Thinking Like an Economist

Chapter 2

The Economist as a Scientist

The economic way of thinking...
- Involves thinking analytically and objectively.
- Makes use of the scientific method.

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

The Economic Way of Thinking
- Includes developing abstract models from theories and the analysis of the models.
- Uses two approaches:
  - Descriptive (reporting facts, etc.)
  - Analytical (abstract reasoning)
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 Model
  - The Production Possibilities Frontier

The Circular-Flow Model

The circular-flow model is a simple way to visually show the economic transactions that occur between households and firms in the economy.

The Circular-Flow Diagram

- **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
The Circular-Flow Diagram

Markets for Goods & Services
- Firms sell
- Households buy

Markets for Factors of Production
- Households sell
- Firms buy

The Circular-Flow Diagram

Factors of Production
- Inputs used to produce goods and services
- Land, labor, and capital

The Production Possibilities Frontier

The production possibilities frontier is a graph showing the various combinations of output that the economy can possibly produce given the available factors of production and technology.
The Production Possibilities Frontier

The production possibilities frontier shows the maximum quantity of two goods that can be produced with all available resources and technology. Points inside the frontier represent some combination of production, whereas points outside the frontier are unattainable with current resources.

Concepts Illustrated by the Production Possibilities Frontier

- Efficiency
- Tradeoffs
- Opportunity Cost
- Economic Growth

Let’s build a PPF

- There are two goods:
  - Chairs
  - Tables
- Both chairs and tables are made of wood and labor.

An outward shift in the production possibilities frontier indicates an increase in production capacity due to technological advancements, increased labor, or other factors that expand the productive capacity of an economy.
Technology

- Each chair uses
  - 10 units of wood and
  - 3 hours of labor.
- Each table requires
  - 20 units of wood and
  - 2 hours of labor.

Resources

- There are
  - 100 units of wood and
  - 18 hours of labor.
- Big question: What is the production possibilities frontier of this economy?

Let’s solve the problem step by step.

- Disregard, for the moment, the labor requirements.
- Each chair uses
  - 10 units of wood
- Each table requires
  - 20 units of wood
- There are
  - 100 units of wood

- If we used all the wood in the production of chairs, how many chairs could we make?
  \[ \frac{100 \text{ w}}{10 \text{ w/c}} = 10 \text{ chairs.} \]
- If we used all the wood in the production of tables, how many tables could we make?
  \[ \frac{100 \text{ w}}{20 \text{ w/t}} = 5 \text{ tables.} \]
More formally

- If we produced 2 chairs and 3 tables, we would require
  \[10 \times 2 + 20 \times 3 = 80\] units of wood.
- If we produced \(C\) chairs and \(T\) tables, we would require
  \[10 \times C + 20 \times T\] units of wood.

Disregard, for the moment, the wood requirements.

- Each chair uses
  \(3\) units of labor
- Each table requires
  \(2\) units of labor
- There are
  \(18\) units of labor

- If we used all the labor in the production of chairs, how many chairs could we make?
  \[18 \div 3 = 6\] chairs.
- If we used all the labor in the production of tables, how many tables could we make?
  \[18 \div 2 = 9\] tables.
More formally

- If we produced 2 chairs and 3 tables, we would require
  \[ 3 \times 2 + 2 \times 3 = 12 \text{ units of labor}. \]
- If we produced \( C \) chairs and \( T \) tables, we would require
  \[ 3 \times C + 2 \times T \text{ units of labor}. \]
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.
  - How the markets, as a whole, interact at the national level.

Two Roles of Economists

- When they are trying to explain the world, they are *scientists*.
- When they are trying to change the world, they are *policymakers*.

Positive versus Normative Analysis

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

Positive or Normative Statements?

An increase in the minimum wage will cause a decrease in employment among the least-skilled.
Positive or Normative Statements?

Higher federal budget deficits will cause interest rates to increase.

Positive or Normative Statements?

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

Positive or Normative Statements?

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

Why Economists Disagree

- They may disagree on theories about how the world works.
- They may hold different values and, thus, different normative views.