Section 1 Scarcity and the Factors of Production

Preview

Objectives

After studying this section you will be able to:

1. **Explain** why scarcity and choice are basic problems of economics.
2. **Identify** land, labor, and capital as the three factors of production, and identify the two types of capital.
3. **Explain** the role of entrepreneurs.
4. **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

Scarcity and the Factors of Production

- What is economics?
- How do economists define scarcity?
- What are the three factors of production?

What Is Economics?

- Economics is the study of how people make choices to satisfy their wants
- For example:
  - You must choose how to spend your time
  - Businesses must choose how many people to hire

Scarcity and Shortages

- Scarcity occurs when there are limited quantities of resources to meet unlimited needs or desires
- Shortages occur when producers will not or cannot offer goods or services at current prices

The Factors of Production

- **Land** All natural resources that are used to produce 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.

The Factors of Popcorn Production

Land	Labor	Capital
Popping Corn	The human effort needed to pop the corn	Corn-Popping Device
Vegetable Oil		

Section 1 Assessment

1. What is the difference between a shortage and scarcity?
   (a) A shortage can be temporary or long-term, but scarcity always exists.
   (b) A shortage results from rising prices; a scarcity results from falling prices.
   (c) A shortage is a lack of all goods and services; a scarcity concerns a single item.
   (d) There is no real difference between a shortage and a scarcity.
2. Which of the following is an example of using physical capital to save time and money?
   (a) hiring more workers to do a job
   (b) building extra space in a factory to simplify production
   (c) switching from oil to coal to make production cheaper
   (d) lowering workers' wages to increase profits

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Section 2 Opportunity Cost

Preview

Objectives

After studying this section you will be able to:

1. **Describe** why every decision involves trade-offs.
2. **Explain** the concept of opportunity cost.
3. **Explain** how people make decisions by thinking at the margin.

Section Focus

All human decisions involve trade-offs. The next best alternative to any choice is called an opportunity cost. Decision-making grids can make it easier to identify the trade-offs and opportunity cost of a decision.

Key Terms

trade-off
guns or butter
opportunity cost
thinking at the margin

Opportunity Cost

- **Does every decision you make involve trade-offs?**
- **How can a decision-making grid help you identify the opportunity cost of a decision?**
- **How will thinking at the margin affect decisions you make?**

Trade-offs and Opportunity Cost

- **Trade-offs** are all the alternatives that we give up whenever we choose one course of action over others.
- The most desirable alternative given up as a result of a decision is known as **opportunity cost**.

All individuals and groups of people make decisions that involve trade-offs.

The Decision-Making Grid

- **Economists encourage us to consider the benefits and costs of our decisions.**

Karen's Decision-making Grid

	Alternatives	
	Sleep late	**Wake up early to study**
Benefits	• Enjoy more sleep • Have more energy during the day	• Better grade on test • Teacher and parental approval • Personal satisfaction
Decision	• Sleep late	• Wake up early to study for test
Opportunity cost	• Extra study time	• Extra sleep time
Benefits forgone	• Better grade on test • Teacher and parental approval • Personal satisfaction	• Enjoy more sleep • Have more energy during the day

Thinking at the Margin

- When you decide how much more or less to do, you are **thinking at the margin**.

Options	Benefit	Opportunity Cost
1st hour of extra study time	Grade of C on test	1 hour of sleep
2nd hour of extra study time	Grade of B on test	2 hours of sleep
3rd hour of extra study time	Grade of B+ on test	3 hours of sleep

Section 2 Assessment

1. Opportunity cost is

   (a) any alternative we sacrifice when we make a decision.

   (b) all of the alternatives we sacrifice when we make a decision.

   (c) the most desirable alternative given up as a result of a decision.

   (d) the least desirable alternative given up as a result of a decision.

2. Economists use the phrase "guns or butter" to describe the fact that

   (a) a person can spend extra money either on sports equipment or food.

   (b) a person must decide whether to manufacture guns or butter.

   (c) a nation must decide whether to produce more or less military or consumer goods.

   (d) a government can buy unlimited military and civilian goods if it is rich enough.

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Section 3

Production Possibilities Curves

Preview

Objectives

After studying this section you will be able to:

1. **Interpret** a production possibilities curve.
2. **Demonstrate** how production possibilities curves show efficiency, growth, and cost.
3. **Understand** that a country's production possibilities depend on its available resources and technology.

Section Focus

Decisions about which goods and services to produce affect each of us every day. Production possibilities graphs can help us examine the opportunity cost of these decisions.

Key Terms

production possibilities curve
production possibilities frontier
efficiency
underutilization
cost
law of increasing costs

Production Possibilities Graphs

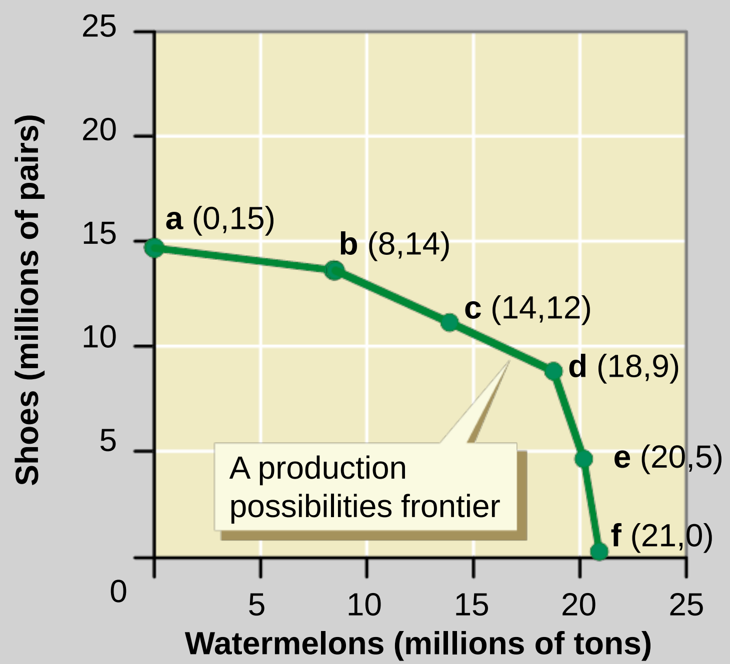
- What is a production possibilities graph?
- How do production possibilities graphs show efficiency, growth, and cost?
- Why are production possibilities frontiers curved lines?

Production Possibilities

- **A production possibilities graph shows alternative ways that an economy can use its resources.**
- **The production possibilities frontier is the line that shows the maximum possible output for that economy.**

Production Possibilities Graph

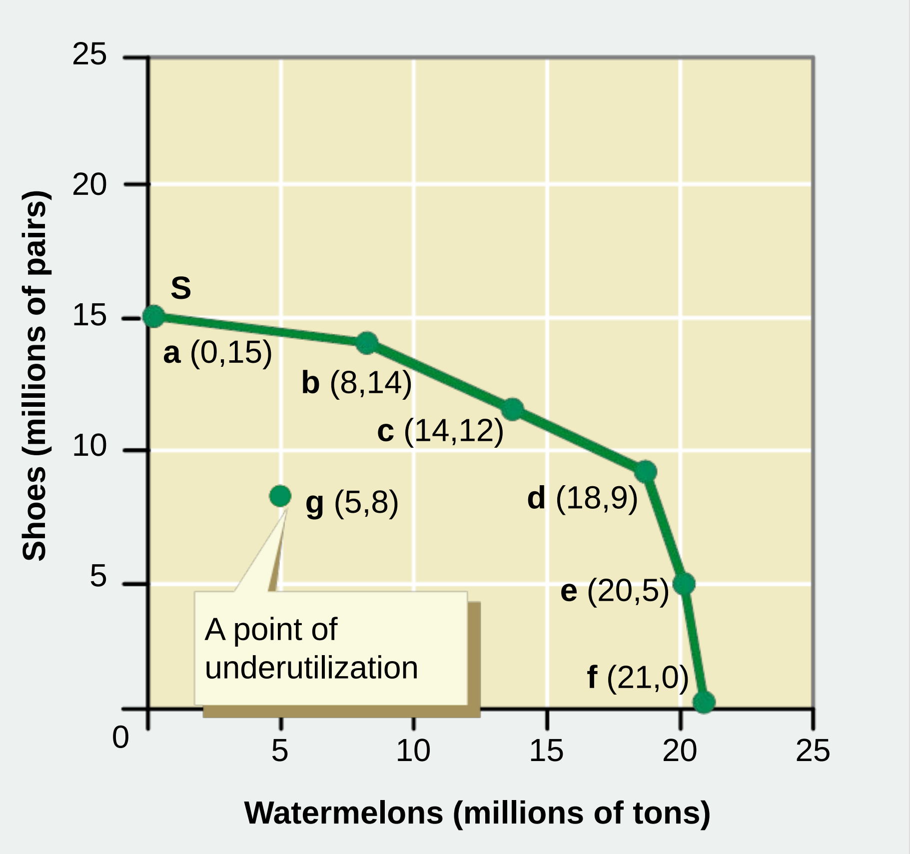
Watermelons (millions of tons)	Shoes (millions of pairs)
0	15
8	14
14	12
18	9
20	5
21	0



Efficiency

- **Efficiency** means using resources in such a way as to maximize the production of goods and services. An economy producing output levels on the production possibilities frontier is operating efficiently.

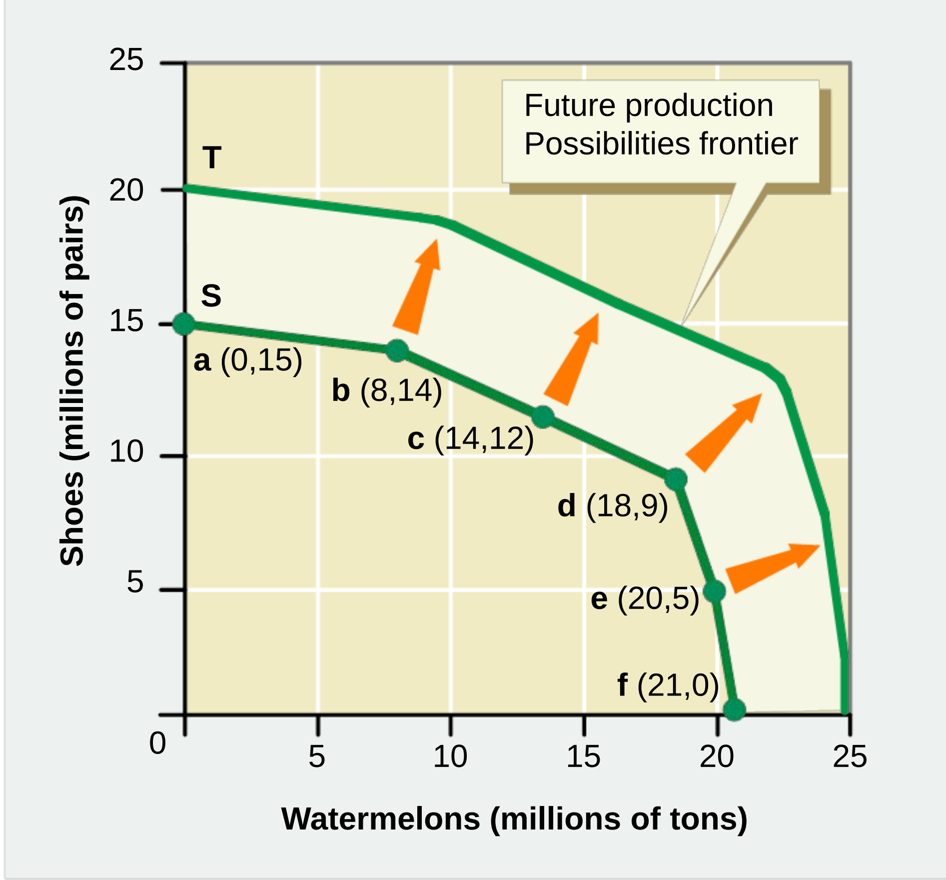
Production Possibilities Graph



Growth

- **Growth** If more resources become available, or if technology improves, an economy can increase its level of output and grow. When this happens, the entire production possibilities curve "shifts to the right."

Production Possibilities Graph



Cost

- **Cost** A production possibilities graph shows the cost of producing more of one item. To move from point c to point d on this graph has a cost of 3 million pairs of shoes.

Production Possibilities Graph

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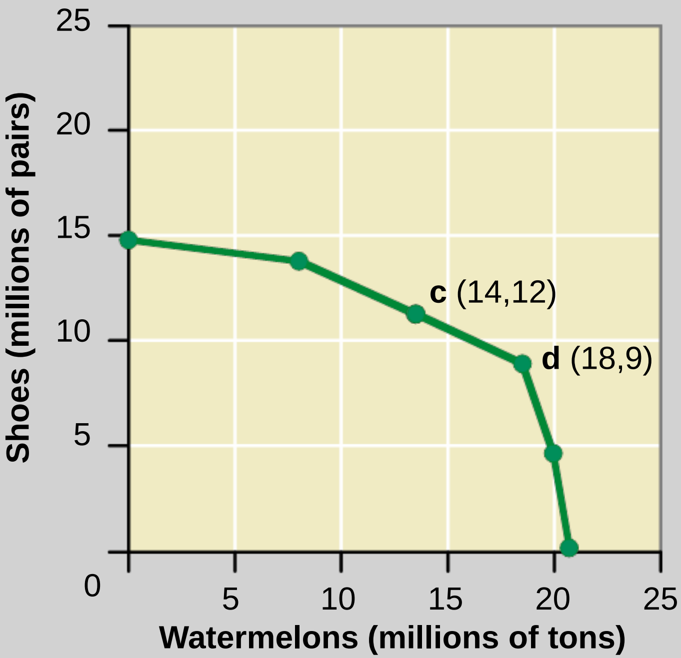
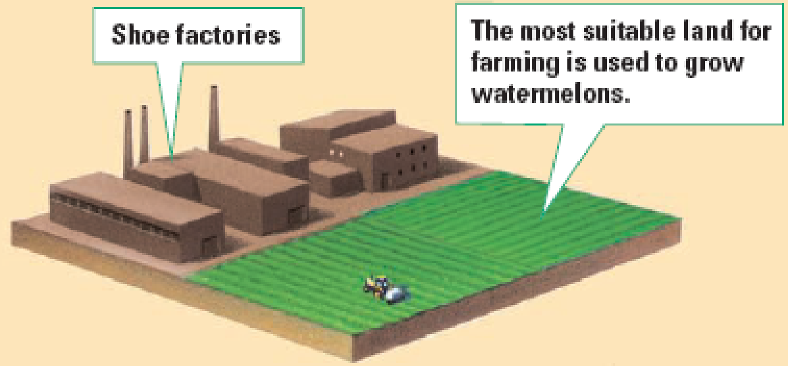


Figure 1.7 The Law of Increasing Costs

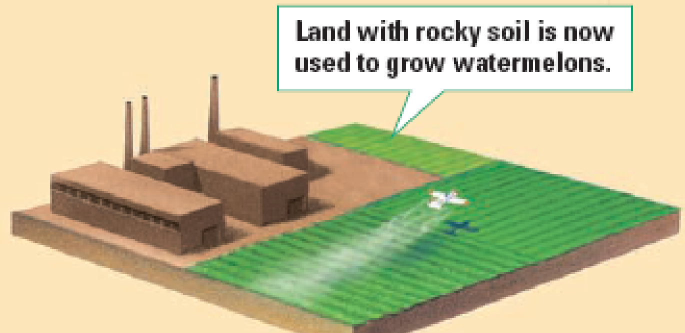
STEP 1

Initially, resources are used efficiently to make a balance of watermelons and shoes.



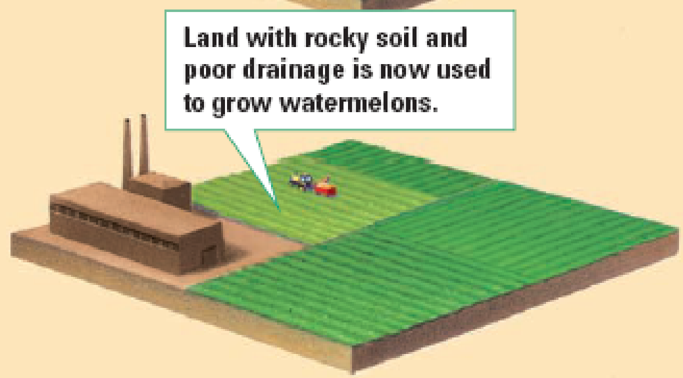
STEP 2

A decision is made to grow more watermelons. Less suitable resources are shifted to farm production. Farm production increases. Shoe production decreases.



STEP 3

A decision is made to grow even more watermelons, and more resources are shifted to farm production. Because the added land is less productive, a greater amount of it must be cultivated. Farm output increases. Shoe output decreases by an even greater amount.



Section 3 Assessment

1. A production possibilities frontier shows
   (a) farm goods and factory goods produced by an economy.
   (b) the maximum possible output of an economy.
   (c) the minimum possible output of an economy.
   (d) underutilization of resources.

2. An economy that is using its resources to produce the maximum number of goods and services is described as
   (a) efficient.
   (b) underutilized.
   (c) growing.
   (d) trading off.

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