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Extracting Inflation Expectations from Bond Yields

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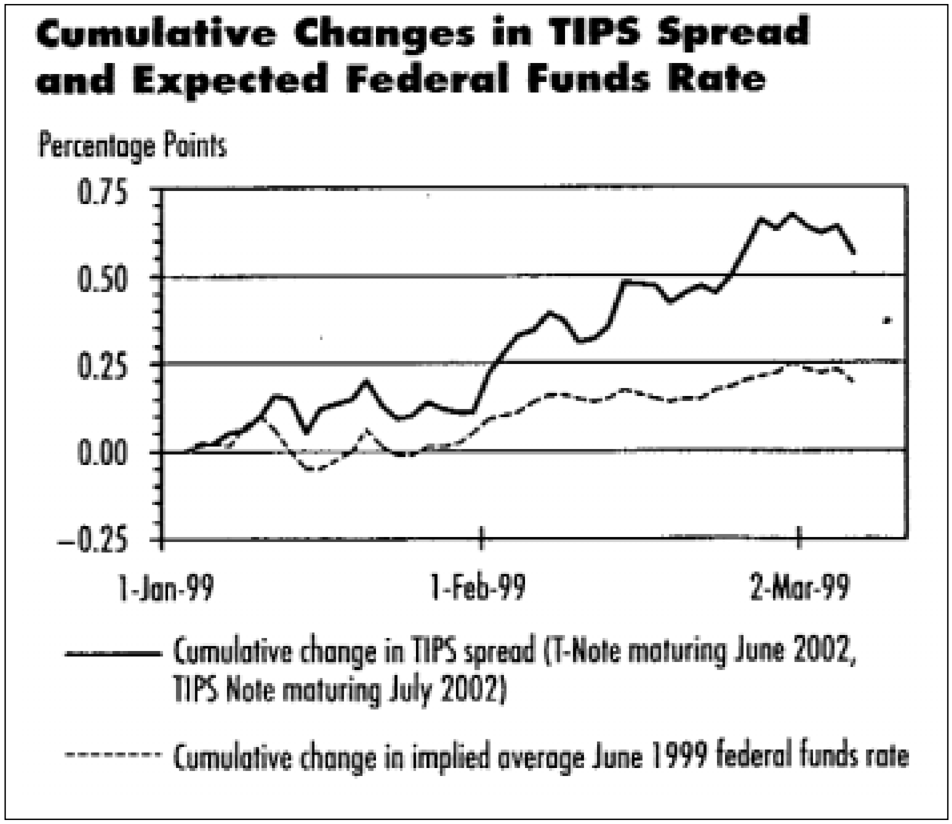

The yield difference between a conventional (nominal) Treasury bond and a Treasury Inflation Protected Security (TIPS, or indexed bond) with approximately the same maturity date sometimes is called the TIPS spread. This spread corresponds to the average annual inflation premium demanded by investors for holding a nominal bond. In principle, the inflation premium is the sum of expected inflation over the remaining life of the nominal bond plus any risk or liquidity premiums (or discounts) it contains. Most economists believe that the sum of the inflation-risk and liquidity premiums or discounts normally is positive, so nominal yields are higher than the simple sum of the comparable indexed (real) yield and the expected inflation rate. Therefore, the nominal vs. indexed spread we observe probably represents an upper bound on the market's inflation expectations.

The chart plots the cumulative change in the market yield spread between a Treasury note maturing in June 2002 and a TIP security maturing in July 2002. Between Jan. 1, 1999, and March 5, 1999, this spread rose more than one-half percentage point. This increase suggests that the market's expectation of average inflation over the next three and a half years has increased by as much as one-half percentage point per year. Of course, the expanding spread also could be due, in part, to a rise in the inflation risk premium demanded by holders of nominal securities or to a decline in the illiquidity premium applied to TIPS.

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What do market participants expect the Federal Reserve to do about this apparent rise in medium-term inflationary expectations? A market-based indicator of expectations of future monetary policy is the implied future yield on federal funds taken from the federal funds futures market. This market trades contracts that pay off according to the average federal funds rate that actually occurs over the course of a future month. A period of generally rising implied federal funds rates in this market indicates that investors are upwardly revising their forecasts of this rate.

We can infer from changes in implied average federal funds rates expected during June 1999 (see chart) that market participants have begun to anticipate a slightly higher federal funds target rate within the next few months. Nevertheless, the rising TIPS spread suggests that the market does not believe monetary policy will be tightened enough to prevent higher inflation in the near future.