HSS 201: Economics for Engineers

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Preliminaries

Money can't buy happiness. Ironically, people derive both happiness and pleasure from material goods.

Some goods which are mostly related to nature were in abundance (weel, not now!). However, goods that are produced from natural resources have one important property (supplies are limited or scarce).

Any society which has scarcity has three questions:

1. What to Produce?
2. What to Produce?
3. How to Produce?

The Origin of the word ‘Economics’

1. The English term Economics is derived from the Greek word Oikonomia. Its meaning is household management.
2. Towards the end of 18^{th} century, Adam Smith an English Economist termed Economics as ‘Science of Wealth’.
3. David Ricardo (1817)
4. Thomas Malthus (1798)

and many more. . .

Types of Economies

1. Capitalist Economy
2. Communist/Command Economy
3. Mixed Economy

Positive versus Normative Analysis

- Positive Economic Analysis:All positive questions concern what did happen, what will happen or what would happen. For instance, in answering, what did happen, economicst provide facts of thepast. E.g., in explaining 2008 recession, economist would will only provide facts of unemployment, GDP, inflation, among others.

- Normative Economic Analysis: Adrressing questions that involve value judgements. For instance, is society better off with trade? Is it good to tax more?

Fallacies Improper conclusion

1. Post-hoc fallacy: As one event occurred before another event, the first event caused the second event.

   E.g., This fallacy is often apparent when a newly elected government takes credit for improving the economy. Since the economy improved after the election, the election result must have been responsible.

2. Fallacy of composition: What is true for the part is also true for a whole, you are committing the fallacy of composition.

   E.g., A farmer who is better off because he has a bumper crop but may not be better off if every farmer has one.

   Paradox of Thrift/ Savings

Paradox of Value/ Water-Diamond Paradox

Why is that a diamond is priced higher than fresh water which is a pre-requisite for life?

The theory of marginal utility states that price of a product is not determined by the amount of input used in the production rather it is determined by its marginal utility. In determining the price of water and diamond, it is usefulness of each unit of a product that determines the price.

But as the supply of water and diamond determines the price of the products.

Production Possibility Frontier (PPF)

It is a locus of combination of two goods that can be produced with fixed proportions and technology assuming that resources are fully utilized.

1. Resources are not equally efficient in production of all products.
2. When resources are transferred from one production of one good to another productivity decreases.
3. PPF is concave in shaped because of increasing marginal opportunity cost; i.e., more and more unit of commodities are sacrificed to get additional unit of one commodity.