

Financial Markets' Inflation Signals

We saw last month how many of the macroeconomic myths surrounding inflation and its origins are just that, myths. Neither private economists nor government statisticians can agree on the proper way, if any, to measure inflation. Given these realities, can we use the behavior of various financial markets to infer inflation trends indirectly if we cannot measure them directly?

Would we ask the question if the answer were not known?

Let's Not Get Physical

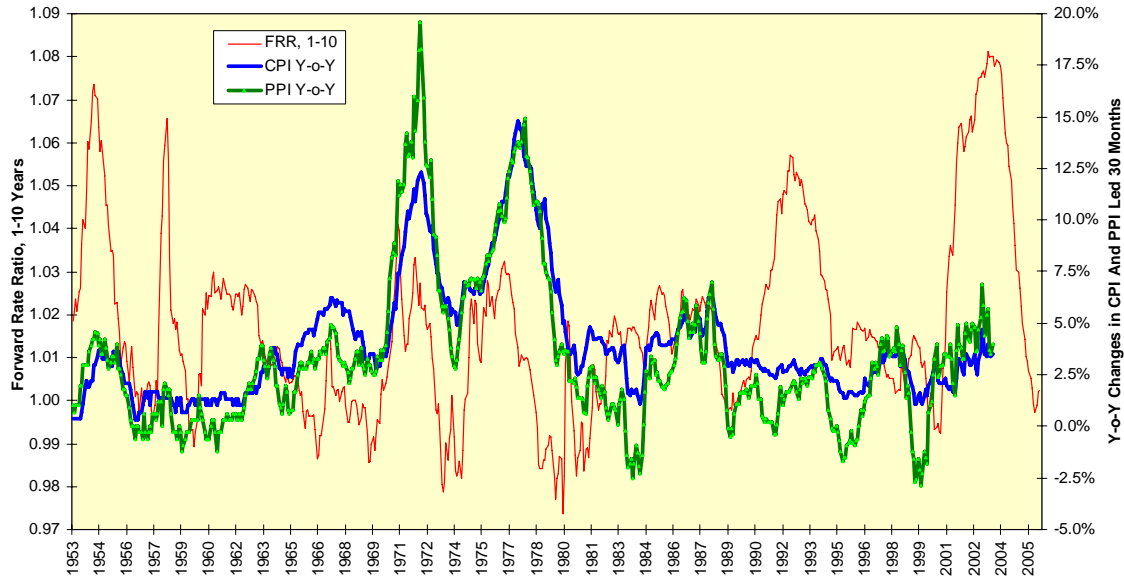
In an interesting twist inconceivable to veterans of the 1970s and 1980s, we will address market measures of inflation without reference to physical commodity prices. Too many of the old standbys in this regard, gold especially, are trading off factors other than inflation (see "Gold Bugs Beware", February 2006). In addition, the prices of too many physical commodities are being pushed higher regardless of the outlook for inflation by the growth of long-only commodity index funds (see "Long Only Falls Short", August 2005). Finally, many of the commodities whose prices have streaked higher since 2003, such as copper, natural gas and especially crude oil have done so on supply/demand imbalances, not on any inflation-linked fears.

If, as is commonly accepted and as we mentioned last month, inflation is a monetary phenomenon, we should expect inflation to be linked to some extent to the yield curve. We can measure this curve by the forward rate ratio (FRR) between one and ten years; this is the rate at which we can lock in borrowing for nine months starting one month from now, divided by the ten-year rate itself. The more the FRR exceeds 1.00, the more long-term rates exceed short-term rates. The information contained in the spread between long-term and short-term interest rates reflects a number of variables, including currency volatility, investment credit demands... and expected inflation. After all, if bond investors sense higher inflation ahead, shouldn't they demand a higher yield in compensation for the assumed risk?

We can map the FRR to year-over-year changes in both the Consumer and Producer Price indices with a lag of 30 months. The two peaks 1970s-era peaks in the FRR did in fact lead to higher inflation. This vindicated the monetarists who warned the Federal Reserve was causing, inadvertently or deliberately, subsequent inflation via short-term interest rate manipulations. If the Federal Reserve cannot predict with any certainty the consequences of its actions in the short-term and risks inflation by accident in the long-term, its best course of action would be to do what the rest of us do when uncertain, and that is nothing.

But a relationship must hold in all periods and under all market conditions, or be overwhelmed by another factor, to be more than anecdotal. The FRR peaks of 1954, 1958, 1993 and 2002-2003 did not lead to subsequent higher inflation. But many relationships are asymmetric. While a steeper yield curve does not necessarily lead to higher subsequent inflation, flat and inverted yield curves tend to lead to lower inflation. The large and abrupt flattening of the yield curve from late 2003 into early 2006 should exert downward pressure on future inflation.

Chart 1: The Yield Curve And Inflation



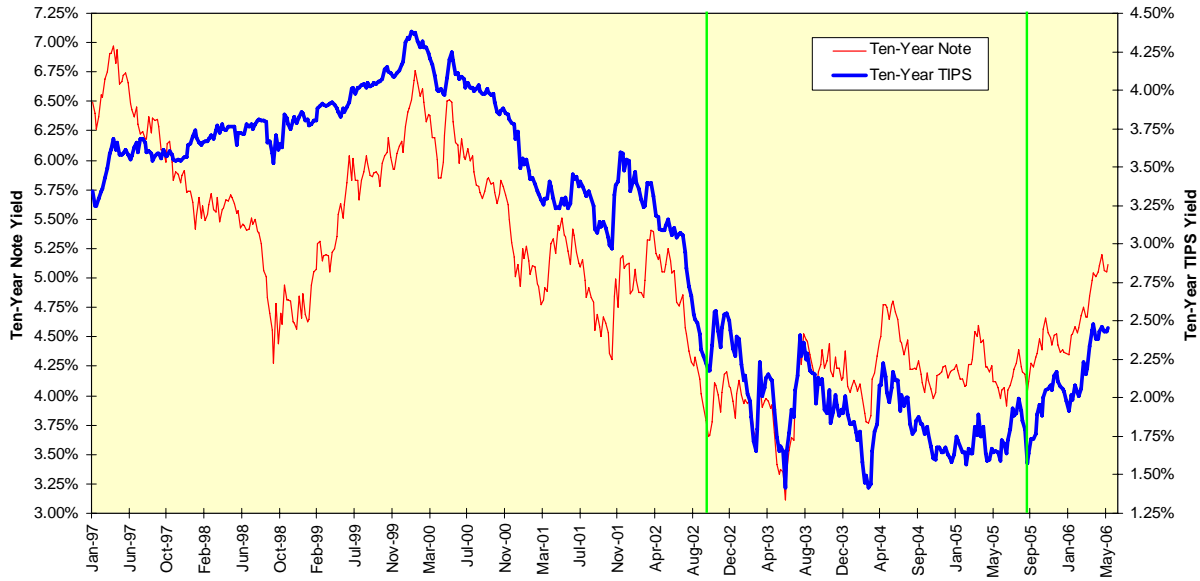
Enter TIPS

The Treasury began auctioning Treasury Inflation-Protected Securities, or TIPS, in 1997. The use of the TIPS market as a measure of inflation expectations, while market-derived, is impure. TIPS' principal accrual is linked to the reported level of the All-Urban CPI and not to the realized inflation in your life. It is one of those cases of perverse incentives; the market has to focus on a measure, the CPI, not widely held in high regard by many. But even accounting for this, the TIPS market demands respect, as outlined below.

The TIPS market requires us to accept counterintuitive implications. Its yield implies a declining real rate of interest during three years economic expansion, October 2002 to September 2005. Counterintuitive yes, impossible no: If profits and foreign investment rose faster than credit demands, real interest rates could indeed have fallen. The situation has reversed since September 2005. The real rate of interest implied by the TIPS market has been rising faster than the nominal ten-year note yield itself.

This, oddly enough, implies a declining rate of inflation expectations – the ten-year note yield minus the ten-year TIPS yield – during a period of rising reported inflation as measured by the CPI, strong economic growth and a monetary policy many still consider to be too loose for that strong economic growth. The combination of rising reported inflation and declining expected inflation as measured by the TIPS market stands as testimony to the credibility the Federal Reserve has built over the past quarter-century in not allowing a repeat of the 1970s disaster.

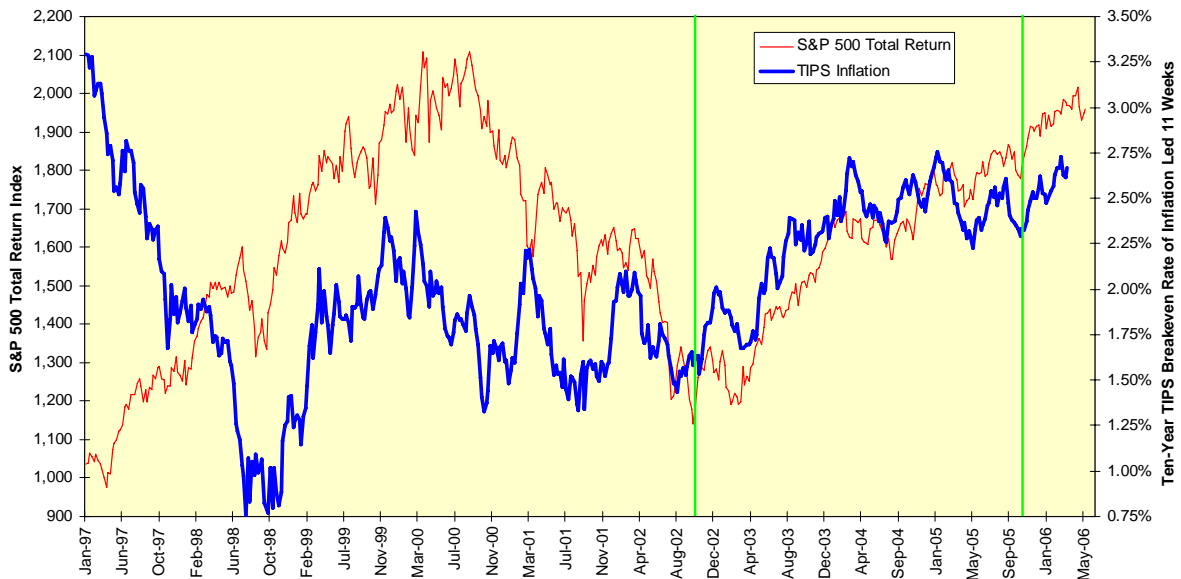
Chart 2: Did Real Rates Fall This Much After October 2002?



If real interest rates fell during an economic expansion, then this interesting outcome should be ratified in the equity market...with a twist. The equity market is subject to a form of money illusion; newly created money tends to flow into financial assets before it can flow into real plant and equipment. As a result, stocks appear to welcome rising inflation when in fact they are welcoming excess liquidity. If we map the total return of the S&P 500 against the ten-year TIPS breakeven rate of inflation, we find U.S. equities move in advance of rising inflation expectations by an average of 11 weeks.

The three-year period noted above had the intersection of declining real rates, strong profit growth and money illusion. No wonder the average annual total return of the S&P 500 was close to 16% over this period. Even though real interest rates are rising, the present trend in the equity markets, both U.S. and global, are consistent with but not predictive of higher future inflation.

Chart 3: Stock Returns And Inflation Expectations



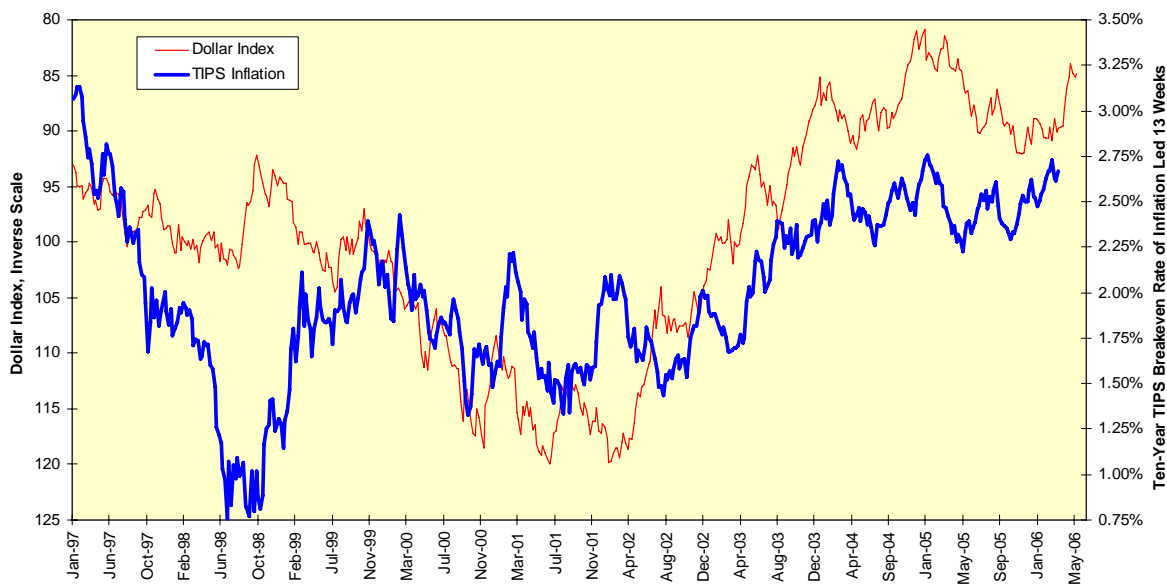
The Dollar And Inflation

The fundamental currency equation compares the nominal interest rate cost of carry between two currencies. As there can be only one real interest rate worldwide at any given maturity – anything else would present a free arbitrage opportunity – this equation devolves quickly into a comparison of expected inflation between two

currencies. We should expect the currency whose expected inflation is on the rise to weaken, and this indeed is the case. If we map the dollar index against the ten-year TIPS breakeven rate of inflation line, we find the dollar has anticipated changes in expected inflation by the 13-week lag embedded in the standard 90-day non-deliverable currency forward.

The dollar's recent trading range is offering few clues toward the future of inflation at the moment. The recent tendency of the dollar to weaken on hints of looser monetary policy argues for an imbalance of risk toward higher inflation in the U.S. relative to other major currencies.

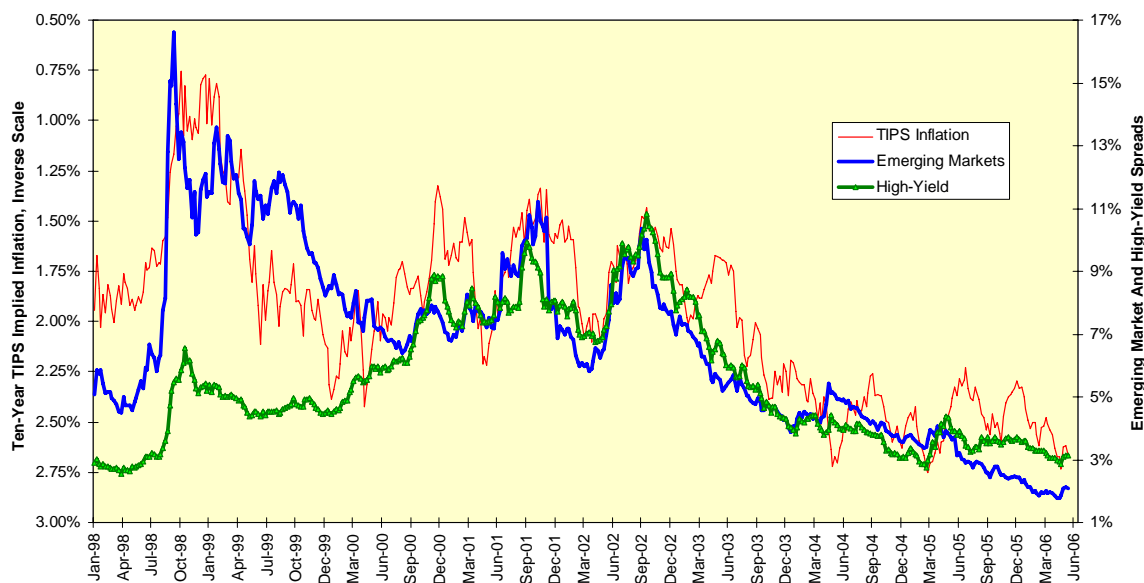
Chart 4: The Dollar And Inflation Expectations



Hints From The Credit Markets

One of the most sensitive indicators of inflation is credit spreads, the differentials borrowers have to pay relative to Treasury rates. Inflation rewards lower-quality debtors who then get to repay their loans in increasingly worthless currency. We should expect both U.S. high-yield spreads and emerging market spreads to decline as ten-year TIPS breakeven rates of inflation rise. This indeed has been the case, especially for emerging markets bonds. The continued narrowing of these spreads is consistent with but not predictive of higher future inflation. The credit markets are telling us, unequivocally, they expect inflation to rise.

Chart 5: Inflation Expectations And Risky Bonds



We saw last month the conventional fiscal and monetary indicators of inflation are not flashing warning signals of impending higher inflation. Financial market measures such as the stock market, the behavior of the dollar and credit spreads are acting as if higher inflation is on the horizon. Financial markets will continue to signal such until broken by excessive Federal Reserve tightening. In the absence of continued Federal Reserve tightening, we should be prepared for higher, but not out-of-control, inflation.