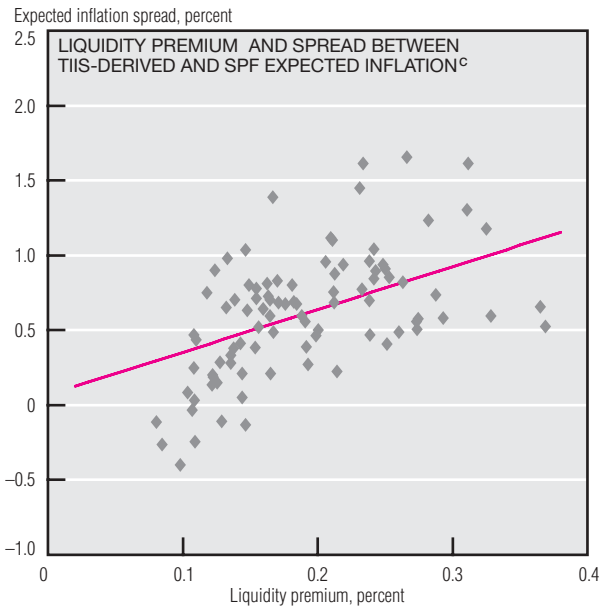
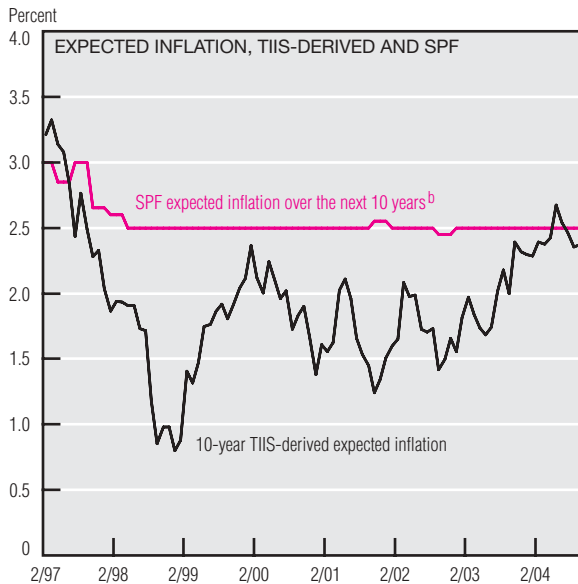
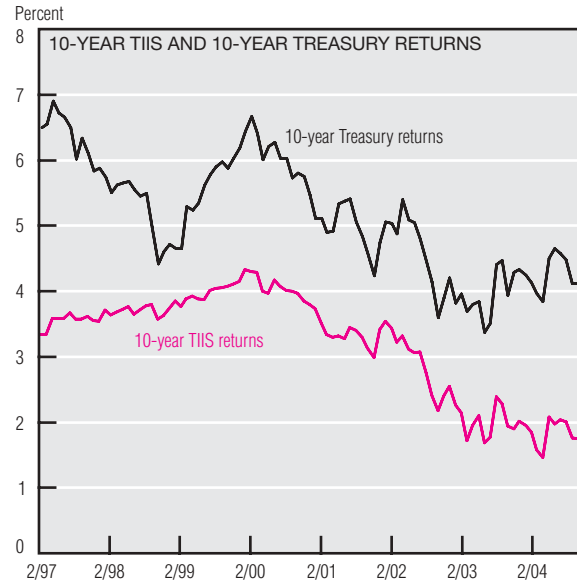


Expected Inflation and the TIPS Market



- a. Mean expected change in consumer prices as measured by the University of Michigan's *Survey of Consumers*.
 b. Median expected change in CPI as measured by the Federal Reserve Bank of Philadelphia's *Survey of Professional Forecasters* (SPF).
 c. Liquidity premium is calculated as the difference between yields of on-the-run versus off-the-run conventional Treasuries, using data from the Board of Governors.
 SOURCES: Board of Governors of the Federal Reserve System; Federal Reserve Bank of Philadelphia; University of Michigan; and Bloomberg Financial Information Services.

Ascertaining long-term inflation expectations is notoriously difficult. Survey measures are available but not necessarily reliable. When surveyed, households report that they expect inflation to register 3.1% over the next five to 10 years. But the Survey of Professional Forecasters indicates that they expect inflation to register only 2.5% over the next 10 years. Households' inflation expectations, in fact, are consistently about 50 basis points (bp) higher than professional forecasters'.

Treasury Inflation-Indexed Securities (TIPS), introduced in 1997, promised

investors a real return without the inflation premium present in ordinary Treasury notes. In principle, subtracting TIPS from nominal T-notes of the same maturity should give economists a market-based measure of expected inflation, but these securities have not achieved that goal. Expected inflation from the TIPS market has tended to be around 50 bp lower than professional forecasters' expectations and a full percentage point lower than households'.

One reason expected inflation from TIPS data might underestimate actual expected inflation is that the

market for TIPS is less liquid than other government bonds; thus, their real returns are overstated. It is difficult to estimate the magnitude of the liquidity premium, which probably varies over time. Fortunately, there is a measure of the liquidity premium for T-notes; it is their on-the-run/off-the-run spread, which may be correlated with the liquidity premium in the TIPS market. Indeed, this appears to be so. This premium is highly correlated with the difference between Blue Chip forecasts of expected inflation and those derived from the TIPS market.