Combining Supply and Demand

Section 1

A market equilibrium is the point at which quantity supplied and quantity demanded are equal. At that point, buyers are willing to buy at the same price and quantity at which sellers are willing to sell. This price is the equilibrium price. On a graph, the equilibrium point is located at the point where the supply curve and the demand curve intersect.

A market is said to be in disequilibrium when the quantity supplied does not equal the quantity demanded at a certain price. When quantity demanded is more than quantity supplied, there is excess demand. A price lower than the equilibrium price will encourage buyers and discourage sellers. Prices will rise because sellers hope to increase their profits.

When quantity supplied is more than quantity demanded, there is excess supply. Prices will fall because sellers need to sell their supply. Whenever there is excess in supply or demand, market forces work to create equilibrium.

Sometimes governments attempt to control prices in a market. Governments may set a price ceiling, a maximum price that can be charged. For example, some cities have price ceilings on rental apartments. If the price ceiling is lower than the equilibrium price, there will be excess demand. Fewer apartments are offered than people want to rent.

Governments may also set a price floor, a lowest price that can be paid. An example is the minimum wage, the lowest hourly rate a business can pay workers. When a minimum wage is higher than the equilibrium rate, there is excess supply of labor.

Graphic Summary: Finding Equilibrium

Market equilibrium occurs at the price where the quantity demanded equals the quantity supplied.

Review Questions

1. Describe a market in equilibrium.

2. Graph Skills What is the equilibrium price and equilibrium quantity of pizza?
The previous section described disequilibrium that occurs along a demand or supply curve. If a price is higher or lower than equilibrium price, market forces push prices back towards equilibrium. Sometimes, however, changes in market conditions lead to the shift of an entire demand curve or supply curve. This means that the quantity demanded or supplied is now different at all price levels. These changes also push a market into disequilibrium, and market forces tend to bring it back to equilibrium.

Technology, for example, can make a good cheaper to produce. The earliest CD players cost about $1,000. As technology improved, prices dropped. The supply curve shifted to the right as supply increased. Producers were now willing to offer greater quantities of CD players at all prices. However, quantity supplied was now greater than quantity demanded. Another word for this situation is surplus. Producers reacted to the surplus by lowering prices, and eventually price and quantity reached a new equilibrium.

An outward shift in demand can be caused by a fad, such as the surge in popularity of a new toy. Buyers want more toys than are supplied, and a shortage occurs. A shortage is when quantity demanded is greater than quantity supplied. During a shortage, producers and stores tend to raise prices. The market price will rise until the quantity supplied equals the quantity demanded, and a new equilibrium is established.

---

**GRAPHIC SUMMARY: A Shift in Supply**

When supply or demand shifts, market price and quantity sold move towards a new equilibrium.

---

**REVIEW QUESTIONS**

1. What is the difference between a surplus and a shortage?

2. **Graph Skills** Which has the higher price, point a or point b?
THE ROLE OF PRICES

TEXT SUMMARY

Prices are like signals that send information to buyers and sellers. For producers, a high price is a signal to increase supply. A low price is a signal to reduce the supply or leave the market. For buyers, a low price is a signal to buy, and a high price is a signal to think before buying.

Another advantage of prices is that they are flexible. Prices can usually change more quickly than production levels. A supply shock occurs when there is a sudden shortage of a good, such as wheat or gasoline. Because supply usually cannot be increased quickly, increasing prices helps resolve excess demand.

Rationing is a system for allocating goods and services using tools other than price. Centrally planned economies use rationing, not price, to distribute goods and services. Rationing is expensive to administer. It tends to lead to only a few products, rather than the wide variety we enjoy in our price-based system.

Prices do not always work efficiently in markets in which there is not much competition, or in which buyers and sellers do not have enough information. Another problem is spillover costs, such as air and water pollution, that "spill over" onto other people who have no control over how much of a good is produced. Producers do not usually pay spillover costs, and the extra costs will be paid by consumers.

GRAPHIC SUMMARY: Price as a Signal

<table>
<thead>
<tr>
<th>PRODUCERS</th>
<th>CONSUMERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>High price</td>
<td>PRODUCE MORE</td>
</tr>
<tr>
<td>Low price</td>
<td>PRODUCE LESS</td>
</tr>
</tbody>
</table>

Price acts as a signal for both producers and consumers.

REVIEW QUESTIONS

1. Why is a change in price, instead of a change in production, usually used to resolve supply shocks?

2. Diagram Skill How do producers and consumers each react to higher prices?
IDENTIFYING MAIN IDEAS

Write the letter of the correct answer in the blank provided. (10 points each)

___ 1. A market is in equilibrium when
   A. quantity demanded is greater than quantity supplied.
   B. quantity supplied is greater than quantity demanded.
   C. quantity supplied and quantity demanded are equal.
   D. the government takes action to bring it into equilibrium.

___ 2. Disequilibrium occurs when
   A. quantity supplied and quantity demanded are not equal.
   B. quantity supplied and quantity demanded are equal.
   C. prices are higher than quantity supplied.
   D. there is neither excess supply nor excess demand.

___ 3. When there is excess supply,
   A. prices will tend to rise.
   B. prices will tend to fall.
   C. demand will rise.
   D. the government will impose price ceilings.

___ 4. Which statement explains why prices rise in a market?
   A. Producers produce a quantity greater than consumers want to buy.
   B. Consumers buy much less of a good than they have in previous years.
   C. New producers enter the market.
   D. There is excess demand in the market.

___ 5. The minimum wage is an example of
   A. a price ceiling.
   B. a price floor.
   C. the action of market forces.
   D. market equilibrium.

___ 6. When does a surplus exist?
   A. when new products are brought to the market for sale
   B. whenever prices drop
   C. when there are too few items for the people who want to buy them
   D. when there is a greater supply of a good than people want to buy

___ 7. Which of the following is an example of a shortage?
   A. Stores cannot sell all the new popular toys they have on hand.
   B. Manufacturers make too many units of a popular new toy.
   C. Consumers cannot find enough of a popular new toy in stores.
   D. Consumers cannot afford to buy a new popular toy.

___ 8. How are goods and resources distributed in a free market economy?
   A. through rationing
   B. through prices
   C. through government action
   D. through disequilibrium

___ 9. Rationing is a common form of distribution in
   A. a centrally planned economy.
   B. a free market economy.
   C. a price-based system.
   D. a market based on competition.

___ 10. Which of the following is an example of spillover costs?
    A. People buy products by paying illegally high prices for them.
    B. There is a sudden shortage of goods and the supply cannot be increased quickly.
    C. People have to pay higher prices for items that are in short supply.
    D. A manufacturer pollutes a river and does not pay the costs for cleaning it.