Chapter 8

Welfare Economics and the Gains from Trade

This chapter provides some context for how economists evaluate whether policies make society "better off" through the use of cost benefit analysis.

8.1 Measuring Gains from Trade

- How do we gain from trade?
  - Consumer purchases a good
  - Consumer gains (consumer surplus)
  - Producer gains (producer surplus)
  - We next develop a framework to compute the societal gain

1. Consumer Surplus
   - Recall, additional goods have less value than the first until of the good consumed

- Difference between the maximum amount a consumer is willing to pay and the amount they actually pay
- This is the area under the demand curve (up to the price and quantity demanded)
- Triangle shape

[Insert Exhibit 8.2 and 8.3 here]

2. Producer Surplus
   - Amount by which the producer's revenue exceeds variable production costs
   - Area above supply curve (up to the price and quantity supplied)

   [Insert Exhibit 8.4 here]

3. Social Gain
   - Sum of all gains from all participants
   - Total welfare = CS + PS

   [Insert Exhibit 8.5, 8.6, 8.7 here]

4. Criterion
   - How to weigh the benefits of one groups against that of another
   - Example 1: Walmart
     - Consumers benefit from lower prices
     - Small businesses find it difficult to compete and go out of business or downscale
     - Are we better off?
   - Example 2: Import Manufacturing goods

  - Consumers benefit from lower prices
  - Lost jobs and lower profits for domestic manufacturers
  - Are we better off?

- normative criterion (what should be versus what is (positive economics))
- pareto criterion - one policy is better when preferred unamously (prefered by consumers and producers)
- Typically in economic policy, there are winners and losers. Should economists care about equality?

5. Sales Tax Example

   - What is the (1) CS, (2) PS, (3) Tax revenue, (4) social gain
   - If Social gain is reduced, this is **Deadweight Loss**

[Insert Exhibit 8.8-8.11 here]

8.2 Examples and Applications

- Subsidies
- Price Ceilings
- Tariffs
- Robbery

[Insert Exhibit 8.12-8.17 here]

1. Thoeries of Value

   - Diamond-Water Paradox

  - Reflects price as a marginal value of last item consumed, not total value
  - Marginal value of first gallon of water consumed higher than first diamond consumed
  - Explains why water is cheap relative to diamond
- Labor theory of value
  - The value of an object is determined by the amount of labor needed to produce it
  - Determine value not by cost of inputs but by consumer willingness to pay for good

8.3 General Equilibruim and the Invisible Hand

1. Fundamental Theorem of Welfare Economics
   - Shows that the competitive equilibrium is Pareto-optimal
   - Pareto impreovment - A change to which nobody objects (trade where nobody is made worse off)
   - Pareto-optimal point - An outcome that allows no possiblity of a pareto improvement
   - Equilibrium point is also the point where social gain is maximized
   - Invisible hand - The benevolent dicator who selects the optimal quantity to be produced will be exactly the same as when prices are used as signals
2. Edgeworth Box Economy
   - Edgeworth Box - Graph of an economy with two individuals, two goods, and no production

- Endowment Point - Represents initial holdings of an individual
- Region of Mutual Advantage - Set of points at least as good as the initial endowment derived from trades between consumers
- Contract Curve - Set of pareto-optimal points from indifference curve tangencies
- Competitive Equilibrium Point - Point where both parties will trade towards

3. The Open Economy

- Autarkic relative price - Price that would prevail if no trade were allowed (hypothetical price)
- World relative price - Price that prevails in the presence of trade