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Oil Supply Shock in the time of the Coronavirus

Executive Summary

The large contraction in oil demand due to the spread of COVID-19 and the dissolution of the OPEC$^+$ agreement has combined to generate large shockwaves through oil and financial markets. The impact on prices and balances has been severe with Brent and WTI falling by more than 50% over two weeks in March 2020. Daily Brent tumbled to $24.9/b on March 18 from $51.9/b on March 2, while at the same time WTI fell to $20.4/b from $46.8/b. Volatility has heightened and the market has seen some extremely volatile price movements. On March 18, WTI fell by 24%, the third worst daily performance on record, to rebound on March 19 by 23% posting the largest ever daily increase. The market has flipped from backwardation to deep contango with time spreads reaching levels wider than those during the 2008 global financial crisis. According to our structural VAR model, the supply-demand imbalance is projected to reach 5.7 mb/d in 2020 and 3.3 mb/d in 2021 which will further deepen the contango as inventories continue to build and traders increasingly resort to floating storage. Combined with the increase in exports from OPEC$^+$ producers, this has already caused a large increase in Very Large Crude Carriers (VLCC) rates. Concerns about availability of storage will continue to put severe pressure on front prices and the shape of the forward curve. Physical differentials have also come under severe pressure with some crudes such as West Canadian Select (WCS) trading at less than $5/barrel and there are reports that prices for some US crudes in physical markets have turned negative. The ramping up of exports by OPEC$^+$ producers in the face of collapsing demand is already causing a massive shift in trade flows with oil exporters such as West African producers finding it increasingly difficult to clear their loading programs, forcing them to slash differentials and offer their crude at large discounts. Products markets are not faring any better with light distillate margins turning negative in the US, Asia-Pacific, and Europe, putting extreme pressure on refining margins prompting refineries to cut runs and shut units with some declaring force majeure on lifting crude. In short, this is a market that is being tested to its limits and all previous records in terms of price movements and physical indicators are being, or are set to be, broken.

This presentation sets out to examine some of the recent dynamics and producers' behaviour shaping the oil market and their likely evolution in the next few months. It makes the following key observations:

- First and foremost, the recent price crisis is driven by an unprecedented demand shock and while supply factors have contributed to the recent decline in the oil price and dampened sentiment further, demand factors are by far the main drivers shaping oil market dynamics. Most macro forecasters now believe that the global economy has entered a sharp recession. For instance, Oxford Economics projects in its baseline scenario global growth to average just 0% in 2020. In their downside scenario, which incorporates a worsening of the outbreak, the imposition of social restrictions, and financial stress, the global economy would contract in 2020, with GDP falling by 1.3%. The impact on oil demand of such a slowdown in global growth is severe. Our model projects an annual contraction of global oil demand of 2.7 mb/d in 2020 whereas under the downside scenario, which is looking much more probable by the day, the impact on oil demand is greater, falling by more than 4 mb/d in 2020. *Our analysis shows that these demand contractions alone (holding other things equal) would have pushed prices in Q3 to $25/b under the scenario of 0% global economic growth and $18.4/b under the scenario in which the global economy contracts.*

- But other things have not been equal and alongside a massive negative demand shock, the oil market has also been hit with a large supply shock. Saudi Arabia's oil policy reversal should not have come as a complete surprise. If one is to carefully examine Saudi Arabia's oil policy over the past few decades, since 1986, it has been shaped by a key principle: the Kingdom has been in favour of 'managing' the market to stabilise prices and avoid a large build-up in crude inventories, but has always made clear through its actions and signals that such management should be done collectively, with other producers sharing the burden of adjustment. Over the years, this principle did not only apply to OPEC, but also to non-OPEC, particularly the big producers such as Russia. In fact, this has been the main motivation behind OPEC$^+$ and concluding the OPEC$^+$ charter in 2019 in the first place.
- Over the last few months, two trends were also becoming clear within the Kingdom's oil policy decision-making: a more proactive approach for managing the market and lower tolerance for producers' non-compliance with the agreed quotas. These two trends became highly visible in the OPEC$^+$ meeting in December 2019. Concerns that oil demand growth may weaken in Q1 2020 (even before the spread of COVID-19) prompted Saudi Arabia to act and OPEC+ did succeed in deepening the cut by 0.5 mb/d to the surprise of many in the market. Saudi Arabia agreed to lower its quota from 10.31 mb/d to 10.14 mb/d and to continue with the voluntary cut of 0.4 mb/d introduced by the previous Energy Minister Mr Khalid Al-Falih on the condition that there is 'full conformity by every country' participating in the deal, sending a clear signal that it would no longer tolerate non-compliance. Russia agreed to cut an additional 70,000 b/d in the first quarter of 2020, taking its overall reduction target to nearly 0.3 mb/d.
- The negative demand shock due to COVID-19 amplified these trends and brought to the fore the differences in perspectives between Saudi Arabia and Russia in the OPEC$^+$ meeting in March. Saudi Arabia recognised the extent of the impact of the virus on demand early on and pushed for implementing a deeper cut and while recognising that this may not necessarily reverse the fall in the oil price as demand continues to be revised downward, it would moderate the build-up in inventories so as not to stress the physical infrastructure and improve sentiment. After all, what is the point of OPEC$^+$, if it is not to deal with a temporary demand shock. Russia, on the other hand, showed strong resistance to deepening the cut despite the support of the remaining 22 OPEC+ members, and was not willing to implement even a small reduction in its output to maintain OPEC$^+$ cohesion, offering only an extension of the deal to Q2 2020. This reflects Russia's fundamentally different perspective on the crisis and other players' behaviour. Either Russia did not appreciate the scale of the shock or did not see any value in deepening the cut given the size of the shock and amidst concerns that US shale producers could increase output to compensate for the cut. Russia would also have benefited from free riding on OPEC's decision, if OPEC went ahead and implemented the proposed deeper cut of 1.5 mb/d.
- The dissolution of the OPEC$^+$ agreement and Russia's declaration that OPEC+ are free to produce at will starting April 2020 has accelerated and deepened the decline in the oil price by making large supplies available to the market and negatively affecting market sentiment. Once the decision to maximise supply and exports had been taken, Saudi Arabia made its intentions clear and sent unambiguous signals to have maximum impact on markets and players' behavior and expectations. Saudi Aramco announced heavy discounts to its April formula prices against regional benchmarks to enhance the attractiveness of its crude for refineries. To reinforce the signal, Saudi Aramco announced it will supply 12.3 mb/d of crude to its buyers in April which will come from increased production and stock releases. The Kingdom also announced plans to start up an additional 1 mb/d of new capacity, which could be achieved by bringing forward the start date of the offshore Zuluf, Marjan and Berri fields, already earmarked for development. *In a scenario in which OPEC$^+$ produces at maximum capacity, prices could fall to as low as $12.4/b in Q3 and fail to recover above $30/b on a quarterly basis until Q2 2021.*

- There are some with the view that Saudi Arabia had always intended to shift to a market share strategy in any case and the dissolution of the OPEC⁺ meeting was an opportunity for the Kingdom to do so. In an environment of high uncertainty about the prospects of global oil demand, many have suggested that a 'fast monetization strategy' is rational. But this argument ignores a few facts. First, the Kingdom worked hard to secure an agreement for a deeper cut and from its various statements and actions this would have been its preferred route. Second, Saudi Arabia does not need an excuse to shift its oil policy towards a market share strategy. Third, the timing of any shift in policy is key and given the current context of a negative demand shock, the Kingdom may have chosen different timing and perhaps a more gradual approach. Finally, the decision to permanently shift policy is a complex and multifaceted one. There are various strategies that the Kingdom could pursue (shifting to a market share strategy, maintaining current capacity, or even reducing existing capacity) and there are costs and benefits to each of these. But now that the decision has been taken to maximise production, the costs and benefits of this strategy, especially in light of low compliance and ineffective management of the market, will come into focus and Saudi Arabia may decide to maintain this strategy for now.
- There is also a short-term perspective to the decision. Under the Russian proposal of the rollover of the previous cuts, we show that Brent prices would still have fallen sharply to the low-$30/b and even more so if OPEC⁺ compliance was poor. From the Saudi perspective, the payoffs of a strategy of inaction and low compliance by other producers (i.e. ineffective management of the market and Saudi Arabia assuming the bulk of the adjustment) and a strategy of maximising volumes are not that different in terms of short-term revenues. In fact, we show that the latter strategy (ignoring price differentials as these are not possible to forecast) may yield a higher payoff by the end of 2021 if demand rebounds and non-OPEC production falls under the pressure of low oil prices. More so, even at very low compliance levels by the rest of the producers, the Saudi proposal of deepening the cut by 1.5 mb/d for the rest of 2020 would have achieved a higher pay-off for Saudi Arabia than the Russian proposal at full-compliance. We expect that only an enforceable agreement that would result in a substantial cut given the size of the demand shock could bring Saudi Arabia to the table.
- Reliance on price/market mechanisms to correct the current market imbalance and clear the expected large build-up in inventories will take months, if not years, and will be very painful for oil producers and the energy industry and will test physical energy infrastructure to its limits. On the supply side, the cuts in capex announced by US shale producers will have the effect of reducing drilling activity and US shale production, but the projected reductions in production are nowhere close to correcting the current and projected market imbalance. There are also lags between the time oil prices fall and output declines, though the lags may be shorter than the 2014-2016 cycle given the poor financial health of many US shale players and their restricted access to finance. Russia's hopes for US shale to exit the supply curve quickly and completely are highly optimistic. Outside US shale, non-OPEC production will not make a meaningful contribution to the rebalancing before the end of 2021 though some of the handful of countries expected to contribute the most to non-OPEC growth in 2020 and 2021 (Canada, Brazil, Norway and Guyana) have already announced that they will trim production this year. For instance, Brazil's Petrobras has announced that it will trim 100,000 b/d of domestic production in response to the market oversupply. The five big Canadian oil sands operators slashed their capex budgets by 27% which will have the impact of reducing output by 100,000 b/d in 2020. These projected reductions, though sizable in normal market conditions, will make little contribution to the current market rebalancing. On the demand side, given the extent of the global economic lockdown, the current low oil prices will not induce an immediate and strong stimulus.
- Thus, in the short term, only an agreement between producers to restrict supply will effectively rebalance the market. Any agreed cut would have to be substantial, given the size of the negative demand shock. Reaching such an agreement will take time and immense effort and will require policymakers to think outside the box. It may also involve new players sharing the burden of adjustment more equitably and may assume a different format from the past. The severity of the current demand shock has exposed the limits of OPEC+ and the need to extend the framework of

cooperation to the world’s top oil producers. The collective action could take the shape of a one-off agreement specifically to deal with this shock rather than a permanent arrangement. If such an agreement, in whatever format, is reached and implemented in H2 2020 (though we think this is highly unlikely), our model shows that this would push Brent prices back to the $60-$70/b range in 2021 if there is a strong rebound in demand following the containment of the virus. If on the other hand, such an agreement can’t be reached, this could turn out to be one of the sharpest downturn cycles in the history of oil markets; extending the period of pain currently being experienced by oil exporting countries and oil companies alike and weakening the energy sector’s resilience in very challenging times when the industry is not only facing the challenge of surviving this downturn, but also the long-term challenge of transitioning to a more sustainable low-carbon future.