

# UNIT 2

# Microeconomics

## CHAPTER 4

### Demand

## CHAPTER 5

### Supply

## CHAPTER 6

### Prices and Decision Making

## CHAPTER 7

### Market Structures

## Why It's Important

As you read this unit, learn how the study of economics helps answer the following questions:

- Why are tickets for some sporting events sold out?
- Why does the price of local farm products such as corn and tomatoes decrease during the summer?



Buyers and sellers in the stock market exemplify the forces of supply and demand.





CLICK HERE

## ECONOMICS Online



To learn more about microeconomics through information, activities, and links to other sites, visit the *Economics: Principles and Practices* Web site at [epp.glencoe.com](http://epp.glencoe.com)

CONTENTS



## CHAPTER

# 4

# Demand

## Economics & You



In Chapter 4, you will learn that demand is more than a desire to buy something: it is the ability and willingness to actually buy it. To learn more about how demand operates in the marketplace, view the Chapter 5 video lesson:

**What is Demand?**

**ECONOMICS**  
*Online*



**Chapter Overview** Visit the *Economics: Principles and Practices* Web site at [epp.glencoe.com](http://epp.glencoe.com) and click on **Chapter 4—Chapter Overviews** to preview chapter information.

People demonstrate demand by their desire, ability, and willingness to pay.

**CLICK HERE**

**CONTENTS**



# What Is Demand?

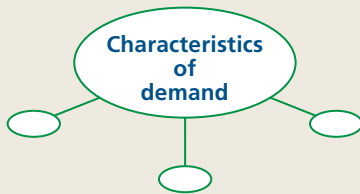
## Study Guide

### Main Idea

Demand is a willingness to buy a product at a particular price.

### Reading Strategy

**Graphic Organizer** As you read this section, use a web diagram similar to the one below to note characteristics of demand.



### Key Terms

demand, microeconomics, demand schedule, demand curve, Law of Demand, market demand curve, marginal utility, diminishing marginal utility

### Objectives

After studying this section, you will be able to:

1. **Describe** and illustrate the concept of demand.
2. **Explain** how demand and utility are related.

### Applying Economic Concepts

**Demand** You express your *demand* for a product when you are willing and able to purchase it. Read to find out how demand is measured.

## Cover Story

### Forecasting Demand

Keith Clinkscales realizes that he must pinpoint what his readers want if his new magazine, *Blaze*, is to succeed. *Blaze* is a magazine for the hip hop movement—focusing on rap music and fashion. As reported in *USA Today*, Clinkscales watches the comings and goings of teenagers at [nearby] Norman Thomas High School. He studies their clothes, hairstyles, and, of course, their music. . . . Clinkscales, 34, notes, “It’s amazing to watch them and observe the passion they have about their music and fashion and overall lifestyle. . . .”

The magazine targets readers ages 12 to 24. “Hip-hop is the octane of the urban culture. We decided to create a publication that will focus on that culture,” says Clinkscales.

Successful magazines gauge demand.



People sometimes think of demand as the desire to have or to own a certain product. In this sense, anyone who would like to own a swimming pool could be said to “demand” one. In order for demand to be counted in the marketplace, however, desire is not enough; it must coincide with the ability and willingness to pay for it. Only those people with **demand**—the desire, ability, and willingness to buy a product—can compete with others who have similar demands.

Demand, like many other topics in Unit 2, is a microeconomic concept. **Microeconomics** is the area of economics that deals with behavior and decision making by small units, such as individuals and firms. Collectively, these concepts of microeconomics help explain how prices are determined and how individual economic decisions are made.

## An Introduction to Demand



A knowledge of demand is essential to understand how a market economy works. As you read in Chapter 2, in a market economy people and firms act in their own best interests to

—*USA Today*, December 30, 1998



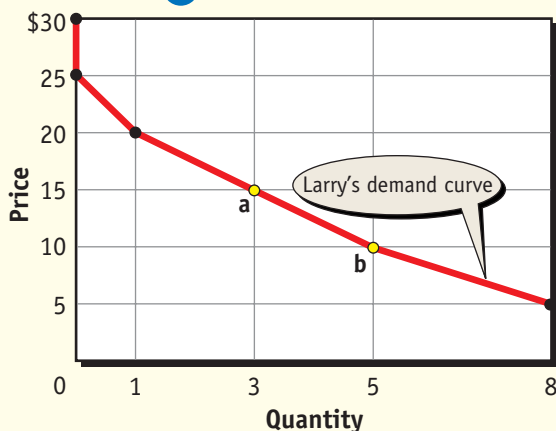
Figure 4.1

## The Demand for Compact Digital Discs

### A Demand Schedule

Price	Quantity Demanded
\$30	0
25	0
20	1
15	3
10	5
5	8

### B Demand Curve



**Using Graphs** The demand schedule on the top lists the quantity demanded at each and every possible price. The demand curve (below) shows the same information in the form of a graph. The demand curve is downward sloping, which means that more will be demanded at lower prices, and fewer at higher prices. **How does the demand curve illustrate the Law of Demand?**

answer the WHAT, HOW, and FOR WHOM questions. Knowledge of demand is also important for sound business planning. This is what an entrepreneur like Keith Clinkscales must do: Find out what type of magazine the hip-hop set is willing and able to buy in order for his project to become a success.

## Demand Illustrated

To illustrate more fully how demand affects business planning, imagine you are opening a bicycle repair shop. Before you begin, you need to know where the demand is. You will want to set up your shop in a neighborhood with many bicycle riders and few repair shops.

After you identify an area in which to locate the shop, how do you measure the demand for your services? You may visit other shops and gauge the reactions of consumers to different prices. You may poll consumers about prices and determine demand from this data. You could study data compiled over past years, which would show consumer reactions to higher and lower prices.

All of these methods would give you a general idea as to the desire, willingness, and ability of people to pay. Gathering precise data on how consumers actually behave, however, is not easy. Even so, it is possible to treat the concept of demand in a more formal manner.

## The Individual Demand Schedule

To see how an economist would analyze demand, look at **Panel A** of **Figure 4.1**. It shows the amount of a product that a consumer, whom we'll call Larry, would be willing and able to purchase over a range of *possible* prices that go from \$5 to \$30. The information in Panel A is known as a **demand schedule**. The demand schedule is a listing that shows the various quantities demanded of a particular product at all prices that might prevail in the market at a given time.

As you can see, Larry would not buy any CDs at a price of \$25 or \$30, but he would buy one if the price fell to \$20, and he would buy three if the price were \$15, and so on. Just like the rest of us, he is generally willing to buy more units of a product as the price gets lower.




## The Individual Demand Curve

The demand schedule information in **Panel A** of **Figure 4.1** can also be shown graphically as the downward-sloping line in **Panel B**. All we have to do is to transfer each of the price-quantity observations in the demand schedule to the graph, and then connect the points to form the curve. Economists call this the **demand curve**, a graph showing the quantity demanded at each and every price that might prevail in the market.

For example, point **a** in **Panel B** shows that three CDs are purchased at a price of \$15 each, while point **b** shows that five will be bought at a price of \$10. The demand schedule and the demand curve are similar in that they both show the same information—one just shows the data in the form of a table while the other is presented in the form of a graph.

## The Law of Demand

 The prices and quantities illustrated in **Figure 4.1** point out an important feature of demand: For practically every product or service, higher prices are associated with a smaller amount demanded. Conversely, lower prices are associated with larger amounts demanded. This is known as the **Law of Demand**, which states that the quantity demanded of a good or service varies inversely with its price. In other words, when the price goes up, quantity demanded goes down. Likewise, when the price goes down, quantity demanded goes up.

## Foundations for the Law of Demand

Stating something in the form of a “law” may seem like a strong statement for a social science like economics to make, but there are at least two reasons why economists prefer to do so. First, the inverse relationship between price and quantity demanded is something that we find in study after study, with people almost always stating that they would buy more of an item if its price goes down, and less if the price goes up. Price is an obstacle, which discourages consumers from buying. The higher this obstacle, the less of a product they will buy; the lower the obstacle, the more they will buy. Second, common sense

and simple observation are consistent with the Law of Demand. This is the way people behave in normal everyday life. People ordinarily do buy more of a product at a low price than at a high price. All we have to do is to observe the increased traffic and purchases at the mall whenever there is a sale.

## The Market Demand Curve

**Figure 4.1** shows a particular *individual’s* demand for a product. Sometimes, however, we are more concerned with the **market demand curve**, the demand curve that shows the quantities demanded by everyone who is interested in purchasing the product. **Figure 4.2** shows the market demand curve **DD** for Larry and his friend Curly, the only two people whom (for simplicity) we assume to be willing and able to purchase CDs.

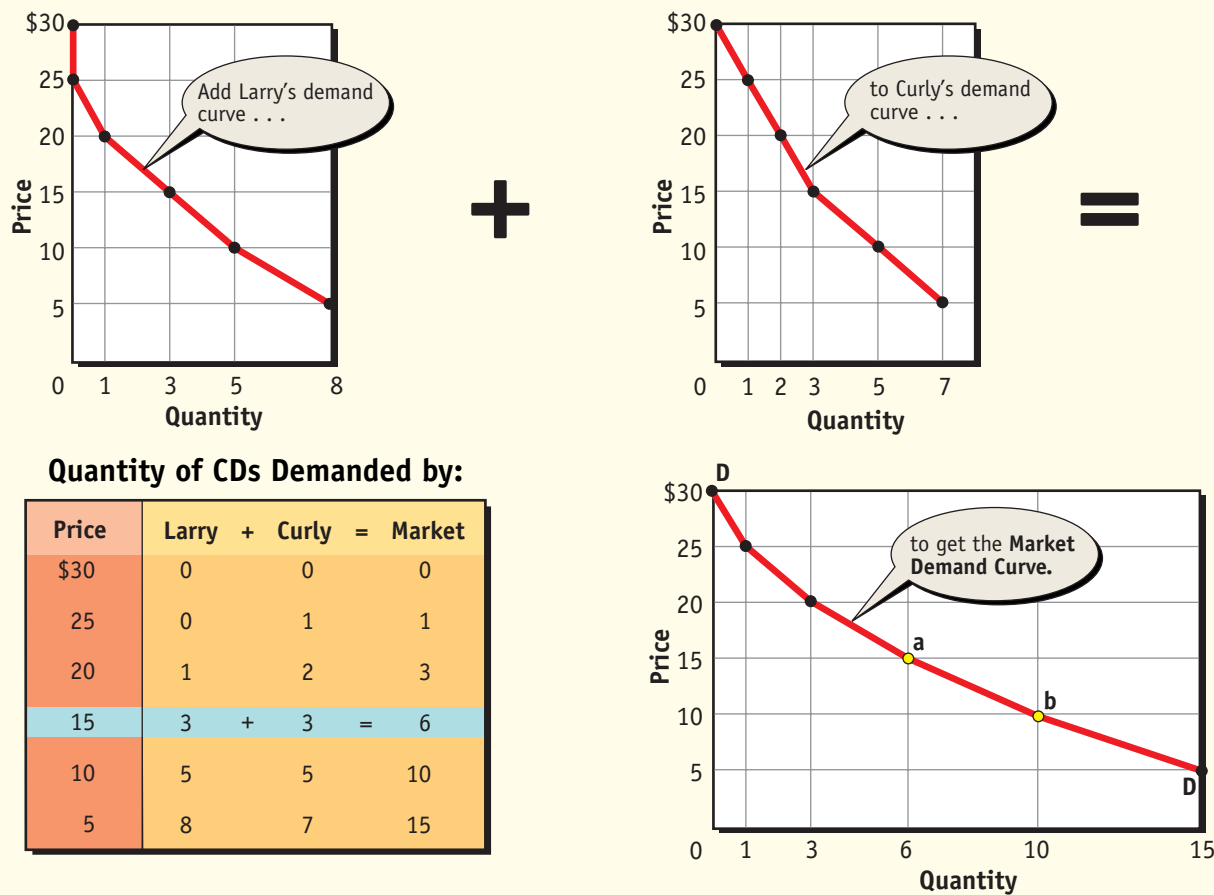
### The Law of Demand



**Demand and Prices** If the prices of televisions drop, consumers will be better able and more willing to buy. *How does this situation reflect the Law of Demand?*



## Individual and Market Demand Curves




**Using Graphs** The market demand curve, DD, is the sum of all individual demand curves in the market. The market demand curve, like the individual demand curve, is also downward sloping. **How does diminishing marginal utility help explain the shape of the demand curve?**

To get the market demand curve is a simple matter. All we need to do is add together the number of CDs that Larry and Curly would purchase at every possible price, and then plot them on a separate graph. To illustrate, point **a** in **Figure 4.2** represents the three CDs that Larry would purchase at \$15, plus the three that Curly would buy at the same price. Likewise, point **b** represents the quantity of CDs that both would purchase at a price of \$10.

The market demand curve in **Figure 4.2** is very similar to the individual demand curve in **Figure 4.1**. Both show a range of possible prices that might prevail in the market at a given time. Both are downward sloping, showing that more will be bought at lower prices, and fewer at higher prices. The only real difference between the two is that the market demand curve shows the demand for *everyone* that is interested in buying the product. Thus, the market demand curve shows the demand for everyone in the market.



## Demand and Marginal Utility

 As you may recall from Chapter 1, economists use the term *utility* to describe the amount of usefulness or satisfaction that someone gets from the use of a product. **Marginal utility**—the extra usefulness or satisfaction a person gets from acquiring or using one more unit of a product—is an important extension of this concept because it explains so much about demand.

The reason we buy something in the first place is because we feel the product is useful and that it will give us satisfaction. However, as we use more and more of a product, we encounter the principle of **diminishing marginal utility**, which states that the extra satisfaction we get from using additional quantities of the product begins to diminish.

Because of our diminishing satisfaction, we are not willing to pay as much for the second, third, fourth, and so on, as we did the first. This is why our demand curve is downward-sloping, and this is why Larry and Curly won't pay as much for the second CD as they did for the first. This is something that happens to all of us all the time. For example, when

you buy a cola, why not buy two, or three, or even more? The answer is that you get the most satisfaction from the first purchase, and so you buy one. You get less satisfaction from the second purchase and even less from the next—so you simply are not willing to pay as much. When you reach the point where the marginal utility is less than the price, you stop buying.

### STANDARD & POOR'S

### INFOBYTE

**Housing Starts** The number of housing starts shows the demand for new homes. Economists forecast housing starts by using the current month's permits as a predictor. Building permits tend to move in tandem with starts on a month-to-month basis. They are also considered to be a leading indicator of the economy in general. Increases in building permits and starts are common during periods following a drop in mortgage rates.

## Section 1 Assessment

### Checking for Understanding

- 1. Main Idea** Using your notes from the graphic organizer activity on page 89, write a definition of demand in your own words.
- 2. Key Terms** Define demand, microeconomics, demand schedule, demand curve, Law of Demand, market demand curve, marginal utility, diminishing marginal utility.
- 3. Describe** the relationship between the demand schedule and demand curve.
- 4. Describe** how the slope of the demand curve can be explained by the principle of diminishing marginal utility.

### Applying Economic Concepts

- 5. Demand** Record the names and approximate prices of the last two items you purchased. In general, would you have spent your money

differently if the price of each item was twice as high? Would you have spent your money differently if each of the items cost half as much as it did? Explain your responses.

### Critical Thinking

- 6. Using Graphs** Create your own demand schedule for an item you currently purchase. Next, plot your demand schedule on a demand curve. Be sure to include correct labels.
- 7. Analyzing Information** Analyze several magazine or newspaper ads to determine how the ads reflect or use the law of diminishing marginal utility.



Practice and assess key social studies skills with the *Glencoe Skillbuilder Interactive Workbook, Level 2*.

# Profiles IN Economics

## Wealth and Influence: Oprah Winfrey

(1954–)

Oprah Winfrey—known to millions simply as “Oprah”—is one of the richest and most powerful women in America. Most people know her as a talk show host, but she has other talents. As an actress, she received an Oscar nomination for Best Supporting Actress in *The Color Purple*. As a businessperson, she is the third woman in history (after Mary Pickford and Lucille Ball) to own a major television and film studio. With an annual income of about \$100 million, she is poised to become the country’s first African American billionaire.

### AGAINST ALL ODDS

Winfrey’s beginnings were humble. She was born to unwed teenage parents in rural Mississippi and grew up in poverty. A troubled childhood followed. Eventually, the teenager went to live with her father, whose insistence on discipline and education soon turned her life around.

At the age of 17, Winfrey became a part-time radio newscaster at Nashville’s WVOL. Two years later, while attending Tennessee State University, she

was hired as a reporter and anchor at WTVF-TV.

In 1976 Winfrey moved to Baltimore, where she found her niche in television as co-host of a Baltimore morning show, *People Are Talking*. Winfrey’s successful experience in Baltimore paved the way for her to become the undisputed “Queen of Talk” in Chicago.

In 1984 Winfrey took over the ailing *AM Chicago* talk show on WLS-TV. She turned it into a smash hit, driving the successful *Phil Donahue Show* to another city and another time slot. In 1986 *The Oprah Winfrey Show* became nationally syndicated. Within months, it was the third-highest-rated show in syndication. It became the number-one talk show, reaching up to ten million people daily in more than 190 cities in 112 countries.

Winfrey became the first African American woman to own her own television and film production

complex, Harpo Productions, Inc. (Harpo is Oprah spelled backwards.)

### MAKING A DIFFERENCE

Winfrey uses her wealth and influence to make a difference in the lives of others. Under her guidance, *The Oprah Winfrey Show* avoids sensationalism, focusing instead on issues of empowerment and self-improvement.

Winfrey is also a staunch children’s rights activist. She proposed a bill to create a national database of convicted child abusers, which President Clinton signed into law in 1994.

### Examining the Profile

- 1. Drawing Conclusions** Why is Oprah Winfrey considered one of the most powerful women in America?
- 2. For Further Research** Make an annotated time line of Winfrey’s career, highlighting her major achievements.



# Factors Affecting Demand

## Study Guide

### Main Idea

There are a number of factors that will cause demand to either increase or decrease.

### Reading Strategy

**Graphic Organizer** As you read about the determinants of demand, list each on a table similar to the one below and provide an example of each.

**Determinants of Demand**

Determinant	Example

### Key Terms

change in quantity demanded, income effect, substitution effect, change in demand, substitutes, complements

### Objectives

After studying this section, you will be able to:

1. **Explain** what causes a change in quantity demanded.
2. **Describe** the factors that could cause a change in demand.

### Applying Economic Concepts

**Change in Demand** Would you buy more clothes if your employer doubled your salary? Read to find out what causes a *change in demand*.

## Cover Story

### America's Pastime?

Myles Monaghan could almost be the next Alex Rodriguez. He's got a cannon for an arm. He almost never drops the ball. And on a good day, he can knock a pitch clear out of the park. So how come he spent his last few springs playing lacrosse?

"BASEBALL IS BORING," says the 12-year-old Larchmont, N.Y., jock.

Nationwide, the average number of children playing America's once-favorite pastime has tumbled nearly 20% according to the Sporting Goods Manufacturers Association. Sales of everything from balls to baseball cards are falling.

Consumer preferences cause a change in demand.



The demand curve is a graphical representation of the quantities that people are willing to purchase at all possible prices that might prevail in the market. Occasionally, however, something happens to change people's willingness and ability to buy, as exemplified in the cover story. These changes are usually of two types: a change in the quantity demanded, and a change in demand.

## Change in the Quantity Demanded

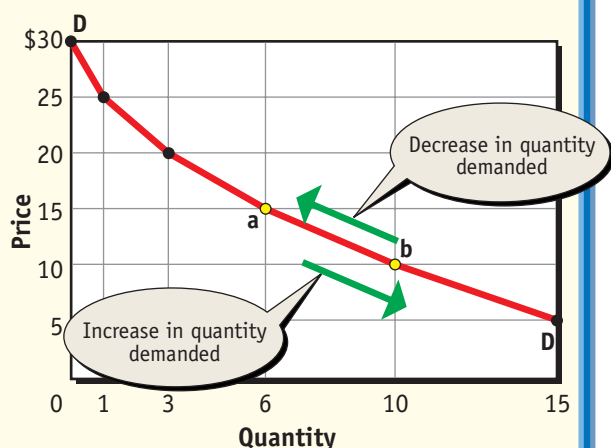
Point **a** on the demand curve in **Figure 4.3** shows that six CDs are demanded when the price is \$15. When the price falls to \$10, however, 10 CDs are demanded. This movement from point **a** to point **b** shows a **change in quantity demanded**—a movement along the demand curve that shows a change in the quantity of the product purchased in response to a change in price.

We already know that the principle of diminishing marginal utility provides an intuitive explanation of why the demand curve is downward sloping. As we will see below, the income and substitution effects can also add to our understanding of demand.

—MSNBC News (online), June 15, 2001

Figure 4.3

## A Change in Quantity Demanded



**Using Graphs** A change in price causes a change in quantity demanded. When the price goes down, the quantity demanded increases. When the price goes up, the quantity demanded goes down. Both changes appear as a movement along the demand curve. **Why do price and quantity demanded move in opposite directions?**

## The Income Effect

When prices drop, consumers pay less for the product and, as a result, have some extra real income to spend. At a price of \$15 per CD, Larry and Curly spent \$90 to buy six CDs. If the price drops to \$10, they would spend only \$60 on the same quantity—leaving them \$30 “richer” because of the drop in price. They may even spend some of their savings on more CDs. As a result, part of the increase from 6 to 10 units purchased is due to consumers feeling richer.


Of course, the opposite would have happened if the price had gone up. Larry and Curly would have felt a bit poorer and would have bought fewer. This illustrates the **income effect**, the change in quantity demanded because of a change in price that alters consumers’ real income.

## The Substitution Effect

A lower price also means that CDs will be relatively less expensive than other goods and services such as concerts and movies. As a result, consumers will have a tendency to replace a more costly item—say, going to a concert—with a less costly one—CDs. The **substitution effect** is the change in quantity demanded because of the change in the *relative* price of the product. Together, the income and substitution effects explain why consumers increase consumption of CDs from 6 to 10 when the price drops from \$15 to \$10.

Note that whenever a change in price causes a change in quantity demanded, the change appears graphically as a movement *along* the demand curve. The change in quantity demanded, as illustrated in **Figure 4.3**, can be either an increase or a decrease—but in either case the demand curve itself does not shift.

## Change in Demand

 Sometimes something happens to cause the demand curve itself to shift. This is known as a **change in demand** because people are now willing to buy *different* amounts of the product at the same prices. As a result, the entire demand curve shifts—to the right to show an increase in demand or to the left to show a decrease in demand for the product. Therefore, a change in demand results in an entirely new curve.

A change in demand is illustrated in the schedule and graph in **Figure 4.4**. Note that there is a new column in the demand schedule showing that people are willing to buy more at each and every price. At a price of \$15, for example, consumers are now willing to buy 10 CDs instead of 6, moving from point **a** to point **a'**. At \$10, they are willing to buy 15 CDs instead of 10, and so on. When this information is transferred to the graph, the demand curve appears to have shifted to the right to show an increase in demand.

The demand curve can change for several reasons. When this happens, a new schedule or curve must be constructed to reflect the new demand at all possible prices. Demand can change because of changes in income, tastes, the price of related goods, expectations, and the number of consumers.



CLICK HERE

## ECONOMICS Online



**Student Web Activity** Visit the *Economics: Principles and Practices* Web site at [epp.glencoe.com](http://epp.glencoe.com) and click on **Chapter 4—Student Web Activities** for an activity on change in demand.

### Consumer Income

Changes in consumer income can cause a change in demand. When your income goes up, you can afford to buy more goods and services. As incomes rise, consumers are able to buy more products at each and every price. When this happens, the demand curve shifts to the right. Suppose, for example, that Larry and Curly get a raise, which allows them to buy more CDs. Instead of Larry and Curly each buying 3 for a total of 6, they can now each buy 5—for a total of 10. If we find out how many CDs would be purchased at every possible price in the market, and if we plot the information as a demand curve as in **Figure 4.4**, then it appears as if the curve has shifted to the right.

Exactly the opposite could happen if there was a decrease in income. If Larry and Curly's raise turned out to be temporary, then the loss in income would cause them to buy less of the good at each and every price. The demand curve then shifts to the left, showing a decrease in demand.

### Consumer Tastes

Consumers do not always want the same things. Advertising, news reports, fashion trends, the introduction of new products, and even changes in the season can affect consumer tastes. For example, when a product is successfully advertised in the media or on the Internet, its popularity increases and people tend to buy more of it. If consumers want more of an item, they would buy more of it at each and every price. As a result, the demand curve shifts to the right.

On the other hand, if people get tired of a product, they will buy less at each and every price, causing the demand curve to shift to the left. This is exactly what happened to the demand for baseball

products described in the cover story. When fewer people play baseball, the demand for related products declines, with fewer items demanded at each and every price.

In addition, the development of new products can have an effect on consumer tastes. Years ago, many students carried slide rules to school to work out math and science problems. Now they use pocket calculators instead of slide rules. The demand for calculators has increased while the demand for slide rules has decreased.

Sometimes tastes and preferences change by themselves over time. In recent years, consumer concerns about health have greatly increased the demand for healthier, less-fattening foods. Demand for smaller, more fuel-efficient cars has grown, driven by a change in tastes.

## Careers

### Statistician

Who will win the next election? How many consumers will buy a certain new product? People who try to answer such questions are statisticians.

#### The Work

Statisticians work for the government and in industry gathering and interpreting data about the economy, health trends, and so on. They also work for industries and public opinion research organizations. One way statisticians gather information is by taking samples. They cannot question all the adults in this country about their activities, but they can get a fairly accurate picture by asking a sample of a few hundred people.

#### Qualifications

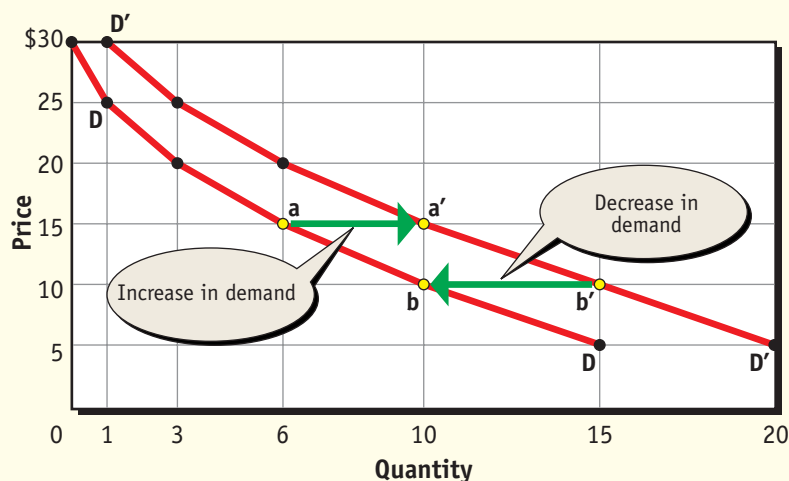
To become a statistician, you should have an aptitude for and an interest in mathematics and computers. Although some jobs are available for people with a bachelor's degree, many jobs require a graduate degree in mathematics or statistics. If you think you want a career in statistics, you should take business, math, and science courses.



## A Change in Demand

Quantity Demanded

Price	Old (D)	New (D')
\$30	0	1
25	1	3
20	3	6
15	6	10
10	10	15
5	15	20



**Using Graphs** A change in demand means that a different quantity is demanded at each and every possible price in the market. An increase in demand appears as a shift of the demand curve to the right. A decrease appears as a shift to the left. **What might cause a change in demand for CDs?**

## Substitutes

A change in the price of related products can cause a change in demand. Some products are known as **substitutes** because they can be used in place of other products. For example, butter and margarine are substitutes. A rise in the price of butter causes an increase in the demand for margarine. Likewise, a rise in the price of margarine would cause the demand for butter to increase. In general, the demand for a product tends to increase if the price of its substitute goes up. The demand for a product tends to decrease if the price of its substitute goes down.

## Complements

Other related goods are known as **complements**, because the use of one increases the use of the other. Personal computers and software are two complementary goods. When the price of computers decreases, consumers buy more computers *and* more software. In the same way, if the price of computers spirals upward, consumers would buy

fewer computers and less software. Thus, an increase in the price of one good usually leads to a decrease in the demand for its complement.

Companies have made use of this relationship for a number of years. For example, the Gillette Corporation makes razor handles and razor blades. To generate a high demand for their products, the price of razor handles is kept low. The profit earned on each razor handle is small, but the razor blades are sold at very profitable prices. As a result, the company is able to use the profits on the blades to more than offset the losses on the handles. Given the complementary nature of the two products, it is unlikely that demand for Gillette blades would have been as high if the handles had been more expensive.

## Change in Expectations

“Expectations” refers to the way people think about the future. For example, suppose that a leading maker of audio products announces a technological



breakthrough that would allow more music to be recorded on a smaller disk at a lower cost than before. Even if the new product might not be available for another year, some consumers might decide to buy fewer musical CDs today simply because they want to wait for a better product. Purchasing less at each and every price would cause demand to decline, which is illustrated by a shift of the demand curve to the left.

Of course, expectations can also have a very different effect on market demand. For example, if the weather service forecasts a bad year for crops, people might stock up on some foods before they actually become scarce. The willingness to buy more at each and every price because of expected future shortages would cause demand to increase, which is demonstrated by a shift of the demand curve to the right.

## Number of Consumers

A change in income, tastes, and prices of related products affects *individual* demand schedules and curves—and hence the *market* demand curve, which is the sum of all individual demand curves. It follows, therefore, that an increase in the number of consumers can cause the market demand curve to shift.

## Did you know?

**Shelling Out** During colonial times, when a more traditional economy existed, money was in short supply. People often used shelled corn to pay for goods and services. Although the practice of using shelled corn as money has not survived, the slang expression *shell out*—meaning *pay for*—has.

To illustrate, suppose Moe, one of Larry's and Curly's old friends, now decides to purchase compact discs. If we add the number of CDs that Moe would demand at each and every possible price to the others shown in **Figure 4.2**, the market demand curve **DD** would shift to the right. This would not affect the other individual demand curves, of course, but, as we shall see later in Chapter 6, it will affect the prices that everyone will pay for CDs. If Larry or Moe should leave the market the total number of CDs purchased at each and every price would decrease. This shifts the market demand curve to the left. The result is a decline in market demand whenever anyone leaves the market.

## Section 2 Assessment

### Checking for Understanding

- 1. Main Idea** How does the income effect explain the change in quantity demanded that takes place when the price goes down?
- 2. Key Terms** Define change in quantity demanded, income effect, substitution effect, change in demand, substitutes, complements.
- 3. Describe** the difference between a change in quantity demanded and a change in demand.
- 4. Explain** how a change in price affects the demand for a product's substitute(s).

### Applying Economic Concepts

- 5. Change in Demand** Name a product that you recently purchased because it was on sale.

Identify one substitute and one complement for that product. What happened to your demand for the substitute good when the item you bought went on sale? What happened to your demand for the complementary good when that item went on sale?

### Critical Thinking

- 6. Understanding Cause and Effect** What happens to the price and the quantity of goods and services sold when a store runs a sale? How do these factors relate to the downward-sloping curve?



Practice and assess key social studies skills with the *Glencoe Skillbuilder Interactive Workbook, Level 2*.

# BusinessWeek

DECEMBER 14, 1998

## Newsclip

*McDonald's opened its first restaurant in Des Plaines, Illinois, in 1955. In 1967 McDonald's opened its first restaurants in cities in other countries. Today, the company operates nearly 25,000 McDonald's restaurants in 115 countries on six continents. Multinational companies, like McDonald's, are huge companies that carry out their activities on a global scale, selling their products worldwide. Read to find out how McDonald's must adapt its menu to local tastes.*

## Holding the Fries “At the Border”

Your stomach starts growling and you want a quick fix, so you head to the nearest Gold Arches for a Big Mac and . . . rice?

Rice is what you'll probably end up with these days if your local McDonald's is in Indonesia. With the collapse of the Indonesian currency, the rupiah, in 1998, potatoes, the only ingredient McDonald's imports to the island nation, have quintupled in price. That means rice is turning with an increasing frequency as an alternative to the french fry. In September 1998 McDonald's introduced a rice and eggs dish, and its value meals now consist of just chicken and a drink—but no potatoes. It's not hard to fathom why fries are an

endangered menu item says Jack Greenberg, CEO of McDonald's: “No one can afford them.”

The company has long tailored menus at its 24,000 worldwide restaurants to local tastes, though not out of economic distress. In other Asian markets weakened currencies have made it cheaper to build new outlets: 2,000 are anticipated [by the year 2002]. But Indonesia's situation is so disastrous, says Greenberg, that McDonald's will close 30 of its 100 stores there.



—Reprinted from December 14, 1998 issue of *Business Week*, by special permission, copyright © 1998 by The McGraw-Hill Companies, Inc.

### Examining the Newsclip

- 1. Understanding Cause and Effect** Why did McDonald's change its menu in Indonesia?
- 2. Synthesizing Information** Did McDonald's introduce rice to its Indonesian menu in response to a change in consumer tastes? Explain your reasoning.
- 3. Making Predictions** What will happen if the change in the menu increases demand? Explain your answer.



CONTENTS



# Elasticity of Demand

## Study Guide

### Main Idea

Consumers react differently to price changes depending on whether the good is a necessity or a luxury.

### Reading Strategy

**Graphic Organizer** As you read about price elasticity, complete a web like the one below to illustrate what effect a change in price has on products that are elastic, inelastic, or unit elastic.



### Key Terms

elasticity, demand elasticity, elastic, inelastic, unit elastic

### Objectives

After studying this section, you will be able to:

1. **Explain** why elasticity is a measure of responsiveness.
2. **Analyze** the elasticity of demand for a product.
3. **Understand** the factors that determine demand elasticity.

### Applying Economic Concepts

**Elasticity of Demand** What are you willing to pay to see a popular movie? Read to find out about the *elasticity of demand* for a product and what factors influence your willingness and ability to pay for a product.

## Cover Story

### Setting Prices

It is always a difficult problem knowing how best to price a product. . . . When the product is one in a new and rapidly evolving industry, like the microcomputer industry in the 1980s, the decision is doubly difficult. Was it best to charge a high price and sell a smaller number of disks or charge a lower price and aim for volume? One software producer decided to [test] the market for its new accounting program at different prices. The firm, Noumenon Corporation, raised prices in increments of \$20 all the way up to \$210. They found that total revenue was maximized at a price of \$90. As a result of this experiment, they decided to advertise and market the Intuit Accounting program at \$89.95, much lower than the prices of competing software programs.

—Adapted from *The Study of Economics*, by Turley Mings, Dushkin Publishing



Demand helps determine price.

Cause-and-effect relationships are important in the study of economics. For example, we often ask, “if one thing happens, how will it affect something else?” The software manufacturer in the cover story used a cause-and-effect relationship to set the price for its product.

An important cause-and-effect relationship in economics is **elasticity**, a measure of responsiveness that tells us how a dependent variable such as quantity responds to a change in an independent variable such as price. Elasticity is also a very general concept. It can be applied to income, the quantity of a product supplied by a firm, or to demand.

## Demand Elasticity



In the case of demand, you will consider whether a given change in price will cause a relatively *larger*, a relatively *smaller*, or a *proportional* change in quantity demanded. Consumers are sensitive to prices and that is why the Noumenon Corporation conducted so many experiments to find the best price for its accounting software. An understanding of **demand elasticity**—the extent to which a change in price causes a change in the



# THE GLOBAL ECONOMY

## TRADING GOLD FOR SALT

**What determines how much demand there will be for a good or service? The scarcity of the good or service plays an important role.**

If you could choose between a pile of salt and a pile of gold, you would probably choose the gold. After all, you know that you can always buy a container of salt for about forty-five cents at the local supermarket. But what if you could not easily get salt?

Throughout history, salt has been very difficult to obtain in many parts of the world. Salt was used in food as a preservative and for flavor. People feared a lack of salt as we fear a shortage of fuel oil today.

Long ago, the Akan people of West Africa could not mine salt and always needed to trade for it. Gold, however, was much easier to come by. The people who lived in the desert of North Africa could easily mine salt, but not gold. These mutual differences led to the establishment of long-distance trade routes that connected very different cultures. Trade centers, such as Djenne and Timbuktu on the Niger River, flourished, as a demand for goods was satisfied.

—Adapted from *Smithsonian In Your Classroom*

### Critical Thinking

1. **Analyzing Information** How did the Akan people meet their demand for salt?
2. **Drawing Conclusions** Suppose the Akan found a method to produce all the salt they needed. What changes in trade do you think might occur? Explain your reasoning.

quantity demanded—will help analyze these issues. The demand for most products is such that consumers do care about changes in prices—and the concept of elasticity tells us just how sensitive consumers are to these changes.

## Elastic Demand

Economists say that demand is **elastic** when a given change in price causes a relatively larger change in quantity demanded. To illustrate, look at how price and quantity demanded change between points **a** and **b** on the demand curve in **Panel A** of **Figure 4.5**.

As we move from point **a** to point **b**, we see that price declines by one-third, or from \$3 to \$2. At the same time, the quantity demanded doubles from two to four units. Because the percentage change in quantity demanded was relatively larger than the percentage change in price, demand between those two points is elastic.

This type of elasticity is typical of the demand for products like green beans, corn, tomatoes, or other fresh garden vegetables. Because prices are lower in the summer, consumers increase the

amount they purchase. When prices are considerably higher in the winter, however, consumers normally buy fewer fresh vegetables and use canned products instead.

## Inelastic Demand

For other products, demand may be largely **inelastic**, which means that a given change in price causes a relatively smaller change in the quantity demanded. We can see the case of inelastic demand in **Panel B** of **Figure 4.5**. In this case, the one-third drop in price from point **a'** to **b'** only causes quantity demanded to increase by 25 percent, or from two to two and one-half units.


This is typical of the demand elasticity for a product like table salt. A lower or higher price for table salt does not bring about much change in the quantity purchased. If the price was cut in half, the quantity demanded would not increase by much because people can consume only so much salt. Or, if the price doubled, we would expect consumers to demand about the same amount because the portion of a person's budget that is spent on salt is so small.



## Unit Elastic Demand

Sometimes demand for a product or service falls midway between elastic and inelastic. When this happens, demand is **unit elastic**, meaning that a given change in price causes a proportional change in quantity demanded. In other words, when demand is unit elastic, the percent change in quantity roughly equals the percent change in price. For example, a five percent drop in price would cause a five percent increase in quantity demanded. Unit elastic demand is illustrated in **Panel C of Figure 4.5**.

## The Total Expenditures Test

 To estimate elasticity, it is useful to look at the impact of a price change on total expenditures, or the amount that consumers spend on a product at a particular price. This is sometimes called the total expenditures test.

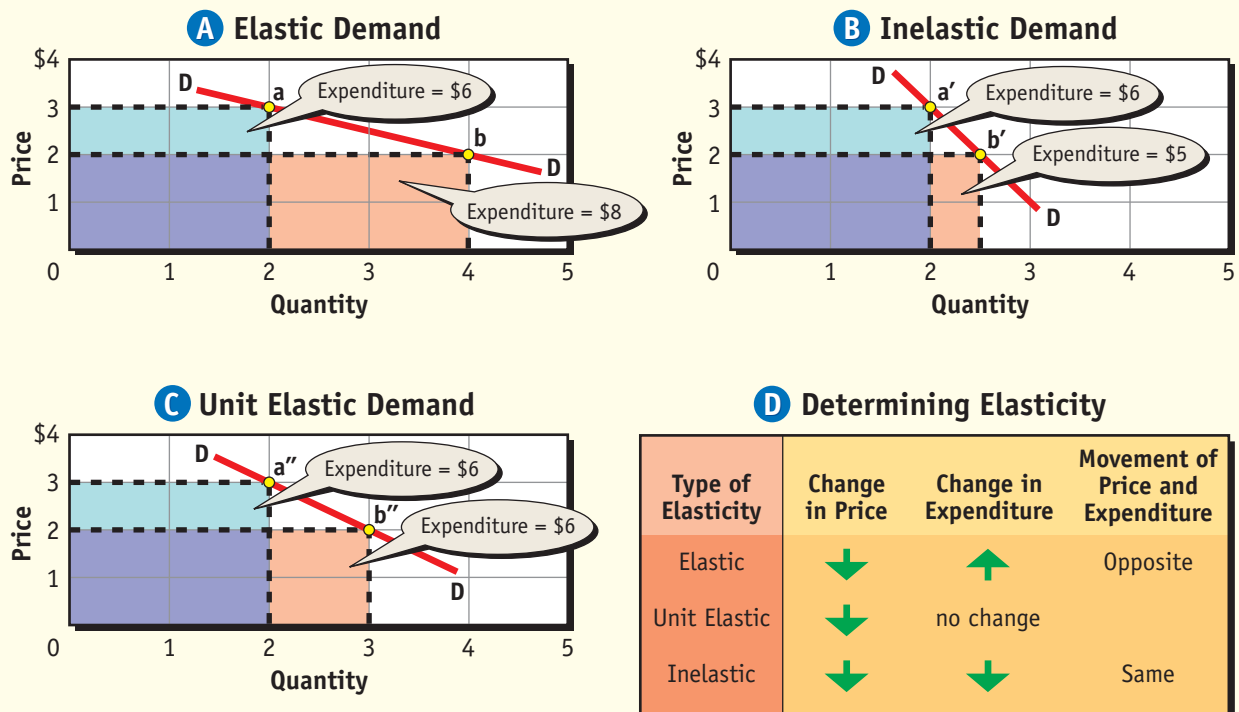
## Determining Total Expenditures

Total expenditures are found by multiplying the price of a product by the quantity demanded for any point along the demand curve. To illustrate, the total

### ECONOMICS AT A GLANCE

Figure 4.5

## The Total Expenditures Test for Demand Elasticity



**Using Graphs** The key to determining elasticity is to examine how expenditures change when the price changes. If they move in opposite directions, then demand is elastic. If they move in the same direction, then demand is inelastic. If there is no change in expenditures, then demand is unit elastic. **Why is an understanding of elasticity important for business?**

expenditure under point **a** in **Panel A** of **Figure 4.5** is \$6, which is determined by multiplying two units times the price of \$3. Likewise, the total expenditure under point **b** in **Panel A** is \$8, or \$2 times four units. By observing the change in total expenditures when the price changes, we can test for elasticity.

### Three Results

The relationship between changing prices and total expenditures is summarized in **Figure 4.5**. For each of the demand curves, the impact on total expenditures for a decrease in price from \$3 to \$2 is shown. In each case, the change in expenditures depends on the elasticity of the demand curve.

The demand curve in **Panel A** is elastic. When the price drops by \$1 per unit, the increase in the quantity demanded is large enough to raise total expenditures from \$6 to \$8. The relationship

between the change in price and total expenditures for the elastic demand curve is described as “inverse.” In other words, when the price goes down, total expenditures go up.

The demand curve in **Panel B** is inelastic. In this case, when the price drops by \$1, the increase in the quantity demanded is so small that total expenditures fall below \$6. For inelastic demand, total expenditures decline when the price declines. Finally, the demand curve in **Panel C** is unit elastic. This time, total expenditures remain unchanged when the price decreases from \$3 to \$2.

The relationship between the change in price and the change in total expenditures is shown in **Panel D** of **Figure 4.5**. As you can see, if the change in price and expenditures move in opposite directions, demand is elastic. If they move in the same direction, demand is inelastic. If there is no change in expenditure, demand is unit elastic.

## CYBERNOMICS SPOTLIGHT

### Revolution in E-Commerce

*Innovations in shopping are nothing new. The growth of the department store at the turn of the century answered the needs of the growing number of urban consumers. Meanwhile, generations of Americans, especially those in remote farming communities, depended upon catalog shopping through Montgomery Ward and Sears & Roebuck to get the latest in fashion, housewares, appliances, and even home-building kits. The shopping centers of the mid-twentieth century were replaced by gigantic shopping malls. In the 1990s, new technologies provided convenience and ease of use for customers. Home shopping—catalog, TV, and Internet—has grown into a multibillion dollar business. Today, entrepreneurs such as Jeff Bezos of Amazon.com Inc. are transforming our shopping habits.*

**Birth of an Internet Company** Just as Sears and Montgomery Ward reached customers through their catalogs, today's entrepreneurs do the same online. Few, however, have been as successful as Jeff Bezos with

Amazon. In 1994, Bezos decided to stake a claim on the unknown frontier of Internet retail. He quit his job on Wall Street and moved to Seattle. He rented a garage and borrowed money to start a business where people could make their book purchases over the Internet. Amazon debuted on the World Wide Web in July 1995.



Jeff Bezos, founder of Amazon.com

**Unique Appeal to Customers** What are the reasons for Amazon's success? An important factor is that Amazon provides services that regular stores don't. People who search for a book at the Amazon site often find a description accompanied by excerpts from reviews—not only from print sources but from customers. Authors, too, are invited to comment on their own works. And Amazon asks customers which kinds of books they like. When books in the same category or by



Finally, and even though all the price changes discussed above were decreases, the results would be the same if prices had gone up instead of down. If the price rises from \$2 to \$3 in **Panel A**, spending falls from \$8 to \$6. Prices and expenditures still move in opposite directions, as shown in the table.

## Elasticity and Profits

All of this discussion about elasticity may seem technical and somewhat unnecessary, but knowledge of demand elasticity is extremely important to businesses. Suppose, for example, that you are in business and that you want to do something that will raise your profits. Of course you could try to cut costs, or you could even try to advertise in order to increase the number of units sold. You might, however, be tempted to raise the price of your product in order to increase total revenue from sales.

This might actually work in the case of table salt, or even medical services, because the demand for both products is generally inelastic. But, what if you sell a product that has an elastic demand? If you raise the price of your product, your total revenues—which is the same thing as consumer expenditures—will go *down* instead of up. This outcome is exactly the opposite of what you intend!

This is exactly why the Noumenon Corporation in the cover story experimented with so many different prices when they introduced their accounting software program. By discovering the elastic nature of demand for their new product, they were able to increase their total revenues by charging a relatively low price rather than a much higher one. This example illustrates that demand elasticity is more important than most people realize.

### Did You Know?

**Internet Shopping** According to research analysts, two billion orders were placed over the Internet in 1999, generating \$95 billion in revenue. Researchers estimate e-commerce revenue will top \$2.7 trillion globally by 2004 (up from \$15 billion in 1997).

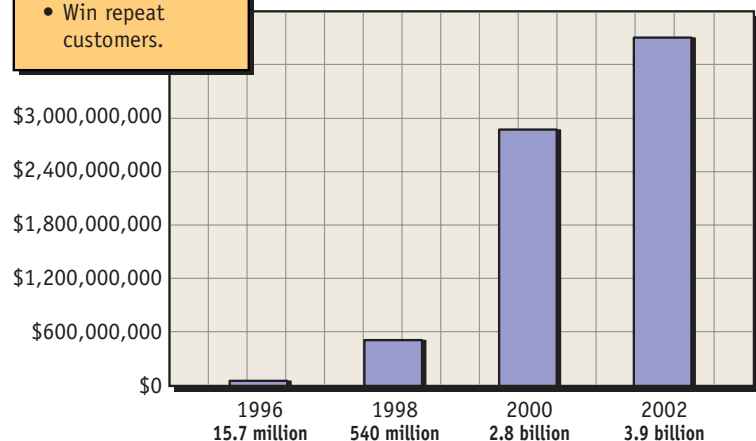
the same author appear, the company sends E-mail inviting people to buy them.

**Growth and Development** Bezos has bigger plans for the future. He wants Amazon to serve as the gateway for more products. Among its innovations, Amazon added music in 1998 and auctions in 1999. Today it sells apparel and accessories, office products, electronics, and kitchen and home products. To accommodate this expansion, the company retooled its warehouses to offer faster service. Bezos believes Amazon is successful because it values its customers. “The Internet is this big, huge hurricane,” Bezos notes. “The only constant in the storm is the customers.” Today Amazon serves millions of customers in more than 200 countries. Amazon must be doing something right, because in 1993, the American Society for Quality announced that Amazon received the highest American Customer Satisfaction Index (ACSI) score ever recorded—either online or offline.

### Amazon's Strategy

- Make it easy for visitors to find what they want.
- Encourage visitor participation.
- Win repeat customers.

### Amazon's Sales



## Estimating the Elasticity of Demand

### Products

Determinants of elasticity Yes (elastic) No (inelastic)	Fresh tomatoes, corn, or green beans	Table salt	Gasoline from a particular station	Gasoline in general	Services of medical doctors	Insulin	Butter
Can purchase be delayed?	yes	no	yes	no	no	no	yes
Are adequate substitutes available?	yes	no	yes	no	no	no	yes
Does purchase use a large portion of income?	no	no	yes	yes	yes	no	no
Type of elasticity	Elastic	Inelastic	Elastic	Inelastic	Inelastic	Inelastic	Elastic

**Using Tables** The elasticity of demand can usually be estimated by examining the answers to three key questions. All three answers do not have to be the same in order to determine elasticity, and in some cases the answer to a single question is so important that it alone might dominate the answers to the other two. **If you applied the three questions to a luxury product, what would be the elasticity of demand for that product?**

## Determinants of Demand Elasticity



What makes the demand for a specific good elastic or inelastic? To find out, we can ask three questions about the product. The answers will give us a reasonably good idea as to the product's demand elasticity.

### Can the Purchase Be Delayed?

A consumer's need for a product is sometimes urgent and cannot be put off. Whenever this happens, demand tends to be inelastic, meaning that the quantity of the product demanded is not especially sensitive to changes in price.

For example, persons with diabetes need insulin to control the disorder. An increase in its price is not likely to make diabetes sufferers delay buying and using the product. Likewise, the demand for tobacco

also tends to be inelastic because the product is addictive. As a result, a sharp increase in price will lower the quantity purchased by consumers, but not by very much. The change in quantity demanded is also likely to be relatively small for these products when their prices go down instead of up.

If the product were corn, tomatoes, or gasoline from a particular station, however, people might react differently to price changes. If the prices of these products increase, consumers could delay buying any of these items without suffering any great inconvenience. Being able to delay or postpone the purchase of a product, then, is a characteristic of elastic demand.

**Figure 4.6** summarizes some of these observations. Note that if the answer is yes to the question "Can the purchase be delayed?" then the demand for the product is likely to be elastic. If the answer is no, then demand is likely to be inelastic.



## Are Adequate Substitutes Available?

If adequate substitutes are available, consumers can switch back and forth between a product and its substitute to take advantage of the best price. If the price of beef and butter goes up, buyers can switch to chicken and margarine. With enough substitutes, even small changes in the price of a product will cause people to switch, making the demand for the product elastic. The fewer substitutes available for a product, the more inelastic the demand.

Sometimes the consumer only needs to have a single adequate substitute in order to make the demand for the product elastic. Historically, for example, there were few adequate substitutes for a letter sent through the post office. As technology has progressed, fax machines allow messages to be transmitted over phone lines, and, perhaps most significantly, the personal computer has helped make electronic mail (E-mail) popular. As a result, it is extremely difficult for the U.S. Postal Service to increase its total revenues by significantly raising the price of a first-class letter.

Also, note that the availability of substitutes also depends on the extent of the market. For example, the demand for gasoline from a particular station tends to be elastic because the consumer can buy

gas at another station. If we ask about the demand for gasoline in general, however, demand is much more inelastic because there are few adequate substitutes for gasoline.

## Does the Purchase Use a Large Portion of Income?

The third determinant is the amount of income required to make the purchase. Whenever the answer to the question “Does the purchase use a large portion of income?” is yes, then demand tends to be elastic. Demand tends to be inelastic whenever the answer to this question is no.

Finally, you may have noticed that for any given product, the answer is not necessarily yes or no. For example, some products such as salt or insulin may be easy to classify, but we have to use our judgment on others. For example, the demand for medical services tends to be inelastic even though these services require a large portion of income. As far as most people are concerned, the lack of adequate substitutes and the reluctance to put off seeing a doctor when they are sick are more important than the relatively large portion of income that medical services consume.

### Section 3 Assessment

#### Checking for Understanding

- 1. Main Idea** What luxuries do you think would have a higher price elasticity than others? Give three examples and explain why you think they would have an exceptionally high elasticity.
- 2. Key Terms** Define elasticity, demand elasticity, elastic, inelastic, unit elastic.
- 3. Describe** the three determinants of demand elasticity.
- 4. Explain** why the demand for insulin is inelastic.
- 5. Explain** why an item that has many close substitutes tends to have an elastic demand.

#### Applying Economic Concepts

- 6. Elasticity of Demand** Why are airlines reluctant to offer reduced round-trip fares during holidays such as Christmas, Easter, and Thanksgiving? Refer to the three determinants of demand elasticity in your answer.

### Critical Thinking

- 7. Understanding Cause and Effect** A hamburger stand raised the price of its hamburgers from \$2.00 to \$2.50. As a result, its sales of hamburgers fell from 200 per day to 180 per day. Was the demand for its hamburgers elastic or inelastic? How can you tell?



Practice and assess key social studies skills with the *Glencoe Skillbuilder Interactive Workbook, Level 2*.

# CRITICAL THINKING

## Skill

### Understanding Cause and Effect

Understanding cause and effect involves considering *why* an event occurred. A *cause* is the action or situation that produces an event. What happens as a result of a cause is an *effect*.



One of the key factors that determines demand is people's tastes.

### Learning the Skill

To identify cause-and-effect relationships, follow these steps:

- Identify two or more events or developments.
- Decide whether one event caused the other. Look for clue words such as *because*, *led to*, *brought about*, *produced*, *as a result of*, *so that*, *since*, and *therefore*.
- Look for logical relationships between events, such as "She overslept, and then she missed her bus."
- Identify the outcomes of events. Remember that some effects have more than one cause, and some causes lead to more than one effect. Also, an effect can become the cause of yet another effect.

### Practicing the Skill

Analyze the statements below. Then, on a separate piece of paper, list the causes and effects found in each statement.

1. Historically, prices have shown their greatest fluctuations in times of war.
2. The government also is confronted with scarcity, and must make choices.
3. Because of scarcity, people, businesses, and the government must all make trade-offs in choosing the products they want the most.
4. When a choice is made, an opportunity cost is paid.
5. It is impossible for us to produce all the products we would like to have because the factors of production exist in limited quantities.
6. Because consumers don't always want the same things, items that are popular now may not sell in the future.
7. If income increases, people can afford to buy more products.
8. If the price of butter goes up, more people would buy margarine instead.

### Application Activity

In your local newspaper, read an article describing a current event. Determine at least one cause and one effect of that event. Show the cause-and-effect relationship in a diagram like the one here.



Practice and assess key social studies skills with the *Glencoe Skillbuilder Interactive Workbook, Level 2*.



# Chapter 4 Summary

## Section 1

### What Is Demand? (pages 89–93)

- **Microeconomics** is the area of economic study that deals with individual units in an economy, such as households, business firms, labor unions, and workers.
- You express **demand** for a product when you are both willing and able to purchase it.
- Demand can be summarized in a **demand schedule**, which shows the various quantities that would be purchased at all possible prices that might prevail in the market.
- Demand can also be shown graphically as a downward sloping **demand curve**.
- The **Law of Demand** refers to the inverse relationship between price and quantity demanded.
- Individual demand curves for a particular product can be added up to get the **market demand curve**.
- **Marginal utility** is the amount of satisfaction an individual receives from consuming one additional unit of a particular good or service.
- **Diminishing marginal utility** means that with each succeeding unit, satisfaction decreases.



## Section 2

### Factors Affecting Demand (pages 95–99)

- Demand can change in two ways—a change in quantity demanded or a change in demand.
- A **change in quantity demanded** means people buy a different quantity of a product if that product's price changes, appearing as a movement *along* the demand curve.
- A **change in demand** means that people have changed their minds about the amount they would

buy at each and every price. It is represented as a *shift* of the demand curve to the right or left.

- A change in consumer incomes, tastes and expectations, and the price of related goods causes a change in demand.
- Related goods include substitutes and complements. A **substitute** is a product that is interchangeable in use with another product. A **complement** is a product that is used in conjunction with another product.
- The market demand curve changes whenever consumers enter or leave the market, or whenever an individual's demand curve changes.



## Section 3

### Elasticity of Demand (pages 101–107)

- **Elasticity** is a general measure of responsiveness that relates changes of a dependent variable such as quantity to changes in an independent variable such as price.
- **Demand elasticity** relates changes in the quantity demanded to changes in price.
- If a change in price causes a relatively *larger* change in the quantity demanded, demand is **elastic**.
- If a change in price causes a relatively *smaller* change in the quantity demanded, demand is **inelastic**.
- When demand is elastic, it stretches as price changes. Inelastic demand means that price changes have little impact on quantity demanded.
- Demand is **unit elastic** if a change in price causes a *proportional* change in quantity demanded.
- The total expenditures test can be used to estimate demand elasticity.
- Demand elasticity is influenced by the ability to postpone a purchase, by the substitutes available, and by the proportion of income required for the purchase.

## Section 2

### Factors Affecting Demand (pages 95–99)

- Demand can change in two ways—a change in quantity demanded or a change in demand.
- A **change in quantity demanded** means people buy a different quantity of a product if that product's price changes, appearing as a movement *along* the demand curve.
- A **change in demand** means that people have changed their minds about the amount they would

## Chapter 4 Assessment and Activities

### ECONOMICS Online



**Self-Check Quiz** Visit the *Economics: Principles and Practices* Web site at [epp.glencoe.com](http://epp.glencoe.com) and click on **Chapter 4—Self-Check Quizzes** to prepare for the chapter test.



**CLICK HERE**

### Identifying Key Terms

*On a separate sheet of paper, match the letter of the term best described by each statement below.*

- a. demand schedule
  - b. demand
  - c. microeconomics
  - d. change in demand
  - e. demand curve
  - f. change in quantity demanded
  - g. Law of Demand
  - h. elastic demand
1. the desire, ability, and willingness to buy a product
  2. a movement along the demand curve showing that a different quantity is purchased in response to a change in price
  3. a statement that more will be demanded at lower prices and less at higher prices
  4. a listing in a table that shows the quantity demanded at all possible prices in the market at a given time
  5. a principle illustrating that consumers demand different amounts at every price, causing the demand curve to shift to the left or the right
  6. the field of economics that deals with behavior and decision making by individuals and firms
  7. a principle illustrating that a given change in price causes a relatively large change in the quantity demanded
  8. a graph that shows the quantity demanded at all possible prices in the market at a given time

### Reviewing the Facts

#### Section 1 (pages 89–93)

1. **Describe** a demand schedule and a demand curve. How are they alike?
2. **Explain** how the principle of diminishing marginal utility is related to the downward-sloping demand curve.

#### Section 2 (pages 95–99)

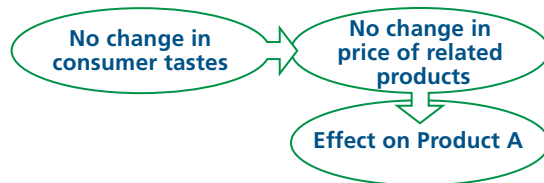
3. **Describe** the difference between the income effect and the substitution effect.
4. **Identify** the five factors that can cause a change in market demand.

#### Section 3 (pages 101–107)

5. **Describe** the difference between elastic demand and inelastic demand.
6. **Explain** how the total expenditures test can be used to determine demand elasticity.

### Thinking Critically

1. **Making Generalizations** Do you think the Law of Demand accurately reflects most people's behavior regarding certain purchases? Explain.
2. **Drawing Conclusions** What would normally happen to a product's market demand curve in a growing and prosperous community if consumer tastes, expectations, and the prices of related products remained unchanged? Create a web like the one below to explain your answer.





## Chapter 4 Assessment and Activities

### Applying Economic Concepts

- 1. Demand** Why do you think a knowledge of demand would be useful to an individual like yourself? To a businessperson like Keith Clinkscales (cover story, page 89)?
- 2. Demand** How do you think the market demand curve for pizza would be affected by (1) an increase in everyone's pay, (2) a successful pizza advertising campaign, (3) a decrease in the price of hamburgers, and (4) new people moving into the community? Explain your answers.
- 3. Demand Elasticity** How would you, as a business owner, use your knowledge of demand elasticity to determine the price of your product?

### Math Practice

Mindy is trying to estimate the elasticity of demand for a product she wants to sell at a craft fair. She has been told that she can expect to sell 10 items if she charges a price of \$10, six items if she charges a price of \$20, and 18 items at a price of \$5.

1. Make a demand schedule to show the quantities demanded at each price.
2. Use the information in the demand schedule to create a demand curve and to graph the results.
3. At which price would the total expenditures by consumers be greatest for the product? At what price would expenditures be the smallest?

### Thinking Like an Economist

Write a paragraph describing a business that you might like to own and the major product that the business would produce. Next, use the three determinants of demand elasticity to predict the elasticity of demand for that product. Describe the pricing policy you would use to get consumers to maximize their expenditures on that product.

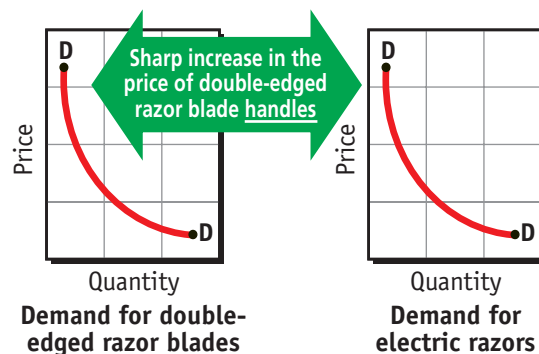
### Technology Skill

**Using the Internet** Use a search engine to find the Web site for the U.S. Department of Commerce. Select the option "Economics and Statistics Administration." Next select "STAT-USA." Then click on "State of the Nation." From the options on the screen, select "Manufacturing and Trade, Inventories and Sales." Locate the information on "Apparel and accessory stores," and answer the questions that follow.

1. How many months does the data cover?
2. Compare the monthly data on inventory. Is the inventory increasing, decreasing, or about the same? Then, compare the data on sales.
3. Are there any sharp fluctuations in inventory or sales from one month to the next? If so, what might have caused these changes?
4. Do you think demand for apparel increases or decreases according to the season or time of year? How do you think this change in demand relates to inventory and sales?

### Building Skills

**Understanding Cause and Effect** Draw the two demand curves below on separate sheets of paper. Then, show how the rise in the cost of razor blade handles affects the demand curve for its complementary and its substitute products.



Practice and assess key social studies skills with the *Glencoe Skillbuilder Interactive Workbook, Level 2*.