

CHAPTER 2
Economic Models:
Trade-offs and Trade

What you will learn in this chapter:

Why models?

- simplified representations of reality
 - **production possibility frontier**
 - **comparative advantage**
 - **circular-flow diagram**

Positive economics vs. normative economics

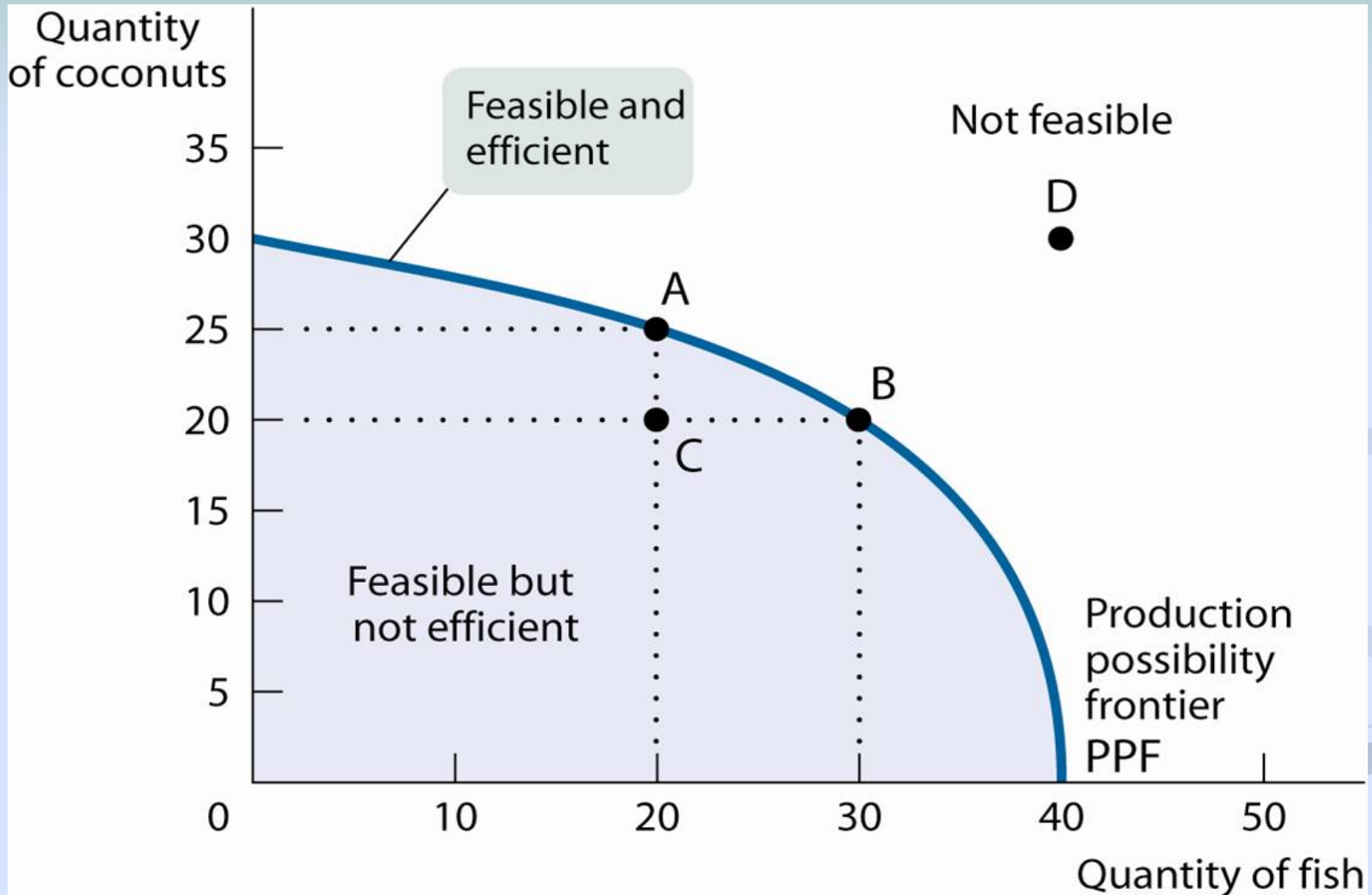
When economists agree and why they sometimes disagree.

Models in Economics:

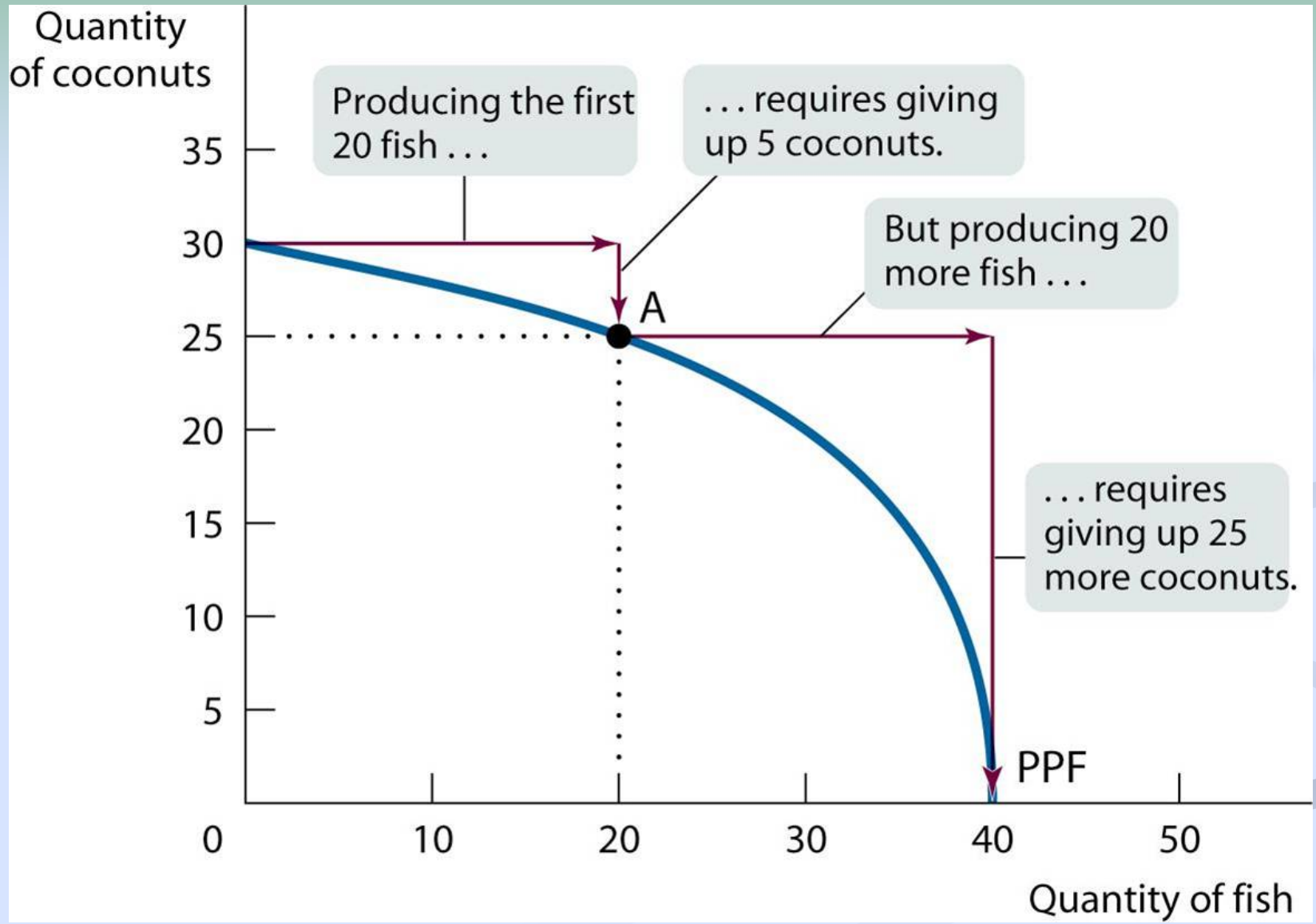
A **model** is a simplified representation of a real situation that is used to better understand real-life situations.

The **production possibility frontier (PPF)** illustrates the trade-offs facing an economy that produces only two goods. It shows the maximum quantity of one good that can be produced for any given production of the other.

Tom's Trade-offs: The Production Possibility Frontier

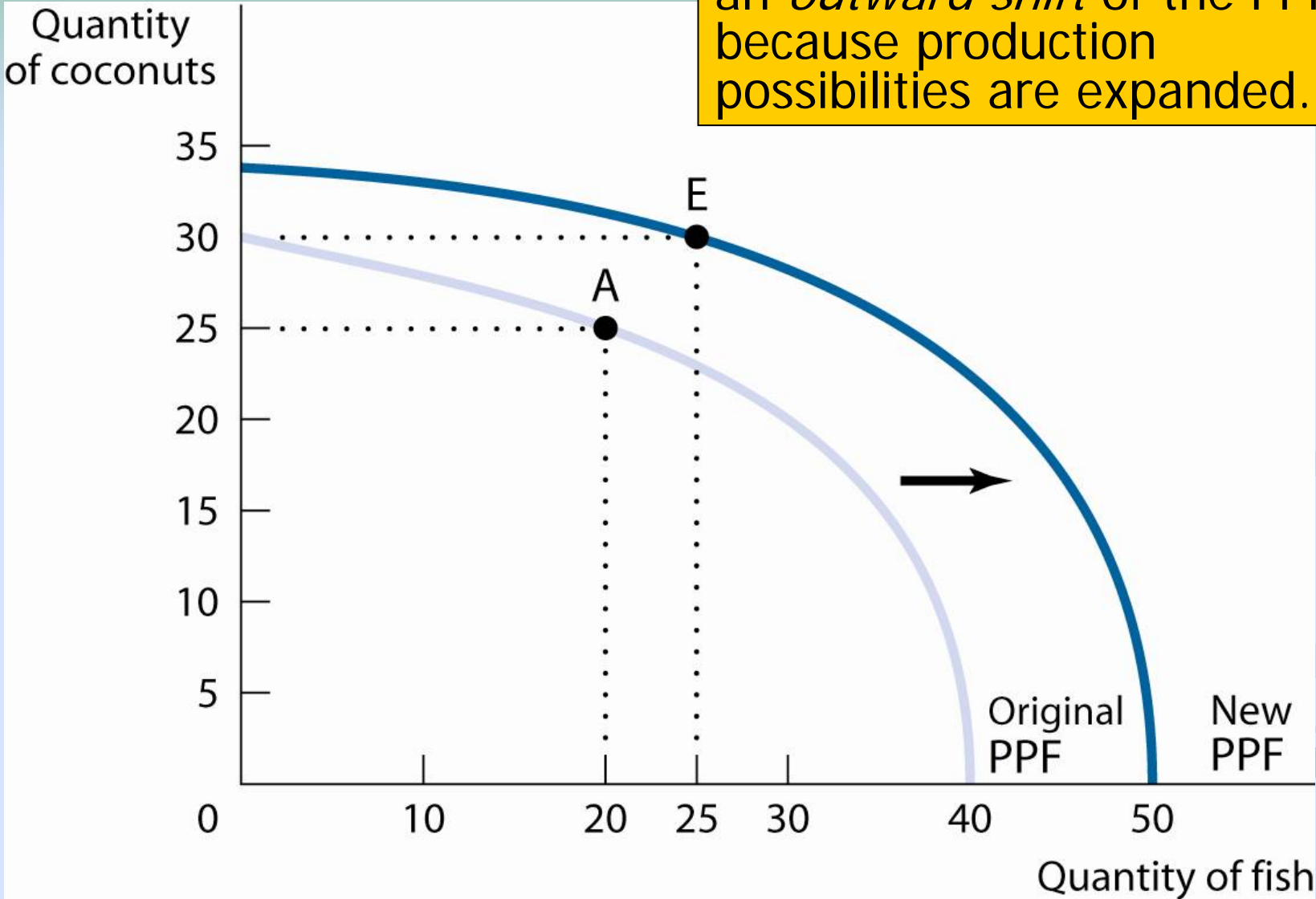


Increasing Opportunity Cost



Economic Growth

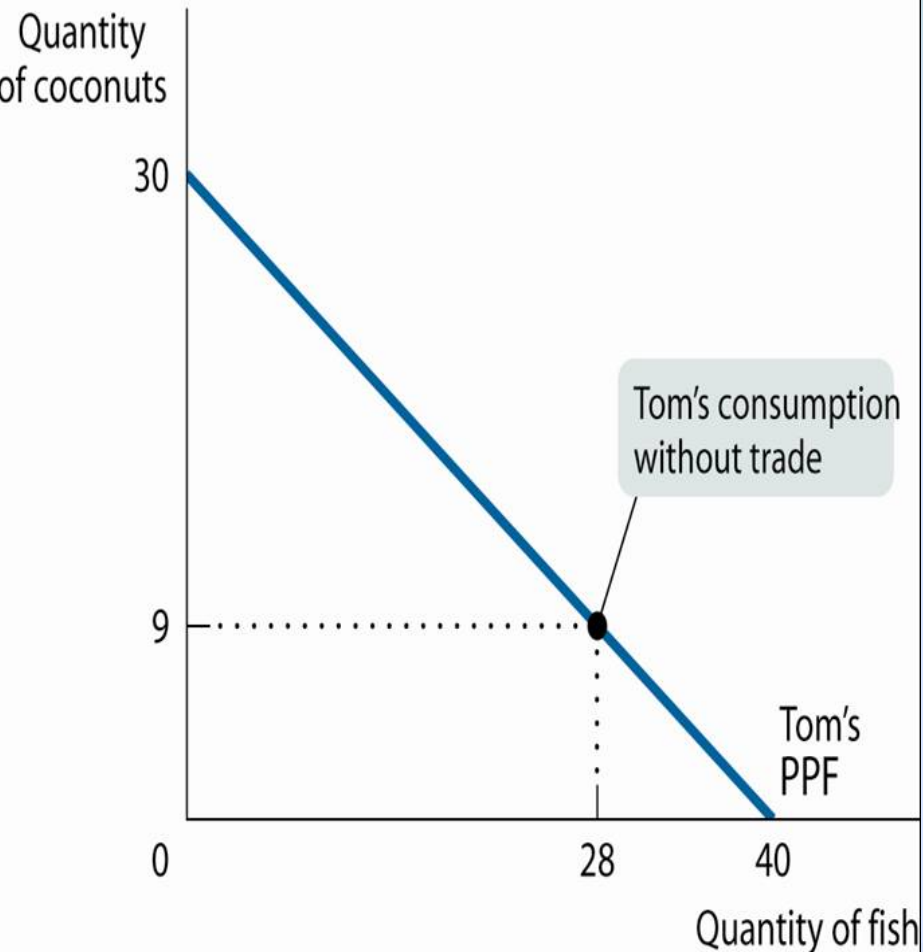
Economic growth results in an *outward shift* of the PPF because production possibilities are expanded.



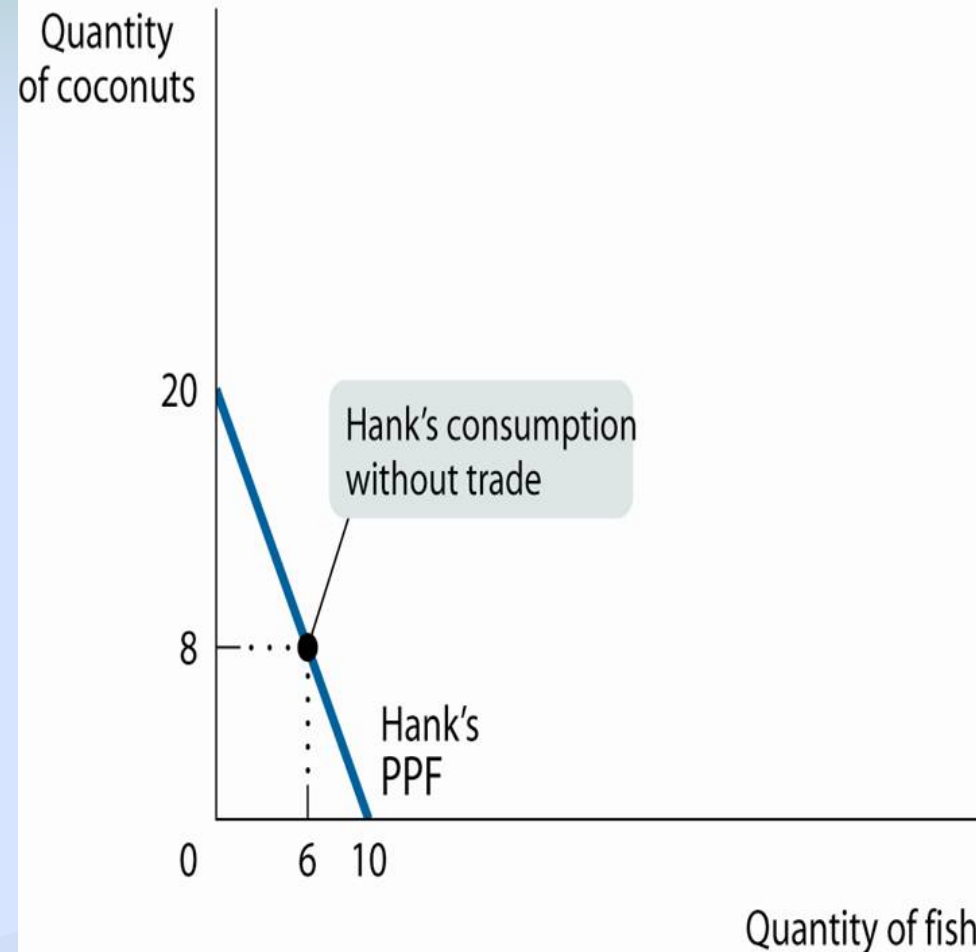
Comparative Advantage and Gains from Trade

Ex.: Tom and Hank

(a) Tom's Production Possibilities



(b) Hank's Production Possibilities



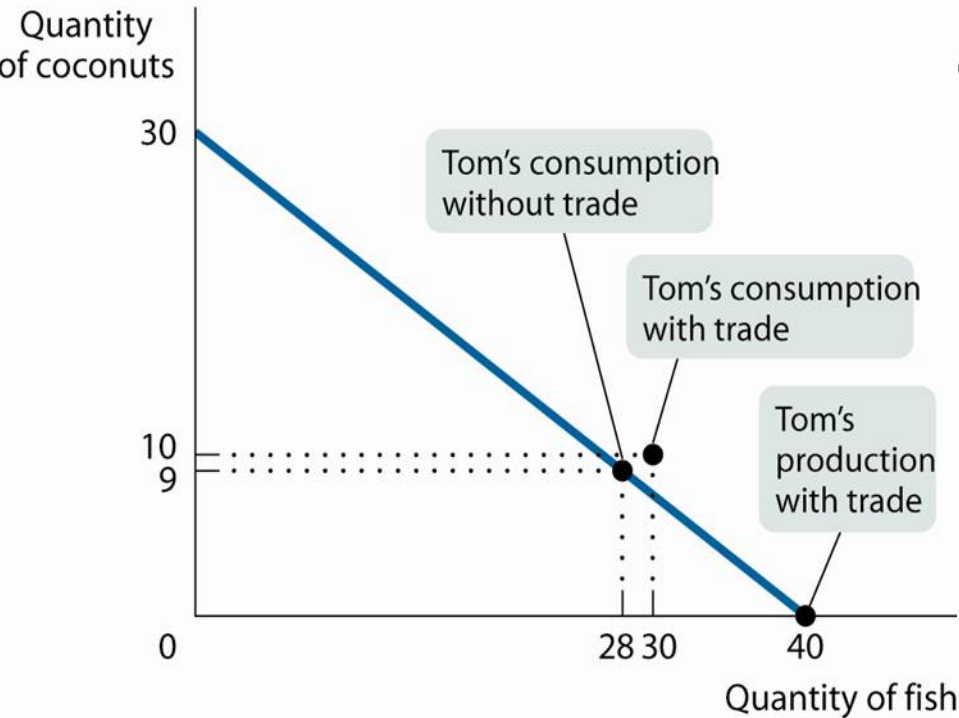
Tom and Hank's Opportunity Costs of Fish and Coconuts

	Tom's Opportunity Cost	Hank's Opportunity Cost
One fish	3/4 coconut	2 coconuts
One coconut	4/3 fish	1/2 fish

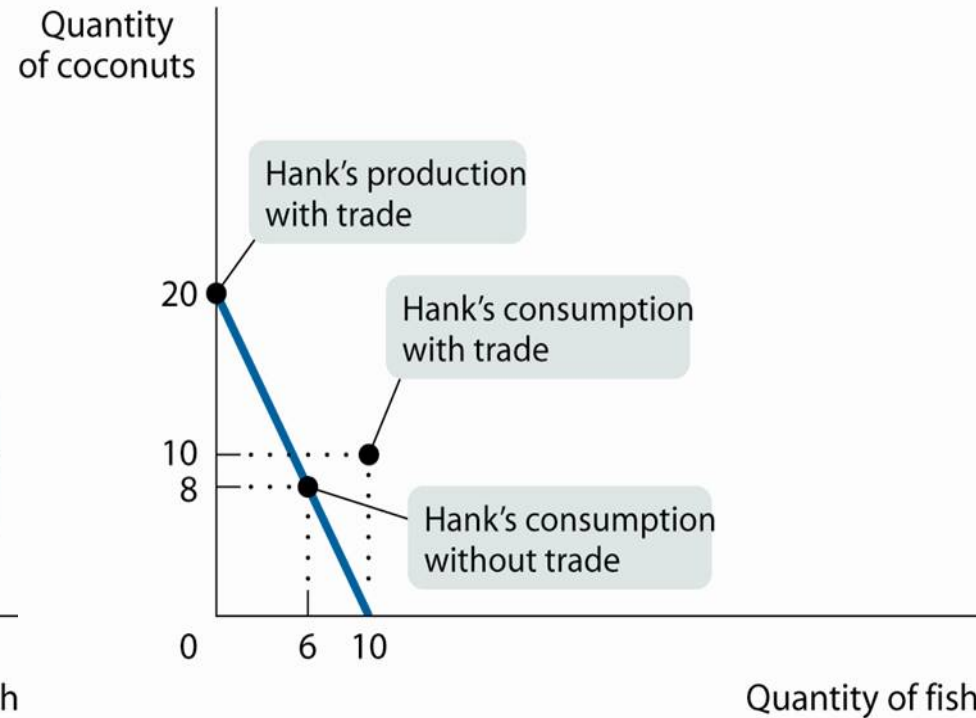
Both castaways are better off when they each specialize in what they are good at and trade.

Specialize and Trade

(a) Tom's Production and Consumption



(b) Hank's Production and Consumption



		Without Trade		With Trade		Gains from Trade
		Production	Consumption	Production	Consumption	
Tom	Fish	28	28	40	30	+2
	Coconuts	9	9	0	10	+1
Hank	Fish	6	6	0	10	+4
	Coconuts	8	8	20	10	+2

Comparative vs. absolute advantage

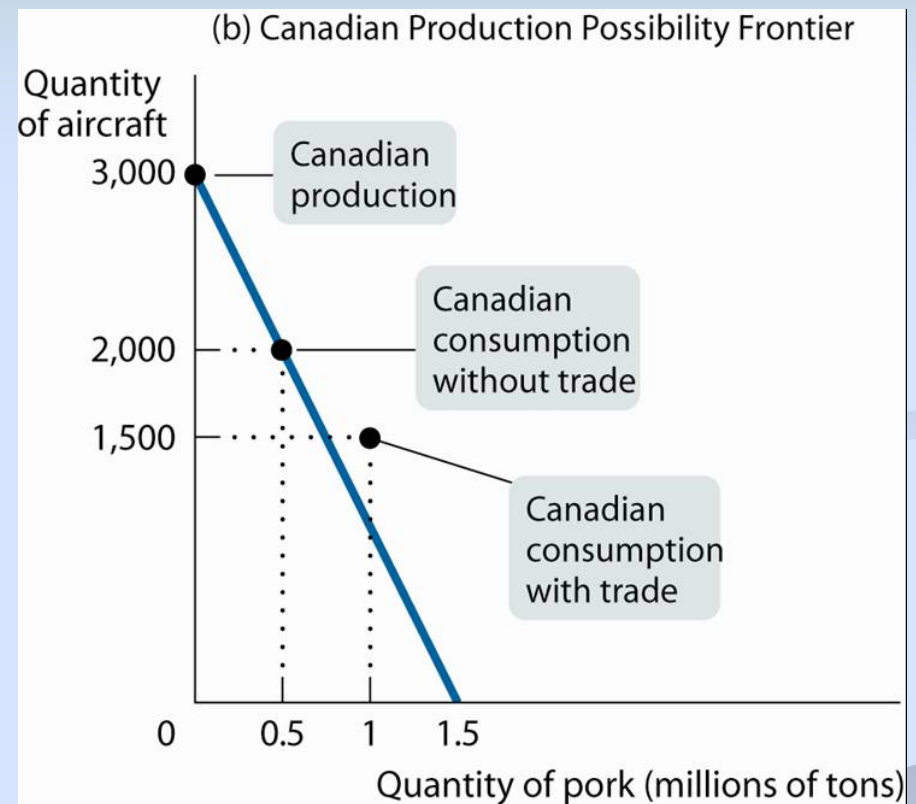
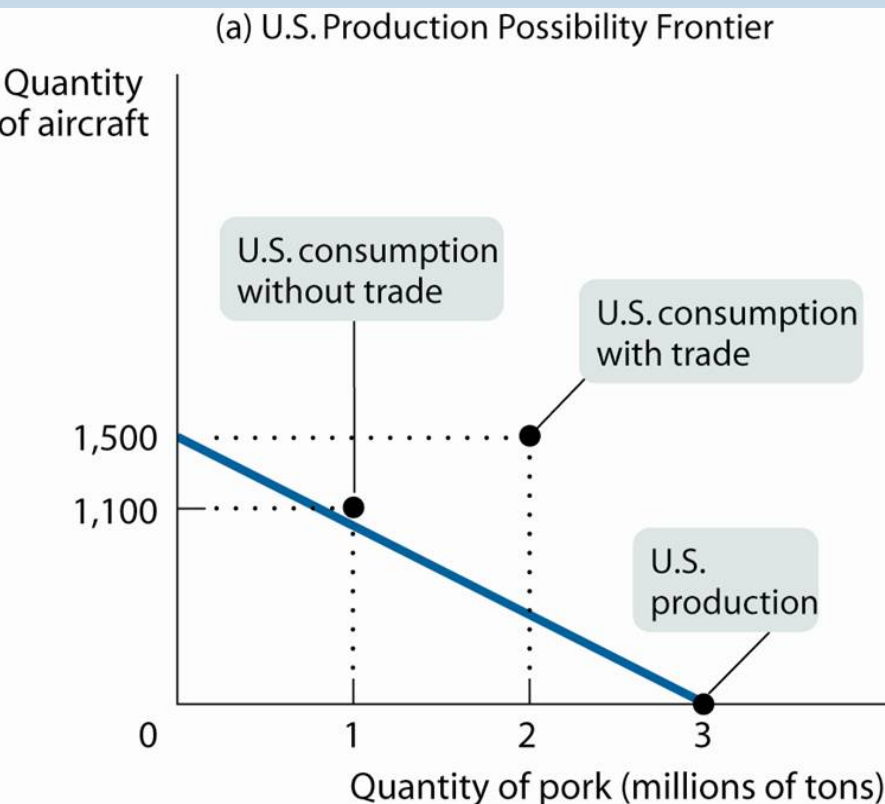
Comparative advantage: the opportunity cost of producing the good is lower for that individual than for other people.

Absolute advantage: if he or she can do it better than other people.

Careful: Don't confuse comparative advantage with absolute advantage!

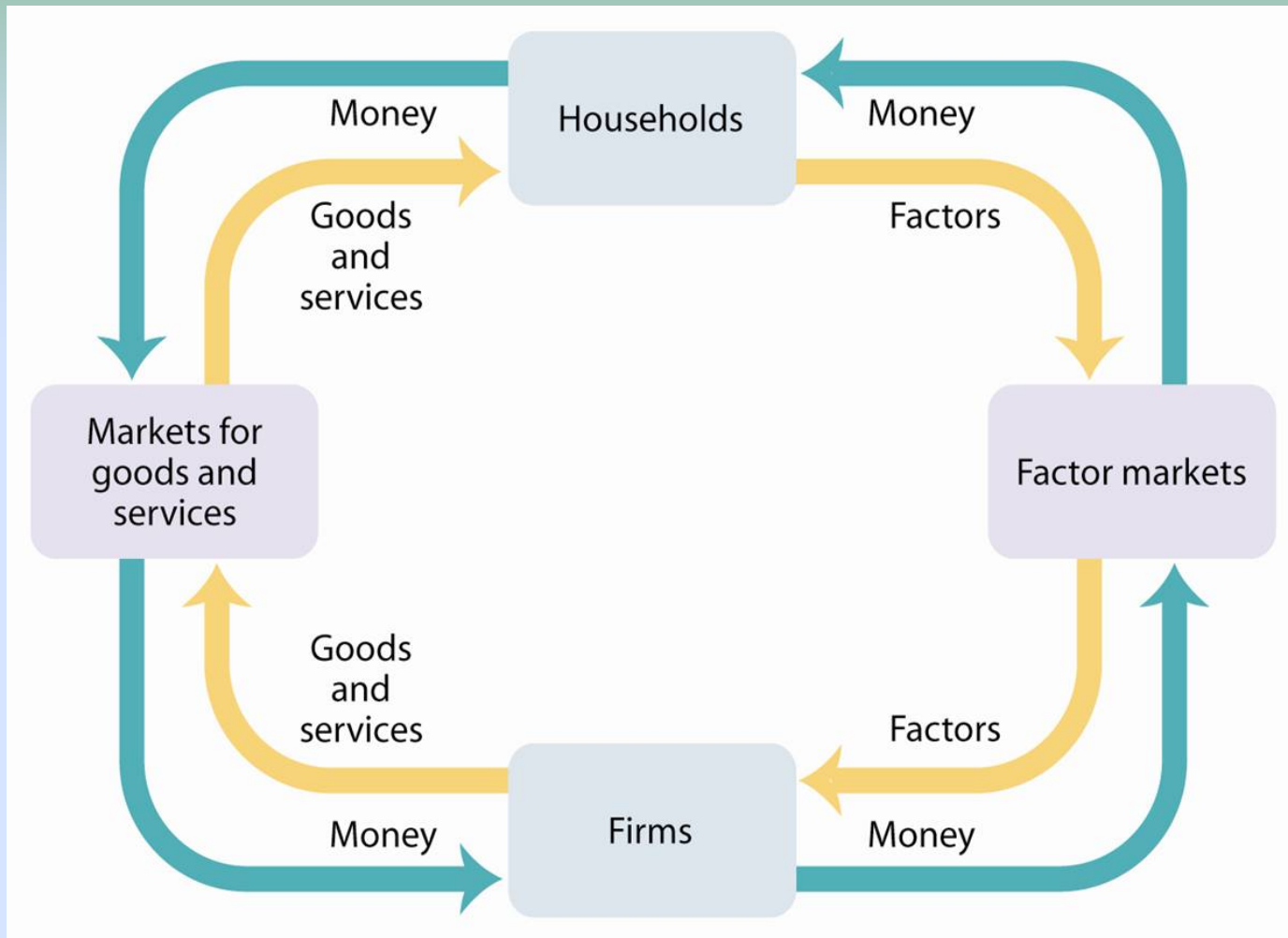
Comparative Advantage and International Trade

Ex.: U.S. vs. Canadian Economy



The U.S. and Canada can both achieve mutual gains from trade.

Transactions: The Circular-Flow Diagram



The **circular-flow diagram** is a model that represents the transactions in an economy by flows around a circle.

Circular-Flow of Economic Activities

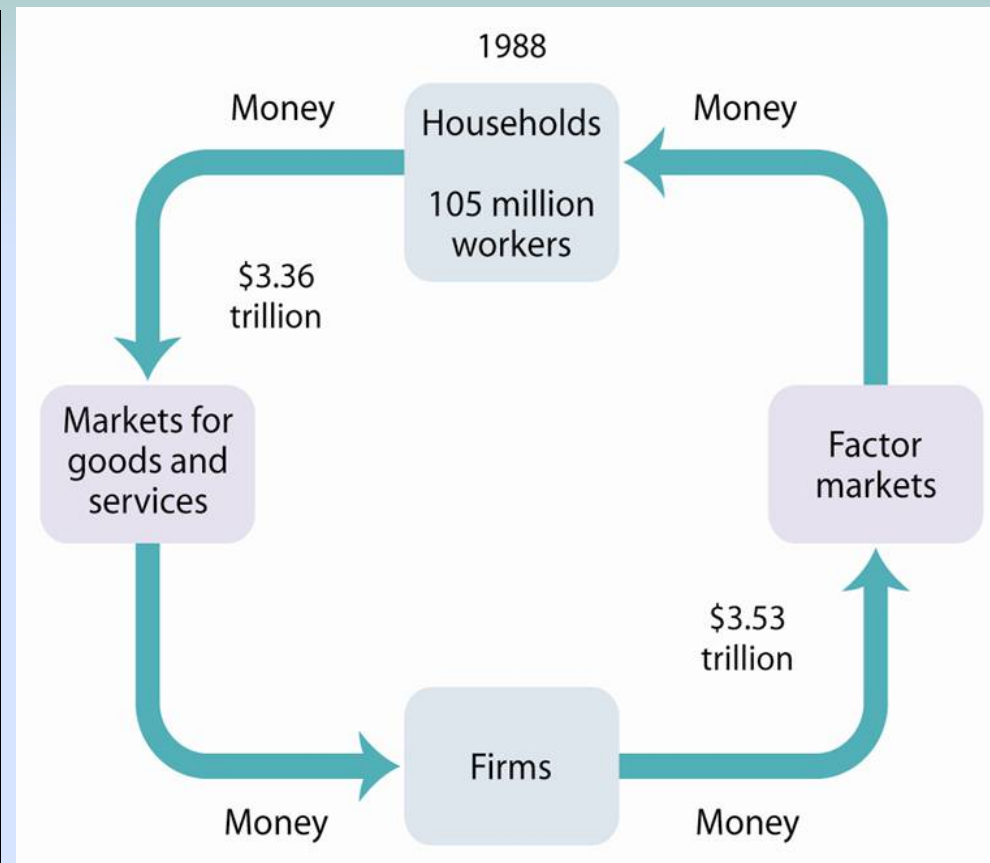
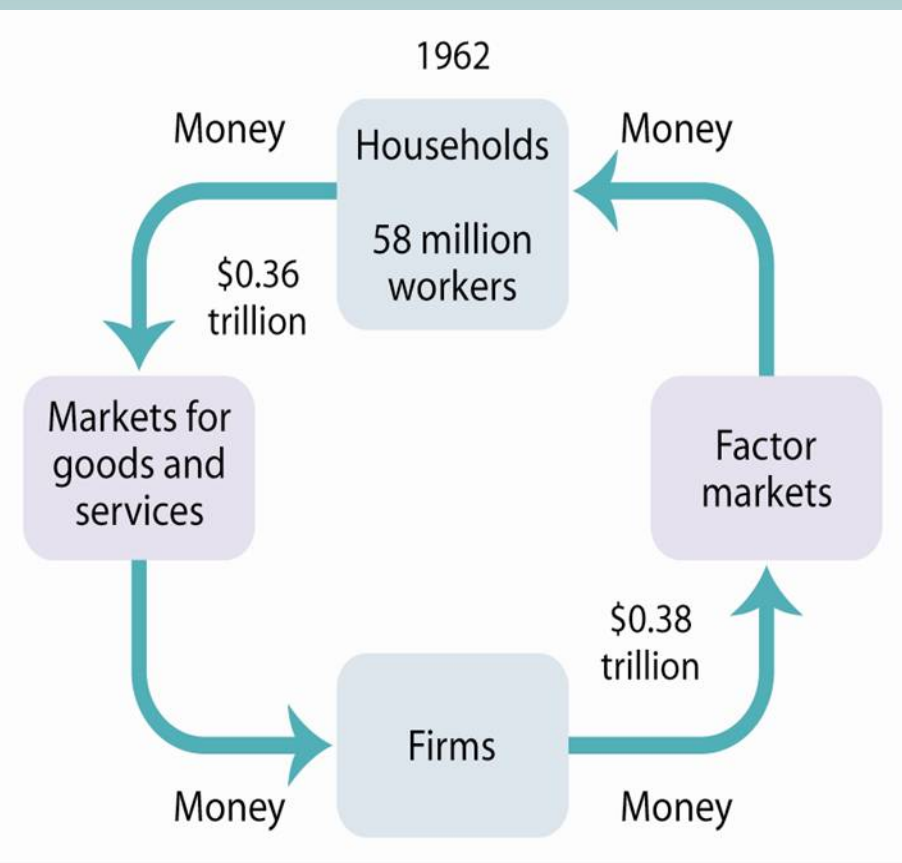
Economic Agents:

- **Households**
- **Firms**

Where they interact:

- **Markets for goods and services**
- **Markets for factors of production**

Growth in the U.S. Economy from 1962 to 1988



Using Models / Why economist (dis)agree?

- **Positive economics**
- **Normative economics**

A **forecast** is a simple prediction of the future.

There are two main reasons economists disagree:

- they may disagree about which simplifications to make in a model
- they may disagree about values

The End of Chapter 2

Coming attraction:

Chapter 3: Supply and Demand

**Do Chapter 2 Appendix before
then!**

Chapter 2 Appendix:

Graphs in Economics

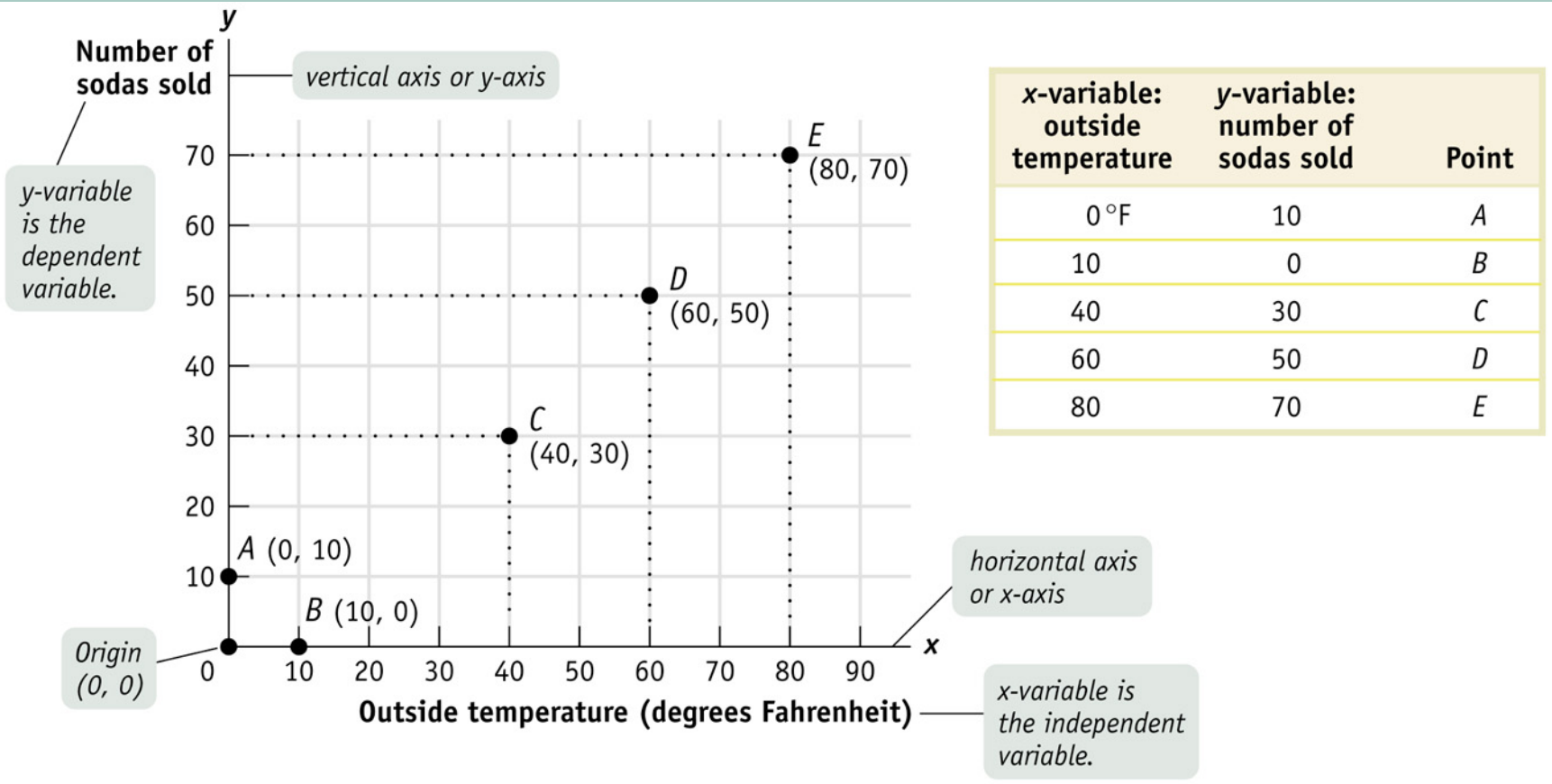


Figure 2A-1 Plotting Points on a Two-Variable Graph

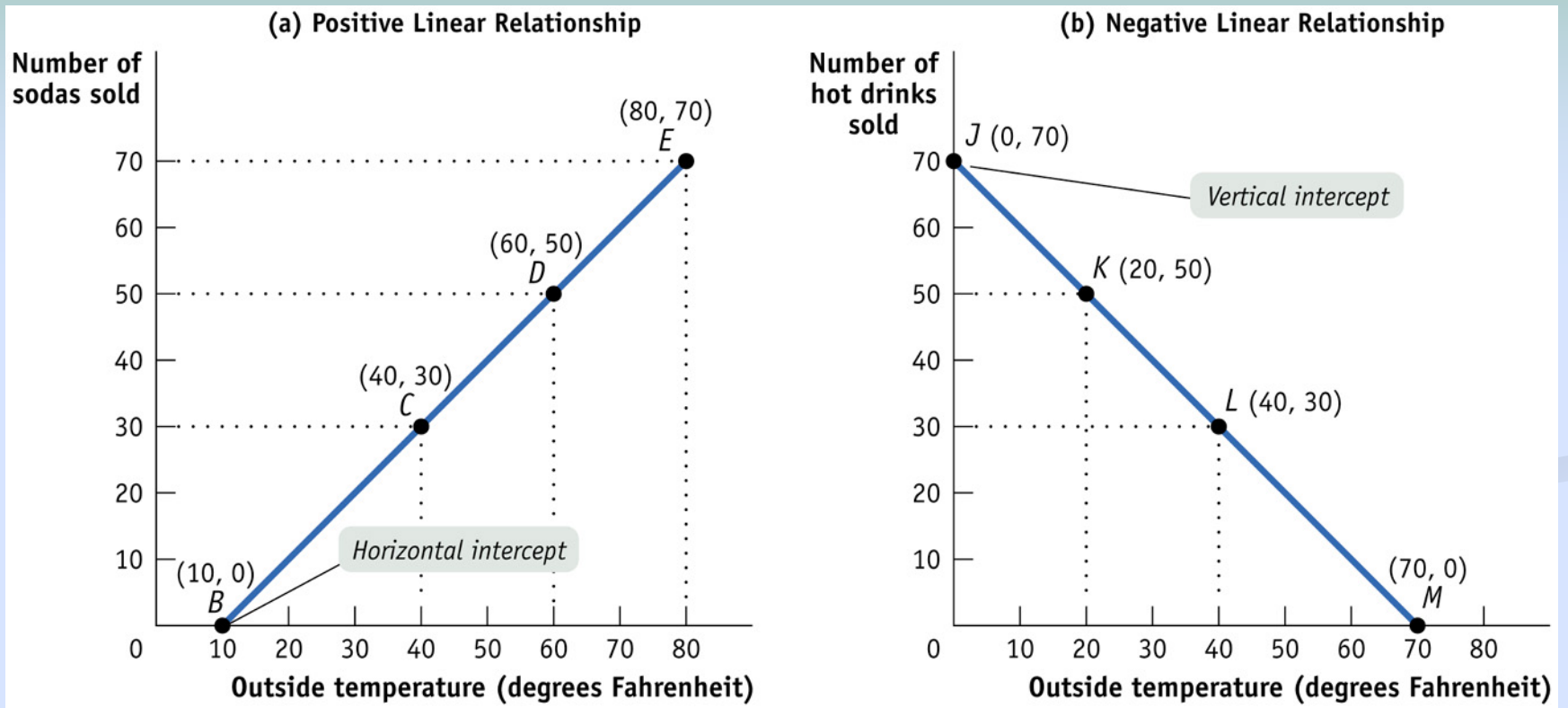


Figure 2A-2 Drawing Curves

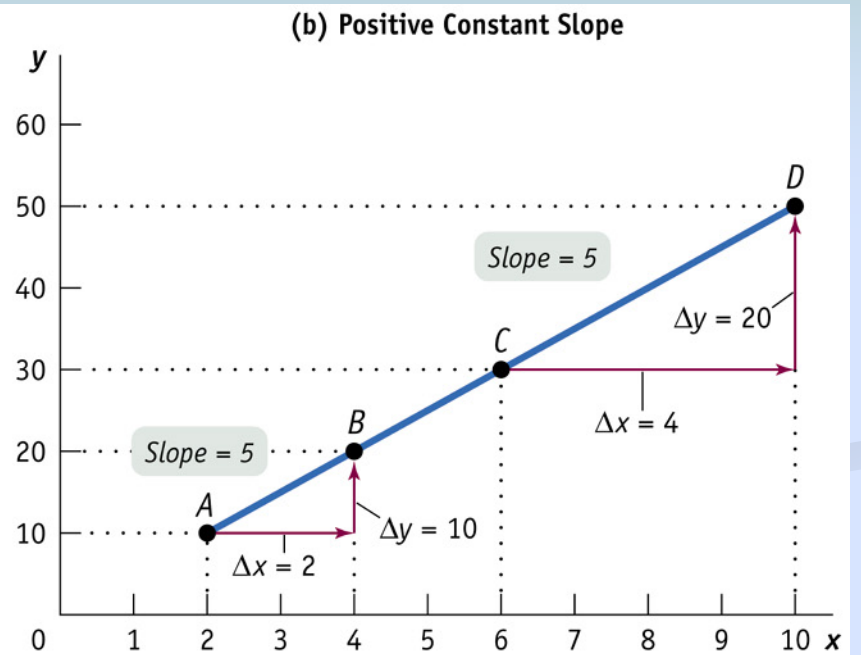
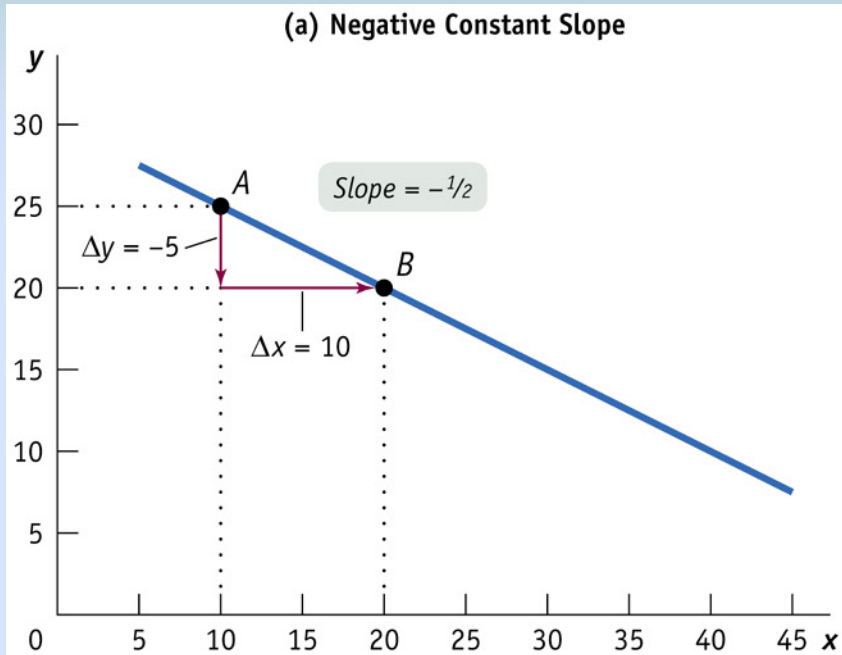


Figure 2A-3 Calculating the Slope

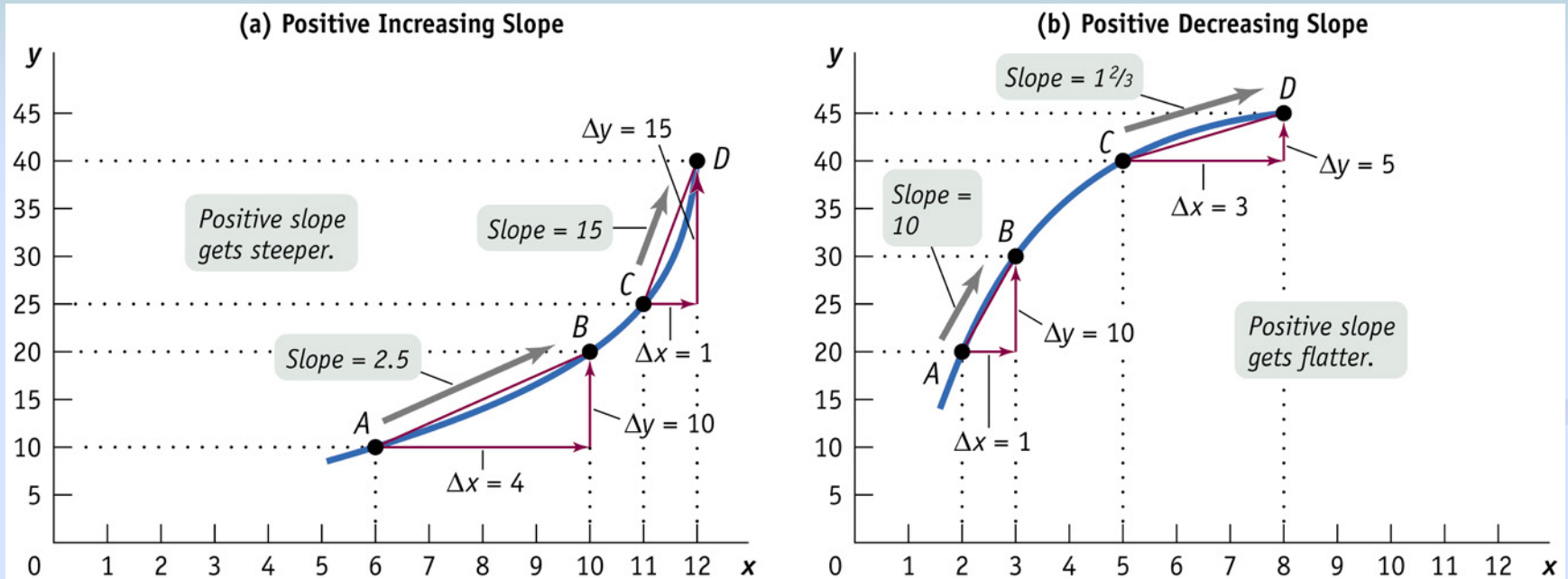


Figure 2A-4 (a-b) Nonlinear Curves

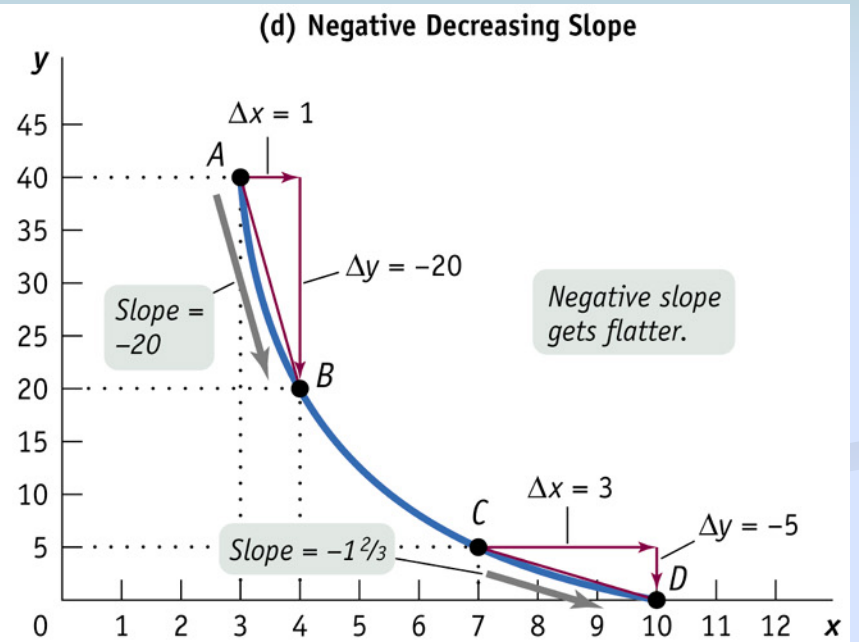
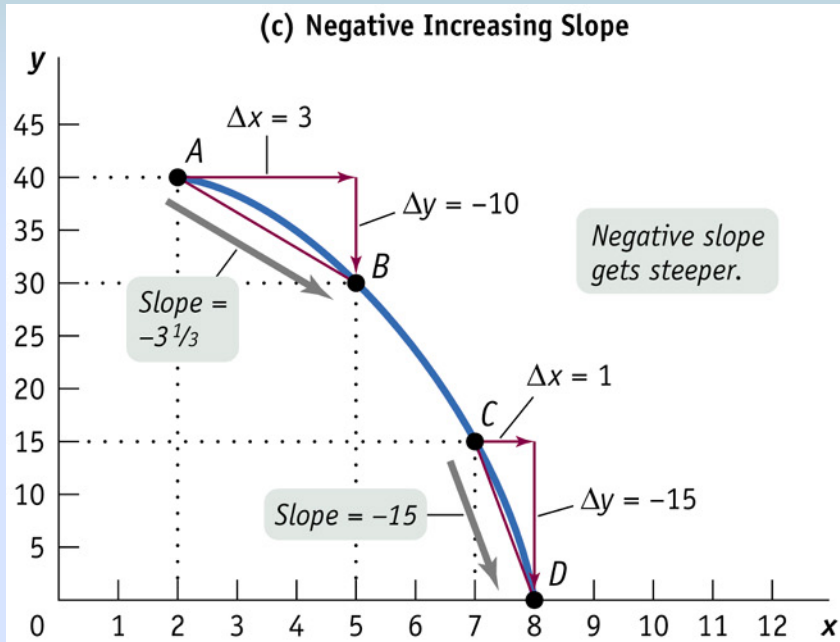


Figure 2A-4 (c-d) Nonlinear Curves

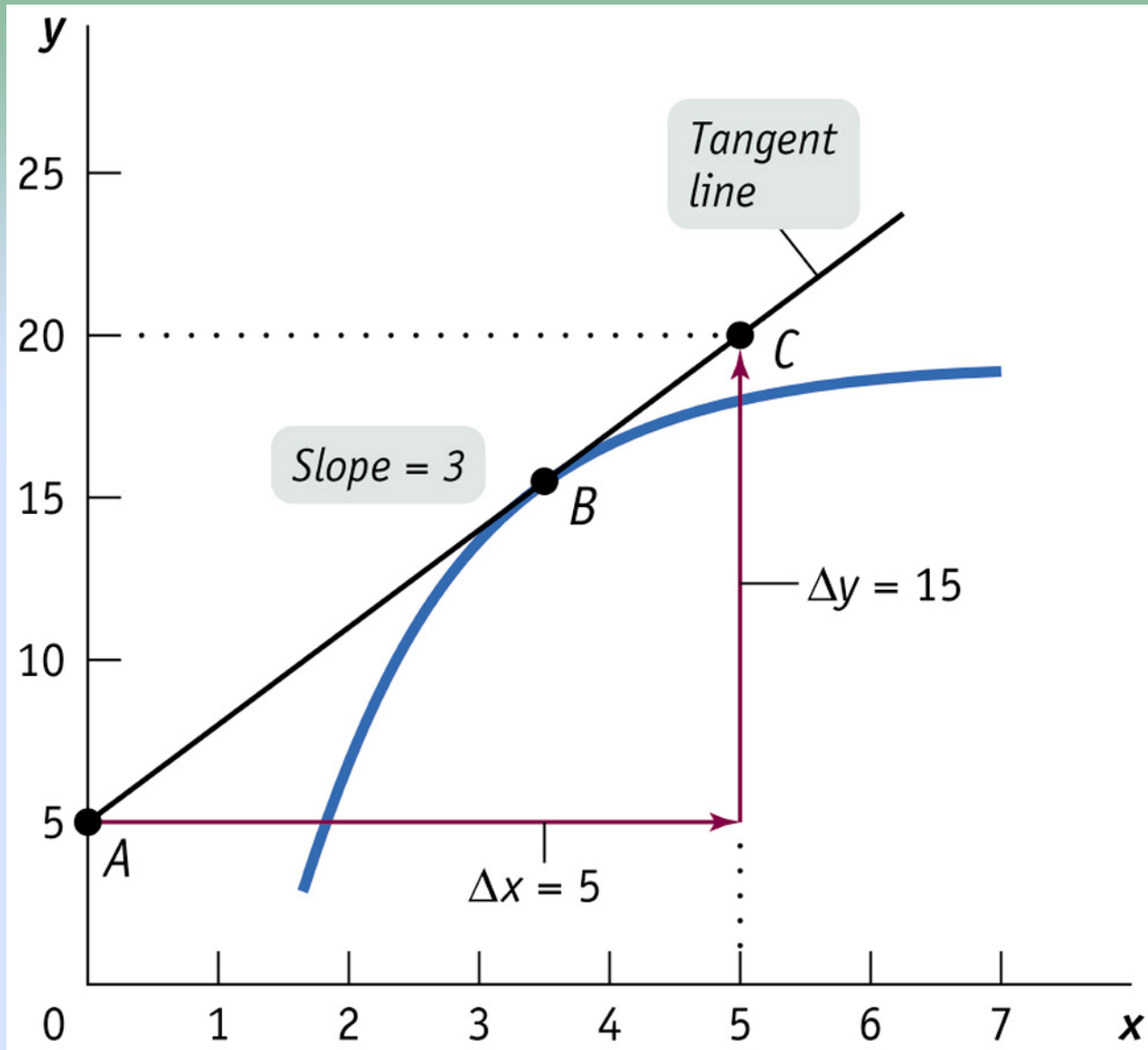


Figure 2A-5 Calculating the Slope Using the Point Method

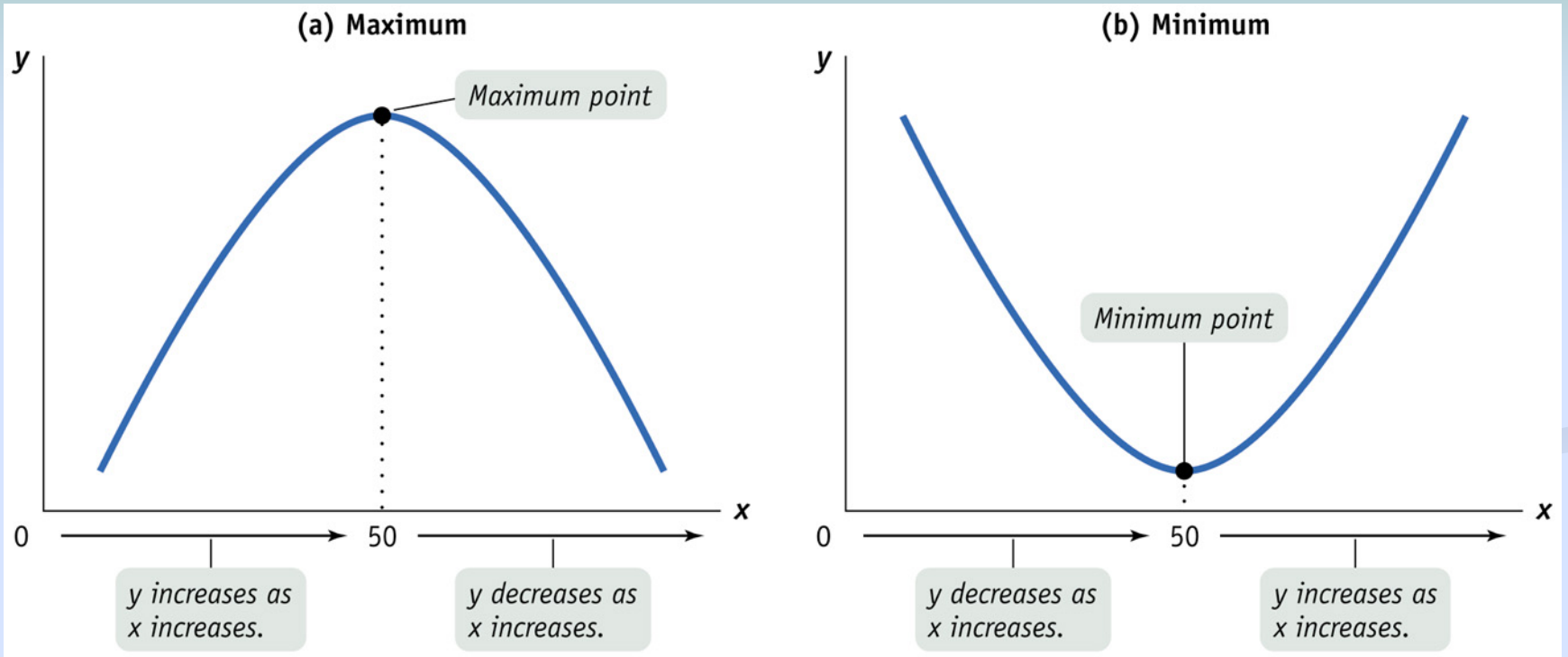


Figure 2A-6 Maximum and Minimum Points

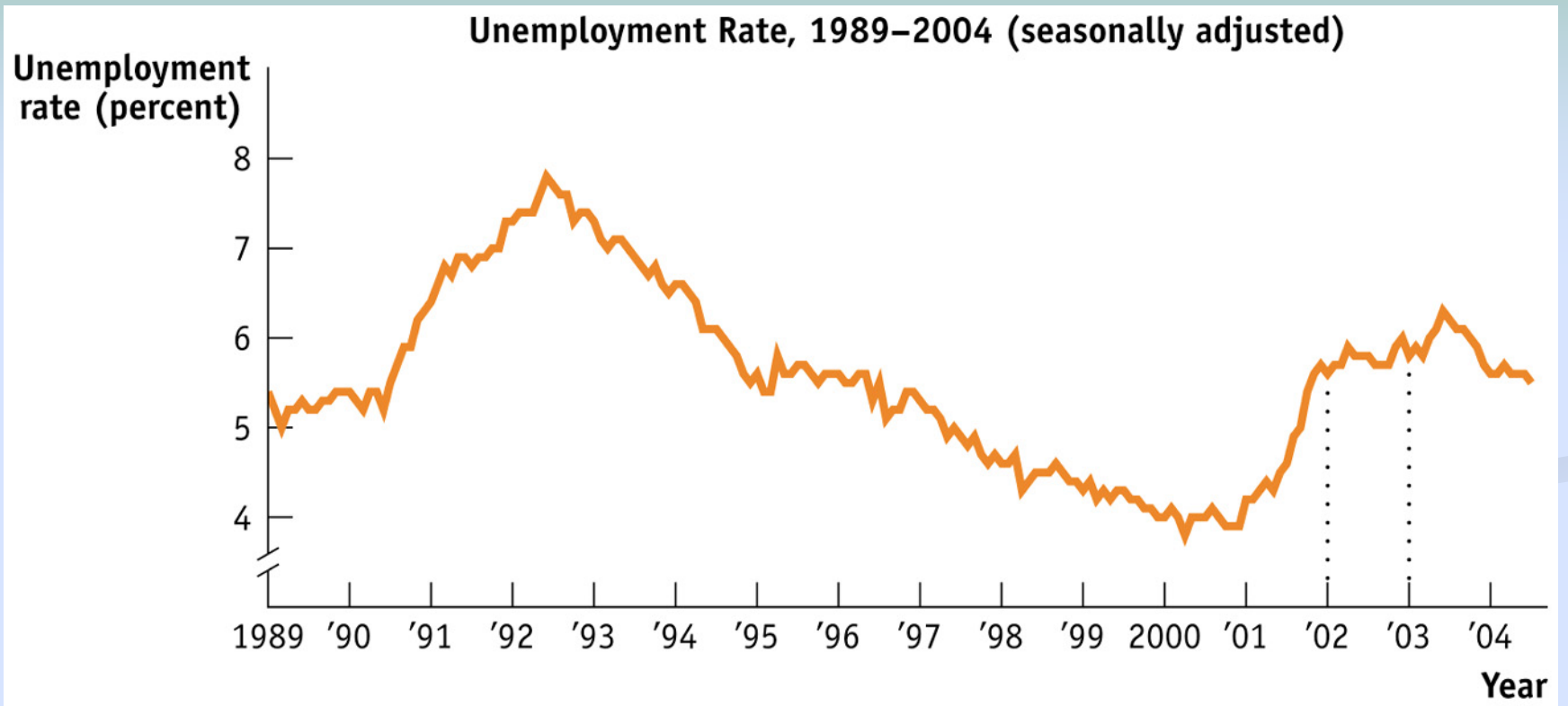


Figure 2A-7 Time-Series Graph

Standard of Living and Average Life Expectancy

Life expectancy at birth (years)

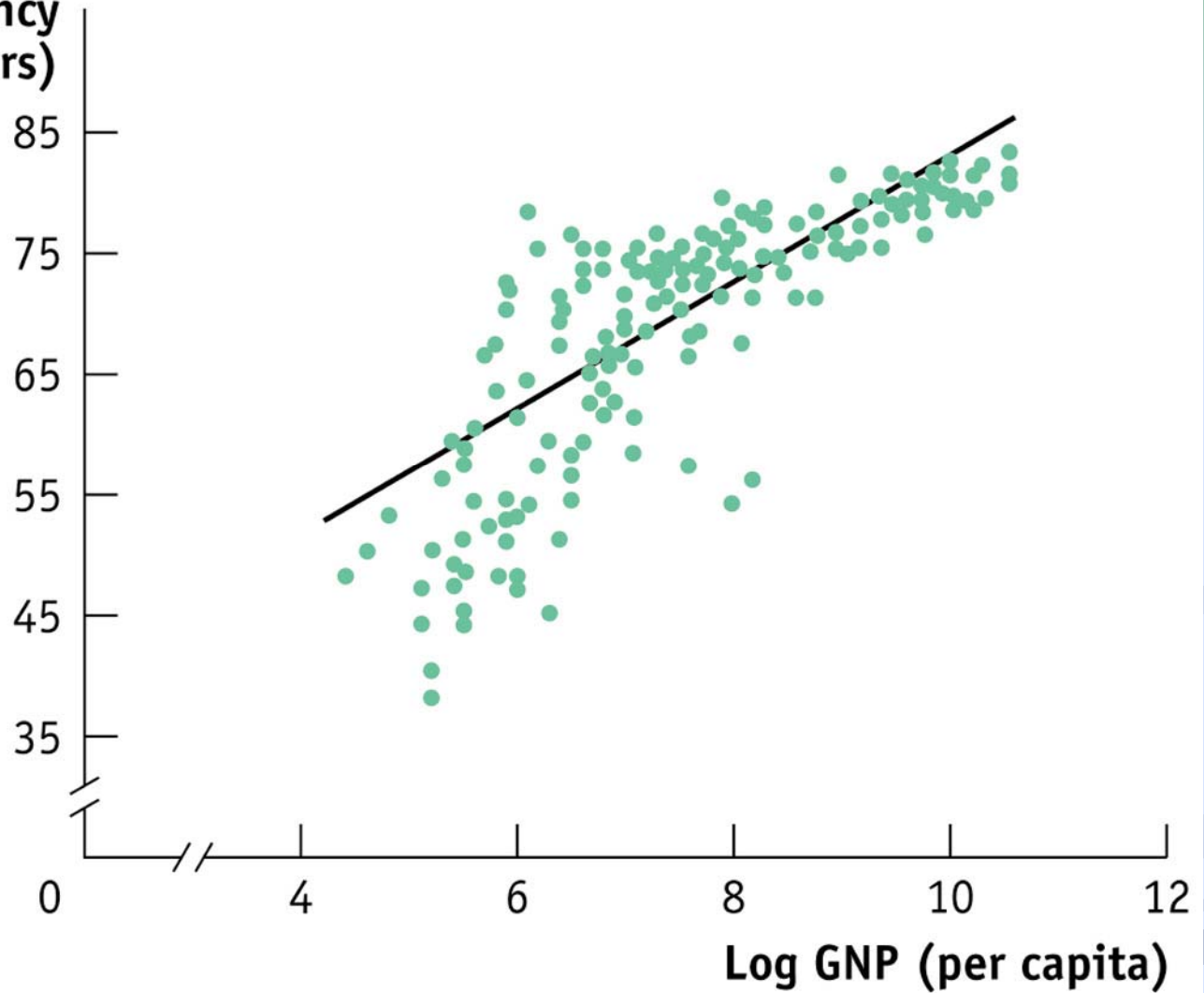


Figure 2A-8 Scatter Diagram

Receipts by Source for U.S. Government Budget 2003 (total: \$1,782.3 billion)

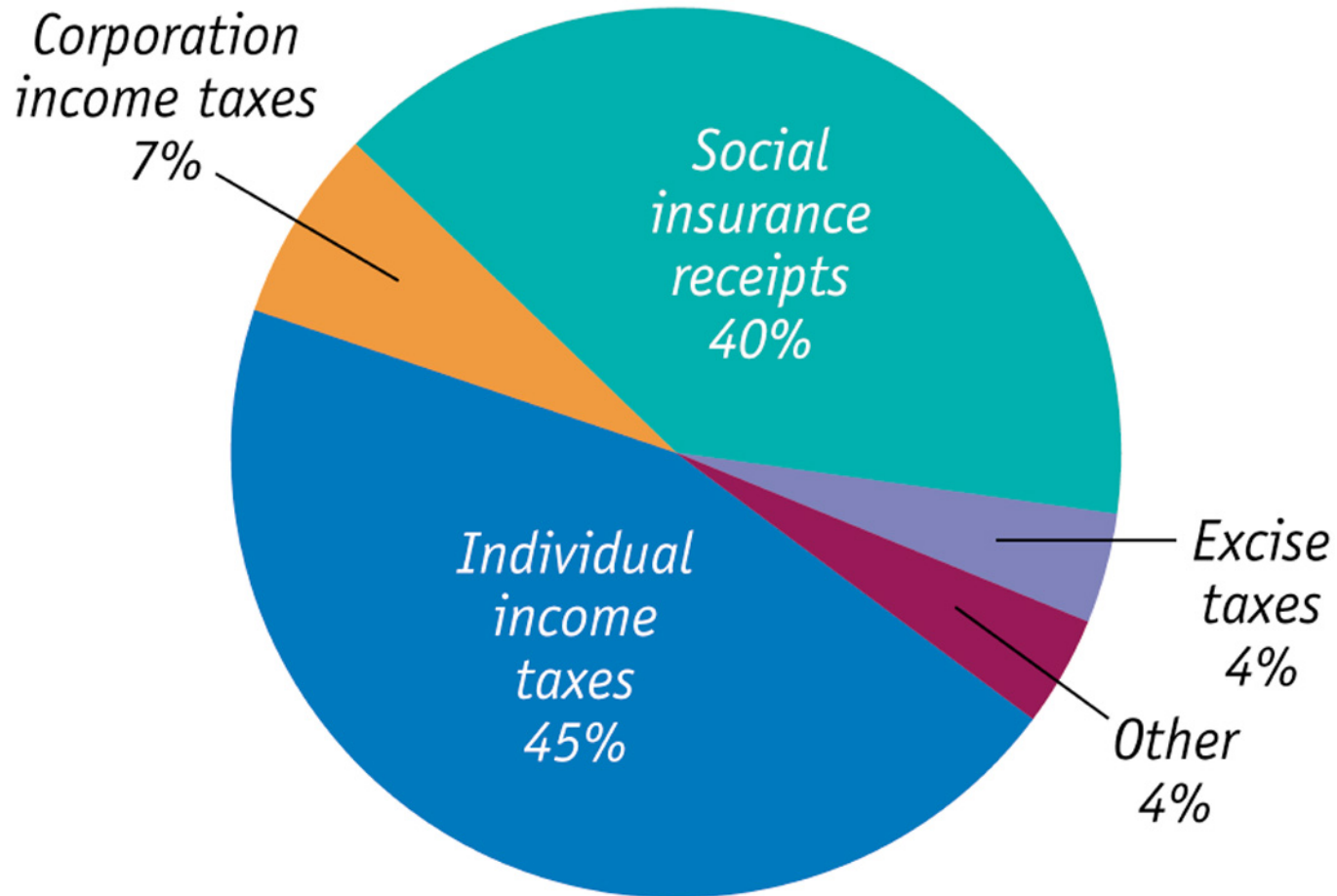


Figure 2A-9 Pie Chart

Changes in the Number of Unemployed by Race (2001–2002)

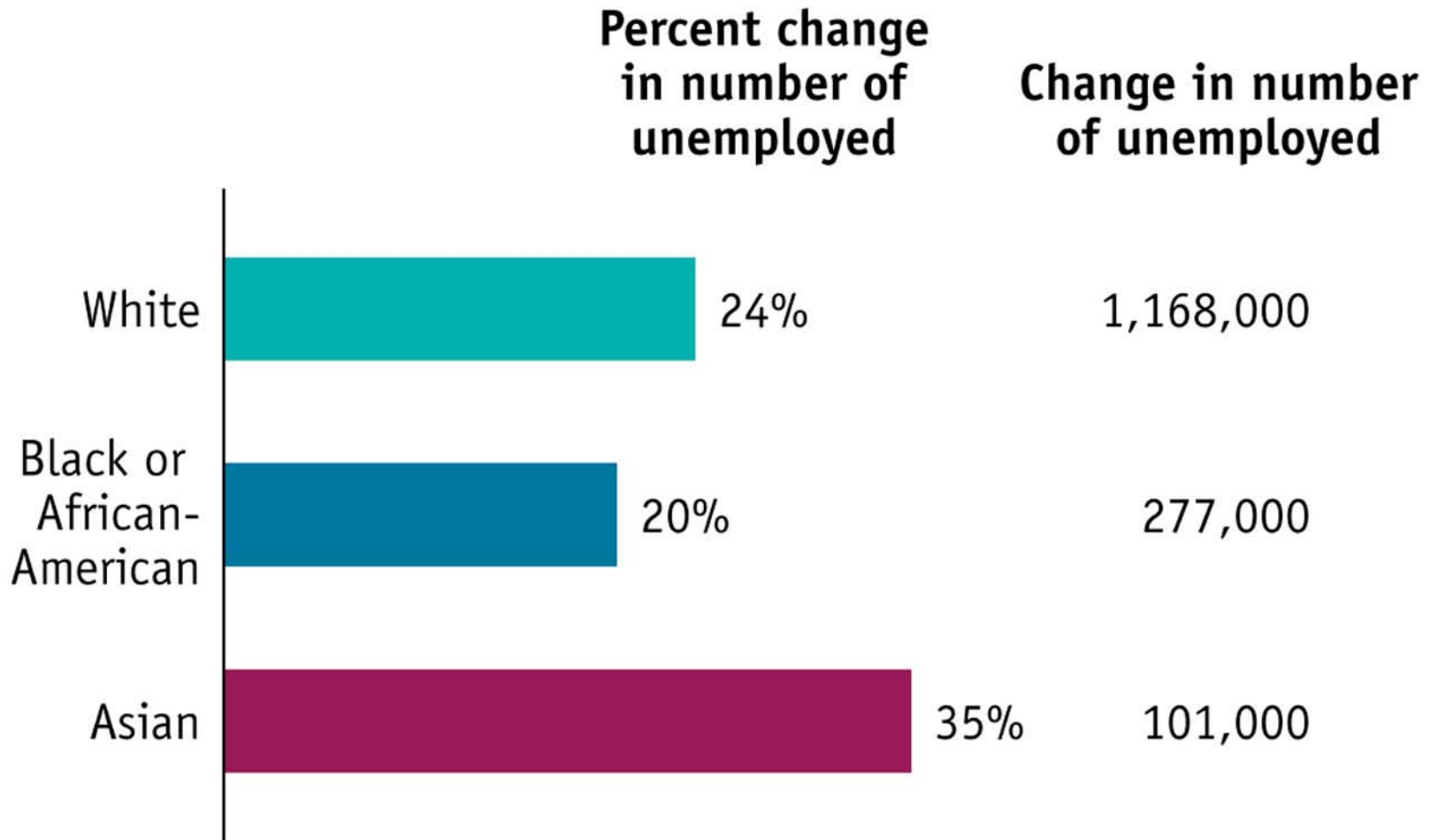


Figure 2A-10 Bar Graph

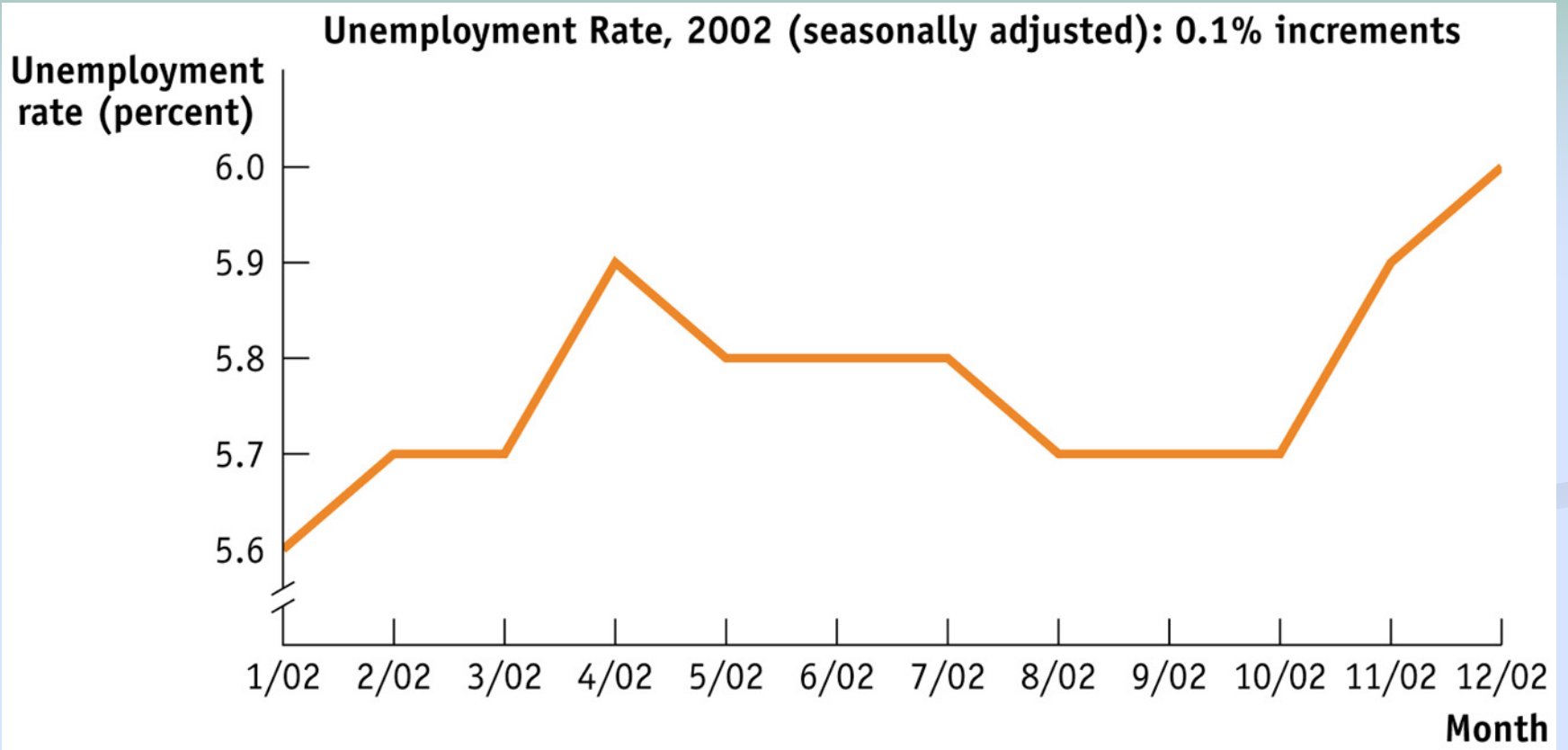


Figure 2A-11 Interpreting Graphs: The Effect of Scale