December 09, 2014

The oil investors who don't even know it

Last month we commented on the swift decline in oil prices and its consequences on the economy and your portfolios. This was by far our most read commentary to date, so we thank all of you who shared our note with your friends. We have yet to speak of the same topic two months in a row, though given the broad level of interest and immense market impact, we feel this topic is worthy of continuation. Our last commentary left off with the notion that this "new lower [price] level [of oil] is just beginning" and sure enough, the oil crash of November made October look tame. When all is said and done, this will stand out as one of the most consequential market moves of 2014. The primary US benchmark for crude oil dropped 17.7% in the month of November alone. In order to fully explain the implications of oil's move on markets and the economy, we would like to debunk one of the primary myths related to oil's present drop and further explain what will likely be the biggest second-order risk out of the energy route.

We are going to discuss second-order consequences/risks in the narrative below, but what *exactly* are we referring to? People (and investors) focus on the immediate result of an action (for example, "My business is running a loss so I decide to cut expenses in order to increase profitability"). Actions, however, often have unintended second-level consequences beyond the primary scope and intent of the actors (often separated by a duration of time). Consider our first example above about cutting expenses to boost profitability (First order consequence) -- "Due to staff reductions, my business was unable to adequately serve its clients – we lost 30% of our customers in the 12 months to follow" [Second order consequence]. While our example reflects a favorable intended consequence, it results in an unfavorable second-order consequence.

This example decision maker failed to consider alternative results from his original decision. Many decision makers in his position fail to consider the gravity of second-order consequences on their decision-making in a competitive market. Often (and certainly in the investment realm), successful businesses recognize potential second and third order consequences early and mold their decision-making around such information. This is part of what we mean when we speak of the investment world as a "complex adaptive system," whereby relationships between agents and actions are dynamic and impactful upon each other. This also evokes key elements of game theory, where decision-makers must consider the rationality of their adversaries and the scope of the potential outcomes. The situation in oil markets right now is your classic prisoner's dilemma and deriving the intent of various actors is important in thinking about future consequences.

The Myth of the Saudi Squeeze:

Things were already looking bleak in oil markets when a Thanksgiving Day OPEC decision to maintain production levels sent prices spiraling downward.[1] Since then, conventional wisdom has developed a narrative around how Saudi Arabia is purposely pushing the price of oil lower in an effort to drive US oil producers out of business.[2] This narrative is complete bunk on many levels. Understanding why is important for thinking about the second-order consequences in this context.

Many OPEC members face considerable risk amidst lower prices. Last month we did the back of the envelope explanation for why Russia (a non-member, but large producer) could not cut its own oil output. This story about budgetary problems is no different for the likes of Venezuela, Iran, Iraq and the United Arab Emirates, all actual members. Two of these parties—Iran and Iraq—are in the process of ramping production as they are presently under-producing their quotas. Given this reality, where is there room for production cuts? All cuts would thus fall on Saudi Arabia. In effect, when people speak of OPEC production cuts, they are implying only Saudi Arabian production cuts.

Put yourself in the shoes of Saudi Arabia for a moment. If every other nation-state producer will not just maintain, but rather ramp production, why would you be the one and only state to cut production? Take this thinking one step further: when one of your sworn enemies with whom you are fighting what some consider a proxy war with (Iran) is in position to ramp production, why would you yourself cut back in order to give your enemy a better price and thus more money? It stands as no surprise that as the decline in oil prices accelerated, Saudi Arabia intimated they too would be willing to cut production if and only if others would follow suit.[3] Needless to say, this clearly is not happening.

This myth is important to debunk because, were it true that Saudi Arabia is merely trying to push out fringe energy producers (particularly in the U.S.), the price decline could be deemed merely temporary. If, on the other hand, production cuts are not happening because no one producer *can* cut production, our world is truly awash with supply. A world awash in supply is one with sustainably lower prices. When we wrote our commentary last month, many investors were still operating under the belief that oil prices were temporarily low and would soon rebound. Today oil prices are roughly 17% beneath last month's prices and only now are people revising expectations to project October as 'normal'. In our perusal of opportunity in the energy space, we have yet to encounter investors and analysts pricing in

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[1] http://www.reuters.com/article/2014/11/27/us-opec-meeting-idUSKCN0JA0O320141127

[2] http://money.cnn.com/2014/11/28/investing/opec-oil-price-us-shale/

[3] http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/11268611/OPEC-Saudi-Prince-says-Riyadh-wont-cut-oil-unless-others-follow.html

the potential for today's actual prices to be anything other than temporary. Until that happens, there remains considerable room for further pain in portfolios overexposed to energy.

The oil investors who don't even know it:

Speaking of overexposed—what if investors had significantly more energy exposure than they realized? In August we spoke about the rise of indexation and the opportunities it creates for active investors.[4] Passive investment has become increasingly popular in recent times with the aim being to capture the risk premium of various asset classes. The problem is that index inclusion criteria and the direction it takes are not necessarily consistent with the idea of maximum diversification and limited risk.

In October, we attributed some of the market's selling to carnage in the energy space, with the quote worth repeating here:

> … many portfolios globally were very long oil on the heels of its success over the prior decade. Alongside this current, many oil companies levered their capital structure premised on the expectation of consistent, if not higher oil prices. With oil prices now souring, many assumptions have to be revisited, leading to a de-risking, and forced selling in the space. [5]

This quote alludes both to the presence of a lot of debt in the typical energy company capital structure and to the passive investing phenomenon of correlated exposures across sectors. It takes some chaos for such stories to reach the surface, but it turns out that over the past decade, energy's share of high yield (aka junk debt) issuance has surged from 4% of debt outstanding to 16%.[6] High yield in aggregate is a $1.3 trillion market, so this is no small allocation!

An increasing amount of investor money is coming into high yield from passive sources. The rise of ETFs has been one such facilitator.

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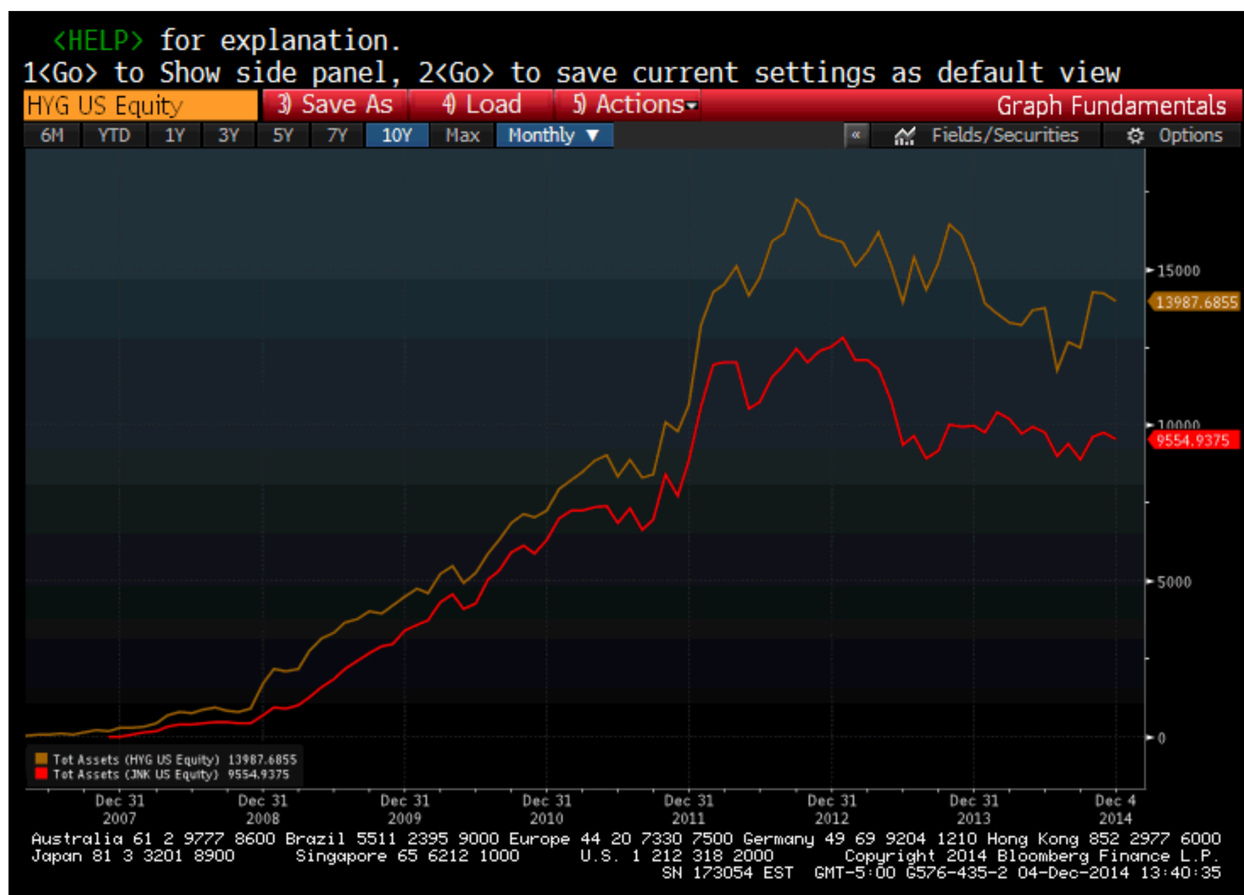
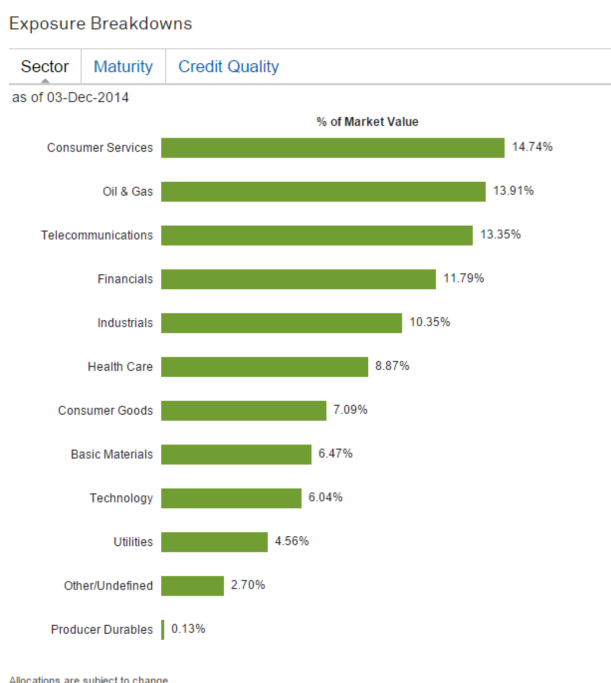
[4] http://www.rgaia.com/august-2014-investment-commentary-indexation-creates-opportunity/
[5] http://www.rgaia.com/october-2014-investment-commentary-flooded-in-oil/
[6] http://www.ft.com/intl/cms/s/0/1ef90bb4-7590-11e4-b082-00144feabdc0.html?siteedition=intl#axzz3KbuS9fKk



(Source: Bloomberg)

This chart shows the rise in allocations to the two main high yield bond ETFs—HYG and JNK. This is not the performance of the respective securities. The value of each share of HYG (the mustard colored line in the chart above) is down 13% over this time (this is not to be confused with total returns, but is representative of the principal value under discussion). We therefore know the increase in assets at these securities is not due to performance, but rather something else--allocation. The premise behind these allocations is that they are a low cost, highly diversified way to capture the yield from junk bonds. Diversification, in theory, is supposed to mitigate some of the risk.

In aggregate, over $23.4 billion has been allocated to these two securities which did not exist a decade ago. This money then went into its target markets. Here is a recent sector-level breakdown to paint a picture for how it flowed through the high yield complex:[7]

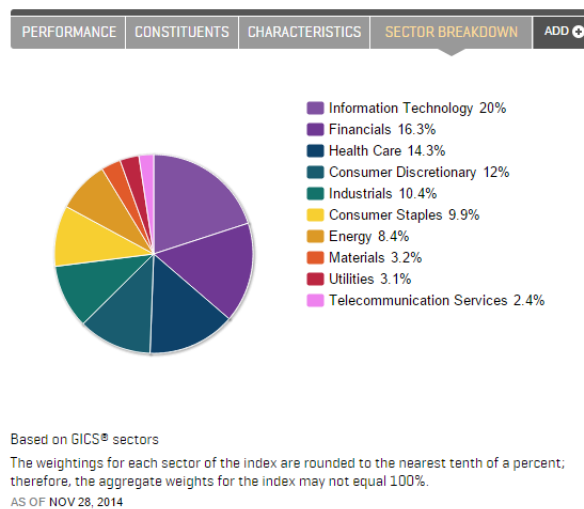


The Consumer Services sector makes sense as the largest allocation here. In 2013, services accounted for 44.7% of U.S. GDP, just shy of half our total economic output.[8] Nothing stipulates that a diverse portfolio's allocations should perfectly mirror economic output, nor does the "Consumer Services" label fully capture "services" as represented in GDP; however, energy by lower estimates accounts for 2.5% of GDP and higher estimates up to 7.7% of GDP.[9] In other words, no matter which way you measure it,

[7] http://www.ishares.com/us/products/239565/ishares-iboxx-high-yield-corporate-bond-etf
[8] http://useconomy.about.com/od/grossdomesticproduct/f/GDP_Components.htm
[9] http://www.washingtonpost.com/blogs/wonkblog/wp/2013/04/23/the-oil-and-gas-boom-has-had-a-surprisingly-small-impact-on-the-u-s-economy/ and http://energyanswered.org/questions/how%20much%20does%20the%20oil%20and%20natural%20gas%20industry%20contribute%20to%20our%20gross%20domestic%20product

energy, as a percent of high yield debt is substantially overrepresented compared to its share of economic output.

Meanwhile the S&P 500 has the following sector weights:[10]



This seems more in line with energy's share of GDP and what a balanced, diversified economic weighting would offer.

The concentration of junk debt in energy is concerning and something that can only happen in a world dominated by passive allocation with little regard for where the dollars end up, and a sector coming off of a great run where mean-reversion is inescapable. Consequently, companies in the energy space received funding through high yield debt far more liberally than discriminant investors should have allowed. Instead of mean reversion in allocations to energy, we have had a positive feedback loop of increasing prices leading to increasing allocations and on. When these types of positive feedback loops break (and we have just such a catalyst for that to happen in oil today) then a positive feedback loop is likely to begin moving rapidly in the opposite direction (an unwind in this excess exposure to energy).

This is one of the most concerning market dynamics today. As we mentioned above, few analysts and investors have opened up to the possibility that oil prices are to remain low for a long period of time. Meanwhile, some who have explored various low oil price scenarios come to the following conclusion: "Should oil prices fall below $65 per barrel and stay there for the next three years, Tarek Hamid, a high-

[10] http://us.spindices.com/indices/equity/sp-500

yield energy analyst at J.P. Morgan Chase & Co., estimates that up to 40% of all energy junk bonds could default over the next several years."[11]

While 40% default rates may sound extreme, this assumes oil stays where it is as of this writing and better-capitalized companies do not start acquiring their distressed peers thereby assuming some of this debt. $65 per barrel of oil is certainly within the range of possible outcomes, and we can envision worse scenarios. Alternatively, scenarios where oil is worth upwards of $90, the level upon which much of this debt was funded, look increasingly unlikely. Oil will not stay exactly where it is today, as these commodity markets do move fast. Consolidation will certainly come to the sector as distress increases. 40% default rates therefore are not our expectation, but they do provide a numerical context for the degree of risk present in energy-related debt securities.

In January of 2013 we talked about increasing levels of risk-taking in high yield debt and the role passive allocations shifting from equities to debt had in this phenomenon.[12] We left our thinking uncertain as to how exactly pain would flow through high yield debt markets, but we are starting to think that an unwind in energy markets could be exactly such a catalyst. While lower energy prices are unequivocally a great thing for the U.S. economy (do not for one second listen to those folks who argue this would negatively impact our economy), we now have concerns about how these market events could play out. The most likely outcome is that we should expect an increase in volatility near-term as big pools of money adjust to the market's price signals. While we are contrarian by nature, we think the contrarian position remains to be underexposed to energy and instead exposed to those areas where consumers stand to spend some of their savings from the pump.

[11] http://blogs.wsj.com/moneybeat/2014/12/01/falling-oil-prices-could-lead-to-massive-junk-bond-defaults/
[12] http://www.rgaia.com/january-2013-investment-commentary-high-yield-corporate-debt-markets/

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