Microeconomics

6th edition

Chapter 1

Economics: Foundations and Models

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What is this class about?

People make choices as they try to attain their goals. Choices are necessary because we live in a world of scarcity.

Scarcity: A situation in which unlimited wants exceed the limited resources available to fulfill those wants.

Example: You might want more goods, more leisure. However, both the income and time is limited. Firms and governments are in the same situation as you. They must also attain their goals with limited resources.

- **Economics** is the study of the choices people make to attain their goals, given their scarce resources.

- Economists study these choices using **economic models**, simplified versions of reality used to analyze real-world economic situations.

Three Key Economic Ideas

Goods: tangible merchandise, such as books, computers.

Service: activities done for others, such as providing haircuts or investment advice.

Market: A group of buyers and sellers of a good or service and the institution or arrangement by which they come together to trade.

Example: Markets for watches, houses, books, stocks and so on.

In analyzing markets, we generally assume:

1 **People are rational**

2 **People respond to economic incentives**

3 **Optimal decisions are made at the margin**

1. People Are Rational

Economists generally assume that people are **rational**, using all available information to achieve their goals. They weigh the benefits and costs of each action, and they choose an action only if the benefits outweigh the costs.

Example: Apple doesn't randomly choose the price of its smartwatches; it chooses the price(s) that it thinks will be most profitable.

Practice

Do you agree with the following statement: "The problem with economics is that it assumes that consumers and firms always make the correct decisions. But we know that everyone makes mistakes"

2. People Respond to Economic Incentives

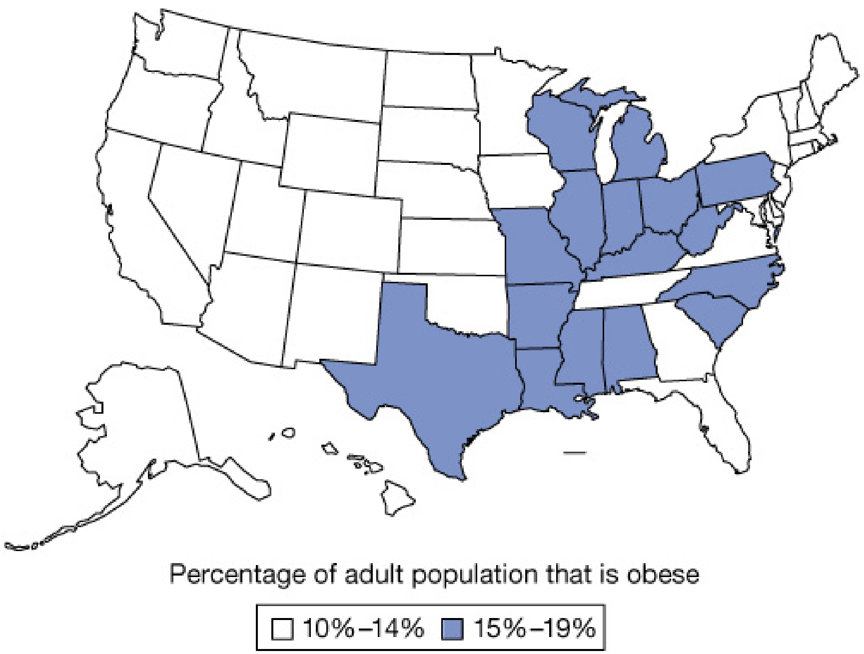
Economists emphasize that consumers and firms consistently respond to **economic incentives**.

As incentives change, so do the actions that people will take.

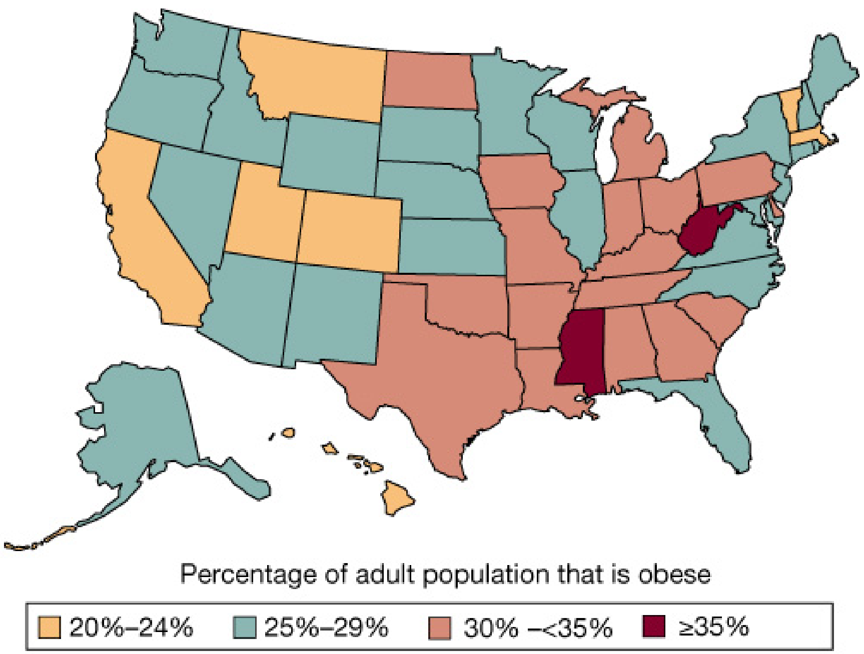
Example: Health Insurance and Obesity

Making the Connection: Health Insurance and Obesity (1 of 3)

Obesity is rising in America, for various reasons.



(a) Obesity rates in 1994



(b) Obesity rates in 2013

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Making the Connection: Health Insurance and Obesity (2 of 3)

Changes in several factors have resulted in increased obesity in Americans over the last couple of decades, including:

- Decreases in the price of fast food relative to healthful food
- Improved non-active entertainment options
- Increased availability of health care and insurance, protecting people against the consequences of their actions
- ……

Making the Connection: Health Insurance and Obesity (3 of 3)

People with health insurance have less incentive to stay healthy than people without health insurance. The research argues that holding constant other factors like age, gender, and income, research shows people with health insurance are more likely to be obese.

- These findings suggest that people respond to economic incentives.

3. Optimal Decisions Are Made at the Margin

Economists think about decisions like this in terms of the marginal cost and benefit (MC and MB): the additional cost or benefit associated with a small amount extra of some action. Comparing MC and MB is known as **marginal analysis.**

Marginal means "extra" or "additional"

Example: Should you watch an extra hour of TV, or study instead?

Example: Should Apple produce more smartwatches?

Practice

A doctor receives complains from patients that her office isn't open enough hours. So the doctor asks her office manager to analyze the effect of keeping her office open 9 hours per day rather than 8 hours. The doctor's office manager tells her: "Keeping the office open an extra hour is a good idea because the revenue from your practice will increase by $300,000 per year when the office is open 9 hours per day."

Do you agree with the office manager's reasoning? What, if any, additional information do you need to decide whether the doctor should keep her office open an additional hour per day?

The Economic Problem That Every Society Must Solve

In a world of **scarcity**, we have limited economic resources to satisfy our desires. Therefore we face trade-offs.

Trade-off: The idea that, because of scarcity, producing more of one good or service means producing less of another good or service.

- 1, What goods and services will be produced?
- 2, How will the goods and services be produced?
- 3, Who will receive the goods and services produced?

1. What Goods and Services Will Be Produced?

Individuals, firms, and governments must decide on the goods and services that should be produced.

An increase in the production of one good requires the reduction in the production of some other good. This is a **trade-off**, resulting from the scarcity of productive resources.

Opportunity cost

The highest-valued alternative given up in order to engage in some activity is known as the **opportunity cost**.

Example: the opportunity cost of increased funding for space exploration might be giving up the opportunity to fund cancer research.

2. How Will the Goods and Services Be Produced?

A firm might have several different methods for producing its goods and services.

Example: As the cost of manufacturing labor changes, a firm might respond by

- *Changing its production technique to one that employs more machines and fewer workers*
- *Moving its factory to a location with cheaper labor*

3. Who Will Receive the Goods and Services Produced?

In the US, who will receive the goods and services depends largely on how income is distributed. The way we are most familiar with in the United States is that people with higher incomes obtain more goods and services.

Changes in tax and welfare policies change the distribution of income. People with higher incomes pay a larger fraction of their incomes in taxes and the government makes payments to people with low income.

Types of Economies

Centrally planned economy: An economy in which the government decides how economic resources will be allocated.

Market economy: An economy in which the decisions of households and firms interacting in markets allocate economic resources.

Mixed economy: An economy in which most economic decisions result from the interaction of buyers and sellers in markets but in which the government plays a significant role in the allocation of resources.

Efficiency of Economies

Market economies tend to be more efficient than centrally-planned economies.

Market economies promote:

- **Productive efficiency**, where goods or services are produced at the lowest possible cost; and
- **Allocative efficiency**, where production is in accordance with consumer preferences; in particular, every good or service is produced up to the point where the last unit provides a marginal benefit to society equal to the marginal cost of producing it.

Positive and normative analysis

Economists try to mimic natural scientists by using the scientific method. But economics is a social science; studying the behavior of people is often tricky.

When analyzing human behavior, we can perform:

- **Positive analysis**: analysis concerned with what is
- **Normative analysis**: analysis concerned with what ought to be

Economists mostly perform positive analysis.

Practice

Explain which of the following statements represent positive analysis and which represent normative analysis?

1., A 50-cent-per-pack tax on cigarettes will lead to a 12 percent reduction in smoking by teenagers.

2., The federal government should spend more on AIDS research.

3., Rising wheat prices will increase bread prices.

4., The price of coffee is too high.

Economic Models

Economists develop economic models to analyze real-world issues.

Building an economic model often follows these steps:

1. Decide on the assumptions to use in developing the model.
2. Formulate a testable hypothesis.
3. Use economic data to test the hypothesis.
4. Revise the model if it fails to explain the economic data well.
5. Retain the revised model to help answer similar economic questions in the future.

Microeconomics

Microeconomics is the study of

- how households and firms make choices,
- how they interact in markets, and
- how the government attempts to influence their choices.

ADAM SMITH, LL.D.

Edinburgh, Published by Adam Black & William Tait.

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INQUIRY

INTO THE

NATURE AND CAUSES

OF THE

WEALTH OF NATIONS.

BY ADAM SMITH, LL. D.

WITH A LIFE OF THE AUTHOR,
AN INTRODUCTORY DISCOURSE, NOTES, AND
SUPPLEMENTAL DISSERTATIONS.

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Examples of microeconomic issues

We will learn how to answer questions like these:

- How consumers react to changes in product prices?
- How firms decide what prices to charge for the products they sell?
- Which government policy would most efficiently reduce teenage smoking?
- What is the most efficient way to reduce air pollution?
- What are the costs and benefits of approving the sale of a new prescription drug?

Important Economic Terms

- **Technology:** the processes a firm uses to produce goods and services
- **Innovation:** the practical application of an invention.
- **Capital**: manufactured goods that are used to produce other goods and services. Examples include computers, factory buildings, machine tools and so on. The total amount of physical capital available in a country is referred to as the country's **capital stock.**
- **Human capital**: accumulated training and skills that worker posses