Txt Book

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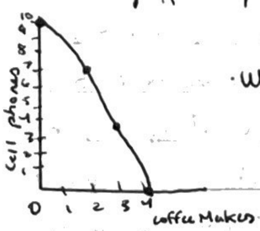
Econ Chapter 2: The Production Possibilities Frontier

2-1) Production Possibilities Frontier: The combination of two goods that can be produced in a certain span of time under the conditions of a given state of technology and fully employed resources.

- Straight line PPF = Constant Opportunity Cost
- When opportunity costs are not constant, the PPF will NOT be a straight line
- Bowed-outward PPF = Increasing Opportunity Costs
  - Example Graph of Increasing Opportunity Costs



- Why ~~is~~ is the PPF bowed outward?
  - The increasing opportunity costs of producing coffee makers

- The shape of the PPF depends on whether opportunity costs (1) are constant or (2) increase as more of a good is produced
- In the real world, most PPFs are bowed outward
  - For most goods, opportunity costs increase as more of the good is produced.
    - This relationship is referred to as the Law of Increasing Opportunity Costs
      - Example: Some individuals are more suited to build houses than others are. At the beginning, the most skilled people are ~~employed~~ hired first. The most skilled can build houses at a lower opportunity cost than others can. As more houses are built, they are forced to employ those less skilled at building houses. The less skilled build houses at higher opportunity cost: The 3 skilled laborers could have built the house in a month, the 7 unskilled workers are necessary to do it in the same amount of time.
- Sherlock Holmes PPF
  - If he learned something that was irrelevant to his task of solving crimes, ~~he~~ then something that was relevant to the purpose at hand would be discarded.
    - He was on his PPF: More of one thing meant less of something else
      - He wanted to utilize all of his resources for one thing: solving crimes

PPF and Scarcity

- The finiteness of resources is graphically portrayed by the PPF
  - You are limited to choosing any combination of the two goods on the frontier or below it
  - The PPF separates the production possibilities of an economy into two regions:
    - 1.) an attainable region 2.) an unattainable region which consists of the points above and ~~beyond~~ beyond the PPF

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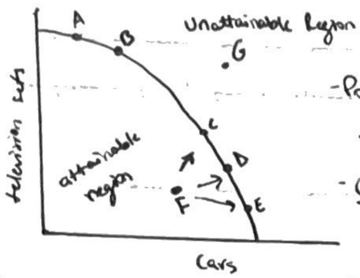
PPF Graph



- Point A on the PPF is attainable, as is Point F; Point G is not
- Choice is represented by our having to decide among the many attainable combos of the two goods.
- Opportunity Cost is seen as movement from one point to another, such as movement from point A to point B
  - More cars are available at B than A, but fewer television sets are available. The opportunity cost of more cars is less televisions.
- Productive Efficiency is represented by the points on the PPF (A-E) whereas Productive Inefficiency is represented by any point below the PPF (F)
- Unemployment (of resources) exists at any productive-inefficient point whereas resources are fully employed at any productive-efficient point

Productive Efficient: An economy is productive efficient if it is producing the maximum output with the resources and technology that it has.

Productive Inefficient: An economy is productive inefficient if it is producing less than the maximum output with the resources and technology that it has.

- At point F, we can get more of one good without getting less of another.
  - Productive inefficiency implies that gains are possible in one area without losses in another.

Unemployed Resources

- When an economy exhibits productive inefficiency, it's not producing the maximum output with the available resources and tech. One reason that the economy is not using all of its resources; that is, some of its resources are unemployed, as in Point F.
  - Fully employed resources seen at Point (A-E)

Economic Growth

- The increased productive capabilities of an economy
- Illustrated by an outward shift in PPF
  - Two major factors that produce economic growth
    1.) Increase in the quantity of resources 2.) Advance in technology

Technology: Refers to the body of skills and knowledge involved in the use of resources in production

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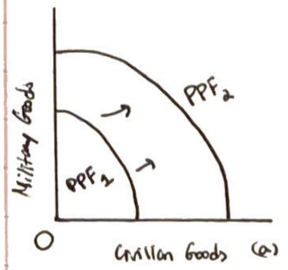
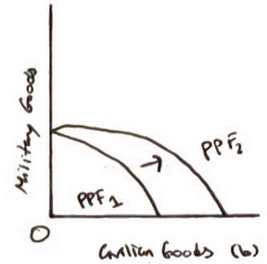




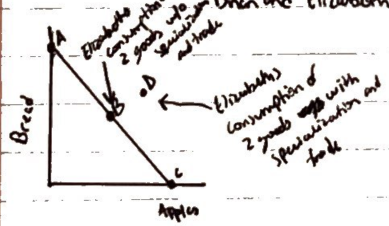
- An increase in resources or an advance in technology (that can lead to more of <u>both goods</u> being produced) can increase the production capabilities of an economy, leading to economic growth and a shift outward in the PPF, as shown in Part (a).

Studying example → (increase in resources, more hours to study, PPF expands)

- If the advance in technology leads to the greater production of <u>only one good</u> (such as civilian goods in this exhibit), then the PPF shifts outward, as shown in Part (b)
- Advance in technology commonly increases the ability to produce more output with a fixed quantity of resources or the ability to produce the same output with a smaller quantity of resources.
- Technological advancement can affect the composition of employment.

Specialization and Trade can move us beyond our PPF

- A country that specializes in the production of certain goods and then trades those goods to countries for other goods can make itself better off
- Brian and Elizabeth are not sure which good each person should specialize in producing
  - An economist would suggest them each to produce the good that he/she can produce at a lower cost.
    - In Econ, a person who can produce a good at a lower cost than another person is said to have a <u>comparative advantage</u> in the production of the good.
      - Lower opportunity cost leads to comparative advantage.
- Brian and Elizabeth both wind up better off after specializing in their own goods.



- Elizabeth's consumption moved beyond her PPF
  - Demonstrates the benefits of specialization and trade.
- If both Americans and Brazilians specialize in producing those goods for which they have a comparative advantage and then trade some of those goods for others' goods, both Americans and Brazilians can consume more of both goods than if they don't specialize and don't trade
- PPF shows efficiency when we are at a point on the PPF
- PPF shows us about trade-offs
- If PPF shifts right and the pop. does not change, then output per capita rises