

Topic 2: Basic Elements of Demand and Supply

Partial Equilibrium Analysis, *Ceteris
paribus*, Other things remaining the
same

- The Demand Schedule
 - The Demand Curve
 - Market Demand
 - Forces Behind the Demand Curve
 - Shifts in Demand
- The Supply Schedule
 - The Supply Curve
 - Forces Behind the Supply Curve
 - Shifts in Supply
- Equilibrium of Supply and Demand (Partial)
 - Equilibrium with Supply and Demand
 - Effect of a Shift in Supply or Demand
 - Interpreting Changes in Price and Quantity
 - Supply, Demand, and Immigration
 - Rationing by Prices

A: Demand Analysis

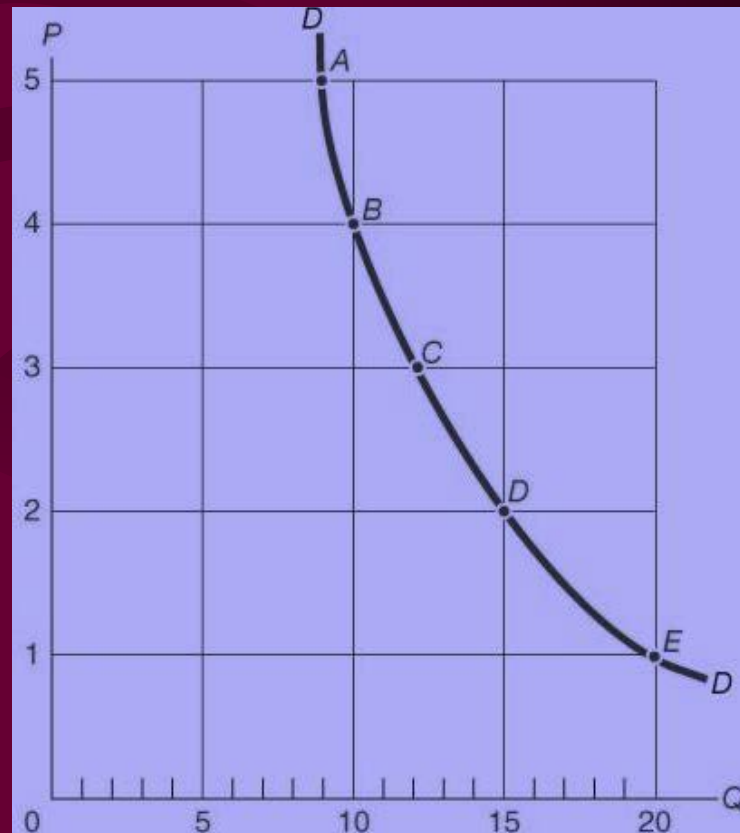
- Demand Curve or Demand Schedule: Indicates the willingness of a buyer to buy different amounts of quantity of a commodity at various prices.
- Law of Demand: In general, a larger quantity of a commodity is bought at a lower price than at a higher price (other things remaining the same). Demand curve sloped downward due to the following reasons:

Demand Schedule for Coffee (X)

Demand Schedule Curve

Price (RS 1000)	Demand (units)
5	9
4	10
3	12
2	15
1	20

Demand Schedule



P is price and Q
is quantity
Demanded

- Substitution effect: As price of a commodity, say X increases, there is a tendency to substitute cheaper commodity say Y for X and hence demand for X goes down. This is possible only if substitute goods exist and commodity X is not a necessity.
- Income effect: When price of X increases, the amount of X which can be purchased decreases as the value of income at increased prices (real income) falls. Hence the consumer is compelled to buy less.
- Opposite is supposed to hold true when price of commodity X falls.

Determinants of Demand:

- Movement factor: Price of the concerned commodity
- Shift Factors:
 - Change in income
 - Change in the price of substitutes
 - Change in price of a complement
 - Change in composition of population
 - Change in tastes
 - Change in information
 - Change in availability of credit
- Change in expectations

Factors affecting the demand curve

1. **Average income**
2. **Population**
3. **Prices of related goods**
4. **Tastes**
5. **Special influences**

Example for automobiles

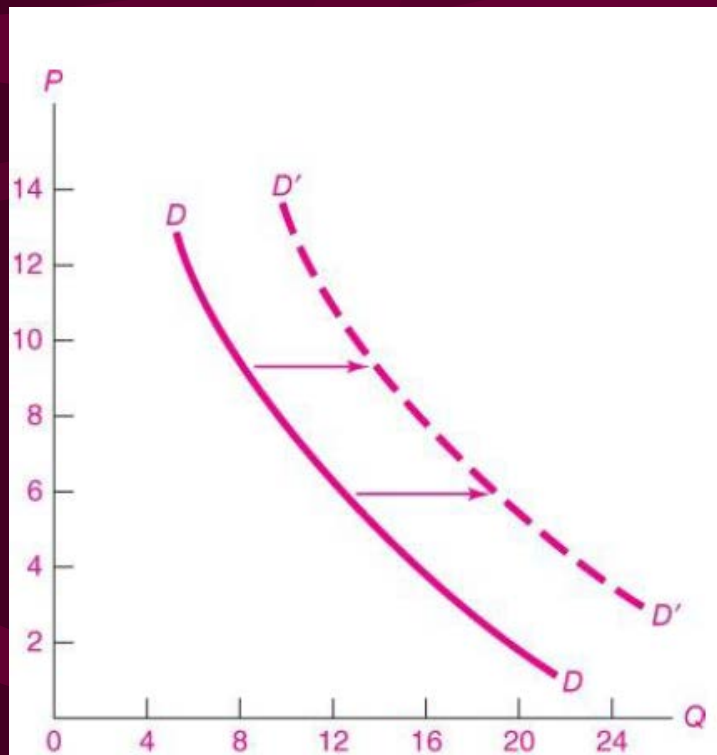
As incomes rise, people increase car purchases.

A growth in population increases car purchases.

Lower gasoline prices raise the demand for cars.

Having a new car becomes a status symbol.

Special influences include availability of alternative forms of transportation, safety of automobiles, expectations of future price increases, etc.



Movement and Shifts in Demand Curve

- Individual Demand Curve: Demand curve of an individual
- Market Demand Curve : Obtained by horizontal summation of individual demand curves.

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Individual Demand Curve: Demand curve of an individual
Market Demand Curve: Obtained by horizontal summation of individual demand curves.

Px	QDx by individuals						Market Demand
	Ram	Shyam	Seeta	Geeta	Akbar	Anthony	
5	9	15	18	7	20	35	104
4	10	17	20	8	23	40	118
3	12	19	25	9	26	46	137
2	15	22	28	10	29	50	154
1	20	25	33	11	32	56	177

B: Supply Analysis

- Supply Curve or Supply Schedule: Indicates the willingness of a seller to produce and sell different amounts of quantity of a commodity at various prices.
- Law of Supply: In general, a seller will be willing to produce a larger quantity of a commodity at a higher price than at a lower price (other things remaining the same). Due to this, the supply curve slopes upwards (positively sloped).
- Market Supply Curve: Obtained by horizontal summation of individual supply curves

Determinants of Supply:

- Movement factor: Price of the commodity
- Shift Factors (Market demand):
 - Change in the prices of inputs
 - Change in technology
 - Change in natural environment
 - Change in expectations
 - Change in government policy (tax, subsidy)
 - Other factors (trading practices)

C. Partial Equilibrium Analysis

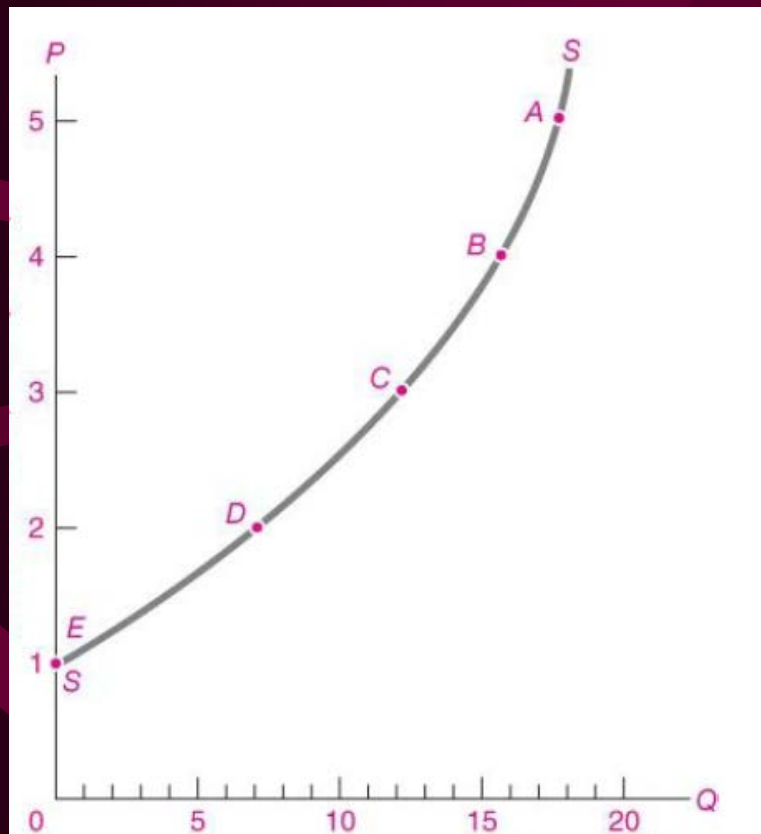
- Equilibrium: When demand curve intersects the supply curve, equilibrium (market clearing) price and quantities are determined.
- Ultimate change in equilibrium price and quantity depends on the extent to which supply and demand curves shift. Usually, in any economy both the curves keep on changing.

- Example of immigration to metro cities: If only supply of labour increases, wages may go down, but if both demand and supply of labour are rising, wages need not go down.
- Excess Demand: when supply is less than demand, prices will tend to increase
- Excess Supply: when supply is more than demand, prices will tend to decrease

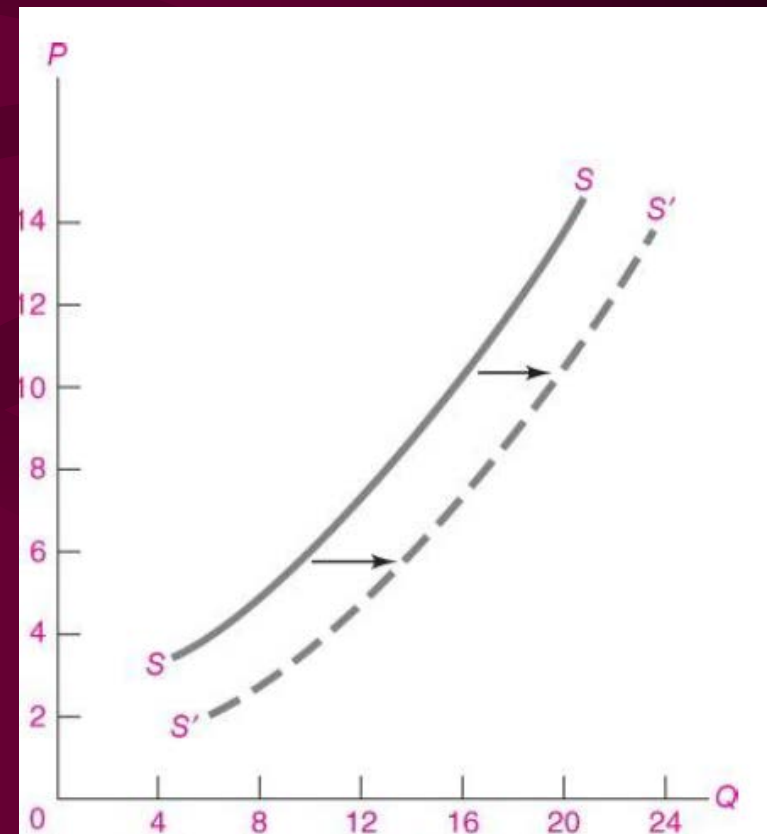
- If prices are flexible in both upward and downward directions, then only markets clear. Otherwise there is disequilibrium situation in the form of existence of either excess demand or excess supply
- In times when distribution of a commodity is to be monitored, then there are controls on prices and at this controlled prices there is excess demand which is taken care of by rationing.

Change in Supply

Movement on Supply Curve



Shift of Supply Curve



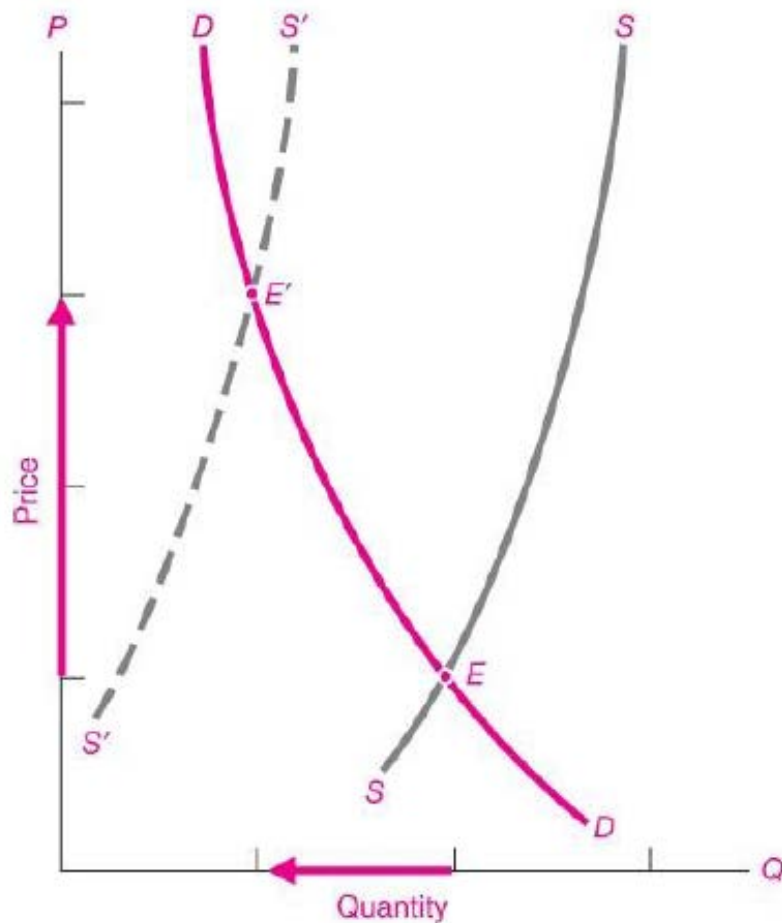
Shift Factors in Supply Curve

Factors affecting the supply curve Example for automobiles

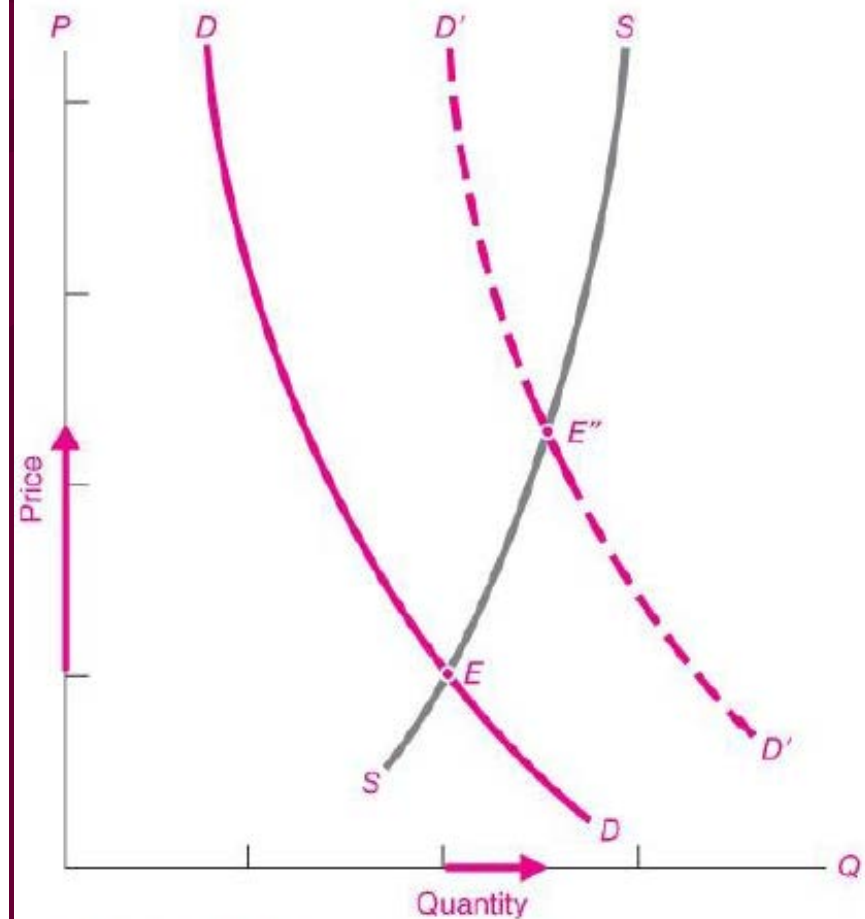
- | | |
|-----------------------------------|---|
| 1. Technology | Computerized manufacturing lowers production costs and increases supply. |
| 2. Input prices | A reduction in the wage paid to autoworkers lowers production costs and increases supply. |
| 3. Prices of related goods | If truck prices fall, the supply of cars rises. |
| 4. Government policy | Removing quotas and tariffs on imported automobiles increases total automobile supply. |
| 5. Special influences | Internet shopping and auctions allow consumers to compare the prices of different dealers more easily and drives high-cost sellers out of business. |

Direction of Change in Price due to Shifts in Demand and Supply Curves

(a) Supply Shift



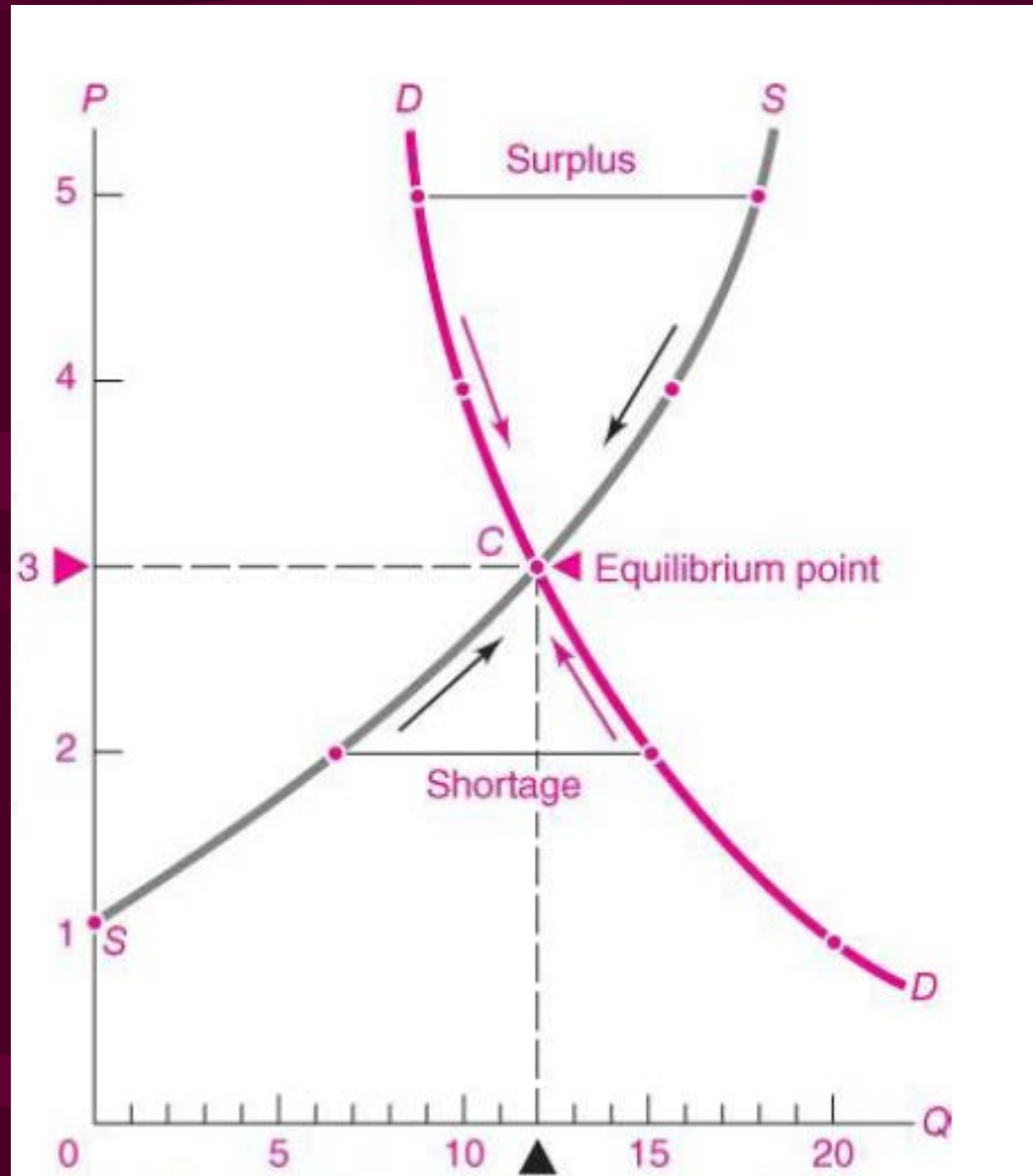
(b) Demand Shift



Price Adjustments

Px	QDx	QSx	State of Mkt	Pressure on Px
5	9	18	Surplus	Downward
4	10	16	Surplus	Downward
3	12	12	Equilibrium	No pressure
2	15	7	Shortage	Upward
1	20	0	Shortage	Upward

Market Equilibrium

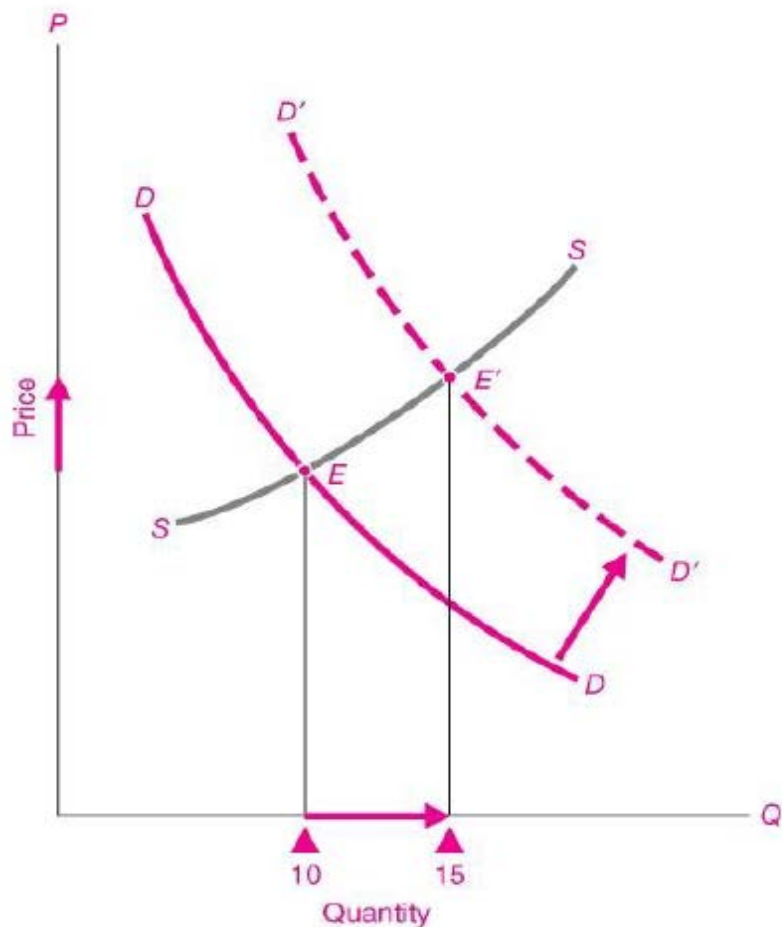


Effects of Demand and Supply Shifts on Price and Quantity Traded

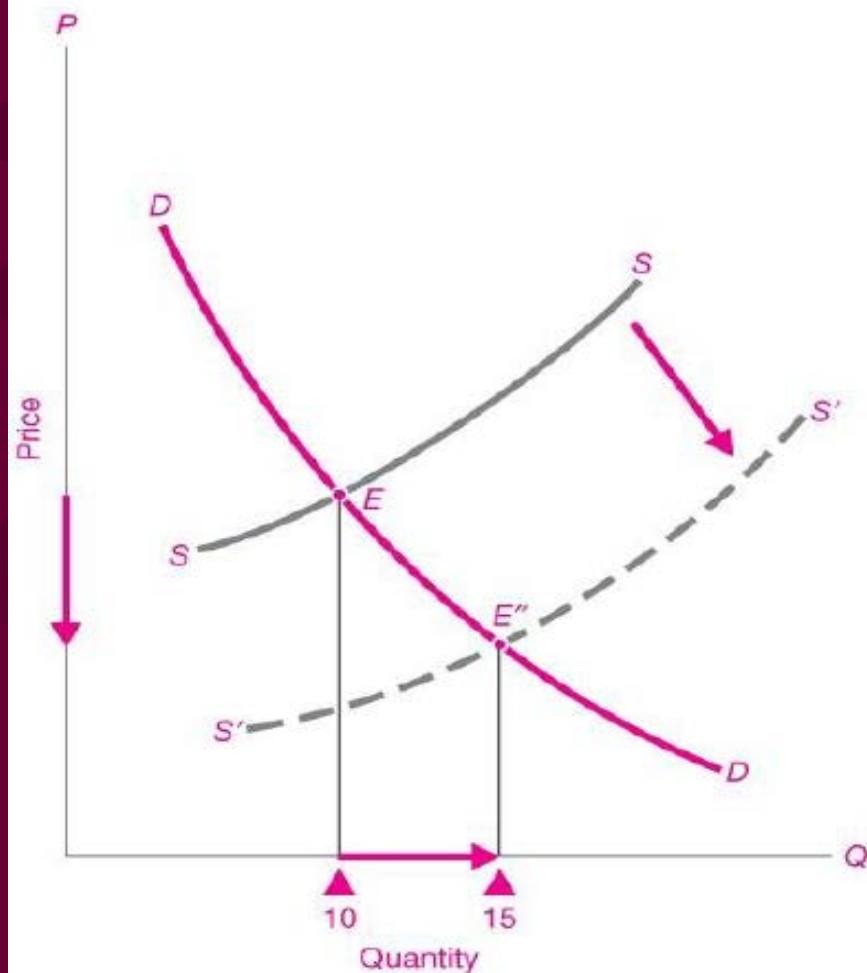
	Demand and supply shifts	Effect on price and quantity
If demand rises . . .	The demand curve shifts to the right, and . . .	Price \uparrow Quantity \uparrow
If demand falls . . .	The demand curve shifts to the left, and . . .	Price \downarrow Quantity \downarrow
If supply rises . . .	The supply curve shifts to the right, and . . .	Price \downarrow Quantity \uparrow
If supply falls . . .	The supply curve shifts to the left, and . . .	Price \uparrow Quantity \downarrow

Shifts and Movement along Curves

(a) Shift of Demand

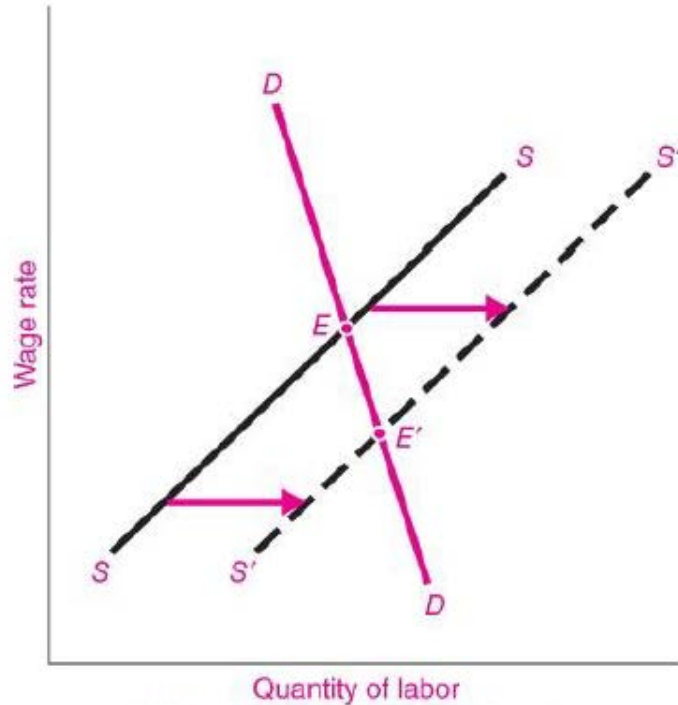


(b) Movement along Demand Curve

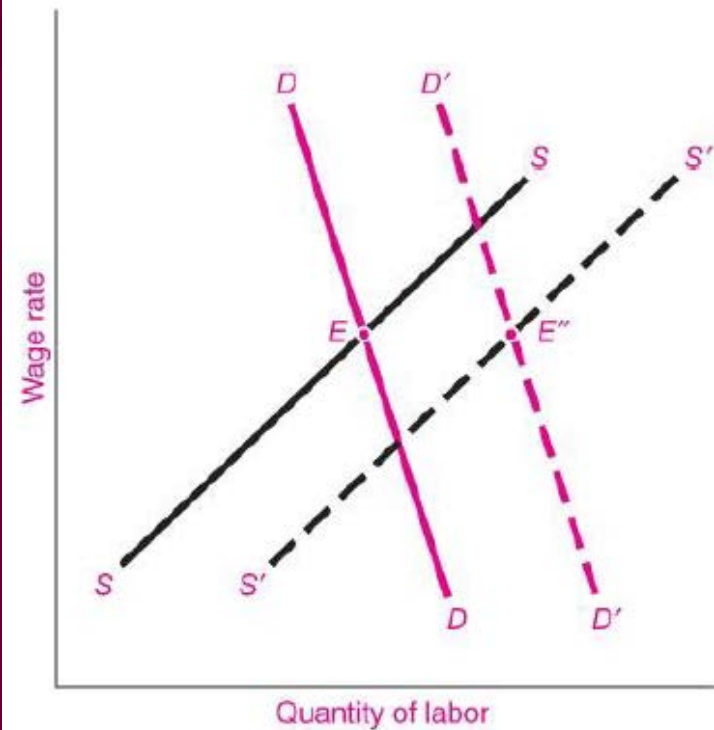


Impact of Immigration on Wages

(a) Immigration Alone



(b) Immigration to Growing Cities



Response of prices and quantities to shifts in demand and supply curves

Given	Shift	Equilibrium Price	Equilibrium quantity
Supply curve	A rightward shift in demand curve	Increases	Increases
	A leftward shift in demand curve	Decreases	Decreases
Demand curve	A rightward shift in supply curve	Decreases	Increases
	A leftward shift in supply curve	Increases	Decreases