



Topic 2: Specialization & Trade

It takes two to make an island
paradise...



Three Basic Questions

- Every society must answer

1. What will be produced (how much)?
2. How will it be produced?
3. Who will get what is produced?

One Person Economy (Island)

- 2 goods:

- ☐ Fish
- ☐ Rope



- How will this society answer 3 questions?

The Answer depends on:

1. Tastes

- ☐ What do you want to produce?

2. Technology:

- ☐ What skills/knowledge are available to combine scarce resources?

Production Table

<i>Output Per Day</i>		
	<u>Fish</u>	<u>Metres Rope</u>
Opportunity cost of 10 fish = 0.5 metres	0	6.5
	10	6.0
Opportunity cost of 10 fish = 1.4 metres	20	5.2
	30	3.8
	40	0

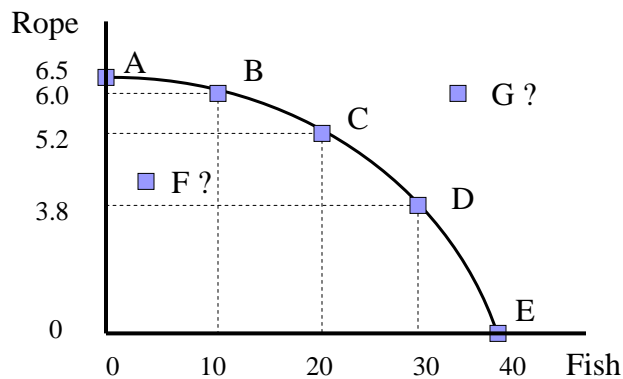
Why does the opportunity cost increase?

Principle of Increasing Costs:

- As the production of one good expands, its opportunity cost generally increases
- Inputs tends to be specialized
 - Example: wheat v.s. barley production
- Initially fishing will be quite lucrative
 - Cast net out from shore
 - The cost of 10 fish is very low
- Eventually start to use time that is not very productive in fishing
 - Used up all of the good fishing spots

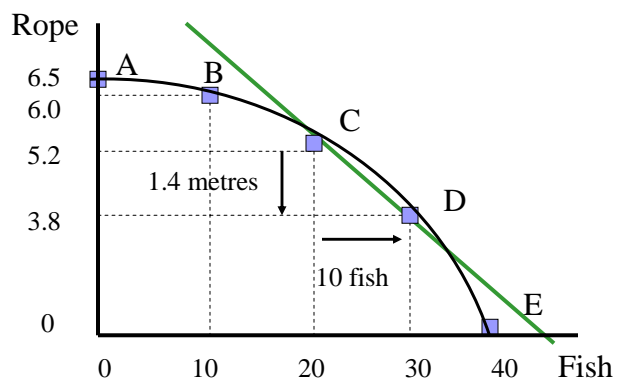
Production Possibilities Frontier

- Plots the combination of goods that can be produced given technology and resources



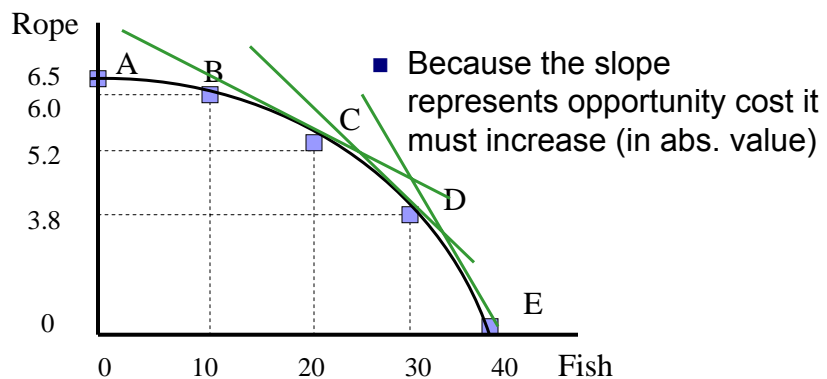
PPF Continued...

- Slopes down because resources are scarce
- Slope represents opportunity cost



Shape of the PPF

- The PPF is bowed outward
- Result of the principal of increasing cost
 - Opportunity cost increases as output expands



Back on Track

How do we answer the questions

(1) What is produced?

(2) How is it produced?

Technology (skills): determines how resources can be combined.

- ☐ embodied in the PPF
- ☐ better skills may shift the PPF outward


Tastes: determine the combination of fish and rope chosen

Tastes and Efficiency

- We know that points on the PPF are efficient in terms of production
- However, some points on the PPF may not be efficient in terms of product mix
 - ☐ If hungry producing rope is inefficient
- Combinations of goods on the PPF that also satisfy the tastes of society are said to be “efficient in product mix”

Two or More Person Economy

Complications

- a. Peoples preferences are not the same
- b. Peoples skills are not the same
- c. Now need to answer question (3) Who will get what is produced 
- We'll discuss **a** and **c** later in the course
- Now we'll deal with **b**

Specialization and Exchange

- Suppose there are now two people on the island
- Tom and Wilson

Scenario 1:

- Tom is better than Wilson at fishing
 - Tom has an “***absolute advantage***” in fish production
- Wilson is better than Tom at weaving rope
- Obviously, Tom should fish all the time and Wilson should weave rope
- They are both better off if they specialize and exchange

Example: Comparative Advantage

Scenario 2:

- Tom is better at both fishing and rope weaving

	<u>Rope(m.)/day</u>	<u>Fish/day</u>
Tom	6	8
Wilson	4	2

- *Should they specialize and exchange?*
- Tom - opportunity cost of 1 fish = $\frac{3}{4}$ m. rope
- Wilson - opportunity cost of 1 fish = 2 m. rope
- Tom has a “**comparative advantage**” in fishing

Comparative Advantage Continued

	<u>Rope(m.)/day</u>	<u>Fish/day</u>
Tom	6	8
Wilson	4	2

Opportunity cost of 1 metre of rope:

- Tom – 1.3 fish
- Wilson – $\frac{1}{2}$ fish
- Wilson has a “**comparative advantage**” in rope production
- We can show that both would be better off if they specialize and exchange

Specialization and Exchange

- Suppose they do not trade and each spends 5 days a week fishing and 2 days making rope

	<i>Without Trade</i>		<i>With Trade</i>	
	<u>Rope</u>	<u>Fish</u>	<u>Rope</u>	<u>Fish</u>
Tom	12	40	15	44
Wilson	8	10	13	12

- If they specialize total production will be:
 - Tom: $7 \bullet 8 = 56$ fish
 - Wilson: $7 \bullet 4 = 28$ metres of rope

How do Systems Coordinate?

I Command Economy (Old Russian, China)

- Centrally planned
 - Decide what produced
 - Decide how goods are distributed

■ Big task

II Free Market System “Laissez Faire”

- Limited government involvement
- Agents act on self-interest
 - Usually leads to efficient outcome
- The 3 questions are answered “in the market”