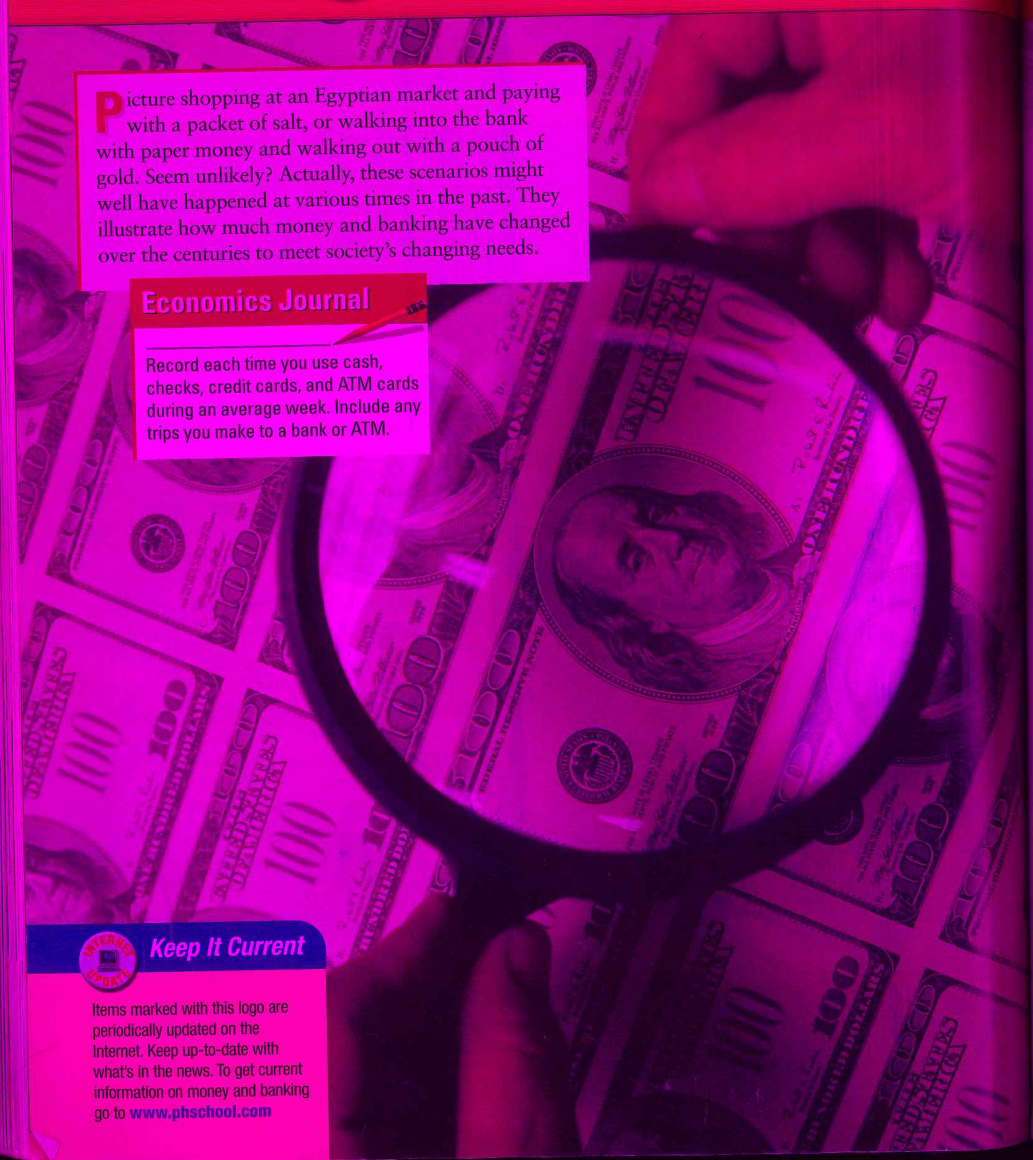
Chapter 10 Money and Banking



Picture shopping at an Egyptian market and paying with a packet of salt, or walking into the bank with paper money and walking out with a pouch of gold. Seem unlikely? Actually, these scenarios might well have happened at various times in the past. They illustrate how much money and banking have changed over the centuries to meet society's changing needs.

Economics Journal

Record each time you use cash, checks, credit cards, and ATM cards during an average week. Include any trips you make to a bank or ATM.

Keep It Current

Items marked with this logo are periodically updated on the Internet. Keep up-to-date with what's in the news. To get current information on money and banking go to **www.phschool.com**

Section 1 Money

Preview

Objectives

After studying this section you will be able to:

1. **Describe** the three uses of money.
2. **Explain** the six characteristics of money.
3. **Understand** the sources of money's value.

Section Focus

Money serves as a medium of exchange, a unit of account, and a store of value. Although many objects have served as money in the past, the coins and bills we use today meet the needs of modern society.

Key Terms

money
medium of exchange
barter
unit of account
store of value
currency
commodity money
representative money
fiat money

Suppose you have just arrived at your neighborhood store after playing basketball on a hot day. You grab a soda and fish around in your jeans pockets for some money. You find a pen, keys, and a chewing gum wrapper, but, unfortunately, no money. Then you reach into your jacket pocket. Finally!—a crumpled dollar bill. You hand the money to the clerk and take a long, cold drink.

Money is a part of our daily lives. Without it, we can't get the things we need and want. That's not the whole story of money, however. In fact, money has functions and characteristics that you might never have thought about.

The Three Uses of Money

If you were asked to define money, you would probably think of the coins and bills in your wallet or the paychecks you receive for your part-time job. Economists define money in terms of its three uses. For an economist, **money** is anything that serves as a medium of exchange, a unit of account, and a store of value.

Money as a Medium of Exchange

A **medium of exchange** is anything that is used to determine value during the exchange of goods and services. Without money, people acquire goods and services through **barter**, or the direct exchange of one set of goods or services for another. Barter is still used in many parts of the world, especially in traditional economies in Asia, Africa, and Latin America. It is also sometimes used informally in the United States. For example, a person might agree to help paint a neighbor's house in exchange for vegetables from the neighbor's garden. In general, however, as an economy becomes more specialized, bartering becomes too difficult and time-consuming to be practical.

To appreciate how much easier money makes exchanges, suppose that money did not exist, and that you wanted to trade your video cassette recorder (VCR) for an audio CD player. You probably would have a great deal of trouble making the exchange. First, you would need to find someone who wanted to both sell the model of CD player you want and buy your particular VCR. Second, this person would need to agree that your VCR is worth the same as his or her CD player. As you might guess, people in barter economies spend a great deal of time and effort exchanging the goods they have for the goods they need and want. That's why barter generally works well only in small, traditional economies.

Now consider how much easier your transaction would be if you used money as

money *anything that serves as a medium of exchange, a unit of account, and a store of value*

medium of exchange *anything that is used to determine value during the exchange of goods and services*

barter *the direct exchange of one set of goods or services for another*

Figure 10.1 **The Three Functions of Money**

BUILDING KEY CONCEPTS

Money serves as a medium of exchange, a unit of account, and a store of value.
Money How does each illustration represent a characteristic of money?

unit of account *a means for comparing the values of goods and services*

store of value *something that keeps its value if it is stored rather than used*

a medium of exchange. All you would have to do is find someone who is willing to pay you $100 for your VCR. Then you could use that money to buy a CD player from someone else. The person selling you the CD player can use the $100 however he or she wishes. By the same token, the person who buys your VCR can raise that money however he or she wishes. Because money makes exchanges so much easier, people have been using it for thousands of years.

Money as a Unit of Account

In addition to serving as a medium of exchange, money serves as a **unit of account.** In other words, money provides a means for comparing the values of goods and services. For example, suppose you see a jacket on sale for $30. You know this is a good price because you have checked the price of the same or similar jackets in other stores. You can compare the cost of the jacket in this store with the cost in other stores because the price is expressed in the same way in every store in the United States—in terms of dollars and cents. Similarly, you would expect a movie in the theater to cost about $7.00, a video rental about $3.50, and so forth.

Other countries have their own forms of money that serve as units of account. The Japanese quote prices in terms of yen, the Russians in terms of rubles, Mexicans in terms of nuevo pesos, and so forth.

Money as a Store of Value

Money also serves as a **store of value.** This means that money keeps its value if you decide to hold on to—or store—it instead of spending it. For example, when you sell your VCR to purchase a CD player, you might not have a chance to purchase a CD player right away. In the meantime, you can keep the money in your wallet or in a bank. The money will still be valuable and will be recognized as a medium of exchange weeks or months from now when you go to buy the CD player.

Money serves as a good store of value with one important exception. Sometimes economies experience a period of rapid inflation, or a general increase in prices. For example, suppose the United States experiences 10 percent inflation during a particular year. If you sold your VCR at the beginning of that year for $100, the money you received would have 10 percent less value, or buying power, at the end of the year. This is because the price of the CD player would have increased by 10 percent during the year, to $110. The $100 you received at the beginning of the year would no longer be enough to buy the CD player.

In short, when an economy experiences inflation, money does not function as well as a store of value. You will read more about the causes and effects of inflation in Chapter 13.

The Six Characteristics of Money

The coins and paper bills used as money are called **currency.** In the past, societies have also used an astoundingly wide range of other objects as currency. Cattle, salt, dried fish, furs, precious stones, gold, and silver have all served as currency at various times in various places. So have porpoise teeth, rice, wheat, shells, tulip bulbs, and olive oil. These items all worked well in the societies in which they were used. None of them, however, would function very well in our economy today. Each lacks at least one of the six characteristics that economists use to judge how well an item serves as currency. These six characteristics are durability, portability, divisibility, uniformity, limited supply, and acceptability.

Durability

Objects used as money must withstand the physical wear and tear that comes with being used over and over again. If money wears out or is easily destroyed, it cannot be trusted to serve as a store of value.

Unlike wheat or olive oil, coins last for many years. In fact, some collectors have ancient Roman coins that are more than 2,000 years old. While our paper money may not seem very durable, its rag (cloth) content helps $1 bills typically last at least a year in circulation. When paper bills wear out, the United States government can easily replace them.

Portability

People need to be able to take money with them as they go about their daily business. They also must be able to easily transfer money from one person to another when they use money for purchases. Paper money and coins are very portable, or easily carried, because they are small and light.

currency *coins and paper bills used as money*

Divisibility

To be useful, money must be easily divided into smaller denominations, or units of value. When money is divisible, people only have to use as much of it as necessary for any exchange. In the 16th and 17th centuries, people actually used pieces of coins to pay exact amounts for their purchases. Spanish coins called doubloons had lines scored or etched on

▼ **Roman coins**

Figure 10.2 **Roman Empire, About Second Century A.D.**

BUILDING KEY CONCEPTS

Coins used throughout the Roman Empire provide a good example of the six characteristics of money. They were durable, portable, divisible into denominations, uniform, in limited supply, and accepted throughout the Empire.
Money What does the fact that Roman coins have been found in places as far from Rome as Britain and Egypt suggest about how well the coins served as currency?

them so that they could be easily divided into eight parts. Spanish coins, in fact, came to be called "pieces of eight."

Today, of course, if you use a $20 bill to pay for a $5 lunch, the cashier will not rip your bill into four pieces in order to make change. That's because American currency, like currencies around the world, consists of various denominations—$5 bills, $10 bills, and so on.

Uniformity

Any two units of money must be uniform—that is, the same—in terms of what they will buy. In other words, people must be able to count and measure money accurately.

Suppose everything were priced in terms of dried fish. One small dried fish might buy an apple. One large dried fish might buy a sandwich. This method of pricing is not a very accurate way of establishing the standard value of products because the size of a dried fish can vary. Picture the arguments people would have when trying to agree whether a fish was small or large. A dollar bill, however, always buys $1 worth of goods.

Limited Supply

Suppose a society uses certain pebbles as money. These pebbles have only been found on one beach. One day, however, someone finds an enormous supply of similar pebbles on a different beach. Now anyone can scoop up these pebbles by the handful. Since these pebbles are no longer in limited supply, they are no longer useful as currency.

commodity money
objects that have value in themselves and that are also used as money

In the United States, the Federal Reserve System controls the supply of money in circulation. By its actions, the Federal Reserve is able to keep just the right amount of money available. You'll read more about how the Federal Reserve monitors and adjusts the money supply in Chapter 16.

Acceptability

Finally, everyone in an economy must be able to exchange the objects that serve as money for goods and services. When you go to the store, why does the person behind the counter accept your money in exchange for a carton of milk or a box of pencils? After all, money is just pieces of metal or paper. Your money is accepted because the owner of the store can spend it elsewhere to buy something he or she needs or wants.

In the United States, we expect that other people in the country will continue to accept paper money and coins in exchange for our purchases. If people suddenly lost confidence in our currency's value, they would no longer be willing to sell goods and services in return for dollars. (See *Global Connections* below to learn more about what happens when people lose confidence in their country's currency.)

Sources of Money's Value

Think about the bills and coins in your pocket. They are durable and portable. They are also easily divisible, uniform, in limited supply, and accepted throughout the country. As convenient and practical as they may be, however, bills and coins have very little value in and of themselves. What, then, makes money valuable? The answer is that there are actually several possible sources of money's value, depending on whether the money is commodity, representative, or fiat money.

Commodity Money

A commodity is an object. **Commodity money** consists of objects that have value in and of themselves and that are also used as money. For example, salt, cattle, and precious stones have been used in various societies as commodity money. These objects have other uses as well. If not used as money, salt can preserve food and make it tastier. Cattle can be slaughtered for their meat, and gems can be made into jewelry. Tobacco, corn, and cotton all served as commodity money in the American colonies.

As you can guess, commodity money tends to lack several of the characteristics that make objects good sources of money. For example, it is often not portable, durable, or divisible. That's why commodity money only works in simple economies. As the American colonies developed more complex economic systems, tobacco and other objects were no longer universally accepted as money. The colonies needed a more convenient payment system. They turned to representative money to meet their needs.

Representative Money

Representative money makes use of objects that have value because the holder can exchange them for something else of value. For example, if your brother gives you an IOU, the piece of paper itself is worth nothing. The promise that he will do all of your chores for a month may be worth quite a lot, however. The piece of paper simply represents his promise to you.

representative money
objects that have value because the holder can exchange them for something else of value

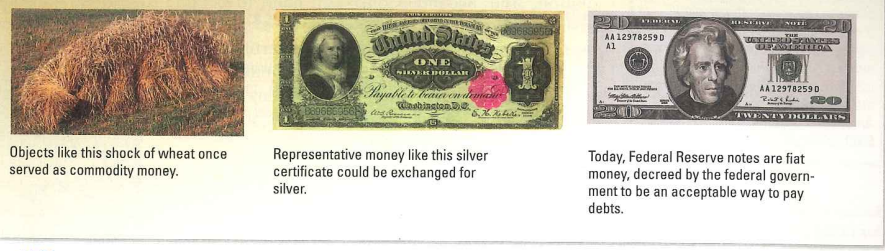
Early representative money took the form of paper receipts for gold and silver. Gold or silver money was heavy and thus inconvenient for customers and merchants to carry around. Each time someone made a transaction, the coins would have to be weighed and tested for purity. People therefore started to leave their gold in goldsmiths' safes. Customers would carry paper ownership receipts from the goldsmith to show how much gold they owned. After a while merchants began to accept goldsmiths' receipts instead of the gold itself. In this way, the paper receipts became an early form of paper money.

Colonists in the Massachusetts Bay Colony first used representative money in the late 1600s when the Colony's treasurer issued bills of credit to lenders to help finance King William's War. The bills of credit showed the exact amount that colonists had loaned to the Massachusetts government. Billholders could redeem the

Global Connections

The Ruble Russia's currency is facing trouble as a store of value. In 1998, it was devalued by the official Russian state bank from 6.3 rubles to the dollar to 9.5 rubles to the dollar. This slippage hurt average Russians, as their savings were now worth only two thirds of their previous value. Many Russians turned to buying American dollars with the rubles they had left, fearing another devaluation and having more faith in the stability of the dollar. By 2001, the ruble was valued at 29 to the dollar, or about 3.4 cents.

Figure 10.3 **Sources of Money's Value**



BUILDING KEY CONCEPTS

Americans used both commodity and representative money during the colonial period. Representative money was used until 1913, when the first Federal Reserve notes were issued. Money **What are the advantages of fiat money over commodity and representative money?**

FAST FACT

Some government agencies estimate that only about one third of all existing pennies are in circulation. The rest sit in jars, fountains, desk drawers, and pockets. Many merchants would prefer to do away with pennies altogether and round up prices to the nearest nickel. While pennies seem insignificant, however, rounding up to the nearest nickel could cost American consumers approximately $600 million per year.

paper for specie, that is, gold and silver coins.

Representative money was not without its problems. During the American Revolution, the Second Continental Congress issued representative money called Continentals to finance the war against England. Unfortunately, few people were able to redeem these early paper currencies for specie because the federal government had no power to collect taxes. Until the Constitution replaced the Articles of Confederation in 1789, the federal government depended on the states' voluntary contributions to fill the treasury. As a result, the federal treasury held very little gold or silver. Continentals became worthless because people came to believe that they would not be able to redeem their bills for gold and silver coins. People even began to use the phrase "not worth a Continental" to refer to something useless.

fiat money *money that has value because the government has ordered that it is an acceptable means to pay debts*

Later, the United States government issued representative money in the form of silver and gold certificates. These certificates were "backed" by gold or silver. In other words, holders of such certificates could redeem them for gold or silver at a local bank. The United States government thus had to keep vast supplies of gold and silver on hand to be able to convert all paper dollars to gold if the demand arose. Some silver certificates circulated until 1971, but for the most part, the government stopped converting paper money into silver or gold in the 1930s.

Fiat Money

If you examine a dollar bill, you will see George Washington's picture on one side, and on the other side the words, "This note is legal tender for all debts, public and private." In essence, these words mean that our money is valuable because our government says it is.

United States money today is fiat money. A fiat is an order or decree. **Fiat money,** also called "legal tender," has value because the government has decreed that it is an acceptable means to pay debts. It remains in limited supply, and therefore valuable, because the Federal Reserve controls its supply. This control of the money supply is essential for a fiat system to work.

Section 1 Assessment

Key Terms and Main Ideas

1. How does **money** serve as a **store of value?**
2. Give examples of **(a) commodity money, (b) representative money,** and **(c) fiat money.**
3. Why does United States **currency** have value?
4. What are the disadvantages of **commodity money?**
5. Why did Continentals become worthless?

Applying Economic Concepts

6. ***Critical Thinking*** Suppose you are shopping for a new backpack and want to get the best value for your money. Explain how the fact that money functions as a unit of account helps you to make your choice.
7. ***Try This*** Would movie tickets or popcorn make good money? Describe how well these items meet each of the six characteristics of an ideal currency.
8. ***Decision Making*** Suppose you need a graphing calculator. Should you plan to trade your hockey stick for one or should you try to sell your hockey stick and use the money to buy one from a classmate? Explain your reasoning.
9. ***Problem Solving*** What material(s) would you use if you were creating a new United States coin? Why?
10. ***Critical Thinking*** Suppose you live in a society that has a barter economy. What difficulties might you encounter in paying for such services as medical care and education?

Take It to the NET Think of an item you have bought recently and find out how much it cost the year you were born. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Skills for LIFE

Critical Thinking · Graphs and Charts · Social Studies · Technology

Understanding Public Opinion Polls

Public opinion polls measure what people think about a particular subject. Although pollsters take several steps to ensure that their results mirror the population as a whole, there are many pitfalls. For example, the same question phrased in different ways can result in widely different answers, even if all the questions are essentially the same. Because a poll can only measure a small sample of the population, pollsters include a statistical margin of error that indicates the degree to which the poll is accurate for the entire population. Public opinion polls should be read critically to understand exactly what they say. Use the following steps to analyze the hypothetical poll below.

1. **Establish the purpose of the poll.** Read the statements in the poll. (a) What is the subject of the poll. (b) What, specifically, were people asked?
2. **Analyze the response.** Look at the change in the rate of people who agreed with the statements as the statements changed. A politician reading only the responses to the first question might assume that the American people would support an expensive system of free clinics. (a) Which details seemed to provoke a negative reaction? (b) Can we say that a majority of Americans would agree with statement B? Why or why not?
3. **Expand upon the original question.** The lessons learned from one poll can help make the next poll more accurate. If you were a politician trying to obtain accurate and precise information about the public's opinions on health care, how might you rephrase the questions in the poll?

Health Care Poll

"The government today does not spend enough to provide all Americans, including the 40 million Americans without health insurance, with good health care. Keeping this in mind, do you agree or disagree with the following statements?"

	I Agree	I Disagree
A. "Every American should have access to good health care."	64%	36%
B. "The government should guarantee that every American has good health care."	53%	47%
C. "The government should spend more to guarantee that every American has good health care."	42%	58%

Note: Random sample of 1,400 people surveyed by phone; margin of error ± 4 percent

Additional Practice

Use the Internet to find the results of a recent poll. Look at the question or questions asked. How does the pollster try to keep the question as neutral as possible?

Section 2

The History of American Banking

Preview

Objectives

After studying this section you will be able to:

1. **Describe** the shifts between centralized and decentralized banking before the Civil War.
2. **Explain** how the banking system was stabilized in the later 1800s.
3. **Describe** developments in banking during the twentieth century.

Section Focus

The history of banking in the United States is the story of shifts between a centralized, national banking system and independent state and local banks. Out of these shifts has developed the stable banking system in which we place our confidence today.

Key Terms

bank
national bank
bank run
greenback
gold standard
Federal Reserve System
central bank
member bank
Federal Reserve note
Great Depression
Federal Deposit Insurance Corporation (FDIC)

bank *an institution for receiving, keeping, and lending money*

Chances are there is at least one **bank**—an institution for receiving, keeping, and lending money—near your home. That's because banks have become a fact of everyday life in the United States. This was not always the case, however. American banking as we know it today has developed over the course of the nation's history to meet the needs of a growing and changing population.

▲ What were the views of Alexander Hamilton (top) and Thomas Jefferson (bottom) on the creation of a national bank?

American Banking Before the Civil War

During the first part of our nation's history, banks were very informal businesses that merchants managed in addition to their regular trade. For example, a merchant who sold cloth, grain, or other goods might allow customers to deposit money. He would then charge a small fee to keep the money safe. He would also charge a fee if a customer wanted to take out a loan. These informal banks were not completely safe, however. If a merchant went out of business or was untrustworthy, customers could lose all of their savings.

Two Views of Banking

After the American Revolution, the leaders of the new nation agreed that one of their main goals must be to establish a safe, stable banking system. Such a system was important for increasing trade with other countries and ensuring the economic growth of the new United States. The nation's leaders did not, however, agree on how that goal should be accomplished. Their debate on banking during the 1780s and 1790s was part of a larger political debate about the role of government in the young country.

As you may remember from your study of American history, the Federalists believed that the country needed a strong central government to establish economic and social order. The Antifederalists favored leaving most powers in the hands of the states. These two groups viewed the country's banking needs quite differently.

The Federalists, led by Alexander Hamilton, believed that a centralized banking system was necessary for the United States to develop healthy industries and trade. When President Washington appointed Hamilton as Secretary of the Treasury in 1789, Hamilton proposed a **national bank** (a bank chartered, or licensed, by the national government) that could issue a single currency for the entire nation, manage the federal government's funds, and monitor other banks throughout the country.

The Antifederalists, however, led by Thomas Jefferson, supported a decentralized banking system. In this system, the states would establish and regulate all banks within their borders.

The First Bank of the United States

At first, the Federalists were successful in creating a strong central bank. In 1791, Congress set up the Bank of the United States, granting it a twenty-year charter, or license to operate. The United States Treasury used the Bank for the following purposes:

- to hold the money that the government collected in taxes
- to help the government carry out its powers to tax, borrow money in the public interest, and regulate interstate and foreign commerce
- to issue representative money in the form of bank notes, which were backed by gold and silver
- to ensure that state-chartered banks held sufficient gold and silver to exchange for bank notes should the demand arise

The Bank succeeded in bringing order and stability to American banking. Many people worried, however, that the Bank would lend only to wealthy people and large businesses. They feared that ordinary people who needed to borrow money to maintain or expand their farms and small businesses would be refused loans. In addition, Jefferson and other Antifederalists pointed out that the Constitution does not explicitly give Congress the power to create a national bank. Therefore, they argued, the creation of a national bank was unconstitutional. When Alexander Hamilton died in a famous duel with Vice President Aaron Burr in 1804, the Bank lost its main backer. The Bank functioned only until 1811, when its charter ran out.

Chaos in American Banking

Once the Bank's charter expired, state banks (banks chartered by state governments) began issuing bank notes that they could not back with specie, or gold and silver coins. The states also chartered many banks without considering whether these banks would be stable and creditworthy.

Without any kind of supervision or regulation, financial confusion resulted. Prices rose rapidly. Neither merchants nor customers had confidence in the value of the paper money in circulation. Different banks issued different currencies, and bankers always faced the temptation to print more money than they had gold and silver to back. Merchants had to keep lists of which notes were redeemable by gold and silver and which were not.

The Second Bank of the United States

To eliminate this financial chaos, Congress chartered the Second Bank of the United States in 1816. Like the first Bank, the Second Bank was limited to a twenty-year charter. The Second Bank slowly managed to rebuild the public's confidence in a national banking system, although many people, including President Andrew Jackson, continued to oppose the idea.

national bank *a bank chartered, or licensed, by the national government*

▲ **In this cartoon, Andrew Jackson drags bank supporter Henry Clay behind him as he attacks the monster national bank. How does the artist suggest that the danger is not real?**

▲ **During the Free Banking Era (1837–1863), state-chartered banks and even individual companies issued their own currency. What were some of the difficulties that arose from this practice?**

Nicholas Biddle, the Second Bank's president starting in 1823, was responsible for restoring stability. If Biddle thought that a particular state bank was issuing bank notes without enough reserves (that is, gold and silver to back them), he would surprise the bank with a great number of its notes all at once, asking for gold or silver in return. Some state banks, caught without the necessary reserves, went out of business. Others quickly learned to limit how many notes they issued.

bank run *widespread panic in which great numbers of people try to redeem their paper money*

Despite the difficulties arising from decentralized banking, many people continued to distrust the federal government's banking power. In addition, although the Supreme Court had ruled a national bank constitutional in 1819, the same groups who had opposed the first Bank also opposed the Second Bank. Finally, President Jackson's extreme distrust of the Second Bank led him to veto the renewal of the Bank in 1832.

THE WALL STREET JOURNAL.
CLASSROOM EDITION

In the News *As this excerpt from a* Wall Street Journal Classroom Edition *article shows, discussion about a common currency among the nations of the European Union is nothing new.*

"As the governor of Illinois put it in 1863, in words often echoed in Europe now: 'A currency of uniform value throughout the entire country is greatly to be desired. It tends to the more-perfect regulation of our system of trade and commerce, [and eliminates] ruinous differences in the rates of exchange.'"

The Free Banking Era

The fall of the Second Bank once again triggered a period dominated by state-chartered banks. For this reason, the period between 1837 and 1863 is known as the Free Banking, or "Wildcat," Era. Between 1830 and 1837 alone, the number of state-chartered banks nearly tripled. As you might expect, the sheer number of banks and currencies gave rise to a variety of problems.

1. *Bank runs and panics* State-chartered banks often did not keep enough gold and silver to back the paper money that they issued. Customers found it increasingly difficult to exchange their paper money for gold and silver, setting off **bank runs.** These were widespread panics in which great numbers of people tried to redeem their paper money at once. Many banks failed as a result, and public confidence plummeted. An especially severe panic occurred in 1837.
2. *Wildcat banks* Some banks were located on the edges of settled areas. They were called "wildcat banks" because people joked that only wildcats lived in such remote areas. Wildcat banks had a high rate of failure.
3. *Fraud* A few banks engaged in out-and-out fraud, or cheating. They issued bank notes, collected gold and silver money from customers who bought the notes, and then disappeared. Anyone who had bought the notes lost their money.
4. *Many different currencies* State-chartered banks—as well as cities, private banks, railroads, stores, churches, and individuals—were allowed to issue currency. Notes of the same denominations often had different values, so that a dollar issued by the "City of Atlanta" was not necessarily worth the same as a dollar issued by the "City of New York." Many notes were counterfeits, or worthless imitations of real notes.

The Later 1800s

By 1860, an estimated 8,000 different banks were circulating currency. To add to the confusion, the federal government played no role in providing paper currency or regulating reserves of gold or silver. The Civil War, which erupted in 1861, made existing problems worse.

Currency in the North and South

During the Civil War, both the Union and Confederacy needed to raise money to finance their military efforts. In 1861, the United States Treasury issued its first paper currency since the Continental. The official name of the currency was "demand notes," but they were called **"greenbacks"** because they were printed with green ink.

In the South, the Confederacy issued currency backed by cotton, hoping that a Confederate victory would ensure the currency's value. As the Confederate economy suffered under the strain of the war, however, Confederate notes became worthless.

Unifying American Banks

With war raging, the federal government enacted reforms aimed at restoring confidence in paper currency. These reforms resulted in the National Banking Acts of 1863 and 1864. Together, these Acts gave the federal government three important powers:

1. the power to charter banks
2. the power to require banks to hold adequate gold and silver reserves to cover their bank notes
3. the power to issue a single national currency

The new national currency led to the elimination of the many different state currencies in use and helped stabilize the country's money supply.

The Gold Standard

Despite the reforms made during the Civil War, the country was still plagued by money and banking problems. In the 1870s, the nation adopted a **gold standard**—a monetary system in which paper money and coins are equal to the value of a certain amount of gold. The gold standard had two advantages:

1. It set a definite value for the dollar, so that one ounce of gold equaled about $20. Since the value was set, people knew that they could redeem the value of their paper money at any time. Confident in that knowledge, people felt comfortable carrying around the lighter and more convenient paper money.
2. The government could issue currency only if it had gold in the treasury to back the notes. Because of the limited supply of gold, the government was prevented from printing an unlimited number of notes.

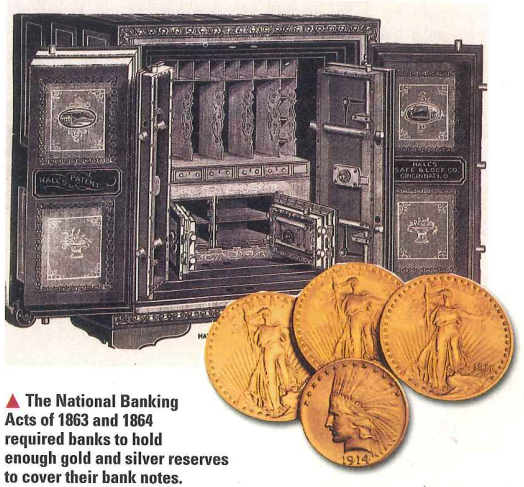
The gold standard thus fulfilled an essential requirement of a banking system: a stable currency that inspires the confidence of the public.

greenback *paper currency issued during the Civil War*

gold standard *a monetary system in which paper money and coins are equal to the value of a certain amount of gold*

Banking in the Early Twentieth Century

Reforms such as the creation of a single national currency and the gold standard helped stabilize American banking. They did not, however, provide for a central decision-making authority. Such an authority could help banks provide funds



▲ **The National Banking Acts of 1863 and 1864 required banks to hold enough gold and silver reserves to cover their bank notes.**

Figure 10.4 Developments in American Banking

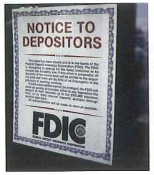
Date	Development
1780s	The nation has no reliable medium of exchange. Federalists and Antifederalists disagree about a banking system.
1791	First Bank of the United States is established.
1811–1816	Period of instability follows expiration of first Bank's charter.
1816	Second Bank of the United States reestablishes stability.
1830s–1860s	President Jackson vetoes recharter of Second Bank in 1832, giving rise to Free Banking Era.
1861–1863	Civil War makes clear the need for a better monetary and banking system.
1863–1864	National Banking Acts of 1863 and 1864 establish national banking system and uniform national currency.
1907	Panic of 1907 leads to creation of the Federal Reserve System.
1913	President Wilson signs the Federal Reserve Act.
1929	The Great Depression begins.
1933	President Roosevelt helps restore confidence in the nation's banks by establishing the FDIC.
1940s–1960s	Period of government regulation and long-term stability
Late 1960s–1970s	New laws make clear the rights and responsibilities of banks and consumers.
1980s	Period of deregulation; S&Ls face bankruptcies
1990s	Banks enter a period of financial health and mergers.

Example

▶ 1780s Continental

◀ 1861–1863 Greenback

▶ 1933 FDIC



BUILDING KEY CONCEPTS

The history of American banking shows a series of shifts between stability and instability.
Government What does the chart suggest about the role of government in banking during the twentieth century?

for growth and manage the money supply based on what the economy needed.

Continuing problems in the nation's banking system resulted in the Panic of 1907. Because they lacked adequate reserves, many banks had to stop exchanging gold for paper money. Several long-standing New York banks failed, and many people lost their jobs because businesses did not have access to money for investing in future projects. Clearly, the economy needed a central banking system so that the country could avoid such panics in the future. As a result of the 1907 crisis, the government made plans to reinstate a central bank.

The Federal Reserve System

Passed in late 1913, the Federal Reserve Act established the **Federal Reserve System.** The Federal Reserve System, or Fed, served as the nation's first true **central bank,** or bank that can lend to other banks in time of need. It reorganized the federal banking system as follows:

- *Member banks* The system created up to twelve regional Federal Reserve Banks throughout the country. All banks chartered by the national government were required to become members of the Fed. The Federal Reserve Banks were the central banks for their districts. **Member banks**—banks that belong to the Fed—stored some of their cash reserves at the Federal Reserve Bank in their district.
- *Federal Reserve Board* All of the Federal Reserve Banks were supervised by a Federal Reserve Board appointed by the President of the United States.
- *Short-term loans* Each of the regional Federal Reserve Banks allowed member banks to borrow money to meet short-term demands. This helped to prevent bank failures that occurred when large numbers of depositors withdrew funds during a panic.
- *Federal Reserve notes* The system also created the national currency we use today in the United States—**Federal Reserve notes.** This allowed the Federal Reserve to increase and decrease the amount of money in circulation according to business needs.

You will read more about the role of the Federal Reserve and how the system works today in Chapter 16.

Federal Reserve System *the nation's central banking system*

central bank *bank that can lend to other banks in times of need*

member bank *bank that belongs.to the Federal Reserve System*

Banking and the Great Depression

The Fed helped to restore confidence in the nation's banking system. It was unable, however, to prevent the terrifying **Great Depression**—the severe economic decline that began in 1929 and lasted more than a decade.

During the 1920s, banks loaned large sums of money to many high-risk businesses. Many of these businesses proved unable to pay back their loans. Farmers were also unable to pay back loans due to crop failures and hard times on the nation's farms. In addition, the 1929 stock market crash resulted in widespread bank runs as nervous depositors rushed to withdraw their money. The combination of unpaid loans and bank runs resulted in the failure of thousands of banks across the country.

Banking Reforms

After becoming President in 1933, Franklin D. Roosevelt acted to restore public confidence in the nation's banking system. On March 5, 1933, Roosevelt declared a national "bank holiday" and closed the nation's banks. Within a matter of days, sound banks began to reopen. The "bank holiday" was not a time of festivities, as the name implies, but a desperate last resort to restore trust in the nation's financial system.

Later in 1933, Congress passed the act that established the **Federal Deposit Insurance Corporation (FDIC).** The FDIC insures customer deposits if a bank fails. At first, FDIC insurance covered losses up to $2,500. Today the amount insured has risen to $100,000 per account.

In addition, federal legislation passed during the Great Depression severely restricted individuals' ability to redeem dollars for gold. Eventually, currency became fiat money backed only by the government's decree that establishes its value. In this way, the Federal Reserve could maintain a money supply at adequate levels to support a growing economy.

Federal Reserve note *the national currency we use today in the United States*

Great Depression *the severe economic decline that began in 1929 and lasted for more than a decade*

Federal Deposit Insurance Corporation (FDIC) *the government agency that insures customer deposits if a bank fails*

Banking in the Later Twentieth Century

As a result of the many bank failures of the Great Depression, banks were closely regulated from 1933 through the 1960s. Restrictions included the interest rates banks could pay depositors and the rates that banks could charge consumers for loans. Banks could also lend money only to customers who had a history of paying back loans on time.

By the 1970s, banks were eager for relief from federal regulation. In the late 1970s and 1980s, Congress passed laws to deregulate several industries. Deregulation

▼ **Widespread bank runs at the start of the Great Depression led to the failure of thousands of banks nationwide.**

▲ What does the cartoonist suggest about the large number of bank mergers during the 1990s?

is the removal, or relaxation, of government restrictions on business. Unfortunately, this deregulation contributed to a crisis in a class of banks known as Savings and Loans (S&Ls).

The Savings and Loan Crisis

Deregulation was one cause of the S&L crisis. High interest rates, inadequate capital, and fraud were others.

1. *Deregulation* Deregulation contributed to the crisis because S&Ls had previously been protected by government regulation. S&Ls were unprepared for competition.
2. *High interest rates* During the 1970s, S&Ls had made long-term loans at low rates. By the 1980s, interest rates had skyrocketed. This meant that S&Ls had to pay out high interest rates to their depositors. At the same time, however, they were receiving low rates on the money they had loaned out in the 1970s.
3. *Bad loans* Risky loans made in the early 1980s hit the S&L industry especially hard, forcing many out of business, as the graph on page 176 of Chapter 7 shows.
4. *Fraud* A few financially important institutions fraudulently made large loans to businesses that had little chance of succeeding. When these businesses failed, a tremendous drain was put on the reserves of the FSLIC, the federal agency that insured S&Ls.

In 1989, Congress passed the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA). This Act essentially abolished the independence of the savings and loan industry and transferred insurance responsibilities to the FDIC.

Banking in the 1990s

In 1999, in some of the most sweeping legislation since the Great Depression, Congress repealed the 1933 Glass-Steagall Act. This action paved the way for banks to sell financial assets such as stocks and bonds. In addition, the 1990s saw a growing trend toward bank mergers. You can read more about these mergers in the Case Study on page 265.

Section 2 Assessment

Key Terms and Main Ideas

1. What was the purpose of the first Bank of the United States?
2. What were three results of the National Banking Acts of 1863 and 1864?
3. Explain the purpose of the **Federal Deposit Insurance Corporation (FDIC).**

Applying Economic Concepts

4. ***Critical Thinking*** Use evidence from your reading to explain how the role of financial institutions has changed over time.
5. ***Decision Making*** Picture yourself living in the period following the Civil War. Would you support a central banking system? Why or why not?
6. ***Try This*** Suppose you are a Federalist or Antifederalist. Write notes for one side of a debate on the creation of a national bank. Then organize a classroom debate.
7. ***Critical Thinking*** Suppose you were living during the Great Depression. How might the events of that era have affected your future banking decisions?

Take It to the NET Find out more about the history of our nation's currency. Identify and describe one form of currency from each of three different centuries. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

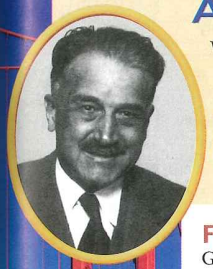
ECONOMIC

Profile

Economist

Entrepreneur

Amadeo P. Giannini (1870–1949)



When other banks refused to make loans to working-class people, this son of immigrants established one that would. On the strength of his low-income customer base, Amadeo Peter Giannini built the largest commercial bank in the world and contributed to the United States' economic development.

From Dockworker to Banker

Giannini was born in San Jose, California, to Italian immigrant parents. After his father died, his mother remarried, and the family moved to San Francisco. At age 12, Giannini went to work on the docks, loading and unloading fruits and vegetables for his stepfather's produce market. As a young man, he traveled throughout the state, signing farmers to contracts to supply him with produce. Over time, Giannini gained a reputation as a shrewd but honest businessman. He also developed a respect for people who worked with their hands.

In 1902, Giannini's business success led him to be invited to join the board of directors of a local bank. As a director he learned that the bank would loan only to wealthy San Franciscans. When the other bank directors refused to make loans to low-income workers, he quit the board to start his own bank.

Founding a Community Bank

In 1904, Giannini opened the Bank of Italy in San Francisco's heavily Italian North Beach section. He went door-to-door in the neighborhood, explaining to immigrant workers what the bank could do for them if they were to become customers.

About 18 months later, a devastating earthquake destroyed much of the city, including Giannini's bank. While other banks stayed closed, Giannini put a plank across two barrels in front of his ruined bank and made loans from this "desk." As a result, working-class North Beach was the first section of the city to be rebuilt.

The Bank of America

The earthquake bolstered Giannini's belief that banks should serve the public at large, and he decided to offer his banking services in other communities. In 1909, he opened his first branch in nearby San Jose. By 1918, the Bank of Italy had expanded across California, becoming the first bank in America with a statewide system of branches. In the 1920s, Giannini started a new bank network, which he named the Bank of America. In 1930, he merged the Bank of Italy into this new bank.

Giannini had retired in 1930, but his successor's conservative policies soon brought him out of retirement to retake control. In the 1930s, he made the Bank of America the world's largest commercial bank. At the time of Giannini's death, the Bank of America had roughly 500 branches and $6 billion in deposits.

CHECK FOR UNDERSTANDING

1. **Source Reading** In your own words, summarize Amadeo Giannini's ideas about a bank's function and role in society.
2. **Critical Thinking** How does the establishment of new branches benefit both a bank and the public?
3. **Learn More** Use the Internet and other sources to learn about the Community Reinvestment Act. Write a brief report on what it requires banks to do.

Section 3 Banking Today

Preview

Objectives

After studying this section you will be able to:

1. **Explain** how the money supply in the United States is measured.
2. **Explain** the functions of financial institutions.
3. **Identify** different types of financial institutions.
4. **Understand** the changes brought about by electronic banking.

Section Focus

Banking has changed greatly in recent decades. Today, many people are likely to use credit or debit cards instead of cash or checks. Banks provide a large array of services, and electronic banking is revolutionizing the way people conduct banking transactions.

Key Terms

money supply
liquidity
demand deposit
money market mutual fund
fractional reserve banking
default
mortgage
credit card
interest
principal
debit card
creditor

money supply *all the money available in the United States economy*

liquidity *the ability to be used as, or directly converted to, cash*

demand deposit *the money in checking accounts*

Do you have a checking account, credit card, or ATM card? If you don't, you most likely will in the near future. As this question suggests, people in the United States today use more than just paper currency and coins to pay for purchases.

Measuring the Money Supply

You are familiar with paying for the items you need with currency—the bills and coins in your pocket. Money consists of currency. It also consists of traveler's checks, checking account deposits, and a variety of other components. All of these components make up the United States **money supply**—all the money available in the United States economy. To more easily keep track of these different kinds of money, economists divide the money supply into several categories. The main categories are called M1 and M2.

M1

M1 represents money that people can gain access to easily and immediately to pay for goods and services. In other words, M1 consists of assets that have **liquidity**, or the ability to be used as, or directly converted into, cash.

As you can see from Figure 10.5, about 48 percent of M1 is made up of currency held by the public, that is, all currency held outside of bank vaults. Another large part of M1 is deposits in checking accounts. Funds in checking accounts are also called **demand deposits** because checks can be paid "on demand," that is, at any time. Until the 1980s, checking accounts did not pay interest, and a new category, called *other checkable deposits*, was introduced to describe checking accounts that did pay interest. Today this distinction is not as meaningful as it once was since many checking accounts pay interest if your balance is sufficiently high.

Traveler's checks make up a very small component of M1. Unlike personal checks, traveler's checks can be easily turned into cash.

▲ **Assets that have liquidity include currency, funds in checking accounts, and traveler's checks.**

M2

M2 consists of all the assets in M1 plus several additional assets. These additional M2 funds cannot be used as cash directly, but can be converted to cash fairly easily. M2 assets are also called *near money*.

For example, deposits in savings accounts are included in M2. They are not included in M1 because they cannot be used directly in financial exchanges. You cannot hand a sales clerk your savings account passbook to pay for a new backpack. You can, however, withdraw money from your savings account and then use that money to buy a backpack.

Deposits in **money market mutual funds** are also included as part of M2. These are funds that pool money from small savers to purchase short-term government and corporate securities. They earn interest and can be used to cover checks written over a certain minimum amount, such as $250. You will read more about money market mutual funds in Chapter 11.

money market mutual fund *a fund that pools money from small savers to purchase short-term government and corporate securities*

Figure 10.5 **Major Components of the Money Supply**

M1 Components	Billions	M2 Components	Billions
Currency	$534.5	Savings deposits	$1,889.5
Demand deposits	$317.1	Small denomination time deposits	$1,053.4
Other checkable deposits	$241.7	Retail money market funds	$951.0
Traveler's checks	$8.1	Total M1	$1,101.4
Total M1	**$1,101.4**	**Total M2**	**$4,995.3**

Source: Federal Reserve Board Statistical Release H.6, May 31, 2001

BUILDING KEY CONCEPTS

The components of M1 can be used as cash or can be easily converted into cash. M2 consists of the assets in M1 plus assets that can be converted to cash fairly easily.
Money What is the largest component of M1? Of M2?

Functions of Financial Institutions

Banks and other financial institutions are essential to managing the money supply. They also perform many functions and offer a wide range of services to consumers.

Storing Money

Banks provide a safe, convenient place for people to store money. Banks keep cash in fireproof vaults and are insured against the loss of money in the event of a robbery. As you read in Section 2, FDIC insurance protects people from losing their money if the bank is unable to repay funds.

Saving Money

Banks offer a variety of ways for people to save money. Four of the most common ways are the following:

- *Savings accounts*
- *Checking accounts*
- *Money market accounts*
- *Certificates of deposit (CDs)*

Savings accounts and checking accounts are the most common types of bank accounts. They are especially useful for people who need to make frequent withdrawals. Savings accounts and most checking accounts pay a small amount of interest at an annual rate.

Money market accounts and certificates of deposits (CDs) are special kinds of savings accounts that pay a higher rate of interest than do savings and checking accounts. Money market accounts allow you to save and to write a limited number of checks. Interest rates are not fixed, but can move up or down. CDs, on the other hand, offer a guaranteed rate of interest over a certain period of time. Funds placed in a CD, however, cannot be removed until the end of a certain time period, such as one or two years. Customers who remove their

THE WALL STREET JOURNAL.
CLASSROOM EDITION

In the News *As this excerpt from a* Wall Street Journal Classroom Edition *article shows, small loans, or "microloans," from banks can make a big difference to entrepreneurs.*

"The Aspen Institute lists 328 microenterprise programs in the U.S., up from 195 in 1994. The programs have loaned some $140 million in chunks smaller than $25,000 to fledgling entrepreneurs, about 56% of whom are on public assistance. . . . Small loans, averaging about $4,500, can buy a used truck, equipment for bread bakers, tools for a locksmith–enough, that is, to launch a small business."

money before that time pay a penalty for early withdrawal.

Loans

Banks also perform the important service of providing loans. As you have read, the first banks started doing business when goldsmiths issued paper receipts. These receipts represented gold coins that the goldsmith held in safe storage for his customers. He would charge a small fee for this service.

In early banks, those receipts were fully backed by gold—every customer who held a receipt could be sure that the goldsmith kept the equivalent amount of gold in his safe. Gradually, however, goldsmiths realized that their customers seldom, if ever, asked for all of their gold on one day. Goldsmiths could thus lend out half or even three quarters of their gold at any one time and still have enough gold to handle customer demand.

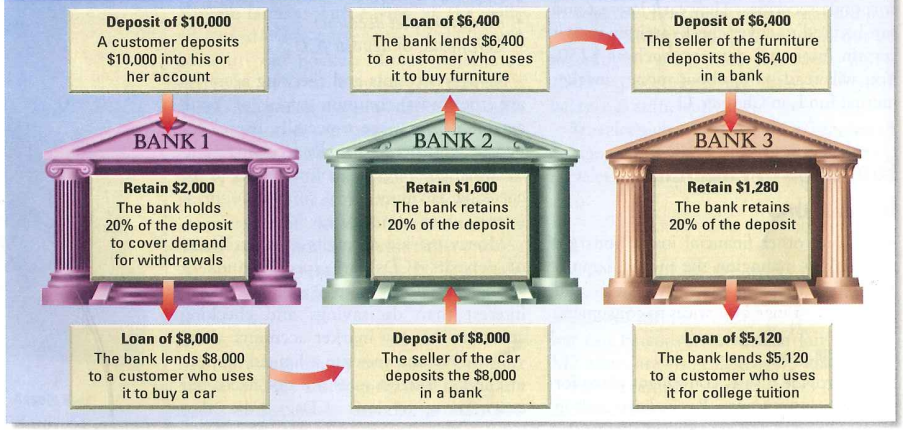
Why did goldsmiths want to lend gold? The answer is that they charged interest on their loans. By keeping just enough gold reserves to cover demand, goldsmiths could run a profitable business lending deposits to borrowers and earning interest. The first banks were based on this practice.

A banking system that keeps only a fraction of funds on hand and lends out the remainder is called **fractional reserve banking.** Like the early banks, today's banks also operate on this principle. They lend money to homeowners for home improvements, to families to pay for college tuition, and to businesses. The more money a bank lends out, and the higher the interest rate it charges borrowers, the more profit a bank is able to make.

By making loans, banks help new businesses get started, and they help established businesses grow. When a business gets a loan, that business can create new jobs by hiring new workers or investing in physical capital in order to increase production.

fractional reserve banking *a banking system that keeps only a fraction of funds on hand and lends out the remainder*

Figure 10.6 **The Fractional Reserve System**



In a fractional reserve system, banks keep only a fraction of funds on hand and lend out the rest. The funds lent out fuel the economy and ensure continued growth.
Money Why does the bank retain a percentage of the money it receives from depositors?

Mortgages

A **mortgage** is a specific type of loan that is used to buy real estate. Suppose the Lee family wants to buy a house for $200,000. They are unlikely to have the cash on hand to be able to pay for the house. Like almost all home-buyers, they will need to take out a mortgage.

The Lees can afford to make a down payment of 20 percent of the price of the house, or $40,000. After investigating the Lees's creditworthiness, their bank agrees to lend them the remaining $160,000 so that they can purchase their new house. Mortgages usually last for 15, 25, or 30 years. According to the terms of their loan, the Lees are responsible for paying back the loan plus whatever interest the bank charges over a period of 25 years.

Credit Cards

If you look at a credit card, somewhere you will see the name of a bank printed on it. Another service that banks provide is issuing **credit cards**—cards entitling their holders to buy goods and services based on the cardholder's promise to pay for these goods and services.

Figure 10.7 **Compound Interest**

Start of year	Principal amount	Interest earned at 5%	Principal at end of year
–	$100.00	$5.00	$105.00
1	$105.00	$5.25	$110.25
2	$110.25	$5.51	$115.76
3	$115.76	$5.79	$121.55
4	$121.55	$6.08	$127.63
5	$127.63	$6.38	$134.01
6	$134.01	$6.70	$140.71
7	$140.71	$7.04	$147.75
8	$147.75	$7.39	$155.14
9	$155.14	$7.76	$162.90
10	$162.90	$8.14	$171.04
11	$171.04	$8.55	$179.59
12	$179.59	$8.98	$188.57
13	$188.57	$9.43	$198.00
14	$198.00	$9.90	$207.90
15	$207.90	$10.39	$218.29

BUILDING KEY CONCEPTS

This chart shows the money earned on a $100 deposit when interest is compounded yearly at 5 percent.
Income How many years does it take for the original deposit to double?

How do credit cards work? Suppose you buy a sleeping bag and tent for $100 on May 3. You do not actually pay for the gear until you receive your credit-card bill and pay it in June. In the meantime, however, the credit-card issuer (the bank) will have paid the sporting goods store. Your payment repays the bank for the "loan" of $100.

Simple and Compound Interest

As you have read, **interest** is the price paid for the use of borrowed money. The amount borrowed is called the **principal.** Simple interest is interest paid only on principal. For example, if you deposit $100 in a savings account at 5 percent simple interest, you will make $5 in a year (assuming that interest is paid annually).

Suppose that you leave the $5 in interest in the bank, so that at the end of the year you have $105 in your account—$100 in principal and $5 in interest. Compound interest is interest paid on both principal and accumulated interest. That means that in the second year, as long as you leave both the principal and the interest in your account, interest will be paid on $105. Figure 10.7 shows how an account paying compound interest grows over time.

default *failure to pay back a loan*

mortgage *a specific type of loan that is used to buy real estate*

credit card *a card entitling its holder to buy goods and services based on the holder's promise to pay for these goods and services*

interest *the price paid for the use of borrowed money*

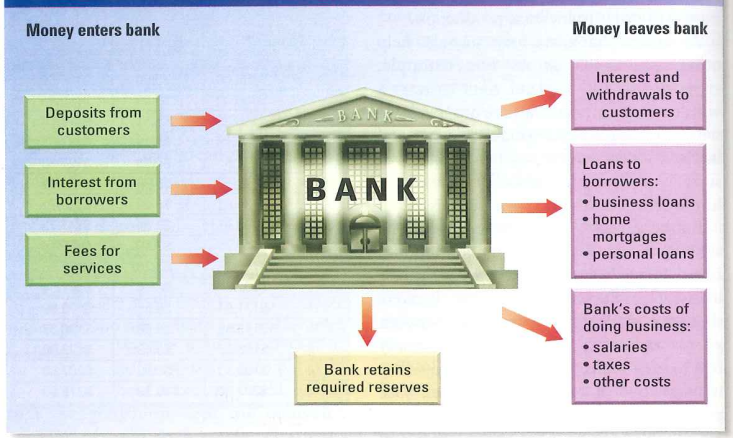
principal *the amount of money borrowed*

BUILDING KEY CONCEPTS

After customers deposit money, a bank lends it to businesses and other borrowers and collects interest. The bank uses this income from interest to cover its costs and make a profit.

Income **What are the sources of a bank's income?**

Figure 10.8 **How Banks Make a Profit**



Banks and Profit

The largest source of income for banks is the interest they receive from customers who have taken loans. Banks, of course, also pay out interest on customers' savings and most checking accounts. The amount of interest they pay out, however, is less than the amount of interest they charge on loans. The difference in the amounts is how banks cover their costs and make a profit.

Types of Financial Institutions

Several kinds of financial institutions operate in the United States. These include commercial banks, savings and loan associations, mutual savings banks, and credit unions. During the 1990s, these financial institutions became more similar than dissimilar, although differences still remain.

Commercial Banks

Commercial banks, which traditionally provided services to businesses, offer a wide range of services today. Commercial banks offer checking services, accept deposits, and make loans. Some commercial banks are chartered by states and are regulated by state authorities and by the Federal Deposit Insurance Corporation (FDIC). About one third of all commercial banks are national banks and are part of the Federal Reserve System. Commercial banks provide the most services and play the largest role in the economy of any type of bank.

Savings and Loan Associations

Savings and Loan Associations (S&Ls), which you read about in Section 2, were originally chartered to lend money for building homes during the mid-1800s. Members of Savings and Loan Associations deposited funds into a large general fund and then borrowed enough money to buy their own houses. Savings and Loans are also called *thrifts* because they originally enabled "thrifty" working-class people—that is, people who were careful with their money—to save up and borrow enough to buy their own homes. Over time, Savings and Loan Associations have taken on many of the same functions as commercial banks.

Savings Banks

Mutual savings banks (MSBs) originated in the early 1800s to serve people who made smaller deposits and transactions than commercial banks wished to handle. Mutual savings banks were owned by the depositors themselves, who shared in any profits. Later, many MSBs began to sell stock to raise additional capital. These institutions became simply savings banks because depositors no longer owned them.

Although savings banks were traditionally concentrated in the Northeast, they had an important influence on the national economy. In 1972, the Consumer's Savings Bank of Worcester, Massachusetts, introduced a Negotiable Order of Withdrawal (NOW) account, a type of checking account that pays interest. NOW accounts became available nationwide in 1980.

Credit Unions

Credit unions are cooperative lending associations for particular groups, usually employees of a specific firm or government agency. Credit unions are commonly fairly small and specialize in home mortgages and car loans, usually at interest rates favorable to members. Some credit unions also provide checking account services.

Finance Companies

Finance companies make installment loans to consumers. These loans spread the cost of major purchases like computers, cars, refrigerators, and recreational vehicles over a number of months. Because people who borrow from finance companies more frequently fail to repay the loans, finance companies generally charge higher interest rates than banks do.

Electronic Banking

Banks began to use computers in the early 1970s to keep track of transactions. As computers have become more common in the United States, their role in banking has also increased dramatically. In fact, computerized banking may revolutionize banking in much the same way that paper currency changed banking long ago.

Automated Teller Machines

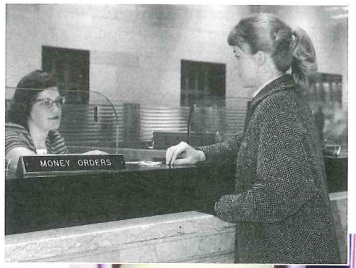
If you use an Automated Teller Machine (ATM), you are already familiar with one of the most common types of electronic banking. ATMs are computers that customers can use to deposit money, withdraw cash, and obtain account information at their convenience. Instead of having to go to the bank during the bank's hours of operation to conduct banking business face-to-face with a teller, you can take care of your finances at an ATM.

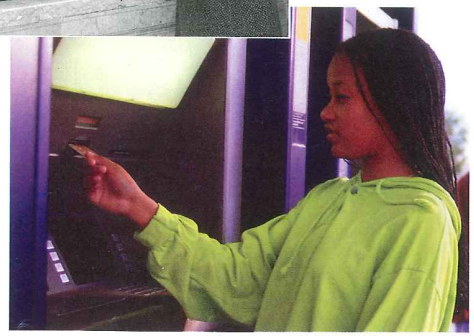
ATMs are convenient for both banks and for customers, since they are available 24 hours a day and reduce banks' labor costs. The overwhelming popularity of ATMs suggests that they are likely to be a permanent feature of modern banking.

Debit Cards

Debit cards are used to withdraw money. You may use a debit card to withdraw

debit card *a card used to withdraw money*





◀ Electronic banking has greatly changed the way customers interact with their banks.

FAST FACT

Electronic banking has clear economic benefits. While the cost of processing a paper check is 35 cents, the cost of processing an electronic payment is only 7 cents. The percentage of transactions completed electronically is growing dramatically. Electronic payments account for about 90 percent of the total dollar value of all transactions.

money at an ATM. You may also use a debit card in stores equipped with special machines. When you "swipe" your card through one of these machines, your debit card sends a message to your bank to transfer money from your checking account directly into the store's bank account. For security, debit cards require customers to use personal identification numbers, or PINs, to authorize financial transactions.

Home Banking

More and more people are using the Internet to conduct their financial business. Many banks, credit unions, and other financial institutions allow people to check account balances, transfer money to different accounts, pay their bills, and automatically deposit their paychecks via computer.

Automatic Clearing Houses

Automatic Clearing Houses (ACHs), located at Federal Reserve Banks and their branches, allow customers to pay bills without writing checks. An ACH transfers funds automatically from customers' accounts to creditors' accounts. (A **creditor** is a person or institution to whom money is owed.) People usually use ACHs to pay regular monthly bills like mortgage payments, rent, utility bills, and insurance premiums. They save time, postage costs, and any worries about forgetting to make a payment.

creditor *person or institution to whom money is owed*

Stored Value Cards

Stored value cards, or smart cards, are similar to debit cards. These cards are embedded with either magnetic strips or computer chips with account balance information. Smart cards include cards issued to college students living in dormitories to pay for cafeteria food, computer time, or photocopying. Phone cards, with which customers prepay for a specified amount of long-distance calling, are also smart cards.

Will stored value smart cards someday replace cash altogether? No one can know for sure, but you can read more about this question in the Debating Current Issues on pages 268–269.

Section 3 Assessment

Key Terms and Main Ideas

1. What is the difference between M1 and M2? Give an example of each.
2. How does a **debit card** differ from a **credit card?**
3. Describe three services that banks provide.
4. Explain why banks must balance profit and security when making loans.

Applying Economic Concepts

5. ***Try This*** Suppose you are setting up a classroom bank. What incentives will you offer so your classmates will use your bank? How will your bank make a profit?
6. ***You Decide*** Suppose that you are planning to open a checking account so you can deposit checks from your summer job. How will you decide on a bank?
7. ***Using the Databank*** Turn to the graph entitled "Personal Savings as a Percentage of Disposable Income" on page 540. **(a)** Describe the pattern of personal savings shown on the graph. **(b)** What factors could have caused the steady drop in savings since the 1970s?
8. ***Critical Thinking*** Write a paragraph in which you analyze how financial institutions affect households and businesses.

Take It to the NET Research the current state of electronic money and banking. Then, describe one concern that has arisen about the use of electronic money. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. **www.phschool.com**

Real-life Case Study

Big Banks and Small

Since the 1980s, bank mergers have been taking place at a rapid rate. By 1999, there were only half as many banks in existence as there had been 20 years earlier. Larger banks mean larger profits, as banks acquire more customers through each successive merger. This certainly benefits the banks' shareholders, but what about consumers?

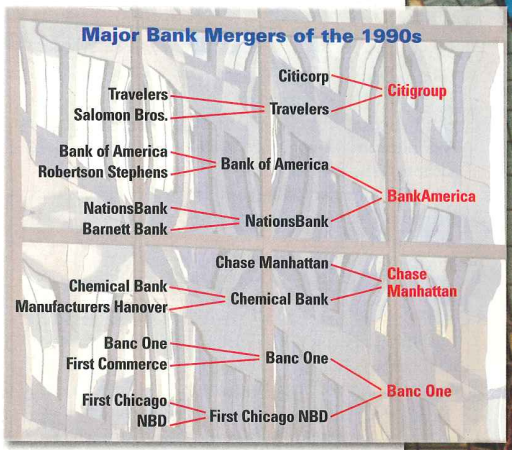
Large Banks These giant banks offer many benefits to their customers, such as computerized banking, conveniently located branch banks, and far-reaching ATM networks. However, after mergers, many banks have increased fees for services or tightened credit restrictions. Many customers are unhappy about the impersonal nature of some larger banks.

▲ Some small depositors like the personalized service of a small bank.

Small-Bank Networks A positive outcome of the merger mania has been growth among small banks. The federal government has forced many large banks to divest some of their branch banks in order to avoid having a monopoly in any given location. In some areas, banking companies have formed small regional networks by buying some of these banks.

Community Banks In addition, new community banks have started up. In the 1990s, an average of 200 new bank charters were issued every year. Small banks have capitalized on their small size, emphasizing personalized service and their ties to the local community.

Over the last two decades, the merger mania has made some people fear the end of all competition in the banking industry. But as large banks grow ever larger, new community banks have stepped in to ensure that many people still have a choice of where to bank.



Applying Economic Ideas

1. What are the benefits and drawbacks of using one of the big banks?
2. The chart shows some of the major banking mergers of the 1990s. What do you think are the advantages and disadvantages to a bank entering into a major merger?

Chapter 10 Assessment

Chapter Summary

A summary of major ideas in Chapter 10 appears below. See also the **Guide to the Essentials of Economics,** which provides additional review and test practice of key concepts in Chapter 10.

Section 1 Money (pp. 243–248)

Money has three main functions in our economy. It serves as a **medium of exchange,** a **unit of account,** and a **store of value.** Economists use six characteristics to judge how well an item serves as **currency:** durability, portability, divisibility, uniformity, limited supply, and acceptability. U.S. currency has value because the United States government has given it value by fiat, or decree.

Section 2 The History of American Banking (pp. 250–256)

American banking has gone through several shifts between centralized and decentralized systems throughout our nation's history. Before the Civil War, banking was largely fragmented. A more stable, centralized system emerged after the conflict. The twentieth century has seen American banking become more stable, with the development of the **Federal Reserve System** in 1913 and the **Federal Deposit Insurance Corporation (FDIC)** in 1933.

Section 3 Banking Today (pp. 258–264)

Many different components are considered when calculating the country's money supply. M1 consists of currency, deposits in checking accounts, and traveler's checks. M2 consists of all the components of M1 plus additional assets. Banks vary in function, although the various banks and financial institutions have become increasingly similar in the services they provide. These services include storing money safely and providing loans. Technological advances are furthering a shift toward electronic banking.

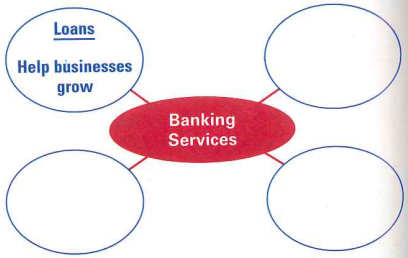
Key Terms

Choose the italicized term in parentheses that best completes each sentence.

1. Using corn, cattle, or cotton as a medium of exchange is an example of *(representative money/commodity money)*.
2. *(Currency/Greenback)* is a term that refers to bills and coins.
3. A *(debit card/credit card)* allows you to withdraw money directly from your checking account.
4. When buying a house, you obtain a *(unit of account/mortgage)* to help pay for it.
5. The *(Federal Reserve System/FDIC)* guarantees a bank deposit up to $100,000.
6. The money held in a checking account can be referred to as a *(demand deposit/gold standard)*.
7. *(Barter/Fiat money)* holds its value because a government has deemed it acceptable as a form of payment.
8. *(Liquidity/Money supply)* refers to how easily assets can be converted into cash.

Using Graphic Organizers

9. On a separate sheet of paper, copy the web map below to summarize the services that banks provide. Complete the web map by writing an example of a banking service and a brief description of it in each oval. You may add more ovals as necessary.



Reviewing Main Ideas

10. In your own words, describe the three functions of money.
11. Explain how a $1 bill has all six characteristics of money.
12. Name two measures that have been taken to stabilize American banking since the Great Depression.
13. What is fractional reserve banking?
14. What is electronic banking?

Critical Thinking

15. **Predicting Consequences** What would happen if the dollar lost its store of value? What could you substitute as a medium of exchange?
16. **Recognizing Cause and Effect** What were the effects of the following events on the history of banking? (a) expiration of the charter of the Second Bank of the United States (b) Panic of 1907 (c) Great Depression
17. **Drawing Conclusions** Some economists have predicted a "cashless society" in which all banking will be done electronically. Do you think this will be true of the United States economy? Support your conclusion with specific examples.
18. **Synthesizing Information** List three of your personal financial goals (for example, paying for education beyond high school). What role might banks have in helping you achieve those goals?

Problem-Solving Activity

19. Make a list of the problems associated with debit cards, such as forgotten PINs, lost cards, and so forth. What steps could be taken to eliminate some of these problems?

Economics Journal

Writing Essays Review your list of the times that you used money and its substitutes during an average week. Then write an essay describing how your week would have been different if you had bartered for your purchases instead of using money.

Skills for Life

Understanding Public Opinion Polls Review the steps shown on page 249; then answer the following questions using the hypothetical opinion poll results below.

20. What is probably the purpose of this public opinion poll? For whom might the results of this public opinion poll be useful?
21. Do the questions asked provide a valid indicator of overall public opinion? Why or why not?
22. Describe the public's general feelings about ATM user fees charged by banks based on the results of this poll.
23. Think of two more questions that this poll could ask to make it more useful in evaluating public opinion toward ATM user fees.

ATM User Fees Poll

"Many banks charge fees of $1.00 or more for ATM use. Keeping this in mind, do you agree or disagree with the following statements?"

	I Agree	I Disagree
A. Banks have no right to charge ATM user fees.	48%	52%
B. Banks should charge ATM user fees, but they should be lower.	63%	37%
C. Banks are charging an appropriate amount for ATM user fees.	19%	81%

Note: Random sample of 2,000 people surveyed by phone; margin of error is ± 5%.

Take It to the NET

Chapter 10 Self-Test As a final review activity, take the Chapter 10 Self-Test in the Social Studies area at the Web site listed below, and receive immediate feedback on your answers. The test consists of 20 multiple-choice questions designed to test your understanding of the chapter content.
www.phschool.com

THE WALL STREET JOURNAL.

CLASSROOM EDITION

DEBATING CURRENT ISSUES: *The Future of Money*

As commerce becomes increasingly electronic, what will happen to the paper and coins we now trade for goods and services? One alternative is a "stored value" smart card: a bank card equipped with a microchip.

The consumer could load money directly onto the microchip from his or her account using an ATM, a special telephone line, or a computer. Because of the versatility of the microchip, the same card could handle both credit and cash transactions, as well as serving as a digital identity card that could even contain medical information about the owner.

Will such cards someday replace cash? These excerpts from *The Wall Street Journal Classroom Edition* article "Future Shop" by Nicholas Bray, Staff Reporter of *The Wall Street Journal,* look at both sides of this question.

YES *Will Smart Cards Replace Cash?*

JOHN CASTLE, A BAKER in the English town of Swindon, has just sold an almond-and-jam cookie. To his delight, the transaction involved no coins, bank notes, or credit cards. Instead, the customer used Mondex, a cash card equipped with a microchip, and Mr. Castle booked the sale on a terminal resembling a calculator.

"It's going to save me a lot of time counting change," Mr. Castle says. "It will also be a lot more hygienic than using coins and bank notes."

Launched by two of Britain's leading banks—National Westminster Bank and the HSBC Holdings unit of Midland Bank—Mondex looks and works something like a debit card. The thinking behind the project is simple: In a world of electronic cash, banks and other organizations will be able to charge individual and corporate users for providing and processing the electronic signals that replace coins and paper money. Among other things, predict NatWest executives, electronic cash will play a major role in payments for goods and services bought over interactive-television channels or the Internet.

Mondex's promoters maintain that adequate safeguards can be built into the system to prevent fraud and criminal misuse.

Tim Jones, a NatWest executive who is one of Mondex's two co-inventors, explains that because each card is really a minicomputer in its own right, it can send signals to other cards telling them how it is being used. Such signals would

Smart cards will likely become a common convenience for many consumers, but will they replace cash entirely?

ultimately reach the issuing bank, which could then respond by sending out signals of its own—for example, to warn users that a specific card is being used fraudulently.

With other electronic-cash products under development, it is hard to predict which will emerge as the winner. Indeed, analysts say, there may be room for several competing products, providing they all respect common standards.

Ultimately, this battle may well be decided by shopkeepers, rather than by banks or consumers. Take Mr. Castle, the baker. He currently pays several thousand pounds a year in bank charges for his small business in the center of Swindon's shopping district, and he figures he could cut these charges if he didn't have to handle so much cash.

NO *Will Smart Cards Replace Cash?*

SEAN LANGLANDS, a construction consultant, says cards such as Mondex are "pointless." He is standing outside a McDonald's restaurant in Swindon where cashiers are already busy selling hamburgers for electronic cash. Pulling a wallet full of credit and debit cards from his pocket, he says he definitely doesn't want yet another one. "It's a waste of time."

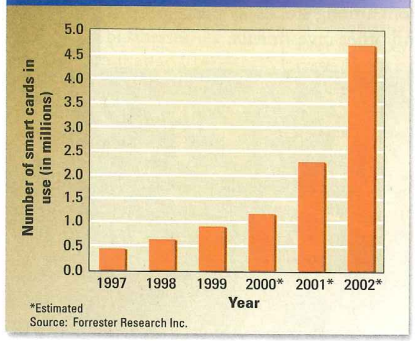
What is more, critics argue that Mondex opens the door to all sorts of abuses, from money laundering to fraud. In one of its key features, money loaded onto one card can be transmitted electronically to another card over phone wires using specially adapted telephones, without the intervention of a bank.

This makes Mondex "totally unaccounted and not auditable," says Richard Phillimore, head of chip-card development at Europay, the European franchising arm of MasterCard International. If large sums of money are involved, he warns, the result could be a major headache for banks and regulators worldwide.

The fruit of more than five years of research and development, Mondex basically consists of a card and a card reader. The reader, which resembles a thick dog tag, has a liquid-crystal display window that shows how much money is loaded into the card. Card holders also can buy special "wallets," resembling minicalculators, in which they can store electronic cash before loading it onto their cards.

Using these wallets, holders can make money transfers and receive payments directly from other cardholders—precisely the characteristic that lies at the root of Mr. Phillimore's concerns. Because of this feature, Mondex "is just like cash," says Mr. Jones, the co-inventor.

Increase in Smart Card Use



As retailers and consumers grow more familiar with smart cards, it is expected that smart card use will increase rapidly.

DEBATING THE ISSUE

1. Why does baker John Castle like using a microchip-equipped cash card for transactions?
2. What kinds of abuses do critics say Mondex will encourage?
3. **Critical Thinking** How are advances in technology affecting the potential use of electronic cash?
4. **Reading Graphs** According to the chart, how many smart cards were expected to be in use in 2002?

Take It to the Net Visit **www.phschool.com** for additional resources relating to this debate.