Macro Observations

In March, positive momentum in the oil price continued driven by an improving economic outlook and solid discipline from OPEC with regard to their production cuts. The Chinese PMI surprised to the upside on the back of the significant stimulus they have implemented over the last nine months. The US PMI also surprised to the upside with a more accommodating Fed inspiring confidence. US real estate, which had been a worrisome drag on the economy, picked up with lower mortgage rates. The US employment outlook is also proving to be benign. The European economy remains problematic but could improve if positive momentum continues in China. In addition to the improved demand outlook, the total production cuts from OPEC increased from February into March by about 300,000 b/d driven by falling Venezuelan production.

Despite the large move in the oil price, the oil equities have so far shown relatively poor performance YTD. Over the last few years, low multiples for the group have been explained by the fear of the electric car and the low carbon future. If anything, this worry has improved over the last few months with the IEA, OPEC and Exxon all recently saying that long term demand concerns are overdone. Pessimism with regard to future oil demand does not explain the recent poor performance of the equities. Instead the muted performance can be seen in terms of Soros' reflexivity. Low multiples are causing the US E&P industry to slow grow. A number of companies have increase buy backs (Encana is at 12% of market cap for instance) and private equity is investing less. On the most recent monthly numbers, US oil production declined 90,000 b/d sequentially backing out the Gulf of Mexico. The low multiples likely persist until the market recognizes that strong US growth is critical to solve the supply / demand equation. With the fear of a shortage, the equities will again receive premium multiples to inspire investment. The fear of a shortage could come as soon as 2H 2019 but even before then a catch-up trade in the equities is likely.

Conventional oil production is showing signs of the lack of investment and old age. Shocking the oil market, Saudi Aramco revealed in their bond prospectus that Ghawar (the world's largest oil field responsible for 50% of Saudi's cumulative production) is only producing at 3.8 mmb/d.
The field was likely producing at 5.0mmb/d as recently as 2010. Matt Simmons' 2005 book *Twilight in the Desert* was the subject of much controversy when it forecast that Ghawar would peak soon. At the time, the Saudis adamantly claimed that Simmons' analysis was far off but it has now proven to be correct. Furthermore, the Aramco prospectus also revealed that the company's free cash flow break even is a little above $40 Brent, much higher than widely believed. Brazilian production significantly surprised to downside in February coming in below 2.5mmbd or about 350,000 b/d below the IEA's February forecast. Brazil is supposed to be one of the pillars of global oil production growth but it is trending down 5% y/y. Brazil is not likely to ramp production substantially given that there are only three FPSOs coming online in 2019. It will not take much for the oil narrative to change from one of plenty underwritten by US tight oil to one of shortage with conventional production declining.

The IEA's supply / demand model is now looking very uncalibrated, suppressing the oil price. From the February report to the March report the 'miscellaneous to balance' line item went from 1.3mmb/d to 1.8mmb/d. The median reading from the IEA for the 'miscellaneous to balance' is 200,000 b/d and now it is running 9 times higher than the median. Basically, a large positive 'miscellaneous to balance' overstates supply or (more likely) understates demand. We now have the third highest quarterly 'miscellaneous to balance' reading in a history that goes back to the 1970s. In 1999, when the 'miscellaneous to balance' was at a similar level, the Chairman of US Senate Committee on the Budget had the GAO prepare a study on this very issue as there was widespread belief that the IEA was suppressing the oil price through its analysis. Although the large 'miscellaneous to balance' is not getting the same attention it did in 1999, it clearly matters. YTD inventory has been draining quickly (when it should grow seasonally) despite the fact that OPEC production is near the IEA's 'call on OPEC' (and therefore should not drain.) Ultimately inventory will win and the IEA will be forced to revise up demand or down supply. At this point the whole market will readjust its calibration and we will quickly go from a market which appears slightly undersupplied to a market which appears outright short.

The market is also underestimating the coming impact of IMO 2020. The main reason for this underestimation is that there are many conflicting studies which range from no impact whatsoever to a huge one time step up in demand of 3mmb/d or more. With such a wide range of potential outcomes, the market seems to be simply dismissing the event altogether and taking a wait and see approach. It is worth pointing out that most of the studies which see no impact have been written by those who want no push back on the new sulfur regulations for environmental reasons. Basically, they are taking a "better to ask for forgiveness rather than permission" attitude. The Council of Economic Advisors (CEA) report to the President released in March sees IMO causing a diesel ***shortage*** of 200,000 b/d to 600,000 b/d. CEA does not forecast the price impact of this but any shortage of an inelastic product (diesel in this case) can cause extreme price moves. CEA is basing its outlook on the IEA. McKinsey has a very reasonable forecast for IMO 2020 of a onetime step-up in crude demand of 700,000 b/d to 3.3mmb/d. It is highly likely that IMO 2020 causes a huge disruption to the oil market. The change in diesel specifications in 2008 was part of the reason we saw $147 oil and IMO 2020 is at least 18 times larger.

President Trump's tweeting is losing its impact on the oil market. Towards the end of March, he put out another tweet complaining about high oil prices. On the day of the tweet, oil closed flat despite a large upwards move in the dollar and the equities were up about 1%. Trump is already suppressing the oil price by about $10 given where OECD inventory is now (back below the 5-year average.) Ultimately Trump will have the perverse impact of causing a greater oil price spike because OPEC will need to take inventory lower to get to the same price level.   Then when we have a shortfall, we will be starting from a lower inventory level. Trump doesn't have many tools at his disposal to prevent an oil price rise. He can lower sanctions on Iran and/or Venezuela but considering that Bolton / Pompeo are debating *increasing* sanctions this doesn't seem very likely. He can do an SPR release in 2020 but this has not proven to be very effective at lowering price (because inventory just moves from one bucket to another) and moreover he will likely have difficulty getting Congressional approval. He can put pressure on the Saudis but they no longer seem responsive to his demands.