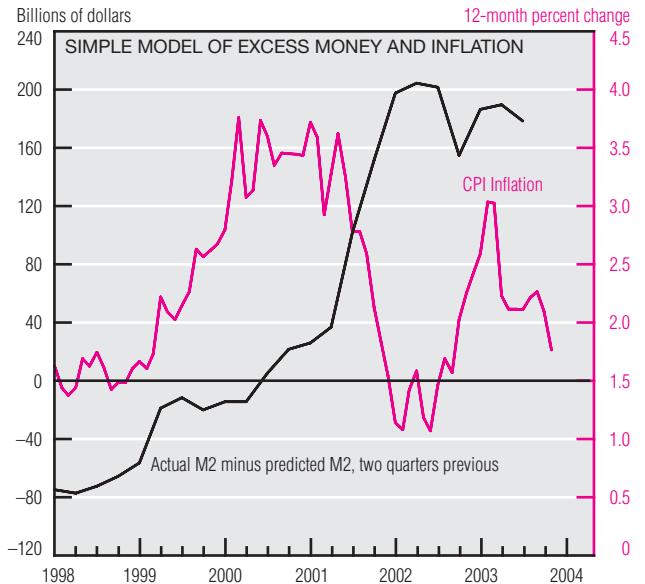
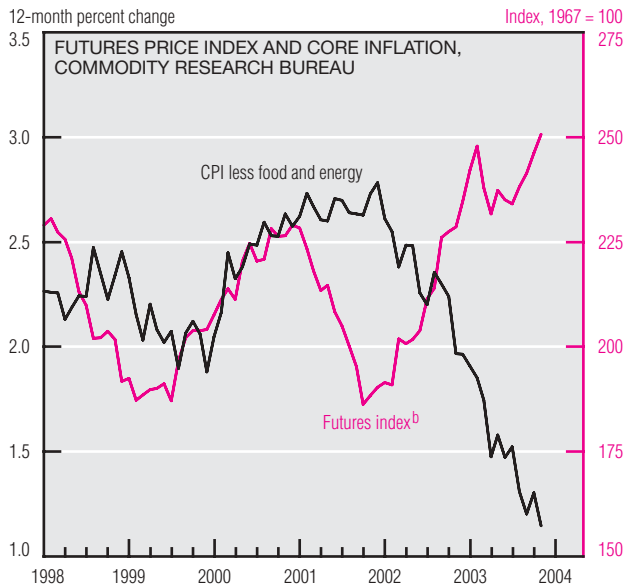
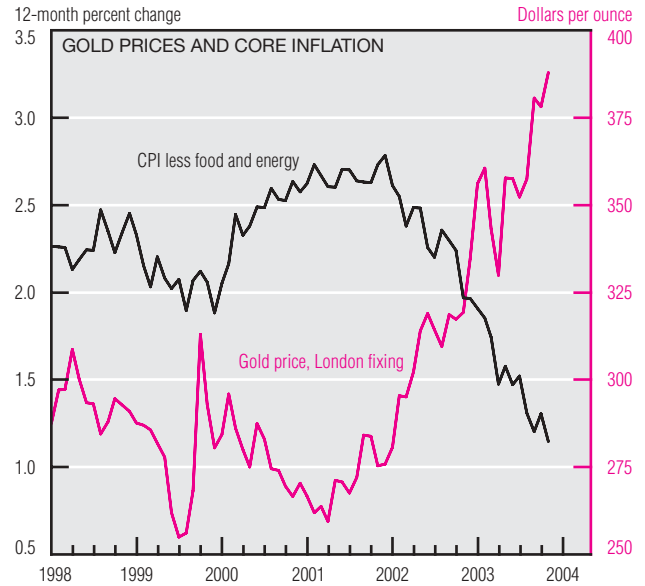
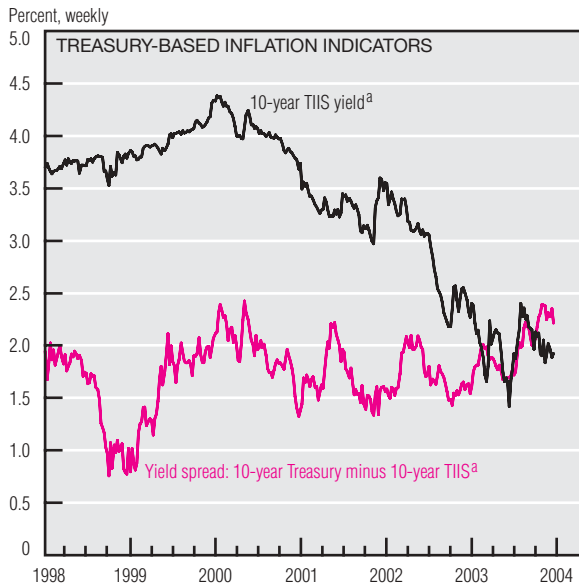


Money and Financial Markets



a. Treasury inflation-indexed securities.
b. All commodities.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System, "Selected Interest Rates," H.15, and "Money Stock Measures," H.6, *Federal Reserve Statistical Releases*; Bloomberg Financial Information Services; Commodity Research Bureau; and *Wall Street Journal*.

Much of the current discussion about monetary policy focuses on the prospects for inflation—what do financial market indicators say? Expectations derived from the yield spread between the Treasury's nominal and inflation-indexed securities show a pronounced upward trend in the latter half of 2003. These expectations have neared their six-year high, although inflation during this period has been low by historical standards.

Some close observers of the gold and commodities markets have become concerned about the risk

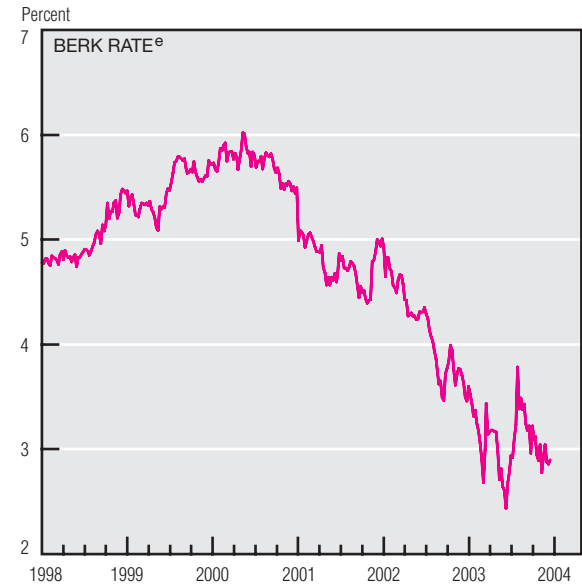
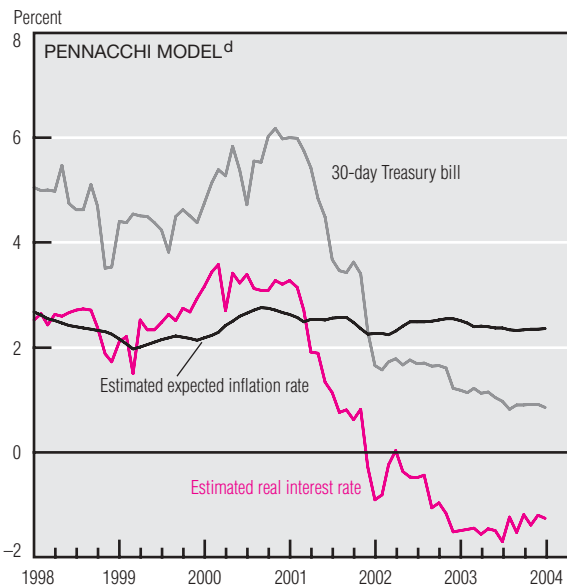
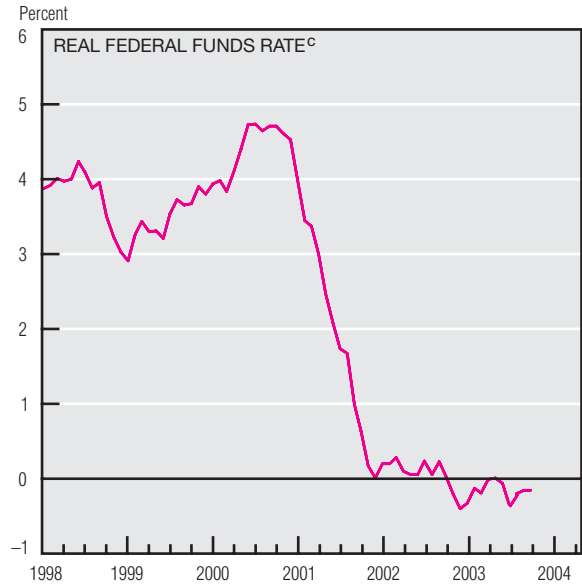
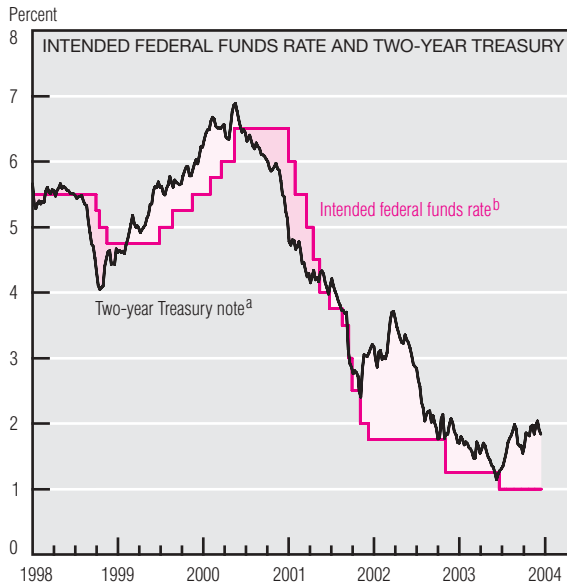
of higher inflation. Gold prices have posted a dramatic increase of \$60 (18%) since March 2003. The commodities futures price also has increased recently, although it remains near the level at which it started the year. Prices for both gold and commodities have increased substantially since 2001. Unfortunately for fans of these two indexes, however, neither shows a strong correlation with inflation. What gold prices show, if anything, is a negative correlation with core CPI inflation. Commodity prices sometimes seem

to anticipate future inflation but they have not done so for the past three years.

A classic definition of inflation is "too much money chasing too few goods." By this definition, comparing the money supply with money demand on the basis of income and interest rates may indicate incipient inflation. While the measure of excess money has trended high in 2003, its record over the past five years suggests that this indicator should be used with caution.

(continued on next page)

Money and Financial Markets (cont.)



a. All yields are from constant-maturity series.

b. Daily observations.

c. Effective federal funds rate deflated by the PCE chain price index (less food and energy and excluding insurance adjustments).

d. 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.

e. The Berk rate is calculated as the 30-year GNMA yield plus the 10-year Treasury inflation-indexed securities yield minus the 10-year Treasury yield.

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.

Another gauge of policy is the relation between the intended federal funds rate and other market rates. A comparison with the two-year Treasury note is particularly apt because that yield is long enough to avoid being a mere reflection of guesses about the Fed's move, yet short enough to avoid speculation about long-run trends. Except for a few brief episodes, the target fed funds rate has been below the two-year yield since late 2001. Since June 2003, the spread

has increased from 11 basis points (bp) to 84 bp, confirming the continued ease of policy.

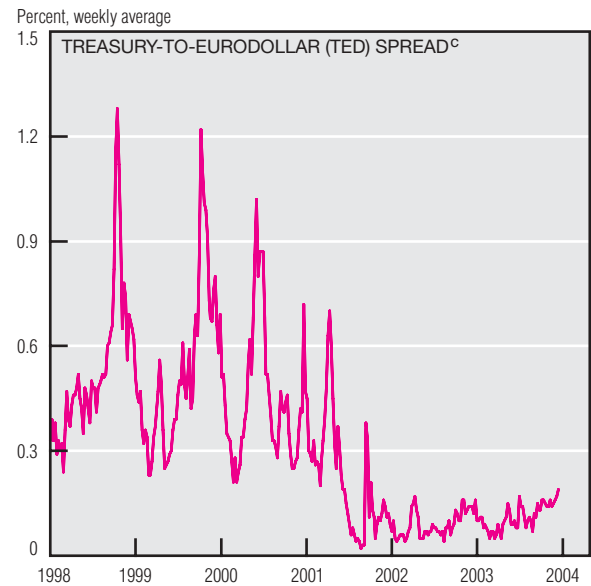
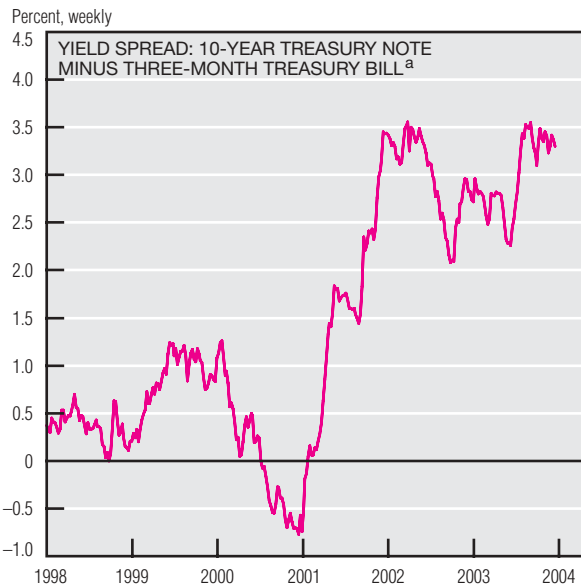
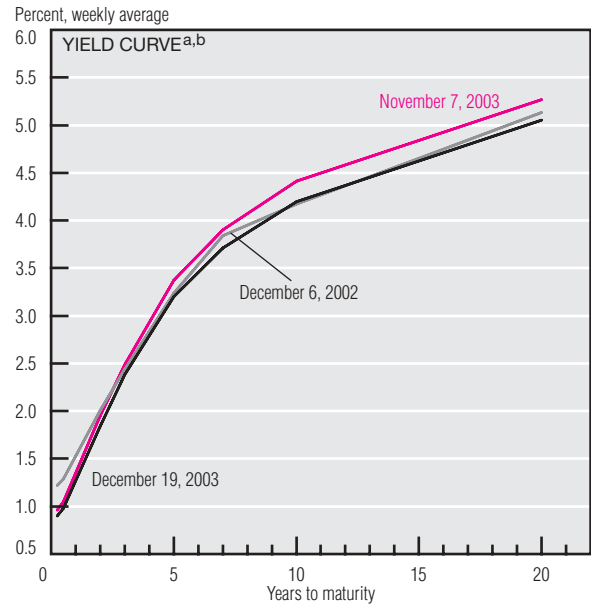
One more possible comparison is between interest rates and inflation. Inflation means borrowers pay back dollars that are worth less than the dollars they borrowed, so yields should be adjusted for inflation. This makes the real fed funds rate (adjusted for inflation by subtracting the current growth in CPI from the yield) even lower than its minimum nominal value

of 1%; in fact, it has been negative for most of the year. One may also estimate real rates using inflation expectations, and the Pennacchi approach estimates 30-day real rates. These have remained steadfastly and substantially negative throughout 2003.

Longer-term real rates, though low, have stayed positive and become more variable. An important real rate, which is thought to have a particular influence on investment spending,

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Money and Financial Markets (cont.)



a. All yields are from constant-maturity series.

b. Average for the week ending on the date shown.

c. Yield spread: three-month Eurodollar minus three-month constant-maturity Treasury bill.

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

takes a common callable bond, the 30-year GNMA, and subtracts, as an inflation estimate, the yield difference between a 10-year Treasury bond and a 10-year Treasury inflation-indexed security. This option-adjusted rate (dubbed the "Berk rate" after the economist who developed the idea) has decreased lately, falling about 23 bp since mid-October.

Longer-term interest rates, which have moved little recently, remain well above the lows reached in summer 2003. Conventional mortgages

have followed the 20-year bond closely, although the spread between them has narrowed from 100 bp to 77 bp since August. Likewise, the yield curve has remained quiescent; indeed, it has ended up near the level it reached at the end of 2002. This means, among other things, that the 10-year, three-month spread remains quite high by historical levels—nearly triple its historical average of 120 bp. Although it is sometimes taken as an indicator of future inflation, it is more reliable as a predictor of strong economic growth in the upcoming year.

International news has been especially prominent in 2003. By one measure, at least, the effect on the financial markets has not been proportionate. The Treasury-to-Eurodollar (TED) spread looks at the difference between the rate on Eurodollar deposits and Treasury notes. It is thought to pick up traders' worries about international problems because it is a way to arbitrage rates between the U.S. and the rest of the world without bearing any currency risk. The TED spread remains quite low by historical standards.