An Undeniable Relationship

SYNOPSIS

- The daily price action in the U.S. stock market has been taken hostage by oil prices over the past several months.
- The relationship between oil and the S&P 500 is so strong that they appear to be moving in lockstep each day.
- Oil does not drive our economy, and its relationship to the stock market will not last. However, it's best to avoid the temptation to trade through this dislocation.

TEXAS FINANCIAL ADVISORY
BROOKLYNN CHANDLER WILLY & ASSOCIATES

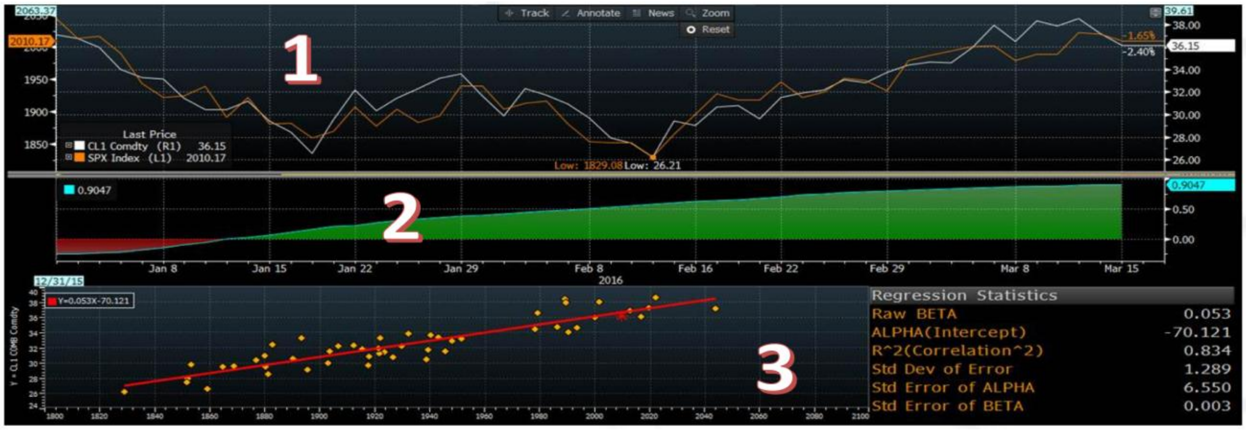
A Magic Trick

Last week, I spoke to a group of investors about the craziness in the stock market since the beginning of the year. About halfway through my talk, I played a game with the audience.

I clicked to a slide in my presentation that listed the change in the price of oil and the S&P 500 index for each trading day over the last three weeks. Then, I asked the audience to pick any day and tell me the change in price for oil. Without looking at the screen, I would then guess how the stock market performed that day.

My only stipulation was to allow me a half of a percentage point margin of error. So, if oil rose by 1%, then I would win if stocks rose anywhere between 0.5% and 1.5%. The audience sat there amazed as I guessed almost all correctly (one investor even accused me of cheating).

As much as I would love be the next David Copperfield, this game involved no magic or luck. Let's walk through three charts below to explain why I was able to achieve such pinpoint accuracy and stun the audience.



Source: Bloomberg, Aviance Capital Analysis

Upon first glance, these charts may appear to require a Rosetta Stone to decipher, so let's go through one at a time.

The first chart compares the daily price changes in the S&P 500 (orange line) to the price of oil (white line) since the beginning of the year. It does not take a PhD in statistical analysis to see why I was able to call the direction, whether the S&P 500 was up or down each day. Both have risen and fallen in sync on a daily basis for most of the year.

NOTE*: The direction of the two has been so consistent that they even bottomed on the very same day!*

Joined At The Hip

Getting the direction right is one thing, but nailing the actual amount that stocks moved each day is another. The trick up my sleeve was a statistical tool called "correlation," and it helped me get within my margin of error nearly every time.

Investment managers use correlation to gauge the strength of a relationship between two securities. Correlation is computed using historical price movements and ranges in numerical value from -1 to +1 as follows:

- The closer the correlation is to +1, the stronger the relationship. For example, if stocks and oil have a correlation equal to 1, then as oil moves up or down in price, stocks will move by the ***same*** amount in the ***same*** direction.
- The closer the correlation is to -1, the stronger the inverse relationship. For example, if oil and stocks have a correlation of -1, then as oil moves up or down in price, stocks will move by the ***same*** amount but in the ***opposite*** direction.
- If the correlation is 0, then there is no observed relationship between oil and stocks.
- If the correlation of stocks to oil equals 0.79 and bonds to oil is 0.28, then stocks would have a significantly stronger relationship to oil than bonds to oil.

Observing correlations is an extremely powerful tool in investment management because we can analyze relationships that would otherwise remain hidden to the naked eye. It can also be used to "wow" an audience.

The second chart is a visual representation of the correlation between oil and the S&P 500 since the beginning of the year. Since January, this relationship has exhibited two key traits:

1. **Relationship Has Surged**: The correlation between the two has expanded dramatically over the past few months, indicated by the green shaded area .
2. **Correlation is Very High**: Currently, the correlation between the two is above 0.90, which is an extremely high value and quite rare for two asset classes.

The third chart is a little technical and will really only appeal to math geeks like myself. Ignore the numbers and only focus on the dots and how close they appear to the line. A tight space between the two indicates a stronger relationship. Currently, it's about as tight as it can get.

I regularly watch these three charts, so I had a pretty good idea of where to guess my answers based on the amount oil rose or fell each day. In the end, it was not magic, cheating, or memorizing all the data, but rather using statistics to observe a relationship.

Implications for Investors

After my game concluded, I received two questions from the audience that are worth noting. First, one investor wanted to know if this relationship was fundamentally sound or just “market hysteria” as she put it.

I told her that I believed it to be the latter for two reasons:

1. **Too High Too Fast**: Relationships change over time, but they almost never move this quickly when it has to do with fundamentals. Economies and businesses evolve slowly, and wild swings in the price of oil cannot trickle down that fast to the bottom line.
2. **Oil’s True Impact**: Oil is clearly important to the fundamentals, but there are far more winners to lower oil prices than losers. Also, many large sectors in our economy, like technology and healthcare, have little to no reliance on oil for their business.

The fact that the price action of oil does not line up with the true impact to our economy, and the rate of change in the relationship over the past three months lead me to conclude that emotions have completely trumped logic and reasoning.

The second question involved a suggested trading strategy. If I was so sure that stocks were tracking oil, why not just buy an S&P 500 index fund once oil started to move higher and then sell once oil began to fall?

The problem with such a strategy is that it requires me to properly guess the direction of oil, which is as much of a gamble as guessing the daily direction of stocks or even the outcome from flipping a coin.

Oil is incredibly sensitive to headlines and government policy, and a big component to decline in price over the last two years has been the highly irrational decision-making by leaders of oil-producing countries that have a tenured history of lying.

Fundamental analysis provides no help in such an environment. For example, no matter how precise my supply/demand analysis and forecast may seem, I cannot possibly estimate when Saudi Arabia will stop a price war that has caused intentional harm to its country’s finances.

When will it all end? When will this correlation go back down so stocks can finally stop following oil every day? When will fundamentals take over and matter again?

Your guess is as good as mine, but for now, it’s best to just steer clear of any desire to trade this market and/or try to time the bottom in oil.

Sincerely,

Mike Sorrentino, CFA
Chief Strategist, Aviance Capital Management
mikeonmarkets.com

This commentary is not intended as investment advice or an investment recommendation. It is solely the opinion of our investment managers at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Past performance is no indication of future performance. Liquid securities, such as those held within DIAS portfolios, can fall in value. Global Financial Private Capital is an SEC Registered Investment Adviser.