

Macro Observations

The month of May proved to be very difficult with oil down significantly and the energy equities down even more. The two main causes of the negative move were the US / China trade conflict and negative oil inventory data in the US. It stands to reason that if the trade conflict resolves itself favorably then the energy equities have significant upside off of that alone. The US inventory data should improve over the coming months. Both issues will be discussed below.

The trade conflict between the US and China took a substantial turn for the worse in May. Early in the month, President Trump ordered an increase of tariffs on China, and the Chinese retaliated with tariffs of their own. Trump claimed the Chinese had backtracked on concessions and the Chinese made a similar claim. Later in the month, Trump ordered additional tariffs on Mexico to force the Mexicans to control illegal immigration. A potential tariff war on two fronts added anxiety to an already disturbed market. The question seems to be whether President Trump is simply a high wire negotiator or a risk-taker with a potential recession on the line. The fact that the President is comfortable with bankruptcy does not make for serenity.

The market is trying to decide if we are headed for a mid-cycle slowdown or a proper recession. In the case of the former, the market and energy equities will stabilize soon. In the case of the latter, there will be more pain ahead. Expectations now are for the Federal Reserve to cut rates. Since 1970, there have been eight rate cutting cycles in the US. In four of those cycles, the stock market went down. In four of the other cycles, the market went up. The main determinant of market direction was whether a recession followed. It is possible the Fed cuts rates and the trade war is resolved sending the market to new highs in time for the 2020 election. It is also possible that the Fed takes too long to act and Trump remains recalcitrant sending the market to new lows. The Fed appears to have learned its lesson but the US President is a wildcard.

Fortunately, all of this drama is playing out in front of the mid-year OPEC meeting and not after. The Saudi Oil minister has made it clear that OPEC will support the market. In early June he said "I would like to reiterate my confidence, based on my discussions with several key producers, and on our track record, that we will do what is needed to sustain market stability beyond June. To me, that means drawing down inventories from their currently elevated levels." In an abundance of caution, OPEC+ is very likely to roll over the current cuts when they meet in the next few weeks. ***This means that total OPEC production will fall as Iranian barrels come off the market from the US sanctions.*** According to Bloomberg data, Iranian exports of crude and condensate have already fallen from 1.9mmb/d in March to 0.2mmb/d in May. ***The lower May exports should hit OECD inventories in late June. This swing in Iranian exports is larger than the total OPEC+ cuts of 1.2mmb/d.*** Saudi needs \$85 Brent to balance their budget and so they are willing to err on the side of over-cutting the market.

Given the magnitude of the current OPEC+ cuts, inventories should now be draining substantially. In Q4, OECD inventories grew at about 850 kb/d versus seasonal (flat in absolute.) Since then, OPEC+ production (including exempt Iran and Venezuela) has fallen by a huge 2.6mmb/d. According to the May IEA report, Q1 OECD inventory drained by about 600 kb/d versus seasonal (250 kb/d absolute), and oil in transit (oil on tankers or industry working capital) also fell by 550 kb/d. The Q1 data was more or less on track given the magnitude of the OPEC+ cuts although drainage was likely held back somewhat by weaker demand. However, starting the middle of March, inventory began to build substantially in the US (which is the only place where data is available on a current basis.) The question now becomes what is causing this unexpected and somewhat persistent US inventory build? It is obvious that the US build is concurrent with the Iranian waiver surge given the delay in shipping. While this explains most of the issue, it does not explain all of it. Like most market participants, OPEC is confused by the data, potentially postponing their mid-year meeting to get a better picture of current supply / demand dynamics.

The largest issues facing the US is that the regions where tight oil is growing are currently bottlenecked, and crude exports are lower than they would otherwise be. This can be seen clearly by looking at where inventory has accumulated. In PADD 5, or the West Coast, crude inventories are at five-year lows. In PADD 1, or the East Coast, crude inventories are slightly below normal levels. Both PADD 1 and 5 are effectively islands with no connection to US production areas by pipeline. In PADDs 2, 3, and 4, or the Midwest, the Gulf Coast, and the Rockies (the areas of tight oil growth), crude inventories levels are close to the highs. Product inventories are at normal to low levels across the country. PADD 2 and 4 crude needs to flow through PADD 3 to get to the gulf coast. The spread between WTI (in Oklahoma) and the crudes directly on the coast (like Louisiana crude or Gulf of Mexico crudes) is now very wide. Because the coastal crude prices are high, the import arbitrage is still open. When the new Permian pipelines begin shipping in 2H, it is likely that coastal crudes drop in prices and exports pick up substantially. This will ultimately fix the US inventory situation. The bottlenecked nature of US crude explains how the Brent 1-6 timespread is very backwardated signaling a tight market globally while US inventory grows.

From the middle of March until the end of May, US inventory (crude plus products) has grown by about 50mm barrels more than the seasonal average. Most of this can be explained by higher net imports of crude. In the middle of March, net imports were running at about 3.5mmb/d, or a level commensurate with the OPEC+ cuts. For the last 10 weeks, net crude imports ran at 4.2mmb/d, or 0.7mmb/d higher for a cumulative 49mm incremental barrels. The higher imports of crude were likely caused by the surge of waiver volumes from Iran pushing competitor volumes to the US as total Iranian exports expanded from 0.7mmb/d in December to 1.9mmb/d in March. As mentioned above, Iranian exports have now plummeted to 0.2mmb/d according to Bloomberg. In addition to higher net crude imports, the US also suffered from lower product export growth. In 2018, net product exports grew by 340 kb/d, and in 2019 growth slowed to only 40 kb/d YTD because high refinery maintenance led to undersupplied product inventory. The cumulative impact of lower product exports YTD is another 48mm incremental barrels. Demand growth in the US has run flat YTD or about 200kb/d below expectations explaining about 32mm

incremental barrels. The bottom line in all this is that US inventories will resume draining once the impact from the drop in Iranian exports hits OECD inventories and once refinery utilization picks up.

US oil production thus far has surprised to the downside in 2019. The EIA's most accurate numbers are the monthly numbers which come with a two-month lag. They show US production flat Q1/Q4 on a sequential basis. The EIA's Drilling Productivity Report also shows a material slowdown with tight oil growing 82 kb/d per month into June, or about 1mmb/d annualized. This is down from a peak y/y growth rate of 1.9mmb/d in August 2018. 2018 will likely be the year of peak shale growth with a material slowdown coming. Last year tight oil surprised to the upside for two main reasons: industry behavior and a mitigated decline rate. The industry surged completions in response to the expectation of an oil price spike caused by Iranian sanctions. This can clearly be seen from a steep ramp of Permian frac spreads in the summer of 2018, which was not expected at the time. The US industry, along with OPEC, was duped by the Iranian waivers. Furthermore, the additional completions happened right as the US decline rate dropped. With negative and low growth in 2016 and 2017, there were fewer first year wells in the base (with 70% decline rates) dropping the industry decline rate by as much as 10% in aggregate. The current expectations are for a material sequential increase in US production in 2H 2019. This will disappoint to the downside unless there is another surge in frac spreads in the very near future. While the new Permian pipelines will likely narrow the WTI / Brent differential, better realizations will not be enough to have the US industry materially increase its sequential growth rate.

Global oil production is about to be hit by a slowdown in US oil production growth and a decline in base conventional production. US production will inevitably slow as both the Bakken and Eagle Ford hit a plateau and only the Permian of the main basins grows. Global conventional production will begin to decline as the large cap ex cuts finally catch up with the base of oil production. The combination of these two is going to create a long up cycle for oil and energy stocks. Iranian exports have already fallen and are about to hit OECD inventories. It is unlikely that OPEC offsets the loss of Iranian barrels as they are clear about wanting and needing higher prices. IMO 2020 is now imminent and will likely create a one-time demand shock. While the global recession fears are legitimate, the XOP, or the index of E&P companies, is at the same level it hit in 2016 when Brent was \$27. Now is not the time to lose faith.