Market Failures

Market failure: Occurs when resources are misallocated or allocated inefficiently.

The existence of externalities, public goods, and asymmetric information and adverse selection are examples of market failure.

Five approaches have been taken to solving the problem of externalities:

(1) Government-imposed taxes and subsidies,

(2) Private bargaining and negotiation,

(3) Legal rules and procedures,

(4) Sale or auctioning of rights to impose externalities, and

(5) Direct government regulation.

Public goods (social or collective goods) Goodsthat are non-rival in consumption and/or their benefits are non-excludable.

Non-rival in consumption A characteristic of public goods: One person's enjoyment of the benefits of a public good does not interfere with another's consumption of it.

Non-excludable A characteristic of most public goods: Once a good is produced, no one can be excluded from enjoying its benefits.

Problems associated with Public goods

- **free-rider problem** A problem intrinsic to public goods: Because people can enjoy the benefits of public goods whether they pay for them or not, they are usually unwilling to pay for them.

- **drop-in-the-bucket problem** A problem intrinsic to public goods: The good or service is usually so costly that its provision generally does not depend on whether or not any single person pays.

Tiebout hypothesis An efficient mix of public goods is produced when local land/housing prices and taxes come to reflect consumer preferences just as they do in the market for private goods.

ADVERSE SELECTION: ASYMMETRIC INFORMATION

Adverse selection Can occur when a buyer or seller enters into an exchange with another party who has more information.

- Most models assume consumers are fully informed about the market specifics
  - Know prices, incomes, market demand, etc.
- However, many markets do not have this degree of information
- Look at the role of 'imperfect information'

Problem of asymmetric information

Parties on the opposite side of a transaction have different amounts of information

Health care problems of asymmetric information

- Patients know their risks,

- insurance companies may not

- Doctors understand the proper treatments, patients may not

- Considering a situation where people can purchase individual health insurance policy
- Problem for insurance companies
  - They do not know who has the highest risk of expenditures
  - People themselves have an idea whether they are a high risk person
- Asymmetric information

Outline problem of asymmetric information and adverse selection

- Focus on
  - How selection can impact market outcomes
  - 'How much' adverse selection is in the market
  - Give some examples
  - How can get around

- Market for Lemons
- simple mathematical example of how asymmetric information (AI) can force markets to unravel, which is attributed to George Akeloff, Nobel Prize a few years ago
- Good starting point for this analysis,

Problem Setup

- Market for used cars

- Sellers know exact quality of the cars they sell

- Buyers can only identify the quality by purchasing the good

- Buyer beware: cannot get your $ back if you buy a bad car

- Two types of cars: high and low quality
- High quality cars are worth $20,000, low are worth $2000
- Suppose that people know that in the population of used cars that ½ are high quality
  - Already a strong (unrealistic) assumption
  - One that is not likely satisfied

- Buyers do not know the quality of the product until they purchase
- How much are they willing to pay?
- Expected value = (1/2)$20K + (1/2)$2K = $11K
- People are willing to pay $11K for an used car.
- Would $11K be the equilibrium price?

- Who is willing to sell an automobile at $11K
  - High quality owner has $20K car
  - Low quality owner has $2K car
- Only low quality owners enter the market
- Suppose you are a buyer, you pay $11K for an used car and you get a lemon, what would you do?

Some solutions?

- Deals can offer money back guarantees
  - Does not solve the asymmetric info problem, but treats the downside risk of asy. Info
- Buyers can take to a garage for an inspection
  - Can solve some of the asymmetric information problem

- Sell it for on the market for $11K
- Eventually what will happen?
  - Low quality cars will drive out high quality
  - Equilibrium price will fall to $2000
  - Only low quality cars will be sold

Moral hazard Arises when one party to a contract passes the cost of its behavior on to the other party to the contract.

THE VOTING PARADOX

Impossibility theorem A proposition demonstrated by Kenneth Arrow showing that no system of aggregating individual preferences into social decisions will always yield consistent, nonarbitrary results.