



LOWER FOR LONGER

BIS Commodities & Credit Team

Sitting at the bottom of the commodities bear market, with a turning of the US debt cycle in place, we analyze the current state of affairs, present our investment outlook and give recommendations on how to proceed.

[16th March 2016]



Executive Summary

A Broad Macro Play

With a huge variety of factors in play across these two asset classes, we have split our analysis across four key segments, as follows:

Geopolitical Concerns

Examining the ISIS business model, tensions between OPEC members internally and with other large oil nations in order to show why swift action may be curtailed.

Johnny Battle & Ben Russell

Supply Pressures

Acknowledging the rapid shale revolution, the current outlook for providers in this space, the broader supply glut and mounting global concerns pushing forward green energy.

Luke Sanders & Will Diamond

Demand Weakness

As a vital engine of growth and crucial commodities buyer, China's transition and broader global demand weakness are examined.

Christie Collins & Ruadhan Nethercott

Credit Tightening

Fed liftoff has finally taken place; monetary conditions and borrowing ease are shifting. Firms have lived through the 'easy money' stage – how will they fair beyond this point?

Diana Drobyshevsakya & Joe Murphy

We hope this piece is informative and helps gives a succinct understanding of our expectations for these intertwined markets.

- Adam Pickett, Markets Investment Head

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Geopolitical Concerns

Political Impasses

Despite consensus that current low oil prices are in a large part due to unprecedented oversupply there has been little movement to address the issue. It has taken until early 2016 for any manner of OPEC supply deal to occur, as a supply freeze (not even a cut). With Saudi Arabia and Russia backing opposite sides of the Syrian conflict and Saudi-Iranian relationships under significant strain following the January executions, we see plenty of risk that deals outcomes will either be minimal, contain concessions for key parties (given to Iran in 1999) or even fall through (as has been seen thus far). The deal is yet to be fully ratified. Iran has rejected the deal as “ridiculous”.

Iran has its own priorities anyway. Sanctions limited the country’s oil exports, but have been lifted since January and they are now looking to regain the market share it lost. The likelihood of Iran agreeing to freeze, or even cut, its output hence looks unlikely – despite any comments made to the contrary.

In some sense the standoff between Iran and Saudi Arabia brings to mind the “prisoner’s dilemma” of classical game theory. If both countries were to cooperate the global supply glut could be decreased and oil prices would rise. But instead neither country is willing to make that first move, and hence the likelihood is they will both come off worse.

Not Enough

Even if the recent deal between OPEC and Russia does result in a freeze of production at January levels this would be a ‘minimal’ outcome. Russia’s oil output is near post-Soviet highs while Saudi Arabia’s is at levels that were only topped last June. Combined freeze level would be just above 21 million barrels day, more than 20% of current global [over]supply levels.

Goldman Sachs analysts have “such a freeze will have little impact on the oil market as proposed, while there remains high uncertainty that it even materialises. As a result, our oil supply and demand estimates remain unchanged and we reiterate our view that oil prices will remain volatile.”

Indeed some reports are of the opinion that due to the huge supply glut present at the moment from overproduction, even a *cut* in production from OPEC and Russia may not increase the price for some time - whilst the excess supply already extracted remains unused.

Tangled Web

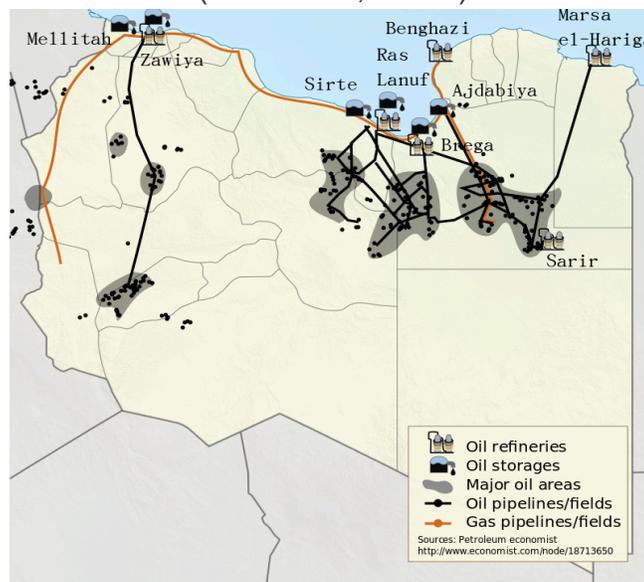
Saudi Arabia risk losing their market share by cutting production and, as previously discussed, a cut will benefit 'rivals' Iran more than itself. However, with the ongoing standoff between the US and Russia - seemingly advancing military intensions in East Europe (towards the Crimea and beyond) - Saudi Arabia may find itself in a difficult situation in attempting to please both partners. Furthermore, the with waning US energy dependency on the Middle East and lower exposure to price changes from the region, the US reconsider their relationship with Saudi Arabia, Russia and other Middle Eastern states in their struggle to contain Islamic State and other militant groups in the region.

Daesh Inc.

The threat posed by the terrorist group Daesh poses not just great dangers for immediate safety but also for oil production from the Middle East. The greatest oil related risk currently posed by Daesh is access to Libya, home to Africa's largest oil reserves with around 48 billion barrels. For examples sake, this conservatively represents an extra 500 days of current world supply levels, just through Libya alone.

After the ousting of Gadaffi, Daesh has grown stronger within the failed state of Libya and is constantly looking to expand into further territory. Daesh have been selling oil to the region filling the gaps left by sanctions: their market includes local people and businesses, and even the rebels whom they are fighting against. The sale of this oil has helped Daesh increasing cash supplies, which in turn is being used to consolidate their position and help their end goal of being able to run a caliphate in the region. Once the stronghold in Libya, headquartered at Sirte, has been established Daesh plan to exploit the political and economic weakness of Tunisia, one of the limited success stories of the Arab Spring.

Their oil production and sales has becoming an increasingly professionalized. The group has been recruiting engineers in great quantities putting Daesh in a dangerously efficient position as territorially near Libya's oil crescent (Economist, below) where the most supply is situated.



Supply Pressures

Shale Revolution

US production of shale gas is still relatively high. New drilling has suffered, but on the whole, considering the deep scale of the price fall, production has remained surprisingly resilient. Furthermore, even if some of the producers are forced to leave the market with prices at the current level, the nimble nature (faster turnaround) of the shale rigs means with an uptick in prices they will be able to enter the market again soon, with this 'optionality' creating a long-term price ceiling. BP's 'Long-Term Energy Outlook' report predicts that US Shale gas output will continue to rise over the next few decades to a plateau of about 80 million barrels per day, which is almost double current levels. Moreover, there is a strong political motivation in the West to keep shale production alive in order to avoid a dependence on politically unstable areas such as Russia and the Middle East. Producers like EOG Resources are seeing breakeven prices around \$31 (SeekingAlpha) so further technological advances along these lines will mean further shale industry resilience and downward supply pressure.

New Swing Producers

The recent rise of US production in liquid energy has made them the largest producer in the world and the old order of OPEC and a few other significant countries has weakened. OPEC, led by Saudi Arabia, can no longer control the price of oil to the extent it once could. Incremental oil production is now mostly in the hands of North America and Iran (below, EIA).

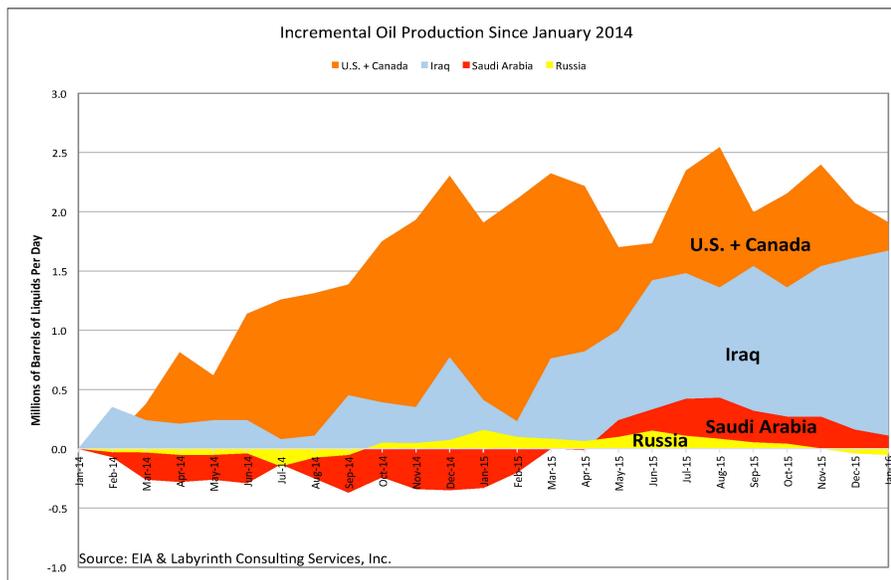
Current Glut

The large global excesses in oil inventories will have to be drawn down over the next few years before prices experiences any meaningful rise. In 2014 supply outpaced demand by a factor of three, a problem that was exacerbated in 2015 when OPEC decided against action. The coordinated OPEC freeze will not be enough to overcome the excess supply. This may also only be the start off the problem; analysts at Goldman Sachs believe that once stockpiles become full and there is, in effect, no more room to store oil the price may fall even further, reaching as far as the low \$20 range, according to their estimates. The storage spaces most at risk are those that are landlocked. For example, the delivery point for crude futures - Cushing, Oklahoma – representing about 13% of US oil storage – has a working capacity of approximately 73 million barrels has been sitting around 85-90% full in recent months. The International Energy Agency (IEA) forecasts inventories continuing to accumulate until the end of 2017 and says large inventory drawdowns are necessary before a significant price rise.

History has set precedence, as referenced by Goldman Sachs analysts: after the Asian financial crisis prices continued dropping even as OPEC made output cuts in March and then June of 1998, slipping below \$10 a barrel in London in December of that year. Only after storage levels in developed economies started dropping in early 1999 did the recovery begin.

Iran Online

Before the nuclear sanctions were instituted in 2012, Iran was OPEC's second largest supplier of crude, producing around 4 million barrels a day, of which it exported some 2.3 million barrels. Iran's oil infrastructure was neither damaged nor destroyed, so there is potential for supply to ramp up relatively quickly. With sanctions lifted on the countries exporting ability, immediate plans to increase shipment were put in place. In January, the country planned to increase exports by 500,000 barrels per day. Additionally, Iran's government have stated that they plan to rebuild industries with the \$50 billion in frozen overseas accounts to which they have just been granted access. Therefore, the country now has funds to put towards increasing oil output even further should they wish to do so.



Green Alternatives

The deployment of renewable energies is growing constantly. The US is on course to install 12 gigawatts of renewable capacity this year as wind and solar capacities are set to increase substantially. In 2014, global clean-energy investments rose 17% to \$270 billion demonstrating the rate at which the clean-energy market is growing.

These numbers may be impressive, but perhaps may not have as strong an implication on oil price as expected. The majority of energy produced via sustainable methods is used to power homes with heating and electricity. Although this is a use of oil, in the grand scheme of things oil is predominantly used at a transportation fuel. In the US, approximately 70% of oil produced is used in transportation but accounts for less than 1% of power generation across the country.

Research into sustainable methods of producing transportation fuel is underway. However, at this point in time sustainable fuels do not pose a great threat as a substitute for oil as they are not produced on anywhere near the same scale. The main competitive supply threat may come from advances in transportation driving higher fuel efficiency, political pushes towards CO₂ limits on vehicles and advances in electricity-powered engineering as shown by Tesla.

Demand Weakness

Macro Scenario

Major challenges regions need to contend with include banking sector weakness and large sovereign debt piles in Europe, depressed commodity prices negatively effecting revenues and investment in the EMEA and Asia, developments in Japan and the slowdown of China impacting nearby Asian trading partners, as well as recessions across LatAm. Recent NFP data suggests improved US growth but they are still a minority consumer of global oil.

Chinese Transition

The Chinese economy is restructuring from an energy intensive manufacturing economy to a service economy whose growth is not as strongly linked to commodity consumption. This has led to a slowdown in economic growth. The IMF expects the Chinese economic growth to fall to 6.3% in 2016, down from 6.9% in 2015. This has huge implications for the global economy with the China providing 35% of the global growth over the past 5 years according to IMF data and having large effects on the trade and currency channels of commodity exporting nations.

Currency Headwinds

Monetary policy divergence between the US and the rest of the world (recent Fed rate rise, hawkish economic data vs. negative rates and further QE in Europe, Japan) should cause medium to longer-term USD appreciation. As oil contracts are settled in dollars, stronger USD makes it more expensive for buyers paying in foreign currencies, thus reducing demand. The Yuan has been devalued by the PBOC in order to help their exporters, but this also reduced their purchasing power for oil imports. This could add to the pressure on oil prices, as China is the world's biggest oil importer. Janet Yellen has warned about potential rate rises due to the recent strong economic performance of the US, such as unemployment rate falling to 4.9%.

Global Transportation

As can be seen in Figure 1 (OPEC World Oil Outlook 2015 – all figures in this segment), 59% of demand for oil (currently, projected to grow) stems from use in transportation, such as passenger and commercial vehicles, aviation, rail and internal waterways. Passenger and commercial vehicle ownership is highly correlated with GDP (Figure 2) and whilst in the long term car ownership in developed countries is expected to increase significantly, consumption of durable goods such as these are often postponed in periods of uncertainty and the requirements for commercial vehicles in trade may be subdued in the current climate. Empirical evidence suggests that aviation and shipping industries are highly correlated with GDP growth (Figure 3). The demand for aviation services such as tourism and business travel increases with disposable income and increased trade flows between nations increases demand for freighting and shipping services, both of which may be negatively impacted by a global slowdown in growth.

Resource Competition

25% of oil demand is from the petrochemical industry and is used to create a wide range of essential household and industrial products. Historically the oil industry has experienced a modest upward trend in demand insulated from economic fluctuations but in recent years oil has lost significant market share throughout OECD America to gas (Figure 4). The issue of climate change is gathering large political momentum; increasingly stringent fuel efficiency regulations are being imposed on vehicle manufacturers reducing oil use per vehicle.

Bringing It All Together

Many factors that affect the demand for oil (including fuel efficiency technologies and relative oil prices) however GDP and international trade are considered to be two of the most important determinants, both of which are highly uncertain in the current climate. In January 2016 the IMF revised global growth projections down 0.2% to 3.4% whilst Chinese think tank CASS estimates a growth rate of as low as 3%, reflecting the difficult worldwide economic conditions. The European central bank has also reduced the Eurozone growth estimations from 1.7% to 1.4% and from 1.9% to 1.7% in 2016 and 2017 respectively. To summarise, the mid-term outlook is less positive due a combination of factors that are contributing to global slow down in growth and international trade, which has significant implications in the transportation sector.

Percentage shares of oil demand by sector in 2011 and 2040, World

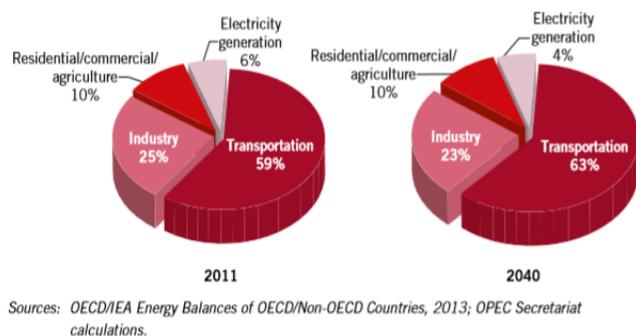


FIGURE 1

World Revenue Passenger Kilometres (RPK), Freight Tonne Kilometres (FTK) and GDP growth

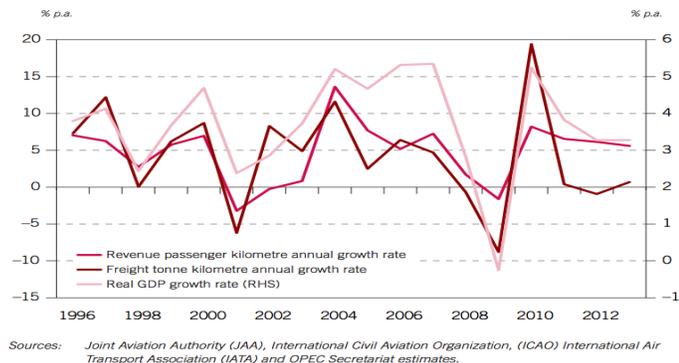


FIGURE 3

Commercial vehicles and GDP, 1970–2013

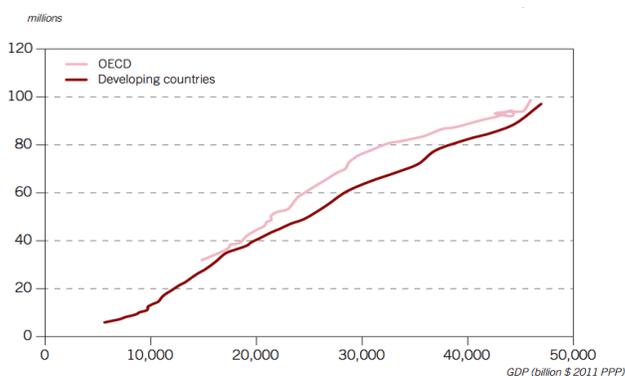


FIGURE 2

Oil and gas share in 'other industry' in OECD America, 1990–2012

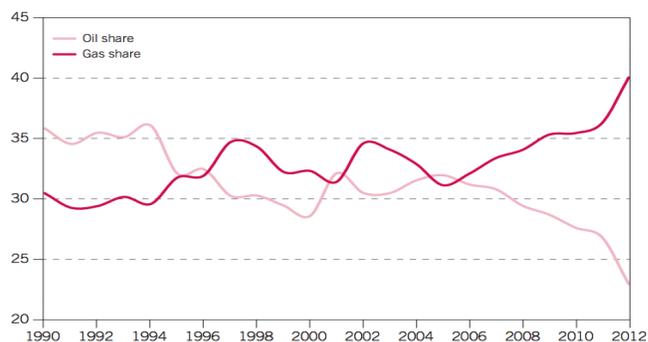


FIGURE 4

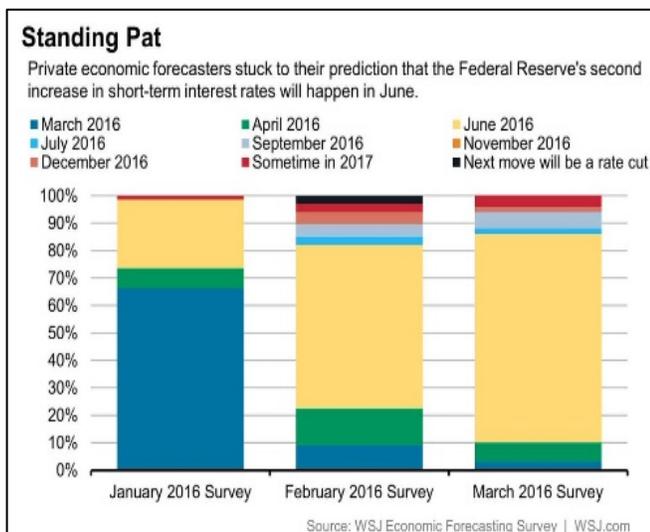
Credit Tightening

Monetary Policy

When raising 25 basis points in December, the data-dependent Fed's dots, shown right, implied four further 25bp moves by 2016 end. Despite this, the theme for markets into the New Year was very much of risk-aversion following uncertainty over the global economy, namely China, and talk that the US may have been bordering on recession.

Various indicators, such as the risk premium on junk bonds and the contraction in spread between short and long term treasury yields, creating a flattening of the yield curve, typical for calling downturns, signalled a somewhat pessimistic future for the US economy. Such talk had questions raised over whether the fed would achieve 4 hikes with some suggesting a rate cut and the market, shown by the red line (top), with a significantly more dovish outlook than The Fed.

After four consecutive weeks of equities rallying and moderately strong employment and inflation data, though, those concerns have dampened. This raises the prospect of further tightening (right, Bloomberg), with the majority of analysts eyeing the June meeting for the year's first hike and the market pricing in for a 1.00% deposit rate by year-end.



This month we saw the ECB ramp up their experimental monetary easing, lowering the deposit rate further into negative territory, to -0.40%, whilst expanding QE both in breadth and depth, increasing purchases to 80 billion euros a month whilst incorporating non-bank corporate debt into their purchases. Despite an initial, unexpected appreciation of the Euro following the news this will apply further pressure on the currency against the Dollar.

Debt Outlook

A more expensive dollar increases the dollar-denominated debt of firms thus making the debt more expensive to repay, detracting from net profits. In the bond market, this increases the risk of default and pushes yields up making refinancing more expensive.

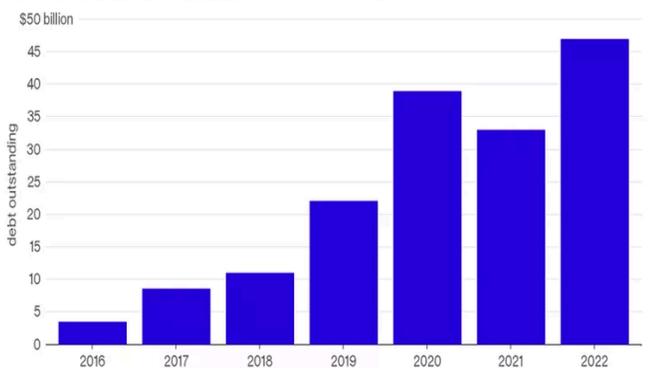
On the one hand, the availability of cheap borrowing should stimulate investment expenditure and an economic growth. But what we observed in reality is that the drastic fall in commodities prices slashed companies' revenues, made them cut dividend payments, significantly reduce the headcount, freeze investments in new projects and hammer capital expenditure and forced them to take on even more debt. It is possible that many energy companies were able to finance its debt only due to the extremely low interest rates and if interest rates rise, increased levels of defaults on corporate debts will be inevitable.

According to S&P, the outlook for corporate borrowers worldwide is the worst since the global financial crisis. In December 2015 S&P considered cutting ratings of 17 percent of the companies that it covers. Credit spreads, which reflect the risk premium or the percentage difference between government and corporate bond yields, tend to widen the lower the rating on a bond becomes. For example, the CDX High Yield Index, which is a measure of insurance aimed to protect investors from losses in high yield debt and which is composed of credit default swaps written on a basket of 100 junk rated companies, has "priced in about a 21 percent loss over a five-year period" (Anindya Basu, Citigroup) in December 2015, whereas the highest we have ever seen over a five-year period is 14.2 percent, and that included 2009. While this level has lowered, broader credit conditions have not significantly changed, perhaps meaning this risk is still present.

Globally, according to Bloomberg, "commodity companies on average had negative leverage five years ago and now are over 8 times geared". So as lower rated US energy companies – originally financed by previously cheaper credit facilities – tackle this debt wall (Bloomberg, left) alongside broader models of US credit tightening such as the Wu-Xia Shadow Fed Funds Rate rising (Atlanta Fed, right), downgrades could occur.

Debt Wall

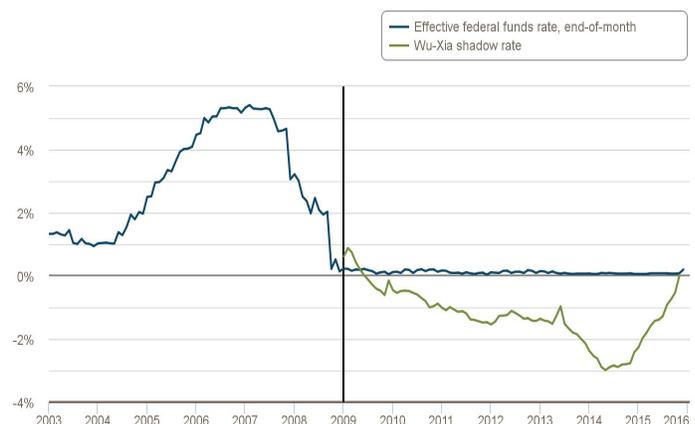
U.S. junk-rated energy companies owe over the next seven years



Market Realist[®]

Source: Bloomberg

Wu-Xia Shadow Federal Funds Rate



Sources: Board of Governors of the Federal Reserve System and Wu and Xia (2015)

Investment Suggestions

Given the factors discussed, our view is for caution towards downside risk of exposure to oil and US HY credit, even more so for combinations of the two. Barclays analysts have recently warned that “on balance, the evidence is that commodity markets have moved ahead too far, too fast over the past few weeks and we continue to expect retracement before long...prices should not set fresh lows, but despite conflicting signals, our view is that the fragile state of the global economy and the underlying weakness in commodity demand mean that a turning point for commodities is still some way away.” In light of this, our suggestions are as follows:

Hedging Opportunities Amid The Recent Oil Rally

- As market sentiment remains overly positive, investors and corporates should look to hedge medium-term WTI exposure closer to \$40 to lock in these levels.
- The S&P/ISDA CDS U.S. Energy Select 10 OTR Index is up 249bps YoY, flat YTD and (crucially) down 220bps in March alone. This represents a good opportunity to buy combined, targeted protection on both the specific asset class risks discussed.
- Similarly, the S&P 500 Energy Corporate Bond Index is down 9.01% YoY, up 1.35% YTD but seems overbought currently, up 4.66% in March. For a broader, less ‘tail-risk’ hedging opportunity, look for short exposure to this index, potentially on swap.

Directional Positions

- Short term sentiment changes, data announcements and the conclusion of short squeeze buying could lead to momentum based reversals in oil prices.
- Related to our \$40 hedge, and taking into account Ian Taylor’s (Vitol CEO) prediction of a decade of prices bound around a \$50 midpoint, a bearish option spread (call spread when IV is high, put spread when low) could capture short term reversals, while once prices stabilise in the medium term, selling range bound iron condors with selectively chosen prices between these two prices could prove profitable for the option experts.
- Portfolio shifts away from US oil & gas debt may be wise as “48 N. American producers filed for bankruptcy in 2015... more will follow this year” (Haynes & Boone LLP).

Risks

Be wary that accelerated ratification of the supply freeze deal, any supply cut discussions, steadying global demand or dovish Fed policy, alongside general market unwillingness to accept fundamental may give upside risk to our bearish US credit and oil suggestions.

Conclusion

These ideas advise how to avoid two potential pitfalls present in the current investing climate rather than for outright speculation and, as stated before, are for educational purposes only.