

Behind TIPS' Troubles

A regular correspondent and *RealMoney* reader asked, "If inflation begets higher interest rates, and TIPS prices fall as rates rise, what is the point of TIPS? My Vanguard TIPS fund is not doing well at all."

Do some people know how to stay interactive, or what?

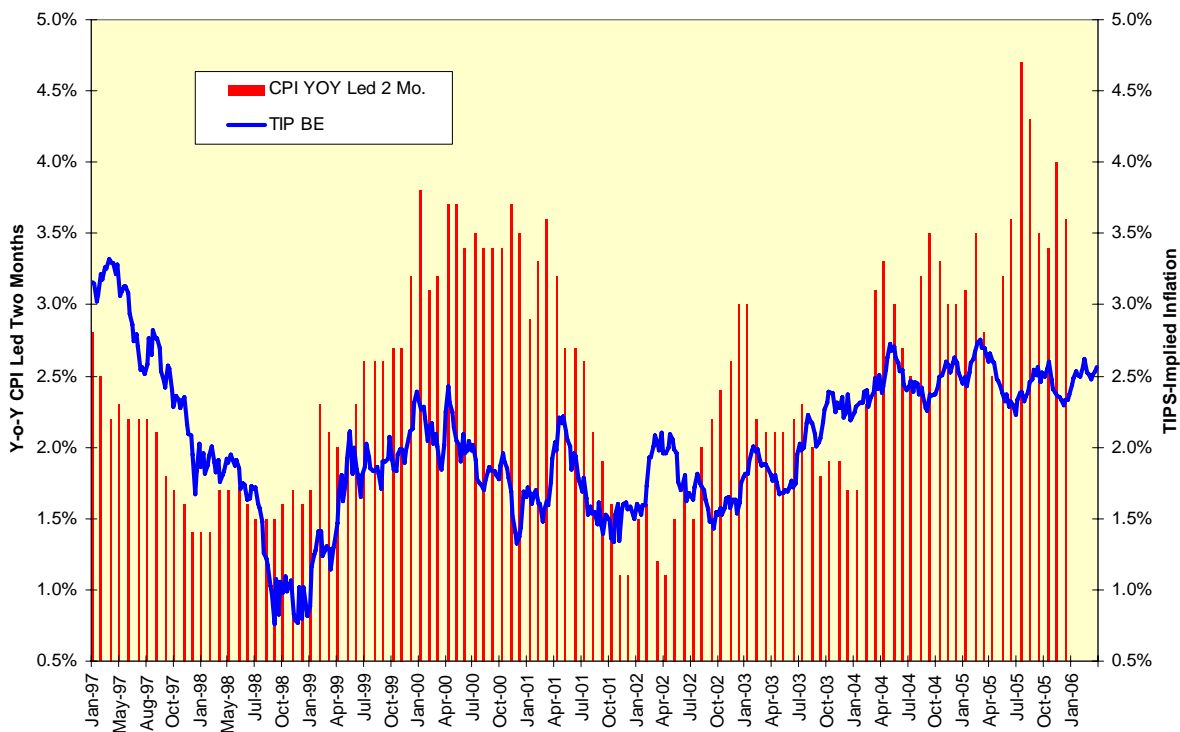
The answers are subtle and relatively complex, but as inflation is a perennial concern and as rising long-term interest rates likely pose the greatest single threat to both economic growth and the equity markets, it behooves us to dig a little deeper and to make use of several analogies along the way. We will find a little bit of long-term gain in exchange for this short-term pain.

The first analogy is familiar to anyone who either has written or attempted to write even the simplest computer code: Computers do not do what you want them to do; they do exactly what you tell them to do. TIPS, as discussed here in [October 2003](#), do not price off the inflation in your life, past or future, they price off the *expected* average annual change in the All-Urban Consumer Price Index. It is probably fair to say more people reasonably believe in the Tooth Fairy than in the veracity of the CPI numbers, but let's put that discourse aside for now.

From whence do these expectations derive and what relation do they bear to recent experience? I recall a long-ago colleague, a minerals economist, who was staring at a copper price chart. As was typical, it contained about 20 years of history and a 10-year forecast. The history was squiggly; the forecast was a smooth curve. He turned to me and asked, "how come all history looks like this (moving his finger up and down in the air) and all forecasts look like this," drawing an imaginary smooth curve? He was really onto something. Despite the massive evidence of experience, we are arrogant enough to believe we can forecast, sometimes to two decimal points. Expectations do not have to connect with reality.

How well does the ten-year TIPS market forecast the CPI? Nine years of evidence suggests it gets a fairly decent two-month directional forecast for changes in the CPI, but it is way off on the magnitude of these changes. In recent years, its forecast bias has been for expected inflation to be well below recently reported inflation.

Future's So Bright, I Gotta Do Trades



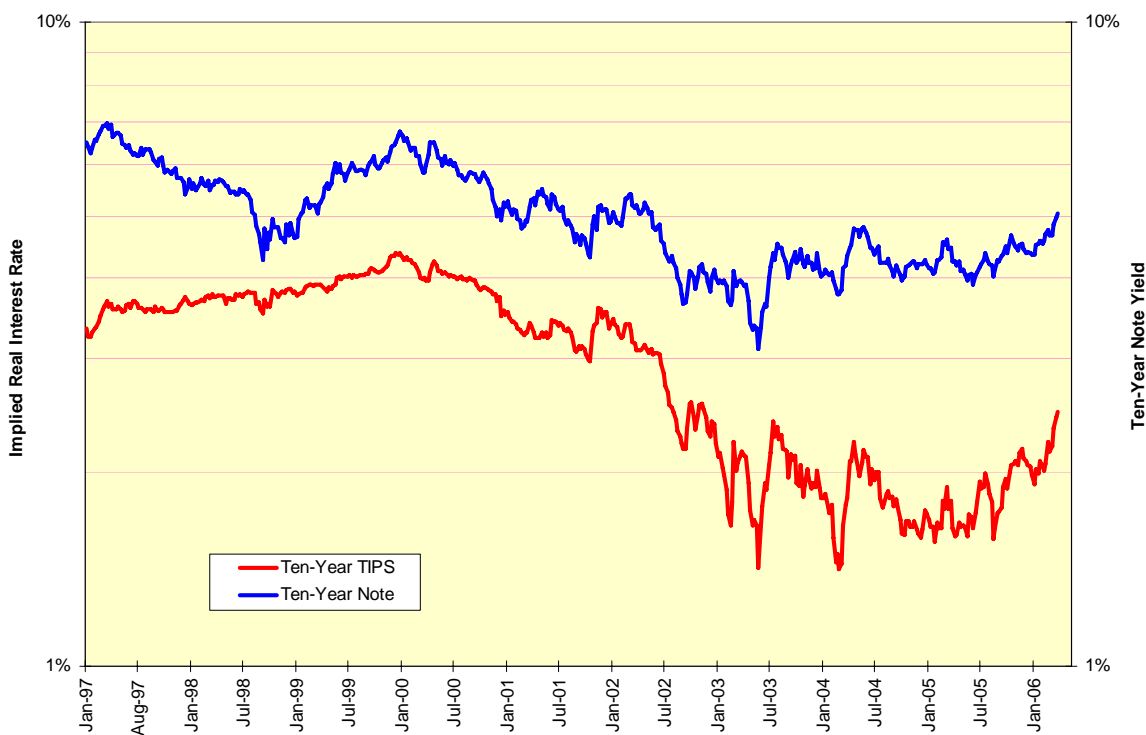
TIPS Forecast Implications

The second analogy is just as forward curves in [commodities](#) reflect price expectations and the [yield curve](#) in the bond market reflects interest rate expectations, the divergence between experienced inflation and expected inflation contains a great deal of information. Why does the market believe the future of inflation is sanguine? The answer is the Federal Reserve has established credibility on the issue. The market believes they will continue to raise interest rates until inflation falls to the level implied in the TIPS market. If at last reading the CPI was increasing at a 3.6% rate and the TIPS market's forecast is 2.56%, then the market believes inflation will cool by more than 1% per annum from the present rate.

Plea to TIPS traders: Whatever controlled substances you used while compiling this forecast, don't Bogart them. I'm coming over now.

If the implied inflation component of TIPS is too low, their implied real interest rate should be marching steadily upwards in compensation. It is, as is evident from the greater upward slope for the TIPS-implied real interest rate as presented on a logarithmic scale.

Real Rates Rising Rapidly



This rising implied real interest rate is consistent with both lower TIPS prices, the source of investor discontent, and with strong global economic growth increasing credit demands. A reversal of this picture would require a global economic downturn that would simultaneously reduce credit demands and lead to the credible belief the Federal Reserve would loosen credit immediately. Investors should think twice about wishing for such a scenario.

Duration And Your Payoff

TIPS have an unusual modified duration profile. The modified duration of a bond is its percentage price change for a given change in yield. For conventional bonds, the lower the coupon is, the longer the bond's duration. Why? As less of the bond's return is paid back to you early in the form of coupons, more is at risk later in the form of principal.

The benchmark ten-year TIPS, the 2% due January 15, 2016, has a modified duration of 4.28. By contrast, the benchmark ten-year note, the 4.5% due February 15, 2016, has a modified duration of 7.75. Why does the higher coupon conventional bond have a longer duration? The reason is TIPS accrue principal as a function of the CPI. You are not getting a higher (taxable) coupon; you are receiving higher (taxable) phantom returns in the form of a higher principal payout. As the CPI rises – if the reported numbers actually show a rise – principal accrual will act as a floating-rate coupon.

If you run out and dump your TIPS now, you are betting:

1. Real interest rates will continue to rise over the life of those TIPS;
2. The Federal Reserve will be willing to risk a recession by keeping credit tight. In other words, Ben Bernanke will morph into Paul Volcker; and
3. Actual CPI will retreat to the TIPS-implied rate of inflation; and
4. All levels of inflation will not rise over the life of those TIPS

Let's apply the Dirty Harry test to these bets: Do you feel lucky? If not, stay with the TIPS you own as part of the fixed income portion of a balanced portfolio.