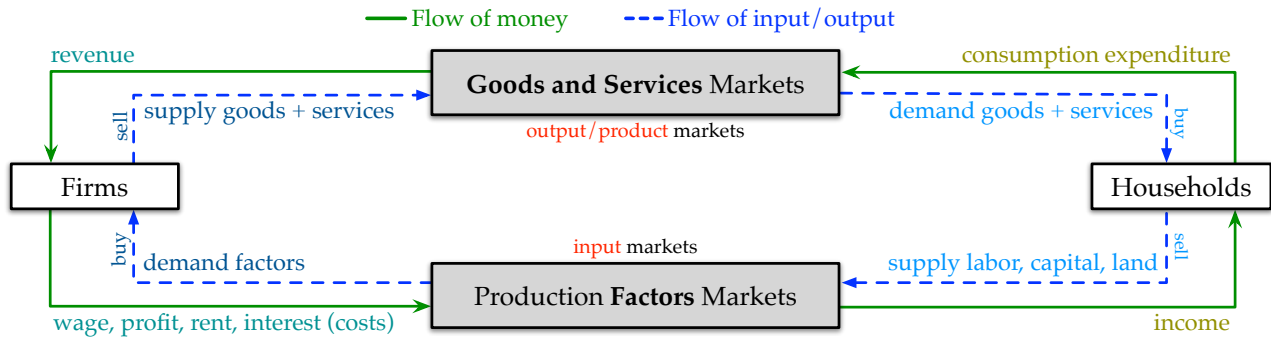


HANDOUT 2

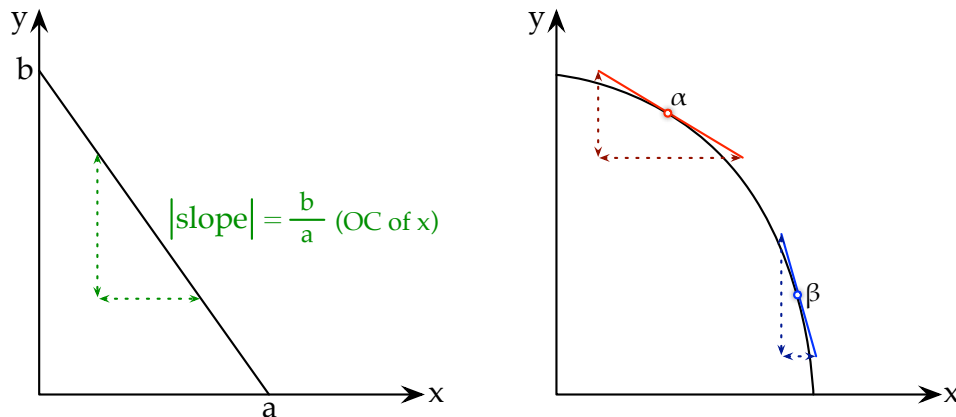
1 Reminder

- Any comments feel free to use the anonymous *Feedback Survey* (on my website under *Teaching*)
- Homework Ch3: due next Monday (4/24) at 11:00 am.

2 Extensive Circular-Flow Diagram



3 Production Possibility Frontiers (PPF)

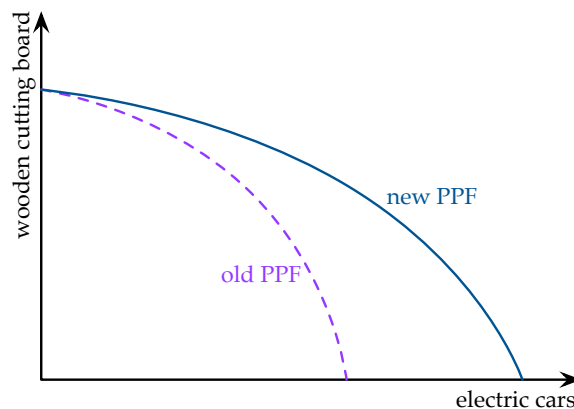


- The absolute value of the **slope (m) of PPF curve** is the *opportunity cost* of the **x axis**.
- Given 2 points (α_x, α_y) and (β_x, β_y) , the line $y = mx + b$ has slope $m = \frac{\beta_y - \alpha_y}{\beta_x - \alpha_x}$.
 - Find b by passing either one of the points $(\underbrace{\alpha_x}_x, \underbrace{\alpha_y}_y)$ or (β_x, β_y) .

4 Exercises

1. If Claudia's opportunity cost of producing 1 ton of steel in 2022 was 10 barrels of oil and she began using a new, more productive technology for steel production in 2023, would her opportunity cost of producing 1 ton of steel still be 10 barrels of oil in 2023 assuming all other factors remain the same?

2. Jonas and Martha own bakeries in Irvine and can produce cookies and pies each day. Martha can make up to 40 dozen cookies and 50 pies, while Jonas can make up to 100 dozen cookies and 50 pies. If Joe and Ann decide to trade with one another, which statement accurately describes the situation?
- Jonas is willing to sell 5 pies for 6 dozen cookies but Martha is unwilling to accept this offer.
 - Jonas is willing to pay 12 dozen cookies for 5 pies and Martha is willing to accept this offer.
 - Martha is willing to pay 3 dozen cookies for 5 pies but Jonas is unwilling to accept this offer.
 - Martha is willing to accept 8 dozen cookies for 5 pies and Jonas is willing to make this offer.
3. Suppose Elisabeth and Charlotte each have linear production possibility frontiers for producing cheeseburgers and tacos. Elisabeth can produce 30 cheeseburgers or 10 tacos every 2 hours. When working together, Elisabeth and Charlotte can jointly produce 40 cheeseburgers or 30 tacos every hour. Based on this information, and assuming that all other factors are constant, what is Charlotte's opportunity cost of producing 1 cheeseburger?
4. True or False? Trade allows a country to consume outside its production possibilities frontier.
5. Country A produces two goods: cutting board and electric cars. The production possibility frontiers (PPFs) for the old and new production methods are shown in the diagram below.
- Which of the following explanations provides the most plausible reason for the shift from the old PPF to the new PPF?



- Country A is seeing a rise in immigration coming from its neighboring nations.
- Through engaging in trade with Country B, Country A obtains higher-quality timber.
- A novel and sophisticated manufacturing robot has been developed by Country A, which accelerates the process of assembling cars.
- Country A has introduced a new policy that significantly reduces the number of licenses issued to carpenters, while also simplifying the process of working in the car industry.

6. Which of the following is an example of a capital input?
- (a) Buildings and machines used in the production process.
 - (b) Stocks and bonds.
 - (c) An hour of a worker's time.
 - (d) The money households use to purchase firms' output.
7. A gardener has the ability to grow either apples or pears or some combination of the two. Given no other information, it follows that the gardener's opportunity cost of a pound of apples multiplied by his opportunity cost of a pound of pears
- (a) is greater than 1.
 - (b) is between 0 and 1
 - (c) is equal to 0
 - (d) is equal to 1
8. Both Shalini and Bard produce silk scarves and rings. However, Shalini is better at producing both goods. In this case, trade could
- (a) benefit Bard, but not Shalini.
 - (b) benefit both Bard and Shalini.
 - (c) benefit neither Bard nor Shalini.
 - (d) benefit Shalini, but not Bard.
9. Assuming constant opportunity costs along the entire PPF for each person, Vincent and Sabrina can produce *lava cake* and *egg tart*. The table below presents the maximum number of cakes or tarts each can produce if they produce none of the other dessert:

	Lava cake	Egg tart
Vincent	2	6
Sabrina	1	5

- (a) Who has the comparative advantage in the production of *egg tart*?
- (b) What is the acceptable range for the price of one *lava cake* in exchange for a specific number of *egg tart* between Vincent and Sabrina, assuming they decide to trade?
- (c) Draw their joint PPF curve.