Lecture Notes

**Chapter 2 Scarcity and Economic Development**

1. **Who is Adam Smith?**
2. **What is the Invisible Hand Theorem?**
3. **What is Production Possibilities Frontier?**

**Question 1**. Refer to Example 2-1 Rosie’s Bakery in page 18, and Table 2-1 in page 19.

* If Rosie spends 4 hours to make pies and 4 hours to make cookies, how many pies and cookies can she make?
* If Rosie spends all her working time to make pies only, how many pies can she make?

**Question 2.** Refer to Figure 2-1 in page 19. Among the possible choices A, B, C, D, E, F, and G, which choices are efficient, inefficient, or unattainable?

Answer: Efficient:

Inefficient:

Unattainable:

**Question 3**. Refer to Example 2-1 Rosie’s Bakery. What is the opportunity cost per pie when Rosie changes production from A to B?

Answer: She would gain \_\_\_\_\_\_\_ pies, give up \_\_\_\_\_\_ cookies.

The opportunity cost per pie = ( cookies)/( pies) = \_\_\_\_\_\_\_\_

1. **The PPF illustrates the following economic concepts:**

* Resources are limited. (In this example, resource = \_\_\_\_\_\_\_, limit = \_\_\_\_\_\_)
* Choices outside the PPF are \_\_\_\_\_\_\_\_\_\_\_.
* When resources are not fully used, \_\_\_\_\_\_\_\_\_ occurs.
* When resources are fully used in the best way, \_\_\_\_\_\_\_\_\_\_ is achieved.
* When Rosie makes a choice, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs.

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**Classroom Activity -** **Production Possibilities Frontier (ppf)**

A Bloody Mary contains tomato juice and one shot of vodka. A screwdriver contains orange juice and one shot of vodka. Assume that we have plenty of orange juice and tomato juice, but only one small bottle of vodka containing 8 shots.

*Screwdrivers*

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*Bloody Mary*

a) How many Bloody Mary can we make, if we only make Bloody Mary? \_\_\_\_\_\_\_\_\_\_\_

b) How many screwdrivers can we make if we only make screwdrivers? \_\_\_\_\_\_\_\_\_\_\_\_

c) If we make 2 Bloody Mary, how many screwdrivers can be made with the rest vodka? \_\_\_\_\_\_

d) Draw the PPF for Bloody Mary and screwdriver.

e) Can 2 Bloody Mary and 2 screwdrivers be made? \_\_\_\_\_. **Locate** this combination in the diagram above.

f) Can 5 Bloody Mary and 5 screwdrivers be made? \_\_\_\_\_. **Locate** this combination in the diagram above.

g) If you receive an additional bottle of vodka containing 4 shots, what would happen to the PPF? \_\_\_\_\_\_\_\_\_\_\_\_\_\_. **Locate** the new ppf in the diagram above.

h) What is the opportunity cost for one screwdriver? \_\_\_\_\_\_\_\_\_\_\_\_\_

**Refer to Example 2-2 in page 21.**

**Question 4**. Suppose this firm locates in a region where most of the roads are so narrow that only allow motorcycles. If the firm chooses to produce at D, is it efficient? \_\_\_\_\_. Is D a good choice? \_\_\_\_\_. Which of the combinations do you suggest Smart Motor produce? \_\_\_\_\_\_\_.

**Question 5**. Refer Figure 2-2 Smart Motor Inc. in page 22

* What is the opportunity cost if Smart Motor changes its production from C to B?

Gain: \_\_\_\_\_\_\_ Give up: \_\_\_\_\_\_\_\_\_ Opportunity cost: \_\_\_\_\_\_\_\_\_

* What is the opportunity cost if Smart Motor changes its production from D to F?

Gain: \_\_\_\_\_\_\_ Give up: \_\_\_\_\_\_\_\_\_ Opportunity cost: \_\_\_\_\_\_\_\_\_

* What is the opportunity cost if Smart Motor changes its production from F to D?

Gain: \_\_\_\_\_\_\_ Give up: \_\_\_\_\_\_\_\_\_ Opportunity cost: \_\_\_\_\_\_\_\_\_

* What is the opportunity cost is Smart Motor changes its production from D to G?

Refer to Example 2-3 in page 23.

**Question 6**. What are consumer goods? What are capital goods?

Consumer goods –

Capital goods -

**Tradeoff between present and future:**

**Question 7**. Refer to Figure 2-3 Imagineland 2010 in page 24.

* What are the efficient production choices?
* If Imagineland has high unemployment in 2010, which combination is most likely that the country produces at, F or C?
* If Imagineland produces at A in 2010, will its economy grow?
* Suppose a presidential candidate of Imagineland announces that his/her administration would be able to lead the country to produce at G in 2010. What is your reaction?

**Question 8**. What is the Law of Increasing Opportunity Cost?

**Question 9**. Why does PPF have a bowed out shape?

**5. Comparative advantage and the gains from trade**

* Absolute Advantage - A producer or a country has comparative advantage over the other in producing a good if its **productivity is \_\_\_\_\_\_\_**.
* Comparative advantage – A producer or a country has comparative advantage over the other in producing a good if its **opportunity cost is \_\_\_\_\_\_\_**.

**Question 10**. Refer to Example 2-4 Should George trade with Flora in page 27-30.

* What is the maximum amount of peach George can gather per day?
* What is the maximum amount of peach Flora can gather per day?
* What is the maximum number of fish George can catch per day?
* What is the maximum number of fish Flora can gather per day?
* Who has absolute advantage in gathering peach? \_\_\_\_\_ In catching fish? \_\_\_\_\_\_
* If George and Flora trade, would it hurt George and benefit Flora?
* If George and Flora do not trade, how many peach and fish can Flora consume if she gathers 27 peaches and catches 10 fish?

**Question 11**. Refer to Table 2-6 Opportunity cost for George and Flora (p 30)

* Who has comparative advantage in catching fish?
* Who has comparative advantage in gathering peach?

**Question 12.** Who should specialize to gather peach? \_\_\_\_\_\_ Why?

Who should specialize to catch fish? \_\_\_\_\_\_\_ Why?

**Question 13.** Refer to Table 2-5.

* If George trade with Flora, how much peaches and fish can he gain?
* If Flora trade with George, how much peaches and fish can she gain?

**Question 14**. In his book *Principles of Political Economy and Taxation*, David Ricardo explained how the patter of trade, i.e. import or export, was determined by what?

**Question 15**. Refer to Figure 2-7 in page 31.

* If Country A produces at Ao and does not trade with Country B, how many computers and TVs can people in that country to consume?
* If Country B produces at Bo and does not trade with Country A, how many computers and TVs can people in that country to consume?

**Question 16.** Refer to Table 2-7 in page 32.

* Which country has lower opportunity cost to make TV?
* Which country has lower opportunity cost to make computer?
* Which country has comparative advantage to make TV?
* Which country has comparative advantage to make computer?
* Which country should be specialized to make more TV and fewer computers?
* Which country should export TV and import computer?

**Question 17**. Refer to Table 2-8 in page 33.

* Explain why Country A can consume 200 computers and 150 TVs after it trades with Country B.
* Explain why Country B can consume 100 computers and 50 TVs after it trades with Country A.
* Explain why Country A gains 50 TVs and no computers after it trade with Country B.

**Question 18**. Should the United States trade with any other nation? Why?

**Question 19**. Is there a group of people who become worse off due to international trade?

**Question 20.** Should the government ban imports because it causes job loss?

Classroom Activity Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Suppose the U.S. can produce 400 cars per hour and Japan can produce 200 cars per hour, whereas Japan can make 2,000 TV sets per hour and the U.S. can make 1,500 TV sets in the same period of time. Assume both countries have 10,000 working hours.

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| --- | --- | --- | --- | --- | --- | --- |
|  | Productivity  (output per hour) | | Amount produced  in 10,000 hours | | Opportunity cost of | |
|  | Cars | TVs | Cars | TVs | 1 car | 1 TV |
| U.S. |  |  |  |  |  |  |
| Japan |  |  |  |  |  |  |

Country has **absolute advantage** in cars: \_\_\_\_\_ Country has **absolute advantage** in TVs: \_\_\_\_\_\_\_

Country has **comparative advantage** in cars: \_\_\_\_\_\_ Country has **comparative advantage** in TVs: \_\_\_\_\_\_

(1) Draw the PPF for each country.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cars (in millions) |  |  |  | Cars (in millions) |  |  |  |  |
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5 10 15 20 5 10 15 20

TVs (in millions) TVs (in millions)

US Japan

(2) If each country allocates 5000 hours producing cars, and 5000 hours producing TVs, what would the production and consumption be for each country? (Fill in the table)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Without Trade | | With Trade (**1car = 7 TVs**) | | | Gains from Trade |
| Production | Consumption | Production | Trade | Consumption |
| U.S. | Cars |  |  |  |  |  |  |
| TVs |  |  |  |  |  |  |
| Japan | Cars |  |  |  |  |  |  |
| TVs |  |  |  |  |  |  |

(3) If both countries agree to specialize, which country should

export cars? \_\_\_\_\_\_\_ export TVs? \_\_\_\_\_\_\_\_ import cars? \_\_\_\_\_\_\_\_ import TVs? \_\_\_\_\_\_\_\_

(4) If both countries agree to allocate all of their resources to make the product with comparative advantage, what would the production of cars and TVs? (Fill in the table)

(5) With the term of trade being 1 car = 7 TVs, suppose the US imports 9.8 million TVs from Japan. How many cars should the US export to Japan? (Fill in the table)

(6) Fill in the table with the Gains from trade for each country.