



## Reading for Meaning

Before reading the chapter, scan the vocabulary list for words you can define. Based on your definitions, predict the content of this chapter. Review your predictions after reading the material.

# What Is Economics?

needs	mixed economy
wants	resources
goods	scarcity
services	nonhuman resource
economic system	human resource
traditional economy	trade-off
market economy	opportunity cost
free enterprise system	profit
consumer	innovation
producer	technology
marketplace	supply
command economy	demand

## CHAPTER OBJECTIVES

After studying this chapter, you will be able to

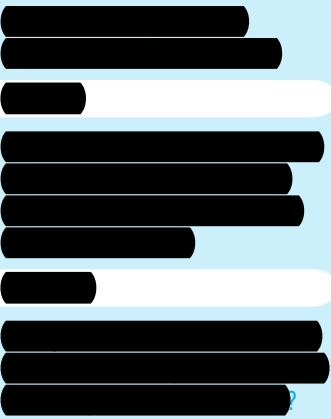
- **distinguish** between needs and wants.
- **compare** different types of economic systems.
- **define** scarcity in terms of needs and wants.
- **analyze** a decision in terms of trade-offs and opportunity cost.
- **explain** the role of the profit motive in the economic system of the U.S.
- **evaluate** how competition among producers influences the price of goods in a market economy.
  - **interpret** the relationship between supply and demand.



## Central Ideas

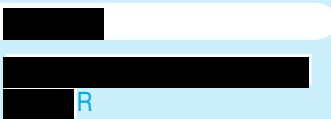
- Economics is the study of how people use scarce resources to satisfy their unlimited needs and wants.
- In a free enterprise system, market forces allocate the resources.

## Resource



## Economists

Economists study how society distributes resources, such as land, labor, raw materials, and machinery, to produce goods and services. They may conduct research, collect and analyze data, monitor economic trends, or develop forecasts.



**Y**ou live in an economic world. Money changes hands every time you buy a snack, rent a movie, ride a bus, turn on a light, text a message, or see a doctor. Economic wheels turn to keep schools open, maintain streets and parks, and provide police and fire protection. Your home receives electricity, your television receives broadcasts, and your favorite stores are stocked with items you want to buy. Every day, you use and depend on items generated by the U.S. economy.

Did you ever wonder how all these events happen? You will learn in this chapter about the powerful forces that link you to the nation's goods and services. You will also learn how these forces work and the important role you play.

## Economic Systems

In earliest times, families were relatively self-sufficient. The family was the basic economic unit. It provided members with food, shelter, protection, hides for wearing and staying warm, and other needs. **Needs** are items a person must have to survive. Needs differ from **wants**, which are items a person would like to have but that are not essential to life.

As families formed communities and moved away from an agricultural base, life became more complex. No longer were families so self-sufficient. They became consumers who looked beyond the family to meet many of their needs. They began to trade with one another. Artisans and tradesmen became expert in their work.

As individuals and communities provided specialized labor, a wider variety of goods and services flourished. **Goods** are physical items such as food and clothing, while **services** refer to work performed. Examples of services include work done by a carpenter, plumber, or accountant. The interdependence of providers and users of goods and services marked the beginning of an economic system. An **economic system** is the structure in which resources are turned into goods and services to address unlimited needs and wants.

## Types of Economic Systems

Every nation has an economic system. Economists have defined four basic types—traditional, market, command, and mixed economies.

### Traditional

The **traditional economy** is a system in which economic decisions are based on a society's values, culture, and customs. Today this type of economy exists mostly in underdeveloped countries or nations governed by strong cultural, religious, or tribal leadership.

In these areas, change comes slowly. People tend to stick with what they know and do as they have always done. For example, if you lived in a traditional economy and your parents raised sheep, chances are that you would too. You would likely grow your own food and make your own



1-1

In traditional economies, change comes slowly from generation to generation.

clothing. You would probably have little interest in doing something new or different from what your friends and family do, 1-1.

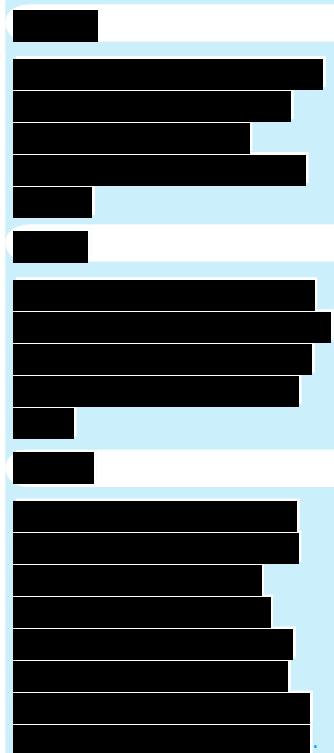
In recent years, some traditional economies have begun to develop a new approach to economics. They have come to recognize the advantages of technology and other advances in the modern world. There is a desire both to keep the old and to accept some of what is new.

## Market

A **market economy** is a system in which privately owned businesses operate and compete for profits with limited government regulation or interference. It is also called a **free enterprise system** or *capitalism*.

In a market economy, consumers are important and businesses react to their demands. A **consumer** is a buyer and user of goods and services. A **producer** is an individual or business that provides the supply of goods and services to meet consumer demands. The activities and decisions of consumers determine in large part what goods and services businesses will produce and sell. A market economy offers many opportunities for businesses to grow and profit. It also offers hard-working individuals with education and training the incentives and opportunities to develop their talents and succeed in fields of their choice.

In economic terms, the **marketplace** or *market* is not a physical place like a mall or a grocery store. It is an arena in which consumers and



## Case Study: Living in a Market Economy

### Anita and Juan Search for Housing

Anita and Juan are in their mid-twenties and plan to marry in six months. They decide to buy their first home in the city and move to the suburbs once they have school-age children. They see two new one-bedroom apartments in their price range, but prefer a higher-priced loft apartment. The loft is a little over their spending limit, but the high ceilings, wood floors, and interesting floor plans tempt them. The units also have new kitchens and laundry equipment. Their real estate agent says the loft should have an excellent resale value when they decide to sell and move in a few years.

### Case Review

1. How are housing costs determined in a market economy? Why are they likely to be higher than in a command economy?
2. What would happen to housing costs in a market economy when the supply is severely limited? How would prices change when there are more sellers than buyers?
3. How do you see the supply and demand for housing in your area? Would you rather be a buyer or a seller?

producers meet to exchange goods, services, and money. The term *market* may refer to all goods and services in an economy or to a limited number of goods in a selected segment. For example, there is a market for children's clothes, for luxury cars, and for electronics. There also is a global market that encompasses trade among all the nations of the world.

### Command

A **command economy** is a system in which a central authority, usually the government, controls economic activities. A central authority decides how to allocate resources. It decides who will produce what. It decides what and how much to produce and sets the prices of goods and services.

In this type of system, the needs and wants of consumers are not generally a driving force in the decision-making process. Consumers do not have broad freedom of choice. They often cannot decide for themselves how to earn and spend income. A command economy often exists in socialist and communist forms of government.

## Case Study: Living in a Command Economy

### Mariya's and Sasha's Apartment

Mariya and Sasha plan to marry after they find a place to live. Now they each live in a small apartment with family members. Mariya works in a factory an hour away. Sasha works in the same factory and lives an hour away in another direction.

Every Sunday Mariya and Sasha go to a place where people gather to find living space. Hundreds of people carry handmade signs advertising living quarters to trade or living space wanted.

When housing agreements are made, the authorities must approve them. The parties involved must show their registration cards to prove they had permission to live in the country. In addition, the agreement cannot violate living space restrictions for different categories of people.

After several months of searching, Mariya and Sasha make an agreement with a man who plans to move from town to the country. He wants the U.S. equivalent of \$300 for his one-room apartment. This is most of their savings, but Mariya and Sasha consider it a bargain. They do not see the apartment right away, but they know it is in a fairly new building not far from their workplace. More important, it will be theirs.

### Case Review

1. How might a severe housing shortage affect you over the next 10 years?
2. Housing costs in command economies are controlled by the state and are very low compared to those in the United States. To what extent would you be willing to sacrifice privacy, quality, and availability of housing to cut housing costs by 70 to 80 percent?
3. Why is housing likely to be more limited in a command economy than in a market economy?

## Mixed

Most economies are mixed. A **mixed economy** is a combination of the market and the command systems. For example, a mixed economy may function through a marketplace, although the government or central authority regulates the prices and supply of goods and services. Government may regulate certain industries such as utilities and airlines.



Although the U.S. economy is technically a mixed economy, in this textbook and elsewhere it is labeled a market economy. Compared with other mixed economies, the U.S. has minimal government involvement. The government's limited role in the U.S. economy is varied and important. That role will be covered in detail in the next chapter.

## The Challenge of Scarcity

All economic systems attempt to resolve the problem of unlimited needs and wants and limited resources. Here the term **resources** refers to any input used to generate other goods or services. The challenge of stretching resources to cover needs and wants is called **scarcity**. Individuals, families, companies, and nations are all limited in the resources available to meet needs and wants. Deciding how to deal with scarcity is the basis for the study of economics.

Over your lifetime, your needs and wants will never end. There are many reasons for this. The most obvious is that you outgrow your current needs and wants and develop new ones. For example, as your feet grow bigger, you need larger shoes. Another reason is your needs and wants change as you grow mentally and emotionally. See 1-2.

Also, fulfilling one want often creates new ones. For example, if you buy a new music system, you will want music to play on it. You may want headphones and a shelf to hold your equipment. When your music system becomes outdated, you will want a new improved model.

Scarcity forces people, businesses, and governments to make choices in the use of resources and the needs to be met. There are two basic types of resources that are considered.

- **Nonhuman resources** are external resources, such as money, time, equipment, and possessions.
- **Human resources** are qualities and characteristics that people have within themselves.

Human resources include qualities that make workers more productive, such as good health, skills, knowledge, and education. *Entrepreneurship* is a type of human resource, too. It is a set of personal qualities that helps an individual create, operate, and assume the risk of new businesses.

Consumers have unlimited needs and wants for different goods and services. These include food, clothes, housing, medical care, cars, and spending money. Since resources are limited while wants are unlimited, it is necessary to choose which wants to satisfy.

For example, suppose you must choose between seeing a movie and going bowling because you do not have time for both. You may need to choose between a new pair of gym shoes and a pair of boots if you do not have money for both. Families may have to choose between buying a new car and taking a family vacation, or between buying a home and starting a business. Economic choices are endless.

Scarcity applies to government in the same way. The needs of citizens far exceed the resources of the government. That is why it is necessary to make choices. Local governments may need to choose between raising

taxes and cutting services. The federal government makes the same types of choices.

## Trade-Offs and Opportunity Cost

Making choices involves evaluating two or more options and selecting just one. Making choices entails trade-offs. A **trade-off** is the item given up in order to gain something else. For example, there is a trade-off when you spend \$50 to buy a jacket. The trade-off is the other ways you could have spent the \$50, including saving it for a future purchase.

Making a choice results in a trade-off, and a trade-off results in an *opportunity cost*.

**Opportunity cost** is the value of the best option or alternative given up. If you turn down an after-school job because you have to be at soccer practice, there is an opportunity cost. The

opportunity cost of playing soccer may be the amount you could have earned working. On the other hand, the opportunity cost of working instead of playing soccer could be the pleasure and enjoyment of playing a sport you love.

Opportunity cost can be measured in terms of dollars, time, enjoyment, or something else of value. The opportunity cost of a decision often varies from one person to the next. It depends on what the person who made the decision values.

For example, if spending time with your family is most important to you, missing family meals may be the opportunity cost of going to soccer practice. If getting good grades is most important to you, losing time to study may be the opportunity cost.

Opportunity cost applies to economic choices of families, businesses, and governments as well as individuals. Weighing opportunity cost is a valuable decision-making tool. You will read more about decision-making tools in Chapter 5.

## Scarcity and Economic Systems

All societies are faced with scarcity and must make choices. The problem of scarcity applies to individuals, families, businesses, and organizations. Governments also make economic choices that affect everyone.

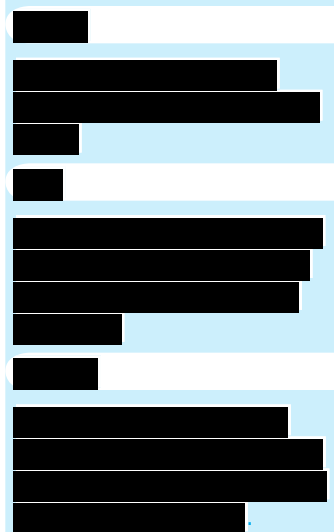
At the local level, governments make many choices in allocating limited resources. For example, a local government may need to choose between using funds to build a public swimming pool or to repave the streets.

The federal government makes the same types of choices. For example, the government may have to decide between investing in oil drilling and investing in new energy sources. Major political and economic decisions center on how to divide limited national resources given unlimited national



1-2

Clothes can be both a need and a want.





# ECONOMICS in ACTION

## More Tools to Evaluate Economic Choices

*Marginalism* is the added value versus the additional cost of one more unit or item. For example, suppose you buy two pairs of jeans at \$65 and consider a third pair. Will the added pair bring as much satisfaction as the first two? As you buy more jeans, the per-unit price stays the same, but the “marginal” or extra value of one more pair decreases.

You can also approach economic choices through a *cost-benefit analysis*, which is similar to marginalism. The *cost-benefit principle* states that you should take an action or make a purchase

only if the benefit is at least as great as the cost. For example, using the jeans example, suppose you see a casual jacket that complements the first two pairs of jeans. With the jacket and those jeans, you could coordinate several outfits. A third pair of jeans, on the other hand, would not benefit your wardrobe to the same degree as the jacket.

These principles apply to economic decisions of individual consumers, businesses, and governments. You’ll read more about them in Chapter 5.

needs. These needs may include crime control, health care, environmental protection, education, national defense, and aid to the poor and homeless.

The scarcity of resources leads to three problems for all societies:

- what and how much to produce
- how to allocate resources in producing goods and services
- how to divide the goods and services produced

The way a society solves these problems defines its economic system. If these decisions are made by the country’s religious leader, the nation’s economic system is probably a traditional economy. If a central planning authority decides, the economic system is probably a command economy. In the U.S. free enterprise system, these decisions are made primarily by market forces.

## How the U.S. Economy Works

A circular flow of goods, services, and money takes place within the economy, as shown in the circular flow model in 1-3. The blue outer circle shows the flow of consumer goods and services from producers/sellers to consumers/workers. It also shows the flow of the resources (labor, land, capital, and entrepreneurship) from consumers/workers to producers/sellers.

The orange circle shows the flow of payments for goods and services from consumers/workers to producers/sellers. It also shows the flow of payment for resources from producers/sellers to consumers/workers.

This model is a good snapshot of how consumers and producers interact in the economy. However, it does not show the whole picture. For

example, producers and sellers can also be consumers. Businesses buy the goods and services that other businesses produce. In the next chapter, you will see how the government fits into this picture.

You can gain a better understanding of how the U.S. economy works by studying the basic qualities of a market economy. These are discussed in the following sections.

## Four Qualities of a Market Economy

Four unique qualities—private ownership, profit, free choices, and competition—characterize a market economy. The dynamic combination of these qualities explains many aspects of the inner workings of the U.S. economy. A study of the law of supply and demand helps to complete the picture.

## Private Ownership and Control of Productive Resources

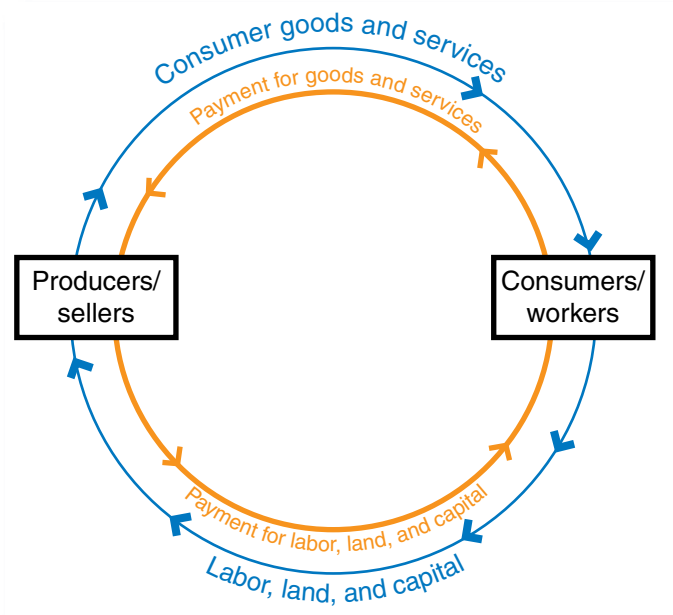
Productive resources include the human and nonhuman resources used to produce goods and services. In the U.S. economic system, citizens and businesses own and decide how to use these resources. Businesses invest in the equipment, labor, and land needed to produce goods and services. They exercise the right to own private property. Individuals and businesses can buy and sell property; they can use it or give it away. This includes personal property such as clothes, cars, and electronics. It also includes real estate and business enterprises.

## The Profit Motive

The promise of earning money inspires the worker, shop owner, manufacturer, and investor to engage in economic activity. For businesses and investors, **profit** is the total amount of money earned after expenses are subtracted from income. The profit motive drives businesses to produce goods and services to meet consumer demand.

For individuals, profit comes in the form of income. Individuals sell their productive resources, such as labor, ideas, land, and capital. In return, they receive income or a return on their investments. This is what brings people into the workforce and investors into the stock market.

If there were no opportunity to earn profits, the U.S. economy would falter. Individuals would be less motivated to work. Investors would not invest in businesses and provide the money needed to turn resources into goods and services. Businesses would not grow and try to increase sales. All businesses, from the corner grocery to a worldwide corporation,



### 1-3

This chart shows the circular flow of goods, services, and money between producers/sellers and consumers/workers.



## Business Development Managers

Business development managers plan strategies to improve a company's performance and competitive position. They analyze, interpret, and evaluate various types of data in order to make sound business decisions.



### 1-4

All businesses, such as this neighborhood florist, must earn a profit in order to stay open.

### Resource

*Money Makers, Activity B, WB*



## Entrepreneurs

Entrepreneurs are people who organize, operate, and assume the risk for a business venture or enterprise. Successful entrepreneurs have business management skills, marketing knowledge, and an understanding of the demand for the product or service they provide.

depend on profits, 1-4. It is a positive number. The *profit motive*, or the desire for profit, drives both individuals and businesses to produce.

## Free Economic Choice

In the United States and other market economies, consumers are free to make many choices. This is good news for you. Free choice opens the doors of opportunity in many areas. Both individuals and businesses have the right to freely decide how they will earn, spend, save, invest, and produce. You choose

- what you will buy
- where you will buy it
- how much you are willing to pay
- whether you will use cash or credit
- whether you will spend or save

Businesses respond to consumer choices by producing and selling the goods and services consumers want. In the economy, the combined choices of individual consumers make the greatest impact. Your decision to buy a new cell phone will not greatly impact the manufacturer's bottom line. However, if thousands of others buy it, the company will make money.

You are also free to choose how to earn your money. There is a vast menu of job possibilities in a free market economy. Your future income will depend on the career choices you make and the abilities and skills you develop. If you are willing to work hard and get the training and education required, you can succeed in a market economy. This is not always true in a command economy, where a central authority controls much of the opportunity.

A free market economy is also ideal for starting your own business. The path of the entrepreneur is not an easy path, but it is open to anyone with a sound idea and the willingness to take risks and work hard. Take a look at the stories of those who founded well-known corporations such as McDonald's, Microsoft, and Walmart. Almost all of them started with an idea that greatly appealed to consumers.

## Competition

*Economic competition* occurs when two or more sellers offer similar goods and services for sale in the marketplace. Each seller tries to do a better job than the other in order to attract more customers, make more sales, and earn more profits. Businesses compete with each other in many ways. They compete in the areas of price, quality, features, service, and new products.

In a market economy, **innovation** is the engine that sparks growth and prosperity. Innovation is the process of creating something—new or improved products and new ways to do things and solve problems.

Research and development (R&D) is the key to realizing the potential of innovation. It is an investment in the future. In simple terms, the innovator comes up with a new idea, explores its practicality, and turns it into a new product or service. Businesses, universities, and government agencies all participate in research and development, both independently and in cooperation with each other.

The U.S. invests more money in research and development than any other country in the world. This is one reason America is among the most prosperous nations. The same is true of businesses. Those that invest the most in research and development tend to be the most competitive and successful.

Technological advances are a major force in the creation of new products and services. **Technology** is the application of scientific knowledge to practical uses and product development, 1-5. Computers, cell phones, and fuel-efficient cars are examples of technological advances.

The companies providing the best products and services at the lowest prices generally achieve the highest sales and profits. Ideally, this results in higher quality at lower prices for consumers. Competition encourages competence and efficiency in the production and sale of goods and services.

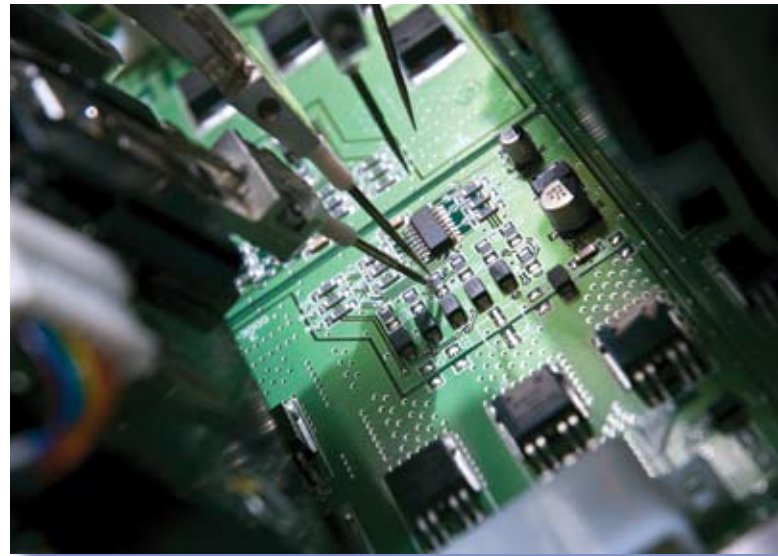
Electronic products are a good example. Consider the development of personal media players that started out as simple audio players. Today you can use these players to view videos, text, photos, and lyrics. You can listen to and record FM radio, store data, and tell time. You get voice recording and computer interface. All these functions are contained in a player about the size of a credit card. You are getting more for your money with each new innovation. Most of this innovation was driven by competition and the profit motive.

There is also competition in the job market. The highest incomes go to the educated, trained, and skilled workers who produce the goods and services in greatest demand. This demand increases the competition among workers. They try to update their skills and education in order to qualify for better jobs, so they can then earn higher incomes and better benefits. This, in turn, improves a company's ability to compete.

## Laws of Supply and Demand

These key principles—private ownership, free choice, profit motive, and competition—come together to create a dynamic, ever-changing economy. Individuals and families are free to act in their own best economic interests in the marketplace. By doing this, they make the economy work better for everyone.

Remember the economic challenges common to all societies? In short, the challenges are: what and how much to produce, how, and for whom. The U.S. economic system addresses these questions largely by letting the forces of supply and demand operate in competitive markets. **Supply** is the



### 1-5

New technology is constantly being developed, tested, and marketed to consumers.



e, TR

# Linking to... Math

## Graph Reading

A candy company sells 5,000 candy bars a day when they are priced at \$1 each. When the company raises the price to \$1.25, it sells 4,500 a day at the higher price.

Draw a graph and plot the coordinates. Approximately how many candy bars would they sell per day if they were priced at \$1.50 each?



amount of a product or service producers are willing to provide. **Demand** is the quantity of a product or service consumers are willing to buy. Both supply and demand are closely connected to price.

For example, suppose you own a gym shoe company. When you price them at \$80 a pair, you sell 1,000 pairs. At \$40 each, you sell 3,000 pairs.

When the chart's coordinates are plotted on a graph and connected, they form a line called the *demand curve*. Price and demand move in opposite directions, so the curve has a negative slope. This illustrates *the law of demand*—the higher the price of a good or service, the less of it consumers will demand.

As a producer, you want to sell your goods for the highest possible price. If you think you can get \$80 for each pair of sneakers, you would want to produce more. If you think you can only get \$20 a pair, you would want to produce less.

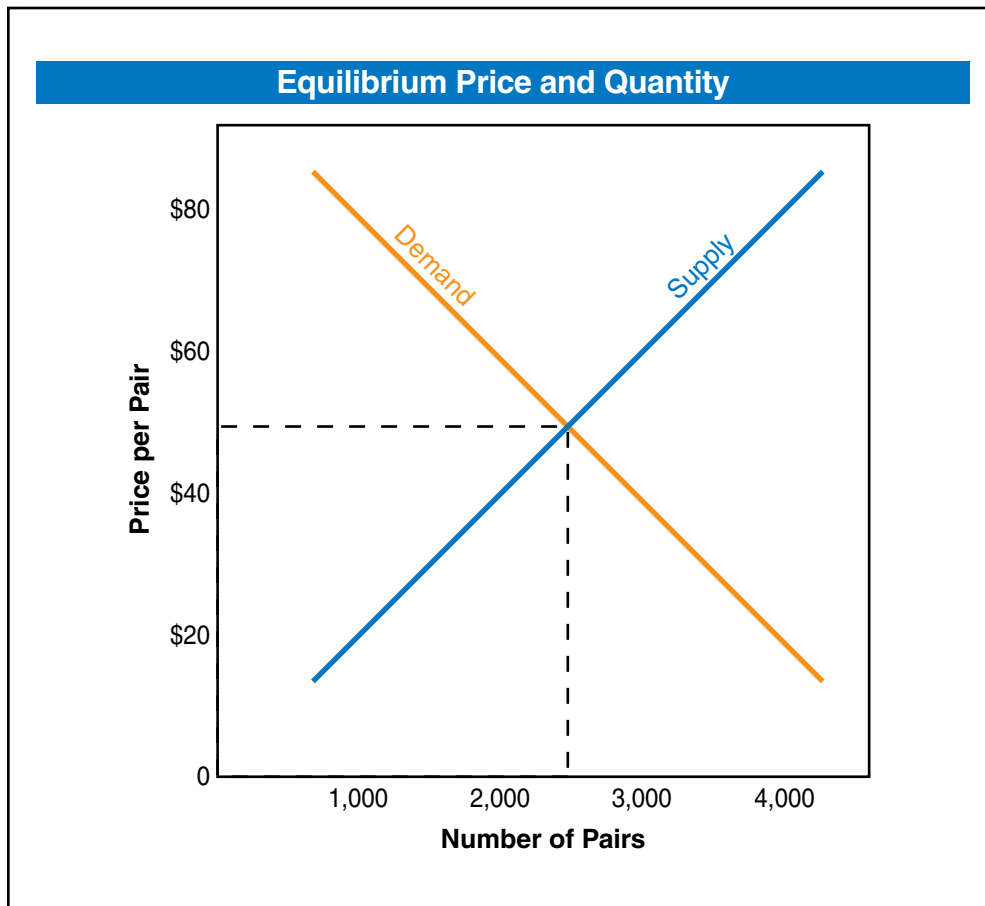
When the chart's coordinates are plotted on a graph and connected, they form a line called the *supply curve*. Price and supply tend to move in the same direction, so the curve has a positive slope. This illustrates *the law of supply*—the higher the price of a good or service, the higher the quantity supplied by producers.

## Equilibrium

The laws of supply and demand work together. When demand and supply are relatively balanced, the market is said to be in *equilibrium*. Equilibrium is the approximate point at which the supply and demand curves intersect, 1-6. It is the price at which the quantity supplied equals the quantity demanded. This is when the market is operating at maximum efficiency.

Equilibrium is more of an idea than a reality. Markets are usually not in equilibrium. Changes in supply or demand trigger price adjustments. When a price for a product is set too high, products stack up on store shelves. When a price is set too low, there are shortages.

What conditions might cause price to increase? Prices rise when the demand for an item is greater than the supply, or when demand rises and supply remains the same. For instance, airline ticket prices are highest during peak travel times. Seasonal foods become more expensive when the season ends and they become less plentiful. Food prices also rise when crops are lost to severe weather.

**1-6**

The demand curve shows how much people will buy (x-axis) at different prices (y-axis). The supply curve shows how much product will be produced (x-axis) at different prices (y-axis). Equilibrium, \$50, is the point at which the demand and supply curves intersect.

What conditions might cause price to decrease? Prices fall when the supply for an item is greater than the demand, or when supply rises and demand remains the same. For instance, at the end of winter, the demand for coats and gloves drops. Stores drop prices and hold end-of-season clearance sales.

## The Market's Answer to Scarcity

To a large extent, demand in the marketplace determines *what* and *how much is produced*. Demand is expressed by the spending choices of consumers, businesses, and governments. These choices, to a large degree, determine what and how much producers will bring to the marketplace. In many cases, consumer demand leads to new and improved products.

Businesses generally own and control productive resources. They determine the right mix of productive resources when they make products and deliver services to meet consumer demands. They determine *how to produce goods and services*.

The forces of supply and demand in the job market largely determine *how to divide the goods and services produced*. Those who can offer the skills, knowledge, materials, or capital needed for production receive income or profits. In job markets, those who have the qualifications to perform the work most in demand generally earn higher incomes and can buy more of the goods and services they need. This helps determine how production is divided.





## Chapter Summary

You and other consumers carry out economic activities every day. These activities range from spending money to participating in the economic life of your community and government.

Needs and wants are unlimited, while the resources used to satisfy them are limited or scarce. Economists have defined four types of economic systems. Most economies, including that of the U.S., are mixed.

People, families, and governments make choices involving trade-offs and opportunity costs. These two concepts refer to what you give up when you choose one item over another.

In the economy of the U.S., the laws of supply and demand serve to answer the problem of scarcity. In the act of balancing supply and demand, the system determines what to produce, how, and for whom. Consumers play an important role in creating demand. Producers strive to meet demand and earn a profit doing it. The competition for profits in this system leads to the development of new and improved products.

### Review

1. What are the four types of economic systems?
2. Why is the economic system of the U.S. a mixed economy?
3. Describe the concept of scarcity and how it applies to individuals, families, and government.
4. Why are human needs and wants unlimited?
5. What is the difference between human resources and nonhuman resources?
6. What three challenges caused by scarcity must all societies face?
7. What are the four basic concepts that drive the economy of the U.S.?
8. Why is innovation important in encouraging competition?
9. What is the relationship of trade-offs and opportunity cost?
10. Why would the U.S. economy falter if there was no opportunity to make a profit?
11. How do the laws of supply and demand relate to the prices of goods and services in the marketplace?

### Critical Thinking

12. What can you gain by learning more about the economic system?
13. How do you and your family decide what needs and wants to satisfy? What trade-offs have you made in the marketplace? What were the opportunity costs of your trade-offs?
14. Suppose you started a service business such as babysitting or dog walking. Describe how you would assess the demand for your service.

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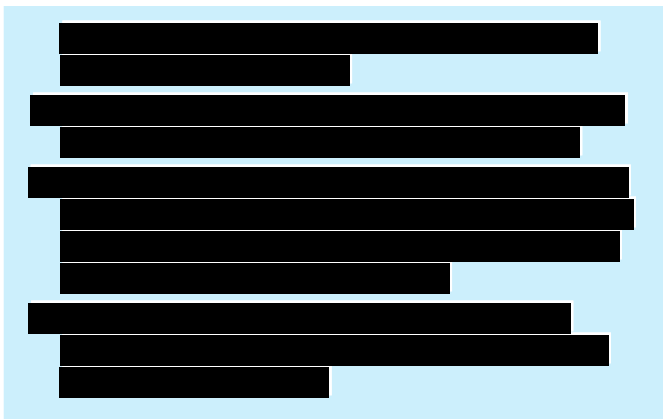
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15. Demonstrate the concept of scarcity in your own life. Make a list of items you want and need over the next five years of your life. What resources will you use to get what you want and need? Will you be able to satisfy all your wants? What compromises or trade-offs will you have to make? What will be some of the opportunity costs of your choices?
16. Interpret the following quote: “One person’s wage increase is another person’s price increase.”

### Academic Connections

17. **Social studies.** Invite an economist or another qualified authority to speak on the role of profits and competition in the U.S. economy.
18. **Reading, research.** Create a bulletin board of newspaper and magazine articles and advertisements illustrating different economic concepts in action.
19. **Research, writing, social studies.** Research a country that has a command economy to discover how industries develop and grow. Write a report of your findings.
20. **Writing.** Search the Internet for information on entrepreneurship at sites such as the U.S. Small Business Administration Teen Business Link ([www.sba.gov/teens](http://www.sba.gov/teens)), National Foundation for Teaching Entrepreneurship ([www.nfte.com](http://www.nfte.com)), or Junior Achievement (<http://studentcenter.ja.org>). Gather information and write a “Do’s and Don’ts” manual for a startup business.



### MATH CHALLENGE

21. Justin graduates from high school in one month. He already has an offer for a full-time job that would pay \$25,000 a year. He is also considering going to college for the next four years. Tuition is \$8,000 a year. Room and board is \$10,000 annually. If he works, he will not be able to make more than \$3,000 a year doing part-time and summer work.
  - A. What is the opportunity cost of attending college?
  - B. What is the total cost of college?
  - C. How many years would it take for college graduate Justin to catch up with the earnings of high school graduate Justin? On average, college graduates earn double what high school graduates earn.

### Tech Smart

22. Use the Internet to research the economic system of each of the following countries. Write a report, including footnotes to the bibliography of your sources.
  - China
  - Cuba
  - Brazil
  - Congo

