

Economics of Oil-Equity Correlations

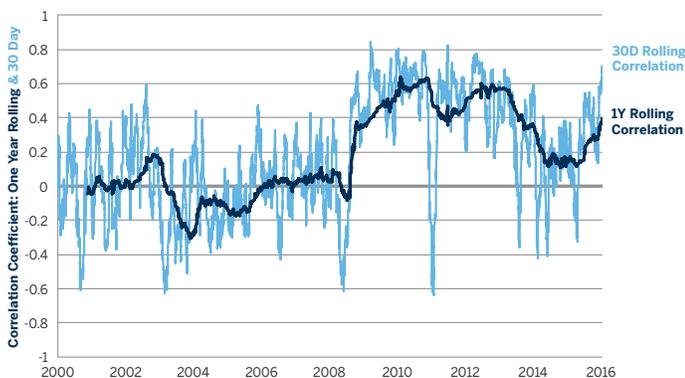


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The S&P 500® has been 70% correlated with day-to-day movements in West Texas Intermediate Crude Oil (WTI) so far this year. This is the highest correlation over any rolling 30-day period since 2012 (Figure 1). The one-year rolling correlation has risen sharply to its highest level since 2013.

Figure 1: 30-Day and 1Y Rolling Correlation Between S&P 500® and West Texas Intermediate.

Correlation: S&P 500 & West Texas Intermediate Crude



Source: Bloomberg Professional (CL1 and ES1), CME Group Economics Research Calculations

A Brief History of the Oil-Equity Correlation

Equities and oil haven't always been highly correlated. Pre-2009, the correlation was close to zero and, at times, negative. The most common assumption was that higher oil prices were good for energy stocks but bad for everything else given that higher petrol prices would sap consumer demand for a wide variety of products and increase operating costs for energy-dependent entities like transportation companies and industrial firms.

During the three phases of quantitative easing (QE) from 2009 to 2013, oil and equities began to exhibit a positive correlation. The idea was that the QE tide would lift all boats -- by purchasing trillions of dollars worth of (default) risk-free assets like government bonds as well as fairly low-risk assets like AAA rated mortgage-backed securities, the Federal Reserve would force investors into risky assets like stocks. QE also squeezed capital out of the U.S. and redirected them into emerging markets, which were increasing their demand for all manner of commodities, including oil. There was also some expectation that QE would generate inflation. As such, stocks and oil tended to correlate positively for about five years.

This began to change after the May-June 2013 "Taper Tantrum" when the Fed announced that it would wind down QE3. As QE ended in 2014, the oil-equity correlation fell dramatically to below 20%. The catalyst appeared to be that with QE ending and the economic recovery seemingly firmly established, equities and energy could go their own separate ways. And for a time, they did.

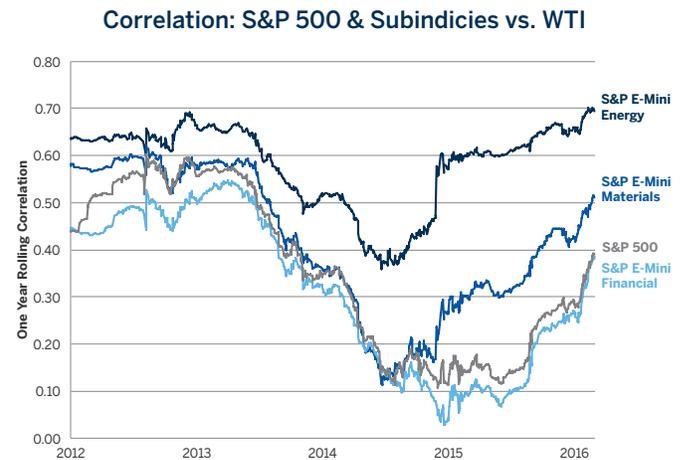
Since late 2014 when oil prices fell off a cliff, equities and oil have been seeing much stronger correlations once again. The collapse in oil prices has obviously been negative for energy stocks but energy stocks account for only 6.6% of the S&P 500®'s market cap. Materials stocks, mainly metal-mining companies, have also suffered, largely as a result of a collapse in the prices of industrial metals that have mirrored the decline in oil prices. Materials stocks, too, are not large enough to drive the correlation by themselves: materials stocks account for less than 3% of the S&P 500®'s market cap.

The major driver of increased oil-equity correlation is financial stocks, which have become much more correlated to WTI. Banks, both in the U.S. and internationally, have lent a great deal of money to the energy sector. The possibility of increased defaults has led bank stocks to correlate much more highly with fluctuations in the price of crude oil. **When crude oil prices rally, it alleviates default fears; when they fall, those concerns intensify (Figure 2).** Financial stocks are nearly 16% of the S&P 500®'s market cap and are a much bigger driver of the index's overall returns and correlation than either energy or materials stocks.

Other sectors have been showing increased correlation as well, including consumer stocks and industrial stocks (Figures 3 and 4). From our perspective, this is counterintuitive: lower oil prices are a great thing for consumers. We don't think that the banking system's exposure to the oil sector is so large that increased defaults among energy firms will cause a generalized credit crunch or significantly slow bank lending to the household sector or to non-energy related corporations. As such, we expect that the S&P 500®'s correlation to oil will probably moderate as investors focus on the positive aspects of lower oil prices: more discretionary income for consumers and lower input costs for many businesses.

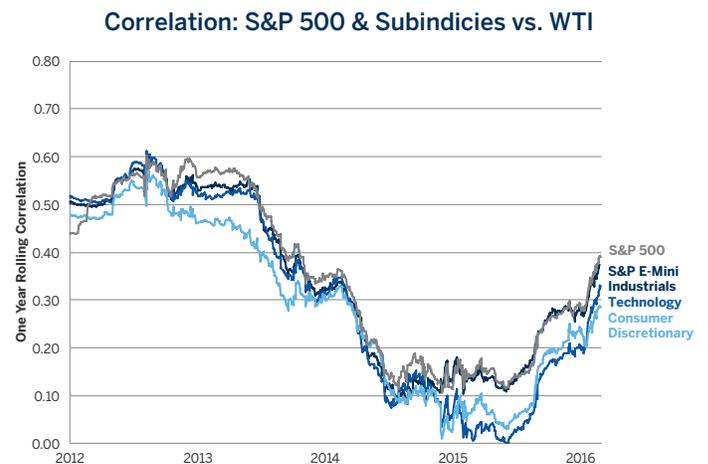
That said, the recent Fed rate hike may have contributed to the rise in correlation between oil and equities. It may have been easier for banks to expand their lending with a lower cost of central bank financing. The much flatter post-rate-hike yield curve may make it more difficult for banks to grow earnings by lending long and borrowing short.

Figure 2: Financial Stocks Have Become Highly Correlated to Oil Again.



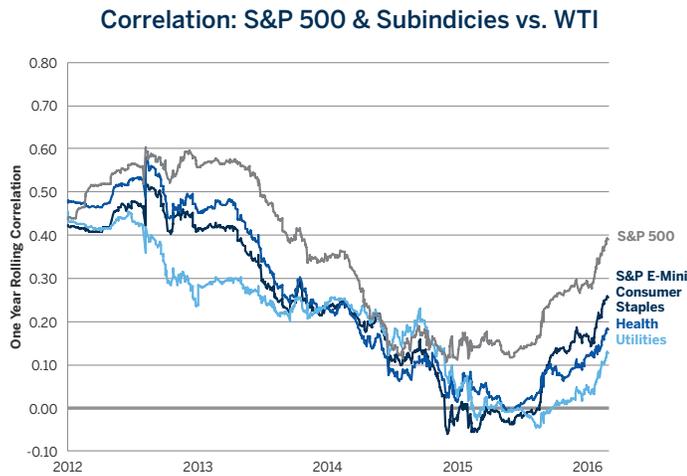
Source: Bloomberg Professional (CL1, ES1, IXP1, IXD1 and IXA1)

Figure 3: Industrial, Tech, and Consumer Discretionary Stocks are also Becoming More Oil-Correlated.



Source: Bloomberg Professional (CL1, ES1, IXI1, IXT1 and IXY1)

Figure 4: Even Consumer Staples, Health Care, and Utilities Stocks Have Become a Bit More Correlated.



Source: Bloomberg Professional (CL1, ES1, IXR1, IXC1 and IXS1)

Bottom line:

Credit fears have prompted stocks to be much more heavily driven by movements in oil prices than they normally are. While many energy firms are suffering (as are many oil exporting countries), investors will at some point begin to focus on the benefits of lower oil prices to certain sectors of the economy, especially businesses producing consumer staples and discretionary items. Energy-intensive sector such as utilities and certain industrial corporations will also benefit, but not those who rely on selling equipment to the energy sector. The 70% correlation between WTI and the S&P 500® so far this year is probably not sustainable but oil could remain a significant driver of financial stocks for the foreseeable future.