

Financial Markets And Inflation

We saw last month how many of the commonly presumed macroeconomic causes of inflation have been inoperative at best ever since financial deregulation began in the early 1980s (see *Inflation's Macro Myths*, April 2010). As macro data come in infrequently and are by definition backward-looking, can we get a better handle on the poorly-understood problems of what inflation is and how should we address it from high-frequency market-derived financial data?

The question becomes more intriguing if one of the hypotheses offered last month, that a complete picture of inflation requires incorporation of asset valuations as well as price indices, is correct. The idea here is excess money, which used to push prices of goods and services higher, now pushes asset valuations higher. In addition, investors' collective risk-acceptance increases. The global carry trades, fueled by cheap yen, dollars and Swiss francs are the mechanism behind this phenomenon.

Fuel For The Fire

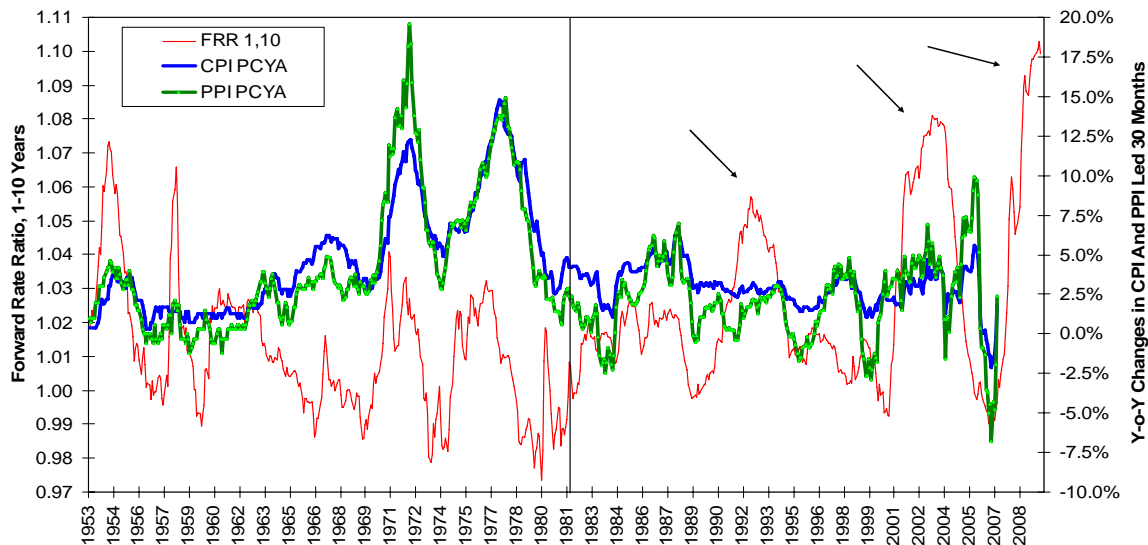
Central banks in general and the Federal Reserve in particular have made an increasing habit out of addressing every macroeconomic problem and financial market hiccup with lower interest rates. The logic behind this is clear. Lower interest rates operate by shifting future consumption into the present and by discouraging savings. They also encourage yield-hungry investors and savers to push out along the risk curve.

Lower short-term interest rates produce a steeper yield curve as measured by the forward rate ratio (FRR) between one and ten years. This is the rate at which we can lock in borrowing for nine years starting one year from now divided by the ten-year rate itself. The more this ratio exceeds 1.00, the steeper the yield curve.

If we map this FRR back over the last 56 years, we see two peaks in the Eisenhower administration and three peaks, all marked with arrows, during the Greenspan-Bernanke years. Each of these peaks was successively higher, indicating an ever-stronger dose of the same medicine was needed to produce what turned out to be ever-weaker responses. Heroin addicts would understand this diminishing reward function.

Prior to the elimination of Regulation Q interest rate ceilings on time deposits in the early 1980s, discussed in detail last month and marked with a vertical line, a steeper yield curve led to higher inflation as measured by the year-over-year changes in both the CPI and the PPI. After the ceilings were eliminated and the role of the fractional reserve banking system in transforming free reserves into credit diminished, these inflation measures ignored the yield curve entirely. Yet policymakers persist in believing they can fight deflation with a steep yield curve and inflation with a flat yield curve. Someone is not paying attention.

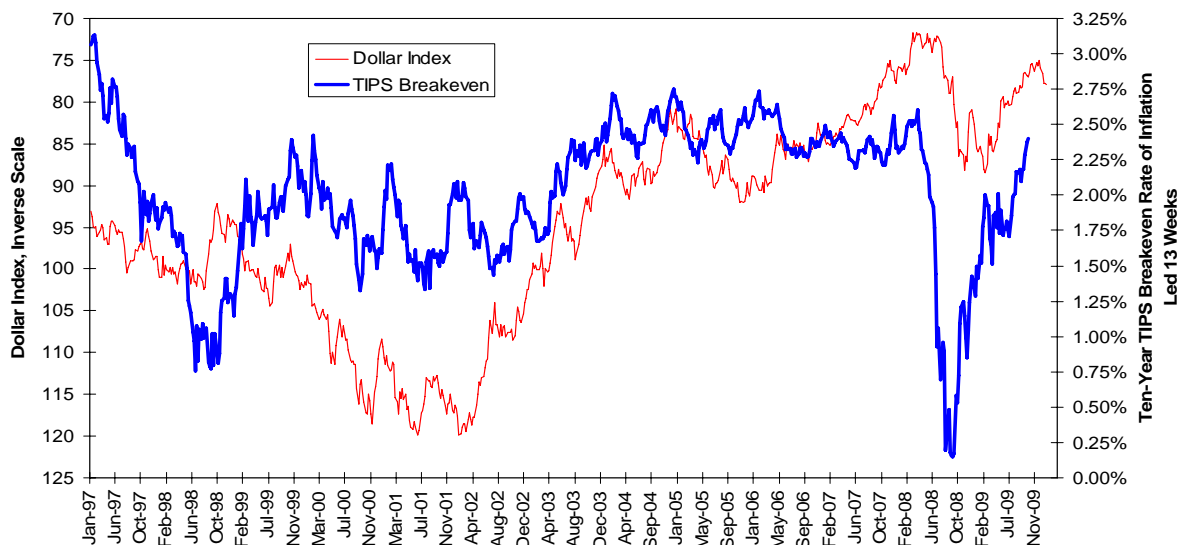
The Yield Curve And Inflation



Less Bang For The Buck

A second way monetary stimulus is alleged to induce inflation is via currency depreciation. We say, “allegedly” because the connections between a weaker dollar and higher prices paid for imported goods is tenuous at best and invisible otherwise (see *What Does The Dollar Really Affect?*, Currency Trader, September 2006). If we use the breakeven rates of inflation from the TIPS market as a proxy for expected inflation (see *TIPS, Treasuries And Insurance and Trading Inflation Impossible In A Deflationary World*, May 2008 and August 2009, respectively), we find only rare periods of correlation between TIPS breakevens led 13 weeks and the dollar index.

The Dollar And Inflation Expectations



The reason for this weak connection is simple. Exchange rates represent inter alia relative inflation expectations between two countries. If all countries are engaged in competitive devaluation, then no country’s currency should weaken as the result of monetary stimulus. As a result, we can get periods such as late 2008-early 2009 where TIPS breakevens were plunging and the dollar index rallied only modestly.

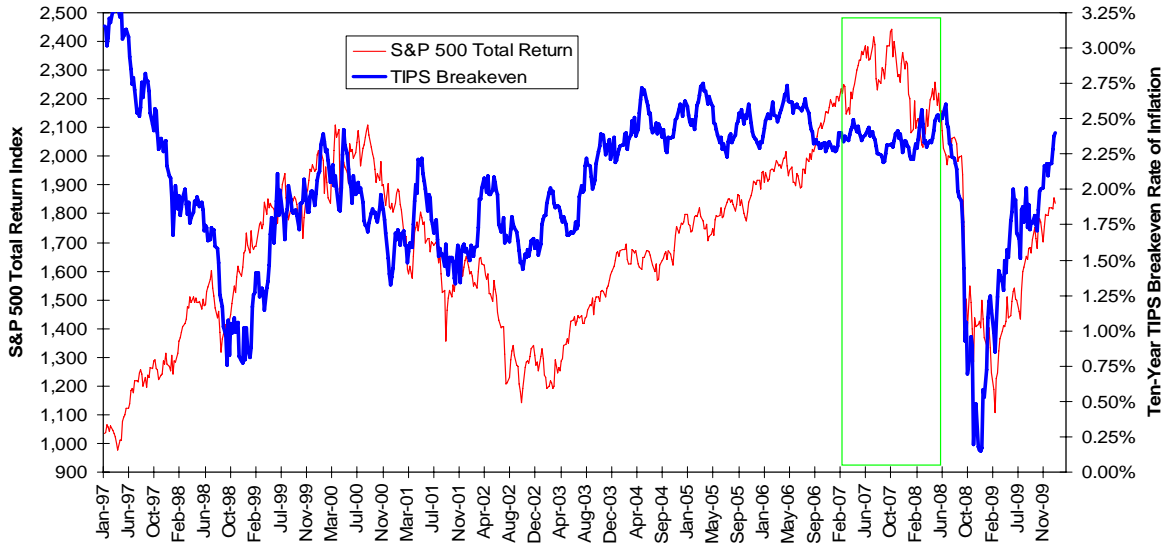
Over the long-term, we would be hard-pressed to look at the chart above and conclude a weaker dollar, such as existed between mid-2002 and mid-2008, led to a rise in expected inflation.

The Stock Market Connection

If we shift the analysis to the stock market, a different picture emerges. After the October 1998 Long Term Capital Management debacle, a phenomenon known as money illusion started to affect stocks and TIPS breakevens more or less equally. Only the September 2006 – February 2008 period, highlighted with a green rectangle is an exception.

Stocks tend to benefit from rising inflation expectations and excess liquidity; they succumb to the illusion of higher nominal profits until reality sets in and they realized all those price increases and inventory gains are ephemeral. The one experience we have with a collapse in inflation expectations occurred within the context of a financial crisis, which almost by definition includes a stock market collapse.

Stock Returns And Inflation Expectations



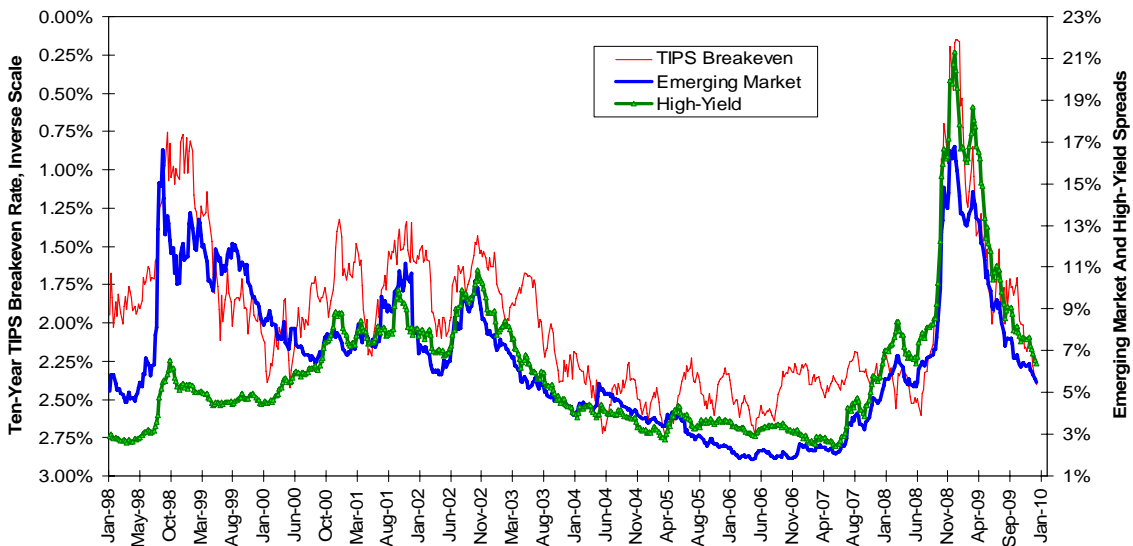
This should not be construed as saying stocks benefit from rising inflation. Too many investors made this mistake in the late 1960s, only to find out the hard way all the shouting about “record earnings” in the 1970s corresponded to a decade-long bear market as discounting horizons shortened. In addition, rising inflation expectations often raise expectations for tighter monetary policy and higher short-term interest rates, neither of which is bullish.

Risky Bonds

One of the more interesting connections between financial markets and inflation expectations comes with the option-adjusted spreads on emerging market and high-yield bonds. As low-quality debtors benefit from the belief they can pay back their bonds with inflated currency, it should come as no surprise the OAS levels for these two markets fell as TIPS breakevens, here plotted inversely, rose.

The financial shock of 2007-2009 had the exact opposite effect. OAS levels rose as the creditworthiness of the emerging market and high-yield bonds fell. This relationship has been so strong as is so logical we are safe in linking the health of low-quality debtors to rising inflation expectations and vice-versa.

Inflation Expectations And Risky Bonds



Combining It All

The net result of what we saw for macroeconomic factors last month and financial market variables here is the old way of thinking about inflation, as a simple responder to monetary policy and it can be measured via price indices, either Laspeyres or Paasche, alone is outmoded. We need to expand the causes to include the role of non-bank

generators of credit such as carry trades and asset securitization markets and we need to modify the thermometer to measure asset valuation as well.