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Market Equilibrium

Market Equilibrium

- **Equilibrium** is a concept in which opposing dynamic forces cancel each other out.
- Equilibrium isn’t a state of the world, it is a characteristic of a model.
- Equilibrium isn’t inherently good or bad, it is simply a state in which dynamic pressures offset each other.
- In a free market, the forces of supply and demand interact to determine equilibrium quantity and equilibrium price.
- ***Market equilibrium*** is the condition that exists when quantity supplied and quantity demanded are equal.
- ***Equilibrium price*** – the price toward which the invisible hand drives the market.
- ***Equilibrium quantity*** – the amount bought and sold at the equilibrium price.
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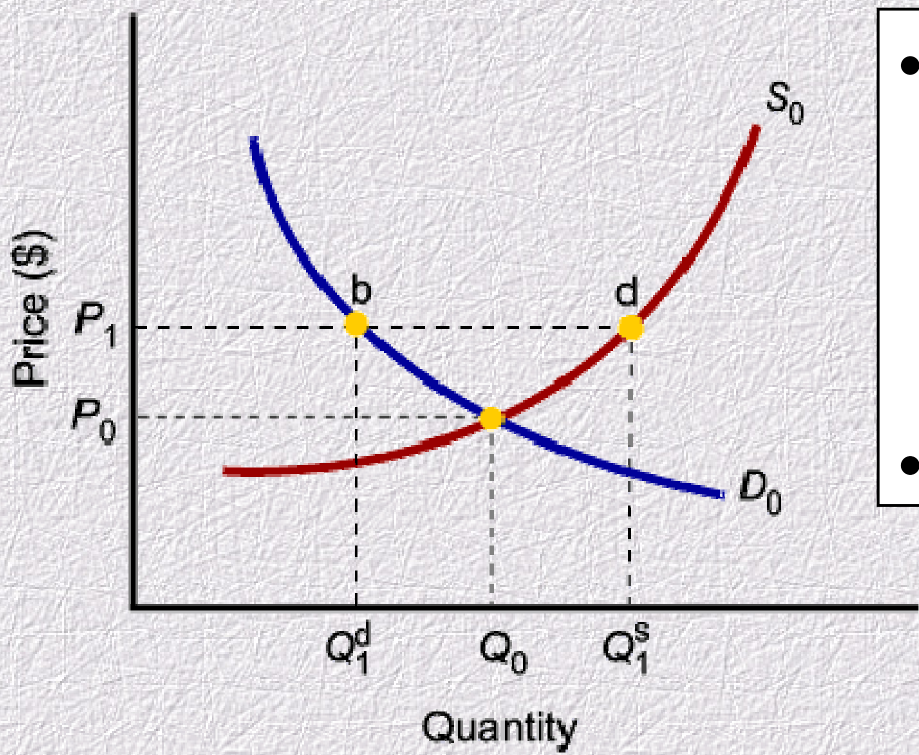
Market Equilibrium
Graphing presentation

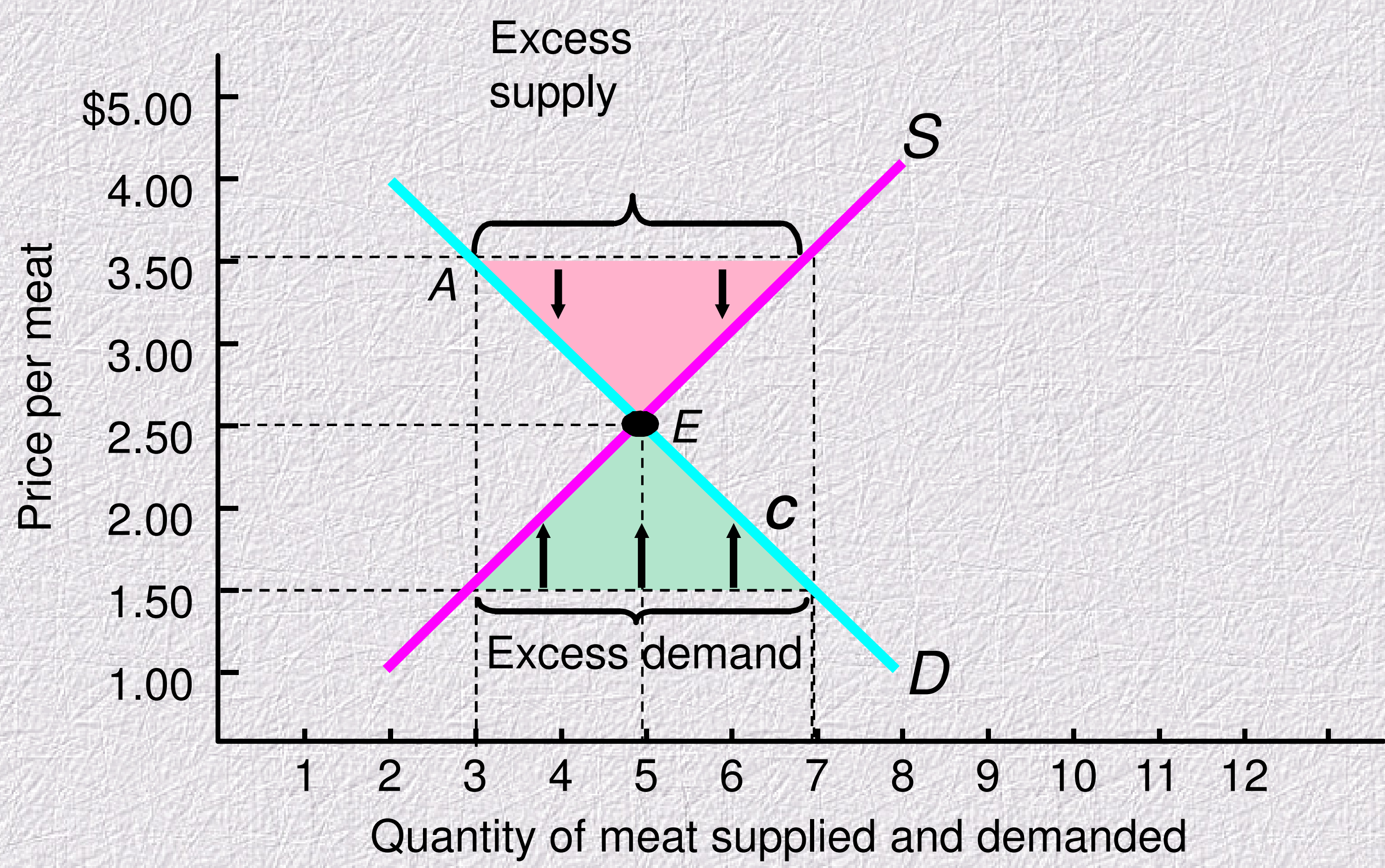


- Only in equilibrium is quantity supplied equal to quantity demanded.
- At any price level other than P_0, such as P_1, quantity supplied does not equal quantity demanded.

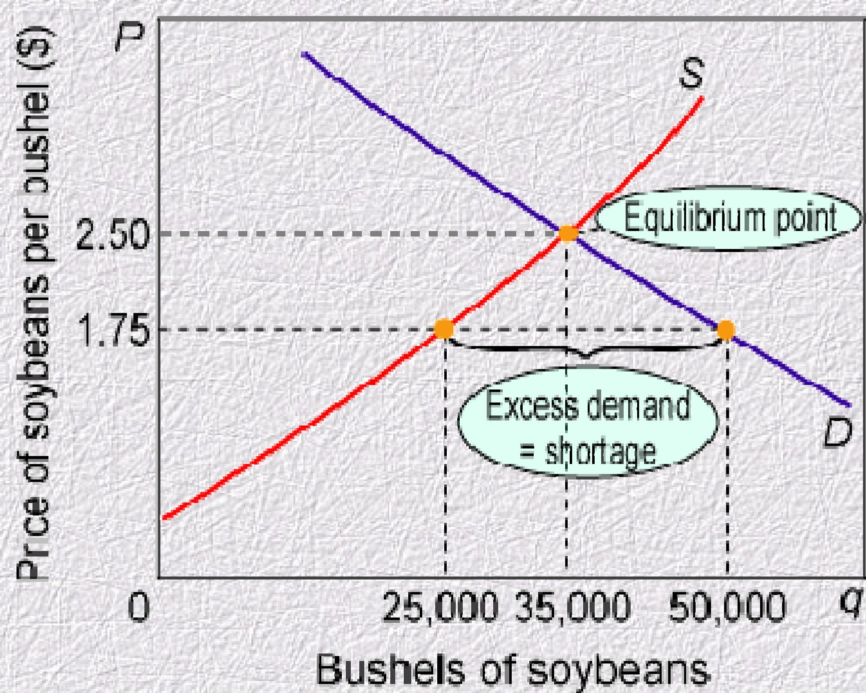
The Graphical Interaction of Supply and Demand

Price (kg meat)	Quantity Supplied	Quantity Demanded	Surplus (+) Shortage (-)
$3.50	7	3	+4
$2.50	5	5	0
$1.50	3	7	-4

The Graphical Interaction of Supply and Demand

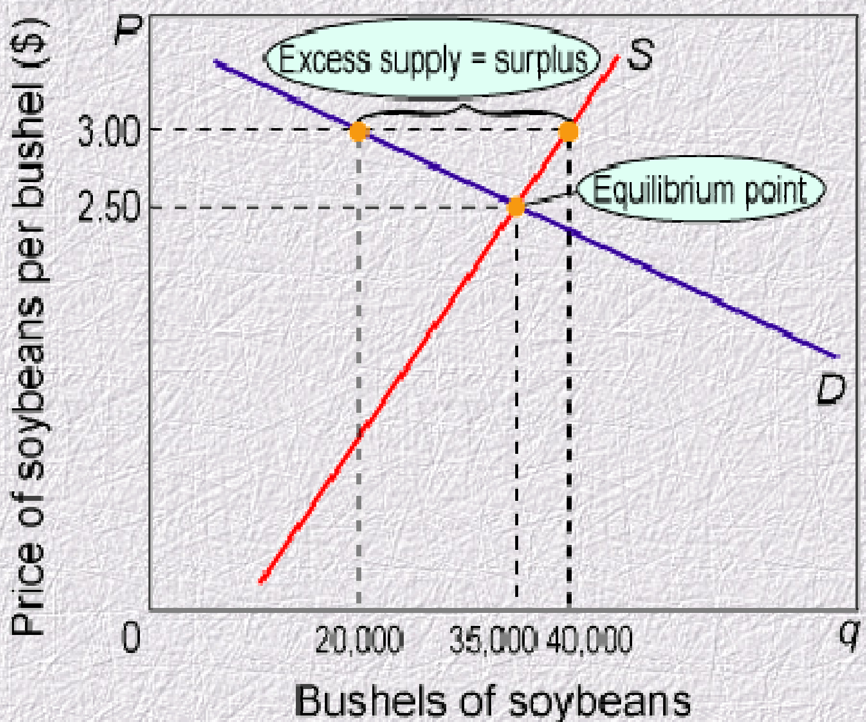


Excess Demand



- ***Excess demand***, or ***shortage***, is the condition that exists when quantity demanded exceeds quantity supplied at the current price.
- When quantity demanded exceeds quantity supplied, price tends to rise until equilibrium is restored.

Excess Supply

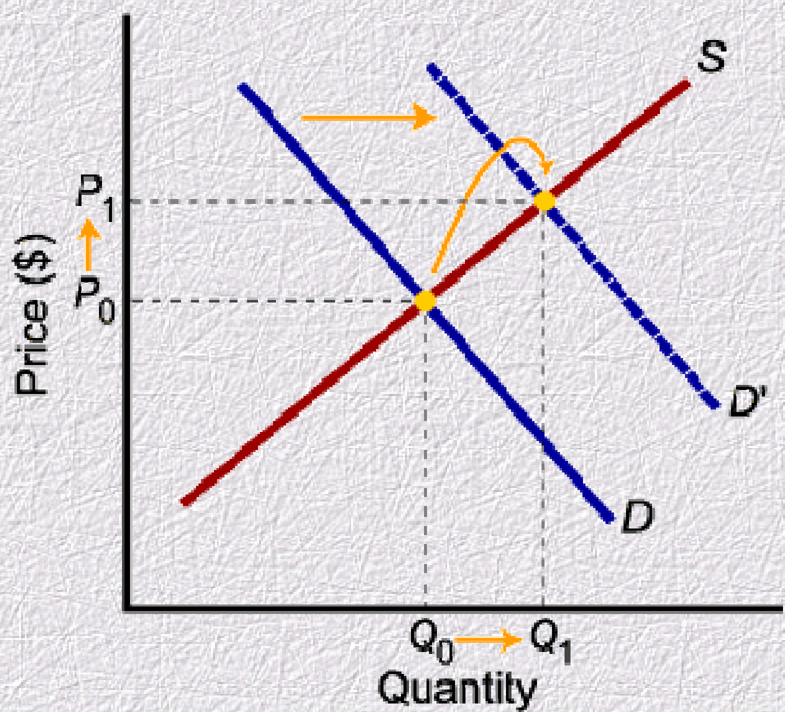


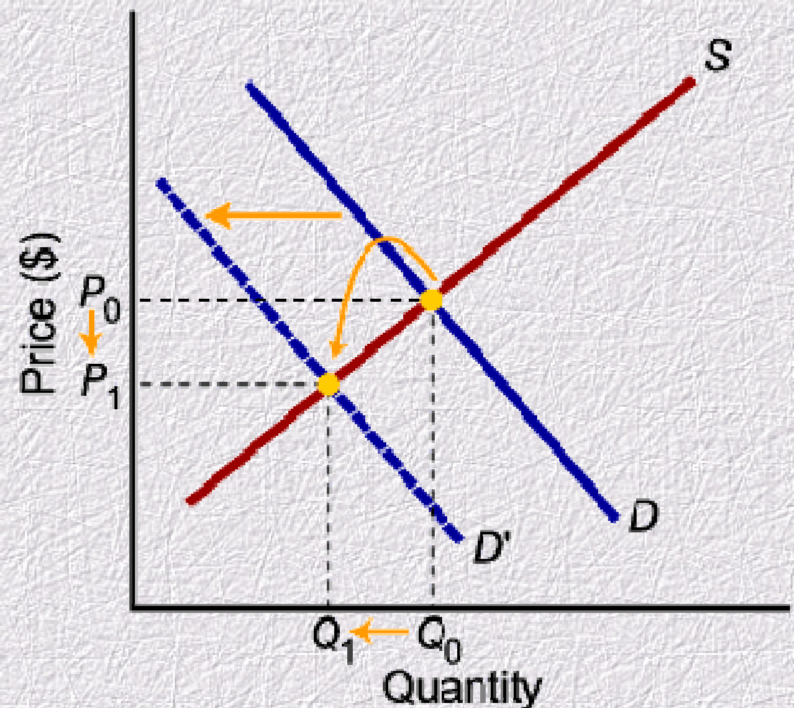
- ***Excess supply***, or ***surplus***, is the condition that exists when quantity supplied exceeds quantity demanded at the current price.
- When quantity supplied exceeds quantity demanded, price tends to fall until equilibrium is restored.

Changes in Equilibrium

- 1. Change of demand and constant supply
- 2. Change of supply and constant demand
- 3. Change of demand and supply in the same time
- A. Increase demand and supply in the same time
- B. Decrease demand and supply in the same time
- C. Increase demand and increase supply.
- D. Increase supply and decrease demand.

Changes in Equilibrium
1. change of demand and constant supply

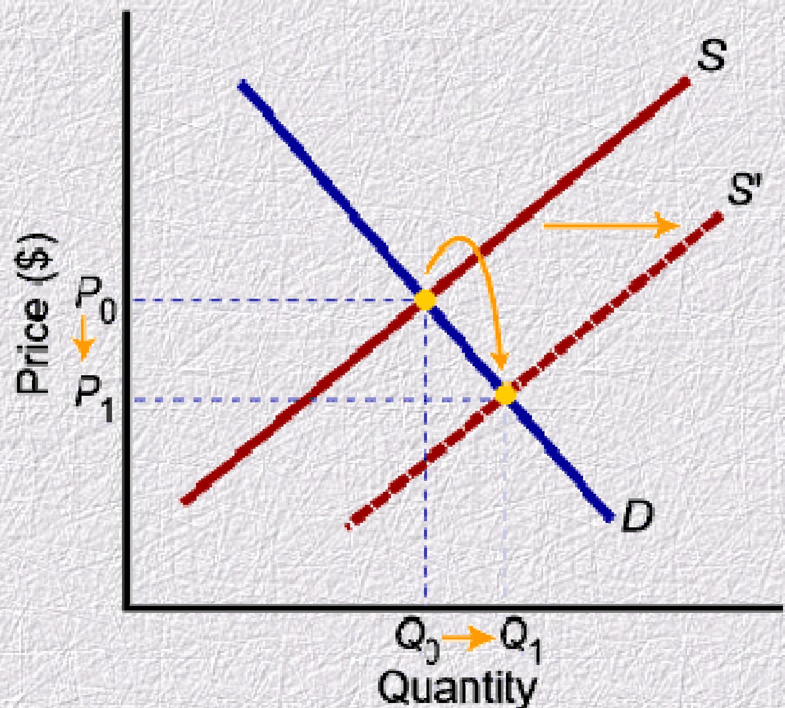


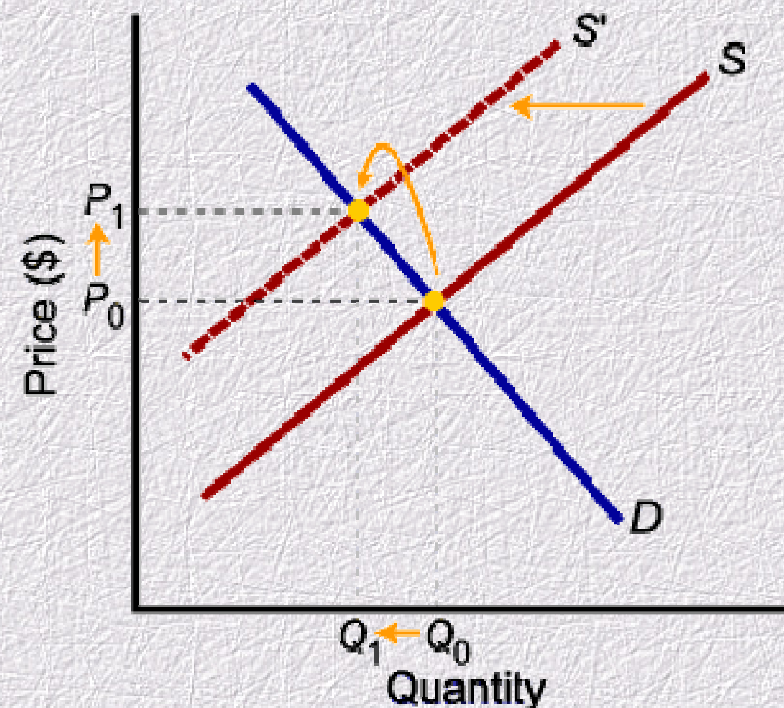


- ***Higher demand*** leads to higher equilibrium price and higher equilibrium quantity.

- ***Lower demand*** leads to lower equilibrium price and lower equilibrium quantity.

Changes in Equilibrium
2. change of supply and constant demand





- ***Higher supply*** leads to lower equilibrium price and higher equilibrium quantity

- ***Lower supply*** leads to higher price and lower quantity exchanged..

Changes in Equilibrium

- 3. Change of demand and supply in the same time
- A. Increase demand and supply in the same time
- Leads to increase equilibrium quantity while the price equilibrium is depend on the rate of increase.
- A. Increase demand > increase supply → the price equilibrium increase
- B. increase demand = increase supply → the price equilibrium
- B. increase demand< increase supply → the price equilibrium decreas

Changes in Equilibrium

- 3. Change of demand and supply in the same time
- B. Decrease in demand and supply in the same time
- Leads to decrease equilibrium quantity while the price equilibrium is depend on the rate of decrease.
- A. decrease demand > decrease supply → the price equilibrium decrease
- B. decrease demand = decrease supply → the price equilibrium not changed
- c. decrease demand< decrease supply → the price equilibrium increase

Changes in Equilibrium

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Application: Government-Set Prices (Ceilings and Floors)

Government-set prices prevent the market from reaching the equilibrium price and quantity.

A. Price ceilings.

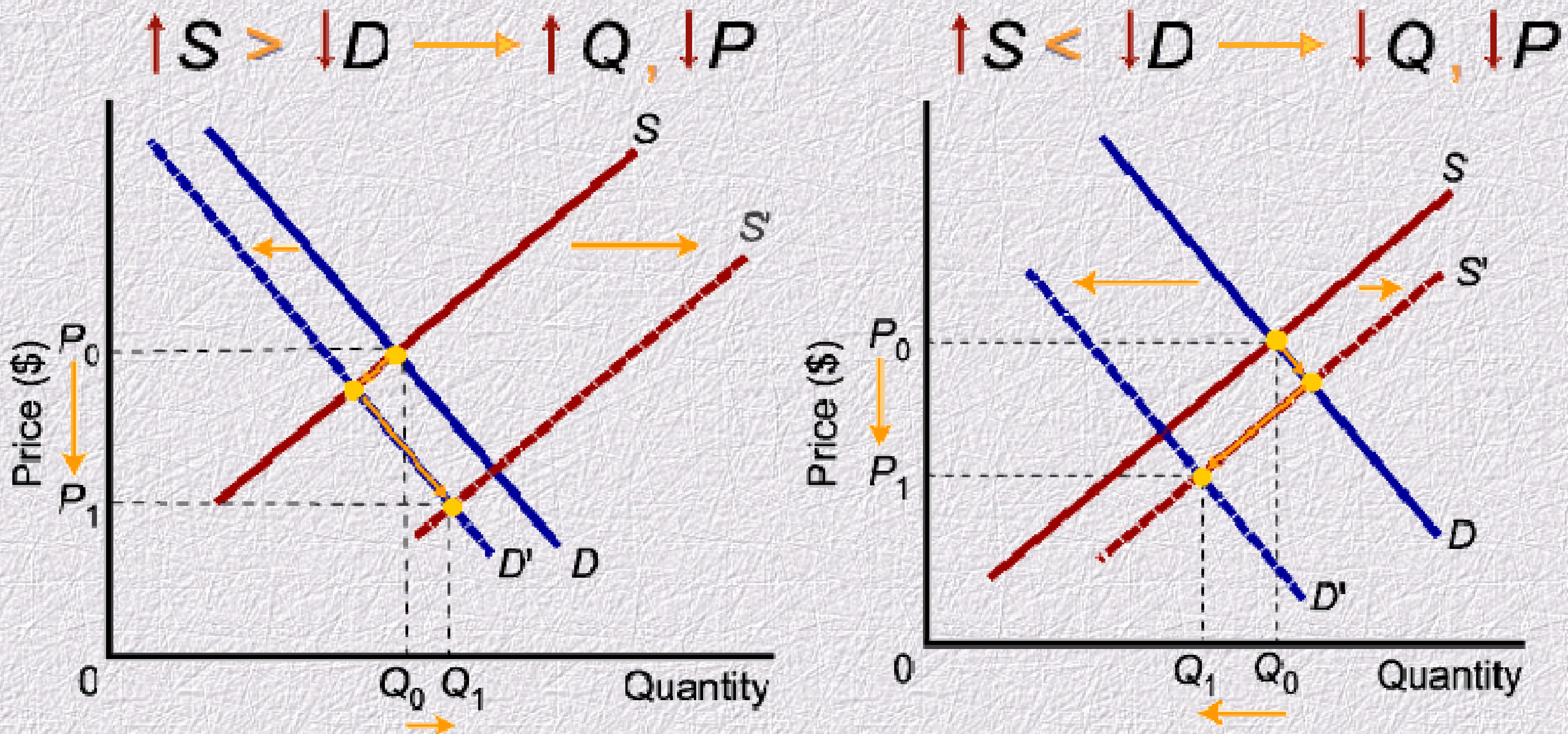
- The maximum legal price a seller may charge, typically placed below equilibrium.
- Shortages result as quantity demanded exceeds quantity supplied.
- Examples: Rent controls and gasoline price controls

B. Price floors.

- The minimum legal price a seller may charge, typically placed below equilibrium.
- Surpluses result as quantity supplied exceeds quantity demanded.
- Examples: Minimum wage, farm price supports

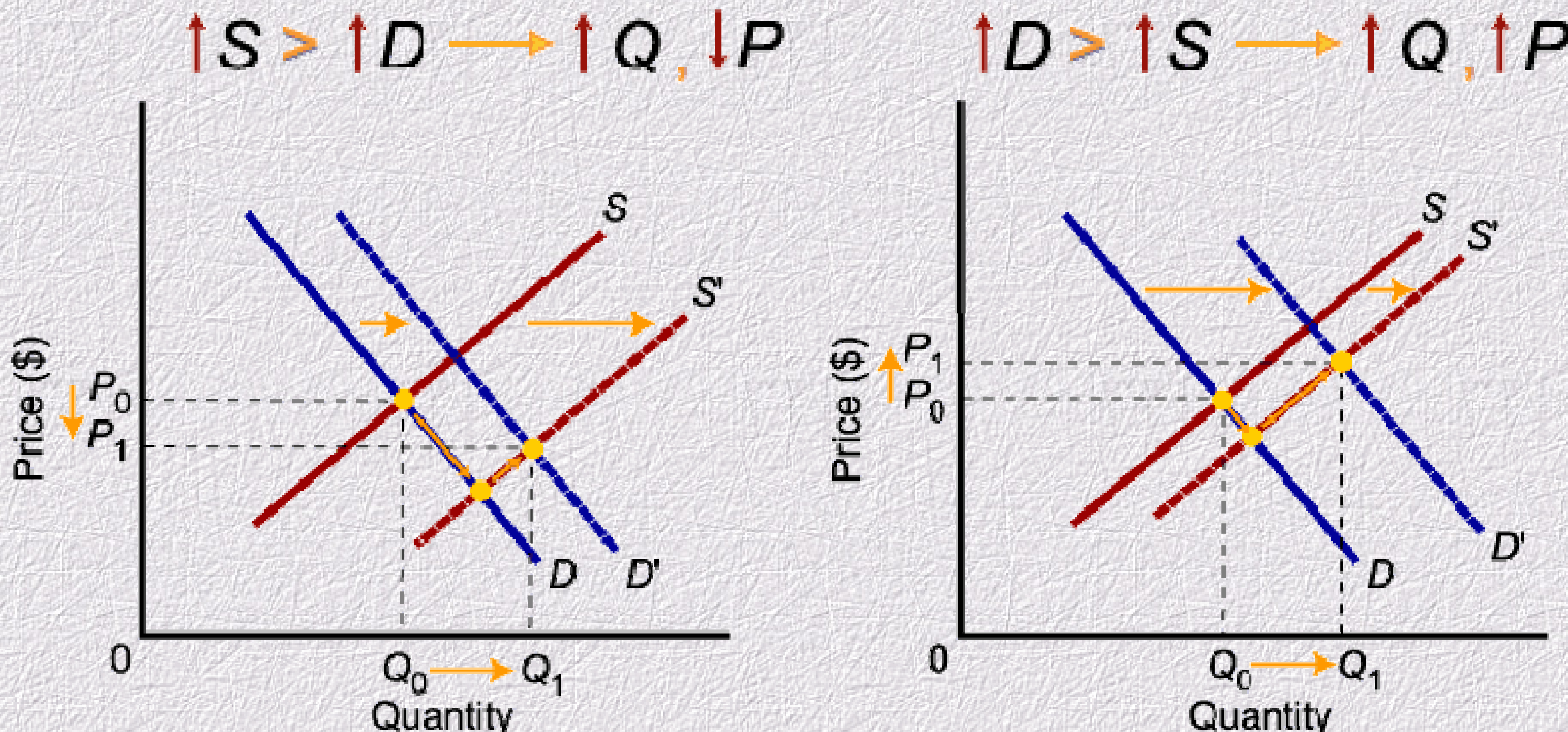
Note: The federal minimum wage, for example, will be below equilibrium in some labor markets (large cities). In that case the price floor has no effect.

Relative Magnitudes of Change



- The relative magnitudes of change in supply and demand determine the outcome of market equilibrium.

Relative Magnitudes of Change

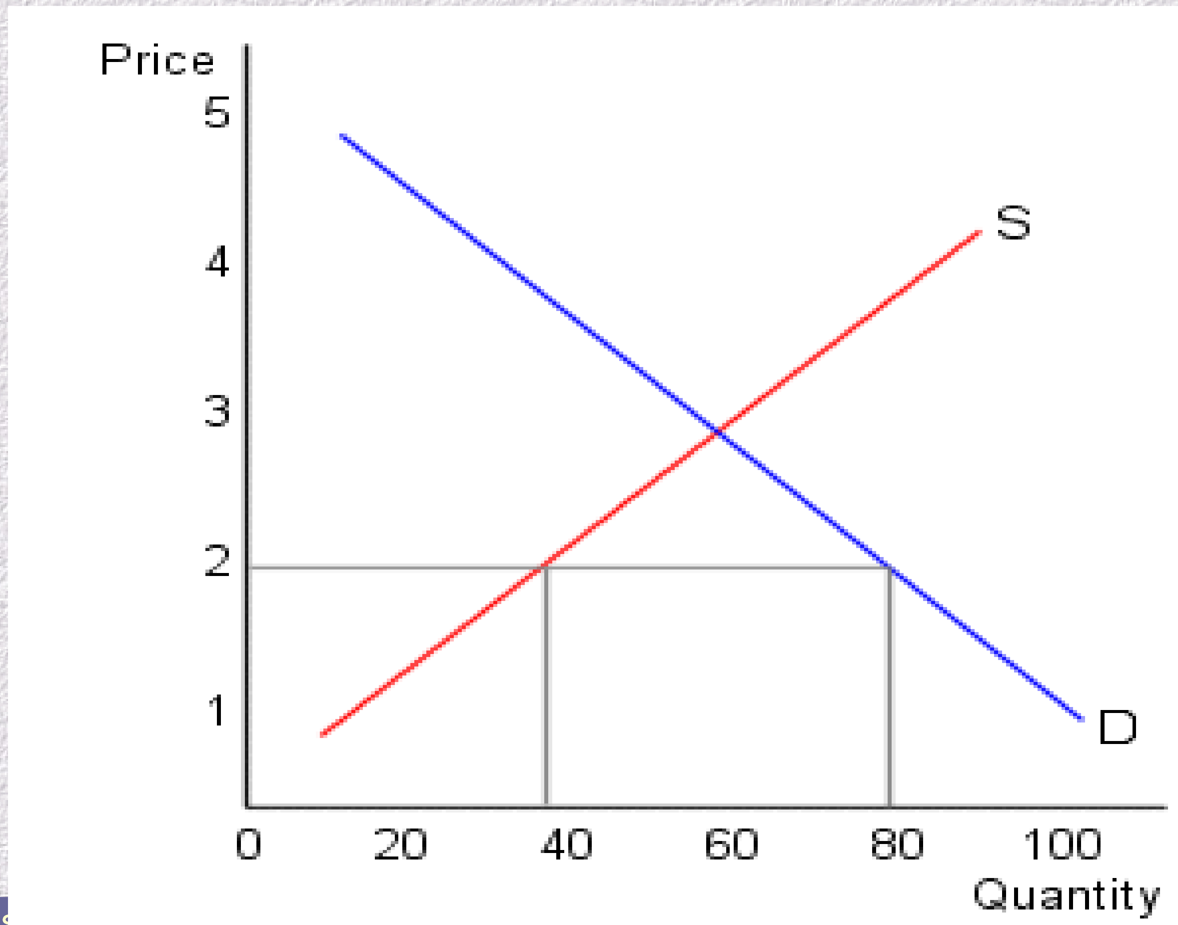


- When supply and demand both increase, quantity will increase, but price may go up or down.

Price ceiling

- Price ceiling - legally mandated maximum price
- Purpose: keep price below the market equilibrium price
- Examples:
  - rent controls
  - price controls during wartime
  - gas price rationing in 1970s

Price ceiling (continued)



Price floor

- price floor - legally mandated minimum price
- designed to maintain a price above the equilibrium level
- examples:
  - agricultural price supports
  - minimum wage laws

Price floor (continued)