CHAPTER 6
Prices and Decision Making
CHAPTER INTRODUCTION

SECTION 1  Prices as Signals

SECTION 2  The Price System at Work

SECTION 3  Social Goals vs. Market Efficiency

CHAPTER SUMMARY

CHAPTER ASSESSMENT
Introduction

• Life is full of signals that help us make decisions.

• A price—the monetary value of a product as established by supply and demand—is a signal that helps us make our economic decisions.

• 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.
Advantages of Prices (cont.)

• 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.

  – Second, prices in a market economy are flexible. Unforeseen events such as natural disasters and war affect the prices of many items.

  – Third, prices have no cost of administration. Competitive markets tend to find their own prices without outside help or interference.
Advantages of Prices (cont.)

– 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.
Allocations Without Prices

• 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 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.
High Administrative Cost

- A second problem of rationing 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?

- Nonprice allocation mechanisms, such as rationing, raise issues that do not occur under a price allocation system.
Prices as a System

• Because of the many difficulties with nonprice 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.
Prices as a System (cont.)

• The market for full-size automobiles was one of the first to feel the effects.

• To move their inventories, some manufacturers began to offer a rebate—a partial refund of the original price of the product.

• As time went on, however, the surplus of unsold cars remained. Automakers began reducing their production of large cars.
Prices as a System (cont.)

• 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.
## A Model of the CD Market

### Market Demand and Supply Schedules

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity Demanded</th>
<th>Quantity Supplied</th>
<th>Surplus/Shortage</th>
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</table>
An Economic Model (cont.)

- 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.

- A complete model of the market will allow us to analyze how the interaction of buyers and sellers results in a price that is agreeable to all.

Click the mouse button or press the Space Bar to display the information.
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.
Surplus

• A surplus is a situation in which the quantity supplied is greater than the quantity demanded at a given price.

• Surplus shows up as unsold products on suppliers’ shelves, and it begins to take up space in the suppliers’ warehouses.

• Sellers now know that their price 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.
Dynamics of the Price Adjustment Process

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

Surplus = 10
Shortage

- **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 products to sell, and they end the day wishing that they had charged higher prices for their products.
At a price of $10, a shortage of seven causes the price to rise.
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.
Equilibrium Price (cont.)

Dynamics of the Price Adjustment Process

At a price of $20, a surplus of six causes the price to drop again.
Whenever the price is set too low, the shortage will tend to force it up. As a result, the market tends to seek its own equilibrium, as shown in Figure 6.2d.
Equilibrium Price (cont.)

• When the equilibrium price 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.

• Weather is one of the main reasons for the variation in agricultural prices.
Changes in Supply (cont.)

Factors Affecting Price Changes in Agriculture

A Inelastic Supply and Demand

<table>
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<tr>
<td>5</td>
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</tr>
</tbody>
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- D: Demand
- S^2: Inelastic Supply
- S: Anticipated Yield
- S^1: "Bumper Crop" Yield

- "Bad Weather" Yield
- Anticipated Yield
- "Bumper Crop" Yield
Changes in Supply (cont.)

- 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? 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.
Importance of Elasticity (cont.)

• Economists consider elasticity of demand whenever a change in supply occurs. 

• When a given change in supply is coupled with an inelastic demand curve, price changes dramatically. 

• When the same change in supply is coupled with a very elastic demand curve, the change in price is much smaller.
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.
Changes in Demand (cont.)

• One example is the demand for gold. Figure 6.4 shows why gold prices have changed so dramatically over a 20-year period.
Changes in Demand (cont.)

- In 1980, rising prices, uncertain economic conditions, and other factors created a high demand for gold, and the price of gold reached $850 per ounce.

Figure 6.4

The Price of Gold When Supply and Demand Change

- 1980
- Mid-1990s
- 1999
Changes in Demand (cont.)

- By the mid-1990s, a combination of increased supply and reduced demand drove the price of gold down to the $400 level.

Figure 6.4

The Price of Gold When Supply and Demand Change

- 1980
- mid-1990s
- 1999

Price of Gold

$1200

850

400

280

D

S

S1

S2

D1

D

Quantity in Ounces
Changes in Demand (cont.)

- In early 1999, the Bank of England announced plans to sell slightly more than half of its official gold stock, causing the supply curve to shift and the price of gold to reach a new low of $280 an ounce.
Changes in Demand (cont.)

- 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.

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.
The Competitive Price Theory (cont.)

- 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.”
Click the mouse button to return to the Contents slide.
Price Ceilings

- A **price ceiling** is a maximum legal price that can be charged for a product.

- For example, without the price 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.
Price Ceilings (cont.)

- 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.

![Figure 6.5a](image-url)

*Distorting Market Outcomes with Price Ceilings and Price Floors*

- **Price Ceiling**: In housing markets, a rent control is a price ceiling.
• Demand for apartments would increase. Landlords, on the other hand, would try to convert some apartments to other uses, leaving a shortage of 800,000 apartments.
Price Ceilings (cont.)

• 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.
Price Floors (cont.)

- For example, use 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.

Figure 6.5b
Price Floors (cont.)

- According to the demand curve for labor, however, only 10 million would be hired—leaving a surplus of 4 million workers.
Some economists argue that the minimum wage actually increases the number of people who do not have jobs because employers hire fewer workers.
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.
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.
Loan Supports

• 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.
Deficiency Payments

- The CCC loan program created problems because the U.S. Department of Agriculture soon owned enormous stockpiles of food.

- 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 check sent to producers that makes up the difference between the actual market price and the target price.
Deficiency Payments (cont.)

- For example, under a deficiency payment program, the farmer made $25,000 by selling 10,000 bushels at $2.50 each on the open market.

Figure 6.6b

Agricultural Price Support Programs

The farmer is paid the difference between the target price and the market price.
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.

- Under FAIR, cash payments take the place of price supports and deficiency payments.
Reforming Price Supports (cont.)

• 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.

• When the program expires in the year 2002, farmers will cease to receive all payments.

• 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.
END OF

Section 3

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