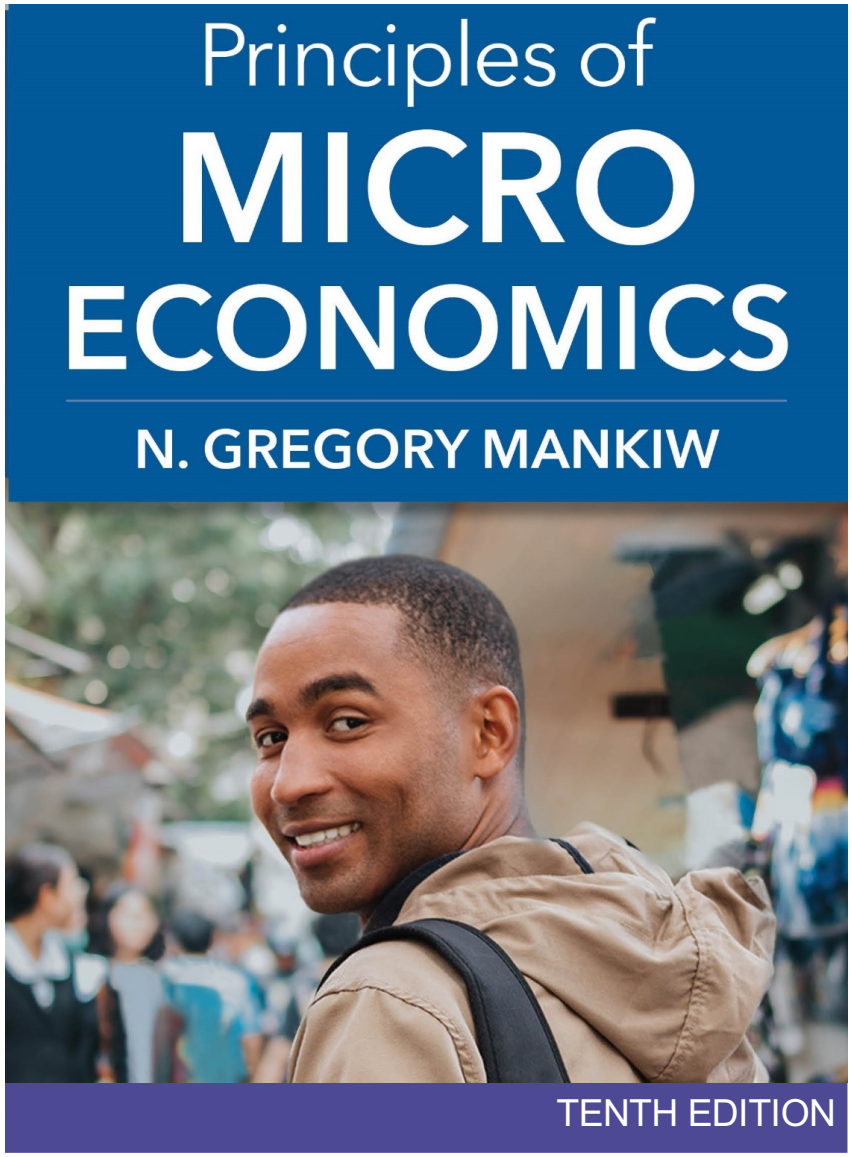

Chapter

2

Thinking Like an Economist

Interactive PowerPoint Slides by:
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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 statements?

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

The Economist as a Scientist – 2

- The scientific method in economics:
  - Observation: collect and analyze data
  - Develop a theory based on the observed data
  - More observation: evaluate the theory
  - Cannot use laboratory experiments
  - Pay close attention to the natural experiments offered by history

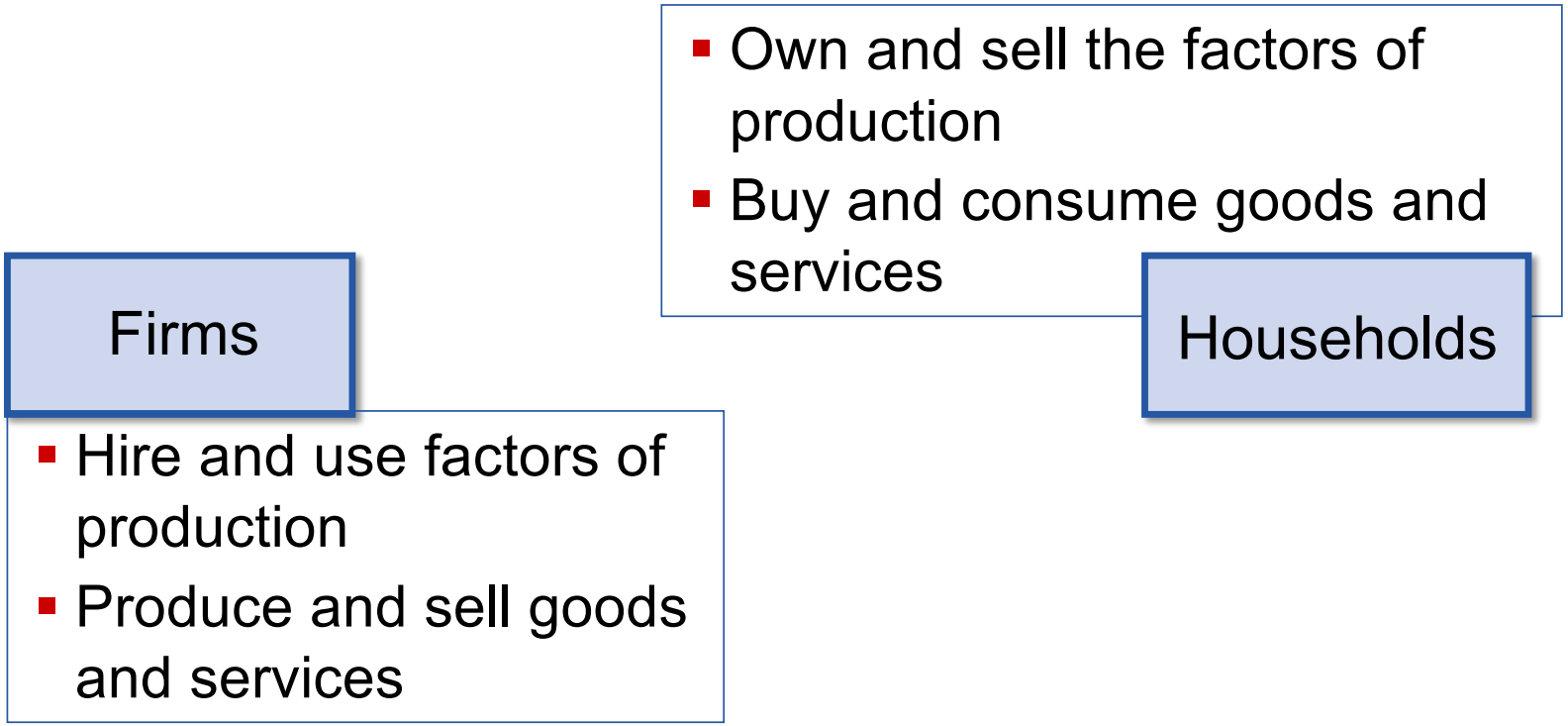
The Economist as a Scientist – 3

- Economists make assumptions
  - Simplify the complex world and make it easier to understand
- Economists use models
  - Omit many details to allow us to see what is truly important and are built with assumptions
  - Simplify reality to improve our understanding of it
  - All models are subject to revision

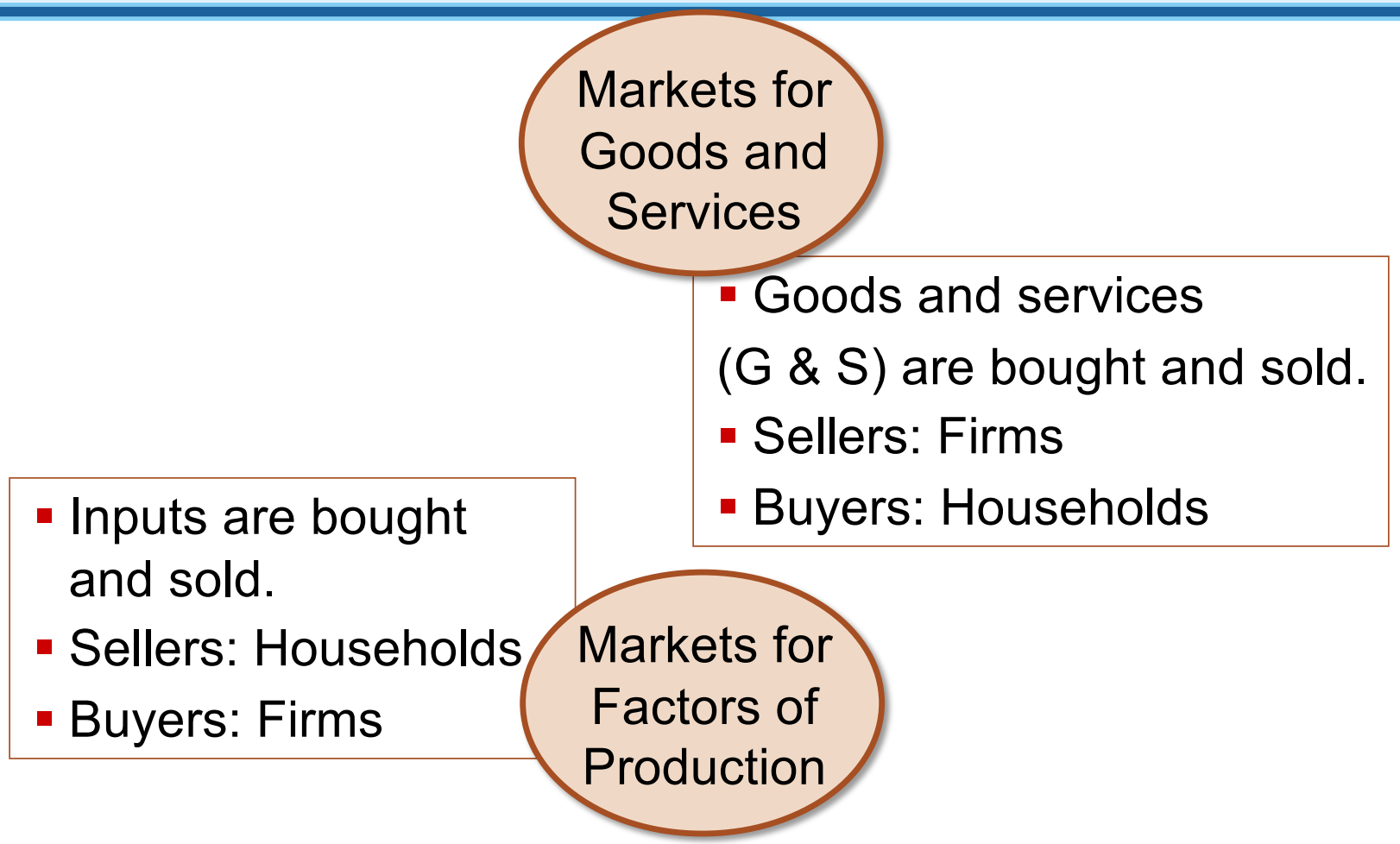
The Circular-Flow Diagram

- 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)

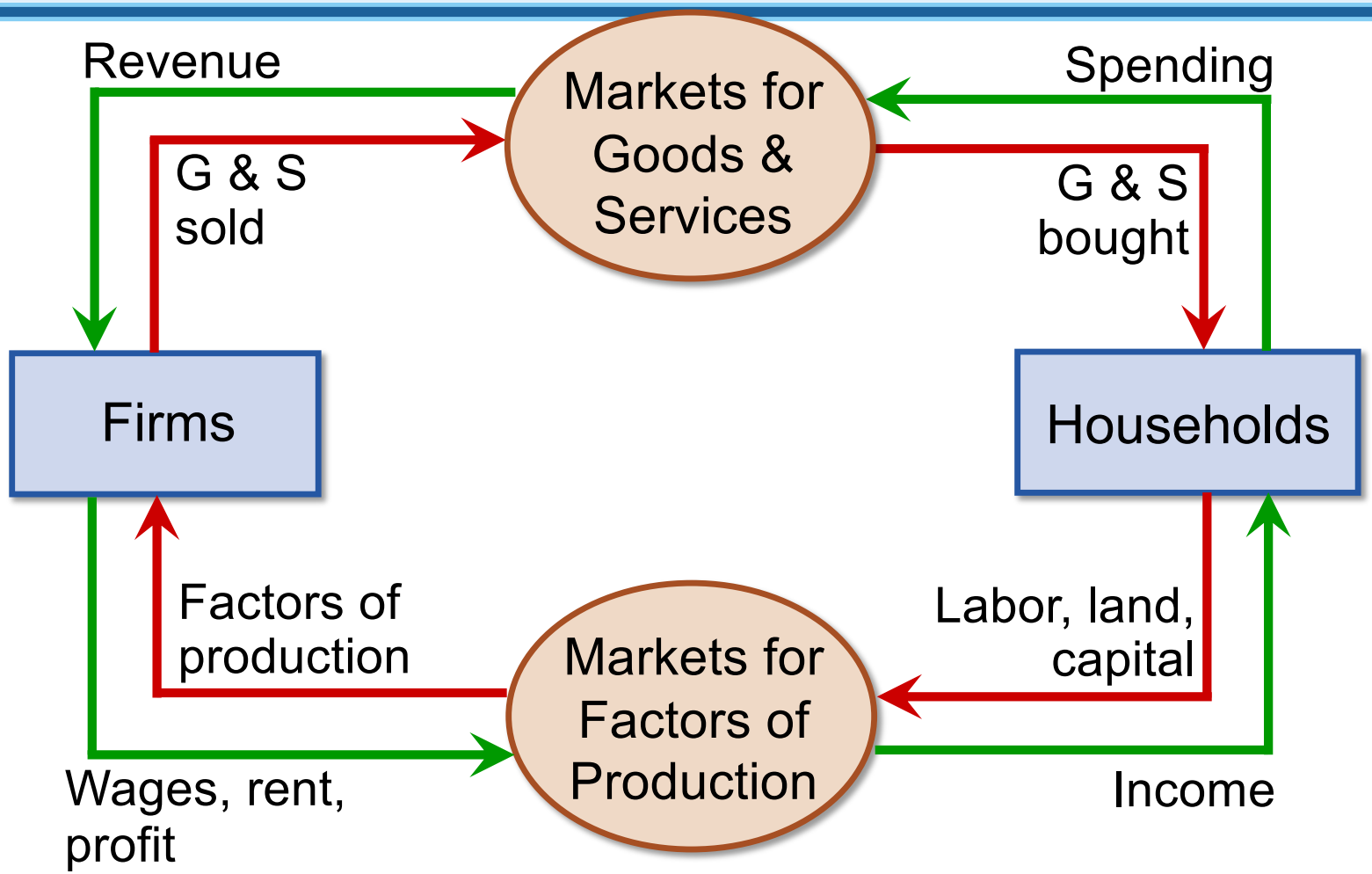
The circular flow diagram – 1



The circular flow diagram – 2



The circular flow diagram – 3



The Production Possibilities Frontier (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

EXAMPLE 1: The PPF

- Assume the following:
  - A country produces only two goods: airplanes and soybeans.
  - It has a fixed amount of resources (labor).
  - And 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

EXAMPLE 1: The PPF and output combinations

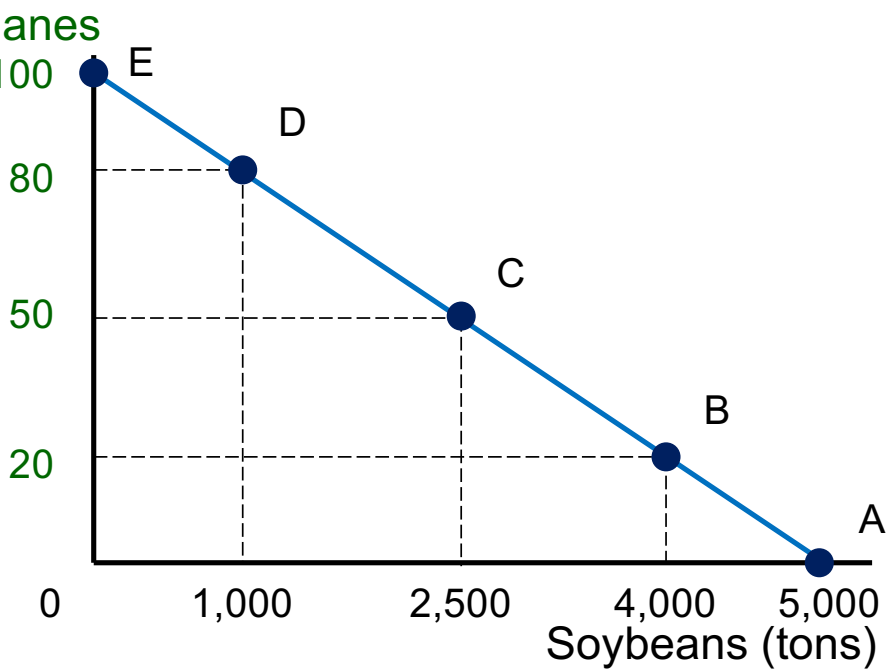
	Airplanes		Tons of Soybeans
A	0	and	5,000
B	20	and	4,000
C	50	and	2,500
D	80	and	1,000
E	100	and	0

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?

EXAMPLE 1: Drawing the PPF

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



- 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

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

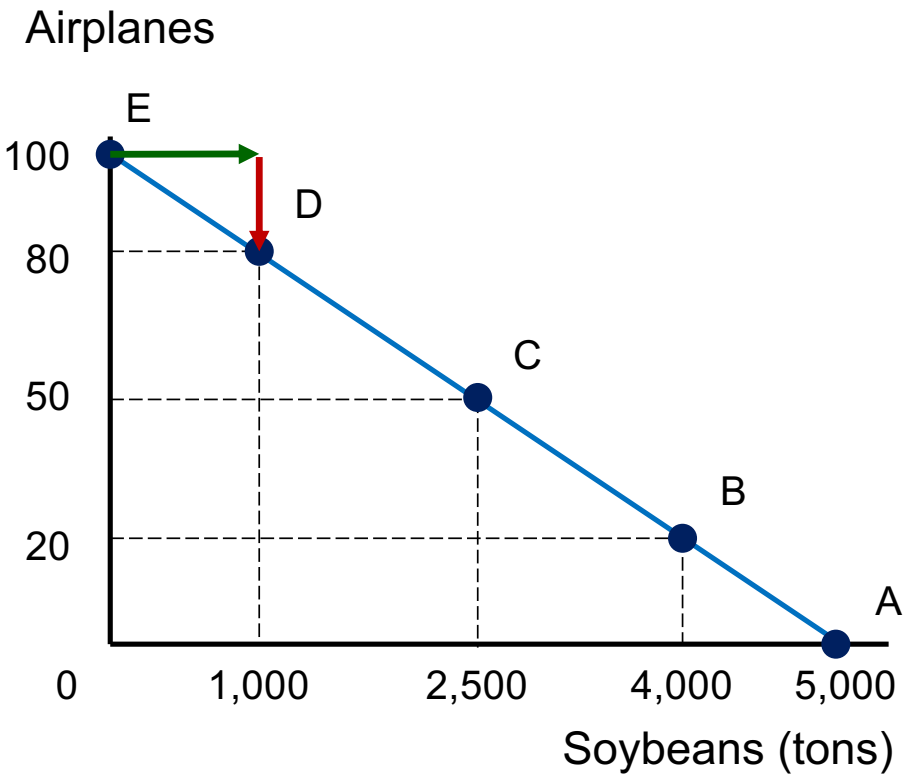
The PPF: What We Know So Far

- All 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

Moving Along the PPF

- Moving along a 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:
  - Is the opportunity cost of one good in terms of the other

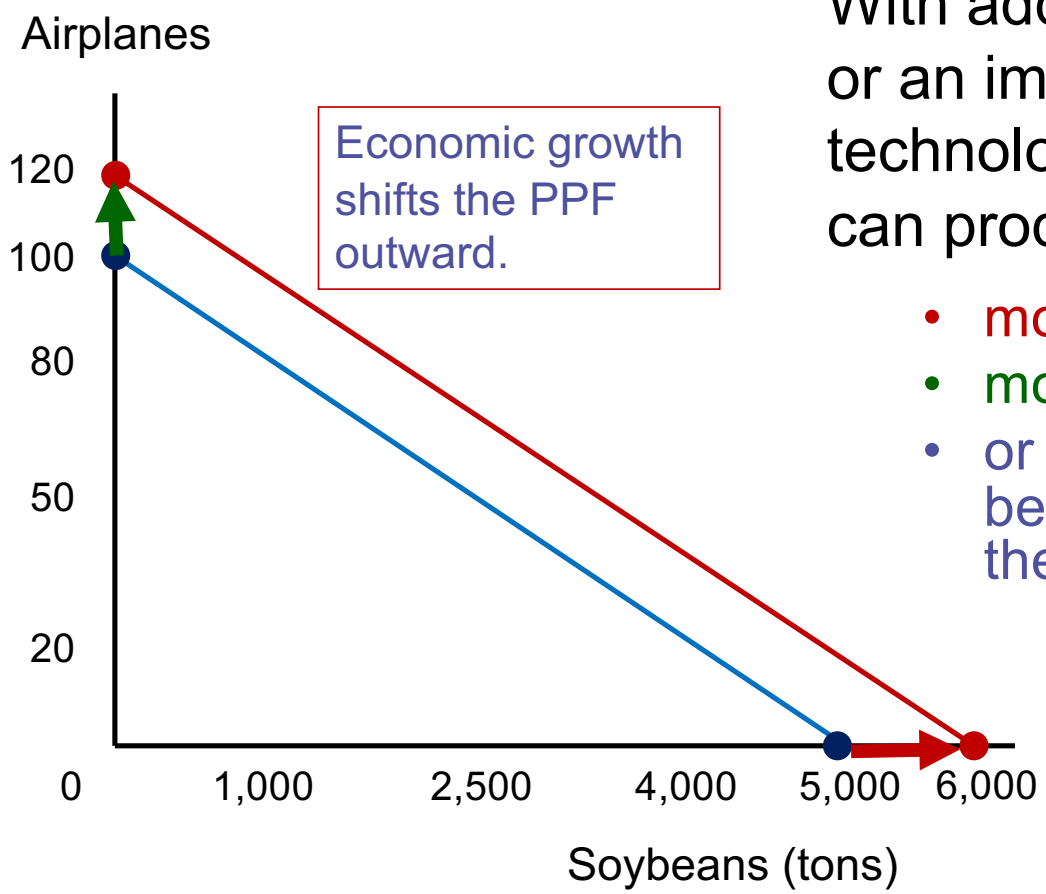
EXAMPLE 2: The PPF and opportunity cost



To produce the first 1,000 tons of soybeans: give up 20 airplanes

- Opportunity cost of 1 airplane = _____
- Opportunity cost of 1 ton of soybeans = _____

Economic growth and the PPF



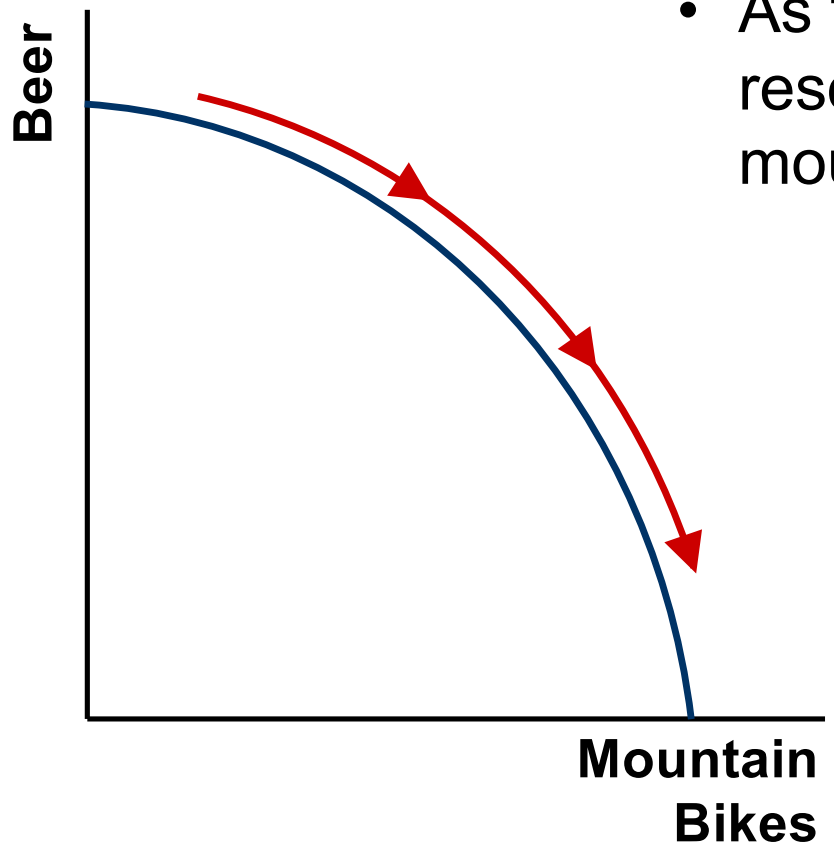
With additional resources or an improvement in technology, the economy can produce:

- more soybeans,
- more airplanes,
- or any combination in between (points on the new, red PPF).

The Shape of the PPF

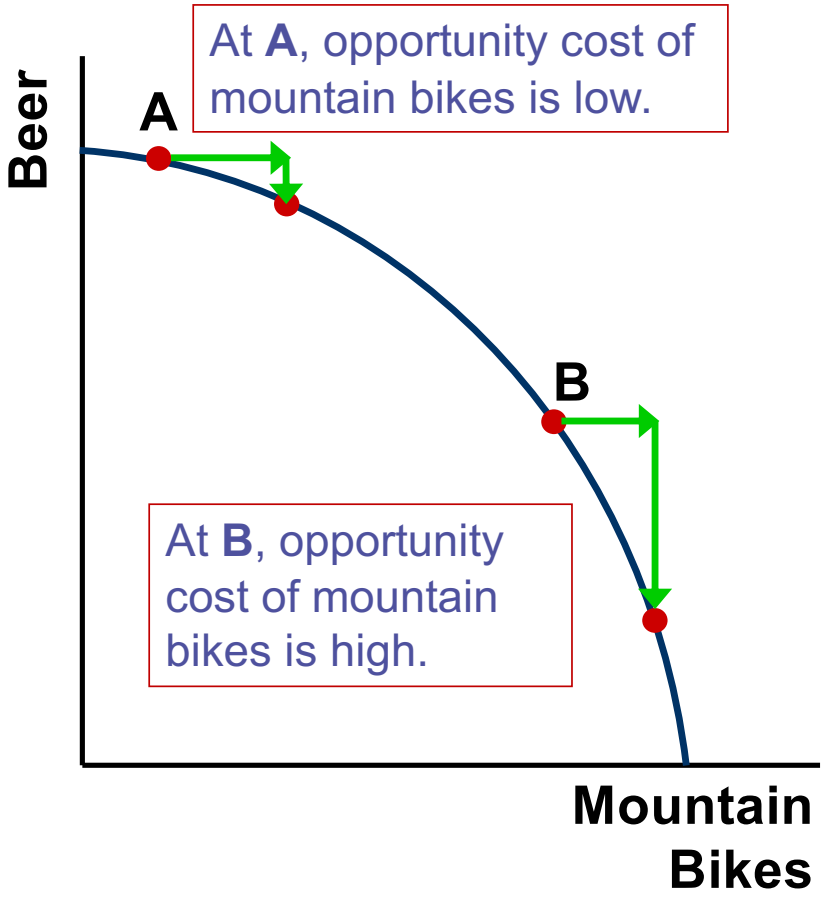
- Straight line PPF: constant opportunity cost
  - Previous example: the opportunity cost of 1 airplane is 50 tons of soybeans
- Bowed outward PPF: increasing opportunity cost
  - As more units of a good are produced, we need to give up increasing amounts of the other good produced.

Why the PPF might be bowed outward – 1



- As the economy shifts resources from beer to mountain bikes:
  - PPF becomes steeper
  - and the opportunity cost of mountain bikes increases.

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.

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

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

The Economist as Policy Adviser

- Economists are scientists
  - Explain the causes of economic events
  - Use positive statements
- Economists are policy advisers
  - Recommend policies to improve economic outcomes
    - Understanding of what's happening
    - Value judgments about what ought to be done (use normative statements)

Positive vs. Normative Statements

- 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."

Active Learning 2: Positive or normative?

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

A. Prices rise when the government increases the quantity of money.

B. The government should print less money.

C. A tax cut is needed to stimulate the economy.

D. An increase in the price of burritos will cause an increase in consumer demand for movie streaming.

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.

CHAPTER IN A NUTSHELL

- A positive statement is an assertion about how the world is. (economists are scientists)
- A normative statement is an assertion about how the world ought to be. (policy advisers)