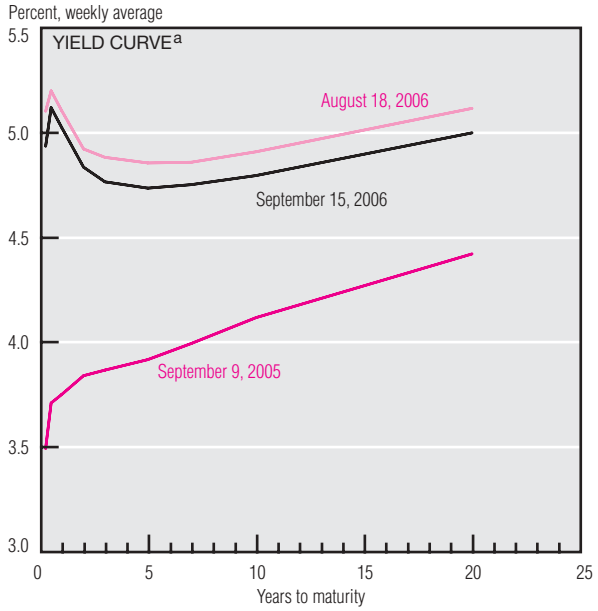
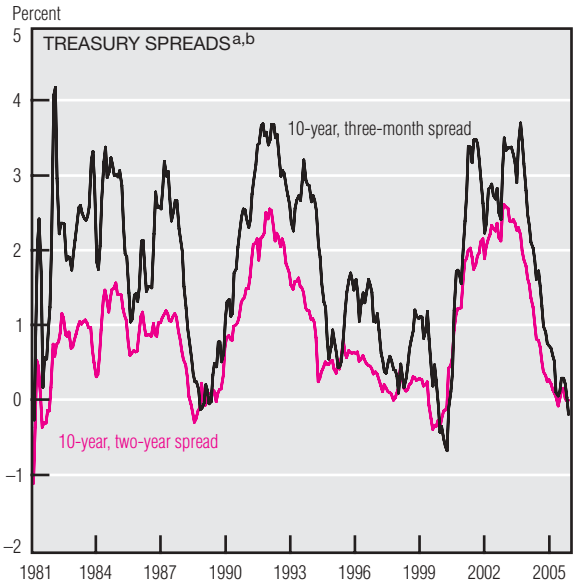
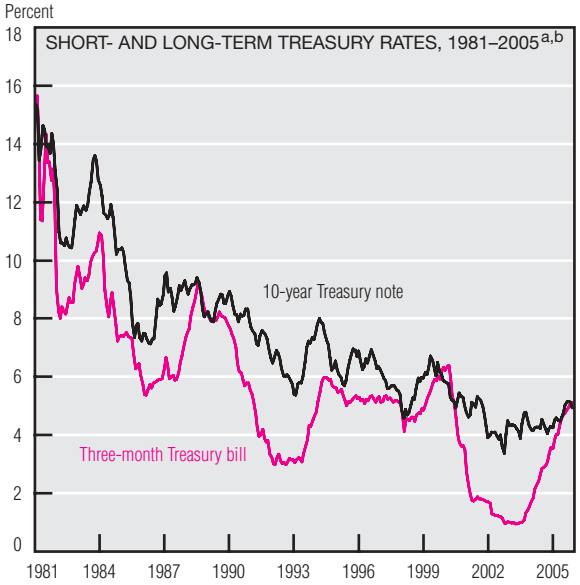
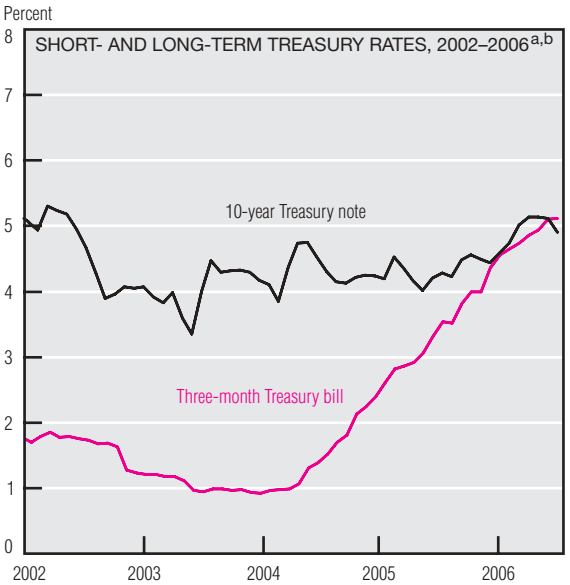
Money and Financial Markets









a. All yields are from constant-maturity series.
b. Monthly observations.
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; Federal Reserve Bank of Philadelphia; and Bloomberg Financial Information Services.

Interest rates have dropped slightly over the past month, but the yield curve continues its inversion (short rates higher than long ones), with a curious peak at the six-month maturity. Since last year, short rates have moved up substantially more than long rates, sending the 10-year, three-month and the 10-year, two-year spreads below zero. Because the yield curve frequently inverts before recessions (including the two most recent), a closer look at what's happening to the yield curve seems appropriate.

Most inversions are the result of short rates rising more rapidly than long rates, the brief 10-year, two-year inversion of late 1998 being an exception. In this respect, the recent period follows the traditional pattern. Usually, however, short and long rates both rise; it's just that short rates rise faster. The recent experience is unusual in that the monetary policy tightening that pushed short rates higher had little initial effect on long rates, a situation that some observers have called a conundrum. But a closer look shows that long rates have indeed risen in the past year, though not as fast as short ones. From January 2004 to June 2005, three-month yields rose from 0.90% to 3.04%, while 10-year yields fell from 4.15% to 4.0%. Since June 2005, three-month yields have moved up 205 basis points (bp) to 5.09%; 10-year yields have risen somewhat more slowly, up 88 bp to 4.88%.

One major factor in nominal interest rates is expected inflation. One way to get a market measure of inflation expectations is to compare the yields

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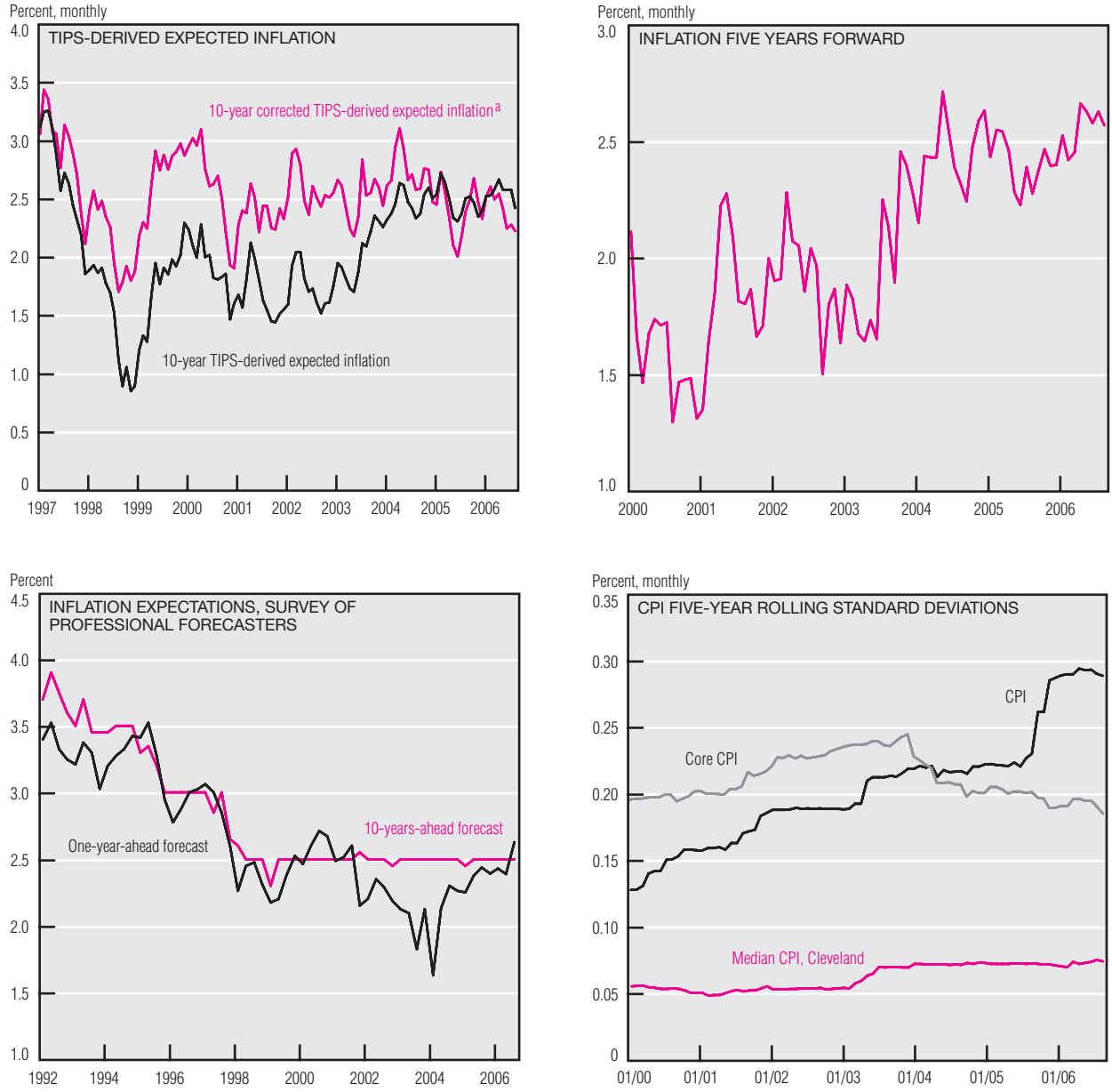

a. Expected inflation derived from 10-year Treasury inflation-protected securities (TIPS) adjusted for the liquidity premium on the market for 10-year Treasury notes.

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; Survey of Professional Forecasters; and Bloomberg Financial Information Services.

of nominal bonds to those of real bonds, such as Treasury inflation-protected securities (TIPS). The difference in yields (also called the break-even inflation rate) is an imperfect measure because it embeds the liquidity and tax differences between bonds; it nonetheless provides useful information. TIPS-based inflation expectations for the next 10 years have hovered around 2.5% in the past several years.

Using TIPS that have maturities of five and 10 years, we can also get a forward measure of inflation—what people expect inflation to be in five years. This too has bounced around the 2.5% level for the past several years, though it has moved upward since the middle of last year.

There also are more direct measures of inflation expectations, such as surveys. Long-term (10-year) expectations of inflation from the Survey of Professional Forecasters have hardly budged from the 2.5% mark since 1999. One-year forecasts, which show more movement, have returned to the 2.5% range after posting lower values in 2002–05.

Inflation itself does not always hold so steady. The standard deviation, which measures the variability of the inflation rate, shows a gradual upward trend for the CPI itself. The median CPI and the core CPI (which excludes food and energy) show flatter profiles.

The Treasury yield curve has been in the news, but other spreads can also convey information. Besides term spreads (between different maturities of the same sort of bonds), one can look at risk spreads (between

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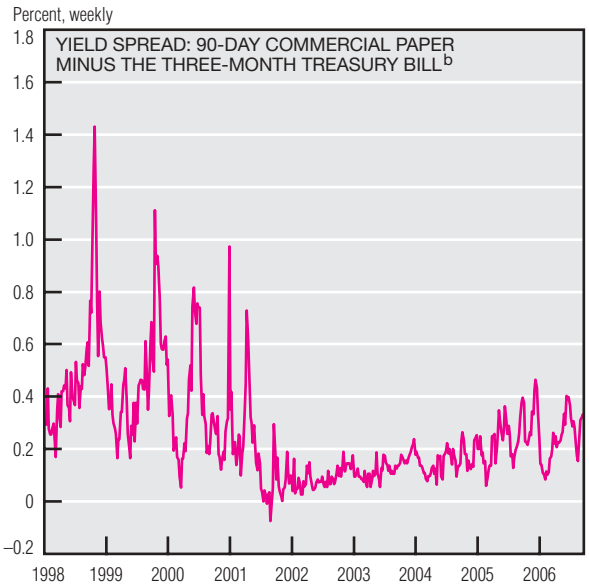
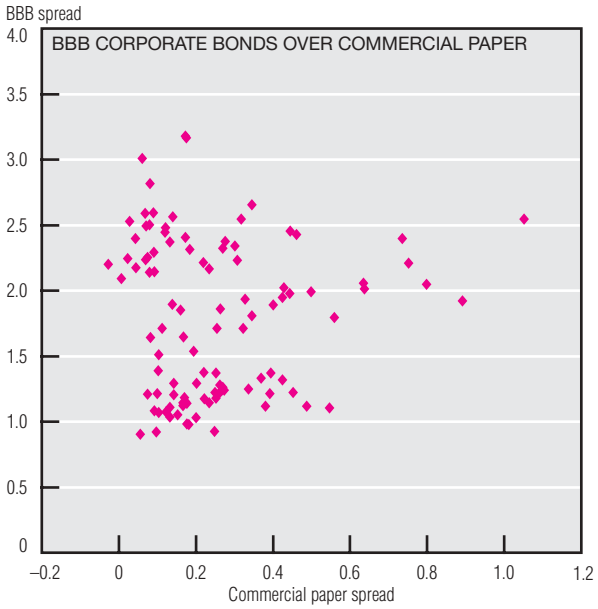
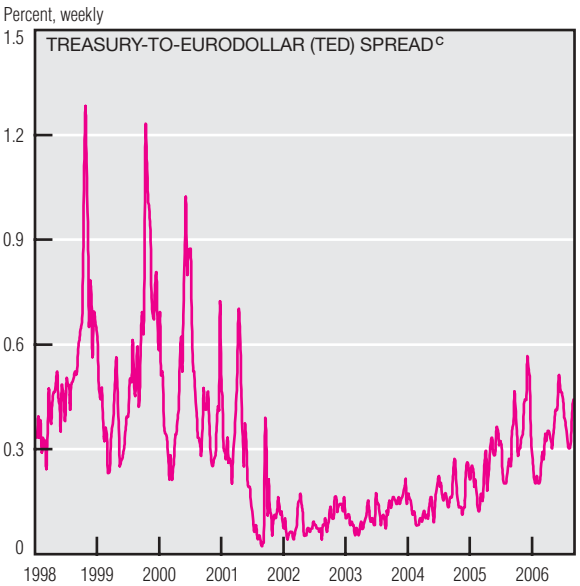
Money and Financial Markets (cont.)







a. Merrill Lynch AA and BBB indexes, each minus the yield on the 10-year Treasury note.
b. All yields are from constant-maturity series.
c. 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; and Bloomberg Financial Information Services.

different bonds of the same maturity). Because bankruptcies and insolvencies rise during recessions, an increase in the risk spread may warn of tough times ahead. Longer-term spreads (between corporate bonds and 10-year Treasury notes) have been creeping up over the past few years, with the AA spread rising from 48 bp in August 2003 to 82 bp currently, and the BBB spread rising from 95 bp in January 2004 to 137 bp as of September 21.

A shorter spread compares the rates on 90-day commercial paper and three-month Treasury bills. This spread has rebounded recently, nearly doubling since mid-August (from 17 bp to 33 bp). Though above the lows of 2001, the current level is far below the peaks of the past. The short and long spreads do not always agree on risk: The rates move together, but plotting one against the other shows that the connection is not lock-step: Both high and low bond spreads occur in times when commercial paper spreads are low, although high commercial paper spreads usually mean above-average bond spreads.

Another spread, particularly appropriate given the many foreign policy concerns existent today, is the Treasury-to-Eurodollar (TED) spread. As the spread between the rate on dollar-denominated deposits in Europe and Treasury yields, it provides a measure of international risk without the added uncertainty of exchange rate movements. Like the other risk spreads, it has trended upward but still indicates less risk than in the 1998–2001 period.