

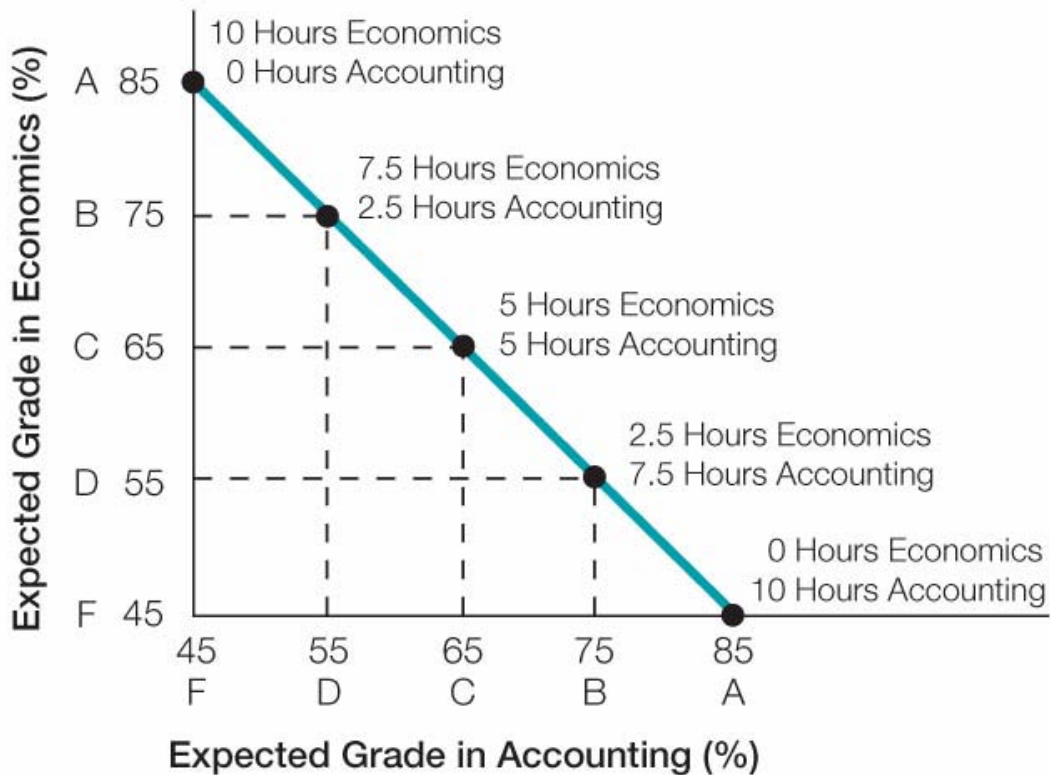
### Section 2.3 The Production Possibilities Curve

- The economic concepts of scarcity, choice, and trade-offs can be shown with a simple graph called a **production possibilities curve**. This curve represents the potential total output combinations of any two goods for an economy. It illustrates an economy's potential for allocating its limited resources for producing various combinations of goods in a given time period.
- On a production possibilities curve, we assume that the economy has a given quantity and quality of resources and technology available to use for production.
- The production possibilities curve discussion begins with a straight-line production possibilities curve, with the goods being one's expected grade in economics and one's expected grade in accounting given a fixed amount of resources (study time).

## section 2.3

### Exhibit 1

## Production Possibilities Curve: "Producing" Grades in Economics and Accounting



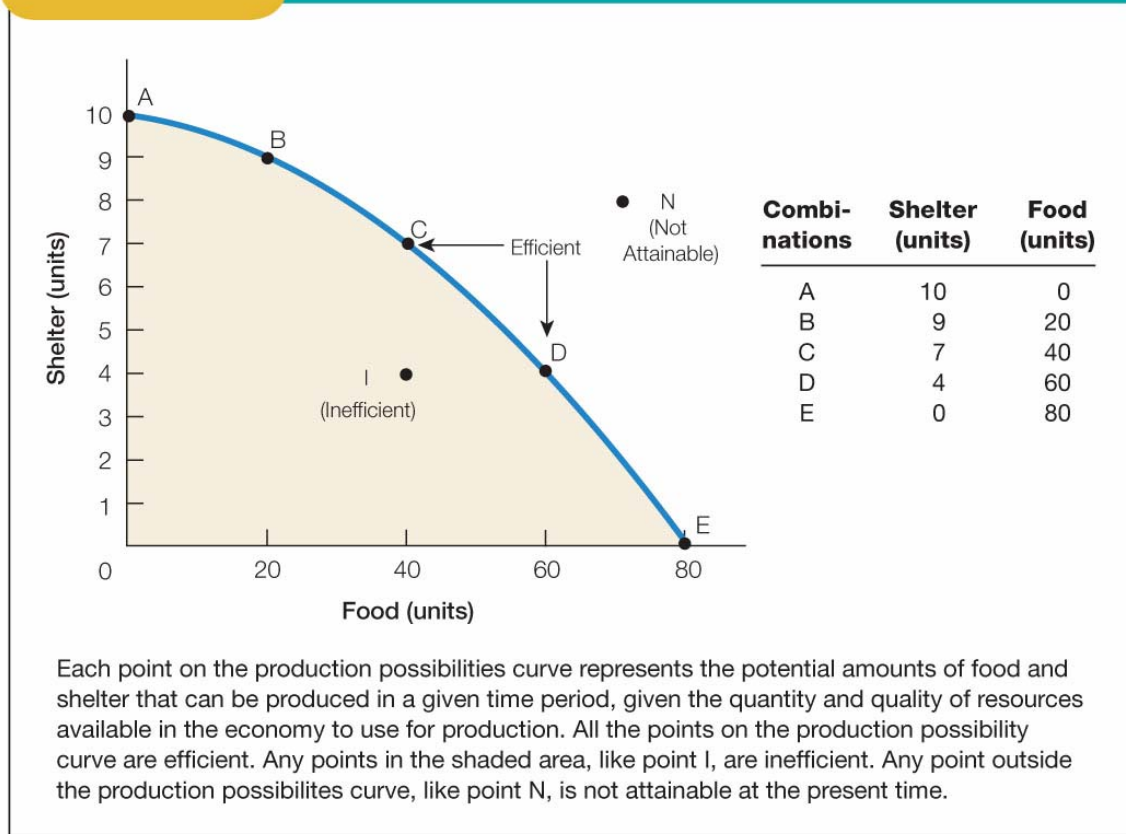
The production possibilities curve highlights the concept of trade-offs. Assuming you choose to study a total of ten hours a week, moving down the production possibilities curve shows that if you use your time to study accounting instead of economics you can raise your expected grade in accounting but only at the expense of lowering your expected grade in economics. With a straight-line production possibilities curve, the opportunity costs are constant.

*Exhibit 1: Producing Grades in Economics and Accounting*

- The production possibilities curve discussion is extended to a non-linear production possibilities curve, with an example involving food and shelter.

**section 2.3**  
**Exhibit 2**

**Production Possibilities Curve:  
The Trade-Off between Shelter and Food**



**Exhibit 2:** Production Possibilities Curve: The Trade-off between Shelter and Food

- The economy cannot produce beyond the levels of output indicated by the production possibilities curve during a given time period, because there are not enough resources to produce that output. However, it is possible to operate inside the production possibilities curve.
- If an economy is operating inside its production possibilities curve, it is not at full capacity, and is operating inefficiently. As a result, actual output is less than potential output.
- Most modern economies have resources that are idle, at least for some period of time. If those resources were not idle, people would have more scarce goods and services available for their use.
- Unemployed resources create a serious problem, not just for labor, but for all resources entering into production, such as plant capacity. All resources entering into production must be used effectively for efficient production.
- Underutilized resources or those not being put to their best uses are illustrated by output combinations inside the production possibilities curve. By putting unemployed resources to work or by putting already employed resources to better uses, we could expand output.

- Increasing or improving the utilization of resources can lead to greater output of all goods. That is why we all have an interest in the efficient use of all of society's resources: There can be more of everything we want available for our use.
- **Efficiency** requires society to use its resources to the fullest extent—getting the most we can out of our scarce resources.
- If resources are being used efficiently, that is, at some point along a production possibilities curve, then more of one good or service requires the sacrifice of another good or service, in other words a related **opportunity cost**.
- Efficiency does not tell us which point along a production possibilities curve is *best*, but it does tell us that points inside the curve cannot be best, because some resources are wasted.
- In most cases, the opportunity cost of a good increases as we increase production. This leads to a “bowed out” production possibility frontier. This occurs because as we expand production, we are adding productive resources that are less productive than resources already used in production.