Integrated Oil Companies And Crude Oil Prices

Which do you think is more dangerous to your performance, the things about which you are absolutely wrong or the things about which you are certain you know something? The answer should be obvious from the way the question is posed, and the reason a little learning is a dangerous thing in trading and investing is it raises your confidence level well beyond where it should be. Confident traders are less likely to be defensive traders and therefore are more likely to stay with losing positions longer.

Nothing came to the fore more during the last decade, really from 2003 onwards, than commodity-linked equities (see *Ain't Nothing Like The Real Thing*, June 2006 or *Chicken Or The Egg*, April 2007). The first flood of liquidity pumped into the markets by the Federal Reserve in 2001-2003 stimulated both the American consumer and the Chinese producer and led to surging commodity demands. As the 1990s was a dry spell for investing in physical commodity production, the rise in demand led to a rise in prices. This attracted investment funds in turn, including the long-only commodity index fund against which so much is alleged.

The second flood of liquidity pumped into the markets from August 2007 onwards had a different effect. While the first flood was pumped into a relatively strong global economy with an intact financial system, the second flood was pumped into a rapidly deteriorating economy with a collapsing financial system. The first wave of money helped fuel a boom in commodities, emerging markets, real estate, high-yield bonds and other risky assets; the second wave of money struggled to stabilize a deflationary recession.

Commodity-Linked Equities

The real consequence of the first liquidity wave, however, was the intrusion of financial traders into commodities. The author knows from teaching experience that stock, bond and options traders who are used to instantly arbitraged carrying costs, no logistical constraints, no production disruptions or demand surges and no seasonality find physical commodities difficult. The topics of backwardation and contango are quite foreign to these Masters of the Universe who often make up in ego and arrogance what they lack in knowledge and expertise.

They began treating commodity-linked equities and the related commodities as one and the same trade despite the obvious differences. Regardless of how closely any stock is associated with a commodity, it is still a stock affected by interest rates, an overall beta to the market, processing margins, production costs and all of the other factors often quite foreign to physical commodity traders. The result, noted here in both 2006 and 2007, was a wall of index fund money began changing the nature of commodity-linked equities.

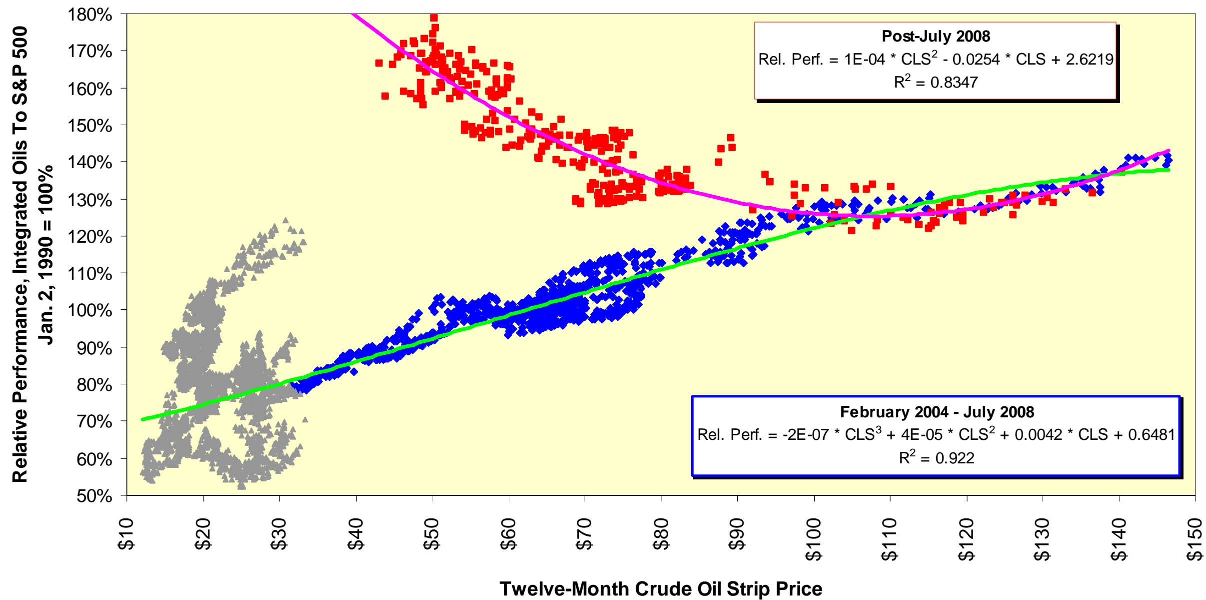
The Case Of Integrated Oil Companies

Mention the term "oil companies" to someone and they likely will think of one of the international integrated oil companies such as ExxonMobil, Chevron or British Petroleum (XOM, CVX and BP). The mental leap is a short one to associating these companies' fortunes with crude oil prices; this association has been aided and abetted by more than 35 years of political railing at their profits whenever crude oil prices rise.

Lost in the caterwauling is a cruel reality: Over the past 35 years, huge integrated oil firms such as Arco, Amoco, Gulf, Texaco and Mobil have disappeared from the corporate scene, merged out of existence. They have been replaced by national oil companies; it is these firms who now control most of the world's reserves of crude oil. The integrated companies have to buy crude oil to feed their refineries and are "crude short" for daily operations. They face diminishing returns on the massive investments required to replace their reserves; they effectively are in a race against self-liquidation. This is not a corporate profile that benefits directly from rising crude oil prices.

We can illustrate this in the changing nature of their stock market performance relative to that of the S&P 500 since the start of 1990. If we map the total returns of the S&P 500 integrated oil index relative to the S&P 500 against the price of a twelve-month strip of crude oil futures, three distinct regimes emerge in Chart 1. The strip price will be used throughout to account for the forward-looking nature of the equity market and for the massive contango distortions seen several times throughout this period.

Chart 1: Regime Changes In Integrated Oil Stocks



The first, marked in gray, extends from January 1990 through January 2004. The relationship is random, as it should be given the differences between equities and commodities noted above. The second, marked in blue, extends from February 2004 through mid-July 2008, the peak of crude oil prices. It is a cubic relationship wherein the relative performance of the integrated oil companies rose as strip prices rose. The third period, from mid-July 2008 onwards, is a quadratic relationship wherein the relative performance of the integrated oil companies rose as crude oil prices fell and vice-versa. Only the second period, which is mapped across a price and not a time dimension, looks as if it confirms the proclivities of those who wish to trade commodity-linked equities as commodities.

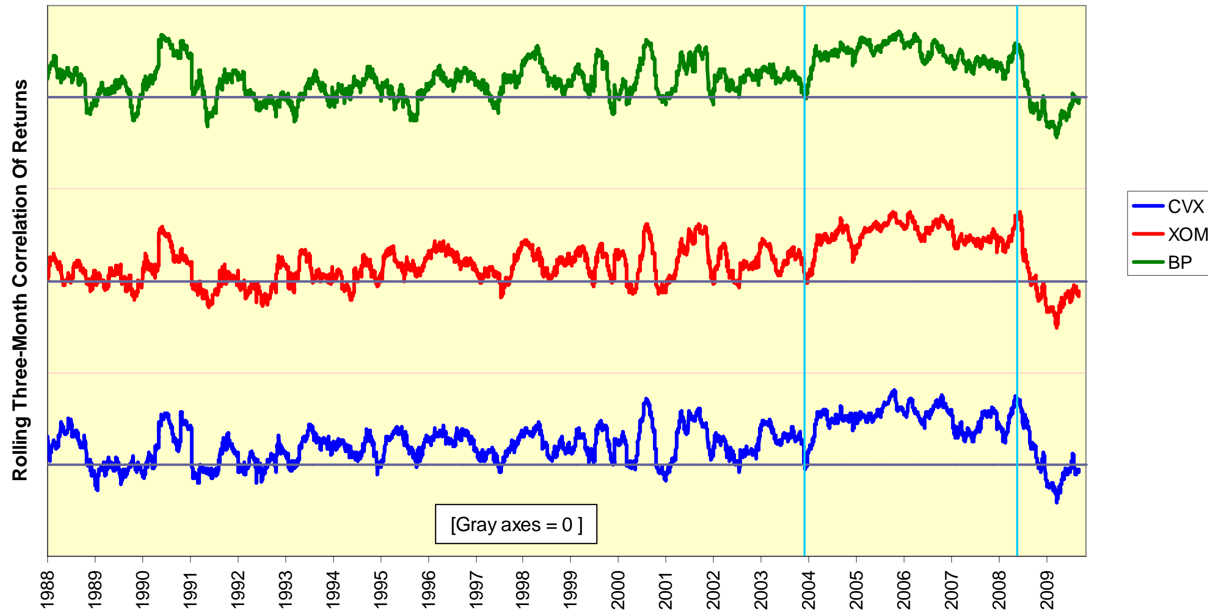
Incremental Returns

Now let's step away from the index level and move down to the incremental performance of three different stocks, XOM, CVX and BP to the S&P 500. Here is how the data in Chart 2 were calculated:

1. Add the dividend history of the three stocks back into their price history going all the way back to April 1988, 21 years, to approximate their total return;
2. Normalize that total return series against the total return of the S&P 500 to approximate how much each stock over- or underperformed the base case of simply holding an index fund;
3. Create a daily return series of this normalization; and
4. Create a rolling three-month correlation of returns history of this normalization against a daily return series of 12-month NYMEX strips

While correlations extend from -1.00 to 1.00, we have added 2.00 and 4.00 to XOM and BP, respectively, in Chart 2 to shift them vertically for ease of comparison. The time boundaries for the second and third periods noted above are marked with turquoise vertical lines.

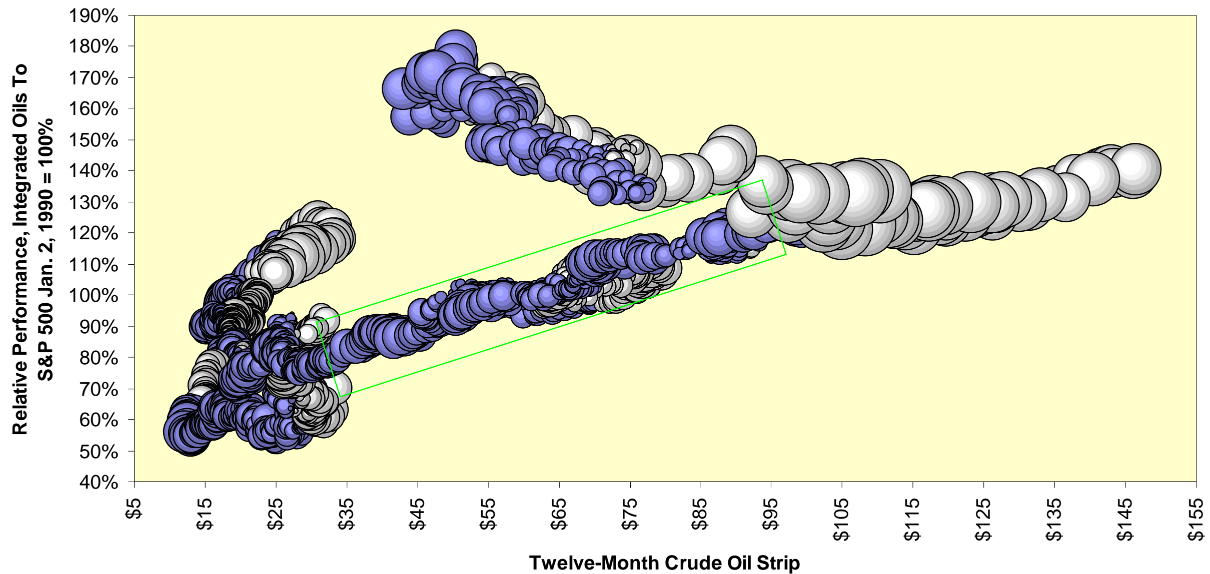
Chart 2: Incremental Return Of Integrated Oils As A Function Of
12-Month Crude Oil Strips



What we seen now is a rather dramatic repudiation post-July 2008 of the notion the integrated oils are a proxy for crude oil prices. Their incremental return relative to the broad market shifted not only to a negative one, but to the most negative one in more than two decades' of data. Regardless of whether crude oil prices were collapsing in the second half of 2008 or rallying from December 2008 to June 2009, the incremental return of the integrated oil companies was an increasingly negative function of crude oil strip prices. The incremental return became less negative after mid-June 2009 and turned positive for both CVX and BP by October 2009.

The Opposite Analysis

As people always want to attribute magical powers of prognostication to markets, does the relative performance of the integrated oil companies discount prospective changes in crude oil strip prices? If we map three month-ahead changes in crude oil strip prices against the dimensions of relative performance and crude oil strip prices, we see only a small segment where stocks seem to foretell changes in crude oil prices; this is highlighted with a green rectangle in Chart 3. The crude oil strip returns are marked with bubbles; the blue bubbles are positive returns and the white bubbles are negative returns. The magnitude of the return is denoted by the width of the bubble.



What is remarkable here is crude oil was in a long-term bull market between February 2002 and July 2008. Almost any set of indicators should lead to an apparent prediction of higher crude oil strip prices. The relative performance of integrated oil stocks is not on this list.

The urge to find some source of decent investment return in what has been a high-liquidity, low-return environment has been extreme, and the response of trading commodity-linked equities as a proxy for the commodity itself is understandable. But just because something is understandable does not make it correct. If you have a compelling reason to think crude oil is going higher, trade the futures and leave the integrated oil companies to their own devices.