# Chapter 7—Consumers, Producers, and the Efficiency of Markets

## MULTIPLE CHOICE

1. Welfare economics is the study of
   a. the well-being of less fortunate people.
   b. welfare programs in the United States.
   c. the effect of income redistribution on work effort.
   d. how the allocation of resources affects economic well-being.

   ANS: D DIF: Easy REF: 141

2. With respect to welfare economics, the equilibrium price of a product is considered to be the best price because it
   a. maximizes total revenue to firms and total utility to buyers.
   b. maximizes the total welfare of buyers and sellers.
   c. minimizes costs and maximizes profits of sellers.
   d. minimizes the level of welfare payments to those who no longer live below the poverty line.

   ANS: B DIF: Average REF: 141

3. The equilibrium of supply and demand in a market
   a. maximizes the profits of producers.
   b. can only be achieved with government intervention.
   c. produces both an efficient and equitable market outcome.
   d. maximizes the total benefits received by buyers and sellers.

   ANS: D DIF: Average REF: 145

4. Willingness to pay measures the
   a. amount a buyer is willing to pay for a good minus the amount the buyer actually pays for it.
   b. amount a seller actually receives for a good minus the minimum amount the seller is willing to accept.
   c. maximum amount a buyer is willing to pay minus the minimum amount a seller is willing to accept.
   d. maximum amount that a buyer will pay for a good.

   ANS: D DIF: Average REF: 141

5. Consumer surplus is
   a. a buyer's willingness to pay minus the price.
   b. a buyer's willingness to pay plus the price.
   c. the price of the product minus the buyer's willingness to pay.
   d. when the buyer's willingness to pay and the price of the product are equal.

   ANS: A DIF: Average REF: 141

6. If a consumer is willing and able to pay $15.00 for a particular good but the price of the good is $17.00, then the
   a. consumer would have consumer surplus of $2.00.
   b. consumer would increase his/her willingness and ability to pay by earning more.
   c. consumer would not purchase the good and would not have any consumer surplus.

d. market must not be a perfectly competitive market.

ANS: C DIF: Average REF: 141

7. Suppose Lauren, Leslie and Lydia all purchase bulletin boards for their rooms for $15 each. Lauren's willingness to pay was $35, Leslie's willingness to pay was $25, and Lydia's willingness to pay was $30. Total consumer surplus for these three would be
a. $15.
b. $25.
c. $35.
d. $45.

ANS: D DIF: Average REF: 141

8. Suppose Lauren, Leslie and Lydia all purchase bulletin boards for their rooms for $15 each. Lauren's willingness to pay was $35, Leslie's willingness to pay was $25, and Lydia's willingness to pay was $30. Which of the three receives the most consumer surplus from her purchase?
a. Lauren
b. Leslie
c. Lydia
d. They each received the same consumer surplus since they each paid the same for the bulletin board.

ANS: A DIF: Average REF: 141

***Table 7-1***

| **BUYER** | **WILLINGNESS TO PAY** |
|---|---|
| MIKE | $50.00 |
| SANDY | $30.00 |
| JONATHAN | $20.00 |
| HALEY | $10.00 |

9. **Refer to Table 7-1**. If the table represents the willingness to pay of 4 buyers and the price of the product is $15, then who would be willing to purchase the product?
a. Mike
b. Mike and Sandy
c. Mike, Sandy, and Jonathan
d. Mike, Sandy, Jonathan, and Haley

ANS: C DIF: Average REF: 141

10. Denise values a stainless steel dishwasher for her new house at $500. The actual price of the dishwasher is $650. Denise
a. buys the dishwasher and receives a consumer surplus of $150.
b. buys the dishwasher and receives a consumer surplus of $500.
c. does not buy the dishwasher because her willingness to pay is greater than the price.
d. does not buy the dishwasher because her willingness to pay is less than the price.

ANS: D DIF: Average REF: 141

11. Jeff decides that he would pay as much as $3,000 for a new laptop computer. He buys the computer and realizes consumer surplus of $700. How much did Jeff pay for his computer?
a. $700
b. $2,300
c. $3,000

d. $3,700

ANS: B DIF: Average REF: 142

12. If the price a consumer pays for a product is equal to a consumer's willingness to pay, then the consumer surplus of that purchase would be
    a. zero.
    b. negative and the consumer would not purchase the product.
    c. positive and therefore the consumer would purchase the product.
    d. There is not enough information given to answer this question.

ANS: A DIF: Average REF: 141

13. Suppose there is an early freeze in California that ruins the lemon crop. What happens to consumer surplus in the market for lemons?
    a. It increases.
    b. It decreases.
    c. It is not affected by this change in market forces.
    d. It increases very briefly then decreases.

ANS: B DIF: Challenging REF: 141

***Table 7-2***

| **BUYER** | **WILLINGNESS TO PAY** |
|---|---|
| DAVID | $8.50 |
| LAURA | $7.00 |
| MEGAN | $5.50 |
| MALLORY | $4.00 |
| AUDREY | $3.50 |

14. **Refer to Table 7-2**. If the market price is $5.50, the consumer surplus in the market will be
    a. $3.00.
    b. $4.50.
    c. $15.50.
    d. $21.00.

ANS: B DIF: Average REF: 142

15. **Refer to Table 7-2**. If the price of Vanilla Coke is $6.90, who will purchase the good?
    a. All five would purchase Vanilla Coke, just in different amounts.
    b. Megan, Mallory and Audrey
    c. David, Laura and Megan
    d. David and Laura

ANS: D DIF: Average REF: 142

16. **Refer to Table 7-2**. Which of the following is NOT true?
    a. At a price of $9.00, no buyer is willing to purchase Vanilla Coke.
    b. The table shows the willingness to pay of the marginal buyer.
    c. When the price is $3.50, each person would receive consumer surplus.
    d. At a price of $4.00, total consumer surplus in the market will be $9.00.

ANS: C DIF: Average REF: 142

17. If the cost of producing sofas decreases, consumer surplus will

a. increase, then decrease.
b. decrease.
c. remain constant.
d. increase.

ANS: D DIF: Challenging REF: 142

18. When technology improves in the ice cream industry, consumer surplus will
a. increase.
b. decrease.
c. not change, since technology affects suppliers and not consumers.
d. increase, then decrease.

ANS: A DIF: Challenging REF: 143

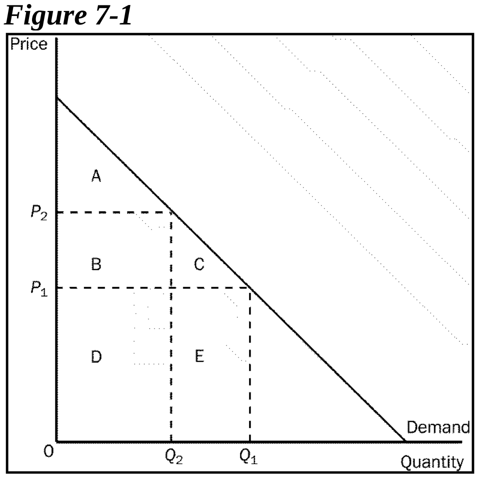
19. If the price of oak lumber increases, what happens to consumer surplus in the market for oak cabinets?
a. It increases.
b. It decreases.
c. It will not change consumer surplus, but it will change producer surplus.
d. It will increase, then decrease.

ANS: B DIF: Challenging REF: 143

20. If the cost of producing chocolate decreases, consumer surplus
a. decreases.
b. increases.
c. remains constant.
d. decreases, then increases.

ANS: B DIF: Challenging REF: 143

***Figure 7-1***




21. **Refer to Figure 7-1**. When the price is $P_1$, consumer surplus is
a. A
b. A + B
c. A + B + C
d. A + B + D

ANS: C DIF: Average REF: 143

22. **Refer to Figure 7-1**. At the price of $P_2$, consumer surplus is

a. A
b. B
c. A + B
d. A + B + C

ANS: A DIF: Average REF: 143

23. **Refer to Figure 7-1**. When the price rises from $P_1$ to $P_2$, consumer surplus
a. increases by an amount equal to A.
b. decreases by an amount equal to B + C.
c. increases by an amount equal to B + C.
d. decreases by an amount equal to C.

ANS: B DIF: Challenging REF: 143

24. **Refer to Figure 7-1**. Area C represents
a. the decrease in consumer surplus that results from a downward-sloping demand curve.
b. consumer surplus to new consumers who enter the market when the price falls from $P_2$ to $P_1$ .
c. an increase in producer surplus when quantity sold increases from $Q_2$ to $Q_1$ .
d. a decrease in consumer surplus to each consumer in the market.

ANS: B DIF: Challenging REF: 143

25. **Refer to Figure 7-1**. When the price rises from $P_1$ to $P_2$, which would NOT be true?
a. The buyers who still buy the good are worse off because they now pay more.
b. Some buyers leave the market because they are not willing to buy the good at the higher price.
c. The total value of what is now purchased by buyers is actually higher.
d. Consumer surplus in the market falls.

ANS: C DIF: Challenging REF: 143

26. Dallas buys strawberries, and would be willing to pay more than he now has to pay. Suppose that Dallas has a change in his tastes such that he values strawberries more than before. If the market price is the same as before, then
a. Dallas's consumer surplus would be unaffected.
b. Dallas's consumer surplus would increase.
c. Dallas's consumer surplus would decrease.
d. Dallas would be wise to buy fewer strawberries than before.

ANS: B DIF: Challenging REF: 143

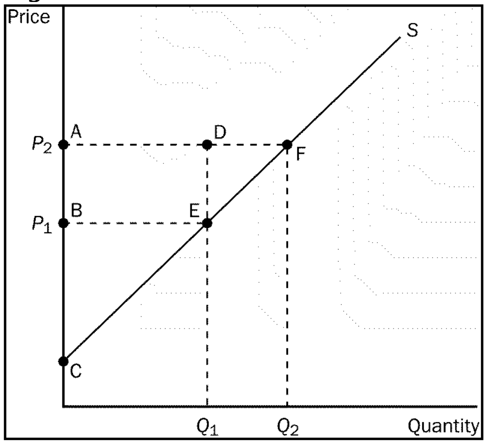
27. A supply curve can be used to measure producer surplus because it reflects
a. the actions of sellers.
b. quantity supplied.
c. sellers' costs.
d. the amount that will be purchased by consumers in the market.

ANS: C DIF: Average REF: 145

28. A seller would be willing to sell a product ONLY IF the price received is
a. less than the cost of production.
b. at least as great as the cost of production.
c. equal to the cost of production.
d. at least double the cost of production.

ANS: B DIF: Average REF: 145

***Figure 7-3***




29. **Refer to Figure 7-3**. Which area represents producer surplus at a price of $P_1$?
   a. BCE
   b. ACF
   c. ABED
   d. DEF
   e. AFEB

   ANS: A DIF: Average REF: 145

30. **Refer to Figure 7-3**. Which area represents producer surplus at a price of $P_2$?
   a. BCE
   b. ACF
   c. ABED
   d. DEF
   e. AFEB

   ANS: B DIF: Average REF: 145

31. **Refer to Figure 7-3**. Which area represents the increase in producer surplus when the price rises from $P_1$ to $P_2$?
   a. BCE
   b. ACF
   c. ABED
   d. DEF
   e. AFEB

   ANS: E DIF: Average REF: 145

32. **Refer to Figure 7-3**. When the price rises from $P_1$ to $P_2$, which area represents the increase in producer surplus to existing producers?
   a. BCE
   b. ACF
   c. ABED
   d. DEF
   e. AFEB

   ANS: C DIF: Average REF: 145

33. **Refer to Figure 7-3**. Which area represents the increase in producer surplus when the price rises from $P_1$ to $P_2$ due to new producers entering the market?
a. BCE
b. ACF
c. ABED
d. DEF
e. AFEB

ANS: D DIF: Average REF: 145

34. Suppose the demand for nachos increases. What will happen to producer surplus in the market for nachos?
a. It increases.
b. It decreases.
c. It is unaffected by this change in market forces.
d. It decreases briefly, then increases.

ANS: A DIF: Average REF: 145

35. The Surgeon General announces that eating chocolate increases tooth decay. As a result, the equilibrium market price of chocolate
a. increases, and producer surplus increases.
b. increases, and producer surplus decreases.
c. decreases, and producer surplus decreases.
d. decreases, and producer surplus increases.

ANS: C DIF: Challenging REF: 145

36. Suppose consumer income increases. If grass seed is a normal good, the equilibrium price of grass seed will
a. decrease, and producer surplus in the industry will decrease.
b. increase, and producer surplus in the industry will increase.
c. decrease, and producer surplus in the industry will increase.
d. increase, and producer surplus in the industry will decrease.

ANS: B DIF: Challenging REF: 145

37. Producer surplus equals
a. Value to buyers - Amount paid by buyers.
b. Amount received by sellers - Costs of sellers.
c. Value to buyers - Costs of sellers.
d. Value to buyers - Amount paid by buyers + Amount received by sellers - Costs of sellers.

ANS: B DIF: Challenging REF: 145

38. Producer surplus measures all of the following EXCEPT the
a. amount sellers receive above the minimum they would accept.
b. benefit to sellers of participating in a market.
c. amount sellers are paid less the amount they were willing to accept.
d. total value of a good to sellers.

ANS: D DIF: Average REF: 145

***Table 7-3***

| SELLER | COST |
|---|---|

| | |
|---|---|
| DALE | $1,500 |
| JILL | $1,200 |
| DENISE | $1,000 |
| CATHERINE | $750 |
| JACKSON | $500 |

39. **Refer to Table 7-3**. If the market price is $1,000, the producer surplus in the market would be
   a. $700.
   b. $750.
   c. $2,250.
   d. $3,700.

   ANS: B DIF: Average REF: 145

40. **Refer to Table 7-3**. If the market price is $1,000, the total cost in the market would be
   a. $3,700.
   b. $2,700.
   c. $2,250.
   d. $1,500.

   ANS: C DIF: Average REF: 145

41. **Refer to Table 7-3**. If the price is $1,000, Jackson's producer surplus would be
   a. $1,000.
   b. $750.
   c. $500.
   d. $250.

   ANS: C DIF: Average REF: 145

42. **Refer to Table 7-3**. If the price is $1,100, who would be willing to supply the product?
   a. Dale and Jill
   b. Dale, Jill and Denise
   c. Denise, Catherine and Jackson
   d. Catherine and Jackson

   ANS: C DIF: Average REF: 146

43. At Nick's Bakery, the cost to make his homemade chocolate cake is $3 per cake. He sells three and receives a total of $21 worth of producer surplus. Nick must be selling his cakes for
   a. $2 each.
   b. $7 each.
   c. $8 each.
   d. $10 each.

   ANS: D DIF: Challenging REF: 146

44. Marylyn and Rebecca sell lemonade on the corner. Each glass costs them $0.05 to make. At the end of the day, they have sold 50 glasses and received a total producer surplus of $12.50. That would mean that Marylyn and Rebecca sold each glass for
   a. $0.15.
   b. $0.20.
   c. $0.25.
   d. $0.30.

ANS: D DIF: Challenging REF: 146

*Table 7-4*

| PRICE | QUANTITY DEMANDED | QUANTITY SUPPLIED |
|---|---|---|
| $12.00 | 0 | 12 |
| $10.00 | 4 | 10 |
| $ 8.00 | 8 | 8 |
| $ 6.00 | 12 | 6 |
| $ 4.00 | 16 | 4 |
| $ 2.00 | 20 | 2 |

45. **Refer to Table 7-4**. The equilibrium or market-clearing price is
 a. $10.00.
 b. $8.00.
 c. $6.00.
 d. $4.00.

 ANS: B DIF: Average REF: 150

46. **Refer to Table 7-4**. At a price of $4.00, total surplus would be
 a. more than it would be at the equilibrium price.
 b. less than it would be at the equilibrium price.
 c. the same as it would be at the equilibrium price.
 d. There is insufficient information to say.

 ANS: B DIF: Average REF: 150

47. **Refer to Table 7-4**. At the equilibrium price, consumer surplus would be
 a. $4.
 b. $8.
 c. $12.
 d. $16.

 ANS: D DIF: Challenging REF: 150

48. **Refer to Table 7-4**. At the equilibrium price, producer surplus would be
 a. $20.
 b. $24.
 c. $28.
 d. $32.

 ANS: D DIF: Challenging REF: 150

49. **Refer to Table 7-4**. At the equilibrium price, total surplus would be
 a. $16.
 b. $24.
 c. $32.
 d. $48.

 ANS: D DIF: Challenging REF: 150

50. Which of the following is NOT correct?
 a. consumer surplus = value to buyers - amount paid by buyers
 b. producer surplus = amount received by sellers - cost of sellers

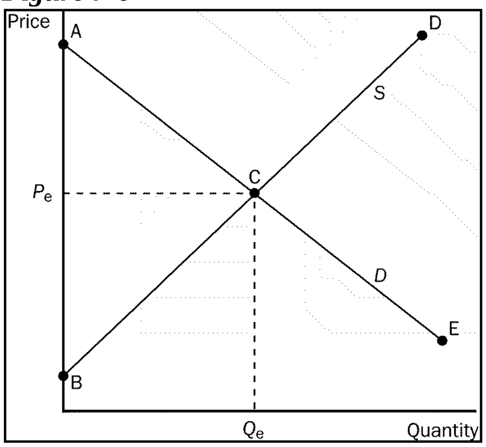
c. total surplus = value to buyers - amount paid by buyers + amount received by sellers - costs of sellers
d. total surplus = value to sellers - costs of sellers

ANS: D DIF: Challenging REF: 150

51. Total surplus in a market is
a. the total costs to sellers of providing the goods less the total value to buyers of the goods.
b. the total value to buyers of the goods less the costs to sellers of providing those goods.
c. less than consumer surplus plus producer surplus.
d. greater than consumer surplus plus producer surplus.

ANS: B DIF: Average REF: 150

***Figure 7-6***




52. **Refer to Figure 7-6**. Buyers who value this good more than price are represented by segment
a. AC.
b. CE.
c. BC.
d. CD.

ANS: A DIF: Average REF: 150

53. **Refer to Figure 7-6**. Buyers who value this good less than price are represented by segment
a. AC.
b. CE.
c. BC.
d. CD.

ANS: B DIF: Average REF: 150

54. **Refer to Figure 7-6.** Sellers whose costs are less than price are represented by segment
a. AC.
b. CE.
c. BC.
d. CD.

ANS: C DIF: Average REF: 150

55. **Refer to Figure 7-6**. Sellers whose costs are greater than price are represented by segment
a. AC.

b. CE.
c. BC.
d. CD.

ANS: D DIF: Average REF: 150

56. **Refer to Figure 7-6**. If price were higher than $P_e$,
a. total surplus would fall.
b. consumer surplus would increase.
c. total surplus would rise, since producer surplus would increase.
d. consumer surplus would be greater than producer surplus.

ANS: A DIF: Average REF: 150

57. **Refer to Figure 7-7**. If this market were currently at a quantity of 40, we would know that
a. cost to sellers is equal to the value to buyers.
b. the value to buyers is greater than the cost to sellers.
c. the cost to sellers is greater than the value to buyers.
d. producer surplus would be greater than consumer surplus.

ANS: B DIF: Challenging REF: 150

58. An allocation of resources is said to be inefficient if
a. a good is not being produced by the sellers with the lowest cost.
b. producer surplus is not at a minimum.
c. consumer surplus is not at a maximum.
d. All of the above are correct.

ANS: A DIF: Easy REF: 150

59. When a market is in equilibrium, which of the following would not be correct?
a. The price determines which buyers and sellers participate in the market.
b. Those buyers who value the good more than the price choose to buy the good.
c. Those sellers whose costs are less than the price choose to produce and sell the good.
d. Consumer surplus will be equal to producer surplus.

ANS: D DIF: Average REF: 150

60. Moving production from a high-cost producer to a low-cost producer will
a. lower total surplus.
b. raise total surplus.
c. lower producer surplus.
d. raise producer surplus but lower consumer surplus.

ANS: B DIF: Average REF: 150

61. Suppose that the equilibrium price in the market for widgets is $5. If a law reduced the maximum legal price for widgets to $4,
a. consumer surplus would necessarily increase even if the lower price resulted in a shortage of widgets.
b. consumer surplus would necessarily decrease because the lower price would create a shortage of widgets.
c. consumer surplus might increase or decrease.
d. consumer surplus would be unaffected.

ANS: C DIF: Challenging REF: 155

62. Suppose that the equilibrium price in the market for widgets is $5. If a law increased the minimum legal price for widgets to $6, producer surplus
   a. would necessarily increase even if the higher price resulted in a surplus of widgets.
   b. would necessarily decrease because the higher price would create a surplus of widgets.
   c. might increase or decrease.
   d. would be unaffected.

   ANS: C DIF: Challenging REF: 155

63. Suppose that the equilibrium price in the market for widgets is $5. If a law reduced the maximum legal price for widgets to $4,
   a. any possible increase in consumer surplus would be larger than the loss of producer surplus.
   b. any possible increase in consumer surplus would be smaller than the loss of producer surplus.
   c. the resulting increase in producer surplus would be larger than any possible loss of consumer surplus.
   d. the resulting increase in producer surplus would be smaller than any possible loss of consumer surplus.

   ANS: B DIF: Challenging REF: 150

64. Suppose that the equilibrium price in the market for widgets is $5. If a law increased the minimum legal price for widgets to $6,
   a. the resulting increase in consumer surplus would be larger than any possible loss of producer surplus.
   b. the resulting increase in consumer surplus would be smaller than any possible loss of producer surplus.
   c. any possible increase in producer surplus would be larger than the loss of consumer surplus.
   d. any possible increase in producer surplus would be smaller than the loss of consumer surplus.

   ANS: D DIF: Challenging REF: 150

65. If a market is allowed to move freely to its equilibrium price and quantity, then an increase in demand will
   a. increase producer surplus.
   b. reduce producer surplus.
   c. not affect producer surplus.
   d. possibly increase, decrease or not affect producer surplus.

   ANS: A DIF: Average REF: 150

66. If a market is allowed to move freely to its equilibrium price and quantity, then an increase in supply will
   a. increase consumer surplus.
   b. reduce consumer surplus.
   c. not affect consumer surplus.
   d. possibly increase, decrease or not affect consumer surplus.

   ANS: A DIF: Average REF: 150

67. A simultaneous increase in both the demand for and the supply of radios would imply that

a. both the value of radios to consumers and the cost of producing radios has increased.
b. both the value of radios to consumers and the cost of producing radios has decreased.
c. the value of radios to consumers has decreased and the cost of producing radios has increased.
d. the value of radios to consumers has increased and the cost of producing radios has decreased.

ANS: D DIF: Average REF: 150

68. Cornflakes and milk are complementary goods. A decrease in the price of corn would
a. increase consumer surplus in the market for cornflakes but decrease producer surplus in the market for milk.
b. increase consumer surplus in the market for cornflakes and increase producer surplus in the market for milk.
c. decrease consumer surplus in the market for cornflakes but increase producer surplus in the market for milk.
d. decrease consumer surplus in the market for cornflakes and decrease producer surplus in the market for milk.

ANS: B DIF: Challenging REF: 150

69. Orange juice and apple juice are substitutes. Bad weather that sharply reduced the orange harvest would
a. increase consumer surplus in the market for orange juice but decrease producer surplus in the market for apple juice.
b. increase consumer surplus in the market for orange juice and increase producer surplus in the market for apple juice.
c. decrease consumer surplus in the market for orange juice but increase producer surplus in the market for apple juice.
d. decrease consumer surplus in the market for orange juice and decrease producer surplus in the market for apple juice.

ANS: C DIF: Challenging REF: 150

70. A technological advance in the production of computers will
a. increase consumer surplus in the market for computers and decrease producer surplus in the market for computer software.
b. increase consumer surplus in the market for computers and increase producer surplus in the market for computer software.
c. decrease consumer surplus in the market for computers but increase producer surplus in the market for computer software.
d. decrease consumer surplus in the market for computers and decrease producer surplus in the market for computer software.

ANS: B DIF: Challenging REF: 150