The Platinum/Gold Spread

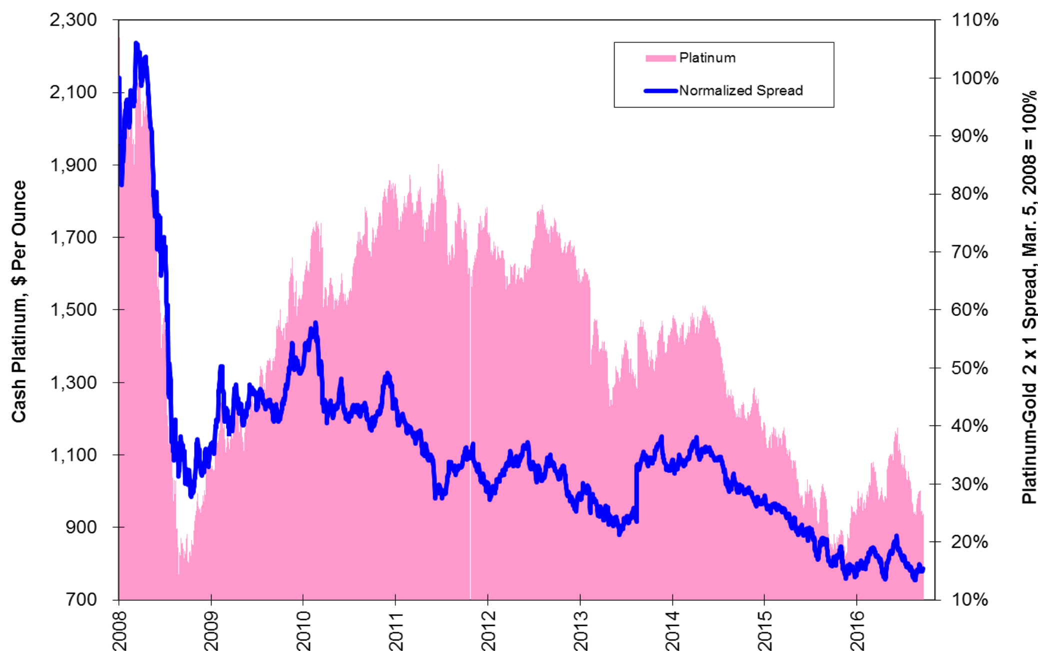
If everything we did in life made sense, it would be pretty uninteresting. We seem compelled to engage in pointless activities and mindless entertainment, some of which has a habit of spilling over into things like government and politics, but no matter: It just gives us something to do.

The platinum/gold spread, like many other unrelated spreads (see "Think Before You Spread," *Futures*, April 2001) falls into this category. The two metals are produced in different ore beds, are not substitutes in anything other than jewelry and have vastly different final demand profiles. Platinum almost falls into the category of a divine joke; it is at once so rare it has been estimated all of the platinum ever mined could fit into an elephant and so useful as a catalyst that approximately one out of every five products touches it during manufacture. As a catalyst, it is not consumed and can be recycled endlessly with only minor loss.

Gold, while also scarce, derives much of its value from its relative lack of intrinsic value. Yes, it is used in electronics, but we can describe the gold economy as mining something for the express purpose of reburying it in a vault somewhere. As gold is pretty, shiny, has a distinct color and does not corrode, it has been and probably always will be coveted for coinage, jewelry, art and a store of value for central banks who otherwise agree with Keynes' disparaging description of it as a barbarous relic.

The platinum-gold spread has been recognized by the futures trading industry going back to the days when platinum traded on the NYMEX and gold on the COMEX when both exchanges shared trading pits on the same floor in the World Trade Center. The COMEX now is part of the NYMEX, which in turn is part of the CME Group.

The spread of 2 platinum contracts against 1 gold contract receives a 60% margin offset from the CME. This is a strong and valid indication the covariance of returns between the two markets is high and the spread therefore is less risky than are the metals individually. Indeed, if we map the normalized spread against the price of platinum alone since its March 2008 nominal dollar peak, we do see a prolonged period of trendiness moving in gold's favor. This seems a little of out kilter given the fundamental nature of the platinum market. As a trader, the trend is your friend and you best leave it at that. As an analyst, you must ask why.



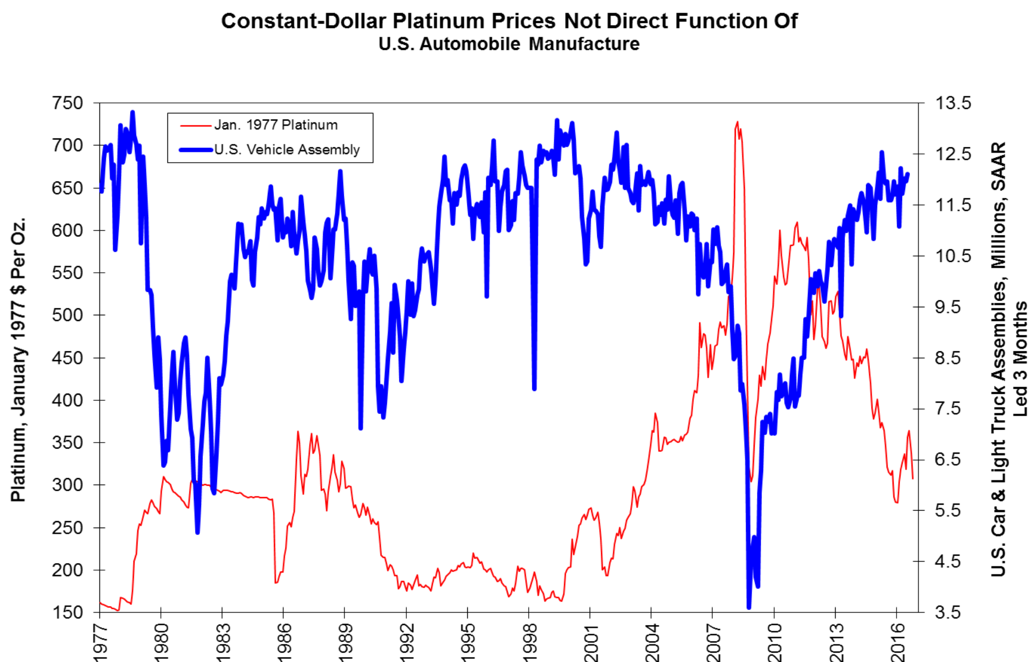
Source: Bloomberg

Platinum And Automobile Manufacturing

One of the great mysteries of the platinum market is why its price does not exhibit the long-term uptrend replete with price spikes you might expect for something relatively price-inelastic. Ask yourself this: If you were a refiner or petrochemical manufacturer, what price would platinum-based catalysts have to reach for you to shut down production?

While you probably do not own a refinery – some stock in an integrated oil firm, maybe – you probably own an automobile. Global automobile production increased more than 72 percent and total platinum demand increased 34.8 percent between 1999 and 2015, with much of that growth coming from relatively new automobile markets in Asia, China in particular. Automobile catalytic converters contain 3-7 grams of platinum apiece. As global platinum production grew 48.0 percent between 1999 and 2015 and as platinum users became considerably more efficient at recycling platinum from junkyards and reducing the platinum content of catalyst mixes, platinum prices have remained contained and, as noted above, peaked in March 2008.

The linkage between platinum prices and automobile manufacturing is not as direct as you might think. Let's map the constant-dollar price of platinum and U.S. vehicle assembly. This relationship has switched from insignificant to direct to inverse over the course of its post-1976 history, and has been strongly inverse since 2011. This long-running inverse relationship is a testament to market efficiency and why the long-term constant-dollar price of physical commodities is lower. Were only this lesson internalized in political circles where the response to short-term price spikes tends to be regulation as opposed to getting out of the way.



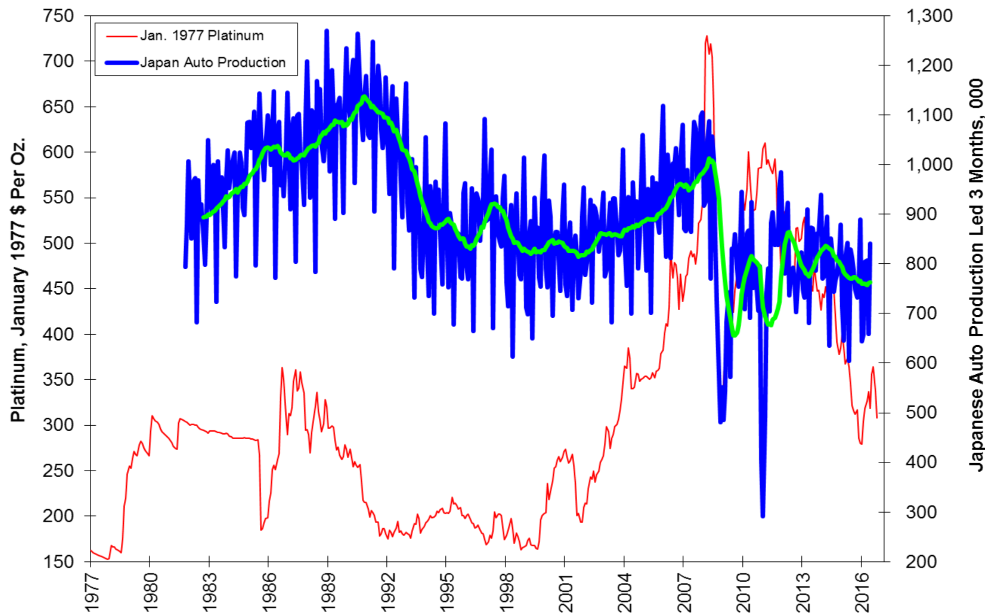
Source: Bloomberg

We can repeat this analysis for Japan. While the relationship is more direct relationship than for the U.S., it is not at all robust. The monthly automobile production data in the chart below are not seasonally adjusted, as was the case for the U.S.; a 12-month average is superimposed.

The conclusion here is inescapable. Even though more-industrial platinum should spike relative to more-monetary gold, the opposite has been true. Gold spikes for any number of reasons, including the odd one prevailing in 2015-2016 of negative short-term implied real interest rates, primarily in the Eurozone, that made inert gold attractive vis-

à-vis fixed-income instruments. As gold long has been viewed as a hedge against inflation, this absurdity was a difficult lesson to absorb for many.

Constant-Dollar Platinum Prices Not Direct Function Of
Japanese Automobile Manufacture

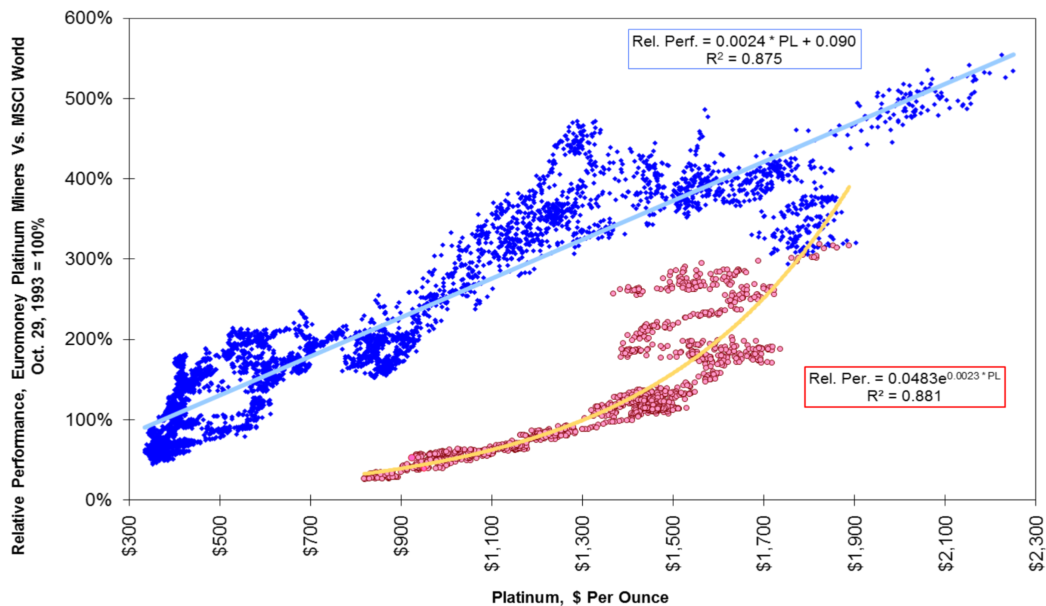


Source: Bloomberg

Platinum Miners

Can you play platinum via platinum miners as well as through platinum futures and the platinum/gold spread? The answer has been a strong, "Yes." The relative performance of the Euromoney Platinum Miners index vis-à-vis the MSCI World index reached its observed low going back to November 1993 on February 2, 2016 and rebounded an improbably large 107.9 percent through the late November 2016 time of this writing while platinum prices themselves advanced a much lower 14.3 percent.

Relative performance was a linear function of platinum prices up until the September 2011 peak in gold prices. This period is depicted with blue markers in the chart below. As platinum descended along with gold, relative performance started to reflect an embedded call option on the metal. This function became more robust when platinum's decline accelerated between February 2013 and January 2016. Platinum miners' relative performance remains in a position to accelerate as an exponential function of the metal's price. The r-squared or percentage of variance explained is very high in both cases. If you are bullish on platinum for whatever reason, you will be able to get leveraged gains on a long platinum miner/short global stock index position.



Source: Bloomberg

The platinum market remains something of an odd duck. Its spread to gold is a well-behaved one between two markets unrelated in reality but related in traders' minds. It is a highly useful industrial metal but does not appear to be strongly linked to marginal demand in the automobile industry either in the U.S. or in Japan and is subject to improved efficiency of usage and of recycling. It seems driven by speculative demand, but its primary futures contracts are relatively illiquid. Platinum mining equities have been a call option on the metal since 2011, but this has not been the case historically.

The ultimate answer for a trader is to take a technical approach and let the market tell you whether you are right or wrong. It was going to do that, anway.