

Econ 101 Discussion Section-Handout 3

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1 Review

Important Key Concepts of the week:

- Combined PPF: Now our powerful PPF has become even more interesting, we can aggregate individuals PPFs to get interesting results!. How many individuals can we add? 100? 10000? ∞ ?
 - Remember another way to motivate the curved shape of the PPF is aggregation!
 - Is important to realize that the slope of individual PPFs measures the opportunity cost of the individual, what about the aggregated PPF?
- Absolute Advantage vs Comparative Advantage
 - Absolute: With the same level of resources who can produce more?
 - Comparative: Who has the lowest opportunity cost?
- Trade: Keep in mind that with trade is possible to get goods at a lower cost.
 - What are the prices that emerges from trade? the opportunity costs!
 - Are these prices observable?
- Economic Growth: we can explain why a country is growing according to their decisions between capital and consumption
 - In which country would you like to live?
- Economics Questions: What to produce? How to produce?, for whom if the production?
 - If you are elected of as the president of the econ 101, how will you answer this questions?
- Markets Systems:
 - Traditional: Think how ancient humans behave, maybe the people in Mesopotamia
 - Central Planed Economy: Is it efficient?, Is it possible?
 - Market Economy: Is it perfect? Is it efficient?

2 Problems: Aggregated PPFs, Trade and Demand

1. Previously, you have seen PPF models with two individuals. Consider now a world with three individuals, Alice, Bob, and Charlie, who can make two goods, palindromes (P) and anagrams (A), according to the following frontiers

$$Alice : P = 10 - 2.5A \quad Bob : A = 5 - 0.2P \quad Charlie : 30 = A + P$$

- (a) Who has absolute advantage in production of palindromes? In anagrams?
 (b) Who has comparative advantage in production of palindromes? In anagrams?
 (c) Plot the joint PPF for the three. (Hint: Find two end points, and two kinks)
- a) Demand Curves 1 and 4 b) Demand Curves 2 and 3
 c) Demand curves 2,3, and 4 d) Demand curves 1,2 and 3
2. Consider the world from Exercise 1, but with only Alice and Bob.
- (a) Who should specialize in each production of palindromes? In anagrams?
 (b) Suppose Alice wishes to exchange some of her anagrams for Bob's palindromes? At least how many palindromes per anagram must Bob offer Alice for Alice to be willing to accept the trade?
 (c) Considering the trade from above, what is the maximum number of palindromes per anagrams Bob would be willing to offer to Alice?
3. Suppose a market consisting of two people, David and Eve, demand jars of fish sauce F according to the following equations:

$$David : F = \begin{cases} 100 - 25P & 0 \leq P < 4 \\ 0 & P \geq 4 \end{cases}$$

$$Eve : F = \begin{cases} 150 - 15P & 0 \leq P < 10 \\ 0 & P \geq 10 \end{cases}$$

- (a) Find the equation for the total market demand.
 (b) Plot this curve.
 (c) Suppose the price of fish sauce is \$5 per jar. At this price, what is the quantity demanded?
 (d) Suppose now David develops a severe fish allergy and no longer demands any fish sauce. Supposing the price remains unchanged, how much fish sauce is demanded?
 (e) Suppose a new sauce-making technology is developed, making sauce easier to produce. How might the price change?