

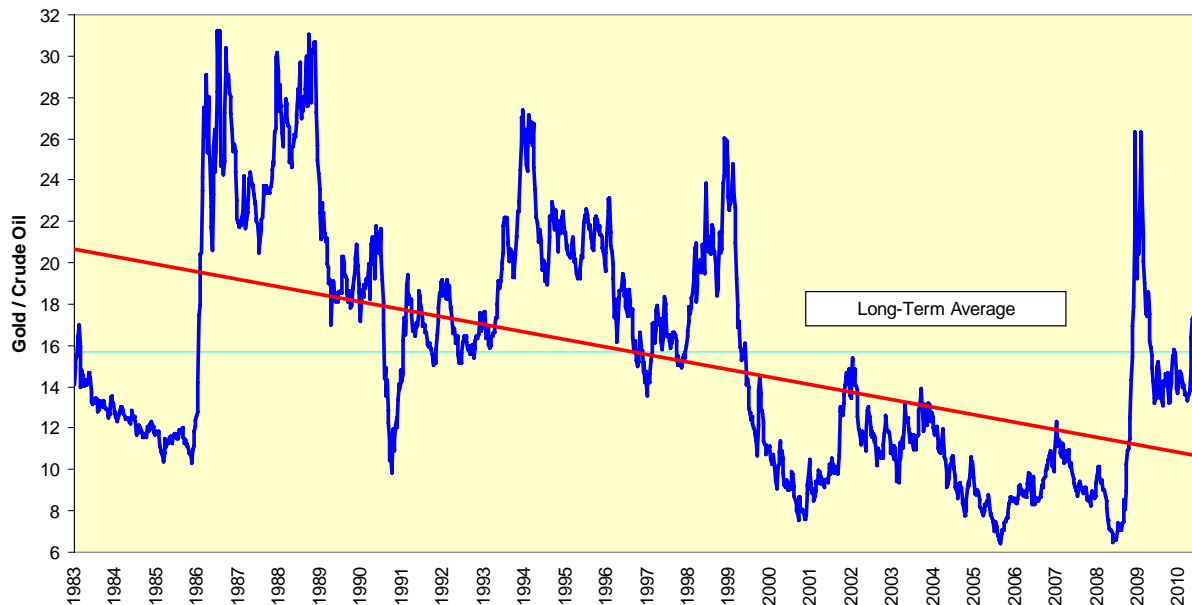
Gold And Crude Oil Misconstrued

All trades, and I do mean all trades, are spreads; even the simple act of buying a stock can be conceived of as the spread of selling cash (and forfeiting today's might attractive short-term interest rates) and buying the stock in hopes of some prospective total return.

Once we accept this, we can classify spreads into different categories with different characteristics. Examples include process spreads such as the crude oil crack or soybean crush, yield curve trades, joint-product spreads such as heating oil vs. gasoline, substitution spreads such as coal vs. natural gas and a category I call unrelated spreads. Stock index trades, such as the Russell 1000-Russell 2000 or S&P 500-NASDAQ 100 trades fall into this category. Then there are trades that are really trades in belief only; this is where I place the relationship between gold and crude oil.

Let's map the ratio of the weekly average of cash gold expressed in dollars per ounce to the weekly average of cash West Texas Intermediate crude oil expressed in dollars per barrel since the start of crude oil futures trading in 1983.

Gold & Crude Oil During The Futures Era



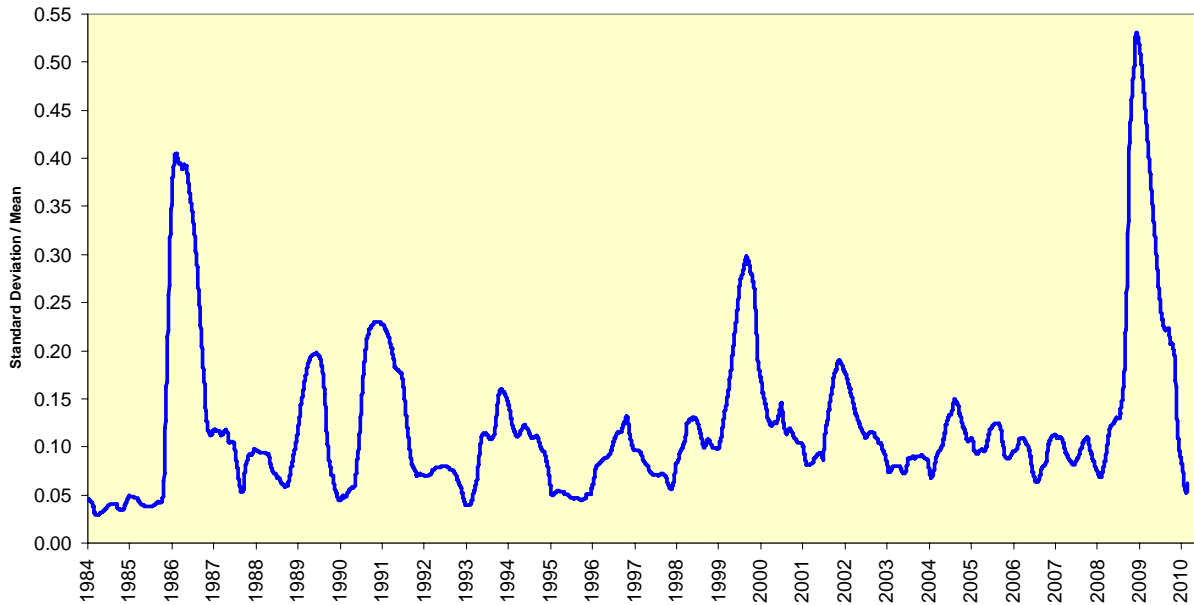
This spread clearly can put on the mileage in both directions, and that should be our first warning sign. A substitution relationship or one where two markets are driven by common economic factors would exhibit tighter bounds in its distribution and, just as important, it should demonstrate a measure of mean reversion to either an absolute price level, such as the long-term average of 15.68, or to the trendline sloping downward at 0.997% per week. Neither tendency exists.

What does exist are separate macroeconomic factors propelling each market. The downturn in the ratio between 1999 and 2008 was a function of the massive rise in crude oil prices. This was not – please accept this as a stipulation from much analysis – the result of factors alleged to propel gold prices higher, such as excessive monetary creation or currency debasement, but a number of factors reflecting a supply/demand imbalance for crude oil, including investment demand for crude oil. The upturn in the ratio was a function both of the demand shock of late 2008 and the unwinding of investment demand, factors once again independent of gold.

The opposite holds true as well; the rally in the ratio in 2009 and again in recent weeks was propelled not by the crude oil leg of the spread but rather by a flight into gold as paper currencies were being printed recklessly. If those same policies of low interest rates and currency debasement applied to crude oil, as alleged by some during 2007-2008 applied, crude oil would have been pushed higher in response and the ratio's move higher would have been far less spectacular.

Another component argues against a mean-reverting process here. The first is the requirement for stable variance over time in the spread's history. Unstable variance indicates either a non-relationship between the two assets or, as noted above, different responses by the two assets in question to external economic factors. We will see evidence of the latter below. A rolling one-year standard deviation of the gold/crude oil ratio divided by its one-year mean using daily cash market data reveals some highly unstable variance in this spread.

One-Year Rolling Normalized Standard Deviation of Gold/Oil Ratio



Finally, let's ask ourselves the simple questions as to whether gold and crude oil are produced in the same zones, whether their consumption patterns are identical, whether crude oil can be recycled indefinitely and gold disappears forever shortly after it is extracted from the ground, etc. The two markets have a mental linkage, but they have no actual linkage and no demonstrable statistical linkage. They are best traded and analyzed separately, and not as a spread.