Chapter 5

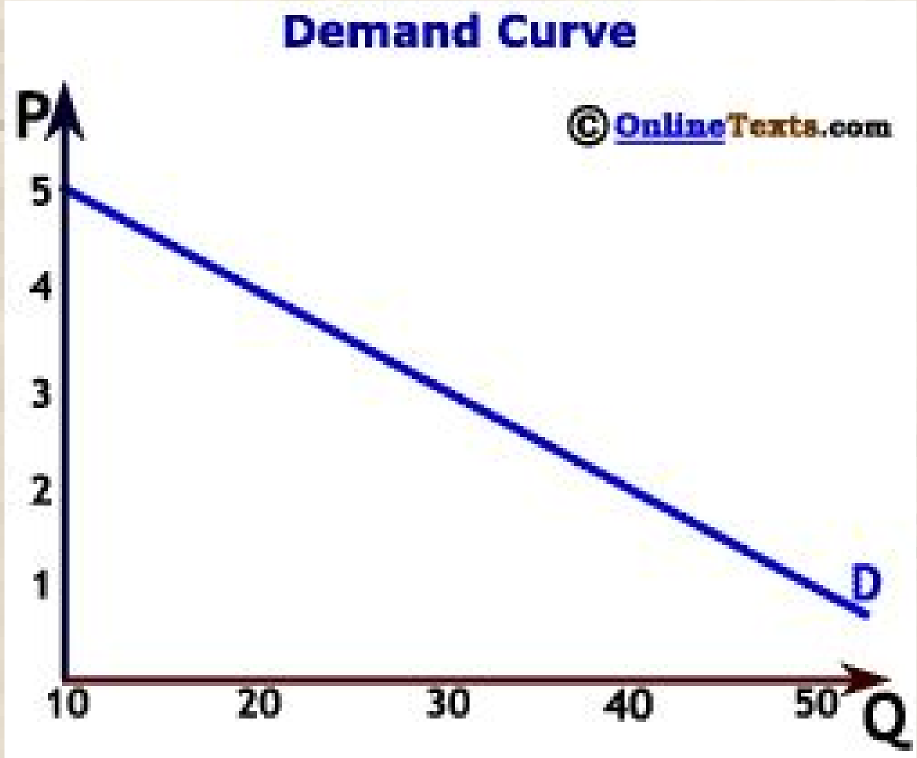
Supply and Demand

The Law of Demand

- The *law of demand* holds that other things equal, as the price of a good or service rises, its quantity demanded falls.
  - The reverse is also true: as the price of a good or service falls, its quantity demanded increases.

Demand Curve

TABLE 1 Demand for Videos	
Price	Quantity Demanded
$5	10
$4	20
$3	30
$2	40
$1	50



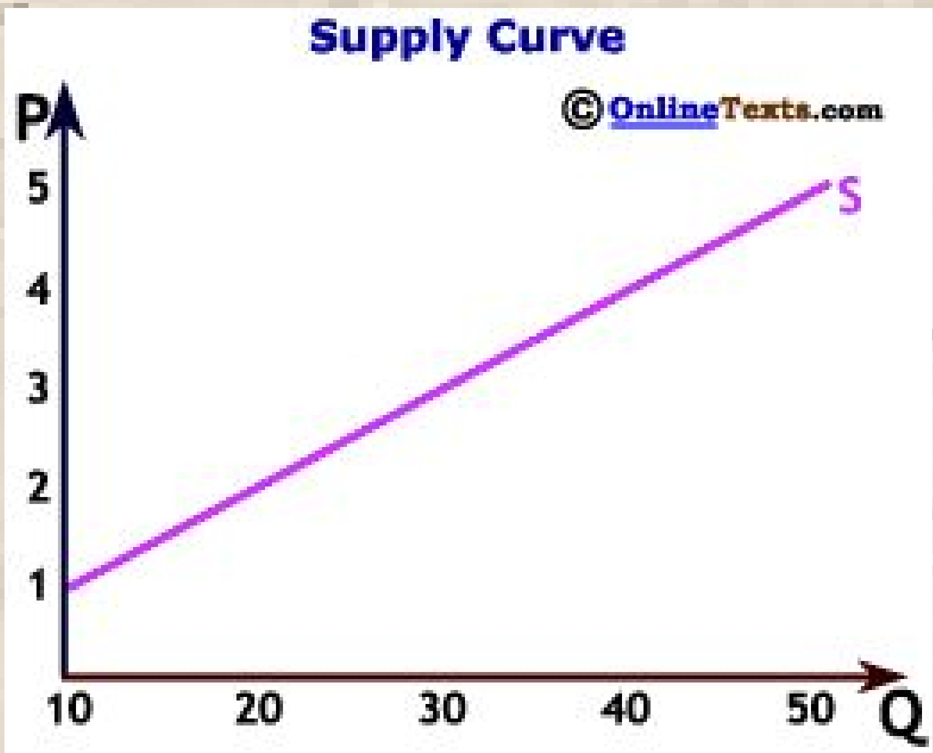
The demand curve has a negative slope, consistent with the law of demand.

The Law of Supply

- The *law of supply* holds that other things equal, as the price of a good rises, its quantity supplied will rise, and vice versa.
- Why do producers produce more output when prices rise?
  - They seek higher profits
  - They can cover higher marginal costs of production

Supply Curve

TABLE 2 Supply of Videos	
Price	Quantity Supplied
$5	50
$4	40
$3	30
$2	20
$1	10



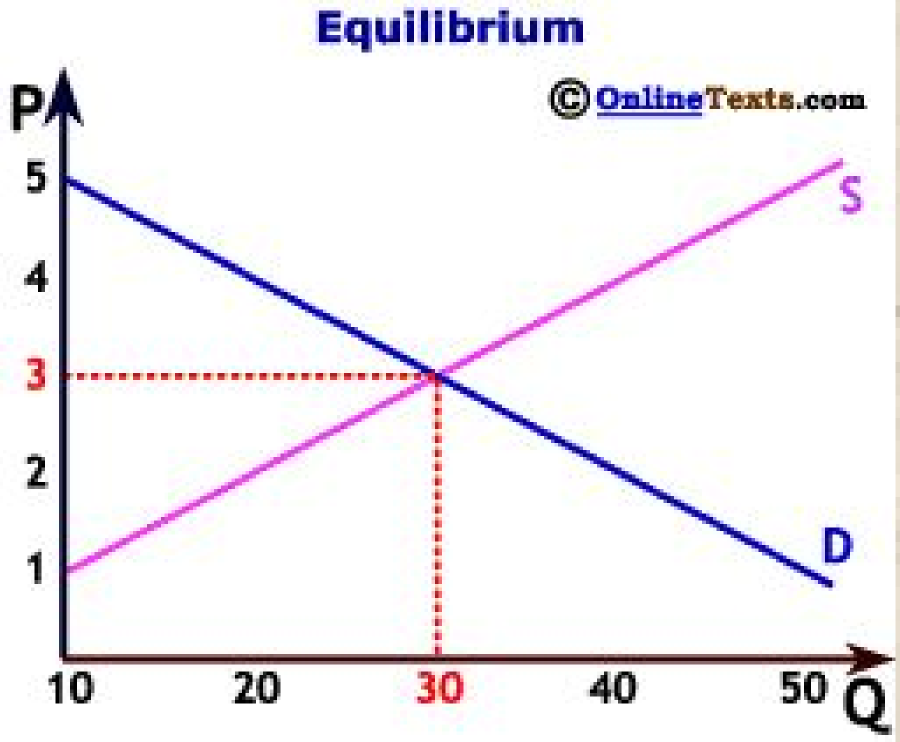
The supply curve has a positive slope, consistent with the law of supply.

Equilibrium

- In economics, an *equilibrium* is a situation in which:
  - there is no inherent tendency to change,
  - quantity demanded equals quantity supplied, and
  - the market just clears.

Equilibrium

TABLE 3 Video Market Equilibrium		
Price	Quantity Demanded	Quantity Supplied
$5	10	50
$4	20	40
$3	**30**	**30**
$2	40	20
$1	50	10



Equilibrium occurs at a price of $3 and a quantity of 30 units.

Shortages and Surpluses

- A *shortage* occurs when quantity demanded exceeds quantity supplied.
  - A shortage implies the market price is too low.
- A *surplus* occurs when quantity supplied exceeds quantity demanded.
  - A surplus implies the market price is too high.

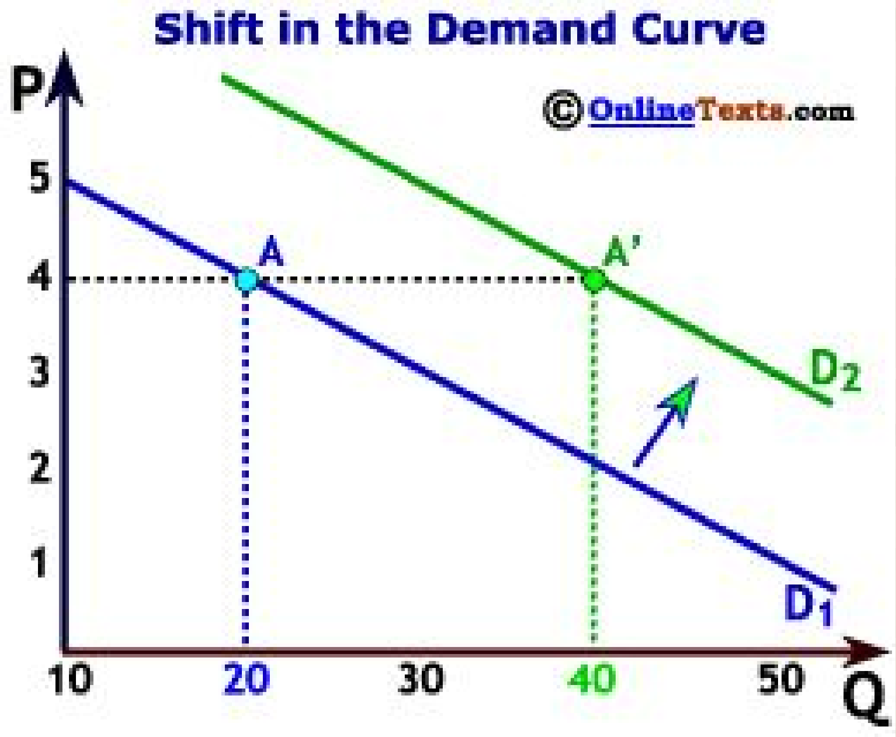
Shift in the Demand Curve

- A change in any variable other than price that influences quantity demanded produces a *shift in the demand curve* or a change in demand.
- Factors that shift the demand curve include:
  - Change in consumer incomes
  - Population change
  - Consumer preferences
  - Prices of related goods:
    - Substitutes: goods consumed in place of one another
    - Complements: goods consumed jointly

Shift in the Demand Curve

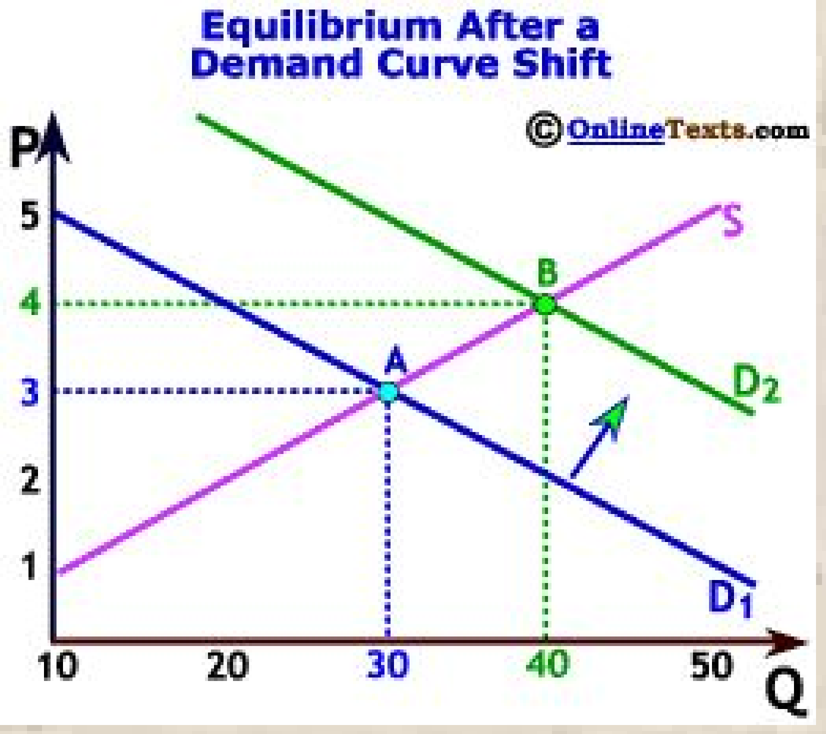
TABLE 4
Change in Demand for Videos after Incomes Rise

Price	Initial Quantity Demanded	New Quantity Demanded	Quantity Supplied
$5	10	30	50
$4	20	**40**	**40**
$3	30	50	30
$2	40	60	20
$1	50	70	10



This demand curve has shifted to the right. Quantity demanded is now higher at any given price.

Equilibrium After a Demand Shift



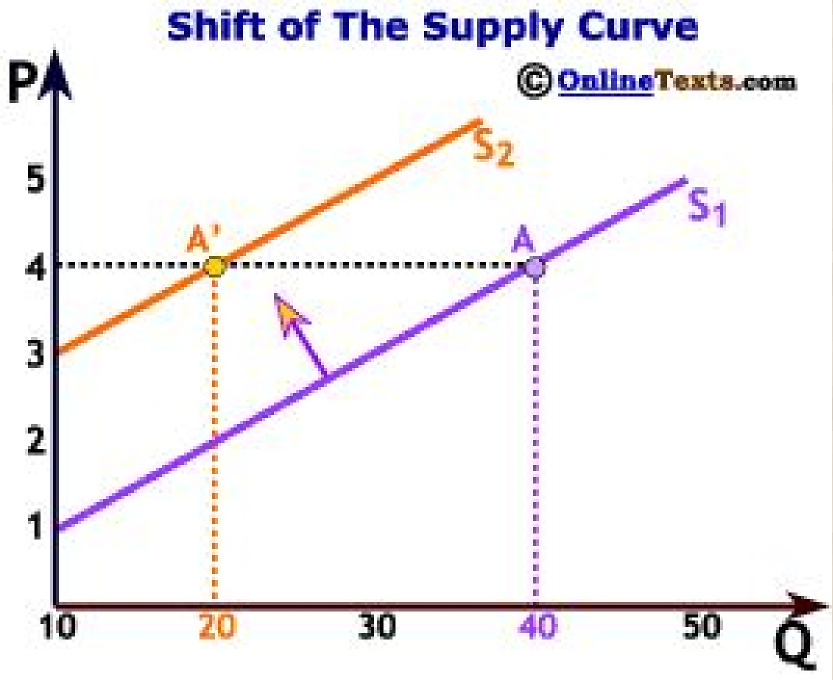
The shift in the demand curve moves the market equilibrium from point A to point B, resulting in a higher price and higher quantity.

Shift in the Supply Curve

- A change in any variable other than price that influences quantity supplied produces a *shift in the supply curve* or a change in supply.
- Factors that shift the supply curve include:
  - Change in input costs
  - Increase in technology
  - Change in size of the industry

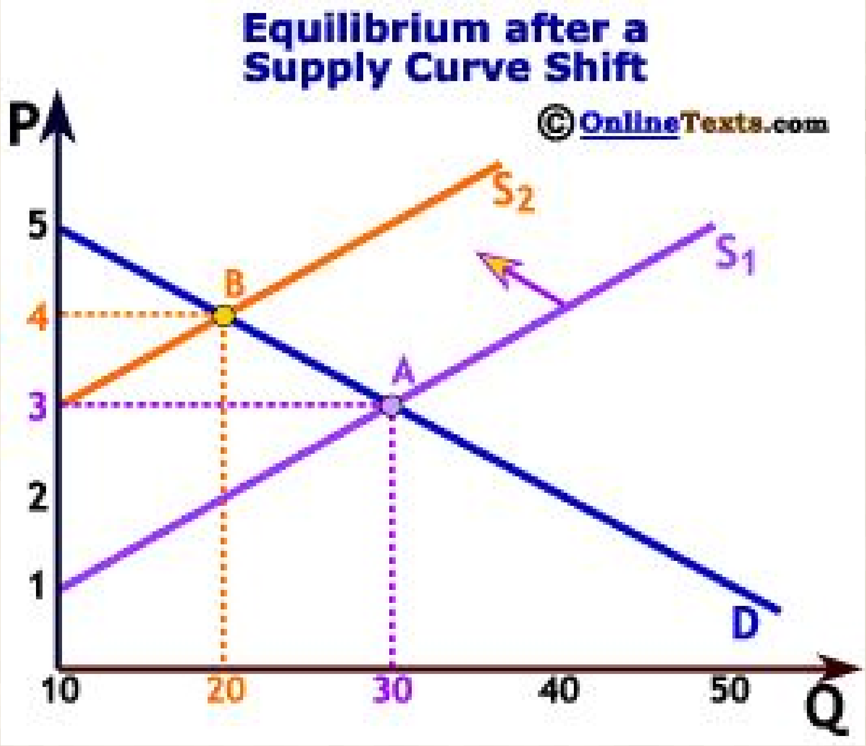
Shift in the Supply Curve

TABLE 5 Change in Supply due to an Increase in Video Costs			
Price	Quantity Demanded	Initial Quantity Supplied	New Quantity Supplied
$5	10	50	30
$4	**20**	40	**20**
$3	30	30	10
$2	40	20	0
$1	50	10	0



For an given rental price, quantity supplied is now lower than before.

Equilibrium After a Supply Shift



The shift in the supply curve moves the market equilibrium from point A to point B, resulting in a higher price and lower quantity.

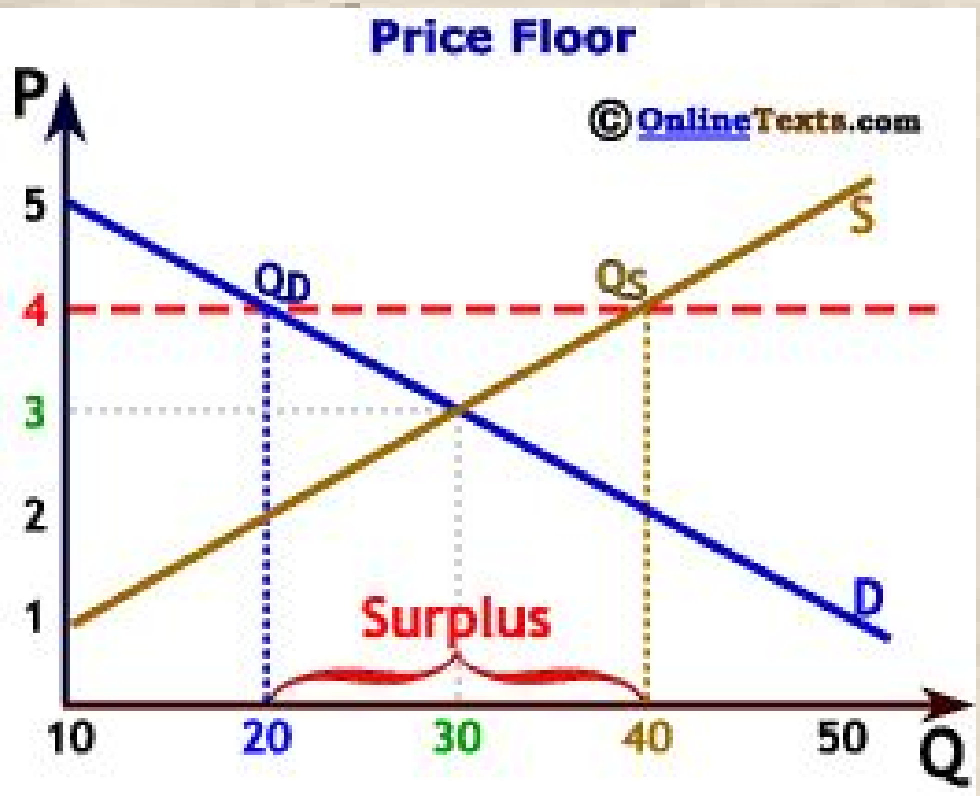
Price Ceilings & Floors

- A *price ceiling* is a legal maximum that can be charged for a good.
  - Results in a shortage of a product
  - Common examples include apartment rentals and credit cards interest rates.
- A *price floor* is a legal minimum that can be charged for a good.
  - Results in a surplus of a product
  - Common examples include soybeans, milk, minimum wage

Price Ceiling

A price ceiling is set at $2 resulting in a shortage of 20 units.

Price Floor



A price floor is set at $4 resulting in a surplus of 20 units.