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Foundations of Economics

Anderson, Survey of Economics 1e

SCARCITY: IT'S WHY YOU CAN'T ALWAYS GET WHAT YOU WANT

- **Scarcity** exists when the supply of something doesn't satisfy everyone's desires for it.
- **Economics** is the study of decision making under conditions of scarcity.
- Money, time, materials, and workers are all scarce.
- Because of this, economics has direct relevance to life.

Economic Model is based on several principles:

- Opportunity cost of a choice is the value of the opportunities lost.
- Trade makes people better off. 😊

Example 1

Question 1;

In one hour, I could either solve 100 economics problem or solve one physics problem

	Solving economics problems per hour	Solve physics problems per hour
Ahmed	100	1

What is Ahmed's opportunity cost to solve a physics problem?

Opportunity cost for Ahmed to solve one physics problem is giving up solving 100 economics problems

Example 1

Question 2;
In one hour, Christopher could either solve 10 economics problem or solve 2 physics problems

	Solving economics problems per hour	Solving physics problems per hour
Christopher	10	2

What is Christopher opportunity cost to solve a physics problem?

Opportunity cost for Christopher to solve 2 physics problem is to solve 10 economics problems

Opportunity cost for Christopher to solve 1 physics problem is to solve 5 economics problems
Can you do the math ?

Example 1

Question 3:
Who has the lowest opportunity cost in solving physics problems ?

Comparative advantages:

- produce a good at lower opportunity cost
- Law of Comparative Advantage: You should specialize in producing the good for which you have the lowest opportunity cost and then trade

Comparative Advantage using Output Method

Example 2:

US can either make 12 TVs or 6 DVDs. Canada can either make 1 TVs or 1 DVDs.

Which country has comparative advantage in TVs? In DVDs?

	TV	DVD
US	12	6
Canada	1	1

Comparative Advantage using Output Method

Example 2:

US can either make 12 TVs or 6 DVDs. Canada can either make 1 TVs or 1 DVDs.

Which country has comparative advantage in TVs? In DVDs?

	TV	DVD
US	12	6
Canada	1	1

Opportunity cost for US to produce 12 Tvs is to give up producing 6 DVDs
Opportunity cost for US to produce 1 Tv is to give up producing 6/12= 0.5 DVDs

Opportunity cost for Canada to produce 1 Tv is to give up producing 1 DVD

Comparative Advantage using Output Method

Example 2:

US can either make 12 TVs or 6 DVDs. Canada can either make 1 TVs r or 1 DVDs.

Which country has comparative advantage in TVs? (In DVDs? – practice)

	TV	DVD
US	12	6
Canada	1	1

Opportunity cost for US to produce 12 Tvs is to give up producing 6 DVDs
Opportunity cost for US to produce 1 Tv is to give up producing 6/12= 0.5 DVDs

Opportunity cost for Canada to produce 1 Tv is to give up producing 1 DVD

_____ has the lowest opportunity cost to produce Tvs . So _____ has comparative advantages in TVS

Comparative Advantage using Output Method

Example: United States can either make 24 computers per hour or 24 shirts per hour. Mexico can either make 2 computers per hour or 12 shirts.

Country	Computers		Shirts
Mexico	2	or	12
United States	24	or	24

- In Mexico, the opportunity cost of 1 computer is 6 shirts,
- In the United States, the opportunity cost of 1 computer is 1 shirt
- Mexico has a *comparative advantage* (lowest opportunity cost) in shirts.
- The United States has a *comparative advantage* (lowest opportunity cost) in computers.

OPPORTUNITY COSTS IN PRODUCTION

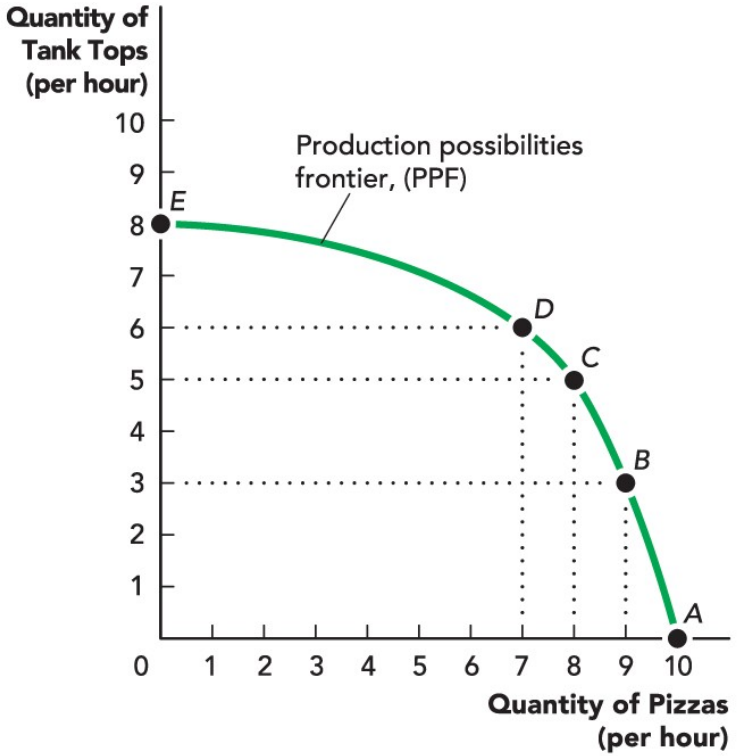
- *Resources* such as land, workers, and equipment are used to produce every good.
- When all resources are being used, increasing the production of one good requires decreasing the production of another good, as shown below.
- The lost production of the other good is an opportunity cost.

Output Combinations (hourly output using all available resources)					
Product	**A**	**B**	**C**	**D**	**E**
Pizzas	10	9	8	7	0
Tank Tops	0	3	5	6	8

THE PRODUCTION POSSIBILITIES FRONTIER (PPF)

- A **production possibilities frontier (PPF)** is a model that shows all *efficient* alternative combinations of two goods that can be produced in an economy within a given time period.

- Efficiency, in this case, means that the only way to make more of one good is to make less of another good.



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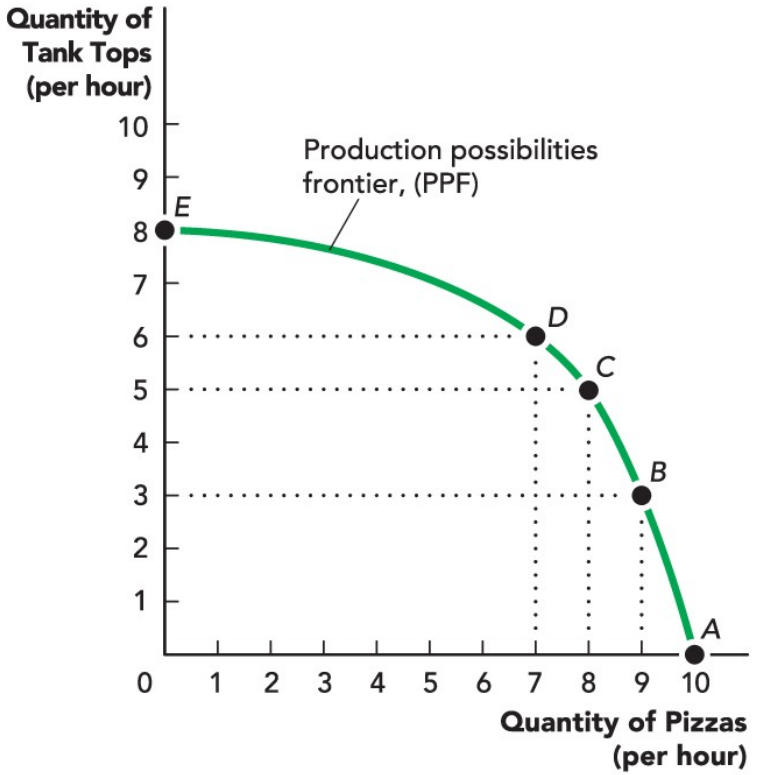
THE SHAPE OF THE PPF



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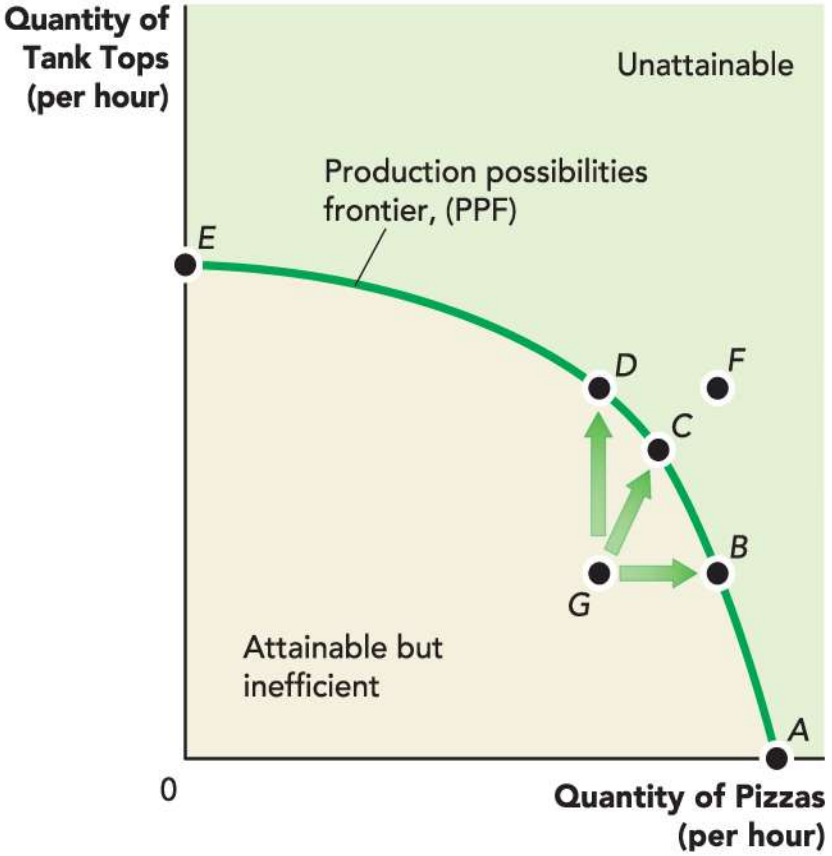
- As shown, PPFs are usually *bowed out,* or *concave to the origin*.
- This comes from increasing opportunity costs, which comes from the *specialization of resources*.
- An economy that only produces tank tops will employ chefs to do so, even though they are much more skilled at making pizzas.

INEFFICIENT AND UNATTAINABLE POINTS

- While points above the curve, such as point *F*, would be nice, they are not currently possible.
- Points below the curve, like point *G*, are possible, but they are inefficient.
- All points on the curve are both efficient and attainable.



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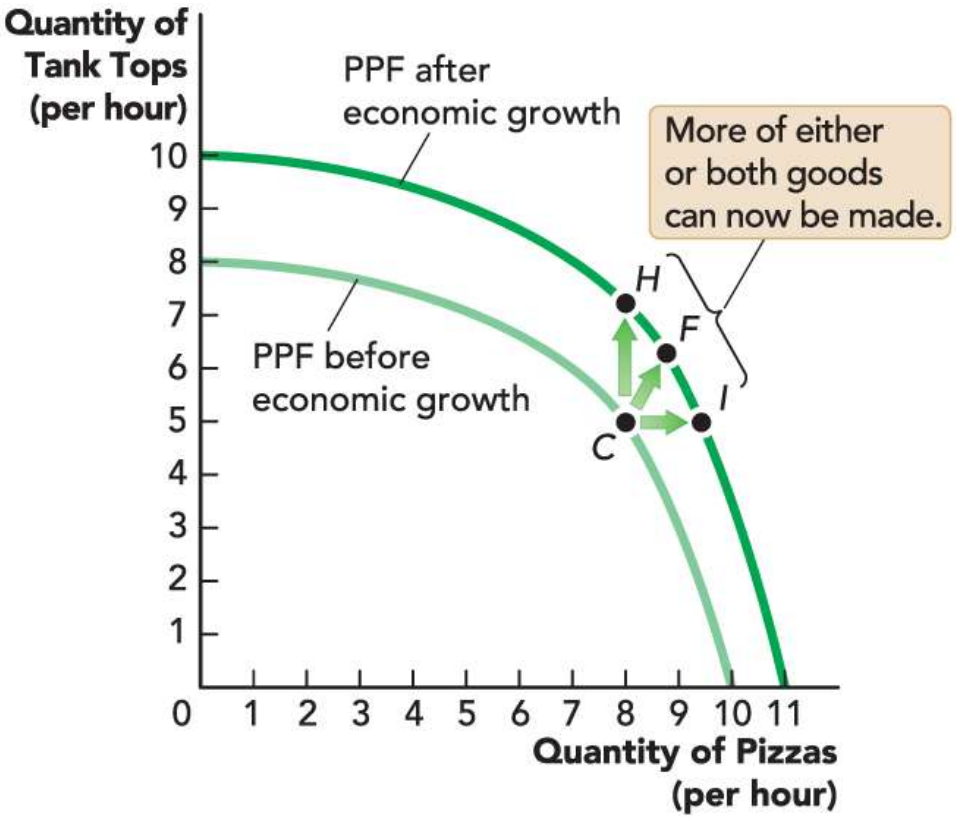
ECONOMIC GROWTH PART I

- **Economic growth** refers to an increase in the maximum amount of output an economy can produce over a period of time.

- When economic growth occurs, it pushes the PPF outward, allowing more of either good (or both goods) to be produced.



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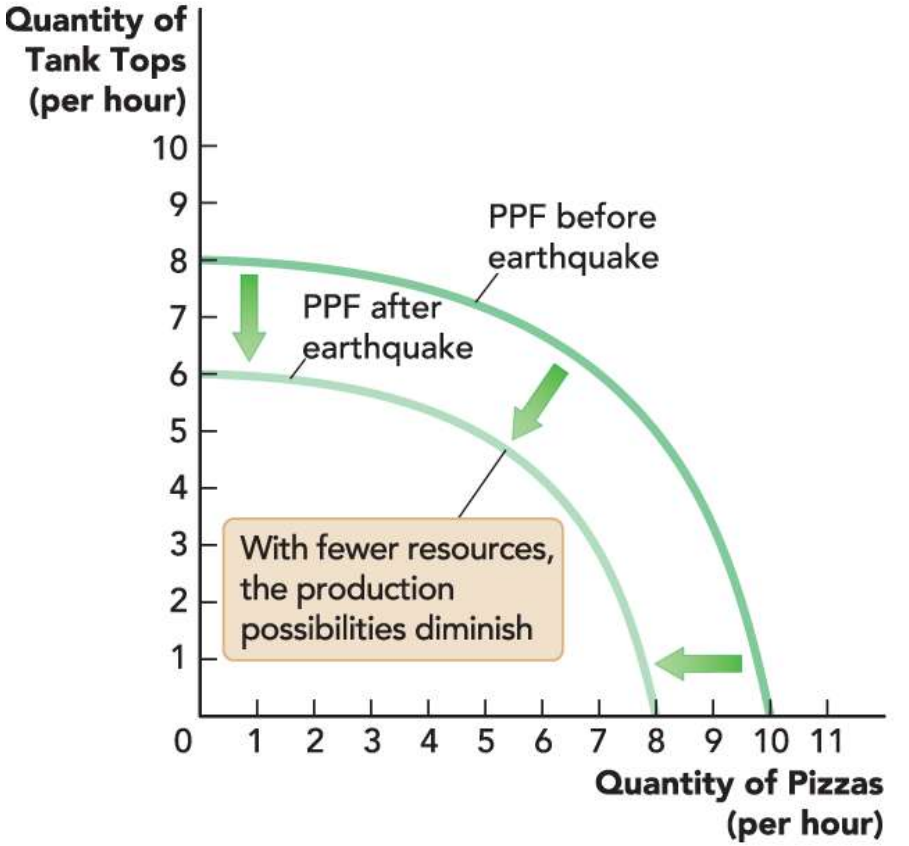
ECONOMIC GROWTH PART II

- Economic growth comes from advances in knowledge or technology and from increases in the availability of resources.

- Economic growth increases the **standard of living**, a measure of the material wealth available to help people live comfortably.

ECONOMIC DECLINE



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- The PPF can also shift inward, as shown on the left.
- This usually happens as a result of wars or natural disasters, such as a flood.

LEARN BY DOING: PRACTICE QUESTION 1

Which of these statements are necessarily true?

I. Economic growth improves the quality of life.

II. Economic growth improves the standard of living.

III. Economic growth expands the production possibilities frontier.

a) I and II only

b) II and III only

c) I and III only

d) I, II, and III

LEARN BY DOING: PRACTICE QUESTION 1 (Answer)

Which of these statements are necessarily true?

I. Economic growth improves the quality of life

II. Economic growth improves the standard of living.

III. Economic growth expands the production possibilities frontier.

a) I and II only

b) II and III only (correct answer)

c) I and III only

d) I, II, and III

LEARN BY DOING: PRACTICE QUESTION 1 (Answer)

Which of these statements are necessarily true?

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THE THREE FUNDAMENTAL ECONOMIC QUESTIONS

- Every economy must answer these three questions:
  1. What should be produced?
  2. How should it be produced?
  3. For whom should it be produced?

- Answering these questions incorrectly can lead to shortages of goods and services and missed opportunities for a better life.
- In extreme cases, it can lead to widespread starvation and illness.

WHAT TO PRODUCE

- **Incentives** are rewards and punishments that guide decision making.
- Adam Smith claimed that incentives guide people toward optimal decisions as if they were “led by an invisible hand.”
- For example, when a good is popular, high demand drives up its price.
- Producers respond by making more of the good.
- This pursuit of profit tends to lead toward optimal production.

HOW TO PRODUCE IT

- Many goods can be made in multiple ways at various costs.
- Decisions about production methods determine the cost and availability of goods and services.

- If wrong production methods are chosen, the economy operates at a point below its PPF.
- A pizza machine is one way of producing pizzas.

Paul Hennessy/Newscom/Polaris Images/Lakeland/Florida/ United States

FOR WHOM TO PRODUCE


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- There are many answers to this.
- In some cases, goods and services go to those who are willing and able to pay the highest prices.
- In some cases, the government distributes goods and services.
- In some cases, tradition determines who gets goods and services.
- Most economies use a mix of these three methods.

POSITIVE ECONOMICS

- **Positive economics** is the fact-based, descriptive side of economics.
- This includes data on college costs, reports on the unemployment rate, and findings on the number of pizzerias in the United States.
- Positive economics describes the *way things are* in the economy.

NORMATIVE ECONOMICS

- **Normative economics** is the type of economics that deals with judgments about the *way things should be*.

- This includes ideas about whether or not something should happen.
  - Ex: Should college students receive more financial support?

- It also includes ideas on how to accomplish these goals.
  - Ex: What policies should be used to give college students more financial support?

MICROECONOMICS

- **Microeconomics** is the study of scarcity and choice at the level of the individual decision makers.
- This includes decisions made by individuals, households, and businesses.
- Examples:
  - How should you divide your time between work and leisure?
  - How much output should a factory produce?

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MACROECONOMICS

- **Macroeconomics** is the study of the economy as a whole.
- Examples:
  - consumer spending
  - unemployment
  - interest rates
  - government policies that affect the whole economy

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LEARN BY DOING: PRACTICE QUESTION 2

Which of these are microeconomic decisions?

I. your decision to start a business

II. an electric company's decision to move toward solar energy

III. the government's decision to lower taxes on new business owners

a) I and II only

b) II and III only

c) I and III only

d) I, II, and III

LEARN BY DOING: PRACTICE QUESTION 2 (Answer)

Which of these are microeconomic decisions?

I. your decision to start a business

II. an electric company's decision to move toward solar energy

III. the government's decision to lower taxes on new business owners

a) **I and II only (correct answer)**

b) II and III only

c) I and III only

d) I, II, and III