Think About It 6.1

Assume that you do not pay the same price for all units of the product, but insist on paying a different price for each one. You bargain hard and pay the price for each unit that the supplier needs to supply it, but no more (that is, you pay the price for each one shown by the supply curve).

A powerful buyer such as this in a market is known as a ‘monopsonist’.

What is the producer surplus equal to in this case?

The producer surplus will be zero because you are paying exactly what the supplier needs to be willing and able to supply and no more.

Data Analysis 6.1

An additional employee produces 200 units. The next additional employee produces 400 units. They are both paid £600 a week. Calculate the extra cost per unit in terms of labour as each of these employees is hired.

£600 for 200 units = £3 a unit
£600 for 400 units = £1.50 a unit

Think About It 6.2

1. What effect does GM have on the supply of food?

Answers might include:

It increases it by enabling more to be produced.

2. Do you think tests with GM crops should be allowed to continue?

It increases supply which may help some countries to earn more and feed their citizens. However, some are concerned about the dangers it may create in terms of possible impact in the long term on crops - concerns that the technology is not fully tested.

Business Analysis 6.1

Discuss the possible implications of Moore’s Law for businesses in this sector.

It increases the rate of technological change. Businesses may need to invest:

- more in research and development
- ensure it recruits staff willing and able to innovate

Pressure is likely to be on to keep up with rivals; otherwise businesses may fall behind.
Think About It 6.3

Which of the following statements are true and which are false?

A: A supply curve shows how much producers would like to produce at each price. False - it shows that they are willing and able to produce not just what they are willing to produce.

B: A supply curve shows how much customers want to buy. False - it shows what they are willing and able to buy at each and every price, other things unchanged.

C: A reduction in costs should shift supply outwards. True; more can be produced at each and every price.

D: A change in price causes a shift in supply. False; a change in price leads to a movement along a supply curve not a shift.

Data Analysis 6.2

Labour productivity measures the output per employee. It can be calculated as:

\[
\text{Output} / \text{Number of employees}
\]

1. If you employ 200 employees and your output is 8,000 units a week, what is the labour productivity per week?

Labour productivity = 8000/200 = 400 units

2. If the weekly wage is £400, what is the labour cost per unit?

If 400 units are produced and the wage is £400 the labour cost per unit is £1.

3. If productivity increases by 20 per cent what will be:

A: the total output? \(400 + 20\% \text{ of } 400 = 480 \text{ units}\)

B: the labour cost per unit? \(480 \text{ units for } £400 = 400/480 = £0.83\) With more productivity the labour cost per unit falls.

4. What does this show us about the relationship between productivity and the labour cost per unit?

With more productivity the labour cost per unit falls assuming the wage rate does not rise.
Business Analysis 6.2

What effect would the Japanese earthquake have on the supply curves of consumer electronics and car manufacturing plants in Europe? Explain your answer.

It would shift the supply curves to the left as less can be produced due to a lack of supplies.

Business Analysis 6.3

1. Why might employees resist the introduction of a system like that of Toyota?

   * Answers might include:
     * May involve extra duties
     * May not want additional responsibility
     * May not see the need or appreciate the value

2. Why do many businesses have high levels of waste?

   * Answers might include:
     * Not a priority to reduce it
     * Have a “fix it later” approach
     * Making enough profits already and so complacent
     * Do not want to address the waste issues- may involve confronting individuals/teams/departments

Data Analysis 6.3

1. Assume that you are a small producer of bracelets and necklaces selling to a big retailer. At an average price of £10, the quantity supplied is 4,000 units a week. If the price increases to £12 and this leads to an increase in the quantity to 4,400 units, calculate the price elasticity of supply.

   Percentage change on quantity supplied = (400/4000) *100 = +10%
   Percentage change in price = (£2/£10) *100 = +20%
   Price elasticity of supply = +10%/+20% = +0.5

2. Assume that you are the producer of homemade cakes to local stores. At a price of £3, you produce 500 a week. The price elasticity of supply is +0.8. How many will be produced if the price offered increases to £4?

   Percentage increase in price = (1/3) * 100 = 33.3%
   The percentage change in quantity will be 0.8 * 33.3% = 26.64%
   26.64% of 500 = 133.2
   So quantity supplied will be 633.2 units
p171. Think About It 6.4

1. What will the value for the price elasticity of supply be if the curve is perfectly inelastic?

Value will be 0. A change in price has no effect on the quantity supplied.

2. What will it be if it is perfectly elastic?

Value will be infinity. A change in price will have an infinite change in the quantity supplied.

p172. Think About It 6.5

Organic food is grown without pesticides. It takes about two years for a farm to adjust from farming methods that use chemicals to be completely clear of pesticides; this makes the supply price inelastic.

1. What do you think will happen to the supply of organic foods when the economy recovers?

Likely to increase - with more income demand may increase.

2. Do you think that the supply of organic food is price elastic or inelastic? Why?

Supply will be price inelastic due to the difficulty of production and length of the production period. It is not easy to increase output when price increases.

3. Do you think that the supply of tickets to Wembley Stadium is price elastic or inelastic? Why?

Price inelastic - limited number of seats whatever the price.

4. Do you think that the supply of a song on iTunes is price elastic or inelastic. Why?

Price elastic; can easily supply more at the given price.

p174. Think About It 6.6

Which of the following statements are true and which are false?

A: If a supply curve is upward-sloping, the price elasticity of supply is positive.

True because an increase in price increase the quantity supplied.

B: If the price elasticity of supply is +0.5, a 4 per cent increase in price leads to a 2 per cent increase in the quantity supplied.

True: 4 * 0.5 = 2%
C: An increase in labour productivity should shift the supply curve to the left.
   True: with more productivity more can be produced at each price.

D: The introduction of lean production should shift the supply curve to the right.
   True: with more efficiency more can be produced at each price.

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Think About It 6.7

1. If a government is going to subsidize a business, where will it get the money from? What problems might raising the finance to subsidize an industry create?

   Answers might include:
   • May get it from tax revenue- should consider then the effects of higher taxes e.g. if it is an income tax an increase in rates may reduce the incentive to work.
   • May get it from borrowing- increasing borrowing may require higher interest rates which may deter firms; borrowing and investment.

2. Do you think that subsidizing an industry is a good way of increasing consumption?

   Answers might include:
   May be subsidizing inefficiency- may enable inefficient producers to survive. However may help consumption of a merit good or a positive externality and therefore be desirable. Need to compare with alternative methods e.g. educating consumers as to why more consumption may be desirable – but how easy will that be? or taxing alternatives (but what is the cross price elasticity of demand).

You Decide

If you were a government minister, what would make you decide to subsidize one industry rather than another?

   Answers might include:
   May depend on:
   • How desirable extra consumption was
   • The power of the industry to lobby for subsidies
   • The impact on the community
   • The impact on votes

Suggested Answers to Short Answer Questions

1. The quantity producers are willing and able to supply in a given time period at each and every price, all other factors unchanged.
2. Technology, number of producers, costs.
3. A movement along a supply curve occurs when there is change in price, all other factors constant; a shift in supply occurs when there is a change in quantity supplied at each and every price.
4. With higher costs then businesses will need a higher price to supply any
given quantity; the supply curve shifts.
5. It measures how sensitive quantity supplied is given a change in price, all
other factors constant.
6. Influenced by the ease of shifting resources into the production of the
product, the time period, the nature of the production process, the number of
firms producing.
7. This means a 1% increase in the price increases the quantity supplied by
0.5%.
8. Technology change will shift the supply curve; e.g. more can be supplied at
each price.
9. The difference between the price producers are willing and able to produce a
unit for and the price they actually receive.
10. The industry supply curve is the horizontal summation of the firms’ supply
curves.