

*Principles of*  
**BANKING**

G. JAY FRANCIS  
NORMAN F. HECHT  
SUSAN M. SIEGEL



*6th*  
EDITION



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# PRINCIPLES OF BANKING

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### **Office of the Comptroller of the Currency**

The Office of the Comptroller of the Currency has jurisdiction over all national banks and is responsible for chartering, examining, and supervising them. All applications for national bank charters, all requests by any national bank for opening new domestic or foreign branches or for offering new services, and all **mergers** or acquisitions involving national banks must have OCC approval. This agency's many functions are carried out through regional administrative offices throughout the country.

### **Federal Deposit Insurance Corporation**

The Federal Deposit Insurance Corporation (FDIC) is responsible for supervising all federally insured commercial banks, savings banks, and savings and loan associations. It sets enforceable standards for its members, can examine any FDIC-insured financial institution at any time, and may act to prevent the failure of an insured bank by bringing about a merger with or acquisition by a stronger insured institution. It may also take other positive action to prevent an insured institution from failing—for example, by buying the troubled bank's assets or providing an infusion of capital funds.

### **State Banking Departments**

Each state has its own banking department responsible for chartering, regulating, supervising, and regulating the state-chartered banks within the boundaries of the state. Banks' applications for state charters are submitted to the banking departments of the individual states and must pass qualifying tests. If the proposed new bank desires membership in the Federal Reserve System or the FDIC, its application must also be reviewed by those agencies.

Periodic **bank examinations** have become an accepted part of our banking system. Every commercial bank receives at least one such examination each year. More frequent examinations are conducted if they seem warranted by conditions in a particular bank. All national banks must be members of the Federal Reserve System, and all Fed member banks must be insured by the FDIC. Therefore, national banks are subject to supervision by the OCC, the Fed, and the FDIC. It is impossible, however, for each regulatory agency to examine every bank under its jurisdiction.

To avoid duplication and waste, federal regulatory agencies have agreed on an examination format. The primary examining responsibility is assigned to one agency, which then transmits the results of its findings to all other interested agencies and to the bank's board of directors (exhibit 3.4).

This system does not inhibit any agency from conducting its own, separate examination of a particular bank when justified by conditions. For example, if the OCC identified a problem at a national bank, the Fed and the FDIC could, on the basis of the OCC's report, immediately examine that bank if they felt doing so was appropriate.

Examinations by the Fed and the other agencies are intended to ensure that member banks are operating prudently, obeying all regulations and laws, and accurately reporting their financial condition.

## **Monetary and Credit Policy and the Tools of Control**

The National Bank Act did not address the issue of the nation's money supply. (The basic **money supply**, termed M1, includes **coin** and

**Exhibit 3.4 Bank Regulatory Authorities**

<i>Type of Bank</i>	<i>Regulatory Authority</i>	<i>Annual Examination Conducted by</i>
National bank	Comptroller of the Currency Federal Reserve FDIC	Comptroller of the Currency
State member bank	Federal Reserve FDIC State banking department	Federal Reserve*
State non-member insured bank	FDIC State banking department	FDIC
State non-member noninsured bank	State banking department	State banking department

\* Examinations of state-chartered member banks are often conducted jointly by Federal Reserve *and* state banking department examiners.

**currency** in circulation, demand deposits, and **traveler’s checks**.) As the agent of monetary policy, the Federal Reserve was given this responsibility. Prior to the establishment of the Federal Reserve, the money supply was not controlled or managed, and the results were devastating to the economy. No mechanism existed to provide the money and the credit needed to support an expanding economy, yet for economic growth, business needed a source of credit and banks needed money to lend.

There was also no mechanism to control **inflation**, which occurs when too many dollars are chasing too few goods. A nonmonetary example is used here to explain the concept of inflation. The case of the Cabbage Patch doll, while not inflation in the true sense, shows how prices can rise (inflate) under certain circumstances.

The Cabbage Patch doll was a purchasing phenomenon in the late 1980s. If every parent who wanted a doll had had the purchase price to spend, and if there had been enough dolls for everyone, the price would have remained constant. As it happened, the supply of the dolls was limited and the demand was high, to the point of obsession. Par-

ents were willing to spend double or triple the purchase price or whatever it took to secure one of these dolls, resulting in an inflated price.

Similarly, the Federal Reserve has the responsibility to ensure that the money supply does not outpace the needs of the economy. Too many dollars for too few goods could result in a rise in the price of those goods, or inflation.

The Fed influences the entire economic environment by taking specific actions to influence the flow of money and credit. However, the Fed must always take into consideration **fiscal policy**—the activities of Congress and the president in the areas of taxation and government spending. Fiscal policy determines how much revenue the government expects to collect and how much it will spend. **Monetary policy** works to control the flow of money and credit without political concerns. The impact of monetary policy can also be more quickly implemented than changes in fiscal policy, as shown by the immediate reaction to Alan Greenspan’s comment in situation 1, because the Fed can act quickly to implement changes. Changes in fiscal policy require an act of Congress.

## Role of Banks in Creating Money

The Fed establishes ranges for the growth rate of the money supply on the basis of a number of economic factors. The Fed then uses its tools for monetary control to keep the money supply within those ranges. Banks play an important role in the growth of the money supply because of their ability to create demand deposits.

Banks create money for demand deposits through a combination of the deposit and the credit functions. When banks make loans, they also increase the volume of demand deposits. Here is an example of how demand deposits are increased: ABC Bank has \$10,000 in cash assets—part of the stockholders' original investment—and \$0 in demand deposits. A consumer borrows the \$10,000 in cash from ABC to buy a car and pays the \$10,000 cash to the car dealership. The dealership deposits the \$10,000 to its checking account, also at ABC. Now ABC Bank's demand deposits are increased by \$10,000, and its money supply is also increased. After the transaction, the

bank has \$10,000 in loans, \$10,000 in cash (the dealer's deposit) and \$10,000 in demand deposits; the stockholders' investment does not change. Exhibit 3.5 uses a T-account to show how this transaction would be shown in the bank's books (bank accounting is discussed in chapter 10).

If the bank has a reserve requirement of 10 percent, the bank must keep 10 percent of its demand deposits in cash or balances at the Federal Reserve. In this example the bank must keep \$1,000 as reserves (10 percent of \$10,000), so it has only \$9,000 available to lend to other customers (\$10,000 minus \$1,000). If the bank lends out its available \$9,000, that \$9,000 will be deposited in the same or another bank in a demand deposit account. The result of this transaction is that demand deposits are increased by \$9,000, as is the money supply. The fact that the deposits may not be made to the same bank is irrelevant. The point is that money lent out by banks ends up in demand deposits that can be loaned out again after reserves are kept, causing a recycling of funds.

Exhibit 3.5 **How Banks Create Money**

### BANK BALANCE SHEET BEFORE LOAN

Assets		Liabilities	
Cash	\$10,000	Deposits	\$ 0
		Stockholder equity	\$10,000
Total Assets	<u>\$10,000</u>	Total liabilities & stockholder equity	<u>\$10,000</u>

### BANK BALANCE SHEET AFTER LOAN

Cash	\$10,000	Deposits	\$10,000
Loans	\$10,000	Stockholder equity	\$10,000
Total Assets	<u>\$20,000</u>	Total liabilities & stockholder equity	<u>\$20,000</u>

## Tools of Monetary and Credit Policy

The Federal Reserve exercises its monetary and credit policy through three tools: (1) reserve requirements, (2) discount operations, and (3) open market operations. These instruments of monetary policy can be used by the Fed to increase or decrease the money supply by encouraging or discouraging borrowing.

### Reserve Requirements

The Fed uses changes in the reserve requirement to decrease or increase the amount of money a bank has available to lend. If the Fed decides to stimulate the economy by increasing the money supply, it decreases the reserve requirement. A decrease in the reserve requirement increases the amount of money banks have available to lend.

For example, a decrease in the reserve requirement from 15 percent to 10 percent would make 5 percent more funds available for lending purposes. If the reserve requirement were 15 percent, a bank would be required to hold \$1,500 in reserve on demand deposits of \$10,000 (15 percent of \$10,000), thereby limiting to \$8,500 the amount available for loans. If the reserve requirement were reduced to 10 percent, that same \$10,000 would make \$9,000 available for loans. Thus, reducing the reserve requirement increases the money supply by an additional \$500.

Conversely, if the Fed were concerned about inflation and wanted to decrease the money supply, it could increase the reserve requirement. If the reserve requirement were increased from 15 percent to 20 percent, the amount of the \$10,000 in demand deposits available for loans would be reduced from \$8,500 to \$8,000 and growth in the money supply would be reduced by \$500.

Until the Monetary Control Act of 1980, only Fed member banks were affected by the Fed's reserve requirements (see the Federal Reserve Services section in this chapter). **Non-member banks** maintained their reserves with other financial institutions according to the laws of their individual states. Since implementation of the Monetary Control Act, all banks that have transaction accounts (specifically, accounts that make payments to third parties) must keep reserves at the Fed.

A decrease in the reserve requirement also ought to improve banks' profitability. Banks are not paid interest on reserves, but a bank can lend or invest the additional funds made available by the reduction in the reserve requirement. Banks, however, must manage their positions to ensure that these additional funds are put to work. When the reserve requirement was reduced, some banks struggled to avoid incurring excess reserves. With the expansion of automated teller machines and the need to keep vault cash at desirable levels to meet cash needs, it became difficult to keep balances with the Federal Reserve down and to meet the bank's wire transfer and securities transaction needs.

Banks whose reserves at the Fed are temporarily larger than required may lend these excess reserves, called **Fed funds**, to another institution whose reserves are temporarily short. Since these transactions take place by adjusting the reserves of the two institutions on the Fed's account books, no money actually changes hands. The funds typically are sold to the other institution overnight. The institution selling the Fed funds charges the other institution interest for the use of the funds. The rate charged, called the **Fed funds rate**, is set by the bank selling the funds. Although the Federal Reserve does not set the Fed funds rate, it establishes the rate's range and influences it by increasing or decreasing the amount of reserves

available. If the rate rises too rapidly and remains high because the demand for funds exceeds the supply, the Fed makes additional funds available to meet the demand and thereby reduces the rate.

Money, like any other commodity, is subject to the law of supply and demand. The interest rate is the price of money, and if the demand for money is high and the supply is low, the price (interest rate) rises.

### **Discount Operations**

The Fed influences loan demand and the easing or tightening of credit through the discount rate. The **discount rate** is the rate charged by the Fed on loans it makes to financial institutions. Unlike the Fed funds rate, the discount rate is set by each of the 12 Federal Reserve banks. Each Reserve bank can change the rate whenever appropriate, subject to review by the Board of Governors. In general, the discount rate is uniform throughout the Federal Reserve System. As a result of the Monetary Control Act, all financial institutions offering transactions accounts have the privilege of applying to the Fed for short-term credit.

The Fed uses the discount rate to encourage or discourage borrowing, depending on the impact it is trying to make on the money supply. If the Fed wants to increase the money supply, it reduces the discount rate to encourage borrowing. During an economic recovery, the Fed wants to expand business growth and activity (exhibit 3.6). By reducing the discount rate, the Fed is attempting to make credit available, to encourage borrowing for business expansion, and to increase the money supply. The Kowalskis in situation 2 saw the interest rate on their mortgage loan change several times while they waited for approval. If the rate had gone too high, they might not have purchased

the house and the Fed's attempt to discourage borrowing would have been successful. Banks create money through the deposit and credit functions. As businesses and consumers borrow money, those dollars end up in demand deposit accounts, thereby increasing the money supply. On the other hand, if the Fed wants to discourage borrowing to reduce the growth of the money supply, it increases the discount rate. The increase in the discount rate often signals an increase in the cost of funds for banks, which in turn increases the rates banks charge to customers. The increase in rates discourages borrowing and results in a decrease in the growth of the money supply.

### **Open Market Operations**

By far the most powerful tool available to the Fed in its role as the agent of monetary policy is the **open market operations** of the **Federal Open Market Committee (FOMC)**. The FOMC consists of the seven members of the Board of Governors plus the president of the New York Federal Reserve Bank and four other Reserve bank presidents. The FOMC is responsible for system-wide administration of monetary policy. One of the basic functions of the FOMC is to determine the amount of government obligations (bills, notes, and bonds) to be sold and redeemed each week. After each meeting of the FOMC, where short-term and long-term monetary needs are determined, a directive is issued to the New York Fed, which has been designated as the agent to buy and sell government obligations for the accounts of all Federal Reserve district banks.

The purchase or sale of government securities by the Fed immediately increases or decreases the money supply and affects the availability of short-term credit. If the FOMC decides to make more