Commodities And Producer Prices Have Complex Linkage

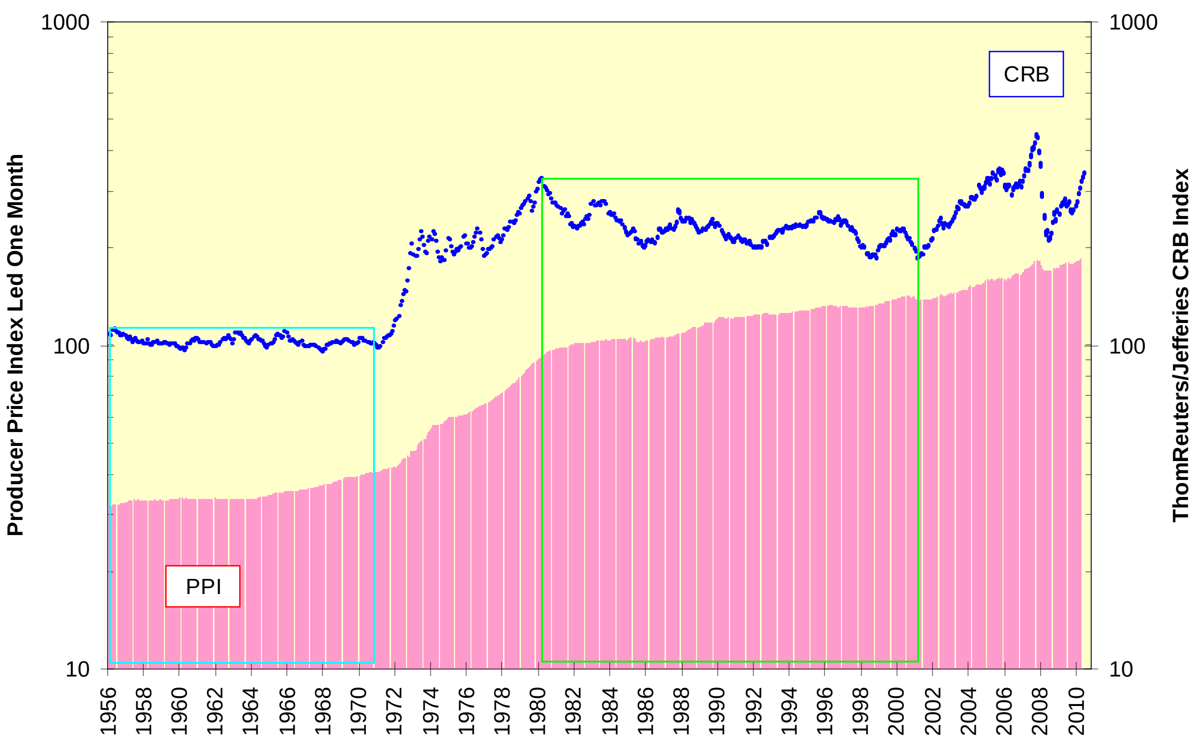
Have you ever called someone "simple-minded" and meant it as a compliment? Twice? Now, why do we live in a world where soundbite answers rule and where complex issues are boiled down to icons? We understand the world is a complex place, most issues are multiple shades of gray and not black-and-white and the devil always lays in the details.

Commodities And Inflation

I have puzzled for years why commodities are considered to be an indicator of inflation and vice-versa. At best, I can understand it via my "handful of dirt" hypothesis: If expected inflation is 5% and short-term holding costs are 3%, I will gain just under 2% per annum in nominal gains for any tangible asset, a handful of dirt included.

Yes, both first great commodity outbursts of the 1970s followed rising inflation, the operative word being "followed," but that belies a much larger truth. If we map the CRB index (now the ThomReuters/Jefferies CRB index) led one month against the Producer Price index going all the way back to the CRB's inception in September 1956, we can identify two very long periods of negative correlation, both marked with rectangles. During the September 1956-November 1971 period, the CRB declined at an average annual rate of 0.6% while the PPI rose 1.68%; during the November 1980-October 2001 period, the respective rates were -2.73% and 1.96%, respectively.

Producer Prices Often Rise Independently Of Commodity Prices



These combined periods of negative correlation of returns represent more than 65% of the available history, and yet the simple amongst us assume they rise and fall together. Yikes.

Leads And Lags

A statistical test for causation, Granger analysis, reveals a one-month leading relationship between the CRB and the PPI; it also reveals a much stronger contemporaneous relationship. This is somewhat perplexing; the CRB is measured from futures prices, not from current cash market prices, and therefore should be unable to affect the PPI either immediately or even after a one-month lag. However, fifty-five years of data are fifty-five years of data, and arguing with the facts has seldom proved fruitful for me.

What we are left with is a long-term history where long periods of negative correlation between the CRB and PPI alternate with simultaneous bursts to the upside where both indices rise sharply. Only one period, the immediate aftermath of the 2008 financial crisis, had positive correlation with declining index levels.

This suggests both indices are affected more by a common factor or set of factors such as monetary policy shocks or supply shocks that produce the observed simultaneous increases. The 2008 period has an obvious demand shock to explain things. The fairer conclusion is not “higher commodity prices lead to higher inflation,” but rather “a combination of external factors lead to both higher commodity and producer prices in a simultaneous and asymmetric fashion.”