

Prices and Decision Making

Economics & You



What factors do you consider when you need to make a decision to buy something? Price may be one of the most important factors of all. In this chapter, you will learn how price serves as a signal to both buyers and sellers. To learn more about the effect of supply and demand on prices, view the Chapter 12 video lesson:

The Price System at Work



Chapter Overview Visit the *Economics: Principles and Practices* Web site at epp.glencoe.com and click on *Chapter 6—Chapter Overviews* to preview chapter information.

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CONTENTS

Prices for products in a market economy are determined by the interaction of supply and demand.

Dakota
Whole
Wheat
\$4.75

Spinach Feta
\$5.25

Prices as Signals

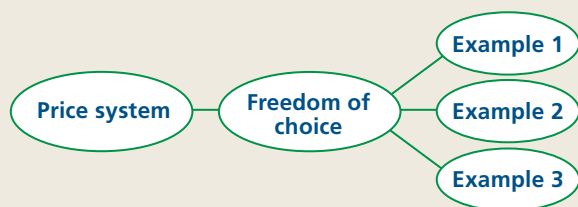
Study Guide

Main Idea

Competitive markets and prices are important to capitalism.

Reading Strategy

Graphic Organizer As you read the section, complete a graphic organizer similar to the one below by providing examples from your own experience that show how the price system provides for freedom of choice.



Key Terms

price, rationing, ration coupon, rebate

Objectives

After studying this section, you will be able to:

1. **Explain** how prices act as signals.
2. **Describe** the advantages of using prices as a way to allocate economic products.
3. **Understand** the difficulty of allocating scarce goods and services without using prices.

Applying Economic Concepts

Rationing Have you and your friends ever tried to share something—a candy bar, cake, or pizza—when there really wasn't enough to go around? Read to find out about different ways to deal with making allocations.

Cover Story

Cuban Fans Left Out of O's Game

HAVANA—Cuban baseball fans expressed dismay Thursday that attendance at Sunday's highly anticipated exhibition game with the Baltimore Orioles would be by invitation only.

Only Cubans invited by the Communist Party or trade unions will be allowed to attend the game with the Orioles, the first Major League team to play here since Fidel Castro came to power in 1959. . . .

Baseball fans here made no secret of their distress. At Havana's *Esquino Caliente* (Hot Corner), . . . (fans) complained that "90% of the people who got the invitations don't know baseball. The real fans are the people who deserve the seats."

—USA Today, March 26, 1999



Off-the-field controversy overshadowed the game.

Life is full of signals that help us make decisions. For example, when we pull up to an intersection, we look to see if the traffic light is green, yellow, or red. We look at the other cars to see if any have their blinkers on, and in this way receive signals from other drivers regarding their intentions to turn. Doctors even tell us that pain is a signal that something is wrong with our body and may need attention. But have you ever thought about the signals that help us make our everyday economic decisions?

It turns out that something as simple as a **price**—the monetary value of a product as established by supply and demand—is a signal that helps us make our economic decisions. Prices communicate information and provide incentives to buyers and sellers. High prices are signals for producers to produce more and for buyers to buy less. Low prices are signals for producers to produce less and for buyers to buy more.

Advantages of Prices



Prices serve as a link between producers and consumers. In doing so, they help decide the three basic WHAT, HOW, and FOR WHOM questions all societies face. Without

prices, the economy would not run as smoothly, and decisions about allocating goods and services would have to be made some other way. Prices perform the allocation function very well for the following reasons.

First, prices in a competitive market economy are neutral because they favor neither the producer nor the consumer. This is because prices are the result of competition between buyers and sellers and, in this way, represent compromises that both sides can live with. The more competitive the market, the more efficient the price adjustment process.

Second, prices in a market economy are flexible. Unforeseen events such as natural disasters and war affect the prices of many items. Buyers and sellers react to the new level of prices and adjust their consumption and production accordingly. Before long, the system functions as smoothly again as it had before. The ability of the price system to absorb unexpected “shocks” is one of the strengths of a market economy.

Price flexibility also allows the market economy to accommodate change. The development of the personal computer provides an example. The early personal computers were relatively scarce and expensive, which attracted new producers. The resulting competition, along with advances in technology and production methods, soon drove prices lower, which attracted more consumers. More computers were needed to meet the demand, which brought more producers into the market. This new round of competition lowered prices even more, which attracted even more buyers. Consequently, a major innovation—the computer—entered the economy with the help of the price system and without the involvement of government or one of its bureaucracies.

Third, prices have no cost of administration. Competitive markets tend to find their own prices without outside help or interference. No bureaucrats need to be hired, no committees formed, no laws passed, or other decisions made. Even when prices adjust from one level to another, the change is usually so gradual that people hardly notice.

THE GLOBAL ECONOMY



COMPARING FOOD PRICES

The cost for a market basket of staple items varies widely around the world. The prices shown are for capital cities.

	\$18.79 United States		\$28.14 Madrid, Spain
	\$23.19 London, England		\$30.10 Paris, France
	\$27.38 Rome, Italy		\$74.23 Tokyo, Japan

Source: USDA, 1999

One way to compare prices is to study a representative sample, called the market basket. The figures in the chart are based on a market basket that includes these staples:

- 1 gallon of milk
- 1 dozen eggs
- 1 pound of cheddar cheese

- 2 pounds of sirloin steak
- 2 pounds of apples
- 5 pounds of sugar

Critical Thinking

1. **Analyzing Information** In which location are these items the costliest?
2. **Drawing Conclusions** What factors do you think account for the wide range of prices?



Finally, prices are something that we have known about all our lives, from the time we were old enough to ask our parents to buy us something to the age where we were old enough to buy it ourselves. As a result, prices are familiar and easily understood. There is no ambiguity over a price—if something costs \$1.99, then we know exactly what we have to pay for it. This allows people to make decisions quickly and efficiently, with a minimum of time and effort.

Allocations Without Prices



Prices are important because they help us make the everyday economic decisions that allocate scarce resources and the products made from them. But what would life be like without a price system?

How would a car dealer allocate a limited supply of sports cars? Would intelligence, or perhaps good looks, or even political connections, determine who could get a car?

These criteria may seem far-fetched, but they are used in many parts of the world today, especially in countries with command economies, such as Cuba. After all, the local baseball fans did not get to see the exhibition game with the Baltimore Orioles in Havana. Instead, the seats were reserved for Communist Party and trade union members.

Without prices, another system must be used to decide who gets what. One method is **rationing**—a system under which an agency such as government decides everyone’s “fair” share. Under such a system, people receive a **ration coupon**, a ticket or a receipt that entitles the holder to obtain a certain amount of a product. Rationing is used in many societies today, and it has been widely used during wartime, but it can lead to problems.

The Problem of Fairness

The first problem with rationing is that almost everyone feels his or her share is too small. During



Advantages When energy prices rose, demand for luxury cars fell, while demand for smaller, more fuel-efficient autos jumped. *Why are prices considered neutral?*

the oil crisis of the early 1970s, for example, the government made plans for, but never implemented, a gas rationing program. One of the major problems with the program was determining how to allocate the gas rationing coupons. Any number of ways to allocate the gas coupons were formulated, but the issue of fairness was never resolved.

High Administrative Cost

A second problem is the cost. Someone has to pay for printing the coupons and the salaries of the people who distribute them. In addition, no matter how much care is taken, some coupons will be stolen, sold, or counterfeited and used to acquire a product intended for someone else.


Diminishing Incentive

A third problem is that rationing has a negative impact on people’s incentive to work and produce. Suppose that authorities went ahead with a rationing system and that you were given a certain number of coupons. How would this affect your incentive to work? If you could not get more

coupons by working harder, and if you got the same amount of coupons if you worked less, you certainly would lose some of your incentive to work.

Nonprice allocation mechanisms, such as rationing, raise issues that do not occur under a price allocation system. As long as we have prices, goods can be allocated through a system that is neutral, flexible, efficient, and easily understood by all.

Prices as a System

 Because of the many difficulties with non-price allocation systems, economists overwhelmingly favor the price system. In fact, prices do more than help individuals in specific markets make decisions: they also serve as signals that help allocate resources between markets.

Consider the way in which higher oil prices affected producer and consumer decisions when the price of oil went from \$5 to over \$40 a barrel in the 1970s. Because the demand for oil is basically inelastic, people spent a greater part of their income on energy. Higher energy costs left them with less to spend elsewhere.

The market for full-size automobiles was one of the first to feel the effects. Because most large cars got poor gas mileage, people bought fewer large

cars and more smaller ones, leaving dealerships with huge inventories of gas guzzlers.

At first, automakers thought the increase in gas prices would be temporary, so they were reluctant to switch over to smaller, more fuel-efficient models. As time went on, however, the surplus of unsold cars remained. To move their inventories, some manufacturers began to offer a **rebate**—a partial refund of the original price of the product. The rebate was the same as a temporary price reduction, because consumers were offered \$500, \$600, and even \$1,000 back on each new car they bought.

Finally, automakers began reducing their production of large cars. They closed plants, laid off workers, and started to change to small car production. Many of the automobile workers who lost their jobs eventually found new ones in other industries. The result of higher prices in the international oil market, then, was a shift of productive resources out of the large car market into other markets. Although the process was a painful one for many in the industry, it was natural and necessary for a market economy.

In the end, prices do more than convey information to buyers and sellers in a market—they also help buyers and sellers allocate resources between markets. This is why economists think of prices as a “system”—part of an informational network—that links all markets in the economy.

Section 1 Assessment

Checking for Understanding

- 1. Main Idea** Using your notes from the graphic organizer activity on page 137, describe how price affects decisions that consumers make.
- 2. Key Terms** Define price, rationing, ration coupon, rebate.
- 3. Describe** how producers and consumers react to prices.
- 4. List** the advantages of using prices to distribute economic products.
- 5. Explain** the difficulties of allocating goods and services without a price system.

Applying Economic Concepts

- 6. Rationing** From your own experience, describe a situation that required some form of rationing. What criteria were used to allocate the good or service, and what were some of the problems with each of the criteria?

Critical Thinking

- 7. Understanding Cause and Effect** List five items you would like to buy. How does the price of each item affect your decision to allocate your scarce resources—your money and your time? Explain.



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Profiles IN Economics

Society and Economics: Gary Becker (1930–)

Gary Stanley Becker is a professor of economics at the prestigious University of Chicago. Becker's work? The pioneering application of *economic* analysis to *social* problems such as crime, discrimination, and drug abuse. For his unique insight, Becker was awarded the Nobel Prize in economics in 1992.

Professor Becker views individuals as rational decision makers. People, he says, make life decisions largely in the economic terms of self-interest and the incentives of the market. He argues that viewing individual decisions in this way—as choices based on costs and benefits—helps explain individual human behaviors and their societal results. Becker offered an example of a life choice based on economic thinking: “The number of children a couple has depends on the costs and benefits of child rearing. . . . [C]ouples tend to have fewer children when the wife works and has a better-paying job, when subsidies and tax deductions for dependents are smaller, when the cost of educating and training children rises, and so forth.”



Monetarism Man: Milton Friedman (1912–)

Milton Friedman is one of the best-known economists working today. His popular column in *Newsweek* helped make his a household name.

Friedman's writings have covered an extraordinary variety of topics, many of which were put forth in his book, *Capitalism and Freedom* (1962), which has become a standard. Friedman voiced opposition to such popular policies as agricultural subsidies, price controls, and a minimum wage.

Friedman has been most influential as an unwavering supporter of monetarism—the theory that the quantity of money in an economy is a critical factor in the overall

state of the economy. The key to his argument is that changes in the rate of growth of the money supply have varying and unpredictable lags, which makes fine-tuning the economy virtually impossible. Friedman claims that the Federal Reserve System should let the money supply grow at a constant rate to avoid destabilizing the economy. For his theories on economic stabilization, Friedman was awarded the Nobel Prize in economics in 1976.



Examining the Profiles

- 1. Making Comparisons** How are Becker's and Friedman's ideas similar and different?
- 2. For Further Research** Read an article or book by Becker or Friedman. Present a summary of the work to the class.

The Price System at Work

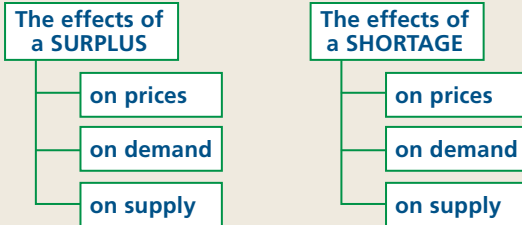
Study Guide

Main Idea

Changes in demand and supply cause prices to change.

Reading Strategy

Graphic Organizer As you read the section, complete a graphic organizer similar to this, showing how a surplus and shortage affect prices, demand, and supply.



Key Terms

economic model, market equilibrium, surplus, shortage, equilibrium price

Objectives

After studying this section, you will be able to:

1. **Understand** how prices are determined in competitive markets.
2. **Explain** how economic models can be used to predict and explain price changes.
3. **Apply** the concepts of elasticity to changes in prices.

Applying Economic Concepts

Equilibrium Price When something is at equilibrium, it tends to remain at rest. Read to find out what causes prices to reach, and then stay at, equilibrium.

Cover Story

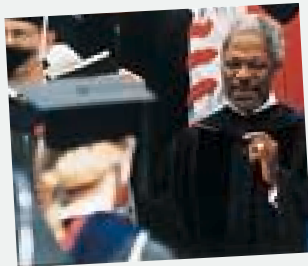
Engineering Extra Tickets

If Massachusetts Institute of Technology students don't know the law of supply and demand coming into school, they sure have it down by graduation. Just ask Steve Shapiro.

Like all graduating seniors, he was allotted four free tickets to his June 4 commencement. But 11 relatives are planning to attend. . . .

Enter the Graduation Ticket Trading Center, a Web site set up by MIT's class of 1999 for seniors who want to buy or sell tickets to the ceremony. . . .

It's clearly a seller's market. Most suppliers were looking for about \$100 a ticket, though one fellow had four tickets for anyone who would take a final exam for him. . . .



UN Secretary-General Kofi Annan addresses MIT graduates.

—USA Today, May 27, 1999

One of the most appealing features of a competitive market economy is that everyone who participates has a hand in determining prices. This is why economists consider prices to be neutral and impartial.

The process of establishing prices, as illustrated by the example of the Graduation Ticket Trading Center, is remarkable because buyers and sellers have exactly the opposite hopes and desires. Buyers want to find good buys at low prices. Sellers hope for high prices and large profits. Neither can get exactly what they want, so some adjustment is necessary to reach a compromise.

The Price Adjustment Process



Because transactions in a market economy are voluntary, the compromise that eventually takes place must be to the benefit of both parties, or the compromise would not occur in the first place.

An Economic Model

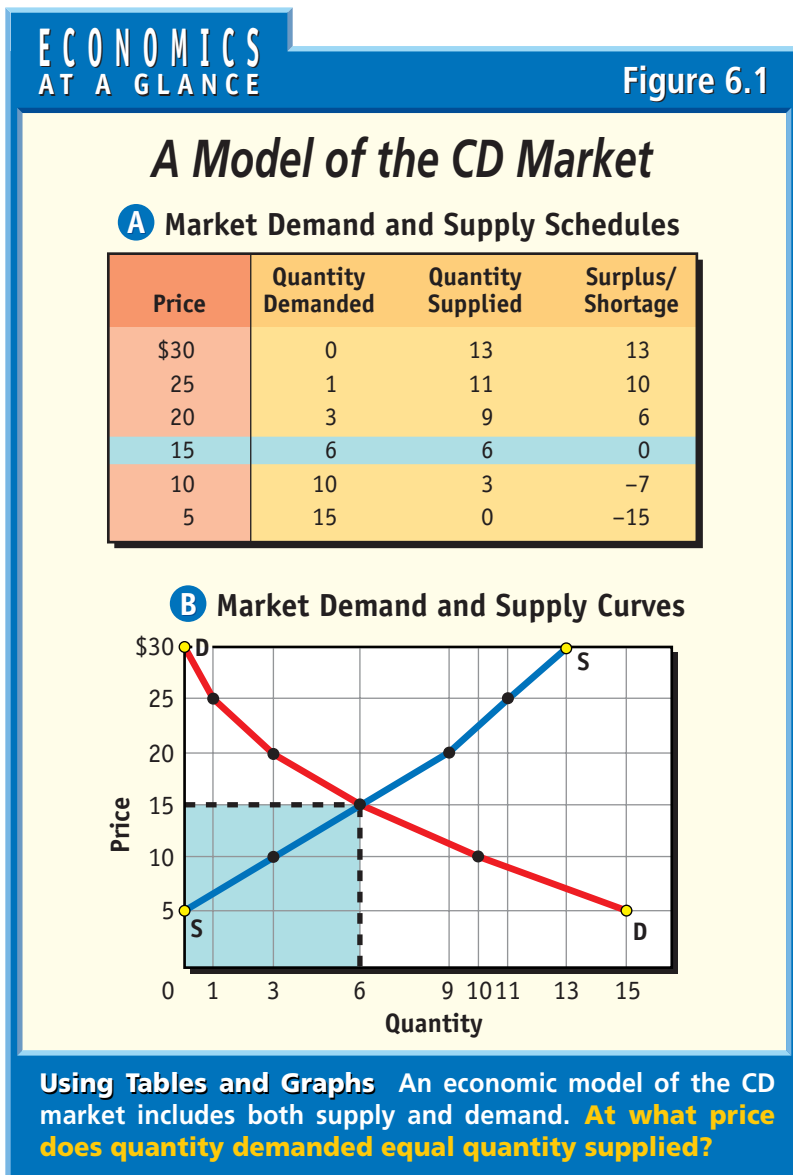
To show how the adjustment process takes place, we use the supply and demand illustration shown in **Figure 6.1**—one of the more popular

“tools” used by economists. The figure illustrates an **economic model**—a set of assumptions that can be listed in a table, illustrated with a graph, or even stated algebraically—to help analyze behavior and predict outcomes.

The data in the figure is already familiar to you. The numbers in the first two columns in the schedule and the market demand curve **DD** are from **Figure 4.2** on page 92. The information in the schedule and curve reflects the Law of Demand, showing that consumers will buy more at lower prices and less at higher prices.

The numbers in the first and third column of the schedule and the market supply curve **SS** come from **Figure 5.2** on page 117. This information reflects the Law of Supply, showing that suppliers will offer more for sale at higher prices and less at lower ones.

Separately, each of these graphs represents the demand and the supply sides of the market. When they are combined, as in **Panel B** of **Figure 6.1**, we have a complete model of the market, which will allow us to analyze how the interaction of buyers and sellers results in a price that is agreeable to all.



Market Equilibrium

In a competitive market, the adjustment process moves toward **market equilibrium**—a situation in which prices are relatively stable, and the quantity of goods or services supplied is equal to the quantity demanded. In **Figure 6.1**, equilibrium is reached when the price is \$15 and the quantity supplied is six units.

How does the market find this equilibrium on its own? Why did the market settle at \$15, rather than \$20, or \$10, or at some other price? To answer these questions, we have to examine the reactions of buyers and sellers to market prices. In addition, we assume that neither knows the final price, so we’ll have to find it using trial and error—like the MIT seniors did when they introduced their Graduation Ticket Trading Center Web site described in the cover story.

Surplus

We start on Day 1 with sellers thinking that the price for musical CDs will be \$25. If you examine the supply schedule and curve in **Figure 6.1**, you see that suppliers will produce 11 units for sale at that price. However, the suppliers soon discover that buyers will purchase only one CD at a price of \$25, leaving a surplus of 10.

Price Determination



Price Adjustment Bicycle shops and other businesses often price certain goods below cost to attract customers. *What can occur if the price for a given product is too low?*

A **surplus** is a situation in which the quantity supplied is greater than the quantity demanded at a given price. The 10 unit surplus at the end of Day 1 is shown in column four of **Panel A** in **Figure 6.1** as the difference between the quantity supplied and the quantity demanded at the \$25 price. It is also shown graphically in **Panel A** of **Figure 6.2** as the horizontal distance between the supply and demand curves.

This surplus shows up as unsold products on suppliers' shelves, and it begins to take up space in the suppliers' warehouses. Sellers now know that \$25 is too high, and they know that they have to lower their price if they want to attract more buyers and dispose of the surplus.

Therefore, the price tends to go down as a result of the surplus. The model cannot tell us how far the price will go down, but we can reasonably assume that the price will go down only a little if the surplus is small, and much more if the surplus is larger.

Shortage

Suppliers are more cautious on Day 2, and so they anticipate a much lower price of \$10. At that price, the quantity they are willing to supply changes

to three compact discs. However, as **Panel B** in **Figure 6.2** shows, this price turns out to be too low. At a market price of \$10, only three CDs are supplied and 10 are demanded—leaving a shortage of seven CDs.

A **shortage** is a situation in which the quantity demanded is greater than the quantity supplied at a given price. When a shortage happens, producers have no more CDs to sell, and they end the day wishing that they had charged higher prices for their products.

As a result, both the price and the quantity supplied will go up in the next trading period. While our model does not show exactly how much the price will go up, we can assume that the next price will be less than \$25, which we already know is too high.

Equilibrium Price

If the new price is \$20 on Day 3, the result will be the surplus of six CDs shown in **Panel C** of **Figure 6.2**. This surplus will cause the price to drop, but probably not below \$10, which already proved to be too low. If the price drops to \$15, as shown in **Panel D** in **Figure 6.2**, the market will have found its equilibrium price. The **equilibrium price** is the price that “clears the market” by leaving neither a surplus nor a shortage at the end of the trading period.

While our economic model of the market cannot show exactly how long it will take to reach equilibrium, equilibrium will be reached because of the pressure that temporary surpluses and shortages put on prices. Whenever the price is set too high, the surplus will tend to force it down. Whenever the price is set too low, the shortage

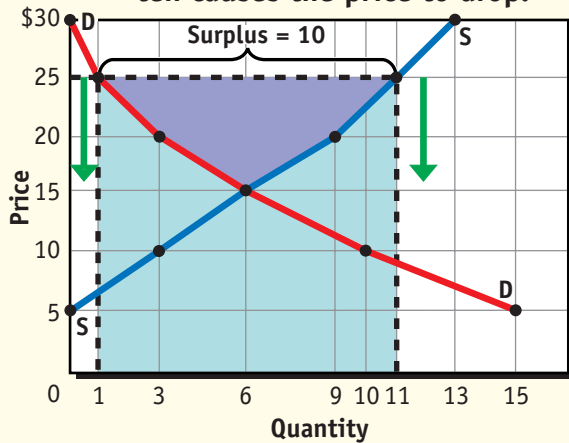
CYBERNOMICS SPOTLIGHT

The Internet and Prices

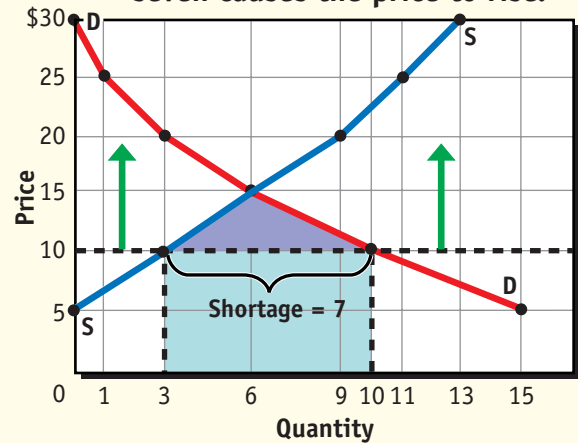
When you buy a \$100 sweater at a stylish boutique, most of the money you pay goes to the distribution channels. The Internet lessens the need for most go-betweens, thus it eliminates most distribution costs and increases the possible savings for both the consumer and the manufacturer.

Dynamics of the Price Adjustment Process

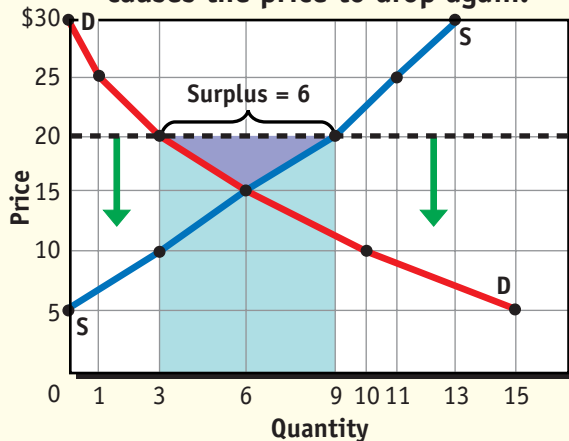
A At a price of \$25, a surplus of ten causes the price to drop.



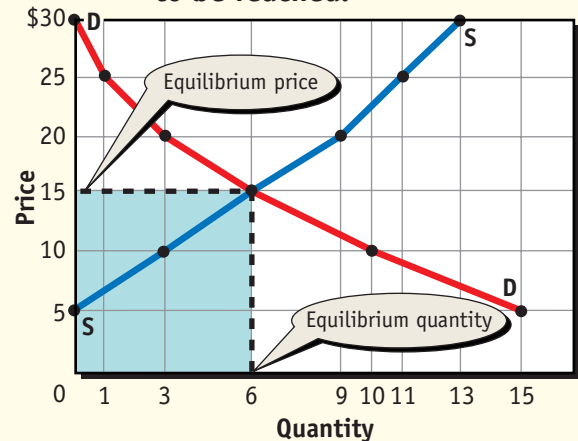
B At a price of \$10, a shortage of seven causes the price to rise.



C At a price of \$20, a surplus of six causes the price to drop again.



D Alternating surpluses and shortages cause equilibrium to be reached.




Using Graphs In a competitive market, prices are drawn toward equilibrium as a result of the constant pressures from temporary surpluses and shortages. Panel A shows that a price of \$25 will create a surplus. A surplus is also created on Day 3, as shown in Panel C. **Why did a surplus occur on Day 1?**

will tend to force it up. As a result, the market tends to seek its own equilibrium.

When the equilibrium price of \$15 is reached, it will tend to remain there because the quantity supplied is exactly equal to the quantity demanded. Something could come along to disturb the equilibrium, but then new shortages or new surpluses, or both, would appear to push the price to its new equilibrium level.

Explaining and Predicting Prices

 Economists use their market models to explain how the world around us works and to predict how certain events such as changes in prices might occur. A change in price is normally the

result of a change in supply, a change in demand, or changes in both. Elasticity of demand is also important when predicting prices.

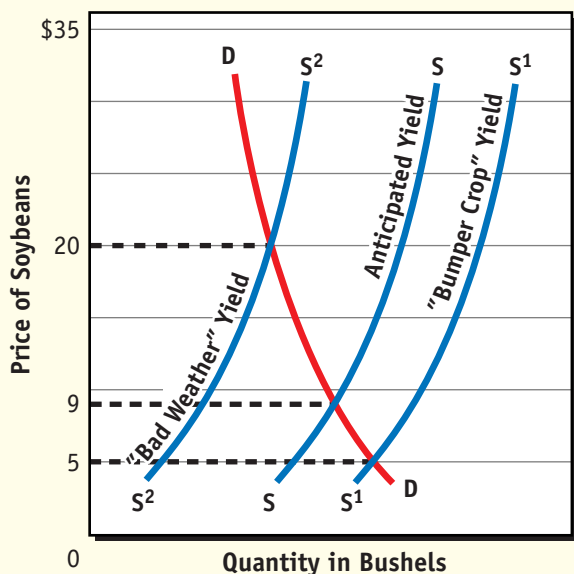
Changes in Supply

Consider the case of agriculture, which often experiences wide swings in prices from one year to the next. A farmer may keep up with all the latest developments and have the best advice experts can offer, but the farmer never can be sure what price to expect for the crop. A soybean farmer may put in 500 acres of beans, expecting a price of \$9 a bushel. The farmer knows, however, that the actual price may end up being anywhere from \$5 to \$20.

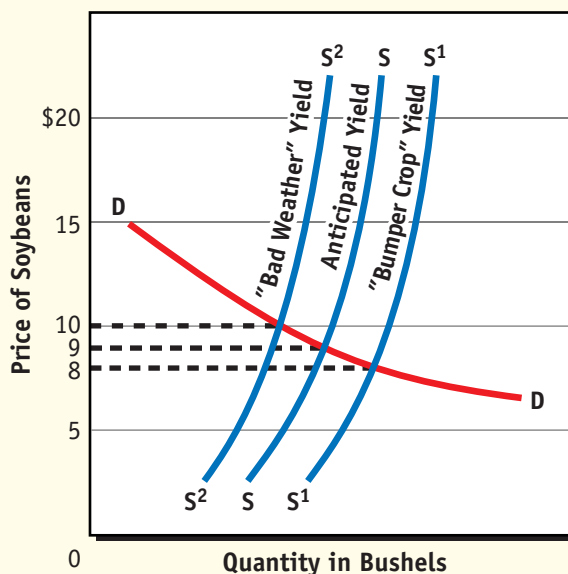
Weather is one of the main reasons for the variation in agricultural prices. If it rains too much after

Factors Affecting Price Changes in Agriculture

A Inelastic Supply and Demand

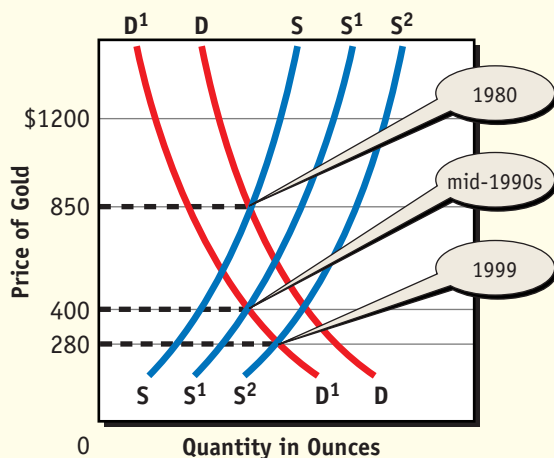


B Same Supply with Elastic Demand



Using Graphs Diagram A shows that larger price changes occur when both the supply and demand curves are highly inelastic. When the demand curve is more elastic, as in Diagram B, price fluctuations are smaller. **What happens to the slope of a supply curve when it becomes more elastic?**

The Price of Gold When Supply and Demand Change



Using Graphs A change in supply, a change in demand, or a change in both can influence prices. **What could cause the price of gold to go back up?**

the farmer plants the seeds, the seeds may rot or be washed away and the farmer must replant. If it rains too little, the seeds may not sprout. Even if the weather is perfect during the growing season, rain can still prevent the harvest from being gathered. The weather, then, often causes a change in supply.

The result, shown in **Panel A** of **Figure 6.3**, is that the supply curve is likely to shift, causing the price to go up or down. At the beginning of the season, the farmer may expect supply to look like curve **SS**. If a bumper, or record, crop is harvested, however, supply may look like **S¹S¹**. If bad weather strikes, supply may look like **S²S²**. Because both demand and supply for food is inelastic, a small change in supply is enough to cause a large change in the price.

Importance of Elasticity

What would happen to prices if the demand for soybeans were highly elastic, as in **Panel B** of **Figure 6.3**? The results would be quite different. Because this demand curve is much more elastic, the prices would only range from \$8 to \$10 a bushel instead of from \$5 to \$20 a bushel.

Economists consider elasticity of demand whenever a change in supply occurs. When a given change in supply is coupled with an inelastic demand curve, as in **Panel A** of **Figure 6.3**, price changes dramatically. When the same change in supply is coupled with a very elastic demand curve, such as that in **Panel B** of **Figure 6.3**, the change in price is much smaller.

In general, price changes in any given market are likely to be wider if both supply and demand are inelastic. The same price changes are likely to be less volatile if both curves are elastic.

Changes in Demand

A change in demand, like a change in supply, can also affect the price of a good or service. All of the factors we examined in Chapter 4—changes in income, tastes, prices of related products, expectations, and the number of consumers—affect the market demand for goods and services. One example is the demand for gold.

Figure 6.4 shows why gold prices have changed so dramatically over a 20-year period. In 1980, rising prices, uncertain economic conditions, and other factors created a high demand for gold. When

this demand, shown as **DD** in the figure, was combined with a relatively tight supply, **SS**, the price of gold reached \$850 per ounce.

By the mid-1990s, economic fears declined and people lost some of their desire for gold. This had the effect of shifting the demand curve to **D¹D¹**.


Meanwhile, gold producers reacted to the sky-high price in a predictable manner—they reopened mines that had been closed because of low gold prices and resumed production. This had the effect of increasing the supply of gold to **S¹S¹**. The combination of increased supply and reduced demand drove the price of gold down to the \$400 level.

In early 1999, more bad news hit the gold market. The Bank of England announced plans to sell about 400 tons of gold, or slightly more than half of its official gold stock, causing the supply curve to shift to **S²S²** and the price of gold to reach a new low of \$280 an ounce.

However the price of gold fluctuates, one thing is certain—everything depends on the demand and

the supply. Whenever economic conditions or political instability threatens, people tend to increase their demand for gold and drive the price up. Whenever the supply of gold increases dramatically—as when a major holder of gold like the Bank of England sells half of its gold holdings—the supply of gold increases, driving the price down.

The Competitive Price Theory

 The theory of competitive pricing represents a set of ideal conditions and outcomes. The theory is important because it serves as a model by which to measure the performance of other, less competitive market structures. Even so, many markets come reasonably close to the ideal.

The prices of some foods such as milk, flour, bread, and many other items in your community will be relatively similar from one store to the next. When the prices of these items vary, it may be because advertisers have convinced some people that its brand is slightly better than others. Another reason may be that buyers are not well informed. The price of gasoline, for example, is usually higher at stations near an expressway because gas station owners know that travelers do not know the location of lower cost stations in an unfamiliar area.

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Economics Online



Student Web Activity Visit the *Economics: Principles and Practices* Web site at www.glencoe.com and click on **Chapter 6—Student Web Activities** for a price comparison activity.

Fortunately, markets only have to be reasonably competitive—rather than perfect—to be useful. The great advantage of competitive markets is that they allocate resources efficiently. As sellers compete to meet consumer demands, they are forced to lower the price of their goods, which in turn encourages them to keep their costs down. At the same time, competition among buyers helps prevent prices from falling too far.

In the final analysis, the market economy is one that “runs itself.” There is no need for a bureaucracy, planning commission, or other agency to set prices because the market tends to find its own equilibrium. In addition, the three basic economic questions of WHAT, HOW, and FOR WHOM to produce are decided by the participants—the buyers and sellers—in the market.

Section 2 Assessment

Checking for Understanding

- 1. Main Idea** Explain how a change in demand can affect prices.
- 2. Key Terms** Define economic model, market equilibrium, surplus, shortage, equilibrium price.
- 3. Describe** how prices are determined in a competitive market.
- 4. Explain** why economic models are useful.
- 5. Explain** how different cases of demand and supply elasticity are related to price changes.

Applying Economic Concepts

- 6. Equilibrium Price** Choose one good or service—for example, unleaded gasoline, a gallon

of milk, a local newspaper, or a haircut. Visit at least five stores that sell the product, and note its price at each location. What do the individual prices tell you about the equilibrium price for the good or service?

Critical Thinking

- 7. Understanding Cause and Effect** What signal does a high price send to buyers and sellers?
- 8. Making Inferences** What do merchants usually do to sell items that are overstocked? What does this tell you about the equilibrium price for the product?



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CRITICAL THINKING

Skill

Synthesizing Information

Synthesizing information involves integrating information from two or more sources. The ability to synthesize, or combine, information is important because information gained from one source often sheds new light upon other information.

Learning the Skill

To synthesize information, follow these steps:

- Analyze each source separately to understand its meaning.
- Determine what information each source adds to the subject.
- Identify points of agreement and disagreement between the sources. Ask: Can Source A give me new information or new ways of thinking about Source B?
- Find relationships between the information in the sources.

Practicing the Skill

Study the sources below, then answer the questions that follow.

Source A

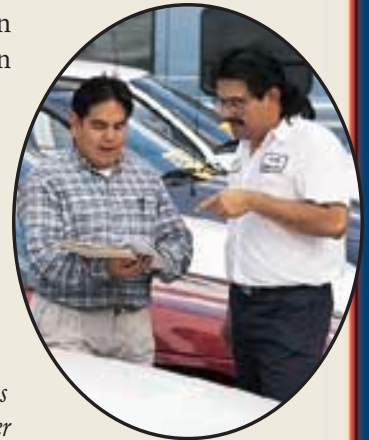
A common decision consumers make is whether to borrow money for a new car, or to pay cash for a less expensive used one. Studies show that more than 80 percent of all new cars sold in any given year in the United States are financed. There are advantages to owning a new car, but there are also significant costs consumers should keep in mind when they make this decision.

The interest a consumer pays on a new car loan is a significant part of its cost. Insuring a new car costs more than insuring a used car because new cars are more likely to be stolen or vandalized. In addition, there is a higher sales tax to pay for a more costly new car.

Source B

Most Americans are accustomed to borrowing and buying on credit. At times, especially when buying such expensive consumer durables as automobiles and fine furniture, they consider borrowing to be necessary.

In a sense, people feel forced to buy items on credit because they believe they need them immediately. They do not want to wait. Of course, consumers are not really “forced” to buy most goods and services on credit. They could decide instead to save the money needed to make their purchases.



Because people have limited resources, most people have to borrow to buy a car.

1. What is the main subject of each excerpt?
2. What kind of information does Source A add to this subject?
3. What kind of information does Source B add to this subject?
4. Does Source B support or contradict Source A? Explain.
5. Summarize what you have learned from both sources.

Application Activity

Find two sources of information on a topic dealing with the price of goods. Write a short report answering these questions: What are the main ideas in the sources? How does each source add to your understanding of the topic? Do the sources support or contradict each other?



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

Social Goals vs. Market Efficiency

Study Guide

Main Idea

To achieve one or more of its social goals, government sometimes sets prices.

Reading Strategy

Graphic Organizer As you read the section, complete a cause-and-effect chart similar to the one below by explaining how price ceilings affect quantity supplied.



Key Terms

price ceiling, minimum wage, price floor, target price, nonrecourse loan, deficiency payment

Objectives

After studying this section, you will be able to:

1. **Describe** the consequence of having a fixed price in a market.
2. **Explain** how loan supports and deficiency payments work.
3. **Understand** what is meant when “markets talk.”

Applying Economic Concepts

Price Floor Chances are that you have worked for the minimum wage at some time in your life. Read to see why this is an example of a price floor.

Cover Story



Various farmer aid proposals considered

Congress Sews a Safety Net for Farmers

Three years after a major farm bill ended the nation's decades-old program of agricultural price supports, Congress is considering beefing up safety nets to aid farmers around the country hit by dramatically low crop prices, shrinking exports, and falling incomes.

But the proposed solutions—ranging from an expanded crop-insurance program to a return to commodity price supports—are both costly and tend to divide market-oriented Republicans and Democrats who favor subsidies.

Moreover, such remedies take time. So, as financially strapped farmers begin a new planting season, Congress could end up passing another emergency aid package this year like the more than \$5 billion approved for farmers last October. . . .

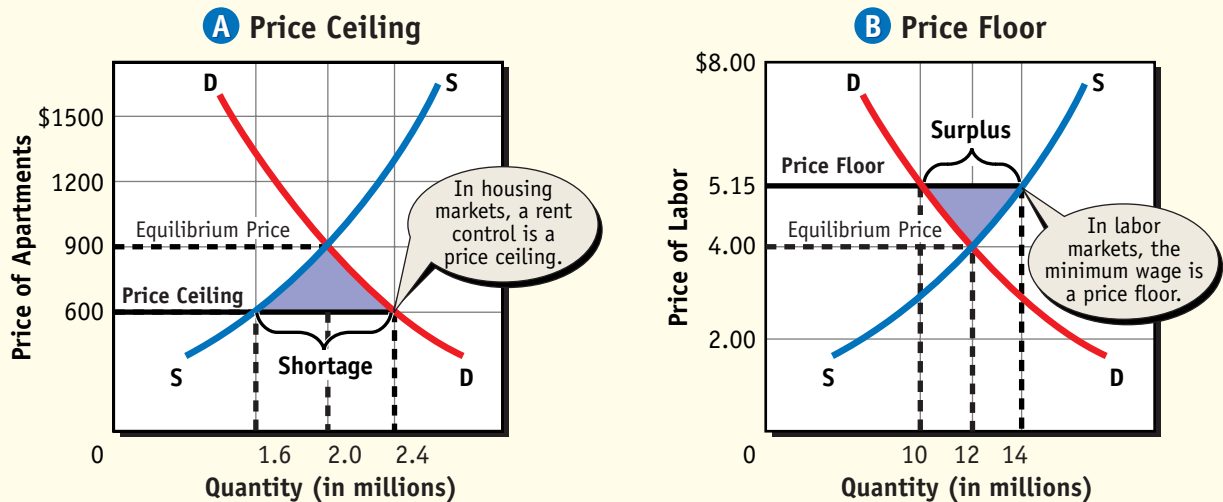
—*The Christian Science Monitor*, March 12, 1999

In Chapter 2 we examined seven broad economic and social goals that most people seem to share. We also observed that these goals, while commendable, were sometimes in conflict with one another. These goals were also partially responsible for the increased role that government plays in our economy.

The goals most compatible with a market economy are freedom, efficiency, full employment, price stability, and economic growth. Attempts to achieve the other two goals—equity and security—usually require policies like the “safety net for farmers” in the cover story that distort market outcomes. In other words, we may have to give up a little efficiency and freedom in order to achieve equity and security.

Whether this is good or bad often depends on a person's perspective. After all, the person who receives a subsidy is more likely to support it than is the taxpayer who pays for it. In general, however, it is usually wise to evaluate each situation on its own merits, as the benefits of a program may well exceed the costs. What is common to all of these situations, however, is that the outcomes can be achieved only at the cost of interfering with the market.

Distorting Market Outcomes with Price Ceilings and Price Floors



Using Graphs Price ceilings and price floors prevent markets from reaching equilibrium, allowing the resulting shortages and surpluses to become permanent. **Why does government sometimes impose price ceilings and floors on the market?**

Distorting Market Outcomes



One of the common ways of achieving social goals involves setting prices at “socially desirable” levels. When this happens, prices are not allowed to adjust to their equilibrium levels, and the price system cannot transmit accurate information to other buyers and sellers in the market.

Price Ceilings

Some cities, especially New York City, have a long history of using rent controls to make housing more affordable. This is an example of a **price ceiling**, a maximum legal price that can be charged for a product.

The case of a price ceiling is shown in **Panel A** of **Figure 6.5**. Without the ceiling, the market establishes monthly rents at \$900, which is an equilibrium price because 2 million apartments

would be supplied and rented at that rate. If authorities think \$900 is too high, and if they want to achieve the social goals of equity and security for people who cannot afford these rents, they can establish, arbitrarily, a price ceiling at \$600 a month.

No doubt consumers would love the lower price and might demand 2.4 million apartments. Landlords, on the other hand, would try to convert some apartments to other uses, such as condos and office buildings that offer higher returns. Therefore, the supply might only reach 1.6 million apartments at \$600 per month, leaving a *permanent* shortage of 800,000 apartments.

Are consumers better off? Perhaps not. More than likely, the better apartments will be converted to condos or offices—leaving the poorer ones to be rented. In addition, 800,000 people are now unhappy because they cannot get an apartment, although they are willing and able to pay for one. Prices no longer allocate apartments.

Instead, landlords resort to long waiting lists or other nonprice criteria such as excluding children and pets to discourage applicants.

Rent controls freeze a landlord's total revenue and threaten his or her profits. As a result, the landlord tries to lower costs by providing the absolute minimum upkeep, thereby protecting profits. Landlords may have no incentive at all to add additional units if they feel rents are too low. Some apartment buildings may even be torn down to make way for shopping centers, factories, or high-rise office buildings.

The price ceiling, like any other price, affects the allocation of resources—but not in the way intended. The attempt to limit rents makes some people happy, until their buildings begin to deteriorate. Others, including landlords and potential renters on waiting lists, are unhappy from the beginning. Finally, some scarce resources—those used to build and maintain apartments—are slowly shifted out of the rental market.

Price Floors

Other prices often are considered too low and so steps are taken to keep them higher. The **minimum wage**, the lowest legal wage that can be paid to most workers, is a case in point. The minimum wage is actually a **price floor**, or lowest legal price that can be paid for a good or service.

Panel B in **Figure 6.5** uses a minimum wage of \$5.15 per hour as an illustration of a price floor. At this wage, the supply curve shows that 14 million people would want to offer their services. According to the demand curve for labor, however, only 10 million would be hired—leaving a surplus of 4 million workers.

The figure also shows that without the minimum wage, the actual demand and supply of labor would establish an equilibrium price of \$4.00 per hour. At this wage, 12 million workers would offer their services and the same number would be hired—which means that there would be neither a shortage nor a surplus in the labor market.

Some economists argue that the minimum wage actually increases the number of people who do not have jobs because employers hire fewer workers. In the case of **Figure 6.5**, the number of people who lose jobs amounts to 2 million—the difference between the 12 million who would have worked at the equilibrium price and the 10 million who actually work at the higher wage of \$5.15 per hour.

Is the minimum wage good or bad for the economy? Certainly the minimum wage is not as efficient as a wage set by supply and demand, but not all decisions in our economy are made on the basis of efficiency. The basic argument in favor of the minimum wage is that it raises poor people's incomes. A federal minimum wage is evidence that the small measure of equity provided by the minimum wage—with equity being one of our seven major economic and social goals—is preferred to the loss of efficiency.

Finally, some people argue that the minimum wage is irrelevant anyway because it is actually lower than the lowest wages paid in many areas. Consider the wages in your area. Do you think that your employer would pay you less if he or she were allowed to do so? Your response will provide a partial answer to the question.

Careers



Sales Clerk

The primary purpose of a sales clerk is to interest customers in the merchandise. How successful a business is depends in large part on how efficient and courteous its sales force is.

The Work

Sales clerks' duties include stocking shelves, taking inventory, and dealing directly with customers. Clerks must be able to demonstrate the product, record the sales transaction, and, if necessary, arrange for the product's safe delivery. For those selling complex items such as computers or automobiles, knowing special features and what they can do is essential.

Qualifications


Ability to work under pressure is helpful. Other required skills include a strong working knowledge of business math for calculating prices and taxes, and the ability to communicate clearly and tactfully.

Price Stabilization



Loan Supports The government plays a role in helping farmers market their products and stabilizing agricultural prices. *What problems did the program of loan supports create?*

Agricultural Price Supports

 In the 1930s, the federal government established the Commodity Credit Corporation (CCC), an agency in the Department of Agriculture, to help stabilize agricultural prices. The stabilization took two basic forms—the first involved loan supports, and the second involved deficiency payments. Both made use of a **target price**, which is essentially a price floor for farm products.

Loan Supports

Under the loan support program, a farmer borrowed money from the CCC at the target price and pledged his or her crops as security in return. The farmer used the loan to plant, maintain, and harvest the crop. The farmer sold the crop in the

market and used the proceeds to repay the CCC loan, or the farmer kept the proceeds of the loan and let the CCC take possession of the crop. Because the loan was a **nonrecourse loan**—a loan that carries neither a penalty nor further obligation to repay if not paid back—the farmer could get at least the target price for his or her crops.

Panel A in **Figure 6.6** illustrates the CCC loan program using a \$4-per-bushel target price for wheat. In the end, the farmer received \$4 a bushel for each of the 10,000 bushels produced—with 8,000 sold in the market and the remaining 2,000 picked up by the CCC—for a total of \$40,000. Without the loan program, the farmer would have produced 9,000 bushels and then sold them at \$3 each for a total revenue of \$27,000.

Deficiency Payments

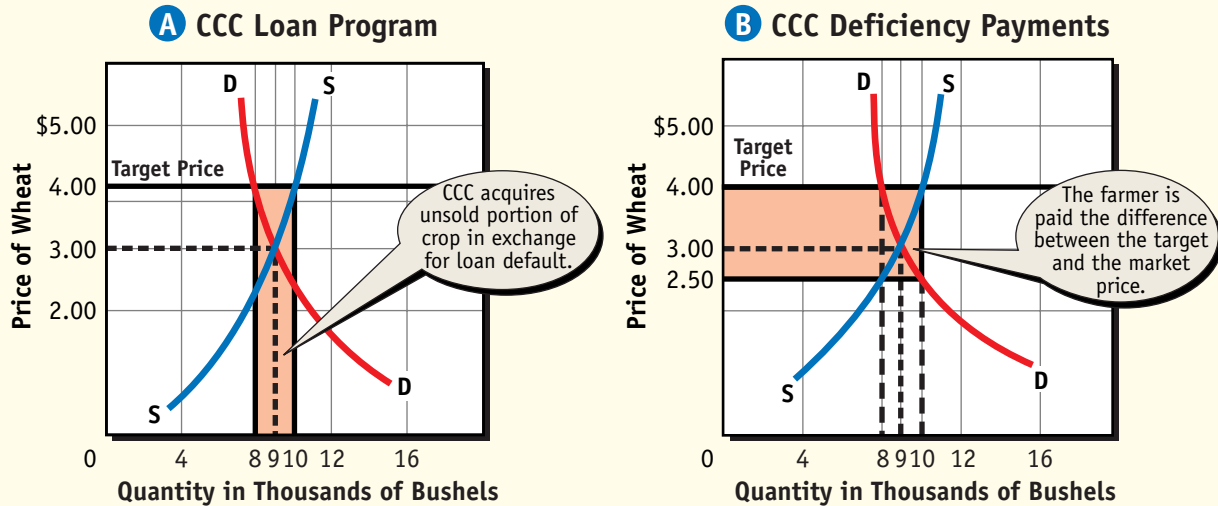
The CCC loan program created problems because the U.S. Department of Agriculture soon owned enormous stockpiles of food. Surplus wheat was stored in rented warehouses or on open ground. Surplus milk was made into cheese and stored in underground caves. Some food was given to the military, and other food was donated to public schools for use in “free lunch” programs. Still the surpluses persisted, leaving CCC officials to consider how they could support farm prices and still avoid holding large surpluses.

The solution was to have farmers sell their crops on the open market for the best price they could get and then have the CCC make up the difference with a deficiency payment. A **deficiency payment** is a

Did you know?

Gender Pricing Women often pay higher prices for haircuts, dry cleaning, and clothes than do men. Massachusetts found that women were charged up to \$2.50 more per dry cleaned item than men. Dry cleaners claimed that women’s clothing was harder to press because the equipment was designed for men’s shirts. Although some states have laws against gender-biased pricing, these laws are hard to enforce across the many industries.

Agricultural Price Support Programs



Using Graphs The farmer sells surplus crops to the government under the plan shown in Panel A. The farmer receives a payment equal to the difference between the target price and the prices the farmer received for the crops. **What was the total payment the farmer received under the loan program? Under the deficiency payment program?**

check sent to producers that makes up the difference between the actual market price and the target price.

Panel B in **Figure 6.6** illustrates the deficiency payment approach. Under this program, the farmer made \$25,000 by selling 10,000 bushels at \$2.50 each on the open market. Because this was \$1.50 below the target price of \$4.00 a bushel, the farmer received a deficiency payment of \$1.50, times 10,000 bushels, or the \$15,000 represented by the shaded area.

When the \$15,000 deficiency payment was added to the \$25,000 market sale, the farmer made \$40,000—the same as under the loan program. Under this program, however, the CCC does not have the political and economic problem of disposing of the surplus. Farmers liked this program and would have produced even more crops if they could. Instead, they had to promise the CCC that they would limit production. In many cases, aerial photographs were taken to verify that the acreage planted was within the limits of the agreement with the CCC.


Reforming Price Supports

In an effort to make agricultural output responsive to market forces, Congress passed the Federal Agricultural Improvement and Reform (FAIR) Act of 1996. Under this law, eligible producers of grains, cotton, and rice can enter into a seven-year program that allows them almost complete flexibility to plant any crop on any land. Other products, such as milk, sugar, fruits, and vegetables, are not affected.

Under FAIR, cash payments take the place of price supports and deficiency payments. Because these new payments have turned out to be as large as the ones they replaced, however, the overall cost of farm programs has not gone down. Instead, in 1998 a drop in worldwide food prices made things even worse for farmers. This, as we saw in the cover story, prompted Congress to pass a \$5 billion aid bill for farmers—with possibly more in the works.

When the program expires in the year 2002, farmers will cease to receive all payments. By then, farmers should have had enough experience with the laws of supply and demand to no longer need government help. If farm income is still down when the bill expires, Congress may decide to bring farm support back—thereby choosing the goal of economic security over efficiency.

When Markets Talk

 Markets are impersonal mechanisms that bring buyers and sellers together. Although markets do not talk in the usual sense of the word, they do communicate in that they speak collectively for all of the buyers and sellers who trade in the markets. Markets are said to talk when prices in them move up or down significantly.

Suppose the federal government announced that it would raise personal income taxes and corporate taxes to pay off some of the federal debt. If investors thought this policy would not work or that other policies might be better, they might decide to sell some of their stocks and other investments for cash and gold. As the selling takes place, stock prices fall, and gold prices rise. In effect, the market would “talk”—voicing its disapproval of the new tax policy.

In this example, individual investors made decisions on the likely outcome of the new policy and sold stocks for cash or gold. Together, their actions were enough to influence stock prices and to send a signal to the government that investors did not favor the policy. If investors’ feelings were divided about the new policy, some would sell while others bought stocks. As a result, prices might not change, and the message would be that, as yet, the market has not made up its mind.

STANDARD & POOR'S INFOBYTE

Consumer Confidence A statistic called the Consumer Confidence Index attempts to gauge consumers’ feelings about the current condition of the economy and their expectations about the economy’s future direction. The index is weighted 60% in favor of expectations and 40% in favor of current conditions. Large movements in this index indicate or signal changes in consumer spending patterns.

Section 3 Assessment

Checking for Understanding

- 1. Main Idea** Using your notes from the graphic organizer activity on page 150, describe why price ceilings are often set.
- 2. Key Terms** Define price ceiling, minimum wage, price floor, target price, nonrecourse loan, deficiency payment.
- 3. Describe** two effects of having a fixed price other than the equilibrium price forced on a market.
- 4. Explain** how loan supports and deficiency payments work.
- 5. Describe** how markets speak collectively for buyers and sellers.

Applying Economic Concepts

- 6. Price Floor** Would small businesses be more affected by a change in the minimum wage than large businesses? Explain your answer.

Critical Thinking

- 7. Understanding Cause and Effect** The price of fresh fruit over the course of a year may go up or down by as much as 100 percent. Explain the causes for these changes in terms of changes in demand, changes in supply, and the elasticity of demand for fresh fruit.



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BusinessWeek

DECEMBER 21, 1998

Newsclip

Many considerations are involved in an individual's choice of jobs. These include not only whether and how much to work, but where to work. As you read this article, think about what influences affect labor demand. What influences affect labor mobility?

Doctors: Charting New Territory

Health officials have long bemoaned the fact that new doctors tend to choose to practice in large, relatively affluent communities, with the result that many smaller towns and rural areas are often undersupplied. Now, changes in the health-care market itself may be starting to cure the “maldistribution” of doctors.

According to a new RAND study, the growth of health-maintenance organizations is shifting the locales where new docs decide to practice. At the start of the 1990s, reports Jose J. Escarce of RAND, newly graduated general practitioners tended to locate in large metro areas where HMOs were well established, while new specialists chose metro areas regardless of HMO presence. By 1994, however, new generalists and

especially specialists tended to locate in metro areas with low HMO penetration.

Why is this happening? Noting that general practitioners are in high demand throughout the U.S., Escarce and his fellow researchers theorize that many are seeking to avoid HMOs and the cost-control pressures they impose on primary physicians. And new specialists may be relocating because HMOs have been particularly successful in curbing demand for their services.

The RAND study looked only at larger metro areas. But the results offer the hopeful prospect that continued HMO growth in such areas could result in more new docs hanging their shingles up in smaller cities and rural locations.

—Reprinted from December 21, 1998 issue of *Business Week*, by special permission, copyright © 1998 by The McGraw-Hill Companies, Inc.



Many physicians are relocating to rural areas. A major reason is avoiding cost-control pressures that health-maintenance organizations place on them.

Examining the Newsclip

- 1. Sequencing Information** What trend does the RAND research show regarding doctors' choices of location?
- 2. Finding the Main Idea** What theory do the researchers offer to support this relocation trend?
- 3. Understanding Cause and Effect** Do you think the theory is the best explanation for the trend? What other factors affect where doctors locate their practices?

Chapter 6 Summary

Section 1

Prices as Signals (pages 137–140)

- **Prices** serve as signals to both producers and consumers. In doing so, they help decide the three basic WHAT, HOW, and FOR WHOM questions that all societies face.
- High prices are signals for businesses to produce more and for consumers to buy less. Low prices are signals for businesses to produce less and for consumers to buy more.
- Prices have the advantages of neutrality, flexibility, efficiency, and clarity.
- Other nonprice allocation methods such as **rationing** can be used. Under such a system, people receive **ration coupons**, which are similar to tickets or receipts that entitle the holder to purchase a certain amount of a product.
- Nonprice allocation systems suffer from problems regarding fairness, high administrative costs, and diminished incentives to work and produce.
- A market economy is made up of many different markets, and different prices prevail in each. A change in price in one market affects more than the allocation of resources in that market. It also affects the allocation of resources between markets.

Section 2

The Price System at Work

(pages 142–148)

- Economists often use an **economic model** to help analyze behavior and predict outcomes. Models of economic markets are often represented with supply and demand curves in order to examine the concept of **market equilibrium**, a situation in which prices are relatively stable, and the quantity of output supplied is equal to the quantity demanded.
- In a competitive market, prices are established by the forces of supply and demand. If the price is too

high, a temporary **surplus** appears until the price goes down. If the price is too low, a temporary shortage appears until the price rises. Eventually the market reaches the equilibrium price where there is neither a shortage nor a surplus.

- A change in price can be caused by a change in supply or a change in demand. The size of the price change is affected by the elasticity of both curves. The more elastic the curves, the smaller the price change; the less elastic the curves, the larger the price change.
- The theory of competitive pricing represents a set of ideal conditions and outcomes. The theory serves as a model by which to measure the performance of other, less competitive markets. Because of this, absolutely pure competition is not needed for the theory of competitive pricing to be practical.



Section 3

Social Goals vs. Market Efficiency (pages 150–155)

- Governments sometimes fix prices at levels above or below the equilibrium price to achieve the social goals of equity and security.
- If the fixed price is a **price ceiling**, as in the case of rent controls, a shortage usually appears for as long as the price remains fixed below the equilibrium price.
- Agricultural price supports were introduced during the 1930s to support farm incomes. **Nonrecourse loan** support programs allowed farmers to borrow against crops, and then keep the loan and forfeit the crop if market prices were low.
- Later, **deficiency payments** were used, supplying the farmer with a check that made up the difference between the **target price** and the actual price received for the product.

Chapter 6 Assessment and Activities

ECONOMICS Online



Self-Check Quiz Visit the *Economics: Principles and Practices* Web site at epp.glencoe.com and click on **Chapter 6—Self-Check Quizzes** to prepare for the chapter test.

CLICK HERE

Identifying Key Terms

Write the key term that is an effect of the five causes stated below. Some causes may have more than one effect.

- | | |
|-------------------|----------------------|
| a. rationing | e. equilibrium price |
| b. economic model | f. loss leader |
| c. surplus | g. price ceiling |
| d. shortage | h. price floor |

- Cause:** The government tries to keep prices down by legislating price ceilings. **Effect:** _____
- Cause:** The government wants to allocate scarce goods and services without the help of a price system. **Effect:** _____
- Cause:** A reasonably competitive market is experiencing alternating, yet consecutively smaller, surpluses and shortages. **Effect:** _____
- Cause:** People decide that farmers should receive a higher price for milk and cheese, so a price floor for these products is established. **Effect:** _____
- Cause:** A market is at equilibrium, but the product falls out of style before producers can reduce production. **Effect:** _____

Reviewing the Facts

Section 1 (pages 137–140)

- Describe** four advantages of using price as an allocating mechanism.
- List** three problems of allocating goods and services using nonprice-related methods.

Section 2 (pages 142–148)

- Cite** an example of an economic model used in this chapter.
- Explain** the role of shortages and surpluses in competitive markets.
- Describe** three causes of a price change in a market.

Section 3 (pages 150–155)

- Explain** why shortages and surpluses are not temporary when price controls are used.
- Identify** two programs that have historically been used to stabilize farm incomes.
- Explain** what is meant by the statement that markets “talk.”

Thinking Critically

- Making Generalizations** Some people argue that the minimum wage is not a fair price. Use a web like the one below to help you identify reasons for this argument. Explain why you agree or disagree.



- Making Predictions** Suppose that your state wanted to make health care more affordable for everyone. To do this, state legislators put a series of price controls—price ceilings—in place that cut the cost of medical services in half. What would happen to the demand for medical services at the new, lower price? What would happen to the supply of medical services that doctors would be willing to provide at the new, lower price? Where do you think new doctors would prefer to set up practice? Explain the reasons for your answers.

Applying Economic Concepts

- 1. Rationing** Suppose that a guest speaker visited your class and left 20 ballpoint pens as samples—not knowing that there were 30 students in the class. Devise a nonprice rationing system that would fairly allocate the scarce item to everyone in the class.
- 2. Equilibrium Price** Many people feel that the minimum wage is too low. If it increased by \$1 per hour, what would happen to the number of students who would want to work after school? What would happen to the number of workers that stores in your community would want to hire? Would the combination of these factors cause a shortage or a surplus of workers in your community? Provide an explanation for each of your answers.

Math Practice

A shoe store is having a sale. The first pair of shoes sells for \$40. The second pair sells for half price, or \$20. The next pair sells for half of that, and so on. Make a table, like the one below, that tracks the total cost of the shoes as each pair is added.

Number of Pairs	Total Cost

Thinking Like an Economist

Economists like to use cost-benefit analysis to analyze the merits of any program. Use this decision-making strategy to evaluate the desirability of continuing to support and stabilize farm income.

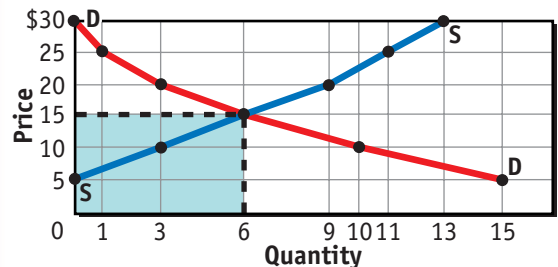
Technology Skill

Using a Spreadsheet Use your personal buying decisions to create a spreadsheet and graph showing how a market equilibrium price is reached.

1. Select a product that costs about \$5.00.
2. In cells A1 through C1, enter the words *Price*, *Demand*, and *Supply*.
3. In cells A2 through A11, enter prices that range from \$1.00 to \$10.00.
4. In the next two columns, enter quantities that might be demanded and supplied at those prices.
5. Highlight the three columns on the spreadsheet, then click on “Chart Wizard” or a similar icon, or click on “Insert” and then “Chart.”
6. Click on “line graph,” then highlight a 2-line chart sub-type.
7. Follow the spreadsheet directions to title your graph.

Building Skills

Synthesizing Information Examine the figure, then answer the questions that follow.



1. What is the quantity demanded at a price of \$20? At \$15?
2. What is the quantity supplied at a price of \$10? At a price of \$20?
3. How large is the shortage or surplus at \$5? Explain your answer.
4. If the price started out at \$5 today, what would likely happen to the price tomorrow? Why?



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

ECONOMICS WORKSHOP IN ACTION

Developing a Training Manual

From the classroom of . . .

*Juan C. Ledesma
Flanagan High School
Pembroke Pines, Florida*

*The forces of supply and demand determine what is produced and made available to the consumer. Many products in the marketplace would have little value if you—the consumer—did not know how to use the product. Thus, as new products and technology are developed, a **demand** is created for manuals that illustrate the correct way to use the product. In this workshop, you will write a “how-to” manual or report. The manual will illustrate how to accomplish a process or function that you’ve chosen to describe.*

Setting Up the Workshop

For this workshop you should work with one other person. Your task is to write a technical manual or report that explains how to construct, instruct, build, rebuild, or just plain create a product or process. Your audience must be real—fellow students, your teachers, your family members, etc. Keep this goal in mind as you do your work: The reader will learn something important, functional, and worthwhile after using your manual.

Criteria for Manuals

Your finished manual should include all of the following:

- Numbered pages
- Title page
- Statement of purpose
- Table of contents that includes at least five sections
- At least five sections that explain “how to”
- Scaled pictures or drawings of important parts, plans, and procedures, placed appropriately in the manual
- Chart, or graphic organizer, that reveals some important, usable data (e.g. a survey)
- Reference list of at least five other resource materials that could be utilized
- Information gained from an interview with an expert on the topic
- Alphabetized index of the important topics in the manual
- Checklist for procedures
- Troubleshooting guide with at least ten “what if” problems
- Review/rating/recommendation by someone who has tried the manual



Procedures

STEP 1

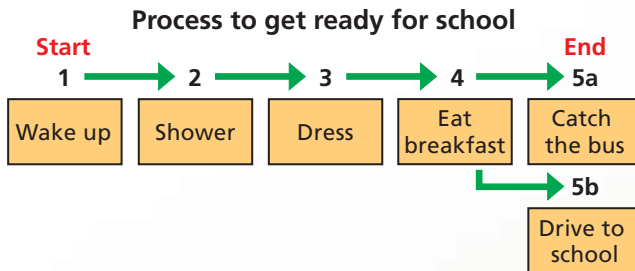
Determine what process you will describe.

STEP 2

Do research in your school library or on the Internet for information about your process. Interview a person locally who is familiar with the process.

STEP 3

Make an outline of the process you hope to describe. A flowchart, like the example shown below, is often a good way to get started “mapping” the steps in a process.



STEP 4

Put your manual together following the criteria listed at left.

Summary Activity

Present your training manual to your class, using the following guidelines:

1. Explain the rationale for your manual's subject.
2. Describe the aspirations you hold for your product and its user.
3. Describe any technology you used to create your manual.
4. Describe the trials and errors you encountered in developing your manual.
5. Describe the problems that you might foresee that could still be addressed (and even solved) if you had the time.

