The Future Of Inflation

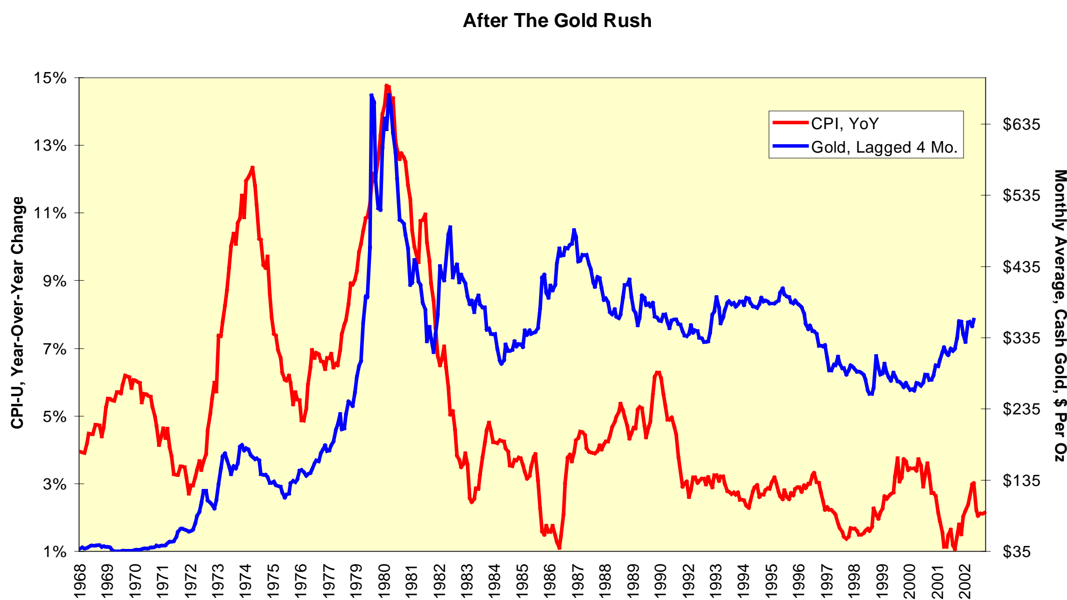
Simple stuff works. Is there a better trading rule than "buy low, sell high?" Edgar Allan Poe invented the genres of mystery and horror, and yet we can give him to sixth graders to read. Ernest Hemingway is known as much for his clipped style as for his content. Econometricians, including the recent Nobel laureates, strive for parsimonious models, those using the fewest variables. Alan Greenspan... well, it was a thought, anyway.

While the simple works, the same cannot always be said for the obvious. We saw last week how adding reported inflation to a TIPS yield does not reconstitute a Treasury bond. Will the new futures contracts on the All-Urban Consumer Price Index (CPI-U) be useful in hedging markets as diverse as stock indices, gold and the dollar? Or, in what may be a sleight of hand and twist of fate, will these markets provide an information edge to traders of the CPI futures themselves?

Do not bet on either. All data available suggests the CPI future will be a decent hedge vehicle for the CPI, but not for anything else.

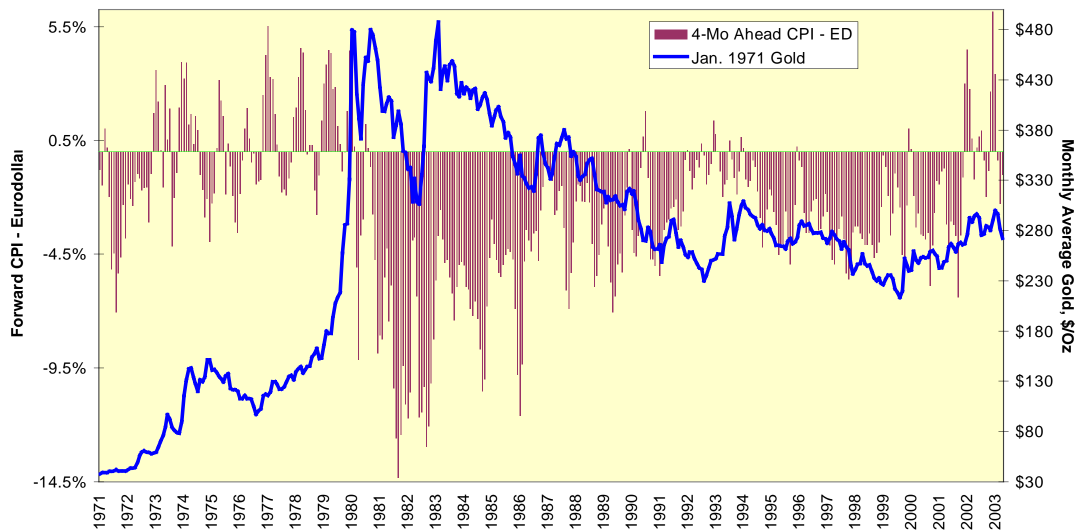
Futures In Them Thar Gold?

The connection between gold prices and inflation is simple and obvious, yet invalid if not modified by other financial variables such as short-term interest rates and the strength of the dollar. In addition and far more important, gold is a forward-looking market; it discounts expected inflation, while the CPI-U is a backward-looking snapshot of the prices for a fixed basket of goods and services. Monthly average returns on gold have led "returns" on the CPI-U by four months since 1968, but the relationship has been surprisingly weak ever since gold collapsed in the early 1980s.



Gold can increase in price if expected inflation exceeds the short-term interest rate holding cost. The calculation and monthly releases of the CPI-U data preclude any inferences as to what contemporaneous inflationary expectations were at the time. The next best thing, and a statistically imperfect one at that, is to compare the realized four-month ahead changes in the CPI less the eurodollar rate – an approximation for the gap between expected inflation and the holding cost – to the currency-adjusted price of gold. The first month in which this comparison can be constructed is January 1971.

Not Quite In Synch



The comparison confirms clearly that the long bear market in gold coincided with a long period of positive real short-term interest rates. Just as significant, the negative real short-term rates present through much of the 1970s contributed to the bull market in gold; the return to these negative real rates recently coincides with the present upward move in gold as well.

But the best statistical analysis is the simplest, and that is the Eyeball Test. A quick glance at the relationship between the CPI-U and gold prices, however stated, indicates that CPI futures would be a very poor way of trading gold, or vice-versa.

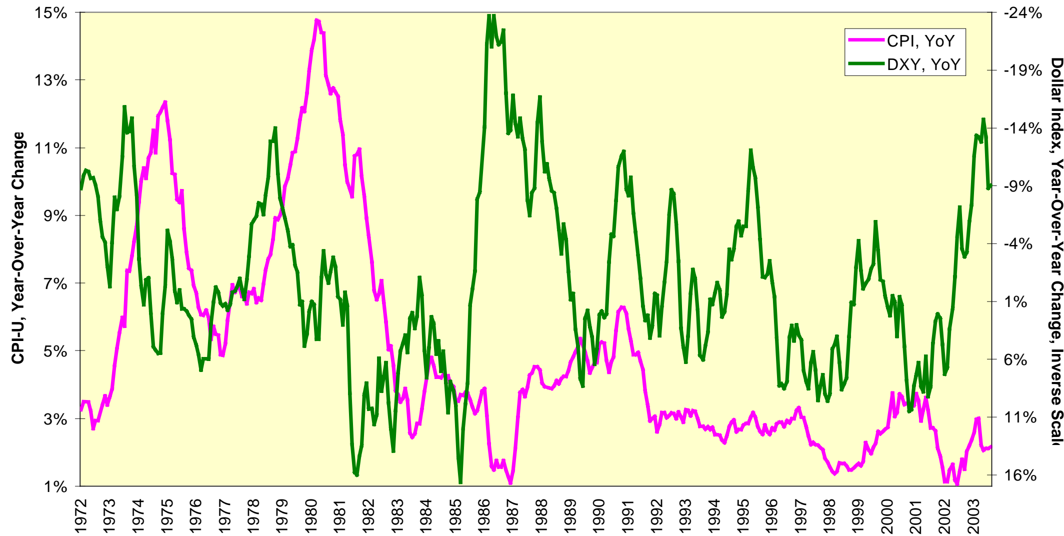
Whistling DXY

Inflationary expectations should play a key role in setting foreign exchange rates. At any maturity worldwide, there can be only one real interest rate; arbitrage would occur otherwise with traders borrowing in the lower real rate and lending in the higher real rate until the two equalized. The differences in nominal interest rates, according to Fisher's Law as discussed here last week, must be a function of different inflationary expectations.

This is a nice concept, but so-called interest rate parity is violated regularly in currency markets for reasons such as absolute fund requirements and different yield curve shapes. The yen, for an example of absolute fund requirements, tends to jump violently higher when importers finally have to buy (lend) in it to pay their Japanese suppliers. The currency of a country with an inverted yield curve at present should be strong against the dollar at short tenors, but weak at longer tenors.

So, information on one country's reported inflation is, by itself, almost totally useless in forecasting or hedging currency moves. We need to know capital flows, yield curve shapes and relative interest rates in both countries, and most important, expected monetary policy responses to changes in both inflation and the currency. If the CPI alone was the key determinant of the currency, we should see a strong correlation in the chart below, but we clearly do not.

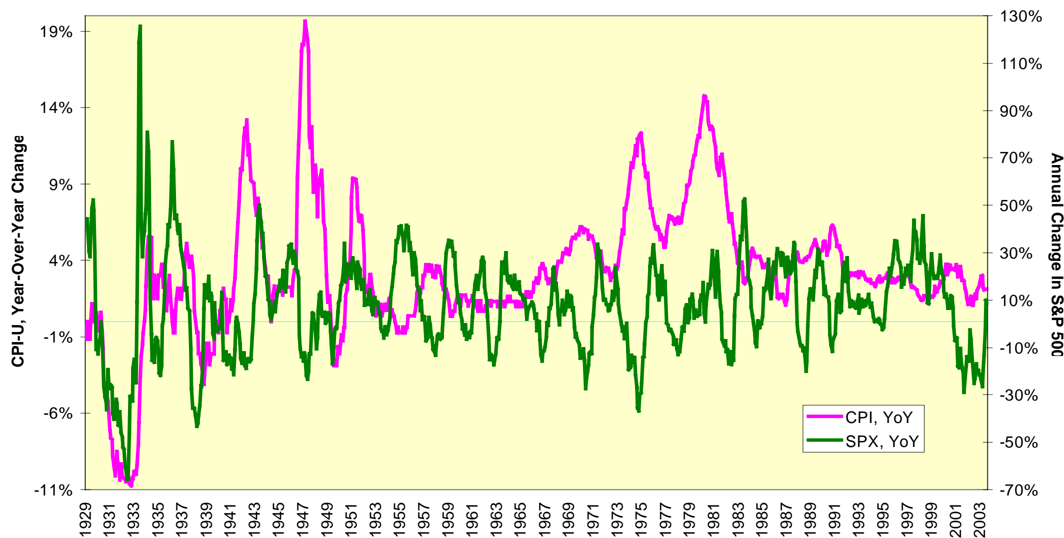
The Sound Of One Hand Clapping



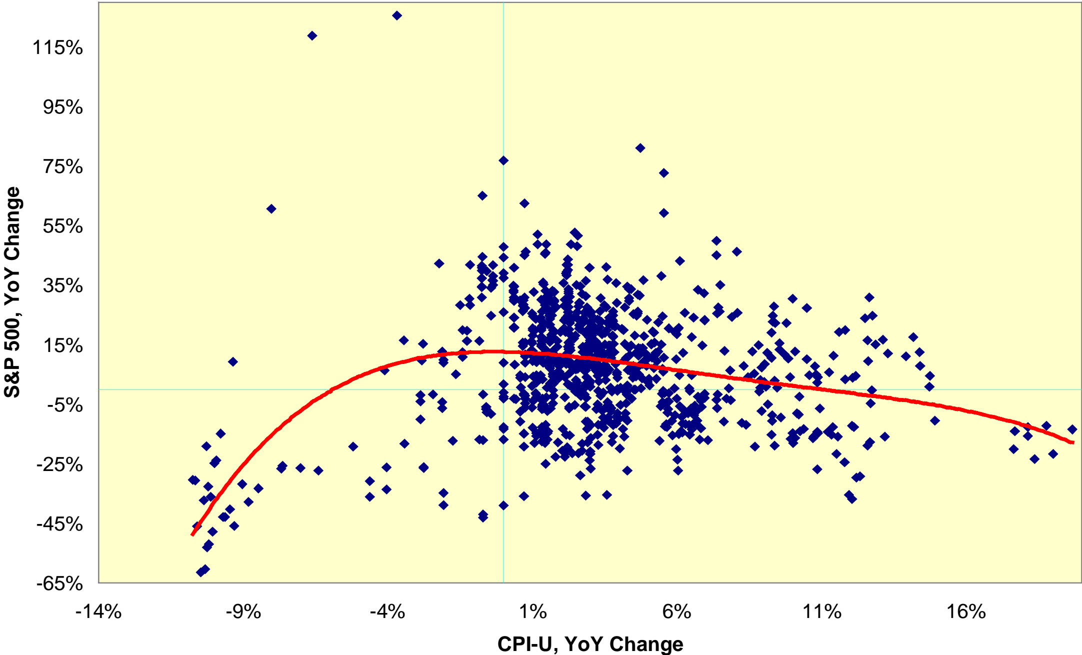
The CPI And Stocks

Up until the late 1960s, investors operated under the illusion that while inflation certainly was anathema for bonds, stocks had some sort of embedded inflation protection; this notion was based on firms' ability to raise prices and increase dividend payouts. Then came the inflation of the 1970s with its cruel lessons on capital replacement costs, operating expenses, high interest rates and the discounting effects of inflation upon future earnings streams. The long-term relationship between the S&P 500 year-over-year changes based on monthly averages and the CPI-U presents no evidence of a hedgeable relationship.

Do Not Hedge Stocks With The CPI



The reality is that stocks have no embedded inflation protection and suffered mightily both during the deflation of the 1930s and the inflation of the 1970s. Stocks can accommodate mild inflation much like a host animal can accommodate a parasite gracious enough not to kill it. Of course, a mild inflation in and of itself is hardly a talisman against a bear market, as the 2000-2002 bear market demonstrated.



None of the above is to suggest that financial markets are unaffected by inflation. They are, and profoundly. The key relationships are based on expected inflation, not the report inflation of the CPI-U, and while inflation is a contributing factor to market movements, it makes only a partial contribution. If your risk is stocks, bonds, metals or foreign markets, use one of the many instruments available for these trading purposes. And keep it simple.