The risk of higher inflation remains. Two small increases in the Federal funds rate this year have not reduced the growth of money and total spending to a non-inflationary range. Money growth remains too high, raising the growth of nominal aggregate demand. Recently excessive growth of money appears to have contributed to the wider spread between nominal and indexed Treasury bonds and to the slight decline in the dollar against other major currencies.

There are two main questions about inflation: when will it rise, and how much will it increase? Chart 1 helps to answer the first question, not by giving a specific date but by showing what has happened to two measures of the consumer price index (CPI). One line shows the twelve-month average rate of increase, labeled CPI (all items). This line shows that the rate of increase declined rapidly in 1997, remained at about 1-1/2% in 1998 and has now increased to more than 2%. The fall in the average rate of price change in 1997 began before the major problems in Asia. The initial decline came in response to the tight money policy in 1994-96.

The second line shows the median rate of price increase; by definition 50% of individual components rise as fast or faster than the median, and 50% rise more slowly. The wide gap that opened between the two lines in 1997-98 reflects falling prices for traded commodities such as oil and copper, falling prices for imports such as steel and textile products, and falling prices for computers and other new technologies. These are one-time changes. They affect the measured rate of price change without changing the underlying rate of inflation. When the one-time changes end, the measured rate of inflation returns to the underlying rate, and much of the higher productivity growth, experienced in 1998 and 1999, disappears.

The median rate of price change has remained between 2½ and 3½% since 1995, close to the underlying rate of inflation. All else unchanged, measured rates of increase in the CPI would return to the median. Many analysts do not understand this. They write as if commodity or import prices must surge upward to raise the rate of inflation. In fact, the average rate increases if these prices stop falling, as must have now done.

All else has not remained unchanged, however. First, measurement changes by the Bureau of Labor Statistics reduced both the median and the average rate of increase by about
1/2%. This one-time change explains most of the decline in the median and part of the recent reported increase in productivity.

Second, money growth has increased since 1995. Chart 2 shows that annual growth of the monetary base has moved from about 3% to 9% since 1995-96. Growth of the monetary base shows the amount of new money the Federal Reserve has supplied. Monetary policy has become more inflationary. Although money growth has slowed recently, money growth has been excessive for about two years. Inflation is likely to increase to 3% or more.

To slow future inflation, the Federal Reserve should act promptly to bring the growth rate of the monetary base back to 4%. Base growth has fallen to 6% in the last few months, but we believe the decline is too small, and its duration is too short, to prevent the inflationary pressure of rising aggregate demand from increasing inflation.

The Conduct of Monetary Policy

In 1999 the Federal Open Market Committee began to announce its "bias" toward changes in interest rates following its meetings. Its objective was to give the public more information about prospective actions.

The intent is laudable, but the idea is flawed. The principal flaw arises because the members of the FOMC have not agreed on what the announcement means. The FOMC as a group cannot commit to a policy stance reflecting its bias, if it does not agree on what the bias means. Some members appear to see the announcement of the bias as a substitute for action; instead of raising or lowering the Federal funds rate, they tell us that they thought about it. Others seem to regard the bias as a complement to action, "we have left the interest rate unchanged, but we are inclined to change it in the future." Many other interpretations are possible.

The Federal Reserve should stop announcing its bias. The announcements appear to increase the volatility of market rates without adding much useful information. Data going back to 1992 (before public announcements) suggest that the bias has been followed by confirming action less than half the time.

A growing number of central banks now announce inflation targets and develop procedures to achieve the target. While we do not believe that this is an ideal way to conduct
policy, from a long-term perspective, it is far better than the Federal Reserve’s current procedures. It would focus attention on future price stability, and it would remove some of the excessive emphasis now given to almost daily announcements of one of the many random variables that markets watch. Thus, it would reduce variability.

Chairman Greenspan has an impressive record of achieving low inflation, thereby permitting growth to continue. The Federal Reserve has failed, however, to institutionalize explicit policy procedures to sustain price stability. Doing so would better ensure that Chairman Greenspan’s successors would continue the achievements of the Greenspan era. Central banks in New Zealand, Britain, Sweden and elsewhere have moved ahead of the Federal Reserve in announcing and implementing such procedures. The U.S. economy’s long-term performance would benefit if the Federal Reserve did the same.

The Euro and the Dollar

Following the start of the Euro-system, euro-euphoria soon gave way to euro-pessimism, and, more recently, to dollar skepticism. None of this commentary makes sense.

For ten years or more, the average dollar price of the eleven currencies that joined to form the euro remained in a range from about 0.9 to 1.3 euros per dollar. Fluctuations within that range reflected the expected relative strength of the economies, relative rates of expected inflation, and changes in interest rates and expected returns to capital in the two regions.

An exchange rate is the price people pay to acquire foreign currencies. This price changes with the demand for assets denominated in one currency rather than another. Changes in currency values eventually reflect underlying fundamentals. As long as the fundamentals have not changed, the euro-dollar exchange rate will fluctuate within the current band.

Whether the euro becomes a strong, stable currency that competes with the dollar depends on the ability of the European Central Bank to sustain credibility at low inflation and the ability of European governments to solve their structural problems. These include strong growth in Ireland and Spain, with weaknesses elsewhere, long-term fiscal spending in Italy, burdensome regulation and excessive welfare spending and high unemployment in Germany, France and elsewhere, and unsustainable costs of future pensions and healthcare.
Europe's problems are not monetary and cannot be solved by monetary means. It is too soon for euphoria or pessimism. We must wait to see whether European governments make the necessary changes to strengthen growth.

The Europeans have made the hard political choices needed to establish the euro. They must now make the harder choices needed to increase employment and productivity and create a political union. Establishing a common currency is a supply decision. The strength of the new currency and its long-term position depend on the public's demand and, therefore, on the hard choices remaining to be made.

**Productivity Growth**

Fed watchers and Fed officials spend much time and major resources trying to decide whether we are in a "new era" of higher productivity growth. Much of this effort is wasted. No one knows precisely how much average productivity growth has increased in the 1990s. It is impossible to give an accurate answer to this question. The Federal Reserve does not need an answer to conduct effective monetary policy.

One reason for uncertainty about the true productivity growth rate is that changes in BLS measurement procedures, import prices, and other factors distort current data. Another reason is that most of the labor force works at tasks where productivity cannot be measured accurately. Examples are the output produced by doctors, health-care workers, educators, bankers, scientists, and a host of others in many service industries.

Even more difficult is to forecast whether productivity growth in manufacturing will continue to rise at recent measured rates of change. Much of the rise is in durable goods manufacturing, particularly in the manufacture of computers. Manufacturing is only 18% of the U.S. economy, but it is the part that can be measured most reliably.

An alternative explanation is that the most rapidly growing sectors are those that were affected by deregulation in the 1970s and 1980s: telecommunications, financial services, and transportation. Deregulation, the use of computers and other new technologies, and the opening of foreign markets after the Uruguay round of trade negotiations, increased demand and lowered costs. Stock market valuations give some support to this explanation.

This explanation suggests that deregulation of water, natural gas and electricity may extend measured productivity gains.
Fortunately, one does not need to know productivity growth precisely to conduct monetary policy. If the Federal Reserve conducted monetary policy to achieve a zero inflation rate, bounded by -2% to +2%, and assumed growth of output at 3%, the error in assumed growth of output and productivity would not be a problem. (This would be true of any target rate of inflation.) At worst, the average rate of inflation would be slightly below, or slightly above the target. A modest adjustment could then be made.

Wages and Prices

Fed watchers and many others watch changes in money wages or employment costs for clues about future inflation. They look for pressures on costs—particularly wage costs—to push up prices.

The best available evidence suggests that they are looking in the wrong place. On average, wage changes do not lead price changes. Wages and prices are jointly determined.

Money growth and productivity changes are the best predictors of the rate of price change. Excessive money growth is often the reason that growth of spending increases more rapidly than can be sustained. Low cost imports, increased productivity growth, and many other one-time factors may mask the relationship for a time. Eventually, excessive money growth spills over to prices.

The Federal Reserve’s job is to prevent that from happening. They should get on with it.