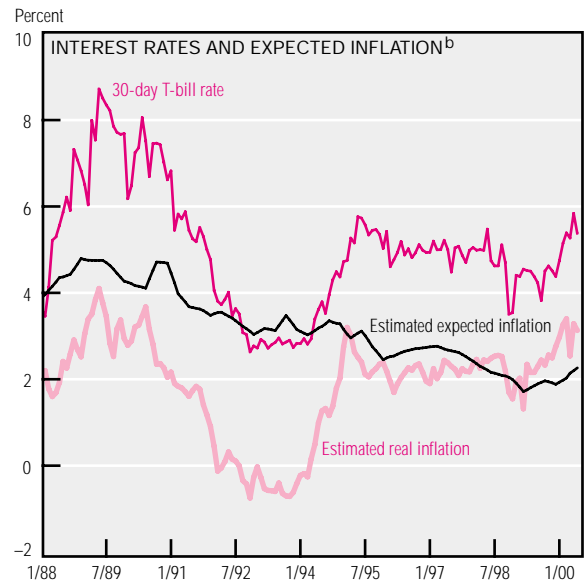
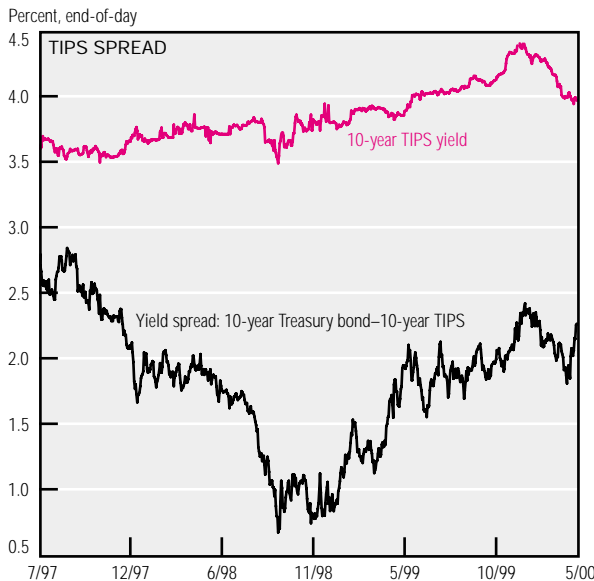
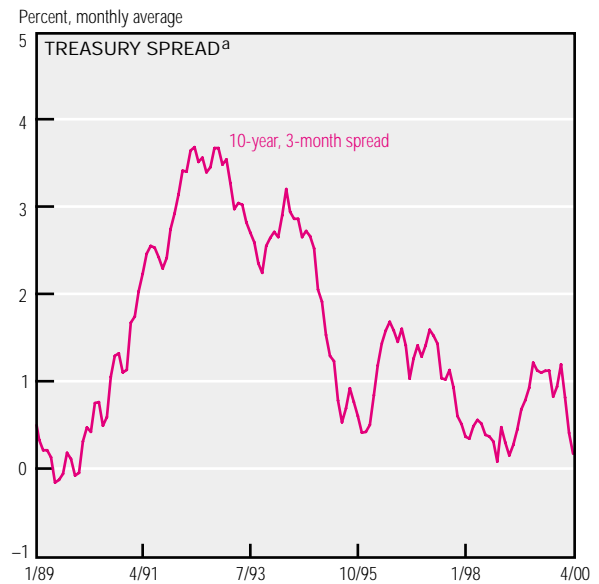
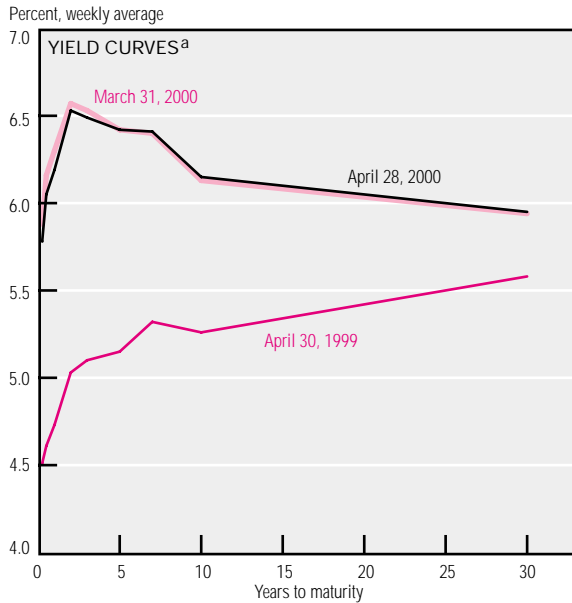


# Interest Rates



a. All yields are from constant-maturity series.

b. The estimated expected inflation rate and the estimated real rate are calculated using the Pennacchi model of inflation estimation and the median forecast for the GDP implicit price deflator from the *Survey of Professional Forecasters*. Monthly data.

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*; and Bloomberg Financial Information Services.

Do interest rates tell us if inflation—or expected inflation—has increased? One approach is to look at the slope of the yield curve, noting that higher expected inflation will increase long-term interest rates. There has not been much movement in either short- or long-term rates since last month, though both have moved higher since last year, short rates more so. This is confirmed by the 10-year, 3-month spread, now down to 37 basis points from 75 bp at the same time

last year. While consistent with a story about inflation fears increasing long rates, leading to a Federal Reserve response that increases short rates, the term spread is an unreliable predictor of future inflation, confounding as it does a variety of real factors.

A different spread gives a more direct view of inflationary expectations. Since much of the difference between nominal and real interest rates is expected inflation, the spread between the yields on nominal Treasury bonds and the yields

on Treasury inflation-protection securities (TIPS) measures the market's inflation expectation. That spread has been rising recently, from 1.85% on April 14 to 2.26% on April 28.

Lastly, a more sophisticated, if somewhat stylized, measure comes from combining market rates with survey forecasts of inflation to produce estimates of expected inflation and real interest rates, though for a much shorter maturity (30 days) than the TIPS yield. This number has also moved up.