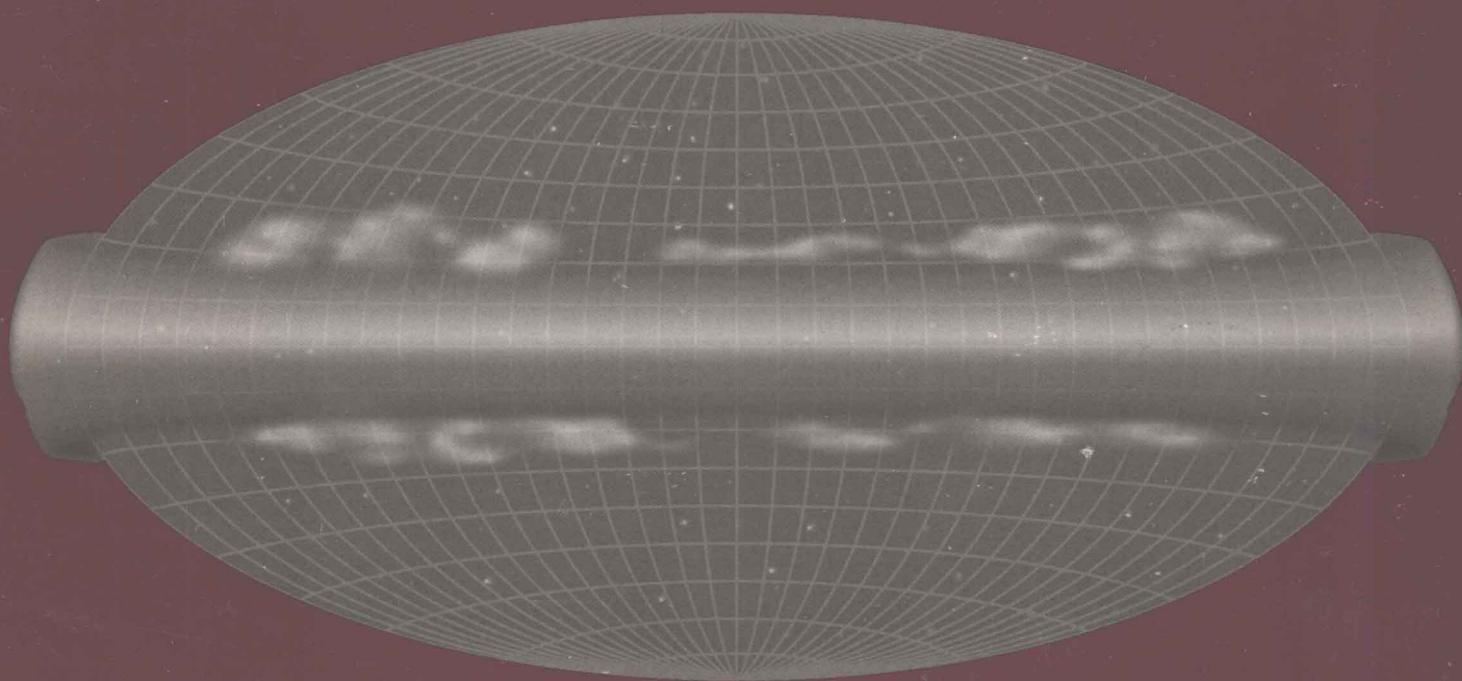


LAWRENCE F. ZIEGLER and LINDA WILSON

STUDY GUIDE TO ACCOMPANY SCHILLER:

# THE MICRO ECONOMY TODAY



SEVENTH EDITION

**Study Guide to Accompany Schiller**  
**THE MICRO ECONOMY**  
**TODAY**

**SEVENTH EDITION**

**PREPARED BY**

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**Study Guide to Accompany Schiller,  
THE MICRO ECONOMY TODAY**

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The cover designer was Hermann Strohbach.

# STUDY GUIDE

## To the Instructor

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This *Study Guide* is an important part of the complete and fully integrated textbook package called *The Micro Economy Today*. Students who use this *Study Guide* on a continuous basis should be able to remember what they have read in their textbook and heard in your lecture. It should enable them to apply the principles they learn to examinations and, more importantly, should help them recognize the same principles at work in their daily experiences. Each section of each chapter has a particular objective, which is described in the following paragraphs.

The *Quick Review* and *Learning Objectives* sections provide brief summaries of the basic contents of the corresponding text chapters and outline the important areas of the *Study Guide*.

The *Learning Key Terms*, *Using Key Terms*, and *Crossword Puzzles* provide practice in the use of terminology. These sections help students link economic terms to the appropriate economic concepts.

The *True or False* and *Multiple Choice* sections help the student advance from memorizing terminology to applying the economic principles in a familiar problem-solving setting. This will help greatly in their preparation for exams.

The *Problems and Applications* section lets students discover economic principles for themselves. Students not only learn the techniques that economists use, but they also discover the basis for the economic principles they have learned. The media application shows students how to recognize the economic principles of the chapter in an In the News or World View media article from the text. The media exercises should help students see economic principles at work in the world around them. The final problem and application for many of the chapters is a data exercise in which students find data (usually from the front cover of the book), graph it and make generalizations based on the data.

Semester after semester, students have difficulty with the same concepts and make the same mistakes. The section called *Common Errors* addresses some of these areas, and provides an explanation using the appropriate economic principles.

# STUDY GUIDE

## To the Student

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This *Study Guide* is designed to be used with *The Micro Economy Today, Seventh Edition*, by Bradley R. Schiller. Working throughout the *Study Guide* should reinforce what you have read in the textbook and help you to recognize the economic forces at work in your day-to-day experiences.

Note the following sections in each of the chapters:

- The *Quick Review* provides a brief summary of the concepts in the corresponding text chapter. If you are not comfortable with the terminology and concepts in this review, you should reread the appropriate sections of the text.
- The *Learning Objectives* focuses on the basic information in each text chapter and provides an outline for material presented in the *Study Guide*. The learning objectives are keyed to questions and problems that follow, and to pages in the text. If you have difficulty with a particular idea, you can quickly find the text material and review it.
- The *Learning Key Terms*, *Using Key Terms*, and *Crossword Puzzles* provide practice in the use of terminology developed in the chapter. You are encouraged to write out the definitions of the key economic terms.
- The *True or False* and *Multiple Choice* questions test your understanding of the basic economic principles discussed in the text.
- The *Problems and Applications* section contains one or more real-world problems, which allow you to apply, in a practical way, the economic principles that you have been studying.
- Most chapters contain a “media exercise” that refers you to specific articles reprinted in the text. These exercises will assist you in developing your critical thinking skills.
- The *Common Errors* section identifies some of the errors that students often make, then explains the correct principles. This is a very effective way for you to discover and correct your mistakes.
- Answers to *all* problems, exercises, and questions are provided at the end of each chapter of the *Study Guide* so you can quickly check your work and go back and review wherever necessary.

## STUDY GUIDE

# Acknowledgments

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I acknowledge the support of the McGraw-Hill staff. They are terrific. Lucille Sutton is an excellent editor. Elaine Rosenberg, editing supervisor, is a real professional. I thank her for her no-nonsense approach and for her skillful management of a difficult project. Jill Chartraw prepared this edition for publication. This included countless hours of graphic design, textual revisions, and layout modifications. Her incredible attention to detail, as well as her tireless commitment to quality, are most appreciated.

Finally, it is with great sadness that I dedicated this edition to Larry Ziegler who died on March 5, 1996. Larry dedicated his life to teaching and working with students which he enjoyed tremendously. This book is a result of that commitment, and his memory continues through the impact it will have on future students. He is greatly missed.

Linda L. Wilson  
The University of Texas at Arlington

# STUDY GUIDE

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# SECTION I Basics

## CHAPTER 1

# An Overview

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### Quick Review

The electoral debates of 1996 echoed controversies heard long ago. The Republican position bore a distinct resemblance to Adam Smith's *laissez faire* argument which was the central theme of his famous *Wealth of Nations*. He said, essentially, let markets alone and have a minimum of government intervention. The Democratic platform had distinctly a Keynesian tone, and called on government to play an active role in maintaining balance in the economy to prevent the excesses which result from a "hands off" approach.

This debate has never been unique to the United States, and is heard increasingly in other parts of the world as countries try to adjust to the collapse of the communist systems in Eastern Europe and elsewhere. The emerging consensus indicates that the market mechanism relied on in the United States (and elsewhere) is vastly superior to the central-planning mechanism which characterized the communist world. This result leads us to focus on two central questions:

- What forces determine economic outcomes?
- What can we do to improve economic outcomes?

To begin the study of economics, we note that the U.S. economy produces an output of over \$7 trillion per year. In the process it must allocate its land, labor, capital, and entrepreneurship to competing uses. Resources are considered scarce, even when they seem abundant, because there are not enough of them to satisfy all of society's wants. Thus, every society confronts the problem of scarcity and must somehow answer these basic questions:

- WHAT is to be produced?
- HOW should it be produced?
- FOR WHOM should the output be produced?

Because of the imbalance between society's wants and resources, choosing to produce one thing means choosing not to produce something else. Economists illustrate these choices by drawing a production-possibilities curve. This curve shows the combinations of goods and services a society could produce if it were operating efficiently and all of its resources were fully employed. The production-possibilities curve appears bowed out from the origin because of the law of increasing opportunity costs. To the economist, cost is measured by the best alternative opportunity forgone when choosing a course of action.

In the United States, our choices are largely accomplished through the market mechanism. The "invisible hand" of the market mechanism coordinates the production and consumption decisions of millions of individuals and directly affects the allocation of the economy's resources. Changes in relative prices (called price signals) are what make the system go.

The individual decisions of households and firms are supplemented with generous doses of public-sector activity. When the market mechanism fails to provide goods and services efficiently and equitably – a situation called “market failure” – the public sector must provide assistance. For example, market systems do not automatically generate pollution-control mechanisms which assure us of clean air and water. Such market imperfections must be overcome by government activity. In some economies the market mechanism has not been allowed to work. Planned (or command) economies, like that of the old Soviet Union, are good examples of this. But even in mixed economies “government failure” can make things worse.

In the study of the economy, it is useful to break economics into two categories: microeconomics and macroeconomics. Microeconomics focuses on a specific individual, firm, industry, or government agency; macroeconomics focuses on the entire economy. It should be noted that economics is not a settled body of doctrine. There is much controversy over how the economy works. That is what makes it so interesting.

## Learning Objectives

After reading Chapter 1 and doing the following exercises you should:

1. Understand the historical roots of the Republican and Democratic philosophies.
2. Understand that economics is the study of how to allocate society's scarce resources – land, labor, capital, and entrepreneurship.
3. Know that scarcity results because resources are not sufficient to satisfy all of society's wants.
4. Be able to define and illustrate opportunity costs using a production-possibilities curve.
5. Understand the law of increasing opportunity costs.
6. Be able to demonstrate efficiency, growth, unemployment, and underemployment using a production-possibilities curve.
7. Know why every economy must answer the same basic questions – WHAT, HOW, FOR WHOM.
8. Be able to distinguish macroeconomic issues from microeconomic issues.
9. Be able to describe how the market mechanism seeks to allocate society's resources to their highest valued uses.
10. Be aware that there is serious debate and controversy over how the economy works.
11. Be able to discuss the tradeoffs inherent in the “peace dividend.”
12. Be able to describe the mixed economy and distinguish market failure from government failure.

## Learning Key Terms

Write out the definition for each of the following terms and check it against the Glossary in the text.

capital the

*ceteris paribus* \_\_\_\_\_

economic growth \_\_\_\_\_

economics \_\_\_\_\_

efficiency \_\_\_\_\_

entrepreneurship \_\_\_\_\_

factors of production \_\_\_\_\_

government failure \_\_\_\_\_

laissez faire \_\_\_\_\_

macroeconomics \_\_\_\_\_

market failure \_\_\_\_\_

market mechanism \_\_\_\_\_

microeconomics \_\_\_\_\_

mixed economy \_\_\_\_\_

opportunity cost \_\_\_\_\_

production-possibilities \_\_\_\_\_

scarcity \_\_\_\_\_

## Using Key Terms

Fill in the blank following each of the statements below with the appropriate term from the list above.

- |                                                                                                                                           |          |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1. A Latin phrase meaning “all other things being equal” is _____ .                                                                       | 1. _____ |
| 2. The branch of economics that focuses on the activities of individual decision-making units is _____ .                                  | 2. _____ |
| 3. When economists say that to have more schools we must give up houses, they are illustrating the principle of _____ .                   | 3. _____ |
| 4. When market prices signal what goods and services should be produced, the allocation of resources is being accomplished by the _____ . | 4. _____ |
| 5. Those things that are transformed into final goods and services desired by society are _____ .                                         | 5. _____ |
| 6. The branch of economics that focuses on the behavior of the entire economy is _____ .                                                  | 6. _____ |
| 7. A curve showing the various combinations of goods and services that a society can produce with its scarce resources is a _____ curve.  | 7. _____ |
| 8. _____ is a factor of production that is produced using society’s scarce resources.                                                     | 8. _____ |
| 9. Opportunity costs arise in every society because of the problem of _____ .                                                             | 9. _____ |

- |                                                                                                                        |           |
|------------------------------------------------------------------------------------------------------------------------|-----------|
| 10. The science that studies how societies allocate scarce resources is _____ .                                        | 10. _____ |
| 11. Some resource allocation in the United States is done through the public sector, indicating that we have a _____ . | 11. _____ |
| 12. Where there is an increase in real output, there is _____ .                                                        | 12. _____ |
| 13. Society's pollution problem is an example of _____ .                                                               | 13. _____ |
| 14. Public-sector intervention that fails to improve economic outcomes is an example of _____ .                        | 14. _____ |
| 15. The factor of production that is most concerned with risk taking is called _____ .                                 | 15. _____ |
| 16. For Adam Smith's <i>invisible hand</i> to work most effectively requires a _____ attitude on the part of society.  | 16. _____ |
| 17. "Getting the most from what you've got" represents the idea of _____ .                                             | 17. _____ |

**True or False: Circle your choice.**

- |   |   |                                                                                                                                                                           |
|---|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T | F | 1. Karl Marx developed the economic rationale for market-driven economies in <i>Das Kapital</i> .                                                                         |
| T | F | 2. Students do not pay tuition in elementary school, so from society's point of view, there is no opportunity cost involved in their education.                           |
| T | F | 3. Goods are scarce because society's desire for them exceeds society's ability to produce them.                                                                          |
| T | F | 4. If a commodity has a market price that is greater than zero, it must be scarce.                                                                                        |
| T | F | 5. A production-possibilities curve can be drawn only if a scarce resource prevents unlimited production of a product.                                                    |
| T | F | 6. The market-driven economy is capable of solving the problems created by pollution without intervention by government.                                                  |
| T | F | 7. The U.S. economy is referred to as a mixed economy because some of our resources are allocated by the public sector (government) and some are allocated by the market. |
| T | F | 8. Market failure means that the invisible hand has failed to achieve the best-possible outcomes.                                                                         |
| T | F | 9. In the U.S. market system, the government gives the signals for deciding how to use resources.                                                                         |
| T | F | 10. Prices signal the answer to the WHAT, HOW, and FOR WHOM decisions in a laissez faire economy.                                                                         |

- T F 11. One reason that the production-possibilities curve is bowed out is that more production means the economy is less efficient in producing output.
- T F 12. If the economy is fully and efficiently employing its resources, then the only way to acquire more of one good is to accept less of something else.
- T F 13. Technological advance shifts the production-possibilities curve inward.
- T F 14. When the economy experiences reduced resource availability, then the production-possibilities curve shifts inward.
- T F 15. Microeconomics focuses on the economy as a whole.
- T F 16. The opportunity cost of a good can be measured as the absolute value of the slope of a production-possibilities curve for the good.
- T F 17. Pollution is an example of a market failure.
- T F 18. An inequitable distribution of income can result from either market failure or government failure.
- T F 19. The economy achieves the greatest efficiency when it is inside the production-possibilities curve.
- T F 20. Market failure occurs when government intervention fails to improve economic outcomes.

### **Multiple Choice: *Select the correct answer.***

- \_\_\_\_\_ 1. Which of the following best describes the subject matter included in principles of economics?
- (a) How the economy allocates its scarce resources.
  - (b) How households make decisions.
  - (c) How governments make choices about resources.
  - (d) How society purchases resources.
- \_\_\_\_\_ 2. Which of the following best describes the term “resource allocation”?
- (a) Which goods and services society will produce with available factors of production.
  - (b) How society spends the income of individuals based on resource availability.
  - (c) How society purchases resources, given its macroeconomic goals.
  - (d) How individual market participants decide what to produce given fixed resource constraints.
- \_\_\_\_\_ 3. The best description of the study of economics is:
- (a) For whom resources are allocated to increase efficiency.
  - (b) How society spends the income of individuals.
  - (c) How resources are allocated to fulfill society’s goals.
  - (d) What resources are used to produce goods and services.
- \_\_\_\_\_ 4. In economics, what does scarcity mean?
- (a) When there is a shortage of a particular good, the price will fall.
  - (b) A production-possibilities curve cannot accurately represent the tradeoff between two goods.
  - (c) Society’s desires exceed the want-satisfying capability of the resources available to satisfy those desires.
  - (d) That the market mechanism has failed.

- \_\_\_\_\_ 5. Which of the following *best* describes the most important way that resources are allocated in the U.S. economy?
- (a) By tradition.
  - (b) By command.
  - (c) By markets.
  - (d) By government.
- \_\_\_\_\_ 6. Which of the following are considered scarce in the U.S. economy?
- (a) Hamburgers.
  - (b) Automobiles.
  - (c) Petroleum products.
  - (d) All of the above.
- \_\_\_\_\_ 7. I plan on going to a \$5 movie this evening instead of studying for an exam. The total opportunity cost of the movie:
- (a) Depends on how I score on the exam.
  - (b) Is \$5.
  - (c) Is what I could have purchased with the \$5 plus the study time I forgo.
  - (d) Is the forgone studying I could have done in the same time.
- \_\_\_\_\_ 8. The opportunity cost of installing a traffic light at a dangerous intersection is:
- (a) Negative, since it will reduce accidents.
  - (b) The best possible alternative bundle of other goods or services that must be forgone in order to build and install the traffic light.
  - (c) The time lost by drivers who approach the intersection when the light is red.
  - (d) The cost of the stoplight plus the cost savings from a reduction in the number of accidents.
- \_\_\_\_\_ 9. The frequently used phrase "time is money" is a way of stating:
- (a) The idea of opportunity cost.
  - (b) Everyone has a price.
  - (c) People work for free.
  - (d) Money is an economic goal.
- \_\_\_\_\_ 10. Which of the following events would cause the production-possibilities curve to shift *inward*?
- (a) The labor supply grows.
  - (b) An unexpected freeze destroys the U.S. citrus crop.
  - (c) A technological breakthrough occurs.
  - (d) New factories are built.
- \_\_\_\_\_ 11. Which of the following events would cause the production-possibilities curve to shift *outward*?
- (a) The economy's capital stock increases.
  - (b) A new, strong plastic is developed for use in building houses.
  - (c) More women enter the labor force.
  - (d) All of the above.
- \_\_\_\_\_ 12. The market mechanism in the United States generates a distribution of income that is viewed as:
- (a) Equal, since everyone gets the same income.
  - (b) Equitable, since public policy does not tamper with it.
  - (c) Both equal and equitable, since they mean the same thing.
  - (d) Inequitable, apparently, since we change it through the activities of the public sector.
- \_\_\_\_\_ 13. The *slope* of the production-possibilities curve provides information about:
- (a) The growth of the economy.
  - (b) Technological change in the economy.
  - (c) Opportunity costs in the economy.
  - (d) All of the above.

- \_\_\_\_\_ 14. The law of increasing opportunity cost explains:
- (a) How everything becomes more expensive as the economy grows.
  - (b) The shape of the production-possibilities curve.
  - (c) Inflation.
  - (d) All of the above.
- \_\_\_\_\_ 15. Which of the following are major macroeconomic goals of the economy?
- (a) Full employment.
  - (b) Control of inflation.
  - (c) Economic growth.
  - (d) All of the above.
- \_\_\_\_\_ 16. Macroeconomics focuses on the performance of:
- (a) Individual consumers.
  - (b) Firms.
  - (c) Government agencies.
  - (d) The economy as a whole.
- \_\_\_\_\_ 17. The trend toward privatization by former communist societies is evidence of:
- (a) Government failure.
  - (b) Market failure.
  - (c) The failure of a mixed economy.
  - (d) *Ceteris paribus*.
- \_\_\_\_\_ 18. Which of the factors of production are centrally planned, command economies most likely to underestimate or ignore?
- (a) Capital.
  - (b) Entrepreneurship.
  - (c) Land.
  - (d) Labor.
- \_\_\_\_\_ 19. Reread the World View article “Free Enterprise Blooms in Wenzhou, China, Out of the Party’s Sight.” The article best illustrates:
- (a) The success of Karl Marx’s view of market-based economies.
  - (b) Market failure.
  - (c) The concepts described in *The Wealth of Nations*.
  - (d) The scarcity of resources.
- \_\_\_\_\_ 20. Reread the In the News article “The Peace Dividend.” Implicitly, the article is suggesting the opportunity cost of one person’s nursing home care in terms of Phoenix air-to-air missiles is:
- (a) 1/35.
  - (b) 35.
  - (c) \$1 million.
  - (d) Immeasurable.

#### [CHAPTER 1 APPENDIX QUESTIONS]

- \_\_\_\_\_ 21. The slope of a curve at any point is given by the formula:
- (a) The change in  $y$  coordinates between two points divided by the change in their  $x$  coordinates.
  - (b) The change in  $x$  coordinates between two points divided by the change in their  $y$  coordinates.
  - (c) The percentage change in  $y$  coordinates between two points divided by the percentage change in their  $x$  coordinates.
  - (d) The percentage change in  $x$  coordinates between two points divided by the percentage change in their  $y$  coordinates.

- \_\_\_\_\_ 22. When the relationship between two variables changes:
- (a) There is movement from one point on a linear curve to another point on the same curve.
  - (b) The entire curve shifts.
  - (c) The labels on the axes must be changed.
  - (d) The curve becomes linear.
- \_\_\_\_\_ 23. A linear curve can be distinguished by:
- (a) The continuous change in its slope.
  - (b) The same slope throughout the curve.
  - (c) The changing relationship between the two variables.
  - (d) A shift in the curve.

## Problems and Applications

### Exercise 1

This exercise is similar to the problem at the end of Chapter 1 in the text. It provides practice in drawing and interpreting a production-possibilities curve and demonstrating shifts of such a curve.

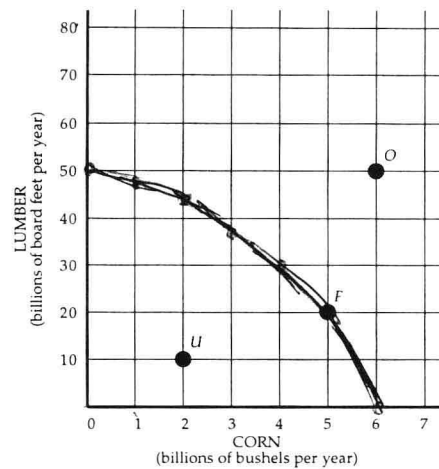
1. A production-possibilities schedule showing the production alternatives between corn and lumber is presented in Table 1.1. Graph combination A in Figure 1.1 and label it. Do the same for combination B. In going from combination A to combination B, the economy has sacrificed \_\_\_\_\_ billion board feet of lumber production per year and has transferred the land resources to production of \_\_\_\_\_ billion bushels of corn per year. The opportunity cost of corn in terms of lumber is \_\_\_\_\_ board feet per bushel.

**Table 1.1**

| <i>Combination</i> | <i>Quantity of corn<br/>(billions of bushels<br/>per year)</i> | <i>Quantity of lumber<br/>(billions of board<br/>feet per year)</i> |
|--------------------|----------------------------------------------------------------|---------------------------------------------------------------------|
| A                  | 0                                                              | 50                                                                  |
| B                  | 1                                                              | 48                                                                  |
| C                  | 2                                                              | 44                                                                  |
| D                  | 3                                                              | 38                                                                  |
| E                  | 4                                                              | 30                                                                  |
| F                  | 5                                                              | 20                                                                  |
| G                  | 6                                                              | 0                                                                   |

2. In answering Question 1, you determined the opportunity cost of corn when the economy is initially producing no corn (combination A). Using the information in Table 1.1, graph the rest of the production-possibilities combinations in Figure 1.1 and label each of the points with the appropriate letter.

**Figure 1.1**



3. When Table 1.2 is completed, it should show the opportunity cost of corn at each possible combination of lumber and corn production in the economy. Opposite “1st billion bushels” insert the number of board feet per year of lumber sacrificed when the economy shifts from combination A to combination B. Complete the table for each of the remaining combinations.

**Table 1.2**

| Corn production<br>(billions of bushels<br>per year) | Opportunity cost of corn<br>in terms of lumber<br>(billions of board feet per year) |
|------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1st billion bushels                                  | 48 50                                                                               |
| 2nd billion bushels                                  | 44 48                                                                               |
| 3rd billion bushels                                  | 38 44                                                                               |
| 4th billion bushels                                  | 30 38                                                                               |
| 5th billion bushels                                  | 20 30                                                                               |
| 6th billion bushels                                  | 0 20                                                                                |

4. In Table 1.2, as more corn is produced (as the economy moves from combination A toward combination G), the opportunity cost of corn (falls, rises, remains the same), which illustrates the law of Diminishing Marginal Utility.