

Chapter 1

Economics: The Study of Scarcity

Chapter Objectives

The economic concepts presented in this chapter provide a general framework for understanding the remainder of this book. After you have read and studied this introductory chapter you should be able to explain why scarcity is the basic economic problem; describe various kinds of productive resources and the payments to the owners of these resources; discuss a number of fundamental economic concepts, including the nature of economic prices, opportunity costs, and efficiency; discuss the nature of scientific theory, including its evolution into common sense, and the use of Occam's Razor; and distinguish normative from positive economics, and macroeconomics from microeconomics.

Chapter Review: Key Points

1. *Economics* is concerned with choices and their consequences, and focuses on ways that individuals and societies allocate their limited resources to try to satisfy relatively unlimited wants.
2. *Scarcity* occurs because our relatively unlimited wants cannot be completely met from the limited resources available. A good is scarce if people cannot freely get all they want, so that the good commands a positive price. Scarcity forces all levels of decision makers from individuals to society at large to resolve three basic economic questions:
 - a. *What* will be produced?
 - b. *How* will production occur?
 - c. *Who* will use the goods produced?
3. *Goods* include anything that adds to human happiness, while *bads* are things that detract from it. *Economic goods* are costly; *free goods* are not.
4. *Production* occurs when knowledge or technology is used to apply energy to materials to make them more valuable.
5. The *opportunity costs* of choices are measured by the subjective values of the best alternative you sacrifice. *Absolute prices* are monetary, and are useful primarily as indicators of *relative prices*, which are the prices of goods or resources in terms of each other, and which provide information and incentives to guide our decisions.

6. *Resources* (factors of production) include:
 - a. *Labor*. Productive efforts made available by human beings. Payments for labor services are called *wages*.
 - b. *Land*. All natural resources. Payments for land are called *rents*.
 - c. *Capital*. Improvements that increase the productive potential of other resources. Payments for the use of capital are called *interest*. When economists refer to capital, they mean physical capital rather than financial capital, which consists of paper claims to goods or resources.
 - d. *Entrepreneurship*. The organizing, innovating, and risk-taking function that combines other factors to produce. Entrepreneurs are rewarded with *profits*.

7. *Economic efficiency* occurs when a given amount of resources produces the most valuable combination of outputs possible. In an efficient economy, no transactions are possible from which anyone can gain without someone else losing.
 - a. *Allocative efficiency* requires production of the things people want.
 - b. *Distributive efficiency* requires consumers to adjust their purchasing patterns to maximize their satisfactions from given budgets.
 - c. *Productive (technical) efficiency* is obtained when a given output is produced at the lowest possible cost. Another way of looking at efficiency is that it occurs when the opportunity cost of obtaining some specific amount of a good is at its lowest.

8. *Common sense* is theory that has been tested over a long period and found useful. In general, good theory accurately predicts how the real world operates. *Occam's Razor* suggests that the simplest workable theories are the most useful or "best."

9. *Positive economics* is scientifically testable and involves value-free descriptions of economic relationships, dealing with "what is." *Normative economics* involves value judgments about economic relationships and addresses "what should be." Normative theory can be neither scientifically verified nor proven false.

10. *Macroeconomics* is concerned with aggregate (the total levels of) economic phenomena, including such items as Gross Domestic Product, unemployment, and inflation. *Microeconomics* concentrates on individual decision making, resource allocation, and how prices and output are determined.

Matching Key Terms and Concepts

SET I

- | | |
|----------------------------|---|
| ___ 1. microeconomics | a. The simplest workable theory is also the best theory. |
| ___ 2. Occam's razor | b. Economic theory that is, at least theoretically, scientifically testable and free of value judgments. |
| ___ 3. positive economics | c. Securities and other paper claims to goods or resources. |
| ___ 4. land | d. The organizing, risk-taking, and innovating resource. |
| ___ 5. model | e. Contestable theories rife with value judgments. |
| ___ 6. normative economics | f. Using technology to apply energy to make materials more valuable. |
| ___ 7. macroeconomics | g. Nonhuman resources other than capital. |
| ___ 8. entrepreneurship | h. The study of decisions made by individual consumers and firms. |
| ___ 9. financial capital | i. Focuses on aggregate, or economy-wide, variables. |
| ___ 10. production | j. A representation of a theory. |

SET II

- | | |
|-------------------------------|---|
| ___ 1. technology | a. Desired amounts of a good exceed those freely available. |
| ___ 2. capital | b. Improvements to natural resources that make them more productive. |
| ___ 3. <i>Homo economicus</i> | c. The view that humans maximize their satisfaction or wealth. |
| ___ 4. labor | d. The hours of human effort available for production. |
| ___ 5. rent | e. Payments for labor services. |
| ___ 6. scarce good | f. Physical capital accumulation. |
| ___ 7. profits | g. Decreases in capital because of wear-and-tear. |
| ___ 8. investment | h. Entrepreneur's reward. |
| ___ 9. depreciation | i. Payment for the use of land. |
| ___ 10. wages | j. The "recipes" used to combine resources for production. |

SET III

- | | |
|--------------------------------|---|
| ___ 1. interest | a. The value foregone whenever people make choices. |
| ___ 2. free good | b. Adds to human happiness, but is not scarce. |
| ___ 3. opportunity cost | c. Payments to capital owners. |
| ___ 4. scarcity | d. When this is reached, further gains in happiness to anyone require losses to someone else. |
| ___ 5. relative prices | e. Achieving maximum satisfaction from given budgets. |
| ___ 6. economic efficiency | f. The basic economic problem. |
| ___ 7. absolute prices | g. Prices of goods or resources in terms of each other. |
| ___ 8. production efficiency | h. Prices of goods or services in terms of some monetary unit. |
| ___ 9. equity | i. Fairness. |
| ___ 10. consumption efficiency | j. Getting maximum output from given resources. |

True/False

- | | |
|--|--|
| ___ 1. Economics resembles accounting or finance in being more relevant for business firms than individuals. | ___ 8. Models are less complicated and formal than theories. |
| ___ 2. Complexity is desirable in a scientific theory. | ___ 9. Positive economic analysis can help in determining how to reach politically-set economic goals. |
| ___ 3. Unlike theory, common sense emphasizes practicality. | ___ 10. Positive economics specifies the value judgments used to draw inferences in economic analysis. |
| ___ 4. Normative economics is concerned with what should be, rather than what is. | ___ 11. Successful entrepreneurs combine resources productively. |
| ___ 5. Macroeconomics focuses on aggregate variables such as national income, employment, and inflation. | ___ 12. Financial capital refers to all improvements made to land, machinery, and equipment. |
| ___ 6. Occam's Razor is more relevant for other sciences than it is for economics. | ___ 13. Payments for the use of capital services are called profit. |
| ___ 7. Economic reasoning is involved anytime people choose one thing instead of another. | ___ 14. Deciding to take a nap is an economic decision. |

- ___15. Self sufficiency is an efficient goal for everyone.
- ___16. A good is scarce if the amounts people desire exceed the amounts freely available.
- ___17. Prices are a meaningless concept in economies that do not use money.
- ___18. Economic considerations shape even such decisions as selecting a spouse or determining how many children to have.
- ___19. Opportunity costs are incurred while you study economics.
- ___20. Most of the best things in life are free.

Standard Multiple Choice

There is one **best** answer for each question.

- ___ 1. Economics broadly involves studying how:
 - a. political power is used unethically to make money.
 - b. resources are allocated to satisfy human wants.
 - c. proper nutrition and budgeting benefit your family.
 - d. to get away with cheating the Internal Revenue Service.
 - e. different species are environmentally interdependent.
- ___ 2. Scientific attempts to describe economic relationships are:
 - a. factual and can never be wrong.
 - b. accurate ways to predict political viewpoints.
 - c. known as positive economics.
 - d. directed at the fairness of social programs.
 - e. intended to boost the egos of entrepreneurs.
- ___ 3. Disagreements between economists arise most commonly in:
 - a. microeconomic reasoning.
 - b. normative economics.
 - c. positive economics.
 - d. applications of common sense.
 - e. macroeconomic theories.
- ___ 4. Economists:
 - a. hardly ever agree on anything.
 - b. agree on much of economic theory.
 - c. never make value judgments.
 - d. accurately predict the effects of all economic policies.
 - e. disagree most about positive economics.
- ___ 5. Unnecessary complexity in a theory is a violation of:
 - a. common sense.
 - b. the principle of nonsatiety.
 - c. the law of supply and demand.
 - d. Occam's razor.
 - e. the anti-parsimony corollary.
- ___ 6. Which of the following LEAST explains the widespread but erroneous view that economists seldom agree?
 - a. The media focus on controversy, not agreement.
 - b. Politics shapes policymaking more than does economic logic.
 - c. Economists who are political appointees often feel obligated to support the president even if they disagree privately.
 - d. Economic policies embody controversial value judgments.
 - e. Economic policy is more scientific than economic theory.

- ___ 7. Macroeconomics is primarily concerned with aggregates. Which of the following is not a macroeconomic aggregate?
- Decisionmaking by a household.
 - The unemployment rate, and inflation levels.
 - National income.
 - The supply of money.
 - Fiscal policies of the federal government.
- ___ 8. Decisions made in households, firms, and government are the focus of:
- positive economics.
 - environmental economics.
 - microeconomics.
 - normative economics.
 - macroeconomics.
- ___ 9. When less of a good than people want is freely available, the good is:
- in short supply.
 - a free good.
 - a luxury good.
 - scarce.
 - a necessity.
- ___ 10. Which of the following comes closest to being a free good?
- A wino's lunch, dug from the trash behind a restaurant.
 - Hot lunches provided to needy students at school.
 - Bacon and eggs bought with food stamps.
 - A record you bought from money earned by picking up aluminum cans in your spare time.
 - Free public education.
- ___ 11. TINSTAAFL is an acronym suggesting that:
- tax inspectors never see the awful affects from levies.
 - tenants in need should take all assets from landlords.
 - there is no such thing as a free lunch.
 - temperance in non-satiety together are adequate for life.
 - tyrants in Nirvana seldom try avoiding acceptably full lunches.
- ___ 12. Opportunity costs will always exist as long as:
- an economy has money.
 - relative prices are variable.
 - the opportunity to make money exists.
 - something has to be given up to get something else.
 - production is unregulated.
- ___ 13. Labor, land, capital, and entrepreneurship are all:
- examples of technology.
 - allocative mechanisms.
 - resources, or factors of production.
 - tools of capitalistic exploitation.
 - natural resources.
- ___ 14. Examples of normative statements would not include assertions that:
- the death penalty is barbaric.
 - Nicole Kidman is a horrid actress.
 - the Electoral College should be abolished.
 - equal pay for equal work is fair.
 - snowflakes are fattening because they contain too many calories.

- ___15. Opportunity costs are the values of the:
- monetary costs of goods and services.
 - best alternatives sacrificed when choices are made.
 - minimal budgets of families on welfare.
 - profits gained by successful entrepreneurs.
 - freedom people enjoy in a socialist economy.
- ___16. Economic equity refers to the:
- financial settlements in civil court cases.
 - balance of national trade.
 - fairness of some economic arrangement.
 - hidden costs passed on to consumers.
 - gross value of any stocks or bonds you own.
- ___17. Economic efficiency for the entire economy requires that:
- potential gains to anyone necessitate losses to another.
 - all goods be produced at their lowest possible opportunity costs.
 - maximum-valued output is obtained from given resources.
 - all benefits are obtained at the lowest possible cost.
 - All of the above.
- ___18. Which of the following statements is normative?
- Higher oil prices will increase the inflation rate.
 - A tariff on textiles would tend to increase the wages of domestic textile workers.
 - Tax rates on the working poor should be reduced.
 - Other things equal, if the price of an item is reduced, consumers will tend to buy more of it.
 - If interest rates remain high this quarter, business investment will continue to be weak.
- ___19. Knowledge used to combine resources productively is called:
- entrepreneurship.
 - capitalism.
 - investment.
 - technology.
 - comparative advantage.
- ___20. The process by which capital becomes worn out or obsolete is known as:
- capital attenuation.
 - disinvestment.
 - bankruptcy.
 - disinflation.
 - depreciation.

Chapter Review (Fill-In Questions)

1. Scarcity is a result of _____ resources confronted by _____ wants.
2. Three basic economic questions are posed by scarcity and must be resolved by all economic systems: _____ economic goods will be produced, _____ will resources be utilized in production? _____ will get to consume the economic goods produced?
3. _____ is the process of using knowledge to apply energy to materials so that they are more valuable. The knowledge used to combine resources for production is referred to as _____.
4. _____ is the residual after all economic costs are paid out of a firm's revenues, and is received by _____, who organize the firm's activities, innovate new products and technologies, and take business risks.
5. People act rationally and purposefully to _____ their _____.
6. When economists say price or cost, they typically mean the value of the best _____ forgone when choices are made, rather than monetary prices. This is known as _____, or alternative cost. These costs are implicit in all choices, even when it is not obvious that conventional "economics" is involved.
7. Theory is judged by how well it _____ how the world works. _____ expresses a common preference among scientists for simple, rather than complex, workable theories.
8. _____ is the study of employment, inflation, money, the level of taxation, the relative prices of two or more countries' currencies, unemployment, national income, economic growth, and similarly aggregated variables. _____ is a more localized study of the consequences of interactive decisionmaking by individual consumers and firms.
9. _____ efficiency occurs when the opportunity cost of producing a given amount of goods is _____.
10. There is _____ efficiency if a consumer experiences maximum satisfaction from a given _____.

Unlimited Multiple Choice

Warning: Each question has from zero to four correct answers.

- ___ 1. Economics is a(n):
- study of decisionmaking and its consequences.
 - mathematical and physical science, like chemistry.
 - concern only for people who are miserly.
 - “apparatus of the mind.”
- ___ 2. A positive economic statement can be scientifically tested to see if it is false. Which of the following are positive economic statements?
- The economy will grow faster if tax rates are cut.
 - A high tax on tobacco will severely cut cigarette smoking.
 - People would have fewer children if their tax deductions for having them were increased.
 - The federal budget should be balanced annually.
- ___ 3. Theories are:
- much more complicated than common sense.
 - scientific only if based on normative value judgments.
 - proven if only a few unimportant exceptions exist.
 - developed when we collect data, try to explain how things work, and then test for validity.
- ___ 4. According to the characterization of humans as *Homo economicus*, all human behavior is:
- assumed to be self-interested, including charitable acts.
 - intended to generate monetary profits.
 - aimed at maximizing pleasure and minimizing pain.
 - guided by an instinct to perpetuate the species.
- ___ 5. The basic economic questions scarcity poses for every society, and which must somehow be resolved, include:
- what* quantities of which goods should be produced?
 - how* will the chosen goods be produced?
 - who* will use the goods that are produced?
 - which* system most efficiently distributes free goods to the needy

Problems

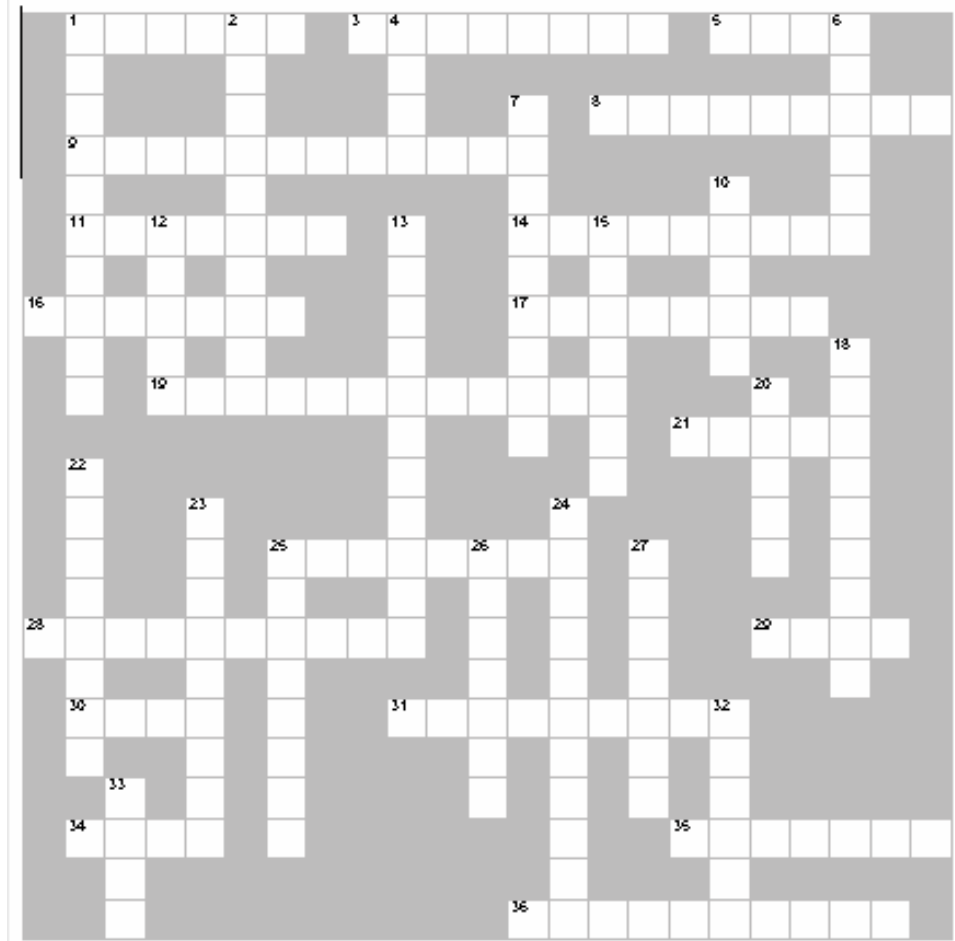
1. Suppose the price of entry to your local swimming pool rises from \$2 to \$3 per day, while movie tickets rise from \$5 to \$7. Which of these forms of entertainment has become relatively more costly? _____

2. Classify the following statements as positive or normative. (CAUTION: Whether a statement is true or false has little to do with whether it is positive or normative. The possibility of testing the truth or falsity of a hypothesis (at least theoretically) distinguishes positive theories from untestable normative statements.)
 - a. Relatively fewer people are poor under capitalism than under socialism. _____
 - b. Higher union wages cause inflation. _____
 - c. Federal budget deficits make investors pessimistic and drive up interest rates. _____
 - d. American workers should not have to compete with cheap foreign labor. _____
 - e. Bad weather abroad benefits most American farmers. _____
 - f. Grass is pink during months that are spelled with an “r” at the end. _____
 - g. It is better to be rich than to be poor. _____
 - h. On average, annual income is influenced positively by education. _____

3. Fill in the table below by determining the relative price of each item in terms of all the other items.

Money Price	Item	Relative price in terms of lunches	Relative price in terms of haircuts	Relative price in terms of books	Relative price in terms of stereos	Relative price in terms of surfboards
\$5	lunch	1 lunch	_____	_____	_____	_____
\$10	haircut	_____	1 haircut	_____	_____	_____
\$20	book	_____	_____	1 book	_____	_____
\$100	stereo	_____	_____	_____	1 stereo	_____
\$500	surfboard	_____	_____	_____	_____	1 surfboard

Crossword Puzzle



Across

1. proprietors' reward
3. basic economic problem
5. interest (motive)
8. tangible good, normally ownable
9. wear and tear on equipment
11. improvements to productivity of natural resources
14. result of the costliness of information
16. resources are _____
17. payments to capital suppliers
19. organizers of business firms
21. investment – #9 across = net investment
25. activity logically intended to achieve an objective is _____
28. recipe for production
29. zero cost good
30. business organization
31. monetary figures merely symbolic of real goods and resources
34. things we'd like less of
35. addresses the technology used for production
36. flipover of relative prices

Down

1. transforming resources to increase value
2. accumulating new economic capital
4. best actions sacrificed (forgone)
6. benefits considered part of wages
7. _____ wants
10. payments for labor
12. synonym for economic cost
13. _____ cost is economic cost
15. resources are categorized as 33 down
18. land, labor, capital, entrepreneurship
20. things we'd like more of
22. _____ requires a decision
23. study of #3 across
24. forgone option
25. dividing one nominal price by another yields _____ prices
26. monetary values
27. intangible, unownable good
32. British spelling for work done
33. all nonhuman natural resources

ANSWERS

Matching			True/False		Multiple Choice		Unlimited MC
Set I	Set II	Set III					
1. h	1. j	1. c	1. F	11. T	1. b	11. c	1. ad
2. a	2. b	2. b	2. F	12. F	2. c	12. d	2. abc
3. b	3. c	3. a	3. F	13. F	3. b	13. c	3. d
4. g	4. d	4. f	4. T	14. T	4. b	14. e	4. ac
5. j	5. i	5. g	5. T	15. F	5. d	15. b	5. abc
6. e	6. a	6. d	6. F	16. T	6. e	16. c	
7. i	7. h	7. h	7. T	17. F	7. a	17. e	
8. d	8. f	8. j	8. F	18. T	8. c	18. c	
9. c	9. g	9. i	9. T	19. T	9. d	19. d	
10. f	10. e	10. e	10. F	20. F	10. a	20. e	

Chapter Review

1. scarce or limited; unlimited
2. What; How; Who
3. Production; technology
4. Profit; entrepreneurs
5. maximize; satisfaction or happiness
6. alternative; opportunity cost
7. predicts; Occam's Razor
8. Macroeconomics; Microeconomics
9. Productive efficiency; minimized
10. distributive (consumption); income or budget

Problems

1. The price of entry to your local swimming pool rises by 50% $((\$3 - \$2)/\$2)$, while the price of movie tickets rises only 40% $((\$7 - \$5)/\$5)$. Therefore, the price of a swim at your local pool has become relatively more costly.
2. a. Positive b. Positive c. Positive d. Normative e. Positive f. Positive g. Normative h. Positive
3. See the table below.

Money Price	Item	Relative Price in terms of lunches	Relative price in terms of haircuts	Relative price in terms of books	Relative price in terms of stereos	Relative price in terms of surfboards
\$5	lunch	1 lunch	.5 haircuts	.25 books	.05 stereos	.01 surfboards
\$10	haircut	2 lunches	1 haircut	.5 books	.10 stereos	.02 surfboards
\$20	book	4 lunches	2 haircuts	1 book	.20 stereos	.04 surfboards
\$100	stereo	20 lunches	10 haircuts	5 books	1 stereo	.2 surfboards
\$500	surfboard	100 lunches	50 haircuts	25 books	5 stereos	1 surfboard

Crossword Puzzle

