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Talking Points

The Oil Effect

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Dig deeper into the economic effects and potential opportunities surrounding recent drops in oil.

1. Why is oil such a hot topic right now?

In the past year, the S&P GSCI® Crude Oil (TR) has dropped about 60%. The precipitous drop in price has moved oil into the forefront of macroeconomic factors where it may be the only positive risk powerful enough to offset other risks like market volatility, geopolitical risk, stagflation, and lower investment. This is important for the formation of global GDP forecasts that have been more erratic than ever. If oil prices stabilize near current levels, then credit risk may increase, causing assets to shift based on Fed actions, like in the risk-on risk off environment seen after the global financial crisis. The economy, which is still in a post-global transition, is highly sensitive to these factors.

2. What are the investment considerations now from the oil drop?

The winners and losers are divided across the world by whether countries are importers or exporters. It also depends on what their break-even oil prices are—that is, where it is no longer profitable to produce oil. Furthermore, for countries, it depends on their budget surplus or deficit levels and their individual tax policies. Understanding equity opportunities is similar to knowing how much a company produces or consumes, what levels are profitable, and how much cash it has. However, investing in companies is different, since management may choose to hedge out the oil price volatility and make decisions for shareholders. Historically, the correlation between oil and its respective producers is about 0.65, much less than the 0.99 correlation between oil spot return and total return in the futures market.

3. If the correlation is so high between the oil spot return and total return in the futures market, then what is the difference?

Before describing the difference, it is helpful to know that the similarity comes from the fact that the spot return is used to calculate the total return. There are three parts to the calculation of a total return index of commodity futures. The first part is the spot return, which reflects only the prices of the futures contracts with the first nearby expiration dates or during the roll period expirations (the time period when exiting the expiring contracts and entering later dated contracts). The advantage of using an index methodology to calculate the spot return rather than just using the contract itself is that there is a defined way to link the prices between the expiring contract and the new contract for continuous value. The next part of the total return is called the roll return or roll yield. It measures the premium or discount obtained by rolling positions forward as they approach delivery. The excess return version of a commodity futures index includes the roll yield plus the spot return. Finally, the total return index includes the spot return, roll yield, and the third calculation piece called the collateral return. The collateral return is the interest earned on any fully collateralized contract positions on the commodity futures. Therefore, to finally answer the question, the difference between the oil spot return and total return in the futures markets comes from the roll yield and the interest earned on collateral.

4. Given interest rates are basically zero today, is it correct to assume the difference is coming from the roll yield?

Currently, the difference is from the roll yield, though historically this has not always been the case. On average since 1987, there has only been a slightly negative roll yield of 2 bps per month, while the average collateral return has been 29 bps. The near-zero average roll yield is sometimes positive and sometimes negative. Generally, the roll yield is positive when there is a shortage, a condition measured in about 45% of months, adding on average 1.7% in those months. Conversely, in about 55% of months, the roll yield is negative, reflecting excess inventory, detracting 1.4% on average.

5. Then does it make more sense to pay attention to the spot, excess, or total return?

In 92% of months, the spot return goes in the same direction as the total return, and given it is the closest proxy to the actual cash oil price, it is undoubtedly important. However, the roll yield, the additional piece of the excess return calculation, is a cyclical factor that can be managed to enhance returns from a basic index strategy holding the front month contract. Marginally, it is more expensive to store inventory in the earlier months, so enhanced indexing, known as smart beta, can hold later dated contracts to reduce the negative roll yield during times of excess inventory. The collateral yield is important since it provides the expected inflation plus the real rate of return. It matters for investors looking for the asset class return to provide full inflation protection, and not just against unexpected inflation.

6. How might investors evaluate the right index strategy for their oil exposure?

Most investors use oil in a portfolio context for diversification, inflation protection, and as a geopolitical hedge. However, oil on a stand-alone basis has a historical annualized volatility of about 33%, which can be high for some investors. Therefore, those investors may like to mix oil with other commodities to reduce the volatility within a well-diversified basket. For example, the S&P GSCI, the world-production weighted flagship commodity index that currently has the highest weight in oil at about 60%, has an annualized volatility of only 19%, which is significantly less than 33% of oil alone and is only slightly higher than the historical volatility of the S&P 500® at 15%. The more oil, the higher the diversification benefit and the higher the inflation protection there has been for investors historically. While those are possibly attractive qualities of an index with oil, there is concern about the negative roll yield from the first nearby expiration contract. In fact, the recent oil drawdown forced the spot index to its lowest levels since 2009, but the negative roll yield has cost investors an extra 10 years of return, dropping the total return index to levels not seen since 1999. For investors concerned about that, there are several modified choices that hold forward contracts always or at certain times based on the roll yield. The most advanced strategies may change contracts dynamically on a monthly basis using expirations out to 48 months; however, there may be a liquidity tradeoff for the extra roll yield. The reduced liquidity fits the requirement of many investors, but for some extremely large plans or plans with very high sensitivity to liquidity, the tradeoff may be less attractive than holding contracts that expire sooner.