crude Stockpiles', Bloomberg October 30, 2019.

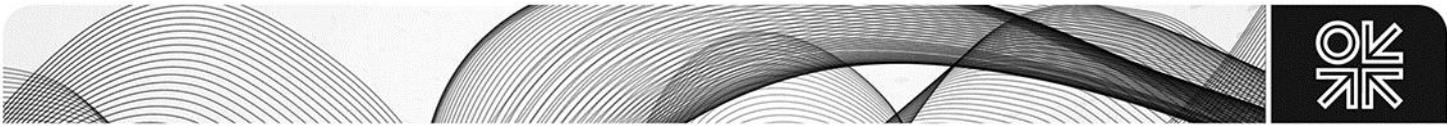
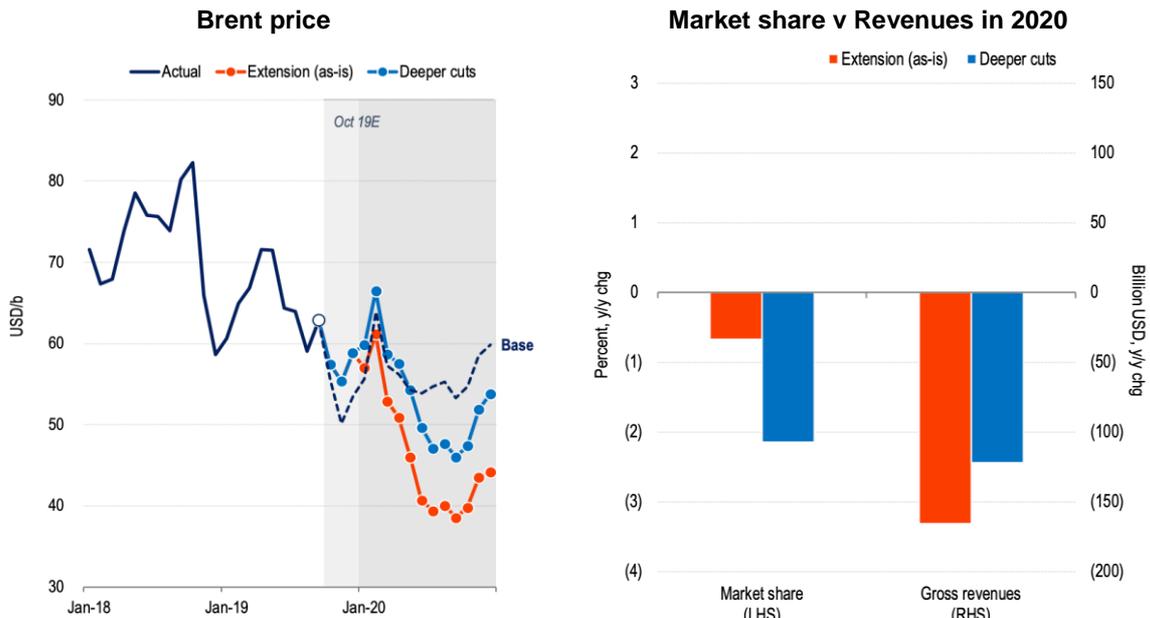
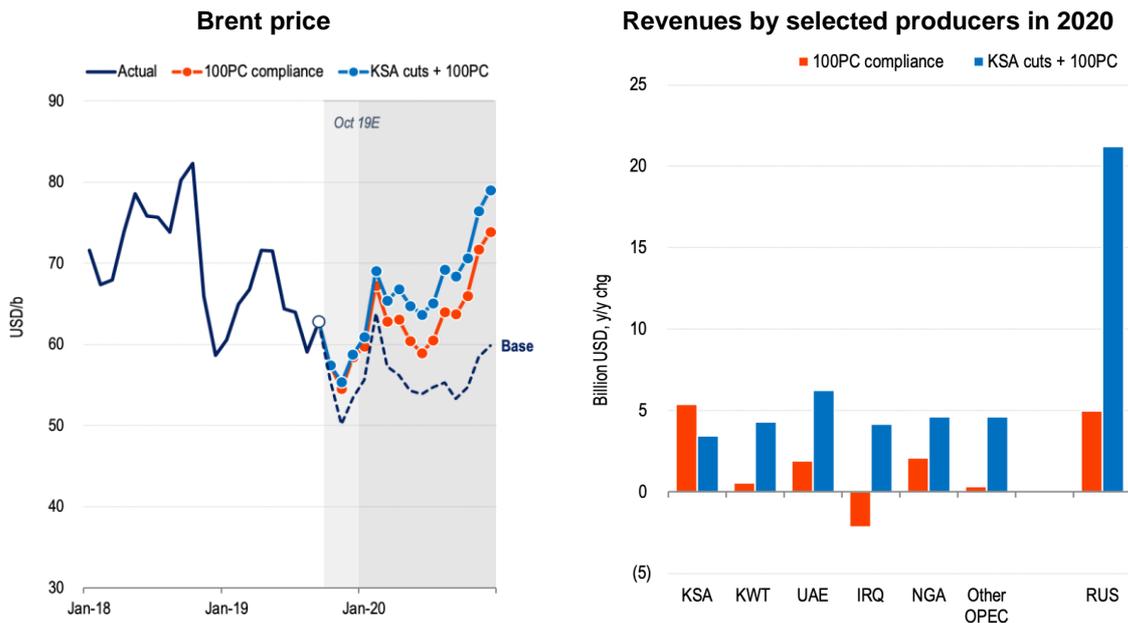


Figure 11: Economic slowdown forecast scenario, Jan 18–Dec 20E

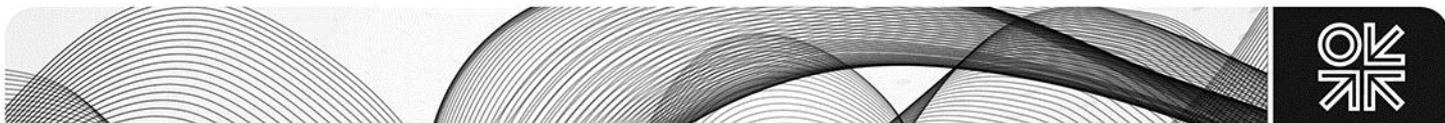


Notes: The *economic slowdown scenario* assumes that global growth in 2020 falls to 2.9%, 0.5% lower than expected based on IMF projections in the reference case. The rest assumptions remain as-is. Source: OIES.

Figure 12: KSA choices forecast scenario, Jan 18–Dec 20E



Notes: The *100PC compliance scenario* assumes that Saudi Arabia pressures and achieves the goal of 100% compliance for all producers to the agreed cuts in 2019. The *KSA cuts + 100PC scenario* assumes that while 100% compliance to the agreed cuts is achieved, it further reduces its output unilaterally by 0.65 mb/d as of January 2020. Both scenarios assume that the global economy grows by 3.4% y/y in 2020, while non-OPEC supply grows only by 1.0 mb/d y/y and fails to respond further to the price increase. Source: OIES.



As OPEC leaders meet in December, historical market indicators such as the level of stocks and their position relative to the five-year average will be of limited use. In fact, based on such data points, the market seems to be in good shape and OPEC does not have to take drastic action. Instead, when making any decision, OPEC needs to have a forward-looking perspective on the following issues:

- Should OPEC look only at 2020 balances or beyond 2020, and if the projected temporary surplus in 2020 is offset by the projected deficits in 2021 and 2022, should OPEC just maintain its current policy and ride the wave?
- Are the causes behind the current imbalance temporary or structural or a combination of both? Particularly, does OPEC view the decline in US shale and non-OPEC growth and the slowdown in growth as mainly structural?
- Should OPEC leave some leeway for other unplanned events given that the main factors shaping the oil market are beyond OPEC control? On the demand side it is linked to developments in US-China trade relations and on the supply side, it is linked to US sanction policies. On both these fronts, the situation could quickly change and OPEC needs to be prepared to have some ammunition to deal with such shocks.

The above questions present OPEC with a wide range of uncertainties, which are perhaps best reflected in the gulf in narratives between the bulls and the bears. For the bulls, OPEC is in a strong position: the declines in non-OPEC supply are structural while the slowdown in global economic growth is temporary. Based on this view, a mini super-cycle is just around the corner: as demand rebounds, OPEC would be operating close to its maximum sustainable capacity at times when the geopolitical backdrop may reduce spare capacity further—a perfect combination for a sustained rise in oil price. Paradoxically, many of the bulls are the ones calling for deeper OPEC cuts. For the bears, it is the other way around: non-OPEC (US shale) supply would rebound strongly in response to higher oil prices and deeper OPEC cuts and the slowdown in the global economy could persist for longer as there is no end in sight for the US-China trade war. Also, according to this view, there is enough supply held off the market and thus concerns about spare capacity are exaggerated.

The reality is likely to lie between these polar views and OPEC should resist being pushed into a corner. If either of these views does eventually materialize, the costs associated with maintaining and extending the current cuts into 2020 are low, with the potentially upside benefit that some of the views about the end of US shale growth could be put to the test. OPEC should leave part of the rebalancing to market mechanisms and resist reacting to noisy daily signals. OPEC+ is in a good position to do so especially its dominant players Saudi Arabia and Russia have succeeded in managing market expectations so far and have not infused the view that they would pursue deeper cuts and that they would do whatever it takes, at any cost, to support the oil price (interestingly, signals that the Kingdom would rebalance the market at any cost have emerged from other OPEC members, that have not been complying with their quotas, and are determined to defend prices by cutting Saudi barrels).¹³ For the first time in several years, Saudi Arabia is, so far, approaching the December meeting by not reacting to immediate market pressures and by not over-promising and hyping market expectations, which may give it the chance to over-deliver in 2020.

¹³ See for instance, 'Saudi Arabia Is Ready To Balance Oil Markets At Any Cost', OilPrice.com, October 29, 2019.