

N. GREGORY MANKIW NINTH EDITION

PRINCIPLES OF ECONOMICS



CHAPTER 2

Thinking Like an Economist

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QR Code for Course Website & Textbook

Course Website: Textbook Group Order:



Textbook deadline: 2020/9/23 (Wed) 14:30pm..

2020/9/18 10 Principles of Economics Joseph Tao-yi Wang

IN THIS CHAPTER

- What are economists' two roles? How do they differ?
- What are **models**? How do economists use them?
- What are the elements of the **Circular-Flow Diagram**? What concepts does the diagram illustrate?
- How is the **Production Possibilities Frontier** related to opportunity cost? What other concepts does it illustrate?
- What is the difference between microeconomics and macroeconomics? Between positive and normative?

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The Economist as a Scientist – 1

- Economists play two roles:
 1. Scientists: try to explain the world
 2. Policy advisors: try to improve it
- As scientists, economists employ the **scientific method**.
 - Dispassionate development and testing of theories about how the world works
 - Devise theories, collect data, and analyze these data to verify or refute their theories

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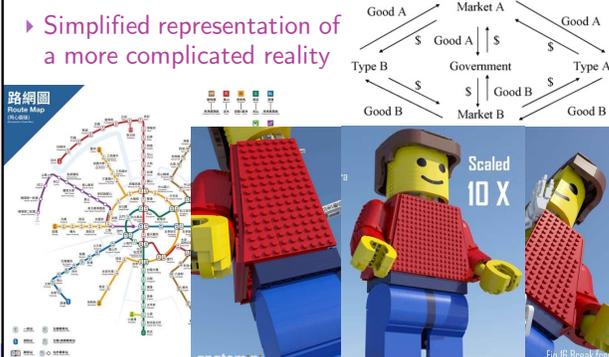
The Economist as a Scientist – 2

- Economists make assumptions.
 - Simplify the complex world and make it easier to understand. For example, to study international trade, assume only two countries producing two goods
- Economists use **models** to study economic issues.
 - Simplified representation of a more complicated reality

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Models

► Simplified representation of a more complicated reality



Good A Market A Good A
Type B Government Type A
Good B Market B Good B

Route Map
Scaled 10 X

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Experiments vs. Models

- ▶ Observation, Theory, and More Observation? Or,
- ▶ Observation, Theoretical Models, and Experiments!
- ▶ Behavioral/Experimental Economics is Booming!
- ▶ **Controlled Experiment:**
 - ▶ Highly simplified environment of a more complicated reality
- ▶ Just as Models =
 - ▶ Highly simplified representation of a more complicated reality

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Sveriges Riksbank (Nobel) Prize Winners

- ▶ Vernon Smith (2002)
 - ▶ The living Tversky tradition
- ▶ Elinor Ostrom (2009)
 - ▶ Manage common resource case study/experiment
- ▶ Alvin Roth (2012)
 - ▶ Bargaining Experiment/Matching Market Design
- ▶ Richard Thaler (2017): Behavioral Finance
- ▶ Esther Duflo and Michael Kremer (2019)
 - ▶ Field Experiments (in developing countries)

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The Circular-Flow Diagram

- Visual model of the economy
- Shows how dollars flow through markets among households and firms
- Two decision makers
 - Firms and households
- Interacting in two markets
 - Market for goods and services
 - Market for factors of production (inputs)

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The Circular Flow – 1

Firms:

- Buy/hire factors of production, use them to produce goods and services
- Sell goods and services

Households:

- Own the factors of production, sell/rent them to firms for income
- Buy and consume goods and services

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The Circular Flow – 2

Markets for Goods and Services

- Goods and services are bought and sold.
- Sellers: firms
- Buyers: households

Markets for Factors of Production

- Inputs are bought and sold.
- Sellers: households
- Buyers: firms

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The Circular Flow – 3

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The PPF

- **Production Possibilities Frontier (PPF)**
 - A graph that shows
 - various combinations of outputs that the economy can possibly produce,
 - given the available factors of production and the available production technology.

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EXAMPLE 1: The PPF

- Assume a country produces only two goods:
 - airplanes and soybeans
 - It has a fixed amount of resources (labor).
 - It has a fixed amount and quality of technology.
- The available resources and technology can be used to produce:
 - Only soybeans (5,000 tons)
 - Only airplanes (100 airplanes)
 - Or a combination of soybeans and airplanes

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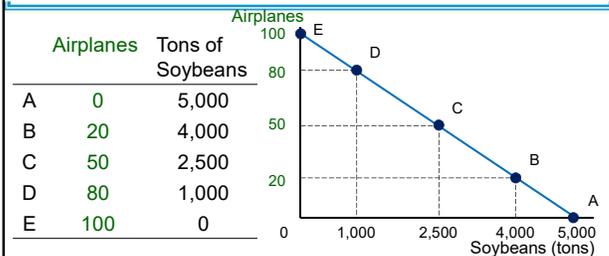
EXAMPLE 1: The PPF and output combinations

	Airplanes	Tons of Soybeans
A	0	5,000
B	20	4,000
C	50	2,500
D	80	1,000
E	100	0

- These are just a few of the possible production combinations.
- To increase the production of airplanes from 0 to 20, how many tons of soybeans do we have to give up?
 - Ans: 1,000 tons (drop from 5,000 to 4,000!)

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EXAMPLE 1: Drawing the PPF



- **Efficient:** the economy is getting all it can from the scarce resources available – points on the PPF (A, B, C, D, E)
- **Inefficient Levels of Production:** points inside the PPF
- **Not Feasible:** points outside the PPF

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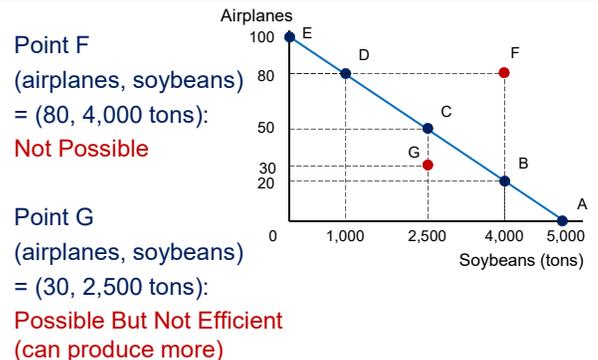
Active Learning 1: Points off the PPF

Use the graph from the previous example.

- Would it be possible for the economy to produce the following combinations of the two goods?
 - Point F: 80 airplanes and 4,000 tons of soybeans
 - Point G: 30 airplanes and 2,500 tons of soybeans

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Active Learning 1: Answers



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The PPF: What We Know So Far

- **Points on the PPF (like A – E): Efficient**
 - Efficient: all resources are fully utilized
- **Points under the PPF (like G): Possible**
 - Not efficient: some resources are underutilized (e.g., workers unemployed, factories idle)
- **Points above the PPF (like F)**
 - Not Possible

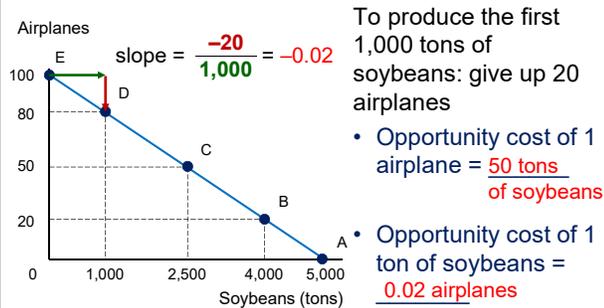
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Moving Along the PPF

- Involves shifting resources 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**
 - The opportunity cost of one good in terms of the other

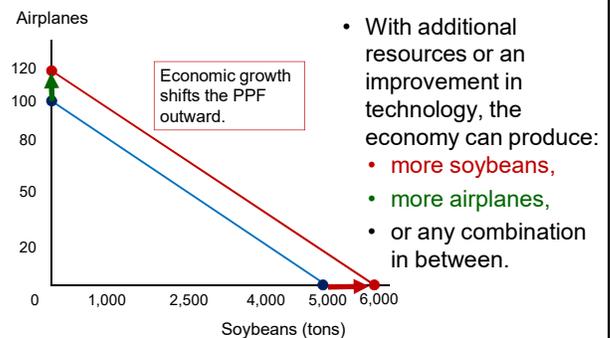
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EXAMPLE 2: The PPF and Opportunity Cost



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Economic Growth and the PPF



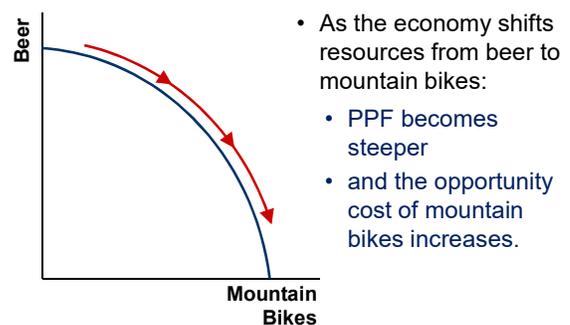
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The Shape of the PPF

- **Shape of the PPF**
 - Straight line: constant opportunity cost
 - Previous example: the opportunity cost of 1 airplane is 50 tons of soybeans
 - Bowed outward: increasing opportunity cost
 - As more units of a good are produced, we need to give up increasing amounts of the other good produced.

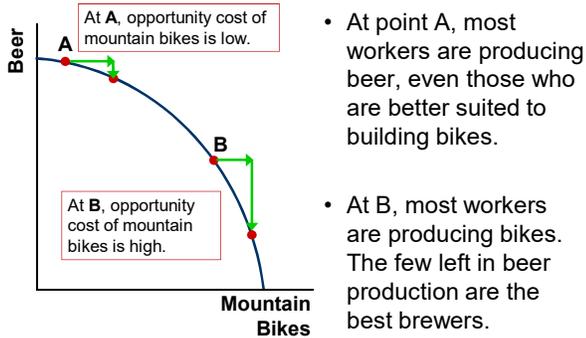
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Why the PPF Might Be Bowed Outward – 1



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Why the PPF Might Be Bowed Outward – 2



- At point A, most workers are producing beer, even those who are better suited to building bikes.
- At B, most workers are producing bikes. The few left in beer production are the best brewers.

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Why the PPF Might Be Bowed Outward

- The PPF is bowed outward when:
 - Different workers have different skills
 - There are different opportunity costs of producing one good in terms of the other
 - There is some other resource, or mix of resources, with varying opportunity costs
 - E.g., different types of land suited for different uses

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Micro- and Macroeconomics

- **Microeconomics**
 - The study of how households and firms make decisions and how they interact in markets
- **Macroeconomics**
 - The study of economy-wide phenomena, including inflation, unemployment, and economic growth
 - But the two theories are united with recent progress providing **micro-foundation** to macro

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The Economist as Policy Adviser

- **Positive Statements: Descriptive**
 - Attempt to describe the world as it is
 - Confirm or refute by examining evidence: “Minimum-wage laws cause unemployment.”
- **Normative Statements: Prescriptive**
 - Attempt to prescribe how the world should be: “The government should raise the minimum wage.”

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Active Learning 2: Positive or Normative?

Which of these statements are “positive” and which are “normative”? How can you tell the difference?

- Prices rise when the government increases the quantity of money.
- The government should print less money.
- A tax cut is needed to stimulate the economy.
- An increase in the price of burritos will cause an increase in consumer demand for movie streaming.

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Active Learning 2: Answers

- Prices rise when the government increases the quantity of money. *Positive—describes a relationship, could use data to confirm or refute.*
- The government should print less money. *Normative—this is a value judgment; cannot be confirmed or refuted.*
- A tax cut is needed to stimulate the economy. *Normative—another value judgment.*
- An increase in the price of burritos will cause an increase in consumer demand for movie streaming. *Positive—describes a relationship.*

Note: A statement need not be true to be positive.

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Economists in Washington – 1

- **Council of Economic Advisers**
 - Advises the president
 - Writes the annual Economic Report of the President
- **Office of Management and Budget**
 - Helps formulate spending plans and regulatory policies
- **Department of the Treasury**
 - Designs tax policy

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Economists in Washington – 2

- **Department of Labor**
 - Analyzes data on workers and those looking for work
 - Formulates labor-market policies
- **Economists at the Department of Justice**
 - Enforce the nation's antitrust laws
- **Congressional Budget Office**
 - Helps the Congress
- **The Federal Reserve**
 - Sets monetary policy

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Why Economists' Advice Is Not Always Followed

- **The president receives advice from:**
 - Economists
 - Communication advisers
 - Press advisers
 - Legislative affairs advisers
 - Political advisers
- **The president makes the decision.**

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Why Economists Disagree

- **Economists often give conflicting policy advice:**
 - Can disagree about the validity of alternative positive theories about the world
 - May have different values and, therefore, different normative views about what policy should try to accomplish

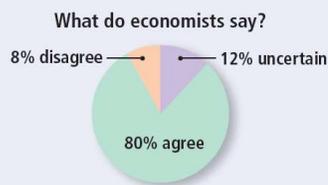
Yet, there are many propositions about which most economists agree.

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ASK THE EXPERTS

Ticket Resale

"Laws that limit the resale of tickets for entertainment and sports events make potential audience members for those events worse off on average."



Source: IGM Economic Experts Panel, April 16, 2012.

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Propositions About Which Most Economists Agree – 1

- A ceiling on rents reduces the quantity and quality of housing available. (93%)
- Tariffs and import quotas usually reduce general economic welfare. (93%)
- The United States should not restrict employers from outsourcing work to foreign countries. (90%)
- The United States should eliminate agricultural subsidies. (85%)
- Local and state governments should eliminate subsidies to professional sports franchises. (85%)

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Propositions About Which Most Economists Agree – 2

- Cash payments increase the welfare of recipients to a greater degree than do transfers in-kind of equal cash value. (84%)
- A large federal budget deficit has an adverse effect on the economy. (83%)
- The United States should not ban genetically modified crops. (82%)
- A minimum wage increases unemployment among young and unskilled workers. (79%)
- Government subsidies on ethanol in the United States should be reduced or eliminated. (78%)

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THINK-PAIR-SHARE – 1

You are watching PBS NewsHour. The first focus segment is a discussion of the pros and cons of free trade. For balance, there are two economists present—one in support of free trade and one opposed.

Your roommate says, “Those economists have no idea what’s going on. They can’t agree on anything. One says free trade makes us rich. The other says it will drive us into poverty. If the experts don’t know, how is the average person ever going to know whether free trade is best?”

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THINK-PAIR-SHARE – 2

- Can you give your roommate any insight into why economists might disagree on this issue?
- Suppose you discover that 93 percent of economists believe that free trade is generally best (which is the greatest agreement on any single issue).

Could you now give a more precise answer as to why economists might disagree on this issue?

- What if you later discovered that the economist opposed to free trade worked for a labor union.

Would that help you explain why there appears to be a difference of opinion on this issue?

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CHAPTER IN A NUTSHELL

- **Economists are scientists.**
 - Make appropriate assumptions and build simplified models
 - Use the circular-flow diagram and the production possibilities frontier
- **Microeconomists** study decision making by households and firms and their interactions in the marketplace.
- **Macroeconomists** study the forces and trends that affect the economy as a whole.

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CHAPTER IN A NUTSHELL

- A **positive statement** is an assertion about how the world is.
- A **normative statement** is an assertion about how the world ought to be.
- As policy advisers, economists make normative statements.
- Economists sometimes offer conflicting advice.
 - Differences in scientific judgments
 - Differences in values

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Chapter 2: Thinking Like An Economist

- ▶ See how Economists think
- ▶ Key Idea:
 - ▶ Circular Flow Diagram
 - ▶ Production Possibility Frontier
- ▶ Suggested Homework:
 - ▶ Mankiw, Chap. 2, Problem 3, 4

2020/9/18

Thinking Like An Economist

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