

PRINCIPLES OF ECONOMICS

Society and Scarce Resources:

- The management of society's resources is important because resources are scarce.
- *Scarcity*. . . means that society has limited resources and therefore cannot produce all the goods and services people wish to have.

PRINCIPLES OF ECONOMICS

Economics is the study of how society manages its scarce resources.

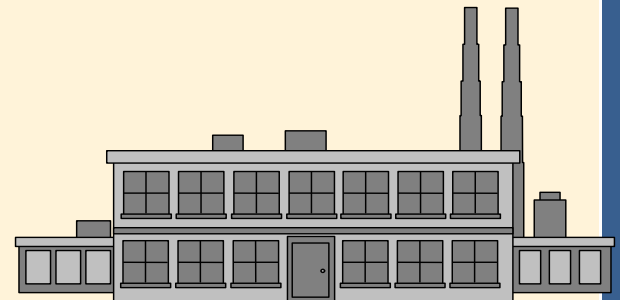
ECONOMICS IS ABOUT DECIDING

- Economists do not restrict themselves to considering only decision problems involving money and markets, though that is a big part of economics.

MICROECONOMIC AGENTS

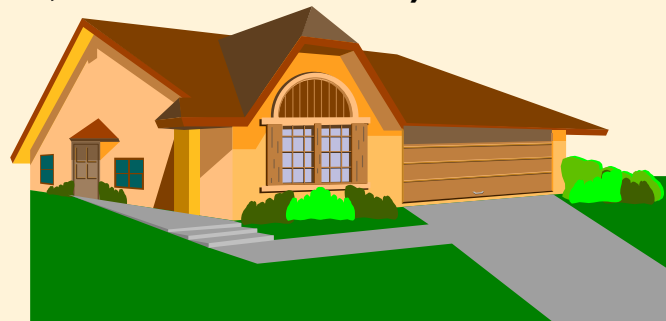
Firms

- Produce and sell goods and services
- Buy inputs (labor, capital & raw materials)



Consumers

- Buy goods and services
- Sell inputs (labor services, loanable funds)



EXAMPLES OF SOME DECISIONS ECONOMISTS HAVE ANALYZED

- Whether to buy a car this week.
- Whether to have pizza for dinner tonight, or something else.
- Whether to marry your sweetheart.
- How hard to study for this course.
- Whether to go to college, and if so, which one.

Factors in decision making

1. People face tradeoffs.
2. Opportunity cost.
3. Making decisions at the margin.
4. People respond to incentives.

How individual decisions affect others

- 5. Trade (exchange) can benefit everyone.
- 6. Markets are often a good way to organize exchange.
- 7. Government can sometimes improve on markets.

Principle #1: People Face Tradeoffs.

“There is no such thing as a free lunch!”



Principle #1: People Face Tradeoffs.

To get one thing, we usually have to give up another thing.

- Guns v. butter
- Food v. clothing
- Leisure time v. work
- Efficiency v. equity

Making decisions requires trading off one goal against another.

Principle #1: People Face Tradeoffs

- Efficiency v. Equity
 - *Efficiency* means society gets the most that it can from its scarce resources.
 - *Equity* means the benefits of those resources are distributed fairly among the members of society.

Principle #2: The Cost of Something Is What You Give Up to Get It.

- Decisions require comparing costs and benefits of alternatives.
 - Whether to go to college or to work?
 - Whether to study or go out on a date?
 - Whether to go to class or sleep in?
- The *opportunity cost* of an item is what you give up to obtain that item.

Principle #2: The Cost of Something Is What You Give Up to Get It.



LA Laker basketball star Kobe Bryant chose to skip college and go straight from high school to the pros where he has earned millions of dollars.

Principle #3: Rational People Think at the Margin.

- *Marginal changes* are small, incremental adjustments to an existing plan of action.

People make decisions by comparing costs and benefits at the margin.

Principle #4: People Respond to Incentives.

- Marginal changes in costs or benefits motivate people to respond.
- The decision to choose one alternative over another occurs when that alternative's marginal benefits exceed its marginal costs!

Principle #5: Trade Can Make Everyone Better Off.

- People gain from their ability to trade with one another.
- Competition results in gains from trading.
- Trade allows people to specialize in what they do best.

Principle #6: Markets Are Usually a Good Way to Organize Economic Activity.

- A *market economy* is an economy that allocates resources through the decentralized decisions of many firms and households as they interact in markets for goods and services.
 - Households decide what to buy and who to work for.
 - Firms decide who to hire and what to produce.

Principle #6: Markets Are Usually a Good Way to Organize Economic Activity.

- Adam Smith made the observation that households and firms interacting in markets act as if guided by an “invisible hand.”
 - Because households and firms look at prices when deciding what to buy and sell, they unknowingly take into account the social costs of their actions.
 - As a result, prices guide decision makers to reach outcomes that tend to maximize the welfare of society as a whole.

Principle #7: Governments Can Sometimes Improve Market Outcomes.

- *Market failure* occurs when the market fails to allocate resources efficiently.
- When the market fails (breaks down) government can intervene to promote efficiency and equity.

Principle #7: Governments Can Sometimes Improve Market Outcomes.

- Market failure may be caused by
 - an *externality*, which is the impact of one person or firm's actions on the well-being of a bystander.
 - *market power*, which is the ability of a single person or firm to unduly influence market prices.

Topic 1 The market Forces of Supply and Demand



- Supply and demand are the two words that economists use most often.
- Supply and demand are the forces that make market economies work.
- Modern microeconomics is about supply, demand, and market equilibrium.

MARKETS AND COMPETITION

- A *market* is a group of buyers and sellers of a particular good or service.
- The terms supply and demand refer to the behavior of people . . . as they interact with one another in markets.

MARKETS AND COMPETITION

- Buyers determine *demand*.
- Sellers determine *supply*

Competitive Markets

- A *competitive market* is a market in which there are many buyers and sellers so that each has a negligible impact on the market price.

Competition: Perfect and Otherwise

- Perfect Competition
 - Products are the same
 - Numerous buyers and sellers so that each has no influence over price
 - Buyers and Sellers are price takers
- Monopoly
 - One seller, and seller controls price

Competition: Perfect and Otherwise

- Oligopoly
 - Few sellers
 - Not always aggressive competition
- Monopolistic Competition
 - Many sellers
 - Slightly differentiated products
 - Each seller may set price for its own product

DEMAND

- *Quantity demanded* is the amount of a good that buyers are willing and able to purchase.
- Law of Demand
 - The *law of demand* states that, other things equal, the quantity demanded of a good falls when the price of the good rises.

The Demand Curve: The Relationship between Price and Quantity Demanded

- Demand Schedule
 - The *demand schedule* is a table that shows the relationship between the price of the good and the quantity demanded.

Catherine's Demand Schedule

Price of Ice-Cream Cone	Quantity of Cones Demanded
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\$0.00

12

0.50

10

1.00

8

1.50

6

2.00

4

2.50

2

3.00

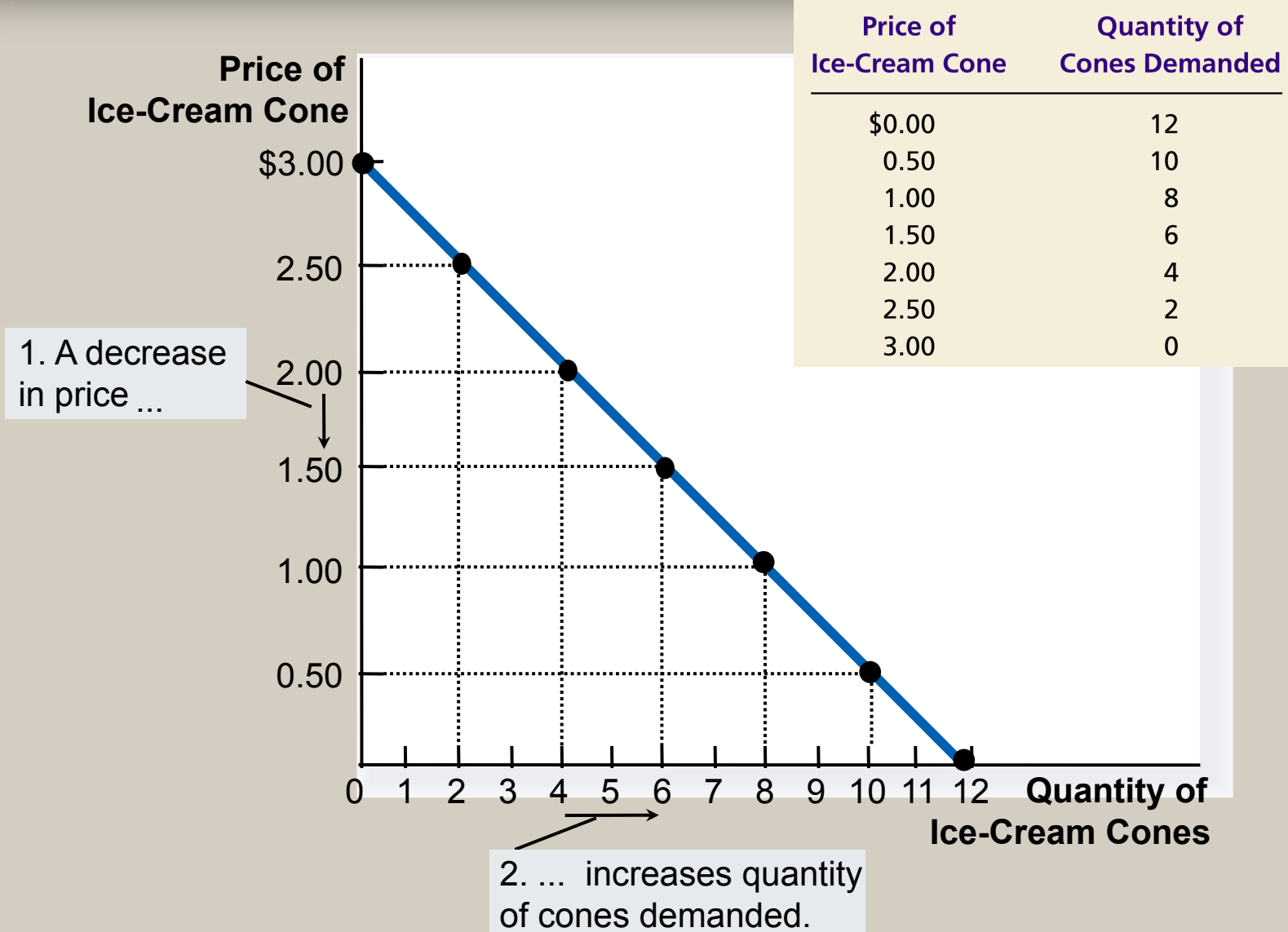
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The Demand Curve: The Relationship between Price and Quantity Demanded

- Demand Curve
 - The *demand curve* is a graph of the relationship between the price of a good and the quantity demanded.

Figure 1 Catherine's Demand Schedule and Demand Curve



Market Demand versus Individual Demand

- Market demand refers to the sum of all individual demands for a particular good or service.
- Graphically, individual demand curves are summed horizontally to obtain the market demand curve.

Shifts in the Demand Curve

- Change in Quantity Demanded
 - Movement along the demand curve.
 - Caused by a change in the price of the product.

Changes in Quantity Demanded

Price of Ice-Cream Cones

\$2.00

1.00

0

4

8

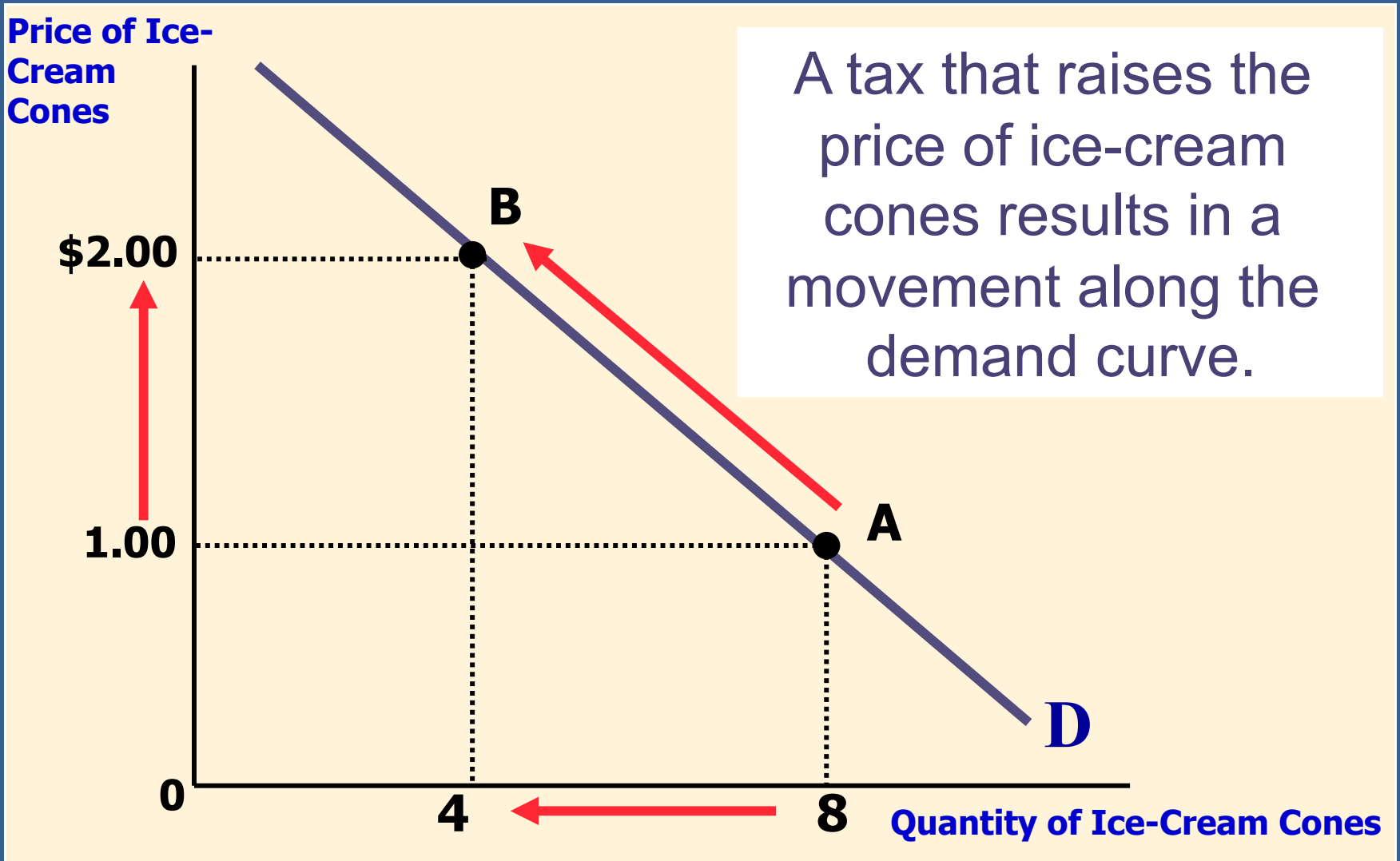
Quantity of Ice-Cream Cones

B

A

D

A tax that raises the price of ice-cream cones results in a movement along the demand curve.



Shifts in the Demand Curve

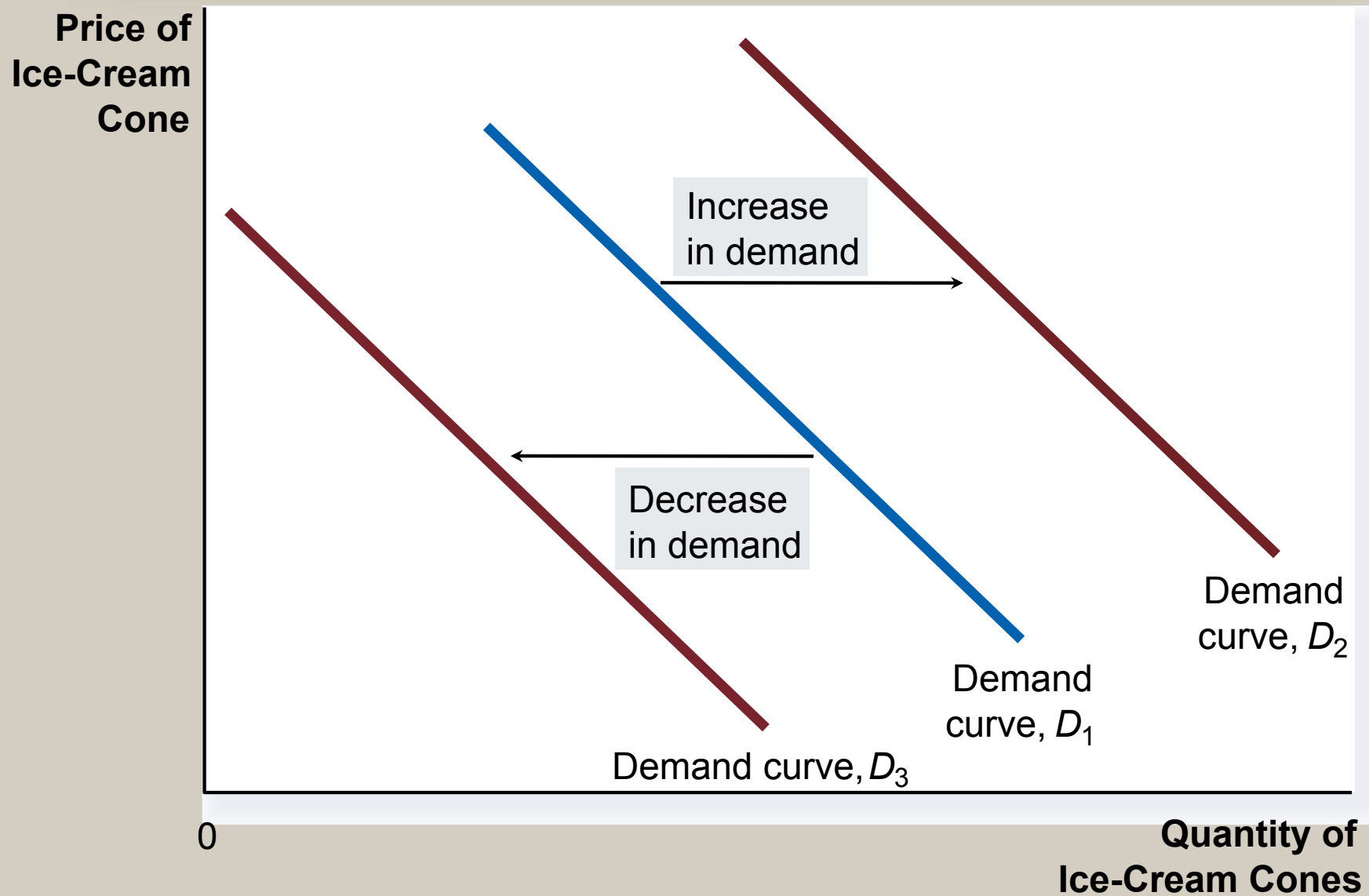
- Consumer income
- Prices of related goods
- Tastes
- Expectations
- Number of buyers



Shifts in the Demand Curve

- Change in Demand
 - A shift in the demand curve, either to the left or right.
 - Caused by any change that alters the quantity demanded at every price.

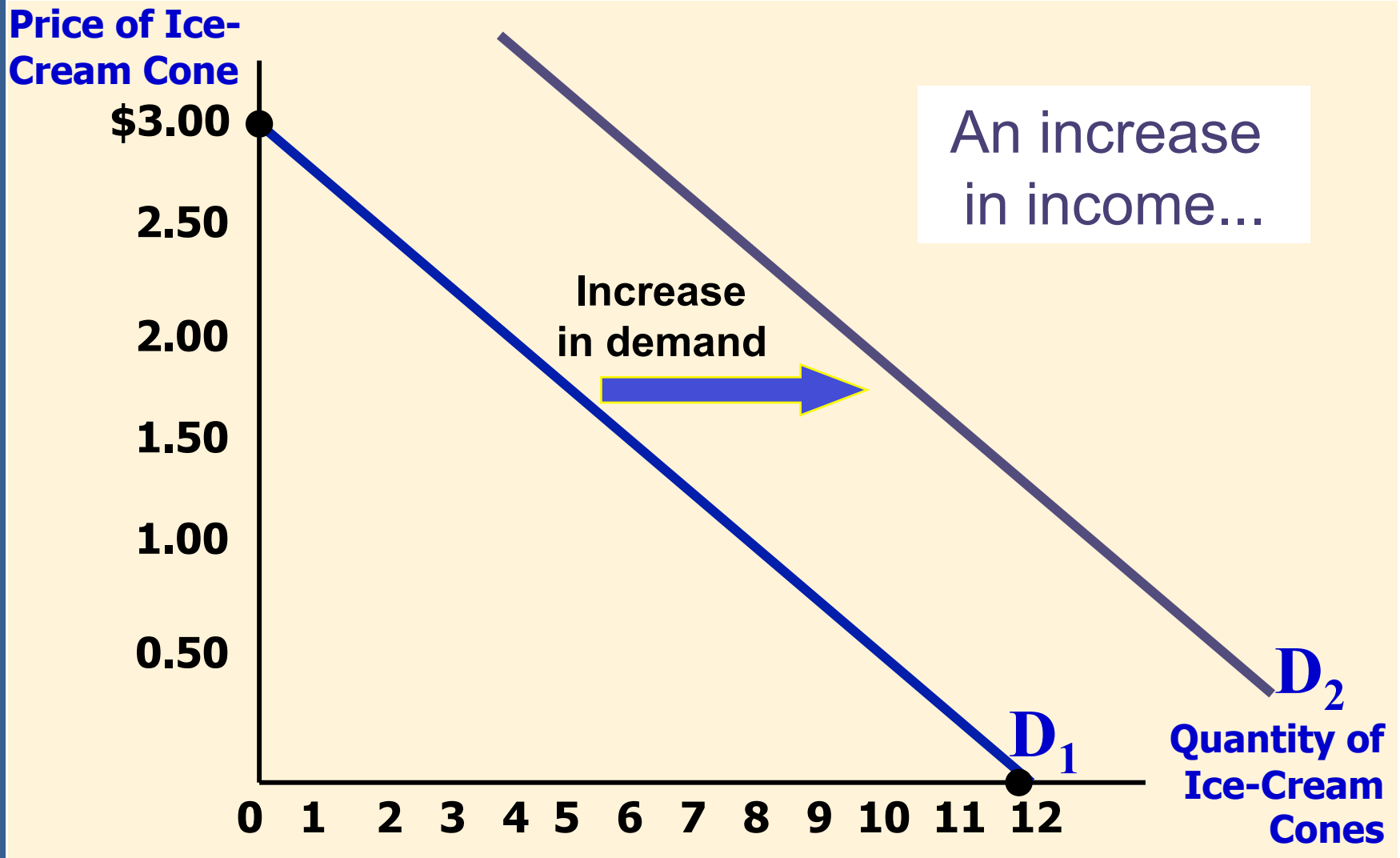
Figure 3 Shifts in the Demand Curve



Shifts in the Demand Curve

- Consumer Income
 - As income increases the demand for a *normal good* will increase.
 - As income increases the demand for an *inferior good* will decrease.

Consumer Income Normal Good



Consumer Income Inferior Good

Price of Ice-
Cream Cone

\$3.00

2.50

2.00

1.50

1.00

0.50

An increase
in income...

Decrease
in demand

D_2

D_1

Quantity of
Ice-Cream
Cones

0

1

2

3

4

5

6

7

8

9

10

11

12

Shifts in the Demand Curve

- Prices of Related Goods
 - When a fall in the price of one good reduces the demand for another good, the two goods are called *substitutes*.
 - When a fall in the price of one good increases the demand for another good, the two goods are called *complements*.

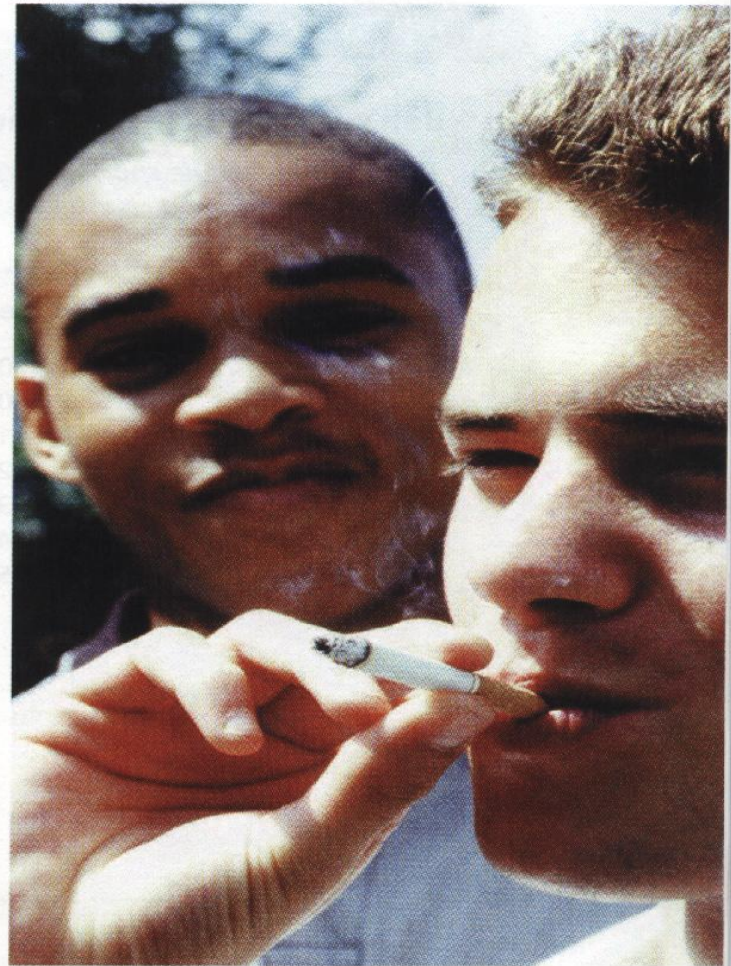
Table 1 Variables That Influence Buyers

Variable	A Change in This Variable . . .
Price	Represents a movement along the demand curve
Income	Shifts the demand curve
Prices of related goods	Shifts the demand curve
Tastes	Shifts the demand curve
Expectations	Shifts the demand curve
Number of buyers	Shifts the demand curve

Case study:

Two ways to reduce
the quantity of
smoking demanded

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*What is the best way to
stop this?*

Quantity of cigarettes smoked


SUPPLY

- *Quantity supplied* is the amount of a good that sellers are willing and able to sell.
- Law of Supply
 - The *law of supply* states that, other things equal, the quantity supplied of a good rises when the price of the good rises.


The Supply Curve: The Relationship between Price and Quantity Supplied

- Supply Schedule
 - The *supply schedule* is a table that shows the relationship between the price of the good and the quantity supplied.

Ben's Supply Schedule



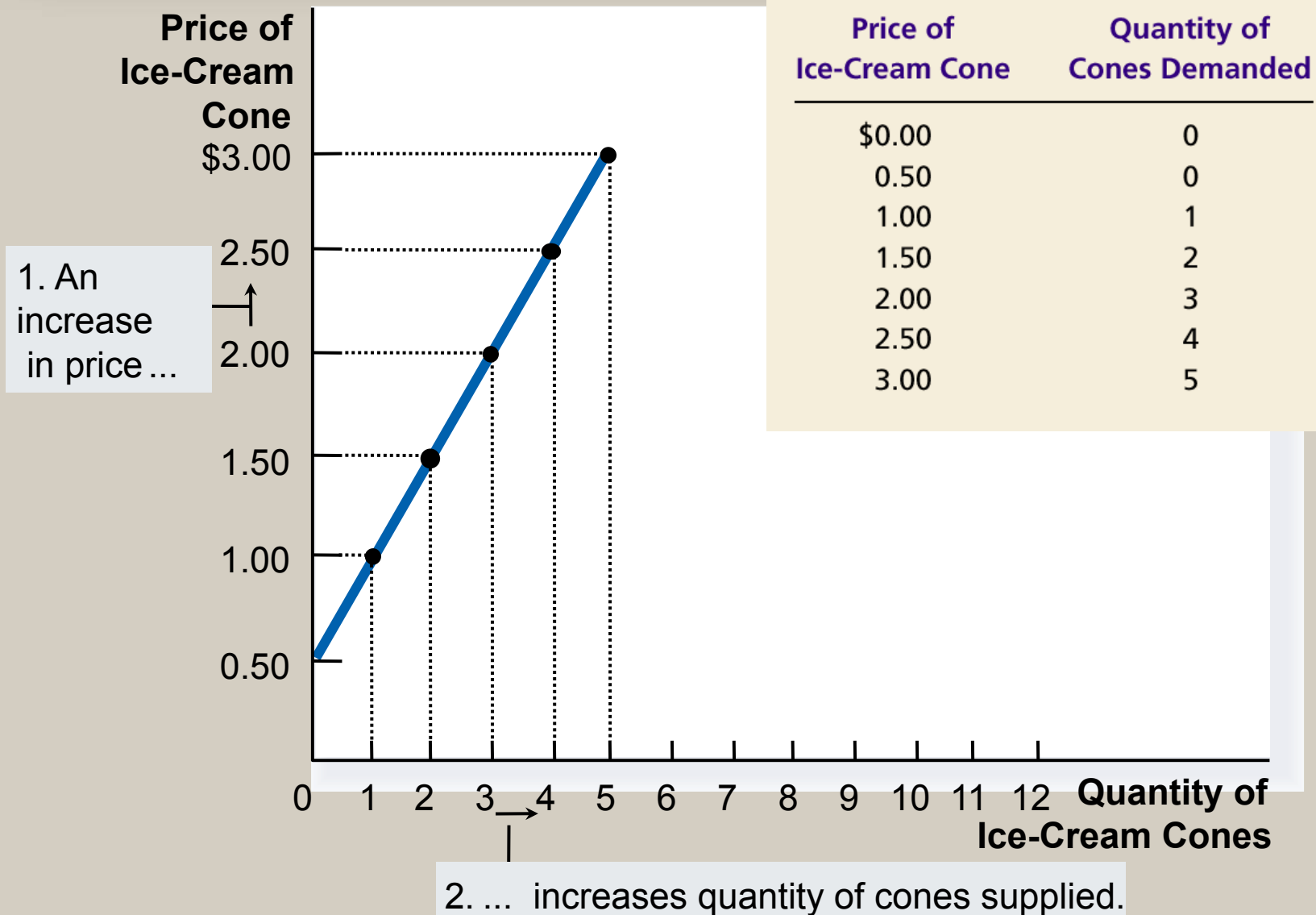
Price of Ice-Cream Cone	Quantity of Cones Demanded
\$0.00	0
0.50	0
1.00	1
1.50	2
2.00	3
2.50	4
3.00	5



The Supply Curve: The Relationship between Price and Quantity Supplied

- Supply Curve
 - The *supply curve* is the graph of the relationship between the price of a good and the quantity supplied.

Figure 5 Ben's Supply Schedule and Supply Curve



Market Supply versus Individual Supply

- Market supply refers to the sum of all individual supplies for all sellers of a particular good or service.
- Graphically, individual supply curves are summed horizontally to obtain the market supply curve.

Shifts in the Supply Curve

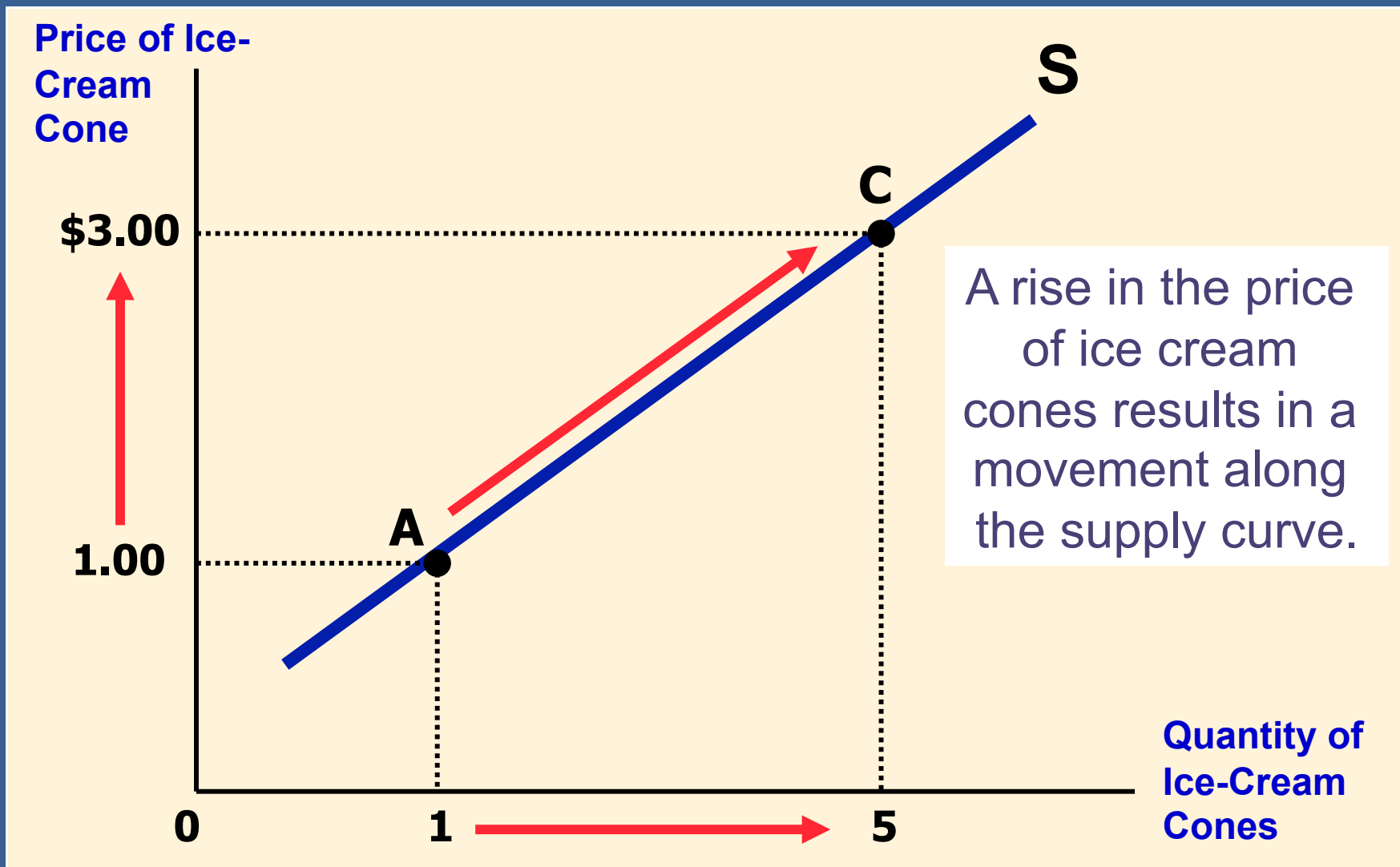
- Input prices
- Technology
- Expectations
- Number of sellers



Shifts in the Supply Curve

- Change in Quantity Supplied
 - Movement along the supply curve.
 - Caused by a change in anything that alters the quantity supplied at each price.

Figure 6 Change in Quantity Supplied



Shifts in the Supply Curve

- Change in Supply
 - A shift in the supply curve, either to the left or right.
 - Caused by a change in a determinant other than price.

Figure 7 Shifts in the Supply Curve

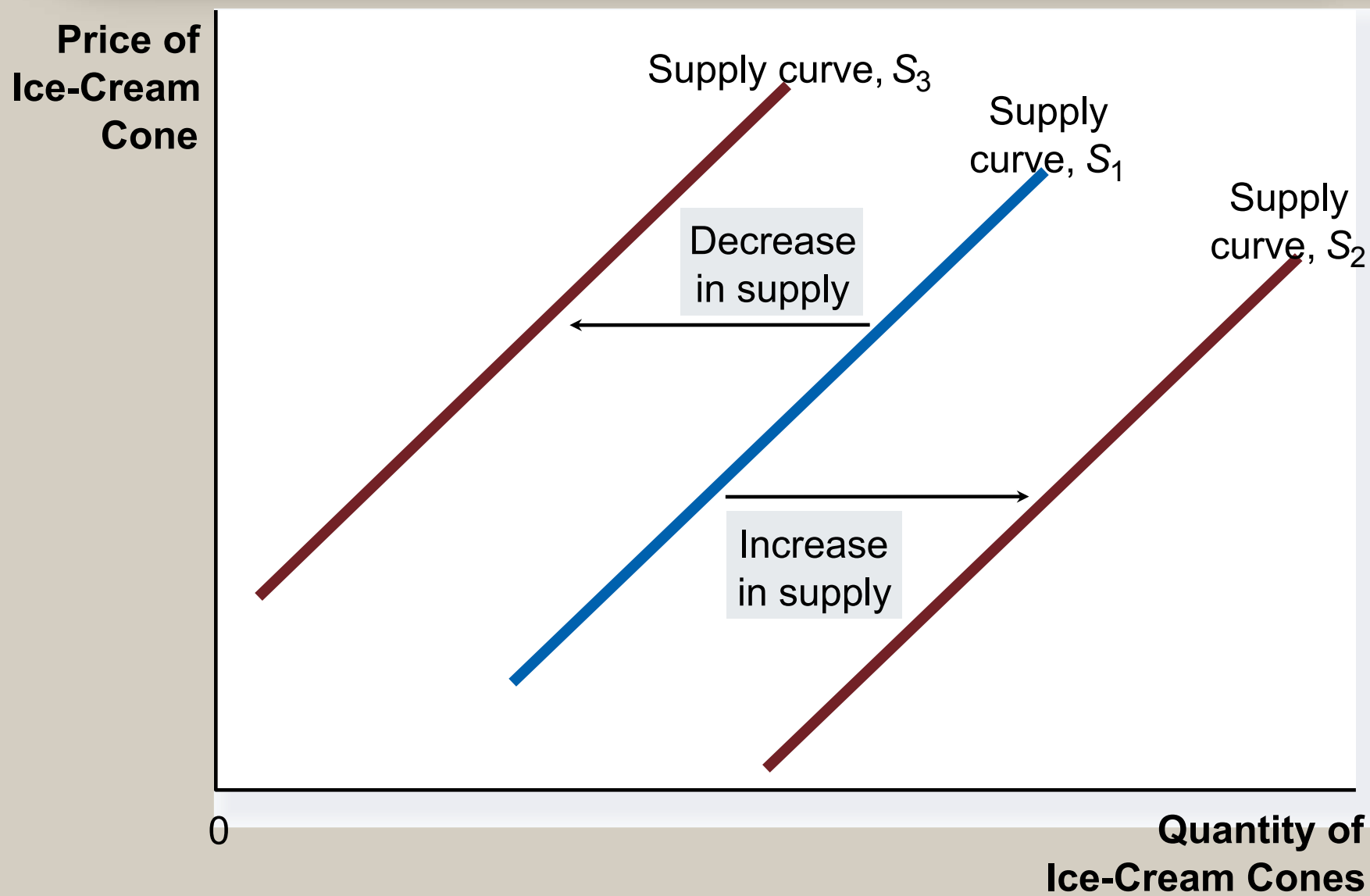


Table 2 Variables That Influence Sellers

Variable	A Change in This Variable . . .
Price	Represents a movement along the supply curve
Input prices	Shifts the supply curve
Technology	Shifts the supply curve
Expectations	Shifts the supply curve
Number of sellers	Shifts the supply curve

SUPPLY AND DEMAND TOGETHER

- *Equilibrium* refers to a situation in which the price has reached the level where quantity supplied equals quantity demanded.

SUPPLY AND DEMAND TOGETHER

- *Equilibrium Price*

- The price that balances quantity supplied and quantity demanded.
- On a graph, it is the price at which the supply and demand curves intersect.

- *Equilibrium Quantity*

- The quantity supplied and the quantity demanded at the equilibrium price.
- On a graph it is the quantity at which the supply and demand curves intersect.

SUPPLY AND DEMAND TOGETHER

Demand Schedule

Price of Ice-Cream Cone	Market
\$0.00	19
0.50	16
1.00	13
1.50	10
2.00	7
2.50	4
3.00	1

Supply Schedule

Price of Ice-Cream Cone	Market
\$0.00	0
0.50	0
1.00	1
1.50	4
2.00	7
2.50	10
3.00	13

At \$2.00, the quantity demanded is equal to the quantity supplied!

Figure 8 The Equilibrium of Supply and Demand

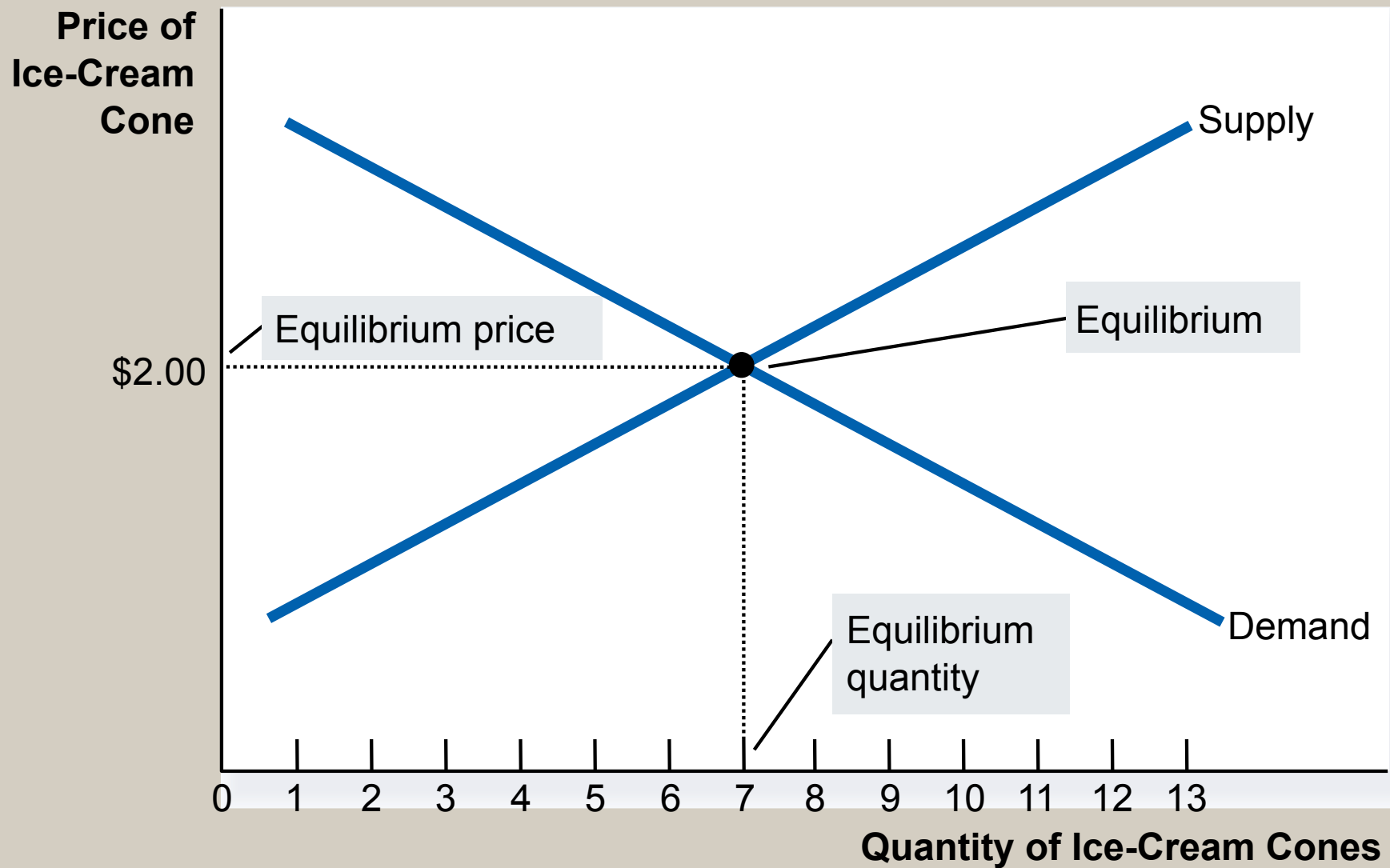
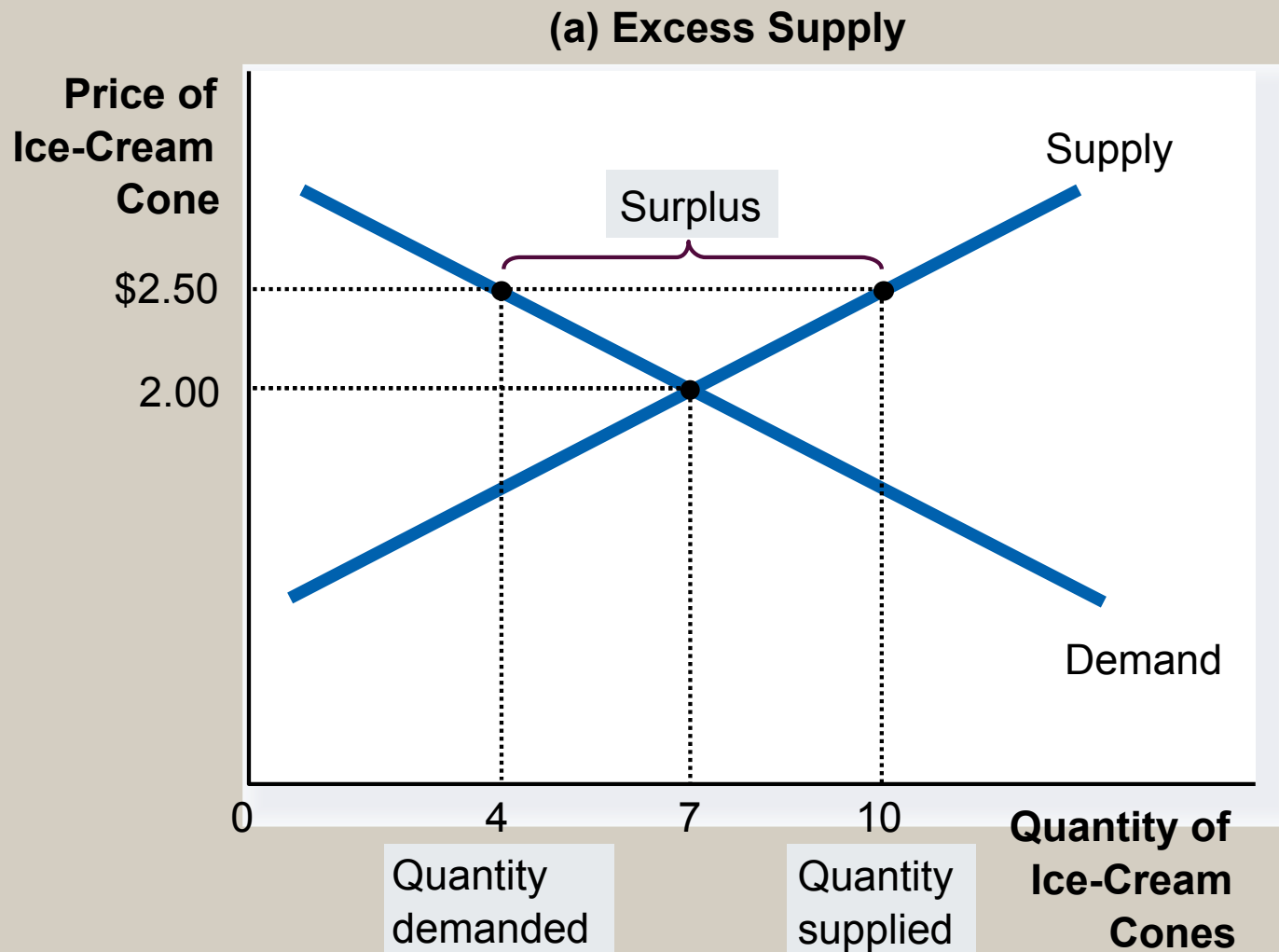


Figure 9 Markets Not in Equilibrium



Equilibrium

- *Surplus*

- When $\text{price} > \text{equilibrium price}$, then $\text{quantity supplied} > \text{quantity demanded}$.
 - There is excess supply or a surplus.
 - Suppliers will lower the price to increase sales, thereby moving toward equilibrium.

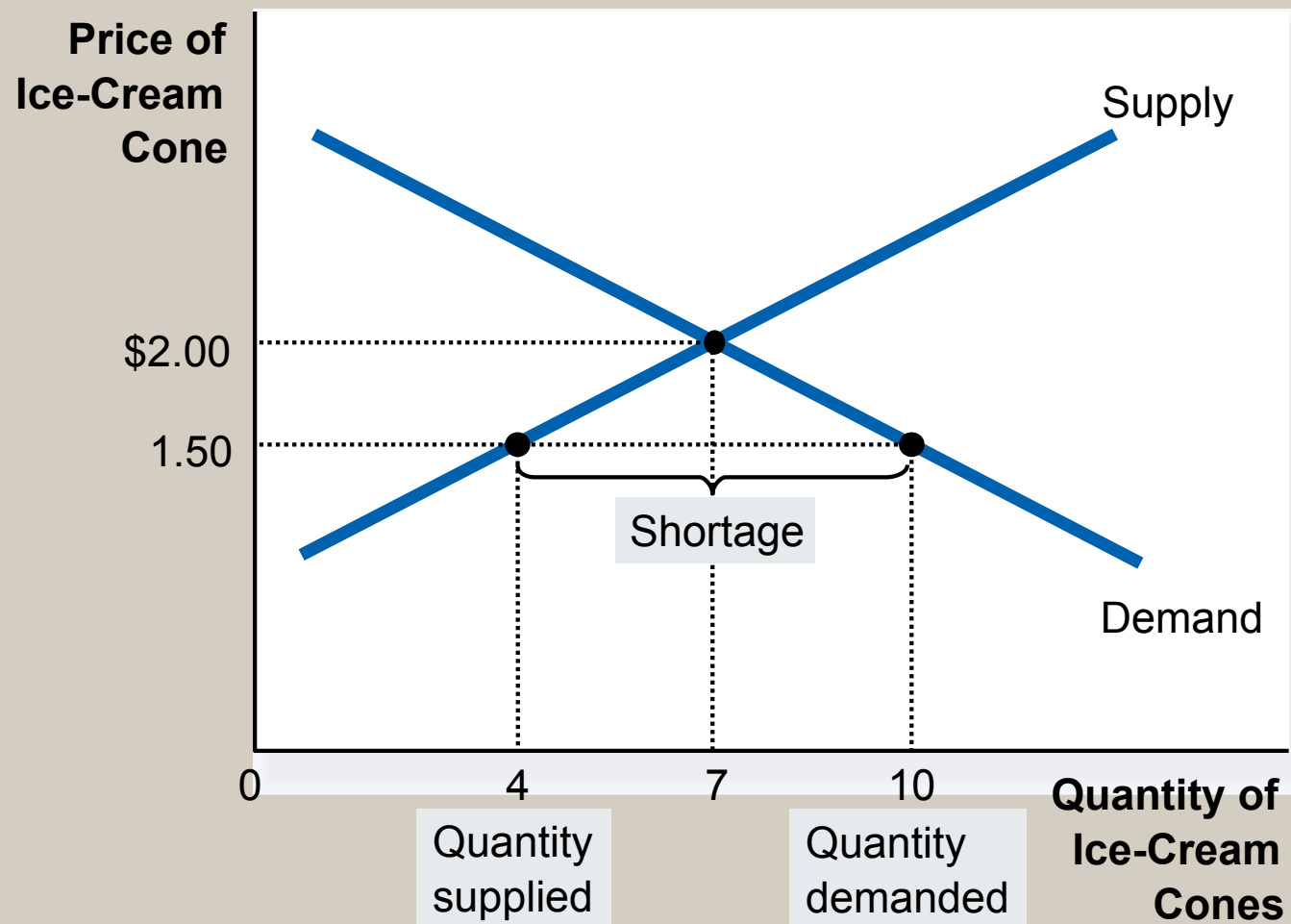
Equilibrium

- *Shortage*

- When $\text{price} < \text{equilibrium price}$, then $\text{quantity demanded} > \text{the quantity supplied}$.
 - There is excess demand or a shortage.
 - Suppliers will raise the price due to too many buyers chasing too few goods, thereby moving toward equilibrium.

Figure 9 Markets Not in Equilibrium

(b) Excess Demand



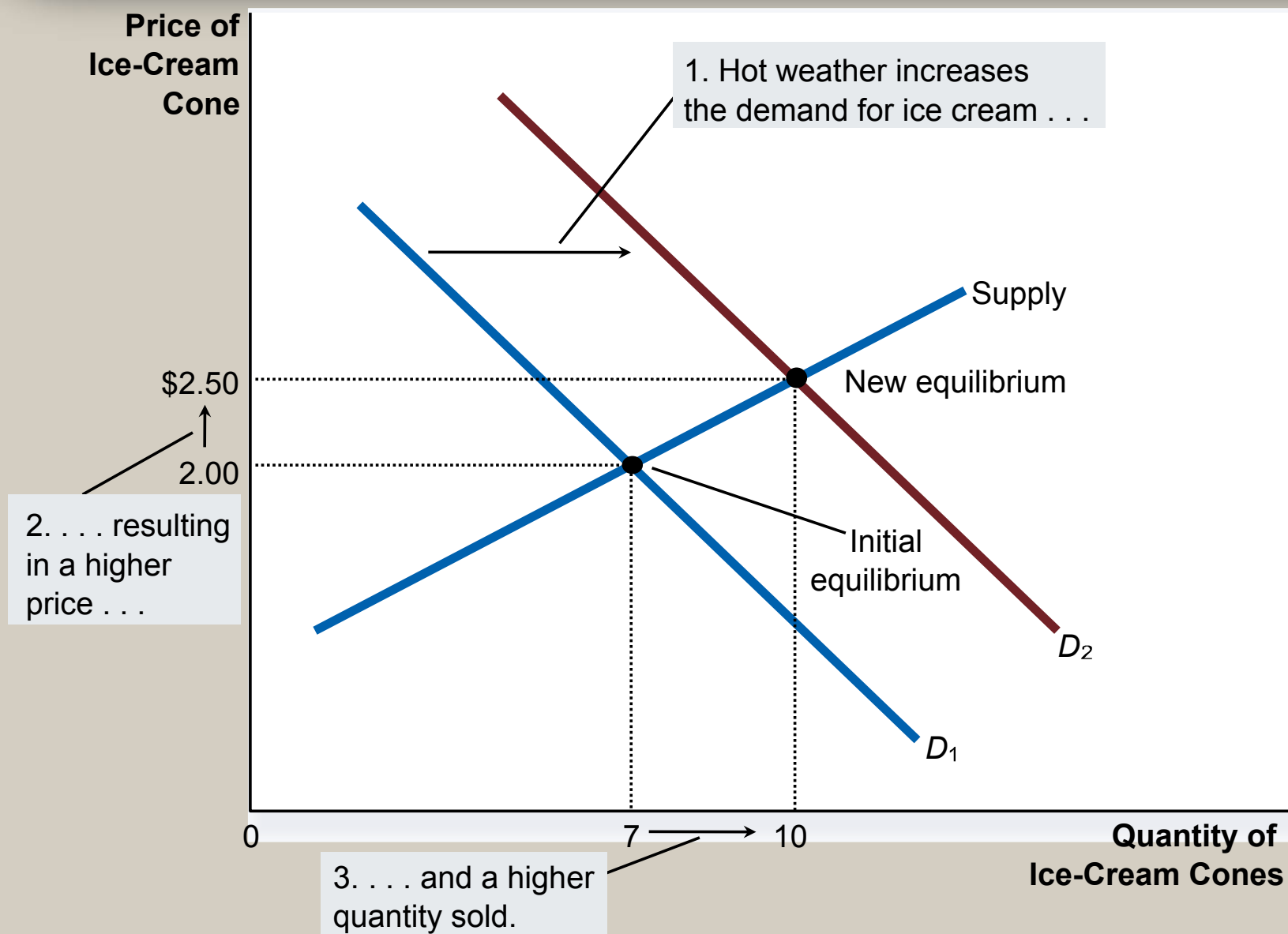
Equilibrium

- *Law of supply and demand*
 - The claim that the price of any good adjusts to bring the quantity supplied and the quantity demanded for that good into balance.

Three Steps to Analyzing Changes in Equilibrium

- Decide whether the event shifts the supply or demand curve (or both).
- Decide whether the curve(s) shift(s) to the left or to the right.
- Use the supply-and-demand diagram to see how the shift affects equilibrium price and quantity.

Figure 10 How an Increase in Demand Affects the Equilibrium



Three Steps to Analyzing Changes in Equilibrium

- Shifts in Curves versus Movements along Curves
 - A shift in the supply curve is called a change in supply.
 - A movement along a fixed supply curve is called a change in quantity supplied.
 - A shift in the demand curve is called a change in demand.
 - A movement along a fixed demand curve is called a change in quantity demanded.

Figure 11 How a Decrease in Supply Affects the Equilibrium

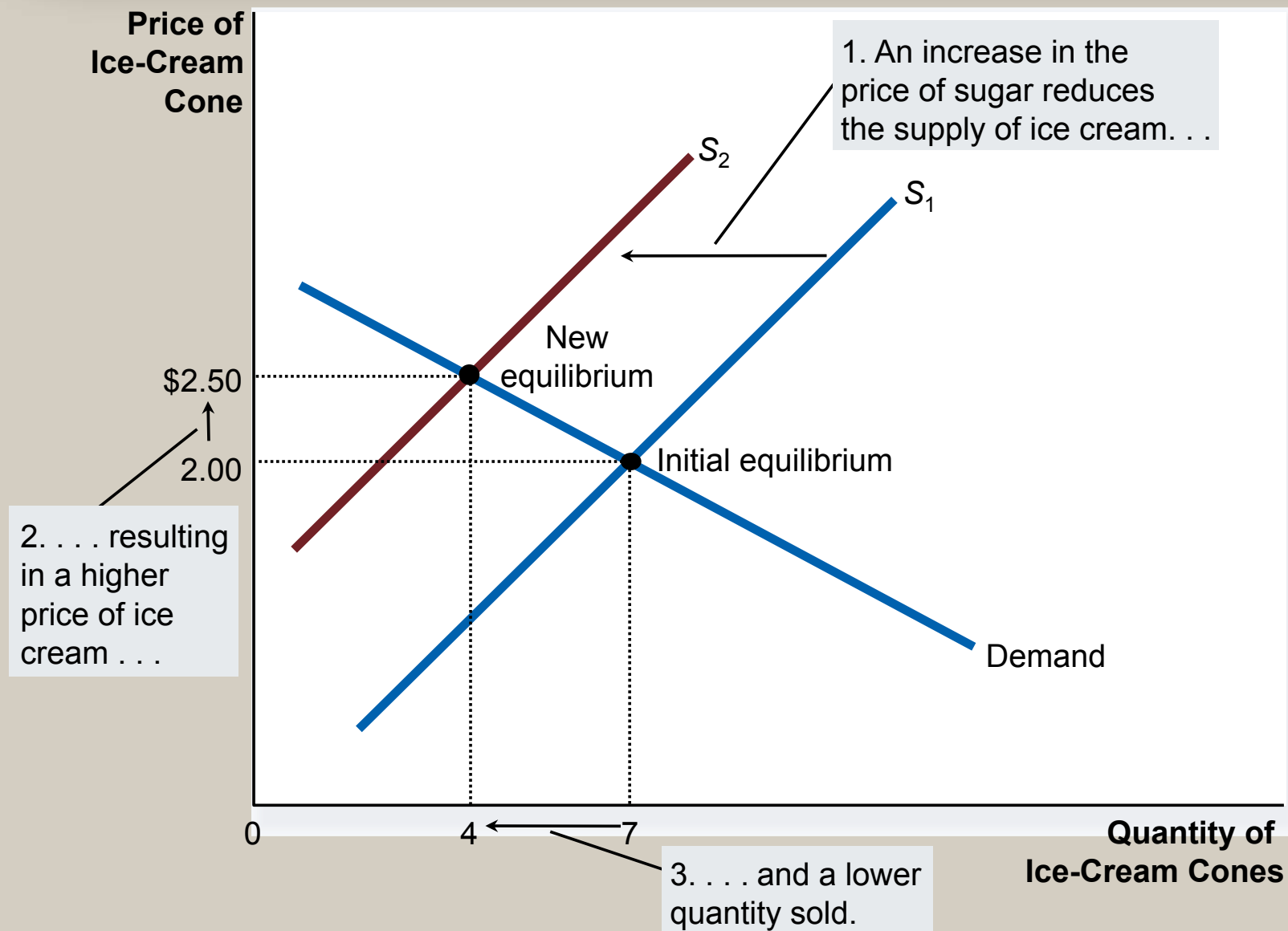


Table 4 What Happens to Price and Quantity When Supply or Demand Shifts?

	No Change in Supply	An Increase in Supply	A Decrease in Supply
No Change in Demand	<i>P</i> same <i>Q</i> same	<i>P</i> down <i>Q</i> up	<i>P</i> up <i>Q</i> down
An Increase in Demand	<i>P</i> up <i>Q</i> up	<i>P</i> ambiguous <i>Q</i> up	<i>P</i> up <i>Q</i> ambiguous
A Decrease in Demand	<i>P</i> down <i>Q</i> down	<i>P</i> down <i>Q</i> ambiguous	<i>P</i> ambiguous <i>Q</i> down

Conclusion: How prices allocate resources

