Chapter 1: The nature of the economic problem

Suggested answers to individual and group activities

Group activities

1 All three items are scarce. In each case, people want more than what is currently being produced. More people want to study at university than there are places available. Most of us would like to holiday abroad and those of us fortunate enough to do so would like to undertake more trips. Also there are not enough resources to provide good quality healthcare quickly, to everyone who requires it.

2 **a** free good

b economic good

c economic good

d economic good

e economic good

Economic resources are used to produce b–e.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 C

Scarcity arises because wants are greater than the resources that can be used to produce them. Workers tend to produce more each year, as they become more experienced and work with better machinery. Machines wear out with time but they are usually replaced by more efficient ones and are often added to. There is no limit to people's wants.

2 C

At any one time, there are only so many resources while there is no limit to our wants. Over time, resources can change. They may increase due to, for instance, a rise in the number of workers resulting from a rise in world population. They will, however, not become sufficient to meet our wants, as wants will continue to increase and outstrip resources.

World population is likely to rise for some time to come. Prices are also likely to increase in the future but such a change will reflect changes in demand and supply and will not be a cause of scarcity.

3 D

Wind coming in from the sea does not take resources to produce it. All the other items mentioned have to be produced and, in each case, the production involves an opportunity cost.

Four-part question

1 **a** The economic problem is that we cannot have everything we want. This shortage arises because while there are unlimited wants, there are finite resources.

b A car is an economic good as it takes resources to produce it. Among the resources that are used to produce cars are, for example, machines and workers. The amount of cars produced depends on the quantity and quality of resources that are used. These resources could be used to produce other goods and services.

Chapter 2: Factors of production

Suggested answers to individual and group activities

Group activities

1 **a** consumer good
  b a consumer or capital good depending on who uses it
  c a consumer good
  d a capital good
  e a capital good
  f a capital good

2 For example: photocopiers, computers, desks, filing cabinets.

3 **a** The facilities students use both at home and in schools and universities have been improved by advances in technology. They have more access to information and more tools via the internet. They can also keep in contact with fellow students and teachers through social media. Their teachers may also make use of, for example, interactive white boards.
  b Advances in technology have improved medical equipment, helped to develop new medication and enabled more complex operations to be carried out. For example, laser surgery is now undertaken to improve some people's eyesight and there are multiple organ transplants.
  c Food production has increased as a result of more advanced machinery and improved crops. For example, some farmers are now using viners, which are special harvesting machines that suck up peas and remove them from their pods. Crops are being developed that are more resistant to diseases and have a higher nutritional content.

4 **a** **i** Suchi Mukherjie. Cambridge University (Economics and Maths); London School of Economics (Finance and Economics).
    ii Lui Chuanzhi. Xidian University (Engineering).
    iii Ben Murray-Bruce. University of South Carolina (Marketing).
    iv Zafar Khan. California Institute of Technology (Electronical and Electronics Engineering).
  b For example: Richard Branson (Virgin).

Individual activities

1 Among the forms of land used by a paper mill, are the land on which the mill is built and the water and wood used in the process of making paper.

2 **a** capital
  b capital
  c land – if it is a naturally formed lake but capital, if it is man-made
  d labour
  e enterprise

3 a and b would raise labour productivity. Improved education and training would make workers more skilful and hence capable of producing a higher output. Better equipment should also enable each worker to produce more. On the other hand, c would probably cause a fall in output per worker. Worse working conditions would reduce workers' motivation and may make it more difficult for them to carry out their tasks.

4 **a** It will need 16 machines in total. It starts with 9 machines at the beginning of the next year (12 – 3) so it needs to buy 7 machines: 3 for replacement and 4 to expand capacity.

b There may be advances in the technology.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

Enterprise is the ability and willingness to bear uncertain risks and make production decisions.

2 A

Capital is a human made good used to produce other goods and services. A road enables passengers to travel and freight to be transported.

3 B

Net investment is gross investment minus depreciation. In this case, it is 3000 – 500.

4 B

Enterprise, and the entrepreneurs that provide it, find it relatively easy to switch from one industry to another and from one location to another.

Four-part question

a Land and capital.

b An increase in the retirement age would increase the quantity of labour. More people would be in the labour force if they have to work to, for example, up to the age of 70 rather than 65 is disfigured. The working age range would be expanded.

There might also be an increase in the number of people within the existing working age group. This could be because of a rise in the birth rate that occurred 16 or more years earlier, more people of working age coming to live in the country than working age people leaving to live in other countries or a fall in the death rate.

c The occupational mobility of labour may increase over time due to better education, appropriate training and the provision of information about job vacancies. If workers are better educated, they will gain more qualifications and skills. This will enable them to apply for a greater range of jobs and will make them more attractive to employers. Unemployed agricultural workers, for example, could be trained in the skills needed to work in the tourism industry if there are vacancies in the tourism industry, enabling labour to move from a declining to an expanding industry.

Providing information about job vacancies can make workers aware of job opportunities more suited to their skills and offering them better pay and working conditions. This may encourage workers to move from one occupation to another occupation.

Chapter 3: Opportunity cost

Suggested answers to individual and group activities

Group activities

1 The best alternative job to being an accountant, such as being a teacher, is likely to be better paid and have better working conditions than the best alternative job to being a window-cleaner

Individual activities

1 **a** Other types of fruits, e.g., bananas, mangoes or pears.

b Another degree course, e.g., mathematics, or a job.

c Other uses of the land including housing, an office or a park.

d $450 – by keeping the TV, she is forgoing $450.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 A

A Definition required.

2 C

By going to the university, the student is giving up the opportunity to earn $15 000 a year for three years – a total of $45 000.

3 C

A free good has no opportunity cost as it exists without resources being used to make it.

4 D

They all involve an opportunity cost. Although the lunch has been paid for by his father, the time spent at the lunch could have been used by Kamran to do something else. Kamran could also have done something other than playing football. For example, he may have given up the opportunity to go to the cinema. The opportunity cost of saving the $50 is spending it.

Four-part question

a Opportunity cost is the best alternative forgone.

b Opportunity cost is an important concept for producers because they have to decide how to use the resources they employ. For instance, a soft drinks manufacturer may produce lemonade or cola. In the short run, if it decides to produce more lemonade, it will have to switch some workers, machinery and ingredients away from producing cola. In the long run, if the firm employs more resources and devotes the extra resources to producing more lemonade, it will be giving up the opportunity to produce more cola.

c The area near where an airport is being built may currently be farms or houses. The prospect of the construction of the airport may reduce the value of the farmland and the houses due to the expected noise and air pollution. At the same time, it may make the area more valuable to, for example, firms wanting to operate hotels, firms producing goods for export and for the air travel and freight industry. If it decides, for example, to demolish the farms or houses and build a hotel on the site, the opportunity cost may now be using the site for a factory producing airline meals.

Chapter 4: Production possibility curves

Suggested answers to individual and group activities

Group activities

1 a, b and c would all cause the PPC to shift to the right as they would increase productive potential. a would increase the quality of capital, b would increase the quantity of labour and c would increase the quality of labour.

d and e would cause the PPC to shift to the left as they would reduce a country's ability to produce goods and services. d would decrease the quantity and quality of all the factors of production and e would decrease the quantity of capital.

Individual activities

1 **1** 50 capital goods and 200 consumer goods.

2 10 more capital goods and 100 more consumer goods.

3 150.

2 **1** 50 capital goods

2 5 capital goods are given up. To increase the output of consumer goods from 80 to 90, the output of capital goods has to fall from 35 to 30.

Multiple choice questions

1 B

A fall in unemployment would mean that a country is making more use of its existing resources. This would enable it to produce more goods and services. A would be caused by an increase in unemployment, C by a decrease in the quantity or quality of resources and D by an increase in the quantity or quality of resources.

2 C

A country can produce at any point inside or on its PPC. V and W cannot be produced at the moment as there are not enough resources.

3 A

The straight line PPC indicates a constant opportunity cost. The first resources that might be switched from producing films to TV programmes would make an extra four TV programmes. This would also be true of the last resources used. So each resource can produce either 1 film or 4 TV programmes.

4 A

To produce ten more luxury goods, the output of basic goods has to fall from 100 to 92. The opportunity to make eight basic goods has been given up.

Four-part question

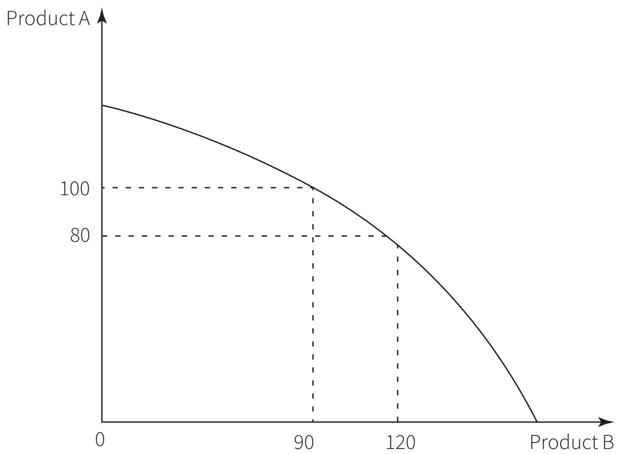
a A point inside a PPC shows that there are unemployed resources. It is not an efficient point. A point on a PPC shows that full use is being made of resources. It is an efficient point.

b A PPC may change its position if there is a change in the quantity of resources. It may shift to the right due to an increase in the labour force resulting from more workers coming into the country to live and work.

A PPC may also shift to the right if there is an increase in the quality of resources. Labour may be of a higher quality if it has been better trained. This would enable it to produce more goods and services.

c A PPC shows scarcity as it indicates that there is a limit to what can be produced with given resources. People would like a combination of the products far to the right of the curve but there are not enough resources to produce the combination.

A PPC can illustrate opportunity cost as it shows how much of one product has to be given up in order to produce more of another product. The diagram below shows that the opportunity cost of producing 20 more units of Product A is 30 units of Product B.



A PPC illustrates efficiency by the relationship between production points and the curve. Any point inside the curve is inefficient. Potential output is being lost as existing resources are capable of producing more. Any point on the curve is efficient as maximum use is being made of the resources and the maximum output is being produced.

Suggested answers to exam-style questions for Section 1

Multiple choice questions

1 D

Wants are unlimited whereas resources are not. What we want is greater than what we are capable of producing. Over time, the quantity and quality of resources increases in most of the countries. This enables them to produce more. The growth in productive capacity, however, is exceeded by people's desire for goods and services.

2 D

Both increase. A richer economy is likely to have more capital in particular. As the income of an economy increases, its citizens also tend to desire even more goods and services.

3 D

Capital is goods used to produce other goods and services. C is an example of labour, B is saving and A is financial capital.

4 D

In economics, the word 'land' covers all natural resources including sea water, forests and land itself.

5 B

By rejecting the offer from her neighbour, the consumer is giving up the opportunity to have $200.

6 C

From the man's point of view, the best alternative to being a builder is working as a gardener.

7 B

A PPC shows the maximum output of two products or combinations of those two products that can be produced with existing resources, including capital and labour. It does not show the quantity of resources in an economy, the popularity or price of products.

8 A

The change in the PPC shows that the maximum amount of clothing that can be produced has increased while the maximum output of food that can be produced is unchanged. This must mean that something has changed that affects only the output of clothing. Advances in technology that are just affecting the clothing industry are one possible cause. B would increase both the maximum output of clothing and food that could be produced as labour can be used to produce both clothing and food, moving the PPC to the right on both the vertical and horizontal axes. C may influence the position of the production point and D would alter the position of the production point.

9 B

The opportunity cost of increasing the output of capital goods from 20 to 30 is initially 30 consumer goods (100 − 70). The shift to the right of the PPC causes this to fall to 10 (150 − 140). This means 20 fewer consumer goods have to be given up.

10 D

When there are unemployed resources, there is no opportunity cost involved in producing more goods and services. Moving from point X to point Y results in more luxury and more basic goods. No goods have to be sacrificed to move on to the PPC.

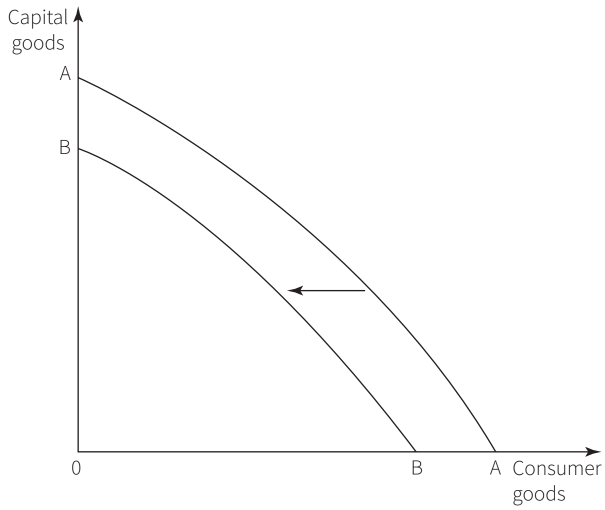
Data response questions

1 **a** \$6.3 bn.

b Greater use of fertilisers and better irrigation.

c Opportunity cost is the best alternative forgone. Some people who choose to work on a farm are giving up this opportunity in order to work as a builder.

d A flood may damage factories, offices and agricultural land. Workers may also be injured or killed. A reduction in resources will reduce an economy's productive potential. The maximum output that the country will be able to produce will fall and the PPC will shift to the left as shown in the diagram below.



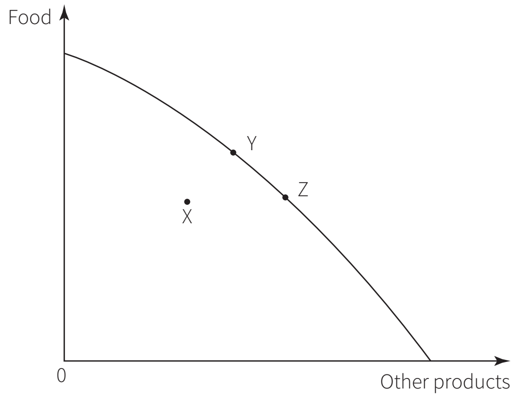
e The economic problem is unfilled wants due to a shortage of resources. The source material mentions that the quantity of good quality food produced is not keeping pace with the growth of resources. There is also evidence of the economic problem in connection with housing, where people's wants are unlimited whereas there is only a given quantity of resources available.

f The expected relationship is that the higher a country's labour force, the larger its output will be. This is because there will be more workers to produce goods and services. The table largely supports this view. The three countries with the largest labour forces have the highest output. The two countries, Ghana and Mali, with the smallest labour forces have the lowest outputs. The order of the countries with the largest labour forces, however, shows an anomaly. Nigeria has both the largest labour force and the highest output, but Ethiopia has the second largest labour force but only the third highest output. Of course, the data only shows five countries and output is influenced by the quantity and quality of all factors of production and not just the quantity of labour.

g Skilled workers are likely to be more occupationally mobile than unskilled workers. This is because they have more capability, and possibly the qualifications, to undertake a number of occupations. They may also be more geographically mobile. This is because they are likely to be better paid and so more likely to be able to afford housing in other areas of the country. They are also more likely to be in demand in other countries and so more likely to receive work visas in other countries.

However, workers with very specific skills may find it difficult to get jobs in other occupations. A top footballer may, for instance, struggle to find another occupation and certainly to find another occupation that pays as well. Some skilled workers may also not be geographically mobile because of family ties.

h An increase in the output of food would be possible if not all resources are being used now. Unemployed workers, land, capital and enterprise could be used to produce more food. In the diagram below, employing more resources could move the production point from X to Y, resulting in a rise in the output of food and other products.



The output of food could also increase without reducing the output of other products if there is an increase in the quantity or quality of resources. Such a change would shift the PPC to the right. Indeed, the output of food has increased over time due to, for example, more advanced capital equipment and more pest-resistant crops.

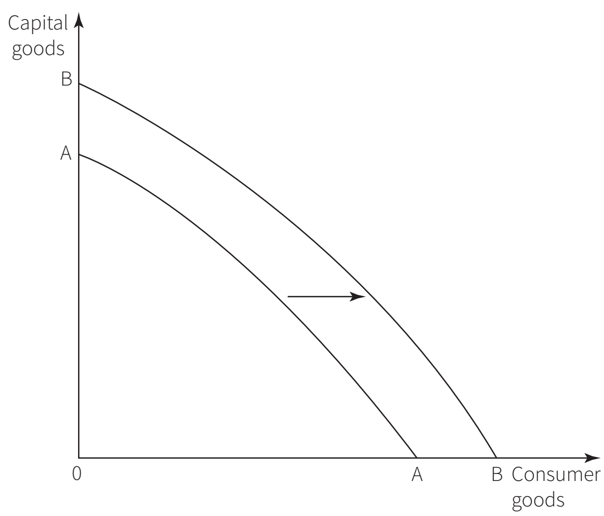
If, however, at any one time, full use is being made of resources, it will not be possible to increase the output of food without incurring an opportunity cost. In the diagram, if the production point moves from Z to Y, more food would be produced but at the cost of a lower output of other products.

Four-part question

1 a An entrepreneur is one of the four factors of production. She or he makes business decisions, including which other factors of production to employ, and bears the risks of the business in the hope of making a profit.

b A free good, such as air, does not take any resources to produce it. Such a good exists naturally without limit and has no opportunity cost. In contrast, an economic good, such as healthcare, takes resources to produce it. This means that it has an opportunity cost. The resources that are used to produce it could be used to make other economic goods. Economic goods are scarce as there are not enough resources to produce all of these goods we would like.

c An increase in the supply of labour will result in a rise in the quantity of resources. This will cause an increase in productive potential and will shift the PPC to the right as shown in the diagram, where it has moved from AA to BB.



d The quantity of labour may increase in the UK in the future. This is because the size of the population is increasing. This is partly due to more people being born than dying but more significantly due to more people of working age coming from countries such as India and Poland to live and work in the UK. The retirement age has also been increased and is likely to rise again in the future. More women now enter the labour force. All of these changes have resulted in an increase in the number of workers in the UK and may continue to do so in the future. The labour force has also become healthier and this has resulted in fewer working days being lost through sickness.

There are, however, reasons to think that the quantity of labour may decrease in the future. The school leaving age may be raised in a bid to increase the quality of the labour force by increasing workers' skills. A higher school leaving age will reduce the working age range. It is also possible that in the future, more workers may leave the UK to live and work elsewhere and the UK may experience a net loss of workers to other countries. The quantity of labour, in terms of the number of hours that people work, may be reduced if workers have longer holidays or shorter working hours.

There are a number of influences on the quantity of labour that any country has. It is difficult to forecast exactly what will happen to the UK's labour force but the likely continuing growth in its population for at least the next decade or so and further increases in the retirement age mean it is likely to continue to grow.

Chapter 5: Microeconomics and macroeconomics

Suggested answers to individual and group activities

Group activities

1 (a), (b) and (e): microeconomics.

(c) and (d): macroeconomics.

Individual activities

1 **a** Households. As workers, households would be likely to welcome a shorter working week if pay is kept the same. It would enable them to enjoy more leisure time.

b Households. These will give consumers choice and variety and may keep down prices.

c Firms. These will give them choice and variety and may keep down the cost of raw materials.

d A government. Higher tax revenue would enable a government to spend more money.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 A

Both changes are concerned with activities in one market.

2 D

The total output of the Egyptian economy is influenced by what households decide to buy, what Egyptian firms produce and how the government affects the decisions of households and firms and the output of state-owned enterprises.

Four-part question

a Microeconomics is economics on a small scale. It covers activity in individual markets. For example, a microeconomic topic is changes in the demand for and output of oranges.

b The vast majority of decisions in microeconomics involve an opportunity cost. This is because they have implications for the use of economic resources which have alternative uses. For example, a decision by households to buy more chocolate may mean that they are giving up the opportunity to buy fruit. A decision by a footwear manufacturer to produce more shoes may mean that it has to reduce its output of boots.

It is only in the case of a free good, such as air, which is available in an infinite quantity without production, that there is no opportunity cost.

Chapter 6: The role of markets in allocating resources

Suggested answers to individual and group activities

Group activities

1 a The price of a ticket to the final of the football World Cup will be higher. This is because more people will want to see the World Cup Final. The competition among potential buyers for the tickets will push up the price.

b The price of gold will be higher. The demand for gold relative to its supply is greater than the demand for rice relative to its supply.

c The price of the services of a dentist is higher than those of a cleaner. This is because there are more people capable of working as cleaners than working as dentists.

Individual activities

1 a Consumers signal to producers what they want to be produced by the amount they are willing and able to pay for different products.

b Those producers who use the lowest cost method of production to produce the highest-quality products will do well, while those who use a higher cost method of production and/or produce low-quality products are likely to go out of business.

c Those consumers who have the money to back up their wants will receive the products produced.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

These are the three fundamental economic questions.

2 A

Firms are motivated by profit. To earn high profits, firms seek to keep costs low and revenues high. Firms would not try to encourage rivals to enter the market, as their entry would make it more difficult for the existing firms to earn high profits.

3 B

Resources are allocated by the price mechanism in a market economy. If a product becomes more popular, consumers will be willing to pay more for it and hence more resources will be devoted to its production. Directives allocate resources in a planned economy. Directives and the price mechanism are used in a mixed economy.

4 A

Market forces are the factors that determine the price of a product in a market. These factors are demand and supply. They push up price when demand increases or supply decreases.

Four-part question

a Any two from: what to produce, how to produce it and for whom to produce.

b Market equilibrium is where demand and supply are equal. In this situation, there is no reason for price to change. This is because the market clears with no products left unsold and no willing buyers unable to purchase the product.

In contrast, market disequilibrium occurs when demand and supply are not equal. There is either a surplus or a shortage. This lack of balance between demand and supply causes the price to change until demand and supply are again equal.

c The price mechanism has three main functions. It acts as a rationing device. When demand exceeds supply, price is driven up. The rise in price reduces demand until it again equals supply. Those who receive the product will be those who are still willing and able to buy the product at this higher price.

The price mechanism provides producers with useful information about changes in consumer demand. It signals to them which products are becoming more popular and which are becoming less popular. If consumers demand more of a product, its price will rise. Similarly, if they demand less of a product, its price will fall.

As well as providing producers with information about changes in consumer demand as well as changes in supply, it also gives them an incentive to respond to those changes. Producers can earn more profit by producing products in high demand whereas they may make a loss if they make products people do not want to buy.

Chapter 7: Demand

Suggested answers to individual and group activities

Group activities

1 a Usually a substitute. People may travel to a place by car, bus or by train. Occasionally, they may drive to a train or bus station and then use public transport – in which case, they are a complement.

b A complement. People buy petrol to use in their cars.

c A substitute. People choose from a range of makes of cars.

2 a 79% (100% − 21%)

b One reason is that young people do not have the time to read newspapers and so do not buy them. Another reason is that young people have less need to buy newspapers, as they can receive the news from a variety of other sources such as the internet.

c It suggests that the internet is a substitute to newspapers. It mentions that it is a rival to newspapers – a number of young people get their news from the internet rather than newspapers.

d Newspaper publishers could raise demand for their papers by lowering their prices or advertising. A cut in price should cause an extension in demand. An advertising campaign, if successful, should cause an increase in demand.

3 a a contraction in demand

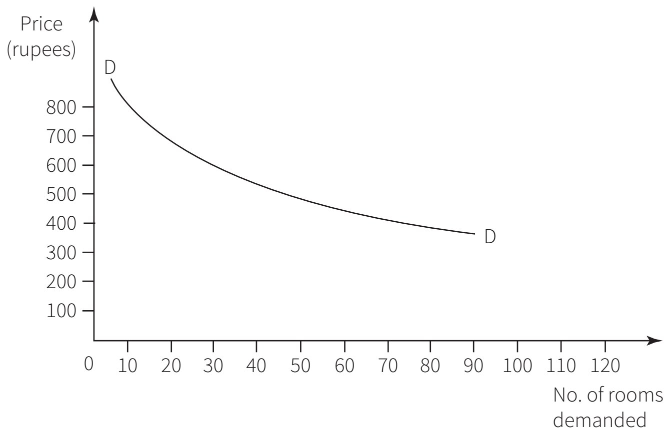
b an increase in demand

c a decrease in demand – fewer people to eat fish.

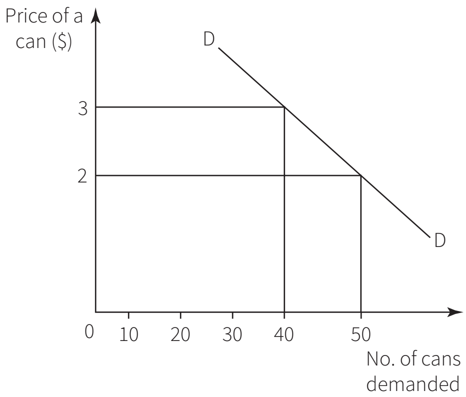
d a decrease in demand – some people will switch from eating fish to eating chicken.

Individual activities

1

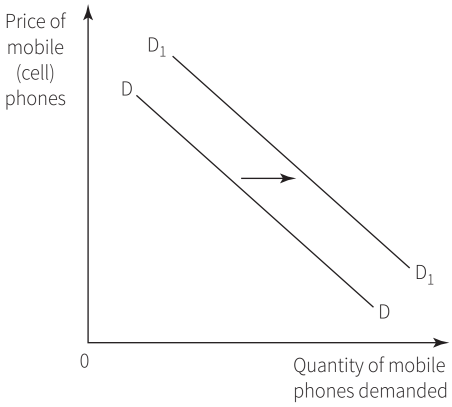


2 **a**



b Demand has extended – quantity demanded has increased because price has fallen.

3 **a**



Demand for mobile (cell) phones increased in China. This would have caused the demand curve to shift to the right.

b A mobile phone is a normal good. This is because demand for mobile phones increases as income rises. Some of those without phones, purchase them and those with phones upgrade them for better models.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

Price is on the vertical axis of a demand curve and quantity demanded or quantity on the horizontal axis.

2 A

If the price of a product falls, people are not only likely to be willing to buy more of it but they will also be able to afford to buy greater quantities of the same product.

3 D

An increase in demand moves the demand curve out to the right. A is a contraction in demand, B is an extension demand and C is a decrease in demand.

4 C

A rise in the price of a product will cause the demand to contract. The demand for a product used with it will decrease – less will be purchased – not because it has risen in price but because a related product has become more expensive.

Four-part question

a Market demand is the total demand for a product. It is found by adding up the demand from each individual at a particular price.

b The relationship between quantity demand and price is an inverse one. This is because a rise in price would reduce people's willingness and ability to buy a product. The higher price is likely to encourage some people to substitute products. As the product is more expensive, it is also likely to mean that not as many people will be able to afford to buy it in the same quantity.

c A rise in the price of tea will be likely to result in people buying less tea. The demand for tea will contract. Milk is a complement to tea as some people put milk into tea. As less tea is being drunk, the demand for milk will decrease. The demand for milk decreases rather than contracts because the change has not been caused by a change in the price of milk. Demand for milk will be less at each and every price of milk.

Coffee is a substitute to tea. If tea becomes more expensive, some people will switch from buying tea to buying coffee. As a result, the demand for coffee will increase. Again, this change has not been caused by a change in the price of coffee but due to the change in the price of a related product.

d The demand for bicycles may decrease in the future. This is because in a number of countries, bicycles are an inferior good. As income rises, people switch to other forms of transport, particularly car travel. Many people find it more comfortable to travel in a car especially during bad weather.

Changes in the size and age structure of the population may reduce demand for bicycles in particular countries. For instance, the population of Japan is declining so there are fewer people to buy bicycles. Japan is also experiencing a decline in the proportion of young people in the age population. Young people are more likely to ride a bicycle than older people.

There are, however, some reasons for thinking that demand for bicycles may rise in the future. Population size is still increasing in many countries, including in some countries where average income is low.

More people are also cycling in a bid to get fitter and because of concern about the environmental effects of car driving. Some governments are encouraging an increase in cycling by providing cycle lanes.

There is, in addition, the possibility that with advances in technology, the price of bicycles may fall in the future. This would make the bicycles more affordable and so would be likely to cause an extension in demand.

Chapter 8: Supply

Suggested answers to individual and group activities

Group activities

1 **a** A decrease in demand – fewer people will be able to afford to buy the gold bracelets.

b An increase in supply – it will be cheaper to produce gold bracelets.

c An increase in demand – some people will switch from buying silver bracelets to buying gold bracelets as they are substitutes.

d A decrease in supply – a higher tax adds an extra cost to producers.

e An increase in supply – more gold will be available to produce the gold bracelets.

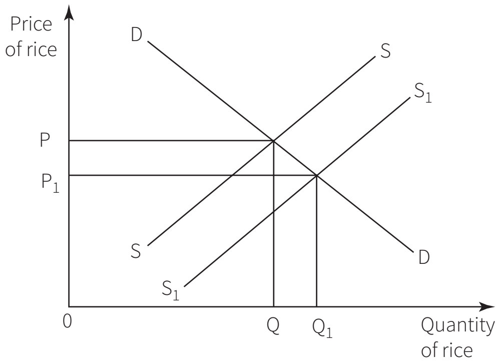
f A decrease in supply – this will disrupt production.

Individual activities

1 **a** It would increase market supply.

b A rise in the price of paper.

2 **a**



The supply of rice has increased. This would cause the price to fall and demand to extend.

b The supply of rice can decrease as a result of bad weather, disease, an increase in production costs or an imposition of a tax on rice.

3 **a** **i** Unit cost is total cost/output. In this case, this is $\frac{\$500}{100} = \$5$.

ii The new unit cost is $\frac{\$600}{200} = \$3$.

b Supply will increase as the cost of production has fallen.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 C

Demand and price move in the opposite directions and hence are inversely related. In contrast, supply and price move in the same direction, which means that they are directly related.

2 D

A market supply curve shows the total amount supplied at different prices.

3 D

An increase in supply results in a shift to the right of the supply curve. A is a extension in supply, B an contraction in supply and C a decrease in supply.

4 C

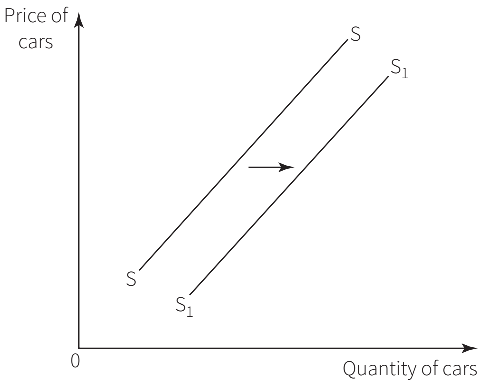
A subsidy will provide an incentive for farmers to produce more milk. A, B and D would decrease supply.

Four-part question

a Supply is the willingness and ability to sell a product.

b A rise in price will cause an extension in supply. This positive relationship exists because a higher price will provide firms with an incentive to produce more of the product as they will gain a higher profit. As well as making firms more willing to supply the product, a higher price will also make them better able to supply more as they will find it easier to cover their costs of production.

c An increase in the quality of training that car workers receive should make them more skilled and more productive. As workers will be able to produce more cars in a given period of time, the cost of producing each car will fall. A lower cost of production will cause an increase in supply as shown by the shift to the right of the supply curve shown below.



d The market for tomatoes is affected by both changes in demand and changes in supply. Demand for tomatoes may increase if incomes rise and people decide to use some of their higher income on purchasing fresh fruit and vegetables. People may also buy more tomatoes if the price of related products changes. For example, people will buy more tomatoes if a substitute, such as red peppers, rises in price or if a complement, such as bread in the case of tomato sandwiches, falls in price. An increase in population and a successful advertising campaign would result in higher demand for tomatoes. In addition, a report stating that eating tomatoes promotes good health would encourage people to eat more tomatoes.

Changes in supply may also affect the market for tomatoes. An increase in costs of production or the removal of a subsidy given to farmers who grow tomatoes would cause supply to decrease. Changes in the price of other agricultural products sometimes influence the supply of tomatoes. For instance, if onions rise in price due to higher demand, some farmers may decide to switch some of their land from growing tomatoes to growing onions.

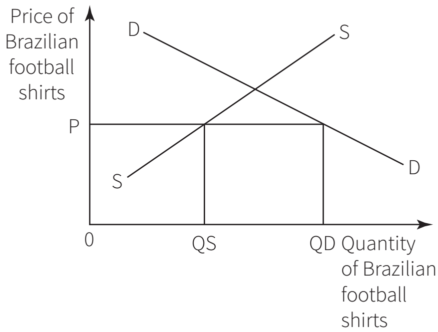
The main influence on the market for tomatoes in some countries is changes in weather conditions. Periods of bad weather and the outbreak of pests and diseases can result in a significant reduction in the supply of tomatoes, which can push up their price. The spread of growing tomatoes in polytunnels and greenhouses is, however, reducing the significance of this influence and reducing seasonal fluctuations in price. In the future, the main influence on the market for tomatoes may be advances in the technology used in tomato cultivation.

Chapter 9: Price determination

Suggested answers to individual and group activities

Individual activities

1 **a**



b Price would be expected to rise due to excess demand. Customers, eager to buy the shirts, would be prepared to pay more.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

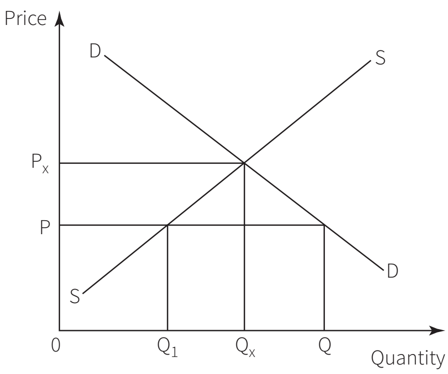
Equilibrium price occurs when the quantity demanded equals the quantity supplied. There is the possibility that everything that is produced may not be offered for sale or what is sold consists of more than that has recently been produced (in such a case stocks may be drawn on). The number of buyers and sellers do not have to be equal – it is the quantity demanded and supplied that is significant. If supply exceeds demand, the market will be in disequilibrium.

2 D

A shortage means that demand exceeds supply. The excess demand will push up the price. The rise in price will stimulate an extension in supply and cause a contraction in demand but more of the reduced demand will be satisfied so sales will in fact increase.

3 C

When there is excess demand, demand is greater than supply. The diagram below shows that price, P, is below the equilibrium market price of P_x. Sales will be Q_1 as this is the quantity that producers are willing to supply at a price of P. Sales of Q_1 are below the market equilibrium level of Q_x and the demand of Q.



4 A

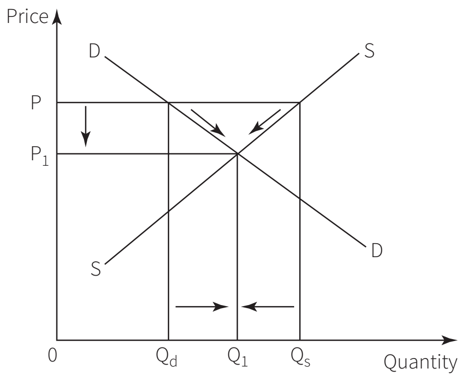
A disequilibrium price occurs when either demand exceeds supply or supply exceeds demand. A shortage or surplus will be occurring. The price mechanism may be working as the price may be moving back to equilibrium. If there is a market, it must mean that the product is being traded. Products without an opportunity cost do not have to be bought and sold – they are available to everyone.

Four-part question

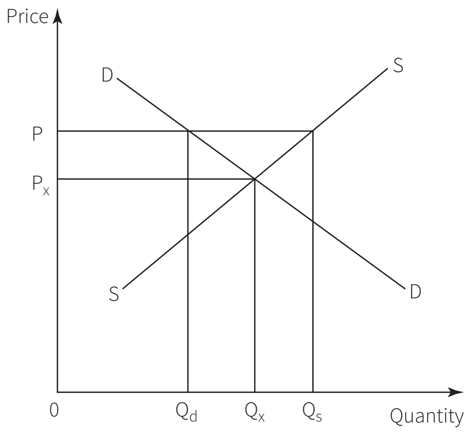
a Opportunity cost is the best alternative forgone. The opportunity cost of buying apples may be, for instance, buying oranges. Money spent on apples cannot be spent on anything else.

b The market for apples may be in disequilibrium because either demand exceeds supply or supply exceeds demand. Demand will exceed supply if price is below equilibrium. In this case, there will be a shortage. Supply will be greater than demand if price is above equilibrium. This time there will be a surplus.

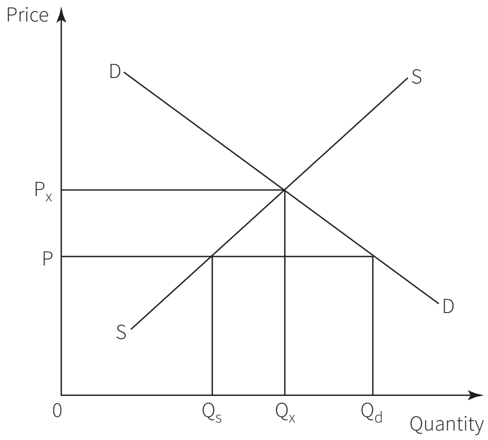
c A surplus of apples will be eliminated by the downward pressure that market forces put on the price. Producers, unable to sell all that they want to, will have to lower price. As price falls, supply will contract and demand will extend until they are both again equal as shown in the diagram below.



d Consumers will not benefit from a market being in disequilibrium if price is above the equilibrium level. Those who do buy the product, Q_d quantity on the diagram below, are paying more than the market price. The quantity bought and sold, Q_d, is also below the equilibrium level of Q_x. This means that there are some unsatisfied consumers.



Some consumers will benefit from the price being below the equilibrium. In the diagram below, sales will be Q_s at the price of P. There are, however, some unsatisfied consumers at this price. Indeed, there is a shortage of $Q_d - Q_s$.



The greatest satisfaction for consumers in total is gained when the market is in equilibrium. In this situation, all those willing and able to purchase the product are able to buy it and the price is at the minimum producers would be prepared to accept to sell that quantity.

Chapter 10: Price changes

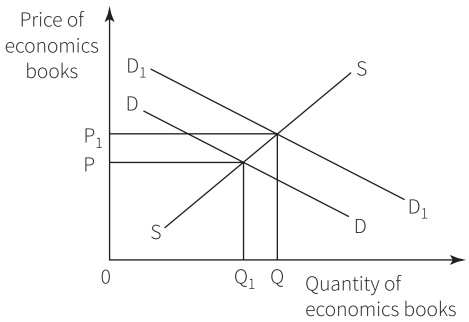
Suggested answers to individual and group activities

Group activities

1 The price of agricultural products fluctuates more than the price of manufactured goods because agricultural products are affected by weather conditions, pests and diseases and because manufactured goods can be stored. A period of bad weather or the outbreak of a disease could cause a significant decrease in the supply of, for instance, wheat. Wheat is also perishable. If there is a bumper crop, it will all have to be sold. A large increase in supply could result in a significant fall in price. In contrast, producers of shoes do not have to sell all the shoes they produce if they think it will lead to a fall in price.

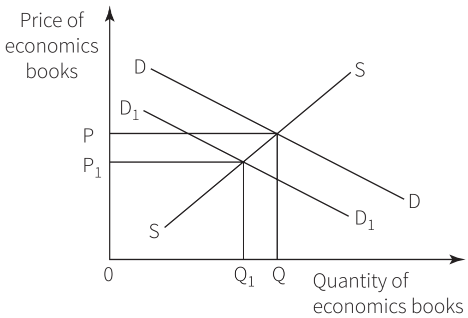
Individual activities

1 a



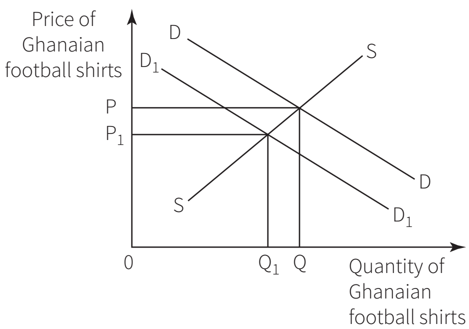
A successful advertising campaign will increase demand.

b



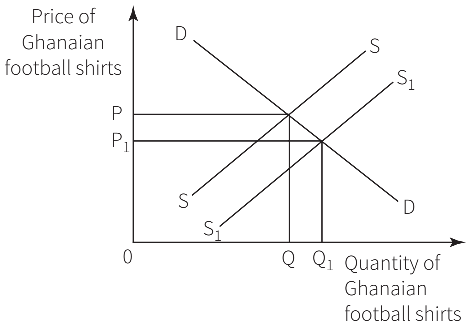
Fewer students studying economics will result in a decrease in demand.

2 a



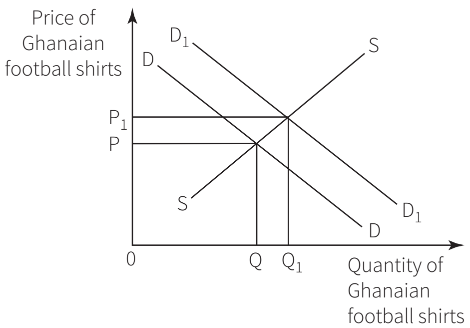
A football shirt is a normal good. Demand would decrease, causing a fall in price and a contraction in supply.

b



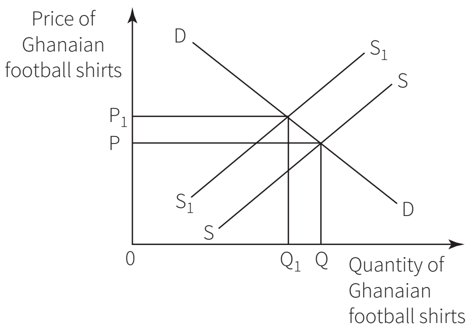
A rise in workers' productivity would reduce costs of production. This, in turn, would cause price to fall and demand to extend.

c



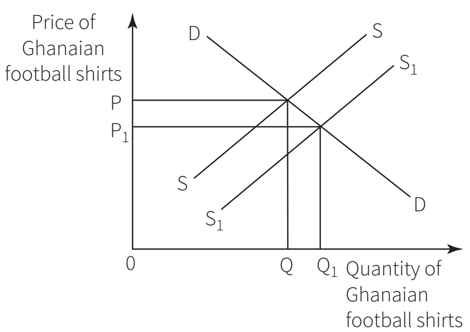
If Ghana wins the World Cup, their shirts will become more popular. This will increase their demand. Higher demand will raise price, which would cause the supply to extend.

d

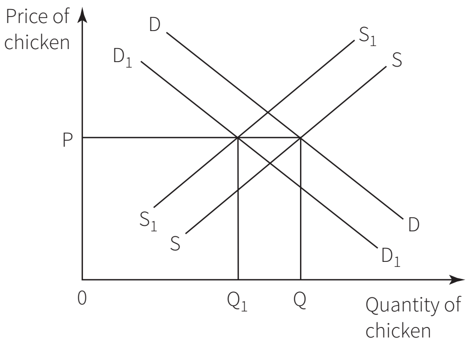


A tax placed on a product causes a decrease in supply. This results in a rise in price and a contraction in demand.

e



More efficient machinery will decrease the cost of production, causing an increase in supply. This, in turn, will cause a fall in price and an extension in demand.

3 

The slaughter of chicken will reduce the supply of chicken. Also, the disease is likely to discourage the consumption of chicken and hence demand will decrease. These changes will cause the quantity bought and sold to fall. The effect on price will depend on the relative size of the two shifts. Price may rise, fall or if (as in the diagram) supply and demand decrease by an equal amount, remain unchanged.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

The diagram shows an increasing demand for coffee. A rise in the price of tea may cause some people to switch from drinking tea to drinking coffee. A rise in the price of coffee here is the consequence of demand and not the cause. C and D would be likely to cause a decrease in demand for coffee.

2 C

A reduction in the cost of raw materials would cause an increase in supply.

3 B

An inferior good has an inverse relationship with income. As income rises, demand decreases. As people get richer, they buy more of high-quality products and less of low-quality products.

4 C

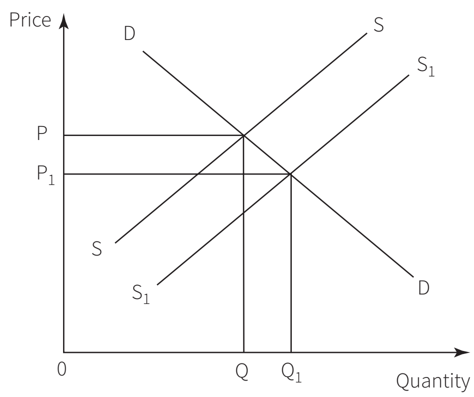
A decrease in supply would raise price and cause demand to contract.

Four-part question

a For example: a successful advertising campaign and an increase in the price of a substitute.

b An increase in wages will increase demand for normal goods. This is because people will have a greater ability to buy products – their purchasing power has increased. Supply, however, may decrease. This is because higher wages will increase costs of production, if productivity does not increase in line with the higher wages.

c The granting of a subsidy is designed to encourage producers to supply more. It is likely to increase supply. The higher supply will lower price and the lower price will cause demand to extend as shown on the diagram below.



d The price of air travel may increase in the future. Population increases will increase the number of potential passengers. Air travel is used by business passengers and by tourists. An increase in income would be likely to be accompanied by an increase in business activity and so there would be more business passengers. Air travel is a complement to foreign holidays, which are a normal good. As people get richer, they are likely to take more foreign holidays and to travel further. Airlines may also decide to spend more on advertising, which may stimulate higher demand.

Other forms of transport are a substitute for air travel and so demand for air travel will be affected by changes in the price and quality of these forms of transport. For example, if train travel rises in price, some people may switch to air travel for some journeys. A fall in the quality of sea travel may also encourage an increase in demand for air travel.

As well as increases in demand pushing up price, a decrease in supply may result in a higher price of air travel. For instance, the cost of fuel may increase, which would reduce supply and raise price.

There are, however, reasons for thinking that the price of air travel may fall in the future. Some governments subsidise their countries' airlines and they may increase the subsidies they give. Air travel is a very safe method of transport but a major crash may discourage some people from flying. A significant reason why the price may fall is advances in technology. Planes are becoming more fuel-efficient and there are a number of larger planes being developed. In recent years, the relative price of air travel has fallen.

Chapter 11: Price elasticity of demand

Suggested answers to individual and group activities

Group activities

1 **a** elastic – a luxury

b elastic – a luxury

c inelastic – it is addictive

d inelastic – it is necessary for commuters to get to work at specific time

e inelastic – a necessity

Individual activities

1 **a** $\frac{75\%}{-25\%} = -3$

b $\frac{-10\%}{20\%} = -0.5$

c $\frac{40\%}{-50\%} = -0.8$

2 **a** $\frac{-60\%}{10\%} = -6$

b 6%

3 **a** $\frac{25\%}{-25\%} = -1 = \text{unity}$

b $\frac{-20\%}{5\%} = -4 = \text{elastic}$

c $\frac{40\%}{-10\%} = -4 = \text{elastic}$

d $\frac{0\%}{100\%} = \text{perfectly inelastic}$

e $\frac{-25\%}{12.5\%} = -2 = \text{elastic}$

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

PED is $\frac{\%\Delta QD}{\%\Delta P}$.

2 C

Demand will rise by a smaller percentage than the change in price, causing total revenue to fall. In the case of products with inelastic demand, price and total revenue move in the same direction.

3 D

If a product has close substitutes, a rise in price is likely to result in demand falling by a greater percentage as consumers switch to rival products. A decrease in price will cause demand to rise by a greater percentage, as consumers switch away from rival products. A, B and C would make demand inelastic.

4 B

$\text{PED} = \frac{-25\%}{50\%} = -0.5$, i.e. inelastic.

Four-part question

a Price elasticity of demand is a measure of the responsiveness of demand to a change in price. It is measured by the formula: $\frac{\%\Delta QD}{\%\Delta P}$.

b Inelastic demand is when a change in price results in a smaller percentage change in quantity demanded. The PED value will be less than 1 but greater than zero. PED is sometimes illustrated by a steep downward sloping demand curve.

In contrast, perfectly inelastic demand occurs when a change in price results in no change in demand. In this case, PED equals 0 and the demand curve is a straight vertical line.

c When demand is elastic, price and total revenue move in the opposite direction. A rise in price will cause demand to fall by a greater percentage. This will result in a decrease in the total amount consumers spend on the product and so the total revenue producers receive. When demand is perfectly elastic, a rise in price will cause total revenue to fall to zero as all demand would be lost.

In contrast, when demand is inelastic, price and total revenue move in the same direction. A rise in price will cause demand to fall by a smaller percentage. This will increase the total spending on and revenue received from the product. When demand is perfectly inelastic, a rise in price will have no effect on the quantity demanded. As a result, price and total revenue will rise by the same percentage.

In the case of unit price elasticity of demand, a change in price will affect demand but will have no effect on total spending and revenue. For example, a rise in price will cause demand to fall by an equal percentage and so total spending and total revenue would remain unchanged.

d There is the possibility that demand for laser eye surgery may become more elastic over time. This is because alternatives to laser eye surgery may be developed and people will have more time to seek alternatives. The creation of more substitutes will reduce the power of opticians offering laser surgery to raise their prices. Existing products, such as contact lenses may also fall in price and/or rise in quality, and so become closer substitutes.

It is, however, likely that demand will become more inelastic over time. This is because incomes tend to rise over time and the cost of providing the treatment may fall with advances in technology. Both these changes are likely to reduce the price of laser eye surgery as a proportion of people's income. Higher incomes may also change the perception of laser eye surgery. In the future, it may be seen as less of a luxury.

Chapter 12: Price elasticity of supply

Suggested answers to individual and group activities

Group activities

1 **a** elastic – cheap and quick to produce and can be stored

b elastic – again, cheap and quick to produce and can be stored

c inelastic – takes a relatively long time to be made

d elastic – for the same reasons as in a and b

e inelastic – takes time to breed and mature and cannot be stored for long

Individual activities

1 **a** $\frac{-60\%}{-20\%} = 3$

b $\frac{5\%}{40\%} = 0.125$

c $\frac{12.5\%}{10\%} = 1.25$

2 **a** $\frac{40\%}{25\%} = 1.6$

b 1.6%

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

PES is a relative measure of the responsiveness of supply to a change in price.

2 D

A figure less than 1, but greater than zero, indicates inelastic supply.

3 C

If a product can be stored, it should be relatively easy to alter its supply. A, B and D would be likely to make supply inelastic.

4 C

Elastic supply is usually illustrated by a shallow supply curve. D shows inelastic supply, A and B show the supply curve sloping the wrong way.

Four-part question

a Perfectly inelastic supply occurs when a change in price has no effect on supply. Supply remains constant as price changes and so PES is zero.

b There are two ways an economist could determine whether supply is elastic or inelastic. The most reliable is to calculate the price elasticity of supply. Supply is elastic if PES is greater than 1. It is inelastic if PES is greater than 0 but less than 1. An economist could also examine the supply curves. Supply is elastic if the supply curve is shallow. In the case of a straight-line supply curve, it will be one that would touch the vertical axis. In contrast, supply is inelastic if the curve is steep. A straight-line supply curve illustrating inelastic supply would touch the horizontal axis.

c The supply of agricultural products tends to be more inelastic than the supply of manufactured goods for two main reasons. One is that the production period is often longer. It takes time for crops to grow and livestock to reach maturity. The second reason is that some agricultural products – such as onions, for instance – cannot be stored. This means that should demand and therefore price increase, supply cannot be raised by drawing on stocks. If demand and so price fall, units of the product cannot be taken off the market until price rises.

d Producers would want the supply of their product to be more elastic. This is because they are likely to be in a better financial position if they can respond quickly and fully to changes in demand and price. If price rises due to higher demand, producers would want to take advantage of the favourable market conditions. By supplying more, their profits may rise. If demand and prices fall, producers would want to reduce their supply. They would not want to sell their products if the price is lower than the cost of producing the product. Removing products from sale now may enable them to be put back on the market if price should rise in the future.

While producers would want supply of their products to become more elastic, they are unlikely to want the demand for their products to become more elastic. This is because it is likely to mean that the producers' products now have closer substitutes. This increased competition would restrict the producers' ability to raise price and would put pressure on them to keep price low.

Chapter 13: Market economic system

Suggested answers to individual and group activities

Group activities

1 a A firm may perform better in the private sector due to the profit incentive and competitive pressure.

b A firm in the public sector may do better than the one in the private sector, as it may base its production decisions on the full costs and benefits of those decisions.

2 1 a Those people whose labour skills are in high demand are well paid. Entrepreneurs, who produce what consumers want, can make high profits. Those with high incomes can save and earn income from their savings.

b The sick, disabled and old will find it hard to earn an income.

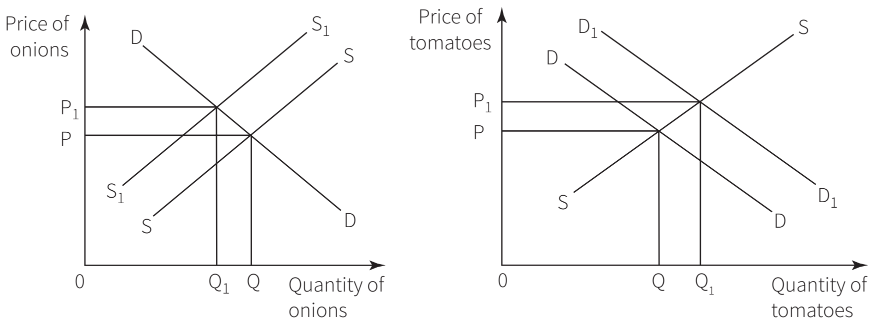
2 c and d – the profit motive and private ownership of land are key features of a market economy. a and b are found in a planned economy.

3 a Bata is likely to have chosen to produce handbags because of rising consumer demand.

b Consumers may benefit from the firm spending more on research and development and investment, as this would improve the quality and quantity of its existing products and also stimulate the introduction of new products.

Individual activities

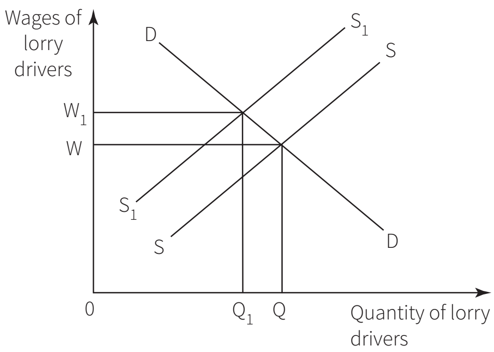
1 a



b The market for onions responded to the shortage caused by the poor crop by an increase in price. The higher price rationed out the onions and restored the market to equilibrium. The higher demand for tomatoes raised their price and encouraged the producers to supply them in greater amounts.

2 a Higher wages.

b



The emigration of lorry drivers to the US would reduce the supply of lorry drivers in India. This would be expected to raise the wages of lorry drivers in India.

3 **a** A fall in demand would be likely to lower the price.

b The evidence is that resources moved out of the crisps industry, in response to a decrease in demand.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

Consumers determine what is produced in a market economy. Poverty and unemployment can occur in a market economy. Firms having considerable market power may be a disadvantage, as they would be able to charge high prices.

2 A

Firms that produce what consumers want are likely to sell more products and earn higher profits.

3 B

Supply is exceeding demand. The surplus will cause the price to fall. A lower price will result in a contraction in supply and an extension in demand.

4 A

In a competitive market, firms have to keep costs down to retain their customers.

5 C

Production points C and D are both inefficient but C is less efficient than D. D is closer to the production possibility curve and hence closer to productive efficiency.

The movement from production point B to C and from A to D both represent a reduction in productive efficiency. Points A and B are equally efficient.

Four-part question

a One difference is that firms in the private sector are owned by shareholders or individuals whereas firms in the public sector are owned by the government. Another difference is that profit is the main aim followed by firms in the private sector whereas the public sector may seek to improve the welfare of the country's population.

b Consumers are said to be sovereign in a market economic system as they determine what is produced. They signal their choices by means of the price mechanism. If they want to buy more of a product, they will bid up its price which will encourage firms to allocate more resources to its production. If they want to buy less of a product, the price they are willing to pay will fall. The reduction in price will result in fewer resources being allocated to its production.

c Profit plays a key role in a market economic system. Profit is the incentive firms have to respond to the signals that consumers send via price changes. The opportunity to earn a profit encourages firms to produce the products consumers are willing and able to buy, using the most efficient methods of production. If consumers demand more of a product, its price will be bid up. More revenue will be earned by making the product, which may increase their profit. If firms can cut the costs of production by, for instance, introducing new, more productive capital equipment, their profit will again rise. Those firms that are the most efficient will gain the highest profits. They will have the finance to expand, while those firms that are inefficient and cannot make a profit may go out of business.

d Prices may be low in a market economic system. This is because there may be a high level of competition in such a system and because profit plays a key role. If there are a high number of firms competing for the custom of consumers, they will have to keep their prices low. To make a profit when prices are low, costs will have to be lower. This means that firms will have to use the most efficient methods of production, which keep cost per unit low and so enable them to charge low prices.

A market economic system, however, does not mean that all prices will be low. Indeed, if a market economic system is working efficiently, the prices of products that are in high demand will be high relative to those products that are less popular. This difference in price will encourage more resources to be devoted to those products that are most in demand. The prices of the popular products may still be lower than might exist in other types of economic systems if there is a quick and full response to changes in market conditions.

There is, however, no guarantee that a market economic system will always work efficiently. There may not be a high level of competition in all markets. If one firm dominates a market, it will have more power than consumers. It will be able to raise the price it charges because consumers will not be able to switch to substitutes.

There are a number of other reasons why inefficiency may occur in a market economic system, causing prices to be high. For instance, firms may want to respond to an increase in consumer demand by producing more. If, however, they have difficulty recruiting more workers due to the occupational and/or geographical immobility of labour, they may not be able to adjust their supply by much. Inelastic supply will mean an increase in demand that will result in a higher rise in price than would have been the case with elastic supply.

A market economic system has the potential to keep prices low if there is, for instance, a high level of competition and mobility of factors of production. In practice, this does not always occur in all markets.

Chapter 14: Market failure

Suggested answers to individual and group activities

Group activities

1 a The merit good and equity arguments.

b Education is likely to be under-consumed, if left to market forces as people underestimate its value to themselves. Also, while making their consumption decisions, they do not take into account the associated benefits to others.

2 a Alcohol is a demerit good, as it is more harmful to drinkers than they realise and causes harmful effects on third parties including rowdy behaviour and road accidents.

b The ways in which the UK government can help reduce the drinking of alcohol are by placing or increasing a tax on the product, providing information about its harmful effects and banning its consumption. A tax would raise the price of alcohol, which would cause a contraction in demand (although demand may be relatively inelastic). The provision of information may reduce demand. A ban would be designed to stop the consumption of alcohol, but it might be difficult to enforce.

3 Public goods: lighthouse protection for shipping; flood control system.

Private goods: biscuits; public car parking spaces; public library services. In each of these cases, it would be possible to charge for the product as non-payers could be excluded.

Individual activities

1 a Among the private costs are the costs of buying the land and the building materials and the wages of the workers.

b Pollution is an external cost, as it harms those who are not directly involved in the production and consumption of the products involved. For example, those living near the factories may suffer from poor health as a result of carbon dioxide emissions from the factories.

2 a The profit motive. More airlines would fly a particular route, if they think that they will make a profit on the route.

b Consumers may benefit from lower prices and increased quality.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

If firms are producing above the lowest possible cost, they are failing to achieve productive efficiency. A refers to consumer sovereignty, which should result in allocative efficiency. C and D refer to markets adjusting to changes in market conditions. They should result in equilibrium being restored, eliminating shortages and surpluses.

2 B

One of the characteristics of a merit good is that it is more beneficial than those consuming it realise. A merit good does have external benefits. C refers to a demerit good and D to a public good.

3 C

Demerit goods will be overconsumed and hence overproduced, as their harmful effects on the consumers and others are not fully appreciated. A and B are likely to be underproduced and D, public goods may not be produced at all.

4 B

Information failure is a major cause of market failure. A, C and D should all promote efficient working of markets. Competition provides a 'carrot' and a 'stick' for firms to be efficient. Differences in pay between skilled and unskilled workers provide an incentive for workers to be productive. Mobility of resources makes it easier and quicker for markets to respond to changes in consumer demand.

Four-part question

a An external cost is a harmful effect on third parties, that is on people not directly involved in consuming and producing a product. For example, people living near a steel factory may suffer from the pollution the factory creates.

b A merit good is one that the government considers is more beneficial to consumers than they realise and it generates external benefits. The social benefit of a merit good exceeds the private benefits. As a result, a merit good is underconsumed and underproduced if left to market forces.

In contrast a demerit good is one that the government thinks is more harmful to consumers than they appreciate and it causes external costs. It is overconsumed and so overproduced if left to market forces.

c Social benefit includes private and external benefits. The social benefit of education exceeds the private benefits of education because education has external benefits. The private benefits of education include the development of skills, increased earning potential and an increased range of interests.

As well as the benefits to those being educated, others may gain. The external benefits include increased output and better quality output due to higher labour productivity. More and better products can be consumed. There may also be increased tax revenue arising from higher incomes. This extra tax revenue may be spent on, for example, healthcare, which can be enjoyed by third parties. A more educated country may also be a more civilised and compassionate society.

d The rainforests, in the Amazon region of Brazil, are being cleared at a relatively rapid rate. The firms that are engaged in logging in the forests are only taking into account private costs and benefits. In the case of a logging firm, private costs will include, for example, the cost of transporting the wood and the cost of labour. The private benefit a logging firm receives from selling the wood is the revenue it earns. The company will continue cutting down trees, as long as the revenue received by it exceeds its costs.

External costs caused by the logging firms may include damage to wildlife habitats, loss of plant species that could be used to develop medicines, global warming and interference with the lifestyle of local tribes. External benefits may include reduced transport costs for tourism firms in the area due to construction of roads by logging firms and tax revenue. While making its decisions on the number of trees to be cut down, a logging company will not take these external costs and benefits into account.

The decision as to whether trees should continue to be cut down in the Brazilian rainforests should be based on the relationship between social cost and social benefit. If the social cost exceeds the social benefit, no more trees should be cut down.

Chapter 15: Mixed economic system

Suggested answers to individual and group activities

Group activities

1 **a** The government will benefit in terms of high corporation tax revenue. There will also be a probable reduction in the amount of unemployment benefit paid by the government. This is because profitable firms are likely to expand and take on more workers.

b Private sector firms may be more efficient than state-owned enterprises, as the market provides both a 'carrot' and a 'stick' for them to produce at a low cost and to make the products desired by consumers. If firms are efficient, they are rewarded with high profits and if they are not, they are punished by going bankrupt.

Individual activities

1 **a** Market forces determine price by the interaction of demand and supply.

b Price controls may distort the market by creating shortages and surpluses. A maximum price set below the equilibrium price will lead to demand being greater than supply. A minimum price set above the market equilibrium price will result in supply being greater than demand.

c The extract suggests that Chinese National Development Reform Commission sets maximum price for the products mentioned. This can be concluded from the reference to price controls being designed to keep inflation low and causing a shortage of petrol.

2 **a** Pollution (air and noise) and accidents.

b It is likely to reduce the number of flights, as it will make travelling more expensive. Of course, the effect will depend on the size of tax and the price elasticity of demand for air travel.

c An external benefit is a beneficial effect that third parties enjoy, as a result of the production or consumption decisions of others. In this case, a new airport may create work for taxi drivers in the area and may boost other local businesses also. They may be able to enjoy high profits not as a result of their own actions but because of people travelling to and from the airport.

3 **a** An energy-intensive sector is an industry that uses a high amount of energy per unit produced.

b An emissions trading scheme may reduce pollution by rewarding firms that cause little pollution and punishing those that generate a high amount of pollution. Permits are issued or sold to firms allowing them to pollute up to a given level. Those that pollute less can sell their leftover allowance to other firms. This should enable them to charge lower prices, gain more market share and reduce the pollution the industry creates.

4

	State-owned enterprise	Private sector firm
Ownership	The government	Shareholders or individuals
Sector	Public	Private
Aim	Acts in the public interest	To make a profit

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 D

Private sector firms do not have the financial incentive to produce public goods, as they cannot stop non-payers from consuming the product. This means that either state-owned enterprises have to produce them or the government has to provide the incentive for private sector firms to make them (by paying them). Either way, the government finances their production.

2 D

People travelling on the train benefit car drivers, as their action reduces the volume of traffic on the roads.

3 C

Installing new equipment will increase a firm's costs but it should reduce costs on third parties, including those households who live close to the firm.

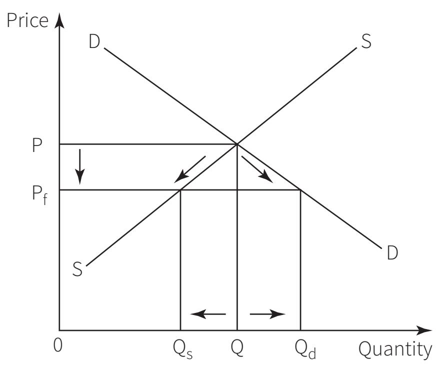
4 D

The government may try to stop firms abusing their market power. It would not want to encourage the consumption of harmful products and it is unlikely to want to make the distribution of income more uneven. The role of the price mechanism in allocating resources will be greatest when there is no state intervention.

Four-part question

a A minimum price is a price floor. To have any effect, a minimum price has to be set above the equilibrium price. The price can be above the legally enforced minimum but cannot be below. An example of a minimum price is a minimum wage where employers have to pay a wage at least equal to this.

b A maximum price set above the equilibrium level will have no effect. This is because producers could still charge the equilibrium and comply with the law. A maximum price set below the equilibrium, which it is where it is normally set, will result in a lower price. The diagram below shows that the fixed price, P_f, results in supply contracting to Q_s and demand contracting to Q_d. A shortage of $Q_d - Q_s$ is created with demand exceeding supply.



c A government could encourage consumption of a merit good by providing more information to people about the benefits they can gain from consuming it. For example, a number of governments run campaigns to overcome the information failure that exists about the benefits of eating fruit and vegetables.

A government could also subsidise production of the merit good. This would lower its price, which would increase people's ability and probably their willingness to buy the product.

A third way is for the government to use regulation. It could make consumption compulsory. For instance, a number of governments make it illegal for parents not to send their children to school. This measure is sometimes combined with a subsidy that reduces the price to a low level or even to zero price.

d Consumers may benefit more from a market economic system than a mixed economic system. Consumers are said to be sovereign in a market economic system. In theory, at least, they decide what is produced and signal their choices to producers through the price mechanism. If they want more of a product, they will bid up its price, which will encourage producers to supply more of it. Consumers may also benefit from low prices and high quality if competition results in efficiency. To attract consumers, producers may have to keep prices low and to innovate.

Due to the risk of market failure, however, consumers may benefit more from a mixed economic system. A government can finance the production of public goods. In a market economic system, consumers would not be able to buy public goods. This is because private sector firms would have no incentive to produce them. They cannot prevent those not willing to pay for them from enjoying them.

Consumers' choices will be affected by measures to encourage the consumption of merit goods and to discourage demerit goods. Some may dislike, for instance, taxes on high-fat foods and may argue that they know better than the government what is good for them. In the long run, however, these measures may change the pattern of consumer demand.

Competition is not guaranteed to be present in a market. Consumers may benefit from the government in a mixed economy intervening to prevent private sector monopolies charging high prices. It may do this by regulating private sector monopolies or nationalising them. State-owned enterprises may be more likely to base their production decisions on social rather than private costs and benefits. If this is the case, consumers may benefit from, for instance, less pollution.

A government may also implement policies to promote factor mobility. If labour, in particular, becomes more geographically and occupationally mobile, producers will be able to respond to changes in consumer demand to a greater extent.

Poor consumers may benefit more from a mixed economic system than a pure market economic system. This is because they lack purchasing power and so will have little ability to influence and receive what is produced. In a mixed economic system, some essential products may be heavily subsidised and they may receive benefits to increase their purchasing power.

Of course, there is the possibility that products produced by state-owned enterprises may be of a low quality if the lack of competition and government funding reduces pressure on the enterprise to be efficient. The government may also fail to estimate external costs and benefits accurately and so may over-tax or over-subsidise.

Which type of economic system will benefit consumers most will be influenced by whether market forces or market forces combined with government intervention works more efficiently.

Suggested answers to exam-style questions for Section 2

Multiple choice questions

1 A

In a market economy, consumers are sovereign. They decide what is produced. They signal their choices through the price mechanism.

2 C

The equilibrium price is where demand and supply are equal. In this case, it is $1.20 where demand and supply are 320 loaves each.

3 D

A fall in price will cause demand to extend and supply to contract, until they become equal and the market clears.

4 C

A subsidy will cause supply to increase, which, in turn, will lead to a lower price. A would cause a decrease in supply, which would result in a rise in price. B and D would also lead to a rise in price. If beef becomes more expensive, some consumers may switch to lamb, causing the demand for lamb to increase. A successful advertising campaign would also result in an increase in demand for lamb.

5 D

An advertising campaign will increase costs of production. However, it may also result in an increase in demand.

6 A

Price elasticity of demand is a measure of the responsiveness of demand to a change in price.

The formula is $\frac{\%\triangle QD}{\%\triangle P}$. In this case, price rises by $5 from the original $10 (which is a 50% rise). Demand falls by 1000 from its original 5000 (which is a 20% fall). So PED = $\frac{-20\%}{50\%} = -0.4$.

7 D

An increase in the number of substitutes is likely to make demand more sensitive to prices. Consumers will switch to a given product (from rival products) if its price falls and away from it (to rival products), if its price rises. A, B and C would all cause demand to become more inelastic. The lower the price of a product and the smaller the proportion of income spent on it, the less significant any price change is. The shorter the time period, the less likely it is that consumers will be able to find alternatives.

8 B

Inelastic supply is when a change in price causes a smaller percentage change in supply. A is elastic supply and D is perfectly inelastic supply. C can be rejected as price and supply are directly related.

9 B

Recycling waste paper into newspapers will reduce the amount of waste buried in landfill sites and help preserve woods and forests. A, C and D will harm the environment.

10 B

A subsidy given to bus companies should provide a number of advantages to people, other than the owners and workers of the bus companies and bus passengers. These include reduced congestion, reduced pollution and fewer accidents.

Data response questions

1 **a** Either farm machinery or roads.

b Either congestion or pollution. The decision by people to drive on India's roads results in other people's journeys being longer and people suffering bad health as a result of breathing in vehicle fumes.

c Opportunity cost is the loss of the best alternative. By spending on the road, the Pakistan government may have given up the opportunity to spend more on education.

d Improvements in road infrastructure are likely to reduce the cost of transporting cotton. This would lower the cost of producing cotton which would cause an increase in supply. Figure 1 shows that an increase in supply from SS to S_1S_1 will lower the price of cotton from P to P_1 and lead to a rise in sales from Q to Q_1.

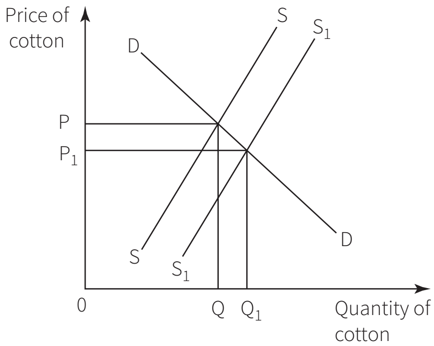


Figure 1

e Improved labour productivity will increase the amount that workers are capable of producing. This will increase an economy's productive potential. This rise in the output that the economy can produce is shown by a shift to the right of the country's production possibility curve as shown in Figure 2. The source material also mentions a fall in unemployment and so the production point moves closer to the production possibility curve.

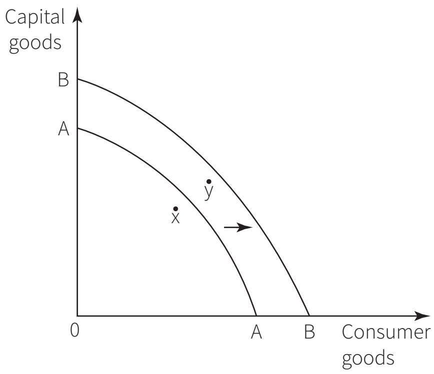


Figure 2

f India was the largest producer, followed by China, the USA, Pakistan and Brazil. These five largest producers accounted for nearly three-quarters of global cotton production in 2016. India produced just over a quarter of the cotton produced. China and India together produced just over half of all the cotton.

g Train travel may be a close substitute for road travel if the fares are close to or below the cost of road travel. In this case, a fall in train fares may result in rise in demand for road travel. People may also be prepared to switch from using their cars to travelling on the train if the two forms of transport cover a similar route.

In practice, some people do not see the two as close substitutes. This is because they regard car travel to be of a higher quality as it may be more comfortable. A seat is guaranteed and there is more privacy. Train travel may actually be quicker as there may be road congestion that may cause delays and it overcomes the problem of finding somewhere to park. Nevertheless, some people prefer the convenience that car travel provides in taking them from their door at a time that they want.

h Regulation may reduce pollution. Regulations can be easy to understand and are backed by the force of law. If car manufacturers do not abide by stricter emissions standards for new cars, they can be fined. Taking legal action against a few car manufacturers may discourage other car producers from not complying with the law.

In practice, however, it may be costly to monitor the law, and car manufacturers may try to find ways round the regulations. If they do follow the law, this may increase their costs of production, which may mean a rise in the price of new cars. This may encourage people to keep and use old cars for longer. These cars may create more pollution than the new cars. There is also the possibility that the regulations may reduce the emissions per car but if there are more cars being driven, pollution levels could still rise. In addition, car travel is not the only cause of pollution. Cars may be cleaner but air travel and industrial production could be creating more pollution.

2 a Sunshine is a free good as it occurs without needing the use of resources. It has no opportunity cost.

b Demand for coal is likely to become more elastic in the future as competition from solar power is increasing. As solar power becomes a closer substitute, changes in the price of coal are likely to have a greater impact on the demand for coal.

c As the Price Elasticity of Supply (PES) of lemons is 0.25, an 8% rise in the price of lemons would cause a 2% rise in supply: $\frac{2\%}{8\%} = 0.25$.

d An increased preference for fruit will lead to an increase in demand for fruit. The higher demand will lead to a rise in price to P_1 as shown in Figure 3. The higher price will cause supply to extend to Q_1.

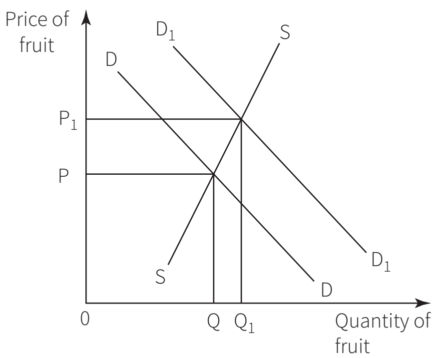


Figure 3

e When price rose from 1JD to 1.2JD the Price Elasticity of Demand (PED) was −0.5. The PED changed to −0.8 when the price went up from 1.2JD to 1.5JD. It became −1.25 when the price rose from 1.5JD to 2JD. Throughout this period, PED remained negative. There was the usual inverse relationship between price and quantity demanded. As price rose, demand became more elastic. At higher prices, consumers become more sensitive to any price change.

f Jordan operates a mixed economy. The source material mentions workers being employed in the public sector. It also mentions that some industries have been privatised, which will take them into the private sector, In addition, it states that market forces are playing an increasing role in the economy, which further indicates that the private sector is growing.

g A rise in the price of a product such as coal would be likely to cause a fall in sales if the rise in price is the result of a decrease in supply as shown in Figure 4.

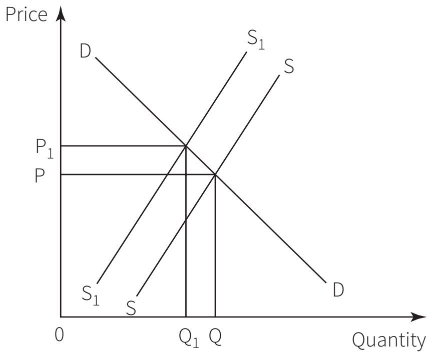


Figure 4

It may also be accompanied by a fall in sales if a fixed price is set above the equilibrium price. Figure 5 shows a minimum price of Pf will cause supply to extend to Q_s but as demand falls to Q_d, the quantity traded is reduced to Q_d.

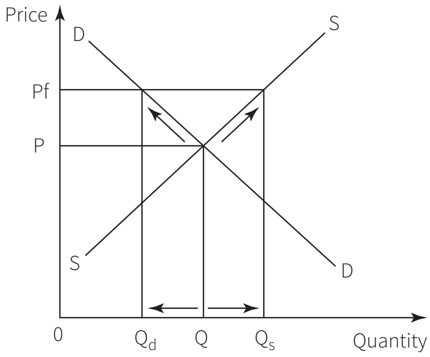


Figure 5

If, however, the rise in price has been caused by an increase in demand, sales will increase as shown in Figure 6.

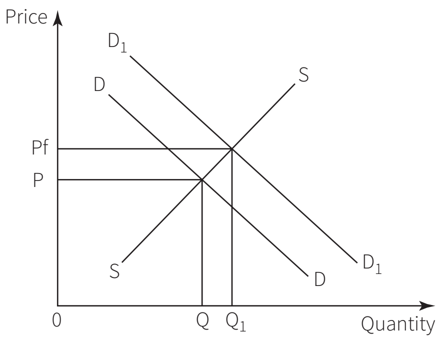


Figure 6

A rise in price from a maximum price set below the equilibrium price to the equilibrium price will also result in more the product being sold. Figure 7 shows that while initially demand exceeded supply, only Q_s would have been bought and sold. The removal of the price control causes the quantity being bought and sold to rise to Q.

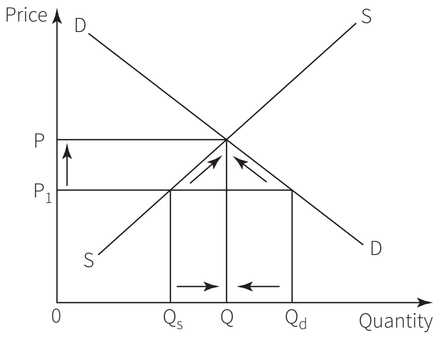


Figure 7

In the case of a product with perfectly inelastic demand, a rise in price will have no effect on sales as shown in Figure 8.

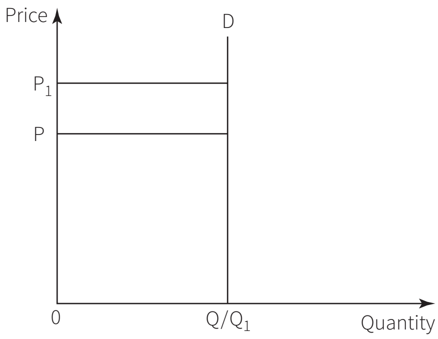


Figure 8

h A number of public goods are vital services that a government is likely to consider to be provided and it will know that if left to market forces, they will not be produced.

A government has to finance but does not necessarily have to produce public goods. The reason that a government has to finance the production of public goods, such as the police, is because private sector firms will not be prepared to pay the costs of producing the products as they cannot get all consumers to pay for them. People can act as free-riders as they know that once produced, they cannot be excluded from consuming them.

A government may decide not to produce some public goods. It may use tax revenue to pay private sector firms to produce them. For instance, in a number of countries, governments have hired private sector firms to run prisons. A government will do this if it thinks that the private sector will run the service more efficiently as it would save some tax revenue.

Four-part questions

1 **a** Market forces are the interaction of demand and supply. Price will move to the equilibrium level. This is where demand and supply are equal, as shown in Figure 9.

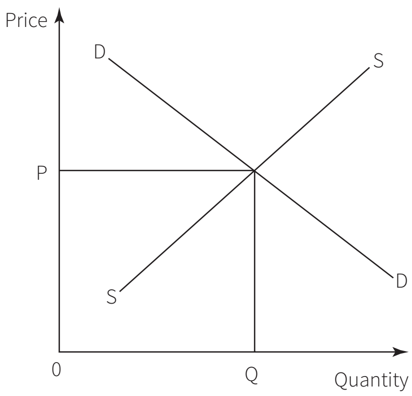


Figure 9

b An equilibrium price is a price at which demand and supply are equal. In such a situation, there is currently no reason for a price change. Figure 10 shows that the equilibrium price is P since this is where the demand curve intersects the supply curve.

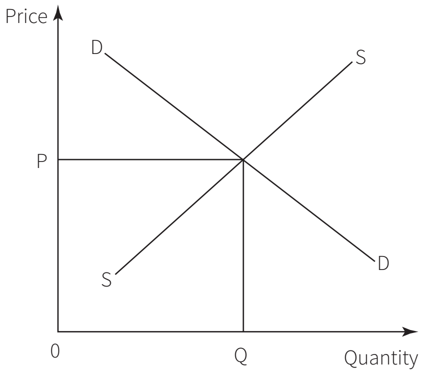


Figure 10

In contrast, a disequilibrium price is a price at which demand and supply are not equal. Figure 11 shows a price set too high initially. Here supply exceeds demand and there is a surplus of the product in the market. Market forces will push the price down until demand equals supply.

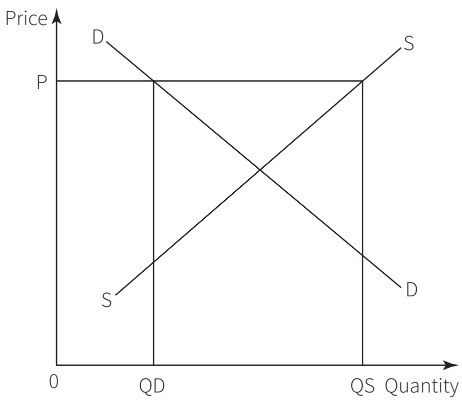


Figure 11

It is also possible, at least for a period of time, to have a disequilibrium price set below the equilibrium. Figure 12 shows that at a price of P, demand is greater than supply and there is a shortage. The excess demand will drive the price up to the equilibrium level.

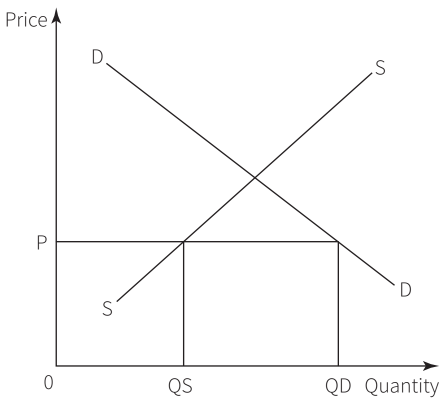


Figure 12

c There are a number of reasons for different products having different price elasticities. The key reason is that some products have close substitutes, while others do not. A product that has close substitutes of a similar price will have elastic demand. A rise in its price will cause a greater percentage fall in demand, as consumers can easily switch to rival goods. In contrast, a product that has no close substitutes will have inelastic demand. If it becomes more expensive, demand will fall by a smaller percentage as either there is no alternative or the alternative is not affordable.

The other reasons for differences in price elasticities are whether the products are luxuries or necessities, the proportion of income spent on them, the flexibility to postpone their purchase and the extent to which the goods are habit-forming.

Luxury products usually have elastic demand. If they become more expensive, people may decide to do without them. A fall in their price will make them affordable to more people. Necessities, however, such as soap are less sensitive to price changes.

A product that takes up only a small proportion of income, for example a box of matches, is likely to have inelastic demand. A rise in price will not be very noticeable and will not alter the quantities bought by consumers significantly. On the other hand, if the price of a product takes up a large proportion of income then the price changes will probably cause the demand to alter by a greater percentage. People have to think carefully about whether they can afford to buy such products.

People will also be more sensitive to price changes if their purchases do not have to be made quickly. If some people are thinking about buying new cars or replacing existing cars that are running quite well, not only is the purchase likely to take up a large part of their income but they also do not have to buy them immediately. If their prices rise, they may decide to delay their purchase. In contrast, demand for goods that have to be bought urgently usually have inelastic demand. If the roof on a house is damaged in a storm, it needs to be repaired immediately to prevent more damage. Even if the price charged by roof repairers rises, the occupants are likely to pay it.

Demand for products, such as cigarettes, that are habit-forming is also inelastic. A rise in the price of cigarettes will cause a fall in demand but by a smaller percentage. This is because smokers find it difficult to stop smoking and even to reduce the number of cigarettes they smoke. Some will stop, some will cut back but many are likely to continue to smoke the same number.

d Knowledge of price elasticity of demand is significant to an airline company. It will help the company in its pricing strategy. If demand for flights on its planes is inelastic, it can raise revenue and profit by pushing up the price. Inelastic demand suggests that there are no close substitutes available.

If, on the other hand, demand is elastic, it is likely that the company faces some significant competition. In this case, the company has to think very carefully about raising the price of its flights. If rival companies do not increase their price, the company will lose market share. In fact, if demand is elastic, a rise in price will cause a fall in revenue and profit.

The company can, however, raise revenue by lowering price if demand is elastic. This is because demand will rise by a greater percentage than a fall in price. There is no point, however, in reducing price and raising demand unless the company has the ability to carry more passengers. The price elasticity of supply of its flights is as important as the price elasticity of demand for them. If the company has no capacity in the form of spare seats on its planes, its supply will be perfectly inelastic. If its supply is elastic, it will still have to consider whether the additional revenue received from selling more flights will be greater than the rise in costs experienced as a result of raising its output. If revenue does rise more than costs, the company will enjoy a rise in profit.

2 **a** A normal good is a product that increases in demand when income increases. Most products, including gym membership, have this positive relationship.

b A complement is a product that is used with another one. For instance, some people put milk into their tea. In contrast, a substitute is used instead of another product. It is a rival product. People may switch from buying tea to buying coffee.

c A tax is an extra cost to firms supplying gym membership. The rise in the cost of production will cause a decrease in supply from SS to S_1S_1 shown in Figure 13.

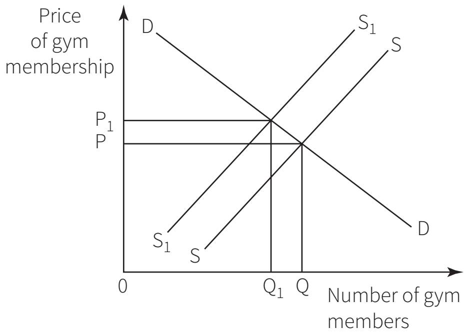


Figure 13

The reduction in supply causes price to rise from P to P_1. The higher price, in turn, causes demand to contact from Q to Q_1.

d There are two main arguments for subsidising gym membership. These are that gym membership may be regarded as a merit good and because it is unfair that not everyone can afford gym membership.

Some people may not join a gym because they do not fully appreciate the private benefits they can gain from belonging. Going to the gym can increase people's fitness. This can result in them enjoying better health and living longer. It may also increase their promotion chances and earnings by reducing the time they have off work through illness and by increasing their productivity. In addition, people may enjoy the exercises they do.

Gym membership may generate external benefits. People who do not join a gym may benefit from those who do as result of an increase in the quantity and quality of products produced due to higher labour productivity. They may also benefit from a reduction in the cost, and possibly greater availability of public sector healthcare in the country.

If private benefits are undervalued and external benefits are ignored, not enough resources will be allocated to providing gym membership. It will be underconsumed and so underproduced. A subsidy would encourage more consumption by lowering price. Figure 14 shows a subsidy lowering price to P_1 and causing sales to rise to Q_1. As gym membership is seen as something of a luxury product in some countries, demand is relatively elastic and so a rise in supply may cause a significant rise in quantity demanded. The new quantity may be closer to the socially optimum level.

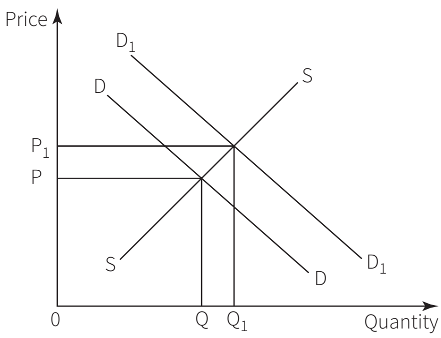


Figure 14

Some people may appreciate the benefits of gym membership but may not be able to afford the fees. A subsidy, by lowering its price, may make it more accessible for them.

There are, however, arguments against subsidising gym membership. There is no guarantee that gym clubs will pass on much of the subsidy to their customers in the form of lower prices. There is also a risk that the subsidy, if set too high, could change the situation from too few resources being devoted to gym membership to one where too many resources are devoted to it.

A high proportion of people who benefit from lower fees may be the rich. These people do not need financial assistance and there may be better ways to improve the fitness of the poor. Government spending on a subsidy to gym membership has an opportunity cost. The money could instead be spent on, for instance, improved healthcare or subsidising fruit.

Chapter 16: Money and banking

Suggested answers to individual and group activities

Group activities

1 a Leaves are reasonably portable and they are recognisable. They are, however, not limited in supply and hence are unlikely to be generally acceptable. Also, they are not durable or homogeneous.

b Seashells are durable, portable and recognisable. They are also divisible, as seashells come in a variety of sizes. They are, however, not perfectly homogeneous and may not be that limited in supply in countries with coastlines. Hence, they may not be generally acceptable, although seashells have acted as money in some countries in the past.

c Gold possesses all the characteristics of money. It has been used as money before and is still acceptable in most countries. Its use as money, however, involves an opportunity cost as it has intrinsic value. Gold can be used for jewellery and industry. In contrast, notes, coins and bank notes essentially have only one purpose.

2 a An overdraft is a way of borrowing money from a commercial bank. It is the permission given to a bank's customer to spend more money than what is present in her or his account.

b The banks are charging a high rate of interest. This may discourage people from borrowing from the bank and consequently threaten its profitability. The extent to which this occurs, of course, will depend on the rate of interest charged by other banks in Brazil and the quality of their service.

Individual activities

1 a The extract mentions interest paid on deposits, so it is referring to the function of accepting deposits.

b Another function of a commercial bank is lending. The bank charges a higher interest rate from borrowers than it pays to those depositing money with it. Bank customers can borrow by taking a loan or by arranging an overdraft. A lower rate of interest is charged on a loan but it is charged on the full amount of the loan.

2 a A central bank is owned by the government, whereas a commercial bank is owned by its shareholders.

b The key feature of a sensible lending policy is to lend only to those who will be able to repay the loan.

c Another function is to act as banker to the commercial banks. The commercial banks keep accounts at the central banks. These are like the current accounts kept at commercial banks and are used for the same two main purposes. One is to make and receive payments, but this time the commercial banks are transferring money from and into their accounts from other commercial banks. The other is to withdraw cash, when needed.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

Money enables people to save, as it can be stored.

2 C

To act as money, an item must be durable. A, B and D are all desirable characteristics of money.

3 A

Controlling the money supply is another key function of a central bank. B and D are functions carried out directly by the government. C is undertaken by private sector financial institutions.

4 C

Commercial banks are in the private sector and their key aim is to make a profit. A, B and D are functions of a central bank.

Four-part question

a E.g., general acceptability and durable.

b One function of most central banks is to issue bank notes. It prints the notes and gets them into circulation through the commercial banks.

It also acts as a banker to the commercial banks. Deposits are held by commercial banks at the central bank and, in times of need, the central bank may lend to the commercial banks. Lending by the central bank to commercial banks in difficulty is referred to as the central bank acting as lender of last resort.

c A commercial bank will increase its lending if it thinks it will make more profit. For this to be achieved there would have to be more demand for loans from creditworthy borrowers it thinks will repay. Households and firms tend to borrow more when the economy is doing well. For instance, households may borrow to buy a better home, expecting that higher pay in the future may help to repay loans. Firms may also borrow more to expand to meet rising demand.

A commercial bank would also have to possess the funds to support any loans. It has to ensure that it has enough liquid assets to meet its customers' demand for cash.

There also has to be enough difference between the interest rate the bank can charge to lenders and the interest rate it pays to savers. Some commercial banks may make other arrangements, such as taking a share of the profits of the businesses they lend to. In such a case, a commercial bank would still have to expect a good return.

d There are some reasons why gold rings may be able to carry out the functions of money. Some people may be prepared to accept the rings in settlement of debts and in return for goods and services. In times of financial crisis, when people are losing confidence in their currency, some people move some of their saving into gold bars.

Gold rings are very portable. Being able to carry the rings easily would mean that the rings have one of the characteristics of money. Rings would not take up much more space than coins and they have a higher value.

Gold rings are also limited in supply. Gold is a relatively scarce commodity and has a high value. They are not like, for instance, seashells, which may be in very abundant supply in a country.

There are, however, stronger reasons why gold rings are not generally acceptable as money. It is not necessarily easy to judge whether a ring is a gold ring or not. So, gold rings may not be recognisable. This may mean that people will not use them as a medium of exchange.

Gold rings are also not divisible. They do not enable low value change to be given. They are also not homogeneous. The weight of gold in gold rings and their attractiveness varies. This means it is difficult for people who are offered rings in return for goods and services to assess their value. This makes it difficult for them to carry out the function of a unit of account.

While gold rings are limited in supply, their supply is influenced by gold mines in a small number of countries such as South Africa. Governments in other countries are unlikely to be happy having the money supply in their countries being controlled outside their countries.

The price of gold rings may change by significant amounts. This may make it difficult for them to act as a standard for deferred payments and a store of value.

For these reasons, gold rings are not likely to be generally acceptable.

Chapter 17: Households

Suggested answers to individual and group activities

Group activities

1 C, A and B. The rich spend more (in percentage terms) on consumer durables and leisure goods and services, while the poor spend a higher proportion on food and clothing.

Individual activities

1 **a** A negative savings ratio means that people in South Africa were spending more than their income by borrowing from others.

b 90.2% i.e. 100% – 9.8%.

c Chile has a higher savings ratio than Bangladesh, which suggests that income is higher in Chile.

d The Indian savings ratio may be higher than that in Pakistan because the disposable income levels may be higher, the interest rate may be higher, the tax treatment of savings may be more favourable, a greater range of good quality financial institutions may be available and social attitudes may be more favourable to saving.

2 **a**

Income ($)	Consumption ($)	Saving ($)
100	100	0
200	180	20
300	240	60
400	280	120
500	300	200

b **i** 100% ($100/$100)

ii 60% ($240/$300)

3 **a** The savings ratio is the proportion of disposable income saved.

b Retired people draw on their savings to maintain their living standards while workers tend to build up their savings.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

A rise in the rate of interest increases the returns on savings. So people save more and consequently spend less.

2 A

People spend more when they are confident. They will expect things to improve, including their disposable income and hence their ability to spend. B would reduce disposable income and as a result expenditure. C would mean that people's ability to spend is reduced. D would mean that income would transfer from the poor, who spend a higher proportion of their income to the rich, who spend a lower proportion of their income.

3 B

A, C and D would all tend to encourage saving. A lower rate of interest would reduce the money earned from saving.

4 D

Disposable income minus consumption equals saving. Borrowing enables people to spend more than their income. Income levels could be rising or falling and there may or may not be a redistribution of income.

Four-part question

a The opportunity cost of saving is spending now. A decision to save, for example, $20 dollars means that $20 cannot be spent now.

b Young workers may save less than the middle-aged workers because they may earn less. Wages tend to rise as workers approach middle-age. Having more income increases people's ability to save, they can afford to purchase the products needed for a reasonable standard of living and have income left to save.

Young workers may be less concerned to save for their old age as it may seem a long way off. In contrast, middle-aged workers may be concerned to build up a good pension.

c Households may borrow less if there is an increase in the rate of interest. A higher interest rate will raise the cost of the loan, making it less affordable. It may also make banks more reluctant to lend to some people as there may be greater concern about their ability to repay it.

A reduction in confidence in their future economic prospects may also make people less willing to borrow. If they think there is a risk that they may lose their jobs in the future or experience a cut in their wages, they may be concerned that they would not be able to repay any loan taken out, for instance, to buy a better home.

There may also be changes in the attitude to borrowing. For instance, past experience of running into difficulties repaying loans may make households less willing to take out future loans.

d An increase in income usually increases the total amount that people spend. As people's disposable income rises, they are able to afford to purchase more goods and services. Having more goods and services usually increases people's living standards.

Higher income also tends to be associated with greater wealth. As people get richer, they can afford to buy more consumer durables and acquire assets such as houses and shares. Having more wealth can give people greater confidence, which can increase their willingness to spend. It also increases banks' willingness to lend to them and so increases their spending capacity.

An increase in income does not, however, necessarily mean an increase in disposable income. If the amount of income tax increases in proportion with gross income, people's spending power may be unchanged.

An increase in income may be associated with an increase in the total amount spent but a fall in the proportion of disposable income spent. When people are poor, they have to spend all of their income just to survive. As people get richer, they enjoy a good material standard of living with, for instance, high-quality clothes and housing, but may still be able to save a proportion of their income.

There may be other changes happening in the economy that may have more of an impact, at any one time, than an increase in income. An increase in income may be accompanied by a fall in spending if, for instance, there is a rise in the rate of interest or financial institutions are offering more and better quality saving schemes. There may also be a change in the age distribution of the population. A higher proportion of older people may, for instance, reduce spending.

Chapter 18: Workers

Suggested answers to individual and group activities

Group activities

1 a Three of the top five were in the public sector – the civil service, public sector healthcare (the NHS) and public sector broadcasting (the BBC).

b Two possible reasons for a graduate to wish to work in public healthcare sector are that he or she may think the job may provide a high level of job satisfaction and job security.

2 a Three possible reasons why a person may want to be a pilot are the high pay offered, the high status attached to the profession and the good occupational pensions.

b There are a number of reasons to account for a person's failure in becoming a pilot. These include a lack of qualifications, poor health and a lack of vacancies.

3 a The wages of air cabin crew in India are likely to have increased, as demand for their services has risen.

b Pilots are paid more than cabin crew as their supply is lower, relative to demand. This is because more qualifications and skills are required to become a pilot, and airlines can possibly reduce the number of cabin crew but not the number of pilots. This gives stronger bargaining power to the pilots than cabin crew.

4 a Workers who are discriminated against may be paid less than other workers because they are offered lower wages, may be given less training and may not be promoted.

b Paying higher wages to older and younger workers may increase their motivation, reduce labour turnover and persuade employers to train them to get a better return. All of these effects would increase labour productivity and reduce labour costs per unit.

5 a and c – in both cases, a rise in wages is likely to result in a greater percentage contraction in demand for labour. In the case of a, some workers would be replaced by machines. In the case of c, a rise in wages would raise costs and hence prices, by a relatively large amount. This, in turn, would reduce demand for the product and the number of workers significantly.

6 a, c, d, e and b.

Individual activities

1 a \$80 000 is one quarter of \$320 000. So, pilots in Brazil were paid \$80 000.

b The shortage of pilots in China would be expected to push up the wages of pilots in Brazil. This is because some Brazilian pilots may go to China, creating a shortage in Brazil.

2 a Demand is high.

b Supply is low.

c Workers have strong bargaining power.

d Workers are skilled.

3 a i Piece rates are a method of paying workers on the basis of their output.

ii A national minimum wage is a floor, that is wage rate, set by the government, below which wages cannot be legally reduced.

b Factory workers in the garment industry may receive lower pay than construction workers because they are in higher supply relative to demand, have less bargaining power and are less favoured by government policy.

4 a Among the possible reasons accounting for a smaller proportion of working women in Chile than in other Latin American countries may be: lower pay for women workers in Chile, discrimination against women workers in Chile, social attitudes against working women and less availability of childcare.

b The passage notes that female workers earned nearly a fifth less than men. It also mentions that the government introduced a new labour code to curb unfavourable treatment of female workers.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

Bonuses, overtime payments and salary are all wage factors.

2 C

Piece rates are a method of payment based on the output produced by workers. The higher the output a worker produces, the higher the amount paid to her or him.

3 A

The more qualifications a person has, the more choice of occupation she or he will have. B and D would reduce geographical mobility and hence reduce a person's choice of occupation. C would decrease a woman's choice of occupation.

4 C

An increase in the number of people who train as electricians would increase the supply of electricians – shifting the supply curve to the right, reducing the wage rate and causing the demand to extend.

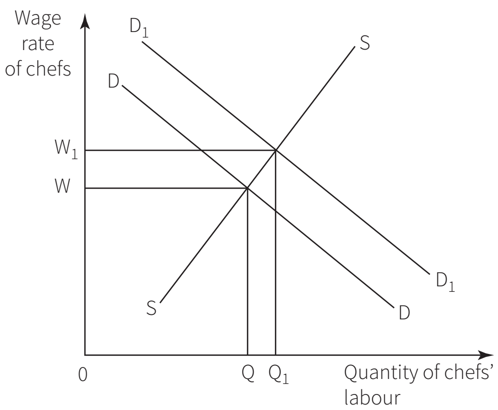
Four-part question

a Wages in a free market are determined by the interaction of demand for and supply of labour. If, for example, there is a decrease in the supply of train drivers, their wage would increase.

b By specialising in cooking one type of food, a chef would gain experience in cooking this type of food. This may make the chef very skilled, which may increase the wage she or he may be able to gain.

A chef may also have a particular interest in cooking, for example, Thai food. If the chef can specialise, she or he can spend the working day doing what she or he enjoys.

c An increase in demand for restaurant meals is likely to encourage restaurant owners to expand. To sell more meals, they are likely to demand the services of more chefs. The diagram below shows that an increase in demand for chefs would be likely to result in a rise in their wage rate from W to W_1. This higher payment would be expected to cause the quantity of their labour supplied to rise to Q_1.



d It would be expected that an increase in the wage rate paid to chefs would encourage more people to become chefs. The wage rate paid is a key influence on what job people choose to do. A higher wage can allow people to enjoy a better standard of living. Their purchasing power would increase. They would be able to buy more goods and services. They may be able to afford better healthcare and better education for their children.

It is also possible that if the wage rate per hour increases, chefs may be able to work fewer hours while being able to buy the same quantity and quality of products and enjoy more leisure time.

There are, however, a number of reasons why a higher wage rate may not always lead to more people wanting to be chefs. The wage rate may be higher, but overtime payments and any bonuses might have been cut.

Non-wage factors may also discourage people from becoming chefs. Working conditions may have declined. For example, kitchens may have become less safe as ovens may not have been maintained to a good standard and kitchens may have become more crowded.

Fringe benefits may have been removed with, for instance, chefs and their families no longer being entitled to free meals in the restaurants they work in. Promotion chances may have been reduced, the length of holidays cut and the restaurant owners may no longer offer a pension scheme.

People may also be discouraged from becoming chefs if the period of training and the qualifications required increase. They may also not want to work as a chef if they would have less say in the menus or if the vacancies are in restaurants some distance from their homes.

Chapter 19: Trade unions

Suggested answers to individual and group activities

Group activities

1 **a** craft or industrialised union

b white collar union

c general union

d industrial union

e industrial union

f craft union

2 **a** A union representing firefighters. They provide an essential service. People can do without flowers for a period of time.

b A union representing skilled workers. It is more difficult to replace skilled than unskilled workers.

c A union striking during a period of low unemployment. In such a situation, it would be difficult to replace the workers on strike.

Individual activities

1 **a** The university lecturers were advancing the comparability argument – comparing their pay with that of a head teacher and that of a doctor.

b University lecturers are in a white-collar union.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 D

If labour costs form a small proportion of total costs, a rise in wages will not increase the total costs substantially. As a result, the price of the products produced will not rise much and so demand will not fall significantly. A, B and C would all reduce a trade union's strength. A and B would be likely to mean that a union would be reluctant to press for a wage rise as it may fear that such a move may result in some of their members losing their jobs. C would mean that the firms would not be able to afford significant wage rises.

2 C

If workers feel strongly about an issue, they are likely to be prepared to strike for a long period of time.

3 B

Trade unions seek to protect and improve workers' pay and conditions. Their role is not concerned with helping shareholders, although both workers and shareholders have an interest in firms doing well.

4 A

A rise in productivity is likely to increase output, revenue and profits of a firm. Unions can argue that such an increase justifies a wage rise and is likely to provide the money to pay for such a rise.

Four-part question

a A trade union is an association of workers designed to protect them from, for example, redundancy and to improve their wages and working conditions.

b Trade union membership may decline if government legislation reduces the power of trade unions to take industrial action. Banning strikes, for example, may reduce the bargaining power a trade union has in negotiating on behalf of their members. This may make it less worthwhile to join a trade union.

Trade union membership may also fall if there is a rise in unemployment. There would be fewer people in a position to join a trade union and some of those still in employment may be afraid of joining a trade union in case employers would make members redundant before non-members.

c A trade union will be stronger if it has a high number of members. This will increase the funds available to the trade union to pursue its objectives. If the trade union has not only a high number of members but also a high proportion of the number of workers employed, it will make it more difficult to replace striking workers with new workers. It will also increase the strength of its claim to represent the interests of the workers.

A high level of economic activity strengthens a trade union. This is because there will be a high level of employment. Employers will want to recruit more workers and to retain existing workers. This is likely to make employers more willing to increase wages and working conditions.

Government legislation may favour trade unions. If laws give trade unions the right to strike and take other industrial action, the trade unions will be in a more powerful position to pursue their aims.

Trade unions that represent skilled workers tend to be in a stronger position than those representing unskilled workers. This is because it will be more difficult to replace skilled workers with other workers or machinery.

Trade unions representing workers in essential services, such as the fire service, may also be in a stronger position than a trade union representing, for instance, people working in florist shops. This is not only because cut flowers are a luxury that people can do without but also because people working in florists tend to get together less frequently than firefighters.

d Trade unions may benefit workers. They can negotiate on behalf of their members for improved pay, good pensions and better working conditions. Bargaining as a group gives greater strength than bargaining on an individual basis. The trade union officials may bring expertise to the bargaining process and can concentrate on negotiating for shorter working hours, for instance.

Trade unions can provide their members with information about their rights and protect them against unfair redundancy. They may also run educational courses for members and provide some university scholarships.

They can provide legal advice and represent members at employment tribunals. They can also help prevent some workers from being discriminated against.

In addition, trade unions may help workers by persuading the government to introduce policy measures that benefit them, including introducing or increasing a national minimum wage and reducing the maximum number of hours that workers have to work each week.

There may, however, be cases where trade unions do not benefit workers. There is a risk that trade unions may push the wage rate too high, which may result in redundancies. If unions call workers out on strikes, the workers will lose pay from the employers. They may not receive any strike pay from the trade union and the strikes may not be successful. Industrial action may cause some firms to go out of business and this can also result in workers losing their jobs.

Workers pay membership fees to belong to a trade union. If the trade union is weak or does not have a good relationship with the employers, this may not be money well spent.

Trade unions negotiate for the same pay for groups of workers on the same level and some individual workers may think they should have higher pay than their fellow workers.

Chapter 20: Firms

Suggested answers to individual and group activities

Group activities

1 **a** secondary
  b tertiary
  c primary
  d tertiary
  e tertiary or quaternary
  f tertiary

2 b and c would tend to favour small firms.
  a, d, e and f would all be likely to encourage the emergence of large firms in the industry.

3 **a** technical economies
  b research and development economies
  c managerial economies
  d buying economies
  e selling economies
  f financial economies

Individual activities

1 **a** External growth.
  b One influence is the size of the market. A firm selling a product in an expanding market has the potential to grow in size. Another influence is the age of a firm. A new firm is likely to be of relatively small size.

2 **a** To take greater advantage of economies of scale and to gain a greater market share.
  b If the merger enables the new firms to take greater advantage of economies of scale and work more efficiently, bank customers may be able to enjoy lower bank charges and improved banking services such as internet banking.

3 **a** A mining company could exploit, for example, technical economies of scale. Large capital equipment can be used in the industry as the greater the amount of coal mined, the more viable the employment of the equipment becomes. It can also take advantage of financial economies of scale. A large mining company is likely to be able to borrow more easily and more cheaply than a small firm.
  b Firms in the mining industry may be able to take advantage of a skilled labour force and specialist suppliers of capital equipment. New mining firms can hire workers trained by other firms in the industry. Subsidiary industries will set up, if the mining industry is large enough to supply them with goods and services including capital equipment.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 C

Shoe repair is not a standardised product that can be mass produced. Each repair is likely to be slightly different. There are no real barriers to entry into the market and economies of scale are not significant, A, B and D are industries dominated by large firms.

2 A

In this case, the firms are in different industries.

3 C

Financial economies of scale are the benefits that can be gained by a firm from increasing its size in the form of greater availability or lower cost of raising finance. One way to raise finance is to borrow from financial institutions.

4 C

C is an example of external economies of scale. A and D are unlikely to occur but A, B and D would all increase a firm's costs of production.

Four-part question

a A state-owned enterprise is a business owned by the government.

b There are a number of reasons why a firm may decide to stay small. Some owners may choose to keep their firms small in order to retain control. Other owners may want their firms to expand, but may realise they lack the necessary finance. Banks may be reluctant to lend to small firms at low rates of interest and small firms are unlikely to issue shares. If the market for a product that a firm is producing is small, the firm will not be able to grow. A small firm may be making a specialised product with a limited demand or may be serving a small, local market.

c A financial economy of scale is the benefit a firm can gain from growing in size in the form of being able to raise finance more easily and cheaply. A large firm may find it easier to obtain a loan from a commercial bank at a low rate of interest. As a firm grows in size, it is also more likely to be able to find buyers of new shares issued to expand the business.

Another internal economy of scale is managerial. As the firm grows in size, it may become large enough to employ, for example, IT support staff, an accountant and a web designer. A small firm would not have the volume of output to generate enough work to employ these people on a permanent basis and they would not be able to afford their wages. It would have to pay outside agencies for these services. These agencies may charge a relatively high price and may be less in touch with the firm's needs.

d The merger between two book publishing firms may bring a number of benefits for consumers. The new larger firm may be able to take greater advantage of internal economies of scale. A few publishing firms still print their own books. Most, however, outsource the printing to printing firms. A new larger firm may be able to either use more advanced printing equipment itself, or, more likely, to negotiate a contract that uses the latest technology. A larger publishing firm may be able to gain loans at a lower interest rate, purchase paper at a lower price and may be able to employ more specialised staff, including, for example, an editor concentrating on economics books. Technical, financial, buying and managerial economies of scale will lower costs of production. This may result in the new firm charging lower prices, which would clearly benefit consumers.

Consumers may also benefit from an improvement in the quality of the firm's books brought about by using more advanced capital equipment and experts and by having more finance to spend more on research and development.

In addition, consumers may benefit from greater choice if the larger firm takes advantage of risk-bearing economies of scale and produces a wider range of books written by a greater number of authors.

There is a risk, however, that consumers will experience a reduction in choice. The new firm may decide to concentrate on a narrower range of books and writers. Consumers will have one less publisher to buy from and there may be some titles they will no longer be able to buy.

Having fewer publishers will reduce competition in the market, which may also disadvantage consumers as prices may rise and quality may fall. The new firm may not feel the same pressure to keep costs down and quality up, as consumers may now find it more difficult to find a publisher producing a similar book.

Prices may also rise and quality fall if the new firm becomes too big and as a result experiences diseconomies of scale. Its managers may find it more difficult to control a larger firm. There may be a greater risk of miscommunication occurring because there is likely to be more staff working in more departments. There may also be worse industrial relations if workers find it difficult to adjust to the requirements of the new firm or if the new firm engaged in rationalisation and sacked some of their colleagues.

Whether the merger will benefit consumers will depend largely on whether the new firm experiences internal economies of scale or internal diseconomies of scale and how a reduction in competition affects the new firm's efficiency.

Chapter 21: Firms and production

Suggested answers to individual and group activities

Group activities

1 Capital intensive: a, d, e; labour intensive: b, c

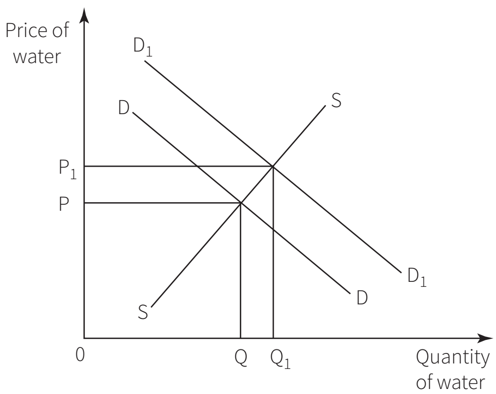
Individual activities

No. of machines	No. of workers	Output per worker (average product)
4	1	10
4	2	12
4	3	15
4	4	18
4	5	20
4	6	18
4	7	16

The most efficient combination of workers and machines is 4 machines and 5 workers.

2 **a** Rising living standards tend to increase demand for water significantly. More water is demanded for a variety of purposes including washing, watering gardens, cleaning cars, filling swimming pools, processing food and other industrial uses.

b As living standards in most countries should rise in the future, demand for water is likely to increase, which will cause its price to rise as shown in the diagram below. Supply will extend as water companies will have a financial incentive to collect more rain in reservoirs, dam more rivers and desalinate sea water.



3 **a** A piecework model is a method of paying workers on the basis of amount of output produced by them.

b **i** It may increase output as workers will spend less time travelling to and from work. Thus, they may start working earlier and finish later. However, there is some risk that, without supervision, they may reduce their effort and output but a piecework model may overcome this limitation.

ii Costs should be reduced as the firm will not need much space to accommodate workers. Some rooms may be required for meetings and key staff but considerably less factory or office space and less car parking space would be required. This saving should be greater than any rise in communication costs, which, given advances in technology, should be low.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 A

Agriculture and mining are in the primary sector and their employment fell from 14 m to 13 m. Manufacturing is in the secondary sector and employment stayed constant at 20 m. Retailing and education are in the tertiary sector and employment in these two industries rose from 15 m to 17m.

2 A

Doctors and operating theatres are used together. They are not substitutes – an operating theatre cannot be used without a doctor. A doctor is an example of labour and an operating theatre is an example of capital.

3 A

A decrease in corporation tax would provide an incentive for firms to buy more capital goods. They would know that they would be able to keep more of any profits made. B, C and D would also be likely to reduce demand for capital goods. Less disposable income would be likely to reduce demand for the capital goods. Higher interest rates would have the same effect besides increasing the cost of investment. A rise in pessimism would be likely to make the entrepreneurs expect a lower return from investment.

4 A

Average product per worker is total product divided by the number of workers. In this case, it is $\frac{300}{25}$.

Four-part question

a Investment is spending on capital goods.

b The production of cars may increase if there is a rise in demand for cars. In the short term, car firms may make more cars by asking existing workers to work overtime. Working longer hours may reduce output per worker hour as the workers may become tired and so may not be able to put so much effort in their work. In the longer term, the car firms may employ more workers. If these workers are less skilled than the original workers employed, labour productivity will fall.

c Car production has become more capital-intensive because advances in technology have significantly increased the range of tasks that can be completed by machinery with the minimum of human supervision. Capital equipment has increased the number of cars that can be produced in a given time period and has reduced the cost of production. Relying more on capital equipment has also improved the reliability of the cars produced by reducing human error. Lower costs of production and higher revenue have encouraged car firms to spend more on capital goods.

d Industries becoming more capital-intensive may increase unemployment in a country. The capital goods may be a substitute for labour and so capital goods may replace some workers. A number of these workers may lack geographical or occupational mobility. For example, making more use of tractors and combine harvesters may reduce the number of farm workers. If these workers cannot find jobs in other industries, they will stay unemployed.

There are a number of reasons, however, why more capital-intensive production may not increase unemployment. One is that there will be an increase in demand for capital goods and for the service of maintaining the capital goods. This will encourage the capital goods industries to employ both more capital goods and labour.

Becoming more capital-intensive may make a range of industries more efficient. Lower costs of production can enable the industries to lower their prices and so become more internationally competitive. If industries can gain larger markets, their output will increase. This may mean that while the proportion of capital increases relative to labour, more of both may be employed. For example, an industry may have initially employed 50 000 workers and workers may have accounted for 60% of the factors of production employed. Using more capital goods and producing more may mean that workers now account for only 35% of the factors of production employed but the number of workers employed may now be 60 000.

Over time, in most countries, industries have become more capital-intensive but employment has actually increased.

Chapter 22: Firms' costs, revenue and objectives

Suggested answers to individual and group activities

Group activities

1 Fixed costs = rent, business rates, insurance, and depreciation.

Variable costs = flour, yeast, overtime pay and energy costs.

2 a Total revenue could rise and profits fall, if costs rise by more than total revenue.

b i A fall in stock levels will reduce costs. Less staff time and less space will be required for storage of products. These resources could then be put to alternative uses or the number of workers employed and the building space used could be reduced.

ii A firm could seek to increase demand for its products by advertising. This might be on television, in newspapers or through direct mailing. For instance, a successful advertising campaign is one that increases revenue by more than the cost of the campaign.

Individual activities

1

Output	TC	TFC	TVC	AC	AFC	AVC
0	60	60	0	—	—	—
1	110	60	50	110	60	50
2	150	60	90	75	30	45
3	180	60	120	60	20	40
4	200	60	140	50	15	35
5	230	60	170	46	12	34
6	300	60	240	50	10	40

2 1

Output	Total profit ($)
10	−10
20	0
30	20
40	50
50	40

The profit maximising output is 40 units, since this is where profit is highest.

2

Output	Total cost ($)
10	100
20	150
30	180
40	240
50	340

3 **a** Next's total cost in 2016 was $4.1 bn − $0.821 bn = $3.279 bn.

b Next's profit in 2015 was $4 bn − $3.2 bn = $0.8 bn.

c Good sites for a retailer are in city centres, where there are many potential buyers and hence an increased potential revenue. Good window displays should attract more customers into the shops and turn potential into actual revenue.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 A

In the short run, insurance on buildings will not change with firm's output, as the size of the building will not alter. B, C and D are all variable costs.

2 D

The total cost is $500 ($200 + $300). Average total cost is total cost divided by output.

In this case, $\frac{\$500}{50} = \$10$.

3 C

Total revenue is price multiplied by quantity sold i.e. $4 × 100 = $400. Price is the equivalent of average revenue, so in this case average revenue is $4.

4 A

Profit is maximised when profit is at its highest.

Four-part question

a A variable cost is a cost that changes when output changes. As output increases the cost of raw materials, for example, would increase.

b A firm's profit would increase if its revenue rose while its costs remained unchanged. For example, an increase in income would be likely to increase demand for luxury handbags. This would be likely to increase the revenue and profit received by the handbag producers.

A firm's profit would also increase if its revenue remained unchanged while its costs fall. Its costs may decline as a result, for instance, of a rise in labour productivity or a fall in the price of raw materials.

c A rise in output would have no effect on total fixed cost. This is because fixed costs are those costs that are not directly related to output. They do not change as output changes in the short run. For example, if a handbag producer makes more handbags, the cost of insuring its factory is unlikely to alter. Figure 1 shows that total fixed cost remains unchanged as output increases.

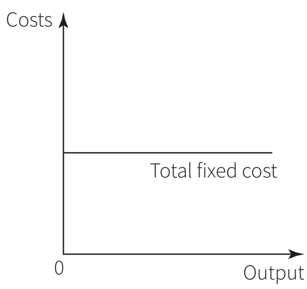


Figure 1

In contrast, average fixed cost falls with output. This is because the unchanged total fixed cost is spread over more units. The more output that is produced, the lower the average fixed cost of production. Figure 2 shows how average fixed cost falls continuously with output.

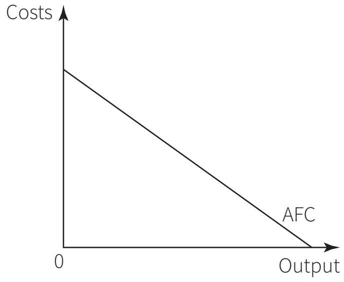


Figure 2

d It is usually assumed that firms in the private sector try to maximise profit. Profit is the reward to entrepreneurs and provides the incentive to take the risk of making a loss. Profit also provides the funds for further investment.

Firms in the public sector may follow a different objective. A state-owned enterprise (SOE) may have a number of objectives. These are likely to be linked to social welfare. For example, a SOE may try to reduce the external costs arising from pollution by investing in cleaner technology. It may also seek to improve worker welfare by providing good working conditions.

Private sector firms may also try to improve working conditions. Firms have a number of stakeholders, including shareholders, workers and consumers. A firm may try to satisfy the interests of all these groups. At any one time, it may be focusing on one particular group but it has to remember that it always has to keep its shareholders happy.

At certain times, a firm may not be able to think about making a profit. The economy may be in recession with demand for most products falling. In this situation, a firm may put its efforts into survival. It may, for instance, have to search for a favourable loan to cover any losses and for lower-priced raw materials.

A firm may also, at least for a period of time, favour growth over profit maximisation. It may seek to become larger to increase its market power and to raise the salary and status of its managers.

In the long run, all the objectives that private sector firms might pursue are likely to lead to profit maximisation. Becoming larger may involve a firm eliminating competitors and gaining more monopoly power. This may enable its ability to raise its price without losing many sales and so may raise its revenue. Growing in size may also enable the firm to take greater advantage of economies of scale and so lower its costs of production. Keeping all the stakeholders happy may also increase profit. For instance, better working conditions and higher pay for workers may increase labour productivity, which could lower costs of production and increase demand because of higher quality. Achieving higher environmental standards may also increase demand and firms that are seeking to survive are likely to want to maximise profit in the long run.

Chapter 23: Market structure

Suggested answers to individual and group activities

Group activities

1 a A consumer may prefer to buy one firm's products over that of rival firms if the products are cheaper, have better quality or enjoy a better brand image.

b If a firm's products become more popular than those of its rivals, it will attract more customers and gain a higher market share.

2 a Airlines – barriers to entry include take-off and landing slots at airports, safety requirements and brand loyalty.

b Film production – possible barriers include brand loyalty and monopoly ownership of retail outlets.

c Steel production – barriers to entry include high set-up costs and scale of production.

d Window cleaning – there are few barriers to entry into this market. It is cheap to enter and leave, start-up costs are low, large-scale production does not lower unit costs significantly and branding and advertising are not particularly significant.

Individual activities

	Competitive Market	Monopoly
Level of competition	high	none
Number of producers	many	one
Barriers to entry	low or none	high
Type of long run profit	normal	supernormal
Influence on price	limited or none	price maker
Number of substitutes	many	none

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 A

A competitive market has easy entry and exit. Each market has a small market share. There are a large number of both buyers and sellers.

2 B

A monopoly, in the sense of a pure monopoly, has no competitors. It is a price maker, has a 100% share of the market and is protected by barriers to entry.

3 C

In the short run, many firms under conditions of both monopoly and competitive market conditions can earn supernormal profits, provided demand is high. In the long run, however, supernormal profit can be earned only by a monopolist but it is unlikely to be earned by competitive firms. This is because competitive firms' profits are not protected by barriers to entry.

4 A

If consumers become attracted to a particular brand, they become reluctant to switch to a product made by a new firm. B, C and D would all make it easy for a new firm to enter the market.

Four-part question

a A barrier to entry is an obstacle that makes it difficult for a firm that is not currently in the market to start producing in it or within it.

b A competitive market is one in which there are a large number of firms trying to sell to the same group of consumers. This puts pressure on the firms to keep prices low and quality high.

There is usually relatively free entry into and exit from the market. A firm that is not producing the product can start making it without experiencing any major difficulty. Similarly, any firm that wants to stop making the product will be able to leave the market relatively easily.

c If the number of firms in a market goes from a high number to one, the type of profits earned may change in the long run. In a very competitive market, the long run profit earned is likely to be normal profit. If the firms enjoy a higher profit in the short run, new firms would be attracted into the market. The increase in supply would drive down price and return profit to the normal level.

In contrast, if a market moves to a monopoly, supernormal profit may be earned. Not having competitors may result in the firm driving up price. Consumers may pay the higher price as they will not have alternatives to switch to.

d A monopoly is often thought to be harmful to consumers. If there is only one firm in the market, consumers do not have a choice of producers. The choice of products may also be limited with few variations in the goods or services made.

There will be a lack of competitive pressure for a monopolist to keep price low and quality high. Consumers will not be able to switch to rival firms if they think the monopolist is charging a high price and producing products of a low quality.

The lack of competition may mean that the monopolist becomes inefficient. It may not make much effort to keep costs low, to respond to changes in consumer demand and to innovate to improve production methods and the quality of the product.

Of course, a monopoly may be defined as a firm that has 25% or 40%-plus share of the market. In these cases, there will be some competition in the market. Three large firms, for example, may compete quite rigorously. A firm might also have a 100%-share of the domestic market but may still face foreign competition.

There is also the possibility that one firm controlling the market may benefit consumers. One large firm, instead of a number of smaller firms, may be able to take advantage of economies of scale. Having lower costs of production may mean that, even with a larger profit margin, the price charged by the monopolist may be lower than that which would exist in a more competitive market.

The quality of the products produced by a monopoly may be higher. This is because the higher profit that a monopoly may earn may be used to finance spending on research and development, improving existing products and developing new ones.

A monopolist may also charge a relatively low price and produce a good quality product in order to discourage new firms from trying to enter the market. In addition, while consumers will not have a choice of producers in a monopoly market, a monopoly may produce a range of variations of products.

Suggested answers to exam-style questions for Section 3

Multiple choice questions

1 C

With money, people can make arrangements to borrow now and to pay bank loans in the future.

2 C

One of the key functions of commercial banks is to lend. A, B and D are functions of a central bank.

3 C

High-income groups spend more in total than low-income groups, but less as a percentage. This is because they can afford to save some of their income. Low-income groups have a smaller savings ratio than rich income groups and find it harder to borrow. High income groups do borrow money. The rich may borrow, for instance, to buy more luxurious housing.

4 C

Demand for labour is based on demand for the products that workers produce. If more people visit the cinema, film production companies' profits will increase. This will encourage the companies to make more films and employ more actors. An increase in demand for actors will push up their wages.

5 D

An increase in labour productivity will raise the return received by firms from employing workers and hence is likely to push up wages. If unemployment decreases, it may become more difficult to recruit workers and so firms may have to raise wages.

6 B

The positive gap between total revenue and total cost is highest at 200 coats. Here, the profit is $600. At 100 coats it is $400, at 300 coats it is $500 and at 400 coats it is $400.

7 C

At Z, the total cost of production is WZ. Of this, YZ is the fixed cost and WY is the variable cost.

8 B

The firm's total revenue is $1800 (200 × $9). Its average total cost is $6 (AFC + AVC) and so its total cost is $1200 (200 × $6). Its profit is $600 ($1800 − $1200). This answer could also have been found by deducting average total cost from average revenue ($3) and multiplying the difference with output (200).

9 D

External diseconomies of scale raises a firm's average costs, independent of its own output. C would shift the average cost curve downwards. A would cause a movement down the average cost curve and B will lead to a movement up the average cost curve.

10 C

A small firm is unlikely to have a complex management structure and hence can make decisions quickly. A, B and D are benefits of a large firm.

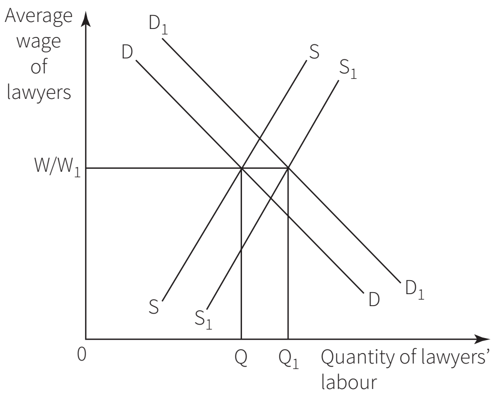
Data response questions

1 **a** A merger between two commercial banks.

b 300%. $\frac{\$90\,000}{\$30\,000} \times 100$.

c One function of a commercial bank is to look after its customers' savings. A commercial bank may provide a range of saving accounts that give different rates of interest depending on the amount and duration of the deposit.

d One possible reason why the average wage of US corporate lawyers did not increase in 2016 may have been because the increase in demand for corporate lawyers was matched by an increase in the supply of corporate lawyers. Firms increased their demand for corporate lawyers because there was an increase in demand for the services they provide, such as drawing up the contracts involved in a merger. The supply of corporate lawyers increased because more people gained the qualifications needed to be a corporate lawyer. The diagram below shows that an equal increase in the demand for and supply of the labour of corporate lawyers would result in more being employed but the average wage remaining unchanged.



e US firms prefer to pay bonuses rather than raise the wages of corporate lawyers for two main reasons. One is that firms can vary the bonuses they pay more easily than wages according to the economic conditions and the performance of the firms. If firms are doing well and earning high profits, they are likely to be able to afford to pay good bonuses. This does not, however, commit them to paying them when they are not doing so well. In contrast, it can be difficult to negotiate a reduction in wages. The other reason is that a bonus may be linked to increased performance. This can stimulate a rise in the productivity of the corporate lawyers.

f Figure 1 shows the expected relationship between qualifications and hourly wage rates. The higher the qualifications workers had, the more they earned. Those with a degree earned more than twice that of those with no qualifications in the UK in 2016. Those with A Levels earned more than those with GCSEs and even more than those without any qualifications. Higher qualifications are likely to be accompanied by higher skills and will give workers access to a greater range of jobs.

g A firm may benefit from its workers specialising. For example, a worker in a corporate law firm could concentrate on mergers in the financial sector. These workers could gain considerable expertise by undertaking the same legal processes time after time – practice makes perfect. They may be able to undertake the tasks involved more quickly, which may reduce the firm's cost of production. Specialised workers may also be trained more quickly, which again may reduce the firm's costs. They could also build up good contacts with people in the financial sector, which may help them increase the quality and the appropriateness of the services they provide. This may increase the reputation of the firm and so may increase demand for its services.

There is a risk, however, that specialised workers may become bored doing the same work each day. This may lead to them making mistakes that would increase the firm's costs. It may also result in higher labour turnover, with workers not staying with the firm for long. This would result in the firm having to spend more on hiring and training workers. Having workers concentrating on particular tasks may mean that the firm does not find out what the workers are best at and so may mean that they do not get the best return from their workers.

h Higher wages in the USA may encourage some Indian corporate lawyers to move to the USA. If there are job vacancies with US firms, they may be successful in gaining higher-paid employment. This may enable them to enjoy a higher standard of living. The jobs in the USA may have better working conditions, more generous fringe benefits and pensions and may provide a greater range of work experience.

Some Indian corporate lawyers, however, may not be aware of the wage differential or of any job vacancies in the USA. There are also a number of reasons why Indian corporate lawyers may not be able to gain employment as corporate lawyers in the USA. The qualifications of corporate lawyers in one country may not be recognised in another country. It may be difficult to get a visa to work in another country and there may a lack of job vacancies in the USA.

Some Indian corporate lawyers may also not want to move to the USA. They may have family ties. While wages may be higher in the USA, the cost of living may also be higher. Aspects of the job in the USA may also be relatively unattractive. Working hours may be longer and there may be more stress involved in working for a US firm. Promotion chances may be higher in India and there may be more job security. The wage differential between the two countries may also be narrowing.

Whether corporate lawyers will move to the USA will depend on the net advantage of the job in the two countries, whether it would be possible to move and what the corporate lawyers value in their lives.

2 a Rent.

b \$1.95. (\$1.50 × 30% + \$1.50).

c Cainiao is enjoying a selling economy of scale in the form of using larger delivery vehicles. These vehicles mean that more goods can be carried per driver and so transport costs should be reduced.

d The source material mentions two advantages that Cainiao is gaining from having a relatively high proportion of labour. It has a good supply of skilled workers. This suggests that the wage rate will not be too high and may mean that costs of production are relatively low. It also mentions that the firm employs some temporary workers. Having temporary workers can enable a firm to make adjustments to changes in market conditions quickly.

e The source material mentions that the e-commerce delivery firms are trying to widen the gap between revenue and cost, that is to make as much profit as possible. It refers to them trying to be more responsive to changes in consumer demand. This would benefit consumers as it would mean that if they want more of a product and are willing to pay for it, firms will devote more resources to its allocation. Supply will adjust and any initial shortage would soon be eliminated. If the firms can become more productively efficient, they will cut their average costs of production. This may mean that they can lower prices. If demand for their services is price elastic, demand will increase by a greater percentage than the fall in price, raising total revenue. Consumers would benefit from lower prices as their purchasing power would increase, enabling them to enjoy more goods and services.

f Figure 2 shows that the savings ratio rose over the period shown. At the start of the period, Chinese households were spending virtually all of their income. As the period progressed, the gap between disposable income and consumer spending widened, meaning that a greater proportion of disposable income was being saved. By 2014, the Chinese were spending approximately Rmb 16 500 out of a disposable income of approximately Rmb 29 000. This means they were saving approximately Rmb 12 500, that is 43% of their disposable income.

g An increase in disposable income would be expected to raise the savings ratio. This is because as disposable income rises, households would be able to spend more and still have money left over to save. For example, a household that has a disposable income of $2 000 a month may have to spend it all to achieve a basic standard of living. In such a case, their savings ratio will be 0%. If their income doubles to $4 000 a month, they could increase their spending to $3 800 and save $200, giving a savings ratio of 5%. If their income increases further to $8 000 a month, they might increase their spending to $6 000 and their saving to $2 000. In such a case their savings ratio would rise to 25%.

While it would be expected that the savings ratio would rise with disposable income, this may not always be the case. A rise in disposable income from a very low level to a low level may mean that households still have to spend all of their income just to gain basic necessities. The reward from saving may be low and there may be a lack of suitable financial institutions in which to save. In addition, if households are very optimistic, expecting their disposable income to rise in the near future, they may spend a higher proportion of their income. Social attitudes could also change, with households devoting more attention to their present standard of living rather than their future standard of living.

h Small e-commerce delivery firms may find it difficult to compete against large e-commerce delivery firms. They will be less well-known and some people are more likely to trust well-known names. They will also not be as able to take as much advantage of internal economies of scale. They will not be able to use such large vehicles and so their average costs of production may be higher. Using smaller warehouses may mean a higher fixed cost per unit. In addition, large firms will be likely to be able to advertise at a cheaper rate. Banks may be more willing to lend to them at a cheaper rate as they will be more aware of the firms and because the firms will have more collateral. The large firms may be able to purchase, for example, printing labels in bulk and so are more likely to be given discounts on the price. They will employ more staff and so the opportunities for staff to specialise will increase.

Although large firms may be able to benefit from, for example, selling, financial, buying and managerial economies, there are some reasons why it might be possible for small e-commerce firms to compete. The small firms may have built up contacts with their customers, knowing their personal requirements. In some countries, the demand for e-commerce delivery may be low at the moment, resulting in a small market. Small firms may be able to offer specialised delivery services that may not be viable on a larger scale. The government may subsidise small firms, perhaps to increase competition. In addition, small firms may be able to compete if the large firms become complacent and experience external diseconomies of scale. For instance, large firms are more likely to experience poor labour relations because it is harder to achieve good communication and resolve any disputes, in a larger workforce.

In practice, because of the importance of IT and so technical economies of scale in e-commerce delivery, it is likely that, despite the possible advantages small firms may have, the market will become increasingly dominated by large firms.

Four-part questions

1 a Industrial action means measures taken by a trade union to disrupt production in a bid to pursue its aims, such as higher pay. The best-known form of industrial action is a strike.

b The poor will be likely to spend less in total than the rich. This is for the simple reason that, by definition, they will have less disposable income to spend than the rich. They are, however, likely to spend a greater proportion of their income than the rich. They are unlikely to be able to afford to save as all their disposable income will have to go on buying basic necessities.

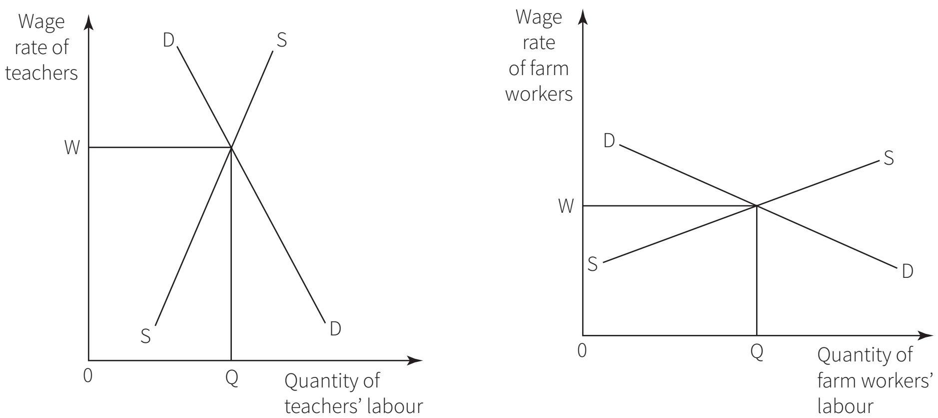
The percentages that the poor and the rich spend on different items is also likely to vary. The poor are likely to spend a higher proportion of their disposable income on food and a lower proportion on entertainment and leisure goods.

c A person may stay in a job despite a fall in pay because they are gaining more job satisfaction from it than they could get from the other jobs open to them. For instance, people may continue to teach even if their pay is cut because they like developing the skills and increasing the life chances of their students.

They may also lack the skills, experience and qualifications to move to better-paid jobs. The work they now do may be low-paid but it may still pay more than the benefits they might be able to receive if they were unemployed.

Apart from being occupationally immobile, workers may also be geographically immobile. Higher-paid jobs may exist elsewhere in the country or in other countries but some workers may not be able to move due to, for instance, differences in the cost and availability of housing and family ties. A few workers may not be aware of availability of better-paid jobs elsewhere and some may be prepared to accept a very low salary for a period of time in the hope of promotion and higher pay in the future.

d It would be expected that teachers would earn more than farm workers. This is for a number of reasons. One is that the supply of teachers is lower and more inelastic than the supply of farm workers. To become a teacher requires more training and more qualifications. This means there are likely to be fewer people who can become teachers than can become farm workers. The demand for teachers may be higher and more inelastic than that of farm workers. This is because agriculture is becoming more capital-intensive in many countries, with capital equipment replacing farm workers. It is likely that it would be more difficult to replace a teacher with a machine or another worker. The diagram below shows that market forces – with the demand for teachers being higher and more inelastic and the supply being lower and more inelastic than farm workers – result in the higher pay of teachers.



Teachers may also benefit from greater bargaining power as, in a number of countries, a higher proportion of them belong to a trade union than is the case with farm workers. Government policy may also favour teachers with increased spending on education.

There is, however, the possibility that in some cases, farm workers may be paid more than teachers. Farm workers may be paid less per hour but they may work longer hours than teachers. Their wage rate may also be lower but they may receive bonuses at particular times of the year. In addition, as farm work becomes more industrialised, the skills and productivity of the remaining farm workers are likely to rise and so some may gain high pay.

In times of food shortages, the demand for farm workers may increase, which would be expected to raise their pay. The government may also increase any subsidies given to farmers, which would increase their ability to pay higher wages.

Although there are some circumstances where farm workers may be paid more, it is likely that teachers, on average, will continue to be paid more than farm workers. This is because the qualifications needed to be a teacher are likely to continue to be higher than those required to be a farm worker.

2 **a** Average fixed cost is total fixed cost divided by output. It falls with output as the fixed costs are spread over a higher output.

b A horizontal merger is the combining of two firms at the same stage of production and in the same industry. For instance, two chocolate manufacturers merging would be a horizontal merger. The two firms are both in the secondary sector, manufacturing, and both are in the confectionary industry.

A vertical merger is the combining of two firms involved in the production of the same product but at different stages of production. A merger between a chocolate manufacturer and a firm owning cocoa bean farms would be a vertical merger between one firm operating in the secondary sector and the other firm operating in the primary sector.

c One cause of an increase in demand for capital goods is advances in technology. Such advances would make capital goods more productive. Each machine, for example, would produce more units and the quality of those units is likely to be higher. These changes may reduce firms' average costs of production and may increase demand for the products produced.

Another cause is a rise in business confidence. If firms are optimistic about future sales, they are likely to want to expand their capacity. To do this, they will buy, for example, more machines and delivery vehicles and build more factories.

A third reason why there may be an increase in demand for capital goods is a decrease in the rate of interest. Such a decrease would make it cheaper for firms to borrow to buy capital goods. It would also reduce the opportunity cost of buying capital goods. This is because firms would be giving up less interest that might have been earned by putting money into a saving account in a bank instead of using it to buy capital goods. In addition, a decrease in the rate of interest would be likely to increase consumer spending. Higher levels of demand for their products would encourage firms to buy capital goods to expand their capacity.

d An industry is likely to grow in response to an increase in demand for the product. This is likely to lead to an increase in the total revenue earned. If total revenue increases by more than total cost, the level of profit in the industry will increase.

The higher output may be the result of each individual firm growing in size. If this is the case, each firm may be able to take greater advantage of internal economies of scale. For example, the firms may be able to enjoy buying economies of scale as they may be able to negotiate lower raw material costs per unit as they will be placing larger orders. They may also be able to employ experts, use larger and more advanced capital equipment and borrow on more favourable terms.

The growth in the industry may also mean that firms will be able to benefit from external economies of scale. A larger industry may encourage colleges and universities to put on specialised courses for workers in the industry. Other industries may be set up to supply the industry with component parts and services.

In a larger industry, an individual firm may be able to attract skilled and trained labour from rival firms. This may enable it to lower its costs of production and increase demand for its product due to higher quality and so increase its profit.

An industry, however, may have grown because demand has risen due to a fall in price. If demand is inelastic, this would have decreased total revenue and may reduce profit. The growth of an industry may be the result of the entry of new firms. The increased competition may mean that, even if overall profit rises, the profit enjoyed by individual firms may decline.

Individual firms may grow too large, resulting in internal diseconomies of scale. Larger firms can be more difficult to control, there may be problems of communication and labour relations may deteriorate. If an industry becomes too large, external diseconomies of scale may be experienced. Larger firms will use more resources and the greater competition may drive up the price of, for instance, labour and fuel, and so increase the firms' costs of production. If firms are getting larger and they are situated close together, their transport costs may also be increased due to congestion.

Firms in a growing industry may be experiencing different revenues and costs. Some firms may, for example, be innovating and capturing more of the market while others may be losing market share and making a loss.

Whether the growth of an industry results in its member firms enjoying higher profits will be significantly influenced by whether economies or diseconomies of scale are experienced.

Chapter 24: The role of government

Suggested answers to individual and group activities

Group activities

1 a A government may subsidise a national champion and it may impose trade restrictions on foreign competitors.

b For example, the IT industry in India. It has a good supply of workers skilled in IT and who speak English, the main language used in the global industry.

2 a Books, computers and furniture.

b Increasing annual leave may make workers less tired and more motivated. This would be likely to increase their productivity. If the increase in output per hour is greater than the loss of output on the days of extra leave, the country's output will increase. Reducing discrimination is likely to mean that the most productive workers are employed.

c For example, Indonesia is a member of ASEAN (Association of Southeast Asian Nations).

Individual activities

1 a i The state is likely to be prepared to deliver to remote communities and it is likely to consider the postal service as an essential service.

ii Private sector firms, driven by the profit motive, may cut costs, which may enable them to charge lower prices.

b Working for a state-owned enterprise may provide more job security. This is because it may continue to produce even if it makes a loss, since the state may subsidise it. Those working in a state-owned enterprise may also enjoy good working conditions as the state may seek to set an example.

Suggested answers to multiple choice questions and four-part question

1 B

In a natural monopoly, the start-up costs can be high, average cost can fall over a large output. This is why it is most efficient to have just one firm in the industry.

2 D

In a planned economy, most people work for state-owned enterprises.

3 B

Limiting public sector wages will reduce price rises, if products are produced by state-owned enterprises. It may also keep down wage rises and hence the prices in the private sector. This is because firms in the private sector will be able to attract workers without having to raise wages significantly. Keeping down public sector pay rises may protect employment. Workers are less likely to be made redundant, in order to keep public expenditure under control.

4 B

Most people in a planned economy are employed in the public sector whereas a market economy will have a relatively small public sector.

Four-part question

a A private good is rival and excludable. One person consuming the product will stop someone else consuming the product. Consumption of the product can be made dependent on payment and so free-riders can be excluded.

b A government may run hospitals to ensure that everyone has access to the essential services. It is likely to provide these services free of cost or at a reduced price, whereas private sector health care providers may charge a higher price. It may also run hospitals to encourage everyone to make sufficient use of these services. Healthcare tends to be underconsumed if left to market forces, as it is a merit good.

c Government intervention is at its highest in countries operating a planned economic system where most capital and land is owned by the government and most workers are employed in state-owned enterprises. Government intervention is at its lowest in countries operating a market economic system. In these countries, market forces allocate most of the resources. The level of government intervention in countries operating a mixed economic system comes in the middle between the level in a planned and a market economic system.

d There are arguments for a government banning the production of cigarettes. A strong one is that cigarettes are a demerit good. They generate higher private costs on consumers than they may realise. As well as the cost of purchasing cigarettes, smoking can damage the health of smokers. The production and consumption of cigarettes can also generate external costs. Non-smokers' health may be damaged by inhaling the smoke, their medical treatment may be delayed because smokers are being treated and they may have to pay higher taxes to finance the medical treatment of smokers. The factories producing the cigarettes may also cause air pollution.

If a government thinks that other governments may ban or restrict the consumption of cigarettes, it may decide that the industry will decline in the near future and this might strengthen its view to ban its production.

Some people may argue about the extent to which cigarettes are a demerit good. They may suggest that consumers are informed about the risks of smoking and they should be allowed to judge whether the pleasure they gain from smoking is greater than the risks involved.

A government would also be concerned that a ban that would force the closure of a large industry would reduce the country's output and employment. These costs may be experienced without any benefit, if the closure of the domestic industry does not reduce the consumption of cigarettes in the country. What might happen is that people may smoke the same number of cigarettes but just buy them from industries in other countries.

If a government is going to ban the production of cigarettes, it should think about how the resources used to produce cigarettes can be smoothly transferred to other industries. This may require the government to provide training to the workers and provide investment subsidies to speed up the expansion of growing industries.

Chapter 25: The macroeconomic aims of government

Suggested answers to individual and group activities

Group activities

1 a An economic growth rate of 2.1% means that the country has produced 2.1% more output than the year before.

b Underemployment is a situation where workers are being underused. It may that some workers who wanted to work full-time can only get part-time jobs or that employers are not taking full advantage of workers' skills.

c Underemployment is likely to have been highest in agriculture. In this sector, 14% of the country's workers were producing only 4% of its output. The number of people working on family farms could be reduced without any significant fall in agricultural output. Such a reduction would enable the manufacturing and service sectors to expand.

d Mexico did appear to have the potential to grow at a faster rate than 2.1% in 2016. This was because, although the country appeared to have near full employment, a quarter of its workers appeared to be underemployed. If these workers were used more fully, output would have grown more rapidly.

2 a To make a more informed judgement on the question, it would be useful to know whether the countries had any targets for economic growth, unemployment and inflation. It would also be also be useful to know whether the countries experienced balance of payments stability.

On the information provided, India and Pakistan appeared to be performing better than the other three countries. They had relatively high economic growth rates and unemployment and inflation rates that were not too high. Greece, in contrast, had nearly a quarter of its labour force without a job. Japan benefited from low unemployment but its economic growth rate was very low and it experienced a fall in the price level. Venezuela had an exceptionally high inflation rate – it was out of control.

b India. Although Greece and Pakistan had higher unemployment rates, markedly so in the case of Greece, they had a smaller labour force. This was because India had a much larger population.

Individual activities

1 a For example, issuing bank notes.

b The South African Reserve Bank had a mixed performance. It did achieve it in four out of the eight years. In the four when it did not, it came close in two of the years, just going over the upper limit by 0.2% point in 2010 and 0.1% point in 2012. The inflation rate averaged 5.86 (to two decimal places) over the period. This was inside the range, although at the upper limit.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 D

Price stability is a macroeconomic aim of a government. It would also want a rise in output, low unemployment and imports equalling exports in the long run.

2 D

The unemployment rate is the number of unemployed workers expressed as a percentage of the labour force. In this case it is, $\frac{6\text{ m}}{50\text{ m}} \times 100$.

3 A

An improvement in education would increase labour productivity and so the country's productive potential. B, C and D would all tend to reduce a country's productive potential. B and D would reduce the quantity of labour and C would reduce the quantity of capital.

4 B

Potential economic growth is a rise in the maximum output a country is capable of producing.

Four-part question

a Two macroeconomic aims from: economic growth, price stability (low inflation), balance of payments stability and redistribution of income.

b Full employment is the lowest possible level of unemployment. Those people who are willing and able to work at the going wage rate can find employment. This does not mean zero unemployment. Some workers will always be in the process of changing jobs and some industries will be expanding while others are declining.

c Governments want full employment as it will mean that the maximum output that can be made with the labour force will be produced. Labour resources will not be wasted and the economy will be producing on its production possibility curve, if other resources are being fully used.

With full employment, governments also earn high tax revenue as income, spending and profits are likely to be high. High tax revenue can be used to improve economic performance and increase living standards.

In addition, full employment reduces the amount governments have to spend to support the unemployed. The tax revenue that might have been spent on unemployment benefits could be used instead, for example, to improve education and healthcare.

d All governments are likely to want to achieve economic growth. This is because a higher output has the potential to improve living standards. Success tends to breed success. A growing economy is likely, for instance, to encourage firms to invest, which will further increase economic growth.

All governments are also likely to want to achieve full employment and price stability. Full employment can reduce poverty, raise tax revenue and reduce spending on unemployment benefits. Price stability can bring a number of advantages, including making it easier for economic agents to plan ahead and maintain or increase international price competitiveness.

Governments usually want to equate export revenue and import expenditure. If more is spent on imports than is earned from the sale of the exports, then the country is consuming more than it can afford. In contrast, any country that has higher export revenue than import expenditure, is not buying all that it could afford.

Most governments do try to redistribute some income and wealth from the rich to the poor to reduce income and wealth inequality. Achieving greater equality can be seen as fair and helps to reduce poverty.

The extent to which governments seek to achieve these objectives and which one they give priority to will, however, vary between countries and over time. Some countries accept a greater degree of income and wealth inequality than others. A government whose country is experiencing a high inflation rate is likely to have price stability as its main priority. In contrast, the government of a country with falling output is likely to prioritise economic growth.

Chapter 26: Fiscal policy

Suggested answers to individual and group activities

Group activities

1 **a** A government may charge oil firms more than other firms because oil firms are geographically immobile. They have to stay where the oil is. Other firms may move abroad if the tax rate is too high. A government may also decide to place a higher tax on oil firms if it thinks they are generating significant external costs.

b Egypt was operating a progressive income tax system as the rich paid a greater percentage of their income than the poor.

2 **a** Corporation tax.

b Governments may give small firms a tax advantage in order to encourage their survival. This is because small firms can innovate, promote competition and employment and develop entrepreneurs.

Individual activities

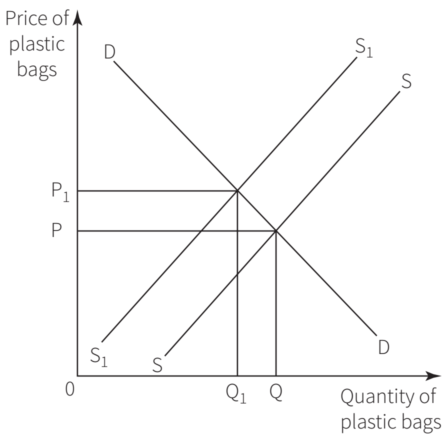
1 **a** \$1.6 bn (\$1.4 bn + \$0.2 bn).

b A decline in tourism would be expected to increase the Maldivian budget deficit. Less revenue would be earned from taxes on the spending of tourists, the profits earned by tourism firms and leasing islands for resort development. At the same time, the government might decide to spend more on promoting tourism.

2 **a** It is an indirect tax as it is a tax on expenditure (on carrier bags).

b To raise government tax revenue.

c A tax on carrier bags will cause a decrease in supply, as effectively an extra cost has been placed on suppliers. The decrease in supply will cause prices to rise and demand to extend as shown in the diagram below. The extent to which price rises and the quantity traded will be influenced by PED.



3 **a** The change in the source of tax revenue was making the tax system less progressive. This is because indirect taxes tend to be regressive while direct taxes tend to be progressive.

b One advantage of using income tax as a source of tax revenue is that it redistributes income from the rich to the poor due to its progressive nature. One potential disadvantage, however, of using income tax is that it may act as a disincentive to workers, savers and entrepreneurs.

4 **a** A surplus of NZ\$1 bn (NZ\$78.5 bn – NZ\$77.5 bn).

b Law and order.

c 41.4% (to 1 dp). $\frac{\text{NZ\$32.5 bn}}{\text{NZ\$78.5 bn}} \times 100$.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 C

A regressive tax falls more heavily on the poor.

2 B

Cutting VAT would reduce a regressive tax while raising income tax would increase a progressive tax. A, C and D would tend to redistribute income from the poor to the rich.

3 C

The more inelastic the demand, the more of a tax can be passed on to the consumer. This is because the rise in price will have less effect on demand. Elastic supply will also tend to result in consumers bearing more of the tax burden.

4 A

The producer's revenue is $OZXQ_1$. The tax revenue is ZP_1TX. The total amount spent by consumers is OP_1TQ_1.

Four-part question

a A progressive tax is a tax that takes a higher proportion of the income of the rich than the poor.

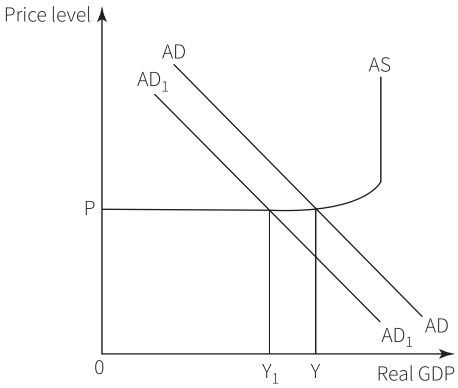
b A direct tax is a tax on the income or wealth of people and the profits of firms. The burden of the tax is borne by the person or firm on which the tax is imposed. An example of a direct tax is income tax. An indirect tax is a tax on spending. The burden, or some of the burden, of the tax can be shifted on to another person. An example of an indirect tax is GST.

c Governments impose taxes for a number of reasons. These include to raise revenue to finance government spending, including on public and merit goods. It is also used to discourage the consumption of demerit goods by imposing an extra cost on the firms producing them and so raising their price. External costs can be turned into private costs by putting a tax on those creating them.

Taxes can be used to redistribute income. The rich can be taxed at a greater rate than the poor and some of the revenue earned can be spent to help the poor. Besides correcting market failure and promoting equity, taxes may be used to discourage imports. Tariffs placed on imports make them more expensive, and are designed to encourage people to buy domestic goods rather than foreign products.

In addition, taxes are used to influence total demand. If a government wants to reduce total demand (perhaps to reduce inflationary pressure) it will increase tax rates.

d An increase in income tax rates can have a number of effects on an economy. Such a move will reduce disposable income. This, in turn, will be likely to reduce consumption. Lower consumption will discourage investment. A fall in consumption and investment will cause a reduction in total demand. The diagram shows that a fall in total demand can reduce an economy's output.



Lower output may result in a rise in unemployment. The incentive to work will be reduced, which will lead to cyclical unemployment. Besides this, there may be some voluntary unemployment also. The higher rates may discourage foreign direct investment and may encourage some workers to emigrate to countries with lower income tax rates.

A reduction in total demand may, however, cause a fall in demand-pull inflation. Lower domestic expenditure may also result in an improvement in the current account position. This is because it is likely that fewer imports will be bought and so products, originally intended for the international market, may be diverted to the home market.

In the short term, higher income tax rates will increase government tax revenue. If the government spends this tax revenue, total demand may not fall. If the fall in consumption and investment is not offset by a rise in government expenditure, however, real GDP is likely to decrease. A lower GDP may mean that despite higher income tax rates, income tax revenue will decline as there will be less income available for taxing.

The effect of an increase in income tax rates will depend on the size of the rise, the reaction of the people and the initial state of the economy. A small rise will obviously have less of an impact than a large rise. It is possible that a rise in income tax will reduce the expenditure by smaller than expected amounts. People may reduce their savings rather than their expenditure if their disposable income falls. If an economy is operating at full capacity with inflation, a rise in income tax rates would be more beneficial than if it was operating with considerable spare capacity and high unemployment.

Chapter 27: Monetary policy

Suggested answers to individual and group activities

Group activities

1 **a** The information refers to people buying goods and services. The function of money that is linked to this is medium of exchange.

b The information mentions sellers having difficulty giving change. The characteristic of money that usually allows people to give change is divisibility.

c Some people may be reluctant to have a bank account if they do not trust banks. They may be worried that the banks are corrupt or that the banks may go out of business.

2 **a** Economic growth or full employment. This is because the MPC did not appear to want to stop the growth in aggregate (total) demand. Higher aggregate (total) demand can result in a rise in the country's output and a fall in unemployment.

b The MPC's decision may have encouraged investment as it might have led firms to believe that the interest rate would remain unchanged for some time. This would make it easier for firms to decide whether the investment would generate enough income to cover the cost of borrowing and still make a profit, It would also make it less likely that there would be a decrease in demand for the firms' products.

Individual activities

1 **a** Total demand is the total demand for a country's products. It consists of consumption, investment, government expenditure and net exports.

b The money supply may increase by more than a central bank wants if commercial banks lend more than it thinks appropriate. When commercial banks lend money, they create bank accounts that count as money. Commercial banks like lending as they earn money, usually in the form of interest from lending.

2 **a** A rise in the rate of interest may slow down economic growth as it may reduce total demand. A higher interest rate may discourage consumption as the cost of borrowing will rise, the return on saving will increase and people who have taken out loans in the past will have less to spend. Investment may also fall again because not only will borrowing be more expensive, but also the opportunity cost of investment will rise and firms will expect lower consumption in the future.

b A central bank may think that commercial banks are lending too much for two main reasons. One is that it may think that there is too much demand in the economy, which risks pushing up the price level and increasing spending on imports. The other is that it may be worried that commercial banks may have expanded too much and may now be lending to high-risk customers.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 C

A change in the rate of interest is one of the three monetary policy measures. A is a supply-side policy measure and B and D are fiscal policy measures.

2 C

An increase in bank lending will create more bank accounts and so increase the money supply. A and B would reduce total demand. D would also be likely to reduce total demand and may reduce the money supply as it is likely to reduce borrowing.

3 A

A central bank is usually responsible for changing the rate of interest and controlling the money supply. In some cases, it may also influence the exchange rate. Commercial banks are influenced by monetary policy rather than conducting it. Multinational companies and trade unions also do not conduct monetary policy.

4 B

A reduction in the rate of interest is likely to encourage borrowing and discourage saving. This should lead to higher consumption and investment, A, C and D all would be likely to reduce total demand. A would reduce a component of total demand. C would arise from either a fall in government expenditure or a rise in taxation. D would reduce people's disposable income and so would be likely to induce a fall in consumption.

Four-part question

a Monetary policy is concerned with influencing the supply of money and/or the price of money. Monetary policy measures are changes in the money supply, the rate of interest and the exchange rate.

b Both monetary policy and fiscal policy are designed to achieve the government's macroeconomic aims by influencing total demand. This is why they are both sometimes referred to as demand management policies.

The difference between the two is that they use different measures to influence total demand. Monetary policy uses changes in the rate of interest, money supply and the exchange rate, whereas fiscal policy uses changes in government spending and taxation.

c Trade unions are likely to welcome an increase in the money supply as it would be expected to help them achieve the objectives it has for its members. This is because it would increase total demand. With more money, consumer expenditure will be likely to increase. Higher consumer expenditure may encourage firms to expand. This would be likely to increase demand for labour. Higher demand for labour would be expected to create more jobs and raise wages as firms compete for workers. To attract people to work for them, firms may also improve the working conditions of their workers.

d An increase in the rate of interest would be expected to reduce consumer expenditure. This is because households would have to pay more if they borrow. As a result, spending financed by borrowing would be reduced. The higher interest rate would also increase the reward for saving, so households may decide to save a higher proportion of their disposable income and spend a smaller proportion of their disposable income.

Households that have borrowed at a variable interest rate in the past will have less money to spend, as more of their income will be going in servicing their debt.

There are, however, a number of reasons why it is possible that an increase in the rate of interest may not reduce consumer expenditure. If households are very confident about the future, they may continue to borrow and spend at the same rate. If they expect that they will earn more in the future, they may think they will have no problems paying a higher interest rate.

A small rise in the rate of interest, especially from a low rate may have little or no effect. For example, a rise from 1% to 1.25% is unlikely to discourage many people from borrowing or encourage many people to save more. A rise that is not expected to last may also not affect households' borrowing and saving plans. Indeed, some saving and borrowing is at a fixed rate of interest and so is not affected by short run changes in the rate of interest.

In addition, a higher rate of interest may mean that some households who are saving for a particular target sum may have to save less to achieve their objective. This would give them income to spend.

Chapter 28: Supply-side policies

Suggested answers to individual and group activities

Group activities

1 **a** A disadvantage of cutting income tax rates is that income tax revenue may fall. This may occur if the reduction does not stimulate an increase in output and incomes.

b Introducing more income tax bands may discourage work and effort as it will become more complex to fill out tax forms. It may also mean that some higher tax rates are introduced, which may discourage some people from working overtime or taking promoted posts. People may become confused by the system and think they are paying more income tax than they actually are.

2 **a** A reduction in bureaucratic red tape could increase private sector investment as firms would have to spend less time and effort entering new markets and expanding in existing markets. This would reduce their costs of production and enable them to respond more quickly to changes in market conditions.

b A government could increase private sector investment in a number of ways. It could reduce corporation tax. This could provide jobs, with more finance and more incentive to invest. It could lower income tax, which may lead firms to invest more, in expectation of higher demand. In addition, it could provide investment subsidies to firms.

Individual activities

1 **a** It is important that people are trained in skills that are in high demand so that they will be able to gain jobs when they have completed their training.

b Training will increase potential economic growth. This is because those who have been trained will be more skilful and so more productive. The maximum output that the economy will be capable of producing will increase.

2 **a** One argument for removing employment laws is that it may encourage employers to take on more workers. Having fewer rules and regulations may reduce their costs of production and give them greater flexibility.

b Employment laws may only affect a small percentage of the labour force in those countries where there is a large informal sector.

3 **a** Privatisation may increase investment. Private sector firms can raise finance by selling shares as well as borrowing. Privatisation may also encourage foreign direct investment. Foreign firms may purchase former state-owned enterprises and may expand these.

b Investment could lower a firms' cost of production and raise the quality of their output. This could increase the price and quality competitiveness of the country's products. As a result, more exports may be sold and fewer imports purchased. If this is the case, export revenue could rise and import expenditure fall. This could reduce a deficit on the current account of the balance of payments.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 D

An increase in the threshold at which people pay income tax would mean that they would pay less income tax. This may increase the incentive to work, encouraging existing members of the labour force to work more hours and for some of the economically inactive to enter the labour force. A and B are not supply-side policy measures as they are likely to reduce labour productivity. C is also not a supply-side policy as it would be likely to reduce investment.

2 D

Higher interest rates will reduce total demand, which may lead to higher unemployment. A, B and C are likely to increase total demand and raise employment.

3 A

A decrease in government expenditure is likely to reduce total demand and so may reduce inflationary pressure. Lower government expenditure can directly reduce spending on imports since some portion of it goes on imports. Lower government expenditure may also reduce household income that, in turn, is likely to slow down economic growth and reduce employment.

4 D

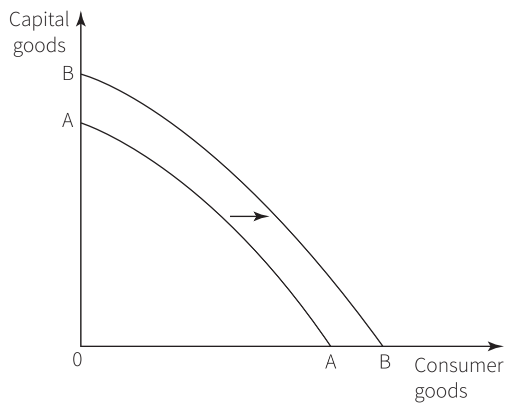
A time lag between deciding and implementing government policies may mean that the policies do not have the desired effect on the economy. A, B and C should all increase the effectiveness of a government policy.

Four-part question

a Deregulation is the removal of rules and regulations.

b A cut in income tax is a fiscal policy measure if it has been made with the intention of increasing total demand. A reduction in income tax will increase households' disposable income, which may encourage them to spend more. It might also be a supply-side policy measure if the intention is to increase total supply. A lower rate of income increases the reward from working and so may increase the supply of labour, which would increase productive potential. In some cases, the policy measure may be used in an attempt to achieve both an increase in total demand and an increase in total supply.

c A supply-side policy measure has the intention of increasing total supply. A higher total supply will increase an economy's productive potential. An ability to make more products will mean that the economy's production possibility curve will shift to the right as shown in the diagram below.



d One key supply-side policy measure, education and training, would be expected to reduce unemployment. If workers are better educated and trained, they will be more skilful and more productive. This will make them more attractive to employers. It should also mean that they are more occupationally mobile. Should they lose a job, they should be able to find another one relatively quickly.

Whether the other supply-side policy measures will always reduce unemployment is more debatable. The intention behind cutting income tax and lowering unemployment benefit may be to reduce unemployment by making work more attractive relative to depending on unemployment benefit. If the gap between pay and unemployment benefit is widened, some of the unemployed may search more actively for jobs. If, however, there is a lack of demand for labour or if the unemployed do not have the skills to fill any job vacancies, unemployment will not fall.

One of the aims of labour market reforms is also to reduce unemployment. If, for instance, it is made easier for firms to hire and fire workers, firms may be encouraged to employ more workers. There is, nevertheless, the possibility that removing employment protection may increase short-term unemployment as workers may be made redundant on a more frequent basis.

It is debatable whether privatisation will increase or decrease unemployment. It may increase employment if the industry responds to the greater exposure to market forces by becoming more efficient and increases its sales. Privatisation, on the other hand, may not increase efficiency. The industry may just change from a state-owned monopoly to a private sector monopoly. If so, competitive pressures on the industry will not increase and it may not become more efficient. A private sector industry may also be less concerned about keeping employment high than a state-owned industry. Indeed, it may be prepared to reduce output in order to push up the price. If it takes such action, unemployment would rise.

So it cannot be concluded that supply-side policy measures will always reduce unemployment. It would be hoped that they would, but there is a chance that some may increase unemployment. The outcome will be influenced by the supply-side policy measures used and how economic agents respond to them.

Chapter 29: Economic growth

Suggested answers to individual and group activities

Group activities

1 **a** The taxi driver would not pay tax on her/his earnings and may not follow government regulations.

b A business may find it easier to get a loan from a commercial bank and may be able to receive a government subsidy.

A worker may be able to gain employment rights and more secure income.

A government will gain higher tax revenue and will have more accurate information on which to base their macroeconomic policy measures.

2 **a** The cut in the rate of interest.

b An increase in lending will increase consumer expenditure and investment. The resulting rise in total demand will cause economic growth if previously unemployed resources were used to produce more to match the higher demand.

c Spending on infrastructure, such as railways and roads, may reduce firms' costs of production. This may result in them expanding and investing in new technology that could further increase productivity.

Individual activities

1 **a** Real GDP $= \$500\,\text{bn} \times \dfrac{100}{125} = \$400\,\text{bn}$.

Rise in real GDP $= \dfrac{\$25\,\text{bn}}{\$375\,\text{bn}} \times 100 = 6.67\%$.

b

Year	Read GDP per head ($)
2016	5 000
2017	5 000
2018	6 000

2 **a** The economic growth was unstable. It fluctuated quite significantly – positive at first, and then becoming negative.

b Output rose but at a slower rate than in 2012.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 C

A definition question. D is inflation.

2 B

More was produced each year so that output must have been highest at the end of the period. The economic growth rate, not the output, was highest in 2014. Output did not fall at any time. Output rose in both 2012 and 2013 – it was the economic growth rate that remained unchanged.

3 A

GDP is C + I + G + (X − M), i.e., \$30 bn + \$10 bn + \$20 bn + \$16 b − \$20 bn.

4 B

An increase in education and training is likely to increase labour productivity. This may raise productive capacity. A, C and D are all likely to reduce output – A would reduce the quantity of capital goods. C would reduce total demand and D is likely to reduce the number of people who are employed.

Four-part question

a Real GDP is the value of a country's total output adjusted for inflation.

b One consequence of a recession is very likely to be an increase in unemployment. With less output being produced, fewer workers will be needed and so firms are likely to dismiss some of their workers.

Another possible consequence is a fall in the price level. If the recession has been caused by a fall in total demand, firms may lower their prices in a bid to increase demand.

c Economic growth would be expected to reduce a budget deficit or increase a budget surplus. This is because higher output and so higher incomes and more employment would increase income tax revenue. Higher incomes are usually accompanied by higher expenditure and so a rise in indirect taxes. Economic growth may also generate higher profits and so increase revenue from corporation tax.

As well as increasing tax revenue, economic growth may reduce government spending. With lower unemployment, less will be spent on unemployment benefit and other benefits associated with low income. With higher incomes, people may also be healthier due to better nutrition and housing conditions. A healthier population may reduce government spending on healthcare.

d An increase in government spending may lead to economic growth. If a government spends more on, for example, defence, it will directly increase aggregate (total) demand. If it increases benefits, it will allow the recipients to spend. In the case where an economy is operating below its productive capacity, an increase in total demand can result in an increase in output. More demand will encourage firms to produce more and to do so they will use previously unemployed resources. Figure 1 shows this outcome using both an AD/AS diagram and a PPC diagram. Total demand and the production point are moving closer to full capacity. As a result, actual economic growth is achieved.

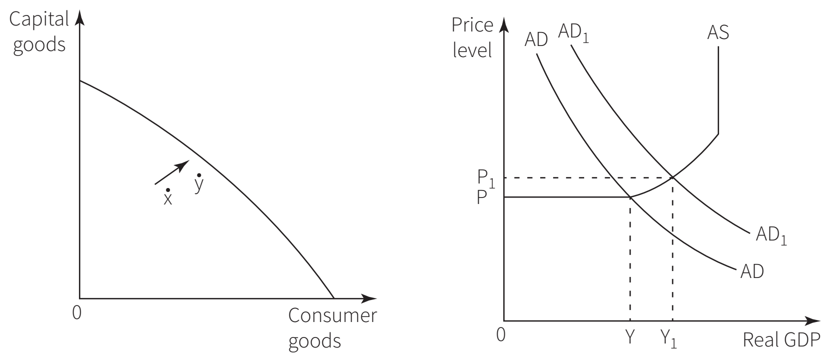


Figure 1

Higher government spending may also increase real GDP by raising both total demand and total supply. For example, an increase in government spending on training will raise total demand and will increase total supply if the workers become more productive. Figure 2 shows both actual and productive economic growth being achieved.

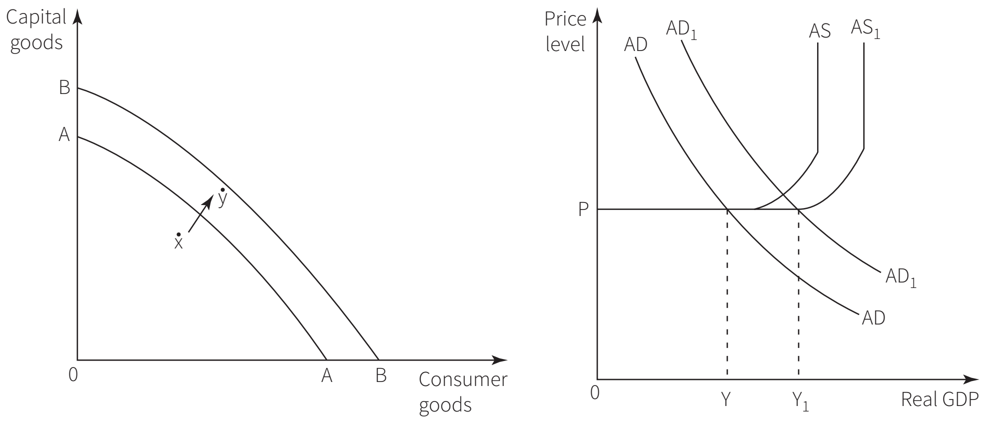


Figure 2

A rise in government spending will not, however, cause economic growth if it just increases total demand and the economy is initially operating at full capacity. If, for example, a government increases state benefits, the unemployed, for example, may spend more. There will, however, not be resources available to produce the extra output they want. In this case, total output does not rise. It is just the price level that rises as shown in Figure 3.

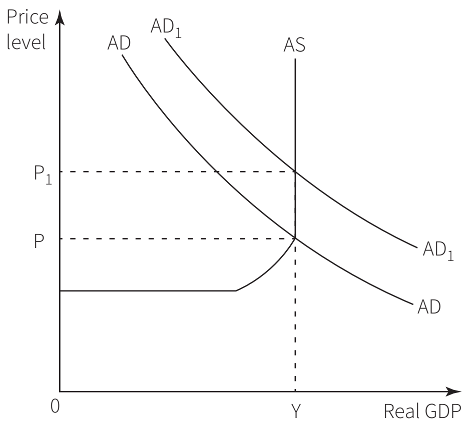


Figure 3

There is also the possibility that an increase in government spending may be offset by a fall in another component of total demand. If, for example, the government increases its tax revenue more than the rise in its spending, consumer expenditure and investment may fall.

Chapter 30: Employment and unemployment

Suggested answers to individual and group activities

Group activities

1 **a** The evidence is that private sector workers, on average, got a larger pay rise than those in the public sector. This would have narrowed the pay gap. If this trend in greater pay rises for the private sector were to continue, the pay difference would eventually be eliminated.

b There are a number of reasons why female workers may have been paid less than male workers at the Bank of England. One is that fewer females may have been in senior posts at the Bank.

c Women may prefer to work in the public sector if the pay is higher and working conditions are better than in the private sector. The information mentions that the gender pay gap is less in the public sector.

2 **a** It appeared to be suffering from cyclical unemployment, as the government was trying to solve it by raising total demand.

b Expenditure on infrastructure may boost jobs, as more workers will have to be employed for its development; for example, building roads. These workers will spend more and the higher expenditure will, in turn, increase employment.

c One of the main causes of poverty is unemployment. Providing workers with jobs gives them a source of income. Most people receive more money from working than from relying on benefits.

Individual activities

1 **a** A labour force participation rate of 71% means that 71% of people of working age are employed or seeking employment.

b One reason is because it is more socially acceptable for women to work in New Zealand than in Pakistan.

2 **a** Tax and benefit cuts would increase the gap between paid employment and benefits. This would be likely to create a greater incentive for the long-term unemployed to find a job. By remaining jobless, they would be losing more money while receiving lower benefits.

b Going for higher education should make workers more skilled. This will enable them to undertake complex tasks, use complex machinery and enhance their ingenuity.

3 **a** Unemployment might have been measured by conducting a labour force survey. This involves taking a sample of the population and asking people whether they have been actively seeking employment.

b Unemployment may be higher in one country than another due to lower total demand, declining industries and immobility of workers.

c The measures should be influenced by the cause of the unemployment, the duration of the unemployment and the likely effectiveness of the measures needed to reduce unemployment..

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

The labour force consists of the employed and the unemployed. C and D are included in the labour force. A are not of working age and are most unlikely to be in the labour force.

2 D

Decline of one industry results in structural unemployment.

3 B

Having unemployed workers means that output is below the maximum that could be produced. Unemployment will reduce tax revenue. Productivity may rise, as it is likely that less productive workers will lose their jobs first. Reduced inflationary pressure is a benefit rather than a cost of unemployment.

4 B

A reduction in interest rates will increase total demand. In contrast A, C and D would decrease total demand.

Four-part question

a Cyclical unemployment is unemployment that is caused by a lack of total demand.

b It is possible for the unemployment rate to fall while the numbers employed also decrease. This could occur if the size of the labour force fell. For instance, the labour force may initially be 30 m, with 27 m people being in employment and 3 m being unemployed. In this case, the unemployment rate would be $\frac{3\text{ m}}{30\text{ m}} \times 100 = 10\%$. If then the labour force fell to 25 m, employment could fall to 23 m, while the unemployment rate would fall to $\frac{2\text{ m}}{25\text{ m}} \times 100 = 8\%$.

c A cut in the rate of interest may reduce unemployment as it may increase total demand. A lower interest rate may encourage households to borrow more and discourage them from saving and so consumer expenditure may rise. It may also stimulate investment as it will be cheaper for firms to borrow, less rewarding for them to save and will increase their expected sales. Higher total demand will encourage firms to expand their output and so they are likely to employ some of those looking for jobs. Higher total demand will reduce cyclical unemployment.

d Unemployment does provide some flexibility, making it easier for expanding firms to recruit more workers. It can also keep inflationary pressure down as rising total demand can be matched by higher output. Also, the workers may become reluctant to press for wage rises for the fear of easy replacement by the unemployed labour. It is generally thought, however, that the costs of unemployment exceed any benefits. Unemployment imposes a number of costs on an economy. A key one is lost output. If the unemployed had been in work, more goods and services could have been produced and hence living standards could have been higher. Potential tax revenue is lost, which may mean that taxes may be imposed at higher rates. The government may have to spend additional money on unemployment benefits, which could have been used for other purposes. The government may also have to spend more on healthcare and other benefits. This occurs as people tend to suffer from poor physical and mental health and lower income when unemployed. Unemployment can also cause unemployment. The longer people are out of work, the greater the risk there is that they will lose their skills, their confidence and their motivation to work. They may become discouraged workers.

The magnitude of the cost of unemployment is influenced by its rate, duration and cause. A 10% unemployment rate will obviously have more serious consequences than a lower rate of 4%. In fact, a government may not be too concerned about a 4% rate, as it is likely to be close to full employment. Longer-term unemployment is particularly serious as those affected may lose skills, miss out on training and lose the habit of work. Cyclical unemployment and structural unemployment are more harmful than frictional unemployment, as they are likely to affect more people and last longer.

Suggested answers to exam-style questions for Section 4

Multiple choice questions

1 B

Economic growth occurs when the output (real GDP) of a country increases.

2 D

A decrease in VAT may encourage people to spend more. A rise in aggregate demand would reduce cyclical unemployment. A, B and C would all reduce aggregate demand, which would be likely to increase unemployment.

3 A

Increasing progressive taxes would reduce the disposable income of the rich while increasing welfare benefits would increase the income of the poor.

4 D

People earning a high income would be paying income tax on a large proportion of their income and hence should benefit from a cut in income tax. Also, they are unlikely to receive housing benefit or unemployment benefit. Their children may be going to university, and so a reduction in government expenditure on higher education would be a liability to them.

5 A

A definition question.

6 C

Prices rose throughout the period. They rose most quickly at the start but, nevertheless, continued to rise each year. So prices were higher in 2018 than in 2017, higher in 2017 than in 2016, and higher in 2016 than in 2015.

7 A

Economic growth is an increase in real GDP. B, C and D may or may not have occurred.

8 D

A rise in the cost of transporting goods will increase firms' costs of production, leading them to raise price. A, B and C are all possible causes of demand-pull inflation.

9 A

A country may increase its output by using up non-renewable resources. Unemployment is likely to fall and the government's ability to reduce poverty is likely to increase as tax revenue will rise. The productive capacity of the economy will also increase.

10 B

If workers are more mobile, they will move more quickly between declining and expanding industries. This will reduce both frictional and structural unemployment. For cyclical unemployment to decline, aggregate demand would have to increase.

Data response questions

1 **a** The budget deficit was $177.5 bn (10% of GDP).

b A contractionary fiscal policy, i.e., one designed to reduce total demand as government spending was cut and taxes raised.

c Cost-push inflation as costs of production, in the form of higher prices for electricity and raw materials, were rising.

d Workers have moved from the informal economy to the formal economy. This will have meant that their employment pay and conditions would be covered by government legislation such as a national minimum wage. The proportion of workers in the private sector has increased as the pay of most workers in the public sector has declined. (The proportion of skilled workers has also increased relative to unskilled workers.)

e The Brazilian government's policy measures would have been introduced with the intention to increase the country's output. Raising the retirement age would increase the country's labour force and so its potential output. Legislation to make it easier to hire and fire workers may encourage firms to employ more workers and so increase output. Improving the education system would be expected to increase labour productivity, which would increase the quantity and quality of output.

f There is a strong relationship shown between GDP and import expenditure. They are largely directly related with, for instance, the USA and China having the highest GDP and import expenditure. France and Brazil have the lowest GDP and import expenditure. The slight exception was that Germany had the fourth highest GDP but the third highest import expenditure. It would be expected that there would be a direct relationship: richer countries have more income to spend on imported consumer goods and, as they produce more, they may buy more imported raw materials and capital goods.

g A budget deficit arises when government spending exceeds government revenue. In the short run, an increase in the rate of income tax would be likely to reduce a budget deficit. Revenue from income tax would increase. If government spending does not change, a budget deficit would be decreased.

In the long run, however, an increase in income tax may increase a budget deficit. This is because it may result in a reduction in tax revenue and an increase in government spending. Households will have less disposable income, which may result in less spending and so less revenue from indirect taxes. The higher income tax may increase the disincentive to work and so may reduce revenue from income tax. If households are spending less and there is less incentive to work, unemployment would increase. A rise in unemployment may increase government spending on benefits.

h All households will not suffer from inflation. Those who are net borrowers will find that the real burden of their debt will fall. Some will have earnings that are index-linked and so their purchasing power may be unaffected by inflation. Others may have members who are in jobs where they have strong bargaining powers. If this is the case, their nominal wages may rise by more than the rate of inflation, causing them to experience a rise in real wages.

The measure of inflation, the consumer prices index, is based on a representative basket of goods and services. Some households will have spending habits which mean that the products they buy may have risen much less in price or even fallen in price.

Some households, however, may suffer as a result of inflation. They might be devoting more of their spending to those items that have risen the most in price than the average household. They may have weak bargaining power or be recipients of state benefits that may not be index-linked. They may also be net savers and if the interest rate does not rise in line with inflation, they may lose from saving.

The extent to which households will suffer from inflation will be influenced by its rate and how stable that rate is. A high rate and accelerating rate will make it difficult for households to assess which products provide the best value and to plan ahead.

2 a The cut in the rate of corporation tax is a fiscal policy measure.

b \$577.2 bn(156 m × \$3700).

c The price level rose but rose more slowly. It rose by 6.4% in 2015 but by only 5.9% in 2016.

d The information in the source material suggests that Bangladesh was suffering from structural unemployment. It mentions that there were job vacancies but the workers lacked the right skills. This indicates that the workers were occupationally immobile. The skills in the occupations that the workers have been dismissed from or that they have gained in education prior to entering the labour force are not those required by the occupations that are expanding.

e There is an inverse relationship shown between the weight given to food and non-alcoholic beverages and GDP per head. For example, out of the countries shown, Bangladesh has the highest weight and the lowest GDP per head while the USA has the lowest weight and highest GDP per head. India has the second highest weight and the fifth highest GDP per head and Turkey, South Africa and the UK are also in reverse order in the two tables. It would be expected that richer countries would have a smaller weight. This is because as households get richer, they spend a smaller proportion on food and non-alcoholic beverages. This is because they can afford to buy more products, including non-essential goods and services.

f The chart does not show a clear pattern between the unemployment rate and the savings ratio of the countries shown. For instance, Australia and South Korea have a higher savings ratio than unemployment rate. The others have a higher unemployment rate. Finland has relatively high unemployment rate but a very low savings ratio. New Zealand has a lower unemployment rate than Finland but a higher savings ratio. Denmark has a negative savings ratio, meaning that households were spending more than double their disposable income. They would have had to be borrowing, using past savings or selling assets. It is not surprising that there is not a clear pattern. This is because high unemployment may affect savings in one of two ways. It may reduce the proportion saved since as households have less disposable income, they have to spend most of it on, for instance, food and housing. High unemployment, however, might also encourage households to save more in case they experience unemployment in the future.

g Setting an inflation rate target may reduce the inflation rate. This is because it may alter economic agents' expectations about future and their behaviour in a way that reduces price rises. If firms are convinced that their costs of production, including wages and domestically produced raw material costs, will not increase much in the future, they will not raise their prices significantly. If households can be persuaded to think that prices will be relatively stable, they will not increase their demand now to buy up products before they become more expensive.

To be convincing, an inflation rate target has to be realistic and not too ambitious. Firms and households also have to trust the ability of the central bank. If a central bank has missed its target regularly in the past, setting a target may cease to be effective. The inflation rate is also not only influenced by the actions of domestic firms and households: there may be a negative supply-side shock arising from foreign producers raising the price of the fuel the country imports.

h A cut in the rate of interest would usually be expected to increase investment. This is because it would make it cheaper for firms to borrow to finance investment. The opportunity cost of saving any profit earned would increase. Now the expected return from investing the profit may exceed the return from saving it. In addition, a lower rate of interest would be expected to increase consumer expenditure. This would, again, encourage firms to invest.

However low the rate of interest goes, if firms do not have the confidence that they would be able to sell any extra output, they will not invest. Indeed, if demand for their products is falling, they may not invest to replace capital equipment that is wearing out. There is also the possibility that while the rate of interest falls, other costs of production may rise and so firms may not expect higher profits. In addition, while the lower interest rate may encourage firms to invest, they may not be able to do so if the capital goods industries are working at full capacity.

Four-part questions

1 **a** A direct tax is a tax on income and wealth. The burden of this payment to the government cannot be passed on to someone else.

b An increase in the quantity of resources enables an economy to produce more goods and services. For instance, a rise in the labour force due to the immigration of workers will result in potential economic growth. An increase in the quality of resources due to, for instance, advances in technology will have the same effect. If the increase in productive capacity is used, both actual and potential economic growth will occur.

c Confidence, and a lack of confidence, can play a significant role in economic activity. If households become pessimistic about the future, they will be likely to make large purchases, such as buying a car or a house. They will be worried that they will not be able to, for example, pay the insurance on the car or furnish the house, should they lose their job or have a cut in pay. This fall in demand will reduce firms' profits and make some experience losses. They will reduce their output and the economic slowdown that consumers had feared will occur.

Firms may also lose confidence, independent of current consumer demand. If they become more concerned, for example, that the government is following inappropriate policy measures or that a major economy is about to experience a crisis, they may abandon their investment plans and may cut back their output.

There is a relatively large risk that if households and firms expect a recession, they will act in a way that will bring about the very thing they fear. In such a case, government intervention may be needed to restore confidence.

d It would be expected that economic growth would result in lower unemployment. To produce more output, more resources are likely to be used. Firms and the government may employ some of the previously unemployed workers in order to make more goods and services. If, initially, there is a labour force of 40 m people and 4 m of these people are unemployed, the unemployment rate will be 10%. If 2 m of the unemployed are taken on to increase output, the unemployment rate will fall to 2 m and to a rate of 5%.

It is, however, possible that economic growth will occur at a time when the size of the labour force is increasing. More output may be produced using people who have just entered the labour force or any unemployed people finding jobs may be replaced by those who have entered the labour force. Using the example above, the labour force may increase to 50 m and the number of people employed from 36 m to 46 m. The unemployment rate will fall to 8% but the number unemployed stays at 4 m.

Higher output may also be achieved, not with more people employed but with an increase in the quality of those already in employment. Improvements in education and training can increase the productivity of workers, enabling them to produce a higher output.

In addition, higher output may be achieved by employing more or more advanced capital equipment rather than labour. Indeed, it is thought that most economies' productive potential increases each year because of advances in technology and improvements in education. In such a case, unemployment will only fall if total demand increases by more than this increase in productive potential.

2 **a** The Labour Force Survey and the Claimant Count.

b Cuts in income tax and benefits could increase the incentive to work. If the lower rate of income tax and unemployment benefit are reduced, there should be a larger gap between paid employment and unemployment benefit. This would be likely to create a greater incentive for the unemployed to search for a job. The longer someone is unemployed, the more they are likely to lose and so frictional unemployment is likely to be reduced.

c A fall in unemployment is often accompanied by a rise in employment. As more people are employed, there will be more income and so more consumer expenditure. Higher consumer expenditure will increase total demand. If the economy is close to full capacity, this may push up the price level.

A rise in employment may also create a shortage of labour. Workers will have stronger bargaining power with employers who will be competing for their services. As a result, wages are likely to be pushed up. This would increase the costs for the firms, which in turn will push up the price level.

d An increase in government spending may cause inflation. A rise in government spending, not matched by higher taxation, will increase total demand. If the economy is operating close to or at full employment, this will increase the price level and cause demand-pull inflation.

If a government spends more by raising the salary of public sector workers, this may stimulate private sector workers to press for wage rises. If successful, the higher wages may result in cost-push inflation.

If, however, the economy is operating with spare capacity, the higher demand generated may just increase output rather than the price level. When there is significant unemployment in an economy, unemployed workers may be prepared to accept jobs at the current wage rate and firms may be able to buy extra raw materials at the current price. So, an increase in output does not raise costs of production and price.

Higher government spending may also not cause inflation if it causes total supply to increase by as much or more than the increase in total demand. If the increase in government spending goes on improving education and training, productive capacity will be increased, allowing the higher total demand to be matched by the higher total supply, at least in the long run.

An increase in government spending may be matched by an increase in taxation. If this is the case, consumer expenditure may fall, leaving total demand unchanged. In practice, however, an equal increase in government spending is likely to increase total demand. This is because while the government may spend an extra \$20 bn, an increase in taxes on households of \$20 bn is not likely to reduce their spending by \$20 bn. This is because they will pay some of the extra taxes by reducing their saving. If they reduce their spending by \$16 bn and their saving by \$4 bn, there will be a net injection of extra spending of \$4 bn.

Whether an increase in government spending causes inflation will depend on the initial state of the economy, what the government spends the money on and how much taxes increase by.

Chapter 31: Inflation and deflation

Suggested answers to individual and group activities

Group activities

1 **a** A consumer prices index measures the prices of a range of consumer goods.

b The Indian government will select the 260 items included in the CPI, by carrying out a family household survey. This will provide it with information about the amount spent by households on different items. Those items that incur the maximum expenditure will be included.

2 **a** A high and fluctuating rate. A high rate may make the country's products uncompetitive and will impose significant menu, shoe leather and administrative costs on firms. A fluctuating exchange rate will increase uncertainty.

b A 5% rate with other countries averaging 3%. In this case, the country's products are becoming less competitive by international standards.

3 **a** The information suggests that Greece suffered from bad deflation. This is because it was accompanied by a recession. Output and incomes fell.

b A reduction in wages may result in a deflationary spiral as lower wages will mean lower demand. Lower demand is likely to reduce output, which may push down wages, and so on.

Individual activities

1 **a**

Category	Weight		Price change		Weighted price change
Food	1/5	×	5%	=	1%
Clothing	1/5	×	−10%	=	−2%
Heating	1/10	×	30%	=	3%
Entertainment	1/2	×	20%	=	10%
					12%

b

Category	Weight		Price change		Weighted price change
Food	1/4	×	8%	=	2%
Clothing	1/10	×	10%	=	1%
Transport	3/10	×	−10%	=	−3%
Leisure goods	7/20	×	5%	=	1.75%
					1.75%

2 **a** A fall in inflation means that the general price level is rising at a slower rate.

b Smaller increases in oil prices will reduce the rise in the price of petrol that households buy. It will also reduce the rise in the price of fuel used by firms and this will lower increases in costs of production. A slowdown in the increase in costs of production will reduce cost-push inflation.

c A rise in consumer expenditure may cause inflation if the resulting higher total demand cannot be met by a rise in total supply. This will occur if the economy is approaching full employment.

3 **a** Cost-push inflation. Higher transport prices, energy prices and wages would increase firms' costs of production.

b Inflation, which causes the price of a country's products to exceed that of its trading partners, will be likely to reduce exports and increase imports.

c Inflation may also lead to an unplanned redistribution of income. Borrowers tend to gain from inflation, as the rate of interest does not usually rise in line with inflation. In contrast, savers tend to lose.

4 **a** Barter refers to the direct exchange of products without using a medium of exchange.

b The information refers to supermarkets changing prices daily. This constitutes menu costs. Changing prices so regularly will involve staff time.

c The cause of inflation appears to be an excessive growth of the money supply. The Zimbabwean central bank printed a huge amount of extra bank notes.

Multiple choice questions

1 A

The weighted price change is weight multiplied by price change. In 2016, this would be ? $\times$ 8% = 2%, i.e., $\frac{1}{4}$. In 2017, it would be ? $\times$ 5% = 2.5%, i.e., $\frac{1}{2}$.

2 A

Borrowers tend to pay back less in real terms than what they borrowed during a period of inflation. Pensioners will maintain their real incomes if pensions rise in line with inflation. Workers in strong trade unions should be able to negotiate wage rises to match the inflation rate. Savers will tend to lose.

3 A

A rise in government expenditure not matched by taxation will increase total demand. B and C will be likely to cause cost-push inflation. D may reduce inflation by increasing the number of products in the country while reducing the money supply.

4 B

A rise in the general price level means that each unit of money – e.g., each dollar – will buy less.

Four-part question

a A sustained increase in the prices of goods and services.

b A consumer boom means that households are increasing their spending at a significant rate. Higher consumer expenditure will increase total demand. If the economy is getting close to full capacity, there will not be many resources to meet the higher total demand. Prices will be forced up and demand-pull inflation will occur.

c Researchers calculate inflation by constructing a weighted price index. First they select a base year to ascertain the change in the general price level with respect to prices prevalent in base year. A number of households are asked to keep records of their expenditure. From the information gathered from this household survey, researchers decide the items to be measured and the weight attached to them. The higher the proportion spent on an item, the greater the weight ascribed to it. For example, if 10% of expenditure goes on food and 20% on transport, food would have a weight of 1/10 while transport would have a weight of 1/5. Changes in the prices of the items selected are found by visiting a number of trade outlets and obtaining information from, for instance, gas suppliers. The weights of the items in the basket of products are multiplied by their price changes to give a weighted price index. Then, the inflation rate is calculated. If, for instance, a consumer price index rises from 100 to 106, the inflation rate is 6%.

d Workers may suffer from inflation in a number of ways. If the inflation is cost-push inflation, the country's output will fall. This is likely to result in some workers losing their jobs. An unemployed worker will be likely to experience a low standard of living.

If workers' wages do not rise in line with inflation, they will experience a fall in real wages. This will mean that the amount of goods and services that they will be able to consume will decline.

To try to retain their real wages, workers will have to press for wage rises. This may bring them into conflict with employers and worsen industrial relations. Unskilled workers are likely to have less bargaining power than skilled workers as they can be replaced more easily. This is why there is more risk of the real wages of unskilled workers falling during cost-push inflation than the real wages of skilled workers falling.

Workers may also suffer during periods of very high demand-pull inflation, especially hyperinflation. Very rapid rises in the price level will make it difficult for workers to assess what is an appropriate wage to accept.

A relatively stable rate of demand-pull inflation, however, can benefit workers. Higher total demand will encourage firms to produce more. They will increase their demand for workers. This higher demand is, in turn, likely to increase employment opportunities and raise wages. If wages rise by more than inflation, real wages and the purchasing power of workers will increase. The higher demand may also improve working conditions and increase the chances of promotion.

The impact of inflation on workers will be influenced by its cause, its rate and the bargaining power that workers have.

Chapter 32: Living standards

Suggested answers to individual and group activities

Group activities

1 a For example, real GDP per head and the number of televisions per household.

b No. Some would have enjoyed a higher rise, including those who bought Porsches, while the poor are likely to have experienced a lower rise.

c The expenditure on education is likely to have raised living standards but the effect of a rise in expenditure on military defence is more debatable.

Individual activities

1 a PPP stands for purchasing power parity. It means that the income figures have been adjusted to take into account the buying power of currencies in their own countries.

b On average, Chinese people are poorer but certain individuals, such as Cheung Yan, are much richer than most people in the UK.

c No. The information mentions that the richest group in China have an income nine times more than the poorest.

2 a 99% since least wealthy 50% own 1% of the world's wealth, the most wealthy 50% must own 99% of the world's wealth.

b Japan having one of the 'lowest levels of wealth inequality' means that wealth is more evenly distributed in Japan than in most of the other countries. In Japan, the gap between those with the maximum wealth and those with the minimal wealth is smaller than that in most countries.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

Real gross domestic product per head gives an indication of the goods and services, on average, people in the country can consume. It has the advantage that it is adjusted for inflation and takes into account the country's population size.

2 D

A, B and C are likely to reduce living standards. B may also reduce living standards if it results in a rise in the dependency ratio.

3 D

This would mean that GDP per head would fall. A, B and C would all result in a rise in real GDP per head.

4 B

In this case, people would be able to enjoy more leisure time and the same amount of income, since total output has remained the same.

Four-part question

a For instance, income and leisure time.

b Real GDP per head is a better measure of the standard of living in a country than nominal GDP for two key reasons. One is that it takes into account the population size. Two countries may have a GDP of $50 bn but if one has a population of 20 m and the other a population of 5 m, the standard of living in the second country is likely to be higher. This is because the average income in the second country would be $10 000 but only $2 500 in the first country. The second reason is that real GDP has been adjusted for inflation. This eliminates the distorting effect a rise in the price level would cause. If real GDP per head has increased, there are more goods and services per head of the population.

c A rise in labour productivity can increase living standards as it means that a higher output can be produced with the same number of workers. This means that people can enjoy more goods and services. Having more goods and services raises people's material living standards. They can consume more necessities and possibly some luxuries. Through the taxation and benefit system, the poor could be provided with more goods and services without reducing the goods and the services that others can enjoy. Alternatively, an increase in productivity could enable the same quantity of goods and services to be produced while workers have more leisure time. Having more spare time can increase the quality of people's lives.

d The HDI is a better measure of living standards than real GDP per head but it is not a perfect measure. It is a wider measure than real GDP per head, as it takes into account not only real GDP per head but also health, in the form of life expectancy at birth, and education in the form of mean years of schooling and expected years of schooling. All the three components of HDI have a significant impact on people's living standards. Income affects the goods and services they can buy, including the housing they can live in. Access to secondary and tertiary education can increase people's employment opportunities and earning potential in the future. People want to live long lives and long lives reflect, for example, good nutrition and good housing.

The HDI, however, does not take into account the quality of education or the quality of the years lived. It is no good receiving a high number of years of education, if the quality of education is poor. Some people may live a long time but if they are in poor health, they will not enjoy a good standard of living. Some countries measure quality-adjusted life years. Such a measurement takes into account people's ability to carry out everyday activities and freedom from pain and mental disturbances.

The HDI is also based on averages. It does not consider the distribution of income or whether there are differences in the education received and life expectancy enjoyed by different groups in the country.

There are a number of other factors that influence living standards that are not included in the HDI. For example, it does not take into account working hours and levels of pollution. Since 2010, the UN has also published an inequality-adjusted HDI and a gender-inequality-adjusted HDI. Of course, the more factors that are taken into account, the more risks there are of errors and some of the information on, for instance, freedom from pain is relatively difficult to obtain and interpret.

Chapter 33: Poverty

Suggested answers to individual and group activities

Group activities

1 c, e and f.

2 a The study includes the aspects of absolute poverty but also considers relative poverty; for example, eating out. It mentions that it is the minimum income required for people to participate in society and so it is a comparative measure. As a country gets richer, people's incomes have to rise so that they can continue to experience the activities that other people in the country are participating in.

b The passage suggests that the level of income UK pensioners received in this period was relatively high. This income could have come from private pensions, state pensions and from financial investments they had undertaken.

c It would not be easy to get agreement on what is 'the minimum income standard'. People will disagree about what people need to spend money on in order to participate in society. For example, will people feel excluded from a minimum acceptable way of life in the country they live in if they cannot afford to buy and run a car?

3 a Eating nutritious food will increase the health of the children of the school. If they are attending school, this will be likely to increase their performance at school. This would increase their skills and qualifications and their chances of gaining a good job and good income. Whether or not they are attending school, being healthier is likely to make them more productive and to have less time off work due to illness should they gain employment. This would increase their earnings.

b The adults may be unemployed or sick so they may not be able to increase their household income despite the increase in economic growth.

c Poverty can hold back economic growth in a number of ways. Poor people are likely to have less access to education, especially higher education and healthcare and consequently they are likely to be less productive workers. High levels of poverty can discourage foreign firms from investing in a country. A significant level of poverty in a country is likely to mean that tax revenue will be low and therefore it will not have much money to spend on developing the economy.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 C

A reduction in the top rates of tax would increase the income of the rich and widen the gap between them and the poor. A, B and D would all be likely to raise the income of the poor and hence narrow the gap.

2 B

As the rich are in a better position to save than the poor, they can build up their assets, including shares and property. The possibility of earning high incomes and accumulating wealth is likely to act as an incentive for entrepreneurs and workers. Those with high incomes spend more in absolute terms but a smaller proportion of their income as compared to the poor. Also, those with low incomes do not often inherit wealth.

3 B

A rise in the income of the poor should reduce absolute poverty. If the income of the rich rises by more than that of the poor, the gap will increase. A would reduce absolute and relative poverty. C would increase absolute and relative poverty. D would increase absolute poverty but reduce relative poverty.

4 C

Granting subsidies to builders of low-cost housing should increase the supply of such housing, reduce its cost and hence make it more accessible to the poor. A would be likely to reduce the quantity and possibly the quality of education available to the poor. B would reduce total demand and employment. D would make food more expensive and would lead the poor to spend a higher proportion of their income on food.

Four-part question

a Absolute poverty occurs when people do not have enough income to be able to afford adequate food, housing, shelter and other basic needs.

b The children of the poor are likely to be poor as adults because they are likely to receive less education. This may be because their parents are not able to afford any charges that have to be paid. Even if education is provided free by the government, their parents may need them to start work as soon as possible to help support the family. Being less educated will reduce their skills and qualifications and so their earning potential.

The children of the poor may also suffer worse health. This is because they are likely to have less nutritious food and live in poor housing. This will reduce their fitness and so their productivity and earning potential.

c Fiscal policy could reduce poverty by raising tax revenue, which is then used to help the poor. Progressive taxation would fall more heavily on the poor. For example, income up to a certain level could be tax-free so that the poor would not pay any tax. Above the tax threshold, income tax rates could rise. The tax revenue raised could be used to provide benefits to the poor. These could be in the form of cash benefits. The tax revenue could also be used to finance education and training and healthcare for the poor. This could increase their employment opportunities. The chances of the poor could also be helped by the government adopting an expansionary fiscal policy. Lowering taxes and increasing government spending should increase total demand. Higher total demand would be expected to encourage firms to increase their output. To produce more, the firms would be likely to take on more workers.

d The introduction of a national minimum wage could reduce absolute poverty. Some workers may have been receiving wages that were so low that they could not afford decent housing, sufficiently nutritious food and adequate clothing for themselves and their families. If the national minimum wage is set above their current wage rate and they stay in employment, they will have more purchasing power.

If low-paid workers spend more, there will be an increase in total demand. This may create more jobs and may raise wages further. In addition, employers may provide more training to the low-paid to ensure a good return from their employment.

The introduction of a national minimum wage may stimulate other workers to press for wage rises to maintain the difference between their pay and the pay of the low-paid. If their wage differentials are maintained, absolute poverty may be reduced but relative pay may stay the same.

The main beneficiaries of a national minimum wage may also not be the poor. Some of those on low pay may be in relatively rich households. They may be the partner or child of a well-paid worker. Some low-paid workers may not receive the national minimum wage if they work in the informal economy.

Low pay is one but not the only cause of poverty. Some of the poor are not in work: a number may be unemployed and some may be retired. A national minimum wage will not help them directly although if it does lead to a rise in GDP, more tax revenue may be raised and some of this could be used to increase state benefits.

There is also the possibility that the introduction of a national minimum wage could increase poverty. This may occur if employers respond to its introduction by dismissing some of their workers. Unemployment is a significant cause of poverty and so the effect that the policy measure has on the number of people employed will be a major influence on whether it will reduce poverty. The other factors that will influence the outcome include at what level it is set, how other workers respond and what proportion of the poor are covered by the measure.

Chapter 34: Population

Suggested answers to individual and group activities

Group activities

1 a Life expectancy is increasing due to improved medical care and better nutrition. A greater range of illnesses can now be treated due to more effective medication. Improved nutrition makes it less likely for people to develop a range of illnesses.

b Workers who have to work for longer will have the opportunity to earn more over their working life. They may also be likely to stay mentally and physically healthier for longer.

Individual activities

1 a A country in which the number of children per woman is high.

b More educated women are more likely to be informed about family planning. They are also more likely to pursue a career and hence may start a family later and limit their family size. In addition, they are likely to be better informed about nutrition and hygiene and, consequently, it is less likely that their children will die young.

2 a Migration.

b As India develops, its birth rate may fall more than its death rate. The projections may also have overestimated the fertility rates.

3 a Reduced dependency ratio and increased labour force (reduction in labour shortages) in the long run.

b Families have got used to having one child, adults concentrating on their careers and the increased cost of raising children/increased cost of living.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 D

If women outlive men, the population may contain more women than men despite more boys being born.

2 A

A fall in the death rate will mean that people are living longer and a fall in the birth rate will mean there are fewer young people.

3 A

A definition question.

4 C

A and B might make a government want to raise the growth of its population and D would reduce a government's concern about the rate of population growth.

Four-part question

a An increase in the birth rate and a decrease in the death rate.

b A government will try to limit the growth of its population, if it thinks that there is a risk of the country becoming overpopulated. In this case there may be insufficient resources to feed and house the population with a risk of resources being overused and depleted. If the population size is above the optimum level, then more people in the country would reduce output per head. This would lead to a reduction in the material living standards of people. If there is already a food shortage, a rise in the birth rate may worsen the situation into a famine. Having more people may also put pressure on housing and result in a more rapid depletion of non-renewable resources.

c The rate of population growth tends to be higher in low-income countries than that in high-income countries, although there are exceptions to this. One major factor contributing to higher population growth is higher birth rates. The reasons include people relying on their children for support during their old age, high infant mortality rates and lack of awareness about contraception or reluctance to use it for religious or cultural reasons. Their death rates are below their birth rates and keep falling further, more rapidly.

For low-income countries, the natural change in population usually makes a positive contribution to population growth, while migration makes a negative one. The reverse is the case with some high-income countries. A number of high-income countries are experiencing a natural decrease but net immigration, while in a number of low income countries there is a natural increase and net emigration.

d Whether an economy will benefit from net immigration will depend on whether its current population size is above or below its optimum, the ages of the immigrants, the jobs the immigrants are able to do and how much of the income they actually earn do they spend in the country.

If an economy is underpopulated, it may benefit from net immigration. If some of the immigrants are of working age, they could join the labour force and enable the economy to make better use of its other resources. This would enable it to produce a higher GDP per head, which would raise living standards in the economy.

If, however, the economy is overpopulated, the arrival of the immigrants could reduce real GDP per head. Such a fall in living standards may also occur if a relatively high proportion of the immigrants are children or retired. In this case, the dependency ratio would increase, they would put greater pressure on, for instance, housing, schools and hospitals. The government may have to use tax revenue to support them. This would involve an opportunity cost as the revenue could have been used, for instance, to improve the quality of education. Of course, immigrant children will grow up to join the labour force and so will not be dependents for long. Indeed, if the country is experiencing an ageing population, immigration is likely to reduce the dependency ratio. Most immigrants tend to be of working age but relatively young. They can help to provide some of the goods and services needed by the retired population.

If the immigrants gain employment, they may contribute to direct taxes by paying income tax. If they spend most of their income in the country, they will also contribute to indirect taxes. Of course, some of the income they earn, they may send home to any relatives who have remained in their country of origin.

One of the main gains a country may receive from immigration is the skills immigrants bring in. Some may be highly skilled, which can raise productivity levels in the economy. These skills may also be gained without the cost of training. For example, the UK's National Health Service benefits from employing doctors and nurses who have been trained in other countries. Immigrants tend to have a drive to improve the quality of their lives and this, in some cases, leads them to set up new business. Indeed, a disproportionate number of firms have been started by immigrants.

Immigrants may also be prepared to do some of the jobs that the workers born in the country may not have been willing to do. Job vacancies in agriculture, mining, and hotels and hospitality in South Africa, for instance, have been filled by immigrants from other African countries.

Countries that are in need of workers will welcome immigration and may indeed actively encourage immigration. Other countries may struggle, at least for a while, to provide the facilities needed by the immigrants.

Chapter 35: Differences in economic development between countries

Suggested answers to individual and group activities

Group activities

1 The evidence does suggest, to a large extent, that Singapore is a more developed country than Egypt. Its income per head is more than seven times greater, its life expectancy is higher and its adult literacy rate is better. It also has fewer workers employed in agriculture and a smaller proportion of its population under the age of 15 suggests that it has a lower birth rate. The doctors per 1 000 of the population, however, is lower in Singapore than in Egypt.

2 **a** The emigration of professional workers will increase the country's dependency ratio, reduce the supply of vital services and will discourage some MNCs from setting up their units in the country.

b The government may seek a loan from overseas in order to give higher pay to its doctors and other professionals and improve their working conditions. This may, however, be difficult as the government may have problems repaying the loan due to the burden of existing debt. It may seek to retain professional workers by giving them tax concessions. Even if they pay less tax and stay in the country, the government will still receive more tax revenue than what it would have if they emigrated. It may also try to attract more MNCs by operating a low corporation tax. These may offer more employment opportunities to professionals.

Individual activities

1 **a** Educational attainment.

b Life expectancy may be lower in the African economies than in the Asian economies due to, for instance, poor sanitation. This would make the people in the African economies more prone to a range of illnesses. It may also be due to the greater spread of AIDS in these countries.

2 **a** $600 ($7.2bn/12m).

b For instance, mining more diamonds could increase incomes, which could raise living standards. Improving education would raise adult literacy and so would increase labour productivity. Higher labour productivity will increase earning potential. The greater literacy should also improve nutrition and hygiene and so increase life expectancy.

c As Guinea is a poor country, the size of housing units is likely to be small and overcrowded. A reduction in the number of people sharing a small space would be expected to raise living standards. It is, however, possible that if one of the reasons for the large household size is grandparents living with their families, living standards may fall. This is because grandparents may benefit from the company of family members, and may provide help for the family such as looking after children while their parents are at work.

Multiple choice questions

1 D

Real GDP per head is highest in country D and its life expectancy is also high. Without information on the size of the optimum population, the significance of the population size cannot be assessed. While high population growth may hinder economic development, a large population size may be associated with economic development.

2 D

One of the problems in a country with a low income per head is a likely to be a lack of investment. A, B and C are more likely to be found in a country with a high income per head.

3 A

As incomes rise, people will be able to afford to save. There is no direct link between economic development and the rate of interest. As a country develops, investment and the range of savings institutions usually increase.

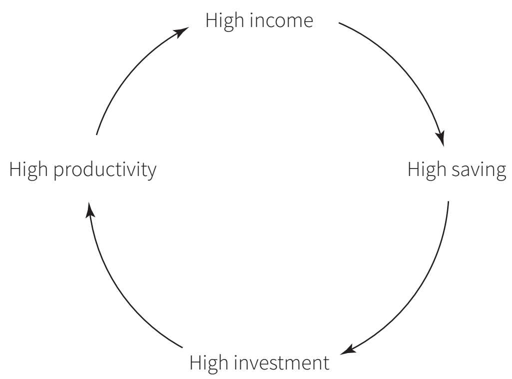
4 B

A, C and D are all likely to indicate that development is declining.

Four-part question

a For example, income (real GDP) per head and life expectancy.

b A virtuous circle of economic development occurs when economic development builds on itself as shown in the diagram below. A high level of incomes in a country would enable people to save. Their savings can be borrowed by firms to finance investment. A high rate investment would be expected to lead to high productivity. Workers will be working with more and higher-quality capital goods and so should produce a high output per hour.



c Economic growth usually results in economic development. It does not, however, guarantee economic development. Indeed, there are circumstances where economic growth may reduce economic development. If the output of heavily polluted industries increases, the pollution generated will reduce the quality of people's lives. Output may be increased by workers working longer hours and they may value their lost leisure more highly than the value of any extra goods and services they are able to buy. Higher output may also be achieved by depleting non-renewable resources and destroying areas of natural beauty. Such action would reduce future generations' ability to grow and both future and current generations' enjoyment of nature.

d While deciding upon the measures to promote economic development, a government has to consider the circumstances of its country. If some people are experiencing a very low standard of living due to a very unequal distribution of income, the government could levy higher taxes on the rich and provide more assistance to the poor.

Improving education and health care could promote economic development significantly. A more educated and healthier population will enjoy a higher quality of life and will be more productive. It might be possible to switch some government expenditure away from other areas, such as defence, to areas that will raise living standards now and upgrade future living standards too. If this is not possible, a government may have to borrow from an international organisation such as the World Bank or the International Monetary Fund.

Diversion of resources into the secondary and tertiary sectors should raise incomes and living standards. This process might be assisted by the government encouraging the entry of multinational companies (MNCs) into the country, providing subsidies to infant industries and (for a period of time) protecting them from foreign competition. Attracting MNCs into the country can improve living standards in a variety of ways. They may pay higher incomes than what are generally available in the country, increase employment, provide training, improve infrastructure and may introduce new technology. There is a risk, however, that some of their activities may reduce living standards and may deplete non-renewable resources. Helping infant industries grow may raise employment and income, but they would have to be capable of reducing costs as they grow, so that they can be successful in the long term.

Measures to control population growth may help to improve living standards. Education, the provision of advice on family planning and financial incentives may reduce the birth rate. Having fewer children may improve the health of women, enable more women to work and reduce the pressure on health, housing and educational services.

Economists debate whether market forces or government intervention is more likely to increase economic development. Those who favour market forces would support measures such as privatisation and cuts in income tax. In contrast, those concerned with market failure are more likely to support measures such as the introduction of a national minimum wage and regulations on carbon dioxide emissions.

Suggested answers to exam-style questions for Section 5

Multiple choice questions

1 A

The HDI takes into account GDP, education and life expectancy. Both HDI and GDP include income. Neither HDI nor GDP take into account the gender equality or leisure.

2 B

A rise in pollution may be the result of higher output. It will, however, reduce the quality of people's lives. A may be combined with a rise in the income of both the rich and the poor, but with a greater increase in the income of the poor. C means that the rise in real GDP per head would have understated the increase in products available for people to enjoy.

3 C

A rise in the retirement age (meaning that people would retire later) would increase the number of people of working age. A and D would reduce the size of the working population. B does not change the size of the working population. People who are unemployed are still of working age and are already included in the labour force.

4 B

During childhood, people are dependent on others to provide goods and services for them. A rise in the birth rate will increase the number of dependents and will reduce the number of workers, for a period of time, as some parents will withdraw from the labour force to look after their children.

5 C

A fall in the average size of families would mean fewer children. A and B would increase the number of elderly dependents. D would be most likely to reduce the number of workers.

6 D

An increase in the birth rate and net immigration would increase the size of the population. As most immigrants tend to be aged between 20 and 40, it is likely to lower the average age of the population. A would reduce both the size and average age of the population. B and C may or may not increase the size of the population but they would increase the average age.

7 A

A cut in inheritance tax would mean that the rich could pass on more money to their children when they die. B and C would reduce the size of the holdings of the wealthiest. D would make it slightly more difficult for the wealthiest to accumulate wealth.

8 A

If non-renewable resources are used up quickly, a country's ability to grow will be reduced. B, C and D would benefit a country.

9 D

A rise in living standards is likely to be accompanied by an improvement in healthcare and a fall in the infant mortality rate. A, B and C are all likely to rise.

10 A

If the birth rate is lower than the death rate, there will be a natural decrease in population. If there is net emigration also, the population must decline. The country's population may increase or decrease, in the case of B and C, depending on the relative size of the changes. D would result in an increase in the population.

Data response questions

1 **a** High development. (High development covers HDI 0.700–0.799.)

b The aircraft industry and the machine production industry.

c Absolute poverty was reduced in China. The source material mentions that ‘extreme’ poverty has fallen, which suggests most people now have access to basic necessities. It also mentions income inequality has increased over most of the period, which indicates relative poverty has increased.

d The percentage of workers employed in agriculture may fall as agricultural output increases, if there is a rise in labour productivity. If each worker can produce a higher output per hour, it would be possible to produce more in total with fewer workers.

The number of agricultural workers may actually increase and so agricultural output may rise. If the number of agricultural workers rises by less than the size of the labour force, the percentage of workers employed in agriculture will fall.

e The five Asian countries with 28% or more of their labour force employed in agriculture, all had negative migration. Countries with a high proportion of workers employed in agriculture tend to have a relatively low GDP per head. This may encourage some people to emigrate in search of higher incomes.

There are two Asian countries that had a very small percentage of the labour force employed in agriculture. One, Japan, had zero net migration. This means that the number of immigrants into the country was matched by the number of emigrants leaving the country. Singapore had the lowest percentage employed in agriculture and a high rate of net immigration.

f Improved access to safe drinking water will directly increase economic development. It will increase people’s health, enabling them to enjoy a healthier and longer life. It will also mean that workers will have fewer days off sick and will be healthier when at work. As a result, they will be more productive, increasing the country’s productive potential. Resources will not have to be devoted to treating people made ill by drinking unsafe water. These resources can be devoted to, for instance, treating people with cancer. Improved access to safe water may also attract more tourists – and so more income – to the country.

g Taxation may reduce income inequality if it is progressive and if the funds raised are used to help the poor. Progressive taxation involves the rich paying a higher proportion of their income in tax than the poor. This will reduce the gap between the income of the rich and the income of the poor. The gap will be further reduced if some of the revenue is used to provide benefits, goods and services for the poor. For example, cash benefits may be given to the unemployed and healthcare may be provided free to the poor.

Taxation, however, will not reduce income inequality if it is regressive in nature and if it is the rich who benefit mainly from government expenditure. Indirect taxation often falls more heavily on the poor, who tend to spend a higher proportion of their disposable income than the rich. With the poor paying higher tax rates, the gap between the rich and the poor will widen. Some forms of government spending may benefit the rich more than the poor. For instance, state subsidies to opera companies and theatres will not help the poor if they do not go to the opera or the theatre.

h An increase in car ownership may improve living standards. Some people enjoy driving and car travel can be more comfortable and more convenient than travel on public transport. Car ownership can increase the range of jobs open to people, as they will be more mobile. It can also make it easier for them to travel for enjoyment and to pursue leisure activities.

It is, however, possible that an increase in car ownership may reduce living standards. More cars may increase air and noise pollution. An increase in pollution can reduce people’s health. Driving may also reduce people’s health as they would get less exercise than by walking or cycling.

An increase in car ownership can also cause congestion. People may spend a long and frustrating time in traffic jams. This can cause anxiety and reduce labour productivity.

More cars can also cause accidents and environmental damage. Accidents clearly cause distress not only to those involved but also to their relatives. Roads are a complement to cars. If more roads are constructed, areas of natural beauty and wildlife habitats will be destroyed. This will reduce people's enjoyment of nature. With more people owning and using cars, anyone without a car will be at a greater disadvantage. For instance, major shops may be located further from homes and the provision of public transport may be reduced.

2 a Deregulation.

b The natural increase is the birth rate minus the death rate. In this case, it is $8.4 - 5.8 = 2.6$ per thousand of the population.

c Healthcare costs may rise in Qatar because the country has a very high rate of obesity. This can result in a range of medical conditions including diabetes, joint pain and high blood pressure.

d Labour productivity is output per worker per hour. The source material mentions that real GDP per head is higher in Switzerland than the USA but Swiss workers work fewer hours than US workers. This suggests that Swiss workers are producing more for each hour they work. The Swiss are enjoying both a higher income and more hours of leisure.

e Large inequalities in income may mean that the poor enjoy a low standard of living. Low incomes can result in poor healthcare, nutrition, housing and education. All of these will reduce life expectancy. Poor healthcare may mean that should someone fall ill, their chances of surviving may not be high. It may also mean that more mothers may die in childbirth. Poor nutrition and poor housing can make people more susceptible to a range of illnesses including heart disease and asthma. Poor education may mean that people are unaware of the need to eat a good diet, stay fit and not to smoke. The higher the proportion of people in a country who are poor, the lower the life expectancy is likely to be.

f There are a number of differences in South Korea's and Qatar's population pyramids. South Korea's shows a larger population than Qatar's. The most striking difference is that South Korea's population has an almost equal gender balance. In contrast, Qatar's population is very unbalanced in gender terms after the age of 15. This is particularly noticeable between the ages of 20 and 64, where there are significantly more men in the population than women. A higher proportion of Qatar's population are concentrated within the ages of 20 to 49. South Korea's population pyramid is close to the traditional shape for a high-income country. Qatar has an unusually shaped population pyramid: this is a result of the high rate of immigration of male workers.

g A decrease in the average hours worked could reduce a country's HDI. This may be the case if, for instance, it has resulted from some people having to switch from working full-time to working part-time because of a lack of aggregate demand. This may lower incomes and therefore the GDP per head component of HDI. With lower incomes, people may not be able to keep their children in education for as long as before, and so the mean years of schooling may decline. Life expectancy would also be likely to fall if incomes fall.

If, as is more likely, the average hours worked has declined because increased productivity has allowed workers to enjoy more leisure time with the same or higher income, HDI is likely to rise. Real GDP per head will rise and having more leisure time may reduce mental and physical stress, which may increase life expectancy.

h An ageing population may arise for a number of reasons. These include a fall in the death rate, a fall in the birth rate, net emigration of people of working age, or a combination of these. In the cases of a few countries where the initial average age is very low, an ageing population may mean a higher proportion of the population will be in the labour force. In most cases, however, it will mean that there is a higher proportion of retired people. These will place an increased burden on the labour force. The dependency ratio will rise. Older people may increase demand for healthcare, residential care and pensions. The government might seek to finance these services by raising tax rates. This will reduce the disposable income of workers and might be politically unpopular. It could also switch some expenditure from, for instance, education but again this might not be popular and may reduce economic growth and development.

There are, however, a range of policies that a government can implement to deal with the situation so that it does not become a problem. One is to raise the retirement age. This would directly reduce the cost of pensions and increase the tax revenue available, to spend on the healthcare and residential needs of the elderly. It can also encourage people to take out private pensions by giving them tax breaks on pensions. In addition, it can seek to increase the labour force by encouraging immigration or increase its quality by improving training and education. Having more productive workers may increase tax revenue and reduce the burden of dependency.

Four-part questions

1 **a** Two from real GDP per head, mean and expected years of schooling and life expectancy.

b Groups of workers may be discriminated against both in terms of job opportunities, promotion and wages paid. If some firms are not willing to employ, for instance, female workers because of prejudice, some women will be unemployed and so will either not be receiving any income or will be dependent on state benefits. If promotion chances are less and firms underestimate the skills of female workers, their wages will be lower.

c A fall in unemployment in one country is likely to raise incomes in that country. With higher incomes, the population of that country is likely to buy more goods and services. Some of those goods and services may be imported from the other country. Higher demand for its products will encourage the country's firms to expand their output. To do this, they will be likely to take on more workers. Some people who had been living in poverty may gain employment that could take them out of absolute poverty. The higher incomes earned will also increase tax revenue, some of which could be used to increase benefits given to the poor or to finance schemes to help them gain employment. These may include, for instance, subsidising firms to install equipment such as ramps for wheelchairs to enable disabled people to be employed.

d An increase in state benefits may reduce both absolute and relative poverty. Providing more generous benefits to the old, unemployed, sick and disabled may help them buy sufficient basic necessities. They may also provide enough income for the recipients to participate in the usual activities of the country they live in and may narrow the gap between the poor and the rich.

Increasing state benefits may have a multiplier effect. The poor spend a high proportion of their disposable income, so if they get a higher income, they may spend most of it. This higher spending will encourage firms to expand and employ more workers. The higher demand for labour may increase wages.

There is more chance that the increase will reduce poverty if the benefits are clearly targeted on the poor. For instance, if state pensions are paid to all retired people, relative poverty will not be reduced. The rich will benefit as much as the poor. If benefits are more focused, each recipient could receive more.

There is some debate as to whether more generous unemployment benefit will reduce poverty. It may help those unemployed to maintain a reasonable standard of living while they are in-between jobs. There is a risk, however, that it may reduce the pressure on the unemployed to search for a job and to raise their income above the benefit level.

2 **a** An improvement in healthcare and an improvement in nutrition.

b At a low level of development, most of a country's resources are likely to be employed in the primary sector. This sector is involved in the extraction of raw materials and agriculture. It also includes farming, fishing, forestry and mining. As a country develops, productivity in the primary sector rises, releasing resources. Incomes also rise, which leads to a demand for a greater range of products. The secondary sector becomes more important. At first, concentration is largely on low-skilled manufacturing. Then higher skilled and higher value-added manufacturing grows in significance. As the economy becomes even more developed, the tertiary sector usually employs the highest percentage of resources. In countries with high development, a high percentage of workers are employed in sectors such as education, healthcare and financial services and these areas account for a high percentage of the countries' GDP.

c An increase in the provision of university education is likely to promote development in a number of ways. More people will be able to develop their skills and gaining a university degree will increase their choices. They will have more choice of occupation. Their greater skills and qualifications are likely to result in them gaining better paid and more interesting jobs. They will also be better informed and so may make choices in terms of their lifestyle that will increase their life expectancy. For example, graduates are less likely to smoke than non-graduates.

As well as graduates having an improved quality of life, an increase in their number may increase the lifestyles of non-graduates. Graduates are more productive than non-graduates and so will be likely to increase a country's output. They are also likely to be more inventive and so should increase the quality of the country's output.

Some graduates are employed in education and healthcare. If there is an increase in the number of graduates working in these areas, the next generation may be better educated and people may live longer.

A more educated labour force can attract multinational companies to set up in the country, which may increase employment and incomes.

d The effects of a rise in a country's birth rate will be different in the short run and in the long run. In the short run, it will increase the dependency ratio. Some of the resources that could have been used to improve the living standard of the original population will now have to be devoted to supporting the new members of the population. A rise in the birth rate may also reduce the labour force, with some parents deciding to leave the labour force to look after their children. In the longer run, the children will increase the labour force, and so possibly the country's productive potential.

A rise in the birth rate, without any change in the death rate and migration rate, will increase the size of the population. Whether an increase in population size and the labour force will benefit an economy will depend on where the population was before in relation to its optimum population size. If the economy was initially below the optimum size, a higher population with more workers will enable the economy to make better use of its resources. With more workers and higher demand, firms would be willing and able to expand and so may be able to take greater advantage of economies of scale. The more efficient combination of factors of production will result in a higher real GDP per head. As a result, living standards will rise.

If, however, the population was initially above the optimum level, a rise in its size will reduce output per head. More people may also put pressure on the factor of production, land. Seeking to raise output to cater for the needs of the larger population, may result in, for instance, forests being cut down, wildlife habitats being destroyed and depletion of fish stocks. It used to be thought population increases could result in famine, with demand for food growing faster than a country's ability to produce it. Advances in technology, however, have meant that agricultural output has actually grown faster than population.

There will be increased pressure, especially in the short run, on housing, schools and hospitals. There may be overcrowding in cities and increased traffic congestion. The country may have to import more goods and services for the larger population and, if exports do not rise in line with imports, more may be spent on imports than earned from the sale of exports.

The effect of a rise in the birth rate will differ in the short and the long run. Some countries, including Japan, would welcome a rise in the birth rate. This is because they have an ageing and a declining population. Having more workers in the long run would enable them to support their ageing populations and to make better use of their capital goods and land.

Chapter 36: International specialisation

Suggested answers to individual and group activities

Group activities

Country	Product
Brazil	Coffee
Chile	Copper
China	Rare earths
Ivory Coast	Cocoa
New Zealand	Milk
Thailand	Rubber
UK	Formula 1 cars
Venezuela	Oil

Individual activities

1 **a** Bangladesh appears to be specialising to a greater extent than Turkey. A higher proportion of its exports are accounted for by textiles.

b Proportion of Bangladesh's output and Turkey's output, accounted for by textiles.

2 **a** Vietnam has the absolute advantage in producing both products, as it can produce more clothing and catch more fish.

b Bangladesh has the comparative advantage in producing clothing. In Bangladesh, 1 clothing unit = 4 fish, but in Vietnam, 1 clothing unit = 6 fish. So Bangladesh has a lower opportunity cost in clothing than Vietnam. It can make half as many clothing units as Vietnam but only catch a third as many fish.

c Vietnam will concentrate on its production of fish and export some to Bangladesh.

3 **a** Mongolia specialises in mining because its resources are suitable for the industry. It has deposits of coal, copper, gold and other minerals (land) and, it can be assumed, workers skilled in mining (labour) and the appropriate mining equipment (capital).

b The Mongolian economy would be very adversely affected by a recession in China. The Chinese would buy and produce less and so would import less.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 B

Differences in resources give rise to differences in efficiencies and opportunity cost ratios. A, C and D would all tend to discourage international trade.

2 C

Country Y has the absolute advantage in both products. It has the comparative advantage in tractors. Its opportunity cost is 10 wheat, compared to an opportunity cost of 25 wheat in country Z. Country Z has the comparative advantage in wheat. It has an opportunity cost of 1/25 tractor compared to Y's 1/10.

3 D

Trade restrictions are a feature of international trade. A, B and C would all occur with internal trade.

4 A

Copper and oil are primary products and financial services is a tertiary product.

From the information given, it is not possible to work out which country earns the maximum export revenue.

Four-part question

a International trade is the exchange of goods and services across national boundaries.

b International trade may make it necessary for firms and households to exchange currencies. For instance, an Indian firm buying French machine parts may have to sell Indian rupees to obtain euros to buy the machine parts. Internal trade can be undertaken using the same currency.

Selling and buying products within a country will not encounter trade restrictions. It is, however, possible that, for instance, tariffs or quotas may be imposed on imports and sometimes exports. Such measures can make it more difficult to sell and buy products across national boundaries than within a country.

c What determines what countries specialise in are the quantity and quality of its resources and what is in global demand. A country, for instance, may specialise in banking if its banks are able to take advantage of economies of scale, use advanced technology and are able to employ skilled workers. Other factors that may encourage it to specialise in banking are the existence of a range of other financial institutions and a reputation for sound banking practice. Having these advantages should enable the country to sell high-quality banking services at a low price.

A country may have sufficient and good quality resources and may be the most innovative, but if there is little or declining demand for the product, it is unlikely it would specialise in the product. So the decision as to what to specialise in is determined by both supply and demand factors.

d If a country's resources are best suited to tourism, it may gain a number of advantages from specialising in tourism. If it has, for example, a warm climate, good beaches, good transport links to other countries, good hotels and a good supply of labour. The country could attract a high number of tourists from other countries. Incomes will be earned and the output of the tourism industry will contribute to the country's real GDP. Tourism is a labour-intensive industry. It can create a relatively high number of jobs and so keep unemployment low. Earnings from tourism appear in trade in services and so make a positive contribution to a country's current account of the balance of payments.

Demand for tourism has been increasing over time. As incomes rise, households usually spend more on holidays. More households take holidays in other countries and spend more when there.

In a recession, however, households cut back on holidays, so earnings can fluctuate. Even during times of rising incomes, one country's earnings from tourism may be reduced by increased competition from other countries. To benefit from specialisation in tourism, it is important that a country maintains the quality and price competitiveness of its provision.

Demand for tourism in the country may fall as a result of a rise in the price of complements, most noticeably the price of air and sea transport. A rise in the country's exchange rate would make it more expensive for foreigners to visit the country and so would also reduce demand.

In addition, while tourism can create a relatively high number of jobs, some of these are not high-quality jobs. A number of the jobs are low-skilled and low-paid. In some countries, tourism is seasonal and so seasonal unemployment may occur.

There is also a risk that specialising in tourism may damage the environment and put too much pressure on transport infrastructure and tourist attractions. For instance, hotels may be built in areas of natural beauty and waste from these hotels, such as plastic water bottles, may go to landfill sites. Roads around tourist attractions may become congested and a high volume of visitors may cause damage to those attractions.

Chapter 37: Free trade and protection

Suggested answers to individual and group activities

Group activities

1 Increase globalisation: b, c, d and e.

Reduce globalisation: a.

2 a, b, d and e.

Individual activities

1 **a** Free trade refers to the free movement of products across national boundaries. In such a case, there are no restrictions on the products bought and sold by firms and consumers to other countries.

b A tariff and a quota. A tariff is a tax on imports and a quota is a limit on the quantity of goods that can be imported.

2 **a** Dumping is the sale of products in a foreign market below cost price.

b Imposing import taxes on foreign steel products will raise their price. The impact of levying these duties will depend on the level they are set at. If they are set at a high level, they will make it difficult for foreign firms to sell their steel products to India.

c The Indian steel industry may collapse. Other countries may enjoy a comparative advantage in steel production or may be, unfairly, undercutting Indian firms.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 A

Employing local people will create jobs and may raise incomes. B, C and D are all possible disadvantages of having an MNC producing in a country.

2 B

Increasing a quota limit would mean that more imports are being allowed into the country. A, C and D would all increase trade restrictions.

3 A

Imposing a tariff on manufactured goods will raise their price. Consumers will have to pay more for them, which will raise the cost of living. A tariff is also a source of government tax revenue.

4 C

If infant industries have the potential to gain a comparative advantage, they may flourish and make an important contribution to the economy's output, employment and trade position. A and B are reasons for not supporting an industry. D is the declining industry argument.

Four-part question

a An infant industry is a newly established industry that is not yet able to compete with foreign established industries.

b Free trade gives firms access to a large market. This may enable them to produce on a large scale and so take advantage of economies of scale. Lowering costs of production and selling a higher output may increase their profits.

Free trade also gives firms a greater choice of where to buy their raw materials from. This may mean that they can get them at a lower price and they may be of higher quality. In turn, these advantages will result in firms producing products at a lower cost and of a higher quality. Again, sales and profits would be expected to rise.

c A tariff is a tax on imports or exports. To prevent foreign firms from selling their products at below cost price, a government may impose an import tariff on them. The tariff is the equivalent of an extra cost. Before domestic firms may have been producing the product at an average cost of $10 and selling the product at $11. Foreign firms may have been selling it at $9, even if it was costing them $12 each to produce it. Their motive may have been to capture the market and then drive up the price. If the government then sets the tariff at a level based on how much the foreign firms were undercharging, that is $3, the foreign and domestic firms would then be competing in the country's market on equal terms. Such a move would be expected to discourage dumping.

d A multinational company (MNC) is one that produces in more than one country. A foreign MNC can bring benefits to a developing country but it may also bring some disadvantages.

A MNC may create employment by hiring local workers. If the presence of a MNC does raise employment, it will be likely to reduce unemployment in the country. A MNC may pay higher wages than domestically owned firms and provide high-quality training for staff. MNCs can make a considerable contribution to a country's GDP and exports.

MNCs can also introduce new management ideas and new technology into a country. Domestic firms can pick up on these ideas and technology and may receive orders from the MNCs for goods and services.

MNCs also contribute to tax revenue and may help to build infrastructure such as roads and ports, and to improve energy supplies. Higher tax revenue will enable a government to spend more on health and education, which should boost economic growth and development. Improved infrastructure is likely to reduce costs of production and increase the country's international competitiveness.

MNCs' investment in other countries, however, is not always beneficial. The top jobs in the MNCs may go to workers from the parent countries of MNCs. If MNCs are producing products made by domestic firms, they may cause some domestic firms to go out of business. If this is the case, the MNCs may not add to employment and, in fact, may reduce it. MNCs may pay higher wages than most of the other firms in the country, but the wages may still be lower than what they pay in their home countries.

The working conditions may not always be that good. One reason that a MNC may set up a factory or office abroad is to get around strict health and safety regulations at work and pollution limits at home. If a MNC accounts for a significant proportion of the host country's GDP and employment, it will be in a powerful position while making negotiations with the host government. It may use this bargaining power to block moves aimed at improving the working conditions and reducing pollution.

Another possible motive of a MNC may be to obtain raw materials. There is a risk that it will deplete the country's non-renewable resources quickly and then move to another country. It may also not contribute much to tax revenue and domestic income, if it sends most of its profits to its home country.

Chapter 38: Foreign exchange rates

Suggested answers to individual and group activities

Group activities

1

Currency	Country
Cedi	Ghana
Dirham	United Arab Emirates
Dong	Vietnam
Euro	France
Kip	Laos
Kwacha	Zambia
Ouguiya	Mauritania
Peso	Argentina
Rand	South Africa
Real	Brazil
Rial	Iran
Riyal	Saudi Arabia
Rouble	Russia
Rupiah	Indonesia
Shilling	Uganda
Won	South Korea

2 **a** A floating exchange rate is determined by market forces.

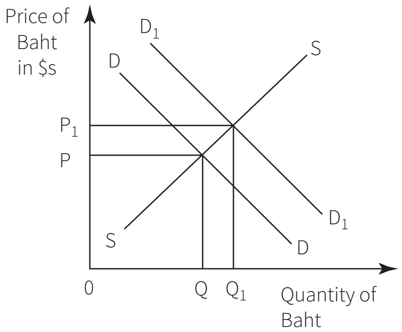
b Certainty.

c A high exchange rate may reduce inflationary pressure, as it means that import prices are low. This will keep down costs of production, reduce the price of finished imported goods and services and put pressure on domestic firms to keep their price rises under control.
A disadvantage is that it may have a detrimental effect on the country's trade position, as it will mean that export prices are high and import prices are low.

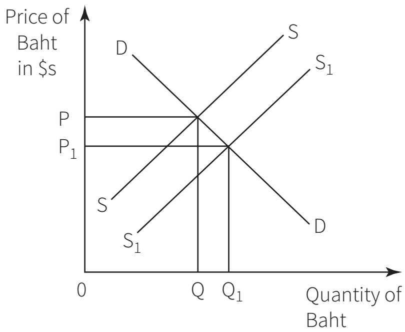
d The fall in the value of the pound suggests that the global view was that the UK's economic prospects had been harmed by the referendum decision.

Individual activities

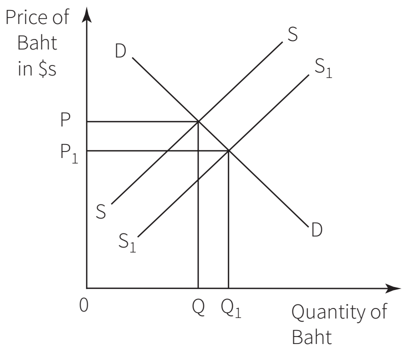
1 **a** Japanese firms would buy Baht.



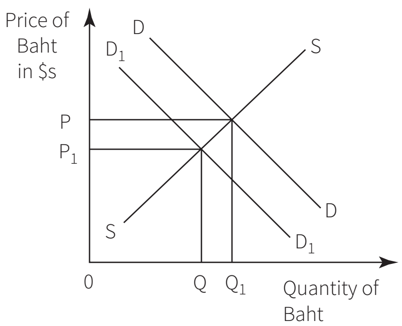
b Tourists would sell Baht to buy the rupee.



c Thai banks would sell Baht to get the currency of Ghana (cedi).



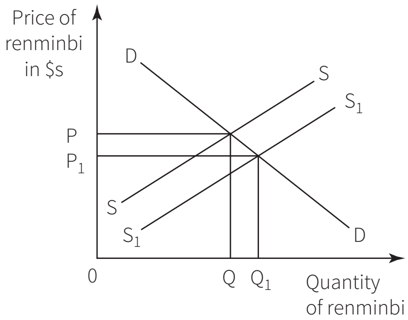
d Fewer Bahts would be bought as fewer Thai products are being sold.



2 **a** A fixed exchange rate, as the passage refers to the Chinese government 'maintaining a low price of its currency'.

b A low value of a country's currency would mean that its export prices are low and its import prices are high.

c Selling a currency would increase its supply. This, in turn, would reduce price. The diagram below shows the impact of an increase in the supply of the Chinese currency, the renminbi (yuan), on its price.



Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 D

A definition question.

2 C

The diagram shows that the value of the Naira has fallen due to an increase in its supply. Nigerians would sell the Naira to buy foreign currency in order to buy imports. A, B and D would all increase demand for the Naira.

3 D

The value of a floating currency is determined by market forces. Such a currency will fall in value if demand for it decreases and its supply increases.

4 B

The value of the pound sterling has fallen. This will cause the price of UK exports to fall and the price of UK imports to rise. This is likely to mean that US will buy more of UK products.

Four-part question

a A devaluation is fall in a fixed exchange rate. It will be the result of a government decision to reduce the value of the currency.

b To prevent a rise in a fixed exchange rate, a central bank could reduce the rate of interest. This is likely to reduce demand for the currency as those placing money in the country's financial institutions will receive a lower return. It may also increase the supply of the currency, as some in the country may buy foreign currency to place money in other countries' banks.

The central bank could also sell the currency itself. It could buy foreign currencies and add them to its reserves. Selling the currency will increase its supply, which may offset rises in demand and so keep the value at the fixed rate.

c A recession in Country X could lower or raise a Country Y's floating exchange rate. Households and firms in Country X are likely to buy less. If Country X is major buyer of Country Y's exports, demand for Y's currency will fall. The firms in Country X, unable to sell so much at home, may put greater effort into exporting to Country Y. If they are successful, the supply of Country Y's currency on foreign exchange markets will increase. A decrease in demand and an increase in the supply of Country Y's currency will cause a depreciation of its floating exchange rate.

There is, however, a possibility that a recession in Country X, could cause Country Y's exchange rate to appreciate. Households and firms in Country X may think that economic prospects are better in Country Y. As a result, they may buy Y's currency in order to put money into its financial institutions. The higher demand for Y's currency would cause it to appreciate.

d A country may benefit from switching from a fixed to a floating exchange rate especially if its fixed exchange rate had been under either downward or upward pressure for some time. If it had been under downward pressure, the central bank might have been close to running out of foreign exchange reserves. This is because it may have been using the reserves to buy the domestic currency to maintain its value. Whether it had been under downward or upward pressure, the central bank may have had to alter the interest rate to maintain the fixed exchange rate, even if such an alteration would be beneficial to the government's other objectives.

Adopting a floating exchange rate means reserves of foreign currencies no longer have to be kept to influence the exchange rate. It also means that the exchange rate is no longer a target. The central bank can use the rate of interest to influence total demand in the economy and so have an impact on the country's inflation rate and economic growth rate. A floating exchange rate may move so as to ensure a balance between export revenue and import expenditure. If, for instance, there is a rise in import expenditure, the supply of the currency will increase and the value of the currency will fall. The depreciation in the exchange rate will raise the price of imports, which would be likely to reduce import expenditure.

A floating exchange rate, however, can create uncertainty, which may discourage international trade and investment. Firms may be unsure what the value of their export earnings will be and how much they may have to pay for imports in terms of their own currency if the exchange rate is fluctuating. Large changes in the exchange rate can be destabilising. If, for instance, there is a large depreciation, the inflation rate may increase. This could drive the exchange rate even lower. To avoid the destabilising effects of large fluctuations, central banks may still occasionally intervene in the foreign exchange market even while leaving market forces to determine the exchange rate most of the time.

A country is more likely to benefit from moving to a floating exchange rate if demand for and supply of its currency tend to be relatively stable.

Chapter 39: Current account of the balance of payments

Suggested answers to individual and group activities

Group activities

1 a A current surplus means that the country has received more from its exports of goods and services, primary income and secondary income than it has spent on imports and the income and transfers it has sent abroad.

b Primary income.

c It will do so in the short run. The workers' remittances make a major positive contribution to the country's current account balance. The reason they are working abroad is likely to be because of a lack of good opportunities at home. If in the future, however, economic growth increases in the country, the workers may be able to work in the Philippines and exports of goods may be able to replace workers' remittances.

2 a 75%. UAE, USA and China are all important destinations of Indian exports and sources of its imports.

b Countries may buy spices from India because of their higher quality and lower price offered by India, with respect to other countries.

Individual activities

1 a Balance of trade in goods: \$19 618 m − \$24 900 m = −\$5 282 m, Balance of trade in services = \$2 121 m − \$4 074 m = −\$1 953 m. Balance of trade on goods and services = −\$5 282 m + −\$1 953 m = −\$7 235 m.

b

	R millions
Trade in goods	−34 412
Trade in services	−5 987
Primary income	−100 366
Secondary income	−33 533
	−174 298

2 a An export of services is the sale of intangible products, such as banking and insurance, to another country.

b Demand for construction services in China is likely to increase in the future. This is because China is expected to continue to grow. More businesses are likely to set up and housing and places of entertainment are to be built.

c The UK may be particularly good at producing financial services because it has a history of providing such services, a range of financial institutions, skilled labour and advanced capital equipment.

3 a i Profits, interest and dividends.

ii Factories, shares and loans.

b It is possible that the fall in investment income may have been the result of UK banks lending less to foreigners or lending the same amount but receiving a lower rate of interest on its loans. Either way, the interest earned by the UK may have fallen. Of course, the decline in investment income might also have been the result of the dividends earned on foreign shares or the profits earned by UK firms producing abroad declining.

4 **a** **i** A rise in the exchange rate and a rise in inflation.

ii Trade in goods.

b It may be concerned that the products it is manufacturing are not in high world demand. If this is the case, it may continue to have a deficit.

Suggested answers to multiple choice questions and four-part question

Multiple choice questions

1 A

Insurance is a service and it is being bought by Indonesia. B is an import of a good, C would not appear in the current account and D is an export of a service.

2 B

Mexico is selling an export of a good and buying an import of a service.

3 A

A is investment income. B, C and D would not appear in the current account.

4 A

Cutting government expenditure on benefits will reduce demand for all products including imports. B and C would raise demand and D would increase the price of exports while lowering the price of imports.

Four-part question

a Primary income is a component of the current account of the balance of payments. It covers income earned by people working in different countries and investment income.

b A country could have a deficit on its primary income but a current account surplus if there is a larger surplus on one or more of the other components of the current account. For instance, a country could have a deficit of $10 bn on its primary income and a deficit of $30 bn on its trade in goods balance. If it has a surplus of $25 bn on its trade in services balance and a surplus of $35 bn on its secondary income, it will have a current account surplus of $10 bn.

c A rise in a country's inflation rate would make the country's goods and services less price competitive if it rises by more than rival countries. The price of exports would rise relative to imports. Demand for the country's exports of goods and services is likely to fall, while demand for imports of goods and services is likely to rise. If demand for exports and imports is price elastic, export revenue would decrease and import expenditure would rise. The trade in goods and services balance may move into a deficit or a smaller surplus. This change will move the current account deficit in two circumstances. One is that a trade in goods deficit: is not offset by a surplus on primary and secondary income. The other is that a reduction in a trade in goods and services surplus leaves the surplus at less than a deficit on primary and secondary income.

d Whether an increase in a current account surplus will benefit an economy will depend, in part, on the cause of the increase and on the state of the economy. If the increase is due to a rise in international competitiveness, caused by higher productivity, the economy's output will increase. This should also result in a fall in unemployment as more workers are likely to be employed to produce the extra output.

There is, however, the possibility that the increase in the surplus may be the result of a recession in the country. In this case, the increase may be the result of a fall in imports rather than exports. Domestic firms may be importing less raw materials and capital goods because their output is falling. Domestic households may be buying fewer consumer goods because their incomes are declining.

An increase in a surplus may be the consequence of a rise in incomes in other economies. With higher incomes abroad, demand for the economy's exports may rise. An economy can benefit from other economies becoming stronger but the surplus may be threatened if these economies experience a slowdown in economic growth or a recession. The surplus may also come under pressure if the economy has exported more raw materials and capital goods. In the longer term, these exports may enable the importing economies to produce more efficiently and so may become more effective competitors.

A rise in a surplus on the trade in goods and services balance is not the only reason for an increase in a current account surplus. It is possible that the increase in the current account surplus is the result of a rise in primary income or secondary income. If a positive balance on net primary income has arisen because, for instance, higher profit is being received from the economy's existing branches of MNCs producing abroad, this would be beneficial. If, however, the higher profit received is due to more branches producing abroad, it may be debatable whether the economy would have benefited more from the production occurring at home. Similarly, if the economy's workers abroad are sending more of their earnings home, it can be useful as it can raise the living standards of their relatives. If, however, secondary income has arisen because more the economy's skilled workers are working abroad, the economy may suffer from a shortage of skilled workers.

A current account surplus, not offset by a fall in consumer expenditure, government spending or investment, will increase total demand. This higher demand may not benefit an economy if it is operating close to its full capacity. In this case, demand-pull inflation may occur. Of course, there is the possibility that a current account surplus will raise the economy's exchange rate. Foreign banks, firms and individuals will be buying more of the economy's currency than domestic banks, firms and individuals will be selling. A higher exchange rate will reduce the price of imports. The cost of production could fall due to lower-priced imported raw materials and capital goods. There would also be more pressure on domestic firms to keep their prices low in order to continue to compete with relatively cheaper imported consumer goods.

Suggested answers to exam-style questions for Section 6

Multiple choice questions

1 D

Free trade occurs when there are no artificial restrictions placed on the export and import of goods and services. A is barter.

2 C

International specialisation enables countries to concentrate on what they are best at producing. This should increase allocative efficiency. A is a disadvantage of international specialisation. B is the result of diversification rather than specialisation. In the case of D, international specialisation should enable countries, with both an absolute advantage and an absolute disadvantage, to gain.

3 A

The balance of trade is the revenue earned from the sale of exported goods minus the expenditure on imported goods. A would increase export revenue. B would appear in current transfers and D in trade in services. C is an example of internal and not external trade.

4 C

Credit items in the balance of payments are those that bring money into the country. C is a service sold abroad, which will bring income into the country. A is a credit item but it would appear in trade in goods. B is also a credit item but this would appear in the capital and financial sector as a transaction in liabilities. D is a debit item in trade in services.

5 B

A deficit on the current account of the balance of payments of a country would probably mean that the country's exports have fallen while its imports have increased. As fewer exports are being sold, demand for the country's currency would fall. The rise in expenditure on imports would increase the supply of the currency. A fall in demand for and rise in supply of the currency would reduce its value. A reduction in exports and a rise in imports may suggest that output might be falling and unemployment rising.

6 C

A fall in the exchange rate increases the price of imports. An increase in the cost of imported raw materials may result in cost-push inflation. A lower exchange rate reduces the price of exports, which would be likely to increase any current account surplus and increase employment.

7 C

Country Y has a reasonable economic growth rate, an inflation rate that indicates price stability and an unemployment rate that may be equivalent to full employment. It does have a current account deficit but it is a small deficit.

8 C

The government will receive tax revenue from tariffs. Such tariffs will increase the price of imported products and hence may cause cost-push inflation. An increase in tariffs will raise trade barriers and reduce competitive pressures on domestic firms by increasing the price products manufactured by rival firms.

9 D

An increase in government subsidies to domestic producers and tariffs on car imports would reduce the price of domestically produced cars, relative to imported cars.

10 D

Protection is reduced when tariffs are cut and quotas are increased. A reduction in tariffs would mean that the price at which imports are sold would be closer to the price charged by the producers. An increase in a quota means that more can be imported.

Data response questions

1 **a** One from: quotas, product standards and delays at customs.

b \$108.9 bn (33% × \$330 bn).

c The source material mentions there is more integration between African countries and also between the African countries and the wider world. This means that they are trading more products with other countries and the barriers between trading with other countries are being reduced.

d The source material mentions that Botswana specialises in diamonds. It also mentions that this makes it vulnerable to changes in the international market. Diamonds are a luxury product. Their demand is sensitive to changes in income. If there is a global recession, incomes would fall and this would reduce demand for diamonds. Botswana's exports and output would fall. This could result in Botswana experiencing a recession, as it did in 2015, and a rise in unemployment.

e Botswana and Mauritius are the most open economies, engaging in international trade to a greater extent than Rwanda, South Africa and Tanzania. Figure 1 shows that out of the five African countries, Botswana and Mauritius' exports and imports as a percentage of their GDP are the highest. Both countries also export and import a higher percentage than the world average. In addition, the source material mentions that Mauritius has reduced tariffs significantly, which will have moved it towards free trade.

f Mauritius is likely to have exported more potatoes. The country has a higher income than Rwanda, which may suggest that education and productivity are higher in Mauritius. This may mean that its cost of producing potatoes may be lower, enabling the country to sell its potatoes at a lower price. Their quality may also be higher. Most of Rwanda's agriculture is subsistence farming. This means that the families will eat the food they produce and there will be no food left to export. In contrast, agriculture in Mauritius is on a commercial basis. The source material also mentions that Rwanda has poor infrastructure. Bad roads, for example, will increase transport costs, making the country's potatoes less price competitive.

g A reduction in the cost of producing coffee in Tanzania may result in the price of Tanzanian coffee falling. This could make it more price competitive. It may be able to capture more of the global coffee market and so may increase its exports.

There are, however, a number of reasons why it might not export more despite the fall in its costs of production. One is that despite the fall in cost and price, the price may still be higher than the price of coffee produced by other countries.

It is possible that farmers may not lower their prices. They may decide to take a higher profit per unit produced. Famers may also decide to sell more coffee on the home market, if demand is increasing there.

Lower costs of production may have been achieved by sacrificing quality. In this case, there may even be a fall in the country's exports of coffee. Demand may also fall due to a decrease in incomes abroad. This would lower consumers' purchasing power.

In addition, foreign countries may impose trade restrictions on Tanzania's coffee. The imposition of a tariff will increase its price, possibly to the same or a higher level than before the cut in the cost of production. The imposition of a quota may limit the quantity of coffee that can be sold to its previous level.

h The removal of a tariff protecting an inefficient industry may reduce employment in the short run. The removal of the tariff would be likely to reduce the price of imports. If the imports are now cheaper, consumers are likely to switch from the domestically produced products to the imports. This could cause the industry, which may have been a declining industry, to close down, causing an increase in structural unemployment.

The removal of a tariff will also reduce government revenue. This could result in a decline in government spending. This may cause aggregate demand to fall, which could cause cyclical unemployment. It may also result in less spending on education and training, which could reduce occupational mobility and so, again, contribute to structural unemployment.

In the long run, however, the removal of the tariff may raise employment. It may encourage resources to move to more efficient industries. If this does occur, output and employment should rise.

If the industry supplies raw materials or capital goods to other industries in the country, its closure may enable those other industries to buy their raw materials or capital goods at a lower price. This would lower their costs of production, which may mean they might be able to sell more products by lowering their price. If they do sell more, they would be able to take on more workers.

2 **a** Freight transport or insurance.

b N3,031 bn (N9,729 bn – N6,698 bn).

c The demand for Nigerian oil was inelastic. The evidence is that a fall in its price caused export revenue to fall. This must mean that the fall in price caused a smaller percentage rise in the quantity demanded.

d Nigeria was operating a fixed exchange rate. The source material mentions that the exchange rate remained relatively constant. It also mentions the central bank preventing the exchange rate from changing. It would have done this by buying and selling the currency or by changing the rate of interest. In addition, the source material mentions that the exchange rate was thought to be higher than would have been its market price. It is a floating exchange rate that would be determined by market forces.

e Figure 1 shows that, over the period, more Indian rupees had to be exchanged to buy a US dollar. This means that the Indian rupee depreciated against the US dollar. A fall in the value of the Indian rupee would have meant that the price of Indian exports in the USA would have decreased. It would also have caused a rise in the price of Indian imports from the USA.

f A rise in consumer spending may result in more demand for imports. Households may buy more imported goods and services because they want variety or because they consider the imports to be of a higher quality or because domestic firms do not produce the products they want. As well as increasing imports, a rise in consumer spending may reduce exports. This is because some domestic firms may divert some products from the export market to the domestic market to meet the higher demand. An increase in imports and a fall in exports can result in a current account deficit.

g A fall in a country's rate of interest may reduce the country's foreign exchange rate. This is because it may discourage foreign people and firms from placing money in the country's financial institutions as they will get a lower rate of return. If this is the case, the demand for the currency will fall. The lower interest rate may also increase the supply of the currency. This is because it may encourage some people and firms in the country to sell the currency in order to buy foreign currency to put money into foreign banks. A decrease in demand for the currency and an increase in its supply will cause a depreciation of a floating exchange rate.

There are, however, a number of reasons why a fall in a country's interest rate may not result in a fall in its foreign exchange rate. The interest rate may fall but may still be higher than that operating in other countries. The fall might also not be expected to last. In addition, people and firms may have more confidence in the financial institutions in the country than in other countries.

A lower interest rate may also not cause a fall in a fixed exchange rate. It would, however, put it under downward pressure. If a central bank cannot sustain its price by buying the currency, it will have to devalue it.

h Having more MNCs in India may reduce India's current account deficit. This is because MNCs may export products from India. MNCs tend to have a good record in exporting. They have experience of other markets and they are usually competitive. The presence of MNCs can also reduce imports of goods and services. Some of the products that had been bought from the MNCs when they were in other countries may now be bought from the MNCs in India.

The technology and ideas that MNCs bring in may spread to Indian firms, increasing their international competitiveness. As a result, Indian firms may export more and may capture more of the Indian market. An increase in exports and a reduction in imports will improve India's trade in goods and services balance and may reduce its current account deficit.

MNCs do usually make a positive contribution to the current account balance of their host countries. There may, however, be some circumstances when they might increase a current account deficit. They might make a negative contribution when they first set up by buying its capital goods from its home economy. MNCs may send most of any profits they earn back to their home country. They may also borrow from banks and sell shares to people and financial institutions in their home country. When the MNCs pay interest on these loans, dividends on the shares and send profit home, these will appear as debit items in primary income.

MNCs may also drive Indian firms out of the business. If this is the case, the MNCs may have less effect on the current account balance

Four-part questions

1 **a** Free trade is the exchange of goods and services without any restrictions. Countries engage in free international trade when their governments do not impose any tariffs or non-tariff barriers. Firms and households can buy and sell what they want without any taxes, quotas or other restrictions.

b Import tariffs and quotas are two of the most common methods of protection. An import tariff is a tax on imports. An import tariff seeks to protect the domestic industry by making rival imported products more expensive. The tax is an extra cost imposed on importers. They may pass on at least some of the tariff to consumers in the form of a higher price. The price may rise above that of domestically produced products.

A quota is a limit on imports. To be effective, the limit has to be set below the quantity of products currently being imported. If it is, consumers will not be able to buy as many imports. They may switch to products produced by domestic industries. This switch is also likely to be encouraged because limiting imports will drive up their price.

c Specialising in particular products results in the growth of particular industries and the firms in those industries. Firms may be able to benefit from being able to take greater advantage of internal and external economies of scale. For example, if a country specialises in producing cars, specialist engineering courses may be provided by the country's universities and colleges and car firms may be able to employ large, technologically advanced machinery. All of these benefits could reduce the firms' costs of production and may raise revenue through increasing the quality of cars produced. Lowering costs of production and raising revenue will increase the profit earned by the firms.

Firms may benefit not only from themselves specialising but also other firms in the country specialising. For instance, if the country is also devoting more resources to electricity generation, the car firms may be able to enjoy more reliable sources of electricity and cheaper electricity.

d There are some arguments for a government protecting its industries. The two main ones are to protect infant industries and to protect industries from unfair competition. There may be some new industries that may be thought to have the potential to grow into very successful and competitive industries. They may not, however, have the opportunity to establish themselves if there are large foreign industries taking advantage of economies of scale. With protection, they may be able to grow and, as they produce on a larger scale, their costs of production may fall lower than foreign competitors. Of course, it can be difficult to determine which industries have the potential to be world-beaters. There is also the risk that infant industries may become reliant on the protection rather than seeking to increase their efficiency.

Unfair competition tends to come in two main forms. One is dumping. Foreign firms may sell products in the country below cost price, possibly in a bid to drive firms in the domestic industries out of the market. There is also the possibility that foreign governments may subsidise their industries, which would lower their costs of production. In both cases, it would be difficult for the country's industries to compete.

Some governments also protect strategic industries. There are some products that governments may not want to be dependent on industries in other countries producing. For example, a government may want to protect its agricultural industry to ensure food security and its weapons industry to make certain its supply of weapons will not be cut off should it have a dispute with the governments of the countries of suppliers.

Some people suggest that protecting domestic industries can increase employment and reduce a current account deficit. This may be true in the short run but is unlikely to be the case in the long run and such a measure may harm other industries in the country. For example, if a country puts a tariff on the import of steel to protect its steel industry, it may find that other countries impose trade restrictions on its steel and possibly other products. The tariff may also mean that the country's car producers have to pay more for the steel they use and this may eliminate their competitive advantage. As a result, protectionism may cause imports, exports and employment to fall.

A number of people in high-wage countries also argue that domestic industries in these countries need protection from the products made by industries in low-wage competition. Low wages, however, do not necessarily mean low costs of production. In a number of countries with low wages, there is also a lack of technologically advanced capital equipment and so, even with low wages, high costs of production. In cases where wages are lower and so are costs of production, market forces may even out the differences in wages. This is because demand for the products of the low wage countries may rise, which would increase their output, raise demand for labour and increase wages.

A case is also sometimes made for protecting declining industries for a while to allow them to go out of business gradually. Evidence does, however, suggest that stakeholders in declining industries fight the removal of such protection.

The main argument against protecting industries is that it can prevent the efficient allocation of resources between countries. The countries best at producing particular products may be stopped in specialising in them and countries may use some resources to make products that they lack the skills and appropriate resources to make. The inefficient use of resources and lack of competition reduces output, raises price and reduces the quality of output. With a government restricting imports, the choice available to consumers is also reduced.

Free trade has the potential to provide considerable benefits for households, firms and economies but it has to be done on fair terms.

2 **a** A foreign exchange rate is the price of one currency in terms of another currency or currencies.

b One cause of a depreciation in the foreign exchange rate may be a rise in the country's inflation rate. This would make the country less price competitive. As a result, exports could fall and imports could rise.

Another possible cause is speculation that the currency will fall in price. If speculators think this, they will sell the currency and bring about what they predicted.

c A cut in spending on training and education may result in workers having less skills and being less productive. This could increase firms' costs of production and reduce the quality of the products made. If this is the case, the price and quality competitiveness of the country's products will decline. This could reduce exports and increase imports. A less skilled labour force may also encourage some MNCs and some domestic firms to move out of the country, which could reduce exports. Domestic firms may also recruit skilled workers from other countries. These workers could send money back to their relatives. These transfers would appear as debit items in secondary income.

d A depreciation in its foreign exchange rate may reduce a country's deficit on the current account of the balance of payments. The lower exchange rate will result in export prices falling in terms of foreign currency. Import prices will rise in terms of the domestic currency. If demand for exports and imports is elastic, export revenue will rise and import expenditure will fall. This may reduce a trade in goods and service deficit or may turn it into a surplus. As a result, the deficit on the current account balance will decline.

It will, however, take time for this to occur. This is because it takes time for people and firms to recognise that prices have changed, to search for substitutes and for contracts to end. There are also a number of reasons why a depreciation may not reduce a current account deficit. Demand for exports and imports may be inelastic. In this case, a depreciation could result in a fall in export revenue and a rise in import expenditure.

Even if demand for exports is elastic, a fall in price does not guarantee a rise in export revenue. This is because the supply of exports may be inelastic. Demand may increase for exports but if firms are working at full capacity, they will not be able to satisfy this higher demand.

The effect of a depreciation may also be offset by a fall in income abroad or a rise in trade restrictions imposed by other governments. If a depreciation occurs when other economies are experiencing a recession, demand for the country's exports might fall despite them being cheaper. Other governments may also increase tariffs on the country's exports. This may mean that their price in foreign markets rises, despite the depreciation.

A depreciation in the foreign exchange rate may increase a primary income surplus or reduce a primary income deficit. This is because, for example, investment income earned in other countries will now be exchanged for a higher value of the domestic currency. For example, if initially £1 = $2 and UK MNCs with branches in the USA send $40 m back to the UK in profits, this would appear as a credit item of £20 m in the primary income balance. If the pound sterling then depreciates to £1 = $1, the $40 m would now appear as £40 m. Similarly, the value of workers' remittances and other transfers sent into the country would rise in value in terms of the domestic currency. This would make a positive contribution to the secondary income balance.