Chapter 15
Understanding Money and Financial Institutions

Advanced technology, globalization of markets, and the relaxation of regulatory restrictions continue to accelerate the pace of change in the financial services industry. These changes are giving businesses and consumers new options for conducting their financial transactions. The competitive landscape for financial institutions is also changing, creating new ways for these firms to increase their market share and boost profits.

This chapter focuses on the role of financial institutions in U.S. and international economies. It discusses different types of financial institutions, how they are set up and how they function internally, and government oversight of their operations. Because financial institutions connect people with money, this chapter begins with a discussion of money, its characteristics and functions, and the components of the U.S. money supply. Next, it explains the role of the Federal Reserve System in managing the money supply. Then it describes different types of financial institutions and their services and the organizations that insure customer deposits. The chapter ends with a discussion of international banking and trends in financial institutions.

15.1 Show Me the Money

1. What is money, what are its characteristics and functions, and what are the three parts of the U.S. money supply?

Money is anything that is acceptable as payment for goods and services. It affects our lives in many ways. We earn it, spend it, save it, invest it—and often wish we had more of it. Businesses and government use money in similar ways. Both require money to finance their operations. By controlling the amount of money in circulation, the federal government can promote economic growth and stability. For this reason, money has been called the lubricant of the machinery that drives our economic system. Our banking system was developed to ease the handling of money.

Characteristics of Money

For money to be a suitable means of exchange, it should have these key characteristics:

- *Scarcity:* Money should be scarce enough to have some value but not so scarce as to be unavailable. Pebbles, which meet some of the other criteria, would not work well as money because they are widely available. Too much money in circulation increases prices and inflation. Governments control the scarcity of money by limiting the quantity of money in circulation.
- *Durability:* Any item used as money must be durable. A perishable item such as a banana becomes useless as money when it spoils. Even early societies used durable forms of money, such as metal coins and paper money, which lasted for a long time.
- *Portability:* Money must be easily moved around. Large or bulky items, such as boulders or heavy gold bars, cannot be transported easily from place to place.
- *Divisibility:* Money must be capable of being divided into smaller parts. Divisible forms of money help make transactions of all sizes and amounts possible.

Table 15.1 provides some interesting facts about our money.

Functions of Money

Using a variety of items as money would be confusing. Thus, societies develop a uniform money system to measure the value of goods and services. For money to be acceptable, it must function as a medium of exchange, as a standard of value, and as a store of value.

As a *medium of exchange,* money makes transactions easier. Having a common form of payment is much less complicated than having a barter system, wherein goods and services are exchanged for other goods and services. Money allows the exchange of products to be a simple process.

Money also serves as a *standard of value.* With a form of money whose value is accepted by all, goods and services can be priced in standard units. This makes it easy to measure the value of products and allows transactions to be recorded in consistent terms.
As a *store of value,* money is used to hold wealth. It retains its value over time, although it may lose some of its purchasing power due to inflation. Individuals may choose to keep their money for future use rather than exchange it today for other types of products or assets.

Fun Facts about U.S. Currency
Did you know . . .

Fun Facts about U.S. Currency
• Currency paper is composed of 25% linen and 75% cotton. • About 4,000 double folds (first forward and then backwards) are required before a note will tear. • As of mid-July 2017, there was more than $1.56 trillion in U.S. currency in circulation, with $40 billion in coins. • 95% of the notes printed each year are used to replace notes already in circulation. • The largest note ever printed by the Bureau of Engraving and Printing was the $100,000 Gold Certificate, Series 1934. • During fiscal year 2017, it cost approximately 5.4 cents per note to produce nearly 40 billion U.S. paper currency notes. • A stack of currency one mile high would contain over 14 million notes. • If you had 10 billion $1 notes and spent one every second of every day, it would require 317 years for you to go broke.

Table 15.1 Source: Bureau of Engraving and Printing, "Resources," https://www.moneyfactory.gov, accessed September 7, 2017.

The U.S. Money Supply

The U.S. money supply is composed of currency, demand deposits, and time deposits. **Currency** is cash held in the form of coins and paper money. Other forms of currency include travelers' checks, cashier's checks, and money orders. The amount of currency in circulation depends on public demand. Domestic demand is influenced primarily by prices for goods and services, income levels, and the availability of alternative payment methods such as credit cards. Until the mid-1980s, nearly all U.S. currency circulated only domestically. Today domestic circulation totals only a small fraction of the total amount of U.S. currency in circulation.

Over the past decade, the amount of U.S. currency has doubled to more than $1.56 trillion and is held both inside and outside the country.[1] Foreign demand is influenced by the political and economic uncertainties associated with some foreign currencies, and recent estimates suggest that between one-half and two-thirds of the value of currency in circulation is held abroad. Some residents of foreign countries hold dollars as a store of value, whereas others use it as a medium of exchange.

Federal Reserve notes make up more than 99 percent of all U.S. currency in circulation. Each year the Federal Reserve Board determines new currency demand and submits a print order to the Treasury's Bureau of Engraving and Printing (BEP). The order represents the Federal Reserve System's estimate of the amount of currency the public will need in the upcoming year and reflects estimated changes in currency usage and destruction rates of unfit currency. **Table 15.2** shows how long we can expect our money to last on average.

How Long Will Your Money Last?	
Have you ever wondered how quickly money wears out from being handled or damaged? Not surprisingly, smaller denominations have a s life span.	
$1 bill	5.8 years
$5 bill	5.5 years
$10 bill	4.5 years
$20 bill	7.9 years
$50 bill	8.5 years
$100 bill	15.0 years

Table 15.2 Source: "How Long Is the Lifespan of U.S. Paper Money?" https://www.federalreserve.gov, accessed September 7, 2017.

Demand deposits consist of money kept in checking accounts that can be withdrawn by depositors on demand. Demand deposits include regular checking accounts as well as interest-bearing and other special types of checking accounts. **Time deposits** are deposits at a bank or other financial institution that pay interest but cannot be withdrawn on demand. Examples are certain savings accounts, money market deposit accounts, and certificates of deposit. Economists use two terms to report on and discuss trends in the U.S. monetary system: M1 and M2. **M1** (the *M* stands for money) is used to describe the total amount of readily available money in the system and includes currency and demand deposits. As of August 2017, the M1 monetary supply was $3.5 trillion. **M2** includes all M1 monies plus time deposits and other money that is not immediately accessible. In August 2017, the M2 monetary supply was $13.6 trillion.[2] Credit cards, sometimes referred to as "plastic money," are routinely used as a substitute for cash and checks. Credit cards are not money; they are a form of borrowing. When a bank issues a credit card to a consumer, it gives a short-term loan to the consumer by directly paying the seller for the consumer's purchases. The consumer pays the credit card company after receiving the monthly statement. Credit cards do not replace money; they simply defer payment.

15.2 The Federal Reserve System

2. How does the Federal Reserve manage the money supply?

Before the twentieth century, there was very little government regulation of the U.S. financial or monetary systems. In 1907, however, several large banks failed, creating a public panic that led worried depositors to withdraw their money from other banks. Soon many other banks had failed, and the U.S. banking system was near collapse. The panic of 1907 was so severe that Congress created the Federal Reserve System in 1913 to provide the nation with a more stable monetary and banking system.

The **Federal Reserve System** (commonly called the **Fed**) is the central bank of the United States. The Fed's primary mission is to oversee the nation's monetary and credit system and to support the ongoing operation of America's private-banking system. The Fed's actions affect the interest rates banks charge businesses and consumers, help keep inflation under control, and ultimately stabilize the U.S. financial system. The Fed operates as an independent government entity. It derives its authority from Congress but its decisions do not have to be approved by the president, Congress, or any other government branch. However, Congress does periodically review the Fed's activities, and the Fed must work within the economic framework established by the government.

The Fed consists of 12 district banks, each covering a specific geographic area. **Exhibit 15.3** shows the 12 districts of the Federal Reserve. Each district has its own bank president who oversees operations within that district.

Originally, the Federal Reserve System was created to control the money supply, act as a borrowing source for banks, hold the deposits of member banks, and supervise banking practices. Its activities have since broadened, making it the most powerful financial institution in the United States. Today, four of the Federal Reserve System's most important responsibilities are carrying out monetary policy, setting rules on credit, distributing currency, and making check clearing easier.

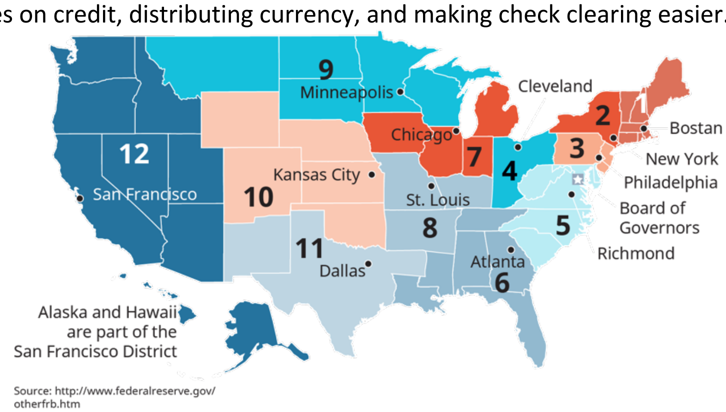

Exhibit 15.3 Federal Reserve Districts and Banks Source: "Federal Reserve Banks," https://www.richmondfed.org, accessed September 7, 2017.

Carrying Out Monetary Policy

The most important function of the Federal Reserve System is carrying out monetary policy. The Federal Open Market Committee (FOMC) is the Fed policy-making body that meets eight times a year to make monetary policy decisions. It uses its power to change the money supply in order to control inflation and interest rates, increase employment, and influence economic activity. Three tools used by the Federal Reserve System in managing the money supply are open market operations, reserve requirements, and the discount rate. **Table 15.3** summarizes the short-term effects of these tools on the economy.

Open market operations—the tool most frequently used by the Federal Reserve—involve the purchase or sale of U.S. government bonds. The U.S. Treasury issues bonds to obtain the extra money needed to run the government (if taxes and other revenues aren't enough). In effect, Treasury bonds are long-term loans (five years or longer) made by businesses and individuals to the government. The Federal Reserve buys and sells these bonds for the Treasury. When the Federal Reserve buys bonds, it puts money into the economy. Banks have more money to lend, so they reduce interest rates, which generally stimulates economic activity. The opposite occurs when the Federal Reserve sells government bonds.

The Federal Reserve System's Monetary Tools and Their Effects				
Tool	**Action**	**Effect on Money Supply**	**Effect on Interest Rates**	**Effect on Economic Activity**
Open market operations	Buy government bonds	Increases	Lowers	Stimulates
	Sell government bonds	Decreases	Raises	Slows Down
Reserve requirements	Raise reserve requirements	Decreases	Raises	Slows Down
	Lower reserve requirements	Increases	Lowers	Stimulates
Discount rate	Raise discount rate	Decreases	Raises	Slows Down
	Lower discount rate	Increases	Lowers	Stimulates

Table 15.3

Banks that are members of the Federal Reserve System must hold some of their deposits in cash in their vaults or in an account at a district bank. This **reserve requirement** ranges from 3 to 10 percent on different types of deposits. When the Federal Reserve raises the reserve requirement, banks must hold larger reserves and thus have less money to lend. As a result, interest rates rise, and economic activity slows down. Lowering the reserve requirement increases loanable funds, causes banks to lower interest rates, and stimulates the economy; however, the Federal Reserve seldom changes reserve requirements.

The Federal Reserve is called "the banker's bank" because it lends money to banks that need it. The interest rate that the Federal Reserve charges its member banks is called the **discount rate**. When the discount rate is less than the cost of other sources of funds (such as certificates of deposit), commercial banks borrow from the Federal Reserve and then lend the funds at a higher rate to customers. The banks profit from the *spread,* or difference, between the rate they charge their customers and the rate paid to the Federal Reserve. Changes in the discount rate usually produce changes in the interest rate that banks charge their customers. The Federal Reserve raises the discount rate to slow down economic growth and lowers it to stimulate growth.

Setting Rules on Credit

Another activity of the Federal Reserve System is setting rules on credit. It controls the credit terms on some loans made by banks and other lending institutions. This power, called **selective credit controls**, includes consumer credit rules and margin requirements. *Consumer credit rules* establish the minimum down payments and maximum repayment periods for consumer loans. The Federal Reserve uses credit rules to slow or stimulate consumer credit purchases. *Margin requirements* specify the minimum amount of cash an investor must put up to buy securities or investment certificates issued by corporations or governments. The balance of the purchase cost can be financed through borrowing from a bank or brokerage firm. By lowering the margin requirement, the Federal Reserve stimulates securities trading. Raising the margin requirement slows trading.

Distributing Currency: Keeping the Cash Flowing

The Federal Reserve distributes the coins minted and the paper money printed by the U.S. Treasury to banks. Most paper money is in the form of Federal Reserve notes. Look at a dollar bill and you'll see "Federal Reserve Note" at the top. The large letter seal on the left indicates which Federal Reserve Bank issued it. For example, bills bearing a *D* seal are issued by the Federal Reserve Bank of Cleveland, and those with an *L* seal are issued by the San Francisco district bank.

Making Check Clearing Easier

Another important activity of the Federal Reserve is processing and clearing checks between financial institutions. When a check is cashed at a financial institution other than the one holding the account on which the check is drawn, the Federal Reserve's system lets that financial institution—even if distant from the institution holding the account on which the check is drawn—quickly convert the check into cash. Checks drawn on banks within the same Federal Reserve district are handled through the local Federal Reserve Bank using a series of bookkeeping entries to transfer funds between the financial institutions. The process is more complex for checks processed between different Federal Reserve districts.

The time between when the check is written and when the funds are deducted from the check writer's account provides float. *Float* benefits the check writer by allowing it to retain the funds until the check clears—that is, when the funds are actually withdrawn from its accounts. Businesses open accounts at banks around the country that are known to have long check-clearing times. By "playing the float," firms can keep their funds invested for several extra days, thus earning more money. To reduce this practice, in 1988 the Fed established maximum check-clearing times. However, as credit cards and other types of electronic payments have become more popular, the use of checks continues to decline. Responding to this decline, the Federal Reserve scaled back its check-processing facilities over the past decade. Current estimates suggest that the number of check payments has declined by two billion annually over the last couple of years and will continue to do so as more people use online banking and other electronic payment systems.

Managing the 2007–2009 Financial Crisis

Much has been written over the past decade about the global financial crisis that occurred between 2007 and 2009. Some suggest that without the Fed's intervention, the U.S. economy would have slipped deeper into a financial depression that could have lasted years. Several missteps by banks, mortgage lenders, and other financial institutions, which included approving consumers for home mortgages they could not afford and then packaging those mortgages into high-risk financial products sold to investors, put the U.S. economy into serious financial trouble.

In the early 2000s, the housing industry was booming. Mortgage lenders were signing up consumers for mortgages that "on paper" they could afford. In many instances, lenders told consumers that based on their credit rating and other financial data, they could easily take the next step and buy a bigger house or maybe a vacation home because of the availability of mortgage money and low interest rates. When the U.S. housing bubble burst in late 2007, the value of real estate plummeted, and many consumers struggled to pay mortgages on houses no longer worth the value they borrowed to buy the properties, leaving their real estate investments "underwater." Millions of consumers simply walked away from their houses, letting them go into foreclosure while filing personal bankruptcy. At the same time, the overall economy was going into a recession, and millions of people lost their jobs as companies tightened their belts to try to survive the financial upheaval affecting the United States as well as other countries across the globe.

In addition, several leading financial investment firms, particularly those that managed and sold the high-risk, mortgage-backed financial products, failed quickly because they had not set aside enough money to cover the billions of dollars they lost on mortgages now going into default. For example, the venerable financial company Bear Stearns, which had been a successful business for more than 85 years, was eventually sold to JP Morgan for less than $10 a share, even after the Federal Reserve made more than $50 billion dollars available to help prop up financial institutions in trouble.

After the collapse of Bear Stearns and other firms such as Lehman Brothers and insurance giant AIG, the Fed set up a special loan program to stabilize the banking system and to keep the U.S. bond markets trading at a normal pace. It is estimated that the Federal Reserve made more than $9 trillion in loans to major banks and other financial firms during the two-year crisis—not to mention bailing out the auto industry and buying several other firms to keep the financial system afloat.

As a result of this financial meltdown, Congress passed legislation in 2010 to implement major regulations in the financial industry to prevent the future collapse of financial institutions, as well to put a check on abusive lending practices by banks and other firms. Among its provisions, the Dodd-Frank Wall Street Reform and Consumer Protection Act (known as Dodd-Frank) created an oversight council to monitor risks that affect the financial industry; requires banks to increase their cash reserves if the council feels the bank has too much risk in its current operations; prohibits banks from owning, investing, or sponsoring hedge funds, private equity funds, or other proprietary trading operations for profit; and set up a whistle-blower program to reward people who come forward to report security and other financial violations.

Another provision of Dodd-Frank legislation requires major U.S. banks to submit to annual stress tests conducted by the Federal Reserve. These annual checkups determine whether banks have enough capital to survive economic turbulence in the financial system and whether the institutions can identify and measure risk as part of their capital plan to pay dividends or buy back shares. In 2017, seven years after Dodd-Frank became law, all of the country's major banks passed the annual examination.

15.3 U.S. Financial Institutions

3. What are the key financial institutions, and what role do they play in the process of financial intermediation?

The well-developed financial system in the United States supports our high standard of living. The system allows those who wish to borrow money to do so with relative ease. It also gives savers a variety of ways to earn interest on their savings. For example, a computer company that wants to build a new headquarters in Atlanta might be financed partly with the savings of families in California. The Californians deposit their money in a local financial institution. That institution looks for a profitable and safe way to

Gitman, L. J., McDaniel, C., Shah, A., Reece, M., Koffel, L., Talsma, B., & Hyatt, J. C. (2018). *Introduction to business*. OpenStax. https://openstax.org/books/introduction-business/pages/1-introduction

use the money and decides to make a real estate loan to the computer company. The transfer of funds from savers to investors enables businesses to expand and the economy to grow.

Households are important participants in the U.S. financial system. Although many households borrow money to finance purchases, they supply funds to the financial system through their purchases and savings. Overall, businesses and governments are users of funds. They borrow more money than they save.

Sometimes those who have funds deal directly with those who want them. A wealthy realtor, for example, may lend money to a client to buy a house. Most often, financial institutions act as intermediaries—or go-betweens—between the suppliers and demanders of funds. The institutions accept savers' deposits and invest them in financial products (such as loans) that are expected to produce a return. This process, called **financial intermediation,** is shown in **Exhibit 15.5.** Households are shown as suppliers of funds, and businesses and governments are shown as demanders. However, a single household, business, or government can be either a supplier or a demander, depending on the circumstances.

Financial institutions are the heart of the financial system. They are convenient vehicles for financial intermediation. They can be divided into two broad groups: depository institutions (those that accept deposits) and nondepository institutions (those that do not accept deposits).

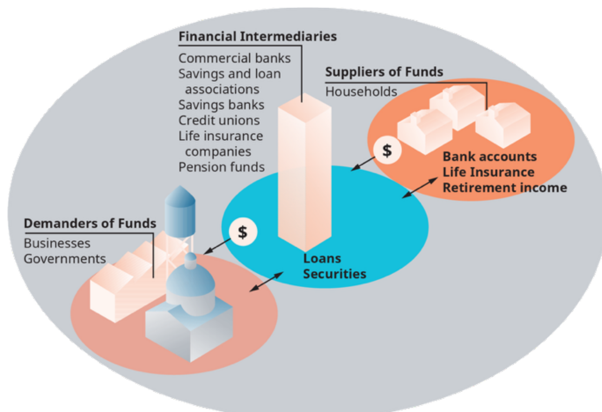

Exhibit 15.5 The Financial Intermediation Process* Only the dominant suppliers and demanders are shown here. Clearly, a single household, business, or government can be either a supplier or demander, depending on circumstances. (Attribution: Copyright Rice University, OpenStax, under CC BY 4.0 license.)

Depository Financial Institutions

Not all depository financial institutions are alike. Most people call the place where they save their money a "bank." Some of those places are indeed banks, but other depository institutions include thrift institutions and credit unions.

Commercial Banks

A **commercial bank** is a profit-oriented financial institution that accepts deposits, makes business and consumer loans, invests in government and corporate securities, and provides other financial services. Commercial banks vary greatly in size, from the "money center" banks located in the nation's financial centers to smaller regional and local community banks. As a result of consolidations, small banks are decreasing in number. A large share of the nation's banking business is now held by a relatively small number of big banks. There are approximately 5,011 commercial banks in the United States, accounting for nearly $16 trillion in assets and $9 trillion in total liabilities.[10] Banks hold a variety of assets, as shown in the diagram in **Exhibit 15.6**.

Table 15.4 lists the top 10 insured U.S.-chartered commercial banks, based on their consolidated assets.

Gitman, L. J., McDaniel, C., Shah, A., Reece, M., Koffel, L., Talsma, B., & Hyatt, J. C. (2018). *Introduction to business*. OpenStax. https://openstax.org/books/introduction-business/pages/1-introduction

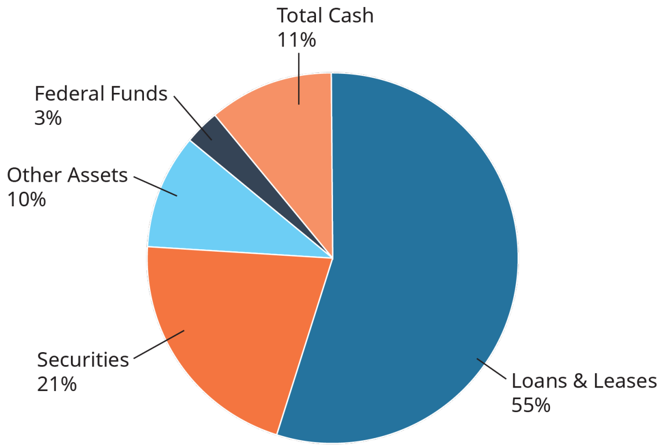

Exhibit 15.6 Assets of FDIC-Insured Commercial Banks, 2017 Source: “FDIC: Statistics on Depository Institutions Report for Commercial Banks as of 6/30/17,” https://www5.fdic.gov, accessed September 7, 2017.

Customers’ deposits are a commercial bank’s major source of funds, the main use for which is loans. The difference between the interest the bank earns on loans and the interest it pays on deposits, plus fees it earns from other financial services, pays the bank’s costs and provides a profit.

Commercial banks are corporations owned and operated by individuals or other corporations. They can be either national or state banks, and to do business, they must get a **bank charter**—an operating license—from a state or federal government. *National banks* are chartered by the Comptroller of the Currency, who is part of the U.S. Treasury Department. These banks must belong to the Federal Reserve System and must carry insurance on their deposits from the Federal Deposit Insurance Corporation. *State banks* are chartered by the state in which they are based. Generally, state banks are smaller than national banks, are less closely regulated than national banks, and are not required to belong to the Federal Reserve System.

Thrift Institutions

A **thrift institution** is a depository institution formed specifically to encourage household saving and to make home mortgage loans. Thrift institutions include *savings and loan associations (S&Ls)* and *savings banks.* S&Ls keep large percentages of their assets in home mortgages. Compared with S&Ls, savings banks focus less on mortgage loans and more on stock and bond investments. Thrifts are declining in number. At their peak in the late 1960s, there were more than 4,800. But a combination of factors, including sharp increases in interest rates in the late 1970s and increased loan defaults during the recession of the early 1980s, has reduced their ranks significantly. By year-end 2016, due mostly to acquisitions by or conversions to commercial banks or other savings banks, the number of thrifts had fallen to fewer than 800.

Top Ten Insured U.S.-Chartered Commercial Banks, Based on Consolidated Assets, 2016

Bank	Consolidated Assets
1. JP Morgan Chase & Co.	2,082,803,000
2. Wells Fargo & Co.	1,727,235,000
3. Bank of America Corp.	1,677,490,000
4. Citigroup	1,349,581,000
5. U.S. Bancorp	441,010,000
6. PNC Financial Services Group	356,000,000
7. Capital One Financial Corp.	286,080,000

Top Ten Insured U.S.-Chartered Commercial Banks, Based on Consolidated Assets, 2016	
Bank	**Consolidated Assets**
8. TD Bank North America	269,031,000
9. Bank of New York Mellon Corp.	257,576,000
10. State Street Bank and Trust Corp.	239,203,000

Table 15.4 Source: "Insured U.S.-Chartered Commercial Banks That Have Consolidated Assets of $300 Million or More as of 12/31/16," https://www.federalreserve.gov, accessed September 7, 2017.

Credit Unions

A **credit union** is a not-for-profit, member-owned financial cooperative. Credit union members typically have something in common: they may, for example, work for the same employer, belong to the same union or professional group, or attend the same church or school. The credit union pools their assets, or savings, in order to make loans and offer other services to members. The not-for-profit status of credit unions makes them tax-exempt, so they can pay good interest rates on deposits and offer loans at favorable interest rates. Like banks, credit unions can have either a state or federal charter.

The approximately 5,700 credit unions in the United States have more than 108 million members and over $1.34 trillion in assets. The five largest credit unions in the United States are shown in **Table 15.5**. Although the U.S. credit union system remained strong during the 2007–2009 financial crisis, consumer-owned credit unions in several regions weakened as a result of home foreclosures, business failures, and unemployment rates. Today, the credit union system continues to demonstrate its resilience as the economy continues to rebound.

Services Offered

Commercial banks, thrift institutions, and credit unions offer a wide range of financial services for businesses and consumers. Typical services offered by depository financial institutions are listed in **Table 15.6**. Some financial institutions specialize in providing financial services to a particular type of customer, such as consumer banking services or business banking services.

Five Largest U.S. Credit Unions
1. Navy Federal Credit Union, Vienna, Virginia 2. State Employees Credit Union, Raleigh, North Carolina 3. Pentagon Federal Credit Union, Alexandria, Virginia 4. Boeing Employees Credit Union, Tukwila, Washington 5. Schoolfirst Federal Credit Union, Santa Ana, California

Table 15.5 Source: "Top 100 Credit Unions," http://www.usacreditunions.com, accessed September 7, 2017.

Nondepository Financial Institutions

Some financial institutions provide certain banking services but do not accept deposits. These nondepository financial institutions include insurance companies, pension funds, brokerage firms, and finance companies. They serve both individuals and businesses.

Insurance Companies

Insurance companies are major suppliers of funds. Policyholders make payments (called *premiums*) to buy financial protection from the insurance company. Insurance companies invest the premiums in stocks, bonds, real estate, business loans, and real estate loans for large projects.

Gitman, L. J., McDaniel, C., Shah, A., Reece, M., Koffel, L., Talsma, B., & Hyatt, J. C. (2018). *Introduction to business*. OpenStax. https://openstax.org/books/introduction-business/pages/1-introduction

Services Offered by Depository Financial Institutions	
Service	**Description**
Savings accounts	Pay interest on deposits
Checking accounts	Allow depositors to withdraw any amount of funds at any time up to the amount on deposit
Money market deposit accounts	Savings accounts on which the interest rate is set at market rates
Certificates of deposit (CD)	Pay a higher interest rate than regular savings accounts, provided that the deposit remains for a specified period
Consumer loans	Loans to individuals to finance the purchase of a home, car, or other expensive items
Business loans	Loans to businesses and other organizations to finance their operations
Electronic funds transfer	Use of computers and mobile devices to conduct financial transactions
Automated teller machine (ATM)	Allows bank customers to make deposits, withdrawals, and transfers from their accounts 24 hours a day
Debit cards	Allow customers to transfer money from their bank account directly to a merchant's account to pay for purchases
Online banking	Allows customers to conduct financial transactions via the internet or through a dial-in line that operates with a bank's software
Mobile apps	Technology that allows consumers to download programs to mobile devices that enable them to take care of banking, financial, and other transactions
Direct deposit of paychecks	Enabled through employers and payroll service vendors; allows financial institutions to accept direct deposits of payroll checks to consumers' checking and/or savings accounts on a regular basis

Table 15.6

Pension Funds

Corporations, unions, and governments set aside large pools of money for later use in paying retirement benefits to their employees or members. These **pension funds** are managed by the employers or unions themselves or by outside managers, such as life insurance firms, commercial banks, and private investment firms. Pension plan members receive a specified monthly payment when they reach a given age. After setting aside enough money to pay near-term benefits, pension funds invest the rest in business loans, stocks, bonds, or real estate. They often invest large sums in the stock of the employer. U.S. pension fund assets total nearly $3.4 trillion.

Brokerage Firms

A *brokerage firm* buys and sells securities (stocks and bonds) for its clients and gives them related advice. Many brokerage firms offer some banking services. They may offer clients a combined checking and savings account with a high interest rate and also make loans, backed by securities, to them.

Finance Companies

A *finance company* makes short-term loans for which the borrower puts up tangible assets (such as an automobile, inventory, machinery, or property) as security. Finance companies often make loans to individuals or businesses that cannot get credit elsewhere. Promising new businesses with no track record and firms that can't get more credit from a bank often obtain loans from *commercial finance companies. Consumer finance companies* make loans to individuals, often to cover the lease or purchase of large consumer goods such as automobiles or major household appliances. To compensate for the extra risk, finance companies usually charge higher interest rates than banks.

15.4 Insuring Bank Deposits

4. How does the Federal Deposit Insurance Corporation (FDIC) protect depositors' funds?

The U.S. banking system worked fairly well from when the Federal Reserve System was established in 1913 until the stock market crash of 1929 and the Great Depression that followed. Business failures caused by these events resulted in major cash shortages as people rushed to withdraw their money from banks. Many cash-starved banks failed because the Federal Reserve did not, as expected, lend money to them. The government's efforts to prevent bank failures were ineffective. Over the next two years, 5,000 banks—about 20 percent of the total number—failed.

President Franklin D. Roosevelt made strengthening the banking system his first priority. After taking office in 1933, Roosevelt declared a bank holiday, closing all banks for a week so he could take corrective action. Congress passed the Banking Act of 1933, which empowered the Federal Reserve System to regulate banks and reform the banking system. The act's most important provision was the creation of the **Federal Deposit Insurance Corporation (FDIC)** to insure deposits in commercial banks. The 1933 act also gave the Federal Reserve authority to set reserve requirements, ban interest on demand deposits, regulate the interest rates on time deposits, and prohibit banks from investing in specified types of securities. In 1934 the Federal Savings and Loan Insurance Corporation (FSLIC) was formed to insure deposits at S&Ls. When the FSLIC went bankrupt in the 1980s, the FDIC took over responsibility for administering the fund that insures deposits at thrift institutions.
Today, the major deposit insurance funds include the following:

- *The Deposit Insurance Fund (DIF):* Administered by the FDIC, this fund provides deposit insurance to commercial banks and thrift institutions.
- *The National Credit Union Share Insurance Fund:* Administered by the National Credit Union Administration, this fund provides deposit insurance to credit unions.

Role of the FDIC

The FDIC is an independent, quasi-public corporation backed by the full faith and credit of the U.S. government. It examines and supervises about 4,000 banks and savings banks, more than half the institutions in the banking system. It insures trillions of dollars of deposits in U.S. banks and thrift institutions against loss if the financial institution fails.[14] The FDIC insures all member banks in the Federal Reserve System. The ceiling on insured deposits is $250,000 per account. Each insured bank pays the insurance premiums, which are a fixed percentage of the bank's domestic deposits. In 1993, the FDIC switched from a flat rate for deposit insurance to a risk-based premium system because of the large number of bank and thrift failures during the 1980s and early 1990s. Some experts argue that certain banks take too much risk because they view deposit insurance as a safety net for their depositors—a view many believe contributed to earlier bank failures.

Enforcement by the FDIC

To ensure that banks operate fairly and profitably, the FDIC sets guidelines for banks and then reviews the financial records and management practices of member banks at least once a year. Bank examiners perform these reviews during unannounced visits, rating banks on their compliance with banking regulations—for example, the Equal Credit Opportunity Act, which states that a bank cannot refuse to lend money to people because of their color, religion, or national origin. Examiners also rate a bank's overall financial condition, focusing on loan quality, management practices, earnings, liquidity, and whether the bank has enough capital (equity) to safely support its activities.

When bank examiners conclude that a bank has serious financial problems, the FDIC can take several actions. It can lend money to the bank, recommend that the bank merge with a stronger bank, require the bank to use new management practices or replace its managers, buy loans from the bank, or provide extra equity capital to the bank. The FDIC may even cover all deposits at a troubled bank, including those over $250,000, to restore the public's confidence in the financial system.

With the fallout from the financial crisis of 2007–2009 still having an effect on banking and financial markets in this country and abroad, the FDIC works closely with the Federal Reserve to make sure that banks continue to maintain healthy balance sheets by "testing" their solvency on a regular basis. Although the future of Dodd-Frank regulations is open to speculation in 2017, the consequences of thinking that banks and other financial institutions were "too big to fail" has had a positive impact on banking and financial transactions with the hope that such a financial crisis can be avoided in the future.

15.5 International Banking

5. What roles do U.S. banks play in the international marketplace?

The financial marketplace spans the globe, with money routinely flowing across international borders. U.S. banks play an important role in global business by providing loans to foreign governments and businesses. Multinational corporations need many special banking services, such as foreign-currency exchange and funding for overseas investments. U.S. banks also offer trade-related services, such as global cash management, that help firms manage their cash flows, improve their payment efficiency, and reduce their exposure to operational risks. Sometimes consumers in other nations have a need for banking services that banks in their own countries don't provide. Therefore, large banks often look beyond their national borders for profitable banking opportunities. Many U.S. banks have expanded into overseas markets by opening offices in Europe, Latin America, and Asia. They often provide better customer service than local banks and have access to more sources of funding. Citibank, for example, was the first bank to offer banking by phone and 24-hour-a-day ATM service in Japan.

For U.S. banks, expanding internationally can be difficult. Banks in other nations are often subject to fewer regulations than U.S. banks, making it easier for them to undercut American banks on the pricing of loans and services. Some governments also protect their banks against foreign competition. For example, the Chinese government imposes high fees and limits the amount of deposits that foreign banks can accept from customers. It also controls foreign-bank deposit and loan interest rates, limiting the ability of foreign banks to compete with government-owned Chinese banks. Despite the banking restrictions for foreign banks in China, many of the large U.S. banking institutions continue to do business there.

International banks operating within the United States also have a substantial impact on the economy through job creation—they employ thousands of people in the United States, and most workers are U.S. citizens—operating and capital expenditures, taxes, and other contributions. According to March 2017 Federal Reserve data, the combined banking and nonbanking assets of the U.S. operations of foreign banks total more than $24 trillion.

The World's Biggest Banks, 2017
Industrial and Commercial Bank of China
China Construction Bank
JPMorgan Chase & Co. (USA)
Wells Fargo & Co. (USA)
Agricultural Bank of China
Bank of America Corp. (USA)
Bank of China Ltd.
Citigroup (USA)
BNP Paribas (France)
Mitsubishi UFJ Financial Group (Japan)

Table 15.7 Source: "The World's Biggest Banks in 2017: The American Bull Market Strengthens," *Forbes,* http://www.forbes.com, May 24, 2017.

The United States has four banks listed in the top 10 world's biggest banks, as shown in **Table 15.7**.

Political and economic uncertainty in other countries can make international banking a high-risk venture. European and Asian banks were not immune to the financial crisis of 2007–2009. In fact, several countries, including Greece, Portugal, Spain, and Ireland, continue to rebound slowly from the near-collapse of their economic and financial systems they experienced a decade ago. Financial bailouts spearheaded by the European Union and the International Monetary Fund have helped stabilize the European and global economy. It is unclear at this writing, however, whether the impending “Brexit” move by the United Kingdom (leaving the European Union) will impact international banking, as many of the world’s top financial institutions seek to move their global operations out of London and shift them to other financial capitals within the eurozone.[17]

15.6 Trends in Financial Institutions

6. What trends are reshaping financial institutions?

What factors will influence financial institutions in the coming years? The latest reports suggest there will be a continued focus on regulatory and compliance issues (especially after the recent financial crisis), as well as on operational efficiency and technological advances.

Banks will continue to tackle customer engagement and technology initiatives over the next few years. According to a report by Aite Group, a Boston-based firm that forecasts U.S. banking trends, technology continues to empower consumers to control their banking and commerce experiences. Financial institutions have become better at using data and data analytics to help them better understand their customers’ needs and behaviors, which may provide them the competitive advantage they seek in the retail banking industry.

Financial technology (or “fintech” services) will continue to disrupt the banking industry and provide opportunities for banks and other institutions to work closely with fintech companies that can help them innovate and streamline their business practices. According to recent research by Goldman Sachs, fintech startups have the potential to take away billions of dollars in business from traditional investment and lending institutions. Some of the services offered by fintech firms include payment transaction processing, mobile and web payment services for e-commerce firms, peer-to-peer lending, and integrated financial software programs.

Mobile financial apps will continue to be a strategic advantage that separates traditional banking approaches from innovative companies that can offer their clients a connected, digital experience when it comes to their money and investments. Consumers will expect personalization of bank products and services as part of their routine interaction with financial institutions. Otherwise, they will look elsewhere for a competitive platform to meet all of their financial and banking needs.

Although most banks continue to offer local branch offices, the next few years will see branch banking become less prevalent as online and mobile services become more popular. Most banking institutions already offer apps that allow customers to move money between accounts or deposit a check via their smartphones, which happens almost instantaneously, rather than get in a car, drive to the bank, and deposit the check in person. In addition, online payment platforms such as PayPal, Apple Pay, Google Wallet, Shopify, Stripe, and others continue to make personal and business transactions seamless. In this 24/7 world, consumers expect their banking and financial transactions to happen quickly and efficiently.