

Chapter 6

Put into practice questions

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If the supply curve is given by the equation $Q = 5 + 3P$, what is the quantity supplied when the price is £10?

Quantity supplied = $5 + 30 = 35$ units

If the supply curve is given by the equation $Q = 5 + 3P$, what is the quantity supplied when the price is £20?

Quantity supplied = $5 + 60 = 65$ units

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Using diagrams, illustrate the impact of the following on a supply curve:

- A decrease in price Increase in quantity supplied. Movement along the supply curve
- A reduction in the number of producers. Inward shift in supply
- A decrease in the costs of raw materials. Outward shift in supply
- An improvement in technology. Outward shift in supply

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If the equation for the supply curve changes from $Q = 20 + 2P$ to $Q = 5 + 2P$, what has happened to the supply curve?

Shifts to the left

Which of the following could explain an outward shift in the supply curve for a product, i.e. an increase in the quantity supplied at each price?

- a. A decrease in the cost of raw materials. Outward shift
- b. An increase in the cost of raw materials Inward shift
- c. An increase in the wages paid to the workers Inward shift
- d. A reduction in the number of firms producing. Inward shift

The price of a product increases from £5 to £8. The quantity supplied increases from 200 units to 400 units.

- **What is the price elasticity of supply?** Price elasticity of supply = $\frac{+100\%}{+60\%} = +1.67$

- **Is supply price elastic or inelastic? Why?** Price elastic as the percentage change in quantity supplied is greater than the percentage change in price

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The price of a product increases from £5 to £8. The quantity supplied increases from 200 units to 210 units.

- **What is the price elasticity of supply?** Price elasticity of supply = $+5\% / +60\% = +0.083$
- **Is supply price elastic or inelastic? Why?** Price inelastic as the percentage change in quantity supplied is less than the percentage change in price

The price elasticity of supply is + 0.1 and the price of a product increases by 10 per cent. How much does the quantity supplied increase?

Answer is: 1%

The price elasticity of supply is + 0.4. The price increases from £10 to £15. The quantity supplied was 200 units. What will be the new quantity supplied after the price increase?

Price increases by 50%; quantity supplied will increase by $0.4 * 50 = 20\%$
20% of 200 is 40 units. New quantity supplied is 240 units

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If the price elasticity of supply of a good is +4.0 and its price increases by 10%, the increase in quantity supplied will be:

Answer is 40%

End of chapter put into practice questions

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Imagine that changes in supply conditions make supply conditions in an industry less price elastic. Show the effect of this using a diagram.

Supply curve becomes steeper

Show how supply conditions tend to change over time (immediate run to short run to long run)

Supply becomes more price elastic and flatter.

If the quantity supplied increases from 4,000 units to 4,400 units following a price increase from 10 pence to 12 pence, calculate the price elasticity of supply.

Price elasticity of supply = $+10\%/+ 20\% = +2$

The price elasticity of supply is + 0.8. The quantity supplied is 8,000 units. What is the new quantity supplied if price increases by 5 per cent?

Quantity supplied increases by $0.8 * 5\% = 4\%$
Quantity supplied will be 8320 units

The price elasticity of supply is + 2. The price was £50 a unit and sales were 500 units. The price increases by 10 per cent. What were the suppliers earning before the price increase and how much will they be earning after the price increase if all the output is sold?

Original earnings= $50 * 500 = £2500$
Price increases to £55
Supply increases by 20% to 600 units
New earnings = $£55 * 600 = £33,000$

The price elasticity of supply is likely to be price elastic when:

- a. Businesses have limited stocks. FALSE
- b. Businesses are operating well below full capacity. TRUE; easier to increase output in response to a price increase
- c. Production involves highly skilled labour. FALSE
- d. There are high barriers to entry into the industry. FALSE

Complete the following table for an industry that has three firms supplying in it (A, B and C)

Industry supply= 19, 51, 73, 106 units

If a supply is a vertical line what does this tell us about the price elasticity of supply? Explain your answer

Means the price elasticity of supply is completely price inelastic, Value =0