Chapter

1 WHAT IS ECONOMICS?

Answers to the Review Quiz

Page 2

1. List some examples of scarcity in the United States today.

An example of scarcity at the economy-wide level would be people with lower incomes being forced to choose between food and gasoline due to high prices for both. An example of scarcity at an individual level would be a person unable to afford life-saving (or life-enhancing) medicine. At a more student-oriented level, examples of scarcity include not enough income to afford both tuition and a nice car and not enough learning capacity to study for both an economics exam and a chemistry exam in one night.

2. Use the headlines in today's news to provide some examples of scarcity around the world.

A headline in *The Wall Street Journal* on July 25, 2008 was "Last-Frontier Forest is at Risk From Boom." This story discusses how the "global resource boom is threatening one of the world's last tropical-forest frontiers: the Merauke region of Indonesia …". The story points out the scarcity of tropical rain forests as well as the scarcity of mineral reserves and how the two are colliding.

3. Use today's news to illustrate the distinction between microeconomics and macroeconomics.

Microeconomics: Examples of today's news that illustrate microeconomic issues are: What will happen to the wages of the average grocery clerk if the grocery workers chose to unionize? What will happen to the number of students attending college if tuition were to increase 55 percent? What will happen to low-skilled workers if the minimum wage is increased?
Macroeconomics: Examples of today's news that illustrate macroeconomic issues are: How will U.S. defense spending in Iraq, Afghanistan and elsewhere influence the national debt? What would happen to total output in the economy if the income tax rates were increased?

Page 7

1. Describe the broad facts about *what, how,* and *for whom* goods and services are produced.

What gets produced is significantly different today than in the past. Today the U.S. economy produces more services, such as medical operations, teaching, and hair styling, than goods, such as pizza, automobiles, and computers. How goods and services are produced is by businesses determining how the factors of production, land, labor, capital and entrepreneurship, are combined to make the goods and services we consume. Land includes all natural resources, both renewable natural resources such as wood, and nonrenewable natural resources such as natural gas. Labor's quality depends on people's human capital. In the U.S. economy, human capital obtained through schooling has increased over the years with far more people completing high school and attending college than in past years. Finally, for whom are goods and services to be produced depends on the way income is distributed to U.S. citizens. This distribution is not equal; the 20 percent of people with the lowest income earn about 5 percent of the nation's total income while the 20 percent of people with the highest incomes earn about 50 percent of total income. On the average, men earn more than women, whites more than non-whites, and college graduates more than high school graduates.

2. Use headlines from the recent news to illustrate the potential for conflict between self-interest and the social interest.

Your students' examples will vary according to the headlines. One example of an issue concerns import restrictions. Take the ethanol industry for an example and the February 4, 2008 headline from Reuters "Bush budget doesn't alter ethanol import tariff". When domestic ethanol producers convince the government to limit or eliminate imports of ethanol from other nations such as Brazil, it helps the workers and businesses in the domestic ethanol industry earn higher wages and profits, respectively. This outcome serves their self-interest. However, it hurts all companies that use ethanol in their products, as well as all consumers when they buy ethanol. This decision would not serve the social interest.

Page 10

1. Provide three everyday examples of tradeoffs and describe the opportunity cost involved in each.

Three examples are: a) When a student sleeps in rather than of going to his or her early morning economics class, the student trades off additional sleep for study time. The opportunity cost of the decision is a lower grade on the exam. b) When a student running late for class parks his or her car illegally, the student trades off saving time for the risk of a ticket. The potential opportunity cost of the decision is the goods and services that cannot be purchased if the student receives an expensive parking ticket. c) A student trades off higher income by taking a part-time job for less leisure time and study time. The opportunity cost is less leisure and lower grades in classes.

2. Provide three everyday examples to illustrate what we mean by choosing at the margin.

Three examples are: a) When a student faces a chemistry and an economics final exams in one day, the student must determine whether spending the last hour studying a little more chemistry or a little more economics will yield a better contribution (marginal benefit) to his or her overall GPA. b) A college student buying a computer must decide whether the marginal benefit of adding 1 GB of additional memory is worth the marginal cost of the additional memory. c) A student football fan with a choice of a cheap seat in the student bleachers located at the far end of the playing field or a more expensive seat located on the 30 yard line must determine whether the marginal benefit of watching the game from a better seat is worth the marginal cost of the higher ticket price.

3. How do economists predict changes in choices?

People's choices change when their incentives, that is the marginal benefit and/or marginal cost, of the choice changes. So economists predict changes in choices by determining when the marginal benefit and/or marginal cost change and then predicting that people make choices that bring them more marginal benefits and/or less marginal costs.

4. What do economists say about the role of institutions in promoting the social interest?

Economists emphasize that institutions, such as private property protected by a system of laws and markets that enable voluntary exchange, affect people's incentives. The goal is to have institutions that channel people's choices so that the choices promote the social interest.

Page 12

1. What is the distinction between a positive statement and a normative statement? Provide an example (different from those in the chapter) of each type of statement.

A *positive* statement is a description of how the world *is*. It is testable. A *normative* statement is a description of how the world *ought to be*. It is, by its very nature, not testable because there is no universally approved criterion by which the statement can be judged. "I will receive an A for this course," is a positive statement made by an economics student—it might not be true, but it is testable. "I will receive a good grade for this course," is a normative statement. Whether someone agrees with it depends on his or her interpretation of what makes for a "good" grade.

2. What is a model? Can you think of a model that you might use (probably without thinking of it as a model) in your everyday life?

A *model* is a description of some aspect of the economic world. It includes only those features that are necessary to understand the issue under study. An economic model is designed to reflect those aspects of the world that are relevant to the user of the model and ignore the aspects that are irrelevant. A typical model is a GPS map. It reflects only those aspects of the real world that are relevant in assisting the user in reaching his or her destination and avoids using information irrelevant to travel.

3. What are the three ways in which economists try to disentangle cause and effect?

Economists use models to understand some aspect of the economic world. Testing the predictions of models makes it necessary to disentangle cause and effect. To overcome this problem, economists have three methods of testing their models: Using a natural experiment, using a statistical investigation, and using economic experiments. A natural experiment is a situation that arises in the ordinary course of life in which one factor being studied varies and the other factors are the same. This method allows the economist to focus on the effect from the factor that differs between the two situations. A statistical investigation looks for correlations between variables but then determining whether the correlation actually reflects causation can be difficult. An economic experiment puts people into decision making situations and then varies the relevant factors one at a time to determine each factor's effect.

4. How is economics used as a policy tool?

Individuals, businesses, and governments use economics as a policy tool. Individuals use the economic ideas of marginal benefit and marginal cost when making decisions for such topics as attending college, paying cash or credit for a purchase, and working. Businesses also use the concepts of marginal benefit and marginal cost when making decisions about what to produce, how to produce, and even how many hours to stay open. Finally governments also use marginal benefit and marginal cost when deciding issues such as the level of property taxes, the amount to fund higher education, or the level of a tariff on Brazilian ethanol.

5. What is the role of marginal analysis in the use of economics as a policy tool?

To make good decisions, a decision maker must compare the marginal benefit of an action to its marginal cost. If the marginal benefit of an action exceeds its marginal cost, then the decision maker should undertake the action because the benefit of the action exceeds its cost. Conversely if the marginal benefit is less than the marginal cost, then the decision maker should *not* undertake the action because the benefits of the action fall short of its costs.

Answers to the Problems and Applications

1. Apple Computer Inc. decides to make iTunes freely available in unlimited quantities.

a. How does Apple's decision change the opportunity cost of a download?

Apple's decision decreases the opportunity cost of a tune by removing the previous monetary cost of 99¢ per tune

b. Does Apple's decision change the incentives that people face?

Apple's decision changes people's incentives. For example, it increases people's incentives to buy an iPod in order to take advantage of the newly "free" music available on iTunes.

c. Is Apple's decision an example of a microeconomic or a macroeconomic issue?

Apple's decision is a microeconomic decision because it affects a single company and a single market.

2. Which of the following pairs does not match:

a. Labor and wages?

Labor earns wages, so this pair matches.

b. Land and rent?

Land earns rent, so this pair matches.

c. Entrepreneurship and profit?

Entrepreneurship earns profit, so this pair matches.

d. Capital and profit?

Capital earns interest, so this pair does *not* match.

3. Explain how the following news headlines concern self-interest and the social interest:

a. Wal-Mart Expands in Europe

Wal-Mart's expansion is a decision made by Wal-Mart to further Wal-Mart's interest. Thus the decision is directly in Wal-Mart's self interest. The question of whether this choice also furthers the social interest is one that is studied in microeconomics.

b. McDonald's Moves into Salads

McDonald's decision to serve salads is a decision made by McDonald's to further McDonald's interest. Thus the decision is directly in McDonald's self interest. The question of whether this choice also furthers the social interest is one that is studied in microeconomics.

c. Food Must Be Labeled with Nutrition Information

The decision to require that food must be labeled with nutrition information is made in the social interest. This decision is not made by any one single firm and so does not (necessarily) reflect anyone's self interest.

4. The night before an economics test, you decide to go to the movies instead of staying home and working your MyEconLab Study Plan. You get 50 percent on your test compared with the 70 percent that you normally score.

a. Did you face a tradeoff?

Yes, you faced a tradeoff. The tradeoff was between a higher test score and an evening with your friends at the movies.

b. What was the opportunity cost of your evening at the movies?

The opportunity cost of going to the movies is the fall in your grade. That is the 20 points forgone from choosing to see the movie rather than study.

5. Which of the following statements is positive, which is normative, and which can be tested?

a. The U.S. government should cut its imports.

The statement is normative and cannot be tested.

b. China is the United States' largest trading partner.

The statement is positive and can be tested.

c. If the price of antiretroviral drugs increases, HIV/AIDS sufferers will decrease their consumption of the drugs.

The statement is positive and can be tested.

6. As London prepares to host the 2012 Olympic Games, concern about the cost of the event increases. An example:

> **Costs Soar for London Olympics—The regeneration of East London is set to add extra £1.5 billion to taxpayers' bill.**
>
> ***The Times*, London, July 6, 2006**

Is the cost of regenerating East London an opportunity cost of hosting the 2012 Olympic Games? Explain why or why not.

The regeneration of East London is an opportunity cost of hosting the 2012 Olympics if East London would not have been regenerated otherwise. However, if there were already plans underway to regenerate East London, then the cost is not an opportunity cost of hosting the Olympics because the cost would have been paid even if London did not host the Olympics.

7. Before starring as Tony Stark in *Iron Man*, Robert Downey Jr. had played in 45 movies that had average first-weekend box office revenues of a bit less than $5 million. *Iron Man* grossed $102 million on its opening weekend.

a. How do you expect the success of *Iron Man* to influence the opportunity cost of hiring Robert Downey Jr.?

The salary that must be paid to Robert Downey Jr. to appear in future movies increased because some of the success of *Iron Man* was attributed to Mr. Downey. As a result the opportunity cost to movie producers of hiring Mr. Downey increased.

b. How have the incentives for a movie producer to hire Robert Downey Jr. changed?

There are two effects on the incentives of producers to hire Mr. Downey. First, because the opportunity cost of hiring Mr. Downey increased, the incentive to hire him decreased. However because part of the success of *Iron Man* was attributed to Mr. Downey's acting in the title role, producers expect that his acting will lead to increased success for future movies. This belief increases producers' incentives to hire Mr. Downey.

8. How would you classify a movie star as a factor of production?

As a factor of production, a movie star is labor.

9. How does the creation of a successful movie influence what, how, and for whom goods and services are produced?

The "what" question is affected in two ways. First, one good or service that is produced is the successful movie. Second, spinoffs and/or similar films likely will be created in the future. The "how" question is affected to the extent that movies use different production methods. Some movies, for instance, have a lot of special effects while other movies have few or none. The "for whom" question is influenced because those people who receive higher incomes as the result of the blockbuster movie have higher incomes and so more goods and services are produced for them.

10. How does the creation of a successful movie illustrate self-interested choices that are also in the social interest?

The creation of a successful movie increases the income of the people involved with the movie. Hence these people's choices are driven largely by self interest. However the creation of a successful movie also increases the quantity of widely enjoyed entertainment. The amount of entertainment available in the economy increases which benefits society. So the choices the people made in their self interest also reflected choices made in the social interest.

11. Look at today's *Wall Street Journal*.

a. What is the top economic news story? With which of the big questions does it deal? (It must deal with at least one of them and might deal with more than one.)

On Saturday, August 22 2008 the top economic news story discussed how the financial market turmoil in the mortgage market has created partially finished subdivisions.

b. What tradeoffs does the news item discuss or imply?

The potential buyers of homes in the unfinished subdivision face the tradeoff that income spent on the homes decreases their purchase of other goods and services. The builders of homes in these subdivisions face the tradeoff that they can use their resources (and the resources they hire) to build homes or for other endeavors, such as home additions or commercial building.

c. Write a brief summary of the news item using the economic vocabulary that you have learned in this chapter and as many as possible of the key terms listed on p. 13.

The story discusses the point that many homeowners are living in unfinished subdivisions. The entrepreneurs who were building the subdivisions ran into financial problems from higher interest rates so that there was no longer any profit left from completing the subdivisions. It was in the owners' self-interest to stop work on the houses, even some that were partially constructed. These decisions mean that the labor which was constructing the houses is no longer employed and hence no longer drawing wages for the work. Because housing is a big part of the economy, the unemployment of these factors of production have had adverse macroeconomic consequences.

12. Use the link in MyEconLab (Textbook Resources, Chapter 1) to visit *Resources for Economists on the Internet.* This Web site is a good place from which to search for economic information on the Internet. Click on "Blogs, Commentaries, and Podcasts." and then click on the Becker-Posner Blog.

a. Read the latest blog by these two outstanding economists.

b. As you read this blog, think about what it is saying about the "what," "how," and "for whom" questions.

c. As you read this blog, think about what it is saying about self-interest and the social interest.

Additional Problems

1. **You plan a major adventure trip for the summer. You won't be able to take your usual summer job that pays $6,000, and you won't be able to live at home for free. The cost of your travel on the trip will be $3,000, film and videotape will cost you $200, and your food will cost $1,400. What is the opportunity cost of taking this trip?**
2. **The university has built a new parking garage. There is always an available parking spot, but it costs $1 per day. Before the new garage was built, it usually took 15 minutes of cruising to find a parking space. Compare the opportunity cost of parking in the new garage with that in the old parking lot. Which is less costly and by how much?**

Solutions to Additional Problems

1. The opportunity cost of taking this trip is $10,600. The opportunity cost of taking the trip is the highest-valued activity that you will give up so that you can go on the trip. In taking the trip, you will forgo all the goods and services that you could have bought with the income from your summer job ($6,000) plus the expenditure on travel ($3,000), film and videotape ($200), and food ($1,400).

2. The opportunity cost of parking before the building of the new parking garage is the highest-valued activity that you forgo by spending 15 minutes parking your car. The opportunity cost of parking in the new parking garage is $1 that you could have spent elsewhere. If the opportunity cost of 15 minutes spent parking your car is greater than the opportunity cost of $1, then the new parking garage is less costly.