



UNIT  
**2**

# Microeconomics: Prices and Markets

## CHAPTER 4

Demand

## CHAPTER 5

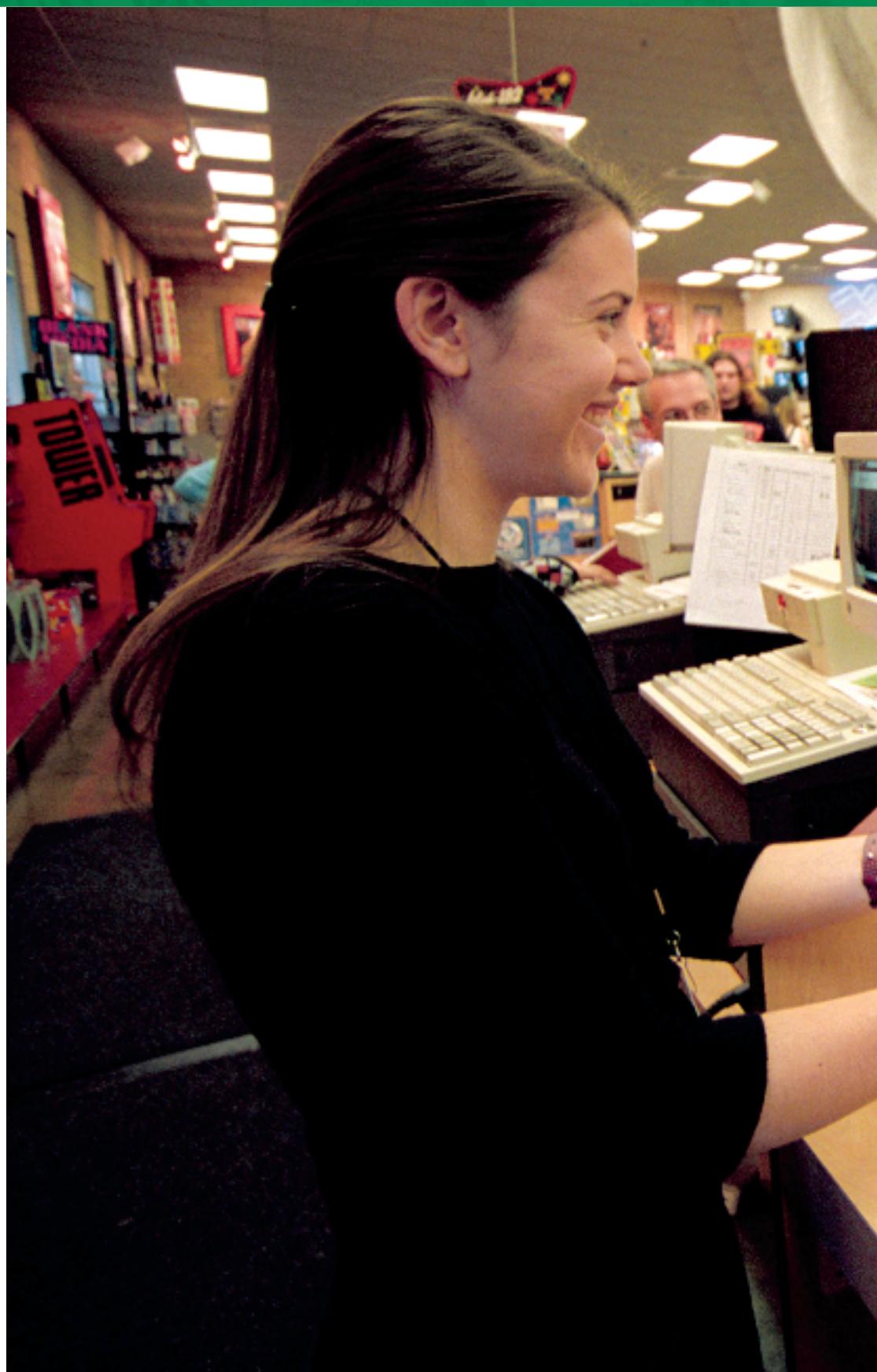
Supply

## CHAPTER 6

Prices and Decision  
Making

## CHAPTER 7

Market Structures



Buyers and sellers in a music ►  
store show how supply and  
demand play out in the market.





CHAPTER

## 4

## Demand

## Why It Matters

Think about the items you bought during the past two months. What influenced your purchases? Did you need the items, or did you buy them because you wanted them? Make a list of the items, and next to each one write why you bought it. Then add for each item whether you would have bought more if the price had been lower, or fewer had the price been higher. Read Chapter 4 to learn how economists interpret your actions.

### The BIG Idea

Markets exist when buyers and sellers interact, and market prices are set by the interaction of demand and supply.

When prices go down for products, such as the computers in this computer store, consumers demand more of them.



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



SECTION

## 1

# What Is Demand?

## GUIDE TO READING

### Section Preview

In this section, you will learn that you express demand for a product when you are willing and able to purchase it.

### Content Vocabulary

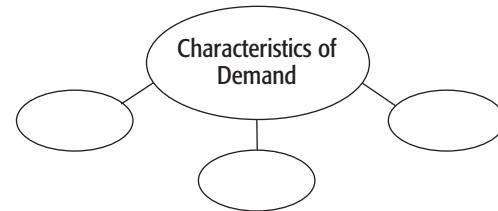
- demand (p. 91)
- microeconomics (p. 91)
- market economy (p. 92)
- demand schedule (p. 92)
- demand curve (p. 93)
- Law of Demand (p. 93)
- market demand curve (p. 94)
- marginal utility (p. 95)
- diminishing marginal utility (p. 95)

### Academic Vocabulary

- prevail (p. 92)
- inversely (p. 93)

### Reading Strategy

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



## PRODUCTS IN THE NEWS

—adapted from  
*The Columbus Dispatch*

### Wrist Watch

It's all in the wrist. Actually, this spring, it's all *on* the wrist.

Skinny bracelets and subtle strands of bling are being replaced by chunky looks with boldness and color, often worn in multiples.

"Last year, everything was thin; now, 'big' is being demanded everywhere," said Toni Miller Dunleavy, owner of Etc. Gifts and Accessories.

Big and brash wrist frosting takes its newest form with Wonder Woman-esque cuffs. . . . Other popular choices include wide, flexible "liquid metal" (a la chain mail) and oversize bangles strung with colored beads or seashells—or even bottle caps or typewriter keys.

Meanwhile, those slim bangles from years past shouldn't be tossed: A piling of 8, 10, or more easily makes the wearer a member of the bigger-is-better bracelet brigade. ■



When we talk about the "demand" for a product, we mean more than the desire to simply have or to own the item. In order for demand to be counted in the marketplace, desire must be coupled 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 of the other topics discussed in Unit 2, is a microeconomic concept. **Microeconomics** is the part of economic theory that deals with behavior and decision making by individual units, such as people and firms. Collectively, our microeconomic concepts help explain how prices are determined and how individual economic decisions are made.

#### demand

combination of desire, ability, and willingness to buy a product

#### microeconomics

part of economics that studies small units, such as individuals and firms



**market economy**  
economic system in which people and firms make all economic decisions (also see page 37)

**demand schedule**  
a table that lists how much of a product consumers will buy at all possible prices

## An Introduction to Demand

**MAIN Idea** Demand is a concept specifying the different quantities of an item that will be bought at different prices.

**Economics & You** Do you buy more of an item when the price goes down, or less of it when the price goes up? Read on to see how this behavior illustrates the concept of demand.

In a **market economy** people and firms act in their own best interests to answer the basic **WHAT**, **HOW**, and **FOR WHOM** questions. Demand is central to this process, so an understanding of the concept of demand is essential if we are to understand how the economy works.

### Demand Illustrated

Fortunately, the concept of demand is easy to understand because it involves only two variables—the price and quantity of a specific product at a given point in time. For example, we might want to know how

many people would want to see a movie on a given afternoon if the price was \$5. Or we might want to know how many would want to view it if the price was \$10.

The answers would depend on a number of things, including the number of people living in the area, the number and types of other movies that were playing at the same time, and of course the popularity of the movie itself. But in the end, everything would be measured in terms of prices and quantities.

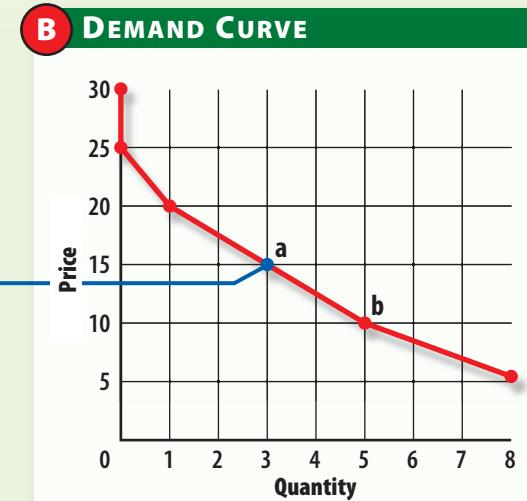
### The Individual Demand Schedule

To see how an economist would analyze demand, look at **Panel A** in **Figure 4.1**. It shows the amount of a product that a consumer, whom we'll call Mike, 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 shows the various quantities demanded of a particular product at all prices that might prevail in the market at a given time.

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



- The demand schedule and the demand curve both show the quantity of CDs an individual consumer demands at every possible price. Note how the three CDs demanded at a price of \$15 are plotted as point **a** on the demand curve.

**Economic Analysis** *Why is the demand curve downward sloping?*



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

As you can see, Mike 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 was \$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 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 Mike purchased three CDs at a price of \$15 each, while point **b** shows that he will buy five at a price of \$10. The demand schedule and the demand curve are similar in that they both show the same information—one in the form of a table and the other in the form of a graph.

**Reading Check Interpreting** How do you react to a change in the price of an item? How does this illustrate the concept of demand?

### The Law of Demand

**MAIN Idea** There is an inverse relationship between the price of an item and the quantity demanded.

**Economics & You** When you go shopping, do you try to catch sale days? Read on to find out how an economic “law” describes your behavior.

The prices and quantities in Figure 4.1 point out a feature of demand: for practically every good or service that we might buy, higher prices are associated with smaller amounts demanded. Conversely, lower prices are associated with larger amounts demanded. This is known as the **Law of Demand**, which states that the quantity demanded varies **inversely** with its price. When the price of something goes up, the quantity demanded goes down. Likewise, when the price goes down, quantity demanded goes up.

### Why We Call It a “Law”

Expressing something as a “law” may seem like a strong statement for a social science like economics to make, but there are two reasons why economists prefer to do so. First, the inverse relationship between price and quantity demanded is something

**demand curve**  
a curve that shows the quantities demanded at all possible prices

**Law of Demand**  
rule stating that consumers will buy more of a product at lower prices and less at higher prices

#### Personal Finance Handbook

See pages R4-R5 for more information on budgeting.



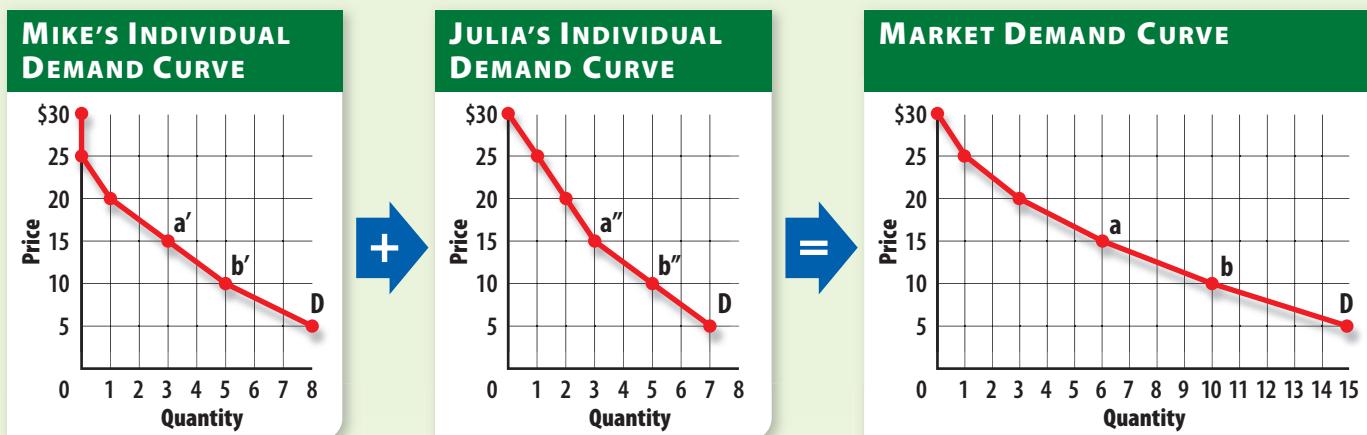
## Figure 4.2 ► Individual and Market Demand Curves

► The market demand curve shows the quantities demanded by everyone in the market who is interested in purchasing a product. Point **a** on the market demand curve represents the three CDs Mike and Julia each would purchase at a price of \$15 for a total of six CDs.

### Graphs In Motion

See StudentWorks™ Plus or [glencoe.com](http://glencoe.com).

#### Economic Analysis How do the three demand curves differ?



#### Skills Handbook

See page R49 to learn about Using Line Graphs.

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.

Second, common sense and simple observation are consistent with the Law of Demand. This is how people behave in everyday life—they normally buy more of a product at lower prices than they do at higher ones. All we have to do is to note the increased purchases at the mall whenever there is a sale. This is why economics is a social science: because it is the study of the way we behave when things around us change.

his friend Julia, the only two people whom (for simplicity) we assume to be willing and able to purchase CDs.

To get the market demand curve, all we do is add together the number of CDs that Mike and Julia would purchase at every possible price. Then, we simply plot the prices and quantities on a separate graph. To illustrate, point **a** in Figure 4.2 represents the three CDs that Mike would purchase at \$15, plus the three that Julia would buy at the same price. Likewise, point **b** represents the quantity of CDs that both would purchase at \$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, and both curves are downward sloping. The main difference between the two is that the market demand curve shows the demand for everyone in the market.

**market demand curve** a curve that shows how much of a product all consumers will buy at all possible prices

✓ **Reading Check Explaining** How does the market demand curve reflect the Law of Demand?



# Demand and Marginal Utility

**MAIN Idea** As we buy more of an item, we get less satisfaction from each additional purchase.

**Economics & You** When you buy clothes, why do you prefer a variety of colors and styles to identical items? Read to see how this relates to 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 additional 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 that the product is useful and will give satisfaction. However, as we use more and more of a product, we

encounter **diminishing marginal utility**, the principle which states that the extra satisfaction we get from using additional quantities of the product begins to decline.

Because of our diminishing satisfaction, we usually are not willing to pay as much for the second, third, fourth, and so on, as we did the first unit. This is why our demand curve is downward-sloping, and this is why Mike and Julia won't pay as much for the second CD as they did for the first.

Diminishing satisfaction happens to all of us at some time. For example, when you buy a drink because you are thirsty, you get the most satisfaction from the first purchase. Since you are now less thirsty, you get less satisfaction from the second purchase, and even less from the next, so you are not willing to pay as much for the second and third purchases.

**marginal utility**  
additional satisfaction or usefulness a consumer gets from having one more unit of a product

**diminishing marginal utility**  
decrease in satisfaction or usefulness from having one more unit of the same product

## SECTION 1

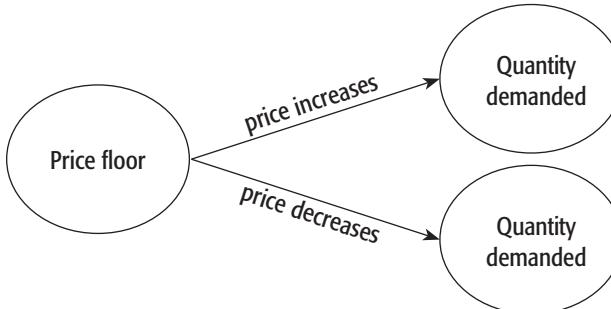
### Review

#### Vocabulary

1. **Explain** the significance of demand, microeconomics, market economy, demand schedule, demand curve, Law of Demand, market demand curve, marginal utility, and diminishing marginal utility.

#### Main Ideas

2. **Describing** What is the relationship between the demand schedule and the demand curve?
3. **Determining Cause and Effect** Using a graphic organizer like the one below, explain how a change in price changes the quantity demanded of an item.



#### Critical Thinking

4. **The BIG Idea** How does the principle of diminishing marginal utility explain the slope of the demand curve?
5. **Inferring** Although people buy more of a product when the seller lowers the price, some items such as luxury goods are not offered at a lower price. Why?
6. **Analyzing Visuals** Look at the demand schedules on page 94. Assume that Julia is willing to purchase different quantities at the same prices, and write down the new demand. Then plot a new market demand curve that incorporates the changed demand.
7. **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 labels.

#### Applying Economics

8. **Diminishing Marginal Utility** Using what you have learned about diminishing marginal utility, find examples from your own experience and explain how they support this concept.



# BusinessWeek NEWSCLIP

Oscar Mayer, one of the brands of Kraft Foods Inc., first launched its Lunchables product line in 1988. The pre-packaged lunches quickly became popular, and today these snacks are available in many different flavor combinations. They also have come under attack by critics. Kraft is finding ways to satisfy these critics and keep consumer demand high.

## Slimmer Kids, Fatter Profits?

Charles Davis, a Kraft food maven, is on a health kick. But then, he has no choice. Making cheese healthier is complicated. Add too much calcium, and it starts to taste chalky. Take out too much fat, and the cheese emerges from mechanical graters like Play-Doh. "It becomes a big glob instead of having good shredding integrity," says Charles W. Davis, vice-president of global technology and quality for convenient meals at Kraft Foods Inc.

Davis can tell you all about finding that delicate balance between what tastes good and what's good for you. Since 2004, the 48-year-old chemist has been leading a team of scientists, technicians, and engineers working to improve the nutritional content of Kraft's popular Lunchables Lunch Combinations line, a process known industrywide as reformulation.

That means he has spent an inordinate amount of time experimenting not only with cheese but also with the juice drinks, crackers, deli meats, and fruit snacks that make up these all-in-one meals. If you count all 41 varieties of Lunchables, Davis has cut calories by an average of 10%, fat by 24%, and sodium by 20%.

Why do Davis and hundreds of other people throughout the company do nothing else but experiment in their kitchen labs all day? Because their employer has no choice. Kraft, the nation's largest food manufacturer, and its competitors risk becoming this decade's cigarette companies: vilified for pushing junk to children, restricted by often-conflicted regulators, challenged in court.

—Reprinted from *BusinessWeek*



Nutrition Facts	
Serving per package 1	
Amount per serving	
Calories	410
Calories from Fat	90
% Daily Value	
Total Fat	10g
15%	
Saturated Fat	4.5g
23%	
Cholesterol	40mg
13%	
Sodium	890mg
37%	
Total Carbohydrate	64g
21%	
Dietary Fiber	2g
8%	
Sugars	27g
Protein	16g



Nutrition Facts	
Serving per package 1	
Amount per serving	
Calories	780
Calories from Fat	290
% Daily Value	
Total Fat	32g
49%	
Saturated Fat	7g
35%	
Cholesterol	15mg
5%	
Sodium	1380mg
57%	
Total Carbohydrate	113g
38%	
Dietary Fiber	6g
24%	
Sugars	61g
Protein	9g

### Examining the Newsclip

- 1. Understanding Cause and Effect** Why did Kraft decide to reformulate a product that was already popular?
- 2. Making Inferences** What might happen to demand for the Lunchables products if Kraft did not respond to consumer demands?



SECTION

## 2

# Factors Affecting Demand

## GUIDE TO READING

### Section Preview

In this section, you will learn about the factors that cause changes in demand.

### Content Vocabulary

- change in quantity demanded (*p. 98*)
- income effect (*p. 98*)
- substitution effect (*p. 98*)
- change in demand (*p. 99*)
- substitutes (*p. 100*)
- complements (*p. 101*)

### Academic Vocabulary

- principle (*p. 98*)
- illustrated (*p. 98*)

### Reading Strategy

**Listing** 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	Effect on demand

## COMPANIES IN THE NEWS

—TIME

### McMakeover Deluxe

McDonald's is getting a makeover. The fast-food force has launched its first restaurant redesign in 30 years. More than 6,000 locations will feature the new look by year's end.

Customers will have three zones to choose from, based on their dining needs. Counter seating will serve eat-and-run customers. Those looking to linger will find soft lighting and plush chairs. Mingling teens can cram tables together in a flexible seating area.

"It's something McDonald's should have done years ago," says restaurant analyst Howard Penney. The design suggests a certain coffee chain, but Penney says it could give McDonald's an edge over fast-food rivals. ■



Why would McDonald's go to the trouble and expense of redesigning its restaurants? The company realizes that consumer demand is changing. This means the company has to change too, or it risks losing business to competitors that better meet customer demand. Such changes in demand have an effect on both the demand schedule and the demand curve.

When it comes to demand, there are two types of changes. When the price of a product changes while all other factors remain the same, we have a change in the quantity demanded. Sometimes other factors change while the price remains the same—similar to the change in consumer taste in our news story. When this happens, we see a change in demand.



## change in quantity demanded

movement along the demand curve showing that the amount someone is willing to purchase changes when the price changes

**income effect** that part of a change in quantity demanded due to a change in the buyer's real income when a price changes

**substitution effect** that part of a change in quantity demanded due to a price change that makes other products more or less costly

# Change in the Quantity Demanded

**MAIN Idea** Only a change in price can cause a change in quantity demanded.

**Economics & You** When you shop for an item, do you also consider prices of related items? Read on to learn how demand accounts for this behavior.

Look at **Figure 4.3** to see what happens when only the price changes and everything else remains constant. Point **a** on the demand curve shows that six CDs are demanded at a price of \$15. When the price falls to \$10, 10 CDs are demanded. This movement from point **a** to point **b** is a **change in quantity demanded**—a change that is graphically represented as a movement *along* the demand curve. When the price goes up, fewer CDs are demanded. When the price goes down, more are

demanded. As we will see, the income and substitution effects also help us understand this principle.

## The Income Effect

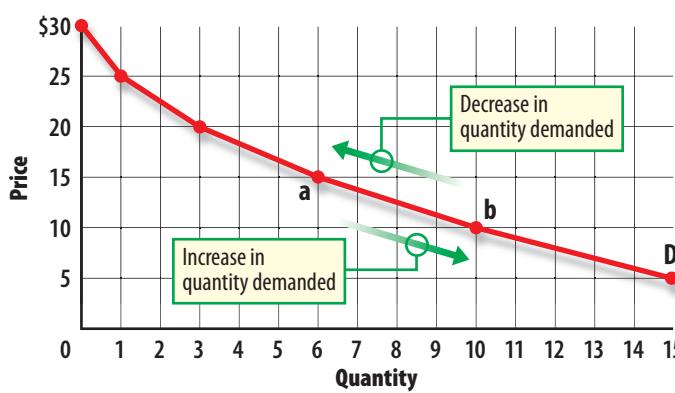
When the price of a product drops, consumers pay less and, as a result, have some extra income to spend. For example, we can see from Figure 4.3 that consumers spent \$90 to buy six CDs when the price was \$15 per CD. If the price drops to \$10, they would spend only \$60 on the same quantity, leaving them \$30 "richer" because of the drop in price. They may even spend some of this extra income on more CDs. As a result, part of the increase from 6 to 10 units purchased, shown as the movement from point **a** to point **b** on the demand curve, is due to consumers feeling richer.

If the price had gone up, consumers would have felt a bit poorer and would have bought fewer CDs. This illustrates the **income effect**, the change in quantity demanded because of a change in price that alters consumers' real income.

Figure 4.3 ►

## Change in the Quantity Demanded

### DEMAND CURVE



- Only a change in price can cause a change in quantity demanded. When the price goes down, the quantity demanded increases. When the price goes up, the quantity demanded decreases. Both changes appear as a movement along the demand curve.

**Economic Analysis** *Why do price and quantity demanded move in opposite directions?*

## 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—more 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 their consumption of CDs from 6 to 10 when the price drops from \$15 to \$10.

Whenever a price change 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.

**Reading Check** **Describing** How is a change in the quantity demanded illustrated on the demand curve?



## Figure 4.4 ▶ Change in Demand

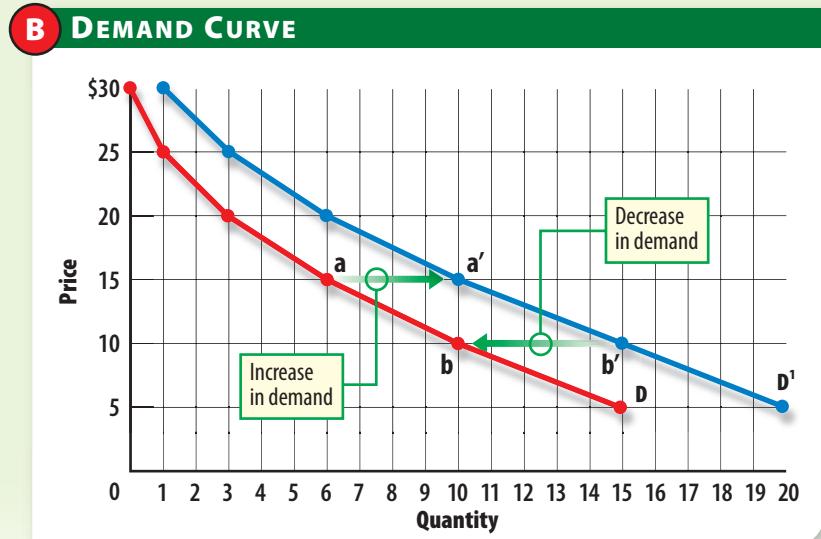
► A change in demand occurs when people decide to purchase different amounts of a product at the same price. When we plot the numbers from the demand schedule, we get two separate demand curves. An increase in demand appears as a shift of the demand curve to the right. A decrease in demand appears as a shift to the left.

**Economic Analysis** *What might cause a change in demand for CDs?*

### Graphs In Motion

See StudentWorks™ Plus  
or [glencoe.com](http://glencoe.com).

Price	D	D <sup>1</sup>
\$30	0	1
25	1	3
20	3	6
15	6	10
10	10	15
5	15	20



## Change in Demand

**MAIN Idea** Several factors can cause the demand curve to shift.

**Economics & You** Can you remember something fashionable that quickly went out of style? Read on to learn how changing consumer tastes affect demand.

Sometimes other factors change while the price remains the same. When this happens, people may decide to buy *different* amounts of the product at the same prices. This is known as a **change in demand**. 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. Therefore, a *change in demand* results in an entirely new demand curve, while a *change in quantity demanded* is a movement along the original demand curve.

A change in demand is illustrated in the schedule and graph in **Figure 4.4**. Note that

**Panel A** has a third column showing that people are willing to buy different amounts 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'*. When this information is transferred to the graph, the demand curve appears to have shifted to the right.

When demand changes, a new schedule or curve must be constructed to reflect the new quantities demanded at all possible prices. Demand can change because of changes in the determinants of demand: consumer income, consumer tastes, the price of related goods, expectations, and the number of consumers.

**change in demand** shift of the demand curve when people buy different amounts at every price

### Consumer Income

Changes in consumer income can cause a change in demand. An increase in income means people can afford to buy more at all possible prices. Suppose, for example, that



# The Global Economy & YOU



## Digital Demand in South Korea

When a financial crisis hit Asia over a decade ago, South Koreans decided to invest in technology to spur economic development. Today over 70 percent of the country has high-speed Internet access, and South Korea boasts the world's largest Wi-Fi network.

South Koreans eagerly embrace the new technology, using it in ways unknown in the United States. For example, they pay for the subway fare by swiping their cell phones through readers. Students access Webcast tutorials as they study for their version of the SAT.

The increasing demand for new technology is most evident in cell phones. South Koreans replace their cell phones as often as every six months. That puts pressure on companies to constantly develop upgraded models with new and exciting features.

It also has turned South Korea into a nation-wide focus group on cell phones. The phone you purchase today may well have features that your South Korean peers tested for you 6 to 12 months earlier.



### substitutes

competing products that can be used in place of one another

Mike and Julia get a raise, which allows them to buy more CDs. Instead of Mike and Julia each buying 3 for a total of 6 when the price is \$15, they can now each buy 5—for a total of 10. If we plot how many CDs would be purchased at every possible price in the market as demand curve D<sup>1</sup> 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 and Mike and Julia bought less. The demand curve would then shift to the left, showing a decrease in demand.

### Consumer Tastes

Consumers sometimes change their minds about the products they buy. Advertising, fashion trends, and even changes in the season can affect consumer tastes. For example, when a product is successfully advertised, its popularity increases and people tend to buy more of it. As a result, the demand curve shifts to the right.

On the other hand, people will buy less of a product if they get tired of it. This is exactly what happens when a rumor or unfavorable report about a product appears. When fewer people want the product at all possible prices, the demand curve shifts to the left, showing a decrease in demand.

In addition, the development of new products can have a dramatic and relatively sudden impact on consumer preferences. For example, when music CDs were first introduced on the market, they reduced the demand for cassette players and tapes, shifting the demand curves for both to the left. When the iPod and similar devices arrived, the demand for CDs and CD players decreased.

Sometimes the change in consumer tastes and preferences is relatively rapid, and sometimes the change occurs more slowly. In recent years, for example, consumer concerns about health have slowly increased the demand for healthful foods.

### 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, if people treat butter and margarine as substitutes, a rise in the price of butter will cause 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. 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.

## Expectations

The way people think about the future can affect demand. For example, suppose that a company announces a technological breakthrough in television picture quality. Even if the new product might not be available for a year, some consumers might hold off buying a TV today due to their expectations. Purchasing less at every price would cause demand to decline, illustrated by a shift of the demand curve to the left.

Of course, expectations can also have the opposite effect on market demand. For

example, if the weather service forecasts a bad year for crops, people might stock up on some foods before these items actually become scarce. The willingness to buy more because of expected future shortages would cause demand to increase, shown 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. The market demand curve can also change if there is a change in the number of consumers.

Suppose that Devan, one of Mike's and Julia's friends, decides to purchase CDs. We would add the number of CDs that Devan would buy at all possible prices to those for Mike and Julia. The market demand curve would shift to the right to reflect an increase in demand. If Mike or Devan should leave the market, the total number of CDs purchased would decrease, shifting the market demand curve to the left.

**✓Reading Check Explaining** How do changes in consumer income and tastes affect the demand curve?

SECTION

## 2

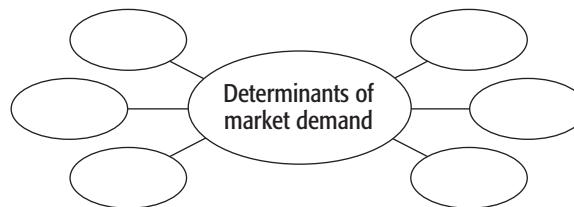
## Review

### Vocabulary

- Explain** the significance of change in quantity demanded, income effect, substitution effect, change in demand, substitutes, and complements.

### Main Ideas

- Explaining** What is the difference between a change in quantity demanded and a change in demand?
- Describing** Using a graphic organizer similar to the one below, describe the determinants of market demand.



### Critical Thinking

- The BIG Idea** How and why does a change in price affect the demand for substitutes? Provide an example.
- Analyzing Visuals** Look at Figure 4.4 on page 99. Assume that a new CD format will come out soon. What do you think will happen to the market demand curve D? Explain.
- Interpreting** Locate an article in your newspaper illustrating at least one determinant of demand. Write a brief explanation of the effect of the determinant(s).

### Applying Economics

- Change in Demand** Name a product that you recently purchased because it was on sale. Identify one substitute and one complement for the product and describe how your demand for the substitute and complement changed because of the sale.

### Economics ONLINE

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

**complements**  
products that increase the use of other products



# Profiles in Economics

## Oprah Winfrey (1954– )

- first woman in history to produce and own her own talk show
- first African American woman—and third woman in history—to own a major television and film studio

### The Gift of Gab

Oprah Winfrey grew up in deep poverty. As a troubled teenager, she went to live with her father, who encouraged her education. Four years later Winfrey received a scholarship to attend Tennessee State University. At the same time, she got her first media job as a radio news announcer. Two years later Winfrey became cohost of a talk show—and found her calling. Winfrey felt comfortable talking in front of cameras, and viewers responded to her easygoing attitude by making her program the number-one talk show in the Baltimore market.

In 1984 Winfrey relocated to Chicago to take over the failing talk show *A.M. Chicago*. Just as in Baltimore, the audience responded to her relaxed manner by watching in increasing numbers. Within two years, the show, renamed *The Oprah Winfrey Show*, became nationally syndicated, and today viewers watch her in more than 100 countries. The syndication deal made Winfrey the highest-paid entertainer at the time, with estimated earnings of over \$37 million in 1987.

### Building a Media Empire

Winfrey used this money and her personal ambition to build a wide-ranging business empire. In 1986 she established her own company, Harpo Inc. (*Harpo* is *Oprah* spelled backward.) A production company and movie studio grew from that venture. Since then, Winfrey has become cofounder of the Oxygen television network and branched out into print media through the publications *O*, *The Oprah Magazine*, and *O at Home*.

Success has allowed Winfrey to spend a portion of her income on charities that support education and help families. That portion is rising. *Forbes* magazine listed Winfrey as the first African American woman to become a billionaire. Her annual income, estimated at over \$225 million by 2006, has increased ever since.

### Examining the Profile

1. **Drawing Conclusions** Why is Oprah Winfrey considered to be one of the most powerful women in America?
2. **Analyzing** What characteristics helped Winfrey become a successful talk show host and entrepreneur?

Most people know Oprah Winfrey as a talk show host. Over the years, though, the likable Winfrey has developed many other talents to become one of the wealthiest, most successful, and most influential women in America.



SECTION

## 3

# Elasticity of Demand

## GUIDE TO READING

### Section Preview

In this section you will learn about the factors that influence the size of a change in quantity demanded.

### Content Vocabulary

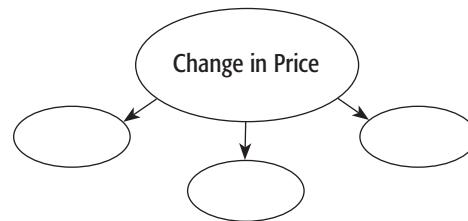
- elasticity (p. 103)
- demand elasticity (p. 104)
- elastic (p. 104)
- inelastic (p. 104)
- unit elastic (p. 105)

### Academic Vocabulary

- technical (p. 106)
- adequate (p. 108)

### Reading Strategy

**Describing** As you read about price elasticity, complete a web diagram like the one below to describe what effect a change in price has on quantity demanded if the demand curve is elastic, inelastic, or unit elastic.



## COMPANIES IN THE NEWS

—www.entrepreneurculture.com

### Netflix, Blockbuster Battle It Out

Netflix and Blockbuster continue to battle head to head in the online movie rental arena. The monthly rental prices have dropped for DVD entertainment delivered to your door, ordered online. . . . Entertainment culture at its best, it seems—lots of competition and that is normally a better price point for the consumer.

[Reed Hastings, the CEO of Netflix, says,] “One of the reasons our last year has been so successful is the market’s elasticity in response to our price cuts one year ago. . . . Obviously, if there’s enough elasticity to make additional price cuts work, this would increase the economic pressure on video stores, and the additional store closures would further increase Netflix growth for many years ahead.”

In 2006, Netflix expects to grow to 5.65 million subscribers with pretax net income between \$50 million and \$60 million. ■



You can find cause-and-effect relationships everywhere, and they are especially important to businesses. For example, Netflix had hoped that lower prices would entice customers to rent more movies and thus increase its overall revenues. The gamble paid off. Company CEO Reed Hastings credited the market’s demand elasticity for the company’s success.

**Elasticity** is a general measure of responsiveness—an important cause-and-effect relationship in economics. It tells us how a dependent variable, such as quantity demanded, responds to a change in an independent variable, such as price. Elasticity is a general concept that can also be applied to other measures such as income or supply.

**elasticity**  
a measure of  
responsiveness that  
shows how one  
variable responds to a  
change in another  
variable



## demand elasticity

a measure that shows how a change in quantity demanded responds to a change in price

**elastic** type of elasticity where a change in price causes a relatively larger change in quantity demanded

**inelastic** type of elasticity where a change in price causes a relatively smaller change in quantity demanded

# Demand Elasticity

**MAIN Idea** When the price of an item changes, the change in quantity demanded can vary a little or a lot.

**Economics & You** If there was a huge sale on table salt, would you stock up? Read on to learn how elasticity describes your response to the price change.

Consumers react to a change in price by changing the quantity demanded, although the size of their reaction can vary. This response is known as **demand elasticity**—the extent to which a change in price causes a change in the quantity demanded.

## 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 is 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, or other fresh garden vegetables. Because prices of these products are lower in the summer, consumers increase the amount they purchase during that time. When prices are considerably higher in the winter, consumers tend to buy canned or frozen products instead.

## Inelastic Demand

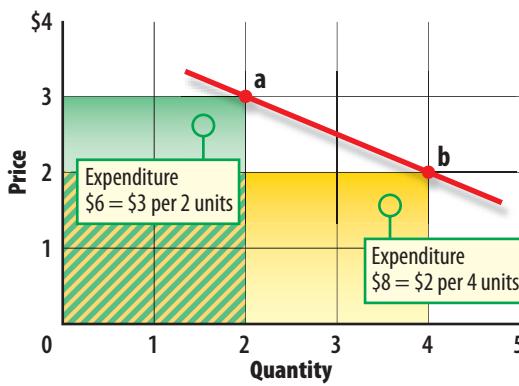
For other products, demand may be **inelastic**, which means that a given change in price causes a relatively smaller change in the quantity demanded. We can see the case of inelastic demand in **Panel B** of **Figure 4.5**. In this case, the one-third drop in price from point **a'** to **b'** causes quantity demanded to increase by only 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 change in the price for salt does not bring about much change in the quantity purchased. Even if the price was cut in half, the quantity

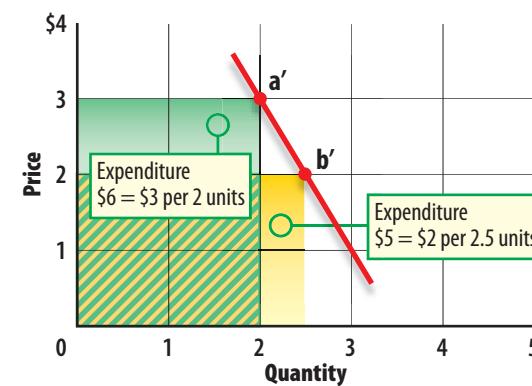
Figure 4.5 ▶

## Demand Elasticity and the Total Expenditures Test

### A ELASTIC DEMAND



### B INELASTIC DEMAND





demanded would not increase by much because people can consume only so much salt. Similarly, if the price doubled, we would still expect consumers to demand about the same amount, because people spend such a small portion of their budget on salt.

## Unit Elastic Demand

Sometimes demand is **unit elastic**, so that a given change in price causes a proportional change in quantity demanded. When demand is unit elastic, the percentage change in quantity equals the percentage change in price. For example, a five percent drop in price would cause a five percent increase in quantity demanded. Unit elastic demand is shown in **Panel C** of Figure 4.5.

Examples of unit elasticity are difficult to find because the demand for most products is either elastic or inelastic. Unit elasticity is more like a middle ground that separates the other two categories of elasticity: elastic and inelastic.

**Reading Check Comparing** What is the difference between elastic and inelastic demand?

## The Total Expenditures Test

**MAIN Idea** The total expenditures test is used to estimate the demand elasticity of a product.

**Economics and You** You just learned about demand elasticity. Read on to find out how businesses apply elasticity when setting prices.

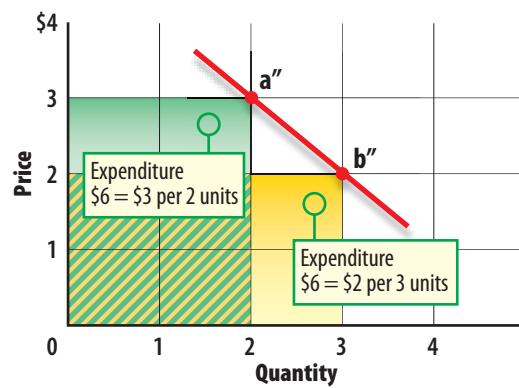
To estimate elasticity, it is useful to look at the impact of a price change on total expenditures, or the amount that consumers spend on a product at a particular price. This is sometimes called the total expenditures test.

## Determining Total Expenditures

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

**unit elastic** type of elasticity where a change in price causes a proportional change in quantity demanded

### C UNIT ELASTIC DEMAND



### D DETERMINING ELASTICITY

Type of demand	Elastic	Inelastic	Unit Elastic
Change in price	↓	↓	↓
Change in expenditure	↑	↓	No change

► Panels A, B, and C show how quantity demanded responds to a price change for products with elastic, inelastic, and unit elastic demand. Panel D summarizes these changes in a chart.

**Economic Analysis** *Why is an understanding of elasticity important for a business?*



### Three Results

The relationship between changing prices and total expenditures is summarized in the four panels of Figure 4.5 on the previous page. The figure shows how a decrease in price from \$3 to \$2 impacts total expenditures for each of the demand curves. 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.

## CAREERS

### Buyer

#### The Work

- \* Purchase merchandise for resale to the public
- \* Study sales records, inventory levels of current stock, determine foreign and domestic suppliers, and determine supply and demand for products and materials
- \* Choose suppliers, negotiate the lowest price, and award contracts
- \* Stay informed about new products and trends, attend trade shows, assist in sales promotions and advertising campaigns, check on displays



#### Qualifications

- \* Ability to plan, analyze data provided by suppliers, make decisions quickly, work under pressure, and identify products that will sell
- \* Good communication, negotiation, and mathematical skills
- \* Knowledge of supply-chain management
- \* Bachelor's degree with a business emphasis

#### Earnings

- \* Median annual earnings: \$42,230

#### Job Growth Outlook

- \* Slower than average

**Source:** *Occupational Outlook Handbook, 2006–2007 Edition*

### Determining Elasticity

The relationship between the change in price and the change in total expenditures is shown in **Panel D** of Figure 4.5. If the changes 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.

Even though all the price changes we just discussed 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 Revenues

While this discussion about elasticity may seem **technical** and somewhat unnecessary to you, knowledge of demand elasticity is extremely important to most businesses. Suppose, for example, that you run your own business and want to do something that will raise your revenues. You could try to stay open longer, or you could try to advertise in order to increase sales. You might, however, also be tempted to raise the price of your product in order to increase total revenue from sales.



www.CartoonStock.com

### Total Expenditures and Demand Elasticity

Some consumers, such as the painter in this cartoon, buy more than they need when items go on sale.

*What kind of demand elasticity is depicted in this cartoon, and what happened to total expenditures for green paint?*

## THEY HAD A SALE ON ELECTRIC GREEN

This might actually work in the case of table salt or medical services, because the demand for both products is generally inelastic. However, what would happen if you sold a product with elastic demand? If you raise the price, your total revenue—which is the same as consumer expenditures—will go down instead of up. This outcome is exactly the opposite of what you intended!

This is exactly why some businesses experiment with different prices when they introduce a new product to the market. They may adjust prices repeatedly to see how customers respond to new prices. If a business can determine a new product's demand elasticity, it can find the price that will maximize total revenues. This is why demand elasticity is more important than most people realize.

**Reading Check Explaining** What happens to the total expenditures for a product with elastic demand when its price goes up?

## Determinants of Demand Elasticity

**MAIN Idea** The answers to three questions help determine a product's demand elasticity.

**Economics and You** Can you think of an item you delayed buying because it was too expensive? Read on to learn how your decision to wait is a way to determine the elasticity of a product.

### Skills Handbook

See page R36 to learn about **Determining Cause and Effect**.

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 about the product's demand elasticity.

### Can the Purchase Be Delayed?

Sometimes consumers cannot postpone the purchase of a product. This tends to make demand inelastic, meaning that the quantity of the product demanded is not especially sensitive to changes in price.



## Figure 4.6 ► Determinants of Demand Elasticity

- 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 override the answers to the other two.

**Economic Analysis** *If you applied the three questions to a luxury product, what would be the elasticity of demand for that product?*

PRODUCTS							
Determinants of elasticity If yes: elastic If 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

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. 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 products were corn, tomatoes, or gasoline from a particular station, however, people might react differently to a price change. If the prices of these products were to increase, consumers could delay buying any of these items without suffering any great inconvenience.

**Figure 4.6** summarizes some of these observations. If the answer to the question “Can the purchase be delayed?” is yes, then the demand for the product is likely to be elastic. If the answer to the question 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 the product and its substitute to take advantage of the best price. If the price of beef goes up, buyers can switch to chicken. 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 only a single adequate substitute is needed to make demand elastic. For example, in the past there were few substitutes for sending a letter through the post office. Then fax machines allowed messages to be transmitted over phone lines. Today many people use e-mail on the Internet or send instant messages on their cell phones. Because of all these alternatives, it is more difficult for the U.S. Postal Service to increase its total revenues by raising the price of a first-class stamp.



Note that the size of the market is important. For example, the demand for gasoline from a particular station tends to be elastic because consumers 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. If the amount is large, then demand tends to be elastic. If the amount of income is small, demand tends to be inelastic.

Finally, you may have noticed that the answers to our three questions is not always “yes” or “no” for each of the products shown in Figure 4.6. For example, some products such as salt may be easy to classify, since each of the answers is “no.” However, we have to use our judgment on others. For

## DID YOU KNOW?

► **Inelastic Taxes?** When you buy a product in a store, most states charge a sales tax when you get to the cash register. Many states also charge an *excise tax*, or a general revenue tax on the manufacture or sale of selected items, which is already included in the price of the item. The excise tax usually raises the price of the item. If demand for the product is *inelastic*, then so much the better for the tax collector, because the quantity demanded does not drop very much. That's why so many excise taxes are on items like gasoline and concert admissions—items that have an inelastic demand.

example, the demand for the services of medical doctors tends to be inelastic even though they require a large portion of income. This is because most people prefer to receive medical care right away rather than taking the time to look for adequate substitutes.

✓ **Reading Check** **Identifying** Can you think of other goods with inelastic demand? Why is the demand for those goods inelastic?

SECTION

# 3

## Review

### Vocabulary

1. **Explain** the significance of elasticity, demand elasticity, elastic, inelastic, and unit elastic.

### Main Ideas

2. **Describing** How do consumers react to price changes on products with elastic, inelastic, and unit elastic demand?
3. **Explaining** How do total expenditures relate to the demand elasticity for products?
4. **Organizing** Use a graphic organizer like the one below to describe the three determinants of demand elasticity.

Determinant	Description

### Critical Thinking

5. **The BIG Idea** Why is the demand for airplane tickets inelastic for last-minute ticket purchases?

6. **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? Why?
7. **Analyzing Visuals** Based on Figure 4.6 on page 108, create your own chart for the following products: an MP3 player, electricity, a gallon of milk, an ink pen, and a pound of onions. Explain.
8. **Drawing Conclusions** Airlines in the United States generally do not offer reduced round-trip airfares during holidays such as Easter, Thanksgiving, and Christmas. What can you conclude about the elasticity of demand for airplane travel at these times?

### Applying Economics

9. **Elasticity of Demand** Interview an owner or manager of a local business about the effects of recent price increases for a product. Is the demand for these goods or services elastic or inelastic? Why?



# CASE STUDY

## The iPod

### The Idea

Handheld music devices date back to the 1970s, when Sony introduced the Walkman. So why has the iPod dominated the MP3 market in the early 2000s?

When the iPod hit store shelves in November 2001, other MP3 players were already on the market. Yet they were larger than the 6.5-ounce iPod, and they could not hold nearly as many songs. The iPod was an instant hit.

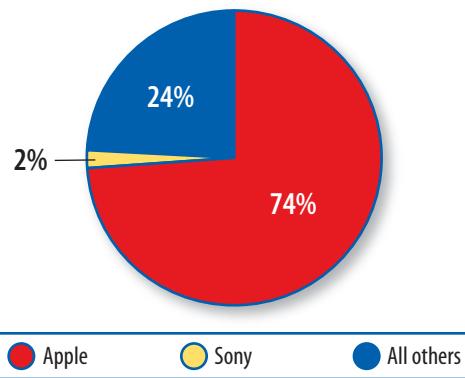


### Innovation

Technology set off the iPod in other ways. The mechanical scroll wheel allowed easy scrolling and navigation. FireWire allowed much faster transfer of music from the computer to the iPod.

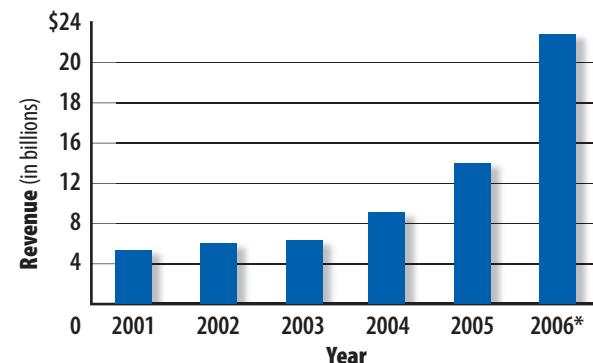
In 2003 Apple CEO Steve Jobs announced that the iTunes software, formerly used to store and play digital music on a Mac, would become a gateway to the online iTunes Store. The owners of iPods now were able to download songs for just 99¢ each. While Apple makes only about .10¢ per

### U.S. MARKET FOR MP3s



Source: BusinessWeek

### APPLE'S REVENUE 2000–2006\*



Source: www.apple.com

\*2006 earnings projected

sale, it generates many more iPod sales. On top of that, music from the iTunes Music Store can be played only on Apple devices because of Apple's digital rights management technology. This tempts more people to purchase iPods.

### Staying Ahead of the Pack

Apple continues to innovate. In January 2004, Apple introduced the iPod mini. Its "click wheel" removed the need for buttons. Newer models can hold ever larger volumes of data, while tiny flash-memory chips keep the player size small. Today's iPods can store up to 10,000 songs, hold hundreds of photos, and play entire movies. Adapters connect iPods with car or home stereo systems. By constantly updating, Apple has been able to keep its huge market share ever since the iPod was introduced.

### Analyzing the Impact

- Summarizing** What features allowed Apple's iPod to dominate the market?
- Drawing Conclusions** How does Apple continue to stay ahead of the competition?

# Visual Summary



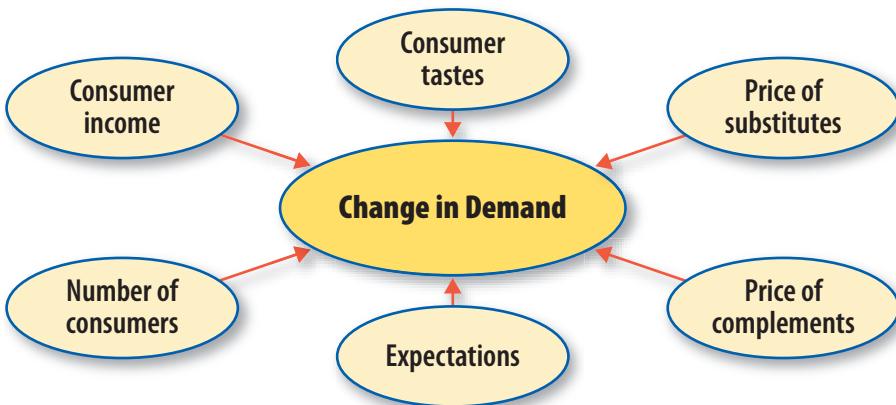
Study anywhere, anytime!

Download quizzes and flash cards to your PDA from [glencoe.com](http://glencoe.com).

- **Law of Demand** The Law of Demand states that when the price goes up, quantity demanded goes down. When the price goes down, quantity demanded goes up.



- **Change in Demand** When a change in demand occurs, people want to buy different amounts of a product at the same price. A change in demand can happen for several reasons.



- **Demand and Elasticity** Changes in price and total expenditures help determine the demand elasticity of a product.

Type of Demand	Change in Price	Change in Expenditure	Movement of Price and Expenditure
Elastic	↓	↑	Opposite
Inelastic	↓	↓	Same
Unit elastic	↓	No change	

# Assessment and Activities

## Review Content Vocabulary

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

- |                      |                        |
|----------------------|------------------------|
| a. demand            | f. complement          |
| b. demand elasticity | g. elastic demand      |
| c. change in demand  | h. substitutes         |
| d. demand curve      | i. marginal utility    |
| e. Law of Demand     | j. unit elastic demand |

1. statement that more will be demanded at lower prices and less at higher prices
2. graph that shows the quantity demanded at all possible prices in the market at a given time
3. measure of responsiveness relating change in quantity demanded to a change in price
4. a given change in price causes a relatively larger change in quantity demanded
5. products that can be used in place of one another
6. a principle illustrating that consumers demand different amounts at every price, causing the demand curve to shift to the left or the right
7. additional satisfaction or usefulness as more units of a product are acquired
8. the desire, ability, and willingness to buy a product
9. a given change in price causes a proportional change in quantity demanded
10. product that increases the use of another product

## Review Academic Vocabulary

On a separate sheet of paper, use each of these terms in a sentence that reflects the term's meaning in the chapter.

- |               |                |
|---------------|----------------|
| 11. prevail   | 14. illustrate |
| 12. inversely | 15. technical  |
| 13. principle | 16. adequate   |

## Review the Main Ideas

### Section 1 (pages 91–95)

17. **Describe** a demand schedule and a demand curve. How are they alike? How do they differ?
18. **Discuss** what is meant by the Law of Demand.
19. **Explain** how the principle of diminishing marginal utility is related to the downward-sloping demand curve.

### Section 2 (pages 97–101)

20. **Explain** the difference between the income effect and the substitution effect.
21. **Identify** and describe the five factors that can cause a change in individual demand, using a graphic organizer similar to the one below.



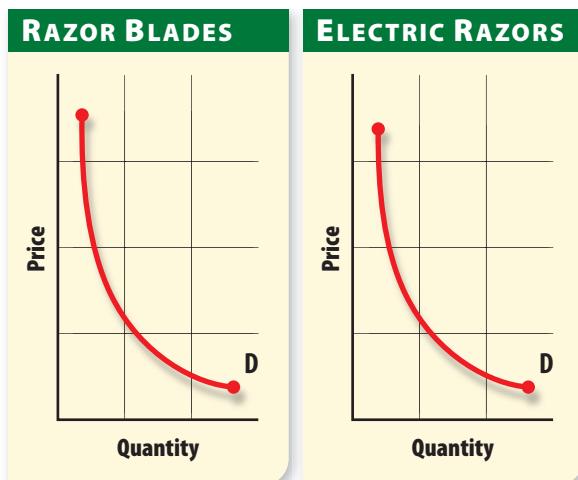
### Section 3 (pages 103–109)

22. **Describe** the difference between elastic demand and inelastic demand.
23. **Explain** how the total expenditures test can be used to determine demand elasticity.
24. **Identify** and then describe the determinants of demand elasticity.

## Critical Thinking

25. **The BIG Ideas** Assume that demand for pizza has been steady for some time. 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.

**26. Determining Cause and Effect** Razor blades are complementary goods for razor handles, while electric razors are substitutes. Copy the demand curves below on a sheet of paper. Then show how the rise in the cost of razor handles, if they were sold separately, would affect the demand curves for its complementary and its substitute products.



- 27. Making Generalizations** Do you think the Law of Demand accurately reflects most people's behavior regarding certain purchases? Explain.
- 28. Synthesizing** Assume that you are a business owner. How would you use your knowledge of demand elasticity to determine the price of your product?

## Math Practice

- 29.** 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.
- Make a demand schedule to show the quantities demanded at each price, and plot a demand curve.
  - At which price would the total expenditures by consumers be greatest for the product? At what price would expenditures be the smallest?

## Analyzing Visuals

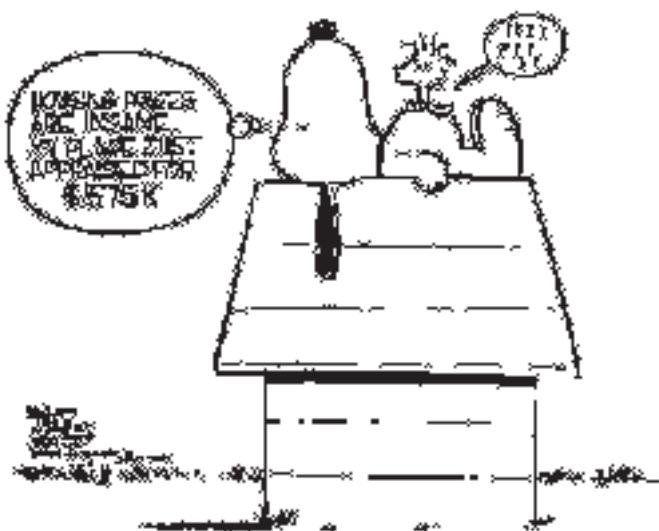
- 30.** Look at Figure 4.2 on page 94. Suppose that Avi, a friend of Mike's and Julia's, is also willing to buy CDs. Create a new market demand schedule by adding the numbers that you think Avi is willing to purchase at different prices. Then draw a market demand curve reflecting the new numbers.

## Thinking Like an Economist

- 31.** Write a paragraph describing a business you might like to own. Describe the product your business makes. Then use the three determinants of demand elasticity to predict the elasticity of demand for that product. Explain the pricing policy you would use to get consumers to maximize their expenditures on that product.

## Interpreting Cartoons

- 32. Critical Thinking** Look at the cartoon below. What do you think Snoopy's doghouse represents? What message is the cartoonist trying to convey? Explain whether or not he found a good way to discuss the topic.



Chris Britt, Copley News Service.



# The Global Economy & YOU



## China's Thirst for Gas

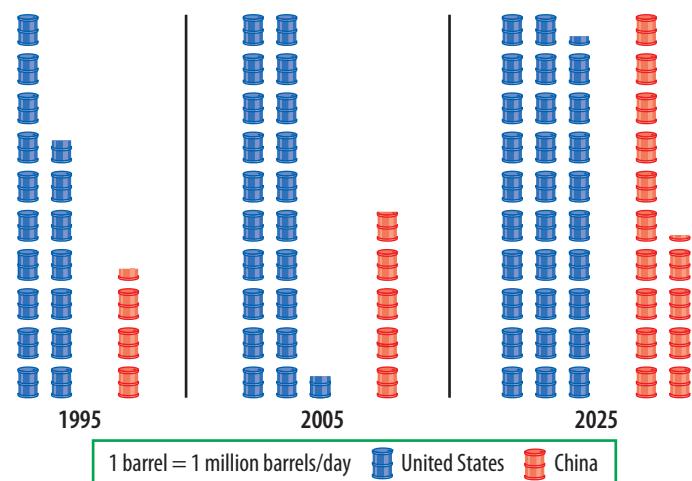
Hurricanes in the Gulf of Mexico, deteriorating pipelines in Alaska, and conflict in Iraq can cause gasoline prices to rise by restricting supply. Often the events we see in the headlines affect the supply of oil available to consumers, but changes in the level of world demand for petroleum products also affects the price of oil.

### China's Growing Demand

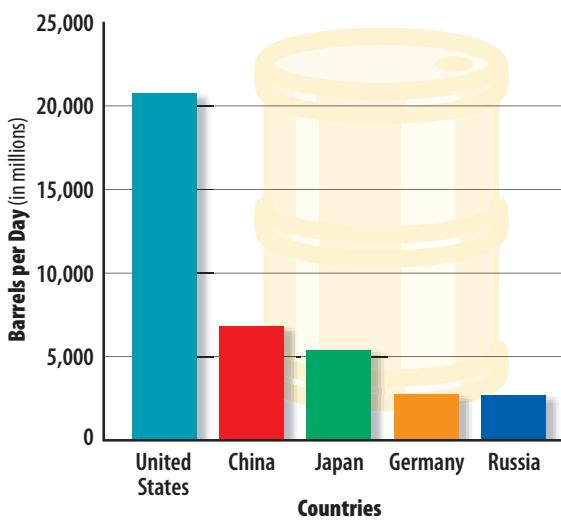
U.S. demand for petroleum products has been high for decades. The United States is the largest consumer of oil, using about a quarter of the world's petroleum. This is quickly changing. Emerging nations are becoming thirsty for oil, and China is at the top of that list.

How did such a rapid change happen? In the past, China has not needed much petroleum. As the country is industrializing, however, it needs more and more fuel to satisfy its growing energy needs. In fact, as the graph of oil consumption between 1995 and 2025 shows, China's consumption is increasing much more rapidly than U.S. consumption.

**PROJECTED OIL CONSUMPTION, UNITED STATES AND CHINA (1994–2025)**



### COUNTRIES WITH HIGHEST OIL CONSUMPTION



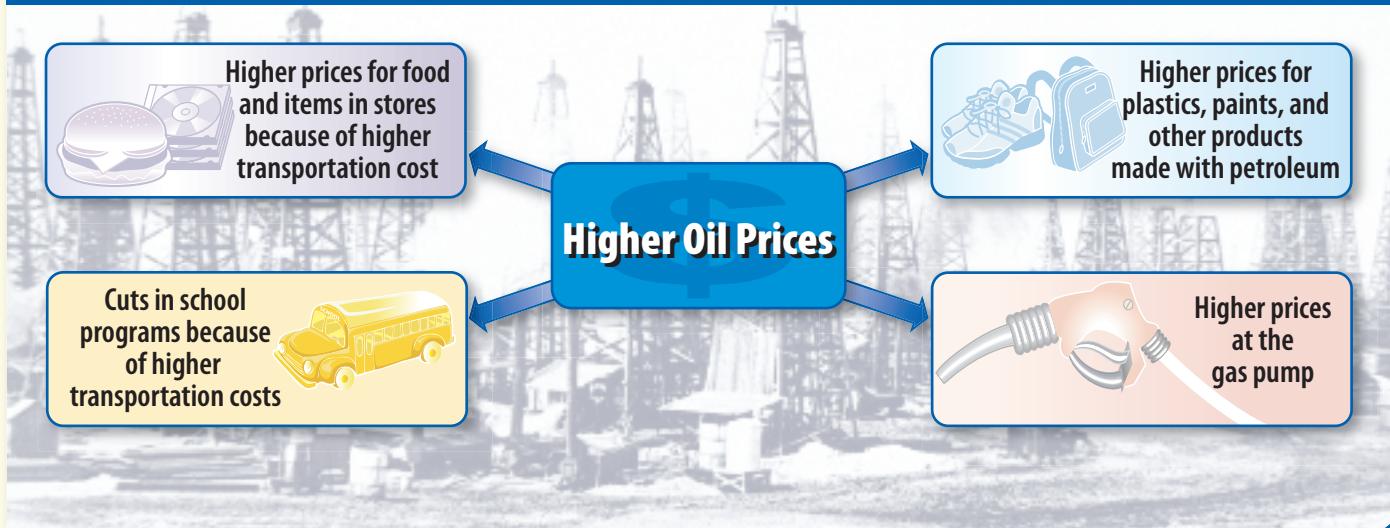
While China still consumes considerably less petroleum than the United States, it has been responsible for over 25 percent of the growth in world petroleum consumption since 1994 and 30 percent of growth since 2000. This increase was enough to make China the second biggest consumer in the world market in 2003, and its demand is not expected to slow down soon.

### Worldwide Impact

China's growing energy needs have worldwide repercussions. The nation's increasing demand has helped to push up prices for crude oil. In 2005 the International Monetary Fund (IMF), which promotes economic growth and cooperation, expressed concern that high oil prices could bring about a worldwide slowdown in economic growth because of these increased energy needs.



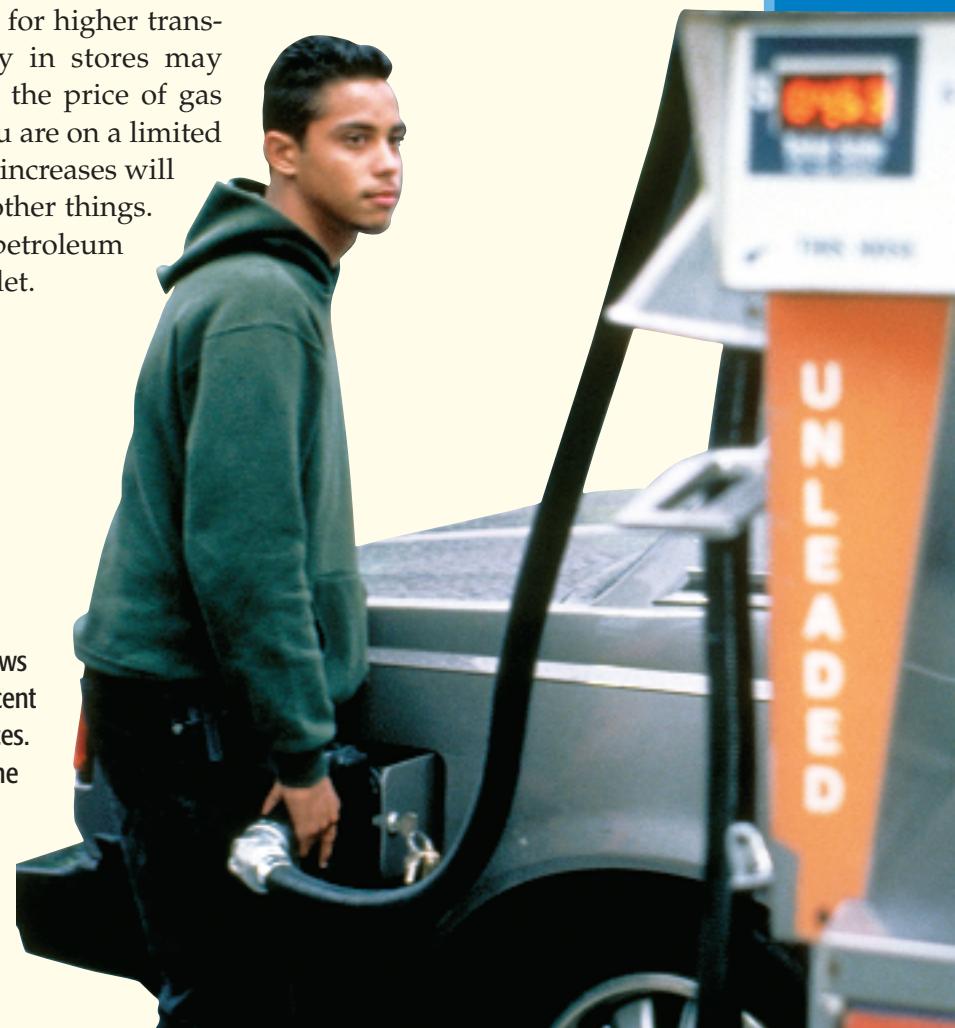
## EFFECTS OF HIGHER OIL PRICES



### What Does It Mean for You?

Why should you care whether China is increasing its demand for petroleum? Simply put, any increase in demand for oil on the world market can lead to rising prices for a variety of goods and services in the United States because so many other products are linked to energy costs.

The results of all these increased costs are manifold. You may see a cut in school programs to pay for higher transportation costs. The products you buy in stores may become more expensive. And of course the price of gas you put into your car may increase. If you are on a limited or fixed budget, like most students, such increases will leave you with less money to spend on other things. As you see, China's higher demand for petroleum has a direct impact on you and your wallet.



### Analyzing the Issue

- Identifying** Why has China's demand for petroleum increased in recent years?
- Describing** What is the effect of increased oil prices on your or your family's budget?
- Applying** Check your local newspaper, news magazines, or Internet news sources for recent reports about global issues affecting oil prices. On a separate piece of paper, summarize the issues discussed in these articles and describe how they affect you.