



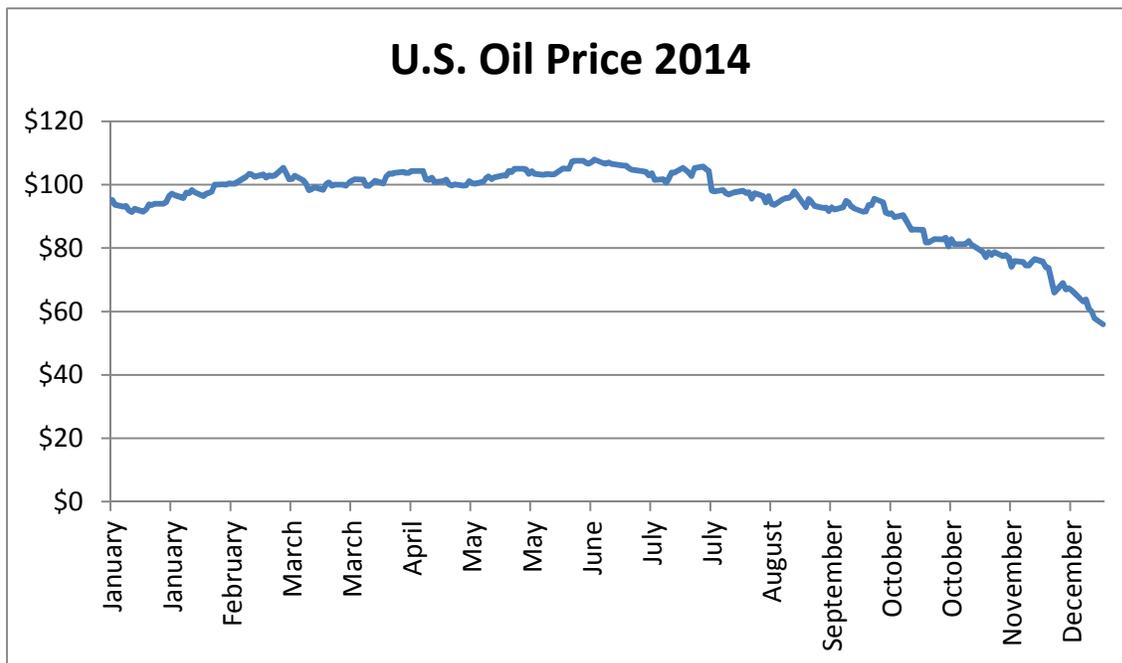
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## Investment Newsletter – December 2014

This end of year newsletter will review the oil price collapse of 2014 and its impact on the markets and our portfolio. Then it will discuss the overall economic and market environment – including indications that investor risk aversion is increasing after a long period of complacency. We will wrap up with an analysis of the first year’s test results for our new quantitative strategy.

### The Oil Price Collapse

Perhaps the biggest investment news of 2014 is the collapse of oil prices. As shown in the chart below, oil prices dropped by 48% from the peak level in June to

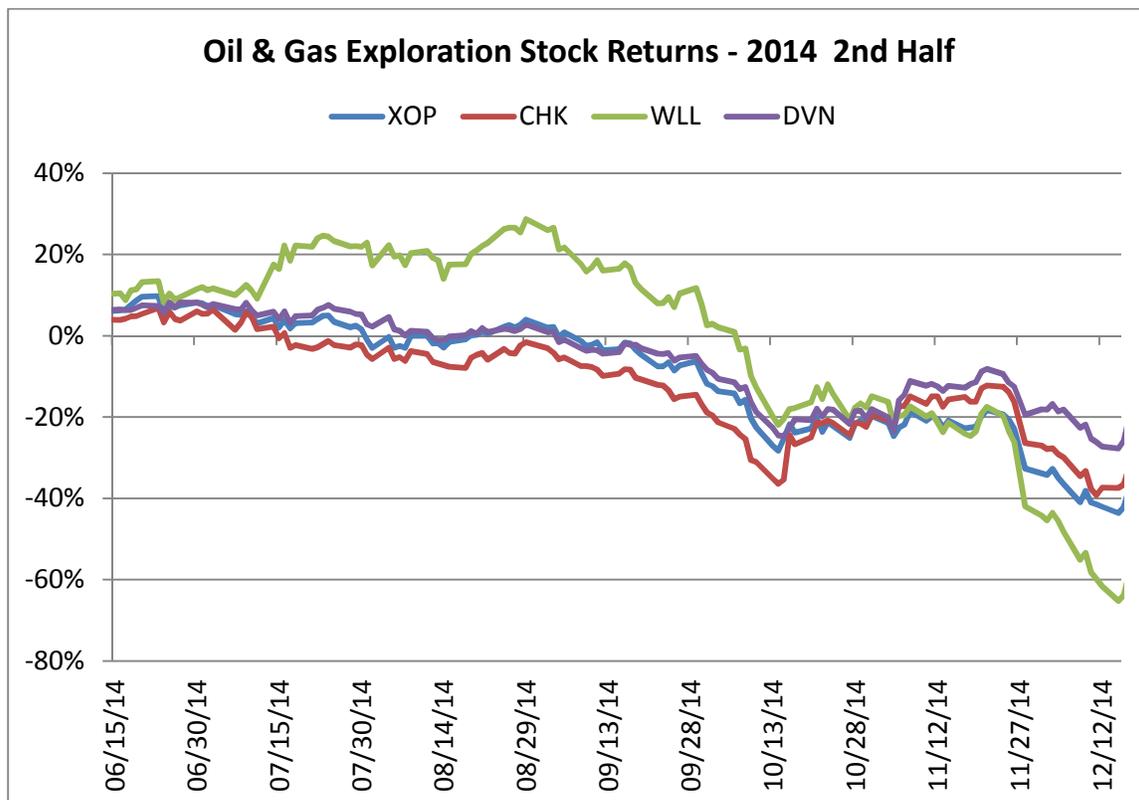


\$56 as of December 15, 2014. While mildly positive for the economy overall, this has caused a big drop in oil and gas exploration companies and the drilling service companies that sell to them. The overall exploration sector dropped about 37% from the beginning of June to mid December. Likewise, the drilling service sector is down more than 30%. Within these sectors there is a very wide dispersion across different companies. For oil and gas explorers, the financial impact depends on the

break-even oil price in the areas they are drilling, how much debt they owe, and to what extent they had hedged their revenues prior to the price decline.

For example, Whiting Petroleum (ticker WLL) has liabilities equal to roughly 60% of its tangible assets, a relatively high breakeven price requirement - somewhere in the mid \$60's, and it has hedged about 5% of 2015 production. This combination puts significant financial stress on WLL relative to other companies in the sector with less debt, lower costs, and better hedging.

The chart below plots the returns for the Oil and Gas Exploration sector exchange traded fund XOP, along with Whiting Petroleum, Chesapeake Energy (ticker CHK), and Devon Energy (ticker DVN). Chesapeake and Devon are the 2 oil and gas producers remaining in our portfolio. Both are less exposed than Whiting to the oil price drop because they have a larger proportion of natural gas production. We sold 3 other companies earlier in the year prior to the decline.

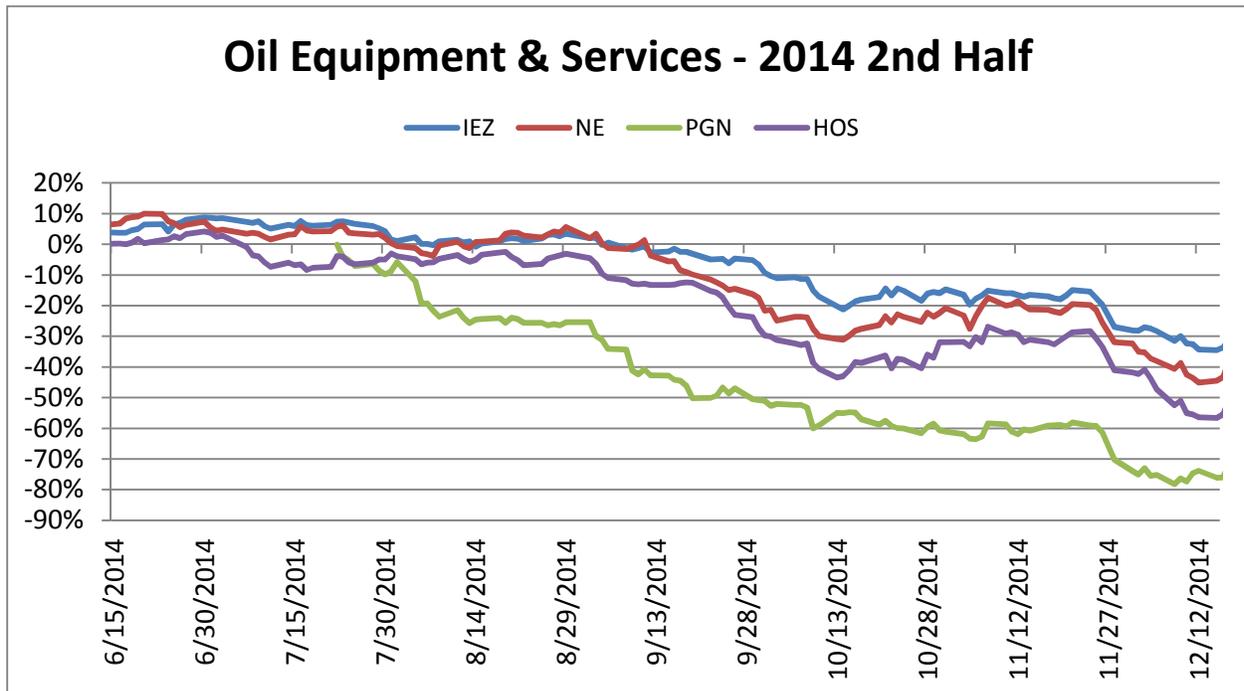


The oil services industry has also taken a big hit – especially offshore drilling service companies. These companies' revenues are not impacted directly by oil prices. The drop in revenues comes when exploration companies reduce drilling budgets going forward and allow service contracts to expire. As oil prices fall, the potential profits on drilling declines and projects are cancelled if profits fall too low. The offshore service companies rent out equipment on long term contracts. A significant part of their revenue is locked in for the short term.

Unfortunately, the industry has ordered a lot of new equipment recently. Capacity will expand significantly just as demand is dropping. This industry carries a high debt load: there may be some financial distress as new projects are cancelled. Chevron announced it has indefinitely suspended its plans to drill in the

Canadian Arctic. Canadian Oil Sands expansion is also likely to stop. Conoco announced a 20% drop in its capital expenditure budget for next year. Many other U.S. companies will also be cutting their most expensive new wells in 2015.

The chart below shows cumulative returns since June for the U.S. Oil Equipment and Services exchange traded fund (ticker IEZ), along with 3 offshore services companies from our portfolio. These 3 companies, Noble (NE), Paragon Offshore (PGN) and Hornbeck Offshore (HOS) are valued at just 58 – 65% of book



value (which should approximate replacement costs). In the long-run, demand will rebound and the industry will not build new capacity until returns and stock prices return to normal. Thus the discounted market prices reflect two factors:

1. Some companies may have to sell equipment at a discount to survive
2. The industry will produce low returns for a number of years until things normalize.

Although oil companies are cutting expenditures, they are cutting at the margins. The majority of projects will continue. U.S. onshore oil production growth is coming from shale wells. These wells have high production rates initially and then decline rapidly leaving much lower flow rates after the first 2 years. Therefore, the slow-down in drilling should slow U.S. onshore production growth gradually over the next 2 years. Meanwhile the drop in price will tend to push up demand. In other words, market forces will cause oil demand and supply to move back towards balance over time.

How quickly this happens depends to a degree on the Organization of Petroleum Exporting Countries (OPEC). These countries are highly dependent on oil revenue for government budgets. OPEC's decision at their November meeting to maintain production above demand triggered the acceleration of the oil price decline that we saw over the last few weeks. Because a relatively small imbalance in the market can have a large impact on price, most OPEC members wanted a cut

in production. A cut of 2 million barrels per day would probably be enough to push prices up 50% from where they are today. OPEC would actually earn more dollars from selling less oil. But the largest producer (and de-facto leader of OPEC), Saudi Arabia, decided it was worth it to cut their own revenue in order to force U.S. producers to slow drilling. Saudi Arabia cannot afford to sell oil at such a low price for the long run. Based on their financial situation, they can wait up to 2 years and then they'll have to cut production to push prices back up to the \$80 per barrel range if the oil market hasn't balanced itself by that point.

Even if it takes 4 years for the market to normalize and offshore drilling asset values to return to book value, it seems that patient investors are being offered very high returns for taking on the risks here. As an example, Paragon Offshore trades at 58% of book value. If it gets back to 100% of book value 4 years from now, the compounded annual appreciation rate would be 14.6%. On top of that, they pay a dividend yield on market price of 16%. Based on current market conditions I estimate they will be profitable at least through 2015 and cover the dividend. Thus, current conditions imply 30% annualized returns from holding these positions. Of course, things could get worse, but I expect we'll earn decent returns if we patiently wait for the market to stabilize.

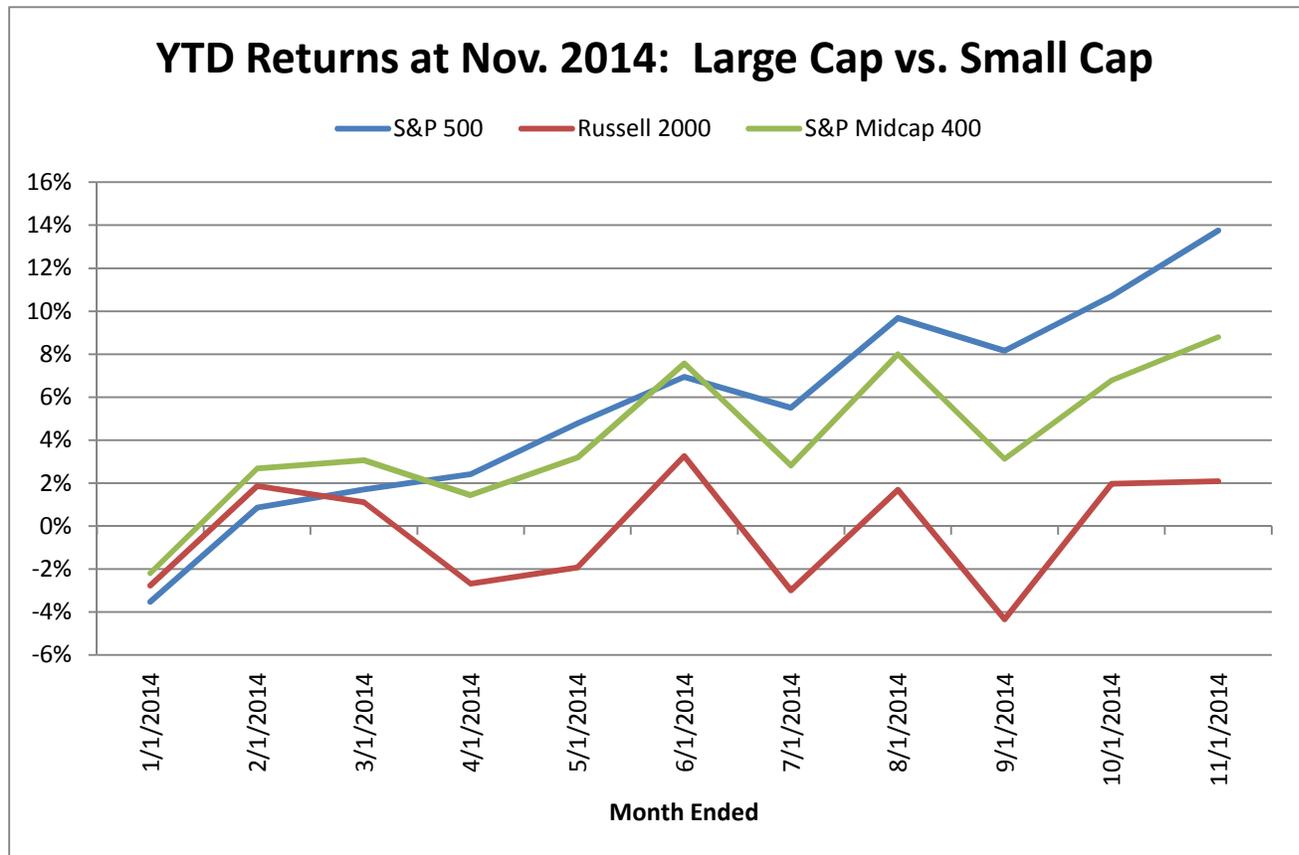
### **Collateral Damage from the Oil Drop**

As U.S. oil and gas exploration companies raced to expand drilling in the last few years, their capital expenditures greatly exceeded cash flows. Much of their deficit has been financed with debt. In addition to bank loans, they raised money from business development companies and by issuing high yield bonds. Energy companies now represent about 15% of high yield bonds. As a result, the business development sector and high yield bonds have sold off towards the end of the year. The business development companies in our portfolio are now trading below 90% of asset value; their dividend yields are above 11%. The Barclays high-yield bond exchange traded fund has lost 4% since the end of June.

### **Observations on Economic and Market Environment**

The oil price drop is symptomatic of the slowdown in economic growth outside the U.S. The Euro-zone has averaged 0.2% growth so far this year; Japan has been in recession since the 2<sup>nd</sup> quarter. China is also slowing as they experience their own property bust. On a world-wide basis, it appears that there is too much capacity relative to demand. The result is a deflationary environment. This, in turn, is pushing investment grade bond yields lower. At the same time, risk premiums on lower rated debt are expanding as risks become apparent and bond investors become more risk averse.

Another symptom of the late stage of the business cycle is the divergence of performance in the U.S. stock market. Large capitalization stocks, particularly growth companies, have far outpaced smaller companies and mid-size companies. For the first 11 months the S&P 500 was up 13.75%, while the S&P Mid-cap 400 was up 8.80%, and the Russell 2000 (small capitalization) was up just 2.08%. The chart on the next page highlights the divergence. This is typical at the end of a bull market. Such divergence, when coupled with the recent widening of credit spreads, has often been associated with market peaks: they are indicative of growing risk aversion.



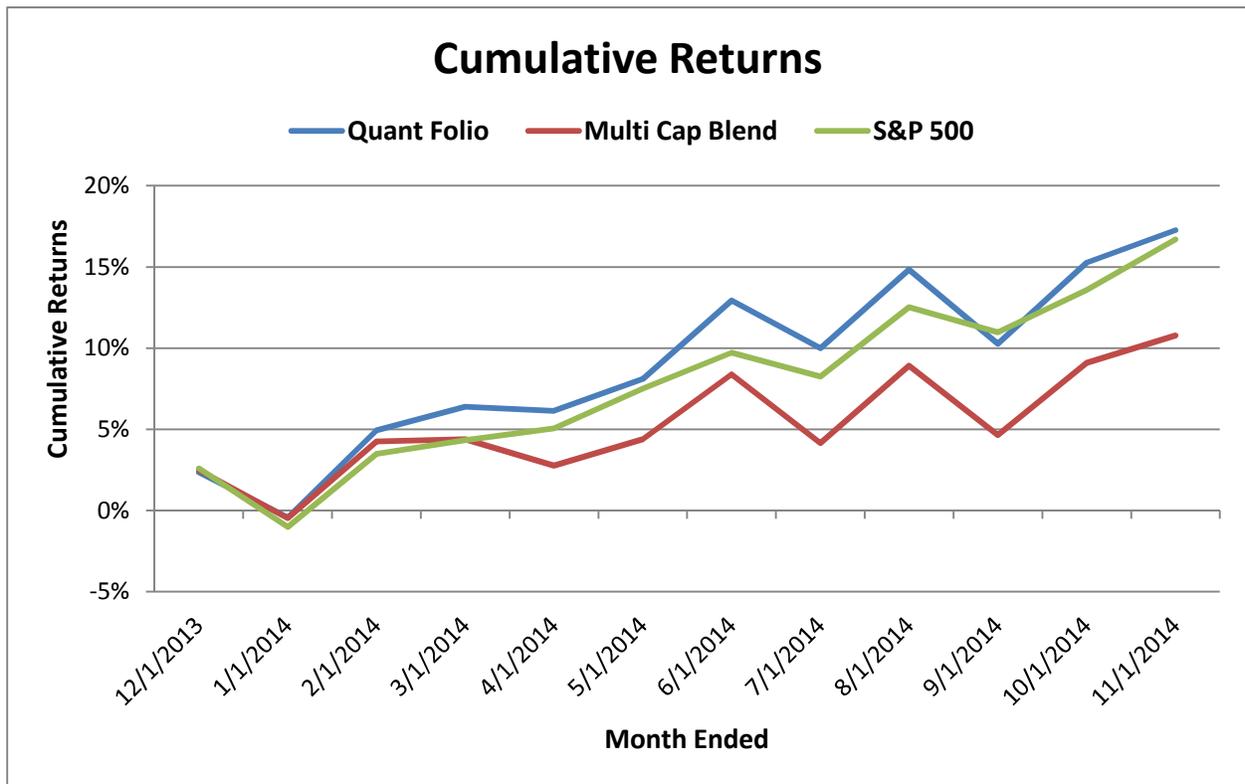
Despite the strengthening labor market in the U.S., inflation is headed downward. This combined with increasing risk aversion is likely to keep a lid on long term Treasury yields in the medium term (also mortgage rates). Even if the Federal Reserve does increase short term rates in June, it won't necessarily cause an increase in longer term rates.

### Quantitative Investment Strategy Test Results

A year ago, we implemented a quantitative strategy on a test basis. The goal for this strategy is to outperform passive strategies across various market environments. This is not a risk managed strategy, so it would likely underperform our existing Long Term Value strategy in a down market. Assuming we allocate some portion of equity exposure to this strategy, it could serve to reduce the variation in our returns relative to the market in up-markets.

Because our goal with this strategy is to reduce volatility of our return variance versus the market, the portfolio is designed so that industry weightings are approximately in line with the overall market's industry weightings. We did not, however, put any constraint on the size of the companies chosen for the portfolio. Given that larger capitalization stocks are more efficiently priced in the market, we expected the portfolio to be weighted more towards small and mid-cap stocks. In fact the portfolio varied in composition widely from month to month, but on average it was 36% large capitalization, 27% mid-cap, and 37% small capitalization.

Because the size of companies (capitalization) played such a large role in 2014, we would like to isolate this effect in evaluating the Quant Portfolio. This is important because we are really interested in how it would perform over the long run, not just in the late years of a bull market. Historically, smaller capitalization stocks have out-performed large capitalization stocks over the long run. Therefore, if the strategy can outperform a blended benchmark with similar capitalization composition, that is likely to be a good indicator of long-run relative performance. The chart below plots the cumulative returns of the Quantitative Investment Strategy compared to the S&P 500 and a "Multi-Cap Blend" benchmark. The Multi-Cap Blend is a weighted average of large, medium, and small capitalization market indices<sup>1</sup> where the weights used match the average capitalization of the Quantitative strategy over its first year (as described earlier).



The chart shows that the return for the Quantitative Strategy (Quant Folio) exceeded the return on the S&P 500 by 0.56% and it outperformed the Multi-Cap Blend benchmark by 6.49%. Its total return over the first year was 17.26%. This is a very good result. The tracking error is within a small range and the strategy produced a nice spread over the comparable blended index return. I will continue testing this strategy as well as some variations to try to improve the performance further relative to the large cap only benchmark: the S&P 500 index. Even as it stands now, by allocating some portion of our portfolio to the current methodology we can reduce overall tracking error and increase returns in bull markets.

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<sup>1</sup> Large was S&P 500, mid-cap was S&P Midcap 400, small was Russell 2000