What Factors Affect Demand?

In Section 2, you will
• determine a change in quantity demanded
• explain the difference between change in quantity demanded and change in demand
• determine a change in demand
• analyze what factors can cause change in demand

As you read Section 2, complete a chart that shows each factor that causes change in demand. Use the Graphic Organizer at Interactive Review @ ClassZone.com

<table>
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<th>Factor That Changes Demand</th>
<th>Reason Why Demand Changes</th>
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More About Demand Curves

**KEY CONCEPTS**

The demand schedules and demand curves that you studied in Section 1 were created using the assumption that all other economic factors except the price of DVDs would remain the same. If all other factors remain the same, then the only thing that influences how many DVDs consumers will buy is the price of those DVDs. The demand curve graphically displays that pattern.

Now think about the shape of demand curves. Why do they slope downward? The reason is the law of diminishing marginal utility, which states that the marginal benefit from using each additional unit of a good or service during a given time period tends to decline as each is used. Recall that utility is the satisfaction gained from the use of a good or service. Suppose it is a hot day, and you have just gulped down a glass of lemonade. Would you gain the same benefit from drinking a second glass? How about a third? In all likelihood, you’d find the second glass less satisfying than the first, and the third glass less satisfying than the second.

Because consumers receive less satisfaction from each new glass of lemonade they drink, they don’t want to pay as much for additional purchases. So, they will buy

**QUICK REFERENCE**

Law of diminishing marginal utility states that the marginal benefit of using each additional unit of a product during a given period will decline.
two glasses only if the lemonade is offered at a lower price, and they will buy three only if the price is even lower still. This pattern of behavior, which holds true for most consumer goods and services, creates the downward slope of the demand curve. For another example, see Figure 4.6 below, which displays the demand that a young man named Kent has for video games.

Why do consumers demand more goods and services at lower prices and fewer at higher prices? Economists have identified two patterns of behavior as causes: the income effect and the substitution effect.

The income effect is the term used for a change in the amount of a product that a consumer will buy because the purchasing power of his or her income changes—even though the income itself does not change. For example, you can buy more paperback books if they are priced at $7 than if they are priced at $15. If you buy a $7 book, you will feel $8 “richer” than if you buy a $15 book, so you are more likely to buy another book. The income effect also influences behavior when prices rise. You will feel $8 “poorer” if you buy a $15 book instead of a $7 one, so you will buy fewer books overall.

The substitution effect is the pattern of behavior that occurs when consumers react to a change in the price of a good or service by buying a substitute product—one whose price has not changed and that offers a better relative value. For example, if the price of paperback books climbs above $10, consumers might decide to buy fewer books and choose instead to buy $4 magazines.

**APPLICATION Drawing Conclusions**

A. Malik goes to the mall to buy a $40 pair of blue jeans and discovers that they are on sale for $25. If Malik buys two pairs, is this an example of the income effect or the substitution effect? Explain your answer.
Change in Quantity Demanded

**KEY CONCEPTS**

Remember that each demand curve represents a specific market situation in which price is the only variable. A change in the amount of a product that consumers will buy because of a change in price is called a change in quantity demanded. Each change in quantity demanded is shown by a new point on the demand curve. A change in quantity demanded does not shift the demand curve itself.

**EXAMPLE Changes Along a Demand Curve**

Let’s look again at Cheryl’s demand curve for DVDs (Figure 4.7 below). Note the quantities demanded at each price. Notice that as quantity demanded changes, the change is shown by the direction of the movement right or left along the demand curve.

![Figure 4.7 CHANGE IN QUANTITY DEMANDED](image)

A change in quantity demanded doesn’t shift the demand curve. The change refers to movement along the curve itself. Each point on the curve represents a new quantity demanded.

- **a** As you move to the right along the curve, the quantity demanded increases.
- **b** As you move to the left, the quantity demanded decreases.

**ANALYZE GRAPHS**

1. What is the change in quantity demanded when the price drops from $20 to $10?
2. What is the direction of the movement along the demand curve when the quantity decreases?

Figure 4.7 shows change in quantity demanded for one person. A market demand curve provides similar information for an entire market. However, market demand curves have larger quantities demanded and larger changes to quantity demanded because they combine data from all individual demand curves in the market.

**APPLICATION Applying Economic Concepts**

B. Why do increases or decreases in quantity demanded not shift the position of the demand curve?
KEY CONCEPTS

Consider what might happen if you lose your job. If you aren’t earning money, you aren’t likely to buy many CDs or movie tickets or magazines—no matter how low the price. Similarly, when national unemployment rises, people who are out of work are more likely to spend their limited funds on food and housing than on entertainment. Fewer people would be buying DVDs at every price, so market demand would drop.

This is an example of a **change in demand**, which occurs when a change in the marketplace such as high unemployment prompts consumers to buy different amounts of a good or service at every price. Change in demand is also called a shift in demand because it actually shifts the position of the demand curve.

Six factors can cause a change in demand: income, market size, consumer tastes, consumer expectations, substitute goods, and complementary goods. An explanation of each one follows.

FACTOR 1 Income

If a consumer’s income changes, either higher or lower, that person’s ability to buy goods and services also changes. For example, Tyler works at a garden center. He uses his earnings to buy baseball cards for his collection. In the fall, people garden less and buy fewer gardening products, so Tyler works fewer hours. His smaller paycheck means that he has less money to spend, so he demands fewer baseball cards at every price. Figure 4.8 shows this change. The entire demand curve shifts to the left.
Suppose, however, that Tyler is promoted to supervisor and receives a raise of $2 an hour. Now he has more money to spend, so his demand for baseball cards increases and his demand curve shifts to the right—as shown in Figure 4.9 on page 109.

As you might guess, changes in income also affect market demand curves. When the incomes of most consumers in a market rise or fall, the total demand in that market also usually rises or falls. The market demand curve then shifts to the right or to the left.

Increased income usually increases demand, but in some cases, it causes demand to fall. **Normal goods** are goods that consumers demand more of when their incomes rise. **Inferior goods** are goods that consumers demand less of when their incomes rise. Before his raise, Tyler shopped at discount stores for jeans and T-shirts. Now that he earns more, Tyler can afford to spend more on his wardrobe. As a result, he demands less discounted clothing and buys more name-brand jeans and tees. Discounted clothing is considered an inferior good. Other products that might be considered inferior goods are used books and generic food products.

**NORMAL GOODS AND INFERIOR GOODS**

**If your income rises, which car will you choose?**

Most people prefer to buy a new car if they can afford it. Used cars are an example of inferior goods—demand for them drops when incomes rise because people prefer new-car quality to getting a bargain.

**FACTOR 2 Market Size**

If the number of consumers increases or decreases, the market size also changes. Such a change usually has a corresponding effect on demand. Suppose that the town of Montclair is on the ocean. Each summer, thousands of tourists rent beachfront cottages there. As a result, the size of the population and the market grows. So what do you think happens to the market demand curve for pizza in Montclair in the summer? Check the two graphs at the top of the next page.

Population shifts have often changed the size of markets. For example, in the last 30 years, the Northeast region of the United States lost population as many people moved to the South or the West. The causes of the population shift included the search for a better climate, high-tech jobs, or a less congested area.
One economic result of the migration is that the overall market size of the Northeast has shrunk, while the market size of the South and the West has grown. This change in market size has altered the demand for many products, from essentials such as homes, clothing, and food to nonessentials such as movie tickets. Demand for most items will grow in booming regions and decrease in regions that are shrinking.

**FACTOR 3 Consumer Tastes**

Because of changing consumer tastes, today’s hot trends often become tomorrow’s castoffs. When a good or service enjoys high popularity, consumers demand more of it at every price. When a product loses popularity, consumers demand less of it.

Advertising has a strong influence on consumer tastes. Sellers advertise to create demand for the product. For example, some people stop wearing perfectly good pants that still fit because advertising convinces them that the style is no longer popular and that a new style is better.

Think about your own closet. Doesn’t it contain some item of clothing that you just had to have a year ago, but would never pay money for now? You’ve just identified an instance of consumer taste changing demand. Consumer tastes also affect demand for other products besides clothing. When was the last time you saw someone buying a telephone that had to be attached to the wall by a cord?

**FACTOR 4 Consumer Expectations**

Your expectations for the future can affect your buying habits today. If you think the price of a good or service will change, that expectation can determine whether you buy it now or wait until later.
Let’s look at one example of how consumer expectations shape demand. Automobiles usually go on sale at the end of summer because dealers want to get rid of this year’s models before the new models arrive. Would you expect demand for new cars to be higher in May, before the sales, or in August, during the sales? It is higher in August because consumers expect the sales and often choose to wait for them.

**Factor 5: Substitute Goods**

Goods and services that can be used in place of other goods and services to satisfy consumer wants are called *substitutes*. Because the products are interchangeable, if the price of a substitute drops, people will choose to buy it instead of the original item. Demand for the substitute will increase while demand for the original item decreases. People may also turn to substitutes if the price for the original item becomes too high. Again, demand for the substitute rises while demand for the original item drops.

Substitutes can be used in place of each other. For example, when gasoline prices are high, some people decide to commute to school by bus or train. When gasoline prices are low, a higher number of people choose to drive instead of to take public transportation. As you can see from that example, when the price of one good rises, demand for it will drop while demand for its substitute will rise.

**Factor 6: Complementary Goods**

When the use of one product increases the use of another product, the two products are called *complements*. An increase in the demand for one will cause an increase in the demand for the other. Likewise, a decrease in demand for one will cause a decrease in demand for the other.

In contrast to substitutes, complements are goods or services that work in tandem with each other. An increase in demand for one will cause an increase in demand for the other. One example is CDs and CD players. Consumers who bought CD players...
also demanded CDs to play on them. And, as CDs became more popular, demand for CD players grew until they began to appear in places they had never been before, such as in the family minivan.

Therefore, with complements, if the price of one product changes, demand for both products will change in exactly the same way. If the price for one product rises, demand for both will drop. Conversely, if the price for one product drops, demand for both will rise.

**APPLICATION Categorizing Information**

C. Choose one of the following products: soda, hamburgers, pencils, or tennis rackets.

On your own paper, list as many substitutes and complements for the product as you can. Compare your lists with those of a classmate.
Analyzing Political Cartoons

Political cartoons often deal with economic themes. Because of this, you will find that the skill of interpreting political cartoons helps you to understand the economic issues on people’s minds.

TECHNIQUES USED IN POLITICAL CARTOONS Political cartoonists use many techniques to deliver their message. The techniques used in this cartoon include:

- **Exaggeration** The cartoonist has shown the automobile as towering over humans to make the point that some Americans drive big cars that are gas-guzzlers.
- **Labels** Cartoonists use written words to identify people, groups, or events. Notice the sign on the gas pump referring to OPEC (Organization of Petroleum Exporting Countries) and the license plate on the car.
- **Stereotyping** Here a stereotype image of a man in Arab robes stands for OPEC, even though not all OPEC countries are in the Middle East.

Other techniques that political cartoonists use include caricature, or creating a portrait that distorts a person’s features; symbolism, using an object or idea to stand for something else; and satire, attacking error or foolishness by ridiculing it.

THINKING ECONOMICALLY Analyzing

1. What does the phrase “Too high!!” mean?
2. What complementary goods are shown in this cartoon? Why are they complementary?
3. How does this cartoon relate to demand? Consider the effect of rising prices, especially rising prices for complementary goods.
REVIEWING KEY CONCEPTS

1. Explain the differences between the terms in each of the pairs below:
   a. change in quantity demanded
   b. income effect
   c. normal goods
   d. substitutes
   change in demand
   substitution effect
   inferior goods
   complements

2. What feature of demand curves is explained by the law of diminishing marginal utility?

3. How does the income effect influence consumer behavior when prices rise?

4. Why might an increase in income result in a decrease in demand?

5. What else besides migration might account for a change in market size?

6. Using Your Notes Why does a change in market size affect demand? Refer to your completed chart.
   Use the Graphic Organizer at Interactive Review @ ClassZone.com

CRITICAL THINKING

7. Analyzing Causes A new version of the computer game Big-Hit Football just came out. Malik buys it now because it has improvements over the current version, which he is bored with. Cheryl decides to wait to see if the price drops. Which of the factors shown in the chart on page 113 affected their decisions?

8. Applying Economic Concepts The U.S. government has used many strategies to reduce smoking. It banned television ads for cigarettes, ran public service messages about the health risks of smoking, and imposed taxes on cigarettes. Which factors that affect demand was the government trying to influence?

9. Analyzing Effects Take out the market demand curve for athletic shoes that you created on page 105. Add a new curve showing how demand would be changed if the most popular basketball player in the NBA endorses a brand of shoes that your store does not sell. Share your graph with a classmate and explain your reasoning.

10. Challenge Do you think changes in consumer taste are most often initiated by the consumers themselves or by manufacturers and advertisers? Explain your answer, using real-life examples.

SECTION 2  Assessment

ECONOMICS IN PRACTICE

Explaining Changes in Demand
Think about different types of bicycles: road bikes, mountain bikes, hybrid bikes. What factors affect demand for bicycles?

Identify Factors Affecting Demand The table below lists examples of a change in demand in the market for bicycles. For each example, identify which factor that affects demand is involved.

<table>
<thead>
<tr>
<th>Example of Change in Demand</th>
<th>Factor That Affected Demand</th>
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<tbody>
<tr>
<td>Electric scooter sales rise, and bike sales fall.</td>
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<tr>
<td>The cost of aluminum alloy bike frames is about to rise; consumers buy bikes now.</td>
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<tr>
<td>Using a folding bicycle becomes a fad among commuters. Sales of this type of bike boom.</td>
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<tr>
<td>The U.S. birth rate declined for 10 years in a row, eventually causing a drop in sales of children's bikes.</td>
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Challenge Identify the two factors affecting demand that do not appear on this table. Provide examples of how these factors might affect demand for bicycles.