Crude Oil-Stock Correlation High But Falling

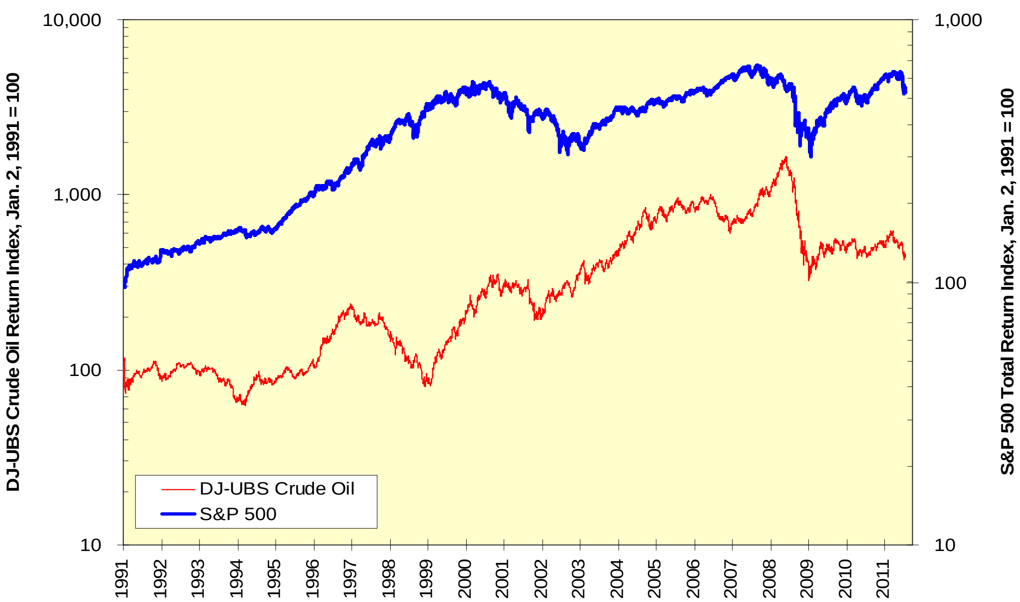
The old line about, "Who are you going to believe, me or your lying eyes?" should not be answered too quickly if price charts are involved. Our brains are hard-wired to recognize patterns even when they do not exist; this was no doubt useful for our tree-dwelling ancestors who had to project where the next branch was, but it gives market analysts problems when they do not define the problem properly.

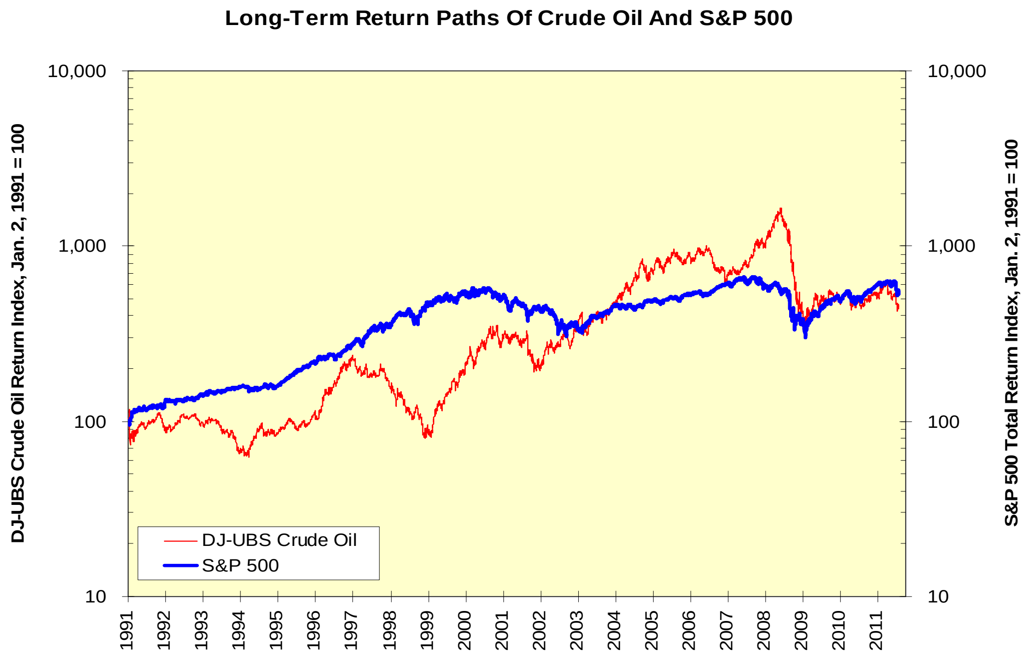
Stocks And Crude Oil

I have used a chart based on the thirteen-week rolling correlation of returns between the S&P 500 and crude oil; the weekly average cash market price for each was used to eliminate the distortions created by the forward curve of crude oil futures. This chart goes back to 1983, and it shows a wide range of ups and downs in correlation, as it should: One is a consumed commodity and the other is a financial asset. Just for the record, that correlation measure is the highest it has been since September 1984.

Now let's switch the basis of comparison to the daily total returns for the Dow Jones-UBS crude oil subindex and the S&P 500 total return index; this comparison can begin in January 1991. I am going to plot the same two series on two different scales; note how your mental impression changes.

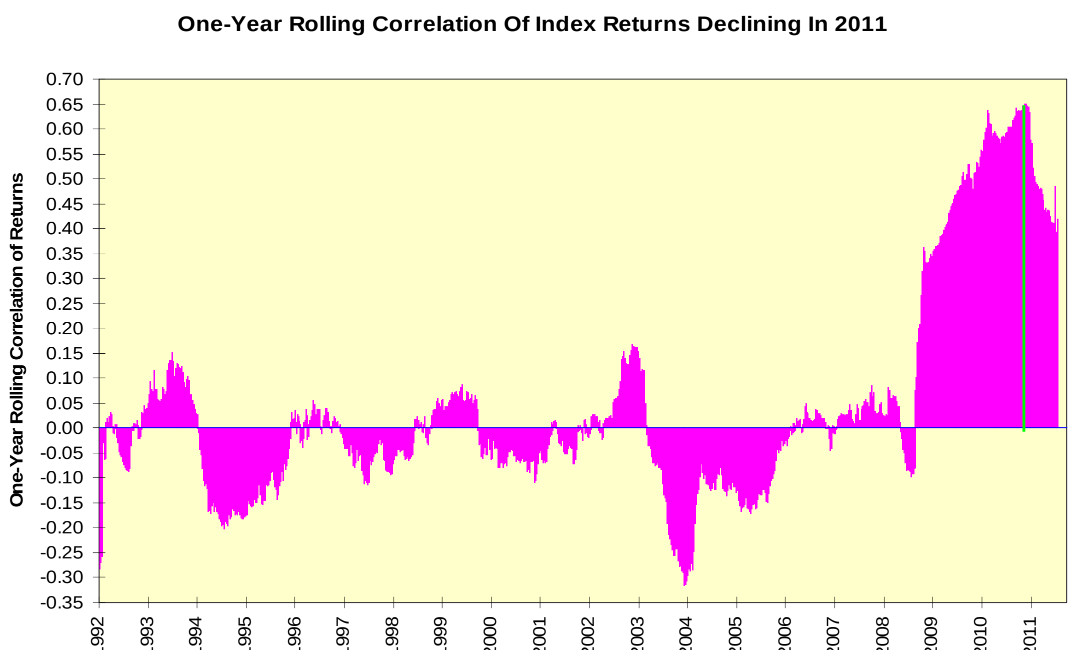
Long-Term Return Paths Of Crude Oil And S&P 500





All I did here was change the logarithmic scale for the S&P 500 from two cycles to three to match the three cycles of the crude oil return series. Your tendency is to look at the first chart and shrug; the two series only have an r^2 of 0.663 for more than two decades, but your tendency is to look at the latter and, especially after 2008, conclude the two markets are practically identical.

A clearer answer emerges when the data above are rearranged as a rolling one-year correlation of returns; the one-year period dampens seasonal effects. Prior to late 2008, the idea these two markets had a strong positive correlation would have raised the brows on a few lying eyes: Not only was the dominant correlation of returns negative, it never went below -0.32. The long-held belief was higher crude oil prices were bad for equities.



The correlation shot higher during the QE era as cheap money fueled stocks and as revived global economic demand pulled crude oil prices higher. However, that game peaked at the end of December 2010, marked with a bright green line. The correlation of returns is falling rapidly as free money has lost its ability to inflate stocks but as geopolitical events have not lost their ability to keep a risk premium in crude oil prices.

Once again you will look at a quote screen and groan if you are long stocks and see crude oil shooting higher, or vice-versa. Markets move in fashions, and I am confident the recent fashion associating higher crude oil prices with higher stock valuations will be remembered as fondly as the leisure suit.