

# CRS Report for Congress

## Monetary Policy and the Federal Reserve: Current Policy and Conditions

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# Monetary Policy and the Federal Reserve: Current Policy and Conditions

## Summary

Monetary policy can be defined as any policy relating to the supply of money. Since the 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 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 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. Defining "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 1990-2007, these aggregates have not been consistently linked to money spending and, consequently, they are not the major focus of monetary policy.

Rather, the Federal Reserve executes monetary policy by setting a target for an overnight interest rate called the federal funds rate. Low or falling rates are usually taken as a sign of monetary ease; high or rising rates usually indicate monetary tightness. Changes in the federal funds rates affect primarily short-term interest rates, and through these changes, money spending.

Between January 3, 2001, and June 25, 2003, the target rate for federal funds was reduced to 1% from 6½%. This policy was reversed beginning June 30, 2004. In 17 equal increments ending on June 29, 2006, the target rate was raised to 5¼%. No additional changes were made until September 18, 2007 when, in a series of nine moves, the target was reduced to 1% on October 29. These reductions were designed to ease credit market conditions and stimulate spending. This report will be updated periodically as new data become available.

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# Monetary Policy and the Federal Reserve: Current Policy and Conditions

## Introduction

The behavior of the U.S. economy is affected significantly by the behavior of monetary policy. And monetary policy over the past seven years has been supportive of a continued and sustained economic expansion. Monetary policy changes typically affect the economy with a 12- to 18-month lag.

The 1991-2001 economic expansion, the longest in American history, came to an end in March 2001. Economic growth became sluggish during the second half of 2000 and remained sluggish through 2001. During that year, GDP contracted during the first and third quarters. Growth resumed in the fourth quarter and has continued through the first quarter of 2008 (for which data are now available). Prior to mid-2000, the economy was growing at a rate that was thought to be unsustainable. To curb growth, the Federal Reserve between mid-1999 and May 2000 raised the target for the federal funds rate to 6½% from 4¾%. This tightening was too severe, for economic growth slumped, industrial production declined and unemployment rose. The Federal Reserve then began aggressively easing monetary policy. Between January 3, 2001, and June 25, 2003, the target for the federal funds rate was reduced to 1% from 6½%. Short-term interest rates generally followed the decline in the target for the federal funds rate, whereas longer-term rates proven more resilient and did fall as much. As the economy recovered and expanded, monetary policy was gradually tightened. In 17 moves between June 30, 2004, and June 29, 2006, the target was increased to 5¼%. No changes were made until September 18, 2007, when target reduction began. In nine moves ending on October 29, 2008, the target was reduced to 1%. This was designed to ease pressures in financial markets and stimulate spending.

The growth rates of the various measures of money have been quite different and do not always provide information on the shifts in monetary policy. The only measure that has enjoyed a fairly consistent rate of growth is the monetary base that is composed largely of circulating paper currency, much of which appears to be abroad and 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.<sup>1</sup> 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 affect 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 open economy 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.

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 reduces national saving. The fall in the supply of saving relative to domestic investment demand. This 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 foreigners. As a result, U.S. spending on imports tends to rise and foreign spending on U.S. exports tends to fall. Thus, any

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<sup>1</sup> For institutional information on the Fed, see CRS Report RS20826, *Structure and Functions of the Federal Reserve System*, by Pauline Smale.

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.<sup>2</sup>

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 United States 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 open economy macroeconomic model is that monetary expansion is far more powerful than fiscal policy in influencing GDP growth and employment given current international financial arrangements.

**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 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.

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<sup>2</sup> It is important to note that this explanation requires the *full employment or structural* budget deficit to rise. Budget deficits produced by a fall in income, or *cyclical* deficits need not produce these results.

## 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.

The United States does not have a unique asset or group of assets that the Federal Reserve defines as money. Rather, three collections of assets have been recognized as money and are designated as M1, M2, and M3 (for a definition of each, see the appendix).<sup>3</sup> 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 frequently have during the past 12 years in the United States (see **Table 2**), it is difficult to characterize monetary policy.

Nevertheless, it might be possible to find that one aggregate is better than another in explaining subsequent movements in aggregate demand. During much of

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<sup>3</sup> Some analysts have argued that the Fed should target a broader measure of financial conditions than the money supply, such as stock prices. See CRS Report RL33666, *Asset Bubbles: Economic Effects Policy Options for the Federal Reserve*, by Marc Labonte. In March 2006, the Federal Reserve ceased publication of data on M3.

the post-World War II period, M1 had the most stable relationship to aggregate demand. The Federal Reserve, however, 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. (Although M3 was never strongly related to aggregate demand, its movement bore little relationship to subsequent movements in demand during the 1990s and, as noted in footnote 3, data on it were discontinued in 2006.)

Thus, the United States has had 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 consistently better, that is, provide consistently superior information on the posture of monetary policy.<sup>4</sup>

## Interest Rates

A logical reason for focusing on interest rates in judging monetary policy is that they are an important link through 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.

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>5</sup>

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

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<sup>4</sup> For a discussion of these studies and the issues involved, see CRS Report RL31416, *Monetary Aggregates: Their Use in the Conduct of Monetary Policy*, by Marc Labonte and Gail E. Makinen.

<sup>5</sup> The real rate of interest is determined by the interaction of saving and investment. Thus, change in the national saving rate or the desire to invest (i.e., add to the national capital stock) 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.

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 often 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. However, this is not always the case and each movement can have unintended consequences.

This arises because the Federal Reserve, through the federal funds rate, only controls the supply of reserves. It does not control the demand for reserves. That is in the domain of financial institutions and is governed by their outlook for economic activity. A constant federal funds rate, for example, may not be a neutral policy. Suppose that financial institutions become pessimistic about the future and cut back their demand for reserves. Reserve growth declines as does lending and economic activity. During the period these advents are transpiring, the Federal Reserve keeps the funds rate constant. The effect on the economy is not neutral.

How long this would continue before it became apparent to the Federal Reserve that the economy had shifted 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 Recent and Current Posture of Monetary Policy**

The behavior of several important performance characteristics of the U.S. economy since the early 1980s is shown in **Table 1**. An early period of interest is GDP growth from 1994 to 2000. At that time, growth rates of from 4% to 5% were regarded as unsustainable. These rates likely played an important role in causing the Federal Reserve to tighten monetary policy. And this tightening played an important role in bringing to an end the longest economic expansion in U.S. history (March

1991 to March 2001), as well as setting in motion the current expansion. As noted above, there are two ways to measure the posture of monetary policy: the growth of the monetary aggregates and interest rates.

**Table 1. Recent Economic Performance**

| Year    | Real Growth <sup>a</sup> | Inflation Rate <sup>b</sup> | Unemployment Rate |
|---------|--------------------------|-----------------------------|-------------------|
| 1984    | 5.6                      | 3.6                         | 7.5               |
| 1985    | 4.2                      | 2.8                         | 7.2               |
| 1986    | 2.8                      | 2.4                         | 7.0               |
| 1987    | 4.5                      | 2.8                         | 6.2               |
| 1988    | 3.7                      | 3.8                         | 5.5               |
| 1989    | 2.7                      | 3.4                         | 5.3               |
| 1990    | 0.7                      | 4.1                         | 5.6               |
| 1991    | 1.1                      | 3.0                         | 6.8               |
| 1992    | 4.1                      | 2.2                         | 7.5               |
| 1993    | 2.5                      | 2.3                         | 6.9               |
| 1994    | 4.1                      | 2.2                         | 6.1 <sup>c</sup>  |
| 1995    | 2.0                      | 2.0                         | 5.6               |
| 1996    | 4.4                      | 1.9                         | 5.4               |
| 1997    | 4.3                      | 1.5                         | 4.9               |
| 1998    | 4.5                      | 1.1                         | 4.5               |
| 1999    | 4.7                      | 1.6                         | 4.2               |
| 2000    | 2.3                      | 2.2                         | 4.0               |
| 2001    | 0.2                      | 2.5                         | 4.7               |
| 2002    | 1.9                      | 1.7                         | 5.8               |
| 2003    | 3.7                      | 2.2                         | 6.0               |
| 2004    | 3.0                      | 3.2                         | 5.5               |
| 2005    | 2.6                      | 3.5                         | 5.1               |
| 2006    | 2.4                      | 2.8                         | 4.6               |
| 2007    | 2.3                      | 2.6                         | 4.6               |
| 2008:1H | 2.1                      | 1.9                         | 5.4               |

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

- a. Real growth and inflation are measured on a fourth quarter over fourth quarter basis. For 2008, growth is the annualized rate over the first half year.
- b. Inflation is measured by the implicit price deflator for GDP on a fourth quarter over fourth quarter basis. For 2008, it represents the annualized rate over the first half year.
- c. The unemployment rates subsequent to 1994 are not strictly comparable with those of previous years. Annual averages for all years. Unemployment rate for 2008 is average of first 9 months.

The behavior of the aggregates is shown in **Table 2**. The first impression is that they do not tell a consistent story. Indeed, focusing on Aggregate Reserves alone may lead one to wonder how this long expansion period ever got underway since they contracted during most of the period 1994-2002, whereas the Monetary Base, M2, and M3 grew positively in each year (a definition of each aggregate is given in the appendix). All, however, is not what it seems. The decline in Aggregate Reserves actually allowed for considerable monetary expansion. This occurred because individuals and businesses allowed their demand deposit balances to run off (see **Table 3**). This decline in demand deposit balances set free bank reserves. Since not all of these reserves were removed from the banking system, reserve contraction was compatible with expanding the lending capacity of banks. (The increase in aggregate reserves in 2001 was temporary and designed to forestall a possible liquidity crisis in the immediate aftermath of the September 11 terrorist attacks.) The shift to positive reserve growth during 2003 and 2004 reflects the fall in the federal funds target during those years. The contraction of reserves during 2005 and 2006 reflects the increase in the target for federal funds that began in November 2004. Their rise over the past 12 months is compatible with the observed lowering of the target.

The behavior of the Monetary Base could account for both the recovery that began in the fourth quarter of 2001 and the subsequent expansion of the economy. However, this may be due to chance since approximately 90% of the Base consists of paper currency (and coin) in circulation, much of which apparently does not circulate within the United States.<sup>6</sup> Thus, its behavior may depend on conditions in foreign countries rather than reflect economic developments in the United States.

Similarly, problems exist with the three M's in explaining both the beginning of the expansion of 1991-2001 and 2002, and their continuations.

A general conclusion from the behavior of the aggregates is that, while they might yield some useful information about the economic expansion, they do not provide consistent information on the posture of monetary policy. Consequently, they are not used by the Federal Reserve in the conduct of monetary policy. Rather, the posture of monetary policy is best inferred from interest rates, particularly movements in the federal funds rate.

The movement of selected U.S. Treasury yields and the federal funds rate is shown in **Figure 1**. The sharp decline in the rate that began in 2000 played a major role in initiating the cyclical upswing that began in November 2001. As the expansion began to take hold, the Federal Reserve kept the target rate below 2% for some three years (much of the time at 1%) from November 2001 through November 2004. This was done for several reasons. Initially, the recovery and subsequent expansion was weak. GDP growth was accompanied by relatively little growth in job creation. Second, there was fear of a major economic fallout from 9/11 (the target was moved from 3% to 1¾% in three months). Finally, during 2003, the Federal Reserve began to fear that the U.S. would experience price deflation similar to that

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<sup>6</sup> For a detailed discussion, see CRS Report RL30904, *Why is the Amount of Currency in Circulation Rising?*, by Marc Labonte and Gail Makinen.

experienced by Japan.<sup>7</sup> However, as the growth rate accelerated, the unemployment rate fell, and the fear of deflation ebbed, the Fed tightened policy. Between June 30, 2004, and June 29, 2006, the target was increased 17 times and then stood at 5¼%. During the summer of 2007, a major disturbance to financial markets centering on sub-prime mortgages and falling housing prices emerged and continued into 2008. To deal with this and a related slowing in domestic spending, the Fed began to ease monetary policy. On September 18, October 31, and December 11, 2007, and January 22 and 30, March 18, April 30, and October 8, 2008, the target was reduced incrementally to 1½% from 5¼%, where it now remains.<sup>8</sup>

**Table 2. The Growth Rates of the Monetary Aggregates**  
(annual rate of change)

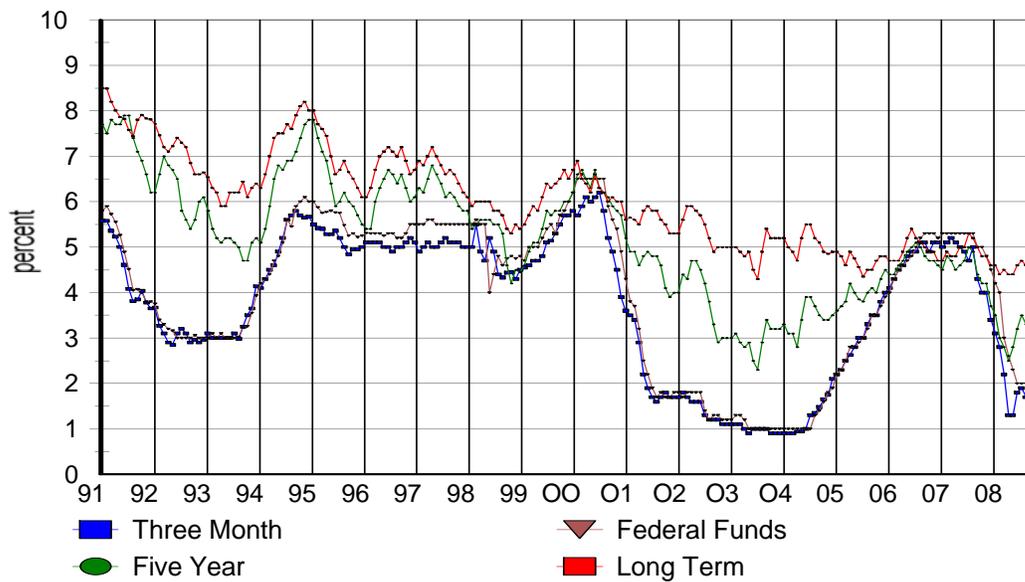
| Time Period | Aggregate Reserves | Monetary Base | M1   | M2   | M3 <sup>a</sup> |
|-------------|--------------------|---------------|------|------|-----------------|
| 91:12-92:12 | 19.6               | 10.5          | 14.3 | 1.6  | 0.3             |
| 92:12-93:12 | 11.3               | 10.5          | 10.3 | 1.6  | 1.4             |
| 93:12-94:12 | -1.8               | 8.2           | 1.8  | 0.4  | 1.7             |
| 94:12-95:12 | -5.0               | 3.9           | -2.0 | 4.1  | 6.0             |
| 95:12-96:12 | -11.2              | 4.0           | -4.1 | 4.7  | 7.3             |
| 96:12-97:12 | -6.6               | 6.1           | -0.7 | 5.7  | 9.1             |
| 97:12-98:12 | -3.5               | 7.0           | 2.2  | 8.8  | 11.0            |
| 98:12-99:12 | -7.6               | 15.3          | 2.3  | 6.0  | 8.3             |
| 99:12-00:12 | -7.3               | -1.5          | -3.0 | 6.2  | 8.6             |
| 00:12-01:12 | 6.7                | 8.7           | 8.3  | 10.5 | 12.9            |
| 01:12-02:12 | -2.8               | 7.2           | 3.2  | 6.4  | 6.5             |
| 02:12-03:12 | 6.9                | 5.7           | 6.2  | 4.6  | 3.3             |
| 03:12-04:12 | 8.8                | 5.4           | 5.2  | 5.7  | 6.4             |
| 04:12-05:12 | -4.3               | 3.6           | 0.0  | 4.1  | 7.8             |
| 05:12-06:12 | -4.4               | 3.1           | -0.5 | 5.3  | NA              |
| 06:12-07:12 | -1.7               | 1.4           | 0.0  | 5.9  | NA              |
| 07:09-08:09 | 140.9              | 9.9           | 6.4  | 6.2  | NA              |

**Source:** Board of Governors of the Federal Reserve System.

a. Data on M3 ceased to be published in March 2006.

<sup>7</sup> See Alan Greenspan. *The Age of Turbulence*. Penguin Press. New York (2007): pp. 228-229.

<sup>8</sup> The Fed also undertook a number of new initiatives to provide liquidity to the financial system. These are discussed in CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte.

**Figure 1. Yield on Selected Securities and Federal Funds**

Source: Board of Governors of the Federal Reserve System.

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

| Time Period | Currency | Demand Deposits | Other Checking Deposits | Nontransactions Component <sup>a</sup> |
|-------------|----------|-----------------|-------------------------|--|
| 94:12-95:12 | 5.1      | 1.5             | -11.8                   | 7.1                                    |
| 95:12-96:12 | 5.9      | 3.4             | -22.6                   | 8.7                                    |
| 96:12-97:12 | 7.7      | -1.7            | -11.0                   | 8.2                                    |
| 97:12-98:12 | 8.2      | -4.1            | 1.8                     | 11.2                                   |
| 98:12-99:12 | 12.2     | -6.2            | -2.5                    | 6.9                                    |
| 99:12-01:12 | 2.4      | -11.9           | -1.6                    | 9.2                                    |
| 00:12-01:12 | 9.5      | 6.3             | 8.4                     | 11.2                                   |
| 01:12-02:12 | 7.8      | -9.0            | 8.2                     | 7.5                                    |
| 02:12-03:12 | 5.8      | 3.5             | 11.2                    | 4.1                                    |
| 03:12-04:12 | 5.3      | 5.5             | 5.6                     | 5.6                                    |
| 04:12-05:12 | 3.7      | -4.6            | -3.4                    | 5.2                                    |
| 05:12-06:12 | 3.5      | -5.6            | -4.5                    | 6.8                                    |
| 06:12-07:12 | 1.3      | -4.3            | 0.4                     | 7.3                                    |
| 07:09-08:09 | 2.7      | 18.8            | 3.7                     | 6.2                                    |

Source: Board of Governors of the Federal Reserve System.

a. Consists principally of savings accounts (including money market deposit accounts) and time certificates of deposits.

Note also 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, 1999, and 2001 to 2007. This should help dispel the notion that the Federal Reserve can set interest rates wherever it wishes.

## **The Federal Reserve and the Monetary Aggregates**

In its report to 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 three years.

For this reason, the Board of Governors decided to de-emphasize both M2 and M3 in its decision-making. 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 Monetary Policy (formerly called 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....

Even this view of the usefulness of the aggregates has changed. The Board of Governors announced in November 2005 that beginning in March 23, 2006, it would no longer publish data on M3. In the words of the Board: "... publication of M3 was judged to be no longer generating sufficient benefit in the analysis of the economy or of the financial sector to justify the costs of publication."<sup>9</sup>

## **The Federal Reserve and the Discount Rate**

The Federal Reserve has preferred to conduct monetary policy by setting a target for the federal funds rate. This method has allowed the Federal Reserve to adopt an activist posture in the conduct of monetary policy. The Board of Governors controls

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<sup>9</sup> *Monetary Policy Report to the Congress*, February 15, 2006, p. 22.

another interest rate, the discount rate. Financial institutions can borrow on a temporary basis directly from the Federal Reserve at this rate. The Board can either grant or deny the loan. The initiation of the loan, however, is at the discretion of the borrowing financial institution. In this sense, the Federal Reserve is passive in the process. Although the discount rate has long been a tool of central banking, it has fallen into disuse in the United States over the past several decades. Financial institutions prefer to borrow overnight in the federal funds market because they can obtain what they need without having to subject their borrowing needs to the purview of the Federal Reserve. On the downside, borrowing federal funds is generally on an overnight basis where as borrowing at the discount window is for a longer period. In conducting monetary policy, the Board has, in the past, moved the discount rate in sympathy with the federal funds target. For much of the past decade, the discount rate was set slightly below the federal funds target.

To discourage financial institutions from borrowing at the discount window, lending rules were altered in early 2003. Since that time, the discount rate has been set above the federal funds rate target and is now a penalty rate. However, a change in the discount rate independent from a change in the federal funds target can send a powerful message to financial markets. For example, on August 17, 2007, the Board of Governors, concerned about the adequacy of liquidity in national financial markets, reduced the discount rate for primary credit to 4¾% from 5¼%. Later, on September 18, October 31, December 11, 2007, January 22 and 30, March 18, April 30, and October 8, 2008, when the federal funds target was reduced, the discount rate was also reduced replicating past behavior by the Federal Reserve (in addition, on March 16, 2008, the discount rate was lowered without any change in the federal funds target).

## **The Federal Reserve's Mandate and Its Independence**

The Constitution grants Congress the power to “coin money, and regulate the value thereof...” However, operational responsibility for making U.S. monetary policy has been delegated by Congress to the Fed. Congress is still responsible for oversight, setting the Fed’s mandate and approving the President’s nominations for the Fed’s Board of Governors, but several institutional features grant it significant “independence” from the political process.<sup>10</sup> The Federal Reserve system is quasi-public in structure: it is owned by its member banks. The governors are appointed to staggered 14-year terms, and can only be removed by Congress for cause. It is self-funded and does not receive appropriations. While it must follow its congressional mandate, it has been granted broad *discretion* to interpret and carry out that mandate as it sees fit on a day-to-day basis. Most economists argue that good monetary policy depends on independence because it reduces the temptation to raise inflation in the long run in order to lower unemployment in the short run. Researchers have made cross-country comparisons to try to make the case that

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<sup>10</sup> For more information, see CRS Report RL31056, *Economics of Federal Reserve Independence*, by Marc Labonte.

countries with independent central banks are more likely to have low inflation rates and better economic performance.<sup>11</sup>

As a practical matter, the Fed's mandate can be seen as a further source of political independence. The Federal Reserve Act of 1977 (P.L. 95-188, 91 Stat. 1387) charged the Fed with "the goals of maximum employment, stable prices, and moderate long-term interest rates." Note that the Fed controls none of these three indicators directly; it controls only overnight interest rates. Because it has only one tool at its disposal and three goals, there will be times when the goals will be at odds with each other, and the Fed will have to choose to pursue one at the expense of the other two. Critics have argued that the ambiguity inherent in the current mandate makes for less than optimal transparency and accountability. It may also strengthen political independence if it allows the Fed to deflect congressional criticism by pointing, at any given time, to whatever goal justifies its current policy stance.

The most popular alternative to the current mandate is to replace it with a single mandate of price stability. Under this proposal, the Fed would typically be given (or, under the version mooted by Chairman Bernanke, give itself) a numerical inflation target, and would then be required to set monetary policy with the goal of meeting the target on an ongoing basis.<sup>12</sup> Proponents of inflation targeting say that maximum employment and moderate interest rates are not meaningful policy goals because monetary policy has no long-term influence over either one. They argue a mandate that focused on keeping inflation low would deliver better economic results and improve transparency and oversight. Opponents, including former Chairman Greenspan, say that the flexibility inherent in the current system has served the United States well in the past 25 years, delivering both low inflation and economic stability, and there is little reason to fix a system that is not broken. They argue that some focus on employment is appropriate given that monetary policy has powerful short-term effects on it, and that too great a focus on inflation could lead to a overly volatile business cycle. Inflation targeting has been widely adopted abroad, although foreign inflation targeters seem to target inflation less strictly in practice than some of its proponents may have hoped.<sup>13</sup>

## **Congressional Oversight and The Near-Term Goals of Monetary Policy**

The primary form of congressional oversight of the Federal Reserve are the semi-annual hearings with the Senate Committee on Banking, Housing, and Urban Affairs and the House Committee on Financial Services. At these hearings, which

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<sup>11</sup> For a review of the research and criticisms, see CRS Report RL31955, *Central Bank Independence and Economic Performance: What Does the Evidence Show?*, by Marc Labonte and Gail Makinen.

<sup>12</sup> See CRS Report 98-16, *Should the Federal Reserve Adopt an Inflation Target?*, by Marc Labonte and Gail Makinen.

<sup>13</sup> See CRS Report RL31702, *Price Stability (Inflation Targeting) as the Sole Goal of Monetary Policy: The International Experience*, by Marc Labonte and Gail Makinen.

take place in February and July, the Fed Chairman presents the Fed's *Monetary Policy Report to the Congress*, testifies, and responds to questions from committee members. These hearings and reporting requirements were established by the Full Employment Act of 1978 (P.L. 95-523, 92 Stat 1897), also known as the Humphrey-Hawkins Act, and renewed in the American Homeownership and Economic Opportunity Act of 2000 (P.L. 106-569).

The semiannual *Monetary Policy Report* presents a review of recent economic and monetary policy developments, as well as economic projections for three years. Since monetary policy plays an important role in determining economic outcomes, these projections can be viewed as the Fed's perceptions of how today's monetary policy stance will influence future economic conditions. To increase the transparency of monetary policy, the Fed in 2007 began to provide additional forecasts. They now appear quarterly. The most recent, from the *Monetary Policy Report* of July 15, 2008, representing the views of the Board of Governors and the 12 Reserve Bank Presidents, is presented in **Table 4**. These are contrasted with the projections made for similar variables by the Federal Reserve last April.<sup>14</sup>

**Table 4. Federal Reserve System Economic Projections**  
(percent)

|                            | 2008              | 2009              | 2010              |
|----------------------------|-------------------|-------------------|-------------------|
| Growth of real GDP         | 1.0 to 1.6        | 2.0 to 2.8        | 2.5 to 3.0        |
| <i>April Projections</i>   | <i>0.3 to 1.2</i> | <i>2.0 to 2.8</i> | <i>2.6 to 3.1</i> |
| Unemployment Rate          | 5.5 to 5.7        | 5.3 to 5.8        | 5.0 to 5.6        |
| <i>April Projections</i>   | <i>5.5 to 5.7</i> | <i>5.2 to 5.7</i> | <i>4.9 to 5.5</i> |
| PCE inflation <sup>a</sup> | 3.8 to 4.2        | 2.0 to 2.3        | 1.8 to 2.0        |
| <i>April Projections</i>   | <i>3.1 to 3.4</i> | <i>1.9 to 2.3</i> | <i>1.8 to 2.0</i> |
| Core PCE inflation         | 2.2 to 2.4        | 2.0 to 2.2        | 1.8 to 2.0        |
| <i>April Projections</i>   | <i>2.2 to 2.4</i> | <i>1.9 to 2.1</i> | <i>1.7 to 1.9</i> |

**Source:** Table in the *Monetary Policy Report*, July 15, 2008.

- a. These projections use the price index for Personal Consumption Expenditures obtained from the Gross Domestic Product accounts. The Core PCE is the PCE less food and energy.

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<sup>14</sup> These projections represent the "central tendency" for each variable, which means that in computing the averages in the table the three highest and lowest projections for each variable are excluded.

## 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 was 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.