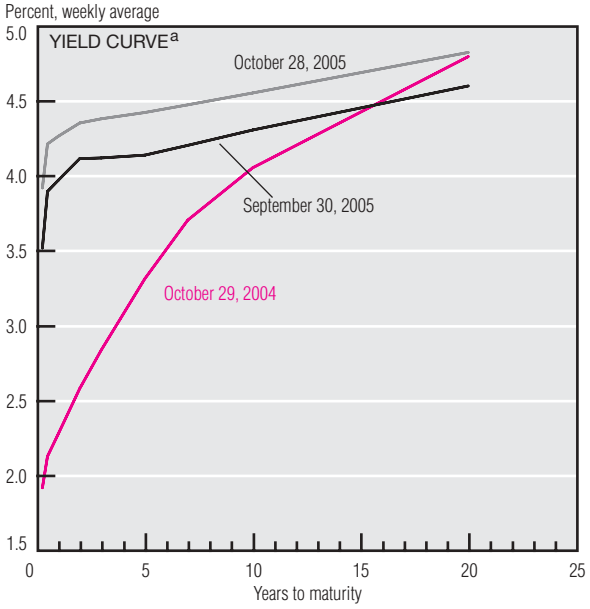
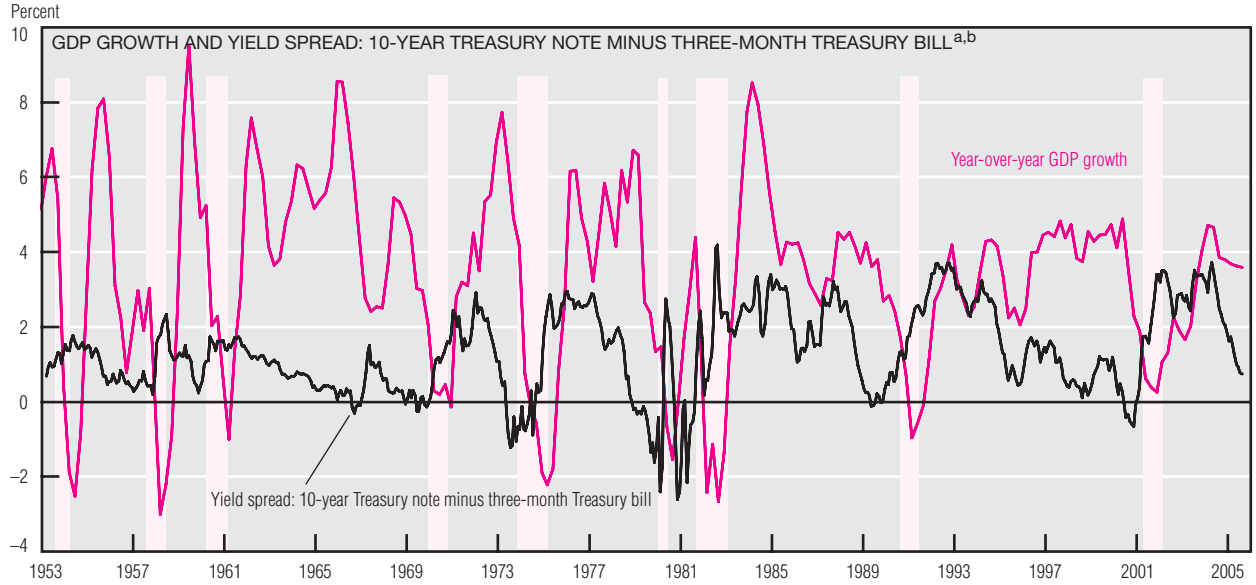
Money and Financial Markets





a. All yields are from constant-maturity series.
b. Shaded bars indicate periods of recession.
SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; and Bloomberg Financial Information Services.

The federal funds rate directly affects only the reserve desks of banks and a few brokers and dealers; however, as a transmitter of Federal Reserve policy, it influences other rates of wider concern. Rates such as mortgages and corporate bonds have generally followed long-term Treasuries. The spread between mortgages and Treasuries has been virtually unchanged, barely rising from 161 bp to 164 bp over the past year. Corporate bonds have not risen quite so fast; their spread to Treasuries has dropped from 210 bp to 175 bp.

The yield curve, which records changes in the spectrum of long- and short-term rates, has been flattening since last year: Although both short and long rates have risen (except the 20-year rate), the long rates have not kept pace with the short ones. This has reduced the spread between 10-year and three-month Treasuries from historical highs approaching 4.0% to less than 1.0%, which is below the historical average.

The slope of the yield curve is widely regarded as a recession predictor, with an inverted yield curve (short rates above long rates) indicating a recession and, conversely, a steep curve indicating strong growth. One measure of slope, the spread between 10-year bonds and three-month T-bills, bears out this relation. Although the spread remains positive, its low level suggests slower-than-average growth.

Another intriguing—if lesser-known—relation with the real

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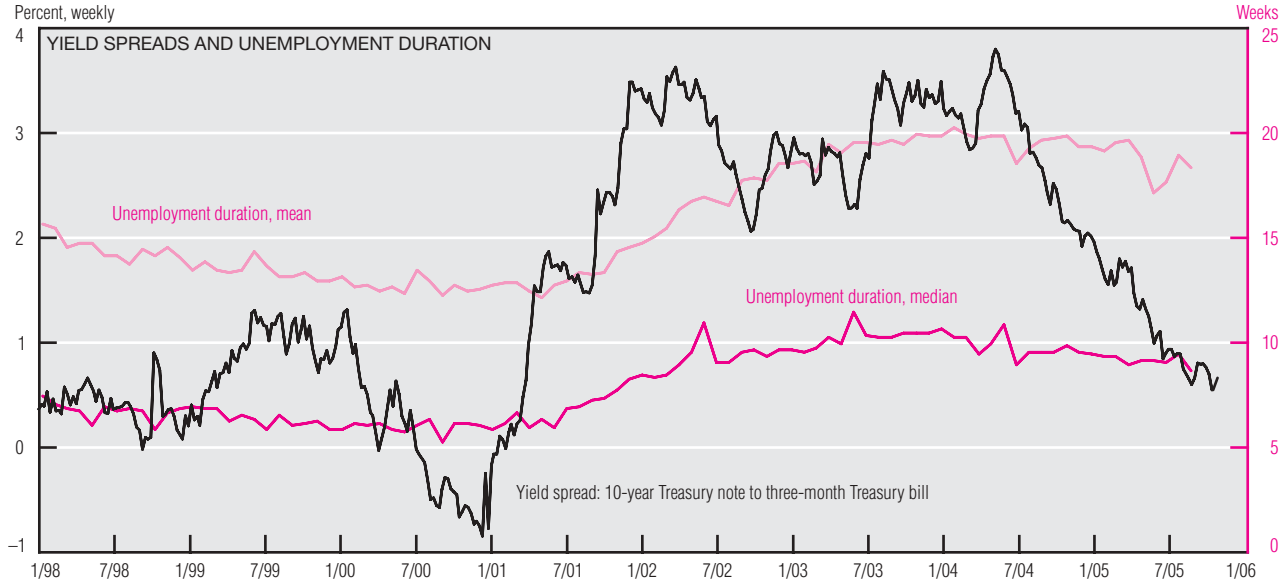
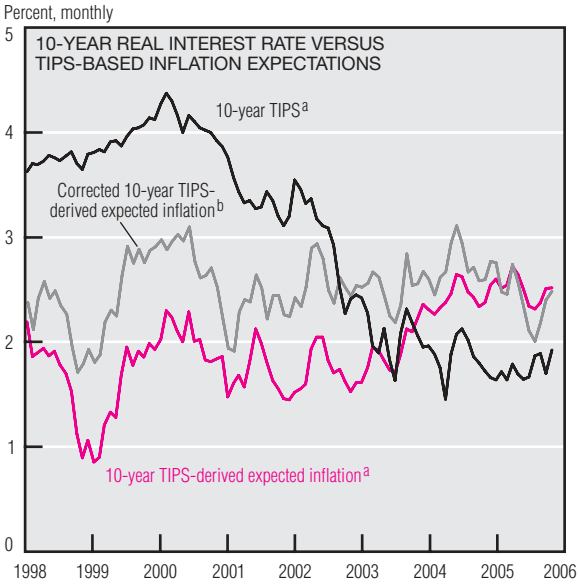
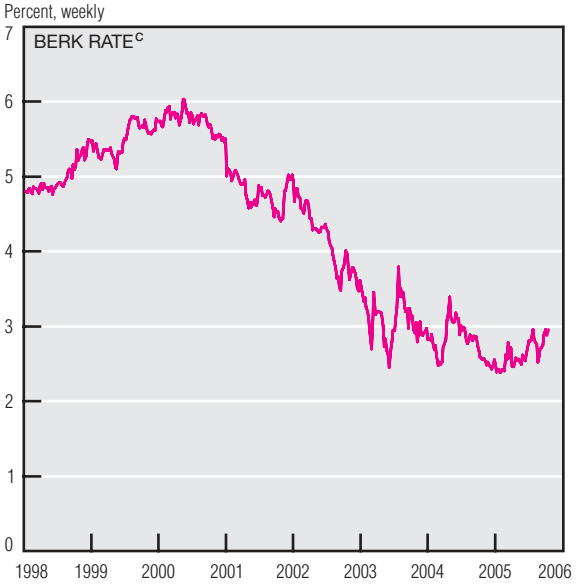
Money and Financial Markets (cont.)







a. Treasury inflation-protected securities.
b. 10-year TIPS-derived expected inflation adjusted for the liquidity premium on the market for 10-year Treasuries.
c. The Berk rate is calculated as the 30-year Government National Mortgage Association yield plus the 10-year TIPS yield minus the 10-year Treasury yield.
SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; and Bloomberg Financial Information Services.

economy involves the slope of the yield curve (again represented by the 10-year three-month spread) and the duration of periods of unemployment. A very flat or inverted yield curve seems to signal that unemployment duration will soon increase. Does the current flattening of the yield curve presage a downturn with longer duration? It is too early to tell although, as in the case of the yield spread and economic growth, the news is somewhat discouraging.

The interest rates in the yield curve represent the interplay between two distinct forces: real interest rates and inflation. Sometimes the underlying dynamics can be gauged by looking at these components separately. One way to separate the two is to compare the rate on Treasury inflation-protected securities (TIPS), which measures the real rate, with ordinary nominal bond rates, which contain a premium for expected inflation. Long-term real rates have held relatively steady in 2005, although the current level of 1.91% is near the yearly high.

The Berk rate, an alternative measure of the real rate, which adjusts for the firm's ability to delay investment, shows a similar pattern. Expected inflation, running at 2.5%, has remained in the same range as in the past two years, though up a bit from early 2005.

Whereas the real and expected inflation rates derived from TIPS are used to estimate long-term rates, expectations regarding shorter-term real inflation rates can be gauged by

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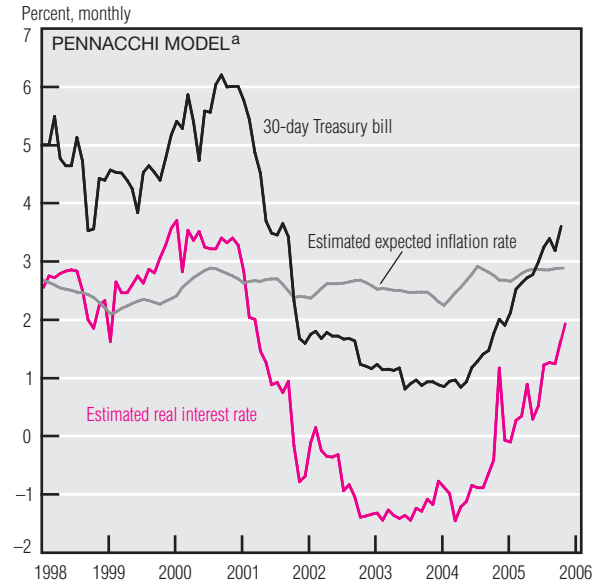

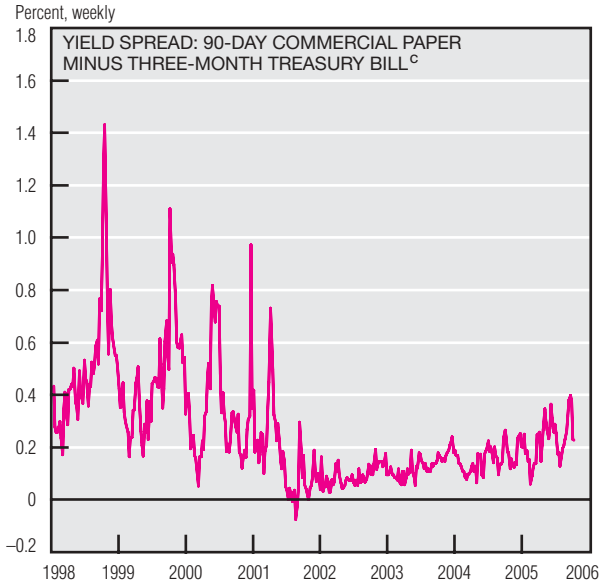

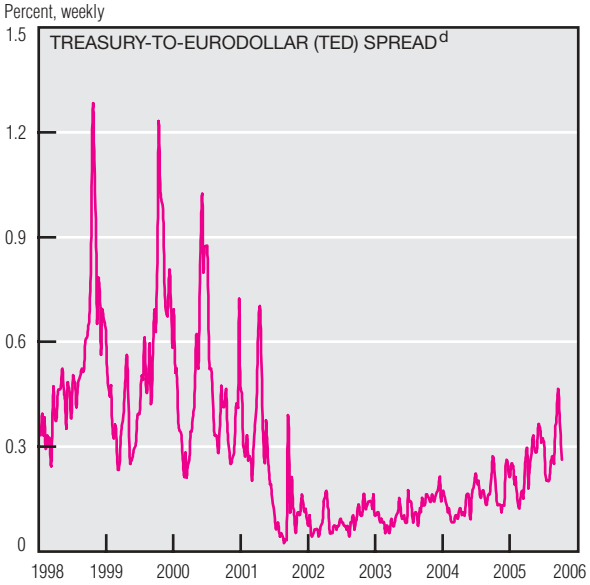

a. The estimated expected inflation rate and the estimated real interest rate are calculated using the Pennacchi model of inflation estimation and the median forecast for the GDP implicit price deflator from the *Survey of Professional Forecasters*. Monthly data.
b. Merrill Lynch AA and BBB indexes, each minus the yield on the 10-year Treasury note.
c. All yields are from constant-maturity series.
d. Yield spread: three-month Eurodollar deposit minus the three-month, constant-maturity Treasury bill.
SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; Federal Reserve Bank of Philadelphia; The *Wall Street Journal*; and Bloomberg Financial Information Services.

combining 30-day T-bill rates with survey measures of inflation. The one-month measure, originally developed by George Pennacchi, has risen recently; however, at 2.84%, it is still in the 2.0%–3.0% band it has occupied since 1998.

In addition to spreads between bonds of different maturities, or between real and nominal bonds, useful information can also be gathered from the spread between safe and risky bonds. Such spreads have generally been creeping up. Although they remain well below the levels of several years ago, spreads between BBB corporate bonds and 10-year Treasuries rose from 93 bp in January to 129 bp at the beginning of November. The more volatile short spread between 90-day commercial paper and three-month T-bills has returned to its earlier levels, changing from 195 bp to 211 bp over the same period.

Another closely watched risk spread is that between three-month Eurodollar deposits and the three-month T-bill rate (the TED spread). As the difference between two dollar-denominated interest rates based in different countries, it measures international financial risk while avoiding exchange rate uncertainty. Though starting from a low level, the TED spread trended higher over the year, moving up to 29 bp, which suggests an uptick in market uneasiness about international conditions.