Microeconomics
HM207

Competitive Equilibrium Theory

Topic 2: How the market works

ideas inspiring innovation

Competitive Equilibrium Theory

- Supply and demand theory
- Supply and demand are the forces that make market economies work.
- Modern microeconomics is about supply, demand, and market equilibrium.

- Price system determines distribution of resources
- Distribution = wants + purchasing power

MARKETS & 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.

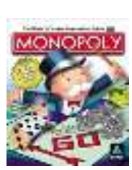
MARKETS & COMPETITION

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

- A **COMPETITVE MARKET** is a market in which there are **MANY** buyers and sellers so that each has a **NEGLIGABLE** impact on the market price.

MARKETS & COMPETITION: Types

- Perfect Competition
- Monopoly
- Oligopoly
- Monopolistic competition



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MARKETS & COMPETITION

- 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

MARKETS & COMPETITION

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

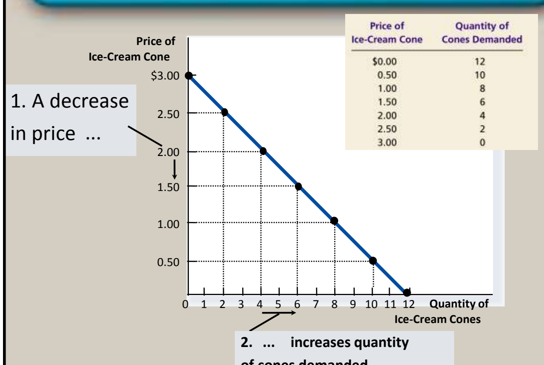
Catherine's Demand Schedule

Price of Ice-Cream Cone	Quantity of Cones Demanded
$0.00	12
0.50	10
1.00	8
1.50	6
2.00	4
2.50	2
3.00	0

Demand Curve

- **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 & Demand Curve



Price of Ice-Cream Cone	Quantity of Cones Demanded
$0.00	12
0.50	10
1.00	8
1.50	6
2.00	4
2.50	2
3.00	0

Market Demand versus Individual Demand

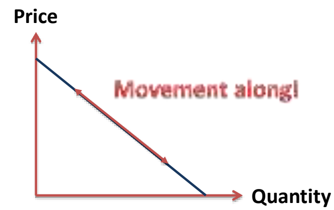
- Market demand refers to the sum of all individual demands for a particular good or service.
- Graphically, individual demand curves are summed horizontally to obtain the market demand curve.

Determinants of the Demand Curve

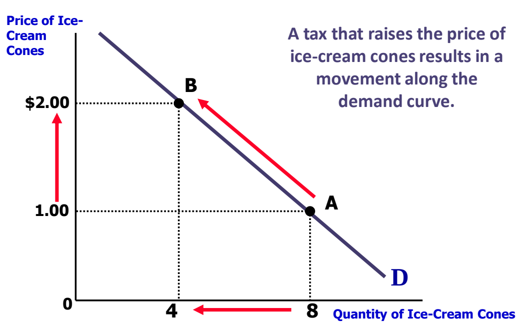
- Consumer income
- Tastes
- Expectations of future prices
- Number of buyers
- Prices of related goods
  - Compliments
  - Substitutes

Change in the Demand Curve

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

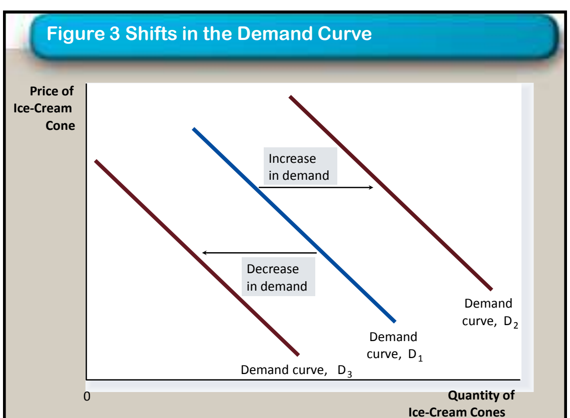


Changes in Quantity Demanded



Shifts in the Demand Curve

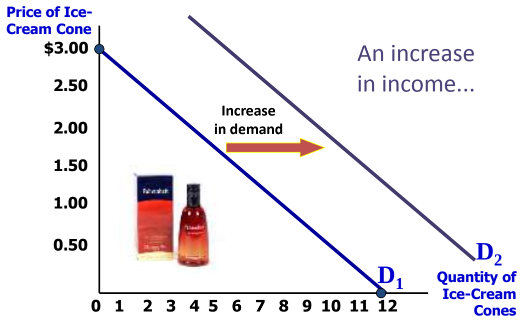
- Change in Demand
  - A shift in the demand curve, either to the left or right.
  - Caused by any change that alters the quantity demanded at every price.



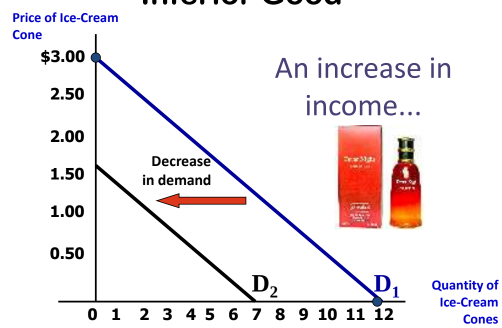
Shifts in the Demand Curve

- 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



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

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.

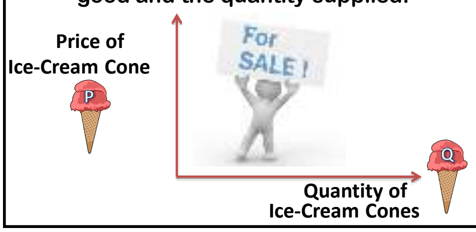
The Supply Curve: The Relationship between Price and Quantity Supplied

- 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

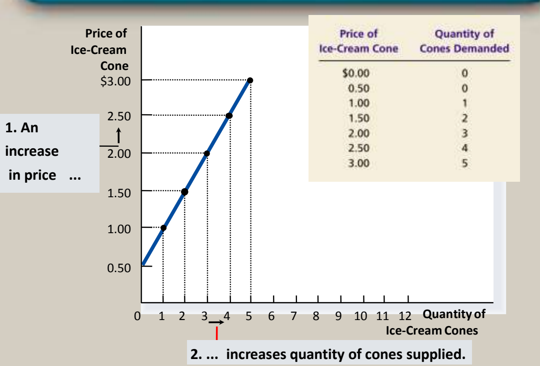
- Supply Curve
  - The *supply curve* is the graph of the relationship between the price of a good and the quantity supplied.



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.

Figure 5 Ben's Supply Schedule and Supply Curve



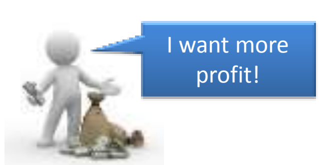
Price of Ice-Cream Cone	Quantity of Cones Demanded
$0.00	0
0.50	0
1.00	1
1.50	2
2.00	3
2.50	4
3.00	5

Determinants of the Supply Curve

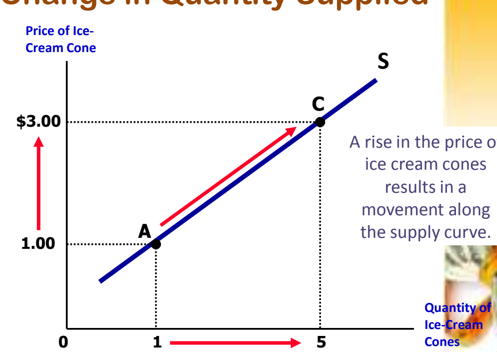
- Input prices (Production Costs)
- Technology
- Price of related goods
- Expectations about future prices
- Number of sellers

Shifts in the Supply Curve

- Change in Quantity Supplied
  - Movement along the supply curve
  - Caused only by a change in the price of the good supplied.



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.
  - Caused by a change in anything that alters the quantity supplied at each price. (Quantity supplied has increased or decreased at each price)

Figure 7 Shifts in the Supply Curve

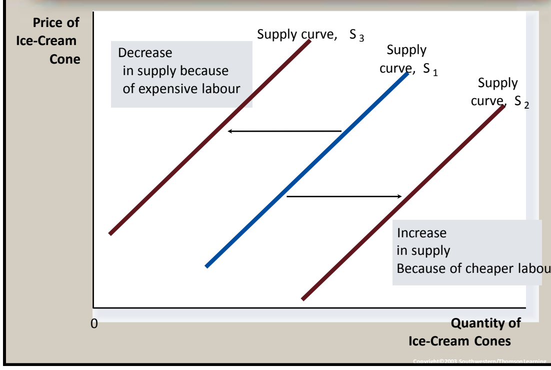


Table 2 Variables That Influence Sellers

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!

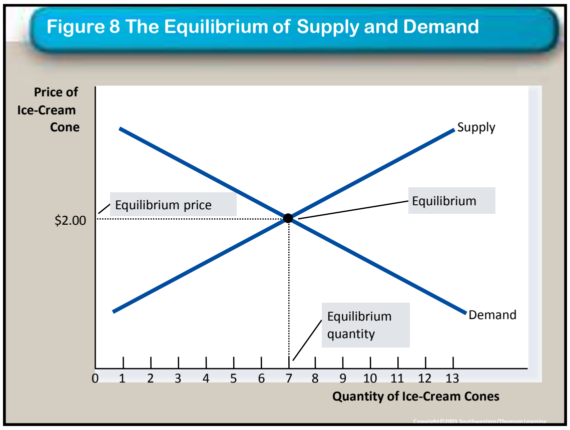


Figure 8 The Equilibrium of Supply and Demand
Price of Ice-Cream Cone
$2.00
Equilibrium price
Supply
Equilibrium
Demand
Equilibrium quantity
0 1 2 3 4 5 6 7 8 9 10 11 12 13
Quantity of Ice-Cream Cones