

# Use a Problem-Solving Process with Infographics

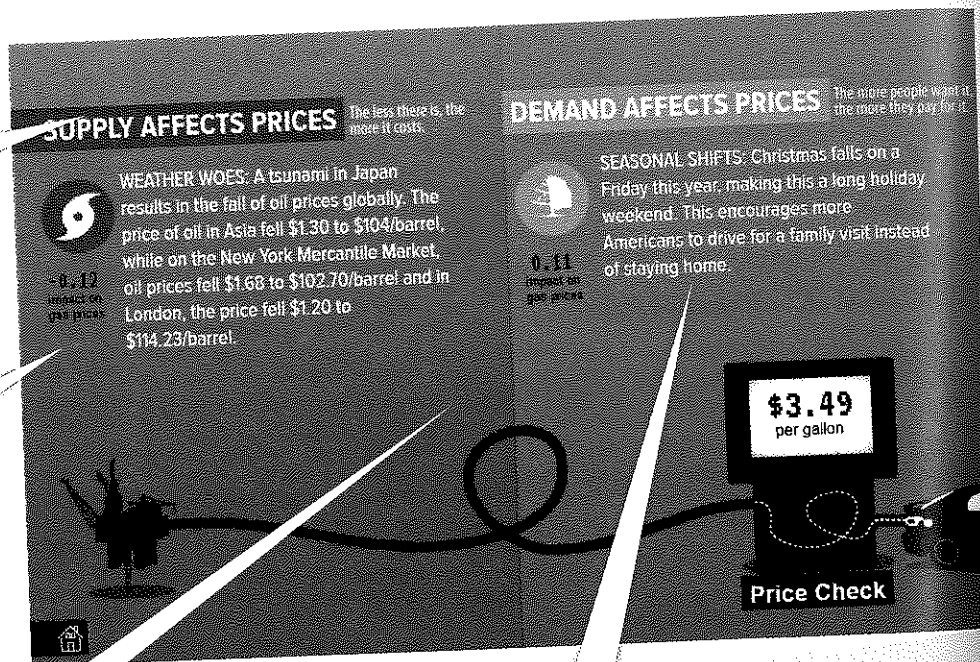
Economists use data to build their economic models. But data is not only numbers and statistical charts. Some data can be found in highly visual pieces known as infographics. This economics program uses interactive infographics to help you learn more about data in the real world. You can find these Economic Perspective infographics at the start of each chapter of this program.

Each chapter in this program is introduced by an Economic Perspectives Infographic. These vibrant assets enliven your study of that chapter's content.

Each Economic Perspective is structured in a unique fashion to best highlight the data of that chapter's topic.

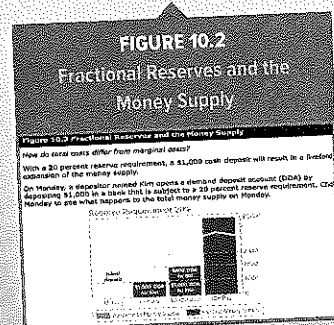
By clicking through the screens of these digital infographics, you are shown many different kinds of data in a variety of ways.

Interpreting the different types of data often requires that you conduct a problem-solving process to break down the data and examine it step-by-step.



Find all your interactive resources for each chapter online.

## Chapter 10 Money and Banking





# POLYMER BANKNOTES: CURRENCY OF THE FUTURE

Polymer banknotes are made from thin, flexible polypropylene film. They last longer than their paper counterparts and can even survive the washing machine. (They do, however, melt under extreme heat.) Proponents say that the higher cost of producing polymer bills is offset by the fact that they last 2-3 times longer than paper bills, producing them requires less energy and they can be recycled. More important, polymer bills are harder to counterfeit.

## Why Polymer Is Better:



### Safer

The new features are very hard to copy



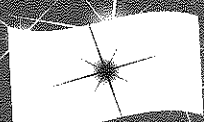
### Resistant

Plastic won't absorb like paper will



### Longer-lasting

Polymer notes last 2-3x as long as paper



### Cleaner

The note's surface will resist germs



### Greener

Can easily be recycled for reuse

## Polymer catches on

Polymer banknotes are becoming the currency format of choice for more and more countries around the world. As of 2014, nearly 60 countries used polymer or polymer-paper bank notes. China began issuing polymer bills in 2000. In 2002, Mexico became the first North American country to adopt polymer banknotes, followed by Canada in 2011.

### China



### Mexico



### Canada



## Australia

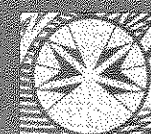
With the creation of its polymer \$10 bill in 1988, Australia became the first country to introduce polymer notes into circulation. The Aussies continued to roll out polymer notes throughout the 1990s. By 2011, Australia (and New Zealand) were exclusively circulating polymer bills.

### MICROPRINTING



Microprinting of a mixture of the notes' denomination and poetry

### REGISTRATION DEVICE

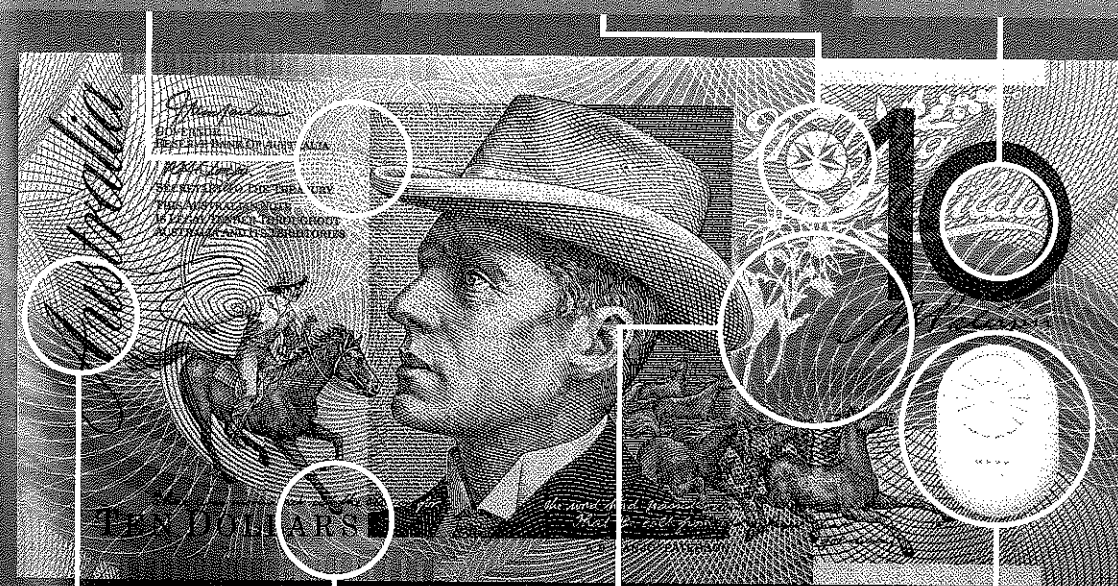


Diamond-shaped registration device on front and back of bill

### RAISED INK



Raised ink (Intaglio) printing of denomination

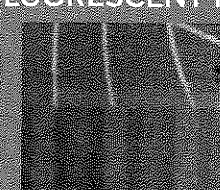


### OFFSET PRINT



Offset background printing

### FLUORESCENT INK



Special light-reactive ink is used

### SHADOW IMAGE



Shadow Image of the Australian Coat of Arms

### TRANSPARENT WINDOW



Optically Variable Device creates a rainbow pattern at certain angles.

## THINK ABOUT IT!

Why do you think adopting polymer currency appeals to the governments of developing countries?



Interact with these digital assets and others in lesson 1

- ✓ SLIDESHOW  
The History of Money
- ✓ INTERACTIVE GRAPH  
Three Functions of Money
- ✓ SELF-CHECK QUIZ
- ✓ VIDEO

**networks**  
TRY IT YOURSELF ONLINE



## LESSON 1 The Evolution, Functions, and Characteristics of Money

### Reading Help Desk

#### Academic Vocabulary

- revolution

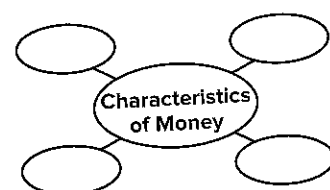
#### Content Vocabulary

- Federal Reserve System (Fed)
- Federal Reserve notes
- barter economy
- commodity money
- fiat money
- specie
- monetary unit
- medium of exchange
- measure of value
- store of value
- demand deposit accounts (DDAs)
- M1
- M2

#### TAKING NOTES:

##### Key Ideas and Details

**ACTIVITY** Use the graphic organizer below to identify the characteristics of money.



**TEKS** Texas Essential Knowledge and Skills

- 4C analyze the effects of changes in exchange rates on imports and exports
- 6C analyze recent changes in the basic characteristics of the U.S. economy

continued on the next page

#### ESSENTIAL QUESTION

## How has money evolved to meet the needs of people everywhere?

Money is not just something you spend. It's like a tool or a device that serves everyone's best interest. Money has been developed by different societies at different times all over the world. The need for money has become as accepted as the need for laws and government.

Today, our money is managed by the Federal Reserve System (Fed), the privately owned, publicly controlled, central bank of the United States. The Fed issues paper currency known as Federal Reserve notes, the most visible part of our money supply.

Think about how people pay for their purchases.

- What are some different payment methods?
- Are these also forms of money? Explain.
- What is the connection between Federal Reserve notes and other payment methods?

## The Evolution of Money

**GUIDING QUESTION** Why did money replace the barter system?

Take a moment to think what life would be like in a **barter economy**, a moneyless economy that relies on trade. The exchange of goods and services would be more difficult because the products some people have to offer are not always acceptable to others, or easy to divide for payment. For example, how could a milkman with a pail of milk obtain a pair of shoes if the cobbler wanted a basket of fish? Unless there is a "mutual coincidence of wants"—a situation in which two people want exactly what the other has and are willing to trade what they have for it—it is difficult for trade to take place.

Life is simpler in an economy with money. The milkman sells the milk for cash and then exchanges that cash for a pair of shoes. The cobbler takes the cash and looks for someone selling fish. Money, as it turns out, makes life easier for everybody in ways we may have never considered.

### Money in Colonial America

The money used by early settlers in the American colonies was similar to that found in early societies. Some of it consisted of **commodity money**—money that has an alternative use as an economic good, or commodity. Many products—including corn, hemp, gunpowder, and musket balls—served as commodity money. They could be used to settle debts and make purchases. At the same time, colonists could consume these products, if necessary.

Commonly accepted commodity money was tobacco, for which the Governor of Colonial Virginia set a value of three English shillings per pound in 1618. Two years later, the colonists used some of this commodity money to bring wives to the colonies.

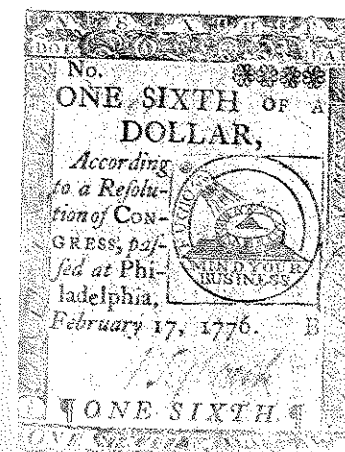
Other colonies established **fiat money**—money by government decree. For example, in 1637, Massachusetts established a monetary value for wampum—a form of currency the Wampanoag Native Americans made out of white and purple mussel shells. The Wampanoag and the settlers used these shells in trade. White shells were more plentiful than purple ones, so one English penny was made equal to six white or three purple shells. The colonial settlers could even pay their taxes with wampum.

### Early Paper Currency

Paper currency was another popular form of fiat money in the colonies. Some state laws allowed individuals to print their own paper currency if they promised to redeem the currency for gold or silver. Some states even printed money in the form of tax anticipation notes and used them to pay salaries, buy supplies, and meet other expenditures until they received taxes and could redeem the notes.

**networks** TRY IT YOURSELF ONLINE

## THE HISTORY OF MONEY



The Continental Congress issued paper money to finance the Revolutionary War. In 1775, it printed Continental dollars, a form of fiat paper currency with no gold or silver backing.

#### CRITICAL THINKING

Why was the Continental dollar virtually worthless by the end of the revolution?

**TEKS** Texas Essential Knowledge and Skills

(continued from p. 276)

- 6D analyze the costs and benefits of U.S. economic policies related to the economic goals of economic growth, stability, full employment, freedom, security, equity (equal opportunity versus equal outcome), and efficiency
- 12A describe the functions of money
- 12B describe the characteristics of money, including commodity money, fiat money, and representative money
- 12C examine the positive and negative aspects of barter, currency, credit cards, and debit cards
- 13A explain the structure of the Federal Reserve System
- 13C explain how the actions of the Federal Reserve System affect the nation's money supply
- 13D analyze the decline in value of the U.S. dollar, including the abandonment of the gold standard
- 14B describe the role of government in the U.S. free enterprise system and the changes in that role over time
- 17A explain the functions of financial institutions and how they affect households and businesses
- 17D examine the types of accounts available to consumers from financial institutions and the risks, monetary costs, and benefits of maintaining these accounts

**Federal Reserve System (Fed)** privately owned, publicly controlled, central bank of the United States

**Federal Reserve notes** paper currency issued by the Fed that eventually replaced all other types of federal currency

**barter economy** moneyless economy that relies on trade or barter

**commodity money** money that has an alternative use as an economic good; gunpowder, flour, corn, etc.

**fiat money** money by government decree; has no alternative value or use as a commodity

**revolution** an overthrow of government

**specie** money in the form of gold or silver coins

The Continental Congress issued paper money to finance the Revolutionary War. In 1775, it printed Continental dollars, a form of fiat paper currency with no gold or silver backing. By the end of the war, nearly one-quarter billion Continental dollars had been printed—a volume so large that it was virtually worthless by the end of the **revolution**.

### Specie in the Colonies

Colonists also used modest amounts of **specie**—or money in the form of silver or gold coins. These included English shillings, Austrian talers, and various European coins that immigrants brought to the colonies. Coins were the most desirable form of money, not only because of their mineral content, but because they were in limited supply. By 1776, only \$12 million in specie circulated in the colonies, compared to nearly \$500 million in paper currency.

The most popular coin in the colonies was the Spanish peso, which came to America through trade and piracy. Long before the American Revolution had begun, the Spanish were mining silver in Mexico. They melted silver into bullion—ingots or bars of precious metals—or minted it into coins for shipment to Spain. When the Spanish treasure ships left the West Indies (Cuba and the present-day Caribbean Islands) on their way to Spain, they often became victims of Caribbean pirates who spent their stolen treasure in America's southern ports.

The "triangular trade" among the colonies, Africa, and the Caribbean brought more pesos to America. Traders took molasses and pesos from the Caribbean to the colonies. There they sold the molasses to be made into rum and spent their pesos on other goods. The rum was shipped to Africa, where it was traded for enslaved Africans. The enslaved Africans were taken to the Caribbean to be sold for pesos and more molasses or to be shipped to the colonies. The trade cycle started anew when molasses and pesos were taken to the colonies.

### From "Talers" to "Dollars"

Spanish pesos were known as "pieces of eight," because they were divided into eight subparts known as "bits." Because the pesos resembled the Austrian talers, they were nicknamed "talers," which in German sounded exactly like the word **dollars**. This term became so popular that the dollar became the basic **monetary unit**, or standard unit of currency, in the U.S. money system.

Rather than dividing the dollar into eighths as the Spanish had done with the peso, it was decided to divide it into tenths, which was easier to understand. Still, some of the terminology associated with the Spanish peso remains, as when people sometimes call a 25-cent coin—one quarter of a dollar—"two bits."

#### READING PROGRESS CHECK

**Comparing** Compare the costs and benefits of commodity money and fiat money.

## Characteristics and Functions of Money

**GUIDING QUESTION** What are the qualifications for something to be used as money?

The study of early money is useful because it helps us understand the characteristics that give money its value. In fact, any substance can serve as money if it possesses four main characteristics.

### Characteristics of Money

First, money must be *portable*, or easily transferred from one person to another, to make the exchange of money for products easier. Most money in early societies was very portable—including shells, wampum, tobacco, and compressed blocks of tea.

Second, money must also be reasonably *durable* so it does not deteriorate when it is handled. Most colonial money was quite durable, especially monies like musket balls and wampum. Even the fiat paper money of the colonial period was durable in the sense that it could be easily replaced by new bills when old ones became worn.

• Third, money should be easily *divisible* into smaller units so that people can use only as much as they need for a transaction. Most early money was highly divisible. Blocks of tea or cheese were cut with a knife. Bundles of tobacco leaves could easily be broken apart. Even Spanish pesos were cut with a knife into eighths to make "bits" for payment.

Finally, money must be available, but only in *limited supply*. Stones used as money on the Yap Islands, for example, were carried in open canoes from other islands 400 miles away. Because navigation was uncertain and the weather was unpredictable, only one canoe in 20 completed the round trip, so there was only a limited supply of stones.

## THE GLOBAL ECONOMY & YOU

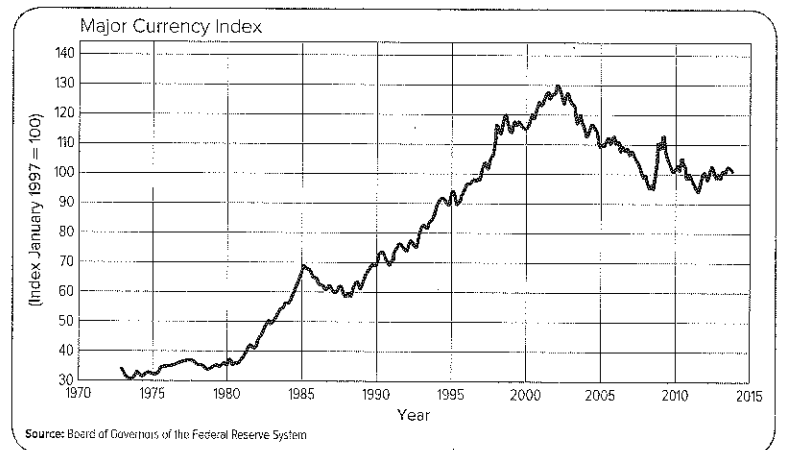
### The Dollar in Decline

It seems as if the decline in the American dollar has been going on for decades. There are many causes for this recent decline. One is the U.S. budget deficit, which has grown due to government borrowing in order to operate all its programs. The second is the Fed's increase in our domestic money supply.

Here's how it happened: The government spends more than it takes in each year. To cover the deficit, it sells government bonds. Because the deficit is so large, and because it has been going on so long, the U.S. now has trillions of dollars in outstanding bonds. To help the government finance its deficit, and to help stimulate economic growth during and after the Great Recession, the Federal Reserve has been buying up bonds with its currency. Where does the currency come from? The Fed prints it. Remember, the dollar is fiat currency—and to have value it has to be scarce. But by printing more and more money, the Fed has caused the dollar to become less scarce, and its value relative to other currencies has declined.

Because the dollar is now worth less than, say, the euro, American goods are more competitively priced for sale in Europe than they have been in the past—which will help boost our exports. Conversely, goods priced in euros cost us more than they did a few years ago—which should help reduce imports into the United States. Together, these two forces will help the U.S. balance of payments, and hopefully affect the international value of the dollar.

Trade-Weighted Value of the Dollar



#### CRITICAL THINKING

**Analyzing** The forces of supply and demand help set the international value of the dollar. If you want to take a trip to Europe, should you take more or fewer dollars than you might have taken ten years ago?

**monetary unit** standard unit of currency in a country's money supply; American dollar, British pound, etc.

#### SKILLS PRACTICE

Write any questions you have about what is being said in class instruction or discussion. Ask for an explanation after the lesson.



## BIOGRAPHY



### Thomas J. Curry COMPTROLLER OF THE CURRENCY (1957–)

As Comptroller of the Office of the Currency (OCC) since 2012, Thomas J. Curry heads one of the most powerful offices overseeing the U.S. economy. The OCC was formed in 1863 with the mission of regulating the National Banking System. Today the OCC supervises about two-thirds of all commercial banking assets, including more than 2,000 national banks and saving associations, 50 federal branches, and the agencies of foreign banks operating in the U.S. In his appointed position as Head of the OCC, Curry helps maintain the viability of these banks and ensures the nation has sufficient currency liquidity to lend, trade, and conduct the business of the U.S. economy.

Curry received a law degree from the New England School of Law in 1981. In 1982, he served in the Massachusetts Secretary of State's office as an attorney. From 1990 to 1991 and from 1995 to 2003, he was the Commissioner of Banks for Massachusetts. He also serves as the Director of the Federal Deposit Insurance Corporation (FDIC), beginning in 2004.

**▲ CRITICAL THINKING**  
**Drawing Conclusions** Why does the federal government need a bureau to oversee banking operations?

Money, like almost everything else, loses its value whenever there is too much of it. This was a major problem for most types of commodity money. In Virginia, the price of tobacco went from 36 pennies a pound to 1 penny a pound after everyone started growing their own tobacco. Wampum even lost its value when settlers used industrial dyes to turn white shells into purple—thereby doubling their value.

### Three Functions of Money

Any substance that is portable, durable, divisible, and limited in supply can serve as money. If it does, it will serve three roles in the economy.

- **Medium of exchange**—A medium of exchange is something accepted by all parties as payment for goods and services. Throughout history, people have used various materials as a medium of exchange, including colored shells, tobacco, gold, silver, and even salt.
- **Measure of value**—Money serves as a measuring stick used to express the worth of something in terms that most people understand. In the United States, this worth is expressed in dollars and cents.
- **Store of value**—The feature of money that allows time to pass between earning income and spending income. The purchasing power can be saved until needed. For example, you can spend your money on something now, or wait and spend your money later.

The modern money we use today serves all of these functions.

### Characteristics of Modern Money

While our modern money may seem to be quite different from earlier forms of money, it shares the same fundamental characteristics and functions of money. For example,

- **Portability**—Modern money is *portable*. Our currency is lightweight, is convenient, and can be easily transferred from one person to another. The same applies to the use of checks or electronic deposits in a bank.
- **Durability**—Modern money is reasonably durable. Metallic coins last about 20 years under normal use. Paper currency is also reasonably *durable*, with a \$1 bill lasting about 18 months in circulation. The introduction of the Sacagawea dollar coin was part of an attempt to make the money supply even more durable by replacing the \$1 bill with longer-lasting coins.
- **Divisibility**—Modern money is *divisible*. The penny, the smallest denomination of coin, is small enough for almost any purchase. In addition, people can write checks for the exact amount of a purchase.
- **Scarcity**—Modern money is in *limited supply*. This is because the Fed monitors the size of the money supply and takes steps to keep it from growing too fast.

### EXPLORING THE ESSENTIAL QUESTION

In what way is our modern money an improvement over money used during the Colonial period? Is there any way in which Colonial money was superior to our money today?

The fact that our money supply works so well contributes to the success of the American economy. Our money supply continues to evolve under the supervision of the Fed.

### Components of Modern Money

Today, the money supply has several different components. Some are in the form of Federal Reserve notes, and some in the form of metallic coins issued by the United States Mint. Other components include **demand deposit accounts (DDAs)**, or funds deposited in a bank that can be accessed by writing a check or using a debit card.

The Fed has two measures of our money supply. **M1** is the narrow definition that includes coins and currency, traveler's checks, DDAs, and checking accounts held at depository institutions. These forms of money all function as a medium of exchange. **M2** is a broader measure that includes M1 along with forms of money that serve as a store of value, components including savings deposits, time deposits, and money market funds.

Think of how these different components made our money supply more useful to us! For example, coins have always been useful, but paper currency was an improvement over coins, because paper currency could be produced in higher denominations and was much more portable. Checking accounts were an improvement over coins and paper currency because checks can be written in any amount and can be easily mailed, making it easier to transfer money. In addition, a cancelled check serves as a receipt for the transaction. Also, a lost check can be cancelled by a bank, unlike missing coins or bills that might never be seen again.

Funds transferred electronically—for example, when a company pays its employees by transferring funds directly into their bank accounts—are faster, simpler, less expensive, and usually more convenient than checks. These changes are likely to continue in unpredictable ways, making money safer and more useful.

### READING PROGRESS CHECK

**Explaining** How does modern money reflect the functions and characteristics of money?

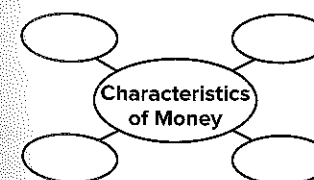
## LESSON 1 REVIEW

### Reviewing Vocabulary

1. **Explaining** How can commodity money provide a measure of value? 23A

### Using Your Notes

Use the graphic organizer for this question.



2. **Examining** Why is it important for money to be divisible? 22A

**medium of exchange** money or other substance generally accepted as payment for goods and services; one of the three functions of money

**measure of value** one of the three functions of money that allows it to serve as a common denominator to measure value

**store of value** one of the three functions of money allowing people to preserve value for future use

**demand deposit accounts (DDAs)** account whose funds can be removed from a bank or other financial institution by writing a check or using a debit card

**M1** narrow definition of money supply conforming to money's role as medium of exchange; components include coins, currency, checks, other demand deposits, traveler's checks

**M2** broad definition of money supply conforming to money's role as a medium of exchange and a store of value; components include M1 plus savings deposits, time deposits and money market funds



### Answering the Guiding Questions

3. **Explaining** Why did money replace the barter system? 12C, 22A
4. **Describing** What are the qualifications for something to be used as money? 22A

### Writing About Economics

5. **Informative/Explanatory** Often, the U.S. Treasury evaluates the usefulness of the penny and considers whether to discontinue it. On the basis of your understanding of the function of money, why do you think it was created in the first place? Does it still have a purpose in the modern economy? Explain your answers. 12A, 12B, 22A, 23D



Interact with these digital assets and others in lesson 2

- ✓ INTERACTIVE GRAPH  
State and National Banks
- ✓ INTERACTIVE IMAGE  
Run on the Bank
- ✓ SELF-CHECK QUIZ
- ✓ VIDEO

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## LESSON 2

# The Development of Modern Banking

## Reading Help Desk

### Academic Vocabulary

- clauses
- initially

### Content Vocabulary

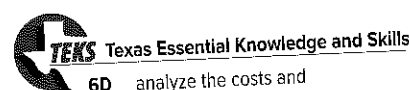
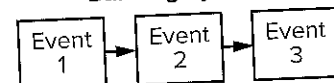
- state bank
- legal tender
- national bank
- national currency
- Gold Certificates
- Silver Certificates
- gold standard
- central bank
- bank run
- bank holiday
- Federal Deposit Insurance Corporation (FDIC)

### TAKING NOTES:

#### Key Ideas and Details

**ACTIVITY** Use the graphic organizer below to identify the key developments that led to the modern banking system. Add and fill in boxes as needed.

#### Development of the National Banking System



- 6D** analyze the costs and benefits of U.S. economic policies related to the economic goals of economic growth, stability, full employment, freedom, security, equity (equal opportunity versus equal outcome), and efficiency

continued on the next page

### ESSENTIAL QUESTION

## How did the creation of the Fed improve our banking system?

Understanding the evolution of our banking system is important because it helps us understand the features of modern banking. Today we have a managed money supply that is accepted by everyone simply because people have faith in it. Which of the following is true about our banking system today?

- a. Most of our money circulates as coins and paper currency.
- b. Today's money is not backed by gold or silver.
- c. Our banking system is shifting away from electronic bookkeeping.

## Early Banking in America

**GUIDING QUESTION** Why was the national banking system developed?

Banking practices in the United States have seen many changes. At one time, banking was virtually unregulated. This led to abuses, and even affected the type of money we use.

### Privately Issued Bank Notes

During the Revolutionary War, nearly 250 million Continental dollars were printed. But by the end of the Revolution, Continental currency had become worthless, and people did not trust the government to issue anything except coins. Accordingly, Article 1, Section 8, of the United States Constitution states:

#### PRIMARY SOURCE

*The Congress shall have power . . .*

*To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures;*

*To provide for the punishment of counterfeiting the securities and current coin of the United States; . . .*

*To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by this Constitution in the government of the United States, or in any department or officer thereof.*

Article 1, Section 10, further states:

*No State shall . . . coin money; emit bills of credit; make any thing but gold and silver coin a tender in payment of debts. . . .*

- Because of these **clauses**, the federal government did not print paper currency until the Civil War. Instead, the printing, distribution, and regulation of the paper money supply were left to the discretion of privately owned banks and other companies that wanted to build canals, railroads, and other ventures.

### Growth of State Banks

The new Constitution left the printing of paper currency to individual states. By 1811 the country had about 100 state banks. A **state bank** receives its operating charter from a state government.

Banks issued their own currency by printing their notes at local printing shops. The banks then put these notes in circulation with the assurance that people could exchange them for gold or silver if they ever lost faith in the bank or its currency.

At first, most banks printed only the amount of currency they could reasonably back with their gold and silver reserves. Others, however, were not as honest and printed large amounts of paper currency in remote areas to make it difficult for people to redeem their currency.

### Problems with Currency

Even when banks were honest, problems with their currency arose. First, each bank issued its own currency in different sizes, colors, and denominations. As a result, hundreds of different kinds of notes could be in circulation in any given city.

Second, banks were tempted to issue too many notes because they could print more money whenever they wanted. Third, counterfeiting became a major problem. With so many different types of notes in circulation, some counterfeiters did not even bother to copy notes issued by existing banks. Instead, they just made up fictitious ones.

By the beginning of the Civil War, more than 1,600 banks were issuing more than 10,000 different kinds of paper currency. Each bank was supposed to have backing for its notes in the form of gold or silver, but this was seldom the case. As a result, when people tried to use their notes, merchants would often check the latest listing of good and bad currencies before deciding whether to accept them.

Politically powerful local bankers resisted any calls for a better system until an event that would forever change commercial banking in the United States—the Civil War.

### Greenbacks

To fight the Civil War, both the Union and the Confederacy needed to raise enormous sums. Congress tried to borrow money by selling bonds, but failed to raise as much money as the Union war effort required. So Congress decided to print paper currency for the first time.

## TEKS Texas Essential Knowledge and Skills

(continued from p. 282)

- 12C** examine the positive and negative aspects of barter, currency, credit cards, and debit cards
- 13A** explain the structure of the Federal Reserve System
- 13D** analyze the decline in value of the U.S. dollar, including the abandonment of the gold standard
- 14A** identify economic concepts in the U.S. Constitution, including property rights and taxation
- 14B** describe the role of government in the U.S. free enterprise system and the changes in that role over time
- 17D** examine the types of accounts available to consumers from financial institutions and the risks, monetary costs, and benefits of maintaining these accounts

**clauses** a stipulation, usually in a legal document

**state bank** a bank that receives its charter from the state in which it operates



**legal tender** currency that must be accepted for payment by decree of government

**national bank** a commercial bank chartered by the National Banking System

**national currency** currency backed by government bonds and issued by commercial banks in the National Banking System

**initially** originally; at the beginning

In 1861 it authorized the printing of \$60 million in new currency that had no gold or silver backing. Congress simply declared that the notes were **legal tender**—and must be accepted as payment. These new notes were soon dubbed “greenbacks” because of the green ink on the reverse side, which made them easy to distinguish from state notes, which were usually blank on the back.

### The National Banking System

As the war dragged on, people feared that the greenbacks—like the Continental dollars used almost a century earlier to finance the Revolutionary War—might become worthless. When the greenbacks did lose some of their value, people avoided using them, forcing Congress to find another way to pay for the war.

In 1863, Congress enacted the National Currency Act, which created a National Banking System (NBS) made up of national banks. A **national bank** is a privately owned bank that receives its operating charter from the federal government. These banks issued their own notes, called **national currency**, or national bank notes, backed with bonds that the banks bought from the federal government. The government hoped that rigorous bank inspections and other high standards would give people confidence in the new banking system and its currency. The new system also would help the Union cause because banks that joined the NBS had to buy Union bonds.

**Initially**, only a few state-chartered banks joined the system, because it was easier for them to print their money at local printers. Finally, in 1865, the federal government forced state banks to become part of the National Banking System by placing a 10 percent tax on all privately issued bank notes. Because state-chartered banks could not afford the tax, they withdrew their notes, leaving only the greenbacks and currency issued by the NBS in circulation.

Thus, the need to finance the Civil War changed paper money from issues by state banks to issues backed by the federal government.

### Other Federal Currencies

The 10 percent tax greatly simplified the money supply as state banks withdrew more than 10,000 different sizes and denominations. Before long, though, new types of federal currency appeared.



The shift from valuing currency based on a gold standard allowed federal currency to adjust to the needs of the economy more quickly.

#### ► CRITICAL THINKING

How did the use of a gold standard keep the money supply tight?

In the same year, the NBS was created, the government issued **Gold Certificates**—paper currency backed by gold placed on deposit with the United States Treasury. At first, these certificates were printed in large denominations for use exclusively by banks, but by 1882, they were also available in smaller denominations to the general public.

In 1878, the government introduced **Silver Certificates**—paper currency backed by silver placed on reserve with the Treasury. This increased demand for silver, pleasing silver miners. The government was already circulating silver dollar coins, but they were too big to be convenient and the public was happy to have an alternative.

#### READING PROGRESS CHECK

**Explaining** Why did the government issue greenbacks in the year 1861?

## The Gold Standard

**GUIDING QUESTION** What does it take for a country to be on a gold standard?

Gold coins had been a small part of the country's money supply ever since the colonial period. The California gold rush in the late 1840s greatly increased the amount of gold coins in circulation, and by the end of the Civil War, gold coins seemed to be everywhere.

However, the country did not go on a **gold standard**—when the basic unit of currency is equivalent to, and can be exchanged for, a specific amount of gold—until Congress passed the Gold Standard Act in 1900.

### Going on the Gold Standard

The Gold Standard Act of 1900 defined a dollar as equivalent to 1/20.67 of an ounce of gold. People continued to use greenbacks, Gold Certificates, Silver Certificates, National Bank Notes, and other federal currencies that specified the number of dollars they represented. But now they could exchange these notes for gold at the Treasury whenever they wanted.

Because people liked the convenience of paper currency and usually did not demand gold, the government could hold much less gold than the currency represented. This is generally true when countries go on a gold standard.

### Advantages of a Gold Standard

A gold standard has two major advantages. First, people may feel more secure about their currency. Second, the standard is supposed to prevent the government from creating too much money, because gold is a limited resource. And if paper currency is relatively scarce, it should keep its value.

Since it is rare that all of a country's paper notes would be redeemed at the same time, the United States never held a gold reserve equal to the value of its notes.

**Gold Certificates** paper currency backed by gold; issued in 1863 and popular until recalled in 1934

**Silver Certificates** paper currency backed by, and redeemable for, silver from 1878 to 1968

**gold standard** a system in which the basic unit of currency is equivalent to, and can be exchanged for, a specific amount of gold



The bank runs of the Great Depression were both the *result* of panic—depositors fearing they would lose their savings—and a *cause* of panic. Runs led to failures, reinforcing fears. Government officials knew they had to do something. Account holders, worried that their bank may fail, rush to withdraw money. Ironically, it was the runs themselves that caused many banks to fail. The first bank runs of the Great Depression occurred in 1930.

#### ▲ CRITICAL THINKING

How did the government respond to bank runs during the Great Depression?



## Disadvantages of a Gold Standard

A growing economy needs its money supply to grow as well, and so, under a gold standard, increasing its stocks of gold. If gold is scarce, the growth of the money supply may slow, and perhaps stop, limiting economic growth. That is one major disadvantage of the gold standard.

Another risk is that a large number of people may decide to convert their currency at the same time, and drain the gold reserves.

## Abandoning the Gold Standard

During the Depression years, many banks failed, and almost one person in four did not have a job. In such uncertain times, people began redeeming their paper currency for gold. Foreign governments with large dollar holdings did the same, and the gold stock held by the U.S. government rapidly shrank.

In 1933, President Roosevelt issued a series of orders that effectively denied the gold standard to the American people. Executive orders required all citizens to surrender their gold coins to the Federal Reserve System at the rate of one ounce of gold for \$20.67 of Federal Reserve Notes. The next step was to raise the price of gold from \$20.67 to \$35 an ounce. By 1935, U.S. citizens could no longer redeem dollars for gold, but foreign governments were allowed to do so at the higher \$35/oz. price.

After World War II, some European countries wanted to build their gold stocks, so they started to redeem their dollar holdings for gold, again severely draining U.S. reserves. The official price of \$35/oz. lasted until August 15, 1971, when President Nixon took the final step and declared that the United States would no longer redeem any dollars for gold. Ever since, the price of gold has fluctuated with changes in supply and demand.

### READING PROGRESS CHECK

**Describing** What are the advantages and disadvantages of the gold standard?

## Creation of the Fed

**GUIDING QUESTION** How did the Fed strengthen the National Banking System?

The national banking system also needed to evolve during the gold-standard years. Despite a huge number of banks, the system was having difficulty circulating enough currency for the growing nation. Checking accounts were becoming popular, but many banks had trouble adapting to the challenge. And even minor recessions were causing them major problems.

## The Federal Reserve System

Reform came in 1913 when Congress created the Federal Reserve System, now often called the "Fed," as the nation's central bank. A **central bank** is a banker's bank, which can lend to other banks in times of need.

The Fed was set up in some ways like a corporation. Any bank that joined had to purchase shares of stock in the system. All national banks were required to do so, and state-chartered banks were eligible to buy shares as well. As shareholders—or part-owners—banks own the Federal Reserve System, not the federal government.

The Fed's own currency, called Federal Reserve Notes, eventually replaced all other types of federal currency. Because the Fed had the resources to lend to other banks during periods of difficulty, it became the nation's first true central bank.

**central bank** a bank that can lend to other banks in times of need, or a "bankers' bank"

### EXPLORING THE ESSENTIAL QUESTION

The establishment of the Fed aimed to solve several problems in the nation's banking system. Match the problems listed on the top with the solutions offered by the Fed listed on the bottom.

#### Problems:

- There were many national banks and no centralized system for keeping them strong.
- Banks were vulnerable to failure because of lack of reserves.
- The nation was operating with several different forms of national currency.

#### Solutions:

- The Fed had the ability to loan money to banks that were in trouble.
- Federal Reserve notes replaced all other types of federal currency.
- The Fed served as a central bank, which strengthened the nation's banking system.

## Banking in the Great Depression

Despite the creation of the Fed, many banks were only marginally sound during the 1920s. One reason was that the number of banks had soared between the Civil War and 1921, when the total exceeded 31,000. Although some consolidation occurred over the next decade, there were still too many small struggling banks at the start of the Great Depression in 1929.

As **Figure 10.1** shows, a staggering number of bank failures occurred. By 1934 more than 10,000 banks had closed or merged with stronger banks. If account holders became worried about their bank, they would rush to withdraw money before it failed—creating a **bank run**. These runs caused many banks to fail.

On March 5, 1933, President Roosevelt announced a **bank holiday**—a brief period during which every bank in the country was required to close. Several days later, after Congress passed legislation to strengthen the banking industry, most banks were allowed to reopen.

## Federal Deposit Insurance

When banks failed during the Great Depression, depositors lost most or even all their savings because deposits were not insured. The Banking Act of 1933 corrected this by creating the **Federal Deposit Insurance Corporation (FDIC)** to insure customer deposits in case of a bank failure. At first, the FDIC insured customer deposits to a maximum of \$2,500 but today the limit is \$250,000 per customer per bank. If an account holds more than this amount, the depositor may go to court and sue the bank owners to recover the rest.

After the FDIC was created, people worried less about the safety of their deposits, which reduced the number of bank runs. If a bank was in danger of collapse, the FDIC could do one of the following:

- Seize the bank,
- Sell it to a stronger one, or
- Liquidate it and pay off the depositors.

If the bank was sold, the sale was done in secrecy to prevent panic and to keep shareholders from selling worthless stock to unsuspecting investors.

**bank run** sudden rush by depositors to withdraw all deposited funds, generally in anticipation of bank failure or closure

**bank holiday** brief period during which all banks or depository institutions are closed to prevent bank runs

**Federal Deposit Insurance Corporation (FDIC)** The United States government institution that provides deposit insurance on the depositor's account



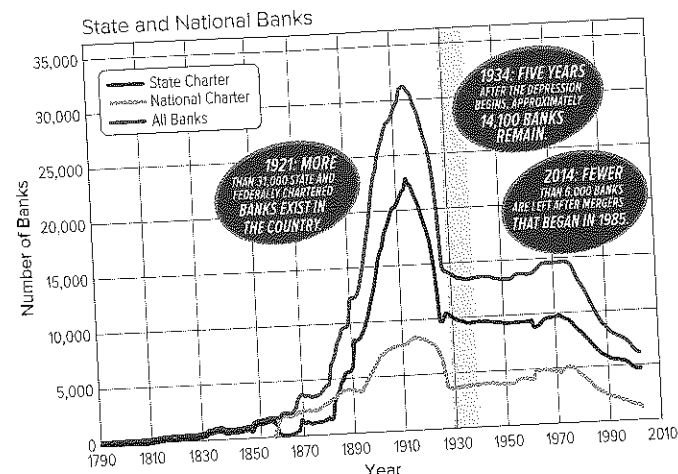
FIGURE 10.1

## STATE AND NATIONAL BANKS

The number of banks in the United States grew rapidly after 1880 and peaked in 1921. A period of mergers and consolidations took place from 1921 to 1929, after which the Great Depression took its toll. The number of banks remained relatively constant from 1933 to 1985, when another wave of mergers took place.

### ► CRITICAL THINKING

**Economic Analysis** How do you think technology played a role in bank mergers after 1985?



Source: FDIC

### Federal Reserve Notes

The Federal Reserve Notes that were first introduced in 1914 have become the most visible component of our money supply. All of the other federal currencies—National Bank Notes, Silver Certificates, Gold Certificates, and even the U.S. Notes, or “greenbacks”—have slowly retired and were replaced by Federal Reserve Notes.

During the early gold standard years, every dollar of Federal Reserve Notes was backed by \$0.25 gold reserves. As the note issue grew, and as the government was having difficulty in keeping enough gold to back the notes, the 25 percent reserve was reduced and eventually removed.

### A Better Monetary System

Today, in part thanks to the Fed, we have a uniform currency and a more efficient payment system, as well as a sound central bank.

One concern is the fact that some banks have become so large that they cannot be allowed to fail, a problem the Fed was not designed to manage.

### READING PROGRESS CHECK

**Describing** What is the purpose of the FDIC?

## LESSON 2 REVIEW

### Reviewing Vocabulary

- Defining** Explain in your own words the difference between a national bank and a central bank. 23A

### Using Your Notes

- Explaining** Use your notes to explain the chain of events that led to the creation of the Federal Reserve System. 14B, 22A

### Answering the Guiding Questions

- Explaining** Why was the National Banking System developed? 14B, 22A

- Evaluating** What must a country do to establish a gold standard? 22A

- Drawing Conclusions** How did the Fed strengthen the National Banking System? 13A, 22A

### Writing About Economics

- Informative/Explanatory** The FDIC was created in large part to restore public confidence in the nation's banking system. Write a paragraph explaining what can happen when the public loses that confidence. Cite examples from the text to support your points. 14B, 22A, 23B

## Case Study



For an interactive version of this case study go to [connected.mcgraw-hill.com](http://connected.mcgraw-hill.com)

# MODERN CURRENCY DESIGN

The Federal Reserve Board is responsible for designing the U.S. paper currency. The currency must be easily identifiable and difficult to counterfeit, with security features that are hard to reproduce.

The Fed released the first standardized design in 1929. In 1990, it introduced a special “thread” as well as “microprinting,” tiny print hidden in certain areas of the note. Both made it difficult to produce convincing counterfeit currency even with advanced copy machines.

In 1996, all currency notes went through a major redesign for the first time since 1929. Since then, the Fed has released new currency designs on different notes every few years. Each redesign includes new security features aimed at staying ahead of counterfeiters. The latest redesign, issued in October 2013, is a \$100 bill. You can view the new currency and its features here: <http://www.newmoney.gov>

The new \$100 includes many older security features such as watermarking, microprinting, and a security thread, but it also introduces some new ones. For example, a new blue vertical ribbon includes 3D images of a bell inside an inkwell. The bell inside the inkwell changes colors from copper to green as the note is tilted.

Counterfeiting is not just an American problem, however. The infographic at the start of this chapter shows how other countries have taken on the challenge of currency security.

### CASE STUDY REVIEW

- Analyzing Visuals** Using the government Web site URL compare the front of the new \$100 bill with the first one issued by the Fed in 1914. Identify the security features that have been added since 1914.
- Exploring Issues** Why is it important for the government to prevent counterfeiting? What could happen if a significant amount of counterfeit money got into circulation?





Interact with these digital assets and others in lesson 3

- ✓ INTERACTIVE IMAGE  
Wall Street Mayhem
- ✓ INTERACTIVE CHART  
Typical Consumer Fees  
Charged by Banks
- ✓ SELF-CHECK QUIZ
- ✓ VIDEO

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## LESSON 3 Banking Today

### Reading Help Desk

#### Academic Vocabulary

- products

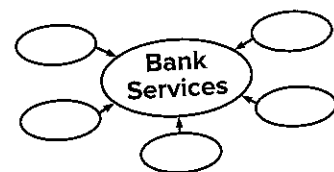
#### Content Vocabulary

- credit union
- corporation
- stock
- shareholder
- state-chartered bank
- certificates of deposit/CDs
- reserve requirement

#### TAKING NOTES:

##### Key Ideas and Details

**ACTIVITY** Use the graphic organizer below to identify the customer services most banks offer.



#### TEKS Texas Essential Knowledge and Skills

- 6A explain the basic characteristics of the U.S. free enterprise system, including private property, incentives, economic freedom, competition, and the limited role of government
- 6C analyze recent changes in the basic characteristics of the U.S. economy
- 6D analyze the costs and benefits of U.S. economic policies related to the economic goals of economic

continued on the next page

#### ESSENTIAL QUESTION

## How has technology affected the way we use money today?

Your parents pay the household bills electronically. Your grandmother, however, pays her household bills by putting paper checks into the mail. Each method has its positive and negative sides. Make a T-chart with the top of one column entitled "Electronic payments" and the other "Paper checks." List the positive and negative aspects for each type of payment.

A commercial bank is like any other business in that it is in business to make a profit. A bank or depository institution like a **credit union** is similar to many other businesses in that its "products," or the things it sells, are all services. A bank is also a bit different in that most of the money it loans has been borrowed from others.

## How a Bank Gets Its Money

**GUIDING QUESTION** How does a bank become established?

Although banks are engaged in a number of different activities, the primary one is lending money, which they mainly get as deposits from individual consumers and businesses. To legally accept those deposits, a bank must be established properly.

### Issuing Stock

Most banks are established as a **corporation**, for two reasons. First, a corporation can raise funds by selling **stock** to anyone who wants to be a part owner, or **shareholder**, in the bank. Second, a corporation is responsible for its debt, but none of its shareholders are. This is called "limited liability." If the corporation gets in trouble, its shareholders are protected.

When people decide to start a bank, they hire attorneys to complete and file the legal papers to establish a corporation. Usually the founders reserve some of the initial shares of stock for themselves and sell the remaining shares to others. To set up a **state-chartered bank**, they must follow state laws specifying the minimum amount of financial capital that a founder must contribute.

## Consumer and Business Deposits

Once a bank is ready to begin operations, it accepts deposits and will pay interest on them. The rate of interest must be very close to rates paid by competing financial institutions, which might be savings and loans, credit unions, or other banks.

Most of its competitors will pay very little, if any, interest on checking deposits, and slightly more on longer-term savings deposits. The new bank might also be offering **certificates of deposit, or CDs**, which despite the name, actually are not deposits. Instead, they are considered loans from a consumer to the bank.

## Fractional Reserves Expand Bank Deposits

When a bank receives a new deposit or CD, it must keep some of it as part of the bank's reserves. **Figure 10.2** shows how this process works for a \$1,000 deposit, from a new customer called Kim, which is subject to a 20 percent reserve requirement established by the Fed.

As long as the bank keeps 20 percent of the deposit, it is free to lend the remaining \$800. Let's say it lends the money to Bill, and Bill puts that money into a checking account for convenience. Bill could use an account at another bank or the lending bank. Either way, the \$800 becomes a new deposit subject to a 20 percent **reserve requirement**—leaving \$640 that can be loaned to a new customer.

This process of depositing, lending, and then depositing again can continue until the total amount of new loans reaches \$5,000. Because the bank charges interest every time it makes a new loan, but must also keep reserves, it can charge interest on \$4,000 of loans for every \$1,000 deposited. The reserves could be kept in the bank, or at the Fed.

The bank may continue attracting deposits and making loans until it is "loaned out," or unable to make any more loans. If the Fed lowers the reserve requirement to 10 percent, every new loan can be as much as 90 percent of each deposit. On the other hand, if the Fed raises the requirement to 25 percent, the bank will need to find more reserves to back the existing loans.

Finally, the bank will have to report its reserves and its demand deposits to the Fed on a regular basis. Banks are heavily regulated by the Fed, the Comptroller of the Currency, the FDIC, and possibly even some state banking officials. Bankers are not very happy about this, but the regulation has prevented massive failures like those we saw during the Great Depression.

### Loans, Investments, and Fees

Loans to consumers and businesses are an important part of a bank's profits. For example, a bank might pay 2 percent on deposits, and lend the balance after reserves at 6 percent for home repairs or mortgages. The difference between these two rates—2 percent and 6 percent—is the "spread," 4 percent. The spread creates profits that the bank may use to pay its employees and other bills.

A bank will also earn money on its investments, which could cover a wide range of activities. If a bank has extra funds that are not loaned out, it could buy U.S. bonds, for example.

#### TEKS Texas Essential Knowledge and Skills

(continued from p. 290)

growth, stability, full employment, freedom, security, equity (equal opportunity versus equal outcome), and efficiency

- 10A interpret economic data, including unemployment rate, gross domestic product, gross domestic product per capita as a measure of national wealth, and rate of inflation

continued on the next page

**credit union** nonprofit service cooperative that accepts deposits, makes loans, and provides other financial services

**products** things that are sold

**corporation** form of business organization recognized by law as a separate legal entity with all the rights and responsibilities of an individual, including the right to buy and sell property, enter into legal contracts, sue and be sued

**stock** certificate of ownership in a corporation; common or preferred stock

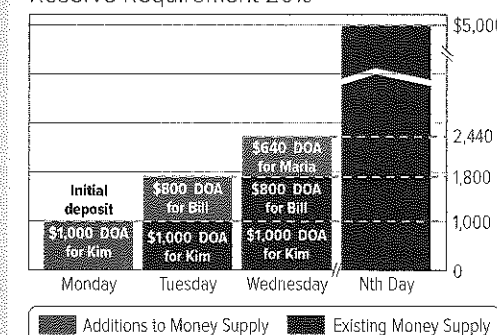
**shareholder** person who owns a share or shares of stock in a corporation; same as stockholders

FIGURE 10.2

**networks** TRY IT YOURSELF ONLINE

## FRACTIONAL RESERVES AND THE MONEY SUPPLY

Reserve Requirement 20%



With a 20 percent reserve requirement, a \$1,000 cash deposit will result in a fivefold expansion of the money supply.

#### CRITICAL THINKING

**Economic Analysis** If the initial reserves were \$2,000, how large could the money supply get?



(continued from p. 291)

- 10B analyze business cycles using key economic indicators
- 12B describe the characteristics of money, including commodity money, fiat money, and representative money
- 12C examine the positive and negative aspects of barter, currency, credit cards, and debit cards
- 13B analyze the three basic tools used to implement U.S. monetary policy, including reserve requirements, the discount rate and the federal funds rate target, and open-market operations
- 13C explain how the actions of the Federal Reserve System affect the nation's money supply
- 13D analyze the decline in value of the U.S. dollar, including the abandonment of the gold standard

continued on the next page

**state-chartered bank** bank that receives its charter from the state in which it operates

Finally, the category of fees is also a significant source of bank funds. For example, there may be fees for maintaining an account, application fees when applying for a loan, withdrawal fees for using an automated teller machine (ATM) from another bank, fees for overdrawing your checking account, and fees for bouncing checks. A modest list of typical fees appears in **Figure 10.3**. Fees can be especially difficult for customers who keep minimal balances in their accounts or are late paying bills.

### READING PROGRESS CHECK

**Explaining** What are the different ways banks can make money?

## Selecting a Bank

**GUIDING QUESTION** *Why have so many different methods evolved for accessing money?*

Almost everyone will need the services of a bank sometime, so it is never too early to shop around.

### Evaluating Your Needs

You begin by thinking about which banking services you need. For example, does your employer pay only by check, or also pay workers electronically, depositing funds directly in a bank? You might consider the second option, especially if a bank you like offers lower fees to customers who receive direct deposit paychecks.

Next, consider the bills you normally pay. Do you actually go to various locations to pay monthly charges for car loans, food, rent, gas, and electric bills—or can these bills be paid by mail or even electronically?

FIGURE 10.3

## TYPICAL CONSUMER FEES CHARGED BY BANKS

Approximate Amount	Description
ATM fee	\$1.00–\$2.00 per bank per transaction If you use an ATM owned by another bank, you may have to pay both your bank and the other bank, resulting in a \$2.00–\$4.00 charge per withdrawal.
Low balance fee	\$5.00–\$15.00 monthly Can result in having to pay the monthly maintenance fee if the balance drops below a certain amount, usually \$500–\$2,000.
Monthly maintenance fee	\$5.00–\$15.00 Fee to maintain a checking or savings account. This can usually be avoided if the balance is sufficiently high but could be charged if the balance goes too low (see “low balance fee”).
Online bill payment fee	Usually free if bundled with another account Online bill payment fees can usually be set up to be made automatically, so customers must make sure that there is always enough in the account to avoid overdraft fees.
Overdraft fee	\$15.00–\$30.00 per overdraft Charged for a check or scheduled online bill payment that results in an overdraft.
Paper statement fee	\$1.00–\$2.00 per statement Charged to customers who want a paper statement rather than an online statement.
Teller visit fee	\$5.00–\$10.00 Fee increasingly used by banks wanting to encourage online use.

Exact fees may vary according to bank and to services offered.

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Commercial banks charge a fee for their services because they are in business to make a profit. Fees generate a significant part of their income, so be sure you understand the cost of each before you select your bank.

**CRITICAL THINKING**  
**Economic Analysis** Which fees have the potential to be the most expensive?

If your bills can be paid by mail, then having a regular checking account makes sense. If they can be paid electronically, you might want a bank that will make it easy for you to do so. Cash might work better for you if you pay your bills in person, but remember that cancelled checks and electronic records are excellent evidence that a payment has been made and accepted.

## Banking Services

Banks offer a variety of services. You may not need to use all of them immediately, but it's good to know about what you might do later on.

- **Checking accounts or DDAs**—This is one of the most useful services. Checking accounts let you make purchases in any amount up to the limit of your deposit, and let you make a payment by mail. The bank has to honor the withdrawal on demand, or when presented with a check, so they are also known as DDAs for “Demand Deposit Accounts.” Because they generate a lot of paper, the banking industry is steadily moving toward electronic banking. Right now, for example, your check may be processed by a cashier and handed right back to you—with the rest of the “paperwork” done electronically. Many banks also prefer to present your monthly summary electronically, rather than put a paper copy in the mail.
- **Savings accounts and Time deposits**—Savings accounts and time or “term” deposits restrict withdrawals. You may be able to make a certain number of withdrawals from a savings account, and fewer on time deposits. In return, a bank will usually pay slightly higher interest rates on money that you can't withdraw at will. If you close your account, you can have your money back, but you will forfeit most of the interest you expected to earn. Opening a savings account will help you get into the habit of saving, and build a credit rating if you want to apply for a credit card. Your best strategy might be to open a savings account and add to it with regular deposits—even if your deposits are small. You may be surprised how small amounts can build up over time and serve you in emergencies.
- **Debit cards**—A debit card looks just like a credit card, but it is electronically tied to your checking account. To make a purchase, you simply swipe the card, which is faster than writing a check. Because the money is transferred immediately from your account to the merchant's account, there is a lot less

(continued from p. 292)

- 14B describe the role of government in the U.S. free enterprise system and the changes in that role over time
- 14C evaluate government rules and regulations in the U.S. free enterprise system
- 16B analyze the advantages and disadvantages of sole proprietorships, partnerships, and corporations
- 16D explain how corporations raise money through stocks and bonds
- 17A explain the functions of financial institutions and how they affect households and businesses
- 17D examine the types of accounts available to consumers from financial institutions and the risks, monetary costs, and benefits of maintaining these accounts
- 18B explain how to begin a savings program
- 18D demonstrate how to maintain a checking account, including reconciling a bank statement

continued on the next page

**certificates of deposit/CDs** receipt showing that an investor has made an interest-bearing loan to a financial institution

**reserve requirement** formula used to compute the amount of a depository institution's required reserves

## CAREERS | Financial Clerks

### Is this Career for you?

- ☒ Do you have strong Customer Service skills?
- ☒ Do you have Basic Math skills?
- ☒ Are you Detailed Oriented?



### Profile of Work

Tellers work in bank branches. Approximately 27 percent of tellers work a part-time schedule. They process bank transactions for customers such as cashing checks, collecting loan payments and depositing money.

### Salary

**\$24,100** per year  
**\$11.59** per hour

### Job Growth Outlook

No change is expected in job growth, which is at 1 percent. However, job prospects are deemed excellent as many workers leave these jobs.



(continued from p. 293)

- 18E identify the types of loans available to consumers
- 18F explain the responsibilities and obligations of borrowing money
- 18G develop strategies to become a low-risk borrower by improving one's personal credit score
- 19A examine ways to avoid and eliminate credit card debt

### EXPLORING THE ESSENTIAL QUESTION

It is your birthday, and your uncle has given you a new, crisp one-hundred-dollar bill. You decide to open a checking account with the money. You go to the bank with your older brother, a recent college graduate who just started working as a reporter. At the bank, you are given a debit card and the option of a credit card. Your older brother says he thinks you'd be better off without a credit card. In a few paragraphs, explain your older brother's caution by comparing and contrasting the positive and negative aspects of debit cards. Be sure to include in your answer whether you agree or disagree with your brother's advice.

paperwork for you, the bank, and the merchant. Merchants like debit cards because the purchase will not go through if there is not enough money in your DDA, and they don't have to deal with bounced checks. However, your risk of losses on a lost or stolen debit card is not limited, as they are with a credit card. A stranger could have access to all of your money! The risk and the cost of fraud lie directly on consumers.

- **Credit cards**—A credit card allows you to borrow money directly from a bank up to a previously determined limit. You are usually allowed to pay the loan back in a 20- to 30-day grace period without having to pay any interest. If you fail to pay the loan off on time, interest can be charged on the borrowed funds at rates often approximating 20–25 percent. Credit cards are one of a bank's most profitable services. Most credit card holders fail to pay the account in full before the end of the grace period. Because the monthly interest rate is so high, a careless consumer can easily end up with the equivalent of a perpetual, or never-ending, loan from the bank on a relatively small balance.
- **Smart card**—A smart card is similar to a credit card in size and appearance, but has a built-in microprocessor instead of a magnetic security strip. The microprocessor has many more safety features and is therefore safer than a credit card. The information on the card includes much more data about you and can be used as an identification card as well as for electronic purchases from a merchant. Smart cards are widely used in Europe and are just beginning to gain acceptance in the United States. Because they require an entirely different type of card reader, the changeover from the magnetic strip technology to embedded microchips will be slower than many people would like.
- **Electronic Funds Transfer (EFT)**—This term generally describes any system that uses computer and electronic technology in place of checks and other paper transactions. Some EFT services include those provided by ATMs that let you bank any time, direct deposits of payrolls by companies, pay-by-phone systems, debit card purchases, electronic check conversions that convert a paper check into an electronic payment at a store, or virtually any other transaction that involves the electronic movement of funds. The term applies to so many different situations that it no longer describes a unique activity.

Banks also offer a number of other services, from providing safety-deposit boxes for storing valuables to helping new corporations issue stock to investors. Whether or not you are a regular consumer, if you are an emerging entrepreneur of a full-fledged business, any one of your local bankers would be more than happy to visit you and help assess your needs. Remember that competition in banking is like competition anywhere else—talk to more than one banker to get the best services at the best price.

### READING PROGRESS CHECK

**Explaining** What are some of the benefits of having a checking account?

## Rounding Out Your Financial Literacy

**GUIDING QUESTION** How do smart banking practices contribute to your own financial literacy?

There are many components to financial literacy, and a sound knowledge of banking fundamentals is one of them. Developing your own creditworthiness is another important component, as the relationship you have with your commercial bank or other financial institution will be key.

### Why You Should Save

Get into the habit of saving, and do it as if your savings will be your only source of retirement income. If you have a Demand Deposit Account (DDA) with a bank, it

will gladly make arrangements to have a small amount automatically deducted from your checking account and placed in savings where your money will earn a little more interest—and will be a little less convenient to access. Or if your employer can make automatic deposits in a credit union, consider that option as well.

Saving on a regular basis will do more than provide a modest pool of funds for future use. It will also demonstrate that you have the discipline and patience to embark on a career-long path to financial success. No one will expect a young person such as you to have a lot of savings, but a demonstrated track record of discipline and success will open up many other opportunities in life.

### Pay Attention to the Details

You already know that banks offer a wide range of “products” or services to their customers. You also know that banks and depository institutions charge fees for almost all of them, which is understandable because banks are in business to make a profit. What you should do, however, is carefully consider which services you need, and which fees you really need to pay.

Banks in the same community often charge different rates for their services, so you should try to learn all you can about these alternatives. Then, decide which are most important to you. Finally, shop around for the best prices.

Only a few of the fees listed in Figure 10.3 are likely to apply to you right now, but over time many of them will. Also, some of them are assessed monthly, but others such as overdraft charges can occur several times a month. Some services, such as on-line bill payments, are often offered at no cost to attract new customers. The bottom line: avoid unnecessary fees.

### Making Yourself Creditworthy

Your “creditworthiness” is your financial standing today based on the credit history you created. While you may not have a credit history now, you can begin to build one at a store by purchasing an item on lay-away and keeping up with the payments. Or better yet, you can build a good financial relationship with a bank.

Eventually, your creditworthiness may allow you to have bigger and more expensive things, such as a car, a home, or a comfortable retirement. In the meantime, keeping yourself out of debt will have its own rewards. When people find themselves in trouble with their credit card debt, they run into a constant need to earn enough income to pay for past expenditures.

It is hard to put a price on peace of mind, but nothing in life is free. If you want creditworthiness, do not expect to get it without discipline on your side. But you should feel that the investment has been well worthwhile!

### READING PROGRESS CHECK

**Explaining** Why should you make creditworthiness a goal for your future?

## LESSON 3 REVIEW

### Reviewing Vocabulary

1. **Defining** Explain what a state-chartered bank is. 23A

### Using Your Notes

2. **Summarizing** Use your notes to explain the services banks provide. 17D, 22A

### Answering the Guiding Questions

3. **Explaining** How does a bank become established? 22A
4. **Evaluating** Why have so many different methods evolved for accessing money? 17D, 22A

5. **Explaining** How do smart banking practices contribute to your own financial literacy? 17D, 22A

### Writing About Economics

6. **Informative/Explanatory** Write a short paragraph explaining how you handle money for purchases. Include whether you have a bank account, the type of account, and what technology you use. If you do not have a bank account, explain what you do instead. 23D

### SKILLS PRACTICE

If you can't think of the right word while discussing this lesson with classmates, try using a synonym. If you cannot think of a synonym, use a definition or description to tell your audience what you mean.



## Should the gold standard have been abandoned and should it be brought back?

Though the United States abandoned the last remnant of the gold standard system in 1971, some people argue that we should restore it. Why? The gold standard limits the power of government to print money and cause inflation. It also establishes fixed exchange rates in international trade.

A few nations now control the global gold supply, and a gold standard would give them power to affect economies throughout the world. Also, gold is not endlessly available, and linking the money supply to gold limits how much economies can grow.

The United States flourished under an international gold standard with a fixed-exchange system from the 1940s into the 1960s. By the end of the 1970s, however, the dollar had grown weaker. Other countries had built strong economies, and inflation had made the dollar less popular. When the United States stopped exchanging dollars for gold, the fixed exchange rate system ended.



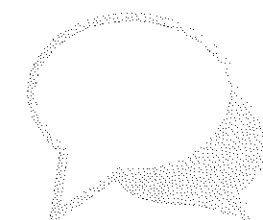
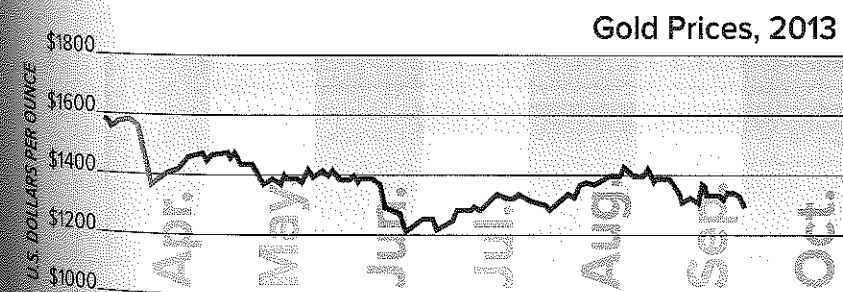
“Although the last vestiges of the gold standard disappeared in 1971, its appeal is still strong. Those who oppose giving discretionary powers to the central bank are attracted by the simplicity of its basic rule. Others view it as an effective anchor for the world price level.”

—The Library of Economics and Liberty



“As the economy grows, the price level will have to fall. The same amount of gold-backed currency has to support a growing volume of transactions, something it can do only if the prices are lower, unless the supply of new gold by the mining industry magically rises at the same rate as the output of other goods and services. If not, prices go down, and real interest rates become higher.”

—Barry Eichengreen, “A Critique of Pure Gold”



## ANALYZING the issue

- Analyzing Visuals** Look carefully at the world map showing the location of current gold mines in the world. If the world returned to an international gold standard, would the United States be the major source of gold? If not, what areas of the world would be the sources of gold?
- Exploring Issues** How do you think the return to the gold standard would affect the countries that have large, active gold mines?
- Evaluating** Which arguments do you find most compelling? Explain your answer.



# STUDY GUIDE

## LESSON 1

### History of Money in American Colonies

- **Commodity money**—money that has an alternative use as an economic good
- **Fiat money**—currency made usable by government decree that has no value or use other than as money
- **Specie**—money in the form of silver or gold coins

### Characteristics and Functions of Money

- **Characteristics**
  - Portable
  - Durable
  - Divisible
  - Limited Supply
- **Functions**
  - Medium of Exchange
  - Measure of Value
  - Store of Value

### Federal Reserve Definitions of Money Supply

- **M1**—Coins, Currency, Traveler's Checks, DDAs, and Checking Accounts
- **M2**—All of M1 plus Savings Deposits and Time Deposits

## LESSON 2

### Types of Money in Colonial America

- **Continental dollars**—issued by the Continental Congress
- **State bank-issued money**—in circulation before the Civil War
- **Greenbacks**—authorized by Congress to pay for Civil War
- **Gold Certificates**—issued by National banking system, 1863
- **Silver Certificates**—issued by National banking system, 1878
- **Federal Reserve notes**—issued by the Federal Reserve, 1913

### The Gold Standard

- Established in 1900 with Gold Standard Act
- Abandoned in 1933 for Federal Reserve notes
- Gold standard for Federal Reserve notes phased out in 1970s

## LESSON 3

### How a Bank Earns Money

- Issuing stock
- Consumer and Business deposits
- Loans, investments, and fees

### Bank Services

- Checking accounts or DDAs
- Savings accounts and Time Deposits
- Debit cards
- Credit cards
- Smart cards
- Electronic fund transfers

### Financial Literacy

- Save regularly
- Pay attention to financial details
- Establish your credit worthiness

## CHAPTER 10 Assessment



Directions: On a separate sheet of paper, answer the questions below. Make sure you read carefully and answer all parts of the questions.

### Lesson Review

#### Lesson 1

- 1 **Identifying** Explain what specie was used in the North American colonies. **23A**
- 2 **Specifying** Name three ways the money in the United States today meets people's needs. **12A, 22A**

#### Lesson 2

- 3 **Inferring** Why was the issuing of Silver Certificates in 1878 a positive step in establishing a national currency? **22A**
- 4 **Identifying** Beginning in 1933, what happened to the Gold Standard? **13D, 22A**
- 5 **Comparing** Considering the evolution of currency in our country, what were some of the negative aspects of previously used currency? What are the positive aspects of the currency we use today? **12C**

#### Lesson 3

- 6 **Explaining** How does a bank earn money? **22A**
- 7 **Drawing Conclusions** How does the system of reserve requirements expand bank deposits? **13B, 22A**

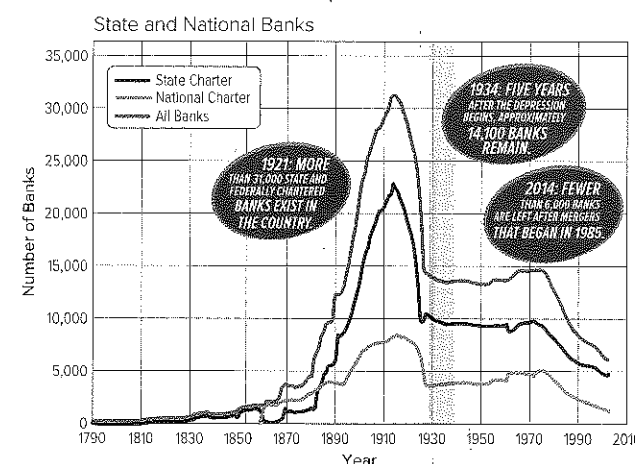
### Critical Thinking

- 8 **Identifying Central Issues** Identify how the U.S. government established a system in 1933 to protect a customer's bank deposits. **14B, 22A**
- 9 **Constructing Arguments** Write a blog post in which you state whether the Fed is the most effective way of maintaining monetary stability. **6D, 13A, 22C, 23D**
- 10 **Speculating** Assume that you inherited \$5,000. Would you spend it or deposit it in a savings or checking account? Would you buy a CD or investigate other investment possibilities? **17D, 18A, 22A**
- 11 **Explaining** Defining the terms *commodity money* and *fiat money*, explain how both were used in colonial America and why the limitations of commodity money led to the development of fiat money. **12B, 23A**

### Analyzing Visuals

Use the graph below to answer the following questions.

- 12 **Reading Graphs** What banking activities occurred in the years just prior to the Great Depression? **22E**
- 13 **Identifying Graphs** Compare and contrast the number of state-chartered banks in 2010 with the totals in 1879 and 1890. **22A, 22E**
- 14 **Predicting** What has happened to the number of banks since 1985? Do you think this trend will continue? **22A, 22E**



### Need Extra Help?

If You've Missed Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Go to page	278	280	285	286	283	291	291	286	286	293	277	288	288	288



# CHAPTER 10 Assessment



Directions: On a separate sheet of paper, answer the questions below. Make sure you read carefully and answer all parts of the questions.

## ANSWERING THE ESSENTIAL QUESTIONS

Review your answers to the introductory questions at the beginning of each lesson. Then answer the Essential Questions on the basis of what you learned in the chapter. Have your answers changed?

- 15 **Summarizing** In a one-page essay, explain two ways the establishment of the Federal Reserve System changed the monetary system in the United States. 13A, 22A, 23D
- 16 **Understanding Relationships** Write a short essay discussing one way in which technology has affected the use of money in the global world today. 12A, 22A, 23D

## Social Studies Skills

- 17 **Defending** Are bank mergers good or bad for the U.S. economy? Write a one-page position statement, supporting your opinion with your reasoning. 22C, 23D
- 18 **Presentation Skills** Investigate the services and fees of two banks. Bank 1 has a branch in your neighborhood or town, and Bank 2 is an online bank. Make a multimedia presentation outlining their services and fees and present it to the class. 17D, 23C, 23D
- 19 **Creating and Using Graphs** Use the Internet or a newspaper to find the number of state-chartered banks in your state for each year of the last 10 years. Use the data you collect to create a graph showing whether the number of state-chartered banks in your state increased or decreased in the last 10 years. 22E, 23C

## Building Financial Literacy

- 20 **Decision Making** Adopting a financial plan that involves banking services is an important part of your financial literacy. You also need to understand fees for banking services and know how to find the highest interest rates for your accounts.

a. What strategies might you use to ensure you get the most services at low fees? Make a list of ways to "shop around" for the best bank for your needs. Include online banks.

b. Describe your financial plan to meet your five-year financial goals—such as paying for college, buying a car or a house or condo, or taking a trip. What action will you take each year to reach those goals? 17D, 24B

## Analyzing Primary Sources

Read the excerpt and answer the questions that follow.

In 2013, Congress passed legislation to lower interest rates on student loans. Before the bill passed, interest rates on student loans ran as high as nearly 8 percent.

### PRIMARY SOURCE

"The bill passed by Congress would lower interest rates for all types of student loans, at least for the near future. Undergraduate loans issued for the coming school year would carry a rate of 3.86 percent, while graduate and PLUS loans would be offered at 5.4 percent and 6.4 percent, respectively."

—Allie Bidwell, "Congress Approves Student Loan Deal," *U.S. News and World Report*, August 1, 2013

- 21 **Explaining** Why do you think Congress wanted to limit interest rates on student loans? 21D, 22A, 22D
- 22 **Considering Advantages and Disadvantages** What impact, positive and negative, might the decision have on college and graduate students? 21D, 22A
- 23 **Making Predictions** Do you think that in the future Congress will always act to limit interest rates on student loans? 21D, 22A

### Need Extra Help?

If You've Missed Question	15	16	17	18	19	20	21	22	23
Go to page	286	293	287	292	290	292	291	291	291