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CAMBRIDGE ASSOCIATES LLC

# U.S. MARKET COMMENT

# TIPS REVISITED

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**TIPS Revisited**

In theory, we are quite fond of Treasury Inflation-Protected Securities (TIPS). That said, the precipitous drop in real yields lately has prompted us to take a fresh look at this relatively new asset class. What we found was something of a surprise; in a nutshell, while real yields are low relative to recent history, they are actually right in line with long-term historical real bond returns. While this does not necessarily mean real yields are attractive at current levels, it *does* indicate concerns over the recent drop in real yields may be misplaced. TIPS' *relative* attractiveness is also enhanced by the *un*attractiveness of many competing asset classes such as REITs and nominal bonds, while their low correlation with other financial assets and value as an inflation hedge are likely to make them attractive to many investors even when real yields are quite low.

Still, it is difficult to ignore the plunge in real yields over the past few years (see Table A). While the data prior to 1997 is a Bridgewater Associates' construct rather than actual data, real yields are clearly at levels not seen in quite some time. As a practical matter, TIPS seem an expensive inflation hedge at the moment given real rates of 1.6% and the asset class' relatively low inflation beta. However, investor perceptions that rates are low on an historical basis are mistaken. Although the real return on long-term U.S. government bonds has averaged 6.7% annually since 1980, during the preceding 80 years investors earned an average annual real return of only 0.4% (see Table B), and so one could argue that investors should not expect real returns much in excess of the 1.6% implicit in current TIPS yields.

Much of the recent decline in yield appears to have been driven by increased demand, which is somewhat paradoxically being driven by increased issuance. As the market for TIPS gets deeper and more liquid (according to the New York Fed, daily TIPS volume now tops $4 billion), more institutional investors are attracted to the market. Put simply, while issuance is exploding,[1] institutional and retail demand seems to be rising even faster.

Demand is also being driven by increased inflation fears, due largely to soaring commodity prices and Federal Reserve promises to keep short rates low for the foreseeable future. As a result, break-even inflation spreads between real and nominal yields have widened over the past year, decreasing (but not eliminating) TIPS' appeal relative to nominal Treasuries. With ten-year TIPS now pricing in inflation expectations of 2.48% relative to ten-year Treasuries, we continue to believe TIPS are inexpensive relative to nominal Treasury bonds.[2]

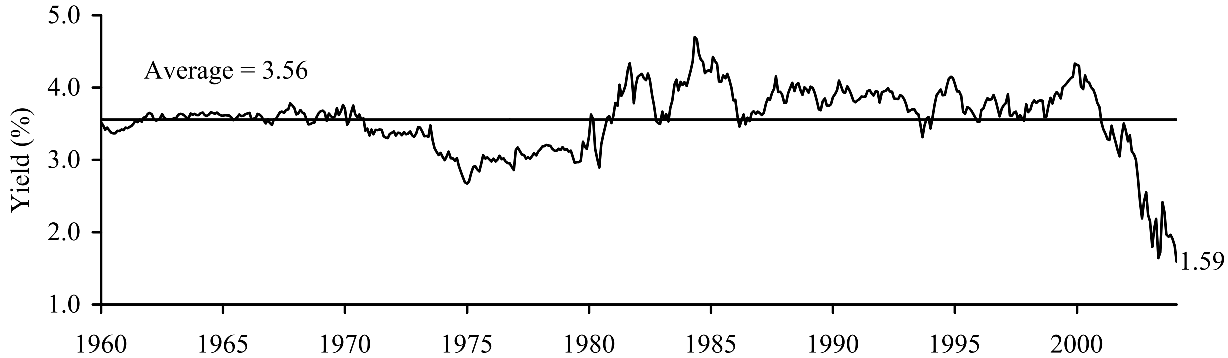
[1] The TIPS market is currently about $220 billion, and the Treasury is expected to issue $60 billion more this year, perhaps adding a 20-year and/or five-year maturity to the mix.
[2] As mentioned in Notes on Current Valuations (199x), since 1900, the annual inflation rate for every ten-year period has averaged 3.2%, and since the decade ending in 1941 has exceeded 2.48% in every rolling ten-year period but 14 (periods ended 1957-68 and 2002-03).

## Table A

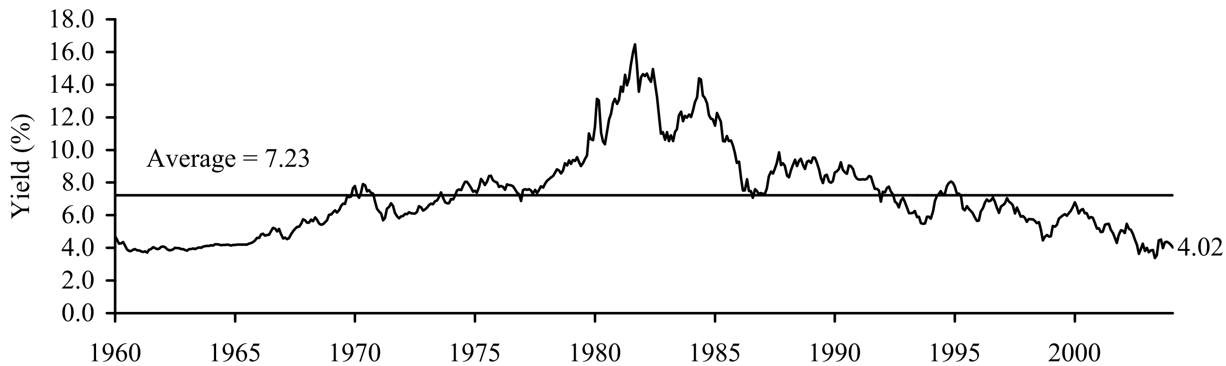
## NOMINAL AND REAL 10-YEAR TREASURY YIELDS AND INFLATION

### January 31, 1960 - February 29, 2004

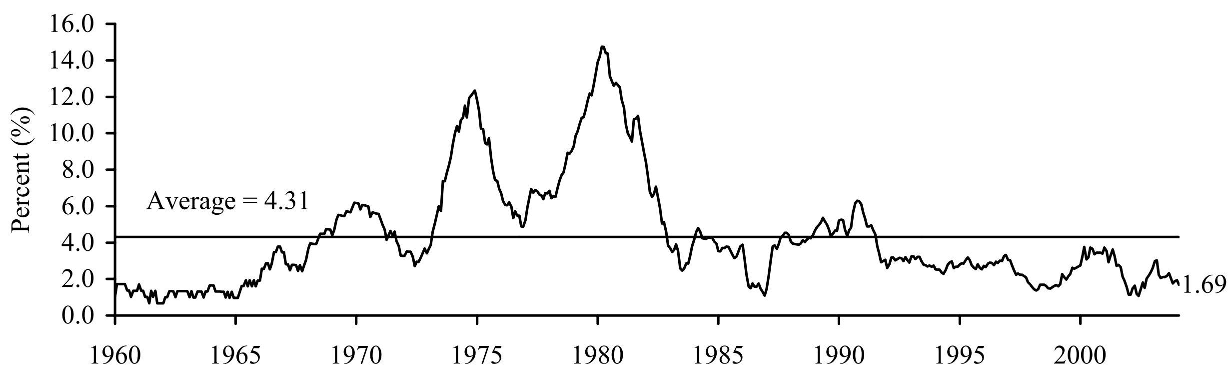
**Real Yields**




**Nominal Yields**




**12-Month Trailing Inflation Rate**




Sources: Bridgewater Associates and Bureau of Labor Statistics.

## Table B

### REAL RATES OF RETURN, INFLATION AND BOND MATURITY PREMIUM OVER VARIOUS PERIODS

| | | 1900 | 1910 | 1920 | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2004 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1900 | | -1.90 | -2.00 | -1.00 | 0.30 | 0.80 | 0.40 | 0.00 | -0.10 | 0.30 | 0.60 | 0.90 | |
| | 1910 | 1.70 | | -2.10 | -0.50 | 1.10 | 1.50 | 0.80 | 0.30 | 0.10 | 0.50 | 0.90 | 1.20 | |
| | 1920 | -1.50 | -4.50 | | 1.20 | 2.70 | 2.80 | 1.60 | 0.80 | 0.50 | 0.90 | 1.30 | 1.60 | |
| | 1930 | 1.30 | 1.10 | 7.00 | | 4.30 | 3.60 | 1.70 | 0.70 | 0.40 | 0.90 | 1.30 | 1.60 | |
| | 1940 | 2.70 | 3.00 | 7.00 | 7.10 | | 2.80 | 0.40 | -0.50 | -0.60 | 0.20 | 0.80 | 1.20 | Bond |
| Real Bonds | 1950 | 1.70 | 1.70 | 3.90 | 2.40 | -2.10 | | -1.90 | -2.10 | -1.70 | -0.40 | 0.40 | 0.90 | Maturity |
| | 1960 | 1.10 | 0.90 | 2.30 | 0.80 | -2.10 | -2.20 | | -2.30 | -1.50 | 0.10 | 1.00 | 1.50 | Premium |
| | 1970 | 0.80 | 0.60 | 1.70 | 0.40 | -1.80 | -1.60 | -1.00 | | -0.70 | 1.30 | 2.10 | 2.70 | |
| | 1980 | 0.40 | 0.30 | 1.10 | -0.10 | -1.80 | -1.70 | -1.40 | -1.70 | | 3.40 | 3.60 | 4.20 | |
| | 1990 | 1.20 | 1.10 | 1.90 | 1.10 | 0.00 | 0.50 | 1.40 | 2.60 | 7.20 | | 3.70 | 4.80 | |
| | 2000 | 1.60 | 1.60 | 2.40 | 1.80 | 0.90 | 1.50 | 2.40 | 3.60 | 6.40 | 5.70 | | 7.50 | |
| | 2004 | 1.90 | 1.90 | 2.70 | 2.10 | 1.30 | 2.00 | 3.00 | 4.20 | 6.70 | 6.40 | 8.03 | | |

| | | 1900 | 1910 | 1920 | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2004 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1900 | | 1.00 | 4.10 | 2.40 | 1.20 | 2.10 | 2.10 | 2.10 | 2.80 | 3.00 | 3.00 | 3.00 | |
| | 1910 | 3.70 | | 7.30 | 3.10 | 1.30 | 2.30 | 2.30 | 2.30 | 3.00 | 3.30 | 3.30 | 3.20 | |
| | 1920 | 0.60 | -2.50 | | -1.00 | -1.50 | 0.70 | 1.10 | 1.40 | 2.40 | 2.70 | 2.80 | 2.70 | |
| | 1930 | 2.30 | 1.60 | 5.80 | | -2.00 | 1.60 | 1.80 | 2.00 | 3.00 | 3.40 | 3.30 | 3.30 | |
| | 1940 | 2.40 | 1.90 | 4.20 | 2.70 | | 5.40 | 3.80 | 3.40 | 4.40 | 4.50 | 4.20 | 4.10 | |
| Real Bills | 1950 | 0.90 | 0.20 | 1.10 | -1.10 | -4.70 | | 2.20 | 2.40 | 4.00 | 4.30 | 4.00 | 3.90 | Inflation |
| | 1960 | 0.70 | 0.10 | 0.80 | -0.90 | -2.60 | -0.30 | | 2.50 | 4.90 | 5.00 | 4.50 | 4.30 | |
| | 1970 | 0.80 | 0.30 | 0.90 | -0.30 | -1.30 | 0.50 | 1.30 | | 7.40 | 6.20 | 5.10 | 4.80 | |
| | 1980 | 0.60 | 0.10 | 0.60 | -0.40 | -1.20 | 0.00 | 0.20 | -1.00 | | 5.10 | 4.00 | 3.70 | |
| | 1990 | 0.90 | 0.60 | 1.00 | 0.20 | -1.30 | 0.90 | 1.30 | 1.30 | 3.60 | | 2.90 | 2.70 | |
| | 2000 | 1.00 | 0.70 | 1.10 | 0.50 | 0.10 | 1.10 | 1.50 | 1.50 | 2.80 | 1.90 | | 2.30 | |
| | 2004 | 1.00 | 0.70 | 1.10 | 0.50 | 0.10 | 1.10 | 1.40 | 1.40 | 2.40 | 1.60 | 0.80 | | |

Sources: ABN-AMRO and *Triumph of the Optimists: 101 Years of Global Investment Returns* (Dimson, Marsh and Staunt).

Note: Data for 2004 are year-to-date through February 29.