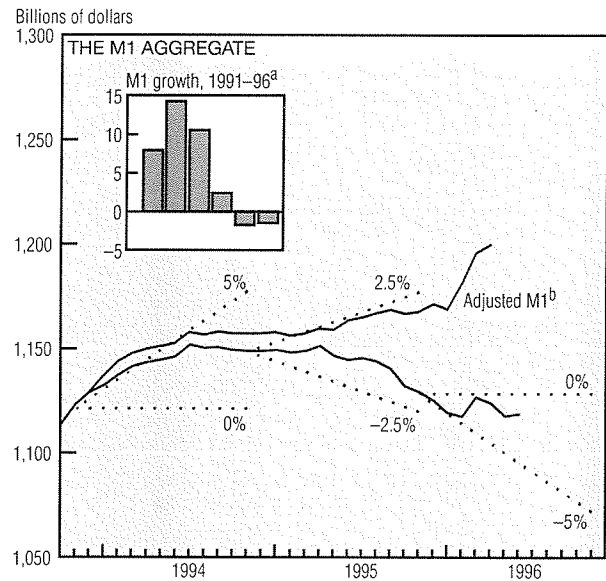
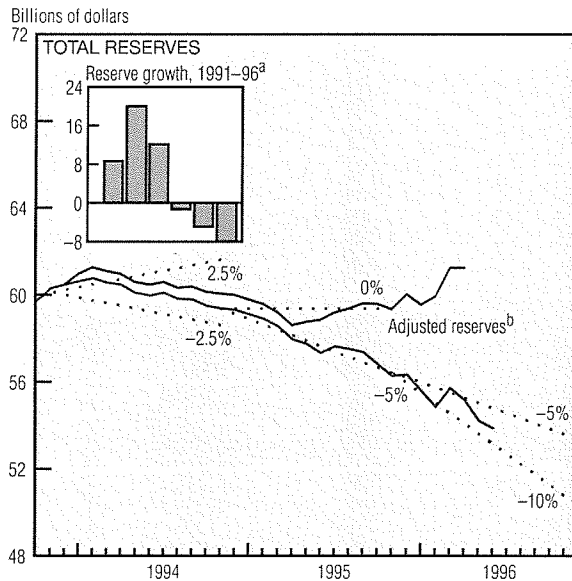
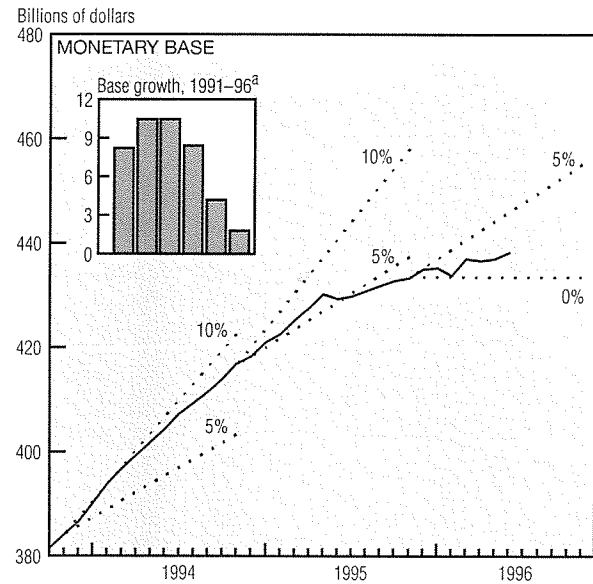
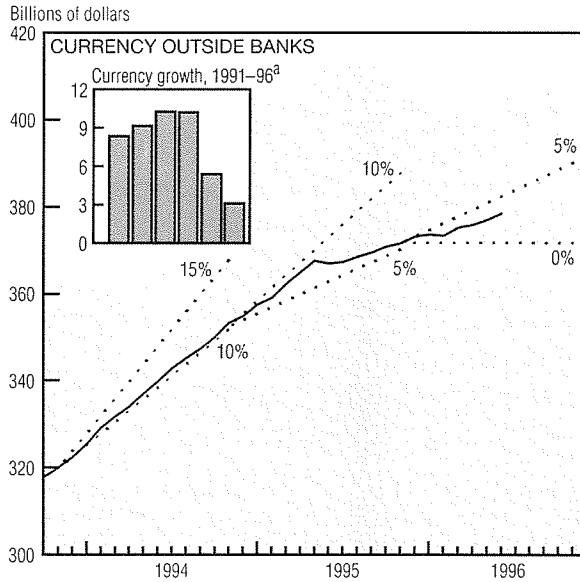


Monetary Policy



a. Growth rates are calculated on a fourth-quarter over fourth-quarter basis. Annualized growth rate for 1996 is calculated on an estimated June over 1995:IVQ basis.

b. Adjusted for sweep accounts.

NOTE: All data are seasonally adjusted. Last plot is estimated for June 1996. Dotted lines represent growth ranges and are for reference only.

SOURCE: Board of Governors of the Federal Reserve System.

So far this year, the narrow monetary aggregates continue to be rather weak. Currency, which has expanded at an average annual rate of nearly 8½% over the past 22 years, is growing only around 3%. The slowdown is believed to be caused by a drop in foreign demand. With as much as 70% of all U.S. currency held abroad, any change in foreign demand will have a pronounced effect on the aggregate's growth.

The slower growth of currency is partly responsible for the sluggish

performance of the monetary base, which has expanded at an annual rate of only 1.8% since January. The base comprises currency held outside banks, surplus vault cash, and total reserves, but is dominated by its currency component.

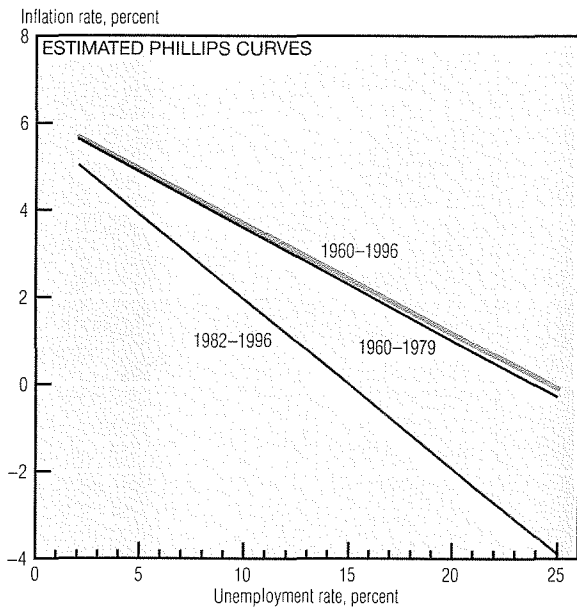
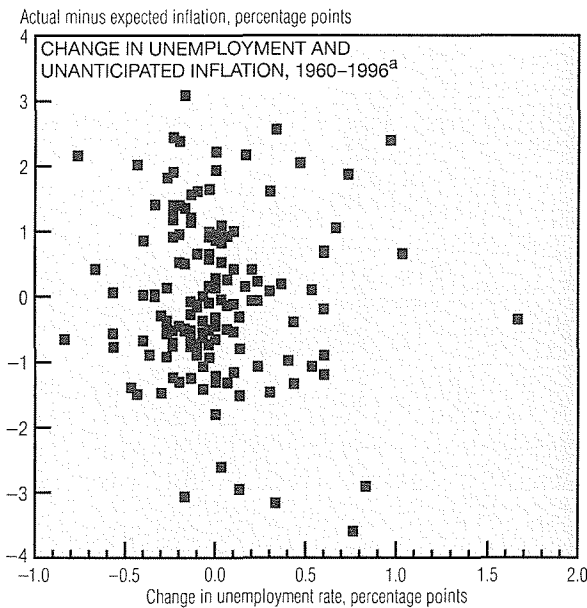
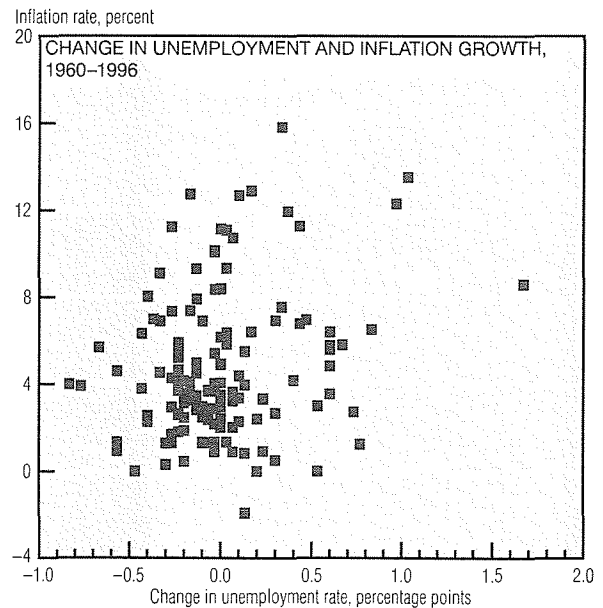
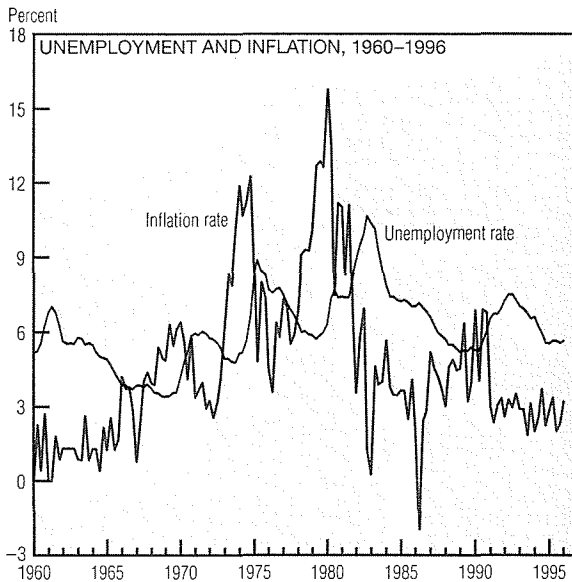
Base growth is also being affected by the decline in total reserves due to widespread implementation of sweep accounts. These accounts enable depository institutions to shift funds from other checkable deposits, which are reservable, to

money market deposit accounts, which are not. Without this reserve avoidance technique, it is estimated that total reserves would have been increasing since January.

The implementation of sweep accounts and the slowdown in currency growth have also influenced M1, which fell at a 1.5% annual rate through June. However, adjusting for the impact of sweep accounts, it is estimated that M1 would have expanded at a moderate rate.

(continued on next page)

Monetary Policy (cont.)



a. Unanticipated inflation is the difference between actual inflation and its expected value, where expected inflation is based on past inflation rates.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Labor, Bureau of Labor Statistics; and the Federal Reserve Bank of Cleveland.

The relationship between inflation and unemployment is often taken (if only implicitly) to be one of the most reliable in macroeconomics. Everyone knows that rising unemployment means lower inflation, and falling unemployment means higher inflation.

To be sure, such a negative relationship—referred to as the “Phillips curve”—is not always easy to see in the data. Although specific episodes over the past 35 years are characterized by movements of the inflation

and unemployment rates in opposite directions, others are not. In fact, the general pattern of inflation and unemployment changes appears to trace out a positive relationship.

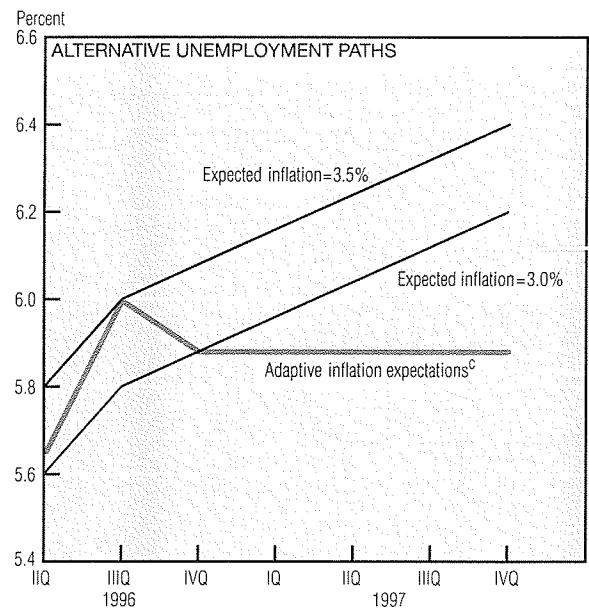
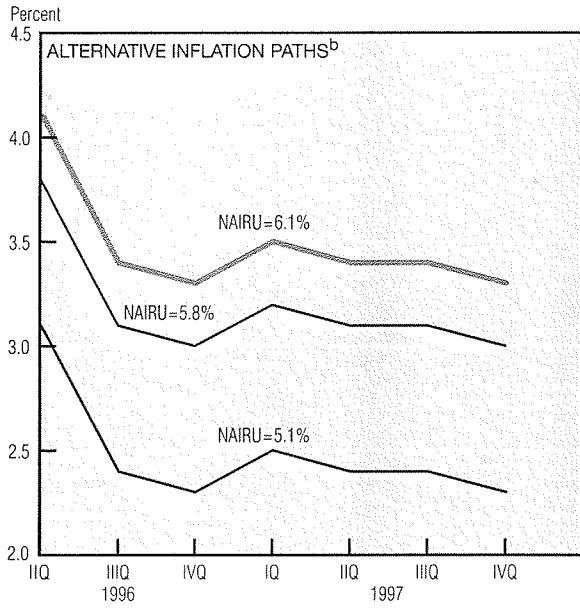
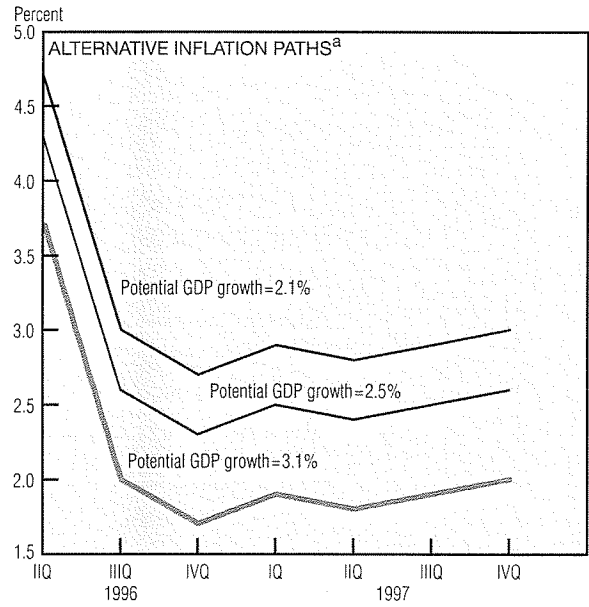
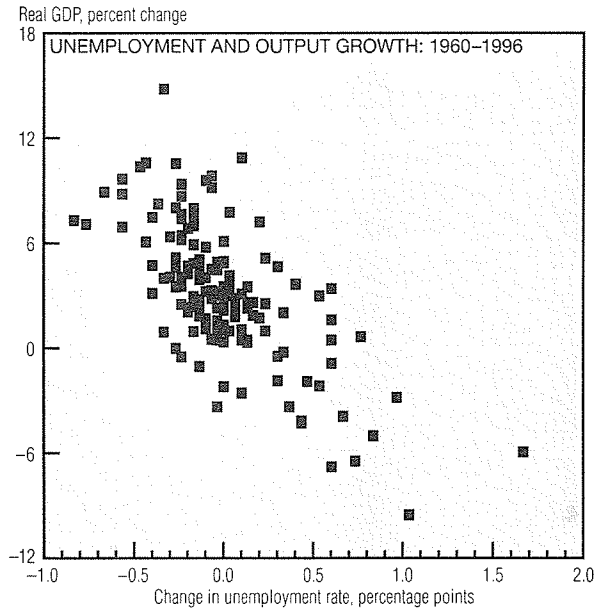
Analysts generally resolve this contradiction of the “Phillips curve” relationship by focusing not on the level of inflation and unemployment changes, but rather on unemployment changes and the deviation of inflation from the level that market participants expect. Viewed with this modification, the data more

readily reveal the negative correlation between price changes and unemployment that so many commentators take for granted.

Still, the connection between the two variables should be viewed with some skepticism: A negative correlation is one thing, but a stable relationship is quite another. Evidence shows that simple estimates of the Phillips curve based on available data may shift over time.

Nonetheless, the Phillips curve
(continued on next page)

Monetary Policy (cont.)



a. Model assumes that NAIUR = 5.8%.
 b. Model assumes that potential real GDP growth = 2.1%.
 c. Adaptive expectations are based on past inflation rates.
 NOTE: NAIUR is defined as the non-accelerating inflation rate of unemployment.
 SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Labor, Bureau of Labor Statistics; and the Federal Reserve Bank of Cleveland.

remains a focal point for policy discussions. Part of the reason is that more sophisticated statistical treatments appear to provide a reasonably stable unemployment/inflation connection. The virtue of hunting for such stability is in turn reinforced by the ease with which inflation can be connected to output growth through the fairly striking negative relationship between unemployment and output growth, a correlation generally known as "Okun's law."

The Phillips curve, together with Okun's law, essentially codify much of the conventional wisdom about monetary policy in a formal statistical way. Intimately linked to this framework are the concepts of NAIUR (the unemployment rate below which inflationary pressures build), potential GDP growth (the long-run sustainable rate of output expansion), and inflationary expectations.

Unfortunately, the measure of our ignorance about these important variables is large indeed, and the

magnitudes really matter. Simple back-of-the-envelope calculations illustrate that the future paths of inflation under current policy, or a particular monetary policy's effect on unemployment, or myriad other important policy questions, are quite sensitive to assumptions about NAIUR, potential GDP growth, and the formation of inflation expectations. To consumers of policy analysis, the best advice is always "let the buyer beware."