A Thought Leadership piece *13th March 2015*

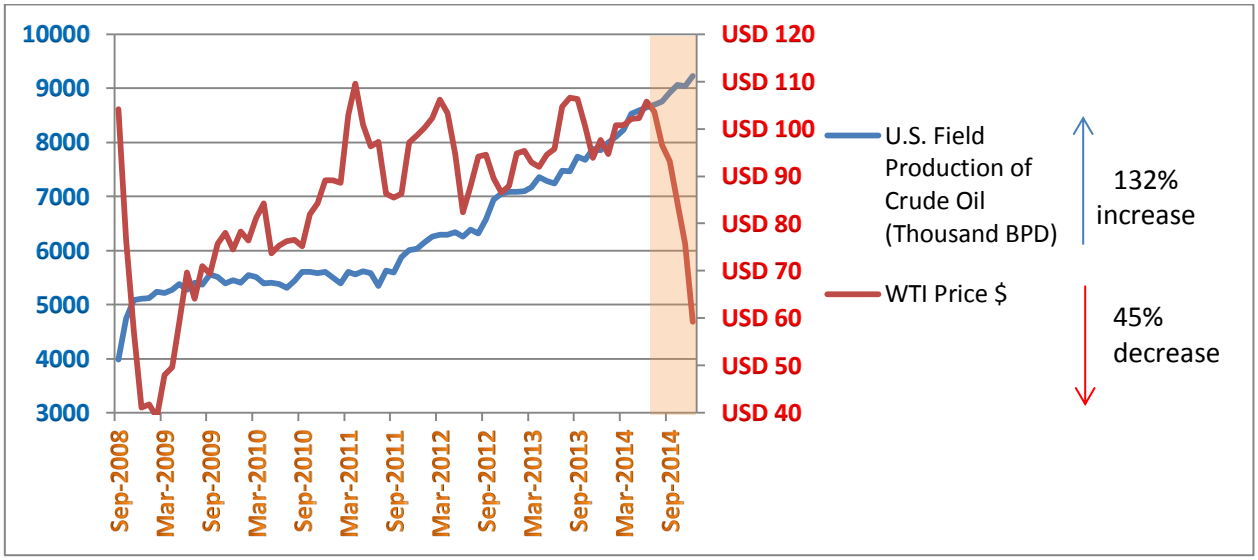
on the impact of recent oil declines on US oil producers and why corresponding credit markets are a 'Buy'.

Background

Since the summer of 2014, WTI Crude oil prices has halved back down to levels not seen since the depths of the financial crisis is 2008 **Fig 1**. While US field production has marched relentlessly higher, with expectations that production will pass the (November 1970) peak of 10m barrels per day in the next few years. This renaissance in US production has been driven by the onset of new Hydraulic Fracturing techniques 'fracking' as well as improvements in traditional vertical and horizontal drilling.

This boom has meant greater investor appetite for oil related assets and has fuelled the growth in more and more complex investment structures. This combined with the current ZIRP environment and cheap borrowing rates has made yield paying instruments such as 'Master Limited Partnerships' more appealing. In this text we will explore what impact both the boom in production and the more recent fall in prices of oil have had on the companies involved, their credit and investment structures and the current perceived threats around Primary Dealer liquidity and potential 'blow up' in high yield credit spreads and MLP's. We will also challenge the consensus view that falling oil prices are 'carte blanche' beneficial for oil importers and negative for exporters, as the debate has been over simplified in economic an media circles.

Fig 1. US Field production of Crude oil vs Price, including recent price decline



Master Limited Partnerships

Since Apache launched the first Master Limited Partnership (MLP) back in 1981 the industry has grown to over 160 MLP's available on public markets today. Predominantly used by Oil & Gas companies and a few financial and real estate Co's, they have become an attractive alternative asset class, especially for those looking for yield (some over 40%). Since the start of the shale revolution the number of E&P MLP listings has boomed – (50 in the just past few years).

It is interesting to note that many of the current crop of MLP's actually spawned out of the 1980's crash as the large integrated energy companies spun off their midstream assets into MLPs to focus on their core businesses.

Funding & Structure - *YieldCo, REIT or MLP?: what is an MLP and how is it structured*

- An MLP is a Publicly Traded Partnership / Limited Liability Company (LLC) that is usually energy related.
- Non energy entities such as real estate are generally referred to as simply 'Publically Traded Partnerships'.
- They will have at least one General Partner that runs the MLP with a 2% stake.
- The rest of the MLP is owned by 'Unitholders' or 'Limited Partners' (publicly traded) who receive a quarterly distribution of cash.
- MLP's that are an LLC structure don't have General Partners: all investors have same 'membership interest'.

Benefits of an MLP

- No double taxation: this is the main reason for the MLP structure and means no Corporate or Federal Tax- instead, it is the 'members' who pay taxes at their own rates (and usually deferred).
- This 'Pass-Through' tax structure means Cost of Capital is lowered -A big deal for a capital intensive industry!
- Almost all of the MLP's income is distributed to its partners / members, providing potentially high yields.

Cons

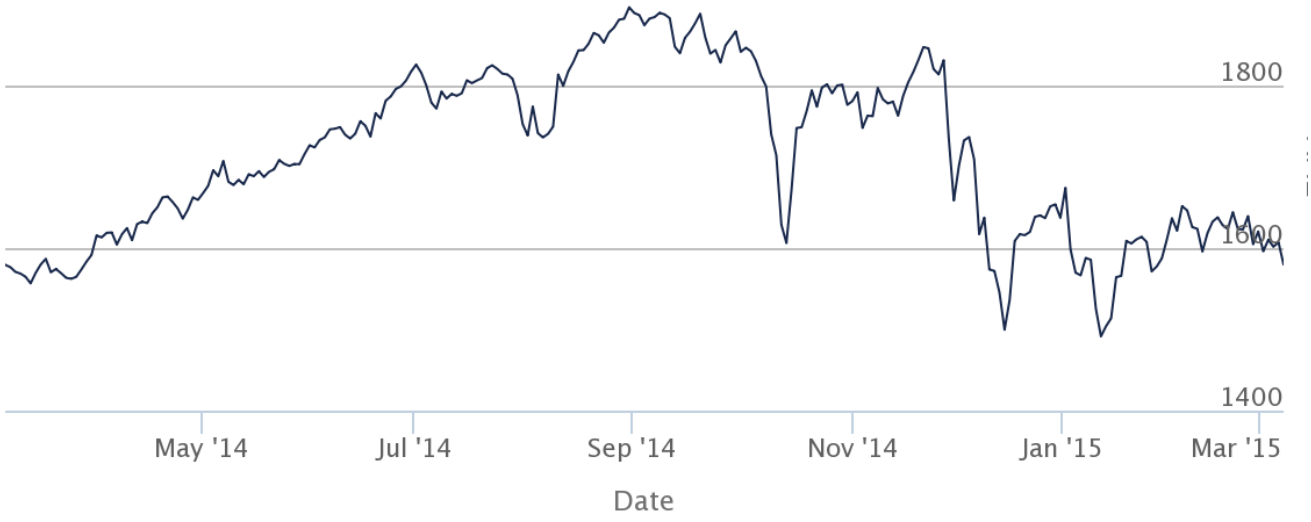
- Distribution Coverage - One of the benefits of the MLP is the regular quarterly pay-out, the 'Minimum Quarterly Distribution' (MQD) however this is also where things can come unstuck as the annual income target for the MLP must be high enough to cover the promised MQD.
- Liquidity – this falls into two categories 1. MLP's tend to be funded by debt so there needs to be a ready supply should coverage of the MQD come into question. 2. Are broker-dealer balance sheets adequately prepared to support the market should there be any major volatility or sell off. *We will cover these topics in detail!*

Oil Declines & The Credit Space – *what are the real world effects on investments & companies?*

Much has been made of the current turmoil in Oil markets and a certain amount of worry has crept into the debt markets of the oil companies. Here I will describe why the problems outlined above (Cons) can be dealt with and actually provide a good opportunity for investment.

1. Dispersion and Diversification - Whilst oil has halved in price since summer 2014 the energy sector MLP's as measured by the Alerian MLP Index has seen a more subdued decline **Fig 2**.

Fig 2. Alerian MLP Index



This issue of dispersion is an important one for an investor looking to invest in the energy sector and there are multiple options: take Kinder Morgan as an example, an investor can access their *Equity / Bonds / MLP / (and now their C Corp structure)*. What's interesting here is how dispersed the returns of these various vehicles are. Take **Fig 3**.

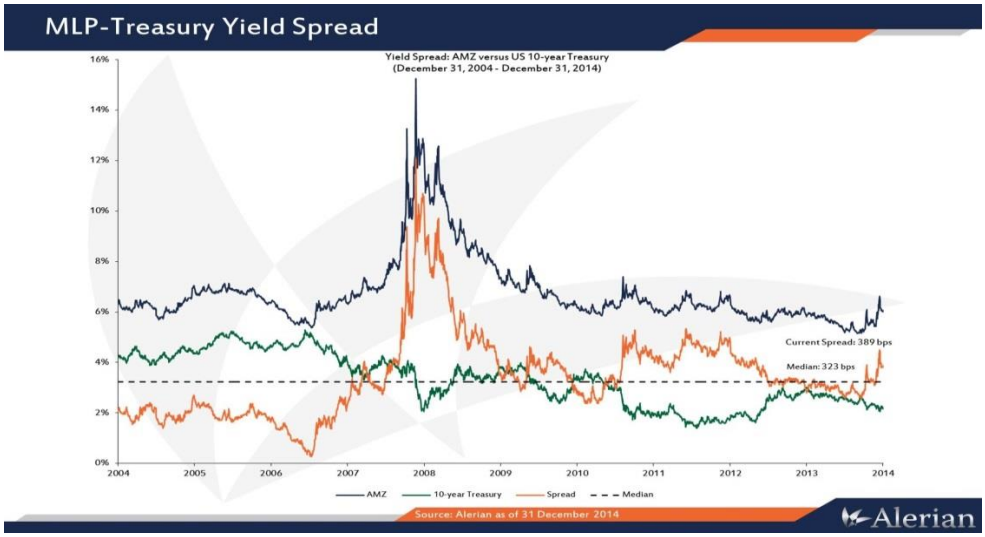
as an example: despite a precipitous decline in WTI Oil prices since July 2014, the shares have actually outperformed (Including against its peers). Whereas it's longest duration (2038) bond yields have hardly moved over the same period **Fig 4**.

Fig3.Kinder Morgan Shares vs Wti Oil

Fig 4. Kinder Morgan Energy Partners 6.95% | Maturity:2038

Not only do MLP's provide diversification away from their equity and commodity peers, they also provide outsized yields compared to treasuries **Fig 5**. In a world with a lack of any great risk premia, MLP's look attractive and have seen almost a constant positive stream of fund flows, despite underlying oil and equity market volatility. This also raises perhaps the single biggest advantage of the MLP structure and current low interest rate environment, because MLP's are primarily funded with debt and debt is so cheap, MLP's could go some way to meet their QMD simply based on the ' cash earnings -borrowing + QMD' spread. Take Kinder Morgan as an example; they recently raised $750 mln at 1.5% and $500 mln at 2.25% and their current debt yield is 6%.

Fig 5. Spread between MLP's and 10yr Treasuries has remained positive through boom & bust



2. Volume vs Price – As described above, the movement in MLP's has been less violent than the Oil price itself. So why should this be? Well it's all a matter of scale: MLP's rely on a certain and predictable level of income in order to meet their MQD, this however does not necessarily mean they need the oil price to remain high. It is the revenue generated that is important, so an increase in production which offsets the fall in prices means an MLP can still operate and meet its commitments to members. In fact we can see this visually in **Fig 6. & 7.** which shows despite a fall in the Rig Count, the E&P companies that are drilling in the various North American oil fields are producing more per Rig and more in total.

Fig 6. Bakken Rig count vs Oil per Rig

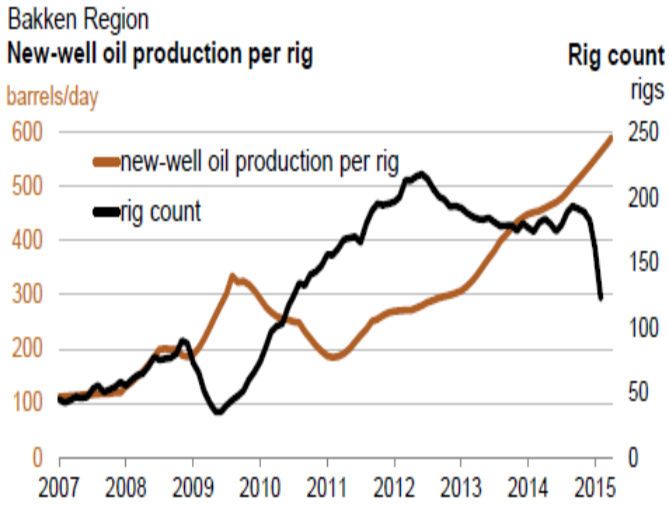
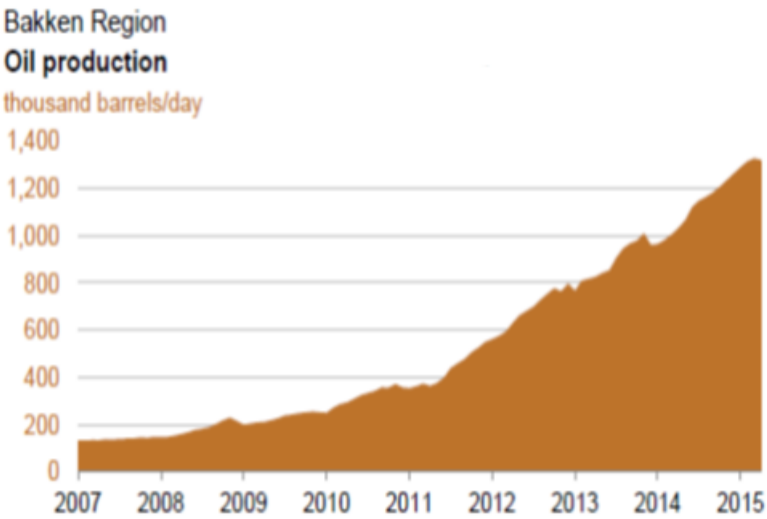


Fig 7. Bakken oil Production



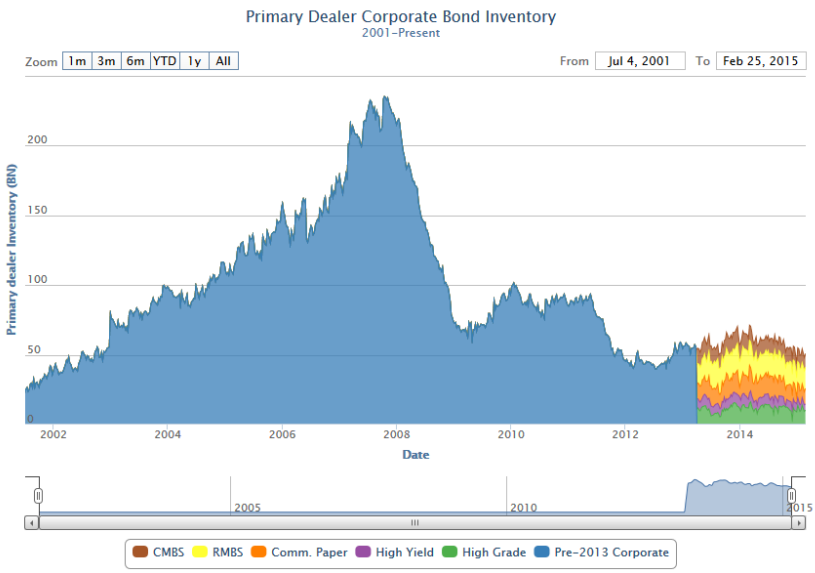
<u>Current Issues</u> - *One safety net removed another brought in*

<u>Lack of Primary Dealer Inventory</u>

One of the major concerns around Oil market debt and related products (HY/IG/MLP's) is that should there be a 'credit event' within the space, that the traditional marginal buyer, who would step in to stabilize prices, no longer has the capacity to do so. We are talking about the Primary and Broker Dealer balance sheets.

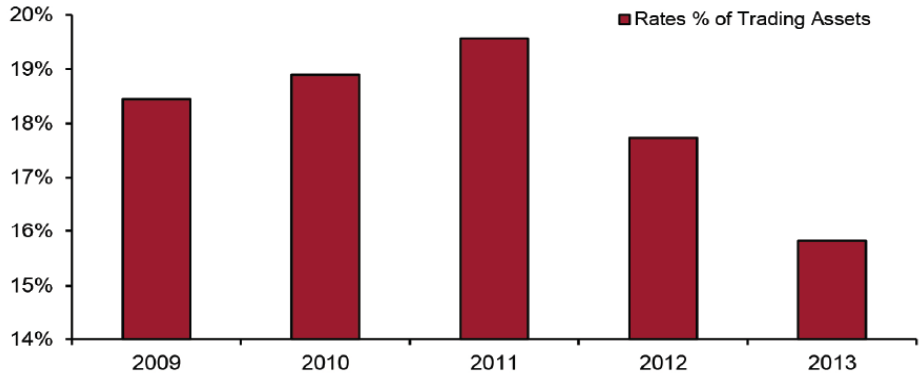
It is true that dealer balance sheets have shrunk since the financial crisis. Even the Fed has acknowledged this and since April 2013 has given a breakout of the subcomponents of dealer balance sheets **Fig 8**.

Fig 8. ***Primary dealer inventory, with granular breakdown since April 2013***



Leverage ratios (LR), liquidity coverage ratios (LCR), net stable funding ratios (NSFR), VaR Gap ratios: just a few of the limitations imposed on financial institutions balance sheets since the crisis. The effect of this has been felt in terms of bank revenue with FICC trading asset falling post crisis **Fig 9**. So there is no doubt that regulation has had a downside effect in terms of the balance sheet holdings of the traditional stabilizers of Fixed Income markets, but what is the real world effect?

Fig 9. Rates trading assets as a percent of total trading assets for 10 largest banks



Whats the real world effect?

Whilst much has been made about the negative effect of various regulations (Basel II etc) on Primary dealers' ability to provide liquidity during volatile periods, evidence during the May-to-July 2013 taper tantrum suggests differently.

During this period we saw 10yr yields spike to 2.7% from 1.6% over an eight week period, as the market got nervous about the withdraw of Fed stimulus. However in this case (treasuries) it was the primary dealers with *less* restrictive balance sheets that actually reduced their net positions, not those with *more* restrictive VaR Gap, Basel III, Tier1 Capital Ratio and Tier 1 Leverage Ratios etc.

This suggests that at least in more liquid fixed income markets (treasuries as opposed to HY or MLP) that Dealers were NOT hampered by regulations but instead simply made a business decision to withdraw liquidity based on other factors, such as pairing back their balance sheet during a time of heightened volatility or macro factors (a business led choice, rather than regulatory).

The new safety net – *why Hedge Funds and PE are filling the gap left by the Primary Dealers*

Warburg Pincus = $4 Bln in October 2014

Blackstone = $4.5 Bln in Feb 2015

Apollo Management = $TBC 'currently raising funds'

'As one door closes so another opens', the list above is just a handful of the Private Equity Hedge Fund groups who are actively raising new funds, just for the purpose of picking up beaten down or distressed assets it the energy space. This is the reason why we should not be unduly concerned about the drying up of dealer inventory, because as one marginal buyer leaves, the Hedge Funds and PE are moving in. Furthermore the new money being raised and the existing funds available to the energy space (over $100 Bln raised by PE firms since 2013) unlike Primary Dealers, can take a much longer term view of the energy market.

This new flow of sophisticated and targeted money, combined with the evidence shown earlier about dealer liquidity not affecting Fixed Income market stability lead me to believe energy assets currently make a compelling investment opportunity.

<u>Broader Impact on the Economy</u> – *Baker Hughes Rig Count is the new Non-Farm Payroll!*

That's right; the monthly Friday Non-Farm Payroll number from the BLS has been demoted as the most exciting data point in the calendar. Now it's the weekly Baker Hughes Rig Count! Yes we used to use the Friday jobs report as the best barometer of economic health but now oil prices have become the most talked about data point, with a lot of broad stroke comments made about the oil price effects, but what is the *<u>real</u>* impact?

The consensus view point on the recent decline in oil prices is that 'net-net', it benefits those who are net importers and hurts producing countries. However this is too primitive a view, because whilst in Dollar terms oil has halved since summer 2014, countries such as Turkey have seen very little pass through of this potential benefit because in Lira terms the oil price has hardly changed, see **Fig 10**. Even the Euro which has seen the full force of QE come into play this week, hasn't benefited from the full decline in oil due to its currency depreciation **Fig 11**.

Fig 10. TRY:USD vs Brent Price

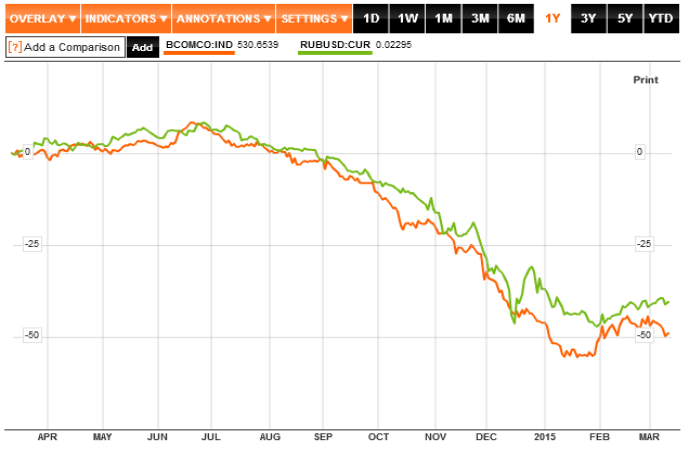
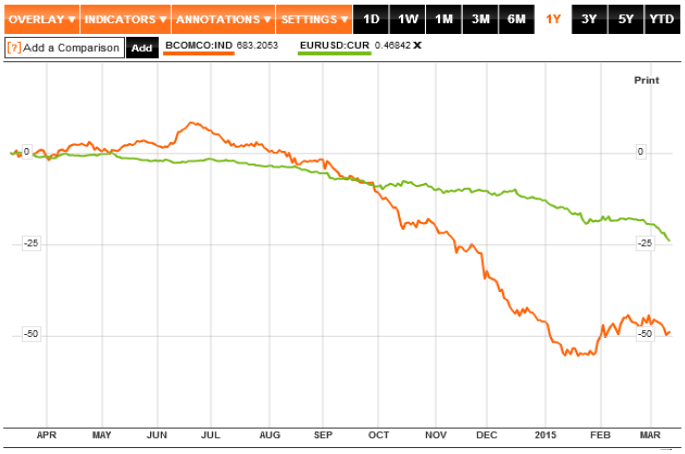


Fig 11. ***EUR:USD VS Brent Price***



Another widely held assumption is that oil declines are a *'consumer story'* with the major effect being to supress inflation and lower the cost of energy consumption, thus increasing disposable income. Whilst this is in part true and data suggests that some of the savings are being used to pay down household debt in the US, we need to consider the effect on other areas of the economy namely Investment and Employment. US Oil producers are planning to invest $50 bln in 2015 – half the 2014 amount. With the number of US rigs falling over 40 since October 2014, employment in the shale areas has been hit – the past two monthly employment reports 'oil extraction' sub component showed a loss of 2900 jobs – which whilst modest, could be the beginning of a trend: during the 2008 crisis there was a five month lag from the beginning of the oil slide which eventually cost 50000 jobs. Whilst these impacts (Investment and Employment) are relatively small on the grand scale of US GDP, it is important to recognise that it is not simply a consumer / consumption story and that even net-importers can feel downside effects.

<u>Conclusion</u>

It is clear that on a macroeconomic scale, declining oil prices are of huge benefit to net consumers, indeed the effect on petrol/gas prices was felt immediately, manufactures purchasing prices have also gone straight to the bottom line of companies. And while employment an investment particularly in the drilling areas of the US have been hit, on a national scale the impact is minimal.

On the credit and investment space, concerns over rising spreads, declining oil prices and the sustainability of E&P companies and their ability to service their debt / honour their MLP commitments are overblown – markets have proven themselves able to cope with periods of volatility and the injection of cash from the PE / Hedge Fund world, whilst it won't stop the disappearance of unsustainable businesses and investment vehicles, they will provide funding where they see long term potential. The energy fixed income space is a buy.

Sources:

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Authors own research