The golden month

Data shows that gold often seems to do well in September

Long-time students of the gold market have always sensed something unusual in gold's month-to-month price movements. Specifically, gold always seems to rise in September and, as a result, it has become a popular strategy to buy ahead of time in anticipation of that strength. With the golden month coming up, we thought we'd review the data and thinking behind the September trade.

Luckily for us, Dirk Baur of the University of Technology in Sydney, Australia has provided an academic treatment of the subject that is somewhat more rigorous than our traders intuition. His paper, published this May, outlines what he calls an "Autumn Effect" in the gold market. Using a regression model and daily data from January 1981 to December 2010, Baur finds that September and November are the only months with positive and statistically significant gold price changes. Thus, buying at the beginning of September and holding to the end of November has provided investors with outsized returns. This "Autumn Effect" contributes to a broader academic literature on price anomalies. This list of anomalies – which includes the famous January Effect, the Weekend Effect, and the Halloween Effect – is often cited as evidence contradicting the efficient market hypothesis.

We reproduce a graph of some of Baur's results in figure 1. Gold's average monthly return in September stands at 2.1% while November's is 1.7%.

Baur offers several explanations for the Autumn Effect. The one most familiar to students of the gold market is the arrival of Diwali, an important Hindu festival which falls in mid-November of this year, although in previous years it has arrived as early as mid-October. The Diwali festival, along with the traditional Indian wedding season that runs from late September to December, is considered an auspicious time to purchase gold, an event that gold retailers presumably anticipate by building inventories starting in early September, pushing gold prices up disproportionately. Indians are by far the largest per-capita consumers of gold, so paying attention to their buying patterns makes sense.

Baur's more novel explanation is that the Autumn Effect in gold corresponds to the Halloween Effect (otherwise known as the Halloween indicator) in equities. Financial economists Bouman and Jacobsen have found that an investment in a portfolio of equities that is initiated after Halloween and held until April, then invested at the risk free rate until next Halloween, provides a far greater return than simply buying and holding that same portfolio. Readers may notice that this is really just a formalization of the "sell in May and go away" shibboleth. Bouman and Jacobsen found that this Halloween strategy provided significantly outsized returns in all 17 equity markets they tested except for Hong Kong and South Africa.

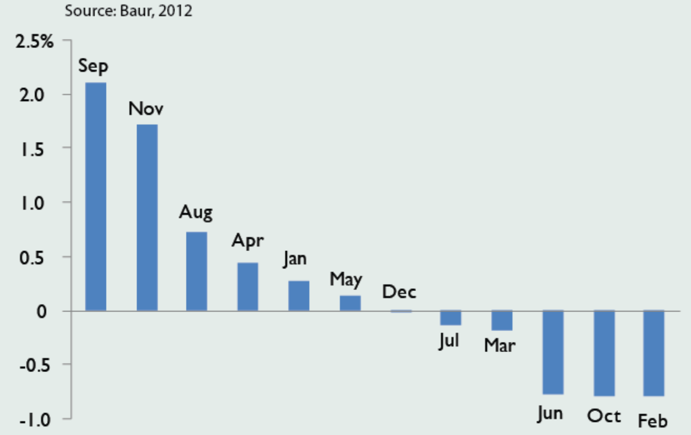
The idea here, according to Baur, is that there is typically a "scare period" in equity markets in autumn, and in anticipation of this investors try to hedge by buying gold come early September. When the scare period is over, investors slowly sell off their gold so as to repurchase equities, pushing equity prices up in a regular fashion.

While the Autumn Effect is pleasingly crisp, we do have several quibbles. To begin with, one or two extreme Septembers might have an outsized effect on the overall September average. For instance, in September 1999 gold rose 17% upon the announcement of the Washington Gold Agreement. Baur's

1 When to hold gold, 1981 to 2010

Monthly average returns (%), sorted highest to lowest

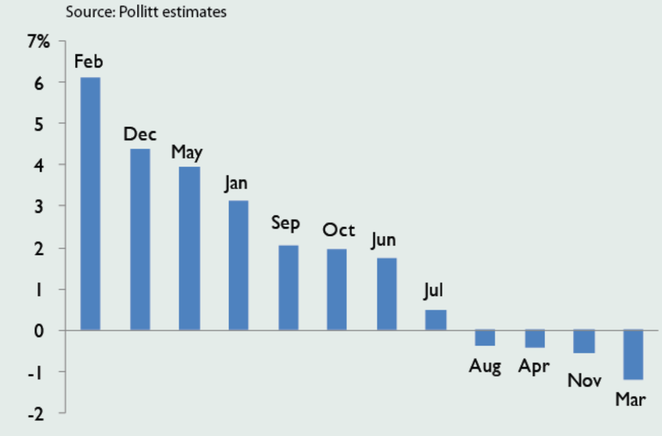
Source: Baur, 2012



2 When to hold gold, 1968 to 1980

Monthly average returns (%), sorted highest to lowest

Source: Pollitt estimates



Pollitt & Co. Inc.
11 King Street West, Suite 1950, Toronto, ON. Tel: 416.365.3313
625 Boulevard René Lévesque Ouest, Bureau 930, Montréal, QC. Tel: 514.395.8910

results do indeed show high "skewness" in September and November gold returns. Skewness means that while the average September return on gold is 2.1% the bulk of values lie somewhere below the average. In other words, a small number of outliers within the thirty-year sample are responsible for September's high returns.

Another criticism of the results is the time period chosen. Baur's data starts somewhat arbitrarily at 1981, but the period from 1968-1980 is no less relevant – after all, gold became a (more or less) freely tradable and un-pegged commodity back in March 1968. Our results show that, over this earlier period, September was actually just the fifth strongest month, and November the second weakest month. Indeed, while Baur's data shows that February is gold's weakest month, our data shows February to be the strongest month from 1968 to 1980. We haven't gone to the same degree of formalism as Baur (i.e. calculating statistical significance) but you get the point – choice of time frames matter, and might muddle what seems to be an otherwise clear pattern. We show our data in figure 2.

The upshot of all of this is that detecting patterns in financial data is an imprecise art. Gold investors would do well to heed Baur's results showing September and November to be good months to hold the metal, but it's probably not worth betting the farm on.

John Paul Koning
jpkoning@pollitt.com

Toronto, Ontario
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