Chapter 14

Structure of Central Banks and the Federal Reserve System

PREVIEW

Among the most important players in financial markets throughout the world are central banks, the government authorities in charge of monetary policy. Central banks' actions affect interest rates, the amount of credit, and the money supply, all of which have direct impacts not only on financial markets, but also on aggregate output and inflation. To understand the role that central banks play in financial markets and the overall economy, we need to understand how these organizations work. Who controls central banks and determines their actions? What motivates their behavior? Who holds the reins of power?

In this chapter, we look at the institutional structure of major central banks, and focus particularly on the Federal Reserve System, the most important central bank in the world. We start by focusing on the formal institutional structure of the Fed and then examine the more relevant informal structure that determines where the true power within the Federal Reserve System lies. By understanding who makes the decisions, we will have a better idea of how they are made. We then look at several other major central banks and see how they are organized. With this information, we will be more able to comprehend the actual conduct of monetary policy described in the following chapters.

Origins of the Federal Reserve System

Of all the central banks in the world, the Federal Reserve System probably has the most unusual structure. To understand why this structure arose, we must go back to before 1913, when the Federal Reserve System was created.

Before the twentieth century, a major characteristic of American politics was the fear of centralized power, as seen in the checks and balances of the Constitution and the preservation of states' rights. This fear of centralized power was one source of the American resistance to the establishment of a central bank (see Chapter 10). Another source was the traditional American distrust of moneyed interests, the most prominent symbol of which was a central bank. The open hostility of the American public to the existence of a central bank resulted in the demise of the first two experiments in central banking, whose function was to police the banking system: The First Bank of the United States was disbanded in 1811, and the national charter of the Second

Box 1: Inside the Fed

The Political Genius of the Founders of the Federal Reserve System

The history of the United States has been one of public hostility to banks and especially to a central bank. How were the politicians who founded the Federal Reserve able to design a system that has become one of the most prestigious institutions in the United States?

The answer is that the founders recognized that if power was too concentrated in either Washington or New York, cities that Americans often love to hate, an American central bank might not have enough public support to operate effectively. They thus decided to set up a decentralized system with 12 Federal Reserve banks spread throughout the country to make sure that all regions of the country were represented in monetary policy deliberations. In addition, they made the Federal Reserve banks quasi-private institutions overseen by directors from the private sector living in that district who represent views from that region and are in close contact with the president of the Federal Reserve bank. The unusual structure of the Federal Reserve System has promoted a concern in the Fed with regional issues as is evident in Federal Reserve bank publications. Without this unusual structure, the Federal Reserve System might have been far less popular with the public, making the institution far less effective.

Bank of the United States expired in 1836 after its renewal was vetoed in 1832 by President Andrew Jackson.

The termination of the Second Bank's national charter in 1836 created a severe problem for American financial markets, because there was no lender of last resort who could provide reserves to the banking system to avert a bank panic. Hence in the nineteenth and early twentieth centuries, nationwide bank panics became a regular event, occurring every twenty years or so, culminating in the panic of 1907. The 1907 panic resulted in such widespread bank failures and such substantial losses to depositors that the public was finally convinced that a central bank was needed to prevent future panics.

The hostility of the American public to banks and centralized authority created great opposition to the establishment of a single central bank like the Bank of England. Fear was rampant that the moneyed interests on Wall Street (including the largest corporations and banks) would be able to manipulate such an institution to gain control over the economy and that federal operation of the central bank might result in too much government intervention in the affairs of private banks. Serious disagreements existed over whether the central bank should be a private bank or a government institution. Because of the heated debates on these issues, a compromise was struck. In the great American tradition, Congress wrote an elaborate system of checks and balances into the Federal Reserve Act of 1913, which created the Federal Reserve System with its 12 regional Federal Reserve banks (see Box 1).

Formal Structure of the Federal Reserve System

The formal structure of the Federal Reserve System was intended by writers of the Federal Reserve Act to diffuse power along regional lines, between the private sector and the government, and among bankers, businesspeople, and the public. This initial diffusion of power has resulted in the evolution of the Federal Reserve System to www.federalreserve.gov/pubs/frseries/frseri.htm

Information on the structure of the Federal Reserve System.

include the following entities: the **Federal Reserve banks**, the **Board of Governors of the Federal Reserve System**, the **Federal Open Market Committee (FOMC)**, the Federal Advisory Council, and around 4,800 member commercial banks. Figure 1 outlines the relationships of these entities to one another and to the three policy tools of the Fed (open market operations, the discount rate, and reserve requirements) discussed in Chapters 15 to 17.

Federal Reserve Banks

Each of the 12 Federal Reserve districts has one main Federal Reserve bank, which may have branches in other cities in the district. The locations of these districts, the Federal Reserve banks, and their branches are shown in Figure 2. The three largest

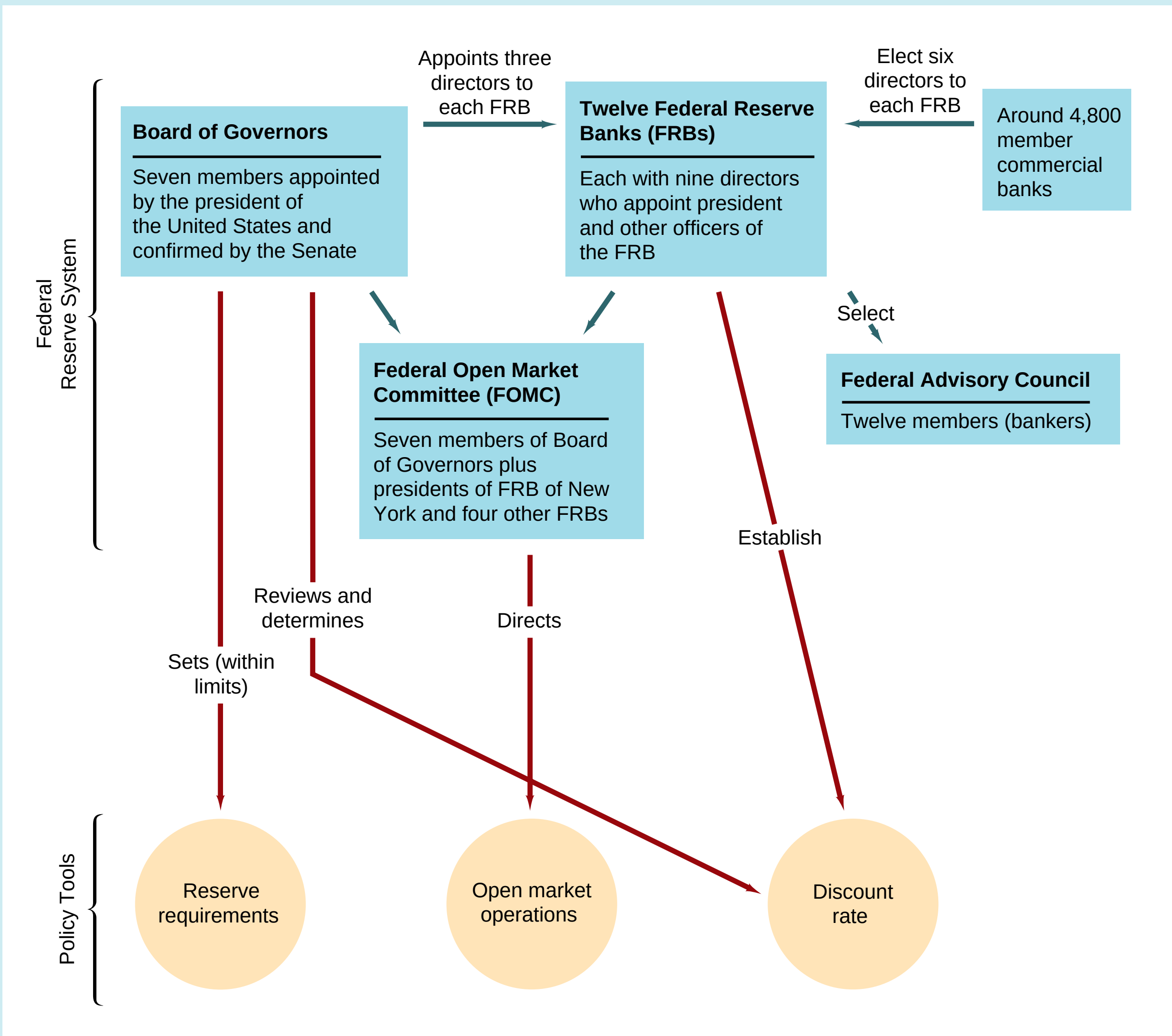

FIGURE 1 Formal Structure and Allocation of Policy Tools in the Federal Reserve

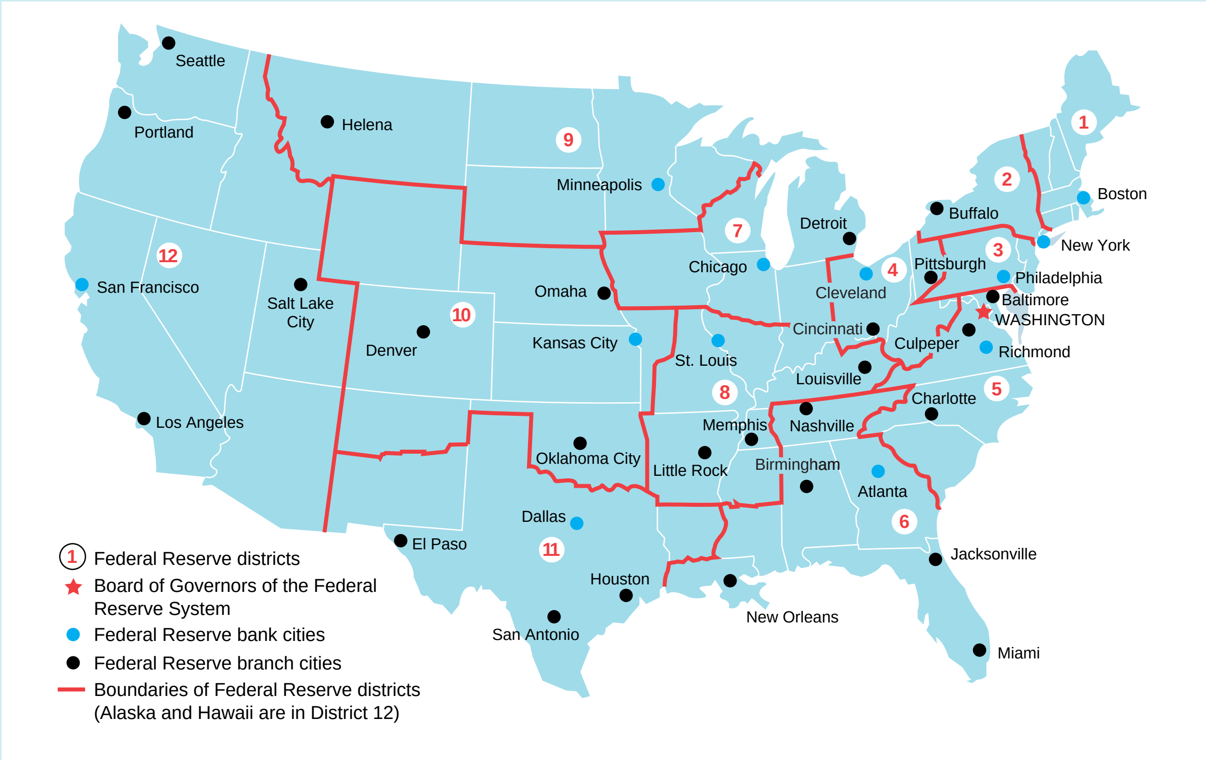

FIGURE 2 Federal Reserve System

Source: Federal Reserve *Bulletin*.

www.federalreserve.gov/otherfrb.htm

Addresses and phone numbers of Federal Reserve banks, branches, and RCPCs and links to the main pages of the 12 reserve banks and Board of Governors.

Federal Reserve banks in terms of assets are those of New York, Chicago, and San Francisco—combined they hold over 50% of the assets (discount loans, securities, and other holdings) of the Federal Reserve System. The New York bank, with around one-quarter of the assets, is the most important of the Federal Reserve banks (see Box 2).

Each of the Federal Reserve banks is a quasi-public (part private, part government) institution owned by the private commercial banks in the district that are members of the Federal Reserve System. These member banks have purchased stock in their district Federal Reserve bank (a requirement of membership), and the dividends paid by that stock are limited by law to 6% annually. The member banks elect six directors for each district bank; three more are appointed by the Board of Governors. Together, these nine directors appoint the president of the bank (subject to the approval of the Board of Governors).

The directors of a district bank are classified into three categories, A, B, and C: The three A directors (elected by the member banks) are professional bankers, and the three B directors (also elected by the member banks) are prominent leaders from industry, labor, agriculture, or the consumer sector. The three C directors, who are appointed by the Board of Governors to represent the public interest, are not allowed to be officers, employees, or stockholders of banks. This design for choosing directors was intended by the framers of the Federal Reserve Act to ensure that the directors of each Federal Reserve bank would reflect all constituencies of the American public.

Box 2: Inside the Fed

The Special Role of the Federal Reserve Bank of New York

The Federal Reserve Bank of New York plays a special role in the Federal Reserve System for several reasons. First, its district contains many of the largest commercial banks in the United States, the safety and soundness of which are paramount to the health of the U.S. financial system. The Federal Reserve Bank of New York conducts examinations of bank holding companies and state-chartered banks in its district, making it the supervisor of some of the most important financial institutions in our financial system. Not surprisingly, given this responsibility, the bank supervision group is one of the largest units of the New York Fed and is by far the largest bank supervision group in the Federal Reserve System.

The second reason for the New York Fed's special role is its active involvement in the bond and foreign exchange markets. The New York Fed houses the open market desk, which conducts open market operations—the purchase and sale of bonds—that determine the amount of reserves in the banking system. Because of this involvement in the Treasury securities market, as well as its walking-distance location near the New York and American Stock Exchanges, the officials at the Federal Reserve Bank of New York are in constant contact with the major domestic financial markets in the United States. In addition, the Federal Reserve Bank of New York also houses the foreign exchange desk, which conducts foreign exchange interventions on behalf of the Federal Reserve System and the U.S. Treasury. Its involvement in these financial markets means that the New York Fed is an important source of information on what is happening in domestic and foreign financial markets, particularly during crisis periods, as well as a liaison between officials in the Federal Reserve System and private participants in the markets.

The third reason for the Federal Reserve Bank of New York's prominence is that it is the only Federal Reserve bank to be a member of the Bank for International Settlements (BIS). Thus the president of the New York Fed, along with the chairman of the Board of Governors, represents the Federal Reserve System in its regular monthly meetings with other major central bankers at the BIS. This close contact with foreign central bankers and interaction with foreign exchange markets means that the New York Fed has a special role in international relations, both with other central bankers and with private market participants. Adding to its prominence in international circles is that the New York Fed is the repository for over $100 billion of the world's gold, an amount greater than the gold at Fort Knox.

Finally, the president of the Federal Reserve Bank of New York is the only permanent member of the FOMC among the Federal Reserve bank presidents, serving as the vice-chairman of the committee. Thus he and the chairman and vice-chairman of the Board of Governors are the three most important officials in the Federal Reserve System.

The 12 Federal Reserve banks perform the following functions:

- Clear checks
- Issue new currency
- Withdraw damaged currency from circulation
- Administer and make discount loans to banks in their districts
- Evaluate proposed mergers and applications for banks to expand their activities
- Act as liaisons between the business community and the Federal Reserve System
- Examine bank holding companies and state-chartered member banks
- Collect data on local business conditions
- Use their staffs of professional economists to research topics related to the conduct of monetary policy

The 12 Federal Reserve banks are involved in monetary policy in several ways:

1. Their directors "establish" the discount rate (although the discount rate in each district is reviewed and determined by the Board of Governors).
2. They decide which banks, member and nonmember alike, can obtain discount loans from the Federal Reserve bank.
3. Their directors select one commercial banker from each bank's district to serve on the Federal Advisory Council, which consults with the Board of Governors and provides information that helps in the conduct of monetary policy.
4. Five of the 12 bank presidents each have a vote in the Federal Open Market Committee, which directs **open market operations** (the purchase and sale of government securities that affect both interest rates and the amount of reserves in the banking system). As explained in Box 2, the president of the New York Fed always has a vote in the FOMC, making it the most important of the banks; the other four votes allocated to the district banks rotate annually among the remaining 11 presidents.

Member Banks

All *national banks* (commercial banks chartered by the Office of the Comptroller of the Currency) are required to be members of the Federal Reserve System. Commercial banks chartered by the states are not required to be members, but they can choose to join. Currently, around one-third of the commercial banks in the United States are members of the Federal Reserve System, having declined from a peak figure of 49% in 1947.

Before 1980, only member banks were required to keep reserves as deposits at the Federal Reserve banks. Nonmember banks were subject to reserve requirements determined by their states, which typically allowed them to hold much of their reserves in interest-bearing securities. Because no interest is paid on reserves deposited at the Federal Reserve banks, it was costly to be a member of the system, and as interest rates rose, the relative cost of membership rose, and more and more banks left the system.

This decline in Fed membership was a major concern of the Board of Governors (one reason was that it lessened the Fed's control over the money supply, making it more difficult for the Fed to conduct monetary policy). The chairman of the Board of Governors repeatedly called for new legislation requiring all commercial banks to be members of the Federal Reserve System. One result of the Fed's pressure on Congress was a provision in the Depository Institutions Deregulation and Monetary Control Act of 1980: All depository institutions became subject (by 1987) to the same requirements to keep deposits at the Fed, so member and nonmember banks would be on an equal footing in terms of reserve requirements. In addition, all depository institutions were given access to the Federal Reserve facilities, such as the discount window (discussed in Chapter 17) and Fed check clearing, on an equal basis. These provisions ended the decline in Fed membership and reduced the distinction between member and nonmember banks.

Board of Governors of the Federal Reserve System

At the head of the Federal Reserve System is the seven-member Board of Governors, headquartered in Washington, D.C. Each governor is appointed by the president of the United States and confirmed by the Senate. To limit the president's control over the Fed and insulate the Fed from other political pressures, the governors serve one nonrenewable 14-year term, with one governor's term expiring every other January.[1] The governors (many are professional economists) are required to come from different Federal Reserve districts to prevent the interests of one region of the country from being overrepresented. The chairman of the Board of Governors is chosen from among the seven governors and serves a four-year term. It is expected that once a new chairman is chosen, the old chairman resigns from the Board of Governors, even if there are many years left to his or her term as a governor.

www.federalreserve.gov/bios/1199member.pdf

Lists all the members of the Board of Governors of the Federal Reserve since its inception.

The Board of Governors is actively involved in decisions concerning the conduct of monetary policy. All seven governors are members of the FOMC and vote on the conduct of open market operations. Because there are only 12 voting members on this committee (seven governors and five presidents of the district banks), the Board has the majority of the votes. The Board also sets reserve requirements (within limits imposed by legislation) and effectively controls the discount rate by the "review and determination" process, whereby it approves or disapproves the discount rate "established" by the Federal Reserve banks. The chairman of the Board advises the president of the United States on economic policy, testifies in Congress, and speaks for the Federal Reserve System to the media. The chairman and other governors may also represent the United States in negotiations with foreign governments on economic matters. The Board has a staff of professional economists (larger than those of individual Federal Reserve banks), which provides economic analysis that the board uses in making its decisions. (Box 3 discusses the role of the research staff.)

Through legislation, the Board of Governors has often been given duties not directly related to the conduct of monetary policy. In the past, for example, the Board set the maximum interest rates payable on certain types of deposits under Regulation Q. (After 1986, ceilings on time deposits were eliminated, but there is still a restriction on paying any interest on business demand deposits.) Under the Credit Control Act of 1969 (which expired in 1982), the Board had the ability to regulate and control credit once the president of the United States approved. The Board of Governors also sets margin requirements, the fraction of the purchase price of securities that has to be paid for with cash rather than borrowed funds. It also sets the salary of the president and all officers of each Federal Reserve bank and reviews each bank's budget. Finally, the Board has substantial bank regulatory functions: It approves bank mergers and applications for new activities, specifies the permissible activities of bank holding companies, and supervises the activities of foreign banks in the United States.

Federal Open Market Committee (FOMC)

The FOMC usually meets eight times a year (about every six weeks) and makes decisions regarding the conduct of open market operations, which influence the monetary base. Indeed, the FOMC is often referred to as the "Fed" in the press: for example, when the media say that the Fed is meeting, they actually mean that the FOMC is meeting. The committee consists of the seven members of the Board of Governors, the president of the Federal Reserve Bank of New York, and the presidents of four other Federal Reserve banks. The chairman of the Board of Governors also presides as the chairman of the FOMC. Even though only the presidents of five of the Federal Reserve

[1]Although technically the governor's term is nonrenewable, a governor can resign just before the term expires and then be reappointed by the president. This explains how one governor, William McChesney Martin Jr., served for 28 years. Since Martin, the chairman from 1951 to 1970, retired from the board in 1970, the practice of extending a governor's term beyond 14 years has become a rarity.

Box 3: Inside the Fed

The Role of the Research Staff

The Federal Reserve System is the largest employer of economists not just in the United States, but in the world. The system's research staff has around 1,000 people, about half of whom are economists. Of these 500 economists, 250 are at the Board of Governors, 100 are at the Federal Reserve Bank of New York, and the remainder are at the other Federal Reserve banks. What do all these economists do?

The most important task of the Fed's economists is to follow the incoming data from government agencies and private sector organizations on the economy and provide guidance to the policymakers on where the economy may be heading and what the impact of monetary policy actions on the economy might be. Before each FOMC meeting, the research staff at each Federal Reserve bank briefs its president and the senior management of the bank on its forecast for the U.S. economy and the issues that are likely to be discussed at the meeting. The research staff also provides briefing materials or a formal briefing on the economic outlook for the bank's region, something that each president discusses at the FOMC meeting. Meanwhile, at the Board of Governors, economists maintain a large econometric model (a model whose equations are estimated with statistical procedures) that helps them produce their forecasts of the national economy, and they too brief the governors on the national economic outlook.

The research staffers at the banks and the board also provide support for the bank supervisory staff, tracking developments in the banking sector and other financial markets and institutions and providing bank examiners with technical advice that they might need in the course of their examinations. Because the Board of Governors has to decide on whether to approve bank mergers, the research staff at both the board and the bank in whose district the merger is to take place prepare information on what effect the proposed merger might have on the competitive environment. To assure compliance with the Community Reinvestment Act, economists also analyze a bank's performance in its lending activities in different communities.

Because of the increased influence of developments in foreign countries on the U.S. economy, the members of the research staff, particularly at the New York Fed and the Board, produce reports on the major foreign economies. They also conduct research on developments in the foreign exchange market because of its growing importance in the monetary policy process and to support the activities of the foreign exchange desk. Economists also help support the operation of the open market desk by projecting reserve growth and the growth of the monetary aggregates.

Staff economists also engage in basic research on the effects of monetary policy on output and inflation, developments in the labor markets, international trade, international capital markets, banking and other financial institutions, financial markets, and the regional economy, among other topics. This research is published widely in academic journals and in Reserve bank publications. (Federal Reserve bank reviews are a good source of supplemental material for money and banking students.)

Another important activity of the research staff primarily at the Reserve banks is in the public education area. Staff economists are called on frequently to make presentations to the board of directors at their banks or to make speeches to the public in their district.

www.federalreserve.gov/fomc

Find general information on the FOMC, its schedule of meetings, statements, minutes, and transcripts; information on its members, and the "beige book."

banks are voting members of the FOMC, the other seven presidents of the district banks attend FOMC meetings and participate in discussions. Hence they have some input into the committee's decisions.

Because open market operations are the most important policy tool that the Fed has for controlling the money supply, the FOMC is necessarily the focal point for policymaking in the Federal Reserve System. Although reserve requirements and the discount rate are not actually set by the FOMC, decisions in regard to these policy tools are effectively made there. The FOMC does not actually carry out securities purchases or sales. Rather it issues directives to the trading desk at the Federal Reserve Bank of New York, where the manager for domestic open market operations supervises a roomful of people who execute the purchases and sales of the government or agency securities. The manager communicates daily with the FOMC members and their staffs concerning the activities of the trading desk.

The FOMC Meeting

The FOMC meeting takes place in the boardroom on the second floor of the main building of the Board of Governors in Washington. The seven governors and the 12 Reserve Bank presidents, along with the secretary of the FOMC, the Board's director of the Research and Statistics Division and his deputy, and the directors of the Monetary Affairs and International Finance Divisions, sit around a massive conference table. Although only five of the Reserve Bank presidents have voting rights on the FOMC at any given time, all actively participate in the deliberations. Seated around the sides of the room are the directors of research at each of the Reserve banks and other senior board and Reserve Bank officials, who, by tradition, do not speak at the meeting.

Except for the meetings prior to the February and July testimony by the chairman of the Board of Governors before Congress, the meeting starts on Tuesday at 9:00 A.M. sharp with a quick approval of the minutes of the previous meeting of the FOMC. The first substantive agenda item is the report by the manager of system open market operations on foreign currency and domestic open market operations and other issues related to these topics. After the governors and Reserve Bank presidents finish asking questions and discussing these reports, a vote is taken to ratify them.

The next stage in the meeting is a presentation of the Board staff's national economic forecast, referred to as the "green book" forecast (see Box 4), by the director of the Research and Statistics Division at the board. After the governors and Reserve Bank presidents have queried the division director about the forecast, the so-called *go-round* occurs: Each bank president presents an overview of economic conditions in his or her district and the bank's assessment of the national outlook, and each governor, except for the chairman, gives a view of the national outlook. By tradition, remarks avoid the topic of monetary policy at this time.

After a coffee break, everyone returns to the boardroom and the agenda turns to current monetary policy and the domestic policy directive. The Board's director of the Monetary Affairs Division then leads off the discussion by outlining the different scenarios for monetary policy actions outlined in the blue book (see Box 4) and may describe an issue relating to how monetary policy should be conducted. After a question-and-answer period, the chairman (currently Alan Greenspan) sets the stage for the following discussion by presenting his views on the state of the economy and then typically makes a recommendation for what monetary policy action should be taken. Then each of the FOMC members as well as the nonvoting bank presidents expresses his or her views on monetary policy, and the chairman summarizes the discussion and proposes specific wording for the directive on the federal funds rate target transmitted to the open market desk. The secretary of the FOMC formally reads the proposed statement, and the members of the FOMC vote.[2]

[2]The decisions expressed in the directive may not be unanimous, and the dissenting views are made public. However, except in rare cases, the chairman's vote is always on the winning side.

Box 4: Inside the Fed

Green, Blue, and Beige

What Do These Colors Mean at the Fed? Three research documents play an important role in the monetary policy process and at Federal Open Market Committee meetings. The national forecast for the next two years, generated by the Federal Reserve Board of Governors' Research and Statistics Division, is placed between green covers and is thus known as the "green book." It is provided to all who attend the FOMC meeting. The "blue book," in blue covers, also provided to all participants at the FOMC meeting, contains the projections for the monetary aggregates prepared by the Monetary Affairs Division at the Board of Governors and typically also presents three alternative scenarios for the stance of monetary policy (labeled A, B, and C). The "beige book," with beige covers, is produced by the Reserve banks and details evidence gleaned either from surveys or from talks with key businesses and financial institutions on the state of the economy in each of the Federal Reserve districts. This is the only one of the three books that is distributed publicly, and it often receives a lot of attention in the press.

Then there is an informal buffet lunch, and while eating, the participants hear a presentation on the latest developments in Congress on banking legislation and other legislation relevant to the Federal Reserve. Around 2:15 P.M., the meeting breaks up and a public announcement is made about the outcome of the meeting: whether the target federal funds rate and discount rate have been raised, lowered, or left unchanged, and an assessment of the "balance of risks" in the future, whether toward higher inflation or toward a weaker economy.[3] The postmeeting announcement is an innovation initiated in 1994. Before then, no such announcement was made, and the markets had to guess what policy action was taken. The decision to announce this information was a step in the direction of greater openness by the Fed.

Informal Structure of the Federal Reserve System

The Federal Reserve Act and other legislation give us some idea of the formal structure of the Federal Reserve System and who makes decisions at the Fed. What is written in black and white, however, does not necessarily reflect the reality of the power and decision-making structure.

As envisioned in 1913, the Federal Reserve System was to be a highly decentralized system designed to function as 12 separate, cooperating central banks. In the original plan, the Fed was not responsible for the health of the economy through its control of the money supply and its ability to affect interest rates. Over time, it has

[3]The meetings before the February and July chairman's testimony before Congress, in which the *Monetary Report to Congress* is presented, have a somewhat different format. Rather than start Tuesday morning at 9:00 A.M. like the other meetings, they start in the afternoon on Tuesday and go over to Wednesday, with the usual announcement around 2:15 P.M. These longer meetings consider the longer-term economic outlook as well as the current conduct of open market operations.

acquired the responsibility for promoting a stable economy, and this responsibility has caused the Federal Reserve System to evolve slowly into a more unified central bank.

The framers of the Federal Reserve Act of 1913 intended the Fed to have only one basic tool of monetary policy: the control of discount loans to member banks. The use of open market operations as a tool for monetary control was not yet well understood, and reserve requirements were fixed by the Federal Reserve Act. The discount tool was to be controlled by the joint decision of the Federal Reserve banks and the Federal Reserve Board (which later became the Board of Governors), so that both would share equally in the determination of monetary policy. However, the Board's ability to "review and determine" the discount rate effectively allowed it to dominate the district banks in setting this policy.

Banking legislation during the Great Depression years centralized power within the newly created Board of Governors by giving it effective control over the remaining two tools of monetary policy, open market operations and changes in reserve requirements. The Banking Act of 1933 granted the FOMC authority to determine open market operations, and the Banking Act of 1935 gave the Board the majority of votes in the FOMC. The Banking Act of 1935 also gave the Board authority to change reserve requirements.

Since the 1930s, then, the Board of Governors has acquired the reins of control over the tools for conducting monetary policy. In recent years, the power of the Board has become even greater. Although the directors of a Federal Reserve bank choose its president with the approval of the Board, the Board sometimes suggests a choice (often a professional economist) for president of a Federal Reserve bank to the directors of the bank, who then often follow the Board's suggestions. Since the Board sets the salary of the bank's president and reviews the budget of each Federal Reserve bank, it has further influence over the district banks' activities.

If the Board of Governors has so much power, what power do the Federal Advisory Council and the "owners" of the Federal Reserve banks—the member banks—actually have within the Federal Reserve System? The answer is almost none. Although member banks own stock in the Federal Reserve banks, they have none of the usual benefits of ownership. First, they have no claim on the earnings of the Fed and get paid only a 6% annual dividend, regardless of how much the Fed earns. Second, they have no say over how their property is used by the Federal Reserve System, in contrast to stockholders of private corporations. Third, usually only a single candidate for each of the six A and B directorships is "elected" by the member banks, and this candidate is frequently suggested by the president of the Federal Reserve bank (who, in turn, is approved by the Board of Governors). The net result is that member banks are essentially frozen out of the political process at the Fed and have little effective power. Fourth, as its name implies, the Federal Advisory Council has only an advisory capacity and has no authority over Federal Reserve policymaking. Although the member bank "owners" do not have the usual power associated with being a stockholder, they do play an important, but subtle, role in the Federal Reserve System (see Box 5).

A fair characterization of the Federal Reserve System as it has evolved is that it functions as a central bank, headquartered in Washington, D.C., with branches in 12 cities. Because all aspects of the Federal Reserve System are essentially controlled by the Board of Governors, who controls the Board? Although the chairman of the Board of Governors does not have legal authority to exercise control over this body, he effectively does so through his ability to act as spokesperson for the Fed and negotiate with

Box 5: Inside the Fed

The Role of Member Banks in the Federal Reserve System

Although the member bank stockholders in each Federal Reserve bank have little direct power in the Federal Reserve System, they do play an important role. Their six representatives on the board of directors of each bank have a major oversight function. Along with the three public interest directors, they oversee the audit process for the Federal Reserve bank, making sure it is being run properly, and also share their management expertise with the senior management of the bank. Because they vote on recommendations by each bank to raise, lower, or maintain the discount rate at its current level, they engage in discussions about monetary policy and transmit their private sector views to the president and senior management of the bank. They also get to understand the inner workings of the Federal Reserve banks and the system so that they can help explain the position of the Federal Reserve to their contacts in the private and political sectors. Advisory councils like the Federal Advisory Council and others that are often set up by the district banks—for example, the Small Business and Agriculture Advisory Council and the Thrift Advisory Council at the New York Fed—are a conduit for the private sector to express views on both the economy and the state of the banking system.

So even though the owners of the Reserve banks do not have the usual voting rights, they are important to the Federal Reserve System, because they make sure it does not get out of touch with the needs and opinions of the private sector.

Congress and the president of the United States. He also exercises control by setting the agenda of Board and FOMC meetings. For example, the fact that the agenda at the FOMC has the chairman speak first about monetary policy enables him to have greater influence over what the policy action will be. The chairman also influences the Board through the force of stature and personality. Chairmen of the Board of Governors (including Marriner S. Eccles, William McChesney Martin Jr., Arthur Burns, Paul A. Volcker, and Alan Greenspan) have typically had strong personalities and have wielded great power.

The chairman also exercises power by supervising the Board's staff of professional economists and advisers. Because the staff gathers information for the Board and conducts the analyses that the Board uses in its decisions, it also has some influence over monetary policy. In addition, in the past, several appointments to the Board itself have come from within the ranks of its professional staff, making the chairman's influence even farther-reaching and longer-lasting than a four-year term.

The informal power structure of the Fed, in which power is centralized in the chairman of the Board of Governors, is summarized in Figure 3.

How Independent Is the Fed?

When we look, in the next four chapters, at how the Federal Reserve conducts monetary policy, we will want to know why it decides to take certain policy actions but not others. To understand its actions, we must understand the incentives that motivate the Fed's behavior. How free is the Fed from presidential and congressional pressures? Do economic, bureaucratic, or political considerations guide it? Is the Fed truly independent of outside pressures?

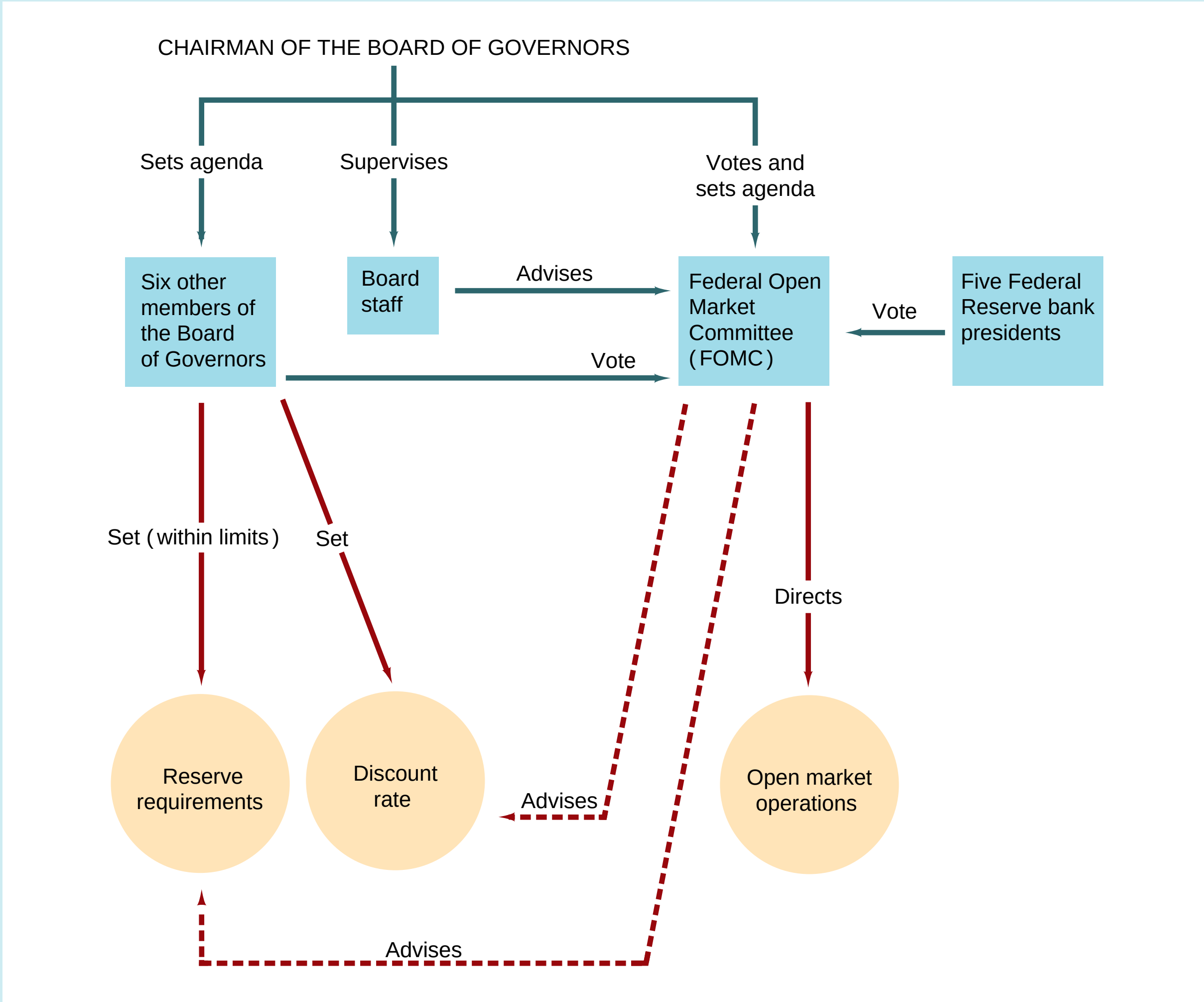

FIGURE 3 Informal Power Structure of the Federal Reserve System

Stanley Fischer, who was a professor at MIT and then the Deputy Managing Director of the International Monetary Fund, has defined two different types of independence of central banks: **instrument independence**, the ability of the central bank to set monetary policy instruments, and **goal independence**, the ability of the central bank to set the goals of monetary policy. The Federal Reserve has both types of independence and is remarkably free of the political pressures that influence other government agencies. Not only are the members of the Board of Governors appointed for a 14-year term (and so cannot be ousted from office), but also the term is technically not renewable, eliminating some of the incentive for the governors to curry favor with the president and Congress.

Probably even more important to its independence from the whims of Congress is the Fed's independent and substantial source of revenue from its holdings of securities and, to a lesser extent, from its loans to banks. In recent years, for example, the Fed has had net earnings after expenses of around $28 billion per year—not a bad living if you can find it! Because it returns the bulk of these earnings to the Treasury, it does not get rich from its activities, but this income gives the Fed an important advantage over other government agencies: It is not subject to the appropriations process usually controlled by Congress. Indeed, the General Accounting Office, the auditing agency of the federal government, cannot audit the monetary policy or foreign exchange market functions of the Federal Reserve. Because the power to control the purse strings is usually synonymous with the power of overall control, this feature of the Federal Reserve System contributes to its independence more than any other factor.

Yet the Federal Reserve is still subject to the influence of Congress, because the legislation that structures it is written by Congress and is subject to change at any time. When legislators are upset with the Fed's conduct of monetary policy, they frequently threaten to take control of the Fed's finances and force it to submit a budget request like other government agencies. A recent example was the call by Senators Dorgan and Reid in 1996 for Congress to have budgetary authority over the nonmonetary activities of the Federal Reserve. This is a powerful club to wield, and it certainly has some effect in keeping the Fed from straying too far from congressional wishes.

Congress has also passed legislation to make the Federal Reserve more accountable for its actions. In 1975, Congress passed House Concurrent Resolution 133, which requires the Fed to announce its objectives for the growth rates of the monetary aggregates. In the Full Employment and Balanced Growth Act of 1978 (the Humphrey-Hawkins Act), the Fed is required to explain how these objectives are consistent with the economic plans of the president of the United States.

The president can also influence the Federal Reserve. Because congressional legislation can affect the Fed directly or affect its ability to conduct monetary policy, the president can be a powerful ally through his influence on Congress. Second, although ostensibly a president might be able to appoint only one or two members to the Board of Governors during each presidential term, in actual practice the president appoints members far more often. One reason is that most governors do not serve out a full 14-year term. (Governors' salaries are substantially below what they can earn in the private sector, thus providing an incentive for them to take private sector jobs before their term expires.) In addition, the president is able to appoint a new chairman of the Board of Governors every four years, and a chairman who is not reappointed is expected to resign from the board so that a new member can be appointed.

The power that the president enjoys through his appointments to the Board of Governors is limited, however. Because the term of the chairman is not necessarily concurrent with that of the president, a president may have to deal with a chairman of the Board of Governors appointed by a previous administration. Alan Greenspan, for example, was appointed chairman in 1987 by President Ronald Reagan and was reappointed to another term by another Republican president, George Bush. When Bill Clinton, a Democrat, became president in 1993, Greenspan had several years left to his term. Clinton was put under tremendous pressure to reappoint Greenspan when his term expired and did so in 1996 and again in 2000, even though Greenspan is a Republican.[4]

[4]Similarly, William McChesney Martin, Jr., the chairman from 1951 to 1970, was appointed by President Truman (Dem.) but was reappointed by Presidents Eisenhower (Rep.), Kennedy (Dem.), Johnson (Dem.), and Nixon (Rep.). Also Paul Volcker, the chairman from 1979 to 1987, was appointed by President Carter (Dem.) but was reappointed by President Reagan (Rep.).

You can see that the Federal Reserve has extraordinary independence for a government agency and is one of the most independent central banks in the world. Nonetheless, the Fed is not free from political pressures. Indeed, to understand the Fed's behavior, we must recognize that public support for the actions of the Federal Reserve plays a very important role.[5]

Structure and Independence of Foreign Central Banks

In contrast to the Federal Reserve System, which is decentralized into 12 privately owned district banks, central banks in other industrialized countries consist of one centralized unit that is owned by the government. Here we examine the structure and degree of independence of four of the most important foreign central banks: the Bank of Canada, the Bank of England, the Bank of Japan, and the European Central Bank.

Bank of Canada

www.bank-banque-canada.ca/

The website for the Bank of Canada.

Canada was late in establishing a central bank: The Bank of Canada was founded in 1934. Its directors are appointed by the government to three-year terms, and they appoint the governor, who has a seven-year term. A governing council, consisting of the four deputy governors and the governor, is the policymaking body comparable to the FOMC that makes decisions about monetary policy.

The Bank Act was amended in 1967 to give the ultimate responsibility for monetary policy to the government. So on paper, the Bank of Canada is not as instrument-independent as the Federal Reserve. In practice, however, the Bank of Canada does essentially control monetary policy. In the event of a disagreement between the bank and the government, the minister of finance can issue a directive that the bank must follow. However, because the directive must be in writing and specific and applicable for a specified period, it is unlikely that such a directive would be issued, and none has been to date. The goal for monetary policy, a target for inflation, is set jointly by the Bank of Canada and the government, so the Bank of Canada has less goal independence than the Fed.

Bank of England

www.bankofengland.co.uk Links/setframe.html

The website for the Bank of England.

Founded in 1694, the Bank of England is one of the oldest central banks. The Bank Act of 1946 gave the government statutory authority over the Bank of England. The Court (equivalent to a board of directors) of the Bank of England is made up of the governor and two deputy governors, who are appointed for five-year terms, and 16 non-executive directors, who are appointed for three-year terms.

Until 1997, the Bank of England was the least independent of the central banks examined in this chapter because the decision to raise or lower interest rates resided not within the Bank of England but with the chancellor of the Exchequer (the equivalent of the U.S. secretary of the Treasury). All of this changed when the new Labour government came to power in May 1997. At this time, the new chancellor of the Exchequer, Gordon Brown, made a surprise announcement that the Bank of England would henceforth have the power to set interest rates. However, the Bank was not granted total instrument independence: The government can overrule the Bank and

[5]An inside view of how the Fed interacts with the public and the politicians can be found in Bob Woodward, *Maestro: Greenspan's Fed and the American Boom* (New York: Simon and Schuster, 2000).

set rates "in extreme economic circumstances" and "for a limited period." Nonetheless, as in Canada, because overruling the Bank would be so public and is supposed to occur only in highly unusual circumstances and for a limited time, it likely to be a rare occurrence.

The decision to set interest rates resides in the Monetary Policy Committee, made up of the governor, two deputy governors, two members appointed by the governor after consultation with the chancellor (normally central bank officials), plus four outside economic experts appointed by the chancellor. (Surprisingly, two of the four outside experts initially appointed to this committee were not British citizens—one was Dutch and the other American, although both were residents of the United Kingdom.) The inflation target for the Bank of England is set by the Chancellor of the Exchequer, so the Bank of England is also less goal-independent than the Fed.

Bank of Japan

www.boj.or.jp/en/index.htm

The website for the Bank of Japan.

The Bank of Japan (Nippon Ginko) was founded in 1882 during the Meiji Restoration. Monetary policy is determined by the Policy Board, which is composed of the governor; two vice governors; and six outside members appointed by the cabinet and approved by the parliament, all of whom serve for five-year terms.

Until recently, the Bank of Japan was not formally independent of the government, with the ultimate power residing with the Ministry of Finance. However, the new Bank of Japan Law, which took effect in April 1998 and was the first major change in the powers of the Bank of Japan in 55 years, has changed this. In addition to stipulating that the objective of monetary policy is to attain price stability, the law granted greater instrument and goal independence to the Bank of Japan. Before this, the government had two voting members on the Policy Board, one from the Ministry of Finance and the other from the Economic Planning Agency. Now the government may send two representatives from these agencies to board meetings, but they no longer have voting rights, although they do have the ability to request delays in monetary policy decisions. In addition, the Ministry of Finance lost its authority to oversee many of the operations of the Bank of Japan, particularly the right to dismiss senior officials. However, the Ministry of Finance continues to have control over the part of the Bank's budget that is unrelated to monetary policy, which might limit its independence to some extent.

European Central Bank

www.ecb.int

The website for the European Central Bank

The Maastricht Treaty established the European Central Bank (ECB) and the European System of Central Banks (ESCB), which began operation in January 1999. The structure of the central bank is patterned after the U.S. Federal Reserve System in that central banks for each country have a role similar to that of the Federal Reserve banks. The executive board of the ECB is made up of the president, a vice president, and four other members, who are appointed for eight-year terms. The monetary policymaking body of the bank includes the six members of the executive board and the central-bank governors from each of the euro countries, all of whom must have five-year terms at a minimum.

The European Central Bank will be the most independent in the world—even more independent than the German central bank, the Bundesbank, which, before the establishment of the ECB, was considered the world's most independent central bank, along with the Swiss National Bank. The ECB is both instrument- and goal-independent of both the European Union and the national governments and has complete control over monetary policy. In addition, the ECB's mandated mission is the pursuit of price stability. The ECB is far more independent than any other central bank in the world because its charter cannot be changed by legislation: It can be changed only by revision of the Maastricht Treaty, a difficult process, because all signatories to the treaty would have to agree.

The Trend Toward Greater Independence

As our survey of the structure and independence of the major central banks indicates, in recent years we have been seeing a remarkable trend toward increasing independence. It used to be that the Federal Reserve was substantially more independent than almost all other central banks, with the exception of those in Germany and Switzerland. Now the newly established European Central Bank is far more independent than the Fed, and greater independence has been granted to central banks like the Bank of England and the Bank of Japan, putting them more on a par with the Fed, as well as to central banks in such diverse countries as New Zealand, Sweden, and the euro nations. Both theory and experience suggest that more independent central banks produce better monetary policy, thus providing an impetus for this trend.

Explaining Central Bank Behavior

One view of government bureaucratic behavior is that bureaucracies serve the public interest (this is the *public interest view*) . Yet some economists have developed a theory of bureaucratic behavior that suggests other factors that influence how bureaucracies operate. The *theory of bureaucratic behavior* suggests that the objective of a bureaucracy is to maximize its own welfare, just as a consumer's behavior is motivated by the maximization of personal welfare and a firm's behavior is motivated by the maximization of profits. The welfare of a bureaucracy is related to its power and prestige. Thus this theory suggests that an important factor affecting a central bank's behavior is its attempt to increase its power and prestige.

What predictions does this view of a central bank like the Fed suggest? One is that the Federal Reserve will fight vigorously to preserve its autonomy, a prediction verified time and time again as the Fed has continually counterattacked congressional attempts to control its budget. In fact, it is extraordinary how effectively the Fed has been able to mobilize a lobby of bankers and businesspeople to preserve its independence when threatened.

Another prediction is that the Federal Reserve will try to avoid conflict with powerful groups that might threaten to curtail its power and reduce its autonomy. The Fed's behavior may take several forms. One possible factor explaining why the Fed is sometimes slow to increase interest rates and so smooths out their fluctuations is that it wishes to avoid a conflict with the president and Congress over increases in interest rates. The desire to avoid conflict with Congress and the president may also explain why in the past the Fed was not at all transparent about its actions and is still not fully transparent (see Box 6).

The desire of the Fed to hold as much power as possible also explains why it vigorously pursued a campaign to gain control over more banks. The campaign culminated in legislation that expanded jurisdiction of the Fed's reserve requirements to *all* banks (not just the member commercial banks) by 1987.

The theory of bureaucratic behavior seems applicable to the Federal Reserve's actions, but we must recognize that this view of the Fed as being solely concerned

Box 6: Inside the Fed

Federal Reserve Transparency

As the theory of bureaucratic behavior predicts, the Fed has incentives to hide its actions from the public and from politicians to avoid conflicts with them. In the past, this motivation led to a penchant for secrecy in the Fed, about which one former Fed official remarked that "a lot of staffers would concede that [secrecy] is designed to shield the Fed from political oversight."[*] For example, the Fed pursued an active defense of delaying its release of FOMC directives to Congress and the public. However, as we have seen, in 1994, it began to reveal the FOMC directive immediately after each FOMC meeting. In 1999, it also began to immediately announce the "bias" toward which direction monetary policy was likely to go, later expressed as the balance of risks in the economy. In 2002, the Fed started to report the roll call vote on the federal funds rate target taken at the FOMC meeting. Thus the Fed has increased its transparency in recent years. Yet even today, the Fed is not fully transparent: it still does not release the minutes of the FOMC meetings until six weeks after a meeting has taken place, and it does not publish its forecasts of the economy as some other central banks do.

[*]Quoted in "Monetary Zeal: How the Federal Reserve Under Volcker Finally Slowed Down Inflation," *Wall Street Journal*, December 7, 1984, p. 23.

with its own self-interest is too extreme. Maximizing one's welfare does not rule out altruism. (You might give generously to a charity because it makes you feel good about yourself, but in the process you are helping a worthy cause.) The Fed is surely concerned that it conduct monetary policy in the public interest. However, much uncertainty and disagreement exist over what monetary policy should be.[6] When it is unclear what is in the public interest, other motives may influence the Fed's behavior. In these situations, the theory of bureaucratic behavior may be a useful guide to predicting what motivates the Fed.

Should the Fed Be Independent?

As we have seen, the Federal Reserve is probably the most independent government agency in the United States. Every few years, the question arises in Congress whether the independence of the Fed should be curtailed. Politicians who strongly oppose a Fed policy often want to bring it under their supervision in order to impose a policy more to their liking. Should the Fed be independent, or would we be better off with a central bank under the control of the president or Congress?

The Case for Independence

The strongest argument for an independent Federal Reserve rests on the view that subjecting the Fed to more political pressures would impart an inflationary bias to monetary policy. In the view of many observers, politicians in a democratic society are

[6]One example of the uncertainty over how best to conduct monetary policy was discussed in Chapter 3: Economists are not sure how to measure money. So even if economists agreed that controlling the quantity of money is the appropriate way to conduct monetary policy (a controversial position, as we will see in later chapters), the Fed cannot be sure which monetary aggregate it should control.

shortsighted because they are driven by the need to win their next election. With this as the primary goal, they are unlikely to focus on long-run objectives, such as promoting a stable price level. Instead, they will seek short-run solutions to problems, like high unemployment and high interest rates, even if the short-run solutions have undesirable long-run consequences. For example, we saw in Chapter 5 that high money growth might lead initially to a drop in interest rates but might cause an increase later as inflation heats up. Would a Federal Reserve under the control of Congress or the president be more likely to pursue a policy of excessive money growth when interest rates are high, even though it would eventually lead to inflation and even higher interest rates in the future? The advocates of an independent Federal Reserve say yes. They believe that a politically insulated Fed is more likely to be concerned with long-run objectives and thus be a defender of a sound dollar and a stable price level.

A variation on the preceding argument is that the political process in America leads to the so-called **political business cycle**, in which just before an election, expansionary policies are pursued to lower unemployment and interest rates. After the election, the bad effects of these policies—high inflation and high interest rates—come home to roost, requiring contractionary policies that politicians hope the public will forget before the next election. There is some evidence that such a political business cycle exists in the United States, and a Federal Reserve under the control of Congress or the president might make the cycle even more pronounced.

Putting the Fed under the control of the president (making it more subject to influence by the Treasury) is also considered dangerous because the Fed can be used to facilitate Treasury financing of large budget deficits by its purchases of Treasury bonds.[7] Treasury pressure on the Fed to "help out" might lead to a more inflationary bias in the economy. An independent Fed is better able to resist this pressure from the Treasury.

Another argument for Fed independence is that control of monetary policy is too important to leave to politicians, a group that has repeatedly demonstrated a lack of expertise at making hard decisions on issues of great economic importance, such as reducing the budget deficit or reforming the banking system. Another way to state this argument is in terms of the principal–agent problem discussed in Chapters 8 and 11. Both the Federal Reserve and politicians are agents of the public (the principals), and as we have seen, both politicians and the Fed have incentives to act in their own interest rather than in the interest of the public. The argument supporting Federal Reserve independence is that the principal–agent problem is worse for politicians than for the Fed because politicians have fewer incentives to act in the public interest.

Indeed, some politicians may prefer to have an independent Fed, which can be used as a public "whipping boy" to take some of the heat off their backs. It is possible that a politician who in private opposes an inflationary monetary policy will be forced to support such a policy in public for fear of not being reelected. An independent Fed can pursue policies that are politically unpopular yet in the public interest.

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[7]The Federal Reserve Act prohibited the Fed from buying Treasury bonds directly from the Treasury (except to roll over maturing securities); instead the Fed buys Treasury bonds on the open market. One possible reason for this prohibition is consistent with the foregoing argument: The Fed would find it harder to facilitate Treasury financing of large budget deficits.

The Case Against Independence

Proponents of a Fed under the control of the president or Congress argue that it is undemocratic to have monetary policy (which affects almost everyone in the economy) controlled by an elite group responsible to no one. The current lack of accountability of the Federal Reserve has serious consequences: If the Fed performs badly, there is no provision for replacing members (as there is with politicians). True, the Fed needs to pursue long-run objectives, but elected officials of Congress vote on long-run issues also (foreign policy, for example). If we push the argument further that policy is always performed better by elite groups like the Fed, we end up with such conclusions as the Joint Chiefs of Staff should determine military budgets or the IRS should set tax policies with no oversight from the president or Congress. Would you advocate this degree of independence for the Joint Chiefs or the IRS?

The public holds the president and Congress responsible for the economic well-being of the country, yet they lack control over the government agency that may well be the most important factor in determining the health of the economy. In addition, to achieve a cohesive program that will promote economic stability, monetary policy must be coordinated with fiscal policy (management of government spending and taxation). Only by placing monetary policy under the control of the politicians who also control fiscal policy can these two policies be prevented from working at cross-purposes.

Another argument against Federal Reserve independence is that an independent Fed has not always used its freedom successfully. The Fed failed miserably in its stated role as lender of last resort during the Great Depression, and its independence certainly didn't prevent it from pursuing an overly expansionary monetary policy in the 1960s and 1970s that contributed to rapid inflation in this period.

Our earlier discussion also suggests that the Federal Reserve is not immune from political pressures.[8] Its independence may encourage it to pursue a course of narrow self-interest rather than the public interest.

There is yet no consensus on whether Federal Reserve independence is a good thing, although public support for independence of the central bank seems to have been growing in both the United States and abroad. As you might expect, people who like the Fed's policies are more likely to support its independence, while those who dislike its policies advocate a less independent Fed.

Central Bank Independence and Macroeconomic Performance Throughout The World

We have seen that advocates of an independent central bank believe that macroeconomic performance will be improved by making the central bank more independent. Recent research seems to support this conjecture: When central banks are ranked from least independent to most independent, inflation performance is found to be the best for countries with the most independent central banks.[9] Although a more independent central bank appears to lead to a lower inflation rate, this is not achieved at the expense of poorer real economic performance. Countries with independent central banks are no more likely to have high unemployment or greater output fluctuations than countries with less independent central banks.

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[8] For evidence on this issue, see Robert E. Weintraub, "Congressional Supervision of Monetary Policy," *Journal of Monetary Economics* 4 (1978): 341–362. Some economists suggest that lessening the independence of the Fed might even reduce the incentive for politically motivated monetary policy; see Milton Friedman, "Monetary Policy: Theory and Practice," *Journal of Money, Credit and Banking* 14 (1982): 98–118.

[9] Alberto Alesina and Lawrence H. Summers, "Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence," *Journal of Money, Credit and Banking* 25 (1993): 151–162. However, Adam Posen, "Central Bank Independence and Disinflationary Credibility: A Missing Link," Federal Reserve Bank of New York Staff Report No. 1, May 1995, has cast some doubt on whether the causality runs from central bank independence to improved inflation performance.

Summary

1. The Federal Reserve System was created in 1913 to lessen the frequency of bank panics. Because of public hostility to central banks and the centralization of power, the Federal Reserve System was created with many checks and balances to diffuse power.
2. The formal structure of the Federal Reserve System consists of 12 regional Federal Reserve banks, around 4,800 member commercial banks, the Board of Governors of the Federal Reserve System, the Federal Open Market Committee, and the Federal Advisory Council.
3. Although on paper the Federal Reserve System appears to be decentralized, in practice it has come to function as a unified central bank controlled by the Board of Governors, especially the board's chairman.
4. The Federal Reserve is more independent than most agencies of the U.S. government, but it is still subject to political pressures because the legislation that structures the Fed is written by Congress and can be changed at any time. The theory of bureaucratic behavior suggests that one factor driving the Fed's behavior might be its attempt to increase its power and prestige. This view explains many of the Fed's actions, although the agency may also try to act in the public interest.
5. The case for an independent Federal Reserve rests on the view that curtailing the Fed's independence and subjecting it to more political pressures would impart an inflationary bias to monetary policy. An independent Fed can afford to take the long view and not respond to short-run problems that will result in expansionary monetary policy and a political business cycle. The case against an independent Fed holds that it is undemocratic to have monetary policy (so important to the public) controlled by an elite that is not accountable to the public. An independent Fed also makes the coordination of monetary and fiscal policy difficult.

Key Terms

Board of Governors of the Federal Reserve System, p. 337

Federal Open Market Committee (FOMC), p. 337

Federal Reserve banks, p. 337

goal independence, p. 347

instrument independence, p. 347

open market operations, p. 340

political business cycle, p. 353

Questions and Problems

Questions marked with an asterisk are answered at the end of the book in an appendix, "Answers to Selected Questions and Problems."

*1. Why was the Federal Reserve System set up with 12 regional Federal Reserve banks rather than one central bank, as in other countries?

2. What political realities might explain why the Federal Reserve Act of 1913 placed two Federal Reserve banks in Missouri?

*3. "The Federal Reserve System resembles the U.S. Constitution in that it was designed with many checks and balances." Discuss.

4. In what ways can the regional Federal Reserve banks influence the conduct of monetary policy?

*5. Which entities in the Federal Reserve System control the discount rate? Reserve requirements? Open market operations?

6. Do you think that the 14-year nonrenewable terms for governors effectively insulate the Board of Governors from political pressure?

*7. Over time, which entities have gained power in the Federal Reserve System and which have lost power? Why do you think this has happened?

8. The Fed is the most independent of all U.S. government agencies. What is the main difference between it and other government agencies that explains its greater independence?

*9. What is the primary tool that Congress uses to exercise some control over the Fed?

10. In the 1960s and 1970s, the Federal Reserve System lost member banks at a rapid rate. How can the theory of bureaucratic behavior explain the Fed's campaign for legislation to require all commercial banks to become members? Was the Fed successful in this campaign?

*11. "The theory of bureaucratic behavior indicates that the Fed never operates in the public interest." Is this statement true, false, or uncertain? Explain your answer.

12. Why might eliminating the Fed's independence lead to a more pronounced political business cycle?

*13. "The independence of the Fed leaves it completely unaccountable for its actions." Is this statement true, false, or uncertain? Explain your answer.

14. "The independence of the Fed has meant that it takes the long view and not the short view." Is this statement true, false, or uncertain? Explain your answer.

*15. The Fed promotes secrecy by not releasing the minutes of the FOMC meetings to Congress or the public immediately. Discuss the pros and cons of this policy.

Web Exercises

1. Go to www.federalreserve.gov/general.htm and click on the link to general information. Choose "Structure of the Federal Reserve." According to the Federal Reserve, what is the most important responsibility of the Board of Governors?

2. Go to the above site and click on "Monetary Policy" to find the beige book. According to the summary of the most recently published book, is the economy weakening or recovering?