

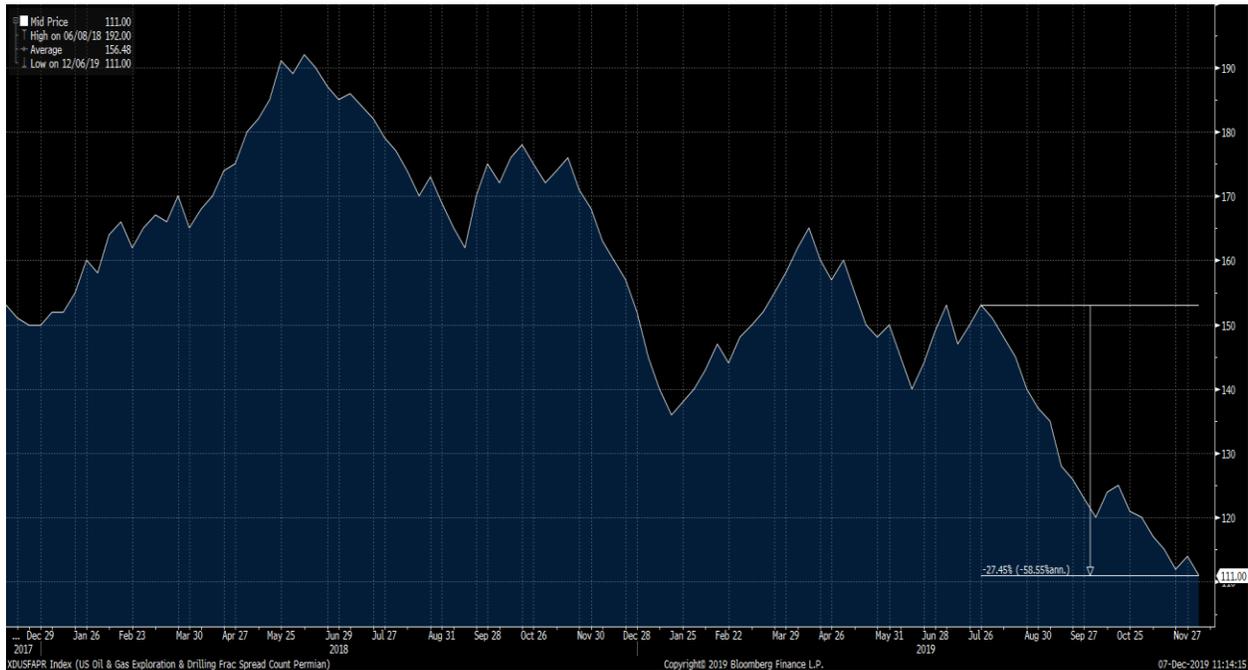
Macro Observations

The OPEC meeting in early December was more supportive of the oil market than expected. In late November, the expectation was that OPEC would extend their cuts for three months past the March expiration. Instead, at the December meeting, OPEC decided to increase their cuts by 500,000 b/d, and the non-complying countries promised to bring their production in line with quotas, which will remove an additional 200,000 b/d from the market. Saudi Arabia also promised to cut an incremental 167,000 b/d, or 400,000 b/d below their quota, as an incentive to those not complying to toe the line. The additional cuts will apply until the end of March when OPEC will reconvene. At the March meeting, OPEC could cut deeper or add more barrels to the market depending upon how the data progresses. The clear message was that the cartel wants inventory lower and will not let the oil market fall apart. Saudi still wants inventory at the 2010-2014 level when oil averaged over \$100. On the IEA numbers, OPEC needs to cut in 1H in order to avoid oversupplying the market. On the OPEC numbers, the incremental cut is not needed. This duality and the high level of uncertainty is why the cartel is planning an extraordinary meeting in three months to reassess the situation.

Oil demand has been particularly difficult to forecast in 2019. According to the IMF, world trade growth in 2019 was the fourth lowest in the data series going back to 1980 (only 2009, 2001, and 1982 were worse.) Comparatively, global GDP growth in 2019 was the eleventh lowest. Trade growth has a much higher correlation to oil demand than GDP growth which explains the weakness in oil demand. According to the IEA's official number, global oil demand grew by 1.0mmb/d in 2019, which is actually a respectable level of growth. However, when their adjustment factor or the miscellaneous to balance is accounted for, demand growth is much closer to flat y/y. The large miscellaneous to balance in 2018 makes demand growth in 2019 particularly difficult to estimate. Demand weakness likely explains why inventories have not drained more ytd. A resolution of the China / US trade war will likely have a disproportionate impact on oil and energy equities. There is no sector of the stock market which has been hurt more from the trade war than energy equities, so it stands to reason that they have the most to benefit. Part of the reason OPEC decided to cut more than expected was as a safety measure because the oil market is still waiting on the resolution of the trade war.

Despite the last surge in conventional production from projects sanctioned in the \$100 oil world, conventional production is being revised down. Petrobras is now guiding for flat production growth in 2020 over 2019 even though they brought on a large number of FPSO units (floating production storage and offloading) in 2018 and 2019. This is a major revision as the expectation had been for 300,000 b/d of growth y/y. In particular, Petrobras is saying 1H 2020 production will be down 300,000 b/d from year end because of field maintenance, which will add to the OPEC cuts. Petrobras is still guiding for long term growth of 150,000 b/d per year but their guidance is very suspect as they are bringing on substantially fewer FPSOs going forward. A more likely outcome for Brazil is flat or declining production starting in 2021. In Norway, Johan Sverdrup has now mostly ramped. This will reverse the Norwegian production decline for 2020 but then, once the field is fully ramped, the declines will resume. Guyana will be able to add 100,000 -125,000 b/d per year for a few years, but even here, Tullow's recent exploration well caused about 20% of the basin to be written off because the oil was too heavy to be commercialized. Conventional production is looking set to decline in 2021, and the market will likely focus on this in the middle of 2020 when the major forecasting bodies put out their estimates for the following year.

Permian Frac Spread Count



Data: Bloomberg, Primary Vision

US production continues to grow much slower than expected. The official EIA monthly production numbers now show US production growth of 425,000 b/d from December to September. This compares to 1,525,000 b/d of growth in the same period in the preceding year. Official forecasts have a substantial ramp in production in Q4, but, as discussed in previous letters, this continues to look unlikely given the 27% drop in Permian frac spreads from late July to now. According to Evercore ISI, 26% of the annual cap-ex budget is spent in Q4 in an average year but for 2019 this will be 22%. Q1 2020 production growth will likely continue to be weak, given the low level of operating rigs and frac spreads in Q4. US production is surprising to the downside for multiple reasons. Efficiency gains are slowing. Companies are exhausting tier one acreage. Wall Street is forcing companies to have a free cash flow focus. Only the Permian basin is growing. The resource base has been revised lower, which makes companies want to preserve drilling locations. The sell side is now competing with each other on who can put out the lowest reasonable growth estimate for 2020 US production growth.

Large moves in the oil price are driven by shifting pricing regimes, as opposed to inventory levels or other near-term factors. Both in Q4 1998, when oil hit \$10, and Q3 2008, when oil hit \$147, industry inventories were at 56 days of forward demand. In the former period, oil seemed abundant, but in the later period, it seemed scarce. From 2003 to 2014, concerns of peak oil framed the oil price and drove it higher. Then from 2014 to 2020, concerns of abundance driven by shale oil and peak demand framed the oil price and kept it low. The oil market now seems poised to return to concerns around scarcity as shale growth slows, conventional production rolls over, and EV sales disappoint. The recent OPEC cuts and hopefully a resolution to the trade war will bring the market closer to an inflection point and a new pricing regime.