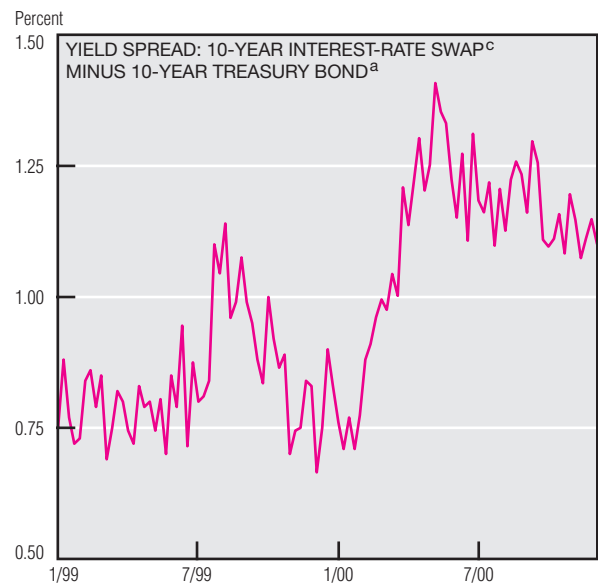
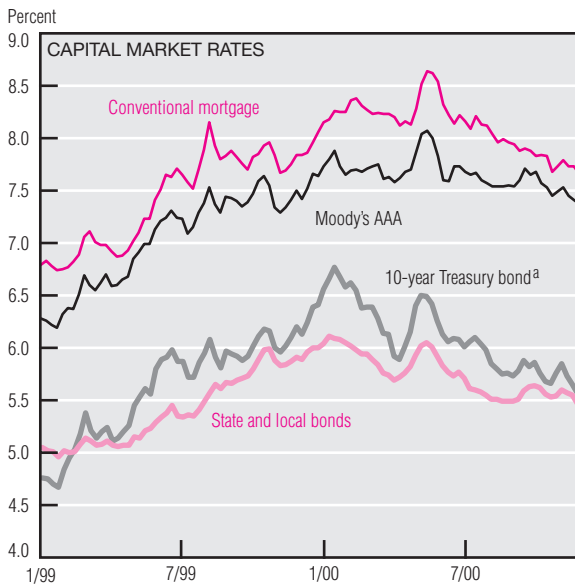
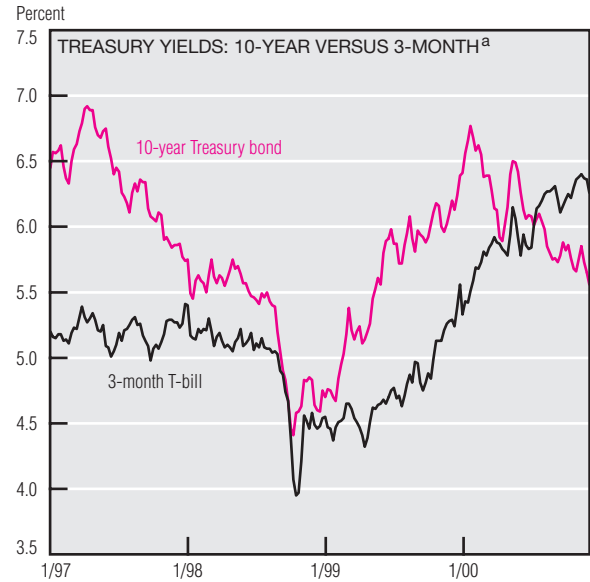
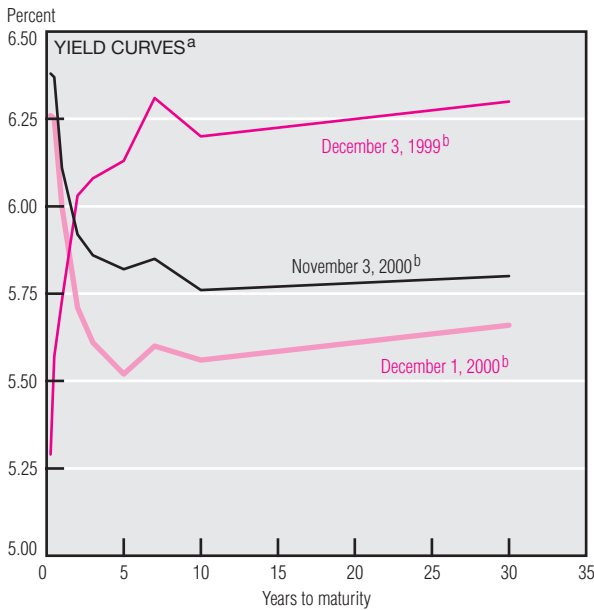


## Interest Rates



a. All yields are from constant-maturity series.

b. Average for the week ending on this date.

c. Quote for semiannually fixed rate versus the U.S. dollar's 3-month London interbank offered rate (LIBOR).

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

The yield curve remains inverted, having shifted down over the past month. The 3-year, 3-month spread has widened from -52 to -65 basis points (bp), and the 10-year, 3-month from -62 to -70 bp. During this inversion episode, long rates have fallen and short rates have risen. This behavior is more typical than the flattening seen in 1997-98, which was driven primarily by long-rate decreases that reflected an international flight to quality and dollars. Consequently, the current inversion may be more

reliable than the previous one as an indicator of an economic downturn.

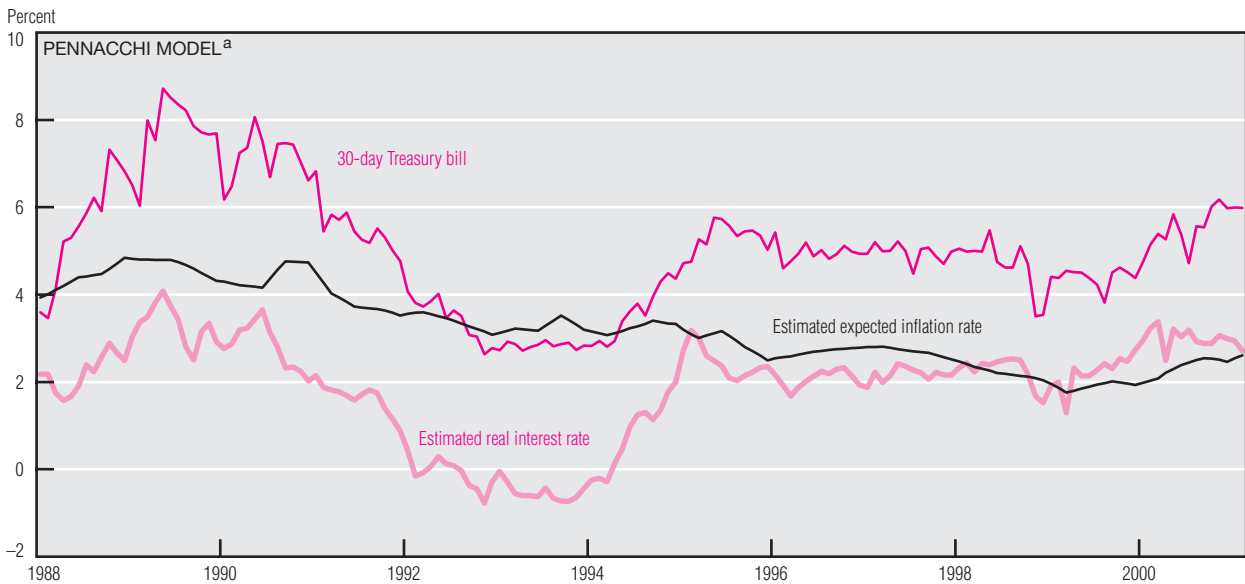
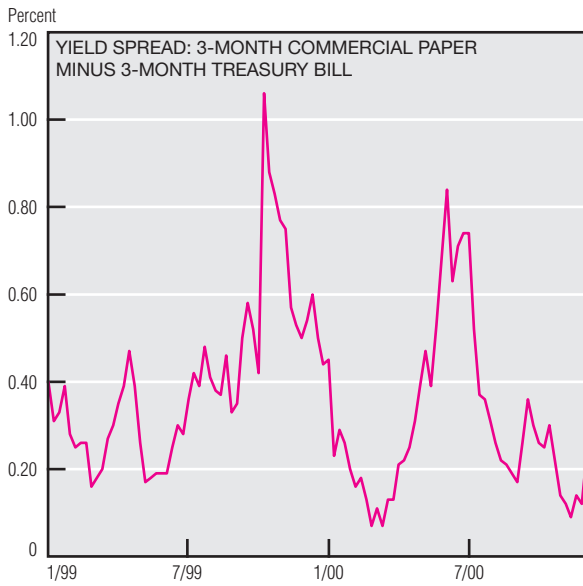
One possible problem with this story is that longer-term Treasury yields are falling because of supply concerns related to the U.S. budget surplus. Other long-term rates have also decreased but not as much as Treasuries. Ten-year Treasuries dropped a full 121 bp from January to now; the conventional mortgage rate fell only 61 bp. This suggests that at least part of the fall in long-dated Treasuries can be explained by supply

concerns. Of course, the risk of a slowdown would also be expected to increase the spread between mortgages and Treasury yields, since there is often a flight to quality that drives down the riskless Treasury yields.

The wider spread between interest-rate swaps and 10-year Treasuries is particularly apparent this year. Looking at the shorter end of the yield curve, however, spreads between risky and riskless securities do not seem to have increased noticeably. In fact, since midyear, the spread between 3-month

(continued on next page)

Interest Rates (cont.)



a. 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.

commercial paper and 3-month T-bills has dropped 59 bp, from 84 to 25. As usual, then, the long-bond market presents ambiguous evidence of a possible slowdown.

The yield curve can also be used to predict future inflation because higher prices eat away the real value of the bond and investors consequently demand a higher interest rate as compensation. One measure of inflationary expectations, the spread between nominal 10-year Treasury bonds and inflation-indexed bonds (TIIS), shows a gradual decrease of nearly 0.5 percentage point since the

beginning of the year. (Low spreads in late 1998 probably reflect the flight to liquidity associated with the Long Term Capital Management debacle rather than low inflation.) Because of differences in tax status and liquidity, this number should, as always, be treated with caution.

A shorter-term measure of expected inflation can be derived by constructing a statistical relation between surveys of inflation and market interest rates. In contrast to evidence from the long-term bond market, this measure has increased in 2000. Of course, the increase may

be consistent with longer-term expectations (aside from the usual problems of measurement error and the like), if people believe that in the longer run the Federal Reserve will move to rein in rising inflation.

On the flip side of inflation expectations are estimates of real interest rates. These appear to have fallen since spring, whether measured directly by Treasury inflation-indexed securities or estimated from the statistical model.