<u>Macro Observations</u>

The macro outlook improved substantially in January. Chairman Powell blinked and reinstated the Fed put. Both the severity of expected interest rate hikes and the magnitude of quantitative tightening have eased since December. The rhetoric around the US / China trade talks has also improved considerably with consensus now expecting a deal. Focus on the Chinese economic slowdown has begun to shift to a potential Chinese economic acceleration given that the stimulus the Chinese government implemented is greater than the 2016 stimulus. The US government reopened and US employment numbers surprised to the upside. Although global economic growth will likely slow somewhat in 2019, a recession seems unlikely. As Ben Bernanke stated recently, "Economic expansions do not die of old age; they are murdered." With the Fed's more dovish stance, the murderer appears to have laid down his arms.

In the oil market, a Saudi / OPEC put appears to be firmly in place. At Davos, the Saudi finance minister was questioned about the slowdown that the IMF forecasts for the Saudi economy and differed in outlook based upon a much higher expected oil price. The Saudis planned their 2019 budget on $80 Brent and seem intent on higher oil prices. Thus far the OPEC cuts have been substantially larger than expected. At the OPEC meeting in December, OPEC+ agreed to cut by 1.2mmb/d with 800,000 coming from OPEC and 400,000 coming from the non-OPEC partners. In January, OPEC production was down a little more than 1.5mmb/d from October levels aided by a sharp fall in Iranian and Libyan production who are exempt from the cuts. While Russia is taking time to hit its quota (as was expected), Canadian production was down substantially in January. Global inventories are set to drain and they are starting from normal levels. OPEC subtly changed its inventory goal from the 5-year average to below the 5-year average. Although the group is reticent to mention a price goal for fear of being labeled a cartel, it is clear that their actual goal is for prices much higher than here.

The oil price will be buoyed by a disproportionate cut to US inventories which are reported weekly and with only a one-week time lag. Saudi has intentionally targeted US inventories for greatest impact and also because the US is currently receiving a discount for its oil. For the week of Jan 25, Saudi imports to the US were 442kb/d, the second lowest in the eight-year data series, and about 500kb/d below average levels. Very low levels of Saudi imports are set to continue the inventory clean up in the only region with slightly higher than average inventory. By the middle of February, Venezuelan imports to the US will drop from 500kb/d to nothing while Venezuela shifts barrels to Asia. It is unlikely the US refiners replace all the Venezuelan barrels as there is not enough heavy oil globally to make up for the loss. The combination of low Saudi imports and negligible Venezuelan imports will cause substantial drainage in the most visible oil market in the world. This will likely improve sentiment substantially.

The crisis situation in Venezuela is likely short/medium term bullish but potentially long term bearish for the price of oil. In the short term, Venezuelan imports to the US will drop to zero helping to drain inventories in the most visible part of the oil market. In the medium term, Venezuelan production will fall faster than previously expected mainly because of a lack of US diluent needed to blend with its heavy oil. In the long term, assuming president Maduro's regime falls, Venezuelan oil production could grow again. Venezuelan production has not been shut-in like Iranian production but has declined through a lack of investment. A substantial amount of capital will be needed to raise production and a new Venezuelan government will need to make substantial, and likely unpopular, concessions to foreign oil companies in order to turn the production situation around. Several years would be needed to restore Venezuelan production above 2mmb/d. In the near term, the direction of Venezuelan production remains downwards.

US production growth is set to slow substantially. The frac spread count is down 27% in the Permian and 30% in the Bakken from peak levels. The frac spread count is a much better leading indicator of oil production than the rig count as it is closer to production and a rig can drill an uncompleted well which is then put into backlog. While sequential growth will be flattish for Q1, Y/Y growth will remain strong given the large ramp in 2H 2018. Y/Y production growth will slow in 2H 2019 given the difficult comparisons and slow 1H 2019 sequential growth. According to the Drilling Productivity Report, rig productivity is 27% off peak levels in the Permian and 31% off peak levels in the Eagle Ford. Schlumberger concluded that interference between 'parent' and 'child' wells would likely make this negative trend continue. That being said, US production growth will likely re-accelerate in 2020 assuming higher oil prices. The re-acceleration will be needed to offset demand growth and conventional production declines.

IMO 2020 is firmly on track with a number of maritime nations focused on the implementation of the new rules. China, Singapore and now UAE have outlawed 'open loop' scrubbers with only 'closed loop' scrubbers allowed. Open loop scrubbers are cheaper and deposit the residual sulfur into the ocean while closed loop scrubbers collect the residual sulfur to be removed at port. About 70% of the scrubbers currently installed are open loop so a number of ships already need to be retrofitted. IMO 2020 will likely prove to be much more disruptive than most expect. A high level of compliance or a low level of scrubber penetration will cause an even greater spike in the demand for crude, all else equal.