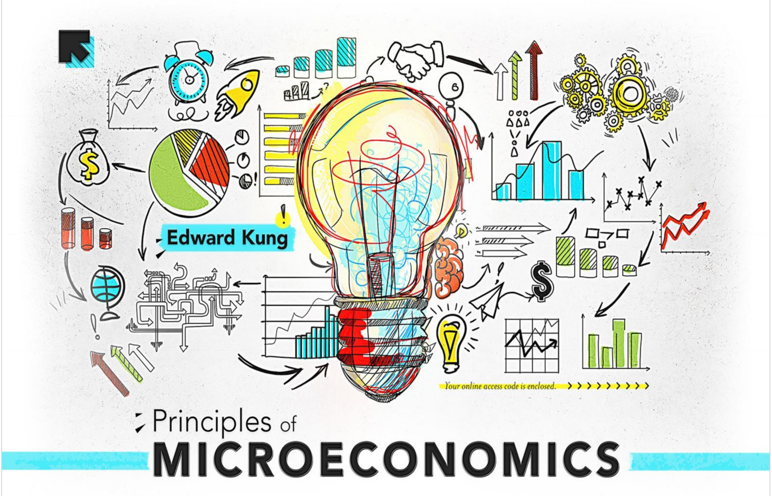
Micro economic - ch1 YIU notes

Friday, October 10, 2025 8:35 AM

Micro economic...



Module 1: PRINCIPLES OF ECONOMICS 0

MODULE 1 :

Introduction

To Economics: *Principles of Economics*

Learning Objectives:

- Define Economics and explain why we study Economics.اقتصاد
- Discuss the principles of economics and how they affect decision-making.
- Explain the meaning of 'scarcity' الندرة and its relation to production and consumption.
- Describe the various types of economic choices اختيارات اقتصادية that have to be made in any society and to appreciate the concept of opportunity cost.تكلفة الفرصة البديلة
- Explain the concepts of marginal benefit المنفعة الحدية and marginal cost التكلفة الحدية and how they relate to rational choices.
- Construct and interpret a production possibility frontier and understand the significance of shifts in, movements along and movements from inside the curve out towards the curve.
- Measure opportunity cost from a production possibility frontier.
- Distinguish between Microeconomics اقتصاد جزئي and Macroeconomics اقتصاد كلي.

graph PPF

2

Microeconomics and Macroeconomics

- Microeconomics اقتصاد جزئي

4 sector قطاع

Microeconomics and Macroeconomics

- **Microeconomics** اقتصاد جزئي

is the study of how households and firms make decisions and how they interact in markets.

- **Macroeconomics** اقتصاد كلي

is the study of economy-wide phenomena, including inflation, unemployment, and economic growth.

تضخم بطالة نمو اقتصادى

- These two branches of economics are closely intertwined, yet distinct – they address different questions.

4 sector (قطاع

- HH أفراد
- Firm مصانع
- Gov حكومة
- Foreign خارجى

Scarcity and Factors of Production

- **Factors of production** عوامل الإنتاج F. O.P

the resources the economy uses to produce goods & services, including

- labor العمالة
- natural resources موارد طبيعية
- capital (buildings & machines used in production) راس المال
- entrepreneur (the owner of the business who hires/rents/buys the other three factors of production to produce goods and services) المستثمرين

4 F.O.P

- Land → r rent ايجار
- Labor → w wages مرتب
- Capital → i intrest فوائد
- Entr. → π profit ربح

The principles of HOW PEOPLE MAKE DECISIONS

محدودة Resources (limited)

Needs and wants (unlimited) غير محدود

Choice اختيار

Opportunity cost تكلفة الفرصة البديلة

Sacrifice تضحية

Best benefit

Incentive & Reward.

What Economics Is All About

- **Scarcity** النذرة

is the limited nature of society's resources.

- **Economics** الاقتصاد

ادارة موارد نادرة

the study of how society manages its scarce resources, *e.g.*

- how people decide what to buy, how much to work, save, and spend HH
- how firms decide how much to produce, how many workers to hire firm
- how society decides how to divide its resources between national defense, consumer goods, protecting the environment, and other needs gov

HOW PEOPLE MAKE DECISIONS

Principle #1: People Face Tradeoffs Choice

All decisions involve tradeoffs. Examples:

- Sleeping extra before your midterm leaves less time for studying.
- Having more money to buy stuff requires working longer hours, which leaves less time for leisure.
- Protecting the environment requires resources that could otherwise be used to produce consumer goods.

HOW PEOPLE MAKE DECISIONS

Principle #2: The Cost of Something Is What You Give Up to Get It

- Making decisions requires comparing the costs and benefits of alternative choices.
- The **opportunity cost** of any item is whatever must be given up to obtain it.
- It is the relevant cost for decision making.

HOW PEOPLE MAKE DECISIONS

Principle #2: The Cost of Something Is What You Give Up to Get It

Examples:

The opportunity cost of…

…going to college for a year is the wages you could have earned if you were working.

…seeing a soccer game is not just the price of the ticket, but the value of the time you spend in the stadium.

…for a farmer to grow tomatoes on his land is the carrots he could have grown instead.

Cost → تكلفة

vs

Price → تذكرة

Opportunity Cost & The Production Possibilities Frontier

- The **Production Possibilities Frontier (PPF)**: a graph that shows the combinations of two goods the economy can possibly produce given the available resources and the available technology
- Example:
  - Two goods: computers and wheat
  - One resource: labor (measured in hours)
  - Economy has 50,000 labor hours per month available for production.

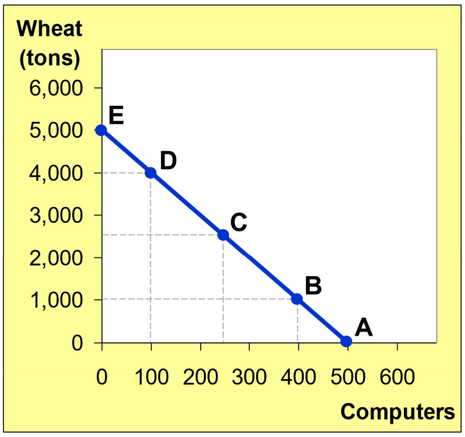
PPF Example

- Producing one computer requires 100 hours labor.
- Producing one ton of wheat requires 10 hours labor.

	Employment of labor hours		Production	
	Computers	Wheat	Computers	Wheat
A	50,000	0	500	0
B	40,000	10,000	400	1,000
C	25,000	25,000	250	2,500
D	10,000	40,000	100	4,000
E	0	50,000	0	5,000

PPF Example

Point on graph	Production	
	Com-puters	Wheat
A	500	0
B	400	1,000
C	250	2,500
D	100	4,000
E	0	5,000



ACTIVE LEARNING 1

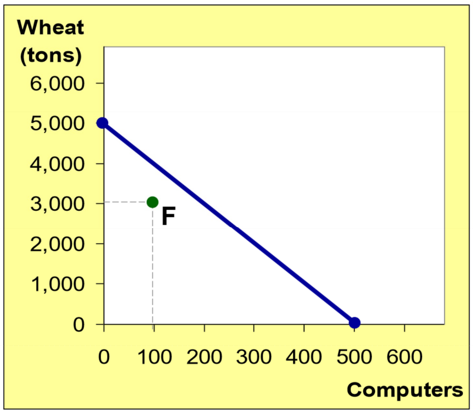
Points off the PPF

A. On the graph, find the point that represents (100 computers, 3000 tons of wheat), label it **F**. Would it be possible for the economy to produce this combination of the two goods? Why or why not?

B. Next, find the point that represents (300 computers, 3500 tons of wheat), label it **G**. Would it be possible for the economy to produce this combination of the two goods?

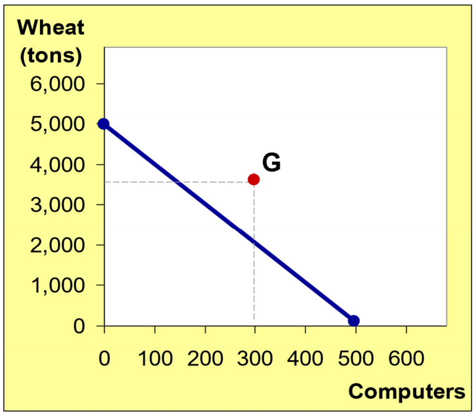
ACTIVE LEARNING 1
Answers

- Point **F**:
  100 computers,
  3000 tons wheat
- Point **F** requires 40,000 hours of labor. Possible but not efficient: could get more of either good w/o sacrificing any of the other.



ACTIVE LEARNING 1
Answers

- Point **G**:
  300 computers,
  3500 tons wheat
- Point **G** requires 65,000 hours of labor. Not possible because economy only has 50,000 hours.



The PPF: What We Know So Far

Points on the PPF (like **A** – **E**)

- possible
- efficient: all resources are fully utilized

Points under the PPF (like **F**)

- possible
- not efficient: some resources underutilized (e.g., workers unemployed, factories idle)

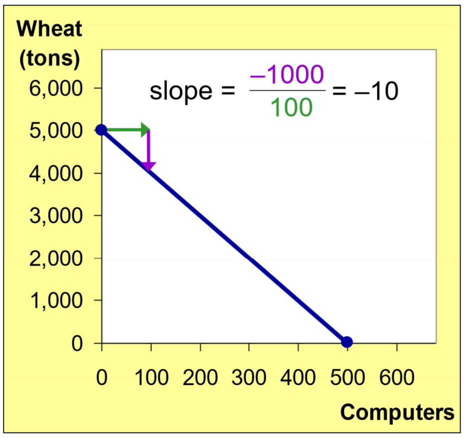
Points above the PPF (like **G**)

- not possible

The PPF and Opportunity Cost

- Recall: The **opportunity cost** of an item is what must be given up to obtain that item.
- Moving along a PPF involves shifting resources (*e.g.*, labor) from the production of one good to the other.
- Society faces a tradeoff: Getting more of one good requires sacrificing some of the other.
- The slope of the PPF tells you the opportunity cost of one good in terms of the other.

The PPF and Opportunity Cost



The slope of a line equals the "**rise** over the **run**," the amount the line rises when you move to the right by one unit.

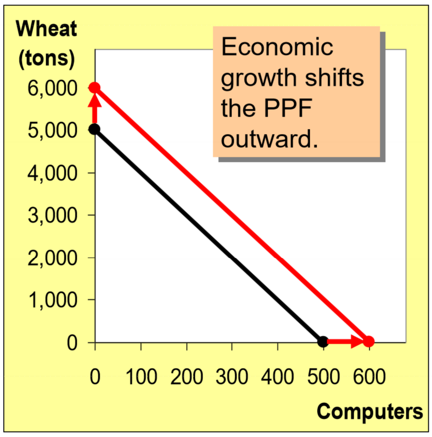
Here, the opportunity cost of a computer is 10 tons of wheat.

Economic Growth and the PPF

With additional resources or an improvement in technology, the economy can produce more computers,

more wheat,

or any combination in between.



The PPF: A Summary

- The PPF shows all combinations of two goods that an economy can possibly produce, given its resources and technology.
- The PPF illustrates the concepts of tradeoff and opportunity cost, efficiency and inefficiency, unemployment, and economic growth.

HOW PEOPLE MAKE DECISIONS

Principle #3: Rational People Think at the Margin

Rational people

- systematically and purposefully do the best they can to achieve their objectives.
- make decisions by evaluating costs and benefits of **marginal changes** – incremental adjustments to an existing plan.

HOW PEOPLE MAKE DECISIONS

Principle #3: Rational People Think at the Margin

Examples:

- When a student considers whether to go to college for an additional year, he compares the foregone wages to the extra income he could earn with the extra year of education.
- When a manager considers whether to increase output, she compares the cost of the needed labor and materials to the extra revenue.

ACTIVE LEARNING 2

Applying the principles

You are selling your 1992 Toyota Cressida. You have already spent SR 1000 on repairs.

At the last minute, the transmission dies. You can pay SR 600 to have it repaired, or sell the car "as is."

In each of the following scenarios, should you have the transmission repaired? Explain.

A. The market value (what you could get for the car) is SR 6500 if transmission works, SR 5700 if it doesn't

B. The market value is SR 6000 if transmission works, SR 5500 if it doesn't

ACTIVE LEARNING 2

Answers

Cost of fixing transmission = SR 600

A. The market value is SR 6500 if transmission works, SR 5700 if it doesn't

Benefit of fixing the transmission = SR 800 (SR 6500 – 5700).

It's worthwhile to have the transmission fixed.

B. The market value is SR 6000 if transmission works, SR 5500 if it doesn't

Benefit of fixing the transmission is only SR 500.

Paying SR 600 to fix transmission is not worthwhile.

ACTIVE LEARNING 2

Observations

- The SR 1000 you previously spent on repairs is irrelevant. What matters is the cost and benefit of the *marginal* repair (the transmission).
- The change in incentives from scenario A to scenario B caused your decision to change.
- Recap:
  - Scenario A: Marginal Cost of SR 600 < Marginal Benefit of SR 800. Hence, fix the transmission.
  - Scenario B: Marginal Cost of SR 600 > Marginal Benefit of SR 500. Hence, don't fix it.

HOW PEOPLE MAKE DECISIONS

Principle #4: People Respond to Incentives

- **Incentive:** something that induces a person to act, *i.e.* the prospect of a reward or punishment.
- Rational people respond to incentives.

  Examples:
  - When gas prices rise, consumers buy more hybrid cars and fewer gas guzzling SUVs.
  - When cigarette prices increase, teen smoking falls.
  - When an unemployed person receives money from the govt., he slows down his job search process
  - Who is going to sell more? The salesman whose salary is fixed or the one whose salary is a percentage of the sales revenue?