

Chapter 2. Thinking Like an Economist

Liandong Yang-Gregory Mankiw

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Is Economics Science? Are Economists Scientists?

■ What is science?

- Science refers to a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the universe.
- It involves the pursuit of understanding through empirical observation, experimentation, and evidence-based reasoning.
- Key characteristics: **empirical evidence, systematic methodology, testability, reproducibility, predictive power, open to revision,**

Is Economics Science? Are Economists Scientists?

- Economics is often referred to as a social science because it involves the study of human behavior in the context of scarcity and resource allocation.
- It employs empirical methods, mathematical models, and statistical analysis to understand economic phenomena.
- However, unlike the natural sciences such as physics or chemistry, economics deals with human behavior, which can be more complex and less predictable.

Is Economics Science? Are Economists Scientists?

- Economists are not always referred to as "scientists" in the same way physicists or biologists are. Instead, they are often called social scientists.
- However, unlike the natural sciences such as physics or chemistry, economics deals with human behavior, which can be more complex and less predictable.
- The social and political nature of economic decisions make it challenging to establish universal laws or make precise predictions in the same way that natural sciences often can.

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- **Scientific method:** a systematic and logical approach used to investigate natural phenomena or human behaviors, acquire new knowledge, and refine or correct existing knowledge.
- Observations → Question → Hypothesis → Experiment → Data collection → Analysis → Conclusion → Communicate Findings

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The Role of Assumption

- Economists make assumptions to simplify the complex world and make it easier to understand.
 - To study international trade, we assume the world consists of only two countries.

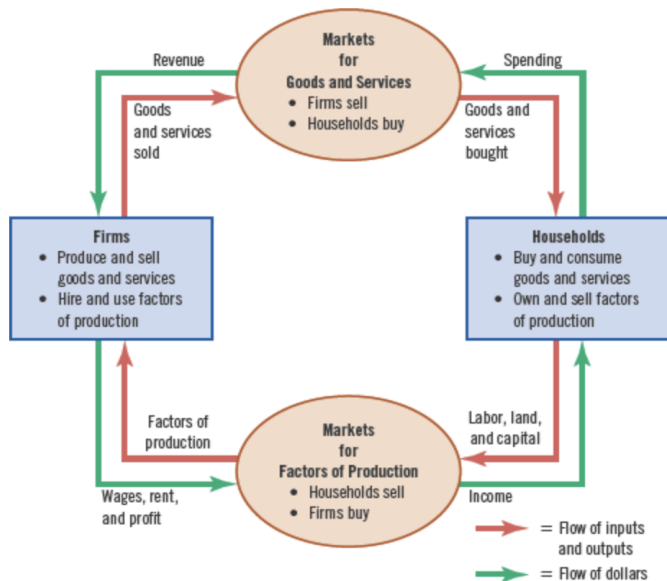
Economic Models

- Economic models are just simplifications of the real world. Depending on their need, economists make different assumptions and devise different models.

Our First Model: The Circular Flow Diagram

- Circular-flow diagram: a visual model of the economy that shows how goods and services, dollars, factors of production flow through markets among household and firms.
- Two types of participants
 - Firms
 - Households
- Two markets
 - Markets for goods and services; Flow of goods and services.
 - Markets for factors of production; flow of factors of production
- Flow of money

Our First Model: The Circular Flow Diagram



Our First Model: The Circular Flow Diagram

- What assumptions/simplifications do we make in the circular flow diagram?

Microeconomics and Macroeconomics

- Microeconomics: the study of how households and firms make decisions and how they interact in markets.
 - The effect of rent control on housing in New York
 - the impact of foreign competition on the U.S. auto industry
- Macroeconomics: they study of overall economy, including inflation, unemployment, and economic growth.
 - The effects of borrowing by the federal government
 - The changes in the economy's unemployment rate over time

Field of Study in Economics

- Agriculture, natural resources, and the environment; Behavioral economics; Business economics.
- Economic history; Economic development; Financial economics;
- Health and education economics; Industrial organization; International trade and finance;
- Labor economics; Law and economics; Macroeconomics and monetary economics;
- Mathematical and quantitative methods; Public economics; Urban, rural, and regional economics

Positive vs Normative Analysis

- Positive statements: claims that attempt to describe the world as it is.
 - Minimum-wage laws cause unemployment
 - We can confirm or refute positive statements by examining evidence.
- Normative statements: claims that attempt to prescribe how the world should be.
 - The government should raise the minimum wage.
 - Evaluating normative statements involves value as well as facts.
 - Deciding what is good or bad policy is not just a matter of science.

Why Economists Disagree

■ Differences in Scientific Judgements

- Economists may disagree about the validity of alternative positive theories.
- Different assumptions, different models, different parameters.

■ Differences in Values

- Economists have different values or political philosophies.