

# Economic Choices and Decision Making

## GUIDE TO READING

### Section Preview

In this section, you will learn that you face trade-offs and opportunity costs whenever you make an economic decision.

### Content Vocabulary

- trade-off (p. 20)
- opportunity cost (p. 20)
- production possibilities frontier (p. 21)
- economic model (p. 23)
- cost-benefit analysis (p. 24)
- free enterprise economy (p. 24)
- standard of living (p. 24)

### Academic Vocabulary

- alternative (p. 20)
- assumption (p. 23)

### Reading Strategy

**Identifying** As you read this section, complete a graphic organizer similar to the one below by identifying the ways in which you can make economic choices and what these strategies allow you to learn.

Problems	Strategy	Purpose
Trade-offs	Decision-making grid	

## PEOPLE IN THE NEWS

—BusinessWeek

### The Grease Pits of Academia

Students at Belmont Abbey College may have a head start in the race for post-graduation jobs—at least jobs that go *VROOM!* Starting this fall, the 1,000-student school outside Charlotte, N.C., will offer the nation's first four-year bachelor's degree in Motorsports Management. Students will study such topics as sports marketing and racing management.

"The program will be NASCAR-focused but will have a broad application to all portions of the motor sports industry," says Philip Bayster, head of the school's business department. Charlotte, the NASCAR epicenter, is home to about 250 racing teams and 25 specialized media and marketing firms.

Pay is anything but the pits. Annual salaries for the region's 14,000 motor sports jobs, not including drivers, average \$72,000. ■



**W**hat will you do after graduating from high school? Get a job? Go to college? If you choose to work, you will benefit by receiving a paycheck right away. If you decide to earn a college degree—like the NASCAR-focused degree at Belmont Abbey College—you may give up four years of earning potential. The benefit, however, is that your income after college will be

greater than the income you will earn with just a high school diploma.

Because resources are scarce, everyone has to make choices. To become a good decision maker, you need to know how to identify the problem and then analyze your alternatives. Finally, you have to make your choice in a way that carefully considers the costs and benefits of each possibility.

**trade-off** alternative that is available whenever a choice is to be made

**opportunity cost** cost of the next-best alternative use of money, time, or resources when making a choice

## Trade-Offs and Opportunity Cost

**MAIN Idea** Economic choices involve trade-offs and the careful evaluation of opportunity costs.

**Economics & You** When you go shopping, you usually have to make choices, because you cannot afford to buy everything you want. Read on to learn about the terms economists apply to these decisions.

There are alternatives and costs to everything we do. In a world where “there is no such thing as a free lunch,” it pays to examine these concepts closely.

### Trade-Offs

Every decision we make has its **trade-offs**, or alternative choices. One way to help us make decisions is to construct models such as the grid in **Figure 1.5**. This grid shows how Jesse decides to spend a \$100 gift.

Jesse likes several **alternatives**: a video game, concert tickets, an MP3 player, and a replica NFL jersey. At the same time, he realizes that each item has advantages and disadvantages. Some of the items can be used more than once, and some might require his parents’ consent. Some even have additional costs such as batteries.

To help with his decision, Jesse can draw a grid that lists his alternatives and several

criteria by which to judge them. Then he evaluates each alternative with a “yes” or “no.” In the end, Jesse chooses the jersey because it satisfies more of his criteria than any other alternative.

Using a decision-making grid is one way to analyze an economic problem. It forces you to consider a number of alternatives and the criteria you’ll use to evaluate the alternatives. Finally, it makes you evaluate each alternative based on the criteria you selected.

### Opportunity Cost

People often think of cost in terms of dollars and cents. To an economist, however, cost means more than the price tag on a good or service. Instead, economists think broadly in terms of **opportunity cost**, the cost of the next-best alternative. When Jesse decided to purchase the jersey, his opportunity cost was the MP3 player—the next-best choice he gave up. In contrast, trade-offs are all of the other alternatives that he could have chosen.

Even time has an opportunity cost, although you cannot always put a monetary value on it. The opportunity cost of reading this economics book, for example, is the history paper or math homework that you could not do at the same time.

**✓Reading Check Summarizing** How are trade-offs and opportunity cost related?

**Figure 1.5** ▶

**Jesse’s Decision-Making Grid**

Alternatives	Criteria				
	Costs \$100 or less?	Durable?	Will parents approve?	Future expense unnecessary?	Can use anytime?
Video game	yes	yes	no	yes	no
Concert tickets	yes	no	yes	no	no
MP3 player	yes	yes	yes	no	yes
NFL jersey	yes	yes	yes	yes	yes

▶ A decision-making grid lists alternatives and criteria to help evaluate choices.

**Economic Analysis** What do economists mean when they talk about costs?

# Production Possibilities

**MAIN Idea** Economies face trade-offs when deciding what goods and services to produce.

**Economics & You** You just learned that you face trade-offs and opportunity costs when making choices. Read on to learn how opportunity cost applies to countries as well as individuals.

To illustrate opportunity cost, economists use the **production possibilities frontier**, a diagram representing various combinations of goods and services an economy can produce when all its resources are in use. In the example in **Figure 1.6**, a mythical country called Alpha produces two goods—cars and clothing.

## Identifying Possible Alternatives

Even though Alpha produces only two goods, the country has a number of alternatives available to it. For example, it could choose to use all of its resources to produce 70 units of cars and 300 units of clothing, which is shown as point **a** in Figure 1.6. Or it could shift some of its resources out of car production and into clothing, thereby moving to point **b**. Alpha could even choose to produce at point **c**, which represents all clothing and no cars, or at point **e**, which is inside the frontier.

Alpha has many alternatives available to it, which is why the figure is called a production “possibilities” frontier. Eventually, though, Alpha will have to settle on a single combination such as point **a**, **b**, or any other point on or inside the curve, because its resources are limited.

## Fully Employed Resources

All points on the curve such as **a**, **b**, and **c** represent *maximum* combinations of output that are possible if all resources are fully employed. To illustrate, suppose that Alpha is producing at point **a**, and the people would like to move to point **d**, which represents the same amount of cars, but more clothing. As long as all resources are fully employed at point **a**, there are no extra

resources available to produce the extra clothing. Therefore, point **d** cannot be reached, nor can any other point outside the curve. This is why the figure is called a production possibilities “frontier”—to indicate the maximum combinations of goods and services that can be produced.

## The Cost of Idle Resources

If some resources were not fully employed, then it would be impossible for Alpha to reach its maximum potential production. Suppose that Alpha was producing at point **b** when workers in the clothing industry went on strike. Clothing production would fall, causing total output to change to point **e**. The opportunity cost of the unemployed resources would be the 100 units of lost clothing production.

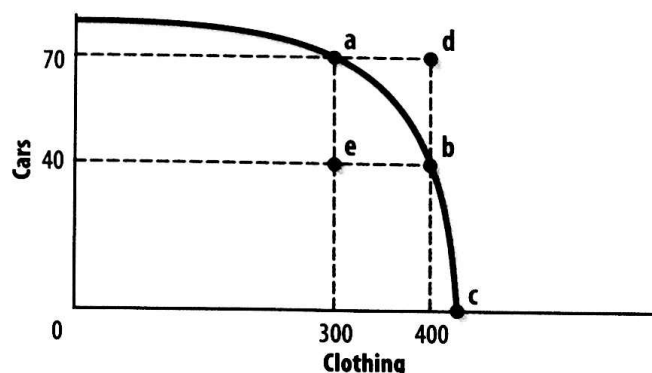
Production at point **e** could also be the result of other idle resources, such as factories or land that are available but not being used. As long as some resources are idle, the country cannot produce on its frontier—which is another way of saying that it cannot reach its full production potential.

**production possibilities frontier** diagram representing the maximum combinations of goods and/or services an economy can produce when all productive resources are fully employed

**Figure 1.6**

## Production Possibilities Frontier

**THE PRODUCTION POSSIBILITIES FRONTIER**



- The production possibilities frontier shows the different combinations of two products that can be produced if all resources are fully employed.

**Economic Analysis** *Why can production take place on or inside the frontier?*

## **Opportunity Cost**

Suppose that Alpha was producing at point **a** and that it wanted to move to point **b**. This is clearly possible as long as point **b** is not outside the production possibilities frontier. However, Alpha will have to give something up in return. As shown in **Figure 1.7**, the opportunity cost of producing the 100 additional units of clothing is the 30 units of cars given up.

As you can see, opportunity cost applies to almost all activities, and it is not always measured in terms of dollars and cents. For example, you need to balance the time you spend doing homework and the time you spend with your friends. If you decide to spend extra hours on your homework, the opportunity cost of this action is the time that you cannot spend with your friends. You normally have a number of trade-offs available whenever you make a decision, and the opportunity cost of the choice you make is the value of the next best alternative that you give up.

## **Economic Growth**

The production possibilities frontier represents potential output at a given



# Thinking Like an Economist

**MAIN Idea** Economists use a strategy called cost-benefit analysis to evaluate choices.

**Economics & You** When you work a complicated math problem, do you ever look at a simplified example to better understand the process? Read on to learn how economists use models to understand complex economic activities.

Because economists study how people satisfy seemingly unlimited and competing wants through the careful use of scarce resources, they are concerned with strategies that will help people make the best choices. Two strategies are building models and preparing a cost-benefit analysis.

## Build Simple Models

One of the most important strategies is to build economic models. An **economic model** is a simplified equation, graph, or figure showing how something works. Simple models can often reduce complex situations to their most basic elements. To illustrate, the production possibility frontiers in this section and the circular flow diagram in Figure 1.3 on page 15 are examples of how complex economic activity can be explained by a simple model.

Another basic model is the production possibilities frontier that is illustrated in Figure 1.6 on page 21. Realistically, of course, economies are able to produce more than two goods or services, but the concepts of trade-offs and opportunity costs are easier to illustrate if only two products are examined. As a result, simple models such as these are sometimes all that economists need to analyze or describe an actual situation.

It is important to realize that models are based on **assumptions**, or things we think are true. In general, the quality of a model is no better than the assumptions on which it is based, but a model with simple assumptions is usually easier to understand. In the case of the production possibilities frontier,

for example, we assumed that only two goods could be produced. This made the model easier to illustrate and still allowed us to discuss the concepts of trade-offs and opportunity costs.

It is also important to keep in mind that models can be revised to make them better. If an economic model helps us to make a prediction that turns out to be right, the model can be used again. If the prediction is wrong, the model might be changed to make better predictions the next time.

**economic model** simplified version of a complex concept or behavior expressed in the form of an equation, graph, or illustration

## CAREERS

### Economist

#### The Work

- \* Collect and analyze data, observe economic trends
- \* Advise businesses and other organizations on such topics as energy costs, inflation, imports, and employment levels
- \* Study economic conditions in the United States or in other countries to estimate the economic effects of new legislation or public policies

#### Qualifications

- \* Strong computer and quantitative skills
- \* Ability to conduct complex research, write reports, and prepare statistical data
- \* Bachelor's degree, with a focus on economics and statistics, accounting, or calculus
- \* Master's degree required for most economists in the private sector

#### Earnings

- \* Median annual earnings: \$72,780

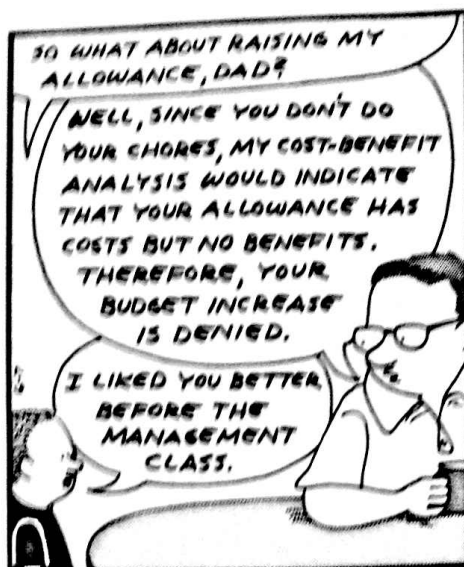
#### Job Growth Outlook

- \* Slower than average

Source: *Occupational Outlook Handbook*, 2006–2007 Edition



**Cost-Benefit Analysis** Before making any major financial decisions, it is a good idea to weigh the benefits against the costs. *How might a business use cost-benefit analysis?*



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**cost-benefit analysis** way of thinking about a choice that compares the cost of an action to its benefits

**free enterprise economy** market economy in which privately owned businesses have the freedom to operate for a profit with limited government intervention

**standard of living** quality of life based on ownership of necessities and luxuries that make life easier

## Apply Cost-Benefit Analysis

Most economic decisions can be evaluated with **cost-benefit analysis**, a way of comparing the costs of an action to the benefits received. This is what Jesse did when he devised a decision-making grid. This decision can be made subjectively, as when Jesse selected the jersey, or it can be made more objectively, especially if the costs of the various alternatives are different.

To illustrate, suppose that you have to make a decision, and you like choices A and B equally. If B costs less, it would be the better choice because you would get more satisfaction per dollar spent. Businesses make investment decisions in exactly this manner, choosing to invest in projects that give the highest return per dollar spent or, in other words, the best cost-benefit ratio.

## Take Small, Incremental Steps

Finally, it also helps to take small, incremental steps toward the final goal. This is especially valuable when we are unsure of the exact cost involved. If the cost turns out to be larger than we anticipated, then the resulting decision can be reversed without too much being lost.

**✓Reading Check** Explaining How does cost-benefit analysis help make economic decisions?

## The Road Ahead

**MAIN Idea** The study of economics helps people become better citizens.

**Economics & You** As you become old enough to vote, are you also becoming more aware of current events? Read on to learn how economic issues affect politics.

The study of economics does more than explain how people deal with scarcity. Economics also includes the study of how things are made, bought, sold, and used. It provides insight as to how incomes are earned and spent, how jobs are created, and how the economy works on a daily basis. The study of economics also gives us a better understanding of the workings of a **free enterprise economy**—one in which consumers and privately owned businesses, rather than the government, make the majority of the WHAT, HOW, and FOR WHOM decisions.

## Topics and Issues

The study of economics will provide you with a working knowledge of the economic incentives, laws of supply and demand, price system, economic institutions, and property rights that make the U.S. economy function. Along the way, you will learn about topics such as unemployment, the business cycle, inflation, and economic growth. You will also examine the role of business, labor, and government in the U.S. economy, as well as the relationship of the United States economy with the international community.

All of these topics have a bearing on our **standard of living**—the quality of life based on the ownership of the necessities and luxuries that make life easier. As you study economics, you will learn how to measure the value of our production and how productivity helps determine our standard of living. You will find, however, that the way the American people make economic decisions is not the only way to make these decisions.

Economists have identified three basic kinds of economic systems. We will analyze these systems and how their organization affects decision making in the next chapter.

## Economics for Citizenship

The study of economics helps us become better decision makers—in our personal lives as well as in the voting booths. Economic issues are often debated during political campaigns, so we need to understand the issues before deciding which candidate to support.

Most of today's political problems have important economic aspects. For example, is it important to balance the federal budget? How can we best keep inflation in check? What methods can we use to strengthen our economy? The study of economics will not provide you with clear-cut answers to all of these questions, but it will give you a better understanding of the issues involved.

## Understanding the World Around Us

The study of economics helps us understand the complex world around us. This is particularly useful because the world is not as orderly as your economics textbook, for example. Your book is neatly divided into sections for study. In contrast, society is dynamic, and technology and other innovations always lead to changes.

Economics provides a framework for analysis—a structure that helps explain how things are organized. Because this framework describes the incentives that influence behavior, it helps us understand why and how the world changes.

In practice, the world of economics is complex and the road ahead is bumpy. As we study economics, however, we will gain a much better appreciation of how we affect the world and how it affects us.

### ✓Reading Check Determining Cause and Effect

How do you think our society would be different if citizens did not study economics?

### Economics ONLINE

#### Student Web Activity

Visit the *Economics: Principles and Practices* Web site at [glencoe.com](http://glencoe.com) and click on *Chapter 1—Student Web Activities* to learn more about how economics affects our lives.

## SECTION

# 3

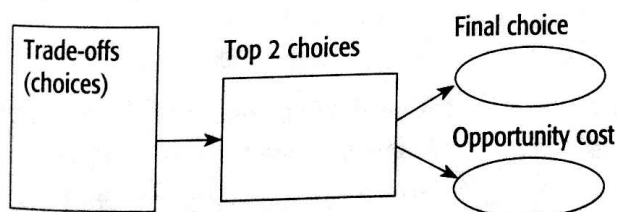
## Review

### Vocabulary

- 1. Explain** the significance of trade-off, opportunity cost, production possibilities frontier, economic model, cost-benefit analysis, free enterprise economy, and standard of living.

### Main Ideas

- 2. Illustrating** Imagine you have \$50 to spend. What one item would you buy? Complete the graphic organizer below to illustrate your final choice, the opportunity cost of your choice, and the trade-offs.



- 3. Explaining** What decision-making strategies do economists recommend using?

### Critical Thinking

- 4. The BIG Idea** Why is it important for governments to understand trade-offs and opportunity costs? Explain in a brief paragraph.
- 5. Synthesizing** How does economics play a part in politics?
- 6. Analyzing Visuals** Study the production possibilities frontier in Figure 1.6 on page 21. What does it mean when the frontier shifts outward? What possible causes exist for such a shift?

### Applying Economics

- 7. Economic Way of Thinking** Search the newspaper and identify a major economic issue facing your community or state. Identify possible solutions and prepare a decision-making grid to evaluate the alternatives. What decision would you make? Write a short essay in which you explain your choice.