

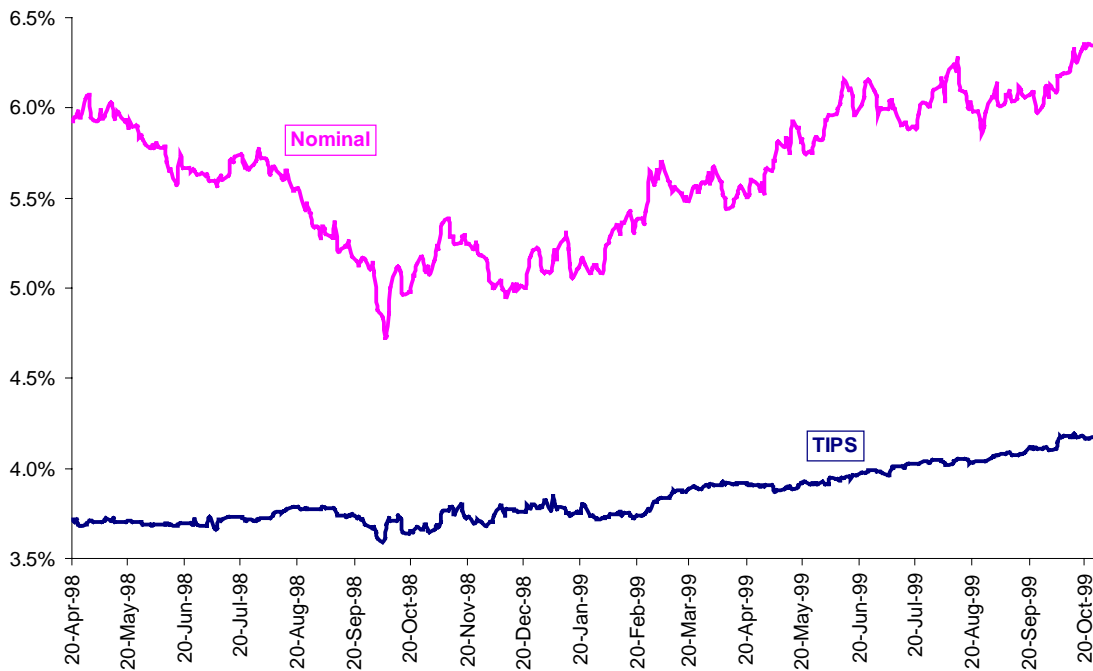
Pedal To The Metal

When it comes to measuring inflation, we live in a world of broken thermostats. The Consumer Price Index (CPI) is the best-known and most cited measure, but it ignores such critical components of economic reality as price elasticity of demand, substitution, discounting, and technological improvements. The GDP deflator might be a better measure, but its quarterly release schedule and significant revisions preclude its use as a forward-looking measure.

Since markets are discounting mechanisms, they should contain some measure of inflationary expectations. Nominal interest rates, according to Fisher's Law, are nothing but the real interest rate plus expected inflation. Without a measure of real interest, however, how can we deduce inflationary expectations from nominal interest rates? Let's round up the usual suspects, starting with long bond yields and gold prices.

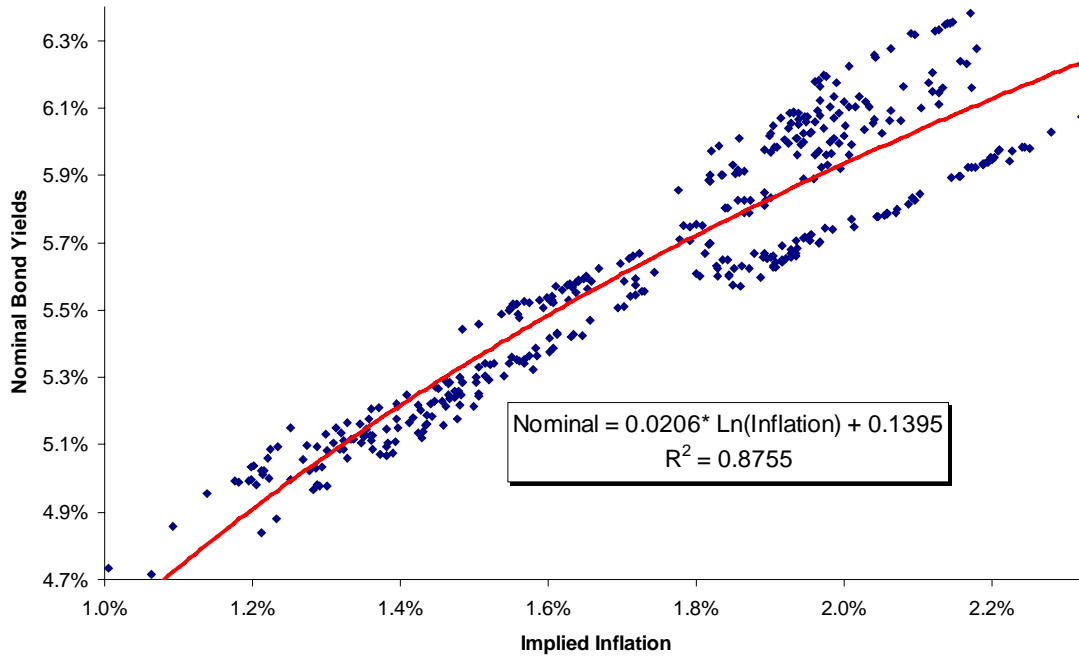
The U.S. Treasury began issuing Treasury Inflation-Protected Securities (TIPS) of various maturities in 1997, with the CPI providing the measure of inflation. The first 30-year issue was auctioned in April 1998. Its yield relative to the on-the-run 30-year issue is shown below.

Nominal And CPI-Indexed 30-Year Yields



A casual examination of this graph reveals rising "real" yields over the past year, far greater volatility for the nominal issue than for the TIPS, and an increasing spread between the two yields. This spread promised to provide us, for the first time, a direct measure of inflationary expectations at a given maturity. Unsurprisingly, both nominal yields and the volatility of these yields are a very strong function of this implied inflation measure.

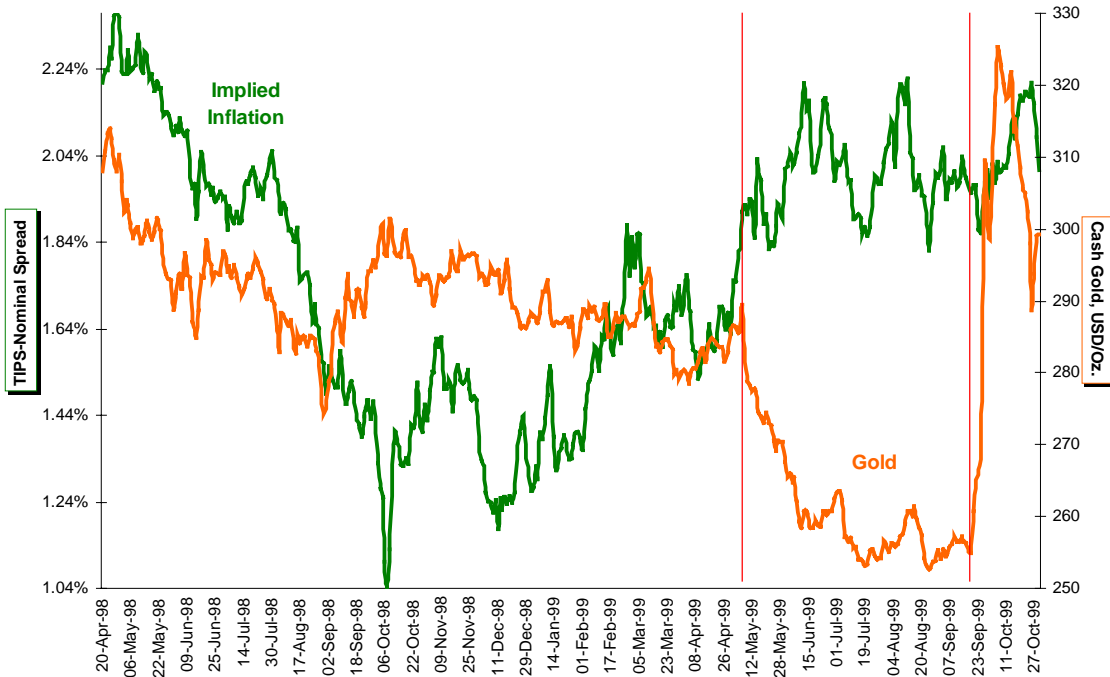
Nominal Bond Yields As A Function of Implied Inflation



As Good As Gold?

How well has this implied inflation measure been confirmed by the price of gold, a commodity whose price should rise only when the expected rate of inflation exceeds the short-term interest rate holding cost, a condition that has not even come close to being realized over the period in question?

Implied Inflation And Gold Prices

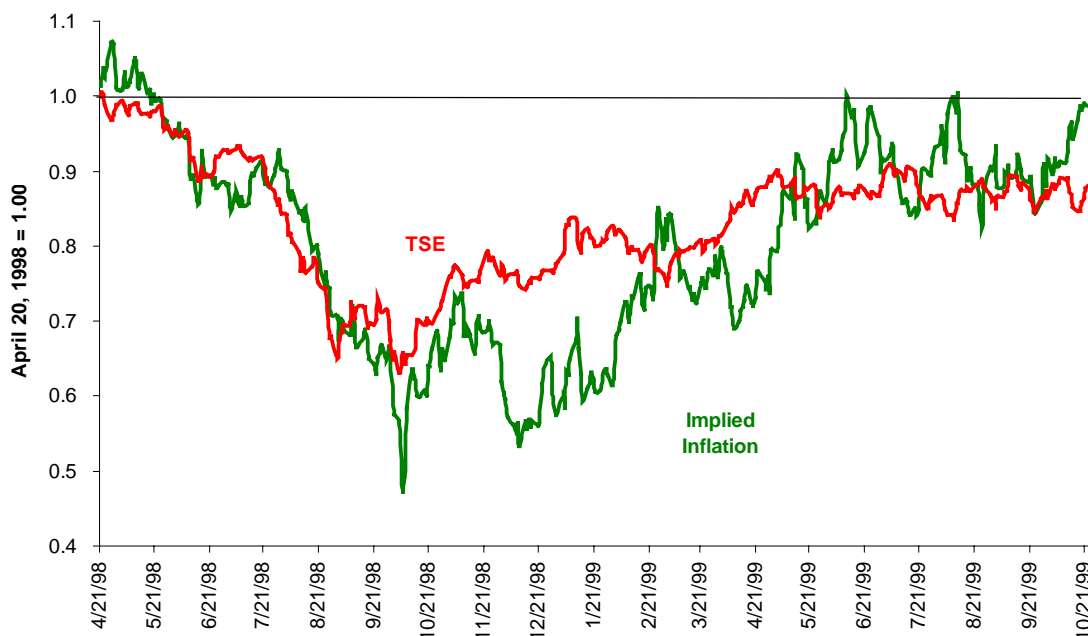


First, the sharp drop in inflationary expectations seen between April and October 1998 not only failed to dent the price of gold, but the relationship actually became inverse during the September-October financial crisis as gold apparently recovered some of its historic role as a safe haven during times of crisis. Second, the increase in inflationary expectations over the October 1998 - May 1999 period coincided with steady erosion in gold prices. Third, the highlighted period between May and September 1999 saw rising inflationary expectations along with gold prices falling under the weight of European central bank gold sales. Finally, in October 1999, both gold and inflationary expectations appeared to be finding a more stable trading ranges. In other words, the relationship between gold and inflationary expectations over this period appears to be nothing but a series of special cases, and thus of limited utility as a trading indicator -- not what any gold bug emerging from hiding would have predicted.

Canadian Hard Assets

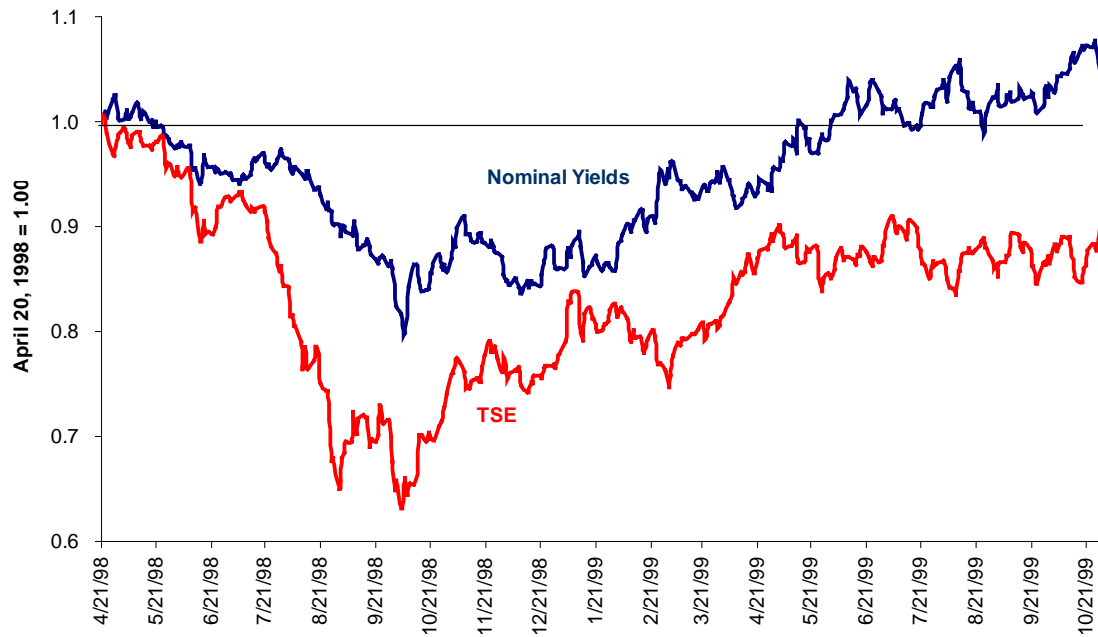
A financial asset linked to commodity prices and inflationary expectations might prove to be an interesting trading vehicle. About 35% of Canada's exports are linked to the prices of natural resources, and nearly 30% of the valuation of the Toronto Stock Exchange (TSE) 300 index is resource-linked as well. The relative performance of the TSE 300 converted to U.S. dollars and implied inflation in the U.S. over the past year and one-half is telling.

**Relative Performance
TSE 300 And Implied Inflation**



The TSE started to decline slightly ahead of the implied inflation rate in the U.S. in 1998. During the fall and winter of 1998-1999, the TSE remained firm even as implied inflation in the U.S. declined. By the late spring of 1999, the TSE entered a trading range that predated the stabilization in the implied inflation rate in the U.S. The data suggest a leading relationship between Canadian stock prices and U.S. inflationary expectations, which in turn suggests a leading relationship to U.S. bond yields, a relationship depicted below.

Relative Performance TSE 300 And Nominal Bond Yields



Connections

By examining implied inflation, its strong inverse link to bond yields, and its weak link to gold prices, we uncovered a strong link between implied inflation and resource-based equities. This in turn uncovered a strong link between good performance by Canadian stocks and subsequent weakness in long-term U.S. Treasuries. We'll visit some other connections at a later date.