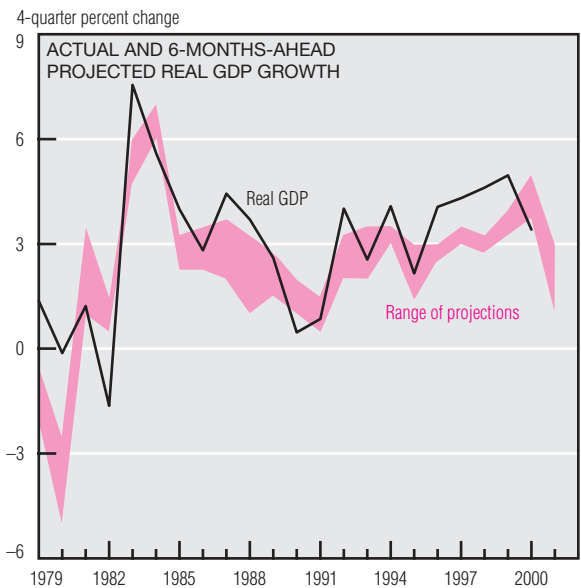
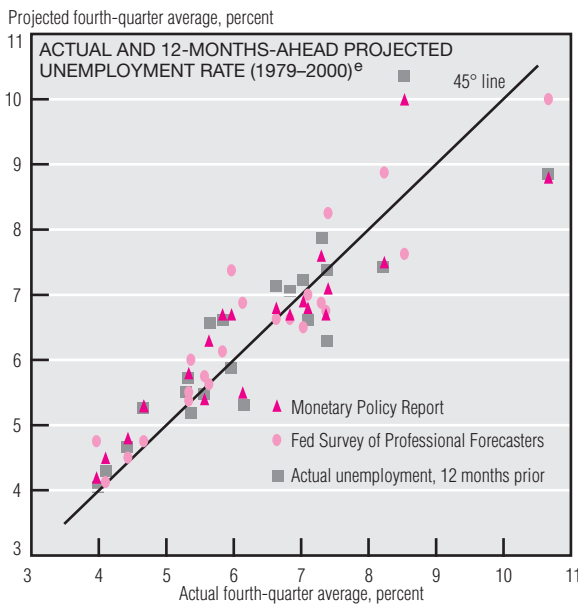
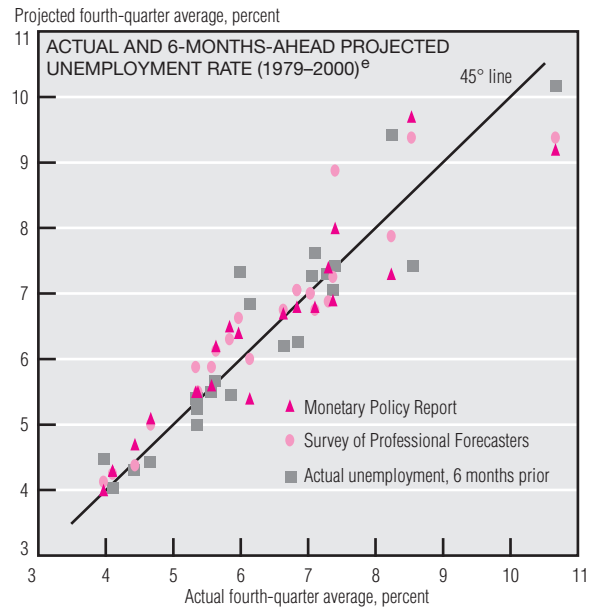


Money and Financial Markets

Recent Projections and Realizations, percent ^a			
Indicator	Actual	February range	July range
2000			
Nominal GDP ^b	5.8	5–6	6–7¼
Real GDP ^c	3.4	3¼–4¼	3¾–5
PCE Chain-type Price Index ^b	2.3	1½–2½	2–2¾
Civilian unemployment rate ^d	4.0	4–4¼	4–4¼
1999			
Nominal GDP ^b	6.5	3¾–5	4¾–5½
Real GDP ^c	5.0	2–3½	3¼–4
PCE Chain-type Price Index ^b	2.0	1½–2½	1¾–2½
Civilian unemployment rate ^d	4.1	4¼–4¾	4–4½



a. Members of Board of Governors and Federal Reserve Bank presidents.
 b. Change, fourth quarter to fourth quarter.
 c. Change, fourth quarter to fourth quarter. Chain weighted.
 d. Average level, fourth quarter.
 e. The *Monetary Policy Report* projection is the midpoint of the range. The *Survey of Professional Forecasters* projection is the median response.
 SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System, *Monetary Policy Report to the Congress*; and Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*.

The *Monetary Policy Report* that the Federal Reserve recently submitted to Congress includes an updated set of economic projections from the Board of Governors and the Federal Reserve Bank presidents, all of whom participate in the deliberations of the Federal Open Market Committee. (These projections are also discussed on page 4.) How accurate have these projections been? For example, looking back over the past two years, only about half the realized (actual) values fell within their

projected ranges. It may also come as a surprise that the July projection of a year's fourth-quarter number (essentially a 6-months-ahead projection) was not always more accurate than the February (or 12-months-ahead) projection. In fact, the ranges given in February 2000 for nominal and real GDP did contain the actual values, whereas the July updates did not.

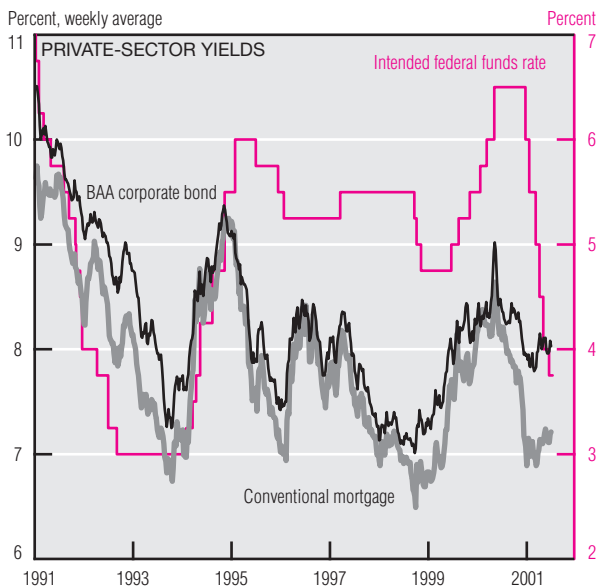
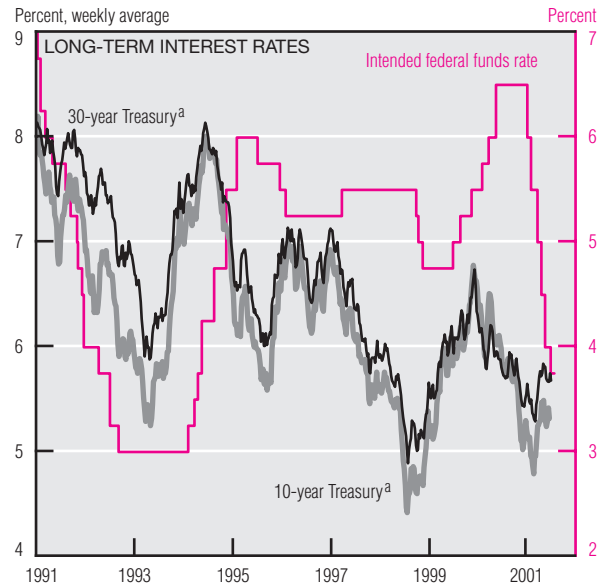
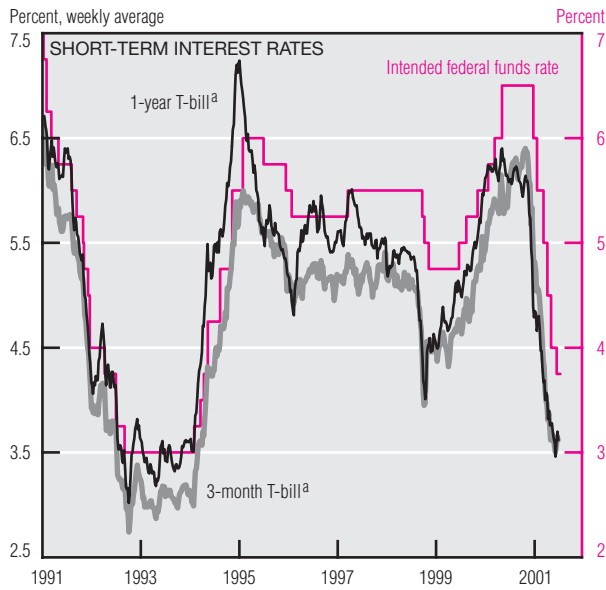
If the summary statistic of the projections were always exact, a plot of the actual value versus the summary

statistic would lie on a 45° line. Using the unemployment rate, we see that the projected values mostly fall near the 45° line over the period since the *Monetary Policy Report's* first published projections, but there are occasional large deviations. Furthermore, there is no clear bias—that is, no consistent deviation on either the high or low end—for either the 6-month or 12-month projection.

The unemployment projections also can be compared to the accuracy of

(continued on next page)

Money and Financial Markets (cont.)



a. Constant maturity.

SOURCES: Board of Governors of the Federal Reserve System; and Bloomberg Financial Information Services.

private forecasts (the median response to the Philadelphia Federal Reserve Bank's *Survey of Professional Forecasters*) and to unemployment rates at the time the projections were made. The latter comparison is analogous to testing whether the projection predicts the future more accurately than a simple backward-looking view that today will be like yesterday. One way to choose the "best" projection is to calculate which one misses by the smallest amount on average. At a 12-month horizon, the average absolute error is 0.55% for the professional forecasters

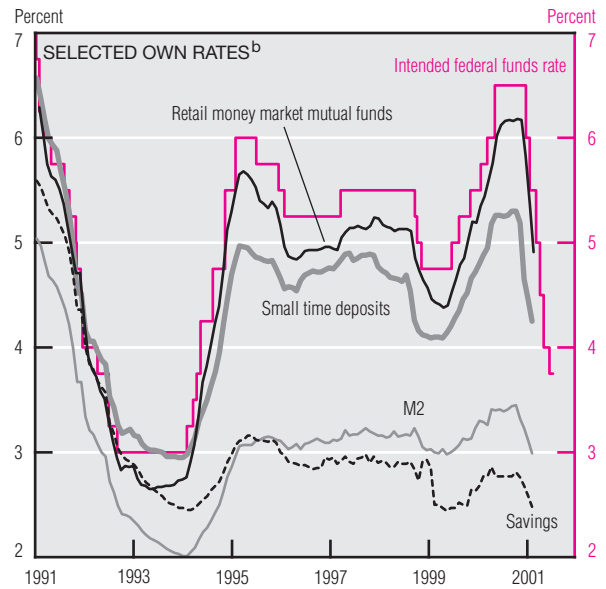
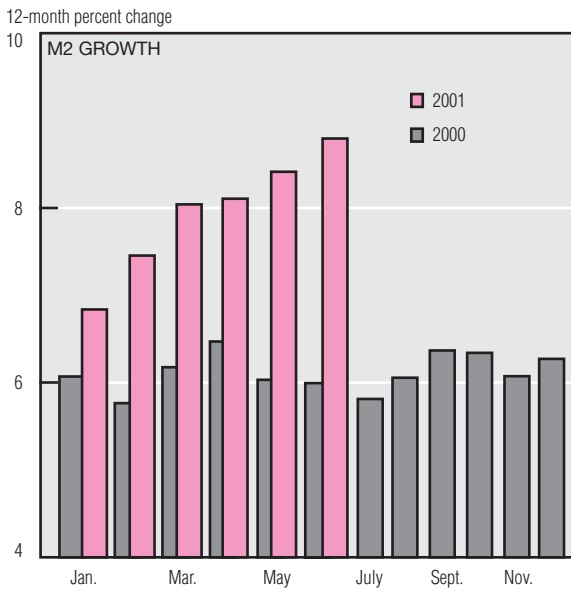
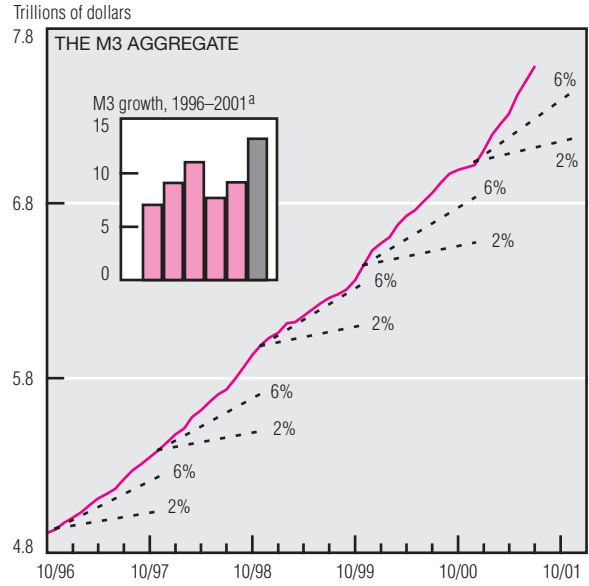
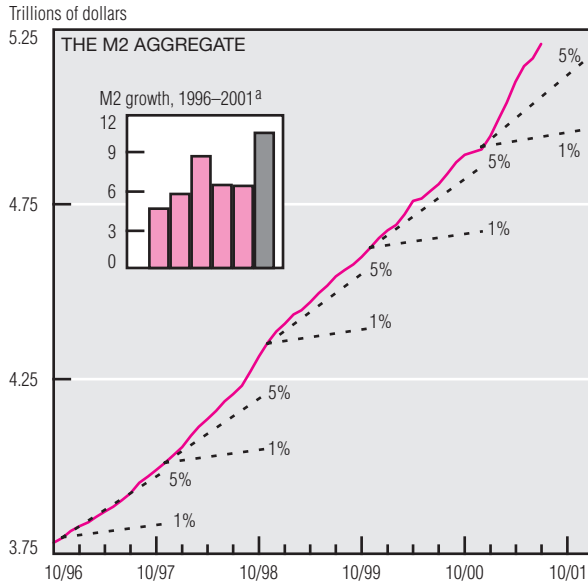
and 0.38% for the Fed projection. Using current unemployment to predict future unemployment does just as well as the professional forecasters at this horizon (0.55%). At a 6-month horizon, the error from using the Philadelphia survey and current unemployment decreases, but the Fed does no better (0.42%, 0.40%, and 0.40%, respectively). Perhaps most striking is how similarly the different measures perform.

Short-term interest rates usually follow the intended federal funds rate much more closely than do long-term

rates. Since the last week of 2000, yields on the 3-month and 1-year T-bills have declined 2.22% and 1.72%, respectively, through the week ending July 13. Their movement parallels the cumulative decrease of 2.75 percentage points in the intended federal funds rate so far this year.

Factors such as inflation expectations and the long-term potential for economic growth can have sizeable effects on long-term interest rates, sometimes causing them to move in the opposite direction from short-term rates. Long-term Treasury yields, *(continued on next page)*

Money and Financial Markets (cont.)



a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 2001 growth rates for M2 and M3 are calculated on a June over 2000:IVQ basis. Data are seasonally adjusted.
 b. Weighted average return from holding individual components.
 NOTE: Last plots for M2 and M3 are June 2001. Prior to November 2000, dotted lines for are FOMC-determined provisional ranges. Subsequent dotted lines represent growth rates and are for reference only.
 SOURCE: Board of Governors of the Federal Reserve System.

the 30-year conventional mortgage rate, and yields on midgrade corporate debt all have moved up slightly, despite the drop in short-term yields. Over the same period, the spread between the 10-year Treasury bond and 10-year Treasury inflation-indexed securities (TIIS), often used to gauge inflation expectations, has risen 0.40% although other measures of inflation expectations have not.

The decline in short-term rates has had a noticeable impact on the broad monetary aggregates, which

have grown robustly so far this year. At annualized rates, M2 has grown 10.3% and M3 13.3% through June 2001. In contrast, M2 and M3 growth rates for 2000 were only 6.2% and 9.2% (four-quarter percent changes).

When short-term interest rates drop, so does the opportunity cost of holding M2- and M3-denominated assets. Put another way, one has to give up less in terms of potential earnings to hold more liquid assets with no market risk. However, returns on many of the broad monetary aggregates' components, such as

savings and small time deposits, adjust less rapidly to changes in short-term rates, making these components relatively more attractive in times of falling rates.

The surge in money growth shows no signs of slackening. Quite the contrary, growth in M2 and M3 will likely accelerate when taxpayers begin depositing and spending their rebate checks. Compared to 2000, this year's increase in the broad monetary aggregates may turn out to be quite remarkable.