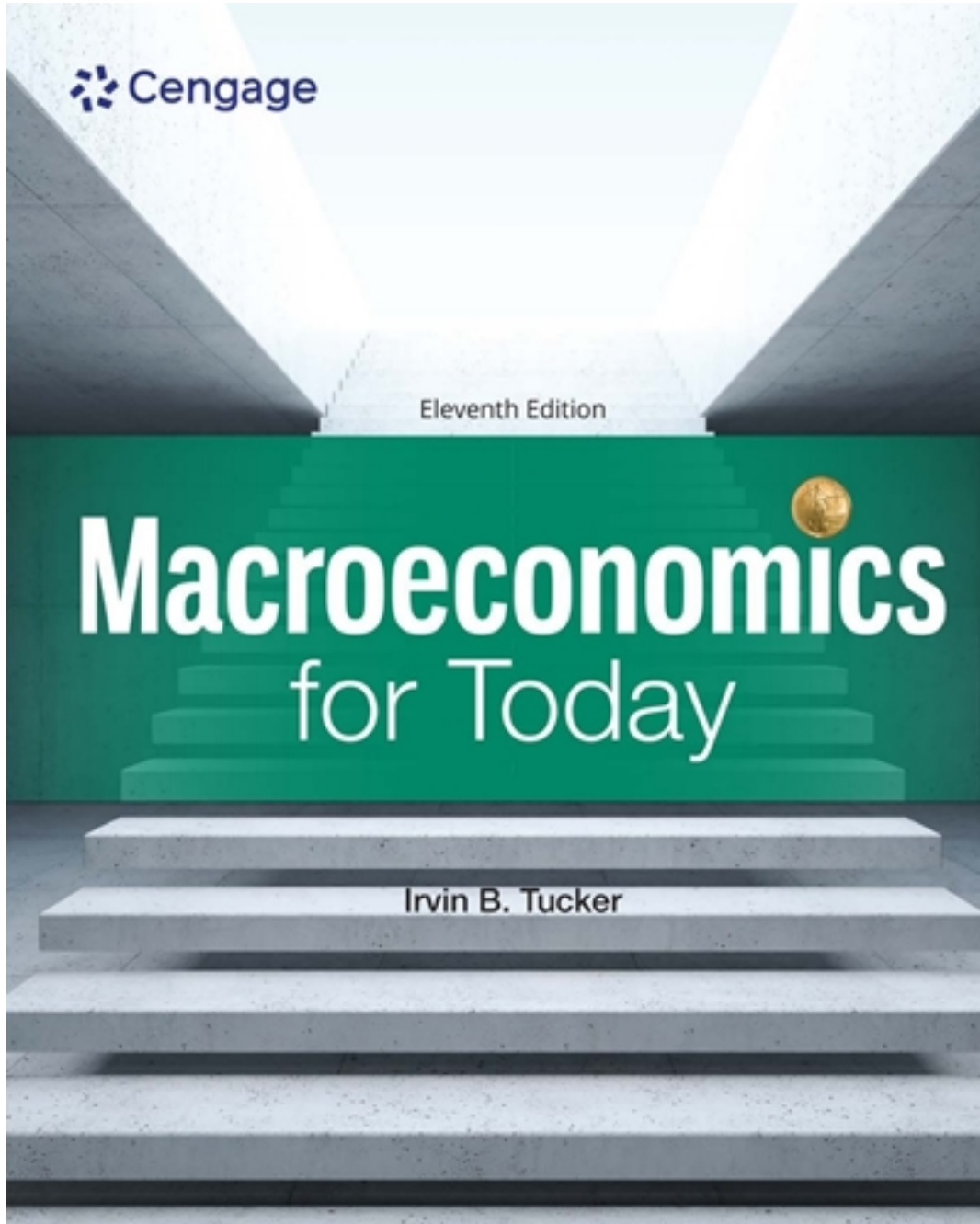


# Test Bank for Macroeconomics for Today 11th Edition by Tucker

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# Test Bank

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

1. The opportunity cost of an action is:
  - a. the monetary payment the action required.
  - b. the total time spent by all parties in carrying out the action.
  - c. the value of the best opportunity that must be sacrificed in order to take the action.
  - d. the cost of all alternative actions that could have been taken, added together.

ANSWER: c

2. The highest valued alternative that must be given up in order to choose an option is called the:
  - a. opportunity cost.
  - b. utility cost.
  - c. scarcity expense.
  - d. accounting cost.

ANSWER: a

3. Which of the following sayings best reflects the concept of opportunity cost?
  - a. "You can't teach an old dog new tricks."
  - b. "There is no such thing as a free lunch."
  - c. "I have a baker's dozen."
  - d. "There's no business like show business."

ANSWER: b

4. The opportunity cost to a city for using local tax revenues to construct a new park is the:
  - a. best alternative foregone by building the park.
  - b. dollar cost of constructing the new park.
  - c. dollar cost of the old park.
  - d. increased taxes necessary to pay for maintenance of the new park.

ANSWER: a

5. The opportunity cost of watching television is:
  - a. all of the alternative programs that appear on other stations.
  - b. zero because there is no money expenditure involved.
  - c. the alternative use of the time foregone by watching the program.
  - d. zero if it benefits you.

ANSWER: c

6. Tyler has \$10 to spend on a Superman, Batman, or Wonder Woman T-shirt. Tyler buys the Wonder Woman T-shirt and the Batman shirt was a close second choice. What is the opportunity cost?
  - a. The amount he spent, \$10.
  - b. Nothing, since he got his preferred choice.
  - c. The Batman T-shirt.
  - d. The Superman T-shirt.

ANSWER: c

7. The amount of a good that must be given up to produce another good is the concept of:

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- a. scarcity.
- b. specialization.
- c. opportunity cost.
- d. efficiency.

ANSWER: c

8. The opportunity cost of an activity refers to the:
- a. amount of money the activity costs.
  - b. expected gains minus the expected costs of engaging in the activity.
  - c. expected gains of engaging in the activity.
  - d. next best thing that must be sacrificed in order to engage in the activity.

ANSWER: d

9. Mikki decides to work five hours the night before her economics exam. She earns an extra \$75, but her exam score is 10 points lower than it would have been had she stayed home and studied. Her opportunity cost is the:
- a. five hours she worked.
  - b. \$75 she earned.
  - c. 10 points she lost on her exam.
  - d. time she could have spent watching television.

ANSWER: c

10. Why does the opportunity cost of your college education include money you could have earned working instead of going to college?
- a. Because most people who don't go to college work instead.
  - b. Because the best alternative use of your time is working.
  - c. Because people should be productive members of society.
  - d. Because working a full time job takes as much time as going to college.

ANSWER: b

**Exhibit 2-1 Production possibilities curve data**

Consumption Goods	Capital Goods
10	0
9	1
7	2
4	3
0	4

11. In Exhibit 2-1, according to the information, the opportunity cost of producing a third unit of capital is:
- a. 3 units of consumption goods.
  - b. 4 units of consumption goods.
  - c. 6 units of consumption goods.
  - d. 7 units of consumption goods.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

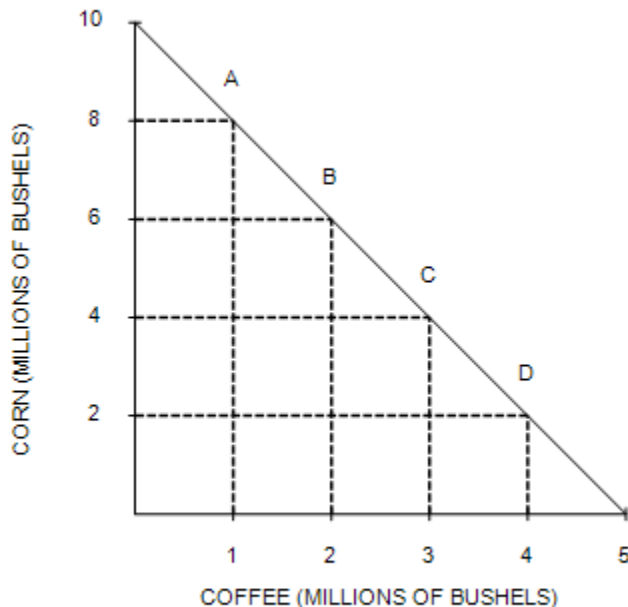
ANSWER: a

12. In Exhibit 2-1, why is the opportunity cost of producing the fourth unit of capital 4 units of consumption goods but the opportunity cost of producing 4 units of capital 10 units of consumption goods?

- a. It isn't. The opportunity cost of the fourth unit and the opportunity cost of four units is the same.
- b. Because consumption goods are more valuable than capital goods.
- c. Because the opportunity cost of capital goods is constant while the opportunity cost of consumption goods is decreasing as this economy moves from more consumption goods to more capital goods.
- d. Because the opportunity cost of the fourth unit of capital is the amount of consumption goods that must be given up for this economy to move from three units of capital to four units of capital, but the opportunity cost of four units of capital is the amount of consumption goods that must be given up to go from zero units of capital to four units of capital.

ANSWER: d

**Exhibit 2-2 Production possibilities curve**



13. In Exhibit 2-2, the opportunity cost of coffee when moving from A to B is:

- a. 2 million bushels of corn.
- b. 6 million bushels of corn.
- c. 8 million bushels of corn.
- d. 14 million bushels of corn.

ANSWER: a

14. In Exhibit 2-2, the opportunity cost of coffee when moving from A to B is:

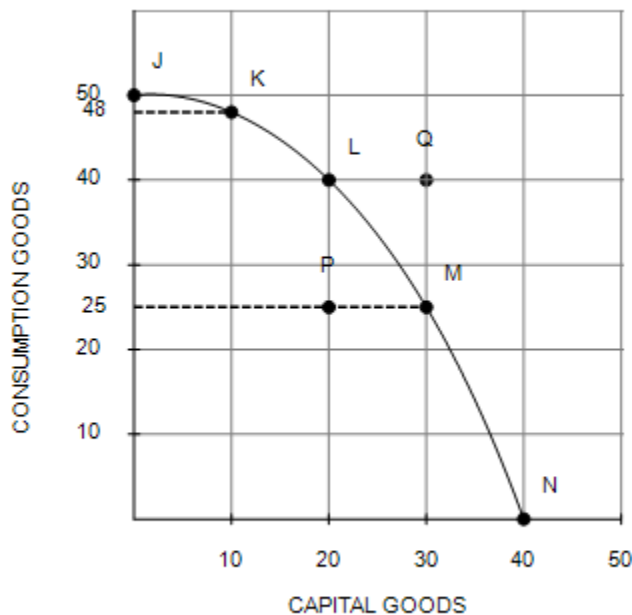
Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- a. the same as moving from A to C.
- b. the same as moving from A to D.
- c. the same as moving from B to D.
- d. the same as moving from B to C.

ANSWER: d

**Exhibit 2-15 Production possibilities curve**



15. In Exhibit 2-15, if the economy moves from point L to point M, the opportunity cost of producing 10 more capital goods is:

- a. 40 fewer consumption goods because at point L, 20 capital goods and 40 consumption goods are produced.
- b. 25 fewer consumption goods because at point M, 30 capital goods and 25 consumption goods are produced.
- c. 15 fewer consumption goods because to go from 20 capital goods to 30 capital goods, the economy must go from 40 consumption goods to 25 consumption goods.
- d. 15 more consumption goods because to go from 30 capital goods to 20 capital goods, the economy must go from 25 consumption goods to 40 consumption goods.

ANSWER: c

16. Why are all costs really "opportunity costs"? What is an opportunity cost of attending class?

ANSWER: An opportunity cost is what must be given up in order to get something else. Although it is convenient to measure many costs in monetary terms, ultimately all costs (some of which cannot be easily measured in monetary terms) are opportunity costs because there is always something that must be given up in order to get something else. An opportunity cost of attending class is the best alternative use of the student's time.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

17. In economics, the term marginal refers to:
- the change or difference from a current situation.
  - man-made resources as opposed to natural resources.
  - the satisfaction a consumer receives from a good.
  - holding everything else constant in the analysis.

**ANSWER: a**

18. According to marginal analysis, you should choose to do something if the extra benefit:
- is positive.
  - outweighs the extra cost.
  - exceeds the benefits of the previous time spent on the activity.
  - will change the outcome.

**ANSWER: b**

19. A rational decision maker always chooses the option for which marginal benefit is:
- less than marginal cost.
  - equal to marginal cost.
  - unrelated to marginal cost.
  - more than marginal cost.

**ANSWER: d**

20. A farmer is deciding whether or not to add fertilizer to his or her crops. If the farmer adds 1 pound of fertilizer per acre, the value of the resulting crops rises from \$80 to \$100 per acre. According to marginal analysis, the farmer should add fertilizer if it costs less than:
- \$12.50 per pound.
  - \$20 per pound.
  - \$80 per pound.
  - \$100 per pound.

**ANSWER: b**

21. While waiting in line to buy a cheeseburger for \$2 and a drink for 75 cents, Amir notices that the restaurant has a value meal containing a cheeseburger, drink, and French fries for \$3. For Amir, the marginal cost of purchasing the French fries:
- would be zero.
  - would be 25 cents.
  - would be 50 cents.
  - cannot be determined because the information about the price of the French fries is not provided.

**ANSWER: b**

22. When deciding whether to buy a second car, marginal analysis indicates that the purchaser should compare the:
- benefits expected from two cars with the cost of both.
  - additional benefits expected from a second car with the cost of the two cars.
  - dollar cost of the two cars with the potential income that the cars will generate.
  - additional benefits of the second car with the additional cost of the second car.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

**ANSWER: d**

23. While waiting in line to buy one cheeseburger for \$1.50 and a medium drink for \$1.00, Sally notices that she could get a value meal that contains both the cheeseburger and medium drink and also a medium order of fries for \$2.75. She thinks to herself, "Is it worth the extra 25 cents to get the medium fries?" To an economist, Sally's decision is an example of:

- a. marginal analysis.
- b. basing decisions on total, rather than marginal, value.
- c. an unintended consequence.
- d. the fallacy of composition.

**ANSWER: a**

24. While waiting in line to buy two tacos at 80 cents each and a medium drink for 90 cents, Jordan notices that the restaurant has a value meal containing three tacos and a medium drink all for \$3. Jordan should purchase the value meal if:

- a. his marginal cost exceeds his marginal benefit.
- b. his marginal benefit of the third taco is greater than 50 cents.
- c. his value of the third taco is less than 50 cents.
- d. he has \$3 in his wallet.

**ANSWER: b**

25. A local restaurant offers an "all you can eat" Sunday brunch for \$12. Lee eats four servings, but leaves half of a fifth helping uneaten. Why?

- a. Their marginal value of a serving of brunch has fallen below \$12.
- b. Their marginal value of a serving has fallen below \$2.36 (\$12 divided by 5 servings).
- c. Their marginal value of food has fallen to zero.
- d. The total value they place on brunch today exactly equals \$12.

**ANSWER: c**

26. Which of the following is an example of an organization using marginal analysis?

- a. A hotel manager calculating the average cost per guest for the past year.
- b. A farmer hoping for rain.
- c. A government official considering what effect an increase in military goods production will have on the production of consumer goods.
- d. A business calculating economic profits.

**ANSWER: c**

27. Suppose a 50-seat bus is about to depart from Boston to New York with five empty seats. The total cost to the bus company of the trip is \$1,000 and no services, food, or beverages are provided to passengers. Use marginal analysis to develop conditions under which the bus company would be willing to sell tickets for the five remaining seats.

- a. The bus company would be willing to sell the five remaining tickets at a price of at least \$20 each to cover the cost per seat of those passengers.
- b. The bus company would be willing to sell the five remaining tickets at any price over \$0 because there is no additional cost of five more passengers.
- c. The bus company would not be willing to sell the five remaining tickets because it already covered the cost of the trip with the revenue from the 45 passengers on board.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- d. The bus company would be willing to sell the five remaining tickets at a price of at least \$25 each because they need to make a profit on each passenger.

**ANSWER: b**

28. If an economy is operating at a point inside the production possibilities curve,
- a. its resources are not being used efficiently.
  - b. opportunity costs are decreasing as more of one good is traded for the other good.
  - c. technology has improved.
  - d. there is full employment of all resources.

**ANSWER: a**

29. Which of the following most accurately summarizes the implications of an economy's production possibilities curve?
- a. If all the resources of an economy are being used efficiently, more of one good can be produced only if less of another good is produced.
  - b. If all the resources of an economy are being used efficiently, it is generally possible to produce more of one good without having to sacrifice the production of other goods.
  - c. Over time, it is generally impossible for a country to expand its production of goods.
  - d. An economy will automatically move toward a point that lies outside of the production possibilities constraint unless proper government policy constrains production.

**ANSWER: a**

30. After the terrorist attacks on September 11, 2001, the United States began devoting substantial resources toward the War on Terrorism, homeland security, and relief efforts. As long as our resources were being used efficiently, the production possibilities curve would suggest that:
- a. we will have to give up the production of other goods that could have been produced with these resources.
  - b. we will be able to produce the same amount of other goods as before.
  - c. the military spending will result in an outward shift in the production possibilities curve but that the relief effort will result in an offsetting inward shift.
  - d. we will be unable to devote the resources necessary toward these efforts unless there is an improvement in technology.

**ANSWER: a**

31. A point outside the production possibilities curve represents a combination of goods that is:
- a. inefficient.
  - b. efficient.
  - c. unattainable.
  - d. attainable.

**ANSWER: c**

32. In Europe during the 14th century, the Bubonic Plague killed 24 million people or close to 37 percent of the population. How would this affect the production possibilities curves for the countries of Europe at that time?
- a. The production possibilities curves for these countries would have shifted outward.
  - b. The production possibilities curves for these countries would have shifted inward.
  - c. The production possibilities curves for these countries would have been unaffected.
  - d. This would have been illustrated by a movement along the production possibilities curves for these countries,



Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

but it would not have shifted them.

ANSWER: b

33. Using a production possibilities curve, a technological advance that increases the amount of output for the same amount of inputs would be illustrated as a(n):

- a. flattening of the curve.
- b. movement from one point to another point along the curve.
- c. outward shift of the curve.
- d. movement from a point on the curve to a point inside the curve.

ANSWER: c

34. The production possibilities curve shows that:

- a. some of one good must be given up to get more of another good in an economy that is operating efficiently.
- b. no output combination is impossible.
- c. an economy that is operating efficiently can have more of one good without giving up some of another good.
- d. scarcity can be eliminated.

ANSWER: a

35. A production possibilities curve has "good X" on the horizontal axis and "good Y" on the vertical axis. On this diagram, the opportunity cost of good X, in terms of good Y, is represented by the:

- a. distance to the curve from the horizontal axis.
- b. distance to the curve from the vertical axis.
- c. distance from the origin to the curve.
- d. change in Y for each change in X along the curve.

ANSWER: d

36. A production possibilities curve shows the:

- a. dollar costs of producing two different goods.
- b. amounts of labor and capital needed to produce one good.
- c. various combinations of goods that can be produced.
- d. prices of different goods that are produced in an economy.

ANSWER: c

37. When the production possibilities curve is bowed out, resources are:

- a. equally well-suited to production of both goods.
- b. not being used efficiently.
- c. not equally suited to the production of both types of goods.
- d. increasing as more of one good is produced.

ANSWER: c

38. When an economy's resources are not fully employed, then it must be *true* that the:

- a. production point is located outside and to the right of the production possibilities curve.
- b. production point is located along the production possibilities curve.
- c. production point is located inside and to the left of the production possibilities curve.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

d. production possibilities curve shifts to the left.

ANSWER: c

39. If an economy is producing at full employment, it means that:

- a. there are idle resources in this economy.
- b. the economy is producing along its production possibilities curve.
- c. the economy is producing at a point that is to the left of the production possibilities curve.
- d. the economy is producing at a point that is to the right of the production possibilities curve.

ANSWER: b

40. Which of the following would be *most* likely to cause the production possibilities curve for computers and education to shift outward?

- a. A choice of more computers and less education.
- b. A choice of more education and less computers.
- c. A reduction in the labor force.
- d. An increase in the quantity of resources.

ANSWER: d

41. Along a production possibilities curve showing capital and consumption goods production, which of the following pairs are being held fixed?

- a. Unemployment and capital goods production.
- b. Number of resources and technology.
- c. Composition of the economy's output and number of resources.
- d. Capital and consumption goods production.

ANSWER: b

**Exhibit 2-3 Production possibilities curve data**

	A	B	C	D	E
Capital Goods	0	1	2	3	4
Consumer Goods	20	18	14	8	0

42. According to the data given in Exhibit 2-3, the production of 1 unit of capital goods and 20 units of consumer goods:

- a. is possible but would be inefficient.
- b. may be a result of unemployment.
- c. may be a result of unused natural resources.
- d. is not feasible with current resources and technology.

ANSWER: d

**Exhibit 2-4 Production possibilities curve data**

	A	B	C	D	E
Capital Goods	0	10	20	30	40
Consumer Goods	200	180	140	80	0

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

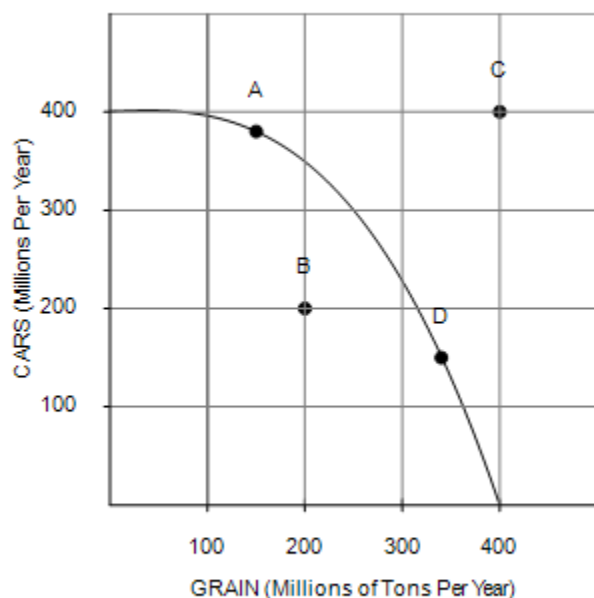
**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

43. According to the data in Exhibit 2-4, a total output of 140 units of consumer goods and 10 units of capital goods would:

- a. be unobtainable in this economy.
- b. be an efficient way of using the economy's scarce resources.
- c. result in the maximum use of the economy's labor force.
- d. result in a less than maximum rate of growth for this economy.

ANSWER: d

**Exhibit 2-7 Production possibilities curve**



44. For the economy shown in Exhibit 2-7 to operate at point C, it must:

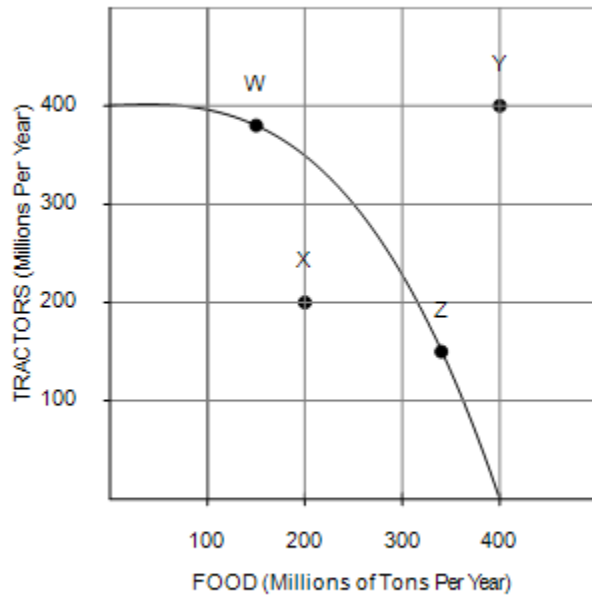
- a. be willing to lower the price of grain.
- b. use its given resources more efficiently than it would at point A.
- c. experience resource unemployment.
- d. experience an increase in its resources and/or an improvement in its technology.

ANSWER: d

**Exhibit 2-9**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



45. If the economy represented in Exhibit 2-9 is operating at Point W:
- no tractor product must be forgone to produce more food in the current period.
  - resources are not fully used.
  - some tractor production must be forgone to produce more food in the current period.
  - increased food production would be impossible.

ANSWER: c

46. Which of the following moves from one point to another in Exhibit 2-9 would represent an increase in economic efficiency?
- Z to W
  - W to Y
  - W to X
  - X to W

ANSWER: d

**Exhibit 2-10 Production possibilities curve data**

	A	B	C	D	E
<b>Capital goods</b>	0	1	2	3	4
<b>Consumption goods</b>	25	23	19	13	0

47. Suppose an economy is faced with the production possibilities table shown in Exhibit 2-10. As additional units of capital goods are being produced, the number of consumption goods produced must:
- increase because the production possibility table shows only the maximum efficiency points.
  - increase because of the law of increasing costs.

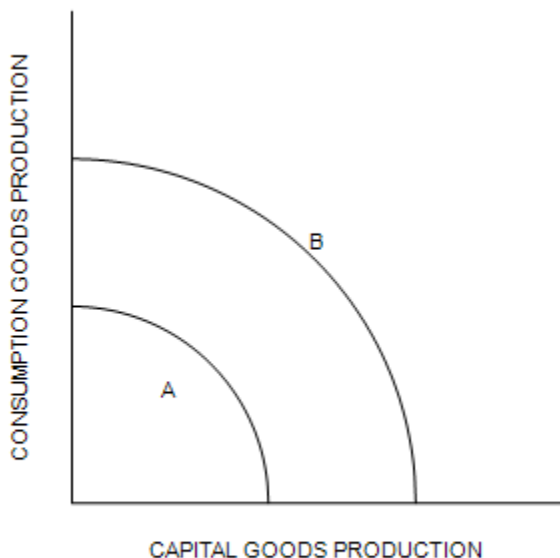
Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- c. decrease because of the law of increasing costs.
- d. decrease because of the finite nature of the resource base.

ANSWER: d

**Exhibit 2-11 Production possibilities curves**



48. In Exhibit 2-11, which of the following could have caused the production possibilities curve to shift from the one labeled B to the one labeled A?

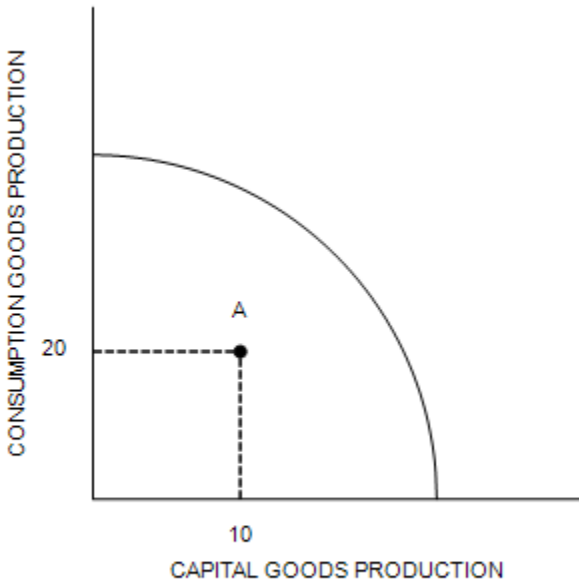
- a. A major natural disaster.
- b. An increase in resources.
- c. An advance in technology.
- d. A decrease in unemployment.

ANSWER: a

**Exhibit 2-12 Production possibilities curve**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



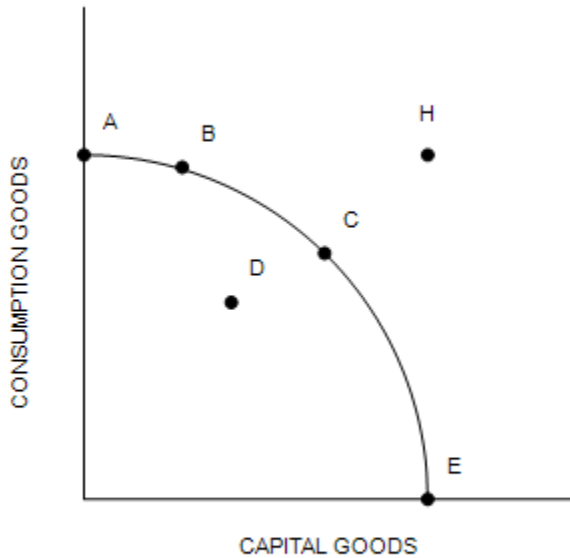
49. In Exhibit 2-12, suppose an economy with the given production possibilities curve is currently located at point A in the figure. Which of the following statements is *false*?
- This economy could produce more of both capital and consumption goods.
  - This economy is experiencing full employment.
  - This economy could produce more capital goods while holding fixed the number of consumption goods produced.
  - This economy could produce more consumption goods while holding fixed the number of capital goods produced.

ANSWER: b

**Exhibit 2-13 Production possibilities curve**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



50. In Exhibit 2-13, in terms of efficiency:

- a. point A is preferred to point B.
- b. point A is preferred to point E.
- c. point A is preferred to point D.
- d. point B is preferred to point A.

ANSWER: c

51. In Exhibit 2-13, point H is:

- a. achievable with today's resource base.
- b. not achievable today because the economy has not achieved full employment.
- c. not achievable today because the economy is not at its maximum point of efficiency.
- d. not achievable today because of inadequate production capacity.

ANSWER: d

**Exhibit 2-11 Production possibilities curves**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



52. In Exhibit 2-11, which of the following explains this economy's movement from point E to point F?
- a. The rate of unemployment in this economy would have increased.
  - b. Consumption goods production has increased, but capital goods production has decreased.
  - c. The economy has decreased unemployment, but some degree of unemployment still exists.
  - d. The economy has achieved full employment.

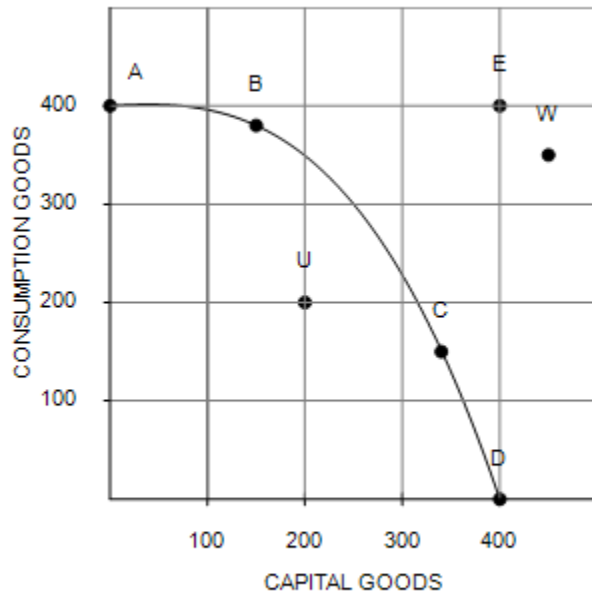
ANSWER: d

**Exhibit 2-16**



Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



53. From the information in Exhibit 2-16, which of the following points on the production possibilities curve are attainable with the resources and technology currently available?

- a. A, B, C, E
- b. A, B, C, D, W
- c. E, U, W
- d. A, B, C, D, U

**ANSWER:** d

54. Draw a graph of a production possibilities curve with consumption goods and capital goods that displays the law of increasing opportunity costs. What do points on, inside and outside the curve represent? What does a rightward shift of the curve represent? How is economic growth expressed in terms of the production possibilities model?

**ANSWER:** The production possibilities curve will bow out from the origin. A point on the curve represents efficiency. A point inside represents inefficiency. A point outside the curve is currently unattainable (it is a combination of production we cannot currently produce given our limited resources and technology; although that point may be attainable if we acquire more resources, technology, or generally increase our production possibilities). A rightward shift in the curve represents an increase in production possibilities. Because economic growth means an increase in a nation's production possibilities over time, then it is expressed as a rightward shift of the production possibilities curve.

**Exhibit 2-8 Production possibilities curve data**

	A	B	C	D	E	F
Capital goods	15	14	12	9	5	0
Consumer goods	0	2	4	6	8	10

55. As shown in Exhibit 2-8, the concept of increasing opportunity costs is reflected in the fact that:

- a. the quantity of consumer goods produced can never be zero.

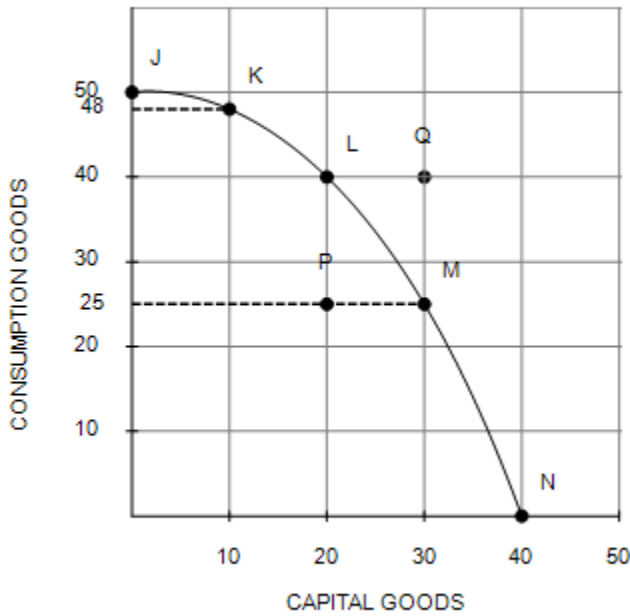
Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- b. the labor force in the economy is homogeneous.
- c. greater amounts of capital goods must be sacrificed to produce each additional 2 units of consumer goods.
- d. a graph of the production data is a downward-sloping straight line.

ANSWER: c

**Exhibit 2-15 Production possibilities curve**



56. In Exhibit 2-15, the shape of the production possibilities curve demonstrates:

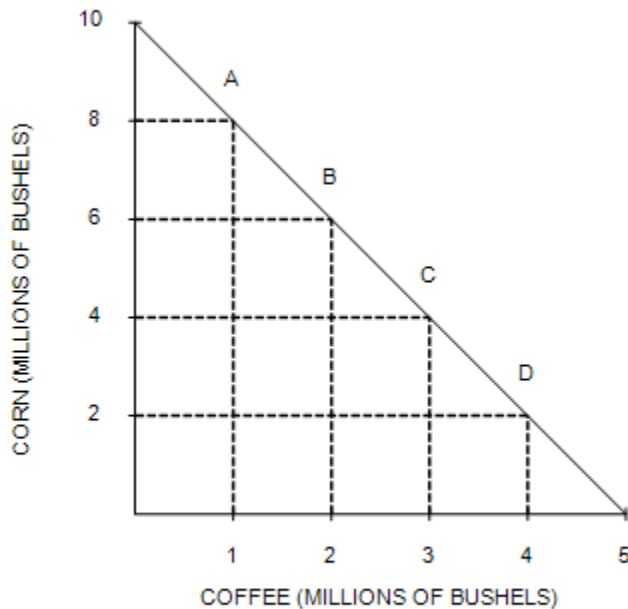
- a. changing prices.
- b. economic growth.
- c. decreases in resources.
- d. the law of increasing opportunity costs.

ANSWER: d

**Exhibit 2-2 Production possibilities curve**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



57. In Exhibit 2-2, the slope of the production possibilities curve indicates that the opportunity cost of:

- a. coffee is constant.
- b. coffee is increasing.
- c. coffee is decreasing.
- d. corn is increasing.

**ANSWER: a**

58. The production possibility curve is bowed outward from the origin because of:

- a. the law of increasing opportunity costs.
- b. the finite nature of the resource base.
- c. inefficiency.
- d. unemployment.

**ANSWER: a**

59. As production of a good increases, opportunity costs rise because:

- a. there will be more inefficiency.
- b. people always prefer having more goods.
- c. of inflationary pressures.
- d. workers are not equally suited to all tasks.

**ANSWER: d**

60. The law of increasing opportunity costs causes the production possibilities curve to:

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- a. be a straight line.
- b. slope upwards.
- c. have a bowed-out shape.
- d. shift inward.

ANSWER: c

**Exhibit 2-6 Production possibilities curve data**

	A	B	C	D	E	F
Capital Goods	150	140	120	90	50	0
Consumer Goods	0	20	40	60	80	100

61. In Exhibit 2-6, the concept of increasing opportunity costs is represented by the fact that:
- a. the quantity of capital goods produced must be less than 150.
  - b. the quantity of consumer goods is constant for each change in the quantity of capital goods produced.
  - c. greater amounts of capital goods must be sacrificed to produce each additional unit of consumer goods.
  - d. the amount of consumer goods produced must be greater than zero.

ANSWER: c

62. When the opportunity cost of producing carrots increases as more carrots are produced, then:
- a. no more carrots will be produced.
  - b. resources are equally suited to the production of carrots and to other goods.
  - c. the production possibilities curve is a straight line.
  - d. the law of increasing opportunity costs is present.

ANSWER: d

63. The law of increasing opportunity costs indicates that the opportunity cost of producing a good:
- a. is proportional to the production of the good.
  - b. is constant to the production of the good.
  - c. increases as more of the good is produced.
  - d. decreases as more of the good is produced.

ANSWER: c

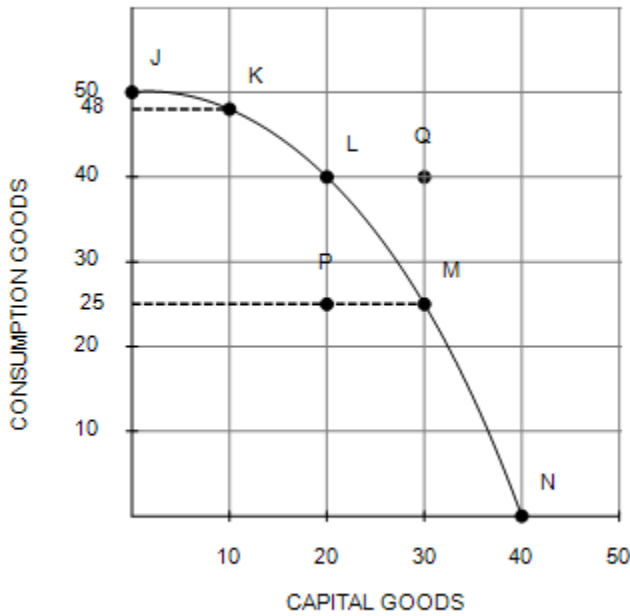
64. If an economy could produce 0 capital goods and 200 consumption goods, or 10 capital goods and 180 consumption goods with full employment, construct two additional full employment production options that would exhibit the law of increasing opportunity costs.
- a. 20 capital goods and 160 consumption goods; 30 capital goods and 140 consumption goods
  - b. 0 capital goods and 220 consumption goods; 10 capital goods and 210 consumption goods
  - c. 20 capital goods and 140 consumption goods; 30 capital goods and 80 consumption goods
  - d. 40 capital goods and 140 consumption goods; 50 capital goods and 120 consumption goods

ANSWER: c

**Exhibit 2-15 Production possibilities curve**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



65. In Exhibit 2-15, evidence of the law of increasing opportunity costs is:
- to get the first 10 capital goods, economy has to give up 2 consumption goods but to get the next 10 capital goods, the economy has to give up 8 consumption goods.
  - the downward slope of the production possibilities curve.
  - the amount of capital goods increases by 10 units as the economy moves from point J to point K to point L to point M to point N.
  - the amount of capital goods increases by 10 units as the economy moves from point L to point Q.

ANSWER: a

**Exhibit 2-11 Production possibilities curves**

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**



66. In Exhibit 2-11, which of the following could have caused the production possibilities curve of an economy to shift from the one labeled A to the one labeled B?

- a. A major natural disaster
- b. An increase in consumption goods production this year
- c. An advance in technology
- d. An increase in unemployment

**ANSWER: c**

67. Adding more resources causes:

- a. downward movement along a production possibilities curve.
- b. the production possibilities curve to shift in.
- c. upward movement along a production possibilities curve.
- d. the production possibilities curve to shift out.

**ANSWER: d**

68. If an economy keeps increasing its capital stock, then over time its production possibilities curve will:

- a. not move.
- b. shift to the left.
- c. shift to the right.
- d. disappear because scarcity ceases to exist.

**ANSWER: c**

69. An analysis of production possibilities curves indicates that the reason why underdeveloped nations have difficulties

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

increasing their economic growth rates is because:

- a. low population growth rates mean fewer workers to produce food and other necessities.
- b. their production possibilities curves shift in when resources are increased.
- c. the opportunity cost of shifting resources from consumption goods to capital goods is relatively low.
- d. they must cut back their already relatively low consumption levels to increase capital production.

ANSWER: d

70. Technological innovations will cause:

- a. the production possibilities curve to stay the same.
- b. the production possibilities curve to shift to the left.
- c. the production possibilities curve to shift to the right.
- d. an economy to operate below its production possibilities curve.

ANSWER: c

71. Which of the following causes the production possibilities curve to shift to the right?

- a. a famine
- b. a war
- c. the depletion of oil reserves
- d. the development of a new technology that improves productivity

ANSWER: d

72. Which would be *least likely* to cause the production possibilities curve to shift to the right?

- a. an increase in the labor force
- b. improved methods of production
- c. an increase in the education and training of the labor force
- d. a decrease in unemployment

ANSWER: d

73. On a production possibilities curve diagram, greater entrepreneurship:

- a. causes the curve to shift outward.
- b. keeps the economy on the curve.
- c. prevents movement along the curve.
- d. keeps the economy at the corners of the curve.

ANSWER: a

74. The production possibilities curve for the nation of Economania shifts to the right. This could have been caused by:

- a. a decrease in Economania's capital stock.
- b. technological innovation in the production of Economania goods.
- c. high unemployment in Economania the previous time period.
- d. Economania producing all consumer goods in the previous period.

ANSWER: b

75. The production possibilities curve for the nation of Economagic shifts to the left. This could have been caused by:

- a. an increase in Economagic's labor supply.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

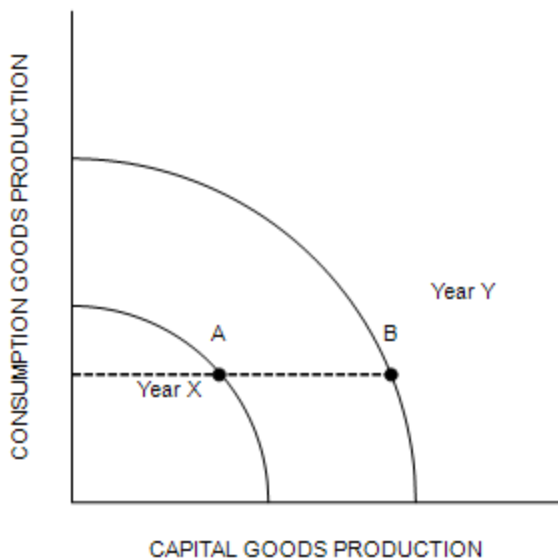
- b. innovation in the production of goods in Economagic.
- c. a war that destroyed some of Economagic's resource base.
- d. unemployment among Economagic's workers.

ANSWER: c

76. Economic growth may be represented by a(n):
- a. leftward shift of a production possibilities curve.
  - b. outward shift of a production possibilities curve.
  - c. movement along a production possibilities curve.
  - d. production possibilities curve that remains fixed.

ANSWER: b

**Exhibit 2-18 Production possibilities curves**



77. In Exhibit 2-18, a country is located at point A on its Year X production possibilities curve. In Year Y this same country is located at point B on its Year Y production possibilities curve. Which of the following could have brought about this outward shift in production possibilities curves?

- a. More efficient production in Year X.
- b. A natural disaster in Year X which leads to a destruction of resources.
- c. Higher unemployment in Year X.
- d. An advance in technology occurred in Year X.

ANSWER: d

78. In Exhibit 2-18, the production possibilities curves for a country are shown for Year X and Year Y. Suppose this country was located at point A in Year X and point B in Year Y. This country:



Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- a. is producing the same number of capital goods in both years.
- b. is producing the same number of consumption goods in both years.
- c. has shown no growth between Year X and Year Y.
- d. has higher unemployment in Year X than in Year Y.

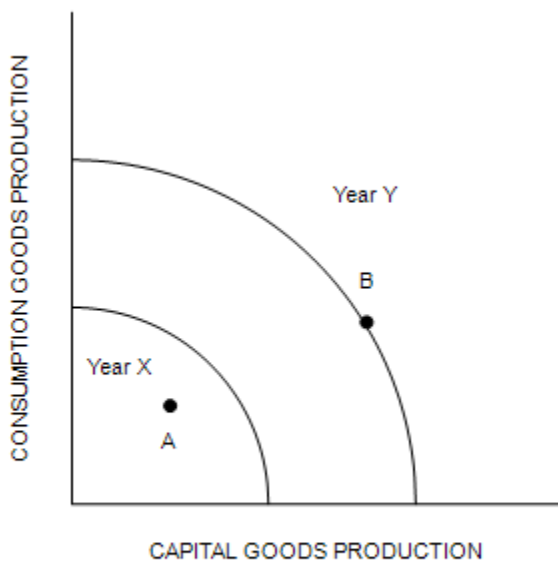
ANSWER: b

79. In Exhibit 2-18, the production possibilities curves for a country are shown for Year X and Year Y. Suppose this country was located at point A in Year X and point B in Year Y. This economy:

- a. is worse off in Year Y than in Year X.
- b. has stagnated production in this two-year period.
- c. is more efficient in Year Y than in Year X.
- d. has shown growth between these two years.

ANSWER: d

**Exhibit 2-19 Production possibilities curves**



80. In Exhibit 2-19, the production possibilities curves for a country are shown for Year X and Year Y. Suppose this country was located at point A in Year X and would like to get to point B in Year Y. Construct a plan for this country to activate in Year X to achieve this growth.

- a. Eliminate unemployment, improve production technology, and acquire additional resources.
- b. Produce more consumption goods, eliminate unemployment, and reduce inefficiency.
- c. Reduce inefficiency, shift energy sources, and hold technology fixed.
- d. It is impossible for this country to achieve point B in Year Y.

ANSWER: a

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## **Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

81. What can a nation do to increase its economic growth? Why is economic growth among the major national economic goals of all countries?

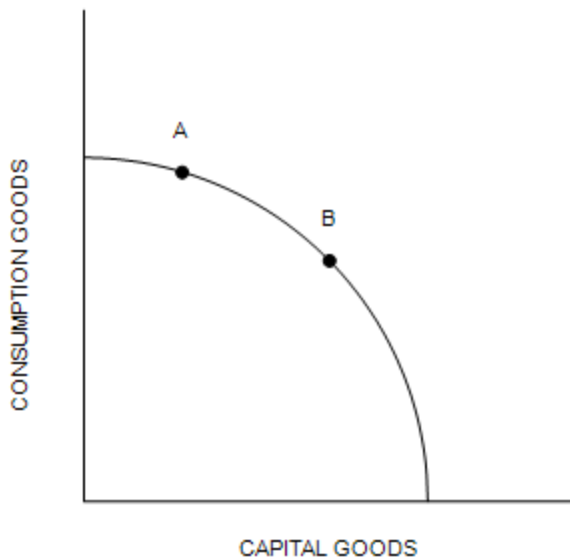
**ANSWER:** A nation must increase its production possibilities in order to experience economic growth. Ingredients for economic growth include capital accumulation, investment in the labor force to increase productivity, investment in technology, and promoting the entrepreneurial spirit. Economic growth is a major national economic goal of all nations because it increases the average absolute standard of living for the nation.

82. Compare two economies A and B that start out with identical production possibilities curves. Economy A chooses an efficient point with 6 consumption goods and 3 capital goods, while economy B also chooses an efficient point, but with 4 consumption goods and 5 capital goods. In the future we can predict:

- economy A will operate inefficiently.
- economy B will operate inefficiently.
- economy A and economy B will grow equally fast.
- economy B will grow faster than economy A.

**ANSWER:** d

### **Exhibit 2-17 Production possibilities curve**



83. In Exhibit 2-17, if countries A and B currently have the same production possibilities curve (PPC) as given in the figure, but this year country A locates at point A on its PPC and country B locates at point B on its PPC, then country A:

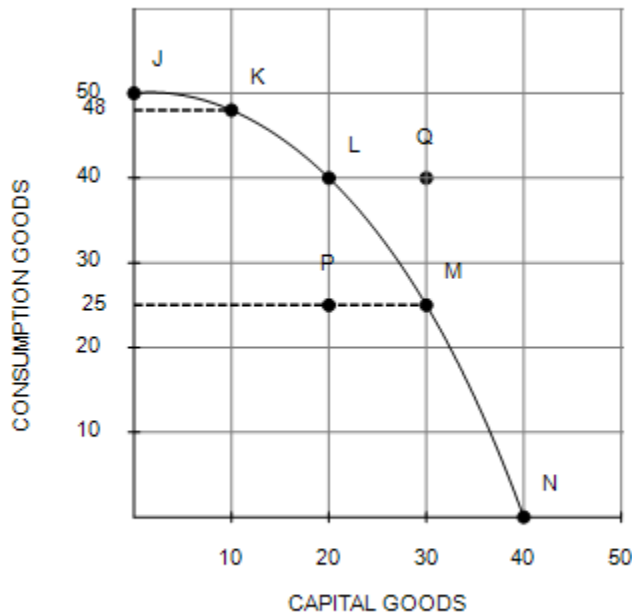
- is more efficient than country B.
- will grow at a faster rate than country B.
- will grow at a slower rate than country B.
- is producing more capital goods than country B.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

ANSWER: c

**Exhibit 2-15 Production possibilities curve**



84. In Exhibit 2-15, the economy will experience the *most* future economic growth if it chooses what point now?

- a. J
- b. K
- c. M
- d. N

ANSWER: d

85. With time, which one of the following strategies would *most* likely result in an outward shift in the production possibilities curve of an economy?

- a. passage of legislation reducing the workweek to 30 hours
- b. instituting a tax policy encouraging consumption at the expense of investment
- c. instituting a tax policy encouraging investment at the expense of consumption
- d. an increase in the marginal income tax rate, which would reduce the work effort of individuals

ANSWER: c

86. Which of the following is *true*?

- a. The production possibilities curve indicates that it will be impossible to expand total output with the passage of time.
- b. As long as resources are scarce, output cannot be increased.

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- c. The size of the economic pie is fixed, and therefore, if one individual has more income, others must have less.
- d. Over time, the output of goods and services can be increased through human ingenuity and discovery of better ways of doing things.

ANSWER: d

87. In economics, investment refers to the process of accumulating:
- a. capital goods.
  - b. consumer goods.
  - c. money.
  - d. stocks and bonds.

ANSWER: a

88. The process through which an economy's production possibilities curve shifts outward is:
- a. full-employment management.
  - b. investment.
  - c. resource renewal.
  - d. out-resourcing.

ANSWER: b

89. A nation can accelerate its economic growth by:
- a. reducing the number of immigrants allowed into the country.
  - b. adding to its stock of capital.
  - c. printing more money.
  - d. imposing tariffs and quotas on imported goods.

ANSWER: b

**Exhibit 2-4 Production possibilities curve data**

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Capital Goods</b>	0	10	20	30	40
<b>Consumer Goods</b>	200	180	140	80	0

90. In Exhibit 2-4, if the economy chooses production possibility D rather than production possibility B, it can expect:
- a. less growth in the future because it will use up its consumer goods.
  - b. more growth in the future because of the accumulation of capital.
  - c. the same amount of growth in the future but with a lower standard of living.
  - d. the same amount of growth in the future but with a higher standard of living.

ANSWER: b

91. Given the possible strategies listed below, design the best plan for increasing the country's future standard of living.
- i. build new factories
  - ii. print money

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02 - Production Possibilities, Opportunity Cost, and Economic Growth**

- iii. develop new production technology
- iv. sacrifice consumer goods for capital formation
- v. produce only enough capital goods to replenish depreciation
  - a. i, ii, and iii only
  - b. i, iii, and iv only
  - c. ii, iv, and v only
  - d. i, ii, iii, iv, and v

ANSWER: b

**Exhibit 2-4 Production possibilities curve data**

	A	B	C	D	E
Capital Goods	0	10	20	30	40
Consumer Goods	200	180	140	80	0

92. In Exhibit 2-4, choose the best production combination if the only goal of the economy is investment.
- a. A
  - b. C
  - c. E
  - d. All production combinations represent the same level of investment because all are efficient.

ANSWER: c

# Instructor Manual

Tucker, Economics for Today, ISBN: 9780357720936; Chapter 02: Production Possibilities, Opportunity Cost, and Economic Growth

## Table of Contents

Purpose and Perspective of the Chapter .....	2
Cengage Supplements .....	2
Chapter Objectives .....	2
Complete List of Chapter Activities and Assessments .....	3
Key Terms .....	3
What's New in This Chapter .....	4
Chapter Outline .....	4
Discussion Questions.....	5
Additional Activities and Assignments.....	6
Appendix.....	13
<i>Generic Rubrics</i> .....	13
<i>Standard Writing Rubric</i> .....	13
<i>Standard Discussion Rubric</i> .....	14

## Purpose and Perspective of the Chapter

The *What*, *How*, and *For Whom* fundamental economic questions were introduced in Chapter 01. These questions must be addressed by all societies. Because resources are limited while wants are unlimited, we are faced with scarcity. Therefore, we must try to do the best with what we have—to maximize production, given limited resources. This challenge is illustrated with the production possibilities model explored in this chapter.

Most generally there are only two types of products: consumer goods and capital goods. Consumer products satisfy our wants directly and in the present. Capital products satisfy our wants indirectly and in the future. If we are efficient with our use of resources, then we are producing a combination of consumer and capital products shown by a point on the production possibilities curve. Inefficiency is shown by a point inside the curve. A point outside the production possibilities curve is a combination of output that is currently unattainable.

However, the greater the current investment in capital production, the greater the rate of economic growth over time. This growth is represented by rightward shifts of the production possibilities curve, which leads to productive capabilities at points previously outside the curve. Although more current investment in capital leads to greater economic growth over time, the opportunity cost is the foregone consumer goods production today, resulting in less current satisfaction. Other sources of economic growth include more or better resources, and new technologies.

There is an increasing opportunity cost associated with producing ever larger quantities of any one good. Marginal analysis enables us to make rational decisions by concentrating on the marginal, or extra, benefits and costs associated with a decision to see if that activity or good “is worth it.”

## Cengage Supplements

The following product-level supplements provide additional information that may help you in preparing your course. They are available in the Instructor Resource Center.

- PowerPoint Slides
- Test Bank

## Chapter Objectives

The following objectives are addressed in this chapter:

1. Explain the relationship between opportunity cost and scarcity.
2. Describe how the production possibilities curve models aggregate production.
3. Use the production possibilities curve to analyze opportunity costs in production decisions.

4. Use the production possibilities curve to analyze economic growth.

## Complete List of Chapter Activities and Assessments

For additional guidance refer to the Teaching Online Guide.

Chapter Objective	PPT Slide	Activity/Assessment	Duration
1	7	Discussion Activity #1	2-3 minutes
1	8	Knowledge Check Activity #1	2-3 minutes
1	13	Knowledge Check Activity #2	2-3 minutes
2	21	Discussion Activity #2	3-4 minutes
2	24	Knowledge Check Activity #3	2-3 minutes
3	31	Knowledge Check Activity #4	2-3 minutes
4	39	Knowledge Check Activity #5	2-3 minutes
4	44	Discussion Activity #3	3-4 minutes

[\[return to top\]](#)

## Key Terms

**Allocative efficiency:** Situation where society allocates, or channels, its limited resources into the production of those products most desired by society.

**Economic growth:** The ability of an economy to produce greater levels of output, represented by an outward shift of its production possibilities curve.

**Investment:** The accumulation of capital, such as factories, machines, and inventories, used to produce goods and services.

**Marginal analysis:** An examination of the effects of incremental additions to or subtractions from a current situation.

**Opportunity cost:** The next best alternative that was sacrificed when making a choice.

**Production possibilities curve:** A curve that shows the maximum combinations of two outputs an economy can produce in a given period of time with its available resources and technology.

**Productive efficiency:** A situation where society is producing the most it can with its existing resources and technology; when more of one good can only be produced by producing less of another good.

**Law of increasing opportunity costs:** The principle that the opportunity cost increases as production of one output expands.

**Technology:** The body of knowledge applied to how goods are produced.

[\[return to top\]](#)



## What's New in This Chapter

The following elements are improvements in this chapter from the previous edition:

- This chapter now begins with clearly stated Chapter Objectives that outline the key learning goals students should achieve after having studied the chapter.
- The “Conclusion” statements of the previous edition have been replaced with “*Take Note*” statements. These *Take Note* statements have been carefully designed and updated to highlight key concepts and are strategically placed within the chapter to enhance pedagogy. Students will be able to use these to remember key points when reviewing the chapter and studying for quizzes and tests. A summary of these *Take Note* statements is provided at the end of the chapter.
- This new edition has also added a new feature entitled “*Am I on Track?*” which are multiple-choice questions testing students’ understanding as they move through the chapter. They are designed to pique interest and to maximize mastery of the material presented in the chapter. They have been strategically placed throughout the chapter to maximize learning. These questions spark students’ interest and enable them to check their progress by comparing their answers against the key provided at the end of the chapter. Students who answer correctly earn the satisfaction of knowing they are on track and can feel more confident taking quizzes and tests because these questions are very similar to those they will face on their exams!
- The “Checkpoint” features of the previous edition have become new “Study Questions and Problems” found at the end of the chapter. Students are encouraged to see Appendix A for answers to the odd-numbered questions. This Instructor’s Manual contains the answers for even-numbered questions.
- The previous edition’s “*You’re the Economist*” boxed sections have been updated and replaced with a new feature entitled “*A Closer Look.*” The previous “*Analyze the Issue*” questions associated with these inserts have now been moved to this Instructor’s Manual’s “Additional Activities and Assignments” section found below, along with some suggested answers to these “*Analyze the Issue*” questions.
- This revised chapter introduces the concept of economic efficiency using the PPC.
- In addition, the discussion of the three fundamental economic questions that result from scarcity has been moved to Chapter 1 (from the previous edition’s Chapter 2), where scarcity is introduced.
- This revised chapter contains three “*Am I on Track?*” multiple-choice questions, two “Study Questions and Problems,” and three new “Sample Quiz” questions.

[\[return to top\]](#)

## Chapter Outline

### 2-1 Opportunity Cost

#### Exhibit 1 “The Links between Scarcity, Choice, and Opportunity Cost”

## 2-2 Marginal Analysis

## 2-3 The Production Possibilities Model

- a. Assumptions
- b. The Production Possibilities Curve
- c. Efficiency and the Production Possibilities Curve

### **Exhibit 2 “The Production Possibilities Curve for Military Goods and Consumer Goods”**

## 2-4 Opportunity Cost and the Production Possibilities Curve

- a. Identifying Opportunity Cost Using the PPC Model
- b. The Law of Increasing Opportunity Cost

### **Exhibit 3 “The Law of Increasing Opportunity Costs”**

## 2-5 Sources of Economic Growth

- a. Changes in Resources
- b. Technological Change

### **Exhibit 4 “An Outward Shift of the Production Possibilities Curve for Computers and Pizzas”**

### **Exhibit 5 “A Shift of the *PPC* When Technological Advances Only Impact the Production of One Good”**

*A Closer Look: “FedEx Wasn’t an Overnight Success” Applicable Concept: Entrepreneurship*

- c. Present Investment in Capital

### **Exhibit 6 “Alpha’s and Beta’s Present and Future Production Possibilities Curves”**

*A Closer Look: “How Does Public Capital Affect a Nation’s Curve?” Applicable Concept: Economic Growth*

[\[return to top\]](#)

## Discussion Questions

You can assign these questions several ways: in a discussion forum in your LMS; as whole-class discussions in person; or as a partner or group activity in class.

1. What are some opportunity costs of attending college?

**Answer:** Some opportunity costs of attending college would include the foregone income, which could have been earned working full-time.

2. What is the “real” cost of purchasing a new car?

**Answer:** The amount of other goods and services, which could have been purchased but now must be given up to pay for the car.

3. How could marginal analysis be applied to determine the profit-maximizing quantity of output for a firm to produce?

**Answer:** That profit-maximizing production level would be found at that quantity of production at which the marginal benefit from production (which is “marginal revenue”) no longer exceeds the marginal cost of production (where  $MR = MC$ ).

4. Under what conditions would a nation be able to *currently* produce more of both consumer and capital products?

**Answer:** If production is currently occurring at a point inside a nation's production possibilities curve. In other words, if there is currently some unemployment or underemployment.

5. What are the necessary ingredients for a nation to experience greater rates of economic growth, higher average standards of living, and a greater ability to compete in the global economy? That is, what could any nation do to achieve all this?

**Answer:** The ingredients for economic growth include more and better resources, new technologies, and more investment in capital. This includes: (1) more investment in private capital; (2) more investment in public capital (infrastructure); (3) investment in human capital—people (e.g., investments in health, education, and job training); (4) investments and growth in technology; (5) promoting entrepreneurship; (6) promoting a stable political environment.

6. What might be some problems associated with economic growth?

**Answer:** Problems associated with economic growth might include environmental issues. Notice that one needs to weigh the benefits against the costs to determine whether more economic growth is worth it.

[\[return to top\]](#)

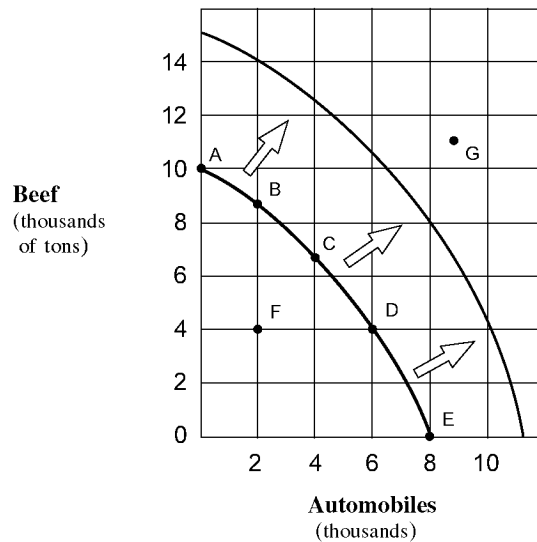
## Additional Activities and Assignments

### I. Answers to even-numbered end-of-chapter Study Questions and Problems:

2. The true cost of the “free” car isn't the price paid, it is the opportunity cost of producing it. For example, the same resources could have been used to produce a truck for the military.

4. Decision (a) produces the greatest opportunity cost because the alternative use of a lot in Tokyo is much more valuable than the use of a square mile of desert.
6. See the following figure.

(a) (Points A–B) one thousand tons of beef, (Points D–E) four thousand tons of beef, and (Points B–A) two thousand automobiles.



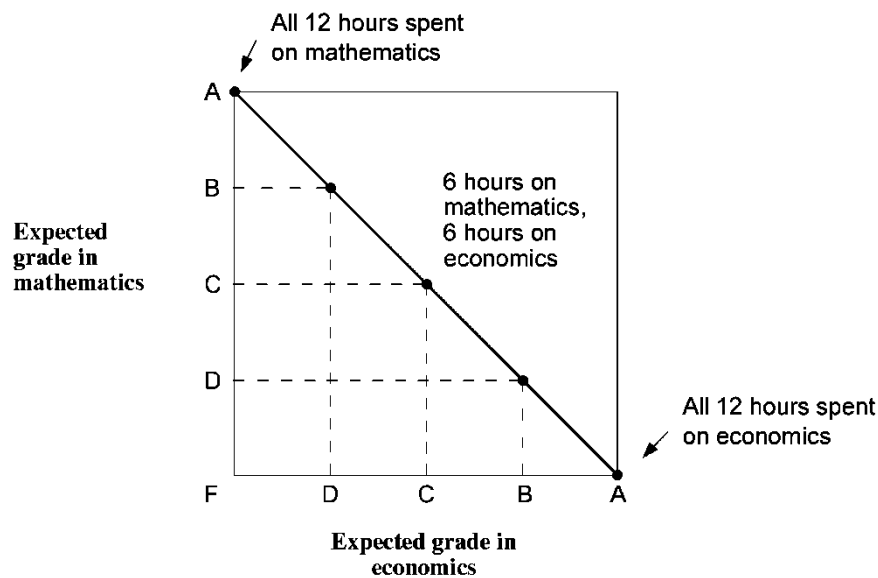
- (b) Point F is an inefficient point because it is possible to produce either more automobiles or more beef without producing less of the other output. Point G is impossible to produce, given the definition of the production possibilities curve as the maximum combinations that can be produced with existing resources and technology. Points A through E are efficient because more of one of the products can be produced only by incurring an opportunity cost in terms of the other product.
  - (c) The law of increasing costs is reflected. Moving from the origin along the horizontal axis, each two thousand units increase in the output of automobiles results in greater declines in beef production, measured along the vertical axis. Beef declines (in thousands of units) for points A–B, B–C, C–D, and D–E are 1, 2, 3, and 4, respectively. These values reflect the changing slope that determines the bowed-outward shape of the production possibilities curve.
  - (d) Any one of the four factors of production could be increased or improved, and this would expand the economy's productive capacity. An advance in technology would also shift the curve outward. A decline in the quantity or the quality of resources would shift the production curve to the left.
8. The production possibilities curve is concave, or bowed out from the origin, because of the law of increasing opportunity costs. This law states that resources are not perfectly interchangeable from production of one type of output to another.

10. (a) **Maximum Production Possibilities for Expected Grades in Mathematics and**

## Economics

Number of hours studied	Expected grade in economics	Number of hours studied	Expected grade in mathematics
0	F	12	A
3	D	9	B
6	C	6	C
9	B	3	D
12	A	0	F

(b) See the following figure.



(c) The curve is not bowed outward and, instead, is a downward-sloping straight line, reflecting constant opportunity costs. Each three-hour change of study time reflects a constant tradeoff of one letter grade gain for one letter grade loss.

12. Investment is the act of increasing an economy's stock of capital. This process means that an economy is replacing worn-out capital and producing a net gain in new factories, equipment, and other capital goods that increase the productivity of the other factors of production. The increased quantity of capital results in additional capacity of the economy



to produce goods and services. Thus, the production possibilities curve shifts rightward, and economic growth is achieved.

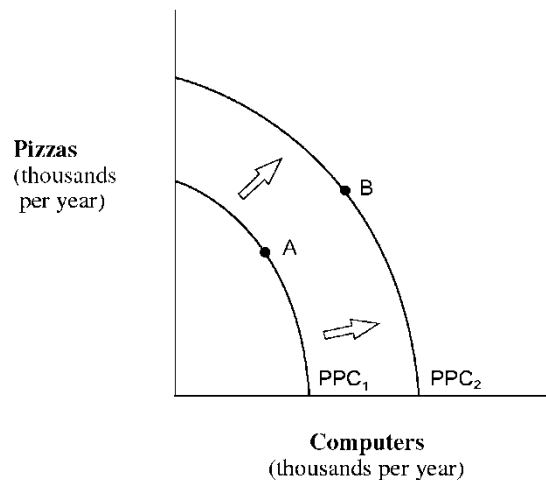
14. All points along the PPC are productively efficient, that is, an economy is producing as much as possible, given limited resources. However, there is only a single unique combination that falls on the PPC that most satisfies society, and is thus allocatively efficient.

## **II. "Analyze the Issue." Here are some questions and suggested answers for further analysis associated with the "A Closer Look" boxed features within this chapter:**

### **A Closer Look: "FedEx Wasn't an Overnight Success" Applicable Concept: Entrepreneurship.**

1. Draw a production possibilities curve for an economy producing only pizzas and computers. Explain how Fred Smith and other entrepreneurs affect the curve.

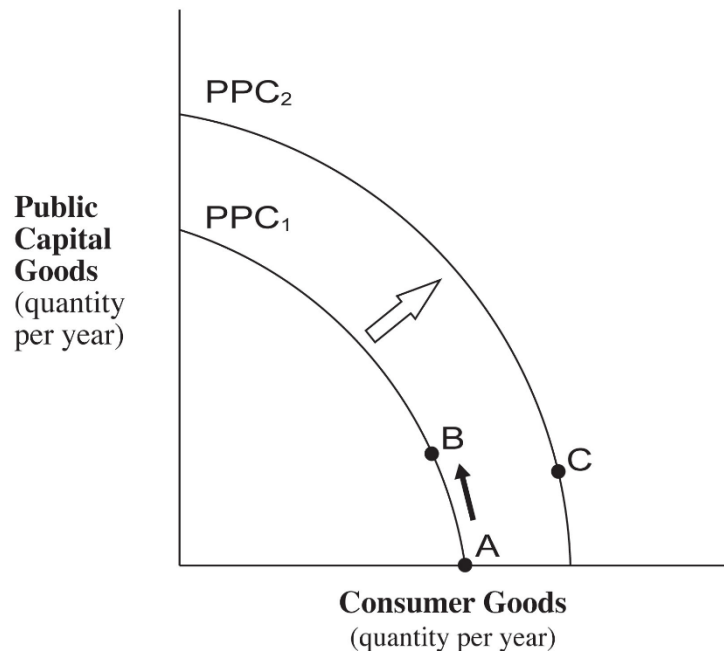
Suppose the economy produces only pizzas and computers at point A on the production possibilities curve  $PPC_1$ . Holding all other factors constant, the impact of an entrepreneur is to shift the curve outward to  $PPC_2$ . The reason is that the entrepreneur provides a new way to produce more output under existing resources and technology. In the case of Fred Smith, overnight mail service speeded up the delivery of vital parts and communications needed to operate businesses. As a result, the economy can move from point A to point B and produce more pizzas and computers in the same period of time.



### **A Closer Look: "How Does Public Capital Affect a Nation's Curve?" Applicable Concept: Economic Growth.**

- Construct a production possibilities curve for a hypothetical country. Put public capital goods per year on the vertical axis and consumer goods per year on the horizontal axis. Not shown directly in your graph, assume that this country produces just enough private capital per year to replace its depreciated capital. Assume further that this country is without public capital and is operating at point A where consumer goods are at a maximum. Based on the above research and using a production possibilities curve, show and explain what happens to this country's private capital, production possibilities curve, and standard of living if it increases its output of public capital.

*At point A shown in the following graph, this country's production possibilities curve will remain at  $PPC_1$  and achieve no growth because its private capital output only replaces its depreciated capital used to produce consumer goods. Now assume an increase in public capital goods output as a tradeoff for less output of consumer goods, as shown as movement from point A to point B. The predicted result would be an increase in the production of new private capital stock because of the benefits from, say, infrastructure. Since private capital output increases, the economy grows from  $PPC_1$  to  $PPC_2$  and the standard of living rises because this country can produce greater consumer goods per year at point C on  $PPC_2$ .*



### **III. CHAPTER SUMMARY QUIZ. These are quiz questions not found in the textbook or in the Test Bank:**

- Which of the following statements is true?

- a. An opportunity cost is what must be given up in order to get something else.
  - b. The three fundamental economic questions refer to What to produce? How to produce? and When to produce?
  - c. The term "investment" refers to the purchase of stocks and bonds and other financial securities.
  - d. The law of increasing opportunity cost implies that as production of one type of good is expanded, then fewer and fewer of other goods must be given up.
2. Which of the following statements is *false*?
- a. Marginal analysis is an examination of the effects of additions or subtractions from a current situation.
  - b. The production possibilities curve shows the maximum combination of two outputs that an economy can produce, given its available resources and technology.
  - c. Technology is the body of knowledge and skills applied to how goods are produced.
  - d. Economic growth is illustrated as an inward shift of the production possibilities curve.
3. Given a production possibilities curve, a point:
- a. inside the curve represents unemployment.
  - b. on the curve represents full employment.
  - c. outside the curve is currently unattainable.
  - d. all of the above.
4. A rightward (an outward) shift of a nation's production possibilities curve could be caused by:
- a. a decrease in technology.
  - b. an increase in resources.
  - c. producing more consumer and fewer capital goods.
  - d. a decline in the labor force's level of education and skills.



### **ANSWERS TO CHAPTER 2 SUMMARY QUIZ**

1. a
2. d
3. d
4. b

### **IV. CLASSROOM GAMES**

Approximately 170 noncomputerized economic games (experiments) for use in the classroom are available for free at

<https://academic.marietta.edu/people/delemeeg/games/>. The following games are recommended to help teach some of the concepts in this chapter:

*Game #107*—Objective: To illustrate a production process subject to diminishing returns and illustrate the construction of a production possibilities frontier.

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[\[return to top\]](#)

## Appendix

### Generic Rubrics

Providing students with rubrics helps them understand expectations and components of assignments. Rubrics help students become more aware of their learning process and progress, and they improve students' work through timely and detailed feedback.

Customize these rubric templates as you wish. The writing rubric indicates 40 points and the discussion rubric indicates 30 points.

### Standard Writing Rubric

Criteria	Meets Requirements	Needs Improvement	Incomplete
Content	The assignment clearly and comprehensively addresses all questions in the assignment. 15 points	The assignment partially addresses some or all questions in the assignment. 8 points	The assignment does not address the questions in the assignment. 0 points
Organization and Clarity	The assignment presents ideas in a clear manner and with strong organizational structure. The assignment includes an appropriate introduction, content, and conclusion. Coverage of facts, arguments, and conclusions are logically related and consistent. 10 points	The assignment presents ideas in a mostly clear manner and with a mostly strong organizational structure. The assignment includes an appropriate introduction, content, and conclusion. Coverage of facts, arguments, and conclusions are mostly logically related and consistent. 7 points	The assignment does not present ideas in a clear manner and with strong organizational structure. The assignment includes an introduction, content, and conclusion, but coverage of facts, arguments, and conclusions are not logically related and consistent. 0 points
Research	The assignment is based upon appropriate and adequate academic literature, including peer-reviewed journals and other scholarly work. 5 points	The assignment is based upon adequate academic literature but does not include peer-reviewed journals and other scholarly work. 3 points	The assignment is not based upon appropriate and adequate academic literature and does not include peer-reviewed journals and other scholarly work. 0 points
Research	The assignment follows the required citation guidelines. 5 points	The assignment follows some of the required citation guidelines. 3 points	The assignment does not follow the required citation guidelines. 0 points
Grammar and Spelling	The assignment has two or fewer grammatical and spelling errors. 5 points	The assignment has three to five grammatical and spelling errors. 3 points	The assignment is incomplete or unintelligible. 0 points

[\[return to top\]](#)

## Standard Discussion Rubric

Criteria	Meets Requirements	Needs Improvement	Incomplete
Participation	Submits or participates in discussion by the posted deadlines. Follows all assignment instructions for initial post and responses. 5 points	Does not participate or submit discussion by the posted deadlines. Does not follow instructions for initial post and responses. 3 points	Does not participate in discussion. 0 points
Contribution Quality	Comments stay on task. Comments add value to discussion topic. Comments motivate other students to respond. 20 points	Comments may not stay on task. Comments may not add value to discussion topic. Comments may not motivate other students to respond. 10 points	Does not participate in discussion. 0 points
Etiquette	Maintains appropriate language. Offers criticism in a constructive manner. Provides both positive and negative feedback. 5 points	Does not always maintain appropriate language. Offers criticism in an offensive manner. Provides only negative feedback. 3 points	Does not participate in discussion. 0 points

[\[return to top\]](#)

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