

HSS 201: Economics for Engineers

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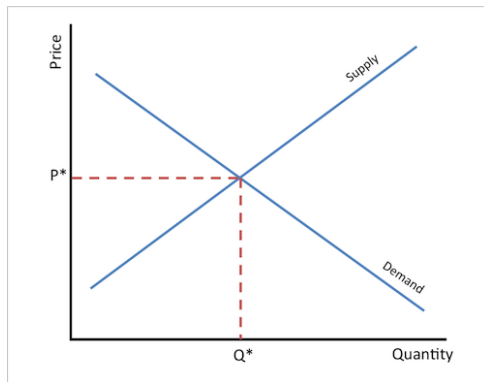
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Market Equilibrium

At the equilibrium, price, the quantity of the good that buyers are willing and able to buy exactly balances the quantity that sellers are willing and able to sell.

The equilibrium price is sometimes called the market-clearing price because, at this price, everyone in the market has been satisfied: Buyers have bought all they want to buy, and sellers have sold all they want to sell.

Market Equilibrium



Market Mechanism: Adam Smith's Invisible Hand

The *unobservable* market force that helps the demand and supply of goods in a free market to reach equilibrium automatically is the invisible hand.

Price per Pizza	Qty. Demanded	Qty. Supplied	Surplus/ Shortage	Effect on Price
250	80	280	Surplus of 200	Falls
220	140	240	Surplus of 100	Falls
150	200	200	Equilibrium	Same
120	260	160	Shortage of 100	Rises
100	320	120	Shortage of 200	Rises

A shortage creates an upward pressure on price and a surplus creates downward pressure on price.

The equilibrium reached is also called the Walrasian Equilibrium and it is achieved through *tatonnement process*.

Distortions to Equilibrium Price and Quantity Levels

- 1 Price Floors: It is *minimum* prices (above the equilibrium price level) set by the government for certain commodities and services that it believes are being sold in an unfair market with too low of a price and thus their producers deserve some assistance.

E.g., Agricultural Commodities

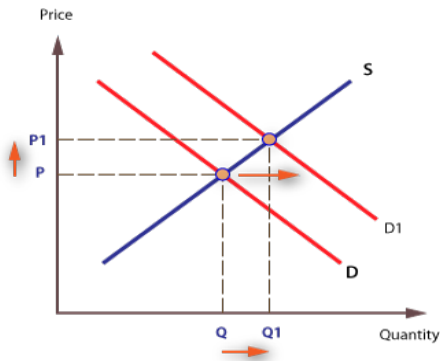
- 2 Price Ceilings: It is *maximum* prices set by the government for particular goods and services that they believe are being sold at too high of a price and thus consumers need some help purchasing them.

E.g., Petroleum Prices, Monthly rent of residential houses

Changes in Equilibrium Price and Quantity

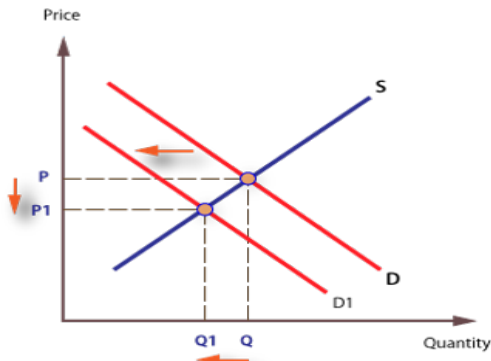
- 1 Shifts of the Demand curve
- 2 Shifts of the Supply curve
- 3 Shifts in both Demand and Supply Curve

Shift in the Demand Curve



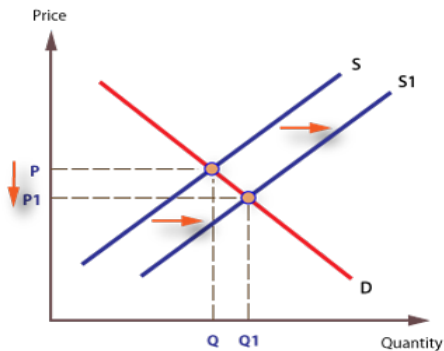
Increase in demand, causes the demand curve to shift right. Thus, at price level 'p' there is an excess demand (or shortage). As a result price increases. As price increases to P_1 , demand falls along the new demand curve to Q_1 .

Shift in the Demand Curve



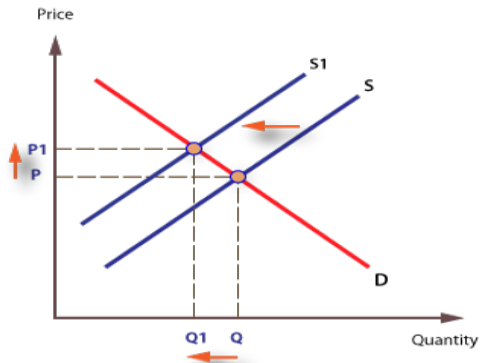
Decrease in demand, causes the demand curve to shift left. Thus, at price level 'p' there is an excess supply (or surplus). As a result price falls. As price decreases to P_1 , demand rises along the new demand curve to Q_1 .

Shift in the Supply Curve



Increase in supply, causes the supply curve to shift right. Thus, at price level 'p' there is an excess supply (or surplus). As a result price falls. As price decreases to P_1 , supply falls along the new supply curve to Q_1 .

Shift in the Supply Curve



Decrease in supply, causes the supply curve to shift left. Thus, at price level 'p' there is an excess demand (or shortage). As a result price increases. As price increases to P_1 , supply increases along the new supply curve to Q_1 .