



# Unit 1: Introduction to Microeconomics

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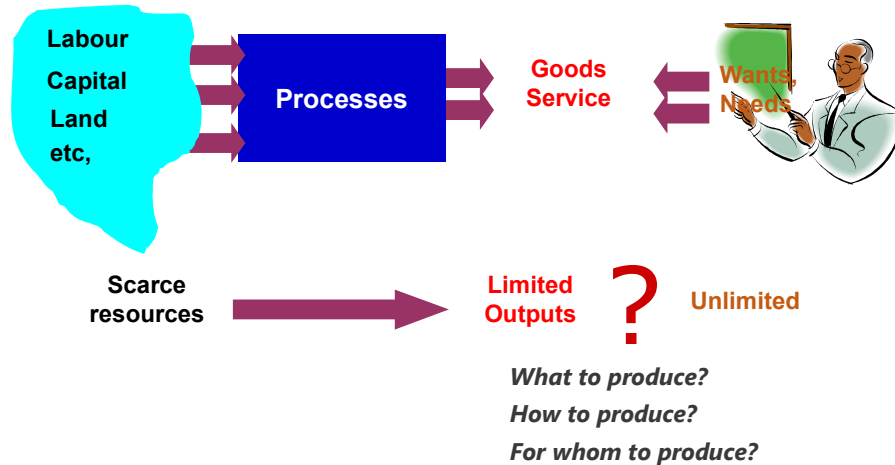
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## 1.1 What is an economics?



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## 1.1 What is an Economics?

- **Scarcity**. . . means that society has limited resources and therefore cannot produce all the goods and services people wish to have.
- The management of society's resources is important because resources are scarce.
- **Economics** is the study of how society manages its scarce resources.

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## Economic Study



- Economists study how people make decisions
  - How much they work
  - What they buy
  - How much they save
  - How they invest their savings
- Economists also study how people interact such as buyers and sellers
  - Price determination
- Economists also analyze forces and trends that affect the economy as a whole
  - Growth in average income
  - The rate of price increase.

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## 1.2 Ten Principles of Economics



- There is no mystery to what an “economy” is.
- It’s a group people interacting with one another as they go about their lives.
- **Four principles of individual decision making:**
  1. People face tradeoffs
  2. The cost of something is what you give up to get it
  3. Rational people think at the margin
  4. People respond to incentives

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## Principle 1: People Face Tradeoffs

- To get something we like we usually have to give up something we don't like.
  - A student and her(his) time:
    - Studying vs. napping or cycling
  - Society's tradeoffs:
    - Guns vs. Butter
    - Clean environment vs. higher income
    - Efficiency vs. Equity
      - Efficiency: Society getting the most it can from its scarce resources.
      - Equity: Distributing economic prosperity fairly among the members of society.

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## Principle 2: The Cost of Something is What You Give Up

- Making decisions requires comparing the *costs* and *benefits* of alternative courses of actions.
  - To go to university or not to go?
- **Opportunity cost:** Whatever must be given up to obtain some item.

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## 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.
- Individuals and firms can make better decisions by thinking at the margin.
  - By comparing the *marginal benefits* (MB) with the associated *marginal costs* (MC) of a decision.

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## Your Decision

- **Which should be used: fluorescent lights or LED lights?**
  - Fluorescent lights cost 20,000 VND per unit, with a lifespan of 15,000 hours and an electricity consumption of 38W per hour.
  - LED lights cost 100,000 VND per unit, with a lifespan of 25,000 hours and an electricity consumption of 20W per hour.
  - The electricity price is 2,000 VND per kWh. Both types of lights provide the same luminous flux."

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## Do You want to Use Electric Motorbike?



Electric Motorbike	Gasoline Motorbike
Motorbike lifespan: 5 years	
Monthly distance traveled: 500 km	
E-bike (with battery): 21,000,000 VND	Gasoline motorbike price: 18,000,000 VND
Electricity charging cost: 3,400 VND/kWh	RON 95 gasoline price: 21,000 VND/liter
Electricity consumption: 3 kWh/100 km	Fuel consumption: 2.0 liters/100 km
Maintenance cost: 400,000 VND/year	Maintenance cost: 1,100,000 VND/year
Salvage value: 2,000,000 VND	Salvage value: 5,000,000 VND
Charging time per session: 6 hours Travel distance per charge: 200 km Probability of daytime charging: 10% Average wage: 50,000 VND/hour	Refueling time: negligible

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## Principle 4: People Respond to Incentive

- **Incentive:** something that induces a person to act, *i.e.* the prospect of a reward or punishment.
- Rational people respond to incentives.
- Examples:
  - When oil prices rise, consumers buy more electric cars and fewer gas guzzling SUVs.
  - When cigarette taxes increase, teen smoking falls.

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## How People Interact

- The first four principles discussed *how individuals make decisions*.
- The next three principles concern *how people interact with one another*.
  5. Trade can make everyone better off
  6. Markets are usually a good way to organize economic activity
  7. Governments can improve market outcomes

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## Principle 5: Trade can Make Everyone Better Off

- Rather than being self-sufficient, people can specialize in producing one good or service and exchange it for other goods.
- Countries also benefit from trade & specialization:
  - Get a better price abroad for goods they produce
  - Buy other goods more cheaply from abroad than could be produced at home

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## Principle 6: Markets are Usually a Good Way to Organize Economic Activity

- Market economy: An economy that allocates resources through the decentralized decisions of many firms and households as they interact in markets for goods and services.
- Firms decide whom to hire and what to make.
- Households decide which firms to work for and what to buy with their incomes.

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## Principle 7: Governments can Improve Market Outcomes

- Market failure: A solution in which a market left on its own fails to allocate resources efficiently.
  - Externality: The impact of one person's actions on the well-being of a bystander.
  - Market power: The ability of a single economic actor (or small group of actors) to have a substantial influence on market prices.
- In such cases, public policy may [promote efficiency](#).
- Govt. may alter market outcome to [promote equity](#).
  - If the market's distribution of economic well-being is not desirable, tax or welfare policies can change how the economic "pie" is divided.

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## How The Economy as a Whole Works

- The last three principles concern the *workings of the economy as a whole*:
  8. A country's standard of living depends on its ability to produce goods and services;
  9. Prices rise when the government prints too much money;
  10. Society faces a short-run tradeoff between inflation and unemployment.

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### Principle 8: A Country's Standard of Living Depends on its Ability to Produce Goods and Services

- **Standard of Living** may be measured in different ways (e.g. personal income or total market value of a nation's production.)
  - Differences in standard of living between countries or even provinces is attributable to the *productivity* of the country or province.
- **Productivity**: The amount of goods and services produced from each hour of a worker's time.

***Productivity => Standard of Living***

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## Principle 9: Prices Rise when the Government Prints Too Much Money

- **Inflation:** increases in the general level of prices.
- In the long run, inflation is almost always caused by excessive growth in the quantity of money, which causes the value of money to fall.
- The faster the govt creates money, the greater the inflation rate.



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## Principle 10: Society Faces a Short-Run Tradeoff Between Inflation and Unemployment.

- In the short-run (1 – 2 years), many economic policies push inflation and unemployment in opposite directions.
- Other factors can make this tradeoff more or less favorable, but the tradeoff is always present.
- **Phillips curve:** A curve that shows the short-run tradeoff between inflation and unemployment.



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## 1.3 Thinking Like an Economist

Every field of study has its own terminology

- Mathematics
  - integrals ❖ axioms ❖ vector spaces
- Psychology
  - ego ❖ id ❖ cognitive dissonance
- Law
  - promissory ❖ estoppels ❖ torts ❖ venues
- Economics
  - supply ❖ opportunity cost ❖ elasticity ❖ consumer surplus ❖ demand ❖ comparative advantage ❖ deadweight loss

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## Thinking Like an Economist

- Economics trains you to. . . .
  - Think in terms of alternatives.
  - Evaluate the cost of individual and social choices.
  - Examine and understand how certain events and issues are related.

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## The Economist as a Scientist

### The economic way of thinking . . .

- Involves thinking analytically and objectively.
- Economists...
  - Devise theories
  - Collect data
  - Analyze the data to verify or refute their theories
- Economics makes use of the *scientific method*.



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## The Scientific Method: observation, theory, and more observation

- Uses abstract models to help explain how a complex, real world operates.
- Develops theories, collects, and analyzes data to evaluate the theories.



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## The Role of Assumptions

- Economists make assumptions in order to make the world easier to understand.
- The art in scientific thinking is deciding which assumptions to make.
- Economists use different assumptions to answer different questions.

*"Ceteris paribus"*

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## 1.4 Economic Models

- Economists use models to simplify reality in order to improve our understanding of the world
- Two of the most basic economic models include:
  - The *Circular Flow Diagram*
  - The *Production Possibilities Frontier*

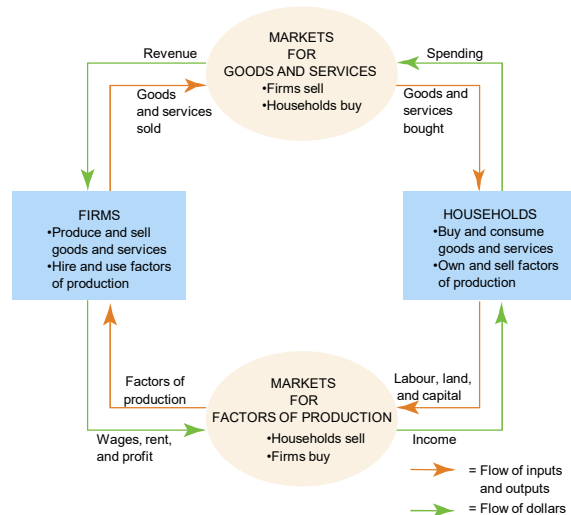
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## First Model: The Circular-Flow Diagram

- The *circular-flow diagram* is a visual model of the economy that shows how dollars flow through markets among households and firms.

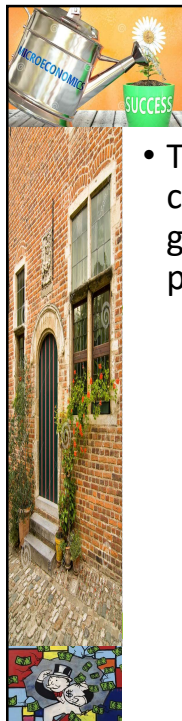


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- Firms**
  - Produce and sell goods and services
  - Hire and use factors of production
- Households**
  - Buy and consume goods and services
  - Own and sell factors of production
- Markets for Goods and Services**
  - Firms sell
  - Households buy
- Markets for Factors of Production**
  - Households sell
  - Firms buy
- Factors of Production**
  - Inputs used to produce goods and services
  - Land, labor, and capital

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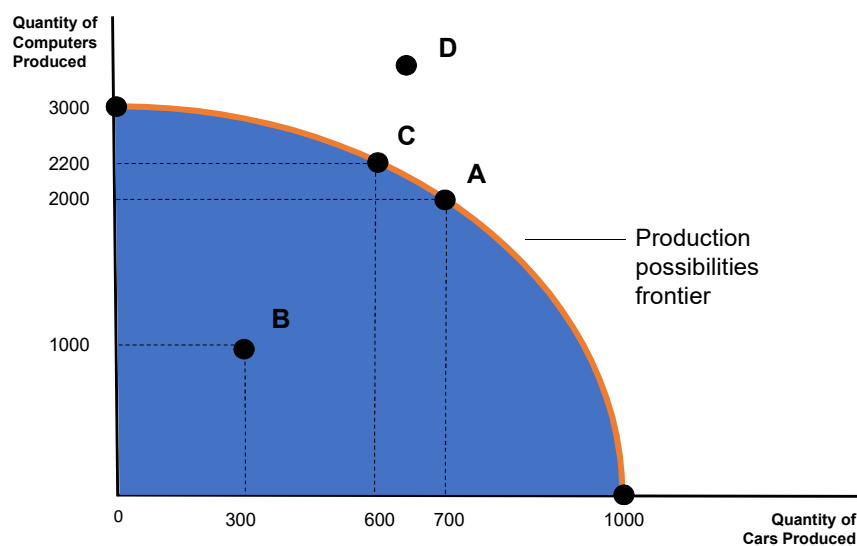
## Second Model: The Production Possibilities Frontier

- The *production possibilities frontier* is a graph that shows the combinations of output that the economy can possibly produce given the available factors of production and the available production technology.

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## The Production Possibilities Frontier



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## 1.5 Microeconomics and Macroeconomics

- *Microeconomics* focuses on the individual parts of the economy.
  - How households and firms make decisions and how they interact in specific markets
- *Macroeconomics* looks at the economy as a whole.
  - Economy-wide phenomena, including inflation, unemployment, and economic growth



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## 1.6 Positive Versus Normative Statements

- *Positive statements* are statements that attempt to describe the world as it is.
  - Called descriptive analysis
- *Normative statements* are statements about how the world should be.
  - Called prescriptive analysis



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## Positive Versus Normative Statements

- Positive or Normative Statements?

- An increase in the minimum wage will cause a decrease in employment among the least-skilled.

POSITIVE

- Higher government budget deficits will cause interest rates to increase.

POSITIVE

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## Positive Versus Normative Statements

- Positive or Normative Statements?

- The income gains from a higher minimum wage are worth more than any slight reductions in employment.

NORMATIVE

- State governments should be allowed to collect from tobacco companies the costs of treating smoking-related illnesses among the poor.

NORMATIVE

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## 1.7 Why Economists Disagree?

- They may disagree about the validity of alternative positive theories about how the world works.
- They may have different values and, therefore, different normative views about what policy should try to accomplish.

