# **CRS Report for Congress**

Received through the CRS Web

## Monetary Policy: Current Policy and Conditions

Updated July 20, 2001

Gail Makinen Specialist in Economic Policy Government and Finance Division

### Monetary Policy: Current Policy and Conditions

#### Summary

Monetary policy can be defined broadly as any policy relating to the supply of money. Since the main agency concerned with the supply of money is the nation's central bank, the Federal Reserve, monetary policy can also be defined in terms of the directives, policies, statements, and actions of the Federal Reserve, particularly those from its Board of Governors that have an effect on aggregate demand or national spending. The nation's financial press and markets pay particular attention to the pronouncements of the Chairman of the Board of Governors, the nation's central banker. The reason for this attention is that monetary policy can have important effects on aggregate demand and through it on real Gross Domestic Product (GDP), unemployment, real foreign exchange rates, real interest rates, the composition of output, etc.

It is paradoxical, however, that these important effects, to the extent that they occur, are essentially only short-run in nature. Over the longer run, the major effect of monetary policy is on the rate of inflation. Thus, while a more rapid rate of money growth may for a time stimulate the economy leading to a more rapid rate of real GDP growth and a lower unemployment rate, over the longer run these changes are undone and the economy is left with a higher rate of inflation. In some societies where high rates of inflation are endemic, more rapid rates of money growth fail to exercise any stimulating effect and are almost immediately translated into higher rates of inflation.

Traditionally, two means have been used to measure the posture of monetary policy. Since monetary policy involves the Federal Reserve's contribution to aggregate demand or money spending, it would be logical to examine the growth rate of the money supply. A growing money supply is important for the subsequent growth in money spending or aggregate demand. Giving empirical content to the abstract concept of "the supply of money" has not been easy. For the United States, three different collections of assets have been defined as "money" and labeled M1, M2, and M3. Unfortunately, over the period 1990-2001 these aggregates have grown at widely divergent rates, making it impossible to consistently characterize monetary policy.

Alternatively, some economists and financial analysts have preferred to measure the posture of monetary policy by looking at interest rates, which they view as the price of money. Low and/or falling rates are taken as a sign of monetary ease; high and/or rising rates indicate monetary tightness. Unfortunately, since several other forces affect interest rates, caution is called for in measuring the Federal Reserve's contribution to aggregate demand by looking at interest rates.

A basic but disconcerting conclusion from this discussion is that under current conditions, it is difficult in many instances to come to a meaningful judgment about the posture of monetary policy by looking at either the various measures of the money supply or interest rates.

This report will be updated periodically as new data become available.

## Contents

What is Monetary Policy?       2         Is Monetary Policy Important?       2         Monetary vs. Fiscal Policy       2         Short Run vs. Longer Run       3
Indicators of Monetary Policy       4         Money Supply Growth       4         Interest Rates       5
The Recent and Current Posture of Monetary Policy
The Federal Reserve and the Monetary Aggregates
The Near-Term Goals of Monetary Policy 12
Appendix    13      Definitions    13

## List of Figures

Figure 1. Yield on Selected U.S. Treasury Securities and Federal Funds......10

## List of Tables

Table 1.	Recent Economic Performance	7
Table 2.	The Growth Rates of the Monetary Aggregates	10
Table 3.	Growth in Major Components of M2	11

## Monetary Policy: Current Policy and Conditions

The behavior of the U.S. economy is often dictated by the behavior of monetary policy. And monetary policy during this expansion has consisted of a number of discernable policy shifts by the Federal Reserve.

The current economic expansion was set in motion by a gradual easing in the key federal funds rate that began in 1989. Another large downward shift begun late in 1990 was completed early in 1992. Over this nearly 3-year period, the federal fund was reduced from near 10% to 4%. A final easing of the rate to 3.0% was completed late in 1992 and the rate was held at that level through early 1994. Between late March 1994 and early 1995, the rate was gradually raised upward to 6%. By that time, the U.S. economy had not only recovered from the shallow July 1990 to March 1991 recession but was by many accounts back to full employment.

However, the sharp slowdown in output growth during 1995 seems to have signaled that the 1995 increases had been excessive and policy was eased as the funds rate was reduced to about 5 3/4% at mid-year, to 5 1/2% at the end of the year, and to 5 1/4% at the end of January 1996. One small increase to 5 1/2% took place in March 1997. The funds rate was then held at that level until late September 1998. Then, in response to domestic credit tightening and the financial crisis in East Asia and Russia, the rate was reduced in three moves ending in mid-November 1998 to about 4 3/4%. As these two crises eased, the rate was raised during 1999 in three equal increments back to its pre-crisis level of 5-1/2%. On both February 2 and March 21, 2000 the rate was increased by 1/4%, and on May 16 it was raised by  $\frac{1}{2}$ % to 6-1/2%. On January 3 and 31, March 20, April 18, May 15, and June 27, 2001, the rate was reduced by  $\frac{1}{2}$ % to 3  $\frac{3}{4}$ % as GDP growth apparently slowed more than expected.

The behavior of market interest rates over the expansion has been influenced by several factors. The decline in the inflation rate lowered both short and long term rates. While the short term rates have closely tracked movements in the federal funds rate, the longer term rates have followed a more independent course. They have tended to mimic the behavior of the short term rates through 1995, but not during 1996-1998 and 1999-2000. During 1998, the longer term rates fell to near equality with shorter term rates. In fact, during part of 1998, the yield on 30-year Treasury securities was below the federal funds rate. During most of 2000 longer-term yields have been below short term yields which continue to track the federal funds rate (special conditions related to Treasury retirement of the national debt temporarily reduced longer-term rates in 2000). This is not the case during 2001.

The growth rates of the various measures of money have been quite different and do not necessarily provide much information on the various shifts in monetary policy.

Several measures, such as aggregate reserves and M1, have been contracting over the past several years while others, such as M2 and M3, have grown slowly in the initial years of the expansion and more rapidly over recent years. The only measure that has enjoyed a fairly consistent rate of growth is the monetary base, and this aggregate is composed largely of paper currency in circulation, much of which appears to circulate abroad and, hence, is not necessarily related to economic conditions in the United States.

#### What is Monetary Policy?

Broadly speaking, monetary policy is any policy related to the supply of money. As such, it would encompass various activities of the U.S. Treasury for those relating to foreign exchange operations and the receipt and disposition of public funds can affect the supply of money. The dominant influence on the U.S. money supply, however, comes from the policies of the nation's central bank, the Federal Reserve, and particularly those policies originating with its Board of Governors. Thus, a more realistic definition of monetary policy would be that it consists of the directives, policies, pronouncements, and actions of the Federal Reserve that affect aggregate demand or national spending. Among these, the dominant action consists of open market operations. These involve the buying and selling of seasoned Treasury securities by the Federal Reserve. When Treasury securities are purchased, the Federal Reserve does so with newly created money. This money can serve as reserves for the financial system and allows commercial banks and other depository institutions to make new loans and investments, thereby expanding the money supply and aggregate demand. The opposite happens when the Federal Reserve sells government securities.

#### **Is Monetary Policy Important?**

It has been said that "money matters" and the case for this statement can be made in at least two different contexts. In one, monetary policy is compared with fiscal policy and, given the current international financial system with flexible exchange rates and a high degree of capital mobility between countries, the ability of changes in the money supply to change aggregate demand and the pace of GDP growth and employment is great compared with fiscal policy. In the other context, changes in the money supply have the potential to bring about major changes in the growth of GDP and employment only in the *short run*. Paradoxically, this is not true over the *longer run*. Over the more extended horizon, money supply growth has its primary effect only on the rate of inflation. How fast GDP grows or what the unemployment rate is, is largely independent of the amount of money or its growth rate. A brief discussion of each of the two contexts summarized above follows.

**Monetary vs. Fiscal Policy.** The standard macroeconomic model makes a compelling case for the relative importance of monetary policy in a world whose financial arrangements involve the use of flexible exchange rates and where capital is highly mobile between countries. To see this, fiscal and monetary expansion will be contrasted.

Let us allow the full employment budget deficit to rise (or the full-employment surplus to fall) through either a tax rate cut or a rise in appropriated expenditures. While the increase in this budget deficit (or fall in surplus) raises aggregate demand, it also raises the borrowing requirement of the government (or lowers the amount of debt it retires) and its demand for funds in financial markets. This then causes domestic interest rates to rise relative to those in other financial centers. The rise in domestic interest rates makes U.S. financial assets more attractive to foreigners. They, in turn, increase the demand for dollars in foreign exchange markets to acquire the wherewithal to purchase U.S. assets. The increased demand for dollars causes the dollar to appreciate. Dollar appreciation then reduces the cost of foreign goods and services to Americans and raises the price of American goods and services to foreign spending on U.S. exports tends to fall. Thus, any expansionary effects on domestic demand from the larger budget deficit tends to be offset in part or total by a reduced foreign trade surplus or a larger foreign trade deficit.

A more expansive monetary policy centering on a more rapid rate of growth of the money supply initially serves to lower U.S. interest rates relative to those in other financial centers. Foreign financial assets become more attractive to U.S. investors, the supply of dollars to the foreign exchange markets rises as U.S. investors attempt to acquire foreign currencies to buy foreign assets, and the dollar depreciates. Dollar depreciation then makes foreign goods and services more expensive to Americans and American goods and services cheaper to foreigners. As a result, the U.S. spends less on imports and foreigners spend more on U.S. exports. A falling foreign trade deficit or rising trade surplus thus reinforces any stimulus to domestic demand that comes from lower U.S. interest rates.

The implication from the standard macroeconomic model is that monetary expansion is far more powerful than fiscal policy in influencing GDP growth and employment.

**Short Run vs. Longer Run.** The analysis above quite clearly shows that a more rapid rate of growth of the money supply can cause domestic demand to expand. An examination of U.S. economic history will show that money-induced demand expansions can have a positive effect on U.S. GDP growth and total employment. This same evidence, however, also suggests that over the longer run, a more rapid rate of growth of the money supply is largely dissipated in a more rapid rate of inflation with little if any lasting effect on real GDP and employment.

Economists have two explanations for this paradoxical behavior. First, they note that, in the short run, many economies have an elaborate system of contracts (both implicit and explicit) that makes it difficult in a short period for significant adjustments to take place in wages and prices in response to the perceived outcome of more rapid money growth. Second, they note that expectations for one reason or another are slow to adjust to the longer run consequences of major changes in monetary policy. This slow adjustment also adds rigidities to wages and prices. Because of these rigidities, changes in money supply growth that change aggregate demand can have a large initial effect on output and employment. Over the longer run, as contracts are renegotiated and expectations adjust, wages and prices rise in response to the change in demand and much of the change in output and employment is undone. Thus,

money can matter in the short run but be fairly neutral for GDP growth and employment in the longer run.

It is noteworthy that in societies where high rates of inflation are endemic, the short run may be very short indeed. During the final stages of very rapid inflations, called hyperinflation, money's ability to alter GDP growth and employment is virtually nonexistent.

#### Indicators of Monetary Policy

It is common to speak of monetary policy as being "easy" or being "tight" or even of being "neutral." What exactly do these terms mean and how does one measure the posture of monetary policy?

Two basic measures of the posture of monetary policy are frequently used: the growth rate of the money supply and market interest rates, particularly the federal funds rate (the interest rate that one bank charges another for reserves that are lent on an overnight basis). Unfortunately, as the following discussion makes clear, neither of these two **indicators** provides an unambiguous measure of the posture of monetary policy.

#### **Money Supply Growth**

Because the growth in aggregate demand depends heavily on the growth in the supply of money, it would be logical to measure the posture of monetary policy by the growth rate of the supply of money.

Using this indicator, monetary policy is said to be *easy* when, during a sustained period, the supply of money increases at a rate that is high or rising relative to a recent trend. Alternatively, policy is said to be *tight* when the rate of money growth is low or falling relative to a trend.

To measure the posture of monetary policy, the abstract concept "the supply of money" must be given an empirical content. That is, the supply of money must be defined in terms of an asset or group of assets that can be measured. Moreover, that asset or group of assets must be stably or predictably related to aggregate demand or money spending. The latter condition is important. It means that, when the supply of money is changed, it will be possible to predict its effect on money spending.

In the United States, we do not have a unique asset or group of assets that the Federal Reserve defines as money. Rather, three collections of assets are recognized as money and are designated as M1, M2, and M3 (for a definition of each, see the appendix). They are constructed such that M3 includes M2, and M2 includes M1. It is possible for the growth of one or two of the aggregates to rise or fall when the growth of the other aggregate or aggregates falls or rises (a common reason for this is that wealth owners can shift dollars from one type of account to another such as when they shift from passbook savings, an account included in M2 but not M1, into checking accounts on which interest is paid, an account included in both M1 and M2).

When these divergent movements take place, as they have during 1991-1993 and 1995-2000 in the United States (see **Table 2**), how is one to characterize monetary policy?

A simple way to answer this question is to see which aggregate best explains the subsequent movements in aggregate demand. During much of the post-World War II period, M1 had the most stable relationship to aggregate demand. Nevertheless, the Federal Reserve, beginning in the 1970s, set target growth rate ranges for all three aggregates. Unfortunately, during the late 1970s, the stable relationship between M1 and aggregate spending broke down and the Federal Reserve, while still reporting movements in this aggregate, no longer sets growth rate ranges for it. During the 1990s, the stable relationship between M2 and aggregate spending also broke down. Beginning in July 2000, the Fed discontinued setting monitoring ranges for M2 and M3. Legislation requiring it to do so expired. (While M3 was never strongly related to aggregate demand, its movement also bore little relationship to subsequent movements in demand during the 1990s.)

Thus, the United States now has three definitions of money that appear to provide little information about the posture of monetary policy. Moreover, an extensive amount of recent research on the stability issue has yet to yield a collection of new assets that performs any better, i.e., provide superior information on the posture of monetary policy.<sup>1</sup>

#### **Interest Rates**

A logical reason for focusing on interest rates in judging monetary policy is that they are an important link by which changes in the money supply are transmitted to the real economy. That is, changes in money supply growth lead to changes in market interest rates and these changes then influence households in their decisions to buy homes, automobiles, appliances, and the like, and businesses in their decisions regarding inventories and plant and equipment purchases.<sup>2</sup>

The interest rate relevant for these decisions is not the market rate but the real rate or market rate less the expected rate of inflation. Rising real rates are interpreted as a sign of tight monetary policy while falling real rates supposedly signal a move toward an easier monetary policy. Caution should be used, however, in making this interpretation of the movement in real rates. The reason is that market interest rates respond both to shifts in the supply and demand for money.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> For a discussion of these studies and the issues involved, see U.S. Library of Congress. Congressional Research Service. *Monetary Aggregates: Their Use in the Conduct of Monetary Policy*. CRS Report 95-1139, by Gail E. Makinen.

<sup>&</sup>lt;sup>2</sup> The mechanism by which monetary policy affects money spending is contentions. For a discussion see U.S. Library of Congress. Congressional Research Service. *The Monetary Transmission Mechanism: What is the Role of Commercial Banks*? CRS Report 96-877, by Gail E. Makinen and Eric B. Leach.

<sup>&</sup>lt;sup>3</sup> The real rate of interest is determined by the interaction of saving and investment. Thus, (continued...)

Those who use interest rates as guides to the posture of monetary policy appear to implicitly assume that shifts in the supply of money dominate movements in the relevant interest rates. Thus, a more rapid rate of growth of the money supply should drive down market interest rates, especially short-term rates. Given expectations about future inflation, the fall in market rates is taken as a fall in real rates and a signal that monetary policy has eased; and, conversely, for a rise in market and real rates.

Market interest rates, however, can fall for two other reasons even when the supply of money (or its growth rate) is held constant. First, any fall in income reduces the demand for money and, as a result, market interest rates and real rates will fall. Second, should the public come to expect a lower inflation rate, inflation expectations should also fall. With this decline, market interest rates should also fall. However, real interest rates should not fall and may even rise in the short run. Thus, the fall in market rates should not stimulate economic activity.

An important interest rate for the Federal Reserve is the federal funds rate, which is essentially an overnight rate that one depository institution charges another when reserves are lent — reserves being necessary to back the deposit liabilities financial institutions have on their books. If the Federal Reserve wishes to expand the reserves of depository institutions thereby enhancing their lending capabilities, it will supply reserves to this market. The increased supply will drive down the federal funds rate and monetary policy can be said to have eased.

Conversely, when the Federal Reserve wishes to tighten lending, it will withdraw reserves from this market causing the funds rate to rise. Thus, a falling funds rate is taken to signal an easing of monetary policy, a rising rate the tightening of policy, and a constant rate, a neutral or "stand fast" policy.

Each of these movements in the funds rate can, however, mean something quite different. Since the federal funds rate is determined by demand as well as supply, it can, for example, fall because the demand for funds falls — and demand falls because of a fall in economic activity and bleak prospects for the future. Under these circumstances, a falling rate does not signal an easing of monetary policy, but a weak or weakening economy. Similarly, a rising funds rate can result from an increase in the demand for reserves, the signal of a robust or expanding economy rather than from a tightening of monetary policy.

A misreading of movements in the rate can have potentially serious consequences. Suppose, for example, the Federal Reserve believes that the current federal funds rate is "correct" and attempts to maintain this rate. Suppose at the same time that the economy is weakening and, as a consequence, the rate is under downward pressure. To maintain this rate, the Federal Reserve has to withdraw reserves from the banking system — reduce the supply of federal funds. This withdrawal may then subject the economy to further deflationary pressure. Thus,

 $<sup>^{3}</sup>$  (...continued)

change in the national saving rate or the desire to invest can affect the real rate independent of anything the Federal Reserve does. Such changes to the real rate can further complicate the use of interest rates as an indicator of the posture of monetary policy.

rather than maintaining a neutral posture, monetary policy may inadvertently have become tight. How long this misreading would continue before it became apparent is open to conjecture. After some period of time, data would reveal the falloff in the growth of the reserves of depository institutions and the monetary aggregates. Misinterpretations such as this are most costly when an economy is at a critical turning point. The discussion also highlights the fact that a constant federal funds rate need not mean that monetary policy is neutral.

#### The Recent and Current Posture of Monetary Policy

The behavior of several important performance characteristics of the U.S. economy during the past 17 years is shown in **Table 1**. Of concern is the period of the current economic expansion that got underway in March of 1991. After a very slow start, GDP growth took hold on a more secure basis during 1994.

Year	Real Growth <sup>a</sup>	Inflation Rate <sup>b</sup>	Unemployment Rate
1983	7.6	3.4	9.6
1984	5.6	3.5	7.5
1985	4.0	3.0	7.2
1986	2.8	2.2	7.0
1987	4.4	3.1	6.2
1988	3.7	3.7	5.5
1989	2.6	3.6	5.3
1990	0.5	4.2	5.5
1991	0.9	3.1	6.7
1992	4.0	2.3	7.4
1993	2.5	2.4	6.8
1994	4.1	2.1	6.1*
1995	2.3	2.1	5.6
1996	4.1	1.9	5.4
1997	4.3	1.8	5.0
1998	4.6	1.2	4.5
1999	5.0	1.5	4.2
2000	3.2	2.2	4.0

 Table 1. Recent Economic Performance

Source: U.S. Departments of Labor and Commerce.

<sup>a</sup> Real growth and inflation are measured on a fourth quarter over fourth quarter basis.

<sup>b</sup> Inflation measured by the implicit price deflator for GDP.

\* The unemployment rates beginning in 1994 are based on a revised questionnaire and are not strictly comparable with those of previous years.

Initially GDP growth was insufficiently strong to reduce the unemployment rate and that rate continued to rise even as the economy recovered from the recession. After reaching a peak of 7.7% in July 1992, the unemployment rate began to decline. Since September 1994, the rate has been below 6.0%. In September 2000 it reached an expansion low of 3.9% (this is also a 30-year low). Most estimates of the rate of unemployment compatible with full employment fall between 5.0% and 6.0% (where full employment is an unemployment rate that yields a stable rate of inflation). Thus, according to many estimates, the U.S. economy during the period subsequent to September 1994 has been at full employment or in a state of excess demand.

During both the contraction of the economy during the period July 1990 - March 1991, and the subsequent recovery, the inflation rate declined. Since 1992, as the economy has expanded and regained full employment, the inflation rate has either fallen or shown little tendency to accelerate.<sup>4</sup>

Monetary policy played an important role in initiating the current expansion and is playing a critical role in sustaining it. As noted above, there are two ways to measure the posture of monetary policy: the growth of the monetary aggregates and interest rates.

The behavior of the aggregates is shown in **Table 2**. The first impression is that they do not tell a consistent story. Aggregate Reserves and M1 have been contracting while the Monetary Base, M2, and M3 have been expanding (a definition of each aggregate is given in the appendix). All is, however, not what it seems. The decline in Aggregate Reserves has actually allowed for some expansion. This occurs because individuals and businesses are allowing their demand deposit balances to run off (see table 3). This decline in demand deposit balances has set free bank reserves. Since not all of these reserves have been removed from the banking system, reserve contraction is compatible with expanding the lending capacity of banks.

The behavior of the Monetary Base could account for both the recovery and the subsequent expansion of the economy. However, this may be due to chance since approximately 89% of the Base consists of paper currency (and coin) in circulation, much of which apparently does not circulate within the United States.<sup>5</sup> Thus, its behavior may depend on conditions in foreign countries rather than reflect economic developments in the United States.

Alternatively, while the behavior of M1 could account for the beginning of the expansion, it cannot account for its continuation. Conversely, while the behavior of M2 and M3 might explain the continuation of the expansion, it is difficult using their growth rates to explain how the expansion got underway.

<sup>&</sup>lt;sup>4</sup> For a detailed discussion of the current state of the U.S. economy updated on a monthly basis, see U.S. Library of Congress. Congressional Research Service. *Current Economic Conditions and Selected Forecasts*. CRS Report RL30329, by Gail E. Makinen.

<sup>&</sup>lt;sup>5</sup> For a detailed discussion, see U.S. Library of Congress. Congressional Research Service. *Why is the Amount of Currency in Circulation Rising?* CRS Report RL30904, by Gail Makinen.

A general conclusion from an inspection of the behavior of the aggregates is that, while they might yield some useful information about the economic expansion, it is unlikely that they provide much information on the posture of monetary policy since it is well known that they are not used by the Federal Reserve to manipulate the growth in aggregate demand. Rather, the behavior of the Federal Reserve and the posture of monetary policy is best inferred from interest rates, particularly the behavior of the federal funds rate.

The movement of selected U.S. Treasury yields and the federal funds rate is shown in figure 1. It is well known that the Federal Reserve conducts monetary policy on the basis of movements in the federal funds rate. The sharp decline in the rate that began in late 1990 played a major role in initiating the cyclical upswing that began in March 1991. As the expansion began to take hold, the Federal Reserve kept the rate constant at about 3% from late 1992 through early 1994. As momentum built and the economy moved toward full employment, the rate was raised to slow growth. The increase appeared to be too large as GDP growth slowed to about 2.3% in 1995. In three small adjustment, the last on January 31, 1996, the federal funds rate was lowered to 5.25%. The growth rate of GDP during 1996 was above the rate the Federal Reserve thought to be sustainable. As a result, the federal funds rate was hiked to 5.5% on March 25, 1997. However, beginning in the second quarter of 1998, GDP growth slowed significantly. To boost demand growth as well as provide support to ease the East Asian and Russian financial crises, the Federal Reserve reduced the funds rate by 1/4% on September 29, October 15, and November 17, 1998, for a total reduction of 3/4%. As the crisis conditions eased, the Federal Reserve hiked the rate by 1/4% in June, August, and November of 1999. To slow GDP growth to a more sustainable rate, the federal funds rate was hiked on February 2, March 21, and May 16, 2000. The final increase brought the rate to 6.5%. It appears that these increases had too severe an effect on GDP growth, for the rate was reduced to 6% on January 3, 2001, to 5-1/2% on January 31, to 5% on March 20, to 4-1/2% on April 18, to 4% on May 15 and 3 3/4% on June 27.

Note that, while short-term interest rates move in sympathy with the federal funds rate, longer-term rates often do not. The divergence is especially noticeable during 1996, 1997, and 1999. This should help dispel the notion that the Federal Reserve can set interest rates wherever it wishes.



Figure 1. Yield on Selected U.S. Treasury Securities and Federal Funds

Source: Board of Governors of the Federal Reserve System.

(annualized rates of change)					
Time Period	Aggregate Reserves	Monetary Base	M1	M2	M3
90:12 <b>!</b> 91:12	9.0	8.3	8.7	3.0	1.3
91:12 <b>!</b> 92:12	19.6	10.5	14.3	1.6	0.3
92:12 <b>!</b> 93:12	11.3	10.5	10.3	1.6	1.4
93:12 <b>!</b> 94:12	<b>!</b> 1.8	8.2	1.8	0.4	1.7
94:12 <b>!</b> 95:12	<b>!</b> 5.0	3.9	<b>!</b> 2.0	4.1	6.0
95:12 <b>!</b> 96:12	-11.2	4.0	<b>!</b> 4.1	4.7	7.3
96:12 <b>!</b> 97:12	<b>!</b> 6.6	6.1	<b>!</b> 0.7	5.7	9.1
97:12 <b>!</b> 98:12	-3.5	7.0	2.2	8.8	11.0
98:12 <b>!</b> 99:12	-7.6	15.3	2.3	6.0	8.3
99:12-00:12	-7.3	-1.5	-3.0	6.2	8.6
00:12 <b>!</b> 01:06	0.7	5.9	6.6	10.9	13.9

Table 2.	The Growth Rates	s of the Monetary	/ Aggregates
----------	------------------	-------------------	--------------

Source: Board of Governors of the Federal Reserve System.

Time Period	Currency	Demand Deposits	Other Checking Deposits	Nontransactions Component*
90:12 <b>!</b> 91:12	8.3	4.4	13.2	1.2
91:12 <b>!</b> 92:12	9.3	17.4	16.8	-3.0
92:12 <b>!</b> 93:12	10.1	13.4	7.9	-2.1
93:12 <b>!</b> 94:12	10.0	-0.5	-2.5	-0.2
94:12 <b>!</b> 95:12	5.1	1.5	-11.8	7.1
95:12 <b>!</b> 96:12	5.9	3.4	-22.6	8.7
96:12 <b>!</b> 97:12	7.7	-1.7	<b>!</b> 11.0	8.2
97:12 <b>!</b> 98:12	8.2	-4.1	1.8	11.2
98:12 <b>!</b> 99:12	12.2	-6.2	-2.5	6.9
99:12-00:12	2.4	-11.9	-1.6	9.2
00:12! 01:06	7.1	-0.2	14.6	12.1

#### Table 3. Growth in Major Components of M2 (annualized rates of change)

Source: Board of Governors of the Federal Reserve System.

\* Consists principally of savings accounts and time certificates of deposits.

#### The Federal Reserve and the Monetary Aggregates

In its report to the Congress, dated July 20, 1993, the Board of Governors expressed considerable uncertainty about the usefulness of M2 and M3 as measures of money. The uncertainty arose from the perverse movement in the velocity or turnover rates of these aggregates during the previous 3 years.

For this reason, the Board of Governors decided to de-emphasize both M2 and M3 in its decisionmaking. While the Board continued to set growth rate ranges for each aggregate, it concluded:

With considerable uncertainty persisting about the relationship of the monetary aggregates to spending, the behavior of the aggregates relative to their annual ranges will likely be of limited use in guiding policy... and the Federal Reserve will continue to utilize a broad range of financial and economic indicators in assessing its policy stance.

This position was reaffirmed by the Board during subsequent Humphrey-Hawkins hearings. However, in the Monetary Policy Report submitted to Congress on July 20, 2000, the Board of Governors stated:

"At its June meeting, the FOMC did not establish ranges for the growth of money and debt in 2000 and 2001. The legal requirement to establish and to announce such ranges had expired, and owing to uncertainties about the behavior of the velocities of debt and money, these ranges for many years have not provided useful benchmarks for the conduct of monetary policy. Nevertheless, the FOMC believes that the behavior of money and credit will continue to have value for gauging economic and financial conditions...."

#### The Near-Term Goals of Monetary Policy

In his appearance before the House Financial Services Committee on July 18, 2001, Chairman Greenspan expressed the opinion that the Federal Reserve expected economic growth to continue through the year. Over the four quarters of this year real output is projected to grow between 1.25% and 2.0% (measured on a fourth-quarter over fourth-quarter basis). The unemployment rate is projected to fall between 4.25% and 5.0% during the fourth quarter and the Personal Consumption Expenditure price index from the GDP accounts is expected to rise from 2.0% to 2.5% also over the 4 quarters of the year.<sup>6</sup>

For 2002, the Fed expects GDP to grow between 3.0% and 3.25% and prices to rise between 1.75% and 2.5%. The unemployment rate during the  $4^{th}$  quarter is expected to average between 4.75% ad 5.25%.

<sup>&</sup>lt;sup>6</sup> The Federal Reserve substituted the price index for the personal consumption portion of GDP for the frequently used Consumer Price Index because of its belief that the CPI gives a greater upward bias to the inflation rate than does the price index for personal consumption.

## Appendix

#### Definitions

M1 is the sum of the following:

- 1. Currency held by the public
- 2. Outstanding traveler's checks of nonbank issuers
- 3. Demand deposit balances
- 4. Negotiable Order of Withdrawal (NOW and Super-NOW) accounts and other checkable deposits.

M2 is the sum of the following:

- 1. M1
- 2. Time and savings deposits in amounts under \$100,000
- 3. Individual holdings in money market mutual funds
- 4. Money market deposit accounts (MMDAs).

M3 is the sum of the following:

- 1. M2
- 2. Time deposits at commercial banks in amounts of \$100,000 or more
- 3. Term repurchase agreements
- 4. Institution-only money market mutual funds
- 5. Term Eurodollars held by U.S. residents in Canada and the U.K.
- 6. Overnight retail purchase agreements (Repos)
- 7. Overnight Eurodollars held by U.S. residents.

Nonfinancial debt is the sum of the following sectors' outstanding debt:

- 1. U.S. government
- 2. State and local governments
- 3. Nonfinancial domestic businesses
- 4. Households.