# Reading with Purpose

## Section 1
### Scarcity and the Factors of Production

#### Objectives
- Explain why scarcity and choice are basic problems of economics.
- Identify land, labor, and capital as the three factors of production, and identify the two types of capital.
- Explain the role of entrepreneurs.
- Explain why economists say all resources are scarce.

#### Section Focus
- People, businesses, and governments must choose among limited or scarce resources. Economics describes how people seek to satisfy their needs and wants by choosing among many alternatives.

#### Key Terms
- need
- want
- economics
- goods
- services
- scarcity
- shortage
- factors of production
- land
- labor
- capital
- physical capital
- human capital
- entrepreneur

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As you begin your study of economics, consider three scenes: In the first scene, members of a household work together to do the laundry, purchase groceries, make meals, earn money, decide how to spend their money, and decide who gets to hold the TV remote.

In the second scene, the leaders of a large corporation sit at a table for their monthly meeting. They discuss whether to add a new product to their product line and advertising options on television and the Internet.

In the third scene, senators in the United States Congress gather to debate the important issues of the day: How can we ensure that people are well fed and have access to health care? What limits should the government place on businesses and international trade? Who gets to control the Internet? Economists look at the decisions made in each of these scenes and study those decisions in greater detail.

### Scarcity and Choice

The study of economics begins with the idea that people cannot have everything they need and want. A need is something like air, food, or shelter that is necessary for survival. A want is an item that we desire but that is not essential to survival. Because people cannot have everything they need or want, they must consider their options and decide which choice will fill their needs best.

To look at the world economically, we can focus on the decisions that people make. You, for example, have to decide what to do with your time—go to a movie or study for a test. Businesses have to decide how many people to employ and how much to produce. A city government may have to decide whether to spend its budget to build a school or a park.

**Economics** is the study of how people seek to satisfy their needs and wants by making choices. Because people act individually, in groups (such as businesses), and through governments, economists study each of these groups. But why must people make such choices? The reason is scarcity.

### Scarcity

Living in a relatively wealthy country, many Americans may find it hard to understand the idea of scarcity. Store shelves brim with goods. **Goods** are physical objects such as shoes and shirts. We have access to countless services. **Services** are actions or activities that one person performs for another. Haircuts, dental checkups, and tutoring are...
Scarcity limited quantities of resources to meet unlimited wants.

Shortage a situation in which a good or service is unavailable.

Factors of production land, labor, and capital; the three groups of resources that are used to make all goods and services.

Land natural resources that are used to make goods and services.

Labor the effort that people devote to a task for which they are paid.

Capital any human-made resource that is used to create other goods and services.

Physical capital all human-made goods that are used to produce other goods and services; tools and buildings.

Scarcity is not the same as a shortage. A shortage occurs when producers will not or cannot offer goods or services at the current prices. Shortages can be temporary or long-term. During the holiday season, a customer may see an empty shelf on Tuesday, but return on Friday to find that same shelf filled to overflowing. Wars and droughts can also create shortages that last for many years.

Scarcity, in contrast, always exists because our needs and wants are always greater than our resource supply. Goods and services are scarce because they are all made from resources that are scarce.

Defining Scarcity

All of the goods and services we produce are scarce. Scarcity implies limited quantities of resources to meet unlimited wants. While one person might be able to buy hundreds of basketballs or pencils or pianos, no one can have an endless supply of everything. Sooner or later, a limit is always reached. At its core, economics is about solving the problem of scarcity.

Land

Economists call the resources that are used to make all goods and services the factors of production, or factor resources. The factors of production are land, labor, and capital.

Economists use the term land to refer to all natural resources used to produce goods and services. Natural resources are materials found in nature. They include farmland, land for farming and products that are in use on the land, such as coal, water, and forests.

Labor

Another factor of production is labor. Labor is the effort that a person devotes to a task for which that person is paid. Labor includes the medical aid provided by a doctor and the tightening of a clamp by an assembly line worker. It is an artist’s creation of a painting or the repair of a television.

Capital

Capital is any human-made resource that is used to produce other goods and services. The two categories of capital are physical capital and human capital.

Physical Capital

Human-made objects used to create other goods and services are called physical capital. (The term capital goods is a synonym for physical capital.) Physical capital includes buildings and tools. A shoe factory building and all of the sewing machines and other specialized machines for making shoes make up part of the shoe company’s physical capital.

Physical capital is an important factor of production because it can save people and companies a great deal of time and money. A building is physical capital because it helps workers do their work by providing protection and space. Similarly, tools such as tractors, conveyor belts, and pencils are physical capital because they, too, help workers produce a good or a service.

When we create or buy physical capital to accomplish a job, we usually become more productive. Suppose that your family of five is farming by using a hoe and a broad ax to cut the grass. Now, suppose that someone invents a tractor and sells it to your family. By buying the tractor, your family becomes more productive.
Land
All of the natural resources that are used to produce goods and services

Entrepreneur
A person who assembles the factors of production to create new goods and services

Goods and Services

Labor
Any effort a person devotes to a task for which that person is paid

Capital
Any human-made resource that is used to create other goods and services

Building Key Concepts
Land, labor, and capital, also known as the factors of production, are the “inputs,” or resources, used to create all goods and services.

Entrepreneurs What role do entrepreneurs play in producing goods and services?

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people wash dishes by hand every day after every meal—breakfast, lunch, and dinner—for a total of 21 meals per week. It takes 30 minutes per meal for two family members working together to scrape, stack, wash, rinse, dry, and put away the dishes. That’s 21 hours per week that could have been spent on other more productive activities.

Now, suppose that your family decides to buy a dishwasher that costs $400. Using the dishwasher, it will take 15 minutes for a single family member to clean up after each meal. At this rate, it will take the entire family only 5.5 hours per week to handle this chore. The benefits that your family reaps from the free time will cover the cost of the new dishwasher, which provides the typical benefits of physical capital:

1. **Extra time** Your family no longer has to spend 21 hours per week doing the dishes. Instead, the family gains 15.5 hours each week to use for other activities.

2. **More knowledge** By learning how to wash the dishes by machine, family members learn more about using household appliances in general. They can apply that knowledge to the use of other labor-saving devices, such as washing machines, dryers, and microwaves.

3. **More productivity** Because family members now have extra time and extra knowledge, they can use their resources and labor to do additional chores or other activities that are beneficial to the family.

Human Capital
In addition to producing physical capital, people can invest in themselves. **Human capital** is the knowledge and skills a worker gains through education and experience.

An economy requires both physical and human capital to produce goods and services. Doctors use stethoscopes and their schooling in order to provide their services. Assembly-line workers use equipment as well as skills acquired through training and practice to produce goods.

human capital the skills and knowledge gained by a worker through education and experience
**Entrepreneurs**

If land, labor, and capital are the essential ingredients for creating all goods and services, who pulls these resources together? The answer is entrepreneurs. Entrepreneurs are ambitious leaders who decide how to combine land, labor, and capital resources to create new goods and services. They are the individuals who take risks to develop original ideas, start businesses, create new industries, and fuel economic growth.

You need not be Bill Gates of Microsoft or Henry Ford to be considered an entrepreneur. An individual who opens a corner food store and transforms it into a 10-store supermarket chain is an entrepreneur.

**Scarce Resources**

Economists say that all goods and services are scarce because the land, labor, and capital used to create them are scarce. Consider French fries. A typical portion of French fries started as a potato in a field in Idaho. Seven and one-half gallons of water irrigated the half-foot plot where the potato grew. Nurtured with fertilizers and protected by pesticides, the potato was harvested, processed, frozen, and then transported to Seattle. In Seattle, it was fried in corn oil from Nebraska, sprinkled with salt from Louisiana, and eaten in a restaurant.

All of the economic resources, or factors of production, that were used to create the French fries are scarce. First, the quantity of the land and water available for growing potatoes is limited. Second, the labor available to grow the crop and to process and transport the potatoes is limited by the size, time, age, and energy of a population. Finally, because land and labor are limited, the amount of physical capital available to create the French fries, such as farm equipment, is also limited.

While we have been talking about French fries, we could easily have been talking about a pair of blue jeans or a new space shuttle. No matter what good or service we were to look at, we would discover that the supplies of land, labor, and capital used to produce it are scarce, and that each resource has many alternative uses.