

**ECONOMICS** ⇒ Came from a Greek word ‘*OIKONOMOS*’

→ ‘One who manages a household’

- **Decision making process:** who will cook? Which TV channel is going to be seen? Who will do the clothing?
- Similarly, **Society/Nation (represented by government)** is also taking decisions about allocating different resources, particularly ‘**Scarce Resources**’

**Scarcity:** The limited nature of society’s resources

**Economics:** The study of how an individual or a society/nation manage(s) its scarce resources.

## **TEN PRINCIPLES OF ECONOMICS**

### **➤ HOW PEOPLE MAKE DECISIONS**

1. **People face trade-offs:** Making decisions require trading of one goal against another.
  - As a student, choice between study of economics vs. study of engineering.

- As a family, choice between allocation of the family income.
- Government's decision of trading off between defense, infrastructure and other resources.
- **EFFICIENCY AND EQUALITY:** Getting maximum benefit from society's resources is efficiency while, distributing those resources uniformly is equality.

**2. The Cost of something is what you give up to get it:** The cost of sacrificing the second best alternatives → 'OPPORTUNITY COST'

**3. Rational people always think at margin:** The Idea of '*Rationality*' → People who systematically and purposefully do best they can, to achieve their objectives.

- Marginal Change: 'Small incremental change' → 'MARGINAL BENEFIT VS. MARGINAL COST'
- The case study of cost of flight tickets

#### **4. People Respond to Incentives:**

- Rewards or Punishments
- Case study of Consumer and Producer in case of apple industry
- Case study of Gasoline tax

#### **➤ HOW PEOPLE INTERACT**

**5. Trade can make everyone better off.**

**6. Markets are usually a good way to organize economic activity.**

**7. Government can sometimes improve market outcomes.**

#### **➤ HOW THE ECONOMY AS A WHOLE WORKS**

**8. A country's standard of living depends on its ability to produce goods and services.**

**9. Prices rise when government prints too much money.**

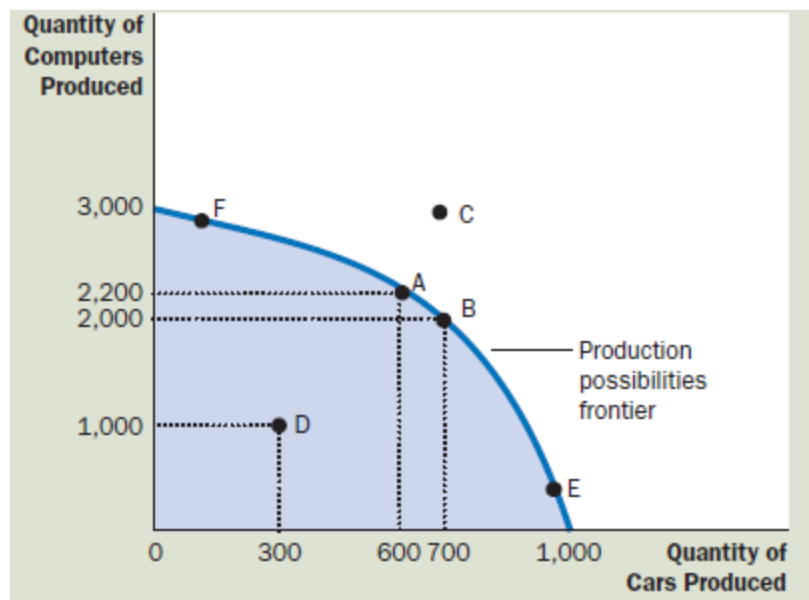
**10. Society faces a short run trade-off between inflation and unemployment.**

## *Three Basic Questions of Economics*

1. What to Produce? → Allocation
2. How to Produce? → Production
3. For Whom to Produce? → Distribution

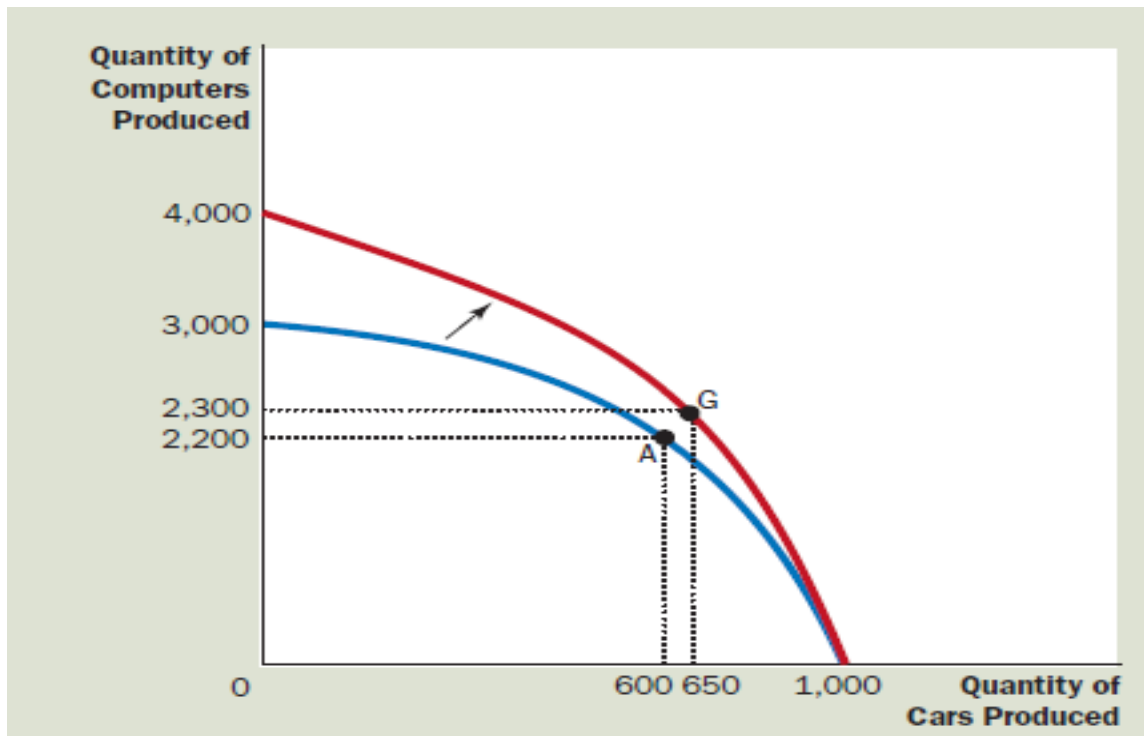
### *Production Possibility Frontier*

- Combination of output that an economy can possibly produce.



- In the above example, the economy can produce any combination of cars and computers on or inside the PPF. Points C is not feasible to produce given the economy's resources.

- The two end points of the PPF represent the extreme possibilities. And, an outcome is said to be efficient if the economy can produce on the PPF rather than inside it.
- The principle of trade-off.
- The principle of opportunity cost.
- Opportunity cost of one commodity in terms of others is not constant, rather variable because of the shape of the PPF. It depends on the **slope**. The relation is positive.
- Due to the increase in the efficiency, the trade-off can be change over time, in case of any PPF. Suppose, technological advance in computer industry raises the efficiency in the production of computers.
- This expands in production increase the society's set of opportunity.



- The shift from point A to point G shows **ECONOMIC GROWTH**. Society is also shifting from an old frontier to a new one.

### *Different Concepts of Inefficiencies*

- Allocative Inefficiencies
- Technical inefficiencies
- X inefficiencies

## **Law of Diminishing Returns**

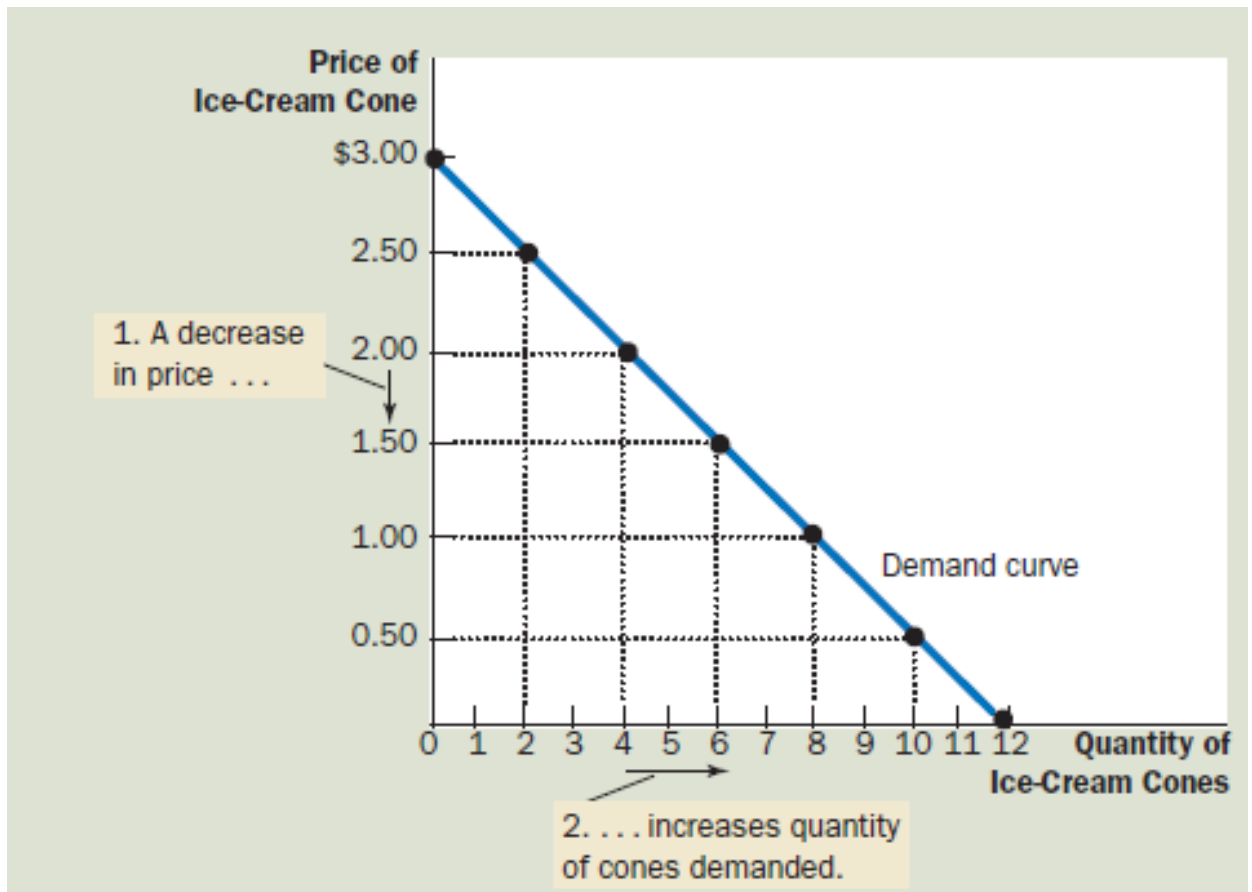
- The law of diminishing marginal returns is also referred to as the "law of diminishing returns," the "principle of diminishing marginal productivity," and the "law of variable proportions."
- The law of diminishing marginal returns states that adding an additional factor of production results in smaller increases in output.
- Once you reach an optimal level of capacity, the addition of any amounts of a factor of production will inevitably yield decreased per-unit incremental returns.
- Example of producing wheat in a hectare of land.

## **Exception of the law**

- Size of the input
  - Quality of the input
  - Capacity of the input
- 
- **Does this law apply to the money?**

## Law of Demand

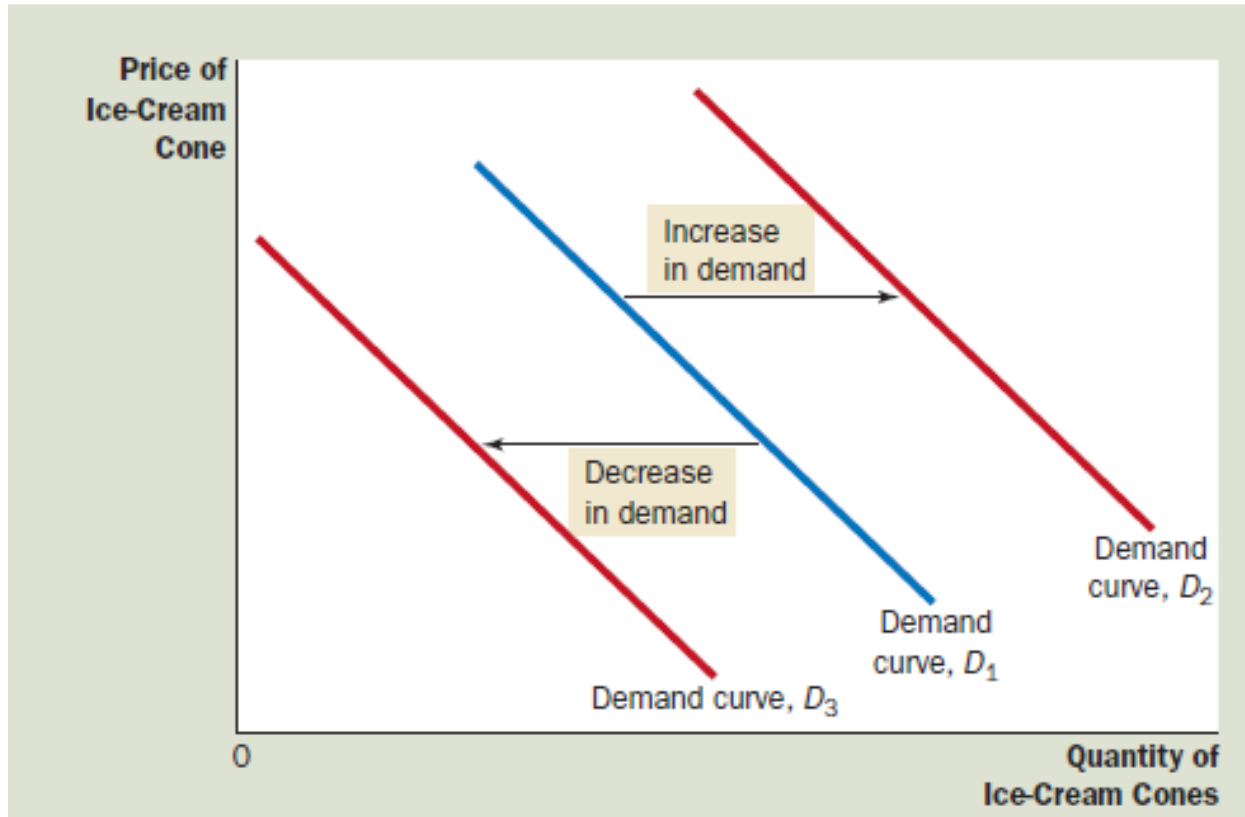
- Definition of Demand
- What is 'Law of Demand'?
  - If Price Increases, Quantity Demanded Decreases, and Vice Versa (A Negative Relationship).



- Market Demand: Horizontal summation of individual demand.



- Shifts in the Demand Curve: Any Change that either raises or lowers the quantity demanded.

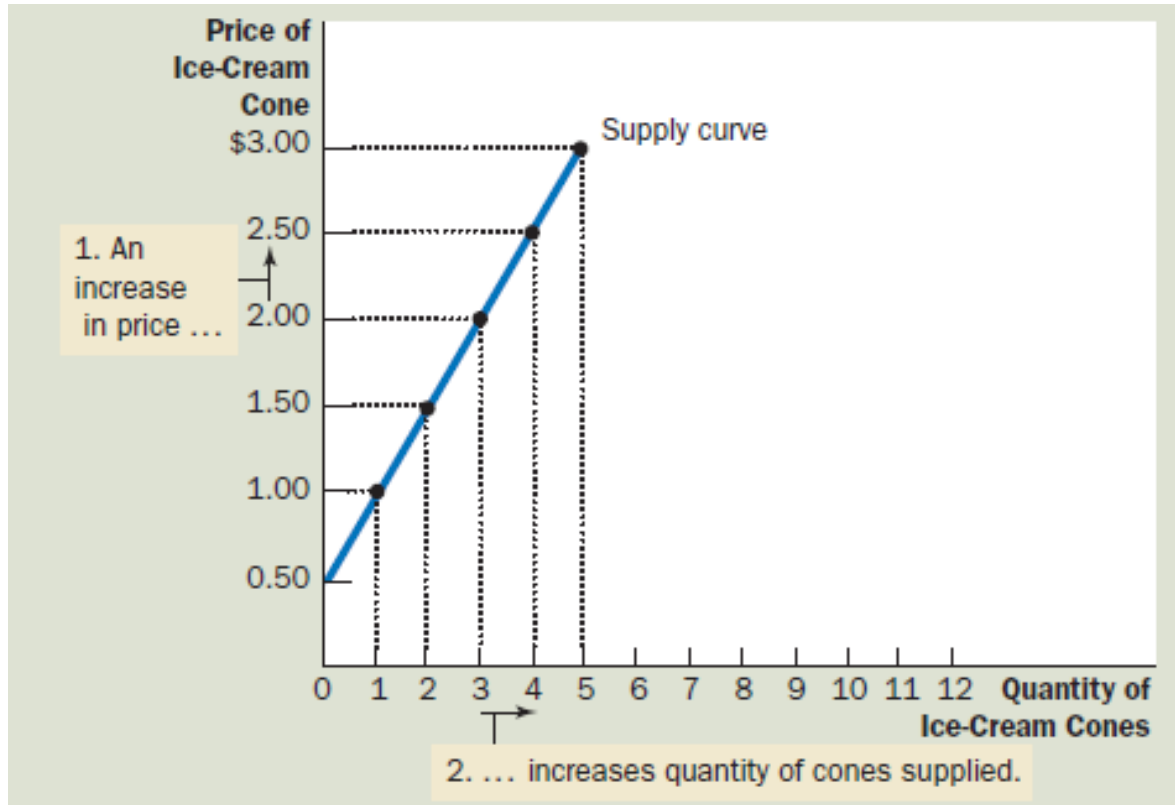


- Factors that affecting the Demand Curve:
  - Income of the Consumer – Normal Goods and Inferior Goods.
  - Price of the related Goods – Substitute Goods and Complementary Goods
  - Taste and Preferences
  - Expectations
  - Natural Calamities (etc.)

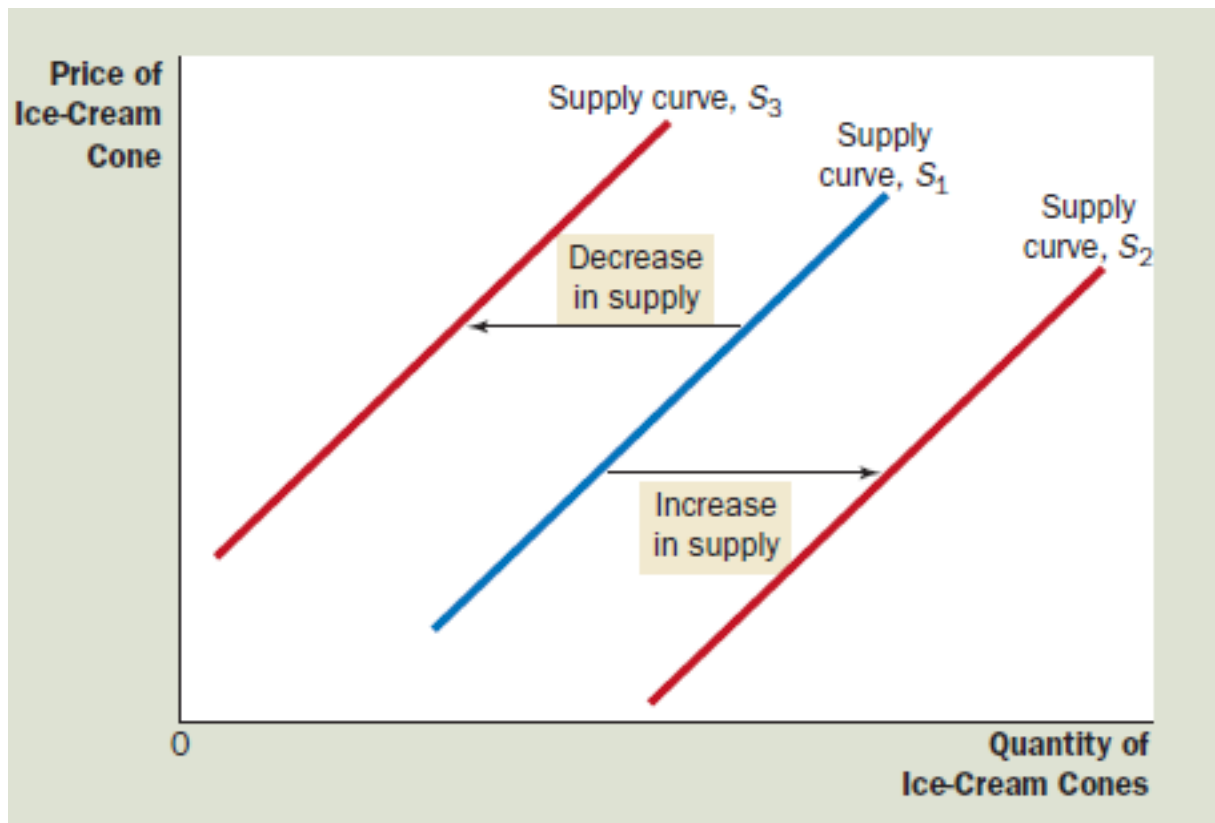
- Exceptions of Law of Demand:
  - Giffen Goods
  - Veblen Goods
  - Water – Diamond Paradox

### Law of Supply

- Definition of Supply
- What is ‘Law of Supply’?
  - If Price Increases, Quantity Supplied also Increases, and Vice Versa (A Positive Relationship).



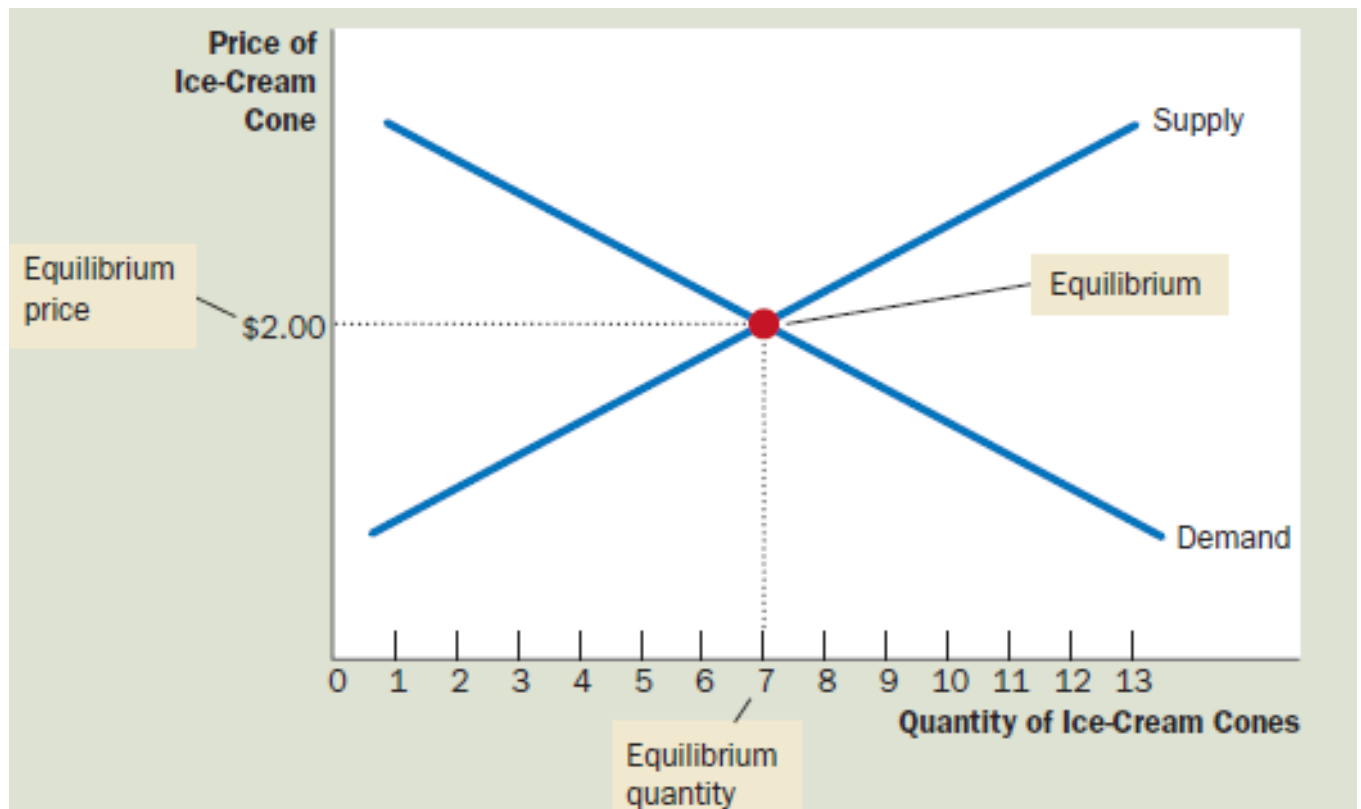
- Market Supply: Horizontal summation of individual Supply.
- Shifts in the Supply Curve: Any Change that either raises or lowers the quantity Supplied.



- Factors that affecting the Supply Curve:
  - Price of the Inputs
  - Technology
  - Expectations (etc.)

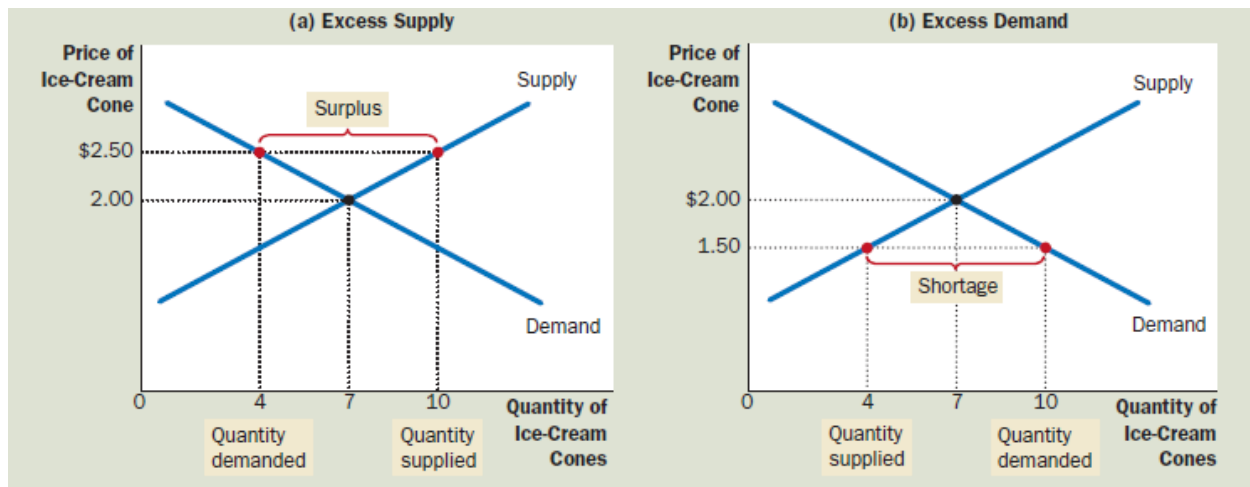
## Demand and Supply Together

- **Equilibrium:** The equilibrium is found where the supply and demand intersect with each other. At the equilibrium price, quantity demanded equals to the quantity supplied.



## Markets not in Equilibrium

- The situation of either ‘EXCESS SUPPLY’ or ‘EXCESS DEMAND.’



## Elasticity and Its Application

- Definition of Elasticity
- Price elasticity of demand
- **Its Determinants:**
- Availability of close substitutes
  - Necessities versus Luxuries
  - Definition of the Market
  - Time Horizon

➤ **Computing the price elasticity of demand:**

- Price elasticity of demand =  
$$\frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

➤ **THE MIDPOINT METHOD:**

- Price elasticity of demand =  
$$\frac{(Q_2 - Q_1) / [(Q_2 + Q_1) / 2]}{(P_2 - P_1) / [(P_2 + P_1) / 2]}$$

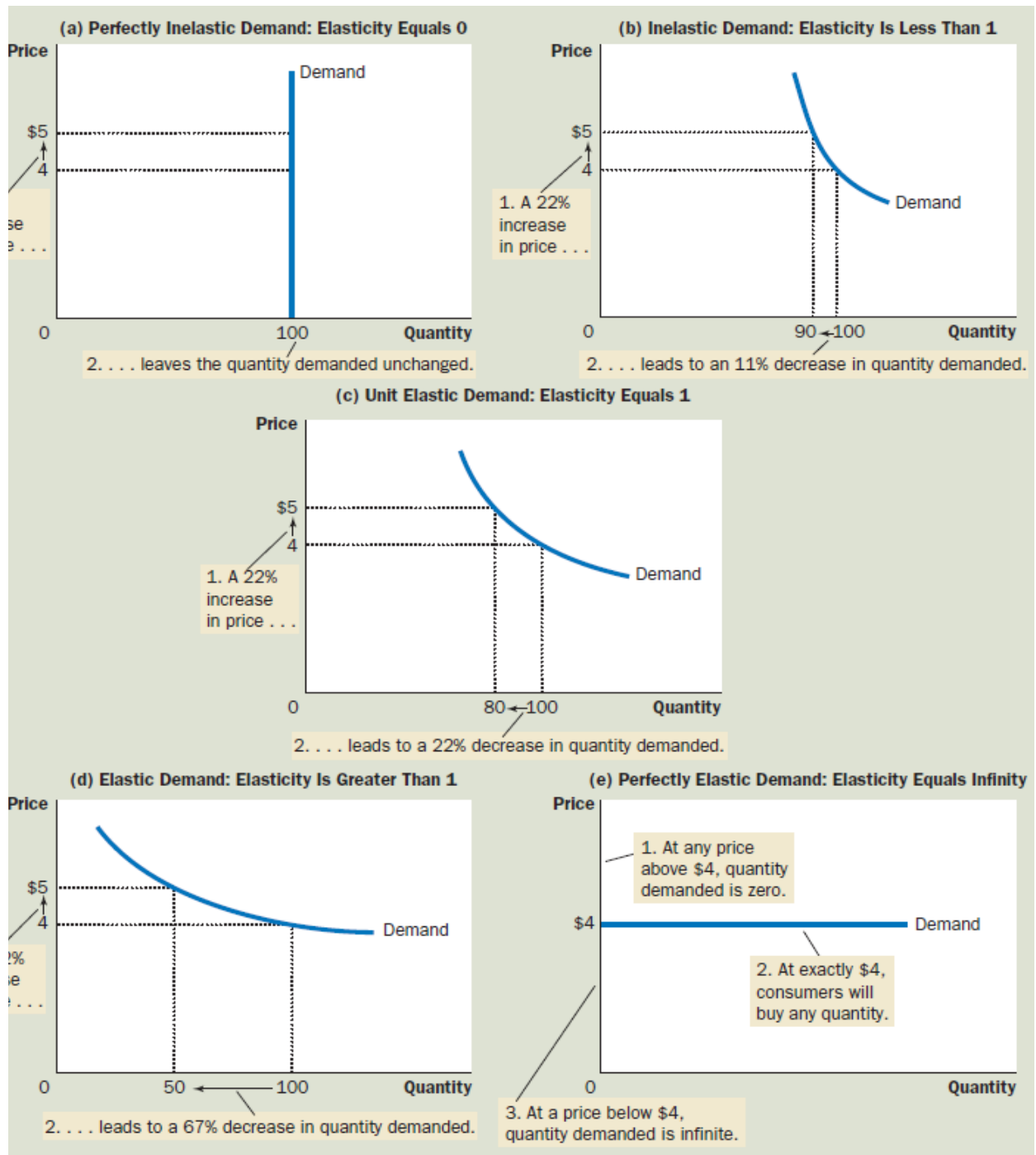
➤ **Example:**

\*Let's assume, in a demand curve, there are two points, A & B.

- Point A: Price – 4, Quantity – 120
- Point B: Price – 6, Quantity – 80

\*What would be the value of the Elasticity?

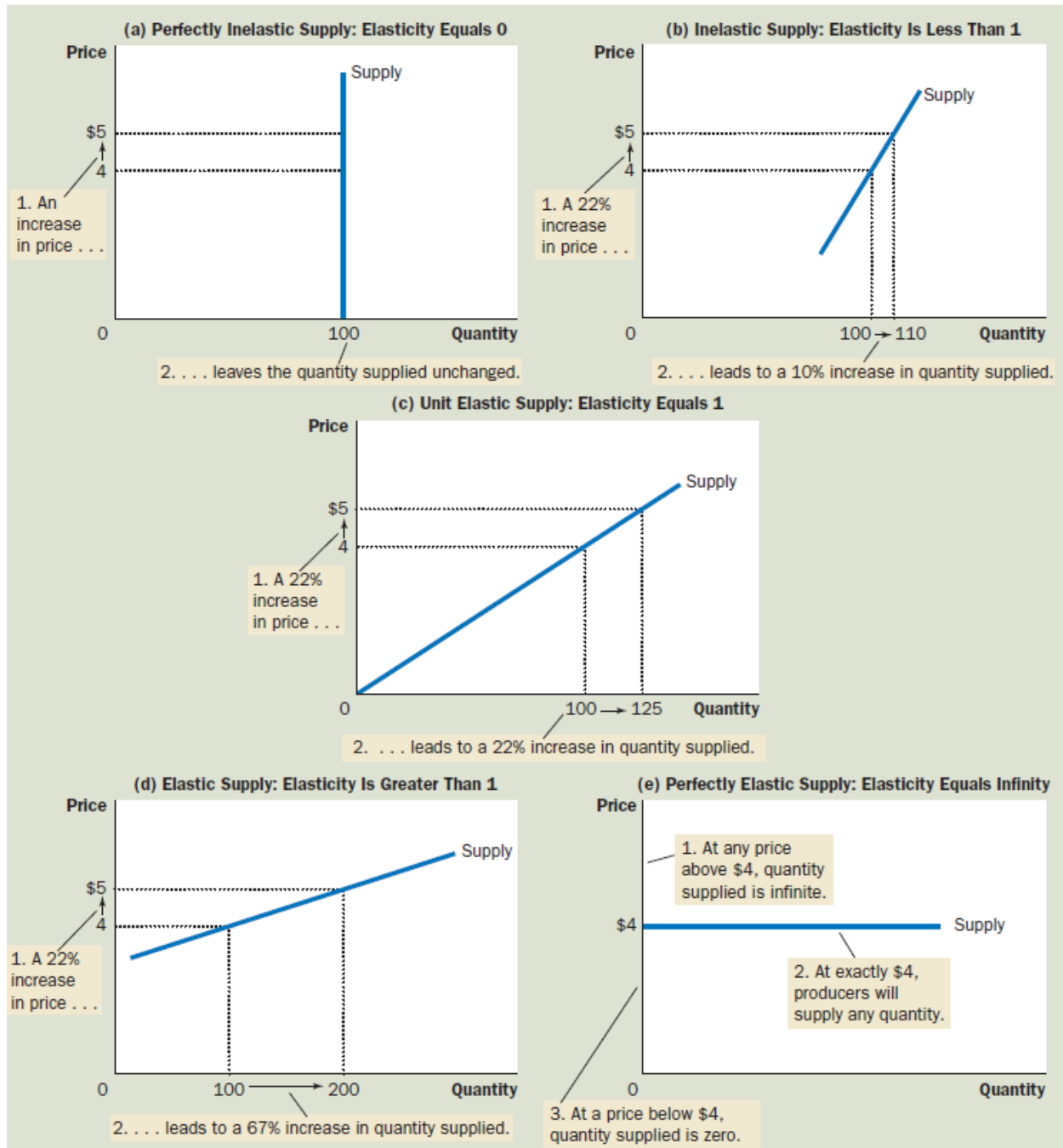
➤ **The variety of demand curves:**



## ➤ Other Demand Elasticities:

- The Income Elasticity of Demand
- The Cross-Price Elasticity of Demand

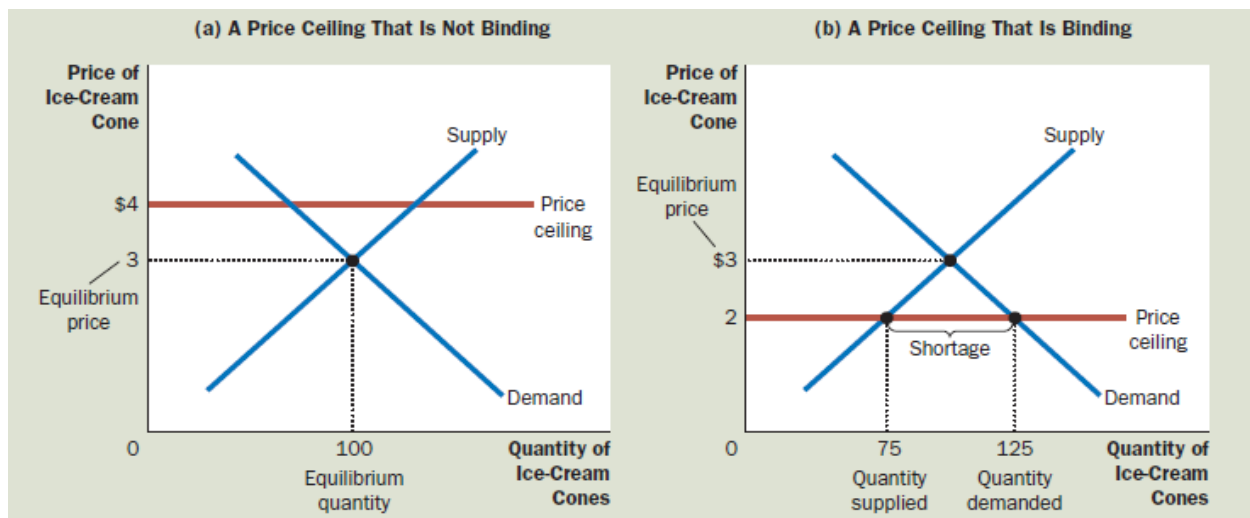
➤ **THE ELASTICITY OF SUPPLY:** The only determinant is 'Time Horizon'.



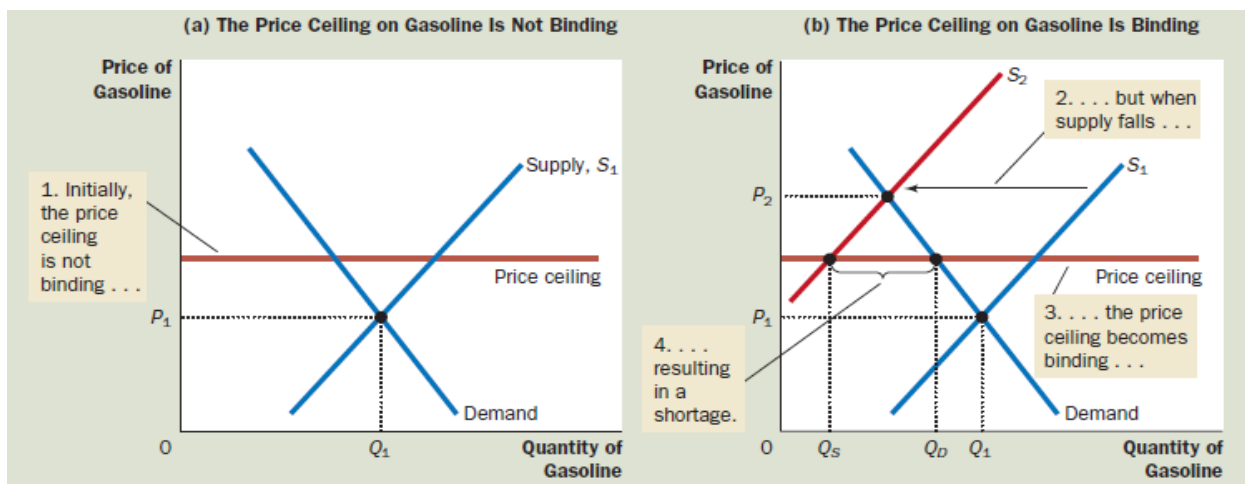


## Supply, Demand, and Government Policies

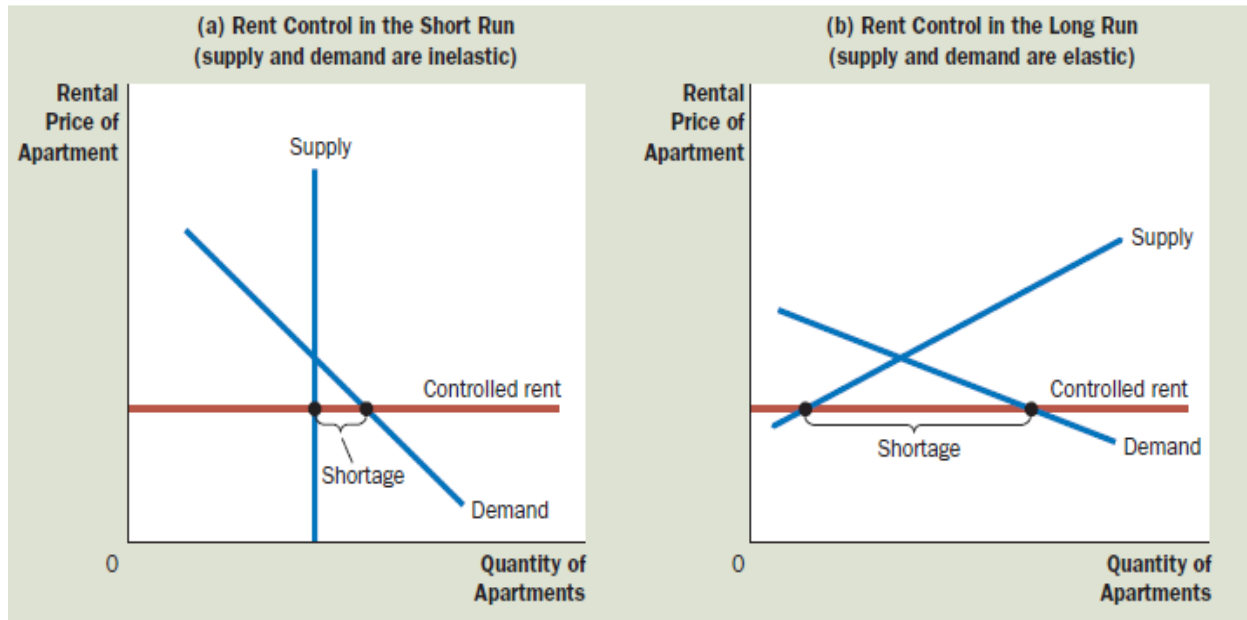
- Analyzing the government's Policies, such as, rent controls, minimum wages etc. through the concept of Price Controls
- Price Controls: Price ceiling vs. Price Floor
- Price ceiling: A legal maximum on the price at which a good can be sold



- The Market for Gasoline:

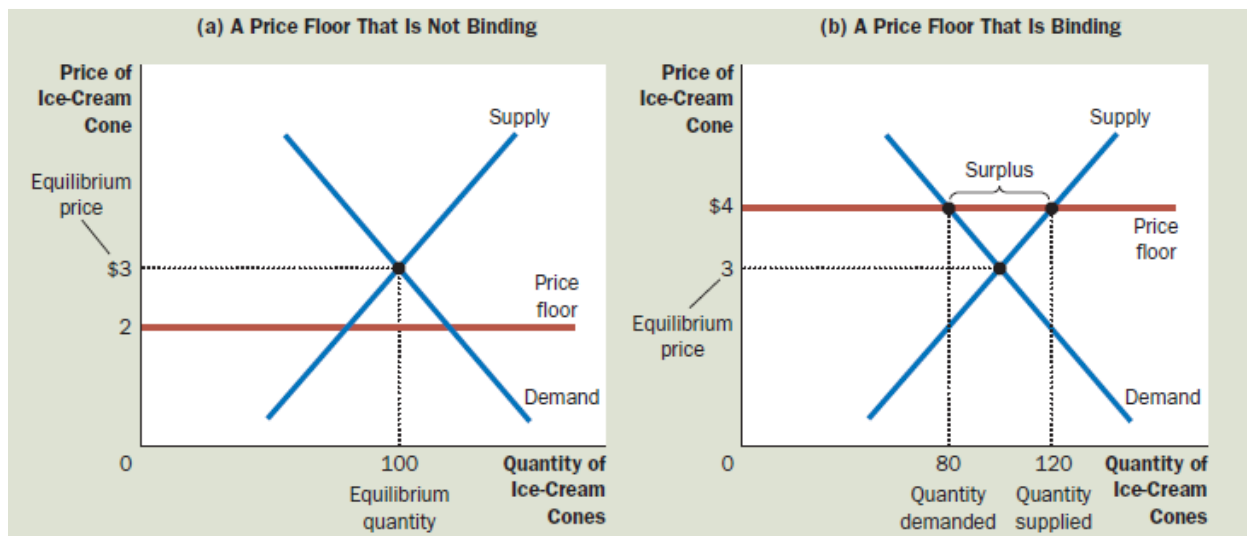


➤ Rent Controls in the short run and in the long run:

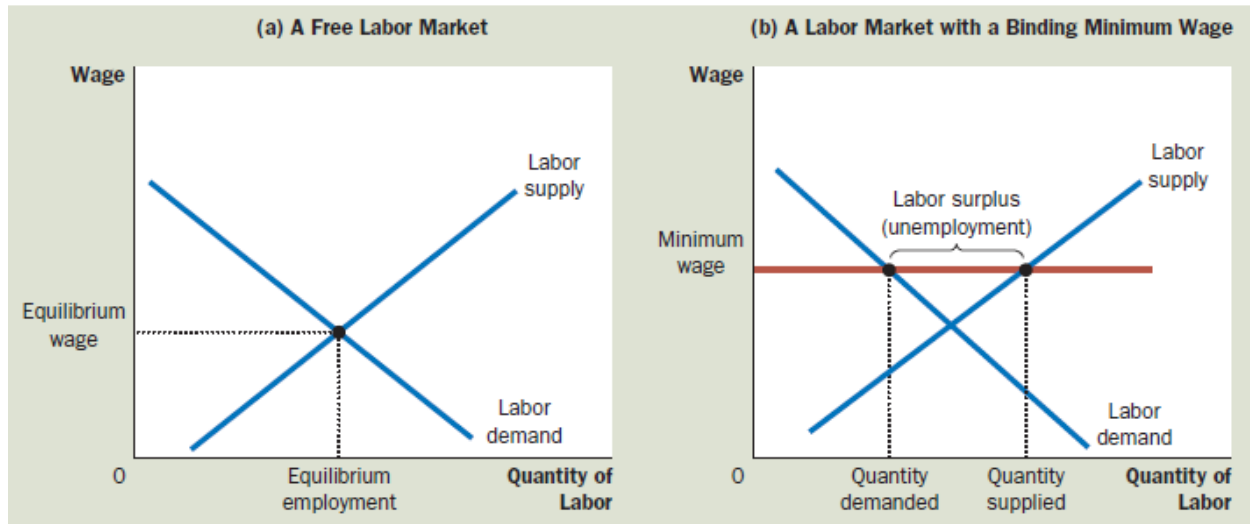


➤ How Price Floor can affect the Market?

➤ Price Floor: A legal minimum on the price at which a good can be sold



➤ The case of minimum wage:



➤ Evaluation of Price Controls

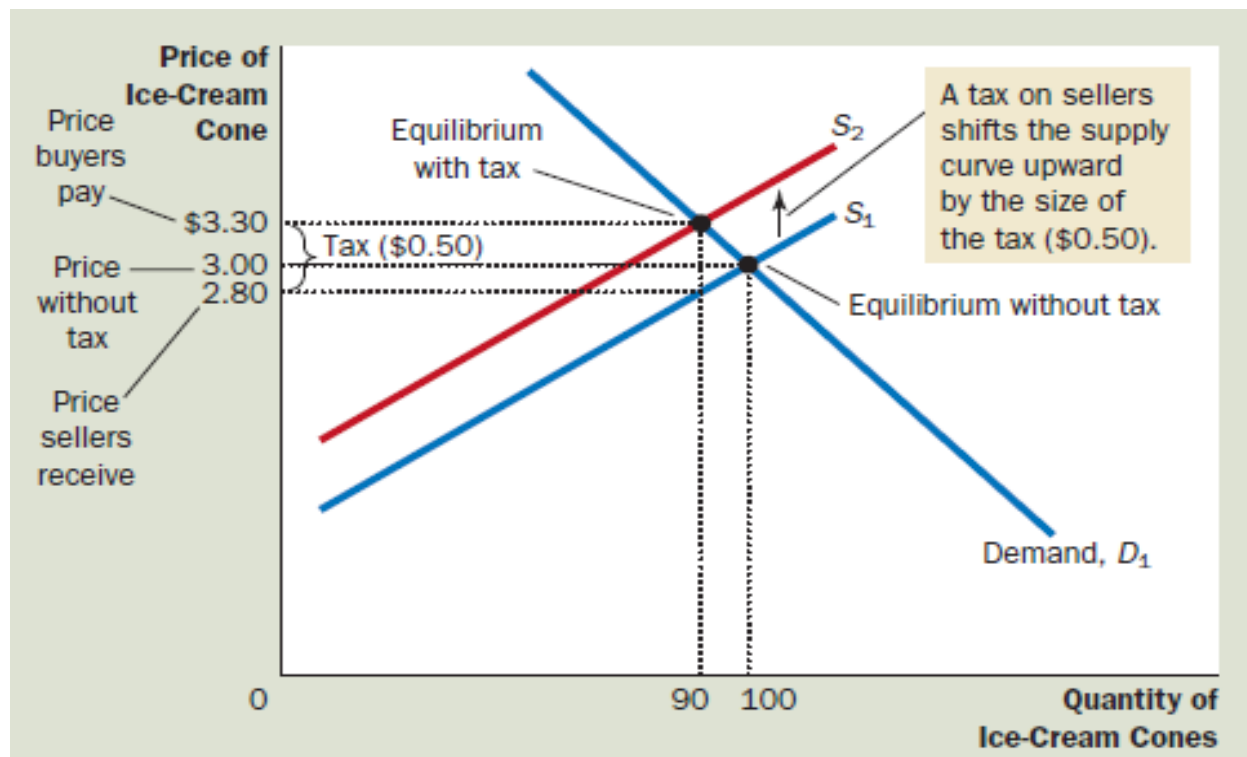
## TAXES

➤ Tax Incidence: The manner in which the burden of tax is shared among the participants.

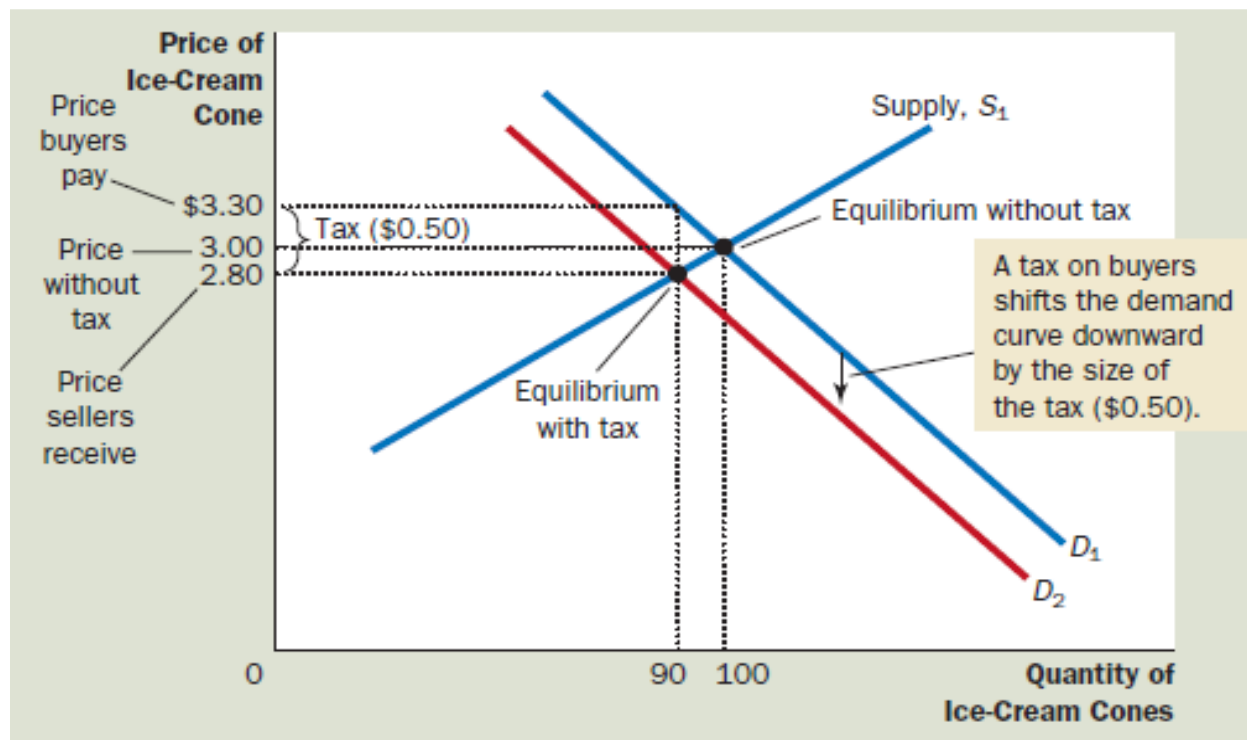
➤ Analyzing the Effect:

- We decide whether the law affects the supply curve or demand curve.
- We decide which way the curve shifts.
- We examine how the shift affects the equilibrium price and quantity.
- Implications.

➤ Taxes on Sellers: Considering, a tax levied on sellers of a good



- Taxes on Buyers: Considering, a tax levied on buyers of a good



➤ Elasticity and Incidence of Tax:

