

EE211

PRINCIPLES OF MICROECONOMICS

Topic 2: Demand, Supply, and Equilibrium

Topics

- I. Market: Meaning and components
- II. Demand
- III. Supply
- IV. Market equilibrium

I. Meaning and Components of Market

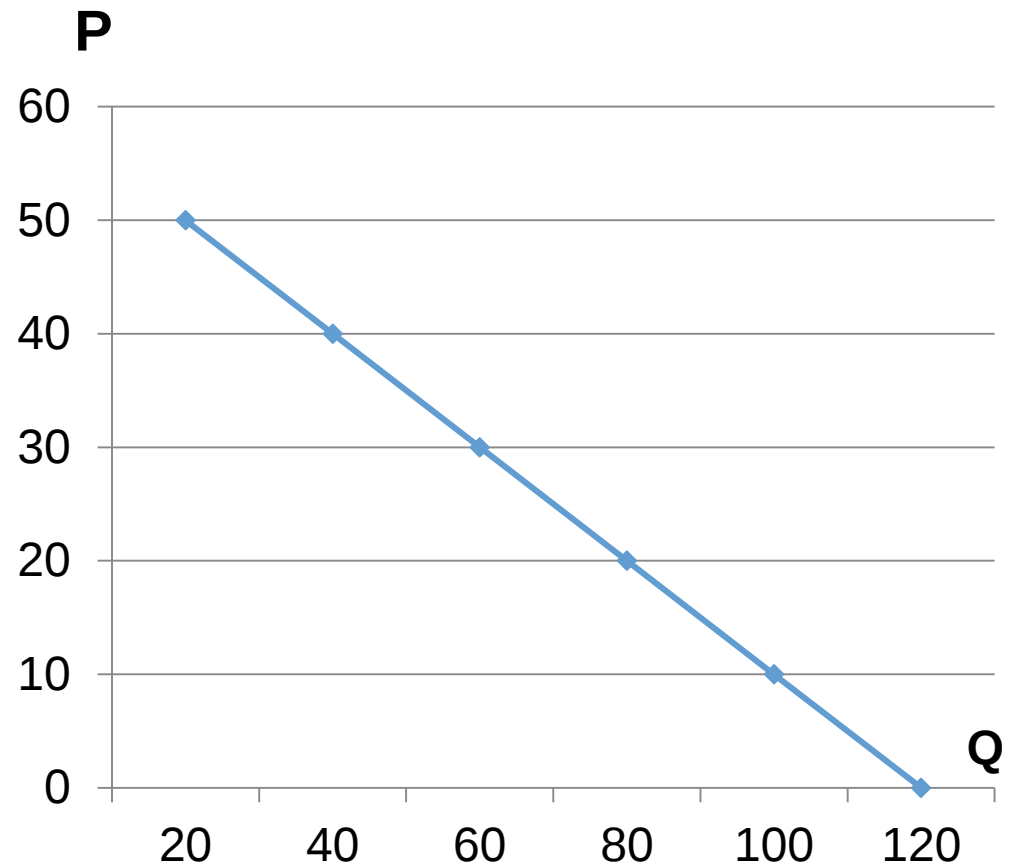
- **Market** – a place where buyers and sellers make transactions.
 - Does it need to be a physical place?
- Types of market:
 - Commodity markets
 - Factor markets
- Market structure:
 - Perfect competition
 - Monopolistic competition
 - Oligopoly
 - Monopoly

II. Demand: Buyers' Behavior

- **Demand** is a relationship between the **price (P)** and the **quantity demanded (Q_D)** by consumers that they are *willing and able to pay*.
 - **Quantity demanded** is the amount of a good or service that consumers wish to purchase during some time period.
- **Law of demand:**
 - “Holding other things constant, if the price increases (decreases), then the quantity demanded decreases (increases).”*
 - The price and quantity demanded have inverse relationship.
 - The slope of demand is negative.

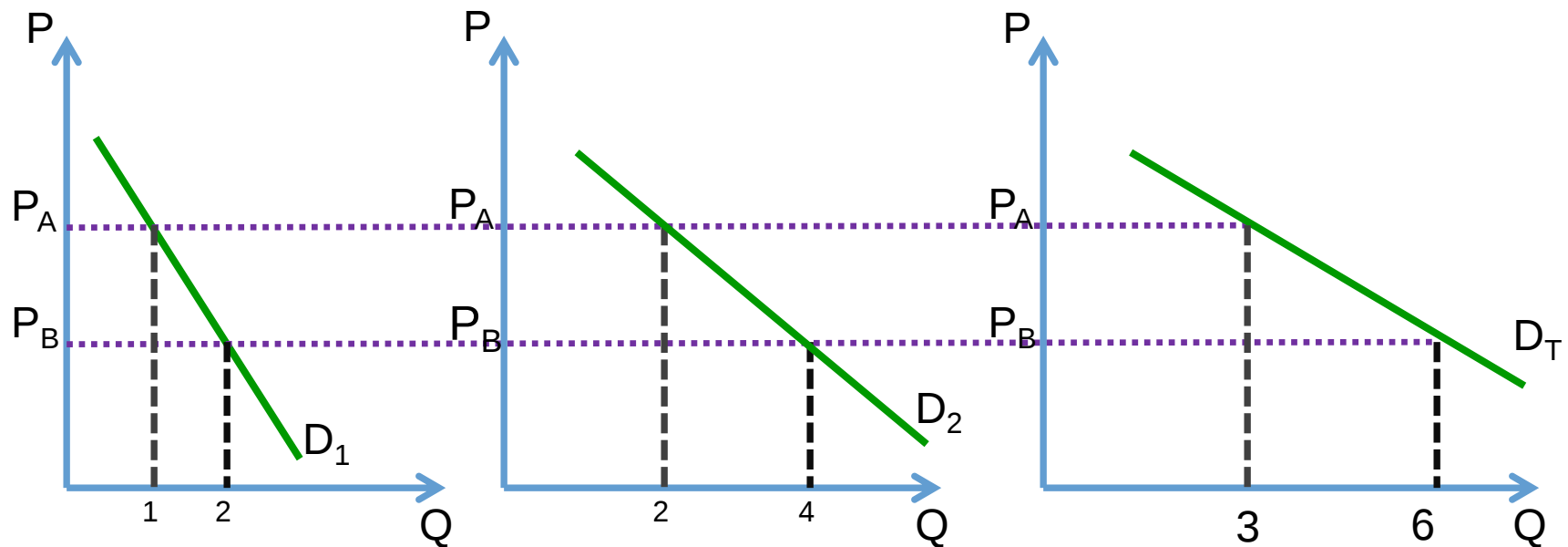
Example

Price	Quantity
0	120
10	100
20	80
30	60
40	40
50	20



Individual and Market Demands

- Market demand can be derived from a horizontal sum of individual demands.



Example: Market Demand

Extreme Cases of Demand

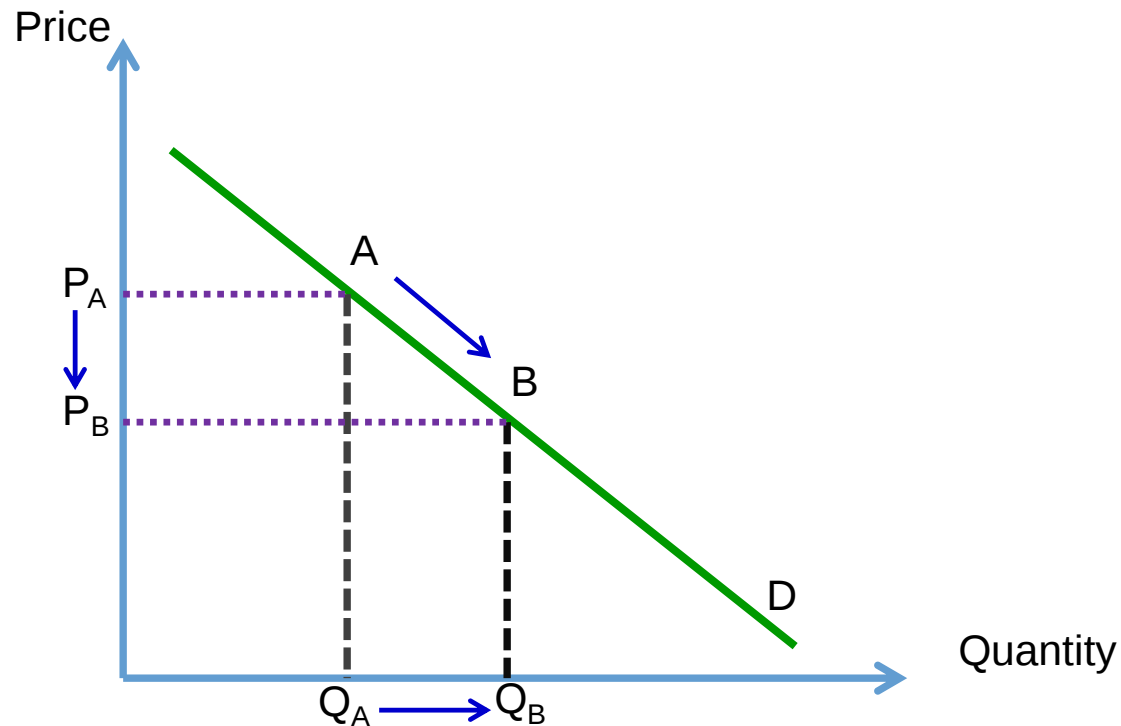
- Horizontal demand curve

- Vertical demand curve

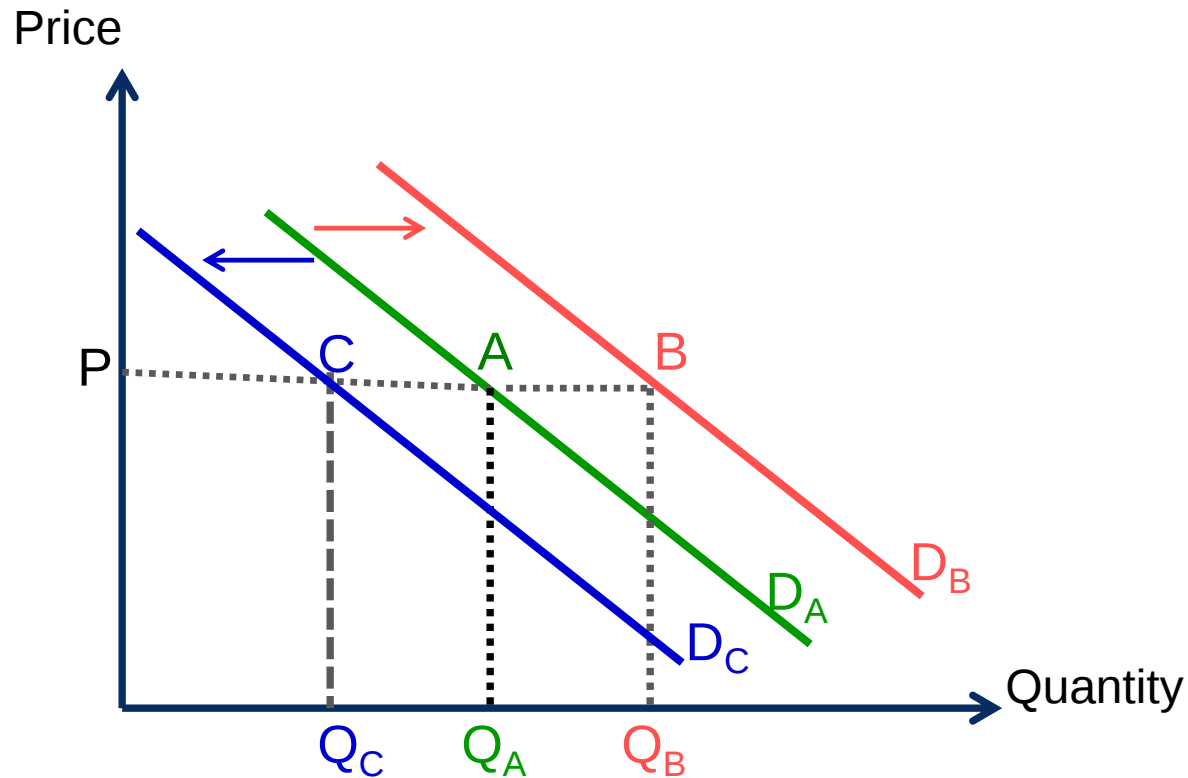
The Determinants of Demand

- *Price*
- Income
 - **Normal goods**: Higher income → more demand
 - **Inferior goods**: Higher income → less demand
- Taste
- Price of other products
 - **Substitutes**: goods that can be used in place of another goods to satisfy similar needs
 - **Complements**: goods that tend to be consumed together
- Expectations

Change in Quantity Demanded



Change (or Shift) in Demand

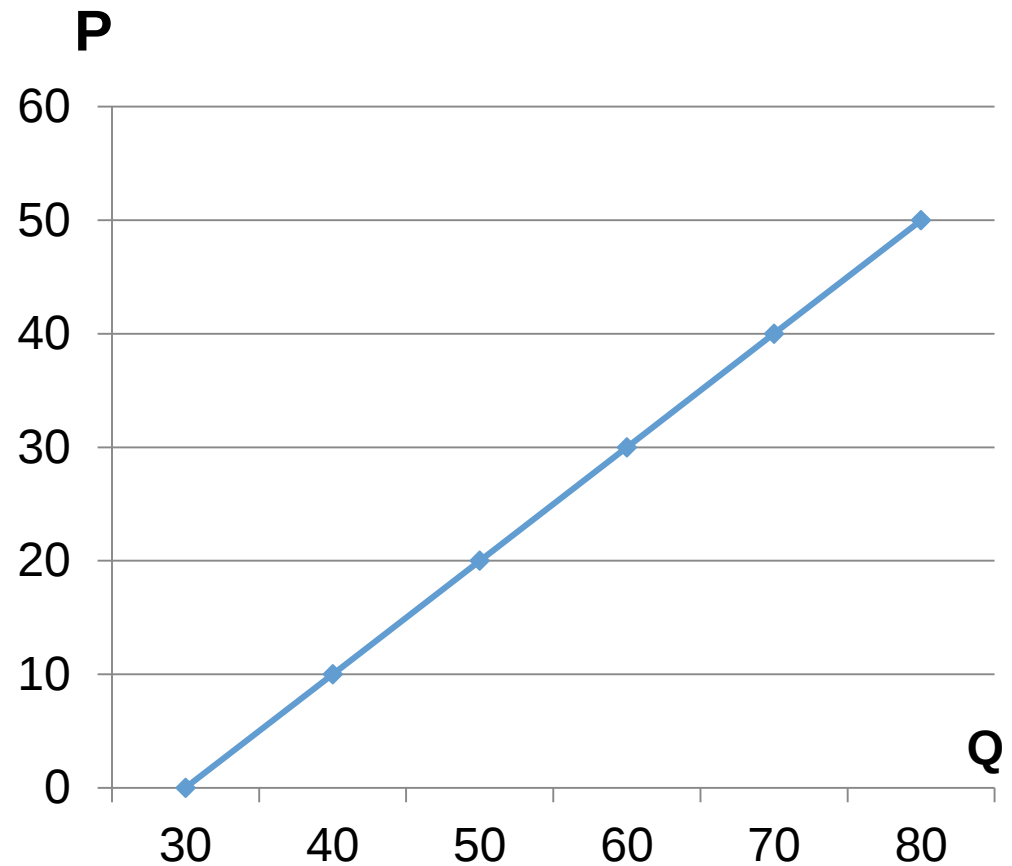


II. Supply: Sellers' Behavior

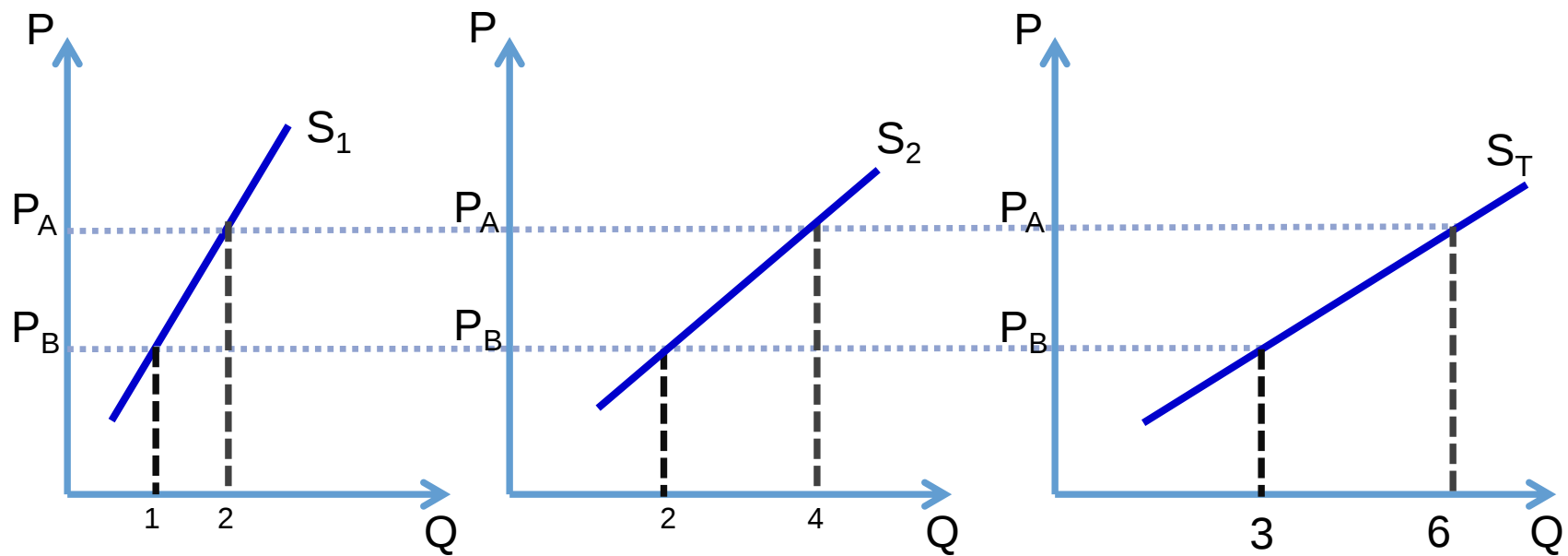
- **Supply** is the relationship between **price (P)** and **quantity supplied (Q_s)** that the producer(s) is willing and able to sell.
 - **Quantity supplied** is the amount of a good or service that producers wish to sell during some time period.
- **Law of Supply:**
 - *“Given all factors being constant, if the price increases, then the quantity supplied will increase.”*
 - Price and quantity supplied have a direct relationship.
 - Slope of supply is positive.

Example

Price	Quantity
0	30
10	40
20	50
30	60
40	70
50	80



Firm and Market Supplies



Example: Market Supply

Extreme Cases of Supply

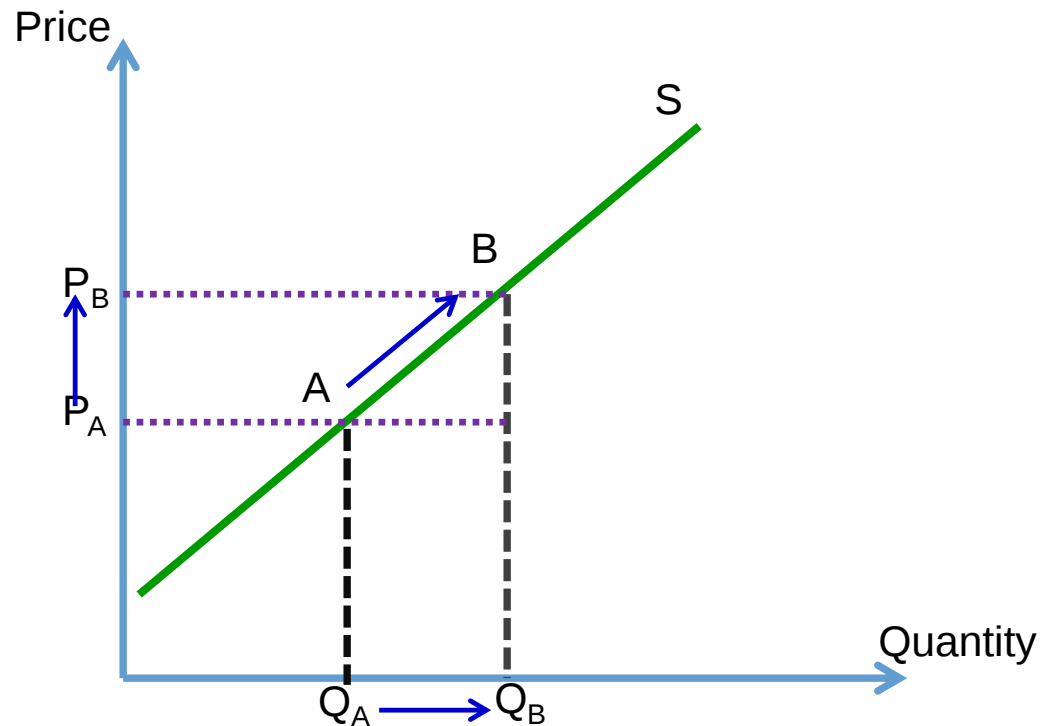
- Horizontal supply curve

- Vertical supply curve

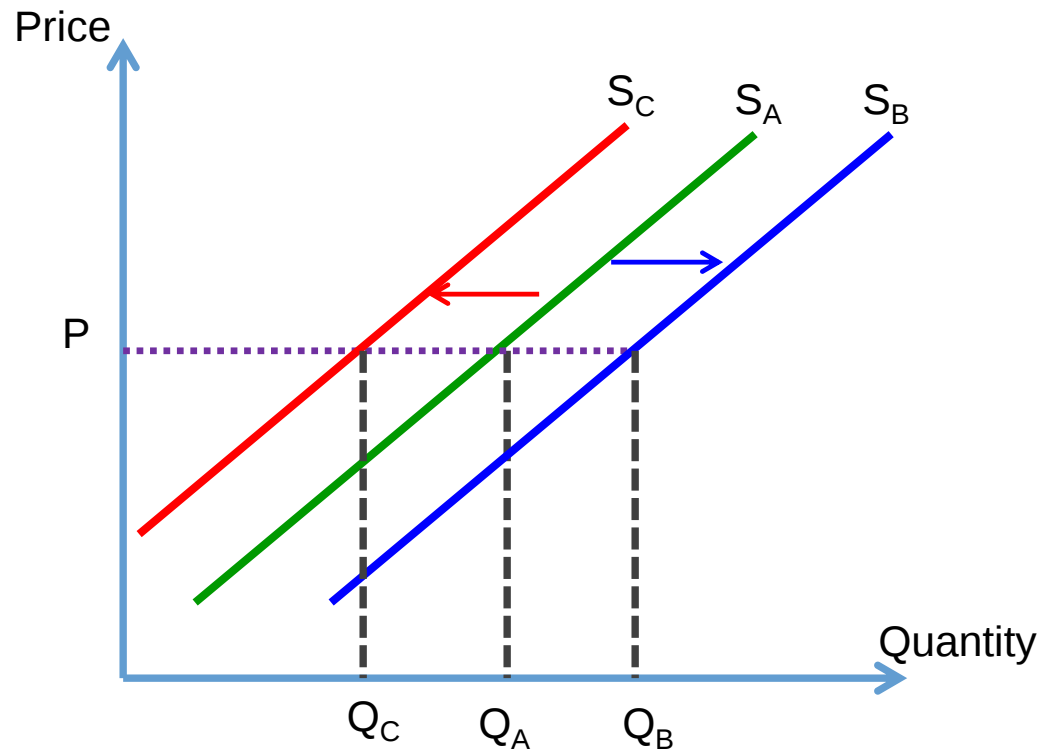
The Determinants of Supply

- *Price*
- Input costs
- Technology
- Number of sellers
- Expectation

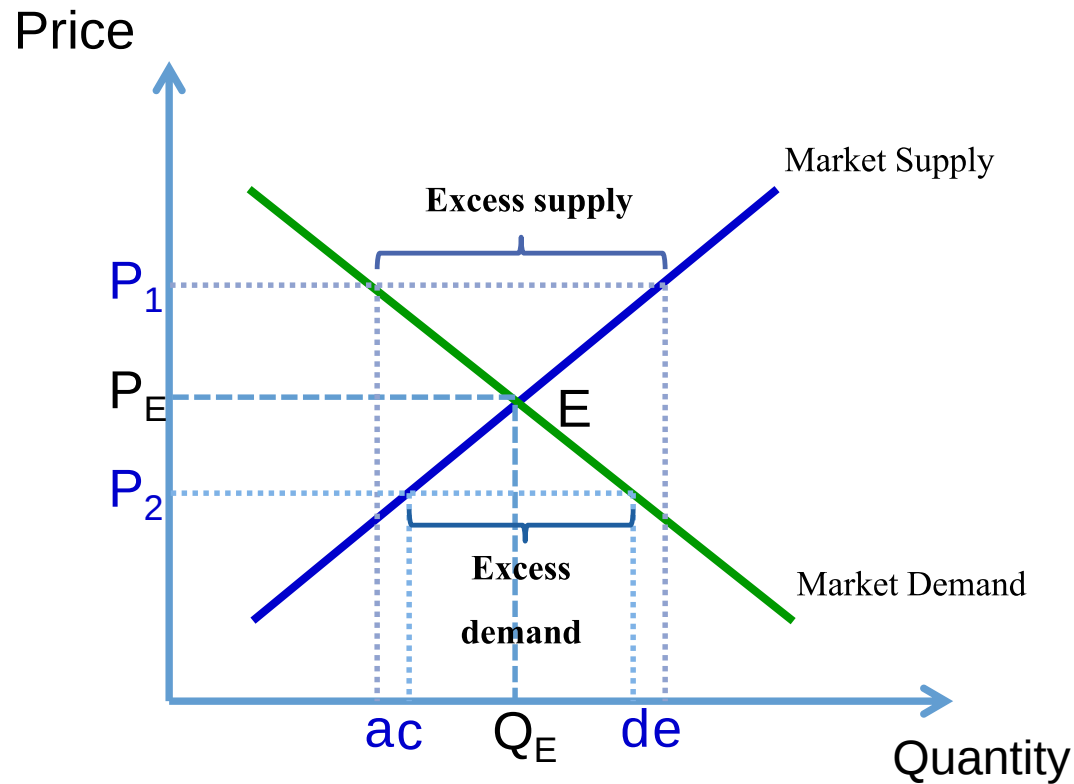
Change in Quantity Supplied



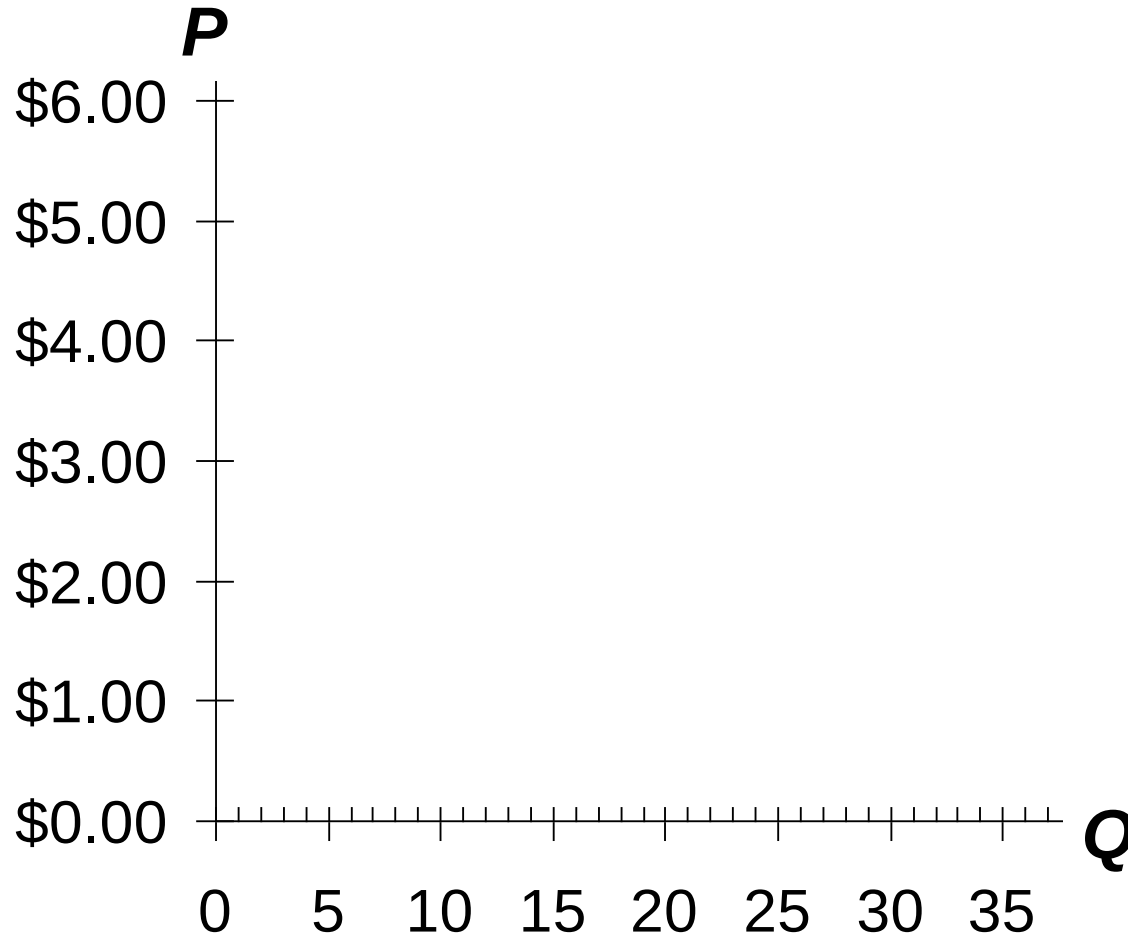
Change (or Shift) in Supply



III. Market Equilibrium



Example: Market Equilibrium



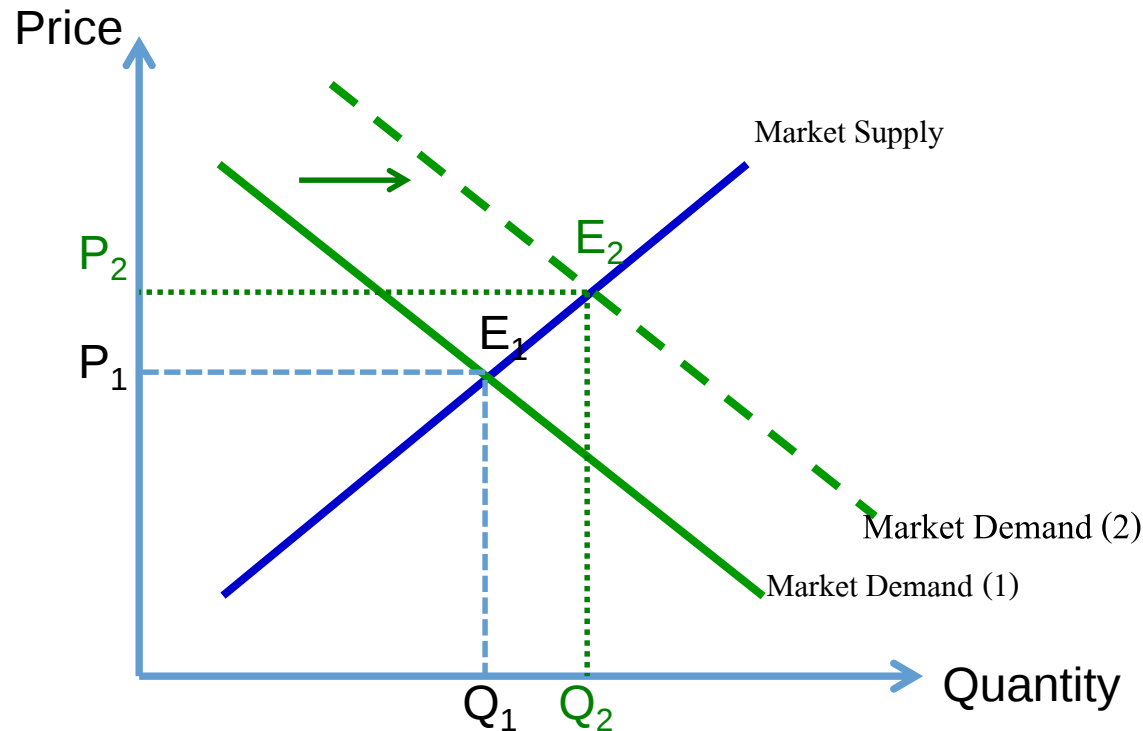
P	Q^D	Q^S
\$0	24	0
1	21	5
2	18	10
3	15	15
4	12	20
5	9	25
6	6	30

Shocking the Equilibrium and Adjustments

- When demand curve shifts.
 - E.g. Income changes, price of related products changes
- When supply curve shifts
 - E.g. Technology improves.
- When both demand and supply curve shift.

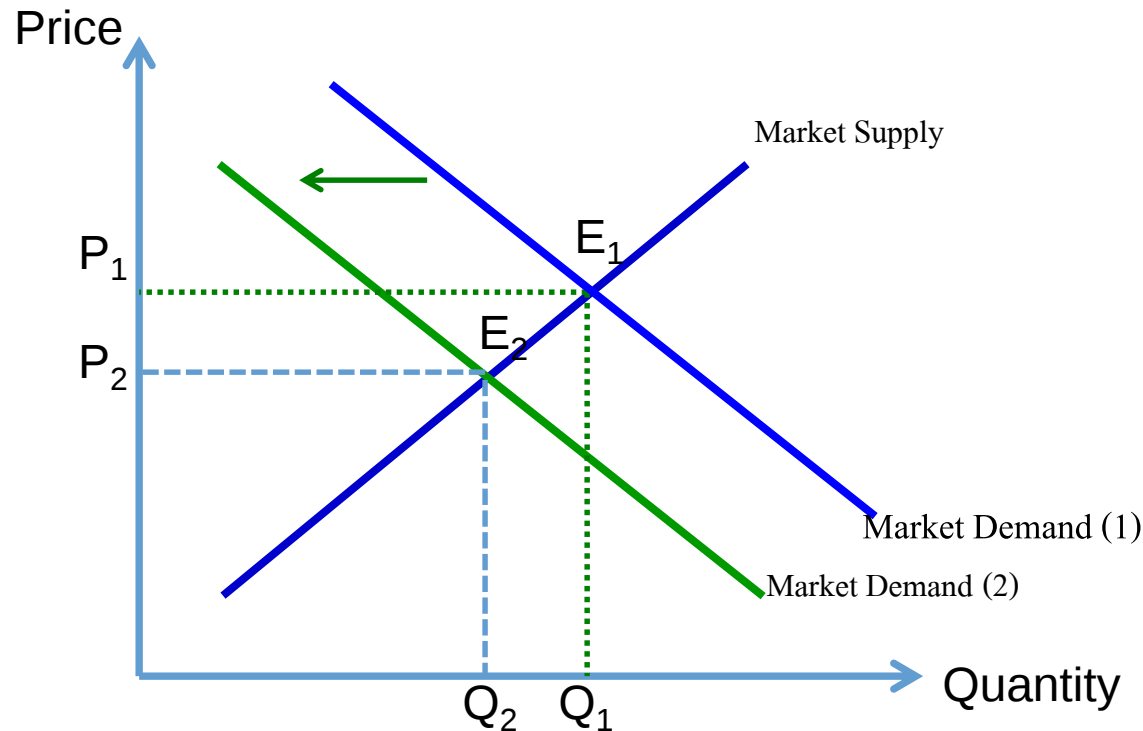
Market Equilibrium: When Demand Curve Shifts (1)

- Suppose the consumers' income increase.



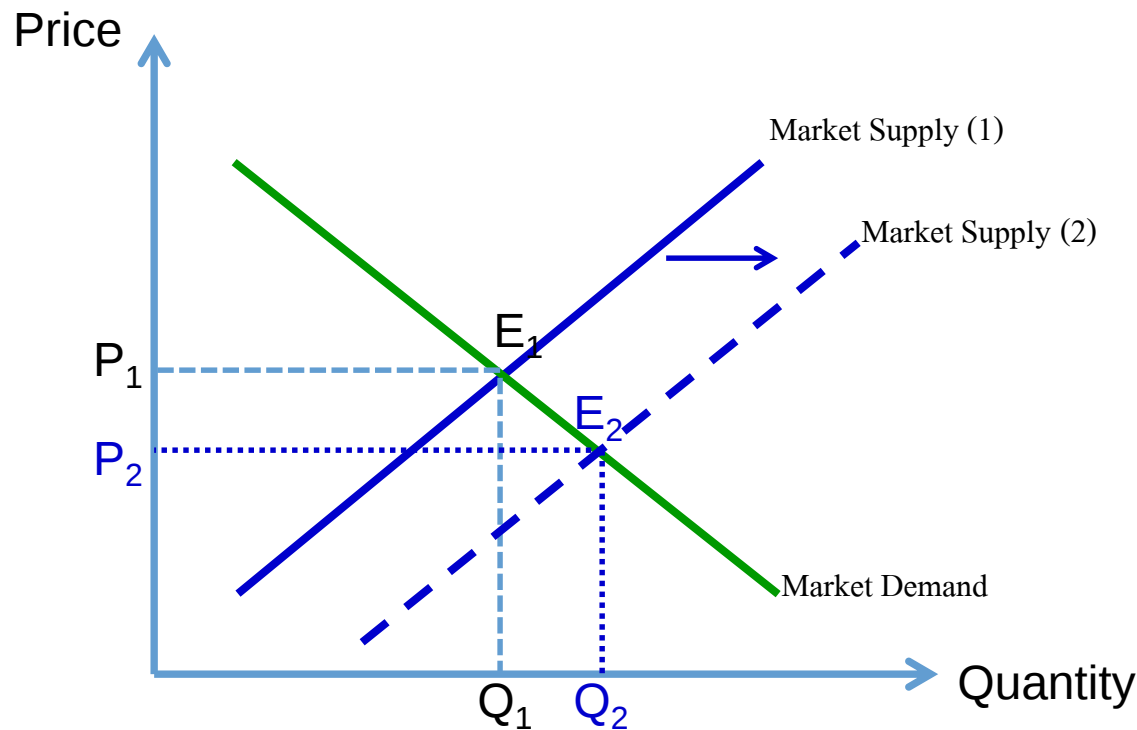
Market Equilibrium: When Demand Curve Shifts (2)

- Suppose the price of a complement increases.



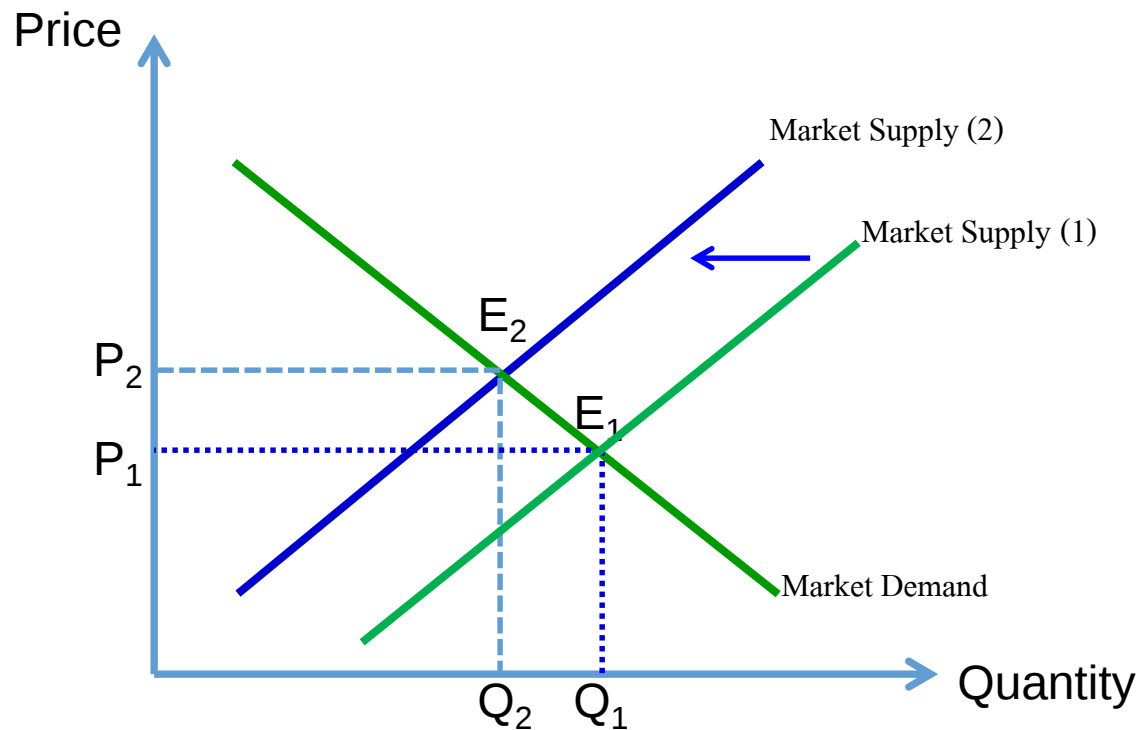
Market Equilibrium: When Supply Curve Shifts (1)

- Suppose the price of input decreases.



Market Equilibrium: When Supply Curve Shifts (2)

- Suppose the number of producers decreases.



Market Equilibrium: When Both Demand and Supply Shift.