

ANSWERS

CHAPTER 1

CASE STUDY: RESOURCES AND NEEDS

1 ► Describe the resources in Figure 1.1.

All countries have resources such as water, minerals, soil, plants, animals and people. Resources shown in the images include:

- oil which has been extracted from the earth
- fruit and vegetables which have been grown for food
- fish which has been taken from the sea to provide food
- crops growing in a field to provide food.

2 ► Are there enough of these resources in the world? Explain your answer with reference to the images in Figure 1.2.

The problem we face is that there does not appear to be enough resources to go around. The images in Figure 1.2 show that some people are hungry or starving and without a home. Many people have to live in slums, as one image shows.

Also, a lot of the land on the planet is infertile, such as desert. Another problem is that the resources on the planet are not evenly distributed. Some countries are richly resourced while others are lacking.

ACTIVITY 1

CASE STUDY: NEEDS AND WANTS

1 ► How might the two images in Figure 1.3 illustrate the differences between needs and wants?

Needs are the basic requirements for human survival. Some of these needs are physical and include water, food, warmth, shelter and clothing. The people in the first photograph are satisfying their needs. They are eating their food on the floor. Their food looks very different from the family enjoying a 'lavish spread' in their garden. The food in this image is plentiful and appears to be satisfying wants rather than needs. People's wants are unlimited. People want more whatever their current circumstances; it is human nature.

2 ► Why are resources finite?

All countries have resources such as water, minerals, soil, plants, animals and people. However, in any country there is a finite quantity of these resources. This means there is only a limited quantity. Most of the resources cannot be replaced once they have been used up.

ACTIVITY 2

CASE STUDY: OPPORTUNITY COST

1 ► Suggest one reason why spending on health care in Western and Central Europe is far higher than that on military goods, compared to the other regions shown.

There may be more than one reason why spending on health care is higher than spending on military goods in Western and Central Europe than in other regions. One

reason is that many countries in Western and Central Europe are relatively wealthy. As a result, they can afford to spend enough on the military to maintain security and have enough left over to spend more on health care.

Another reason may be that some countries or regions attach more value to spending on the military. This might be said of Russia in the Eastern European region. It might be argued that Russia has some important military objectives which require heavy expenditure on military goods.

2 ► What is meant by opportunity cost? Use this case as an example in your answer.

When making choices, individuals, firms and governments will face a cost once their choice has been made. This is called the opportunity cost. This cost arises because a sacrifice has to be made when making a choice. In this example, civil society campaigners say that government expenditure on the military is a waste of resources. They recommend redirecting at least some of this money towards meeting human needs. For example, the Global Campaign on Military Spending called for a 10 per cent cut in worldwide military spending. It said the money saved should be used for development purposes. The US\$1676 billion spent on military goods in 2015 could be spent on meeting human needs. The opportunity cost of this expenditure is the benefits lost from not spending it (or some of it) on the next best alternative. For example, in 2015, the UN Food and Agriculture Organisation said that extreme poverty and hunger in the world could be eliminated if just 13 per cent of the global military budget was used for this purpose. Some would say that the opportunity cost of that 13 per cent of military expenditure is very high indeed!

MULTIPLE-CHOICE QUESTIONS

- C is the correct answer. When to produce is not a recognised part of the basic economic problem.
- A is the correct answer. In this list, only shelter is a human need. The others in the list are examples of human wants.

CASE STUDY: PRODUCTION POSSIBILITY CURVES

1 ► What is meant by a production possibility curve? Use this case as an example in your answer.

A production possibility curve (PPC) shows the different combinations of goods that can be produced if all resources in a country are fully used. In this case, the two sets of goods are agricultural goods and non-agricultural goods. The country is currently positioned at point X on the PPC. This means that 17.5 million units of agricultural goods and 8 million units of non-agricultural goods are being produced.

2 ► According to the PPC, the decision makers in this country must make what key choice?

Decision-makers in this case have to decide which combination of agricultural and non-agricultural goods to produce. There are many different combinations. For example, it could be decided to produce all agricultural goods in which case 20 million units could be produced. However, the decision-makers have chosen point X on

the PPC. This means that 17.5 million units of agricultural goods are being produced and 8 million units of non-agricultural goods.

3 ▶ Why is point T on the diagram currently unobtainable?

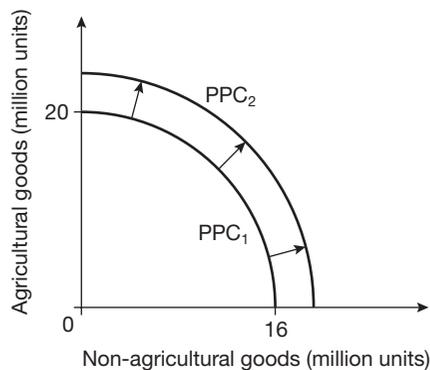
Point T represents a combination of 15 million units of agricultural goods and 16 million units of non-agricultural goods. This is not attainable by the country because it does not have the resources required to produce this combination. Only points on the PPC are achievable because by definition these are the maximum production possibilities.

4 ▶ The country is considering a movement from X to Y. What will be the opportunity cost of such a movement?

A country can change the combination of goods it produces by moving along the PPC. However, if it does so there will be an opportunity cost. In this case, a movement from X to Y means that production of non-agricultural goods will rise by 4 million units from 8 million to 12 million. However, production of agricultural goods will fall by 2.5 million units from 17.5 million to 15 million. The 2.5 million units of agricultural products sacrificed is the opportunity cost of increasing production of non-agricultural goods.

5 ▶ Using a diagram, assess the effect that the discovery of new oil reserves might have on the PPC of this country.

A country cannot produce combinations of goods that lie to the right of the PPC, like point T in Figure 1.8. However, over a period of time an economy would expect to raise the production of all goods. This is because over time resources are used more efficiently or new resources are discovered. In this case, some new oil reserves have been discovered. This might mean that with the extra fuel, for example, more of both goods could be produced. The effect of this would be to shift the PPC out to the right. This is shown in the diagram below by a shift from PPC₁ to PPC₂.



CHAPTER 2

CASE STUDY: MAKING CHOICES

1 ▶ Why it would be irrational for Anita to choose option C given the information above?

It would be irrational for Anita to choose option C because it is not her preferred option. Anita has placed the four spending options in order of preference from A to D. Item A, treating her friends to a meal out, is the preferred option. Therefore, as a rational consumer, Anita would spend her Rs 5000 on option A.

2 ▶ What is the opportunity cost of choosing option A?

Choosing option A from the list means that Anita cannot enjoy any of the benefits provided by options B, C and D. This is because she only has enough money to pay for one of the options. The opportunity cost of choosing option A is the benefits lost from not choosing the next best alternative. In this case, it would be the benefits from option B, that is, the pleasure she would get from watching India v England at Rajkot. This is the opportunity cost.

ACTIVITY 1

CASE STUDY: MAXIMISING CONSUMER BENEFIT

1 ▶ What is meant by a rational consumer?

Economists assume that consumers are rational. This means that an individual will make a thoughtful and logical decision when choosing between different courses of action. For example, when given the choice between buying from many different suppliers, an individual would buy from the cheapest supplier. Provided the product quality was exactly the same, it would be irrational for a consumer to pay more for a product than was necessary.

2 ▶ How will PandaCheck help consumers to maximise their benefits?

PandaCheck is a Chinese price comparison website. Like price comparison websites all over the world, they help consumers to find the cheapest deals when shopping online. The website is designed to help online shoppers find the best possible prices when shopping online in China. The website also helps users to search for current promotions and learn some tips and tricks when ordering goods from China. It will help consumers to maximise their benefits because it provides information about products that many different firms supply. It shows the cheapest available in the market which means that consumers will be sure to get the best possible deal.

3 ▶ Discuss one reason why a consumer may fail to maximise their benefits when making a purchase.

One reason why some consumers do not maximise their benefit is because they are influenced by the behaviour of others. Young consumers may adopt some of the buying habits of their parents. For example, when young people leave home for the first time and make purchases that their parents once made, they may choose the same brands as their parents. This may be because they trust their parents or because they are familiar with the brands. It may not be because they prefer these brands to others. For example, it is reckoned that 59 per cent of people aged between 18 and 24 open their first bank account at the same bank as their parents. Also, some consumers are influenced by their friends or peers; they may copy their purchases in an effort to fit in or because they submit to pressure from their peers.

MULTIPLE-CHOICE QUESTIONS

1 ▶ B is the correct answer. If producers and consumers have more information, they can make more informed decisions when choosing between different alternatives.

- 2 ► C is the correct answer. If consumers develop buying habits they may not switch to better or cheaper brands when shopping. This will prevent them from maximising benefits.

CASE STUDY: MAXIMISING PROFIT?

- 1 ► Calculate the total cost to Anna of hiring a van for 24 hours from each van hire company shown in Table 2.1.

Hire company	Hire fee (24 hours)	Distance charge	Insurance charge	Total
A	\$40	5 cents per km	\$12	US\$62
B	\$59	zero	zero	US\$59
C	\$30	10 cents per km	\$15	US\$65

NB: The total distance travelled is 200 km (100 km × 2)

- 2 ► According to economists, which company would Anna select? Explain your answer.

One important assumption made by economists is that producers will always maximise profits. This also means that they will minimise costs. In this case, Anna needs to hire a van for 24 hours to make an important delivery. The cheapest of the three hire companies shown in Table 2.1 is company B. Therefore, if it is assumed that Anna will always maximise profits, she will choose to hire a van from company B because it is the cheapest. This will help her to maximise profits.

- 3 ► Why might some of Anna's customers find it difficult to measure the benefit they get from buying a swimsuit?

One of the reasons why consumers may not maximise their benefits is because they cannot always measure exactly the satisfaction they get from consuming a product. This is because the benefit gained from consuming a product is very difficult to quantify. For example, how can one of Anna's customers measure the satisfaction gained from buying a particular swimsuit? It is virtually impossible. Consequently, consumers might overestimate or underestimate the possible benefits they might get from consumption and so comparisons between different alternatives are problematic.

- 4 ► Discuss why MSF does not aim to maximise profit. Give at least two reasons in your answer.

According to economists, producers will always maximise their profits. However, there are circumstances when this is not true. In this case, Médecins Sans Frontières, is an international not-for-profit medical humanitarian organisation. Its aim is to save lives and reduce the human suffering of people who are in danger by delivering medical care. As an organisation, MSF provides assistance to groups of people in distress, victims of natural or man-made disasters and victims of armed conflict.

For example, in 2016, MSF had a presence in Europe. It helped refugees escaping from war, persecution and poverty. In Yemen, it provided lifesaving care to people affected by conflict. It also had units in Syria, South Sudan, Central African Republic and Iraq. Although MSF generated £42.7 million from donations, 86 per cent of this money was spent on its medical operations. The organisation is not a profit maximiser, it has other objectives.

CHAPTER 3

CASE STUDY: CARPET STALL

- 1 ► How many carpets would be bought at a price of MAD 100?

According to the table, when the price of carpets is MAD 100, 50 carpets will be purchased per week.

- 2 ► What happens to the number of carpets bought as the price increases?

As the price of carpets goes up, the number purchased per week falls. For example, when the price is increased from MAD 100 to MAD 120, the number of carpets purchased falls from 50 to 40.

- 3 ► What happens to the number of carpets bought when the price is lowered?

When the price of carpets is lowered the number purchased per week rises. For example, if the price is reduced from MAD 100 to MAD 80, the number of carpets purchased rises from 50 to 60.

ACTIVITY 1

DEMAND FOR CRICKET TICKETS

- 1 ► What will the attendance be if Rs400 is charged to attend a match?

The attendance will be 7500 if Rs400 is charged for a match.

- 2 ► What price must be charged to fill the stadium?

To fill the stadium, the price must be set at Rs200. At Rs200, 30 000 spectators would be attracted. This is full capacity.

MULTIPLE-CHOICE QUESTIONS

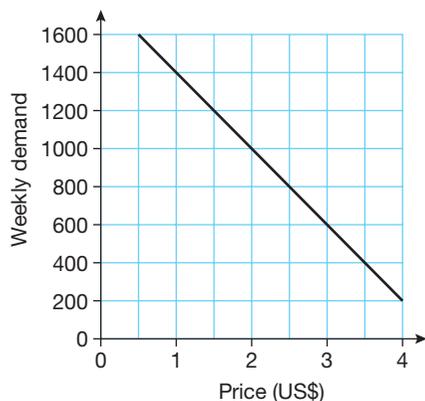
- 1 ► D is the answer. When the price changes, the new quantity demanded is found by moving along the demand curve.
- 2 ► D is the answer. A fall in income will cause demand to fall at all prices. Therefore, the demand curve will shift to the left. Remember that a change in price will result in a movement along the demand curve. A change in price will not cause the demand curve to shift.

CASE STUDY: AL'S BIG BURGERS

- 1 ► What is meant by effective demand?

Effective demand shows how much would be bought (i.e. how much people can afford to buy and would actually buy) at any given price. It does not mean how much people would like to buy if they had an endless amount of money. Effective demand is demand supported by the ability to pay.

- 2 ► Draw a demand curve using the information in Table 3.3.



- 3 ► Al currently charges US\$3 for his giant burgers. How many burgers would he expect to sell at this price?
At US\$3 Al would expect to sell 600 burgers.
- 4 ► If Al wanted to sell 1400 burgers, what price would he have to charge?
If the price is lowered from US\$3 to US\$2 demand for burgers will rise from 600 to 1000. The percentage change is given by:
Percentage change = $400 \div 600 \times 100 = 66.7$ per cent
Therefore demand will increase by 66.7 per cent when the price is cut from US\$3 to US\$2.
- 5 ► What is meant by the inverse relationship between the price and the quantity demanded for a product? Use this case as an example in your answer.

There is an inverse relationship between the price charged for a product and the quantity demanded. This means that when price goes up demand goes down and when price goes down the quantity demanded goes up. For example, in this case, if Al charges US\$2 for a burger he would expect to sell 1000 burgers. However, if he increased the price to US\$3 demand would drop to 600 burgers. Price and quantity demanded move in opposite directions.

CHAPTER 4

CASE STUDY: HOLIDAY TREAT

- 1 ► In addition to the price, what two factors might affect the quantity demanded for holidays in the Seychelles? The demand for holidays in the Seychelles may be affected by:
- consumer incomes
 - advertising
 - price of holidays in other locations
 - tastes and fashion.

NB: There may be other acceptable answers.

- 2 ► What would you expect to happen to the quantity demanded for holidays in the Seychelles during a recession? Explain your answer.

During a recession, demand for holidays in the Seychelles is likely to fall. This is because during a recession consumer incomes are likely to fall. This means that it will be more

difficult for many consumers to afford holidays in the Seychelles, especially as it is a relatively expensive tourist destination.

ACTIVITY 1

CASE STUDY: DEMAND AND ADVERTISING

- 1 ► Calculate the percentage increase in predicted advertising expenditure between 2014 and 2020.

The percentage increase in global advertising expenditure is given by:

$$\text{US\$674.24 billion} - \text{US\$488.48 billion} = \frac{\text{US\$185.76}}{\text{US\$488.48}} \times 100 = 38 \text{ per cent}$$

- 2 ► Why are some businesses prepared to spend so heavily on advertising?

Some businesses spend huge amounts of money on advertising their products. For example, in 2014 Coca Cola spent US\$3.499 billion on advertising. This amount of spending occurs because businesses believe that demand can be increased by advertising. The effect of spending on advertising is to shift the demand curve to the right. This means that demand for the product rises at all prices. Since global spending on advertising has increased by 38 per cent over a 6-year period, businesses must feel strongly that it has a positive impact on demand.

ACTIVITY 2

CASE STUDY: DEMAND AND POPULATION

- 1 ► Why has the population of the UAE increased so sharply in recent years? Give one reason in your explanation

One reason why the population of the UAE has risen so sharply in recent years is due to immigration. The UAE has a very large immigrant population. It is estimated that around 90 per cent of the population were born overseas. For example, around 58 per cent of non-UAE nationals are from Southeast Asia. Around 17 per cent are from other Asian countries and about 8.5 per cent are from the West. Most of the immigrants are attracted to the country by employment opportunities. There has been a huge boom in the construction industry, for example. The UAE government has invested revenues from the sale of oil and gas into infrastructure development, residential real estate and commercial properties. This investment has created large numbers of jobs which has attracted migrant workers.

- 2 ► How will the change in the size of the UAE's population affect demand?

As the size of the UAE's population grows, there will be an increase in demand for most goods and services. There will be an increase in demand for consumer goods and also for government services such as education and health care. The scale of the increase in population (from 2.884 million in 2000 to 8.329 million in 2010) suggests that the increase in demand has been very strong indeed. Most businesses have probably experienced significantly higher demand for their products since 2000.

3 ▶ A significant number of the people migrating to the UAE are Southeast Asian. How might this affect demand patterns in the UAE?

Many of the people moving to the UAE are from Southeast Asia (about 58 per cent). This is likely to increase the quantity demanded for goods and services associated with their culture. For example, there may be an increase in demand for restaurants serving Southeast Asian meals, grocery stores selling food associated with their cultures, Southeast Asian newspapers, Southeast Asian television programmes and the different styles of clothing worn by Southeast Asians.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** B is the correct answer. Complementary goods are those purchased together because they are consumed together. Petrol is bought by car owners (assuming the car is not an EV).
- 2 ▶** C is the correct answer. If car insurance becomes more expensive, there may be a fall in the quantity demanded for cars because it becomes more expensive to own and run a car. This will cause the demand curve for cars to shift to the left.

CASE STUDY: GLOBAL DEMAND FOR CARS

1 ▶ Suggest one reason why the global demand for cars is rising.

In 2016, it was predicted that 76.52 million new cars will be purchased worldwide. Rising demand is currently driven by rapid economic growth in countries such as India and China. Owning cars in such countries is a new experience for huge numbers of people. As people in developing countries become wealthier as a result of economic growth, more cars are purchased.

2 ▶ Discuss the possible factors that might affect the demand for electric cars in the future. Give two factors in your analysis.

In recent years, the demand for electric vehicles (EVs) has increased. In 2015, total sales of EVs reached 1 million. It is estimated that by 2040 around 35 per cent of all cars purchased will be EVs. This growth in the demand for EVs is being driven by government investment in the public battery-charging infrastructure (with the rate of introduction of fast DC chargers growing by 350% in China alone in 2015). If it is easier to charge the batteries used by EVs, more people might be attracted to them.

Demand for EVs might also increase in the future if oil prices recover to the pre-2014 levels (when oil was US\$140 a barrel). Higher oil prices mean that petrol-fuelled cars will be more expensive to run. This is likely to help increase demand for EVs – particularly from drivers who travel long distances by car.

3 ▶ What effect would the following have on the global demand for cars: (a) an increase in global incomes; (b) a rise in the price of petrol. Use diagrams in your answer.

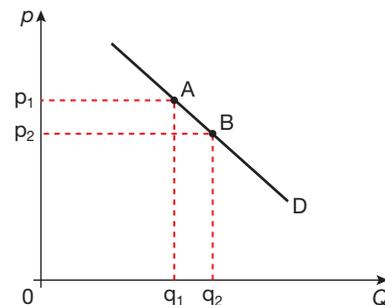
(a) An increase in global incomes will shift the demand curve for cars to the right. More will be purchased at every given price. This is because more people will be able to afford a new car – particularly in developing

countries. This is shown in the diagram by a shift from D1 to D2. The numbers of cars purchased will rise from q_1 to q_2 (see Figure 4.6).

(b) A rise in the price of petrol is likely to reduce the demand for cars. This is because cars and petrol are complementary goods. If petrol prices rise, it becomes more expensive to run a car and therefore demand will fall. As a result the demand curve for cars will shift to the left from D1 to D3 and the quantity purchased will fall from q_1 to q_3 (see Figure 4.6).

4 ▶ What is the difference between a movement along the demand curve and a shift in the demand curve? Use a diagram in your explanation.

When the price of a product falls, there will be an increase in the quantity demanded for a product. This will be represented by a movement along a demand curve. For example, if there was a fall in the price of cars, the quantity demanded would increase. This would be shown by a movement down the demand curve from A to B in the diagram. The price has fallen from p_1 to p_2 and the quantity bought has increased from q_1 to q_2 .



Other factors also influence demand. However, their effect is to shift the demand curve. For example, an increase in global incomes will shift the demand curve for cars to the right. This is shown in Figure 4.2. For a price change only, there is a movement along the demand curve. For a change in any other factor affecting demand, the demand curve will shift – to the right for an increase or to the left for a decrease.

CHAPTER 5

CASE STUDY: CHICKEN FARMING

1 ▶ How many chickens would Tom offer for sale if the price was CYN 30?

Tom would offer to sell 50 chickens if the price was CNY 30, according to the information in Table 5.1.

2 ▶ In Table 5.1, what happens to the number of chickens offered for sale when prices rise?

As the market price rises, Tom is prepared to sell an increasing number of chickens. For example, when the price rises from CNY 30 to CNY 40, Tom will increase the amount for sale from 50 to 70 chickens.

3 ▶ Why do you think sellers such as Tom offer more for sale when prices are higher?

Sellers, such as Tom Chang, are willing to supply more at higher prices because they probably make more profit at higher prices. Revenue will be increased if prices are higher.

ACTIVITY 1

CASE STUDY: STEEL SUPPLY IN A COUNTRY

- 1 ▶ What will happen to the supply of steel if the price rises from US\$500 to US\$750 per tonne?**

If the price of steel rises from US\$500 to US\$750, the quantity of steel supplied will rise from 10 million to 15 million tonnes per annum.

- 2 ▶ Why are steel suppliers likely to offer more for sale at higher prices?**

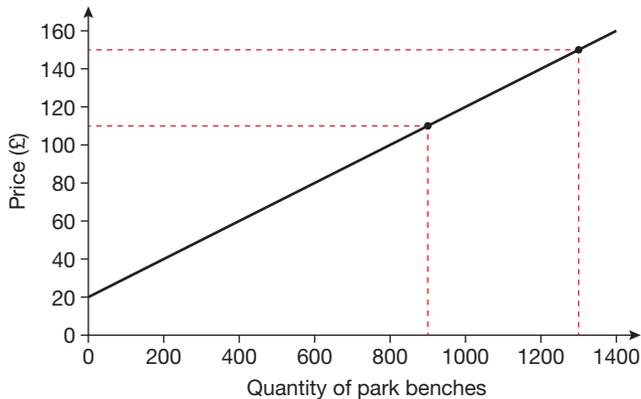
At higher prices, suppliers are likely to offer more for sale. This is because suppliers can probably make more profit when prices are higher. In this case, the prospect of higher profits will encourage steel producers to offer more for sale when the price rises from US\$500 per tonne to US\$750 per tonne. They will get an extra US\$250 per tonne of steel sold.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** B is the correct answer as it is a false statement about supply. If supply is fixed, the supply curve will be vertical.
- 2 ▶** B is the correct answer. If supply is fixed the supply curve will be vertical. This shows that there is a limit to the amount that can be supplied. Once this limit is reached, supply cannot be increased any further – like the seating capacity of a stadium or theatre.

CASE STUDY: FOTHERGILL & SONS

- 1 ▶ Draw the supply curve for park benches using the data in Table 5.3.**



- 2 ▶ How many park benches would be supplied if the price was £110?**
At a price of £110, Fothergill & Sons will supply 900 park benches.
- 3 ▶ If Fothergill & Sons wanted to supply 1300 park benches per annum, how much would it expect to sell them for?**
The price would have to be £150 for Fothergill & Sons to supply 1300 park benches in the market.
- 4 ▶ Why is supply 0 at a price of £20?**

According to the supply curve, at a price of £20 supply will be zero. This means that Fothergill & Sons is not prepared to supply any benches at this price. This is probably because firms are motivated by profit and at a price of £20 Fothergill & Sons cannot make enough profit to make supply worthwhile.

- 5 ▶ Discuss whether Fothergill & Sons could supply three times as many park benches.**

If the price of park benches was rising sharply in the market, Fothergill & Sons may wish to supply more. This is because the business could make more profit. However, there may be a limit to the quantity of benches the business could supply. For example, whether three times as many park benches could be supplied depends on whether the business has the resources required to produce the extra quantity. Does the business have enough workers and machinery to produce the extra benches? Is there enough room in the factory to increase production by so much? There is likely to be a limit to the quantity of benches Fothergill & Sons can produce in a given time period. To increase production by so much may take time. Therefore, Fothergill & Sons may not be able to supply three times as many park benches immediately.

CHAPTER 6

CASE STUDY: NIGERIAN FARMING

- 1 ▶ Describe the main factor affecting supply in this case.**

The main factor affecting supply in this case is the cost of production. Rising feed costs are resulting in a reduction in the supply of catfish. Growing numbers of Nigerian chicken and fish farmers were reducing rates of production. Some were even abandoning their farms to pursue other business ventures. This was a response to volatile and rapidly rising feed costs. In response, Nigerian politicians begged young people, and others who have left the countryside to seek a better life in the cities, to return to their family farms.

- 2 ▶ Calculate the percentage increase in the price of imported fish feed per 15 kilogram bag.**

The price of imported fish feed has increased from NGN 6,000 to NGN 11,000 for a 15 kilogram bag. The percentage increase in price is given by:

$$\text{NGN } 11,000 - \text{NGN } 6,000 = \frac{5,000}{6,000} \times 100 = 83.3 \text{ per cent}$$

- 3 ▶ Why do you think the quantity supplied falls when production costs rise?**

When production costs rise, producers find it more difficult to make a profit. As a result, producers react by reducing supply. Those producers operating on low profits might even leave the market. This is what is happening in this case. Some fish farmers are abandoning their farms to pursue other business ventures. For some farmers, rearing catfish has become less financially attractive as a result of the rising costs of fish feed.

ACTIVITY 1

CASE STUDY: SUPPLY AND SUBSIDIES

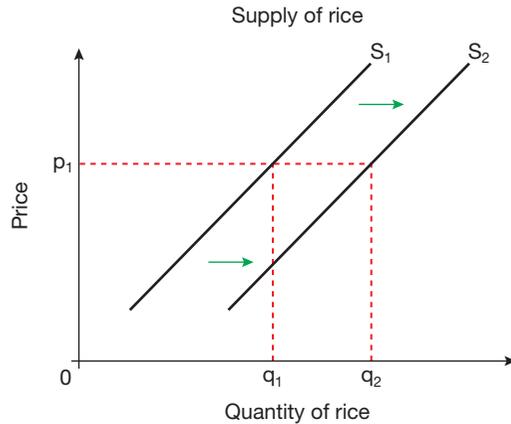
- 1 ▶ Why is the Sri Lankan government offering subsidies to paddy farmers?**

Fertiliser subsidies have been an important feature of Sri Lankan agricultural policy since 2005. The subsidies have accounted for between 2 and 2.5 per cent of total government

expenditure over the years. The subsidies have helped to increase paddy production, stabilise the price of rice and helped Sri Lanka to become self-sufficient in rice production.

2 ► Using a diagram, show the effect of these subsidies on the supply of rice in Sri Lanka.

The effect of a government subsidy is to shift the supply curve to the right. In this case, the government's fertiliser subsidies help to reduce production costs, therefore supply is increased. This is shown by a shift in the supply curve to the right from S_1 to S_2 in the diagram below. This means that the amount supplied in the market at a price of p_1 will rise from q_1 to q_2 .



ACTIVITY 2

CASE STUDY: SUPPLY AND THE WEATHER

1 ► What are the causes of the water shortages outlined above? Give at least two reasons in your answer.

The global supply of water is at risk. A number of regions around the world are suffering droughts where water has become very scarce. The water shortages are mainly due to natural causes: changing weather patterns and melting snow and ice caused by global warming are having a severe impact on the world's water systems. This means that around 1 billion people in the world do not have access to safe drinking water. The situation is also being made worse by the heavy consumption of water in these regions.

2 ► What measures are being taken by the UAE to increase the supply of water?

In some respects, it is difficult to increase the supply of water since water is provided by rainfall which is a naturally occurring event. However, some measures can be taken which might have a limited impact. The UAE government is investing in desalination plants, which involves the use of specialist plant and machinery to convert sea water into drinking water. The government is also constructing waste water treatment units. This means that waste water will be recycled. Both of these measures will help to increase the supply of water in the UAE.

MULTIPLE-CHOICE QUESTIONS

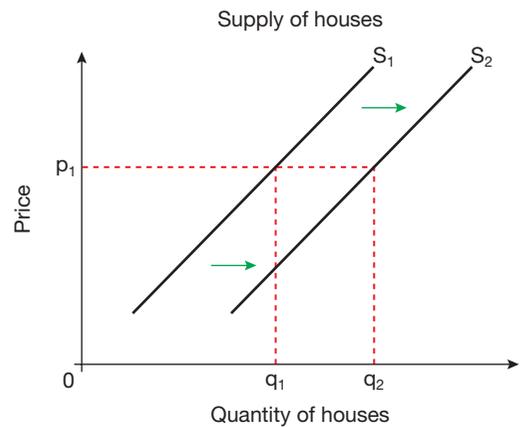
- 1 ►** B is the correct answer. If production costs are higher, producers will respond by producing less. This is because the prospect of profit is reduced. The other options will all shift the supply curve to the right.

- 2 ►** A is the correct answer. A bumper harvest of wheat will increase the global supply of wheat, shifting the supply curve to the right.

CASE STUDY: HOUSING SUPPLY IN KENYA

1 ► How will the use of EPS panels and aluminium formwork improve the supply of housing in Kenya? Use a diagram in your explanation.

Technological developments in the construction industry have provided house builders in Kenya with new, more efficient ways of constructing houses. The use of EPS panels and aluminium formwork will help to reduce the costs of construction for house builders. As a result there will be an increase in the supply of houses in Kenya. In the diagram below, the supply curve for houses will shift to the right from S_1 to S_2 . This will result in an increase in the quantity sold at p_1 from q_1 to q_2 .



2 ► What are the benefits of the new technologies in house building to: (a) construction companies; (b) Kenyan residents?

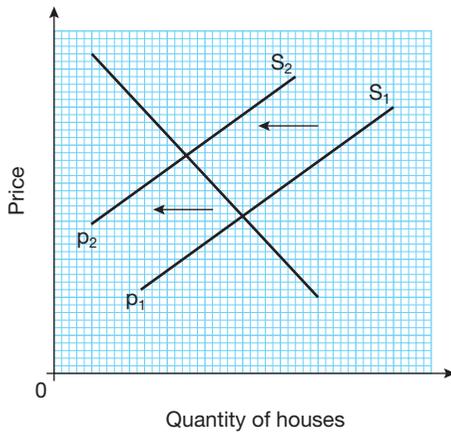
- (a)** The new technologies in house building will have a significant positive effect on construction companies. The building innovations are superior to the use of traditional materials such as concrete, stone and mortar. They are strong, lightweight, fireproof and long lasting. EPS also keeps properties warm effectively while aluminium formwork makes for better quality walls and can be painted easily. Developers also save money on other parts of the construction. This is because the lightweight technologies do not require builders to lay deep foundations. The amount of concrete used on walls and flooring is also drastically reduced. For example, EPS only requires a 5 cm layer of concrete instead of the previous 20 cm used in conventional building methods. Houses can also be constructed more quickly. This is because housing units are assembled from sections which are manufactured off-site. This reduces labour costs and improves business cash flow.
- (b)** Housing has also become more affordable as a result of the new technologies. This is because the cost of building new houses has been reduced. Not only are there more houses available in the country, but they are also cheaper. The new housing units are now accessible to the lower middle-class and low-income earners. This will benefit many of Kenya's residents.

- 2 ▶ Describe one measure the Kenyan government could take to help increase the supply of houses in the country.**

A measure that the government could use to increase the supply of houses in Kenya is to grant house builders a subsidy. This would lower production costs for house builders and therefore increase supply. The effect of a government subsidy in the market is to shift the supply curve to the right.

- 3 ▶ What is the possible effect on the supply of houses in Kenya if construction companies had to pay much higher wages to workers? Use a diagram in your explanation.**

If construction companies had to pay higher wages to workers, their production costs would be higher. As a result, house builders would build fewer houses, thus decreasing the quantity supplied. The supply curve for houses would again shift to the left from S_1 to S_2 in the diagram below. As a result house prices would rise from p_1 to p_2 .



CHAPTER 7

CASE STUDY: PRICE, SUPPLY AND DEMAND

- 1 ▶ What price will be charged for the product in the above example?**

The price charged for this product will be US\$30. This is where supply and demand for the product are exactly the same. At US\$30, producers will supply 60 000 units and consumers will want to buy 60 000 units.

- 2 ▶ How much is supplied and demanded when the price is CNY 40?**

If the price is CNY 40, the amount supplied will be 80 000 units. However, the amount that consumers wish to buy is only 40 000 units.

- 3 ▶ What will happen if producers set the price at CNY 40 for this product?**

If producers try to charge CNY 40 per unit, they will be left with unsold stock. They would want to sell 80 000 units but consumers would only buy 40 000 units. Therefore, producers would be left with 40 000 units (80 000 – 40 000) of unsold stock.

ACTIVITY 1

CASE STUDY: EQUILIBRIUM PRICE

- 1 ▶ What is the equilibrium price and quantity?**

The equilibrium price is £2.50 and the equilibrium quantity is 6 million hats.

- 2 ▶ What is meant by equilibrium price? Use this diagram in your explanation.**

In any market, the price is set where the wishes of consumers are matched exactly with those of producers. This price, called the equilibrium price, is where the quantity supplied and the quantity demanded are equal. In Figure 7.2, the equilibrium price is £2.50. At this price, consumers want to buy 6 million hats and producers want to sell 6 million. The wishes of buyers and sellers are matched. There is no other price where this happens.

- 3 ▶ What is the value of total revenue at the equilibrium price?**

Total revenue is the amount of money generated by the sale of goods. At the equilibrium price of £2.50, 6 million hats are sold so total revenue is given by:

$$TR = P \times Q = £2.50 \times 6\,000\,000 = £15\,000\,000$$

ACTIVITY 2

CASE STUDY: THE GLOBAL LITHIUM MARKET

- 1 ▶ Calculate the percentage increase in the price of lithium in 2015 (when it rose from US\$6000 to US\$14000).**

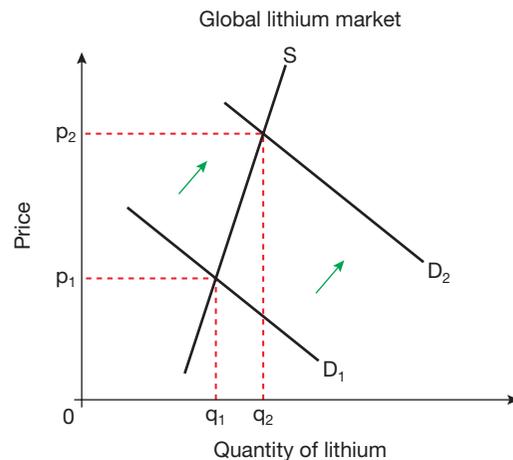
The percentage increase in the price of lithium from US\$6000 to US\$14 000 is given by:

$$\$14\,000 - \$6000 = \frac{\$8000}{\$6000} \times 100 = 133.3 \text{ per cent}$$

- 2 ▶ Why has the price of lithium increased? Use a supply and demand diagram in your explanation.**

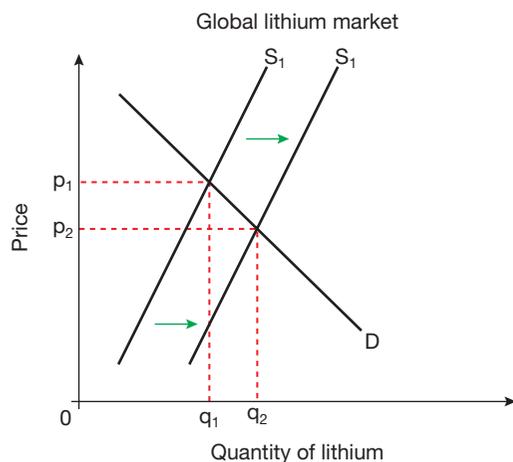
The price of lithium has increased sharply due to an increase in demand. Lithium is used in battery production, and due to the growing popularity of electric vehicles, demand from battery makers in particular has increased. For example, Tesla Motors, a US EV-maker, is starting large-scale battery production in Nevada. It hopes to supply lithium-ion batteries for 500 000 cars a year within 5 years. Much bigger car makers are also increasing their demand for lithium. Toyota has begun using lithium-ion batteries instead of heavier nickel-metal hydride batteries in its Prius model.

The increase in demand for lithium will cause the demand curve for lithium to shift to the right – from D_1 to D_2 in the diagram below. This causes the price to rise from p_1 to p_2 and the quantity traded in the market to rise from q_1 to q_2 .



- 3 ▶ What impact will a government subsidy paid to lithium producers have in the market? Use a supply and demand diagram in your explanation.**

The surging price of lithium in global markets should attract more supply. However, although the Earth contains plenty of lithium, extracting it can be expensive and time-consuming. Consequently, the higher prices may not automatically increase the supply of lithium. However, if the government were to offer lithium producers a subsidy, supply should increase. In the diagram below, if the government grants a subsidy to lithium producers, the supply curve will shift to the right from S_1 to S_2 . This will cause the price to fall from p_1 to p_2 and the quantity bought on the market to rise from q_1 to q_2 .



MULTIPLE-CHOICE QUESTIONS

- 1 ▶** C is the correct answer. If price is set below the equilibrium price, producers will want to sell more but consumers will want to buy less. This results in excess demand.
- 2 ▶** B is the correct answer. When demand falls, the demand curve shifts to the right and the price falls. If supply also increases, the supply curve will shift to the right forcing price down further.

CASE STUDY: THE MARKET FOR FA CUP FINAL TICKETS AT WEMBLEY

- 1 ▶ What is the equilibrium price of an FA Cup Final ticket according to the diagram in Figure 7.8?**

The equilibrium price is where supply and demand are equal. In Figure 7.8, the equilibrium price is p_1 .

- 2 ▶ Assuming that the FA charges p_2 for tickets, discuss why it does not charge the equilibrium price.**

The English FA are aware that they could charge more for FA Cup Final tickets. They know that the price they charge is below the equilibrium price. However, they choose to keep the tickets 'reasonably priced' so that genuine football supporters can afford to go to the match, rather than only the wealthy or those using corporate hospitality. This means that tickets are sold for less than the equilibrium price.

- 3 ▶ If the average price of a ticket was £60, what would be the value of total revenue?**

$$\begin{aligned} \text{Total revenue} &= \text{price} \times \text{quantity} = £60 \times 90\,000 \\ &= £5\,400\,000 \text{ (e)} \end{aligned}$$

- 4 ▶ If the FA could double the capacity of the new Wembley Stadium, what might be the effect on ticket prices?**

The current capacity of the new Wembley Stadium is 90 000. If capacity could be doubled, this would represent a significant increase in supply. An increase in the quantity supplied on this scale would probably force ticket prices down.

- 5 ▶ To what extent is there excess demand in this market?**

Excess demand exists when, at the market price, demand is greater than supply. In this case, supply is q_1 and demand is q_2 – the quantity demanded is greater than the quantity supplied. The supply of tickets for the FA Cup Final is fixed at 90 000. However, there are never enough tickets for all the supporters who would like to go; there is always a shortage. This size of the shortage is reflected in the amount some people are prepared to pay on 'unofficial markets'. For example, sellers on the Edinburgh-based website FootballTicketPad were charging supporters up to £21 230 for a pair of £120 category 1 tickets, including a £1930 booking fee. This was for the final between Arsenal and Aston Villa in 2015. The size of excess demand is likely to vary each year. For an attractive final featuring 'top' Premier League clubs, demand is likely to be much, much higher than 90 000. There has always been excess demand in this market and unless prices are set higher, or the stadium capacity is increased, this will always be the case (for the foreseeable future).

CHAPTER 8

CASE STUDY: ELECTRICITY

- 1 ▶ What happened to the Patel's demand for electricity after the 13 per cent price increase?**

After the 13 per cent price increase for electricity, Mr Patel asked his family to try and reduce their electricity consumption. However, when the next bill arrived, the bill had only fallen very slightly from US\$164 to US\$159 (about 3 per cent). This is much less than the price increase of 13 per cent.

Therefore the Patel's demand for electricity only fell by a very small and insignificant amount.

- 2 ▶ Describe one possible reason for your answer in (1).**

It could be argued that it is difficult to cut demand for something as important as electricity.

Electricity provides essential power for lighting, domestic appliances such as kettles, vacuum cleaners, computers, televisions, telephones, hair dryers, microwave ovens and many others. Electricity might also be used to provide power for heating and cooking. Reducing consumption of electricity is likely to be very difficult for a family. This might help to explain why their electricity bill fell only very slightly after the large price increase.

- 3 ▶ Do you think demand for Chinese take away food is sensitive to price changes?**

The demand for Chinese take away food is probably quite sensitive to price changes. The case here supports this view. The 20 per cent discount offered by the China Dragon take away services encouraged Bob and Ann Jones to switch suppliers. This shows that a price cut has resulted in a change in demand.

ACTIVITY 1

CASE STUDY: ELASTIC DEMAND

- 1 ► If the price increases from US\$5 to US\$6, what happens to the amount demanded?

If the price rises from US\$5 to US\$6, the quantity demanded for the product in Figure 8.2 will fall from 3000 units to 2000 units.

- 2 ► What is meant by elastic demand? Use this case as an example in your explanation.

Demand for goods that are price elastic is responsive to price changes. In this case, price has been increased by 20 per cent, from US\$5 to US\$6. However, the change in quantity demanded has been even greater. The quantity demanded fell by a massive 50 per cent. This is what would be expected for goods with elastic demand. A change in price brings about an even bigger percentage change in the quantity demanded.

ACTIVITY 2

THE HEPTON TENNIS CLUB

- 1 ► Calculate PED for Hepton Tennis Club membership.

Price elasticity of demand = $\frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$

$$\text{PED} = \frac{50\%}{-40\%} = -1.25$$

- 2 ► What evidence is there in the case to suggest that demand is elastic in this example?

Demand for membership at the Hepton Tennis Club is elastic. The value of PED is greater than 1. This means that the percentage change in quantity demanded (50 per cent in this case) is greater than the percentage change in price (-40 per cent). Demand is responsive to a change in price.

MULTIPLE-CHOICE QUESTIONS

- 1 ► B is the correct answer. When demand for a product is perfectly inelastic, the demand curve will be vertical and PED will be zero. This shows that when price changes there is no change in demand.
- 2 ► C is the correct answer. Demand for this product is inelastic because PED is less than 1. When demand is inelastic, a price increase will result in a slight fall in the quantity demanded but an increase in total revenue.

CASE STUDY: NG CHOCOLATES

- 1 ► What is meant by PED?

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

- 2 ► Calculate the PED for Ng Chocolates and state whether demand for Ng Chocolates is elastic or inelastic.

The price of Ng Chocolates may be cut from CNY20 per box to CNY16 – a cut of 20 per cent.

As a result of the price cut, the quantity demanded is expected to rise from 12,000 boxes to 16,000 – an increase of 33.3 per cent. Therefore, PED is given by:

$$\begin{aligned} \text{Price elasticity of demand} &= \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}} \\ \text{PED} &= \frac{33.3}{-20} = -1.67 \end{aligned}$$

- 3 ► Calculate the change in total revenue for Ng Chocolates if Ng lowers the price to CNY 16.

When price = CNY 20

$$\text{TR} = \text{CNY}20 \times 12,000 = \text{CNY}240,000$$

When price = CNY 16

$$\text{TR} = \text{CNY}16 \times 16,000 = \text{CNY}256,000$$

Therefore, the price decrease results in an increase in total revenue of CNY16,000 p.a.

- 4 ► Should Ng lower the price of their chocolates to CNY16? Explain your answer.

According to the calculations in (e), the price cut from CNY20 to CNY16 results in higher revenue. Total revenue at the lower price is CNY16,000 p.a. higher. This suggests that Ng should lower the price of their chocolates. However, there is no information about costs. To make a final decision, Ng would need to know how the price cut and increase in output affects profit. To calculate the impact on profit, the costs of production need to be known. PED can be used to predict the effect of a price change on total revenue but not profit (unless costs are known).

- 5 ► Discuss the main factor in this case that influences the value of PED.

A number of factors can influence the value of PED. These include the availability of substitutes, the degree of necessity, the proportion of income spent on a product and the time factor involved. In this case, demand for Ng Chocolates is elastic. The main reason for this may be the number of substitutes available for Ng Chocolates. The market for chocolate in China is very competitive. It is also dominated by European suppliers. Goods that have lots of close substitutes will tend to have elastic demand because consumers can switch easily from one product to another. There will be lots of substitutes for Ng Chocolates. Consequently, demand will be price elastic as shown by the PED, which is -1.67 (i.e. greater than 1).

CHAPTER 9

CASE STUDY: HOUSING

- 1 ► Why is the supply of houses slow to increase in the UK?

One of the problems with supply is that houses take several months to construct. Construction projects cannot be completed quickly due to the scale and number of the tasks required to build houses. There may also be problems in the UK finding suitable land and obtaining planning permission for house building. Land is quite scarce because the UK is a small country. Increasing the supply of houses significantly might take many years.

- 2 ► Describe the problems caused by a lack of supply in the UK housing market.

The lack of supply in the UK housing market, together with rising demand, has led to a housing shortage. The National

Housing Federation estimated 974,000 homes were needed between 2011 and 2014. However, information provided by 326 councils showed only 457,490 were built. One report suggested that there were ten buyers for every house on the market in parts of the UK. The shortage has led to rapid increases in house prices. The average house price has risen from £154,452 in March 2009 to £218,255 in January 2017.

3 ▶ Do you think potato crisp producers could increase output at short notice? Explain your answer.

There is no reason why crisp producers could not increase the supply of crisps at short notice. Providing producers are not all running at full capacity (which is highly unlikely), the resources needed to boost production, such as potatoes and cooking oil, should be freely available.

4 ▶ How would holding large stocks of potato crisps affect producers' ability to increase supply at short notice?

If producers can hold large stocks of goods, they should be able to respond very quickly to increases in demand. In this case, if crisp producers hold large stocks of potato crisps, they would be able to increase the quantity supplied to customers at very short notice.

ACTIVITY 1

CASE STUDY: INELASTIC SUPPLY

1 ▶ What happens to supply when the price increases from £20 to £30?

When the price of the good rises from £20 to £30, the amount supplied rises from 5000 units to 6000 units.

2 ▶ What is meant by inelastic supply? Use this case as an example in your explanation.

Goods which have inelastic supply will not be very responsive to changes in price. The percentage change in price will be greater than the percentage change in quantity supplied. In this case, the change in price is 50 per cent and the change in quantity supplied is 20 per cent. Therefore, the product has inelastic supply.

ACTIVITY 2

CASE STUDY: AMPAT HOLDINGS

1 ▶ Calculate the PES for the replica shirts in this case.

The price falls from US\$10 to US\$8, therefore the percentage change is -20% .

The quantity of shirts supplied falls from 1.6 million to 1.2 million, therefore the percentage change is -25% .

PES is given by:

$$\begin{aligned} \text{Price elasticity of supply} &= \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}} \\ \text{PES} &= \frac{-25\%}{-20\%} = 1.25 \end{aligned}$$

2 ▶ What is meant by elastic supply? Use this case as an example in your explanation.

If supply is elastic, a price change will result in a significant change in quantity supplied. More precisely, a change in

price will cause a greater proportionate change in quantity supplied. If PES is greater than 1, then supply is elastic. In this case, $\text{PES} = 1.25$ which means that the supply of replica sports shirts by Ampat Holdings is elastic. The percentage change in quantity supplied (25 per cent) is greater than the percentage change in price (20 per cent).

MULTIPLE-CHOICE QUESTIONS

1 ▶ A is the correct answer. A straight line supply curve that passes through the origin will always have a $\text{PES} = 1$. This means that a change in price will result in an identical proportionate change in supply.

2 ▶ C is the correct answer.

$$\begin{aligned} \text{Price elasticity of supply} &= \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}} \\ \text{PES} &= \frac{18\%}{12\%} = 1.5 \end{aligned}$$

CASE STUDY: THE GLOBAL SUPPLY OF COCONUTS

1 ▶ What is meant by price elasticity of supply?

Price elasticity of supply measures the responsiveness of supply to a change in price.

2 ▶ Why is the supply of coconuts likely to be inelastic?

Like many agricultural products, the PES of coconuts is likely to be inelastic. This is because it takes time to increase the supply of coconuts. To increase the quantity supplied significantly, producers would have to plant new trees and wait for them to grow, mature and yield fruit. This could take several years. Information in the case suggests there are difficulties with supply. For example, the Philippines is still struggling from the damage caused by typhoon Haiyan which wiped out about 15 per cent of its trees in 2013. It will take at least until next year for new trees to bear fruit.

3 ▶ Describe why the price of coconuts has risen so sharply recently.

Market prices are determined by the forces of supply and demand. In this case, demand for coconuts and related products is rising. For example, in supermarkets, coconut milk is being sold with ring pull opening devices which allow it to be drunk like coca cola. Also, reports have suggested that coconut sugar is a much healthier alternative to traditional sugar and celebrities have been observed consuming coconut products. For example, actress Gwyneth Paltrow claimed that she uses coconut oil as a mouthwash for oral health and whitening her teeth.

In addition to this, suppliers have not been able to meet the rising demand. Globally, the supply of coconuts is falling. One reason for this is linked to the age of the industry. Most coconut trees are grown in India and Southeast Asia and their trees are simply past their best. Also, the Philippines is still struggling from the devastation caused by typhoon Haiyan which wiped out about 15 per cent of its trees in 2013. It will take at least until next year for new trees to bear fruit. Finally, Indonesia, the world's top producer of coconuts, has failed to replace old low-yielding coconut trees, which means that estates are less productive.

The government is also encouraging more production of corn and soya.

It is reckoned that production growth is currently 8 per cent behind demand growth. Consequently the price of coconuts and related products is rising sharply as shown in Figure 9.4.

4 ► How might the ability to store coconuts for long periods of time affect PES?

One of the factors that can influence PES is the ability to store goods. Producers that can hold stocks of goods can respond quickly to price changes so supply will be elastic. However, where it is impossible or expensive to hold stocks, supply will be inelastic. The supply of some perishable goods, such as fruit and vegetables, will be inelastic because they cannot be stored for very long. Since coconuts are perishable, they cannot be stored for long periods and as a result the supply of coconuts is price inelastic.

CHAPTER 10

CASE STUDY: NEW CARS

1 ► Which is most responsive to changes in income: demand for cars or demand for milk?

The demand for new cars is the most responsive to changes in income. When Marion Wright gets promoted, she receives a significant increase in her salary (it rises from £49 000 to £63 000). As a result, she decides to buy a new VW Golf GTI. This suggests that the demand for new cars is responsive to changes in income.

The demand for milk did not respond to the change in income in the second example. Charlie Spencer was made redundant and saw his salary fall from £65 000 to £31 000. However, Charlie and his family still consumed the same amount of milk per week. This suggests that the demand for milk is not very responsive to changes in income.

2 ► Can you give a reason for your answer in (1)?

The main reason why the demand for new cars is more responsive than milk to changes in income is because new cars are more of a luxury item. Consumers do not have to buy new cars on a regular basis – for many people, a new car would be regarded as a luxury and people often make do with second-hand cars or public transport. Therefore when incomes rise, demand for new cars is likely to rise. On the other hand, milk is what many would call a ‘basic’ food. Households buy roughly the same quantity of milk each week. As the example shows, demand for milk is not very responsive to changes in income.

3 ► State two other goods that might respond in the same way as new cars to changes in income.

There are many goods that might respond like new cars to changes in income. Other luxury or non-necessity goods, such as holidays abroad, meals out at restaurants, fashionable clothes and many forms of entertainment, would be similarly responsive to changes in income.

ACTIVITY 1

CASE STUDY: CALCULATING INCOME ELASTICITY OF DEMAND

1 ► Calculate the income elasticity of demand for products X and Y.

For product X, income elasticity of demand is given by:

$$\begin{aligned} \text{Income elasticity of demand} &= \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in income}} \\ &= \frac{25\%}{8\%} = \mathbf{3.125} \end{aligned}$$

For product Y, income elasticity of demand is given by:

$$= \frac{-10\%}{8\%} = \mathbf{-1.25}$$

2 ► Are the two products (X and Y) income elastic or income inelastic?

Both products X and Y are income elastic. For product X, income elasticity is 3.125 (that is, greater than 1); for product Y it is –1.25 (that is, less than –1). This means that the change in quantity demanded is proportionately greater than the change in income in both cases.

3 ► Are the two products X and Y normal or inferior? Give an explanation in your answer.

Product X is a normal good. This is because income elasticity is positive. This means that a rise in income results in a rise in the quantity demanded. Product Y is an inferior good. This is because income elasticity is negative. This means that a rise in income results in a fall in the quantity demanded.

ACTIVITY 2

CASE STUDY: PETROL TAX AND PED

1 ► How much fuel duty will the government collect from a driver who buys 50 litres of petrol per week?

The total amount paid by the driver in fuel duty is given by:
 $50 \times 52 \times 57.95\text{p} = \mathbf{£1506.70 \text{ p.a.}}$

2 ► If it costs a driver a total of £60 to fill up a car with petrol, how much of this is paid in VAT?

The amount paid inclusive of 20 per cent VAT is £60.
 The amount paid exclusive of VAT is given by:
 $£60 \div 1.2 = £50$
 Therefore the VAT paid is £10.

3 ► Comment on the amount of tax taken by the government from the sale of petrol.

More than half of the money generated from the sale of petrol is taken by the government. Most would agree that this seems rather a lot.

4 ► Why do governments choose products like petrol to impose heavy duties on?

Governments impose indirect taxes on a range of goods and services. However, certain goods are particularly likely to be chosen. These will be goods which have

inelastic demand. This is because consumers will avoid heavily taxed products if demand for them is elastic. Therefore, governments target goods like petrol which are either necessities or have no substitutes. However, most governments do not target goods such as food and water, which are essential to human survival.

MULTIPLE-CHOICE QUESTIONS

- 1 ► A is the correct answer. For an inferior good, income elasticity is always negative. This shows that income and demand are inversely related.
- 2 ► C is the correct answer. Demand for the product here is elastic because PED is greater than 1. Therefore when the price is increased, demand will fall and so will total revenue.

CASE STUDY: INCOME ELASTICITY FOR RED MEAT IN A DEVELOPING COUNTRY

- 1 ► Calculate the percentage change in average income between 2001 and 2015 for the developing country in Figure 10.1.

Between 2001 and 2015, incomes rose from US\$12 000 to US\$18 000. The percentage increase in income is given by:

$$\text{US\$18 000} - \text{US\$12 000} = \frac{\text{US\$6 000}}{\text{US\$12 000}} \times 100 = \mathbf{50 \text{ per cent}}$$

- 2 ► Calculate the percentage change in the quantity demanded for red meat between 2001 and 2015 for the developing country in Figure 10.2.

Between 2001 and 2015, the quantity of red meat demanded rose from 540 000 tonnes to 1 000 000 tonnes. The percentage increase in demand is given by:

$$1\,000\,000 - 540\,000 = \frac{460\,000}{540\,000} \times 100 = \mathbf{85.2 \text{ per cent}}$$

- 3 ► Calculate the income elasticity of demand for red meat in the developing country.

Income elasticity of demand is given by:

$$\begin{aligned} \text{Income elasticity of demand} &= \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in income}} \\ &= \frac{85.2\%}{50\%} = \mathbf{1.7} \end{aligned}$$

- 4 ► Is demand for red meat in the developing country income elastic or income inelastic?

Demand for red meat in this developing country is income elastic. Income elasticity is greater than 1.

- 5 ► What evidence is there to suggest that red meat in this developing country is a luxury good?

Red meat in this country may be defined as a luxury good because demand is income elastic.

As incomes rise, the quantity of red meat demanded rose by a greater proportion. This may be expected in a developing country since many households may not have been able to afford red meat when their incomes were low.

- 6 ► How might income elasticity be of use to businesses in this developing country? Give two reasons in your analysis.

Some firms will be interested in income elasticity of demand. This is because changes in income in the economy may affect demand for their products. If firms know the income elasticity of demand for their products, they can respond to predicted changes in incomes. In this case, farmers growing cattle for red meat might plan to increase production to meet the rising demand. Demand is predicted to carry on rising into 2017. This would encourage farmers to grow more cattle for red meat.

Some farmers may have flexible resources which enables them to switch from the production of one good to another. For example, a farmer may reduce cereal production, put his land to grass and invest in cattle to take advantage of the rising demand for red meat. A predicted rise in incomes, and knowledge that red meat is income elastic, may encourage some farmers to make this switch.

CHAPTER 11

CASE STUDY: PRIVATE AND PUBLIC GOODS

- 1 ► Who provides the goods and services shown in Figures 11.1 and 11.2?

The goods and services shown in Figure 11.1 are likely to be provided by businesses. Groceries and consumer durables, such as electrical goods, are all examples of consumer goods. Such goods are usually provided by privately run business organisations.

The goods and services shown in Figure 11.2 are likely to be provided by the government. In many countries, it is the government that provides essential utilities like water and policing.

- 2 ► Why do you think there are two sets of providers? Explain your answer.

The goods and services shown in Figure 11.2 are essential to the security and well-being of the country. They are also very expensive to provide. As a result it is only the government, by collecting taxes from people and businesses, that can afford to provide them.

Consumer goods can be produced by privately owned businesses. Production of these can be managed and funded by sole traders, partnerships and companies, for example.

ACTIVITY 1

CASE STUDY: UGANDAN WATER SUPPLY

- 1 ► Who owns and runs the Ugandan National and Water Sewerage Corporation (NWSC)?

The Ugandan National and Water Sewerage Corporation is owned by the Ugandan government and run by a board of directors which is accountable to a government minister.

- 2 ► What are the objectives of the NWSC?

The main objective of NWSC is to provide a public service; it is committed to the provision of good quality customer service. NWSC aims to supply everyone with clean safe

water within a 200m distance of all towns and urban centres (supply in these areas is currently 78 per cent). On the NWSC website, it states that *'The Customer is the reason we exist. We do everything to the delight of our customer.'*

3 ▶ Why do you think the government gets involved in business ownership?

In the private sector, most businesses aim to make a profit. However, organisations in the public sector aim to provide a public service. Sometimes providing a public service may be unprofitable, therefore private sector firms would not be interested in supplying the market. Consequently, the government needs to run and own organisations so that the provision of particular public services can be funded from taxpayers' money.

Also, some industries, like water supply, are crucial to the well-being or security of the nation. Therefore, since they are so important, it is arguably better if the government takes control so that supply and quality can be guaranteed.

ACTIVITY 2

CASE STUDY: PUBLIC GOODS IN BANGLADESH

1 ▶ Why are flood defence systems classified as a public good?

Like all public goods, flood defence systems possess two particular characteristics. First, they are non-excludable. This means that once a public good is provided in the market, any individual consumer cannot be excluded from its consumption. Also, an individual consumer cannot refuse consumption of the good even if they wanted to. In this case, an individual cannot be singled out and excluded from the protection provided by a flood defence system. Neither can an individual living in an area prone to flooding refuse to benefit from that protection. Second, consumption of a public good by one individual cannot reduce the amount available to others. For example, someone enjoying the protection provided by a flood defence system does not prevent the same protection being enjoyed by others. This is called non-rivalry.

2 ▶ Why do governments need to intervene when there is market failure?

Governments have to intervene in a number of instances where market failure occurs. For example, they will have to regulate certain markets to ensure that competition exists. In this case, governments have to provide public goods because of missing markets. If the private sector were to provide public goods there would be a free rider problem. Since it is impossible to exclude the consumption of a public good by an individual consumer, there is little reason for people to pay for it. A free rider is someone who enjoys the benefit of a good but allows others to pay for it. For this reason, the private sector would not supply such markets and only a government can ensure that goods like flood defence systems are provided.

MULTIPLE-CHOICE QUESTIONS

1 ▶ A is the correct answer. In most countries, motorways are provided by the government. Their construction and

maintenance is funded from taxpayers' money. Cars, books and cinemas will be provided by private sector organisations.

2 ▶ C is the correct answer. The main aim of most public sector organisations is to provide a public service. Survival, profit maximisation and growth are the various aims of private sector organisations.

CASE STUDY: MIXED ECONOMIES

1 ▶ What is meant by the term 'mixed economy'?

A mixed economy relies on both the public sector and the private sector to provide goods and services. It recognises that consumer goods are best provided by the private sector and public goods and merit goods are best supplied by the public sector. Consumer goods are distributed by the market system and public sector goods are generally provided free to everyone.

2 ▶ In Figure 11.4, in which country does the public sector play the greatest role? Explain your answer.

Of the sample of countries shown in Figure 11.4, the public sector probably plays the greatest role in Finland. This is because government expenditure as a percentage of GDP in Finland is higher than all other countries. A high level of government expenditure is an indicator of public sector involvement in a mixed economy.

3 ▶ Describe the main method used in South Korea to distribute goods and services.

Figure 11.4 shows that government expenditure as a percentage of GDP in South Korea is lowest of the group at 32 per cent. Since government spending is relatively low, this suggests that the majority of goods and services are produced in the private sector. Since it is the market system that distributes private sector goods, it follows that most goods in South Korea are distributed by the market system.

4 ▶ In Figure 11.4, in which country would you expect taxes to be highest? Explain your answer.

Government spending, as a percentage of national income, is at its highest in Finland (58 per cent). Since high levels of government spending have to be funded mainly from taxation, it would be expected that Finland has the highest taxes in the sample shown.

5 ▶ In some countries, such as India and China, air pollution is a very serious problem. To what extent is this an example of market failure?

It might be argued that some firms in India and China are ignoring some of the costs of production. In these two countries, where air pollution is a very serious problem, firms may be polluting the atmosphere during production. This is because they have not taken measures to clean the waste it releases into the atmosphere. This imposes a cost on society such as poor air quality which might cause ill health or other problems. This is an example of market failure because the market system has resulted in costs that are not being met by those who impose them.

CHAPTER 12

CASE STUDY: GREEK AIRPORT PRIVATISATION

1 ▶ Why were the Greek airports privatised?

Control of the 14 airports was sold to generate cash for the Greek government. After the financial crisis in 2008, it was discovered that the Greek government had acquired extremely large debts. To help deal with these debts, Greece had to borrow large amounts of money from the EU to prevent the country from going bankrupt. In order to receive a package of loans amounting to €86 billion, it had to promise international lenders that it would start selling off some state assets. The deal raised €1.23 billion for the Greek government but Fraport will also pay Greece an annual operating fee of €22.9 million.

2 ▶ Describe the possible benefits of the privatisation to consumers.

It is possible that consumers will benefit from Fraport's involvement in the running of the 14 Greek airports. The quality of service might improve, for example. Fraport have promised to invest €330 million in airport infrastructure. The investment was expected to improve the quality and efficiency of airport operations. This might also help to attract more tourists to Greece since they will enjoy a more pleasant experience at the airports.

ACTIVITY 1

CASE STUDY: PRIVATISATION MOTIVES

1 ▶ To what extent does this extract suggest that the government is committed to more privatisation in the future?

The extract makes it quite clear that the government is committed to privatisation in the future. There are two clues in the article. It says that 'the state should withdraw from areas in which it is no longer required' and at the end of the article it states 'sell off public assets that the state no longer needs to own'. These statements make it quite clear that privatisation in the future is highly likely.

2 ▶ According to this extract, what are the motives for future, possible privatisation?

The White Paper is about improving public services. In the extract it says that the motives for possible privatisation are to secure the greatest possible efficiency for every pound of taxpayers' money it spends. The article also says that it is vital to strip out waste and improve productivity.

3 ▶ Suggest two other possible reasons for privatisation.

In the past, reasons for privatisation have included:

- generating revenue for the government
- selling off inefficient nationalised industries
- widening share ownership
- reducing political interference.

ACTIVITY 2

CASE STUDY: PRIVATISATION IN CHINA

1 ▶ What is meant by mixed ownership in this case?

Mixed ownership in this case means that the Chinese government wants the private sector to share in the ownership of state-owned enterprises (SOEs). The government wants a mix of both private and public sector ownership of these organisations. Many of the SOEs are currently owned and controlled by local government.

2 ▶ Discuss why the government wants to accelerate the privatisation process in China. Include two reasons in your answer.

One reason why the Chinese government wants the private sector to get involved in the ownership of SOEs is to improve their performance. The graph in Figure 12.2 shows that SOEs do not perform as well as those in the private sector. For example, in 2014, the return on assets for SOEs was just under 5 per cent. However, in the private sector returns were much closer to 9 per cent. The government made a statement saying that it planned to accelerate the process in order to 'clean up and integrate some of China's state-owned enterprises (SOEs)'. It wanted to make its SOEs more innovative and internationally competitive. SOEs have underperformed in recent years and it is felt that private sector involvement will help to increase investment and improve efficiency. The announcement also made it clear that mixed ownership was preferred.

Secondly, some felt that the acceleration of privatisation was caused by the slowing of growth in the Chinese economy. The government said growth in China's investment and factory output had missed forecasts. As a result, it was felt that Chinese economic growth may dip below 7 per cent for the first time since the global financial crisis. The government thinks that private sector involvement in SOEs will improve performance which will help to increase economic growth in China.

3 ▶ Assess one possible difficulty that might be encountered when encouraging the private sector to get involved in the running of SOEs in China.

It has been suggested that there may be some opposition to the acceleration in privatisation. This might create difficulties for an acceleration in the privatisation programme. For example, many local governments may not be happy about sharing ownership of SOEs with private investors since their ties with SOEs are very strong. As a result, they may be slow in giving up control. The delay could hold back the process. Also, there might be a problem attracting interest from the private sector. There was a stock market crash in China in 2016 and many private investors will be anxious about buying shares again. This might make it difficult to get private sector investors to buy stakes in SOEs.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** B is the correct answer. One of the main motives of privatisation for some governments is to generate more revenue to help fund public spending.

- 2 ► C is the correct answer. In the run up to, and following, privatisation, companies often lay off workers to reduce costs.

CASE STUDY: WATER PRIVATISATION

- 1 ► Calculate the percentage increase in water charges for the four water companies shown in Table 12.1.

	2003/04	2013/14	% Change
Northumbrian	£207	£359	73
Southern	£252	£449	78
Wessex	£263	£478	82
Thames	£203	£354	74

- 1 ► Describe one reason why a government might benefit from the privatisation of water supplies.

A government is likely to benefit from water privatisation financially. Initially, when a state-owned water company is sold to the private sector, the government will get to keep the revenue from the sale. The government will also save money because it will not have to provide the investment funds needed for the development of water infrastructure. This will be provided by the private sector. Finally, the government will also collect tax revenues from water companies if they make profits.

- 2 ► Why might privatisation result in better efficiency?

One of the main criticisms of nationalised industries is that they lacked the incentive to make a profit and often made losses. It was argued that in the private sector they would have to cut costs, improve services and return profits for shareholders. They would also be more accountable. For example, in the private sector, if customer needs are not met, a company may lose customers and struggle to generate enough revenue and profit to survive (assuming there was competition in the market). Therefore market pressure will ensure that companies will improve their efficiency.

- 3 ► What impact might privatisation have on businesses? Give two impacts in your analysis.

Much of the evidence suggests that water companies have done very well after privatisation. For example, the profits of two water companies in the UK have risen dramatically since privatisation. Northumbrian Water's operating profit jumped from £165.3 million in 2001–2002 to £338.8 million in 2011–2012 (more than double), while South West Water's operating profit increased dramatically from £107 million to £204.7 million. Once in the private sector, companies do not suffer from government interference and they have full control over important factors such as pricing. Consequently, they are free to make business decisions which can help to improve performance.

Some water companies have invested heavily in the water infrastructure since privatisation. For example, since privatisation, British water companies have invested nearly £120 billion in water infrastructure such as new pipes, treatment plants and sewers. This investment will help to improve efficiency and water quality and will help to justify any price increases made by water companies.

In the future, water companies will be free to develop and diversify. They may get involved in other business activities. For example, they may enter overseas markets in an effort to grow their operations and increase returns to shareholders.

- 4 ► Assess the impact of water privatisation on consumers.

The impact that water privatisation has had on consumers is difficult to establish. There is general disagreement about the overall impact. Many argue that consumers have been disadvantaged. One of the main reasons for this is because prices have risen. Once water supply is taken into private ownership there is very little, if any, competition. As a result, water companies can raise prices without any opposition. Evidence of this is provided from the calculations in (c). Prices set by four UK companies have increased very sharply by between 70 and 80 per cent over 10 years.

Another reason why consumers may be disadvantaged after privatisation is because water quality is not always maintained. This is because water companies, in pursuit of profit, can sometimes minimise costs and overlook the environmental impact of their activities. In the US, The National Association of Water Companies (NAWC), which represents the US private water industry, has put pressure on the Environmental Protection Agency to not adopt higher water quality standards.

It is also argued that consumers are largely ignored by water companies because they only aim to meet the needs of shareholders. After privatisation, as a result of the 25–30 year deals done with governments, they become monopolies and are accountable only to shareholders. This means that profits become the main focus of the companies. For example, Northumbrian Water's operating profit jumped from £165.3 million in 2001–2002 to £338.8 million in 2011–2012 (more than double), while South West Water's operating profit increased dramatically from £107 million to £204.7 million.

However, others argue that consumers have benefited from water privatisation. They argue that efficiency and the quality of service will improve. This is because businesses in the private sector have to perform well or they will not survive. They also say that the private sector will provide far more investment in water infrastructure than the public sector. For example, since privatisation, British water companies have invested nearly £120 billion in water infrastructure such as new pipes, treatment plants and sewers. Private companies are more capable of raising funds than governments to finance investment. This is because private companies specialise in one area whereas governments have many different areas of investment to consider.

Across the world, it is difficult to say whether consumers have benefited significantly or not. In some cities, like Guayaquil in Ecuador, Bucharest in Romania, and in Colombia, Morocco and Senegal, it has been claimed that water privatisation has been successful. However, in countries, such as Bolivia, Tanzania, Indonesia, and in parts of Europe, water privatisation is said to have failed. In one example, in Manila, a 25-year, US\$2.7 billion project, using both private and public sector ownership, took control of water supply. This was claimed to be a success because

the project provided an extra 1.7 million people with clean water, reduced diarrhoea cases by 51 per cent, and offered customers significant savings, charging 20 times less than previous water vendors. However, opponents claimed that Manila's water privatisation led to continual price increases, legal challenges, investigations, failures to provide certain districts with water, and has given the companies unfair returns for their work. When two different groups make two different claims about the outcomes of water privatisation in the same area, it is challenging to come to a definite conclusion.

CHAPTER 13

CASE STUDY: PRODUCTION

- 1 ▶ Describe one possible reason why a business might continue to impact negatively on those outside the business as a result of its production activities.**

It is not unusual for business activity to have an impact on people outside a business. In this case, people in a residential area are having to suffer the consequences of pollution caused by the burning of waste material. The business has been fined which should serve as a warning to stop the pollution. One reason why businesses continue production knowing that third parties are being negatively affected is because the measures needed to prevent the impact would be expensive. In this case it is possible to reduce emissions from burning materials by building taller chimneys or treating the emissions before they are discharged. However, this would increase business costs and lower profits. Consequently, some businesses are content to carry on with this behaviour until they are legally prevented from doing so.

- 2 ▶ How might the consumption of a good by one person bring benefits to third parties? Use this case as an example in your explanation.**

Sometimes, the consumption of a product by one consumer can result in benefits for others. In this case, Mr and Mrs Salomonsson have spent SEK 5000 on their Christmas lights. As a result of this act of consumption, other people in the area are enjoying the benefits. People who did not pay for the lights can still enjoy the display. Evidence of this is the fact that people from several miles away make a special journey to view the Salomonssons' Christmas lights.

ACTIVITY 1

CASE STUDY: EXTERNALITIES IN FACTORY FARMING

- 1 ▶ What is meant by external costs? Use examples from this case in your explanation.**

Some production activity results in costs that are incurred by third parties. Third parties are people outside the business. They are neither owners nor employees – they may be individuals such as local residents, organisations, property owners or a resource such as a river. These external costs are the spillover effects of production. Factory farming may result in a number of external costs. For example, there may be an increase in the number of antibiotic-resistant bacteria because of the excessive use

of antibiotics in factory farming. This could cause health problems to the wider community in the future. Factory farming also results in air quality problems and the pollution of rivers, streams and coastal waters with animal waste.

- 2 ▶ Discuss how the growth in the popularity of free range chickens might affect the size of the external costs in this case.**

In some countries, there has been an increase in demand for free range chickens. If this increase has reduced the demand for factory farmed chickens, then the external costs resulting from factory farming should fall. For example, if a single farmer switches from factory farming to producing free range chickens, the possible external costs resulting from that one farm will disappear. However, if the increase in demand for free range chickens comes in addition to the current demand for factory farmed chickens, there will be no effect on external costs.

ACTIVITY 2

COSTS AND BENEFITS OF CAR OWNERSHIP

- 1 ▶ What are the possible private (a) costs; (b) benefits to Sally of buying the car?**

(a) A The private costs to Sally of buying the car will be the US\$12 000 she paid for the car and the \$3300 she paid for car insurance. However, there will be other running costs such as fuel for the car, maintenance costs and any taxes associated with car ownership.

(b) Sally had been looking forward for many months to the convenience and flexibility which car ownership provides. These will be the main private benefits that she will enjoy.

- 2 ▶ What are some of the possible external costs resulting from Sally's purchase? Use this case as an example in your explanation.**

Cars are responsible for a significant amount of pollution in the world today. Cars that are fuelled by petrol and diesel produce carbon emissions which can damage the environment. For example, these emissions are said to be partly responsible for global warming. Too many cars on the world's roads and motorways is now causing serious congestion in many countries. This causes delays to commercial and business traffic and hold-ups for other drivers which can lead to frustration and accidents. Also, in some cases the noise from the constant noise of traffic can be very annoying to those who live close to roads and motorways. These are all examples of external costs that result from cars. Sally will now be making a contribution to these external costs.

- 3 ▶ What is meant by social cost? Use an example from this case in your explanation.**

The costs to society as a whole of an economic activity, the social cost, are made up of private costs and external costs. In this case the private cost to Sally of buying the car will be the US\$12 000 she paid for the car and the \$3300 she paid for car insurance. In addition there will be other running costs such as fuel for the car, maintenance costs and any taxes associated with car ownership.

The external costs in this example include any environmental damage caused by emissions from the car and the contribution to congestion made by Sally when driving the car. Congestion causes delays to commercial and business traffic and hold-ups for other drivers which can lead to frustration and accidents. Also, in some cases the noise from the constant noise of traffic can be irritating to those who live close to roads and motorways. Added together, the private costs of car ownership and the external costs identified in this case, represent the total social cost.

Social cost = private costs + external costs (negative externalities)

MULTIPLE-CHOICE QUESTIONS

- 1 ► C is the correct answer. Noise from passing aircraft is a common example of noise pollution for those living underneath flight paths. This is an external cost of production.
- 2 ► C is the correct answer. The social cost of an economic activity such as production includes both the private costs and the external costs added together.

CASE STUDY: POLLUTION IN CHINA

The number of cars in China is expected to grow from 90 million to 400 million by 2030.

- 1 ► **Calculate the percentage increase in the number of cars in China between now and 2030.**

The percentage growth in car ownership in China is given by:

$$\frac{310}{90} \times 100 = \mathbf{344.4 \text{ per cent}}$$

- 2 ► **Comment on the size of the external costs identified in this case.**

External costs are the spillover effects of production. These costs are borne by third parties, that is, people outside the business. They are neither owners nor employees – they may be individuals such as local residents, organisations, property owners, or a resource such as a river. The external costs discussed in this case include air and water pollution in China. They appear to be considerable. For example, according to the World Bank, 16 of the world's 20 most polluted cities were in China and even the Chinese government admits that about one-fifth of city dwellers breathe badly polluted air. A World Health Organisation (WHO) study said that the amount of airborne suspended particulates in northern China is about 20 times higher than 'safe levels'.

Much of the pollution comes from heavy industry such as metal extractors and coal-fired power stations that surround many Chinese cities. Many cities are spoiled by the smell of high-sulphur coal and cheap petrol. In Shanghai and Beijing, the pollution is so bad that airports have to be closed because of poor visibility. It has been said that people living above the fifth floor in some city tower blocks cannot see the ground beneath them and the sight of blue sky is rare.

Another external cost in China is water pollution. For example, around 60 per cent of China's underground water

supplies are said to be polluted. In addition, much of the drinking water in rural areas is unfit for human consumption because of pollution from fertilisers, pesticides and industrial activity. A newspaper report said that Chinese water authorities admitted in 2012 that up to 40 per cent of the country's rivers are 'seriously polluted'. Also, a report in 2012 found that up to 200 million rural Chinese have no access to clean drinking water. China's lakes are often affected by pollution-induced algae blooms, causing the surface of the water to turn a bright green. In eight out of ten coastal cities sewerage, and excessively polluted water, are discharged directly into the sea near resorts and farm locations. In many rural areas, there are no systems to treat waste water. The limited evidence in this case alone suggests that external costs in China are very high.

- 3 ► **Discuss the methods used by the Chinese government to reduce external costs.**

A number of methods are available to governments to help reduce external costs or increase external benefits. In this case, the Chinese government has used legislation and a system of fines. It has introduced laws which ban industrial plants, paper mills and refineries that pollute the country's water supplies. The government wanted to lift the share of good quality water to more than 70 per cent by 2020 in seven major river basins including the Yellow and Yangtze. Already the government has blocked some industrial projects, such as coal gasification plants, because they use up too much water or pollute water systems. The plan will focus on small-scale paper factories, leather, printing and dyeing, oil refineries, electronic plating and pharmaceutical factories. The new environmental laws will mean tough penalties for polluters with threats of jail for parties responsible for pollution. Recently, the China National Petroleum Corporation agreed to pay 100 million yuan in compensation following claims it leaked benzene into waterways in Lanzhou, north-east China. The government also plans a crackdown on corrupt officials who have encouraged polluting industries in the past.

The government is also targeting air pollution. For example, companies polluting the atmosphere will face fines without a ceiling. Non-government organisations will also be encouraged to sue offenders and local governments will be held accountable for introducing environmental policies. New laws give rights to newly established Environmental Protection Bureaux (EPBs) to fine polluting companies separately with no upper limits. It has been reported that during the first eight months of the new law's implementation in 2015, there were 405 groups fined for these separate offences, with fines worth a total of 330 million yuan.

- 4 ► **Assess one possible problem of using legislation to reduce external costs.**

One of the problems with government regulation in some countries is that even though laws exist, they are not easily enforced. Governments may lack the commitment to enforce laws or they may not have enough resources for enforcement. Also, some of the companies responsible for pollution are powerful, well-resourced multinationals and are prepared to stand firmly against governments in legal disputes. In this case, new laws give rights to newly

established Environmental Protection Bureaux (EPBs) to fine polluting companies separately with no upper limits. It has been reported that during the first eight months of new law's implementation in 2015, there were 405 groups fined for these separate offences, with fines worth a total of 330 million yuan. This possibly suggests that the Chinese government is serious about reducing external costs and will be more proactive in punishing offenders.

CHAPTER 14

CASE STUDY: LG ELECTRONICS

1 ► What resources does LG Electronics use in its production activities?

- Machinery, tools, computers and other equipment
- Raw materials such as sheet metal
- Parts for washing machines such as drums, glass doors, electric motors, belts, nuts and bolts, and metal sheets
- Energy such as gas and electricity
- Labour
- Buildings such as factories, warehouses and offices

Note: many other answers are possible.

2 ► What is the size of LG's workforce?

LG Electronics employs over 80,000 people. This is the size of its workforce.

3 ► What might be the impact on LG Electronics if resources become more expensive?

If resources become more expensive for LG Electronics, they may respond by cutting supply. This means that production levels will fall. If output falls, they will have less to sell so revenue might fall. However, if LG is able to raise prices, revenue might actually rise. It does say in the case that revenue fell in 2015. However, the reasons for the fall are not given.

ACTIVITY 1

CASE STUDY: ALONSO CORTEZ

1 ► Suggest two examples of capital that Alonso is likely to use.

Examples of capital used by Alonso mentioned in the case include the 50-seater coach, mobile phones, office furniture and a computer.

2 ► Why is Alonso Cortez an entrepreneur? Use evidence in this case to support your answer.

Entrepreneurs are responsible for setting up and running small businesses. Without them, production would not take place. Alonso has set up a bus company to provide a passenger transport service from Madrid city centre to the airport. This was his idea and he owns the business. These are both features of entrepreneurship. Alonso has also taken some risk. He has invested €20,000 of his own money. If the business is not successful, he may lose some, or all, of this money. Alonso also organises other production factors. He has purchased some capital and hired two drivers to work for him.

ACTIVITY 2

CASE STUDY: OLIVE OIL PRODUCTION

1 ► What is the difference between the primary and the secondary sectors? (Use examples from this case study.)

In the primary sector, business activity involves extracting raw materials from the earth. In this case, olive growing by the Casillas family is an example of farming. Farming is probably the most important primary sector activity for most countries. Most agriculture is concerned with food production like olive growing in this example.

The secondary sector is to do with manufacturing and processing. In this case, olives are being processed into olive oil. Machinery is likely to be used to squeeze the oil from the olives. This might be followed by a cleaning process to ensure that the olive oil is sufficiently pure.

Look at Figure 14.3.

2 ► What has happened to the number of people employed in agriculture in Spain since 1980?

In Spain, like many countries, the number of people employed in agriculture is falling. The graph in Figure 14.3 shows that the number of people employed in agriculture has fallen from around 19 per cent in 1980 to just under 5 per cent in 2013.

3 ► Describe one possible reason for the pattern described in 2.

One of the main reasons why employment in agriculture has fallen so sharply in Spain is because of advances in technology. Before and around the 1980s, farmers may have relied more heavily on labour. However, due to the growing availability of affordable technology, they may employ more machines. There have been enormous technological developments in agriculture throughout the world. In this case, Marco Casillas is considering the purchase of some harvesting machinery to reduce labour costs and remain competitive. Once such machines have been purchased, the need for labour drops sharply.

MULTIPLE-CHOICE QUESTIONS

- C is the correct answer. Ford is a manufacturing company; it makes cars. The other three businesses all operate in the tertiary sector.
- D is the correct answer. A birthday card is not a factor of production; it is a final product.

CASE STUDY: HISENSE

1 ► Suggest two renewable resources likely to be used by Hisense.

Non-renewable resources are those that cannot be replaced once they have been used. Examples include mineral deposits like coal, oil, diamonds and limestone. It is likely that one day these resources will completely run out. Hisense may use some non-renewable resources. Some of the parts used to make products will be made from metals. The original sources of metals such as iron, zinc and copper will be natural resources which are non-renewable.

2 ► What is the difference between secondary and tertiary production? (Use examples from the case study.)

The secondary sector involves manufacturing and processing, that is, the conversion of raw materials into goods. In this case, Hisense is a manufacturer of white goods and a range of electronic products. It makes these goods in a wide range of factories both in China and abroad.

The tertiary sector is concerned with the provision of services. There are many different types of services such as professional, household, transport and financial. In this case, Hisense has started providing services in new areas such as information technology and design. These services are aimed mainly at other businesses.

Look at Figure 14.5.

3 ► What evidence is there to suggest that China's economy has become more balanced since 1990?

The pie charts in Figure 14.5 show some important changes in the amount of employment in different sectors of the economy between 1990 and 2015. In 1990, China employed 60 per cent of its workforce in agriculture. By 2015, this had fallen to just 28.3 per cent. In contrast, the number of people employed in the tertiary sector rose from 18 per cent to 42.4 per cent. Employment in the secondary sector also grew from 22 per cent to 29.3 per cent. These changes have resulted in a more balanced economy for China. In 2015, it was less dependent on agriculture than it was in 1990. However, if the changes follow the same trend, China's economy may become more unbalanced in the future as it becomes more dependent on services.

4 ► What is meant by de-industrialisation?

De-industrialisation occurs in well developed countries such as the US, Germany, Japan and France. It involves the decline of the manufacturing sector at the expense of the tertiary sector. In the last 20 or 30 years, many Western-style economies have seen employment in manufacturing fall sharply. However, at the same time there has been a steady increase in the quantity and value of services.

5 ► Assess the main causes of de-industrialisation.

A number of suggestions have been given to explain the process of de-industrialisation. There may have been a change in consumer demand. People may prefer to spend more of their income on services rather than manufactured goods. For example, people may be spending more on holidays, restaurants, travelling and personal services and less on consumer durables. Competition in manufacturing may be another important reason. Recently, there has been some fierce competition in the production of manufactured goods from developing countries such as India, China, Thailand and Brazil. These countries can often produce manufactured goods more cheaply than in Western economies. In this case, China has seen an increase in the manufacturing sector. In the last 30 years or so, China has developed a competitive edge in this sector due mainly to its cheap and large supply of labour.

Another reason is that as countries become more developed, the public sector tends to grow. Since the public sector mainly provides services such as education,

transport and health care, this adds to the growth of the tertiary sector. Finally, advances in technology mean that employment in manufacturing falls because machines replace people. The reason for the decline in manufacturing in well developed countries may be different depending on the circumstances of the individual nation. For example, a country which has an inefficient manufacturing sector may be at risk because of overseas competition. In this case, China, which is still classified as a developing country (although it is developing rapidly), has seen an increase in the tertiary sector from 18 per cent to around 42 per cent. This trend is likely to continue in the future as the country develops – the tertiary sector will grow as it has done in developed nations.

CHAPTER 15

CASE STUDY: RED CARNATION HOTELS

1 ► Suggest two possible examples of specialist workers at Red Carnation Hotels.

Two examples of specialist workers at Red Carnation Hotels might be [any from]:

- Executive
- Sauce Chef
- Patisserie Chef
- Sommelier
- Maitre'd' Hotel
- Human Resources Manager
- Accountant

Note: Many other answers may be appropriate.

2 ► Describe one advantage of employing specialist workers.

Specialist workers are likely to be highly trained in one particular field. They will be skilled and more productive than a general worker occupying the same position. When people focus on one specialist area, they often become experts. Their work is usually better than that of general workers and the productivity of the business should rise and profitability should improve.

3 ► Discuss the importance of training at Red Carnation Hotels.

Red Carnation Hotels values training very highly. The company holds an Investors in People Gold Award and has a staff turnover rate which is far below the industry average. The hotels offer very high standards of personal service to guests which the owners believe can only be delivered if people are given personalised training. In addition to basic training, Red Carnation offers learning opportunities that are internationally recognised beyond its own organisation. The company encourages staff to develop new skills which helps to motivate them, so keeping their service to guests at the highest level. Workers can access additional training to help career development and the business employs extra people so staff can be released from duty. Red Carnation Hotels runs more than 80 of its own training courses which include foundation skills for team members and foundation skills for managers, for example.

ACTIVITY 1

CASE STUDY: PRODUCTIVITY IN COFFEE GROWING

- 1 ► Calculate the labour productivity on Bernard's estate in 2015 and 2016.

$$\begin{aligned} \text{2016 Labour productivity} &= \frac{\text{Total output}}{\text{Number of workers}} = \frac{450}{22} \\ &= 20.45 \end{aligned}$$

- 2 ► What is the possible reason for the change in labour productivity on Bernard's estate?

Between 2015 and 2016, labour productivity at Bernard's estate has risen from 15.83 sacks of coffee beans to 20.45 sacks. This is a significant increase – around 33 per cent. The improvement in productivity may be the result of Bernard introducing a financial incentive scheme to motivate the workforce on the estate. Even though the workforce has fallen by two people in the time period, the amount produced per worker has increased. Workers may now be working much harder.

- 3 ► How might farmers improve the productivity of land? Include two methods in your explanation.

The quality of land varies. Some is fertile and can be used to grow crops or farm cattle. Other land is dry or mountainous and is almost useless. However, measures can be used to make agricultural land more productive. For example, fertilisers, which are chemicals given to plants to improve their health and appearance, can raise crop yields. Pesticides can be used to kill insects or animals that attack crops. However, pesticides and some fertilisers can harm people, wildlife and the environment. This is why there are strict controls in place over their sale and use.

Another method farmers might use to improve the productivity of land is to provide it with more water. An irrigation system might be used which involves redirecting water from natural sources, such as rivers, lakes or streams, to land which needs more water to become more productive. In crop production, irrigation is mainly used in dry areas and in periods of rain shortages but also to protect plants against frost. Irrigation systems are used in many parts of the world.

ACTIVITY 2

CASE STUDY: PINTERS LTD

- 1 ► What is meant by the division of labour? Use the example in this case to support your answer.

In many businesses, the production process is broken down into small parts and each worker is allocated a specific task. This is called the division of labour. It allows people to concentrate on the task or skill at which they are best. The division of labour is evident at Pinters Ltd. Four production workers are employed in each production area. For example, workers entering the moulding department received 2 years of training and then remained in that particular area. They became specialists in that area of production. There was also a division of labour in the office. A specialist marketing manager was employed and a specialist designer.

- 2 ► Suggest two disadvantages to Pinter's employees of specialising in one area of production.

Two disadvantages of Pinter's employees specialising are:

- boredom
- overspecialisation if made redundant, that is, they may not be able to find a new job if their skills are no longer required.

- 3 ► To what extent do the advantages of the division of labour outweigh the disadvantages at Pinters Ltd?

One of the main advantages of the division of labour to Pinters Ltd is that workers can perform tasks quickly and accurately. There are fewer mistakes and productivity will rise. There may be a greater use of specialist tools, machinery and equipment when workers specialise. Production time is reduced because workers do not have to waste time moving from one task to another. This often involves moving around the workplace collecting tools, changing workstations and resetting machinery. Specialists are likely to remain at the same workstation repeating their task without the need to move around. This is certainly the case in the Trimming Department at Pinters Ltd.

However, there are disadvantages of the division of labour. One problem is that if tasks are too repetitive and boring, people become dissatisfied and poorly motivated. This might result in poor quality work, staff arriving late to work, increased rates of absence and high staff turnover. Problems can also occur if one stage of production depends on another stage. If one stage breaks down, all other stages may also have to be stopped. Specialisation may result in a loss of flexibility in the workplace. For example, if a moulding worker is absent, and there is no one else with those skills, production may be disrupted.

To conclude, Pinters Ltd will probably be happy with the level of specialisation; there is no information in the case which suggests otherwise. They must be happy with high levels of specialisation because there are no plans to increase flexibility.

MULTIPLE-CHOICE QUESTIONS

- 1 ► A is the correct answer. Job rotation involves allowing employees to move between different tasks or jobs during a period of time. It is a non-financial method of motivation.
- 2 ► B is the correct answer. Specialists often have to do the same work over and over again. This is repetitive and so can become boring.

CASE STUDY: PENTANGLE PLASTICS

- 1 ► What is meant by the term labour productivity?

Labour productivity is defined as output per worker. It is the amount of output a worker produces in a given period of time. Labour productivity can be calculated if total output is divided by the number of workers employed.

- 2 ► Calculate labour productivity at Pentangle Plastics in 2014 and 2015 to show that it has fallen.

$$\text{2014 Labour productivity} = \frac{25,000,000}{50} = 500,000 \text{ units p.a.}$$

$$\text{2015 Labour productivity} = \frac{24,000,000}{50} = 480,000 \text{ units p.a.}$$

- 3 ▶ Suggest two ways in which the production manager can improve motivation at the company by reducing boredom.**

The new production manager at Pentangle Plastics carried out a staff survey and discovered that many workers were bored with their jobs. Jobs can be made more interesting by adopting job rotation, team working or empowerment.

- 4 ▶ The new manager favours the introduction of robots in the factory. How might this reduce worker boredom?**

The new production manager plans to introduce new technology in the factory to improve productivity. The production manager particularly approves the use of robots. Robots respond to instructions from a computer and handle a lot of the repetitive work in factories. Robots have reduced the need to employ people in jobs that were boring and demotivating. As a result, workers at Pentangle Plastics may be able to avoid the boring and repetitive work.

- 5 ▶ Assess the advantages to (a) Pentangle Plastics (b) the Chinese economy, of improving productivity at the factory.**

- (a)** If productivity improves at Pentangle Plastics, more output will be produced with the same quantity of resources. This means that unit costs will be lower. Therefore, the company should make more profit. The company may also gain a competitive edge over its rivals. This will help to win a larger market share.
- (b)** Improvements in productivity at Pentangle Plastics will also benefit the Chinese economy. This is because improvements in productivity shift the PPC out to the right. This means that more goods and services can be produced with a given quantity of resources. As a result the country is better off – it is wealthier.

CHAPTER 16

CASE STUDY: FINDERS CONSTRUCTION

- 1 ▶ Suggest four costs incurred by Finders Construction that will rise when more houses are built.**

Examples of costs that will rise when more houses are built include bricks, sand, cement, timber, pipes, glass, electrical wire, plastic window frames, insulation materials and labour.

- 2 ▶ Suggest four costs incurred by Finders Construction that remain unchanged when more houses are built.**

Examples of costs that will remain unchanged when more houses are built include machinery such as cement mixers, lifting gear, vehicles; tools and equipment such as spades, trowels, wire cutters, saws, power tools, protective clothing, computers, smartphones and office furniture at the company office.

- 3 ▶ Calculate the profit made by Finders Construction in 2016.**

$$\begin{aligned}\text{Profit} &= \text{Total revenue} - \text{total cost} \\ &= \text{US\$64,340,700} - \text{US\$56,450,200} \\ &= \text{US\$7890,500}\end{aligned}$$

ACTIVITY 1

CASE STUDY: KANDASAN CRICKET BATS

- 1 ▶ What is meant by a fixed cost? Use examples from the case to support your answer.**

Fixed costs are costs that do not vary with output. If output is increased, for example, fixed costs will remain exactly the same. In this case, examples of fixed costs include rent, business rates and other fixed costs. These are annual costs and do not vary with output.

In 2015, Kandasas Cricket Bats produced 4800 bats.

- 2 ▶ Calculate the total cost of production.**

$$\begin{aligned}\text{TC} &= \text{FC} + \text{VC} \\ &= (\text{Rs}50,000 + \text{Rs}5,000 + \text{Rs}25,000) + 4800 \times (\text{Rs}30 + \text{Rs}10 + \text{Rs}50 + \text{Rs}10) \\ &= (\text{Rs}80,000) + 4800 \times (\text{Rs}100) \\ &= \text{Rs}80,000 + \text{Rs}480,000 \\ &= \text{Rs}560,000\end{aligned}$$

In 2016, the rent increased to Rs60,000 and 6000 bats were produced.

- 3 ▶ Calculate the total cost of producing 6000 bats taking into account this cost increase.**

$$\begin{aligned}\text{TC} &= \text{FC} + \text{VC} \\ &= (\text{Rs}60,000 + \text{Rs}5,000 + \text{Rs}25,000) + 6000 \times (\text{Rs}30 + \text{Rs}10 + \text{Rs}50 + \text{Rs}10) \\ &= (\text{Rs}90,000) + 6000 \times (\text{Rs}100) \\ &= \text{Rs}90,000 + \text{Rs}600,000 \\ &= \text{Rs}690,000\end{aligned}$$

ACTIVITY 2

CASE STUDY: JENKINS LTD

In 2015, Jenkins produced and sold 4500 control systems.

- 1 ▶ Calculate the total cost.**

$$\begin{aligned}\text{Total cost} &= \text{Fixed cost} + \text{Variable cost} \\ &= \text{US\$160,000} + (4500 \times \text{US\$120}) \\ &= \text{US\$160,000} + \text{US\$540,000} \\ &= \text{US\$700,000}\end{aligned}$$

- 2 ▶ Calculate the total revenue.**

$$\begin{aligned}\text{Total revenue} &= \text{Price} \times \text{Quantity} \\ &= \text{US\$250} \times 4500 \\ &= \text{US\$1,125,000}\end{aligned}$$

- 3 ▶ Calculate the profit.**

$$\begin{aligned}\text{Profit} &= \text{Total revenue} - \text{Total cost} \\ &= \text{US\$1,125,000} - \text{US\$700,000} \\ &= \text{US\$425,000}\end{aligned}$$

In 2016, fixed costs and the price charged remained the same. However, variable costs rose to US\$140 per system.

- 4 ► Calculate the profit made in 2016 if 5200 systems were sold.

$$\begin{aligned}\text{Profit} &= \text{Total revenue} - \text{Total cost} \\ &= \text{US}\$250 \times 5200 - (\$160,000 + 5200 \times \text{US}\$140) \\ &= \text{US}\$1300,000 - (\$160,000 + \text{US}\$728,000) \\ &= \text{US}\$1300,000 - \text{US}\$888,000 \\ &= \text{US}\$412,000\end{aligned}$$

MULTIPLE-CHOICE QUESTIONS

- 1 ► C is the correct answer. $AC = TC \div Q = \text{US}\$35,000,000 \div 100,000 = \text{US}\350
- 2 ► A is the correct answer. $TC = FC + VC = \text{£}400,000 + (50,000 \times \text{£}10) = \text{£}900,000$

CASE STUDY: MAHABIR METALS

- 1 ► What is meant by the term variable costs?

Variable costs are those costs that change when the level of output changes. They will rise, for example, when output is increased. An example in this case is the cost of the metal, pipes and paint that Mahabir Metals uses for the road sign order.

- 2 ► For the new order, calculate: (a) total variable cost (b) total cost.

(a) Total variable cost = $\text{Rs } 1400 \times 1000 = \text{Rs } 1400,000$

(b) Total cost = $FC + VC = \text{Rs } 600,000 + \text{Rs } 1400,000 = \text{Rs } 2000,000$

- 3 ► Plot fixed cost, variable cost and total cost on a graph. (Use a range of output of 0 to 1000 units.)

- 4 ► Calculate the profit made on the order.

$$\begin{aligned}\text{Profit} &= \text{TR} - \text{TC} \\ &= (\text{Rs } 2500 \times 1000) - \text{Rs } 2000,000 \\ &= \text{Rs } 2500,000 - 2000,000 \\ &= \text{Rs } 500,000\end{aligned}$$

- 5 ► Calculate the average cost of each sign.

$$AC = TC \div Q = \text{Rs } 2000,000 \div 1000 = \text{Rs } 2000$$

Six months later, Mahabir Metals gets another order for 1500 speed limit signs. The variable costs remain the same but fixed costs are only Rs200,000. However, the government will only pay Rs1500 for each sign.

- 6 ► Assess whether Mahabir Metals should accept the order. Show all your calculations.

$$\begin{aligned}\text{Profit} &= \text{TR} - \text{TC} \\ &= \text{Rs } 1500 \times 1500 - (\text{Rs } 200,000 + \text{Rs } 1400 \times 1500) \\ &= \text{Rs } 2250,000 - \text{Rs } 2300,000 \\ &= -\text{Rs } 50,000\end{aligned}$$

Since Mahabir Metals would make a loss of Rs50,000 on the new order, it might be refused. However, if Mahabir Metals was short of business, it might take on the order to keep its resources occupied and further develop their relationship with the customer. Although this particular order might make a loss, future orders from the government might be more rewarding.

CHAPTER 17

CASE STUDY: GILLY'S SNACK SHACK

- 1 ► (a) Which of the two businesses is the largest?

GF Foods is the largest business. It employs 110 people while Gilly's Snack Shack is a sole trader. GF Foods sells about 1 000 000 sandwiches a week to supermarkets while Gilly's Snack Shack sells about 900 to shoppers, tourists and workers in the local area.

- (b) Which business has the lowest costs?

GF Foods buys ingredients direct from farmers and manufacturers. For example, it buys thousands of loaves of bread from a Chicago baker for US\$1.10 each. It buys tomatoes from a local farm for US\$1.50 a kilo and cheese for US\$7.00 a kilo. Gilly's Snack Shack buys supplies from supermarkets and wholesalers. It buys about 20 loaves of bread at a cost of US\$1.80 each. Tomatoes cost US\$2.50 a kilo and cheese is US\$10 a kilo. Clearly, GF Foods is buying supplies cheaper. Other costs are lower as well. For example, Gilly's Snack Shack has a US\$5000 loan and pays an interest rate of 8.9 per cent. However, GF Foods pays 7.5 per cent on a US\$1,000,000 loan.

- 2 ► Which firm is likely to be the most efficient?

GF Foods is likely to be the most efficient because it has lower costs.

GF Foods sells sandwiches at an average price of US\$1.40 each to its customers while Gilly's Snack Shack sells most of its sandwich range for US\$2.00. Gilly's Snack Shack could never compete on price with GF Foods. GF Foods might also make more profit with its lower costs.

ACTIVITY 1

CASE STUDY: IKEA

- 1 ► Discuss how IKEA is exploiting (a) technical economies of scale (b) risk-bearing economies of scale.

(a) One of the reasons for IKEA's success has been the ability to keep costs down in manufacturing. IKEA is very large and able to exploit economies of scale. For example, it is able to exploit technical economies. Technical economies usually occur because larger plants are more efficient than smaller ones. There can be more specialisation and more investment in machinery.

In this case, IKEA benefits from specialisation. It employs specialist workers in different parts of the world to produce different products and components. This division of labour allows average costs to be reduced since specialists are more efficient. IKEA also invests heavily in research and development. This allows the business to develop cost effective products and money-saving production techniques.

(b) IKEA also exploits risk-bearing economies. Although the business first began trading in furniture, IKEA is now involved in other markets such as appliances and domestic products. It also operates restaurants and food markets with many stores serving food throughout the day. It also provides childcare with some stores

offering safe and supervised play areas. This growth in the business means that IKEA can benefit from periods of rapid growth in different markets. It can also cope with difficult trading conditions in one market by relying on sales in others.

ACTIVITY 2

CASE STUDY: VOLKSWAGEN

1 ► What is meant by diseconomies of scale?

If a business keeps on growing, it is likely to reach a point where average costs start to rise. This is because the firm suffers from diseconomies of scale. In **Figure 17.1**, average costs start to rise after output has reached 70,000 units of output. Average costs start to rise because aspects of production become inefficient. For example, businesses become too bureaucratic and more difficult to control and coordinate. This raises costs.

2 ► Assess whether VW has experienced diseconomies of scale in its organisation.

There is some evidence in this case to suggest that VW might be experiencing diseconomies of scale. In 2015, VW was caught falsifying emissions data on its diesel cars. VW had fitted some special software (a 'defeat device') in about 11 million diesel vehicles so that cars would pass the strict emissions test. As a result, the value of VW fell by around €30 billion following huge quantities of bad publicity across the world. Some analysts have suggested that the company is now too big and suffering from diseconomies of scale. This is because big companies like VW, which employs over 500,000 employees, become huge bureaucracies rather than commercial organisations. Controlling and monitoring such vast operations, with factories, offices, warehouses and other operational facilities all over the world becomes a very serious challenge for managers. In this case, it is possible that VW has grown too big to manage. It was claimed that the CEO of VW did not know about this activity. In such a large organisation, this might be true. It is unlikely that any CEO, however capable, committed and well-organised, could be in complete control of such a huge quantity of resources that are located all over the world. As businesses grow, at some point, the costs of being big – such as the loss of control, communications problems, the need for more supervision and extra layers of management, the increasing amount of delegation, the geographical spread of resources, the near impossibility of establishing a common business culture and employing a fully integrated IT system – are greater than the benefits. This is the effect diseconomies of scale can have on a business and may have been the cause of VW's current problems.

MULTIPLE-CHOICE QUESTIONS

- 1 ► C is the correct answer. As businesses grow, they can afford to employ specialist managers in a number of different fields such as marketing, human resources and accounting. These are managerial economies.
- 2 ► D is the correct answer. As a firm grows and enjoys internal economies of scale, average costs start to fall.

CASE STUDY: FLAMBOYANCE

1 ► What is meant by the term 'scale' in business?

The term 'scale' in business and economics means size. If a business increases the scale of operations, it means that the business is getting bigger. For example, in this case, Flamboyance increased its scale when it bought the chain of shops in the Middle East.

2 ► What effect will economies and diseconomies of scale have on Flamboyance's average cost?

As a business grows and expands the scale of its operations, average costs are likely to fall. Larger firms can operate more efficiently than smaller firms. This is because a business begins to enjoy economies of scale. As Flamboyance grew, it employed a specialist marketing manager, which is a managerial economy. Flamboyance bought more clothes and shoes so they would probably enjoy purchasing economies as well. However, if a business grows too big, average costs will start to rise. This is because inefficiencies develop slowly as a result of diseconomies of scale. For example, in this case, Flamboyance bought a chain of shops in the Middle East and it appears that problems started to occur after that point. Communications became difficult due to language and cultural difficulties. Such a problem can result in higher costs as a business tries to find solutions. As a result of economies and diseconomies of scale, a firm's average cost curve is U-shaped.

3 ► Why is employing a specialist marketing manager an economy of scale?

As firms expand, they can afford specialist managers. In this case, Flamboyance has employed a specialist marketing manager. A small business may employ a general manager responsible for finance, human resources, marketing and production. The manager may find this role demanding and lack skills in some areas of the job. A large firm can afford to employ specialists in these fields and, as a result, efficiency is likely to improve and average costs fall. Through his or her expertise, the marketing manager was able to raise the profile of the Flamboyance brand right across Singapore. As a result, the company grew quickly and became very profitable.

4 ► Discuss whether Flamboyance has benefited from purchasing economies of scale.

Large retail chains like Flamboyance are very likely to benefit from purchasing economies.

Big firms that buy large amounts of stock can get cheaper rates. Shoe and clothes manufacturers will offer discounts to firms that buy stock in bulk. This is similar to consumers buying multi-packs in supermarkets – they are better value for money. Flamboyance has expanded rapidly and now buys large quantities of stock from China. As a result of this the company will benefit from purchasing economies.

5 ► Assess the extent to which Flamboyance is experiencing diseconomies of scale.

Diseconomies of scale occur when average costs start to rise because the firm has grown too big. In this case, there is some evidence that Flamboyance is suffering

from diseconomies of scale. Since buying the chain of stores in the Middle East, problems have occurred. For example, communications became difficult due to language and cultural difficulties. There were also some employee problems. There was a lack of employee commitment; many of the staff did not seem to care whether the company succeeded or not. This would result in inefficiencies and rising costs. Also, some of the store managers complained that the company was becoming too bureaucratic; rising bureaucracy is a common source of diseconomies of scale. If a business becomes too bureaucratic, it means that too many resources are being used up in administration. Too much time may be spent filling in forms and writing reports. Also, decision-making may be too slow, communication channels too long and too many managers may be employed. It could be argued that Flamboyance is experiencing diseconomies of scale to a significant extent since buying the chain of stores in the Middle East.

CHAPTER 18

CASE STUDY: ONATEL

CASE STUDY: MILK PRODUCTION IN AUSTRALIA

1 ► How much competition exists in each of these markets?

In the first example, Onatel does not face any competition at all in the provision of internet services. It is the only internet provider in Burkina Faso. It is totally without opposition.

In the second example, the provision of milk in Australia is very competitive. There are over 6000 dairy farms in Australia that provide milk.

2 ► How might consumers benefit from competition in a market?

In the first example, where there is no competition at all, consumers have been let down badly. In 2016, a strike by Onatel's employees cut all internet connections in the country for over a week. An information technology (IT) specialist in Burkina Faso said people without the internet became desperate, rushing to his internet cafe with contracts to sign and documents to send. Unfortunately he could not help them because there was no internet anywhere in the country. Some people were so desperate to get on the internet that they flew to Bamako, in neighbouring Mali, for access. The IT specialist said that the internet was too expensive and the service was very poor. He argued that some competition was needed.

In the Australian milk market, consumers are likely to be benefiting from competition between the 6000 dairy farmers. For example, it would be difficult for one farmer to raise prices. This is because consumers can simply buy their milk from a cheaper rival. As a result, milk prices have been fairly constant in Australia for several years. Between 2010 and 2016, milk prices in New South Wales have only risen from 48.7 cents to 50 cents a litre – this is a very small increase over a 6-year period.

ACTIVITY 1

CASE STUDY: MARKET FOR CURRENCY

1 ► Why is the market competitive in this case?

Competitive markets have lots of sellers. In this case, there are lots of places in the town centre where travellers can buy foreign currency before they go on holiday. This suggests that the market is competitive. The products sold by every outlet will be identical. It makes no difference where the Australian dollars are purchased from. This is another feature of a competitive market. Finally, the prices charged by all the outlets are very similar. The price of 5000 Australian dollars ranges from €3492 to €3509. This is a difference of just 0.2 per cent and also supports the view that this market is competitive.

2 ► Which outlet would you recommend to buy the Australian dollars?

Rational consumers would buy their Australian dollars from outlet D where they are the cheapest at €3492.

ACTIVITY 2

CASE STUDY: THE FUNHOUSE

1 ► What evidence is there in the case to suggest that the accommodation market in Queenstown is competitive?

It could be argued that the market for accommodation in Queenstown was competitive because there were large numbers of providers. In 2016, there were 118 businesses providing overnight accommodation. There was also a range of choice in types of accommodation. For example, there were hotels, motels, apartments, backpackers and holiday parks.

2 ► Discuss the main disadvantage of competition to firms.

One of the main disadvantages to a firm operating in a competitive market is that the amount of profit made will be limited. In markets where competition is fierce, prices are likely to be lower and the potential for profit also lower. The total profit in the industry has to be shared between many firms. However, in this case, The Funhouse is making good profits. The business is able to charge slightly higher rates than its rivals for nightly accommodation. This is probably because of the 'extras' that The Funhouse provides free of charge.

3 ► Assess how firms, such as the Funhouse, might benefit from competition.

Competition puts pressure on firms to offer products that give consumers value for money. This involves operating efficiently by keeping costs as low as possible, providing good quality products with high levels of customer service, charging prices which are acceptable to customers and innovating by constantly reviewing and improving the product. However, in the case of The Funhouse, Ilene feels that competition is good for business. Ilene said that, '*Competition is good. It keeps you on your toes, every year we sit down and review our performance and try to come up with new ideas for the future. Next year we are going to offer free sunscreen and free mosquito repellent*'. The accommodation rates at The Funhouse are slightly

higher than rivals. However, Ilene said, *'when you offer free this, and free that, people love it, we get loads of recommendations through social media and the freebies are always mentioned'*. Ilene also explained that offering free services actually helped to keep administration costs down. Clearly, the Funhouse has benefited from its innovative approach in a competitive market. It has been able to differentiate its product by offering lots of free services and is able to charge slightly more than its rivals. This has resulted in the business making good profits, according to Ilene.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶ B is the correct answer. One of the main benefits of competition is that resources will be allocated more effectively. The amount of waste produced should be reduced because businesses facing competition have to be efficient to survive.
- 2 ▶ C is the correct answer. In competitive markets, innovation is encouraged. This is because innovative firms have more chance of flourishing if they come up with better ideas than their rivals.

CASE STUDY: COMPETITION IN THE USA

1 ▶ What is meant by the term 'competition'?

Competition is the rivalry that exists between firms when trying to sell goods to the same group of customers.

2 ▶ Who might benefit from the increase in corporate profits in the US?

Obviously, the rising corporate profits shown in **Figure 18.1** will benefit the owners of the companies. These will be the shareholders. They will enjoy rising dividends when profits rise. They may also benefit if the share prices of these companies increases – which is likely when profits rise.

The economy might also benefit. This is because profitable firms are likely to grow and employ more people. Both the rising profits, and the money generated from more employment, will help the economy to grow.

The government will also benefit because it will receive more money from the taxes paid by corporations on their profits. This money can be used by the government to fund its expenditure.

3 ▶ Discuss the disadvantages to consumers when there is a lack of competition in a market (use examples from the cases above).

Most consumers would argue that competition in business is desirable. In a competitive market, firms cannot overcharge consumers. If one firm tries to raise its price, it will lose a lot of its business. This is because the market is full of good substitutes and consumers can easily switch from one supplier to another. In the absence of competition, prices are likely to be higher. For example, in the US pharmaceuticals industry it appears that a lack of competition has resulted in some very sharp price increases. Mylan Pharmaceuticals increased the price of EpiPens by 550 per cent from US\$94 to US\$608 since getting the selling rights in 2007. Also, Turing Pharmaceuticals increased the price of Daraprim, an anti-

malarial drug also used by HIV patients, by more than 5000 per cent. This is not good for consumers.

Firms that offer 'trashy' goods in a competitive market will lose business. Consumers are rational and will look for value for money. This means they consider both the price and the quality of products when deciding what to buy. When there is a lack of competition, the quality of products is likely to be inferior. For example, in the US airline industry, passengers have had to endure continued hidden charges, poor punctuality, shabby cabins, a lack of leg-room in seats and poor in-flight food for many years. Also, customers have not benefited from the recent drop in the price of aircraft fuel.

There should be more competition between businesses in the US.

4 ▶ To what extent do you agree with this argument? Make a clear judgement in your evaluation.

Some of the evidence in the case suggests that there should be more competition in certain US industries. Generally, the rising trend in corporate profits shown in **Figure 18.1** suggests that 'Corporate America' is doing very well indeed. For example, between 2000 and 2015 corporate profits rose by more than 200 per cent. The dip shown after 2015 should not be too worrying. It came during a period when the dollar was very strong (which would reduce the demand for exports) and the low oil price impacted negatively on energy firms. In the third quarter of 2016, US corporate profits were US\$1575.4 billion.

Corporate profits have risen in most rich countries over this period but the increase has been much higher in the US. Along with the fall in the number of businesses operating in many sectors, this means the benefits of economic growth in the US are being enjoyed by a relatively small number of people. This might explain why many US residents believe that the economy unfairly favours the rich and powerful. It might also explain the statement by 2016 US election Democratic candidates Hillary Clinton and Bernie Sanders that the economy is 'rigged'.

The two industry examples in this case suggest that more competition is needed in the US. For example, in the pharmaceuticals industry, there have been some astonishing price increases. Mylan Pharmaceuticals increased the price of EpiPens (devices that deliver an emergency shot of epinephrine to someone suffering a potentially fatal allergic reaction) by 550 per cent from US\$94 to US\$608 since getting the selling rights in 2007. The pharmaceutical companies blame pharmacies and the prescription system for not passing along the discounts they negotiate with manufacturers. However, it is argued that the drug companies are responsible for the massive price increases not the middlemen. What is needed is more competition from generic drug makers. Like Daraprim and Syprine, epinephrine is available in a generic form. At present, however, there is no generic version of the EpiPen injector for sale in the US. One of the problems is that companies like Mylan keep rivals out of their market. For example, Mylan struck deals with potential competitors to delay them from seeking approval for generic versions of the EpiPen. This anti-competitive behaviour suggests that more competition is needed in the drugs industry.

The size of profits and poor quality service in the airline industry suggests there needs to be more competition as well. Recently, US airlines made an annual profit of US\$24 billion. Unfortunately, the improved profit was not shared by passengers. They have had to endure continued hidden charges, poor punctuality, shabby cabins, a lack of leg-room in seats and poor in-flight food. Also, customers have not benefited from the recent drop in the price of aircraft fuel. Some argue that there is not enough competition in the industry. During the last decade, the number of operators in the market has fallen. Just four airlines now dominate the market.

To conclude, evidence in this case is quite persuasive. The general rise in corporate profits, and the examples of consumer exploitation in pharmaceuticals and air transport, suggest that consumers would benefit from more competition. However, this is only two industries and only in recent years. There needs to be a more thorough investigation in all industries to see whether the findings here are more widespread. It must also be remembered that rising profits help the US economy and provide jobs. But on the evidence in this case, few could argue that more competition in pharmaceuticals, and air transport in particular, is desirable.

CHAPTER 19

CASE STUDY: ROLES OF SMEs IN MALAYSIA

In 2014, Malaysia's GDP was US\$338.1 million.

1 ► Calculate the contribution made to GDP by: (a) SMEs in agriculture; and (b) large firms in manufacturing.

(a) The contribution made by SMEs to agriculture is given by:

$$48.6\% \times \text{US\$}338.1 \text{ billion} = \text{US\$}164.3166 \text{ billion}$$

(b) The contribution made by large firms in manufacturing is given by:

$$64.1\% \times \text{US\$}338.1 \text{ billion} = \text{US\$}216.7221 \text{ billion}$$

2 ► Describe one possible advantage of operating as an SME.

Operating as a small firm can have advantages. For example, small firms can offer customers a personal service. This is much easier to do when there are perhaps only a handful of employees who might work as a team. Also, some customers prefer to deal directly with the owner of a business. This is only really possible in small businesses.

3 ► Describe one possible reason why the mining and quarrying sector is dominated by large firms.

Figure 19.1 shows that mining and quarrying in Malaysia is dominated by large firms. 98.4 per cent of output is produced by large firms. This might be because it requires a lot of resources to set up a mining or quarrying operation. Only large companies can afford these resources. As a result, there are few small firms in the sector.

ACTIVITY 1

CASE STUDY: BOLT

The business hopes to sell 350 units per month in 2016.

1 ► Calculate the expected revenue in 2016 if sales are realised.

Expected revenue in 2016 is given by:

$$350 \times 12 \times \text{Rs } 1599 = \text{Rs } 6715,800 \text{ or } (\text{€}92,746)$$

2 ► What evidence is there in the case to suggest that Bolt is a small business?

Bolt currently employs just five people. Consequently, the business would be classified as small. If EU definitions of size are used, Bolt would be defined as a micro business because it employs less than 10 people. According to revenue, Bolt would also be defined as a micro business. This is because its revenue is less than €2 million (€92,746).

3 ► Discuss two possible disadvantages for small businesses like Bolt.

One of the main problems faced by small businesses is that they usually face higher costs. Small firms cannot exploit economies of scale because their output is limited. In this case, Bolt only hoped to sell 350 units per month in 2016. Consequently, their average costs will be higher than their larger rivals. This means that small firms often lack a competitive edge. Another problem is lack of finance. Small firms often struggle to raise finance. Their choice of sources is limited. For example, a sole trader cannot sell shares to raise more finance. They are also considered to be more risky than larger firms by financial institutions and other money lenders. In this case, Bolt started up by borrowing Rs25,000,000, all raised from family and friends. It is not clear whether Bolt has struggled to raise finance in order to grow.

ACTIVITY 2

CASE STUDY: BT

1 ► How can: (a) the desire to take over rivals and (b) government regulation, influence the growth of firms? Use examples from this case to support your answer.

(a) One way to grow a business is to take over rivals in the market. This is a quick way of growing and helps to reduce competition. However, over time the amount of merger and acquisition (M&A) activity tends to vary. For example, 2015 was a record year for global M&A deals. One big deal involved Anheuser-Busch InBev's US\$100-billion-plus takeover of SABMiller in the beverages industry. Globally, M&A deals totalled US\$4.7 trillion during 2015, an increase of 42 per cent compared to 2014. However, over the first eight months of 2016, global M&A fell to US\$2.2 trillion. Consequently, if the desire to take over rivals falls, this can influence the growth of firms. In this case, BT was happy to take over EE, one of its rivals in the market. This was in 2015 when M&A activity was high.

(b) It is in the interests of consumers, and the economy in general, to have healthy competition between businesses. Competition will encourage innovation, improve efficiency and prevent consumer exploitation. Consequently, governments will monitor business activity and ensure that individual markets are not dominated by one, or a small number of firms. In this role, the government may sometimes prevent the growth

of some firms to stop them becoming too big. They can do this by blocking mergers and takeovers which threaten to reduce competition. In this case, the EU authorities did examine BT's takeover of EE. However, the Competition and Market Authority (CMA) cleared the deal in early 2016 and it went ahead.

2 ▶ How is BT spreading risk as a result of the takeover?

Another motive for growth is to spread business risk. Risk can be reduced by diversifying. Branching out into new markets and developing new products means that, if one venture fails, success in others can keep the firm going. If business risk increases, perhaps due to growing uncertainty in certain sectors, firms are likely to diversify and grow as a result. In this case, the takeover created a communications company offering a wider range of telecommunications services such as broadband, fixed telephone and pay-television services. BT planned to sell these services to those EE customers who did not currently subscribe to BT. As a result, BT was selling products into new markets. This would help to spread the business risk.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** The correct answer is B. Many firms are prevented from growing because they cannot raise the required finance.
- 2 ▶** The correct answer is D. A firm employing 202 workers is considered to be medium-sized according to EU definitions. (See Table 19.1)

CASE STUDY: STARBUCKS AND THE COFFEE LOUNGE

1 ▶ How is Starbucks spreading business risk through its growth strategy?

Starbucks has grown rapidly since it was established and continues to do so. The company is spreading risk by opening coffee shops in many different countries. It has 22,000 outlets in 67 different countries. It also plans to open 3400 shops in China. Opening up outlets in many different countries spreads the business risk. This is because if sales in one or two countries start to decline, it has other shops in other countries which can hopefully support the business.

2 ▶ Discuss two advantages that Starbucks might have over The Coffee Lounge.

Large firms like Starbucks tend to be more powerful than smaller rivals. They enjoy a number of key advantages. For example, the main advantage to large firms is that their average costs are likely to be lower than those of smaller rivals. They can operate in large-scale plants and exploit economies of scale. For example, Starbucks can get cheaper supplies of coffee beans and other materials because they buy in bulk.

Large firms can often dominate a market. They have a higher profile in the public eye than small firms and benefit from such recognition. This may mean that they can charge higher prices which will enable them to make higher profits. Starbucks has 22,000 outlets in 67 different countries. It is a well-known brand and is recognised worldwide. Consequently, they may be able to draw in more customers than independent shops like The Coffee Lounge.

3 ▶ Why is The Coffee Lounge likely to remain a small firm? Give at least two reasons in your analysis.

There are a number of reasons why firms remain small, such as lack of finance or a restricted market size. Also, some business owners do not want to grow their businesses. They may be happy running a small business. They may be making enough profit to satisfy their needs and do not want the responsibility of taking on more workers, expanding operations and borrowing more money, for example. Also, some businesses are 'lifestyle' businesses. This means that the owners have interests other than their businesses and they need the time and flexibility to pursue them. As a result, such businesses are likely to remain small. In this case, Paolo could expand the business by developing a chain. However, when asked about this Paolo replied, *'Absolutely not. I do not want the responsibility of growth, more staff, more decisions, more worry and more work. It's not for me – I am happy with what I have got.'*

4 ▶ Assess the reasons why The Coffee Lounge can survive in the market alongside powerful rivals such as Starbucks.

In an industry where there are very large firms, it is still possible for small firms to survive. Some small firms have advantages over their larger rivals. For example, an independent coffee shop can adapt to change more quickly. This is because the owners, who tend to be the main decision-makers, are actively involved in the business and can react to change. For example, an owner might supply a particular product line at the request of a single regular customer. Starbucks is not likely to be so flexible. Smaller firms can offer customers an individual personal service. Some people prefer to deal with the owner of a firm directly and are prepared to pay a higher price for this benefit. Owners are far more accessible in small firms than larger ones. In this case, Paolo is not worried about the power of Starbucks. The Coffee Lounge opens at 5.00 am, several hours before its rivals, and draws in a significant number of regular early morning customers. Paolo says, *'I have been running this business for 32 years. I know it inside out. I know many people in the town and they like to do business with me. I am flexible – I give my customers whatever they want. Every day I make a special chorizo, fried egg and banana sandwich for one of my customers. Starbucks wouldn't do that!'*

Many workers in small firms do not belong to trade unions. As a result their negotiating power is weaker and the owners are often able to restrict wages to the legal minimum wage. Since small firms have fewer employees, communication tends to be informal and more rapid than in larger organisations such as Starbucks. The owner will be in close contact with all staff and can exchange information quickly and efficiently. As a result, decision-making will be speeded up and workers may be better motivated. Because of these advantages, an independent coffee shop may compete with Starbucks and remain in the same market.

CHAPTER 20

CASE STUDY: US MARKET FOR SEARCH ENGINES

1 ▶ What evidence is there to suggest that Google is a monopolist?

Monopolies are firms that dominate an industry. Google can be described as a monopolist because it served 79.88 per cent of the market for desktop searches in August 2016. This is a huge majority. Two other providers, Bing and Yahoo, had much smaller market shares, while others including AOL and DuckDuckGo shared just 1.88 per cent of the market.

2 ▶ Using an example from this case, describe one possible advantage of monopolies for consumers.

One of the possible benefits of monopolies for consumers is that large, powerful firms can invest heavily in research and development (R&D). Google spent US\$12.28 billion on R&D in 2015. Google also has a reputation for being an innovative company and a market leader in product development. This means that consumers are likely to benefit from access to brand new products that companies like Google eventually bring to the market.

3 ▶ Using examples from this case, discuss the possible disadvantages of a single firm dominating the market.

When firms dominate the market, they can become very powerful. In this case, Google has been criticised recently in many countries for avoiding the payment of tax on its profits. For example, in 2014 the company transferred 11.7 billion euros to Bermuda in an effort to minimise the taxes it had to pay on its income. This transfer meant that Google avoided paying tax on much of its foreign income. Google paid just 2.8 million euros in taxes which was 0.024 per cent on the 11.7 billion euros in revenue. Many people in the world pay up to 25 per cent tax, or more, on their own personal income!

Google was also fined US\$22.5 million recently because it 'placed an advertising tracking cookie on the computers of Safari users who visited sites within Google's DoubleClick advertising network.' (Federal Trade Commission, 2012) This broke a privacy agreement. When powerful firms like Google dominate markets, it is often difficult for the authorities to challenge their 'misdemeanours'. Although it has to be said that Google did not break any laws with its tax avoidance.

ACTIVITY 1

CASE STUDY: UK WATER INDUSTRY

The market for water provision is a natural monopoly.

1 ▶ What is meant by a natural monopoly?

A natural monopoly will exist where it is actually more efficient if just one firm supplies all consumers. In these markets, it is often the case that the sole supplier is unable to exploit all economies of scale. Examples of such markets are those with very high fixed costs such as the utilities and rail travel. It would be highly inefficient if two or more railway operators tried to supply rail travel between the same destinations using their own railway lines. There

would be a huge duplication of resources which is wasteful. In this case, the supply of water in the UK is delivered by a number of private monopolies, with each company being the sole supplier in a particular region.

2 ▶ Describe one other possible advantage of monopoly.

Since most monopolists are large, they are able to exploit economies of scale. This means that their average costs are lower. As a result, they may be able to supply products to consumers at a lower price. This will obviously benefit consumers if the cost savings are passed on. In this case, the companies which supply water in a particular region are likely to be large and therefore in a position to exploit economies of scale.

Also, it is argued by some that if a firm has a monopoly in the domestic market, it can build strength and compete more effectively with competition from overseas. This will help to increase employment and national income in the domestic economy.

3 ▶ Discuss why there is an industry regulator in the provision of water in this case.

If a business is the sole supplier of a product in a particular market, it will be in a strong position to exploit consumers. Consequently, there is a need for the business to be monitored. In this case, OFWAT is responsible for monitoring and regulating the water industry in the UK. Unfortunately, in this case, OFWAT made a mistake which resulted in consumers being overcharged. In 2016, it was reported that Britain's privately owned water companies would make unexpectedly high profits of over £1 billion. The reason for this was because the industry regulator, OFWAT, had overestimated some of the costs companies would incur when setting water price limits. Consequently, the water monopolies made excess profits of around £1.2 billion over a 5-year period because they charged higher prices than were actually necessary. Unfortunately, it was the poorest customers that were hit the worst. Their bills represented 5.3 per cent of their annual income compared with 2.3 per cent a few years ago.

4 ▶ Who is likely to benefit from the mistake made by OFWAT in this case?

The group most likely to benefit from the mistake made by OFWAT is the owners of the water companies. Since the overcharging mistake resulted in higher profits, the owners may receive higher dividends. Also, since the share price rose by around 50 per cent over the time period, some owners may have sold their shares and made a profit from the sale.

ACTIVITY 2

CASE STUDY: AIR NAMIBIA

1 ▶ Do you think that Air Namibia is a pure monopolist? Explain your answer.

Air Namibia is clearly a pure monopolist in this example. Air Namibia is the only airline providing domestic air travel in Namibia. Air Namibia does not face any competition at all in this market.

2 ▶ Describe two features of monopoly. Using examples from this case to support your answer.

One feature of monopoly is that the firm is a price maker. This means that although monopolists face a downward sloping demand curve, they are able to control the prices they charge. They can force prices up by restricting the quantity supplied in the market. However, they cannot fix both price and quantity. If they try to sell larger quantities, the price will be forced down. In this case, Air Namibia is the only domestic carrier and is free to set the prices of its air tickets without any impact on rivals. In this case, passengers already spend around N\$5 000 for a return ticket to Windhoek. This domestic flight was more expensive than going to Cape Town.

Monopolies often exist because competition is prevented. In some markets, there are obstacles that prevent new entrants from trying to compete. Barriers to entry are a common feature in monopoly. In this case, Air Namibia has been accused of blocking competition in the market. In September 2015, action taken by Air Namibia resulted in the High Court suspending low-cost carrier Fly Africa's operations between Windhoek and Johannesburg. This is an example of a legal barrier because competition has been prevented by the law.

3 ▶ How are consumers being exploited in this case?

In recent years, passengers have complained bitterly about high prices and poor quality service provided by Air Namibia. For example, in 2015, passengers in Katima Mulilo were very annoyed when Air Namibia switched departure locations from Eros airport to Hosea Kutako International Airport (HKIA). Many passengers, particularly regular business travellers, said that it would be more expensive and inconvenient. This is because HKIA is over 40 kilometres outside Windhoek. They also pointed out that the local Mpacha Airport is also 20 kilometres away from Katima Mulilo. One businessman accused Air Namibia of failing to respect its clients, stating that flight charges from Katima Mulilo to Windhoek were already very high. People living in Zambezi and Kavango are disadvantaged by this decision. They already spend around N\$5 000 for a return ticket to Windhoek. This domestic flight was more expensive than going to Cape Town. This provides some evidence that the needs of consumers are being neglected and exploited.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** The correct answer is B. High start-up costs act as a barrier to entry since new firms will find it difficult to raise the money needed to get started.
- 2 ▶** The correct answer is D. There will be less choice in a market where supply is dominated by just one firm.

CASE STUDY: PFIZER AND FLYNN PHARMA

1 ▶ What is meant by the term monopoly?

A monopoly exists when a market is dominated by a single producer.

Companies in the pharmaceuticals industry, such as Pfizer, use patents.

2 ▶ What is the purpose of patents?

A patent is a licence that prevents firms copying the design of a new product or new piece of technology. The new product developer can be the sole supplier in the market for a period of up to 20 years. This allows the firm to charge a higher price and recover the costs of research and development. Patents are common in the pharmaceuticals industry where firms are allowed to sell new drugs or medicines without competition. Pfizer is an example of a company that will own large numbers of patents for the drugs that it sells.

3 ▶ In addition to patents, describe one other barrier to entry.

Monopolists often have strong brand names. This makes it difficult for new entrants to compete because their products will be unfamiliar and may not be trusted by consumers. Dominant firms often spend large amounts of money on advertising to strengthen their brand names. For example, Coca Cola, which dominates the soft drinks market, spent US\$2.8 billion on advertising in 2014. High spending levels like this are very difficult, almost impossible, for new entrants to match.

4 ▶ Assess the advantages and disadvantages of monopoly.

If a natural monopoly exists, efficiency might be improved if there is just one provider. A natural monopoly exists in markets where it is actually more efficient if one firm supplies all consumers. In these markets, it is often the case that the sole supplier is unable to exploit all economies of scale. Examples of such markets are those with very high fixed costs such as the utilities and rail travel. It would be highly inefficient if two or more railway operators tried to supply rail travel between the same destinations using their own railway lines. There would be a huge duplication of resources which is wasteful. In this case, the market for pharmaceuticals is not a natural monopoly.

Since monopolies are often large and make high profits, they have the resources to invest in research and development (R&D). As a result, they are able to develop new products and new technologies from which consumers will benefit. Figure 20.4 shows the amount of money that Pfizer has invested in R&D between 2010 and 2015. The amounts appear very large. For example, in 2015, US\$7.69 billion was spent by Pfizer. However, there is no information to suggest that this is higher or lower than the industry average.

Since most monopolists are large, they are able to exploit economies of scale. This means that their average costs are lower. As a result, they may be able to supply products to consumers at a lower price. This will obviously benefit consumers if the cost savings are passed on. It is argued by some that if a firm has a monopoly in the domestic market, it can build strength and compete more effectively with competition from overseas. This will help to increase employment and national income in the domestic economy. Pfizer is one of the world's largest and most powerful companies in the global pharmaceuticals industry.

One of the main disadvantages of monopolies is that the firm that dominates a market is able to charge more for its products. Monopolists will tend to restrict output and force up the price. For example, in the US, some pharmaceutical companies have been heavily criticised for raising the

prices of medication. A survey in 2014 of 3000 prescription medications found that prices more than doubled for 60 drugs and increased by at least four times for 20 drugs. In this case, Pfizer and another drugs company Flynn Pharma, have been fined for overcharging. They were fined a total of £90 million for 'unfair' pricing after the price of an anti-epilepsy drug was increased by 2600 per cent. Around 48,000 patients rely on the drug in the UK and the NHS saw expenditure on the medication rise from £2 million in 2012 to £50 million the following year. The CMA also said that the prices of the drug in the UK were far higher than anywhere else in the EU.

If there is just one supplier in a market, consumer choice is obviously restricted. For example, in this case there appears to be just one seller of the anti-epilepsy drug in the market. If patients are unhappy with the prices charged or the level of customer service, they cannot switch to another provider.

It is possible to argue that monopolists may be inefficient. If a firm does not face any competition, there is no incentive to keep costs down. As a result, a monopolist might adopt a 'care-free' approach to business and incur unnecessary costs. If monopolies get too big, they might also suffer from diseconomies of scale. As a result, their average costs will rise. There is no evidence in this case to suggest that Pfizer is suffering from diseconomies.

Monopolists are often criticised because many feel that the disadvantages are greater than the advantages. In this case, there is some evidence that customers have been overcharged. But Pfizer said it was going to appeal against the fine and explained that the deal with Flynn Pharma ensured that the supply of the drug would be continued. Pharma also said that it would appeal and that the CMA did not fully understand the drugs markets. A representative of Pharma said, 'We believe that left unchallenged, the CMA's decision would stunt investment in generics, eventually leading to a reduction in supply and less choice for doctors and patients'. Also, Figure 20.4 helps to illustrate Pfizer's commitment to R&D in the pharmaceuticals industry.

CHAPTER 21

CASE STUDY: GLOBAL CAR SALES

- 1 ► Calculate the proportion of the market served by the top six car manufacturers.**

The proportion of the market served by the top six manufacturers is given by:

$$10.08\text{m} + 9.93\text{m} + 9.8\text{m} + 8.53\text{m} + 7.88\text{m} + 6.64\text{m}$$

$$= \frac{52.86\text{m}}{75.24\text{m}} \times 100 = \mathbf{70.26 \text{ per cent}}$$

- 2 ► How might these companies compete with each other?**

In markets that are dominated by just a few firms, non-price competition is common. In this case, the 'Big Six' compete by regularly updating their models, investing in R&D to develop new motor technology and spending heavily on advertising and other forms of promotion. For example, GM and Ford spent US\$3.5 billion and US\$2.68 billion respectively on advertising in 2015. These are very large amounts of money.

ACTIVITY 1

CASE STUDY: US FILM INDUSTRY

- 1 ► (a) Calculate the percentage of the market dominated by the top six distributors.**

The percentage of the market dominated by the top six distributors is given by:

$$26.3\% + 16.8\% + 12.9\% + 12.4\% + 8\% + 7.7\% \\ = \mathbf{81.4 \text{ per cent}}$$

- 2 ► What is meant by oligopoly? Use the answer in (1) in your explanation.**

An oligopoly exists when an industry is dominated by a small number of firms. In this case, the US film industry is dominated by six distributors. Together these top six share 81.4 per cent of the market. However, as in many other oligopolistic markets many other firms compete alongside the dominant firms. In this case, there are several hundred other distributors in the market.

- 3 ► Describe the barriers to entry that exist in the movie industry.**

One of the common features of oligopoly is barriers to entry. This means that the dominant firms try to put up obstacles which make it difficult for new firms to join the market. For example, in some industries the set-up costs might be very high as they are in the motor car industry. The dominant firms are also likely to discourage entry by investing heavily in their brands. Without barriers to entry, the high profits enjoyed by the dominant firms would attract new entrants. As a result, their dominance would be reduced. In this case, making movies is very expensive. For example, *Finding Dory*, the most successful film for Buena Vista in 2016, cost US\$200 million to make. Spectacularly, *Batman v Superman: The Dawn of Justice*, which was distributed by Warner Brothers, cost US\$410 million. This was one of the most expensive films ever to produce. These distributors also spend huge amounts of money advertising and promoting their films. For example, Warner Bros. spent US\$727 million on television advertising alone, airing close to 95,000 national ads. This was followed by Universal Studios, which spent US\$395 million on 59,000 airings.

ACTIVITY 2

CASE STUDY: CARTEL

- 1 ► What is meant by a cartel? Use in this case as an example in your explanation.**

A cartel is where a group of firms that dominate a market get together and agree to collude. The collusion may involve fixing the price charged by all of the firms or sharing out the market. In this case, a cartel, which included Daimler, Volvo/Renault, MAN (owned by Volkswagen), Iveco and DAF, fixed prices and passed on the costs of emissions rules to customers in the EU between 1997 and 2011.

The established cartel began with a first meeting between senior managers in Brussels in 1997. After that, they colluded at meetings on the fringes of trade fairs and other events. They also discussed tactics over the telephone. However, from 2004, the cartel was run by less senior

managers through the companies' German subsidiaries. Information was also exchanged online by email.

2 ▶ Discuss the possible impact of the cartel on customers in this case.

The cartel, which served around 90 per cent of the medium-sized truck market, fixed the prices of medium-sized trucks for a period of 15 years. This means that truck-buyers, such as distribution companies, were forced to pay higher prices for their new trucks for over a decade. This would have raised the costs for distribution companies and reduced their profits. The lorry cartel also passed on the costs of emissions rules to customers and caused delays which meant that customers missed out on new technology. This collusion had a negative effect on customers for a very long period of time.

3 ▶ How was the size of fines determined in this case?

The fines were more than double the previous record for a cartel in the EU. The biggest penalty of €1 billion was imposed on Daimler. DAF, Volvo/Renault and Iveco were fined €753 million, €670 million and €495 million respectively. They would also have been twice as big if the companies had not cooperated. The EU competition authorities said the size of fines depends on how large the market is and how long the cartel had been operating. MAN eventually exposed the cartel and as a result Volkswagen avoided a fine of €1.2 billion.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** B is the correct answer. If firms in an oligopolistic market can exploit economies of scale, their costs might be lower. As a result, consumers may benefit from lower prices.
- 2 ▶** B is the correct answer. The petrol industry in many countries tends to be dominated by a few large suppliers. Chicken farming, restaurants and flower selling tend to be competitive markets with large numbers of firms operating in each.

CASE STUDY: DOMESTIC AIR TRAVEL IN INDIA

1 ▶ Describe two features of oligopoly. Use examples from this case in your answer.

One of the main features of oligopoly is that the market often contains just a few firms. There is no exact number but it could be as few as three, four, five or six for example. Oligopoly is a common market structure and there are many examples in most countries across the world. In this case, the market for domestic air travel in India is dominated by five firms: IndiGo, Jet Airways, SpiceJet, GoAir and Air India. They had 94.3 per cent of the market in 2015.

Another feature of oligopoly is the chance that firms may get together and collude. This happened in the market for domestic air travel in India. In 2015, the competition authorities in India fined a number of carriers for fixing additional fuel charges for cargo transportation. When fuel prices fell due to the lower oil price, Jet Airways, IndiGo and SpiceJet colluded to keep additional fuel charges high. They received a total fine of Rs258 crore (ten million). Two carriers, Air India and GoAir, escaped a fine since its conduct was not the same as the three offending firms.

2 ▶ Describe one possible barrier to entry in the market for domestic air travel in India.

The firms that dominate the market are likely to benefit from barriers to entry. Without barriers to entry, the high profits enjoyed by the dominant firms would attract new entrants. As a result, their dominance would be reduced. In this case, one of the main barriers to entry would be the high set-up costs. To fly passengers between both national and international destinations requires heavy investment in aircraft, experienced and trained staff and the right to serve specific routes. There are many other costs such as airport fees, advertising, IT and insurance. To provide an airline service would probably cost many trillions of rupees. Few would have the resources to enter the market for domestic air travel in India.

3 ▶ Describe one possible disadvantage to passengers if a price war broke out in the market for domestic air travel in India.

Price wars are not uncommon in oligopolistic markets. This is where one of the large firms lowers the price, forcing most of its rivals to do the same. Failure to copy the price cut means a high risk of losing market share. Although customers might benefit at the beginning, as they enjoy lower prices, the long-term effects of a price war can be negative. This would be the case if one or more of the firms were forced out of business as they struggle with lower revenues. If this happens and the price war ends, the remaining firms can raise prices even higher since there is less competition left in the market.

4 ▶ Assess the advantages and disadvantages to passengers of oligopoly in the market for domestic air travel in India.

If there is some competition in oligopolistic markets, it is reasonable to assume that consumers will benefit in some way. For example, competition ensures that consumers are provided with some choice. In this case, the growing demand for air travel is attracting new entrants. For example, in the market for domestic air travel in India there are some smaller operators and they do seem to be picking up business. Air Costa was operating at 84 per cent capacity and TruJet at 83.4 per cent.

Another advantage is lower costs. If the dominant firms are able to exploit economies of scale their average costs will be lower. Therefore, it is possible that some of the cost savings will be passed on to consumers in the form of lower prices. The dominant firms in an oligopoly will benefit from economies of scale because they are large-scale producers. As their output increases average costs fall. The firms operating air passenger services do tend to be quite large.

The level of innovation in oligopolistic markets might vary. On the one hand, since the market is dominated by large and powerful firms, it could be argued that they will have the resources to invest in R&D. It is true to say that competition can be resisted if an individual firm can develop a new model that is superior to those of rivals. However, it might be argued from a consumer's point of view that the large amounts of money many oligopolists spend on advertising and promotion would be better spent on innovation.

In some oligopolistic markets, prices are fairly stable for quite long periods of time. This is helpful for consumers

because it promotes more certainty. However, consumers might benefit from a price war. Once one firm cuts prices aggressively, others in the market are forced to follow or they risk losing market share. As a result, consumers benefit from lower prices in the market. However, price wars do not normally last for very long and there is also the threat that one of the firms is forced out of the market. As a result, the market becomes less competitive and in the long term prices might be pushed even higher by the survivors. Price wars are not uncommon in the airline industry.

In contrast, consumers are not likely to benefit from oligopoly if there is no competition in the market. The main disadvantage of oligopoly is the temptation among firms to collude. If firms agree to restrict competition by price fixing, for example, consumers will end up paying higher prices. Consumers will also suffer if a market is shared out geographically. There will be a lack of choice because each area will only be supplied by one firm. Collusion was discovered in this case. In 2015, the competition authorities in India fined a number of carriers for fixing additional fuel charges for cargo transportation. When fuel prices fell due to the lower oil price, Jet Airways, IndiGo and SpiceJet colluded to keep additional fuel charges high. They received a total fine of Rs258 crore (ten million).

If there is genuine competition between the dominant firms in an oligopolistic market, then consumers might benefit. There may be more innovation, genuine product development, increasing choice, open pricing and lower costs. There may even be price wars where prices are cut. However, if there is collusion, too much spending on advertising and a lack of innovation, consumers will be worse off. Consumers will also lose out if a fierce price war eliminates one or more of the firms. There will be less competition between the remaining, and smaller group, of dominant firms. In this case, it might be argued that the advantages of oligopoly are greater than the disadvantages. According to Figure 21.4, domestic air travel in India is some of the cheapest in the world. For example, the price to passengers in India is US\$2.27 per 100 km. In Sweden, the price is over three times more at US\$8.97 per 100 km.

CHAPTER 22

CASE STUDY: ROBOTS AT FOXCONN

CASE STUDY: EMPLOYMENT IN US SOLAR POWER

1 ► What is happening to the demand for labour in these examples?

The demand for labour at Foxconn looks set to fall quite dramatically. In 2016, Foxconn said that it was going to reduce the workforce from 110,000 to 50,000 in one Chinese factory and replace the 60,000 workers with robots. This is just in one factory and in one single year!

In contrast, the demand for labour in the US solar power industry grew by 20 per cent in 2015. By the end of the year, around 209,000 people were employed in the industry. This was greater than the number employed in the US gas and oil industry for the first time, which was 184,500. However, the growth in employment in the solar industry is not the same in all the different sectors. Most of it has come in the installation of solar power panels.

2 ► What accounts for the change in the demand for labour in each of the examples?

The demand for labour at Foxconn is falling because the company is introducing new technology. It plans to replace people with robots in many of its factories. In a statement Foxconn said it was introducing robots and other innovative technologies to replace repetitive tasks previously done by people. The company wanted employees to retrain and focus on higher value-added elements in the manufacturing process, such as research and development, process control and quality control.

The demand for staff in the solar power industry is rising because solar power generation is becoming more popular. An increasing number of people prefer 'clean' energy and therefore are switching from traditional methods of power generation to solar power for their energy needs. Most of it has come in the installation of solar power. Solar installation accounted for around 65 per cent of the jobs growth in the industry. The US solar installation sector now employs 77 per cent more people than the domestic coal mining industry.

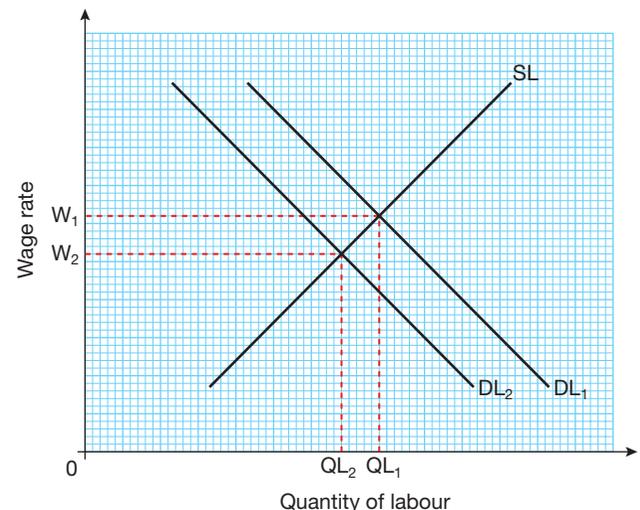
ACTIVITY 1

CASE STUDY: FUKOKU MUTUAL LIFE INSURANCE

1 ► Why is Fukoku Mutual Life Insurance replacing workers with technology?

Fukoku Mutual Life Insurance is replacing humans with machinery in part of its operations. The company will purchase IBM's Watson Explorer AI system for JPY1.4 million. The system is capable of analysing and interpreting a wide range of data. This includes unstructured text, images, audio and video recordings. The new technology, which can calculate pay-outs on insurance claims, will save the company about JPY1 million per year. Fukoku expects the cost of the investment to be recovered in less than 2 years. The AI system, which the manufacturers claim can think like a human, will improve productivity by around 30 per cent per year.

2 ► Draw a diagram to show the effect on the demand curve for labour in this market as a result of Fukoku's decision to introduce AI.



3 ▶ Discuss one disadvantage of the introduction of new technology in business.

One of the main problems with new technology is that people are often made redundant. In this case, Fukoku is laying off 34 staff. This will increase unemployment in Japan. This means that welfare benefits will have to increase. Also, the people who are made redundant may find it difficult to get another job. This might affect their families because welfare benefits rarely compensate people in full when they lose their jobs.

Also, there have been worries about the scale of job replacement by technology in the past. Researchers say that by 2035 half of all Japanese jobs could be replaced by machines. Scientist Stephen Hawking said that AI could disrupt the economy even though it would bring huge benefits such as putting an end to disease and poverty. He said AI 'will also bring dangers, like powerful autonomous weapons or new ways for the few to oppress the many, and in the future AI could develop a will of its own that is in conflict with ours'.

ACTIVITY 2

CASE STUDY: WOMEN AT WORK IN CANADA

1 ▶ What were the labour force participation rates for men and women in 2014?

The labour participation rate for Canadian men in 2014 was about 90 per cent. For women, it was about 82 per cent.

2 ▶ What has happened to the proportion of women employed in Canada over the period?

The labour participation rate for Canadian men in 2014 was about 90 per cent. For women, it was about 82 per cent.

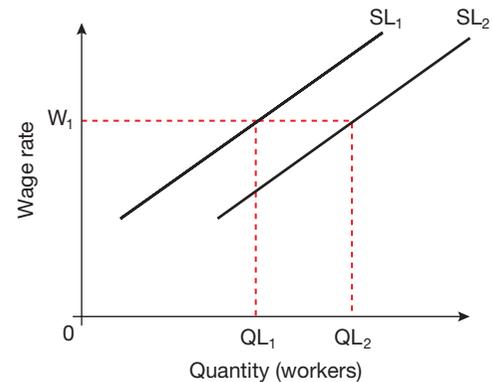
The proportion of women participating in work between the 1950s and 2014 has increased significantly from around 24 per cent in 1953 to 82 per cent in 2014. This means that female participation has trebled over the period.

3 ▶ How might you account for the changes in (2)?

The increase in female participation is due mainly to changes in social norms regarding gender roles. For example, new technologies such as electrical appliances reduced the time needed to perform household tasks. This released many women from the traditional household duties associated with their gender at the time. Also, families had fewer children which reduced the traditional need at the time for mothers to stay at home.

Another reason is that employment opportunities in the service sector have increased. This meant that mental ability became more important than physical ability (where men are perceived to have an advantage) in many of the new jobs created. Also, more women are working through economic necessity – to help generate more income for the family. Other reasons might include the new legislation which gave women equal rights in pay and opportunities, the success by the feminist movement in promoting the rights of women both in the workplace and in general, and finally, the opportunities provided by more women entering higher education which meant they were more employable.

4 ▶ Use a diagram to show the effect on the labour supply in Canada of the changes shown by the data.



The effect of an increase in female participation on the supply of labour

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** The correct answer is D. If the retirement age is increased, people will have to work longer so the supply of labour will increase.
- 2 ▶** The correct answer is A. Sometimes businesses spend money on training to equip workers with more skills so that they are more flexible in the workplace, that is, they can do different jobs.

CASE STUDY: LABOUR SHORTAGE IN NEW ZEALAND

1 ▶ What is meant by the derived demand for labour? Use the example in this case in your explanation.

The demand for labour is said to be a derived demand. This means that the demand for labour is derived from the demand for the goods and services supplied by firms. In this case, the increase in demand for construction workers in Auckland is derived from the rising demand for construction projects. Indeed, demand for buildings is rising so fast that there is not enough construction workers available to complete some building projects on time.

2 ▶ What is meant by labour mobility?

If workers are geographically mobile, it means that they can move easily from one region to another to find work. If workers are occupationally mobile, it means they can switch from one type of job to another more easily. As workers become increasingly mobile, the supply of labour in a particular market can be boosted. In this case, if workers were mobile it may be easier to reduce the shortage of construction workers. Unemployment in New Zealand is 6.6 per cent which means that there are many people available to work. However, they may not have the right skills or be available in the right place.

3 ▶ Describe what is likely to happen to the wages of construction workers as a result of the labour shortage in New Zealand.

The wages of construction workers may rise as a result of the shortage. Rising demand, with little increase in supply, should drive up the price of labour.

4 ► Discuss the importance of education and training to improve the quality of labour.

The quality of human capital and the quality of labour can be improved through education and training. Although the price of labour is important for businesses when making decisions about how many workers to hire, the quality of labour is also important. Generally, employers will want to recruit people who can read and write and have good communication skills. They may also want to recruit people with specialist skills. If the labour supply is well educated and trained, it will be more productive.

The main reason for training is to provide workers with the skills and knowledge needed to do their jobs effectively. As a result, their productivity will increase. However, there are several other reasons. For example, workers will need training if there are changes which might affect their jobs. Some examples might include new health and safety procedures, new technology or new working practices. Some businesses train their workers in a range of different jobs so that they are multi-skilled. This provides businesses with added flexibility. In this case, with improved training it might be possible to increase the supply of skilled construction workers in Auckland.

5 ► Assess the measures that could be taken to increase the supply of construction workers in New Zealand.

A number of measures might be taken to increase the supply of construction workers. The supply of labour in general can be increased if the population grows, if immigration is encouraged, if the retirement age is increased, if the school leaving age is reduced, if there is more female participation or if labour becomes more mobile. In this case, two measures might help to increase the supply of construction workers.

One solution to the problem is to attract more immigrants. A small number of Mexican construction workers have recently been employed but some people say that the government should let more in. Under the Mexico Working Holiday Scheme, 200 workers are allowed into the country for up to 12 months. It has been pointed out that immigration rules were relaxed to allow foreign workers to help with the rebuilding of Canterbury following the earthquake in 2010. Some people say that the government should do the same for Auckland. This could help if skilled construction workers from overseas could be attracted quickly.

Another way of increasing the supply of construction workers is to improve occupational labour mobility. Unemployment is quite high in New Zealand so there are people who might be prepared to work in construction. To improve occupational mobility, more people need to be trained in construction skills. In the past, the construction industry allowed the flow of trained and skilled construction workers to fall when there was a dip in demand. For example, during the global financial crisis there was limited training. The industry also needs to provide some clear routes from schools to construction sites. It has been suggested that, with unemployment so high in New Zealand, more young people leaving school need to be pointed in the right direction – that is, towards construction. This would help but might take several years to increase supply.

It is argued by some people that immigration is only a short-term answer to increasing supply. In the long term, universities need to have a better understanding of the nation's construction needs. In particular, they need to know the planned construction projects over the next five to 10 years. They can then make adjustments to their curriculums in order to meet these needs. However, for now, perhaps the government needs to relax some of the conditions which permit skilled construction workers from entering New Zealand. This could be done relatively quickly.

CHAPTER 23

CASE STUDY: WAGE RATES FOR CLEANERS

1 ► What has happened to the wage rates of cleaners as a result of the increase in supply?

Wage rates per hour have fallen from US\$11 per hour to US\$10 per hour.

2 ► What has happened to the numbers of cleaners employed in the market as a result of the increase in supply?

The number of cleaners employed in the market has increased from 60,000 to 80,000.

3 ► Suggest three other factors that could increase the supply of labour in a country.

Factors that could increase the supply of labour in a market include:

- rising population
- lowering the school leaving age
- raising the retirement age.

Note: Other answers may be valid.

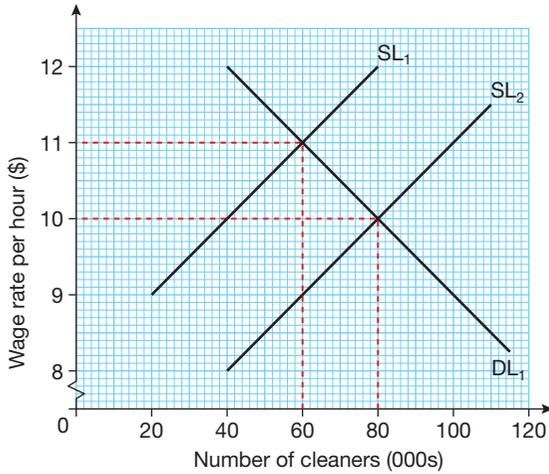
4 ► What impact might new legislation have to reduce immigration in the market shown in Figure 23.1?

If the government introduced legislation to reduce immigration, the supply of labour would stop increasing. This would halt the decline in wages in the market for cleaners. If some of the migrants returned home, the supply might actually fall. As a result, wages would start to rise again as the supply curve for labour shifts back to the left.

ACTIVITY 1

CASE STUDY: WAGE DETERMINATION IN A DECLINING INDUSTRY

1 ► Plot the supply and demand curves for labour on a graph.



2 ► What was the equilibrium wage rate in 2013?

The equilibrium wage rate was US\$12 per hour.

3 ► How many people were employed in the industry in 2013?

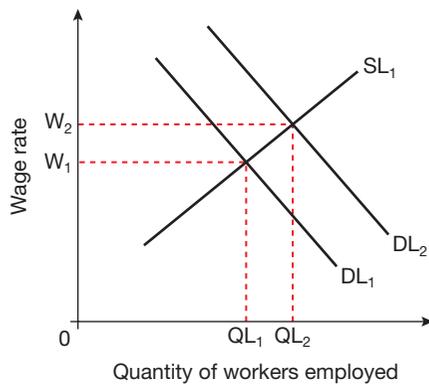
There were 200,000 people employed in the industry.

4 ► Why is the supply of labour in this industry zero when the wage rate is US\$4?

When the wage rate in this market is US\$4 per hour, the supply of labour is zero. This means that no one is prepared to work at that rate in the industry. The wage rate is probably too low for people to live on. Or, there are other jobs that pay more which workers are attracted to.

Wage rate (US\$)	4	8	12	16	20
Demand for labour (000)	225	175	125	75	25

5 ► On the same graph, plot the new demand curve for labour.



6 ► Using the graph, describe what has happened to the wage rate and the number of people employed in the industry in 2017.

The wage rate has fallen to US\$10 per hour and the number of people employed has fallen to 150,000.

7 ► Describe the reason for the changes identified in (6).

In this declining industry, demand for labour is falling. As a result, wages are being driven down and the number of people employed is falling. This is to be expected in a declining industry. Hopefully, the 50,000 people leaving the industry will be re-employed in another industry.

ACTIVITY 2

CASE STUDY: IG METALL

1 ► Using this case as an example, describe the main purpose of a trade union.

Trade unions have a number of roles but their main one is securing better pay and conditions for their members. In this case, the IG Metall trade union has secured a wage increase for its members. The deal involved an annual pay increase of 3.4 per cent plus a one-off payment of €150 for workers in the southwest region of the country. The offer appears attractive since the level of inflation (the rate at which prices rise) in the country was only 0.9 per cent. The union also reached an agreement with an employers' representative regarding conditions of work for some part-time workers. Specifically, the agreement related to the part-time conditions for older workers and job-related training for some employees in Baden-Württemberg.

2 ► How might the increase in wages secured by the trade union result in job losses?

It is argued that interference in labour markets by trade unions can have a negative effect on the level of employment in a market. When a union secures higher wage rates, it may be at the expense of jobs. This is because when wages are higher the demand for labour falls. Therefore, after the wage increases secured by IG Metall in this case, employers might react by laying off some staff.

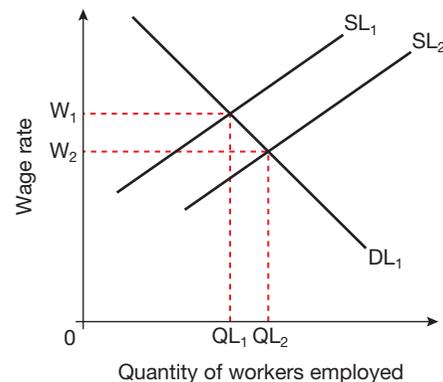
MULTIPLE-CHOICE QUESTIONS

1 ► B is the correct answer. Rising demand for labour will drive up wages in a particular industry.

2 ► A is the correct answer. If a government passes anti-trade union legislation, the power of trade unions is weakened. Anti-trade union legislation usually restricts the activities of trade unions.

CASE STUDY: AGING POPULATION IN THE US

1 ► What affect might an aging population have on a labour market? Use a diagram to support your answer.

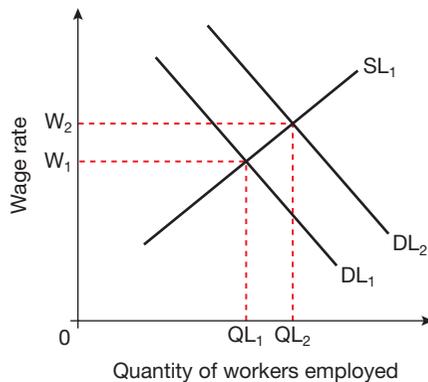


If a country has an aging population, the supply of labour is likely to fall. This will shift the supply curve to the left from SL_1 to SL_2 . This will force up the wage rate from W_1 to W_2 and the number of people employed will fall from QL_1 to QL_2 .

2 ► Discuss whether raising the retirement age would help to compensate for a fall in the nation's labour supply due to an aging population.

In recent years, a number of governments have raised the retirement age. This is usually because people are living for longer and the government wants to delay the pension payments to retired people to save money. However, by raising the retirement age, people will have to work for more years. As a result, the supply of labour will increase. This would help to compensate for the fall in the supply of labour resulting from an aging population.

3 ► What might happen in the market for care workers in the US in the future? Use a supply and demand diagram to support your answer.



An aging population places demands on certain industries. The main one is health care. In the US, it is estimated that by 2050 the number of people requiring health care services, such as care at home, residential care like assisted living or skilled nursing facilities, will probably double from 13 million in 2000 to 27 million. Health care is the fastest-growing sector of the US economy, currently employing around 18 million workers. This may have an impact on wages in the market for care workers. Rising demand for care workers will shift the demand curve to the right from DL_1 to DL_2 . As a result, the wage rate will rise from W_1 to W_2 . Also, the number of people employed in the industry will rise from QL_1 to QL_2 .

4 ► What measures might the US government take to meet the growing demand for care workers? Give at least two measures in your analysis.

One approach to meet the growing demand for health care workers in the US is to attract overseas workers to help meet demand. Historically the US has employed a growing number of migrants in the health care industry. The total grew from 1.5 million to 1.8 million between 2006 and 2010. Today, immigrants make up a significant proportion of the US health care workforce. In 2010, around 16 per cent of all care workers were from overseas. In some health care professions, this share was larger. For example, 27 per cent of physicians and surgeons were foreign-born, as were 22 per cent of persons working in health care support jobs

such as nursing, psychiatric and home health aides. In the future, perhaps the government could use more foreign labour.

Another measure that the government might use is to train more health workers. The government could encourage schools and colleges to provide more specialist courses for health care students. They could provide clear routes from schools into the health care industry. This might take time but would contribute to a long-term solution.

According to economic theory, wage increases secured by trade unions will result in lower levels of employment.

5 ► To what extent is this statement true? Make a clear judgement in your evaluation.

When trade unions interfere in a labour market they can force wages up. However, this may be at the expense of jobs. This is because the demand for labour falls when wages are higher. However, it may be possible for unions to secure higher wages without lowering levels of employment. Job losses might be avoided if labour productivity rises at the same time or employers are able to pass on wage increases to customers in the form of price rises or if profit margins are reduced. Consequently, it is not always true that wage increases secured by trade unions will result in lower levels of employment.

In this case, the trade unions representing health care workers in the US might be in a strong position to secure wage increases. This is because the demand for health care workers is rising. As the population in the US ages, more and more people in the future will require health care. In the US, it is estimated that by 2050 the number of people requiring health care services, such as care at home, residential care like assisted living or skilled nursing facilities, will probably double from 13 million in 2000 to 27 million. Health care is the fastest-growing sector of the US economy, currently employing around 18 million workers. If this trend continues, trade unions would be in a strong position to increase wages. Their wage demands might be met and there may be few or no redundancies, because employers will need more health care workers.

CHAPTER 24

CASE STUDY: DU PONT

1 ► Why is government intervention needed? Use examples from this case to support your answer.

Evidence in this case suggests that government intervention is needed to protect the environment. In 2015, DuPont was discovered leaking dangerous CFCs into the atmosphere. DuPont failed to maintain and repair two large refrigeration units adequately. With proper maintenance, the units should minimise chlorofluorocarbon (CFC) leaks. CFCs destroy the ozone layer, which is needed to protect the earth from harmful radiation which can cause skin cancer. Without government intervention, DuPont may not have provided the necessary maintenance and allowed the pollution to continue.

In 2014, DuPont was responsible for eight chemical releases in West Virginia, US. The leaks happened at DuPont's Belle production plant in Kanawha County, where

an employee was killed after being exposed to phosgene. Again, without intervention, DuPont may not have improved its safety measures and there may have been further deaths.

2 ▶ Describe the nature of government intervention in these cases.

In 2015, DuPont was fined US\$531,000 for alleged Clean Air Act violations at its chemical plant in Deepwater, New Jersey. In addition to the fine, DuPont was ordered to correct the problems in its leak detection programme and comply with legal reporting requirements. In 2014, it was fined over US\$1 million and also ordered to improve safety and emergency response systems to prevent future leaks. Some would argue that the fines were too small for such a huge and wealthy company – particularly considering the seriousness of the violations.

3 ▶ What is the role of the Environmental Protection Agency in this case?

The Environmental Protection Agency (EPA) is responsible in the US for monitoring the activities of businesses that threaten the environment. It has powers of investigation and can impose fines on offenders. It can also force companies to improve their practices so that the environment is protected from business activity. Most countries have bodies which can enforce laws relating to the environment.

ACTIVITY 1

CASE STUDY: THE NATIONAL COMMISSION OF MARKETS AND COMPETITION (SPAIN)

1 ▶ What is meant by an anti-competitive practice? Use the example in this case in your explanation.

Anti-competitive practices (also called restrictive trade practices) are attempts by firms to prevent or restrict competition. In this case, 21 car manufacturers and two consultancy firms were fined €171 million for anti-competitive practices. GM and Ford were hit the hardest with fines of €22.8 million and €20.2 million respectively. The CNMC said that the firms acted like a cartel. They exchanged information relating to car sales, repairs, maintenance activities and car parts to avoid competition. For example, some of the information included details of price incentives to avoid a price war for new-car sales.

2 ▶ Describe the role of the CNMC in Spain.

In most countries, the government appoints a body to ensure that markets remain competitive and that the interests of consumers are protected. In Spain the CNMC (The National Commission of Markets and Competition) is responsible for monitoring industry in general and ensuring that markets are sufficiently competitive. It is responsible for supervising and monitoring a range of economic sectors in Spain (such as electricity and gas, electronic communications and audiovisual, railways and airports), enforcing competition law which addresses anti-competitive behaviour, merger control and state aid. It also resolves trade disputes between a range of organisations and promotes competition throughout the economy.

3 ▶ Discuss how consumers might benefit from the action taken by the CNMC.

Consumers often need protection from businesses – particularly when firms are large and in control of the market. In this case, consumers have been exploited as a result of anti-competitive behaviour by firms selling cars in Spain. As a result of the action taken by the CNMC, anti-competitive activities by the 21 firms has been detected and punished. This should stop the practices and result in more competition. It should also lead to more choice and lower prices for consumers in Spain. The fines should serve as a warning to others who might be considering the use of anti-competitive practices in the future.

ACTIVITY 2

CASE STUDY: IMPACT OF MINIMUM WAGE

1 ▶ What is the equilibrium wage in this labour market?

The equilibrium wage in this labour market is US\$8. This is where the supply and demand for labour are equal. At this wage rate, 250,000 workers are employed in this market.

2 ▶ What happens to the number of people employed in the market when the minimum wage is imposed?

The minimum wage is US\$10 per hour in this case. The minimum wage is set above the equilibrium and as a result the number of people employed falls from 250,000 to 200,000. This is because the demand for labour falls at higher wage rates.

3 ▶ Describe two reasons why a government would impose a minimum wage.

The government might impose a minimum wage for a number of reasons. One of the main ones is to help reduce poverty. This is because in many countries minimum wages are often part of a broad strategy to end poverty. Minimum wages can also benefit disadvantaged workers. It is argued that people such as women, ethnic minorities and low income families benefit from minimum wages. Finally, minimum wages can benefit businesses. A minimum wage should promote greater equality and fairness among workers. As a result, workers will be better motivated. This should reduce staff turnover, reduce the number of sick days taken by staff and raise productivity.

MULTIPLE-CHOICE QUESTIONS

1 ▶ The correct answer is C. Minimum wages raise the wage rate in a labour market but would also be expected to create some unemployment. This is because firms may not want to employ as many people when wage rates are higher.

2 ▶ The correct answer is D. Product differentiation is not an anti-competitive practice. It is legal and used by many firms to try and make their products appear different to those of rivals in the market.

CASE STUDY: THE MINIMUM WAGE AND THE BAYER-MONSANTO MERGER

1 ► What is meant by the term minimum wage?

A minimum wage is the minimum amount per hour which most workers are legally entitled to be paid. Firms that try to pay workers below the legal minimum wage may face legal action and penalties.

2 ► Describe two possible benefits to the economy of the introduction of a minimum wage.

In some countries, many workers on low incomes are entitled to claim welfare benefits from the state. However, if their incomes are increased by the minimum wage, the amount they are entitled to claim will fall. This will save the government money. Also, as incomes rise workers may pay more tax which will benefit the government. This will benefit the economy because the government can spend more money on education and other essential public services.

Higher wages may serve to motivate many workers. If people know that their work is going to be rewarded with higher pay, they may work harder. This will help to boost productivity in the economy.

Also, if minimum wages are enforced, employers might respond by making their workers more productive to justify the higher wages. They may invest more in training, for example. They may also replace inefficient labour with more efficient machinery. Both of these responses would increase the productivity of the economy.

3 ► How might mergers and takeovers result in less competition? Use an example in this case in your explanation.

Following a merger or a takeover the number of firms in a market will fall. If there were thousands of firms competing in the same market this may not be such a problem. However, when there are only a few firms in the market, mergers and takeovers can result in market domination and a lack of competition. In this case, the merger between Bayer and Monsanto would mean that the new company would control about 25 per cent of the world's seed and pesticide market. It would also mean that about 90 per cent of the world's food supply would be in the hands of just four giant multinationals. Many would argue that this merger reduces competition in the market to inadequate levels.

4 ► Assess whether government intervention is needed in the merger between Bayer and Monsanto. Make a clear judgement in your evaluation.

Without government intervention, some businesses might neglect the needs of certain stakeholders. For example, the environment might be damaged, workers might be paid low wages, small businesses might be pressurised or consumers might be overcharged. One of the roles of the government is to provide a legal system in which businesses can operate and a system of incentives and penalties to ensure that 'at-risk' groups are protected.

In this case, some believe that the merger between Bayer and Monsanto would not be in the interests of consumers. The merger would mean that the new company would control about 25 per cent of the world's seed and pesticide market. It would also mean that about 90 per cent of the

world's food supply would be in the hands of just four giant multinationals. Opponents of the merger say that food would be sprayed with more pesticides and produced with more GM seeds. They also say that food choices would be restricted and prices all over the world would rise. Senator Bernie Sanders, one leading opponent of the merger, said that, *'these mergers boost the profits of huge corporations and leave Americans paying even higher prices. Not only should this merger be blocked, but the DOJ should reopen its investigation of Monsanto's monopoly over the seed and chemical market'*. Also, in India, Monsanto has been accused of exploiting its monopoly power in the supply of GM cotton seeds. Unlike farmers' own seeds, which can be saved and used the following year, farmers have to buy GM cotton seeds every year. Monsanto's cotton seeds can sometimes cost up to four times more than traditional varieties. Monsanto has a 90 per cent market share in cotton seeds. It has a tight grip on cotton growing in India as farmers become dependent on expensive seeds and chemicals.

However, in contrast, the merger might have some benefits to consumers and other stakeholders. After the merger, Bayer has promised to keep all of Monsanto's 9000 plus US employees. The company also hopes to create 3000 new jobs – most of which will be in R&D. Bayer and Monsanto plan to spend about US\$16 billion on agriculture R&D over the next 6 years if the merger goes ahead – at least half of which will be in the United States. In a joint statement, the companies said, *'The US is a global leader in agriculture, and the combination of Bayer-Monsanto will underscore that role and ensure the United States retains a pre-eminent position as the anchor of the industry'*.

To conclude, it is important for the government to find the right balance when intervening in business. Too much intervention will discourage enterprise and reduce foreign investment. This might restrain growth in national income, reduce job creation, decrease tax revenues and reduce consumer choice. Too little, and some stakeholders' best interests might be neglected. In this case, there is some evidence to suggest that the merger may not be in consumers' interests. When just four companies are able to dominate a global market, the scope for exploitation is significant.

CHAPTER 25

CASE STUDY: CANADA

1 ► Discuss whether Trudeau's policies are working.

Trudeau has taken a number of measures to promote economic growth. Trudeau wants to grow the economy by investing in public infrastructure projects. By the end of 2016, it was too early to say whether the economy was starting to benefit. However, it was clear that Canada's economy had not 'taken-off' under Trudeau. National income had grown by just 1.2 per cent in 2016 – up slightly from 0.9 per cent in 2015. The government would probably argue that its policies are working since economic growth is higher than it was a year earlier. Also, before the election, the Canadian economy had been a little 'sluggish' with a mild recession and rising unemployment.

2 ► How might Trudeau's policies create jobs in Canada?

A number of Trudeau's policies are likely to create jobs. For example, the government plans to double the spending on infrastructure to CAD 120 000 million over the next 10 years. This includes CAD 3400 million for public transport, CAD 5000 million for water and wastewater facilities, and another CAD 400 million on affordable housing, early learning and childcare, and cultural and leisure facilities. This should create a lot of jobs – particularly in construction. Building contractors will need to take on more staff to complete any government infrastructure projects they win. Jobs will also be created in education and childcare. The government also plans to spend CAD 6 billion on green infrastructure over 4 years – again this will boost employment in 'green' industries such as solar panel production.

The government also plans to reduce the financial strain on 'middle class' families by raising taxes for the wealthiest 1 per cent of Canadians to enable cuts for low-income families. Those benefiting from the tax relief are expected to save up to CAD 670 each per year. There would also be Child Benefit to support middle-class parents. A typical family of four will get an extra CAD 2500 every year. This extra money is likely to be spent in the economy which means that businesses will have to increase output. Consequently, many will need to take on more workers.

3 ► Describe how this case emphasises the importance of the economy to governments.

When people vote in an election, they are often influenced by the promises made by the different parties about their plans for managing the economy. People will usually want a government to introduce measures which will promote economic growth and improve living standards. Consequently, governments will try to win support by explaining to the voters what they will try to achieve when managing the economy if elected.

ACTIVITY 1**CASE STUDY: ECONOMIC GROWTH IN USA, EU AND EAST ASIA AND PACIFIC****1 ► (a) What is meant by GDP?**

GDP stands for gross domestic product. It is a measure of national income and reflects growth in an economy. It is an internationally recognised measure of economic growth.

(b) What is meant by GDP per capita?

GDP per capita is GDP per head of a nation's population. It is a measure of GDP that takes into account changes in the population. It is calculated by dividing GDP by the size of the population.

2 ► Which country/region has performed the best over the period? Explain your answer.

According to the graph in Figure 25.3, the US appears to have performed the best over the time period if GDP per capita is used as a measure. In the US, GDP per capita has risen from around US\$30,000 in 1996 to about US\$56,115 in 2016. It has nearly doubled over the time period and

is higher than both the EU and the East Asia and Pacific region. However, the East Asia and Pacific region has more than doubled its GDP per capita from US\$4008 to US\$9397. This is a bigger percentage increase than the US but the final total is still significantly lower.

3 ► Which country/region had the lowest GDP per capita in 2015?

The region with the lowest GDP per capita in 2015 is clearly East Asia and the Pacific with a GDP per capita of just US\$9397. Both the US and the EU were significantly higher at US\$56,115 and US\$32,004 respectively.

4 ► Which country/region had the most inconsistent economic growth over the period?

The region with the most inconsistent growth pattern over the 20-year period is the EU. The line which represents growth in GDP per capita is much less smooth than the other two regions. This shows that growth in GDP per capita was a little unstable. For example, in both 2000 and 2010 GDP per capita actually fell from a previous high in these 2 years. This did not happen in the US or East Asia and the Pacific.

ACTIVITY 2**CASE STUDY: ECONOMIC GROWTH AND UNEMPLOYMENT IN BRAZIL**

Look at Figure 25.6 and Figure 25.7.

1 ► Describe the possible relationship between economic growth and unemployment in Brazil between 2012 and 2016.

The data in Figure 25.6 and Figure 25.7 suggest a possible link between economic growth and unemployment. For example, between 2012 and 2014, when economic growth was positive, around 1 or 2 per cent, unemployment was at its lowest, that is, below 8 per cent. However, when economic growth became negative between 2014 and 2016, unemployment started to rise quite sharply. For example, unemployment reached nearly 12 per cent after 2 years of recession where total GDP was actually falling.

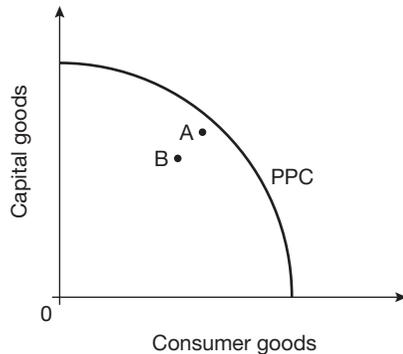
2 ► What is the likely cause of the relationship identified in (1)?

Economic growth is the result of businesses generating more output. As businesses produce more, they need more workers. Consequently, economic growth raises employment levels, and thus reduces unemployment. Governments also tend to spend more during periods of economic growth. This will also help to create more jobs – in education, health care and infrastructure development, for example. Evidence in Brazil supports this view because when the Brazilian economy was growing between 2012 and 2014, employment was at its highest (unemployment at its lowest) over the period. Then, between 2014 and 2016, when GDP actually started to fall, so did employment in the Brazilian economy (unemployment rose to nearly 12 per cent).

3 ► What happened in the Brazilian economy in 2015? Use a PPC diagram to support your answer.

Assume that Brazil was at point A in the diagram before 2015. This position is inside the PPC which means that the nation's

resources are not fully employed (before 2015, unemployment existed in Brazil). After 2015, Brazil is likely to be positioned somewhere like point B. This is further inside the PPC which shows that even more resources are unemployed. This position is supported by the data which shows unemployment reached 12 per cent at the end of 2016.



MULTIPLE-CHOICE QUESTIONS

- 1 ▶ D is the correct answer. The percentage growth rate is $\text{US\$40} \div \text{US\$980} \times 100 = 4.08$ per cent.
- 2 ▶ B is the correct answer. Higher levels of employment is likely to mean less unemployment. More people will have jobs and therefore incomes and living standards will be higher.

CASE STUDY: ECONOMIC GROWTH IN INDIA

1 ▶ How is economic growth is measured?

The most common measure of national income is gross domestic product (GDP). This measures a country's total output for the year. It measures the value of all goods and services that are produced in a country for sale. It includes both goods that are sold domestically and those sold overseas. However, GDP only measures final production. The manufacture of parts and components used to make a product are not included. Exports are included because they are part of domestic production. However, imports are subtracted because they represent the output of another country. Figure 25.8 shows the growth of GDP in the Indian economy between 2006 and 2016. GDP is used to measure economic growth all over the world. Using this standard definition means that meaningful comparisons can be made between the growth rates of different countries.

2 ▶ Describe two limitations of using GDP as a measure of economic growth.

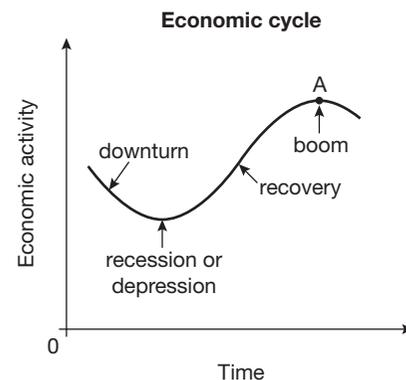
The use of GDP to measure growth in the economy does have some limitations. For example, gathering the data needed to calculate national income is a huge task. The government collects millions of documents from firms, individuals and other organisations. Unfortunately, errors are made because the information has been entered inaccurately or left out. Therefore, the true value of GDP is never really known.

Also, some goods and services are not traded and therefore economic activity is not recorded. Examples might include people growing their own produce in gardens and the work done by DIY enthusiasts. In undeveloped countries, people rely almost entirely on their own produce to live. It is

not traded and therefore not recorded. As a result, if such activities are not recorded the value of national income is underreported.

3 ▶ What was happening in the Indian economy over the period shown in Figure 25.8. Use a drawing of the economic cycle to support your answer.

Figure 25.8 shows the Indian economy growing very rapidly – as high as 11 per cent in 2010. During this time, the Indian economy was booming. Therefore India was at the peak of the economic cycle. During a boom, GDP is growing fast because the economy is performing well. Existing firms will be expanding and new firms will be entering the market. Demand will be rising, jobs will be created, wages will be rising and the profits made by firms will be rising. However, prices may also be rising. In the diagram below, point A shows the position the Indian economy is at in the economic cycle.



4 ▶ Discuss the possible link between economic growth and inflation in India.

If economic growth is too fast, the economy may 'overheat'. This can cause inflation, which is bad for an economy. In the last 10 years, inflation has not been a serious problem in many countries. This could be due to the relatively low levels of economic growth. However, in India economic growth has been rapid in the last 10 years according to the graph in Figure 25.8. Figure 25.9 also shows that inflation was relatively high in India during this period. For example, when economic growth in India reached double figures in 2009, 2010 and 2011, the Indian inflation rate was at its highest at 15 per cent. This shows quite a strong link between economic growth and inflation.

5 ▶ Assess the possible benefits of economic growth to India.

Promoting growth is one of the government's key macroeconomic objectives. Generally, economic growth is beneficial. For example, economic growth is the result of businesses generating more output. As businesses produce more, they need more workers. Consequently, economic growth raises employment levels, and thus reduces unemployment. Increases in GDP mean that on average people have more income. With more disposable income, people can buy more goods and services. They can buy better quality food, improved housing and more leisure goods. Also, due to economic growth people are now living longer. People can afford healthier diets and live longer.

With the high rates of economic growth, the government has enjoyed a significant boost in tax revenues. As a result,

the Indian government has introduced policies to reduce poverty and generate employment. Two of the schemes include the Rural Health Mission and Mahatma Gandhi National Rural Employment Guarantee Scheme. The latter aims to provide at least 100 days of guaranteed wage employment each year to every Indian household including women. As a result, 52.6 million households were provided with employment in 2009–2010. The government can also spend more on services such as health care, education and provision for the poor. In India, such spending has increased the literacy rate and reduced the infant mortality rate. Census data showed that literacy improved from 64.8 to 74.04 per cent between 2001 and 2011. Also, the infant mortality rate (per 1000 live births) fell from 80 in 1991 to 50 in 2009. Life expectancy in India has also improved from 55.7 in 1981–1985 to 64.2 in 2002–2006.

The government has also invested heavily in infrastructure development. For example, the government is committed to a huge road construction programme. The country's road network has expanded at a rate of 4 per cent which has added more than 4.8 million km of additional roads since 1951. India now has the second-largest road network after the US, with 5.23 million km of roads, of which 3.17 million are surfaced.

Although the benefits of growth are significant and very much welcomed in India, there are some disadvantages. India has had high levels of inflation which can be harmful to the economy. For example, it leads to an increase in the cost of living. Rapid growth can also damage the environment. Environmental groups believe that the benefits of growth are lower than the costs of generating that growth. For example, as economies grow, more cars are purchased and more flights are taken. Both car and air transport contribute to greenhouse gases which cause global warming. In some countries such as China and India, high levels of economic growth have been accompanied by very high levels of pollution. Also, economic growth uses up non-renewable resources such as oil, gas, gold and iron ore. Once they have been used they cannot be replaced. Economic growth means that future generations will have fewer resources. When this happens, growth is said to be unsustainable.

To conclude, it is likely that there are few people in India who would not welcome more economic growth. For most people, the benefits of growth are greater than the disadvantages. For a developing country like India, some inflation and environmental damage may be an acceptable price to pay for lower levels of poverty, higher life expectancy, more jobs and income, better infrastructure and higher literacy levels.

CHAPTER 26

CASE STUDY: THE SAMUELSEN HOUSEHOLD

- 1 ▶ Calculate the percentage change in (a) the gas bill and (b) the grocery bill.**

(a) Percentage change in gas bill

$$= 8340 \text{ NOK} - 8000 \text{ NOK} = \frac{340 \text{ NOK}}{8000 \text{ NOK}} \times 100$$

$$= \mathbf{4.25 \text{ per cent}}$$

(b) Percentage change in grocery bill

$$= 1288 \text{ NOK} - 1257 \text{ NOK} = \frac{31 \text{ NOK}}{1288 \text{ NOK}} \times 100$$

$$= \mathbf{2.47 \text{ per cent}}$$

- 2 ▶ Which of the bills in (1) have increased the most?**

The gas bill has risen by more than the grocery bill. Gas prices increased by 4.25 per cent while grocery prices only rose by 2.47 per cent.

- 4 ▶ Describe one possible reason why the gas bill may have risen by so much.**

The gas bill may have risen because gas distribution companies are paying more for the gas that they buy from their suppliers. The price increase may also be the result of the gas companies trying to make more profit. Another possibility is that the gas distributors have increased prices because other costs have risen such as staff wages.

- 5 ▶ Describe one possible reason for the change in the price of petrol for Julian's car.**

Petrol prices may have fallen due to the fall in the global oil price. Alternatively, there may have been a price war between petrol companies.

ACTIVITY 1

CASE STUDY: EU INFLATION

- 1 ▶ Describe what has happened to the EU inflation rate over the time period.**

According to the graph in Figure 26.2, EU inflation has fallen slightly from just under 2 per cent in 2006 to just over 1 per cent in 2016. However, during this period inflation did rise to around 4 per cent in 2009 and 3 per cent in 2012. There were also periods when the EU inflation rate was negative – in 2009, for example.

- 2 ▶ When did the EU experience deflation?**

Deflation occurs when the general price level falls, that is, when the inflation rate is negative. This happened in the EU in 2009/10 and again in 2015/16.

- 3 ▶ How is the EU inflation rate measured in this case?**

Inflation is measured in the EU using the consumer price index (CPI). This measurement is used commonly worldwide. Every month, the authorities record the prices of about 600 goods and services purchased by over 7000 families. An average monthly price is then worked out from all the information gathered. This average price is then converted into an index number. This allows accurate comparisons to be made between two different periods.

ACTIVITY 2

CASE STUDY: DEMAND PULL INFLATION

- 1 ▶ Calculate the percentage increase in the price of zinc between January 2016 and April 2017.**

Percentage increase in price is given by:

$$\text{US\$}2600 - \text{US\$}1500 = \frac{\text{US\$}1100}{\text{US\$}1500} \times 100 = \mathbf{73.3 \text{ per cent}}$$

2 ► What is meant by demand-pull inflation? Use this case as an example in your explanation.

In any market, if demand increases there will be an increase in price. Similarly, if demand in the whole economy rises there will be an increase in the general level of prices. In this case there was a sharp increase in the price of zinc – a huge 73.3 per cent increase. The rise in the price of zinc was caused by growing demand. For example, growth in the Chinese motor car industry helped to boost global demand throughout 2016. This is demand-pull inflation and was largely responsible for the increase in the price of zinc from about US\$1500 per metric tonne to around US\$2600 per tonne in just over a year.

3 ► Explain how zinc mining companies might respond to the rising price of zinc products in the market.

When the price of a product rises in a market, producers will normally respond by increasing supply. In this case, zinc mining becomes more profitable when the price per tonne is US\$2600. This should encourage zinc miners to increase supply. However, although companies might wish to raise output it may take time. Miners might need to find new sources of zinc for example.

MULTIPLE-CHOICE QUESTIONS

- 1 ►** D is the correct answer. When firms experience rising costs such as higher wages, they will try to raise their prices to protect their profit margins. This is called cost-push inflation.
- 2 ►** C is the correct answer. Rising government expenditure may cause demand-pull inflation since government spending is an important part of total demand in many countries.

CASE STUDY: INFLATION IN VENEZUELA

In 2016, some goods purchased in Venezuela cost VEF 50 000.

1 ► Calculate how much these goods would cost a year later if inflation reached 1600 per cent.

The cost of these goods a year later is given by:
 $50,000 \times 1600\% = \text{VEF } 800\,000.$

2 ► Comment on the scale of inflation in Venezuela.

Figure 26.4 shows that inflation in Venezuela reached around 800 per cent in 2016. Some economists have predicted that it could reach 1600 per cent in 2017. This is hyperinflation. Prices are rising so rapidly that they are out of control.

3 ► Describe two negative impacts that households in Venezuela have experienced as a result of inflation.

One of the main problems of inflation is that prices are rising. As a result, inflation reduces the purchasing power of money. This means that people cannot buy as much with their income. Therefore, households will experience a fall in their living standards. However, if incomes are rising as fast, or faster than prices, this may not be a problem for individuals. In this case, price increases have got out of control and the Venezuelan government has declared a state of emergency. Venezuelans are dying of treatable illnesses caused by shortages of medical supplies. There

are regular shortages of basic foods such as milk, eggs and vegetables. Inflation has become so bad that the government ordered millions of pounds of provisions (in the form of the Venezuelan currency, the bolivar) to be air-dropped across the country. Food supplies are now controlled by the army and people have to queue up for hours in the hope that they can buy something. One person interviewed by the media said, *'I still go to the open market to buy fruit but even there it is ridiculous. In April 2015, I bought some fruit and vegetables for 430 bolivars. Last Saturday the same items cost me 14,000 bolivars. Isn't that crazy?'*

The economy is now in a deep recession with rising unemployment and huge government debt. One of the problems is that the falling oil price in 2014 resulted in a loss of earnings for businesses and lower tax revenues for the government. Venezuela's economy relies very heavily on oil production. For example, oil sales account for nearly 90 per cent of the nation's exports. This will result in further rises in unemployment and more hardship for households.

4 ► Describe the difference between the menu costs and the shoe leather costs of inflation.

If inflation is rapid, firms will have to increase their prices frequently. This will cost money because customers have to be told. New brochures will have to be printed, websites updated and sales staff informed. These are called menu costs because, for a restaurant, when prices are increased a new menu has to be printed.

When prices are changing frequently, consumers and firms will have to spend more time looking for the lowest prices or the best value for money. This involves 'shopping around' which is a cost because it takes time and wears out the leather on your shoes. Hence, these are called the shoe leather costs of inflation.

5 ► Assess the impact that inflation in Venezuela might have on business confidence and investment.

In December 2016, Venezuela's credit card and cash machine system froze. This meant businesses could not process transactions and had to ask for cash or delay payment. Venezuela is now distributing new higher-value notes to deal with some of the practical problems of sky high inflation. For example, a backpack full of cash is often needed to pay supermarket bills. The central bank has now introduced six new bills ranging from 500 to 20,000 bolivars. Prior to this, the largest note was 100 bolivars and worth about two US cents. Such drastic action is bound to have a negative effect on business confidence and investment in the economy.

The uncertainty which inflation, and more especially hyperinflation, can cause may have an effect on business confidence. For example, inflation might make consumers, business owners and managers anxious. They may become more cautious. Firms may postpone growth plans or reduce their spending on product development. When businesses lack confidence, they are less likely to take risks. As a result, economic growth rates tend to fall.

Inflation often results in a decline in business investment. This is because investment requires spending quite large amounts of money now in the hope of returns over a future

period of time – perhaps up to 5, 10 or more years. Due to the uncertainty about future prices created by inflation, and the lack of business confidence among decision makers, investment projects are likely to be postponed or cancelled. This will have a negative impact on economic growth and the future level of employment in the economy. Since the Venezuelan economy relies heavily on oil, and the global oil price is low, the future of the economy does not look good.

When hyperinflation exists, where price increases are out of control, rising at several hundred or thousand per cent a year, for example, money may effectively lose its function in transactions. As a result, both consumers and businesses become very worried indeed. Hyperinflation can destabilise a country. This is happening in Venezuela where there is now a state of emergency and the army is in charge of food distribution. Many say that the only hope for the country is to receive assistance from the International Monetary Fund.

CHAPTER 27

CASE STUDY: KOSTAS MANTALOS

CASE STUDY: MAUREEN CONTE

1 ► Why is Kostas Mantalos not employed after the end of October each year?

Kostas Mantalos is laid off every year at the end of October. His work is seasonal which means that when the holiday season is over, his services are no longer required. Therefore he is laid off.

2 ► Why was Maureen made redundant?

Maureen is a victim of the downturn in the economy caused by a fall in the global oil price which has hit the construction industry. She is a cost accountant whose services are required when there is work in the building of oil rigs. Unfortunately, the demand for construction projects such as building oil rigs, has fallen due to the fall in demand for oil. Therefore, her employer does not require Maureen's services. She was laid off along with four of her colleagues.

3 ► Discuss why a government should be concerned about unemployment?

In many countries, the government pays benefits to the unemployed, so when unemployment rises more money has to be paid out. The government has to get this money from somewhere. It may mean that spending in other important areas has to be cut to pay for the unemployed.

ACTIVITY 1

CASE STUDY: MARINE D'ARCY

1 ► What is the difference between sectoral and technological unemployment? Use the example in this case to support your explanation.

Marine D'Arcy has been made unemployed twice recently. In 2015, she was laid off by Vent Plastique, a manufacturer of plastic household products based in Lyon. Marine worked on the factory floor but the company was taken over and production was switched to the Far East. Marine is a victim of sectoral unemployment in this example. Manufacturing is in decline in many western economies and

Marine was laid off due to changes in the structure of the economy.

Marine managed to get another job in Lyon working in a warehouse for a mail order company. She helped to 'pick stock' and process customer orders. Unfortunately, after 18 months the company automated the warehouse resulting in 12 redundancies. Marine was laid off again. This time she was a victim of technological unemployment. Her job is now done by a machine so her services are not required.

2 ► How might Marine improve her mobility in the labour market?

Marine can improve her geographical mobility by moving away from Lyon. If she is prepared to move away, she is more likely to get a job. This is because there will be more choice of jobs to apply for over a wider geographical area. Marine can also improve her occupational mobility. She could gain some qualifications at college. For example, she could go on a training course and obtain some vocational qualifications.

ACTIVITY 2

CASE STUDY: UNEMPLOYMENT IN SOUTH AFRICA

1 ► What might happen to levels of business confidence in South Africa if the pattern of unemployment shown in Figure 27.4 continues?

Unemployment in South Africa shows a steady increase over the period from around 23 per cent to 27 per cent. Recently, two large businesses have laid off workers. FNB, a South African bank, laid off 589 employees when it closed 34 branches. This was due to automation and the digital migration of some of its services. Another company, RCL Foods, laid off 1350 factory workers in the Kwazulu-Natal province. This was the result of rising cheap imports. It could be argued that measures like this by businesses are one symptom of falling business confidence in South Africa.

When firms lay off workers they have to pay them redundancy money. Also, the remaining workers may be demotivated because they could fear that they will be the next to be made redundant. A firm will be left with spare capacity when laying people off. There will be unused machines, tools, equipment and factory space which would have been used before people were laid off. Sales are likely to fall for most businesses when unemployment starts to rise in the economy. This is because people have less to spend. All these effects are likely to reduce the confidence of business decision makers. As a result, they are less likely to take risks and may postpone or cancel investment projects.

2 ► Discuss how unemployment has impacted on: (a) poverty levels and (b) resource use in South Africa in recent years.

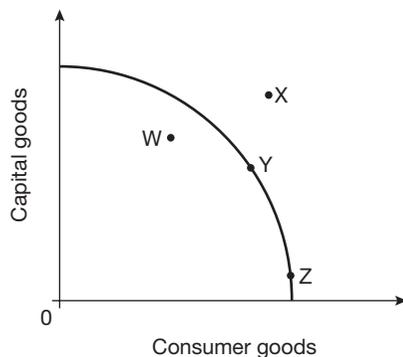
(a) In some developing countries, many people have never worked in their lives. There have never been any employment opportunities for them. As a result, they have to live in poverty. They may try to support themselves at a minimum level by growing some food on a plot of land, for example. Although poverty in South Africa fell during the Nelson Mandela government, over 35 per cent of the population still live below the poverty line. The evidence is everywhere in

the growing townships that surround Johannesburg, Cape Town and Durban, where millions live in extreme poverty. In one report, a taxi driver who lives in one of Cape Town's settlements, explained how dangerous it was when he returned home from work late at night. He has been robbed of his daily wages several times. However, he considers that he is lucky because he has a job. If unemployment continues to rise in South Africa, poverty levels are sure to increase.

- (b) Unemployment represents a waste of resources. People who are out of work do not make any contribution to production. This is a waste of resources and results in lower levels of national income. If there is full employment in an economy, output will be higher and income per head will be higher. In some countries, youth unemployment is very high. Many consider this is particularly wasteful. In South Africa, the scale of youth unemployment is worrying. It has been greater than 50 per cent for most of the last 10 years. Employment for young people is highly important. It is needed to help support career development. Young people in employment develop skills such as confidence, discipline, work ethic, accountability and interpersonal skills. These are needed to make a success of life and survive in the job market. Such high levels of youth unemployment is a dreadful waste of resources.

MULTIPLE-CHOICE QUESTIONS

- 1 ► B is the correct answer. Frictional unemployment is caused by people not working as they move between jobs. The diagram shows four positions, W, X, Y and Z, on and around a production possibility curve for a country.



- 2 ► A is the correct answer. Position W is located inside the production possibility curve. This shows that resources are unemployed.

CASE STUDY: UNEMPLOYMENT IN GREECE

- 1 ► Describe the pattern of unemployment in Greece over the period shown.

Unemployment in Greece rose from about 7.5 per cent in 2008 to around 27 per cent in 2013. However, since 2013, the situation has improved slightly because in 2016 unemployment had fallen back to about 23 per cent.

- 2 ► How is unemployment measured?

One method used to measure unemployment in much of the world is to carry out a survey. The survey used is called the

Labour Force Survey (LFS) and is carried out every month. In the survey, unemployment is defined by the International Labour Organisation (ILO). This definition is used internationally so that comparisons can be made. In general, anyone who carries out at least one hour's paid work in a week, or who is temporarily away from a job (for example, on holiday), is in employment. Also counted as in employment are people on government-supported training schemes and people who do unpaid work for their family's business.

- 3 ► What are the possible causes of unemployment in Greece? Give at least two reasons in your analysis.

One of the main causes of unemployment in Greece was the global recession in 2008. Greece was hit very hard. However, in addition to falling demand resulting from this downturn in economic activity, Greece had other economic problems. Both private sector and public sector debt was too high. From 1999 to 2008, private sector debt as a proportion of GDP more than doubled from 59 per cent to 126 per cent. The ratio of public sector debt to GDP was around 100 per cent over the same period. During this period, consumers, businesses and the government spent heavily. This was reflected in the booming level of imports. However, when the financial crisis hit the world in 2008, those with debt struggled to repay what they owed. In an effort to reduce debt, households and businesses cut their spending. This resulted in a huge increase in unemployment.

Also, in order to qualify for loans from the EU, Greece had to make large cuts in public spending. This meant that large numbers of public sector workers, such as teachers and public servants, were also put out of work.

- 4 ► Describe the effect on unemployment of the government raising the retirement age in Greece.

Historically, workers retired relatively early in Greece. For example, the average Greek man retired at 63 and the average woman at 59. Also, some police and military workers have retired as early as age 40 or 45 in the past. In 2013, the government raised the retirement age to 67, in line with many countries in the world. However, the impact of this measure on unemployment levels was negative. This is because by raising the retirement age, the supply of labour increases. However, since the economy was in decline, unemployment rose because there were not enough jobs for the extra people joining the working population.

- 5 ► Assess the impact of high unemployment in Greece on (a) output and (b) the government.

(a) If people are unemployed, the productive potential of a country is not being fully exploited. As a result, levels of output are lower than they could be. This means that national income and living standards will be lower (on average). However, if most of the unemployment is a result of new technology being introduced, output might not fall. Output could actually increase if productivity rises. In the case of Greece, the high levels of unemployment were not the result of new technology and output fell sharply. This is shown in Figure 27.6. Output, measured by GDP, fell steadily and sharply from a high of US\$354.86 billion in 2008 to US\$194.85 billion in 2016. This is a huge fall.

(b) Unemployment usually has two main negative impacts on the government. In most developed countries, when people are unemployed they are entitled to receive some financial benefits from the state. If unemployment levels rise the government has to allocate more money to unemployment benefit. This extra expenditure will incur an opportunity cost. For example, the money could be better spent on education or health care. In Greece, the government already had huge debts and the extra spending on social security payments, to rapidly come to the aid of the rising numbers of unemployed people, pushed the government towards bankruptcy.

Also, when unemployment rises, tax revenues will fall because most taxes are linked to income and spending. This means the government has less to spend and may have to cut public sector services. Alternatively, it may borrow more which will increase national debt or it may have to increase tax rates. For example, taxes on incomes, corporate profits and spending may have to rise. Historically, in Greece, the government has always struggled to collect taxes in the country. There have been reports of large-scale tax evasion. This just added to the problem faced by the government.

CHAPTER 28

CASE STUDY: TRADE IN SOUTH KOREA

South Korea has an open economy.

1 ► What does this mean?

If a country has an open economy, it means that the country trades with other nations. They buy goods from other countries and also sell goods abroad. There are no trade restrictions. In this case, South Korea sells semiconductors, petrochemicals, automobile/auto parts, ships, flat display screens, steel, electronics, plastics and computers to other nations. At the same time, South Korea buys goods such as crude oil/petroleum products, semiconductors, natural gas, coal, steel, computers, automobiles, fine chemicals and textiles, from abroad.

2 ► What is the difference between the value of goods bought and the value sold by South Korea in the last quarter of 2016?

The value of goods sold abroad by South Korea in the last quarter of 2016 is $41970 + 45410 + 45070 = 132450$.

The value of goods bought by South Korea in the last quarter of 2016 is $35003 + 37210 + 38070 = 110283$.

Therefore the difference is 22167. This means that South Korea sold 22167 more goods than it bought in the last quarter of 2016.

Look at the difference between the value of goods sold (Figure 28.1) and the value bought (Figure 28.2) by South Korea over the whole period.

2 ► Do you think South Korea benefits from trading with other nations? Account for your answer.

South Korea does seem to benefit from trading with other nations. In every month over the period shown, South Korea sells more goods than it buys from abroad. This suggests that South Korea has a very healthy trading balance.

ACTIVITY 1

CASE STUDY: NIGERIA'S BALANCE OF TRADE

Most of Nigeria's trade is in visible items.

1 ► What is meant by visible trade?

Trade in physical goods is called visible trade. Examples of visible trade for Nigeria include petroleum, petroleum products, rubber and cocoa. All these goods are physical in nature.

2 ► What is meant by the balance of trade?

The balance of trade, also called the visible balance, is the difference between exports and imports of physical goods.

3 ► Describe what has happened to Nigeria's balance of trade over the period.

In the last quarter of 2015, Nigeria had a positive balance of trade. This means that the country was selling more goods abroad than it was buying. However, for the rest of the time, the position worsens. Throughout 2016, except for March, the balance of trade is negative. This means that sales of goods abroad are smaller than purchases.

4 ► Describe one possible reason for the pattern of trade shown in Figure 28.5.

The main reason why the balance of trade for Nigeria becomes negative in 2016 is probably because the price of oil has fallen. Around 95 per cent of Nigeria's exports are oil-based. This includes petroleum and petroleum products. The sharp fall in the price of oil has probably reduced the value of Nigeria's exports. This has not been cancelled out by a decrease in the value of imports, therefore a deficit on the visible balance has opened up.

ACTIVITY 2

CASE STUDY: FERRARI

1 ► What impact will Ferrari sales have on Italy's current account?

Ferrari makes important contributions to Italy's total exports. In 2015, the total revenue for Ferrari was €2.854 billion. The majority of this was the result of overseas sales. Consequently, Ferrari is helping to boost Italy's current account balance.

2 ► Using this case as an example, discuss the importance of product quality in relation to a country's current account.

If a country develops a reputation for high quality goods, it is likely to enjoy rising sales from overseas buyers. This will drive up the demand for exports and help to improve a current account balance. In this case, Ferrari produces high performance luxury supercars. Although there are only a few people in the world who can afford to buy a Ferrari, it is a famous global brand name. In 2015, it produced 7664 cars and made a record profit. Enthusiasts say that Ferrari is a special car because it has a soul. Red stands for passion and the horse logo represents aggression. For many, Ferrari symbolises power, strength, speed, confidence and boldness. Ferrari is targeted at a niche market – the luxury segment of the car market where

performance, quality and exclusivity are highly valued. If countries can produce high quality goods like this, demand from abroad will be high.

Also, if the quality of domestic goods is high, demand from the home market will rise as consumers direct their attention away from imports. This will also help to improve the current account.

MULTIPLE-CHOICE QUESTIONS

- 1 ► The correct answer is C. The sale of insurance is an invisible item of trade. It is a financial service.
- 2 ► The correct answer is C. The sale of cars by the Moroccan factory to overseas customers is an example of a visible export and will boost the current account.

CASE STUDY: THE MOROCCAN CURRENT ACCOUNT BALANCE

- 1 ► **What is the difference between visible and invisible exports? Use examples from this case to support your answer.**

Goods and services sold abroad are called exports. These sales can be visible or invisible. Visible exports include the sale of physical goods. Examples for Morocco include clothing and textiles, automobiles, electric components, inorganic chemicals, transistors, crude minerals, fertilisers, petroleum products, citrus fruits, vegetables and fish. Invisible exports are to do with the sale of services. In this case, tourism is an example of an invisible export for Morocco. Morocco has a well-developed tourist industry with destinations such as the ancient cities of Marrakesh and Fez attracting thousands of overseas visitors every year.

In November 2016, Morocco's balance of trade was –13866 million MAD.

- 2 ► **Describe the difference between the balance of trade and the balance on the current account.**

The balance of trade, sometimes called the visible balance, is the difference between exports and imports of physical goods such as commodities, manufactured goods and machinery. The current balance includes invisible trade in addition to visible trade. It is the difference between all exports and all imports for a nation.

- 3 ► **During which period did Morocco have a current account surplus?**

For most of the time between 2014 and 2016 Morocco had a current account deficit. The deficit was at its highest in the first quarter of 2014 when it was –19282 million MAD. However, there were three quarters in 2015 when there was a surplus. For example, in the third quarter of 2015, Morocco enjoyed a current account surplus of 21016 million MAD.

- 4 ► **Discuss how a current account deficit might affect the Moroccan exchange rate with other currencies.**

There is a relationship between the current account balance and a country's exchange rate. For example, if a country has a persistent deficit on the current account resulting from a rising demand for imports, demand for

foreign currency will rise. This is because a country buying more and more imports will need to buy foreign currency to pay for the goods. The foreign currency will be bought with domestic currency which will increase the supply of domestic currency on exchange markets. The increase in supply will weaken that nation's exchange rate.

- 5 ► **Assess the possible impact on the Moroccan economy of a persistent current account deficit. Make a clear judgement in your evaluation.**

If Morocco's current account deficit is persistent, and gets even larger, there may be a number of effects. For example, a persistent current account deficit suggests that a country is becoming increasingly dependent on imports. This means that consumers are buying goods produced outside the domestic economy. As a result, money flows out of the economy to overseas businesses. This represents a leakage from the economy. It means that output and employment levels in the domestic economy are under threat. Also, Morocco might be exposed to inflationary pressures. If the prices of imports go up, this will be reflected in the general price level since many imported goods will be counted when the CPI is calculated. Consequently, rising import prices will result in higher domestic inflation levels. The greater the reliance on imports, the greater the threat of inflation when import prices rise.

Morocco's current account deficit might suggest that the country is struggling to sell goods and services abroad. If demand for exports is low, it might mean that the quality of goods and services is poor or the price is too high. Unless the demand for exports can be reversed, a country may suffer a slowdown in economic growth and a rise in unemployment. The deficit may reflect structural weaknesses in the economy. This means that domestic firms may struggle because they are not competitive in certain industries – due to a lack of investment perhaps. Finally, Morocco will need increasing amounts of foreign currency to pay for the rising quantity of imports that are being purchased. If Morocco's foreign currency reserves run low, it may be necessary to borrow. However, persistent borrowing may cause long-term problems.

To conclude, there is no evidence in this case to suggest that Morocco's current account deficit is persistent. Indeed, in 2015, Morocco enjoyed a current account surplus in three of the four quarters. Also, the Moroccan economy seems to be improving. It is taking advantage of its location close to Europe and cheap labour to develop a diverse and open market economy. In 2012, the French car company Renault opened a €1.6 billion factory in the north of the country. It employs over 7000 people and has a capacity to produce 340,000 vehicles. Most of the output is exported to Spain, Germany and France. The Renault plant is the biggest car production facility in Africa. If Morocco continues to attract foreign investment and sell more goods abroad, the threat of a persistent current account deficit should decline.

CHAPTER 29

CASE STUDY: GLOBAL WARMING

1 ▶ What evidence is there to suggest that global warming is occurring?

Global warming is the term used to describe the gradual warming up of the earth's surface. The graph in Figure 29.1 shows clearly that the earth has warmed up over the period. The rate of increase in global temperatures is constant over the whole period. Indeed, since about 2010, the increase looks as though it might be getting faster. The graph starts to get much steeper in the last few years.

2 ▶ Why do you think governments are becoming more concerned about the environment?

Governments are becoming concerned about the environment because people are worried about the threat to the planet. Global warming could have some serious negative effects. For example, sea levels will rise because the ice caps will melt. This will result in flooding in some parts of the world. Some deserts will expand leading to insufficient rainfall for agriculture in some areas. There will also be more extreme weather systems such as storms and floods. Governments need to take action or they may not be re-elected.

3 ▶ How might the agriculture industry be affected by global warming?

The agriculture industry is likely to be affected by global warming more than any other. Global warming is likely to result in climate change. This means that some parts of the globe will become warmer and growing conditions will improve. However, other areas will get too hot, deserts will form and it may be impossible to grow crops. There may also be more extreme weather systems such as storms and floods. These changes will affect agricultural yields around the world.

ACTIVITY 1

CASE STUDY: ENVIRONMENTAL DAMAGE

1 ▶ Describe the 'dual' environmental impacts of using coal to generate electricity.

The generation of electricity by burning fossil fuels such as coal will have a dual effect on the environment. Coal is mined and the damage done to the environment by mining is significant. One problem is that many of the minerals and other useful materials that are mined are only available in very small quantities. This means that huge quantities of earth and rock have to be extracted from a site and then processed to recover the small fraction of valuable material. This often involves crushing rocks which may release harmful materials such as radioactive elements, asbestos-like minerals, and metallic dust. During the separation process something called tailings is produced. This is a mixture of crushed rock and liquid. It is possible for toxic and radioactive elements from tailings to leak slowly through the ground into water systems if not managed effectively. In addition to this, huge open cast mines scar the countryside and destroy wildlife habitats. Another problem is that most modern mining techniques use large quantities

of water during extraction, processing and waste disposal. Wastewater from these activities may find its way into waterways and threaten the supply of fresh drinking water.

Damage to the environment is also caused when the coal is burned at the power station. A wide range of harmful environmental impacts can result from fossil fuel power plants. These could include land and water use, air emissions, climatic and visual impacts from cooling towers, solid waste disposal, ash disposal (for coal) and noise. Due to the need for large amounts of steam, power plants need to use huge quantities of water and then return that water to its source. If the water is dirty and too warm it can damage wildlife in water systems. However, the most damage done by power stations is probably from emissions. The burning of fossil fuels produces potentially dangerous 'greenhouse gases' such as carbon monoxide, carbon dioxide and hydrocarbons, which contribute to global warming. Also, some of the gases released into the atmosphere produce acid which is then spread over very wide areas as acid rain – often hundreds of miles away from the plant.

2 ▶ Discuss how the construction industry might impact on the environment.

The construction industry may have a number of negative impacts on the environment. For example, it produces more waste material than any other industry. For example, in the UK the construction industry produces 109 million tonnes of construction waste each year. Of this, about 24 per cent is total waste. The industry produces three times more waste than all households combined. About half of the waste is recycled but huge amounts still end up in landfill sites or other disposal facilities. Waste on this scale uses up resources and causes problems for disposal.

Construction activities such as land clearing, operation of diesel engines, demolition, burning and working with toxic materials contribute to air pollution. Also, construction sites generate high levels of dust from materials such as concrete, cement, wood, stone and silica. The air can carry the dust for large distances and it can cause health problems including respiratory illness, asthma, bronchitis and even cancer.

Water pollution can also result from construction. Diesel and oil, paint, solvents, cleaners and other harmful chemicals and construction waste and dirt can be washed into water systems. Also, when land is cleared it causes soil erosion. As a result, silt and soil runs into natural waterways, restricts sunlight and can destroy aquatic life.

ACTIVITY 2

CASE STUDY: THE HACHIUMA STEAMSHIP CO. LTD

1 ▶ What is meant by water pollution? Use the example in this case to support your answer.

Water pollution is the contamination of oceans, rivers, lakes, groundwater and other bodies of water by harmful substances. These substances often find their way into the waterways as a result of business activity. In this case, a Japanese shipping company was responsible for pumping waste into the sea. The waste contained oil residue and other waste water and was discharged into the ocean via a 'magic pipe' which was used to illegally avoid the ship's

pollution control equipment and dump the oily wastes into the sea.

2 ► Describe the role of a ‘whistleblower’.

A whistleblower is someone who alerts the authorities to a violation of the law. It is often an employee of a business that is breaking the law. In this case, the whistleblower was a member of the crew employed on a ship used by The Hachiuma Steamship Co. Ltd. He notified the Coast Guard of the violation when it boarded the vessel in Baltimore. He received a US\$250,000 reward for his part in the reporting of the crime. The shipping company was also put on probation for 3 years during which it was instructed to produce an environmental compliance programme. Whistleblowers play a valuable role in exposing businesses that exploit and cheat in pursuit of profit.

3 ► Discuss some of the possible consequences of water pollution.

The harm resulting from water pollution can be very serious indeed. All marine life such as plants and fish is threatened. Water pollution is responsible for a loss of species and a loss of habitat. Perhaps more importantly, at least 320 million people in China do not have access to clean drinking water, in Bangladesh about 85 per cent of the total area has groundwater contaminated with arsenic (arsenic is a very toxic, acute poison and known to cause cancer in humans), every year 250 million people worldwide contract diseases related to water pollution and 15 million young children die.

MULTIPLE-CHOICE QUESTIONS

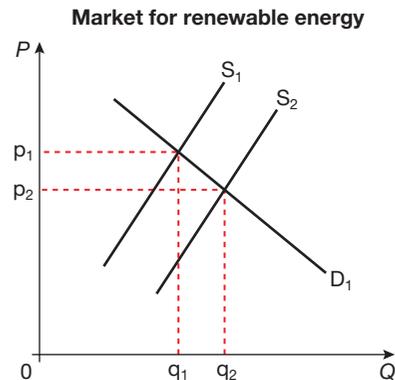
- 1 ►** C is the correct answer. If carbon tax is increased, businesses that generate large quantities of carbon emissions will be encouraged to reduce their emissions – by using new technology or cutting back on production.
- 2 ►** A is the correct answer. Many (but not all) people find wind farms unattractive. They are imposing and are often located in scenic areas such as on hillsides in rural areas.

CASE STUDY: DEALING WITH ENVIRONMENTAL PROTECTION

1 ► Describe how increased energy consumption might damage the environment.

In many countries, a lot of energy is produced by burning fossil fuels. This can be very harmful to the environment. The negative effects could include emissions, climatic and visual impacts from cooling towers, solid waste disposal, ash disposal (for coal) and noise. Also, power plants need to use huge quantities of water and return it to its source. If the water is dirty and too warm, it can damage wildlife in water systems. However, the most damage done by power stations is probably from emissions. The burning of fossil fuels produces potentially dangerous ‘greenhouse gases’ such as carbon monoxide, carbon dioxide and hydrocarbons, which contribute to global warming. Also, some of the gases released into the atmosphere produce acid which is then spread over very wide areas as acid rain – often hundreds of miles away from the plant. Consequently, any increase in the consumption of energy will increase damage to the environment.

2 ► Draw a supply and demand diagram to show the effect of granting a subsidy to renewable energy producers in the market for renewable energy.



If the government offers subsidies to producers in the market for renewable energy, the supply curve will shift to the right from S_1 to S_2 in the diagram. This will force the price of renewable energy down from p_1 to p_2 and increase the quantity traded in the market from q_1 to q_2 .

3 ► Why is Germany planning to cut subsidies to producers of renewable energy?

Although the generation of power using renewable energy is highly desirable, Germany has encountered problems with the use of subsidies to green power generators. In 2016, it announced that subsidies to the producers of green energy would be cut sharply due to the strain that wind and solar power were placing on the nation’s electricity grid. Unfortunately, Germany’s wind and solar power generators have provided too much power at unpredictable times. This has damaged the national grid and caused power cuts. The government now plans to cap wind energy to 40–45 per cent of the national capacity. Despite the reduction in subsidies, the German government will still provide a massive €1.1 trillion in subsidies to support wind power.

4 ► How can fines be used to reduce noise pollution?

If excessive noise results from a business activity, this could be regarded as noise pollution. If noise causes disturbance to everyday life then it can be a problem for people and contribute to a decline in their quality of life. One source of noise pollution is the sound of jet engines as aircraft fly over residential areas. One way to reduce the noise from such a nuisance is to fine the offenders. In 2016, Enter Air, a Polish airline, was fined €1.1 million by the French noise reduction authority. The airline was responsible for 83 noise violations between 2013 and 2014. Many firms are responsive to financial penalties when imposed. This is because fines will reduce their profits. Fines should therefore act as an incentive to comply with environmental laws. However, in this case the French authorities said that fines for noise violations were owed by 159 different airlines and that it was not ruling out legal action to enforce payment. If fines are not enforced, they cease to be effective.

5 ► What is the purpose of a landfill tax?

Landfill taxes are designed to reduce the amount of waste that is dumped in landfill sites. Disposing of waste in this way can damage the environment. For example, gases such as methane and carbon dioxide, which contribute to climate

change, are produced by rotting waste at landfill sites. Also, much of the waste that goes into landfill can be recycled or reused. As a result, the use of resources could be reduced. Finally, people do not like to live near landfills. They take up a lot of space, they are a source of visual pollution and can create unpleasant smells, water discharges and pests.

A landfill tax should impose costs on those that use landfill. As a result, the extra cost should act as an incentive to reduce the amount of waste taken to landfill sites.

6 ▶ Assess whether the landfill tax in the UK has worked.

Figure 29.4 shows the amount of waste going to landfill sites in the UK between 2001/01 and 2015. A landfill tax was introduced in the UK in 1996. The graph suggests that the tax has worked to a significant extent. Over the time period shown, the amount of waste dumped at landfill sites in the UK has fallen from around 80,000,000 tonnes to about 45,000,000 tonnes. Therefore, in 15 years the amount dumped has fallen by nearly 50 per cent. However, there is still a long way to go before it is zero and all waste is either recycled or reused.

CHAPTER 30

CASE STUDY: THE GWENGWE FAMILY

CASE STUDY: THE BIRNBAUM FAMILY

1 ▶ Describe how these examples illustrate the inequality of income that exists in the world.

The examples here illustrate the huge gap that can exist between a rich family and a poor family. Seemingly, the poor family has nothing and the rich family has everything. The Gwengwe family has almost zero income. They live in a mud hut in a small village in the poor African state of Malawi. Their food supply is irregular. They try to grow cereals but all too often the dry weather limits crop yields. They also gather food in the rural surroundings. Occasionally, they receive a food parcel from an aid agency – but these are increasingly rare. The four children receive no education and no health care. Last year, one of the Gwengwe children died from an infection thought to originate from contaminated drinking water. In complete contrast, the rich Birnbaum family own a six-bedroom house with four bathrooms and a swimming pool. The family earns up to US\$2.3 million per annum. Their two children go to private schools where the fees are US\$40,000 per term. They also own four cars and a yacht which is moored in a nearby marina. The differences in income and wealth between these two families are immense.

2 ▶ Describe two possible reasons why the Gwengwe family is so poor.

One possible reason why the Gwengwe family is poor is because there are no employment opportunities in the area where they live. Consequently, they are unable to earn money. It may also be impossible to move to an area where there might be employment opportunities. The country's infrastructure may be inadequate to move around freely. Another reason may be a lack of education. There may be some jobs nearby but only for those who have skills and work experience. This will prevent people from working.

Another reason why the family is so poor is because there is no support system for families in need. The government of Malawi may be poorly resourced. In many developing countries, such as Malawi, there is no welfare benefit system which helps people in need. In these countries, people have to support themselves or starve.

ACTIVITY 1

CASE STUDY: GLOBAL INCOME INEQUALITY

1 ▶ Calculate the proportion of the global population living on incomes below the middle income group in 2001 and 2011.

In 2001, the proportion of people living on incomes below the middle income group was 79 per cent (29% + 50%). In 2011, this proportion was slightly lower at 71 per cent (15% + 56%).

2 ▶ What is meant by inequality of income? Use the information in Figure 30.4 to help support your explanation.

In a market economy, individuals receive different levels of income. For example, in France, a shop assistant might earn €17,600 per annum (equivalent to the national minimum wage), a teacher might earn €48,000 per annum and a company director might receive €2.4 million per annum. The difference here between the company director, who is a high income earner, and the shop assistant, who is a low income earner, is considerable.

According to the data in Figure 30.4, global incomes are very unequal. For example, in 2001 more than three-quarters of the world's population were receiving an income below the middle income band. Although this fell in 2011 to 71 per cent, this fall was quite modest. In contrast, only 7 per cent of the world's population were enjoying high incomes in 2011 – slightly higher than the 6 per cent in 2001.

3 ▶ Discuss whether incomes have become more or less equal over the period.

In the period between 2001 and 2011, there have been some changes in the distribution of income across the world. For example, in 2001 more than three-quarters of the world's population were receiving an income below the middle income band. However, this fell in 2011 to 71 per cent, this fall was quite modest. In contrast, only 7 per cent of the world's population were enjoying high incomes in 2011 – slightly higher than the 6 per cent in 2001. One of the biggest changes was that the number of people in the poor income band fell quite significantly. In 2001, 29 per cent of people in the world were receiving poor incomes. This fell to 15 per cent in 2011. This suggests that income distribution has improved a little in favour of the poor since there are fewer people relying on very, very low incomes. The proportion of the global population enjoying high incomes was still small at 7 per cent in 2011.

ACTIVITY 2

CASE STUDY: PROGRESSIVE TAX IN FRANCE

- 1 ► Calculate the amount of tax payable on earnings of
(a) €15,000 and (b) €50,000.

(a) Tax payable on €15,000 is given by:

$$€9700 \times 0 = 0$$

$$€5300 \times 14\% = €742$$

Therefore the total tax paid is **€742**

(b) Tax payable on €50,000 is given by:

$$€9700 \times 0 = 0$$

$$€17,091 \times 14\% = €2393$$

$$€23,209 \times 30\% = €6963$$

Therefore the total tax paid is **€9356**

(Rounded up to the nearest euro)

- 2 ► What is meant by a progressive tax system? Use the answers in (1) to support your answer.

If a government uses a progressive tax system, the burden of the tax falls more heavily on the rich. This means that high income earners pay a larger proportion of their income in tax than lower income earners. In this case, the person earning €15,000 pays €742. This is a tax rate of 4.95 per cent overall. However, the person earning €50,000 pays €9356. This is a tax rate of 18.7 per cent overall. This means that the higher income earner pays a higher rate and therefore the French income tax system is progressive.

- 3 ► Describe the main purpose of a progressive tax system.

The main purpose of a progressive tax system is to redistribute income in favour of the less well off. If a government uses a progressive tax system, the gap between the rich and the poor might be closed. This is because people on higher incomes will be paying more tax. (In this case, the person earning €50,000 pays a higher rate of tax than one earning €15,000). However, if average incomes are rising rapidly, the people at the top of the income scales will benefit more so the gap might widen. The gap is also more likely to close if the government gives poorer sectors of society some of the tax it collects from those on higher incomes.

- 4 ► What is meant by relative poverty?

Relative poverty will exist in all countries. This is because of the way relative poverty is defined. Relative poverty is to do with a person's income in relation to the average income in a particular country. There is no precise measurement of relative poverty. However, one approach is to measure the number of households whose total income is at a certain level below the median income for that country. This certain level will vary according to different definitions. In the EU, the level is 60 per cent. Therefore if the median income in an EU country was €21,500, a household living on an income of €11,400 would be living in relative poverty. This is because 60 per cent of the median income in this country is €12,900 ($60\% \times €21,500$).

Relative poverty will vary between different countries. This is because relative poverty is determined by the median income level in a particular country. Each country is likely to

have a different median income level. Richer countries will have higher median income levels than poorer countries. Generally, people are considered to be living in poverty if they are unable to attain the average living standard in their society.

MULTIPLE-CHOICE QUESTIONS

- 1 ► C is the correct answer. In this case, a person would be living in relative poverty if their income was below 60 per cent of the median income. The median income is €19,400. Therefore anyone earning below €11,640 ($€19,400 \times 60\%$) is living in relative poverty. Only income level C (€11,200) falls into this category.
- 2 ► D is the correct answer. A cut in state benefits would reduce the incomes of the poorest in society. Therefore the gap between the rich and the poor would be widened since the poor would become even poorer.

CASE STUDY: POVERTY IN INDIA

- 1 ► What is meant by absolute poverty?

Absolute poverty is where people try to survive in an environment where their basic needs are not adequately met. People living in absolute poverty may be deprived of food, shelter, safe drinking water, sanitation facilities, education and basic health care. In 2015, the World Bank defined absolute poverty as those people who are required to survive on less than US\$1.90 per day.

- 2 ► Why has poverty in India fallen. Give two reasons in your analysis.

One reason for less poverty in India is improved infrastructure. The World Bank said improved infrastructure, such as the expansion of the electricity network into rural areas, has had far-ranging effects. It argued that electrification had changed earnings, consumption and even encouraged schooling for girls. Nearly 96 per cent of villages in India are electrified but only 69 per cent of homes have electricity connections according to a report. However, there are variations across different states. For example, in Uttar Pradesh, 99 per cent of villages are electrified, but only 60 per cent of households have access to electricity.

Another possible reason why India is lifting many of its citizens out of poverty is the government's commitment to education. Although the data is incomplete government expenditure on education has increased in recent years. For example, in 2016, the government increased spending on education from Rs 72,394 crore to Rs 68,963 crore, which is a 4.9 per cent increase. The government has also introduced a number of measures to increase the literacy rate in India.

- 3 ► Discuss how investment in education might reduce poverty.

One route to reducing poverty is through education. Clearly, if people are educated and are able to develop a range of skills such as literacy, numeracy, communication, analysis, problem solving, evaluation, critical thinking and language, they are more employable. However, according to UNICEF, schooling has other benefits: 'Education will give the next

generation the tools to fight poverty and conquer disease. School also offers children a safe environment, with support, supervision and socialisation. Here they learn life skills that can help them prevent diseases, including how to avoid HIV/AIDS and malaria. Children may receive lifesaving vaccines, fresh water and nutrient supplementation at school'.

It is estimated that in many developing countries, every additional year of education can increase a person's future income by an average of 10 per cent. It is easy to see that several years of education could help to reduce poverty.

4 ► Why should poverty in India be further reduced? Give at least two reasons in your analysis.

Although poverty in India has fallen, there are still millions of people living in absolute poverty. The Indian government is committed to trying to reduce it further. One reason for this is probably to meet people's basic needs. A significant proportion of the Indian population do not have adequate shelter – many still live in slums like the one shown in Figure 30.5. It is also possible that many people are unable to consume enough calories per day to cover the energy requirement for an active and healthy life. There may be people in India in absolute poverty who are starving to death. Young children are particularly vulnerable. According to one study, 3.1 million children died of starvation in 2011. This was 45 per cent of the total number of child deaths in that year. Also, undernutrition magnifies the effect of every disease, including measles and malaria. The estimated proportions of deaths in which undernutrition is a fundamental cause are 61 per cent for diarrhoea, 57 per cent for malaria, 52 per cent for pneumonia and 45 per cent for measles. If absolute poverty can be completely eliminated from India, the basic needs of people will be met. This would avoid the loss of life from starvation and help children to grow up healthily.

Secondly, if poverty can be reduced, living standards across India would rise. If absolute poverty is eliminated, the basic needs of people would be met and clearly their living standards would improve. However, average living standards would also increase if relative poverty were reduced. Although relative poverty will always exist, it is still possible to bring people out of that situation. It is also possible to improve the living standards of those living in relative poverty. This is because as a nation's income rises, the median income will also rise. Therefore, many of those living on less than 60 per cent of the median income will still have a higher income and a better living standard.

Even with relative poverty, ill health and early death are still problems. Studies show that people living in relative poverty are more likely to get ill and have a lower life expectancy. This may be because those living in relative poverty have poorer housing, less nutritious diets and reduced access to health care. People living in relative poverty also consume fewer goods and services such as vehicles, consumer durables, entertainment services and education. They may also have low self-confidence, less control over their lives and less choice.

If living standards can be raised by reducing poverty, more people would be educated. This would help to boost global economic growth. As a result, there would be more

employment, more income and more tax revenue for the government in India. This could be spent improving public services for everyone.

CHAPTER 31

CASE STUDY: CANADIAN PUBLIC FINANCES 2015

1 ► What is meant by government expenditure? Use examples from this case to support your answer.

Government expenditure is the money spent by the government to provide public sector services. Examples of government expenditure in Canada include education, health, defence, interest and social security payments. The Canadian government plans to spend CAN 3688 billion in 2015.

2 ► Which item of government expenditure in Canada is the most expensive?

The most expensive item of government expenditure in Canada is health care, at CAD 1062 billion.

3 ► Which is the most important source of income for the Canadian government?

The most important source of government revenue in Canada is individuals' income taxes, at US\$1541 billion.

ACTIVITY 1

CASE STUDY: TAXATION IN GHANA

1 ► What is the difference between direct taxes and indirect taxes?

Direct taxes are taxes on income and wealth. They are aimed at individuals and businesses. Most individuals and small businesses, such as sole traders and partnerships, pay income tax. Most limited companies pay corporation tax, which is a tax on company profits. Indirect taxes are levied on spending. The main indirect tax in many countries is VAT. Most goods and services attract VAT. For example, in Ghana the standard rate of VAT is 15 per cent.

2 ► What is meant by (a) VAT and (b) customs duties?

(a) VAT is value added tax. It is a tax on spending and is added to the value of a product. For example, in Ghana, if a good cost GH¢ 20, it would sell for GH¢ 23 (GH¢ 20 + 15 per cent).

(b) Customs duties are taxes on imports. They can be used by a government to raise revenue and discourage domestic consumers from buying foreign goods. Ghana uses customs duties to raise revenue. It is one of the government's taxes on international trade.

3 ► Discuss which of Ghana's taxes might help protect the environment.

Ghana uses a range of taxes to raise revenue. A small minority of these may help to protect the environment. For example, some business activities, such as mining and petroleum activities, are taxed more heavily than others. They will pay a corporation tax of 35 per cent rather than the standard 25 per cent. This should discourage these activities and therefore reduce environmental damage. Also, companies involved in waste management are taxed

less at 1 per cent. This should encourage more businesses into this sector and help clean up the environment.

ACTIVITY 2

CASE STUDY: FISCAL BALANCES IN LUXEMBOURG

1 ▶ In which years did the Luxembourg government overspend? Account for your answer.

The government of Luxembourg overspent in 2009 and 2010. In both of these years, there was a fiscal deficit. For example, in 2009 the government spent €249.5 million more than it collected in revenue. Similarly, in 2010, the government spent €264.5 million more than it collected in revenue.

2 ▶ Comment on the pattern of Luxembourg's fiscal balances over the period.

In the 11 years between 2005 and 2015, Luxembourg's fiscal balances were positive for nine of these years. This means the country was running fairly persistent fiscal surpluses. Most governments would prefer to be in this position. The biggest surplus was in 2007 at €1543.4 million. Only in the middle of the period did the surpluses get small – when there were also a couple of relatively small fiscal deficits.

3 ▶ Describe the possible impact of the balances described in (2) on Luxembourg.

The impact of a fiscal surplus is likely to be positive. If a government collects more revenue than it spends in a year, the surplus could be used in a number of ways. For example, it could be used to spend on the future provision of public services or used to lower taxes in the economy. However, most governments would use it to pay off some of the national debt. This would reduce future interest payments and strengthen the nation's finances. In this example, Luxembourg appears to be a rich country and the government is in a very comfortable financial position.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** D is the correct answer. The government has spent more than it has collected in revenue by €22.9. Therefore it has a fiscal deficit of €22.9 (€654.5 billion – €631.6 billion).
- 2 ▶** A is the correct answer. If a country already has a fiscal deficit, an increase in spending will make it worse. A rise in VAT and a rise in corporation tax would increase revenue and cut the deficit. A cut in pensions would also cut the deficit.

CASE STUDY: RECENT FISCAL POLICY IN GREECE

1 ▶ What is meant by the term fiscal deficit?

In most years, many governments plan to spend more than they receive in tax revenue. This results in a fiscal deficit and means that the government must borrow money to fund the deficit. For example, in this case, Greece has run a persistent deficit throughout the entire period shown in Figure 31.6.

2 ▶ Why is it important to express a fiscal deficit as a percentage of GDP?

In Figure 31.6, the deficits shown in Greece and the EU are expressed as a percentage of GDP. When analysing the size of fiscal deficits, it is more important to focus on the size of the deficit in relation to the nation's GDP. This is because the amount that needs to be borrowed to cover the deficit is only a serious problem if it is a large percentage of the GDP. It is like an individual taking out a loan. If an individual has an income of US\$80,000, a US\$5000 loan is fairly easy to pay back over a few years. However, someone earning just US\$15,000 a year may struggle to meet the interest and loan repayments. This is because the loan is equal to one-third of the person's annual income. It might be quite a burden. Therefore, when analysing fiscal deficits and making international comparisons, it is best to express the deficit as a percentage of GDP.

3 ▶ Describe Greece's fiscal position between 2005 and 2015.

Between 2005 and 2015 Greece's public finances have been in chaos. For the entire period Greece has run a fiscal deficit. As a percentage of GDP, in many of the years during the period shown, Greece's fiscal deficit has been in double figures. In 2009 and 2013, the deficit was 15.1 per cent and 13.2 per cent respectively. Also, throughout the period, Greece's deficit has been far higher than the average deficit for the EU. In 2015, the EU actually generated a fiscal surplus but Greece still had a deficit of 7.5 per cent of GDP.

4 ▶ What is meant by contractionary fiscal policy? Use the example in this case to support your answer.

Contractionary fiscal policy involves cutting government expenditure or raising taxes or both. In this case, Greece has done both. Greece has raised many of its taxes many times in the last few years. For example, in 2013, corporation tax rates rose from 20 per cent to 26 per cent and a top rate of income tax of 42 per cent was to be imposed on incomes above €42,000. In 2016, corporation tax was increased again to 29 per cent. Also, rates of VAT increased from 19 per cent in 2010 to 24 per cent in 2016, new property taxes were introduced and existing ones increased.

The government also cut its spending. Figure 31.7 shows the levels of government spending in Greece between 2007 and 2016. Spending was reduced from around €14,000 million to just under €10,000 million over the period. This is quite a significant cut and has been achieved by making cuts to most of the various government departments. For example, the government raised the retirement age to reduce pension payments and made big cuts in benefits, education, defence and many other areas. The contractionary fiscal policy used in Greece has been severe. It was designed to cut the persistent, and very large, fiscal deficit.

5 ▶ Assess the possible impact on Greece of a persistent fiscal deficit.

Both the size and persistence of Greece's fiscal deficit are cause for concern. Over a long period of time, most governments would prefer to avoid running a fiscal deficit. In a year when the government plans to overspend, it will

have to borrow money to fund the deficit. Consequently, if deficits build up over a period of time, the national debt gets bigger and bigger. This means that the government has to spend more and more of its revenue on paying off the debt. Many would argue that money spent on interest payments has a high opportunity cost. For example, the money could be spent on lower taxes or extra spending on social provision or infrastructure development, for example.

Another problem with persistent fiscal deficits and rising national debt is that future generations may be burdened with the debt of 'today'. Many would argue that this is not really fair on those people that have not even been born yet. They will be paying for the excesses of previous generations people might argue. In the case of Greece, the situation is quite desperate. However, in the last couple of years there are signs that the deficit is falling a little. Figure 31.7 also shows that spending is coming under control. If global growth remains stable and there are no external shocks in the next 5 to 10 years, Greece may begin to pay off its debts.

CHAPTER 32

CASE STUDY: FRANCESCA PANICO

CASE STUDY: ANTON AUTOBRAKES

1 ► What has happened to the EU interest rate since 2007?

In common with many other countries in the world, interest rates in the EU have fallen since 2007. In 2007, the interest rate was around 4 per cent. Since then it has fallen quite steadily to around zero per cent at the end of 2014 and remained there into 2017.

2 ► What effect is the pattern in (1) likely to have on firms like Anton Autobrakes?

Firms will benefit when interest rates fall. Firms which currently have loans, like Anton Autobrakes, find that their interest payments fall which reduces production costs. When interest rates are lower, firms are also more likely to borrow money to invest. For example, as a result of the lower interest rates in the EU, Anton Autobrakes has decided to invest in new tooling technology and upgrade its computer system.

3 ► What relationship exists between interest rates and consumer spending? Use the Francesca Panico example to support your answer.

There is an inverse relationship between interest rates and consumer spending. This means that when interest rates rise, consumer spending falls. This is because a significant proportion of spending is funded by borrowing. When the cost of borrowing rises, there will be less borrowing, and therefore less spending. In this case, Francesca Panico plans to reduce her spending from €500 to €300 per month because the interest rate charged on her credit card has increased.

ACTIVITY 1

CASE STUDY: INTEREST RATES IN SOUTH AFRICA

1 ► What is meant by the interest rate?

Interest is the price paid to lenders for borrowed money. It is the price of money. For example, a firm borrowing ZAR 1 000 000 from a bank to buy a new machine might pay interest of 8 per cent to the bank. This means that until the loan is completely repaid the firm must pay 8 per cent on the amount owed (ZAR 80 000 per annum in this case). Interest rates can affect aggregate demand because some spending by households and firms is funded by borrowed money.

2 ► How are interest rates determined in South Africa?

In many countries, interest rates are set by a central bank. This is no different in South Africa where the base rate is set by the South African Reserve Bank (SARB). The role of the SARB is to achieve and maintain price stability to promote balanced and sustainable economic growth in South Africa. The SARB is required by the government to deliver a rate of inflation between 3 to 6 per cent. Therefore, the bank has to set an interest rate that keeps inflation between these limits. However, a central bank may also consider other economic variables when setting rates. For example, the rate of economic growth and the level of unemployment might be considered.

3 ► What is meant by the base rate?

The base rate is the rate of interest set by central banks. It influences all other interest rates in the economy. It is the rate of interest charged by a central bank when it lends overnight to commercial banks. When this is changed, most other interest rates in the economy also change. The base rate in South Africa is currently 7 per cent.

4 ► Describe the effect that interest rate changes might have on aggregate demand in the South African economy.

Interest rates can affect aggregate demand because some spending by consumers and firms is funded by borrowed money. In 2016, the SARB increased interest rates twice. This should discourage borrowing by firms and consumers, and therefore aggregate demand will decrease. The purpose of the increase was to reduce inflationary pressures in the South African economy.

ACTIVITY 2

CASE STUDY: MONETARY POLICY IN JAPAN

1 ► What is meant by quantitative easing?

In recent years, many countries have tried to control the money supply using a method called quantitative easing. This involves central banks buying financial assets such as government bonds from commercial banks. This results in a flow of money from the central bank to commercial banks. This extra cash can be used by commercial banks as a basis for making new loans to consumers and businesses. When more loans are granted, aggregate demand will increase.

2 ▶ Why has Japan used quantitative easing?

The Japanese economy has really struggled to grow in the last few decades. Figure 32.3 shows that growth has often been negative and has rarely risen above 2 per cent since 1981. For example, in 2009, GDP in Japan fell by around 5 per cent. In an effort to stimulate growth, interest rates have been reduced to -0.5 and the Bank of Japan has carried out some quantitative easing. It has been buying JPY80 trillion of government bonds per year for several years. The government wants to raise inflation in the economy, which has also been negative recently, to bring it up to its 2 per cent target.

3 ▶ Why might quantitative easing be inflationary?

Quantitative easing has been used in the US, EU, UK and Japan. The policy was introduced when historically low interest rates failed to stimulate demand during the global recession. However, one possible problem with quantitative easing is that it can be inflationary. This is because the money used by the government does not exist – it is created electronically. The government buys financial assets from commercial banks and increases the cash balances in their accounts without actually giving them any cash. It is like printing money. Whether this approach has worked or not may not be determined for several years.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** A is the correct answer. If the money supply grows too quickly, there may be a surge in aggregate demand. If this increase in demand is not met with an increase in supply, prices will be forced up and inflation will exist.
- 2 ▶** D is the correct answer. Higher interest rates may encourage people to save more. This is because the reward to savers is increased when interest rates rise.

CASE STUDY: MONETARY POLICY IN RUSSIA**1 ▶ What is meant by monetary policy?**

One way of controlling aggregate demand in the economy is by adjusting the growth in the money supply or interest rates. Adjusting these monetary variables to achieve macroeconomic objectives is called monetary policy.

2 ▶ Why are there so many different rates of interest in an economy?

In most countries, there are many different rates of interest. This is because different banks charge different rates as they compete with each other for business. For example, if a particular bank lowers rates on a particular loan product, it would expect to attract more customers because the loan becomes cheaper. Another reason is because rates are higher if money is borrowed without security. For example, the rate charged on a mortgage to buy a house will be lower than the rate charged on an unsecured loan to pay for a holiday. This is because mortgages are secured loans. This means that the borrower gives permission to the lender to take control of the property if repayments cannot be met. With unsecured loans there is no such arrangement. Therefore lenders might not get their money back if the borrower cannot meet the repayments. The interest rate charged is linked to the risk faced by lenders. Finally, the

amount paid to borrowers is higher than the amount given to savers. This allows money lenders such as banks to make a profit. Some of the highest rates of interest are charged to credit card users. The lowest rates of interest are usually charged on mortgages.

3 ▶ Describe the mechanism by which high interest rates in Russia affect consumers and firms.

Changes in the interest rate can have an impact on aggregate demand. The impact occurs because of the way consumers and firms respond to changes in the interest rate. In Russia, interest rates have been high. Russian consumers are likely to respond to this by reducing borrowing because it becomes expensive. As a result, demand for goods using borrowed money will fall. Also, mortgage payments will rise automatically. Therefore, households will have less disposable income to spend and will have to cut some of their expenditure. Higher interest rates should also encourage people to save more since the reward for saving is higher. This is the reaction the Russian Central Bank would hope to achieve.

Firms using borrowed money, such as mortgages, loans and overdrafts, to fund their business activity are likely to respond to changes in the interest rate. For example, in this case, higher interest rates will raise costs, lower profits, reduce business confidence and make entrepreneurs more cautious. As a result, aggregate demand for business goods and services, and investment in the economy, is likely to fall. This should reduce inflationary pressures in the Russian economy.

4 ▶ Discuss the effect Russia's monetary policy might have on unemployment in the economy.

Changes in the level of interest rates can have an impact on a number of economic variables and help to achieve a government's macroeconomic objectives. However, the high rates in Russia are likely to have a negative impact on unemployment in the country. If interest rates are high, there will be a decrease in the demand for loans, and spending by firms and households would fall. This would reduce aggregate demand and firms would respond by producing fewer goods and services. For example, higher interest rates will discourage consumers from borrowing money to fund spending on items such as houses and consumer durables. As a result, the construction industry and those firms producing goods such as cars, electronic goods, furniture and non-essential items will lose sales and lay off staff. Also, higher interest rates will result in higher mortgage payments for many households. This will reduce their spending power and lead to a fall in demand. Again firms will react by reducing capacity and laying off staff.

5 ▶ Assess whether Russia's monetary policy is working? Make a clear judgement in your evaluation.

Monetarists believe that inflation is caused by the money supply growing too quickly. They say that the way to reduce inflation is to slow down the speed with which the money supply is growing. This is likely to involve raising the rate of interest. When interest rates are higher, borrowing is likely to fall and the money supply grows less quickly. This will help to reduce aggregate demand in the economy and limit price increases. Interest rates were high in Russia in

2008/9 and 2015/16 according to the graph in Figure 32.4. The reason for this was to reduce inflation. The evidence in Figure 32.5 suggests that Russia's monetary policy is working. For example, high rates of interest in 2008/09 saw inflation fall from around 15 per cent to less than 6 per cent in 2010. Then again in 2014/15, high rates of interest can be associated with a fall in inflation from 17 per cent to less than 6 per cent into 2017. Certainly the Central Bank of Russia believes that their policies are working.

The Central Bank of Russia also thinks that other central banks' policies are not working. Elvira Nabiullina, the governor of the Central Bank of Russia, said that quantitative easing activities had failed to increase investment in the real economy. *'Because of the continued easing of monetary policy in many countries there is also the possibility that a higher level of financial market volatility will persist,'* Nabiullina warned. She also believed that many central banks were being cautious in an effort to keep financial markets stable.

CHAPTER 33

CASE STUDY: ANDREI KARPOV

1 ► What financial support has Andrei received from the government to help his business develop?

In recent years, Andrei received some financial support to help buy a new machine. The old machine was almost useless and he could not really afford a new one. With the new machine, Andrei was able to produce more efficiently and lower his prices. This led to more business and higher sales.

2 ► How has privatisation helped Andrei's business?

Privatisation helped Andrei to get more business. After privatisation, Andrei was given the opportunity to supply parts to the newly privatised AutoCo. Before privatisation, the company would not have considered Andrei's business as a supplier. They just continued to do business with their old suppliers. They had no incentive to look around for cheaper and better quality parts. This is because any losses made by a nationalised industry are covered by the government.

3 ► How do you think tax cuts help to increase aggregate supply?

Lower taxes on business profits should provide an incentive for entrepreneurs to expand and develop their businesses. This is because they get to keep more of the profit they make. Also, as in this case, if businesses can keep more of their profit, they have more to invest. If more entrepreneurs set up businesses and expand them, and if there is more investment, aggregate supply will increase.

ACTIVITY 1

CASE STUDY: SUPPLY SIDE POLICIES IN CHINA

1 ► What is meant by supply side policies?

Supply side policies involve the use of measures to help increase aggregate supply in the economy. They tend to be 'business friendly' policies and aim to increase economic growth. They might focus on labour markets, to make them

more flexible for example, or capital markets to increase the flow of investment funds into business.

2 ► Describe the main aim of supply side policies.

Supply side policies are used to help increase aggregate supply in the economy. They tend to be 'business friendly' policies and aim to increase economic growth. They can be targeted at the whole economy or at those parts where obstacles exist which prevent economic growth. In this case, supply side measures are aiming to increase agricultural output.

3 ► Discuss how some of the supply side policies in this case might help to increase total output in China.

Supply side policies aim to increase the productive potential of the economy. This means that total output in the economy will be increased. In this case, China aims to increase the output of the agricultural sector to meet the changing needs of China's population. The state said it would use supply side policies to help increase the output of soybeans, corn silage and alfalfa for livestock. It also said it wanted to improve the quality of agricultural supply. Some examples of the planned supply side measures included favourable taxes for business start-ups in rural areas, the development of innovation centres to support high quality produce and encouraging exports and supporting companies that set up overseas production bases. They also stated that major water-saving programmes would be used and that the overuse of pesticides would be addressed. Finally, it was hoped that increased use of technology, such as large-scale biogas digesters, would help to increase supply in the Chinese economy.

ACTIVITY 2

CASE STUDY: DEREGULATION IN THE USA

1 ► What is meant by deregulation?

Deregulation involves removing government controls from markets. Often called 'red tape', deregulation in business generally means lots of paperwork, obtaining unnecessary licenses, having lots of people or committees to approve a decision and various 'trivial' rules that slow down business development. Many governments have addressed this problem by relaxing regulations that restrict competition. In the US, President Trump said he would cut 75 per cent of business regulations in a 'bonfire' of red tape. After being elected, he signed an order which said that for every new regulation introduced, two must be cut. The main agencies affected were the Environmental Protection Agency and the Food and Drug Administration.

2 ► How will deregulation help to increase aggregate supply in the US economy?

If there are fewer regulations, it is easier to run businesses. Entrepreneurs and business managers are free to focus on important business tasks such as financial management, marketing, product development, human resource management and production issues. Fewer regulations may also mean lower costs. Compliance costs will be lower, for example. Such costs include keeping records and writing reports for regulative bodies.

3 ▶ Describe one possible problem with deregulation.

Inadequate regulation may bring problems. For example, over recent years the world financial system has been deregulated. Many have argued that a lack of regulation in financial services caused the financial crisis in 2008 and the global recession that followed. If there is too much deregulation, vulnerable groups or sectors may be exploited. In this case, fewer regulations in the area of environmental protection, for example, might mean that the US environment is under threat from exploitation.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** B is the correct answer. If there are tax breaks for people who buy shares in businesses, this will encourage more people to buy shares. This will increase the flow of capital into businesses which can be used to fund investment.
- 2 ▶** A is the correct answer. Investment in government training schemes will equip workers with more skills. This might help them to move more easily from one job to another.

CASE STUDY: SUPPLY SIDE POLICIES IN ARGENTINA**1 ▶ How might supply side policies help to reduce inflation in Argentina?**

Supply side policies are measures designed to increase aggregate supply in the economy. If aggregate supply increases, there will be more goods and services available to purchase. This would help to meet growing aggregate demand in the economy. As a result, rising demand will be met with rising supply rather than price increases. This could help to reduce inflation.

2 ▶ Describe the possible effects of the planned tax changes on the economy.

The Argentinian government is making some changes to a range of taxes in the economy. For example, it has eliminated export taxes on most products, and plans to cut VAT rates, raise personal tax allowances, reduce corporation tax and phase out the financial transaction tax. It also plans to simplify the tax system. There are over 35 different taxes which contribute only a very small amount to government revenues. However, some of them impose high compliance costs on businesses. Simplification will help to reduce business costs.

Some argue that high taxes on income and profit will reduce output in the economy. This is because high taxes reduce the incentive to work and discourage people from setting up or developing businesses. For example, some workers will take more holidays, retire earlier or refuse overtime. Also, entrepreneurs are less likely to undertake risky business opportunities. Therefore lower taxes will restore the incentive to work and set up businesses. Also, about half of all private sector investment is funded from profit. Therefore by taxing profit less, more will be available for investment. Cuts in corporation tax in Argentina will help with this.

3 ▶ Discuss how the government plans to promote competition in the economy.

Some supply side policies aim to promote more competition. If a government can make markets more competitive, there will be pressure on firms to be cost effective and innovative. This will help to raise productivity.

In this case, the government in Argentina wants to promote competition. One measure they plan to use involves lowering trade barriers to raise competitiveness, encourage new investment, and increase productivity. The National Competition Commission was given powers to carry out investigations, impose fines and bring cases to court. The government also wanted to encourage more whistleblowing to uncover anti-competitive practices.

4 ▶ Assess how (a) education and training and (b) spending on infrastructure might help to increase supply in Argentina.

(a) If the quality of human capital can be improved, workers will be more productive. Investment by governments and firms in education and training will help to improve the quality of human capital. Clearly, if people are educated and are able to develop a range of skills such as literacy, numeracy, communication, analysis, problem solving, evaluation, critical thinking and language, they are more employable. Enhancing the skills of a nation's workforce is a key element of supply side policies. Governments can help by investing more in schools, universities and colleges. They can also provide firms with incentives to invest in training by offsetting training costs against tax – or meeting some of the training costs. In this case, there is no information about plans to invest in education and training. However, the Argentinian government will be aware of the benefits and may have plans which are not mentioned here.

(b) The productive potential of the economy will increase if the quality of the infrastructure is improved. Investment in infrastructure will improve transport and communications systems. This will help private sector firms because people will be more geographically mobile and the distribution of goods will be easier. Investment in education and health care will improve the quality of human capital. This will also help private sector firms because workers will be better educated and healthier. In the last 15 years, investment in infrastructure in Argentina has been lacking – particularly in transport and energy production. The government is aware of this but is currently constrained by a lack of funds. However, it has outlined an ambitious plan to double the supply of electricity in the next two decades. It also aims to do this using 25 per cent of renewable sources.

CHAPTER 34**CASE STUDY: SAUDI ARABIA ECONOMIC POLICIES****1 ▶ Calculate the planned cut in the fiscal deficit of Saudi Arabia as a percentage.**

The budget deficit will be cut from 367 billion SAR to 326 billion SAR. Therefore, this cut as a percentage is given by:

$$326 - 367 = \frac{-41}{367} \times 100 = -11.17 \text{ per cent}$$

2 ▶ What is the aim of Saudi Arabia's economic policies?

The main aim of Saudi Arabia's economic policies is to cut the fiscal deficit from 367 billion SAR to 326 billion SAR. The government has been warned by The International Monetary Fund that it would run out of money within 5 years if it did not reduce its expenditure. As a result, a

number of 'austerity measures' were announced in the 2016 budget with the aim of reducing the fiscal deficit. The government will introduce measures such as cutting subsidies for water, electricity and petroleum products, introducing a value-added tax, raising taxes on soft drinks and tobacco, and selling off some state assets. The government will also cut spending projects from 975 billion riyals to 840 billion SAR.

3 ▶ Describe one possible negative effect of Saudi Arabia's economic policies.

One of the main disadvantages of austerity measures is that they can have a contractionary impact on the economy. For example, when taxes rise and government expenditure is cut, there is likely to be a negative impact on economic growth. In this case, it was expected that the rate of economic growth would fall in Saudi Arabia from the current rate of 3.3 per cent. According to Monica Malik, chief economist at Abu Dhabi Commercial Bank, 'We see real GDP growth decelerating sharply in 2016, albeit remaining positive'. The graph in Figure 34.1 also supports this view. In the last measured quarter of 2016, economic growth had fallen to 0.9 per cent.

ACTIVITY 1

CASE STUDY: TRADE OFF BETWEEN ECONOMIC GROWTH AND ENVIRONMENTAL PROTECTION IN AUSTRALIA

1 ▶ Describe the possible trade-off between economic growth and environmental protection.

Most governments recognise that rapid economic growth can have a negative impact on the environment. As businesses produce more output, there are likely to be more emissions from power generators, chemical processors and other manufacturers. Also, the extra wealth and income that comes along with economic growth means that increasing numbers of people buy cars and other vehicles. This results in more emissions and increasing congestion on road networks. Also, as more land is taken for business development, less is available for wildlife. The earth's rainforests, swamps, plains, lakes and other habitats continue to disappear as they are cleared to make way for agriculture, housing, roads, pipelines and other industrial uses.

Clearly, if the pace of economic growth slows down, there should be less environmental damage. This suggests to policy makers that a trade-off exists between growth and environmental protection. Therefore a government seeking more economic growth would have to accept that the environment would be under threat and more protection would be needed. It is often difficult to find the right balance in this trade-off. This is because, in developing countries for example, it is unlikely that the majority of people would want to prevent economic growth that delivers less poverty, longer life expectancy, lower infant mortality and improved living standards. If the environment is damaged along the way, many people in these countries might argue that it is a price worth paying.

2 ▶ To what extent do you think Australia needs to switch to 'green' energy?

The pie chart in Figure 34.2 shows that a large majority of Australia's electricity is generated by burning fossil

fuel. Of the total, 73 per cent is generated by coal burning and 13 per cent from oil. This high percentage suggests that Australia needs to generate more electricity by using renewables so that the environmental impact of power generation can be reduced.

3 ▶ Assess the possible impact on the Australian economy of switching to the production of 'greener' energy.

The switch to 'greener' energy sources for Australia might benefit the economy. This is because the government plans to invest AUS\$40.4 billion between now and 2030. Between 30 and 50 major projects are likely to be developed in the next few years to help boost the production of 'green' energy. This will be supported by numerous smaller-scale solar projects from businesses looking to manage their own electricity production and consumption. As a result of this investment, over 15,000 jobs are expected to be created. This will obviously benefit the Australian economy. However, although investment in green energy will create jobs, there will be a loss of jobs in the coal industry. This is because the need for coal in power generation will be reduced.

The coal mining industry in Australia has been in decline for a few years already. In 2014, it employed 57,800. However, 5 years before that, total employment was over 80,000. The switch to 'greener' energy is likely to add to the decline. The overall impact on the economy is difficult to predict without more information. However, even if there was a net job loss, some people might say it is a price worth paying for fewer emissions, cleaner air and less pressure on global warming.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** A is the correct answer. If an economy grows as a result of lower interest rates, there may be some inflation. This is because low interest rates drive up aggregate demand which might cause prices to rise.
- 2 ▶** B is the correct answer. If the economy grows faster there is likely to be more environmental damage. Therefore more protection will be needed.

CASE STUDY: ANTI-INFLATIONARY POLICIES IN IRAN

1 ▶ Describe the possible trade off that might exist between inflation and unemployment.

When the Rouhani administration took power in Iran, a clear commitment was made by the government to reduce inflation. A key element of the plan was very tight monetary policy. It aimed to keep a very strict control on the money supply. As a result, interest rates were increased from around 15 per cent in 2013 to 22 per cent in 2014. When interest rates are high, there will be a decrease in aggregate demand. This will help to reduce inflation but there may be some serious negative effects. For example, higher interest rates will discourage consumers and businesses from borrowing. As a result, there will be a fall in consumption and investment. This will reduce aggregate demand and lower economic growth. Unemployment is likely to rise. Also, higher interest rates will result in higher mortgage payments for many households. This will reduce their spending power and lead to a fall in aggregate demand. Firms will react by reducing capacity and laying off staff. It is clear then that anti-inflationary monetary policy can

have some quite unwelcome effects on the economy. In the past, when governments have tried to reduce inflation, unemployment rises. This suggests that a trade-off exists between inflation and unemployment. Many economists recognise this trade-off and suggest that a government will have to accept higher levels of unemployment if it wishes to reduce inflation. Some economists also say that if a government tries to reduce inflation very quickly, levels of unemployment will be even higher.

Look at Figures 34.3 and 34.4.

2 ► Is there any evidence to suggest that a trade-off between inflation and unemployment exists in Iran?

Figure 34.3 shows that inflation fell from over 40 per cent to just under 10 per cent in the years after the introduction of tight monetary policy in Iran. Figure 34.4 shows that during a similar period, unemployment in Iran rose from 10.3 per cent to 12.7 per cent. This does suggest that a trade-off existed in Iran between inflation and unemployment. The Iranian government had to tolerate higher levels of unemployment to bring down inflation. However, inflation at around 10 per cent and unemployment at 12.7 per cent (in 2017) are still very high when compared to rates in other countries.

3 ► Discuss how Iran's use of anti-inflationary policies might affect its current account balance.

The tight monetary policy used in Iran involved raising the interest rate to over 20 per cent. This is a very high rate of interest. This could have had an impact on the current account. Unfortunately, if a government uses monetary policy to reduce inflation, the balance of payments situation could actually become worse. This is because higher interest rates might strengthen the exchange rate. When interest rates are high, demand for domestic currency might rise and drive up the exchange rate. If this happens, exports become more expensive and imports cheaper. This would create further pressure on the current account balance. A government trying to reduce inflation by raising interest rates may have to accept that the current account will worsen for a period of time. Although the impact of price changes on the demand for exports and imports will depend on the elasticity of demand for import and exports.

4 ► Discuss how the need for environmental protection might be affected by Iran's use of anti-inflationary policies.

Anti-inflationary policies are likely to have a negative impact on economic growth. For example, high interest rates will discourage consumers and businesses from borrowing. As a result, there will be a fall in consumption and investment. This will reduce aggregate demand and lower economic growth. Higher interest rates will also result in higher mortgage payments for many households. This will reduce their spending power and lead to a fall in aggregate demand. Firms will incur higher interest charges. This will raise their costs and reduce their profits. They may invest less which will reduce aggregate demand. The reduced level of business activity which is likely to result from anti-inflationary policies will therefore reduce pressure on the environment. There will be fewer emissions from factories and lower growth in car ownership. The amount of land lost to production will also be reduced. Consequently, Iran's use

of anti-inflationary policies may reduce the need for more environmental protection.

CHAPTER 35

CASE STUDY: THE GLOBAL CAR INDUSTRY

1 ► What do you think is meant by a global market?

A global market is the largest possible market. It includes all the countries in the world that are open for trade.

2 ► Describe the pattern of global demand for cars.

The global demand for cars is growing. In 2015, global sales reached 72.37 million. By the end of 2016, it is expected that sales will reach the 75 million mark. One of the main reasons for this growth is the rising demand in emerging economies. Sales in China, for example, were around 25 million in 2015. This is about one-third of the total sold. Emerging economies like China, India and Brazil are becoming wealthier as they develop. This means that people in these countries can afford to buy cars – many perhaps for the first time.

3 ► Calculate the global market share of the major car producers shown in Figure 35.1.

$$10.08\text{m} + 9.93\text{m} + 9.8\text{m} + 8.53\text{m} + 7.88\text{m} + 6.64\text{m} \\ = \frac{52.86}{72.37} \times 100 = \mathbf{73.04 \text{ per cent}}$$

The six major car producers in the world share 73.04 per cent of the global car market.

4 ► Why do you think Japanese car manufacturers have started to dominate the world market?

One reason why Japanese car manufacturers might have started to dominate the world economy is because they produce cars more efficiently. Information in the example says that the emerging Japanese car producers are more efficient. This means they can produce cars more cheaply and sell them at a lower price. Consequently, they have taken market share from the US producers that used to dominate the market.

ACTIVITY 1

CASE STUDY: AIR TRANSPORT AND GLOBALISATION

1 ► Calculate the percentage increase in passengers carried between 1980 and 2015.

The number of passengers carried rose from 642 million to 3.44 billion between 1980 and 2015. The percentage increase is given by:

$$3.44 - 0.642 = \frac{2.798}{0.642} \times 100 = \mathbf{435.8 \text{ per cent}}$$

2 ► Describe two features of globalisation that have supported the growth in the airline industry.

One of the features of globalisation is that people are free to live and work in any country they choose. This has resulted in more multicultural societies where people from many different nations live and work in the same city. This increase in the movement of people around the world has increased demand for transport, such as air travel.

Also, rising trade between nations will increase the need for business people to meet up. There has been an increase in the number of business people using airlines as they travel to meet foreign business colleagues. Globalisation has also resulted in the increased transportation of goods around the world. The airline industry will have benefited from this increase in shipping.

3 ► Discuss two reasons for the development of globalisation.

International transport networks have improved in recent years. In particular, the cost of flying has fallen and the number of flights and destinations has increased. The numbers of people using air transport have grown significantly. Figure 35.3 shows the growth in passengers carried between 1980 and 2015. This is an increase of 435.8 per cent. This means that people can travel to business meetings more easily and goods can be transported more cheaply. Also, in India, the government has invested heavily in the construction of roads and motorways in the last 10 years. This development has reduced the cost of transporting goods in India because carriers can move goods far more quickly for their customers.

Developments in technology have also helped globalisation to speed up. Modern computing allows firms to transfer complex data instantly to any part of the world. It also means that more people can work at home, or any other location that they choose. Many people do not have to be office-based to do their jobs. This makes it easier for firms to have operations all over the world. The internet also allows consumers to gather information and buy goods online from firms located in different parts of the world. These improvements in communications have developed very quickly indeed in recent years.

ACTIVITY 2

CASE STUDY: GLOBALISATION AND SMARTPHONE PRODUCERS

1 ► Calculate the number of mobile phones sold by Samsung in 2015 assuming it had a market share of 21.4 per cent.

The number of phones sold by Samsung is given by:
 $21.4\% \times 1423.9 \text{ million} = \mathbf{304.7146 \text{ million}}$

2 ► Discuss two benefits of globalisation to mobile phone producers such as Samsung, Apple and Huawei.

One important opportunity that producers like Samsung, Apple and Huawei might benefit from is lower costs. If businesses are able to grow by increasing output to larger markets, they may be able to lower their costs. This is because as firms grow they can exploit economies of scale. These are the cost reductions that firms can enjoy as they grow. With lower costs, businesses will become more competitive. This might help them to win a larger share of the market, increase sales and raise profit margins. In this case, with sales of over 300 million sets, Samsung should be able to exploit economies of scale.

Another important benefit of globalisation to such businesses is the access it brings to huge markets. Clearly global

markets are considerably larger than domestic markets. If a business has access to several billion customers rather than, for example, 40 million, this provides huge opportunities to increase sales. Therefore, access to global markets provides growth opportunities for businesses. This should result in much higher sales revenue and increased profits.

MULTIPLE-CHOICE QUESTIONS

- 1 ►** The correct answer is B. Developments in technology have helped globalisation to speed up. Modern computing allows firms to transfer complex data instantly to any part of the world. It also means that more people can work at home, or any other location that they choose.
- 2 ►** The correct answer is A. Rising unemployment in the EU is not a feature of globalisation. It may be a symptom of a recession.

CASE STUDY: GLOBALISATION AND KENYA

1 ► What is meant by globalisation?

Globalisation is often defined as the growing interconnection of the world's economies. It means that goods and services are traded freely across international borders. People are free to live and work in any country they choose. There is also a high level of interdependence between nations which means that events in one economy are likely to affect other economies. Capital can flow between different countries and there is a free exchange of technology and intellectual property across borders.

2 ► Why have fewer tariffs and quotas helped to foster globalisation?

Tariffs and quotas are used by countries to restrict the flow of imports so that domestic industries are protected. Consequently, they restrict the development of foreign businesses when they try to sell their goods overseas. This is because it is more difficult to sell exports when countries impose trade restrictions. However, one way to avoid tariffs and quotas is to set up production facilities inside the countries that use trade restrictions. This helps to explain why large companies are growing by developing operations in other countries. In recent years, a lot of trade barriers have been dropped. An increasing number of economies are more open and many countries have stopped protecting domestic industries. Many countries have also simplified their monetary and legal systems to make international trading easier.

3 ► Discuss how (a) consumers and (b) producers in Kenya might be affected by globalisation.

(a) If a multinational can produce goods more cheaply in foreign factories, prices are likely to be lower. One of the main benefits of the movement of some manufacturing from the West to countries like China and India is that goods such as cars, electrical products and clothes are cheaper for consumers. Globalisation has also resulted in a much wider range of goods and services for consumers. For example, improved and cheaper transport communications have opened up huge numbers of new destinations for tourists. Another example is the cuisine available in restaurants today.

It is very wide-ranging in most towns and cities. Few would have thought about organising holidays to places like Chile, Argentina, Vietnam, Thailand, China, Fiji, Nicaragua and Mozambique 30 years ago. These are now common holiday destinations. Generally, globalisation has improved the living standards of billions of people worldwide. According to Figure 35.6, GDP per capita in Kenya has increased significantly from US\$956 to US\$1113 in the last 10 years. This means that consumers have got more income to spend.

- (b)** Generally, it is multinationals that benefit most from globalisation. They gain access to larger markets and they can set up operations where resources such as land and labour are cheaper. They can also lower their costs by exploiting economies of scale and reduce their tax liability by basing their companies in countries with low taxes. However, it is also possible for producers in host countries to benefit from globalisation. In this case, globalisation has helped develop manufacturing in Kenya. For example, Orbit Chemical Industries is a fast-expanding producer of soap, detergents, make-up and packaging. The company produces goods for a number of multinationals such as Colgate-Palmolive, L'Oréal and Unilever. Orbit says that individual companies cannot effectively exploit economies of scale alone. However, by taking on orders from a number of multinationals, Orbit can produce large enough quantities to enjoy cost advantages. As a result, Orbit's revenue has increased by more than five times in the past 6 years, to US\$100 million a year. Some of Orbit's produce is sold as far away as Angola and South Africa, and even in Afghanistan.

4 ▶ Assess whether Kenya has benefited from globalisation in recent years. Make a clear judgement in your evaluation.

Countries such as Kenya, which provide sites for global companies, generally benefit from globalisation. It should result in higher levels of GDP. The extra output and employment resulting from new business development will increase economic growth and should raise living standards for people in these countries. Figures 35.5 and 35.6 support this view. Economic growth in Kenya has averaged over 5 per cent for the last 10 years and GDP per capita has increased steadily.

Also, the output generated by a multinational in a foreign country is recorded as output for the host country. Therefore, if this output is sold out of the host country, it is counted as an export. This helps countries to increase their foreign currency reserves and improves their current balance. Globalisation often means that new technologies and modern working practices are introduced into developing countries. For example, multinationals often provide technical assistance, training and other information to their suppliers located in the host country. Many multinationals also assist local suppliers in purchasing resources and in modernising production facilities.

However, unfortunately the benefits of globalisation in Kenya may be limited and about to fall. One global corporation based in east Africa said that there had been

no consumer boom like in China. A spokesman said, *'The middle class is coming quite quickly, but it remains relatively small and hasn't really grown yet to the level that people talk about. A lot of companies that focused on this idea of Africa as the next Asia have burnt their fingers and pulled back.'* Although some of the economic data from Kenya is very positive, unemployment levels are very high at around 40 per cent and corruption is still a major barrier to growth.

Kenya has attracted investment from global corporations. This is because multinationals believed they could supply a growing middle class in Africa with everything from phones to toothpaste. However, recently some established multinationals have started to scale back development due to the recession in Russia and the slowdown in Chinese growth. For example, Nestlé released 46 employees in its Kenya and regional hub. More than 300 people lost jobs following the closure of Cadbury Kenya's plant and a further 99 were laid off after Eveready East Africa, the dry-cell battery maker, shut its Nakuru factory. Also, Hong Kong Shanghai Banking Corporation (HSBC) left Nairobi 3 years after trying to develop its business.

To conclude, the economic future for Kenya does not look good. Figure 35.7 shows a persistent and rising fiscal deficit which means the government's finances are not healthy. Unemployment is high, corruption is still a serious problem and multinationals are pulling out. Kenya may have benefited from globalisation in the past but whether it will continue to do so in the future is far from certain.

CHAPTER 36

CASE STUDY: FOREIGN INVESTMENT IN INDIA

1 ▶ Calculate the proportion of total foreign investment in India contributed by the top five source nations.

The total amount of foreign investment in India in 2016 was US\$40 billion. The top five source nations contributed a total of US\$16.36 billion. Therefore the percentage contributed by the top five source nations is given by:

$$\frac{\$16.36 \text{ bn}}{\$40 \text{ bn}} \times 100 = 40.9 \text{ per cent}$$

2 ▶ How were MNCs originally attracted to India?

India started to attract multinationals in the 1990s when the government began to welcome globalisation. They ended regulation and lowered barriers to foreign investment. The government deliberately targeted the IT services sector for growth, giving it special subsidies. As a result, foreign multinationals flooded into India. They were eager to take advantage of the cheap labour and the new opportunity to trade in one of the world's biggest markets.

3 ▶ How might the MNCs benefit from locating operations in India?

Generally, firms will locate business operations on sites where the benefits are greater than the costs. In recent years, India has become an attractive location for multinationals and other firms for a number of reasons. In particular, firms may be attracted by the cheap labour in India and the fact that India represents a very big new market. India has a population of over 1 billion. One

potential growth market in India is automobiles. India is a relatively poor country but is growing rapidly. The number of people who currently own cars in India is probably very low. However, as the country grows, increasing numbers of people will want a car. Figure 36.1 shows that investment from the automobile sector in India is far greater than any other sector.

4 ► How might India benefit from the arrival of multinationals?

One of the main benefits of allowing large multinationals to locate operations in a country is that jobs will be created. With US\$40 billion of investment in just 1 year in 2016, the potential for job creation is significant. This will help drive economic growth in India. It should raise incomes and improve the living standards of many Indians. Both current foreign investment and future foreign investment will also help improve the infrastructure in India. The government reckons that around US\$1 trillion of investment is needed to improve its infrastructure which includes ports, airport and road networks. The government will also benefit from extra tax revenue, assuming the multinationals make a profit from their new locations.

ACTIVITY 1

CASE STUDY: SONY

1 ► What is meant by the term MNC?

A multinational is a large business with significant production or service operations in at least two different countries.

2 ► What evidence is there to suggest that Sony is a MNC?

Sony is a huge multinational corporation. In 2016, Sony employed over 125,000 people across the world and enjoyed sales of about US\$80 billion. Sony has factories, offices and technology centres in many countries around the world including Japan, China, Europe, America and India.

3 ► Describe two features of MNCs. Use examples from the case study to support your answer.

One common feature of multinationals is their powerful advertising and marketing capability. This means, for example, they can invest huge amounts of money in impressive and persuasive advertising campaigns to outcompete smaller rivals. In this case, Sony is a highly recognised global brand name. The strength of the brand has been built up over many years of successful trading. However, to support the brand, Sony continue to invest heavily in global advertising. Figure 36.3 shows that Sony invested US\$2.35 billion in worldwide advertising in 2014. This is less than the US\$3.13 billion they spent in 2012 but it is still a huge amount of money.

Another common feature of multinationals is their huge assets and turnover. This means that multinationals are extremely well resourced and can often afford to take on large-scale contracts and projects that many other firms could not cope with. In this case, in 2016, Sony enjoyed sales revenue of around US\$80 billion. Sony has factories, offices and technology centres in many countries around

the world including Japan, China, Europe, America and India. Finally, the value of Sony's assets in 2016 (as at 30.6.16) was US\$159.45 billion. The scale of these numbers shows how big Sony is as a business.

ACTIVITY 2

CASE STUDY: MNCS/FDI IN AFRICA

1 ► How has access to natural resources/cheap materials helped the emergence of MNCs/FDI?

Many MNCs are happy to invest overseas because they need to buy huge quantities of resources. A significant proportion of FDI is targeted at the extraction of raw materials. For example, many African states have attracted FDI because they have large reserves of valuable resources. Africa has 8.6 per cent of the world's proven oil reserves and 7.2 per cent of its natural gas. It also has a large share of the world's minerals such as bauxite, copper, chromium, cobalt, gold, manganese, phosphate, titanium and diamonds. The African Development Bank forecasts that the continent's natural resources will contribute more than US\$30 billion a year to government revenues by 2030. The availability of these natural resources in Africa is one of the main reasons for the emergence of MNCs/FDI in the continent.

2 ► How important is access to natural resources for foreign investors in Africa?

The importance of natural resources to foreign investors in Africa is clearly illustrated in Figure 36.4. It shows results from a survey which asked business people which factors were 'very attractive', when investing in Africa. 53.2 per cent said that Africa's natural resources were very attractive. This was the highest score. Although investment in Africa is starting to diversify into a wider range of sectors, the attraction of the continent's natural resources is still highly significant

3 ► Describe two other reasons for the emergence of MNCs/FDI.

In some industries, costs can be reduced by firms that exploit economies of scale. Multinationals will be in a better position to exploit economies of scale because they are so large. Firms that sell to global markets will produce more than those who just sell to domestic markets. They can therefore lower costs. Such firms are so powerful that they can place a lot of pressure on suppliers to lower their prices. One of the main reasons why MNCs have emerged is because as companies get bigger and bigger, their costs get lower and lower – provided they avoid diseconomies of scale.

Another key reason why MNCs have emerged so strongly is because they can sell far more goods and services in global markets than they can in domestic markets. Companies can make considerably more profit selling to the 7 billion people worldwide than they can selling to perhaps 50 million people domestically. As the global economy continues to grow, more and more companies are likely to target overseas markets to help increase revenues, profits and returns to shareholders.

MULTIPLE-CHOICE QUESTIONS

- 1 ► The correct answer is C. One of the main attractions of FDI to a country is the job creation it brings.
- 2 ► B is the correct answer. If a US MNC builds a new factory in another country, capital flows from one country to another. This is FDI.

CASE STUDY: FDI IN NIGERIA**1 ► What is meant by FDI?**

Foreign direct investment (FDI), or inward investment, occurs when a company makes an investment in a foreign country. This may involve the construction of a factory, distribution centre or store, or the development of a mine or tea plantation, for example. Another part of FDI is the purchase of shares in a foreign business (10 per cent or more). Most FDI is by multinational companies. In this case, the US\$150 million investment by GE in Nigeria's railway system is an example of FDI.

2 ► Describe the pattern of FDI in Nigeria in recent years.

In recent years, Nigeria has been the most popular destination for FDI in Africa. However, more recently FDI has started to fall. Figure 36.7 shows that FDI has fallen between 2008 and 2015 from US\$8.2 billion to US\$3.06 billion. This is a significant drop – just over 60 per cent.

3 ► What are the possible benefits of MNCs/FDI to Nigeria. Give at least two benefits in your analysis.

One of the main benefits of FDI to Nigeria is the employment created when MNCs arrive in the country and develop business facilities. When multinationals set up operations overseas, income in those countries rises. Multinationals create new jobs in developing countries. Local suppliers are also likely to get work when a multinational arrives. The extra output and employment generated by multinationals will increase economic growth and raise living standards for people in these countries. Also, from the worker's point of view, jobs created by FDI are often good because they pay higher wages. For example, evidence from Hungary and Brazil suggests that wages offered by foreign businesses are between 4.5 and 6 per cent higher than those offered by domestic employers. Between 2008 and 2016, FDI amounted to a total of around US\$52 billion. This scale of investment would create thousands of jobs in Nigeria.

Another benefit of FDI is that MNCs are likely to provide training and work experience for workers when they locate operations in foreign countries. Also, governments in less developed countries often spend more on education to help attract multinationals. This happened in India where the government invested heavily in IT education and training. The arrival of multinationals may also encourage local people to set up businesses. Multinationals may have provided the skills and motivation needed for enterprise. For example, a new multinational may encourage locals to supply services such as transport, accommodation, maintenance, cleaning and leisure activities. Multinationals may also provide foreign suppliers with technical help, training and other information. They may also help local suppliers to learn new skills, methods and working

practices. Much of the FDI in Nigeria is used to develop oil production which is an important industry. It is likely that people employed in this industry will have been trained by an MNC.

4 ► Discuss one of the main disadvantages of MNCs/FDI. Use an example from this case to support your answer.

Many environmentalists are suspicious of multinationals because they may cause environmental damage. One reason is because multinationals are heavily involved in the extraction industries such as coal, oil and gold mining. Mining is often destructive. A few years ago, according to a report by the United Nations, the cost of pollution and other damage to the natural environment caused by the world's biggest companies would wipe out more than one-third of their profits if they were held financially accountable. This amounted to about US\$2.2 trillion.

In Nigeria between 2008 and 2009, two large oil spills damaged the environment in the Niger Delta. The spills, which were the largest ever in the Niger Delta, caused very serious damage to thousands of hectares of mangrove forests in the southern Ogoniland region. This contaminated water supplies, crops and destroyed the livelihoods of thousands of farmers. Following the spills, which were caused by Shell, an MNC, there was a lengthy legal battle between communities and the company. Shell would not take responsibility for the damage. However, in 2015, the case was settled. Court documents showed that Shell knew for years that poorly maintained pipes and equipment were liable to fail. Shell admitted that its figures were wrong and that it had underestimated the amount of oil spilled in Bodo. Shell hid its responsibility because it had too much control over the investigation process after the spills. The court forced Shell to pay out US\$84 million in compensation. The 15,600 farmers and fishermen affected by the spills were to receive about £2000 each. However, the money will not reverse the damage done to the environment which the community relies on for their water, food and livelihood. This is the sort of impact an MNC can have in a country.

5 ► Assess the factors that have resulted in the recent pattern of FDI in Nigeria.

The answer in (4) describes the pattern of FDI between 2008 and 2015. It has fallen by around 60 per cent over the period. One of the main reasons for this drop was the fall in the price of oil. A significant proportion of FDI arriving in Nigeria is used to develop oil production. Oil accounts for about 90 per cent of Nigeria's exports.

However, the low oil price is not the only problem. Nigeria's poor infrastructure has often held back economic development in the country. The value of Nigeria's stock of infrastructure is about 25 per cent of GDP. For a middle income country the size of Nigeria, it should be more like 70 per cent. Inside Nigeria's main port at Apapa, boats queue for days waiting to dock. Then, once the cargo is unloaded, the trucks leaving the port are held up for hours in congested streets. It is time consuming and expensive but typical of the way infrastructure works in Nigeria.

According to Figure 36.6, the oil price fell sharply in 2014. However, FDI in Nigeria had started to decline before then. FDI peaked in 2011. After that it started to fall steadily.

This suggests that the oil price fall may not have been the main reason. Instead it is more likely to be the poor infrastructure.

The poor state of Nigeria's infrastructure has been recognised by the government and it has started to take some action to make improvements. It has been estimated that about US\$3 trillion will be needed over the next 30 years to improve Nigeria's infrastructure adequately. The government has created a plan which identifies the key investment requirements, including: energy; transport; agriculture, water and mining; housing and regional development; information and communication technology; social infrastructure and security. Energy and transport are currently a priority.

In 2016, US MNC General Electric (GE) announced that it would be investing US\$150 million in Nigeria's railway system. GE said that it was the beginning of a long-term US\$2 billion investment project in Nigeria's infrastructure. This suggests that improvements are beginning to take place and that the poor infrastructure is probably the main reason for the decline in FDI in Nigeria.

CHAPTER 37

CASE STUDY: ICELAND

CASE STUDY: SEYCHELLES

CASE STUDY: QATAR

1 ► Why does Qatar sell so much oil abroad?

Qatar is one of the biggest oil producers in the world. However, it only uses a tiny proportion of the oil it produces for home consumption. Most of Qatar's oil is exported because they have far more than they need. Since 1986, Qatar's exports of oil have risen from around 300,000 to 1200,000 barrels per day.

2 ► Why does Iceland import so much food?

Iceland is one of the most northerly located countries in the world. It has a cold climate and food production, with the exception of fish, is very challenging. Therefore Iceland has to import a large proportion of its food from overseas.

3 ► Why does the Seychelles rely so heavily on tourism for its foreign income?

The Seychelles is a very popular tourist destination and about 25 per cent of its GDP is generated from tourism. Holidaymakers are attracted by the year-round warm climate, attractive beaches and stunning coastal scenery. The Seychelles relies heavily on tourism for its income because the industry is its main strength. In recent years, the government has encouraged foreign investment to upgrade hotels to help improve the holiday experience. At the same time, the government has moved to reduce the dependence on tourism by promoting the development of farming, fishing and small-scale manufacturing.

ACTIVITY 1

CASE STUDY: ESTONIA

1 ► Describe the pattern of exports in Estonia over the period shown.

Estonia has seen the value of its exports rise from almost zero in the early 1990s to about €800 million just after 2008. There was a dip in 2008/09 which coincided with the financial crisis. However, exports have recovered since and grown to around €1000 million. They have been around €1000 million for about 4 or 5 years recently.

2 ► What might account for the pattern identified in (1)?

The huge growth in Estonia's exports were caused by the breakup of the Soviet Union in 1991. The state became an open economy and embraced the market system after the break-up and Estonia's economy has done very well since then. It is driven by its highly successful telecoms and electronics industries. Estonia's major export goods are textiles/clothes, machinery/equipment, food, wood/wood products and chemicals.

Before 1991, nearly all of Estonia's exports were to Russia and other soviet partners.

3 ► Why has Estonia redirected its exports since then?

Before 1991, Estonia did not have an open economy. It traded solely within the Soviet bloc. However, since the breakup of the Soviet Union, Estonia has developed new trading partners. These are shown in Figure 37.2. They include Sweden, Finland, Latvia, Lithuania and Russia, for example. These partners are Estonia's geographical neighbours so it is natural that they would redirect their trade towards this group.

4 ► Discuss why Estonia has developed a reputation for being a respected trading nation.

Estonia has enjoyed an economic revolution and has become a world leader in information technology. Estonian IT engineers developed the code behind Skype and Kazaa (an early file-sharing network). It also has one of the world's fastest broadband speeds and it only takes 5 minutes to register a firm. Entrepreneurs wishing to start a firm log in with their national electronic identity card and a few clicks later the confirmation arrives by email. This progress is admired by many.

Estonia also has a very free trading policy. For example, duties are levied only on tobacco products such as cigarettes, alcohol and luxury items. Export licenses are only required for a handful of natural resources, such as oil shale. The lack of trade barriers, the favourable exchange rate and Estonia's positive attitude toward free trade all contribute to the country's reputation as a respected trading nation.

MULTIPLE-CHOICE QUESTIONS

- 1 ► A is the correct answer. One of the key reasons why countries trade with each other is to obtain goods or services which they cannot produce themselves. For example, many countries in northern Europe import tropical fruits because they cannot grow them domestically.

- 2 ► C is the correct answer. Free trade can only exist if a government allows open access to all markets in its country.

CASE STUDY: INTERNATIONAL TRADE IN MALAYSIA

- 1 ► **Describe the state of Malaysia's current account balance.**

Malaysia also has a strong current balance position. Over the period, Malaysia has enjoyed a persistent current account balance surplus. This means that it has exported more than it has imported between 2014 and 2016. Most countries would be pleased to be in this position.

- 2 ► **What impact will the recent pattern of tourism have on Malaysia's current account balance?**

Malaysia is also developing its tourist industry. The number of tourists arriving in the country has increased from 16.43 million in 2005 to 25.70 million in 2015. Malaysia is known for its beaches, rainforests and mix of Malay, Chinese, Indian and European cultural influences. The capital, Kuala Lumpur, is home to colonial buildings, busy shopping districts and stunning skyscrapers such as the Petronas Twin Towers. If tourism carries on increasing, the revenue it generates will improve the nation's current account balance on the balance of payments.

- 3 ► **Discuss one possible disadvantage of international trade to Malaysia.**

If countries have open economies, it means that imports from anywhere in the world can flow into the economy. If these imports are high quality and competitively priced, domestic producers might struggle to compete. For example, when China and other emerging economies started to export manufactured goods to the west, manufacturers in Europe and the US started to struggle. Manufacturing in these countries started to decline because a lot of companies were unable to match the prices of the new foreign goods entering the market. However, there is no evidence in this case to suggest that competition from overseas companies is having a serious negative impact on the nation. At the moment, Malaysia has a current account surplus which suggests that domestic producers are coping with any competition from overseas.

- 4 ► **How does international trade help firms to exploit economies of scale?**

If a company is able to sell much larger quantities in a wider range of markets, they will be able to exploit economies of scale. This is because their output will be higher than if they were just selling to the domestic market. This will help to lower costs and improve efficiency.

- 5 ► **Assess the possible advantages of international trade to Malaysia.**

One of the main benefits of free trade is that consumers get more choice. For example, consumers in Malaysia will be able to buy goods that are impossible to produce in their climate. They will also be able to buy goods made from materials that are not so available in Malaysia, such as machinery, petroleum products, plastics, vehicles, iron and steel products and chemicals. Also, Malaysian consumers will be able to buy goods that other countries produce more cheaply, such as cars and many other manufactured

consumer durables. If consumers can buy goods more cheaply, their standard of living will improve because they will have greater purchasing power.

Through international trade, countries can obtain essential inputs for their industries at a much lower cost. For example, China imports a lot of raw materials from Australia and Africa. Australia and Africa have very large deposits of minerals such as coal, iron ore, copper and zinc. One of Australia's main exports is iron ore. It sells cheap iron ore to countries like China where it is used as an important input for many industries. Malaysia imports petroleum products. This may be because Malaysia does not have any access to such inputs.

Finally, if countries are free to specialise and trade, firms will be selling to larger markets. For example, Malaysian businesses sell their goods and services in a wide range of different countries such as China, Japan, Singapore and the US. This helps to reduce the risk of business enterprise. If sales in one country start to decline, a company can rely on sales in other countries to offset the decline in revenues.

Generally, international trade allows the advantages from specialisation to be extended. If countries specialise in the production of goods in which they are more efficient, the global economy will benefit. Goods and services all over the world will be produced in locations where costs are minimised. This means that consumers all over the world, including Malaysia, can buy goods at the lowest possible prices. This will help the world economy to grow and make better use of the world's resources. Most economists believe that free trade will boost global GDP and help the world economy to grow. This will create more income, output and employment for the benefit of the world.

CHAPTER 38

CASE STUDY: HELP FOR RWANDAN EXPORTERS

CASE STUDY: CANADIAN TAXES ON US GYPSUM BOARD

- 1 ► **Describe the measures being taken in Rwanda to protect domestic industry.**

The Rwandan horticulture industry received some financial help from the government. The government said it would meet half of the transport costs when flying exports to overseas customers through Kigali International Airport. The subsidies to horticultural exporters were designed to boost the sale of high value-low volume products as part of an export diversification strategy. They will also make Rwandan horticulture exporters competitive in the region. Before the subsidies, Rwandan horticulture exporters were paying more in transport charges to European markets than close rivals in Kenya.

- 2 ► **How will taxes on Canadian imports of gypsum board products impact on (a) Canadian builders and (b) US exporters?**

(a) The high tax imposed on imports of gypsum board products was expected to disrupt Canadian builders. As a result of the tax, the price of drywall products, which are made from gypsum board, rose alarmingly. Builders said that the tax may threaten the survival of construction companies – especially those that

had agreed fixed-price contracts with some of their customers. One gypsum supplier said that the tax could have serious consequences for the construction industry. For example, there could be delays in the rebuilding efforts in Fort McMurray, where thousands of buildings were destroyed by fire.

- (b) The tax would reduce the demand for US gypsum board products since the price had increased alarmingly, according to the case material. As a result, the US companies would lose sales and may be left with unsold stock. Their revenues and profits might also fall if they are unable to sell the gypsum boards.

ACTIVITY 1

CASE STUDY: RAINBOW CHICKEN FOODS

- 1 ► Describe the impact imports have had on employment in South Africa.

It seems that the people of Hammarsdale have been hit quite hard by cheap imports in South Africa. In 2016, Rainbow Chicken Limited Foods (RCL Foods) planned to cut 1200 jobs. It also added that more job cuts may follow as the company struggled to compete with cheap imports from the US, Brazil and EU countries. However, Hammarsdale has suffered from job cuts caused by cheap imports before. Historically, the industrial area had a big textile industry. However, as a result of the new democracy and the relaxation of trade barriers between SA and other countries, the Hammarsdale area lost more than 40,000 textile jobs. This was mainly because of cheap imports from China. These new job losses hit Mpumalanga township (in Hammarsdale) hard, leaving thousands of households without a livelihood.

- 2 ► What is meant by dumping?

Poultry producer RCL Foods said that chicken meat was being dumped in South Africa. This means that foreign producers were selling chicken meat in South Africa below cost at heavily subsidised prices. A representative of RCL Foods said, '*Tens of thousands of tons of surplus chicken are dumped in the South African market monthly, and the EU is one of the main sources of this meat.*' It was also pointed out that smaller slaughterhouses and poultry farmers would also be forced to close down. This was because costs were rising and they could not charge enough to recover the costs. Chickens dumped in the market from overseas were driving down prices.

ACTIVITY 2

CASE STUDY: CHINESE COAL TARIFFS

- 1 ► What is meant by a tariff?

A tariff is a tax on an import. Tariffs are imposed on certain goods to reduce the volume of imports. The tariffs raise the price of imports which reduces domestic demand for them. In this case, China has imposed tariffs on Australian coal. China imposed tariffs of 6 per cent and 3 per cent on Australian thermal coal and coking coal respectively.

- 2 ► Why has China imposed tariffs on Australian coal?

Tariffs are a form of protectionism. In this case, China's decision to impose the tariffs was designed to protect

the domestic industry in the face of falling global prices. The price has fallen from US\$136 in 2011 to US\$65 in 2015. China reckons that 70 per cent of its coal miners are making a loss. The tariffs will help to protect China's coal producers from Australian competition. The price of coal in China is likely to be forced up so that more Chinese mining companies can make a profit.

MULTIPLE-CHOICE QUESTIONS

- 1 ► C is the correct answer. Countries may use protectionism to prevent dumping. This is because the sale of very cheap goods from overseas can damage domestic industries.
- 2 ► A is the correct answer. A quota is a method of protectionism. Quotas restrict the quantity of goods coming into a country.

CASE STUDY: US TARIFFS ON FOREIGN STEEL PRODUCERS

- 1 ► What is the difference between a quota and a tariff?

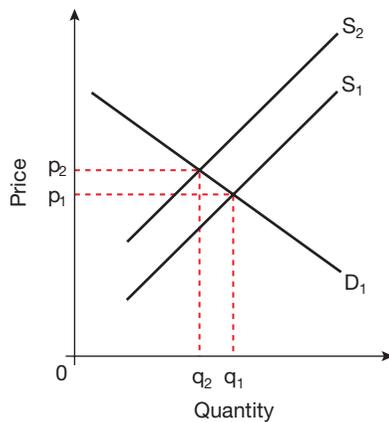
Both tariffs and quotas are used as trade barriers. A tariff is a tax imposed on imports. The imposition of a tariff will make imports more expensive so demand for them will fall. This will help to reduce the flow of imports into a country. Another way of reducing imports is to place a physical limit on the amount allowed into the country. This is called a quota. By restricting the quantity of imports, domestic producers face less of a threat. They will have more of the market for themselves.

- 2 ► How might the dumping of steel products by foreigners impact on US steel producers?

Sometimes a business will try to sell its product in an overseas market at below cost price. The motive for this is usually to break into the market. However, it might be used as a strategy to destroy an overseas industry. In this case, in the US, foreign suppliers of steel have been accused of dumping products in the US. The US Commerce Department imposed tariffs of 16 per cent on imports from South Korea of steel pipe and tubes used for oil drilling. The department claimed that these products were being dumped in US markets – being sold at unfair prices. It was hoped that the tariffs would help the US steel industry by raising prices and protecting hundreds of jobs that had been threatened by cheap imports. Dumping, if proven, is considered to be unethical and in some cases illegal. This is because of the damage it can do to domestic producers. It is considered unfair if domestic businesses have to compete with foreign rivals that are selling the same goods below the costs of production. Over a long period of time, domestic producers are likely to go out of business – particularly if foreign suppliers have the financial resources to support long-term dumping.

- 3 ► Use a supply and demand diagram to show the effect of imposing a tariff in a market.

The imposition of a tariff will cause the supply curve for a product to shift to the left from S_1 to S_2 in the diagram below. As a result, the price will be forced up from p_1 to p_2 . There will also be a fall in the amount traded in the market from q_1 to q_2 .



4 ▶ Describe one (a) advantage and one (b) disadvantage of using subsidies as a trade barrier.

- (a)** One of the main advantages of export subsidies is that more domestic firms might be encouraged to enter the market. This will help to boost exports, employment and improve the current account.
- (b)** The main disadvantage of subsidies is that it costs the government money. Export subsidies might have a high opportunity cost. The money spent on subsidies might be spent more effectively on alternative government projects such as building new schools and hospitals.

5 ▶ Assess the possible effects of the US imposing tariffs on steel imports. Make a clear judgement in your evaluation.

In 2014, the US Commerce Department imposed tariffs of 16 per cent on imports from South Korea of steel pipe and tubes used for oil drilling. The department claimed that these products were being dumped in US markets – being sold at unfair prices. The US slammed even higher duties, up to 118 per cent, on nine other countries, including Thailand, Turkey, Saudi Arabia and Taiwan, who were accused of dumping steel in the country.

The main aim of the tariffs was to protect the domestic producers of steel products. It was hoped that the tariffs would help the US steel industry by raising prices and protecting hundreds of jobs that had been threatened by cheap imports. Steel workers in the US had been holding demonstrations around the country to urge the government to do something about cheap imports. These tariffs were the answer to such calls. Hopefully, for US steel producers, one of the main effects of these tariffs is that the long term future of the US steel industry might be protected. However, some industry analysts said that the tariffs would only have a short-term impact. This was because of the worldwide overproduction of steel caused by the slowdown in the Chinese economy and the ‘softening’ of the US shale gas boom.

One possible effect of the US tariffs is that it will prompt a reaction from the South Korean government. Just after the announcement by the US, South Korea said it would take action against the US in order to protect its US\$818 million of exports of steel products to the country. South Korean officials said the US steel producers charge higher than market prices for their products. The South Korean trade ministry said it ‘will come up with appropriate counter

measures based on legal reviews and discussions with the local industry’ when commenting on the measures introduced by the US. Officials also added that steel is a tariff-free item in US/South Korean trade according to WTO rules.

One action that the South Korean government can take is to impose tariffs on some US imports into South Korea. Another option that South Korea could consider is to make a request to the World Trade Organisation to make a judgement on the matter or bring a case to a US court. Both of these latter suggestions could take a long time to implement. Also, legal action in a US court could be expensive.

One other possible effect of the US tariffs is that a trade war begins between the US and South Korea. A trade war is where a country retaliates to the imposition of trade barriers by imposing some of their own. This can then lead to further rounds of more severe trade restrictions and eventually trade between nations stops completely. This will obviously be harmful to both countries. In this case, the argument comes just a couple of years after the US and South Korea signed a bi-lateral trade agreement. If South Korea does respond by imposing its own tariffs, the outcome could be very damaging to both countries.

To conclude, in the short term, the main effects of the tariffs will be to raise the prices of steel products in the US. They will provide some short-term protection for the US steel producers and raise a small amount of revenue for the US government. However, in the long term the tariffs could lead to retaliation by South Korea. This will have a negative impact on some US exporters selling goods to the South Korean market. At worst, it could lead to all-out trade war which will reduce income, output and employment in both countries.

CHAPTER 39

CASE STUDY: CROATIA AND THE EU

1 ▶ What is the purpose of the EU?

The EU was formed just after the Second World War with the aim of developing economic cooperation. However, since then, membership has grown from six countries to 28. Also, the EU now has common policies in a wide range of areas in addition to trade agreements. The EU has developed common policies on matters such as climate, the environment, health, migration, justice and security. Since it was formed in 1958, the EU has delivered more than half a century of peace, stability and wealth. In 2012, the EU was awarded the Nobel Peace Prize for advancing the causes of peace, reconciliation, democracy and human rights in Europe.

2 ▶ Assess the possible impact on Croatia of joining the EU.

Croatia joined the EU in 2013. After 12 months of membership, Croatia was still in recession and awaiting access to EU development funds. A government official said that Croatia was ‘illiterate in business’ and that people had low expectations regarding the benefits of joining the EU. However, after just 12 months, exports to the EU had risen by 15 per cent and business owners reported that it

was now much easier doing business with EU countries. Figures 39.1 and 39.2 also suggest that things are getting better for Croatia. The current deficit between 2007 and 2012 has been reversed. In 2016, Croatia had a current account surplus of 4.2 per cent GDP. The economy is also growing now. Between 2012 and 2015, growth was negative. However, at the end of 2016, it was approaching 3 per cent. After a slow beginning, the Croatian economy looks as though it might be benefiting from its membership of the EU.

3 ▶ How might businesses in Croatia benefit from EU membership?

Croatian businesses that export goods to the EU are likely to benefit most from EU membership. One business owner, an olive oil producer in the north of the country, said that the EU was working in their favour. It was now easier to sell larger quantities to the EU, there was less paperwork and Croatian businesses are being pressured to be more professional. The owner also said that the outlook for the younger generation is much better. For example, they realise that investment and support for rural products is beginning to emerge. However, some domestic industries may suffer from competition as more imports arrive into Croatia from the EU. They may have to become more competitive to survive.

MULTIPLE-CHOICE QUESTIONS

- 1 ▶** D is the correct answer. Membership of a trading bloc often increases FDI. This may be because foreign firms are keen to locate operations within a trading bloc to get access to a larger and barrier-free market. This was the case in Mexico where FDI more than doubled the year after it joined NAFTA.
- 2 ▶** B is the correct answer. Any country outside a particular trading bloc will almost certainly face trade barriers. This is unless specific trading agreements have been reached between a country and the bloc.

CASE STUDY: THE EAST AFRICAN COMMUNITY

1 ▶ What is meant by a trading bloc? Use the example in this case to support your answer.

The world is generally divided into a number of trading blocs. These are groups of countries situated in the same region that join together and form a free trade area. This means that trade between all the members will be completely free of tariffs, quotas and other forms of trade barrier. It is also common for trading blocs to have a common tariff on imports from non-members. In this case, the EAC operates as a customs union. These are similar to free trade agreements, where trade between all members is free from barriers. However, members of a customs union impose a common set of trade barriers on non-members. This means that products imported by one member can be resold and transported to other members in the union. The aim of the EAC is, *'To widen and deepen economic, political, social and cultural integration in order to improve the quality of life of the people of East Africa through increased competitiveness, value added production, trade and investments'*.

2 ▶ Describe one possible benefit to the EAC of sharing a common currency.

The EAC is seriously considering setting up a common currency. This means that all six countries in the EAC will use the same currency in their economies. Monetary union will enable members to trade in the same currency and thus avoid the uncertainties created by varying exchange rates. The cost of changing currencies when trading will also be avoided. This means it will be cheaper for members to trade with each other.

3 ▶ Describe one impact on non-members of the EAC.

Countries that do not belong to the EAC will face common trade barriers when selling goods to any member inside the bloc. They will obviously be at a disadvantage and may be forced to find new markets. They will still be able to sell goods and services inside the bloc but they will become more expensive when EAC tariffs are added to their prices. This will reduce demand for their products. However, it is still not clear whether non-members will suffer in the long run. They may be forced to develop new opportunities which might end up generating better returns.

4 ▶ Assess the benefits to EAC members of belonging to the trading bloc. Make a clear judgement in your evaluation.

If members of the EAC abolish all trade barriers, goods will be cheaper, there will be more consumer choice and faster economic growth. Firms will be able to exploit economies of scale because they have access to larger markets. Also, the extra competition will improve the quality of goods and encourage innovation. It is argued that the formation of trading blocs invites foreign direct investment (FDI). This may be because foreign firms are keen to locate operations within a trading bloc to get access to a larger and barrier-free market. Many African nations are desperate for increased FDI because it often helps develop much needed infrastructure.

Membership of the EAC should result in closer cooperation between member countries. For example, countries may share resources, help each other and introduce common standards, laws and customs. In this case, the EAC has plans to introduce a common currency. This is an example of closer cooperation between nations.

The economic performance of the EAC has been very good in recent years compared to the rest of Africa. Real GDP in the EAC increased by 5.8 per cent in 2014 compared to a 5.3 per cent growth in 2013. Economic growth in the region was driven by better agricultural production, sound domestic demand and investment in the EAC's infrastructure. The rest of Africa recorded a growth of 4.5 per cent in 2014 compared with 4.0 per cent in 2013. This is all positive news for EAC members although the region's current account deficit (as a percentage of GDP) worsened to 12.4 per cent in 2014 from 11.8 per cent in 2013.

Membership of the EAC may have some disadvantages. For example, those in favour of worldwide free trade generally oppose trading blocs. By their nature, trading blocs encourage regional as opposed to global free trade. However, there is no real agreement as to whether

regional trade blocs result in less free trade in the world or encourage further globalisation. One problem with belonging to a trade bloc is the financial cost to the government and therefore the taxpayer. Each member is required to pay substantial sums of money to the organisation to cover administration costs and provide funds for the various investment programmes.

Another possible disadvantage is that some countries may start to rely too heavily on trade within the bloc. This would make them more vulnerable to changes in prices and demand patterns within the bloc. They may also miss out on opportunities in other world markets. Also, inefficient producers may be protected from competition from businesses outside the trade bloc. As a result, consumers might end up paying more for goods and services in some industries. Also, members of a trading bloc may start to standardise trading practices, laws and other customs within their bloc. Some people may not like this because they may be happy with the traditional ways of their own country. According to information in the case, the EAC is planning closer integration in the future.

Finally, studies have also shown that trade blocs can reduce cross-border conflict, promote peace, and achieve substantial social and economic gains. Also, the future of the EAC looks promising due to infrastructure developments right across the region. Further investment is planned in roads, railways and ICT. There will also be more integration of systems. The EAC region is expected to record real growth of 6.2 per cent in 2015. Most would argue that the benefits of EAC membership are greater than the possible disadvantages.

CHAPTER 40

CASE STUDY: BRAZIL V THAILAND TRADE DISPUTE

1 ► What is this dispute about?

The trade dispute between Brazil and Thailand is about the payment of subsidies by Thailand to sugar producers. In 2016, Brazil complained to the World Trade Organisation (WTO) that Thailand had given subsidies to cane producers and sugar mills. The effect of these subsidies was to dramatically reduce the global price of sugar and reduce Brazil's share of the market from 50 per cent to 44.7 per cent in 4 years. Giving subsidies to domestic producers is a form of protectionism and is not allowed if countries are members of the WTO. Brazilian sugar producers gathered evidence which showed that they were losing US\$1.2 billion pa in revenue as a result of subsidies paid to Thailand and India. They also argued that Thailand's share of the global market had risen from 12.1 per cent to 15.8 per cent in the past 4 years.

2 ► What role will the WTO play in this dispute?

The WTO will have to look at the claims made by Brazil. It will have to analyse the information which Brazil presents and also consider any defence provided by Thailand. The WTO will then have to make a judgement and decide on a course of action. This might involve imposing penalties on Thailand if the case is judged to be valid.

3 ► What might be the consequences if trade agreements did not exist?

If countries did not negotiate trade agreements, there would be less free trade. There would be more protectionism and trade would be restricted. This would have a negative impact on consumers because goods might be more expensive and there would be less choice. Reduced international trade would also reduce global employment, growth and living standards.

ACTIVITY 1

CASE STUDY: TRADE DISPUTE BETWEEN PAKISTAN AND SOUTH AFRICA

1 ► What is meant by a trade dispute? Use the example in this case to support your answer.

A trade dispute may occur if a country fails to obey the terms of a trade agreement that has been set up. Trade disputes usually occur when a country imposes a trade barrier which is contrary to the agreement reached. In this case, Pakistani authorities claimed that South Africa had imposed anti-dumping duties of between 15 per cent and 68 per cent on Pakistani cement. The South African government claimed that the cement imports were damaging the domestic cement industry.

2 ► How will South African consumers be affected by the imposition of anti-dumping duties?

The duties imposed on Pakistani cement imports will raise the prices of cement in South Africa. This means that consumers (in this case probably customers in the building industry) will have to pay more for cement. This will raise costs and possibly reduce the profits of firms in the South African construction industry.

3 ► Describe the role that the WTO will play in settling this dispute.

Trade disputes between members are not uncommon. The WTO's procedure for resolving trade disputes is vital for enforcing the rules and making sure that trade flows smoothly. Countries bring disputes to the WTO if they think their rights under the agreements have not been preserved. In this case the WTO has to decide whether South Africa's anti-dumping duties are justified. South Africa has already spent 4 years investigating Pakistan's claims but according to Pakistani officials, South Africa has failed to address a number of important issues relating to the case. For example, it failed to consider the effects of the breakdown in cartels running the South African cement industry. South Africa also failed to examine the entire product range under investigation, focusing only on the market for bagged cement, and denied Pakistani cement exporters access to trade statistics and therefore did not allow them to defend their case. The WTO will have to consider these issues when making their judgement.

MULTIPLE-CHOICE QUESTIONS

- 1 ► B is the correct answer. One of the main roles of the WTO is to settle trade disputes between countries. The WTO acts as an independent adjudicator.

- 2 ► B is the correct answer. Figure 40.5 shows that up until 1980 agricultural exports were higher than agricultural imports. After this date, imports exceed exports.

CASE STUDY: COMMODITY DEPENDENCY

1 ► **Describe two functions of the WTO.**

One of the main functions of the WTO is to reduce or eliminate trade barriers through negotiation. It does this by encouraging countries to draw up trading agreements covering matters such as anti-dumping, subsidies and product standards. The WTO aims to bring about trade liberalisation and lays down procedures for settling disputes. The agreements reached between countries may change over time. Changes are needed because businesses operate in a dynamic world with new products and new technologies being developed at an accelerating pace.

The WTO employs various councils and committees to administer and monitor the application of the WTO's rules for trade in goods, services and intellectual property rights. For example, the WTO may examine trade policies to ensure that trade agreements are clear and well documented. All WTO members must conduct regular reviews of their trade policies and practices. Countries must submit reports to the WTO as part of the monitoring process.

Look at Figure 40.7.

2 ► **Which continent is most dependent on commodities?**

The map in Figure 40.7 shows that commodity production is important in South America, Africa and Asia. However, the most commodity dependent continent of the three is Africa. There are far more countries in Africa than anywhere else where commodity dependence is between 80 and 100 per cent.

3 ► **Suggest one possible reason for your answer in (2).**

One possible reason why Africa is so dependent upon commodities for its export revenue is because the nation provides a rich source for so many different commodities. Large quantities of natural resources such as iron ore, copper, coal, oil, gold and diamonds are to be found in this region. Also, in some countries, the climate and other growing conditions are perfect for growing commodities such as coffee, cocoa and tea. It is natural that Africa should focus on the production and sale of commodities for its exports.

4 ► **Discuss how the price changes shown in Figure 40.6 might impact on commodity dependent countries.**

Figure 40.6 shows the global prices of oil, metals and foods between 2012 and 2016. Generally, the prices of all the commodities shown have fallen over the period. However, the price of oil has fallen more sharply – by more than 50 per cent. Food and metal prices have fallen less severely by between 20 and 30 per cent. This is obviously a problem for commodity dependent nations. Falling commodity prices mean that revenues earned from the exports of commodities will fall. This will result in lower levels of profits for firms operating in this sector, less employment and lower tax revenues for the government. Worst hit will be the oil producing nations such as Nigeria and Angola.

5 ► **Describe two recent trends in the pattern of international trade in developing countries.**

One recent trend in the pattern of international trade in developing countries is illustrated in Figure 40.5. This shows that developing nations have become net importers of agricultural goods. Up until 1980, developing nations were net exporters of agricultural goods. This is a significant switch. The graph shows that developing nations are becoming increasingly dependent upon imports for their food supply. The trade gap at the end of the period had grown to US\$7000 million. One reason for this might be the growth in the populations of these countries.

FDI has continued to increase in developing countries. For example, many African nations have benefited from an increasing amount of FDI from China. This has helped to increase international trade in these nations. China is Africa's third largest trade partner, following the USA and France. Total FDI in Africa has risen sharply in the last 20 years. In 1995, FDI to Sub-Saharan Africa was US\$4.583 billion. This had grown to US\$42 billion in 2015. FDI is very important for developing countries. This is because the exports of foreign businesses located inside a developed country count as exports for that country. FDI also creates jobs and raises living standards.

6 ► **Assess how the pattern of trade in developing countries might change in the future.**

It could be argued that commodity dependence in the future will decline. One reason for this is because eventually the natural resources in many of these countries will run out. Also, some countries are beginning to realise that planning for the future is vital. For example, Uganda has proceeded carefully in developing its oil reserves. The government passed legislation that requires oil revenues to be invested in infrastructure or agriculture. Similarly, Mozambique and Tanzania have resisted the temptation to spend oil revenues quickly. They have spent years drawing up 'master plans' which ensures that a measured approach is taken when developing business interests in the extraction of resources. These countries understand that it is necessary for the right infrastructure, policy and legal structure to be in place before exploiting resources in order that the revenues benefit everybody.

It is very difficult to predict how trade will develop in the future. However, it could be argued that countries that are dependent on commodity revenue need to think about diversifying very soon. The business world is dynamic and factors such as the development of 'green' energy in the near future, for example, will have an impact on the trading patterns of these countries. If growth in the least developed countries takes off like it has in China, India and Brazil, for example, there will be a larger service sector. This is what normally happens when countries grow wealthier.

CHAPTER 41

CASE STUDY: RUHR METAL PRODUCTS

CASE STUDY: SALLY WONG AND HANS KROOS

- 1 ► Which currencies are used in (a) Germany, (b) India and (c) Japan?

(a) Germany uses the euro. (b) India uses the rupee.
(c) Japan uses the yen.

- 2 ► Why do we need exchange rates? Use an example to support your answer.

Goods and services purchased from foreign firms have to be paid for in a different currency to that used at home. For example, when Sally and Peter travel to India, they need to use rupees to fund their purchases. This means that domestic currency has to be exchanged for foreign currency. Therefore it is necessary to know what the exchange rate is between the two currencies.

- 3 ► What was the exchange rate in the case of Ruhr Metal Products?

For the transaction involving Ruhr Metal Products, the exchange rate was €1 = ¥120.

ACTIVITY 1

CASE STUDY: TORRES MACHINE TOOLS (TMT)

- 1 ► Calculate the price in US dollars of the machines sold by TMT to the US firm (assume MXN1 = US\$0.05).

The price in dollars is given by:

$$\text{MXN } 3\,600\,000 \times \text{US}\$0.05 = \text{US}\$180,000$$

- 2 ► Calculate the amount paid in peso by TMT for the €2.5 million components bought from Germany (assume MXN1 = €0.45).

The amount paid by TMT in MXN is given by:

$$\text{€}2500,000 \div \text{€}0.45 = 5555,555.6 \text{ MXN}$$

- 3 ► Calculate the amount in euros received by the Spanish supplier for the MXN 20 million of materials sold to TMT (assume MXN1 = €0.45).

The amount in euros received by the Spanish supplier is given by:

$$20,000,000 \times \text{€}0.45 = \text{€}9000,000$$

ACTIVITY 2

CASE STUDY: EXCHANGE RATE DETERMINATION

- 1 ► What is the equilibrium exchange rate between the US dollar and the euro?

The equilibrium exchange rate is determined where the supply and demand for US dollars is the same. This is where €1 = US\$0.75.

- 2 ► An Italian tourist plans to spend €3000 on a shopping trip to New York. How many dollars will this buy at the equilibrium exchange rate shown in the diagram?

The amount of US dollars an Italian shopper can buy is given by:

$$\text{€}3000 \times \text{US}\$0.75 = \text{US}\$2250$$

MULTIPLE-CHOICE QUESTIONS

- 1 ► D is the correct answer. The demand for imports will affect the supply of a currency.
- 2 ► D is the correct answer. If speculators think that the price of a currency is going to fall they will sell that currency. They may make a loss if they don't.

CASE STUDY: THE EXCHANGE RATE BETWEEN THE INDIAN RUPEE AND THE US DOLLAR

- 1 ► Calculate India's current balance resulting from trade with the US in 2016.

India's current balance is given by:

Exports – imports

$$\text{US}\$45,988 \text{ million} - \text{US}\$21,689 \text{ million} = \text{US}\$24299 \text{ million}$$

Therefore India has a current account surplus of **US\$24299 million** trading with the US.

- 2 ► What is meant by the exchange rate? Use an example from the case to support your answer.

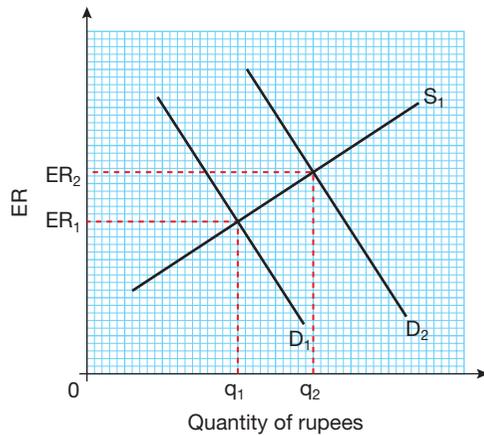
Exchange rates are needed because different countries use different currencies. When trading with other countries, payments usually have to be made in another currency. The rate at which one country's currency exchanges against that of another is called the exchange rate. In this case, when the US buys goods from India, it will have to pay in rupees. This will be the rate at which US dollars can be exchanged for Indian rupees.

- 3 ► How are exchange rates determined?

Like all prices, the price of a currency is determined by market forces and if those forces change, the price is also likely to change. Currencies are bought and sold like commodities on foreign exchange markets. Banks and other financial institutions trade in these markets to obtain foreign currencies for their customers. The price of any currency is determined by the forces of supply and demand, as outlined above. Figure 41.5 shows the exchange rate between the US dollar and the Indian rupee. The exchange rate has not remained constant. It has increased over the period shown. For example, in 2008, a US dollar could buy around 40 rupees. However, by 2017 this had risen to over 65 rupees.

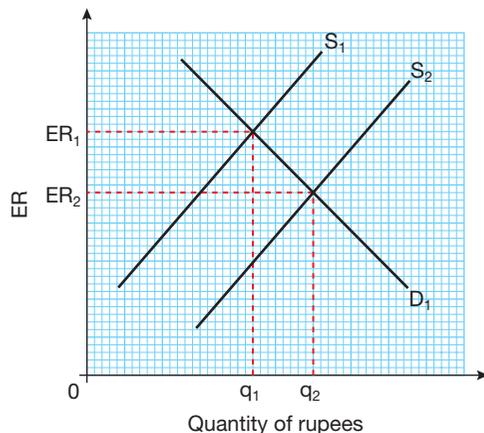
- 4 ► Show, using a diagram, the likely effect on the exchange rate (in the market for rupees) of an increase in demand for Indian goods from the US.

In the market for rupees, an increase in the demand for Indian goods will increase the demand for rupees. This is because US buyers will have to purchase rupees to pay for the Indian goods. This will shift the demand curve for rupees to the right from D_1 to D_2 . As a result, the exchange rate will rise from ER_1 to ER_2 . The quantity of rupees traded in the market will rise from q_1 to q_2 .



- 5 ► Show, using a diagram, the likely effect of a fall in the Indian interest rate on the exchange rate (in the market for rupees).

In the market for rupees, a fall in the Indian rate of interest will probably result in a flow of capital out of Indian banks. Firms and individuals will transfer their cash to countries with a better interest rate. As a result, there will be an increase in supply of rupees on the foreign exchange market. This is because firms and individuals will be selling rupees to buy another currency. This will cause the supply curve for rupees to shift to the right (from S_1 to S_2). As a result, the exchange rate will fall from ER_1 to ER_2 and the quantity of rupees traded will increase from q_1 to q_2 .



- 6 ► Discuss the role played by speculators in the determination of exchange rates.

Foreign exchange markets attract speculators because the prices of currencies vary in the market. Foreign currency speculators are firms, individuals or financial institutions that buy and sell currencies in the hope of making a capital gain. They buy a particular currency and hope to sell it for a higher price later. For example, if speculators think the value of the pound is going to rise in the future, they will buy pounds. This will increase the demand for pounds and therefore help drive up the exchange rate. On the other hand, speculators can also affect the supply of pounds. For example, if speculators believe that the price of the pound is going to fall, they will sell pounds in exchange for another currency. This will increase the supply of pounds in foreign exchange markets and lower the exchange rate. Therefore the role played by foreign exchange speculators in the

determination of exchange rates is significant because as a group they affect the supply and demand for currencies.

CHAPTER 42

CASE STUDY: POUND-EURO EXCHANGE RATES

- 1 ► What was the exchange rate at the end of the period shown?

At the end of the period shown on the graph, the exchange rate is $\text{£}1 = \text{€}1.18$.

- 2 ► What happened to the value of the pound when Britain voted to leave the EU?

Britain's EU referendum vote took place in June 2016. After the result was announced, the value of the pound fell sharply, from around $\text{£}1 = \text{€}1.31$ to about $\text{£}1 = \text{€}1.17$.

- 3 ► Do you think variable exchange rates are good or bad for a firm involved in international trade?

Firms involved in international trade would probably welcome stable exchange rates. Therefore variation in exchange rates would be bad. When rates are changing all the time, it is difficult to make decisions about the future. For example, it is difficult to set the prices of goods for overseas buyers if the price keeps changing as a result of changes in the exchange rate. Uncertainty is created by variation in exchange rates.

ACTIVITY 1

CASE STUDY: IMPACT OF EXCHANGE RATE CHANGES

- 1 ► Calculate the cost in pounds of the aviation fuel in 2016.

The cost in pounds of the aviation fuel in 2016 is given by:
 $\$900,000 \div \text{£}1.25 = \text{£}720,000$

- 2 ► Calculate the price in euros of the return flight in 2016.

The price in euros of the return flight in 2016 is given by:
 $\text{£}220 \times \text{€}1.10 = \text{€}242$

- 3 ► Recalculate the cost in pounds of the aviation fuel at the estimated 2017 exchange rate.

The cost in pounds of the aviation fuel in 2017 is given by:
 $\$900,000 \div \text{£}1.40 = \text{US}\$642,857$

- 4 ► Recalculate the price in euros of the return flight at the estimated 2017 exchange rate.

The price in euros of the return flight in 2017 is given by:
 $\text{£}220 \times \text{€}1.25 = \text{€}275$

- 5 ► How might the demand for aviation fuel and flights be affected by the changes in the exchange rates?

A change in the exchange rate will affect the prices paid for imports and exports. As a result there is also likely to be a change in demand. In this case the exchange rate has risen – the pound is stronger against the US dollar and the euro. As a result, the cost of the imported fuel has fallen and therefore demand is likely to rise. On the other hand, the price of flight tickets to Spanish travellers has increased which is likely to reduce demand.

ACTIVITY 2

CASE STUDY: NG MOTOR PARTS

- 1 ► Calculate the amount in JPY paid by the Japanese customer for a braking system.**

The amount paid in JPY by the Japanese customer is given by:

$$500 \times \text{JPY}15 = \text{JPY } 7500 \text{ per system}$$

- 2 ► Calculate the amount in CNY paid by Ng for the steel cable.**

The amount paid by Ng in CNY is given by:

$$440,000 \div 15 = \text{CNY } 29\,333$$

Ng Motor Parts expects the exchange rate to fall in 12 months' time to CNY1 = JPY12. Calculate the effect of this change on the prices of:

- 3 ► the export of a braking system**

$$500 \times \text{JPY}12 = \text{JPY } 6\,000 \text{ per system}$$

- 4 ► the import of steel cable for Ng Motor Parts.**

$$440,000 \div 12 = \text{CNY } 36\,667$$

- 5 ► How might the price changes affect demand?**

In this case, the Chinese currency has depreciated. As a result, the price of exports (the braking systems sold to Japan) have fallen from JPY 7 200 to JPY 6 000. This is a significant fall in price and one would expect demand for these braking systems to increase since they are much cheaper.

The price of the Chinese imports from Japan has increased from CNY 29 333 to CNY 36 667 after the depreciation. The cable is now more expensive to buy. This is likely to result in a fall in demand.

MULTIPLE-CHOICE QUESTIONS

- 1 ►** C is the correct answer. The cost in euros is given by $\text{US}\$6700,000 \times 1.2 = \text{€}8040,000$.
- 2 ►** D is the correct answer. When the exchange rate depreciates, exports become cheaper. This makes goods more competitively priced overseas.

CASE STUDY: THE EFFECTS OF CHANGING EXCHANGE RATES IN THE UAE

- 1 ► Table 42.2 shows that the predictions for the exchange rate in 2018 are different from the actual exchange rates in 2017. Why do exchange rates change?**

The exchange rate is the price of one currency in terms of another. For example, in Figure 42.8, the price of AED1 in 2017 is JPY1.60, CNY1.90 and AUD0.35. Like all prices, they can change. This is because prices are determined by market forces and at any time supply and demand conditions can change. For example, if the UAE government were to raise interest rates, there is likely to be an increase in the demand for dirhams as foreign savers take advantage by placing their savings in UAE banks. To do this, they have to buy dirhams. This increases demand and therefore raises the exchange rate.

- 2 ► What is the difference between the depreciation of an exchange rate and a devaluation?**

When a nation's currency gets weaker, it is said to depreciate. This means that a unit of one currency buys less of another. For example, Table 42.3 shows that the value of the AED depreciates against the CNY over the period. It falls from AED 1 = CNY1.90 to AED1 = CNY1.60. However, when the exchange rate is fixed, a government might choose to change the exchange rate so that it is weaker. If this happens, the exchange rate will fall and the currency will be devalued. A devaluation results from government action whereas a depreciation is caused by market forces.

In 2017, an airport trader sold goods worth AED250 to a Japanese traveller.

- 3 ► Calculate the cost in yen to the Japanese customer.**

In 2017, the cost of AED250 in JPY is given by:

$$\text{AED}250 \times \text{JPY}1.6 = \text{JPY}400$$

In 2017, an Australian traveller purchased some refreshments in an airport café at a cost of AED65.

- 4 ► Calculate the cost in Australian dollars to the passenger.**

In 2017, the cost of the refreshments in AUD is given by:

$$65 \times \text{AUD}0.35 = \text{AUD}22.75$$

An airport trader needs to purchase ten new tills from a Chinese manufacturer. The cost in yuan would be CNY 500,000.

- 5 ► Calculate whether the trader should buy the tills now or wait until 2018.**

In 2017, the tills will cost $500,000 \div \text{CNY}1.9 = \text{AED}263,158$

In 2018, the tills will cost $500,000 \div \text{CNY}1.6 = \text{AED}312,500$

The trader would be advised to buy the tills now in 2017.

In 12 months' time the price will have increased due to the fall in the AED.

- 6 ► Assess the possible impact of changes in the exchange rate (between 2017 and 2018) between the UAE dirham and the Japanese yen and Australian dollar on future airport trade.**

The UAE currency is expected to appreciate against both the JNY and the AUD according to the information in Table 42.3. Against the JNY, it is expected to rise from AED1 = JNY1.60 to JNY1.80 between 2017 and 2018. Against the AUD, it is expected to rise from AED1 = AUD0.35 to AUD0.4. When the exchange rate appreciates, the prices of exports will increase. For example, the price of the Japanese goods purchased at the airport will rise from JPY400 to JPY450 ($250 \times \text{JPY}1.8$). When prices rise, demand is expected to fall. Therefore, airport traders in Dubai might experience a fall in demand for their goods if the AED does actually appreciate in 2018.

END OF SECTION EXAM QUESTIONS

1.1 The market system

- 1 ▶ The correct answer is C. When demand is perfectly inelastic, demand is fixed. Demand is the same at all prices.
- 2 ▶ The correct answer is C. Pollution is an example of an external cost, i.e. a cost that is incurred by third parties.
- 3 ▶ In a mixed economy, goods and services are provided by both the public sector and the private sector. The three key decisions about what to produce, how to produce and for whom to produce are made jointly between consumers and the state.
- 4 ▶ For a normal good, demand and income are proportionately related. This means that a rise in income will cause a rise in demand. Or, a fall in income will cause a fall in demand. Most goods and services are normal goods.
- 5 ▶ Public goods are those that the private sector would fail to supply. They possess two important characteristics: non-excludability and non-rivalry. An example would be a sea wall.

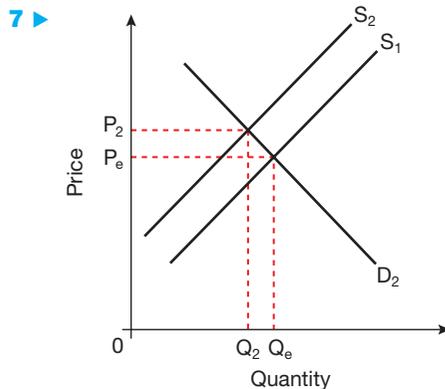
	Quantity demanded
When price = US\$50	4000,000
When price = US\$55	3200,000

Table 1

Price elasticity of demand = Percentage change in quantity demanded

Percentage change in price

$$= \frac{-20\%}{10\%} = -2$$



- 8 ▶ Excess demand may exist if a market is in disequilibrium. In other words, the price being charged will be below the equilibrium price. As a result, the amount demanded by consumers will be higher than the amount supplied by producers. This is excess demand.
- 9 ▶ One of the main benefits of privatisation to the government is that it will receive revenue when a state asset is sold. For example, in this case the Iranian motor car industry might be sold for billions of dollars. As a result, the Iranian government will receive a boost in income. This money

could be spent improving public services, reducing the fiscal deficit and the national debt or reducing taxes on people and businesses.

Another impact on the government is that after privatisation the running of the Iranian motor car industry will no longer be their responsibility. The corporation would be run by a board of directors accountable to the shareholders. This means that the government can focus more sharply on the business of government.

The sale of the Iranian motor car industry might also result in some foreign investment. It is possible that the car industry will be sold to an overseas investor. As a result, there will be a flow of capital into Iran. The foreign buyer may also spend money modernising the industry. For example, it may invest in new technology and update production techniques. This will help improve efficiency and drive up profits made by the car company. The government will also benefit because it will collect taxes from the new owners when the company makes a profit.

1.2 Business economics

- 1 ▶ The correct answer is D. Variable costs per unit are PKR 1000. For example, when 50 units are produced the total variable cost is PKR 50,000. Therefore variable cost per unit is PKR $50,000 \div 50 =$ PKR 1000.
- 2 ▶ The correct answer is A. Even when output is zero, fixed costs will be incurred. Therefore, when nothing is produced, total costs will equal fixed costs, that is, PKR 50,000.
- 3 ▶ (a) Total revenue = price \times quantity
(b) Profit = total revenue – total costs

$$= (5000 \times 150) - (500,000 + 150,000)$$

$$= (750,000 - 650,000)$$

$$= \text{PKR } 100,000$$
- 4 ▶ One example of an internal economy would be managerial economies.
Colt Fuels is a large distributor of petrol. It has 457 petrol stations and operates in an oligopolistic market.
- 5 ▶ An oligopolistic market is one which is dominated by a few large firms. There may be three, four or five firms, perhaps, which supply the majority of the output in the industry. In this case, Colt Fuels is an oligopolist. It is one of a few large firms in the supply of petrol. However, it is still possible for a number of small firms to survive in the market alongside the dominant few.
- 6 ▶ In an oligopolistic market, if the dominant firms are able to exploit economies of scale, their average costs will be lower. Therefore, it is possible that some of the cost savings will be passed on to consumers in the form of lower prices. This will obviously benefit consumers. However, the smaller rivals in the market cannot exploit economies of scale. They often survive because they do not compete directly with the dominant firms.
In 2017, a US judge put a block on a proposed merger between two health care insurance firms, Aetna and Humana. The judge said that the merger would result in a lack of competition in the market. The two companies, the largest in the industry, claimed that the deal would

not reduce competition. They responded by saying that the US\$ 37 billion deal would actually benefit consumers. This was because the two companies had complementary strengths in technology and relationships with health care providers.

- 7 ► Mergers and takeovers in the same market will reduce the number of firms operating in the industry. Naturally this will reduce the amount of competition in the market. This is what the US judge believes and is the reason why the proposed merger between Aetna and Humana has been blocked. The judge said that the merger would result in a lack of competition in the market if the two largest firms in the industry joined together.

When there is a lack of competition in a market, consumers are likely to be exploited. The main disadvantage of oligopoly is the temptation among firms to collude. If firms agree to restrict competition by price fixing, for example, consumers will end up paying higher prices. Consumers will also suffer if a market is shared out geographically. There will be a lack of choice because each area will only be supplied by one firm. In a minority of oligopolistic markets, a cartel might exist. This is where a group of firms or countries formally join together and agree on pricing or output levels in the market. If cartels are successful, they are able to act as a monopoly. In the USA and the EU, cartels and collusion are illegal.

In contrast, it is possible that consumers would benefit from the merger. For example, according to Aetna and Humana, the US\$ 37 billion deal would actually benefit consumers. This is because the two firms have complementary strengths in technology and relationships with health care providers. This means that they could probably improve the quality of service offered to customers. Also, operating as one very large firm, there may be more scope for cost reductions. This is because they may be able to exploit economies of scale further.

It is also possible that the larger organisation might be more innovative. As a larger company, they would have more resources and could invest more in R&D, for example. However, if there is less competition, the incentive to innovate is reduced.

To conclude, the judge must have thought that the disadvantages of the merger were greater than the advantages. As a market becomes more concentrated, with fewer and fewer competitors, the scope for consumer exploitation increases. Sometimes if there are a very small number of firms in the market, there is a danger that they act as one and behave like a monopolist. Clearly, in this case, this is what the judge believed.

2.1 Government and the economy

- 1 ► B is the correct answer. One of the main macroeconomic objectives of most governments is to stimulate economic growth. This is because living standards are likely to rise if the economy grows.
- 2 ► The correct answer is C. With this tax system, the rates of tax rise as income levels rise. For C, the taxation rates are 5 per cent, 10 per cent, 17 per cent and 22.5 per cent at each income level. Tax system A is a proportionate tax system while B and D are both largely regressive.

- 3 ► Some businesses cause noise pollution. For example, the noise from low-flying aircraft is a serious nuisance to those living underneath a flight path by an airport.
- 4 ► Fiscal policy involves the use of taxation and government expenditure to control aggregate demand in the economy. For example, if the government lowers taxes and increases government expenditure, aggregate demand is likely to rise in the economy. This would help to stimulate growth and create jobs.
- 5 ► The balance of trade is the same as the visible balance. Visible trade is trade in physical goods such as cars, oil, clothes and food. If a country has a balance of trade surplus like Singapore, this means that the value of exports in visible goods is greater than the value of imports.
- 6 ► Monetary policy involves adjusting the money supply to control aggregate demand in the economy. One approach is to adjust interest rates to influence levels of borrowing by consumers and firms. For example, interest rates could be increased to discourage borrowing. This would dampen aggregate demand and therefore reduce inflationary pressures in the economy.
- 7 ► Generally, economic growth is desirable because it means more output is being produced in the economy. This creates jobs because as businesses produce more they need more workers. Consequently, economic growth raises employment levels. Governments also tend to spend more during periods of economic growth. This will create more jobs – in education, health care and infrastructure development, for example. In China, lots of jobs have been created in the booming manufacturing sector. Economic growth increases in GDP means that on average people have more income. With more income, people can buy more goods and services. They can buy better quality food, improved housing and more leisure goods. Finally, due to economic growth people are living longer. People can afford healthier diets and there have been advances in medical technology which have all helped to increase life expectancy. Consequently, economic growth brings improved living standards.

In developing countries such as China, rapid economic growth has helped to reduce poverty. The expansion of existing businesses, and the development of new businesses, creates many jobs, some of which will be taken by the poor. Also, a growing economy means that the government is able to collect more tax revenue. Most tax revenues are linked to income and spending which both increase when the economy grows. Therefore, the government can spend more on public services and provision for the poor. Extra government spending is often targeted at the poor which can help reduce poverty.

However, unfortunately economic growth does have some disadvantages. If economic growth is too fast, the economy may 'overheat'. This can cause inflation, which is bad for an economy because it creates uncertainty, for example. However, in the last 10 years or so, inflation has not been a serious problem in many countries.

One problem in China has been pollution resulting from expanding business activity. Environmental groups believe that the benefits of growth are outweighed by the costs of

generating that growth. For example, as economies grow, more cars are purchased and more flights are taken. Both car and air transport contribute to greenhouse gases which cause global warming. In China, high levels of economic growth have been accompanied by very high levels of pollution caused by seriously bad emissions from factories. Also, economic growth uses up non-renewable resources. Once they have been used they cannot be replaced. Economic growth means that future generations will have fewer resources.

To conclude, most Chinese people would argue that the benefits from economic growth such as jobs, less poverty, better infrastructure and improved living standards are greater than the disadvantages such as the possibility of inflation and higher levels of pollution. They might also argue that if pollution is too excessive it is up to the government to provide some protection.

2.2 The global economy

- 1 ▶ The correct answer is D. Quotas restrict the volume of imports coming into a country.
- 2 ▶ The correct answer is B. Dumping is the practice of selling goods below cost in an overseas market.
- 3 ▶ One of the main reasons why multinational companies have emerged is because they can sell far more goods and services in global markets than they can in domestic markets. Companies can make considerably more profit selling to the 7 billion people worldwide than they can selling to perhaps 50 million people at home. As the global economy continues to grow, more and more companies are likely to target overseas markets to help increase revenues, profits and returns to shareholders.

The Association of Southeast Asia Nations (ASEAN) is one of the largest trading blocs in the world. It has ten members from the Southeast Asia region. Some of the largest members include Thailand, Vietnam, Malaysia, Indonesia, Philippines and Singapore.

- 4 ▶ Belonging to a trading bloc brings much the same benefits as those which result from free trade anywhere. If members of the bloc abolish all trade barriers, goods will be cheaper, there will be more consumer choice and faster economic growth. Firms will be able to exploit economies of scale because they have access to larger markets and extra competition will improve the quality of goods and encourage innovation. It is also argued that the formation of trading blocs invites foreign direct investment. This may be because foreign firms are keen to locate operations within a trading bloc to get access to a larger and barrier-free market. Membership of a trade bloc can also reduce cross-border conflict, promote peace, and achieve substantial social and economic gains.

Unfortunately, membership of a trade bloc does have some disadvantages. Those in favour of worldwide free trade generally oppose trading blocs. By their nature, trading blocs encourage regional as opposed to global free trade. However, there is no real agreement as to whether regional trade blocs result in less free trade in the world or encourage further globalisation. One problem with belonging to a trade bloc is the financial cost to the

government and therefore the taxpayer. Members are required to make annual contributions. Some of the money is used to fund selective investment projects in the bloc and the rest is used to cover administration costs. It is also possible that some countries may start to rely too heavily on trade within the bloc. This would make them more vulnerable to changes in prices and demand patterns within the bloc. They may also miss out on opportunities in other world markets. Also, inefficient producers may be protected from competition from businesses outside the trade bloc. As a result, consumers might end up paying higher prices in some industries.

Due to their popularity around the world, it might be concluded that the advantages of belonging to a trade bloc are greater than the disadvantages for most members.

Like many countries around the world, Vietnam has embraced globalisation. In a survey, 95 per cent of Vietnamese respondents agreed that 'trade was good'. The survey also revealed that Vietnamese people thought that trade resulting from globalisation brought jobs and raised wages. The US is one of Vietnam's main trading partners. In 2015, Vietnam sold US\$30 billion of goods to the US, making it the top market for Vietnamese exports.

- 5 ▶ The impact of globalisation on individual countries is likely to vary. It depends on whether a country is the base for a global company or whether a country is selected as a site by a global company for a new factory, for example. The countries where multinationals (MNCs) are based will benefit from globalisation. Most MNCs are based in developed countries and the gains generated from business development overseas, such as growth, will contribute to an increase in the wealth of that country. In this case, Vietnam is not likely to be the base for many MNCs.

However, Vietnam might provide sites for global companies. This should result in higher levels of GDP. The extra output and employment resulting from new business development will increase economic growth and should raise living standards for people in these countries. The output generated by a MNC in a foreign country is recorded as output for the host country. Therefore, if this output is sold out of the host country, it is counted as an export. This helps countries to increase their foreign currency reserves and improves their current balance. Globalisation often means that new technologies and modern working practices are introduced into developing countries. For example, MNCs often provide technical assistance, training and other information to their suppliers located in the host country. Many multinationals also assist local suppliers in purchasing resources and in modernising production facilities.

In this case, Vietnam has benefited from increased international trade. For example, in 2015, it sold US\$30 billion of goods to the US, making it the top market for Vietnamese exports.

Consumers in Vietnam may also benefit from globalisation. If an MNC can produce goods more cheaply in foreign factories, prices are likely to be lower. One of the main benefits of the gradual movement in manufacturing from the West to countries like China and India is that many goods are cheaper for consumers. Globalisation has also

resulted in a much wider range of goods and services for consumers. For example, improved and cheaper transport communications have opened up huge numbers of new destinations for tourists. Generally, globalisation has improved the living standards of billions of people worldwide.

There are some disadvantages of globalisation. For example, many environmentalists oppose globalisation because global economic growth usually means more environmental damage. For example, as economies grow more cars are purchased and more flights are taken. Both car and air transport increase greenhouse gases which cause global warming. Also, global economic growth will use up resources. Some of these resources are non-renewable and once used cannot be replaced. Finally, increasing globalisation means that economic events in one country can have an impact on many other countries. This interdependence was demonstrated in 2008 when the world economy went into recession. Financial problems in America spread rapidly to other countries. Eventually, this caused a global banking crisis and led to a world recession. Without globalisation this probably could not have happened.

Vietnam is a developing country; therefore it is likely to benefit most if MNCs can locate operations in the country and create jobs. However, Vietnam is becoming a manufacturer in its own right. It has cheap labour and is developing some capability in the sector. For example, it sold US\$30 billion of goods to the US in 2015. The country is probably benefiting at the moment from the increased pace of globalisation.

PREPARING FOR YOUR IGCSE ECONOMICS EXAMINATION (PAPER 1)

SAMPLE ANSWERS WITH COMMENTS

Paper 1 Microeconomics and Business economics

1 ► (a) C

- (b) There is no sample answer for this question so you can try it yourself, for exam practice.
- (c) When choosing between different alternatives, opportunity cost is the benefit lost from the next best alternative. When faced with a choice between different alternatives, firms or individuals, for example, must arrange the choices in order of preference. The most preferred is the one at the top of the order and the next best alternative will be second in the order.
- (d) There is no sample answer for this question so you can try it yourself, for exam practice.
- (e) Supply is the amount that producers are willing to offer for sale at different prices in a given period of time.
- (f) There is no sample answer for this question so you can try it yourself, for exam practice.

(g) This market is in disequilibrium and the price currently charged is £20. At this price, producers will only offer 400 units for sale. Therefore revenue at this price will be:
 $TR = \text{price} \times \text{quantity}$
 $TR = £20 \times 400 = \text{£}8000$

- (h) There is no sample answer for this question so you can try it yourself, for exam practice.
- (i) In many countries around the world, large numbers of migrant workers are employed in a wide range of industries. For example, in the UK, around 6 million migrants work in the country. They make a significant contribution to the supply of labour in the UK. When the UK eventually leaves the EU, it is likely that the flow of migrants to the country will fall very significantly. As a result, growth in the labour supply will be reduced. It is also possible that some of the existing migrant workers will return home. Consequently, there may be shortages of workers in some labour markets.

One impact of this shortage will be upward pressure on wage rates in some labour markets. This will be caused by the supply curve for labour in shifting to the left. It is possible that wages in agriculture, health care, hotels and restaurants will rise. This is likely to result in higher costs to businesses operating in these industries. As a result, they might reduce their supply which will force up the prices of agricultural goods, health care, hotel accommodation and meals out.

An alternative to this would be for businesses to reduce their profit margins or substitute labour with capital. For example, farmers might decide to employ more machinery on their farms to fill the gaps left by labour shortages – especially if wages are pushed up very high.

Comment

Multiple-choice questions are designed to test your knowledge. Therefore marks are awarded for satisfying AO1. When answering multiple-choice questions, it is important to read all of the answers before making your selection. You must avoid picking the first answer that you think might be right. This is because there might be a more accurate answer further down the list.

- (a) The correct answer is C. A rise in the cost of wages paid to car workers will raise production costs for producers. As a result, they will respond by reducing supply. Therefore the supply curve will shift to the left. Answer A, a rise in incomes, will shift the demand curve to the right. Answer B, a fall in indirect taxes, will shift the supply curve to the right as will a fall in the cost of raw materials, in answer D.
- (c) This is likely to attract two marks for AO1. One mark might be awarded for the definition and a further mark for a little more detailed explanation, that is, explaining that it is necessary to place choices in order of preference so that the opportunity cost can be identified.
- (e) Definitions will normally be awarded just one mark for AO1. No more than one or two sentences are required to define a term. In this case, supply is the amount that producers are willing to offer for sale at different prices in a given period of time.

- (g) Three marks are likely to be awarded for AO2 here. One mark might be awarded for recognising the correct quantity (400), one for the correct price (£20) and one for the correct answer. $TR = £20 \times 400 = £8000$. The important point to understand here is that when there is excess demand in a market, the amount sold will be equal to the amount that producers are willing to offer for sale. It is not the equilibrium quantity and it is not the amount demanded at £20. This is because the price is below the equilibrium price.
- (i) Three marks each are likely to be awarded for AO2 and AO3 here. To reach level three and gain maximum marks for AO2, the answer must demonstrate clear knowledge and understanding by developing relevant points. Appropriate application of economic terms, concepts, theories and calculations will also be needed. This answer shows understanding of the contribution made by migrants to a nation's labour supply. Economic terms such as labour supply, wages, supply curve for labour and capital are all used appropriately. The theory of supply and demand is used effectively and is well understood.

To gain all three marks for AO3, the answer must demonstrate excellent selectivity and organisation. The interpretation of economic information must also be excellent, with a thorough analysis of issues. This answer is well constructed. It shows the link between migrants and the labour supply. It analyses the impact on selective labour markets of a fall in the number of migrants, that is, that the fall in supply will push up wages. The answer also offers some different possible responses by businesses to such a fall, that is, reducing profit margins or substituting labour with capital.

Although not shown here, this answer could be supported by a diagram which shows the supply curve for labour shifting to the left and forcing up wages.

2 ► (a) D

- (b) There is no sample answer for this question so you can try it yourself, for exam practice.
- (c) The formula for price elasticity of supply

$$= \frac{\text{percentage change in quantity supplied}}{\text{percentage change in price}}$$
- (d) $PES = \frac{18\%}{12\%} = 1.5$
- (e) There is no sample answer for this question so you can try it yourself, for exam practice.
- (f) Market failure is where markets lead to inefficiency. For example, a market may fail if there is no competition and it becomes dominated by one or a small number of firms. When this happens the dominant firms may exploit consumers, by charging higher prices and restricting choice, for example.
- (g) There is no sample answer for this question so you can try it yourself, for exam practice.
- (h) It is argued by many that small firms can have advantages over their larger rivals. For example, small firms may be more flexible. They can adapt to change more quickly. This is because the owners, who tend to be the main decision-makers, are actively involved in the business and can react to change. For example, Victor Akenga may make adjustments to his tours, such

as changing the routes, to meet customers' preferences or needs. A large tour operator may not be able to do this; it may have very fixed schedules and routes. Also, as firms get bigger it often becomes difficult to offer customers an individual personal service. Some people prefer to deal with the owner of a firm directly and are prepared to pay a higher price for this benefit. Owners are far more accessible in small firms than larger ones. This would be the case with Victor's tours. He would be in close contact with all of his customers for the whole of the three days during each tour. Another advantage is better communications. Since small firms have fewer employees, just two in this case, communication tends to be informal and more rapid than in larger organisations. Victor will be in close contact with his staff and can exchange information rapidly. As a result, decision-making will be faster and workers may be better motivated.

However, although most businesses are small, they do have some disadvantages. Small firms cannot exploit economies of scale because their capacity is limited. Consequently, their average costs will be higher than their larger rivals. This means that small firms often lack a competitive edge. It is possible in this case that Victor's tours are more expensive than those of larger rivals. Also, when trading conditions become challenging, small firms may find it more difficult to survive than their larger rivals. This is because they do not have spare resources to use when the economy takes a turn for the worse. Small firms might also be vulnerable to takeovers. Owners may be forced to accept takeover terms that are difficult to refuse.

To conclude, Victor says he is happy running a small business. He does not appear to have the desire to grow. The business is profitable and in the last 9 years Victor has made a profit of around KES 200,000 pa. This is about twice as big as Kenya's GDP per capita. Several of Victor's business friends often ask him why he does not grow his successful business. He says that he is very content running his small enterprise. He is able to offer a very personal service which some of the big tour operators cannot match. In this case, the advantages of operating as a small business are greater than the disadvantages.

Comment

- (a) One mark for AO1 will be awarded here. The correct answer is D. If price elasticity of demand for a firm's product is -2 , a 10 per cent increase in price will result in a 20 per cent decrease in demand. This is because demand is elastic.
- (c) (i) One mark is likely to be awarded here for AO1. A clear statement of the formula is necessary. $PES = \text{percentage change in quantity supplied} \div \text{percentage change in price}$.
- (ii) Two marks for AO2 would be awarded here. One mark might be awarded for showing the percentage changes in their correct positions in the formula and then another for getting the calculation right. A mark is not likely to be awarded for showing the formula. This is because it was a question in part.
- (e) Two marks might be awarded for AO2 here. One mark might be awarded for stating that market failure is where

markets lead to inefficiency. Another mark could be given for identifying the example of a market where there is no competition, that is, where it becomes dominated by one or a small number of firms.

- (f)** Three marks each are likely to be awarded for AO2, AO3 and AO4 here. To gain all AO2 marks for level 3, you must demonstrate clear knowledge and understanding by developing relevant points. You must also use appropriate application of economic terms, concepts, theories and calculations. In this answer, some advantages and disadvantages of small firms are clearly identified such as the ability to offer a personal service and higher costs. Economic terms such as economies of scale and takeovers have been used appropriately in context.

To gain all three marks for AO3 your answer should demonstrate excellent selectivity and organisation. It should also interpret economic information effectively and provide a thorough analysis of the issues. In this answer, several advantages and disadvantages have been fully analysed in context. For example, one of the advantages given of small firms was flexibility. This was well analysed using a relevant example in context. Small firms can adapt to change more quickly. This is because the owners, who tend to be the main decision-makers, are actively involved in the business and can react to change. For example, Victor Akenga may make adjustments to his tours, such as changing the routes, to meet customers' preferences and needs. A large tour operator may not be able to do this; it may have very fixed schedules and routes.

To gain all three AO4 marks at level 3, the answer must offer more than one viewpoint. The argument must also be well balanced and coherent. It must also lead to an evaluation that demonstrates full understanding and awareness. This answer looks at both the advantages and disadvantages of small firms. It also makes a judgement by saying that the advantages of being small for Victor Akenga's business are greater than the disadvantages. This argument has support because it states that the business is profitable and in the last 9 years Victor has made a profit of around KES 200,000 pa. This is about twice as big Kenya's GDP per capita. Several of Victor's business friends often ask him why he does not grow his successful business. He says that he is very content running his small enterprise. He is able to offer a very personal service which some of the big tour operators cannot match. This answer demonstrates full understanding and awareness of the key issues.

- 3 ▶ (a)** There is no sample answer for this question so you can try it yourself, for exam practice.
- (b)** B
- (c)** There is no sample answer for this question so you can try it yourself, for exam practice.
- (d)** When making economic decisions, it is possible that consumers will fail to maximise their benefit. One possible reason for this is because they may be influenced by the behaviour of others. For example, some consumers are influenced by their friends or peers. They may copy their purchases in an effort to gain acceptance or because they submit to peer pressure. In this case, Jushna Patel has been influenced by her peers. Jushna Patel loves football and her favourite team is Aston Villa. Once a month during the season

she is taken to Villa Park by her uncle to watch the team play. However, one weekend when she was due to attend a match she telephoned her uncle to cancel the trip. Four of Jushna's friends had persuaded her to go to the cinema to see a newly released film. Jushna really wanted to go to the match but peer pressure had made her change her mind. As a result, it could be argued that Jushna was not maximising her benefit when spending her money.

Another reason why consumers may fail to maximise their benefit is because some consumers have difficulty in calculating the benefits from consuming a product. This is because measuring the satisfaction gained from consuming a product is often very difficult. It is hard to quantify (express in numbers) the satisfaction gained from consumption. For example, how might Jushna measure the benefit from watching Aston Villa and compare it with the benefit from going to the cinema with her friends? They are two different acts of consumption. However, in this particular case, it does seem clear that Jushna would actually prefer to go to the football match and has 'folded' under peer pressure. As a result, she is not going to maximise her benefit from consumption.

- (e)** There is no sample answer for this question so you can try it yourself, for exam practice.

Comment

- (b)** One mark will be awarded for AO1 here. The correct answer is B. Total variable costs are calculated by multiplying output by the variable cost per unit, that is, $\text{US\$}5 \times 50,000 = \text{US\$}250,000$.
- (d)** Three marks each for AO2 and AO3 are likely to be awarded here. To gain all AO2 marks for level 3 you must demonstrate clear knowledge and understanding by developing relevant points. You must also use appropriate application of economic terms, concepts, theories and calculations. In this answer, two clear reasons are identified for consumers failing to maximise their benefit when consuming a product. One is that consumers are influenced by others and the second is that consumers may find it difficult to measure their benefits when consuming products. Both of these reasons are relevant and demonstrate clear understanding. Economic terms such as consumption and the maximisation of benefit are used appropriately here. The answer is also applied effectively to the case material.

To gain all three marks for AO3 your answer should demonstrate excellent selectivity and organisation. It should also interpret economic information effectively and provide a thorough analysis of issues. In this case, the two reasons why consumers may not maximise benefit when consuming a product are analysed effectively. It is clear that Jushna's consumption patterns have been influenced by her friends. It was also explained effectively, that the difficulties in measuring benefits from consumption were not appropriate in this case, even though they were a common reason why consumers fail to maximise benefit. This demonstrated excellent selectivity.

- 4 ▶ (a)** The number of workers employed in the tertiary sector in China is given by:
- $$42.4\% \times 911 \text{ million} = \mathbf{386.264 \text{ million}}$$

- (b) There is no sample answer for this question so you can try it yourself, for exam practice.
- (c) VTech is a large firm with revenue of US\$982.9 million in 2016. It became even larger when it took over its rival, LeapFrog Enterprises. Large firms can have a great deal of power since they have huge resources and employ thousands of people. There are some advantages of being a large firm. An important one is that their average costs are likely to be lower than those of smaller rivals. They can operate in large-scale plants and exploit economies of scale. For example, they can get cheaper supplies of materials and components because they buy in bulk. With lower costs, it is possible that consumers might enjoy lower prices. It is also possible that resources will be used more effectively in the economy. Large firms can also dominate a market. They have a higher profile in the public eye than small firms and benefit from such recognition. This may mean that they can charge higher prices which will enable them to make higher profits. The CMA in this case had to investigate whether the takeover of LeapFrog would lead to higher prices. It concluded that it was unlikely. Large firms may also invest more in research and development because they have more resources. This will result in new products and more choice for consumers. In this case, the merger between VTech and LeapFrog may mean that research and development (R&D) into learning toys may increase. This is because the larger combined organisation will have even more resources for R&D.

Although big firms can generally produce goods more cheaply than small firms, they do have some disadvantages. Large firms sometimes become overwhelmed by their administration systems. For example, decision-making can be very slow in large firms because so many different people have to be consulted before a decision can be made. Too many resources may be used up in administration. For example, too much time may be spent filling in forms and writing reports. Also, communication channels may be too long and too many managers may be employed. Also, a very large business may be difficult to control and coordinate. Thousands of employees, billions of pounds and dozens of plants all over the world can make running a very large organisation demanding. There may also be a need for more supervision which will raise costs. Finally, in very large organisations people can become alienated. The organisation may become so large that the effort made by a single employee seems insignificant. The personal contact in large organisations may be lacking and this can result in poor worker motivation.

To conclude, it might be argued here that the advantages of large firms are greater than the disadvantages. In this case, the growth of VTech has been investigated by the CMA. After the investigation, the CMA said that competition in the evolving and innovative toy industry would not be threatened. The CMA was confident that choice in the market for learning toys and child tablets would not be reduced. The CMA also felt that that the takeover would not lead to higher prices. During the investigation the

CMA consulted consumers, retailers and a range of toy manufacturers. The chairman of VTech gave an assurance about the takeover's impact on competition in the market for learning toys. He said, 'We have always believed that the combination of VTech and LeapFrog will give consumers greater choice and ensure ongoing innovation of electronic learning toys.' However, many would argue that this is what you would expect the chairman to say because it is in his firm's interests. In this case, the benefits of lower costs and increased levels of R&D and product innovation appear to be greater than the possible disadvantages of market domination and diseconomies of scale.

Comment

- (a) Two marks are likely to be awarded for AO2 here. One mark might be awarded for recognising that services was a tertiary sector activity and selecting the correct number from the pie chart. A second mark might be awarded for the correct calculation, that is, $42.4\% \times 911 \text{ million} = 386.264 \text{ million}$.
- (c) In this question, four marks are awarded for each of AO2, AO3 and AO4. To gain all AO2 marks for level 3 you must demonstrate clear knowledge and understanding by developing relevant points. You must also use appropriate application of economic terms, concepts, theories and calculations. In this answer, economic terms such as economies of scale, diseconomies of scale and takeover have been used appropriately. The answer has been written in context and therefore demonstrates application. For example, the impact of the CMA is explained clearly.

To gain all four marks for AO3, your answer should demonstrate excellent selectivity and organisation. It should also interpret economic information effectively and provide a thorough analysis of issues. One example of thorough analysis in this answer is the explanation of the main advantage of large firms. The answer explains that the average costs of large firms are likely to be lower than those of smaller rivals. They can operate in large-scale plants and exploit economies of scale. For example, they can get cheaper supplies of materials and components because they buy in bulk. With lower costs, it is possible that consumers might enjoy lower prices. It is also possible that resources will be used more effectively in the economy.

To be awarded all four marks for AO4, the answer must offer more than one viewpoint. The argument must also be well balanced, coherent and lead to an evaluation that demonstrates full understanding and awareness. The answer must also provide a supported judgement or conclusion. This answer is well balanced. It analyses both the advantages and the disadvantages of large firms to consumers. It also provides a coherent argument and a clear judgement at the end. For example, the answer states that it might be argued in this case that the advantages of large firms are greater than the disadvantages. The growth of VTech has been investigated by the CMA. After the investigation, the CMA said that competition in the evolving and innovative toy industry would not be threatened. The CMA was confident that choice in the market for learning toys and child tablets would not be reduced, nor would the takeover lead to higher prices. During the investigation the CMA consulted consumers, retailers and a range of toy manufacturers. This is a clear and justified conclusion.

PREPARING FOR YOUR IGCSE ECONOMICS EXAMINATION (PAPER 2)

SAMPLE ANSWERS WITH COMMENTS

Paper 2 Macroeconomics and the Global Economy

1 ► (a) There is no sample answer for this question so you can try it yourself, for exam practice.

(b) C

(c) There is no sample answer for this question so you can try it yourself, for exam practice.

(d) If poverty can be reduced, living standards across the world would rise. If absolute poverty is eliminated, the basic needs of people would be met and clearly their living standards would improve. People suffering from absolute poverty may not be able to find enough clean water, food, shelter and clothing to survive.

(e) There is no sample answer for this question so you can try it yourself, for exam practice.

(f) The increase in the interest rate will increase the demand for currency, shifting the demand curve to the right to D_2 . This would result in a new equilibrium exchange rate, ER_2 , and a higher quantity of currency traded on the market, Q_2 .

(g) There is no sample answer for this question so you can try it yourself, for exam practice.

(h) A government might aim to reduce unemployment using fiscal policy. One approach would be to increase government expenditure. It could do this by investing more in the nation's infrastructure. For example, it could build a new motorway. This would help to create jobs because the construction companies receiving the contracts to undertake the building project would need to employ more workers. There may also be a boost in employment levels in the supply industries. For example, firms that supply concrete, steel and other resources to the construction industry will receive a boost in demand and may have to take on more workers.

Another approach would be to reduce taxes in the economy. For example, if the government reduced income taxes consumers would have more disposable income. Many would spend this extra income which would boost aggregate demand in the economy. Many firms would react to this increase in demand by producing more. As a result they may need to recruit more workers, and hence, unemployment would fall.

Comment

(b) Multiple-choice questions are designed to test your knowledge. Therefore marks are awarded for satisfying AO1. The correct answer here is C. Free trade exists when there are no barriers to trade.

(d) Two marks are likely to be awarded here for AO1. One mark might be awarded for reference to the reason, that is, raising

living standards. Another mark might be awarded for the development of the reason. In this case, it is explained that if absolute poverty is eliminated, the basic needs of people would be met and clearly their living standards would improve. People suffering from absolute poverty may not be able to find enough clean water, food, shelter and clothing to survive.

(f) Three marks are likely to be awarded for AO2 here. One mark might be awarded for drawing the new demand curve, D_2 , in the correct position, another for labelling ER_2 in the correct place and another for labelling Q_2 in the correct place. Always remember to label your drawings.

(h) Three marks each are likely to be awarded for AO2 and AO3 here. To reach level three and gain maximum marks for AO2, the answer must demonstrate clear knowledge and understanding by developing relevant points. Appropriate application of economic terms, concepts, theories and calculations will also be needed. This answer shows understanding of the measures that might be used to reduce unemployment. Economic terms such as fiscal policy, unemployment, government expenditure and taxation are all used appropriately. The impact of fiscal policy on aggregate demand is clearly understood.

To gain all three marks for AO3 you must also demonstrate excellent selectivity and organisation. Your interpretation of economic information must also be excellent, with a thorough analysis of issues. This answer is well constructed. It explains how both an increase in government expenditure and a cut in income tax will create more jobs and therefore reduce unemployment. The answer is well illustrated with a relevant example, that is, boosting employment in the construction industry when the government spends more on infrastructure. This answer is clear, concise (but contains sufficient detail) and accurate.

2 ► (a) C

(b) There is no sample answer for this question so you can try it yourself, for exam practice.

(c) A surplus on the current account might suggest that the quality of exports being sold is very good and attractive to foreign buyers.

(d) There is no sample answer for this question so you can try it yourself, for exam practice.

(e) One method a government might use to protect the environment is to fine those that damage the environment. For example, a government might fine firms that discharge dangerous waste water into rivers, streams and other waterways. A financial penalty, if it is large enough, will discourage firms from damaging the environment because it will reduce their profits.

(f) There is no sample answer for this question so you can try it yourself, for exam practice.

(g) When the exchange rate for a country depreciates, it has an impact on the price of exports and imports. This impact is automatic and cannot be avoided by firms that trade with foreign firms. A falling exchange rate will lower the price of exports and raise the price of imports. Therefore a depreciation in the exchange rate will benefit exporters. This is because demand for exports is likely to rise when the price falls. However,

firms that import goods and services will have to pay more and therefore the volume of imports is likely to fall as demand for them declines at the higher prices.

The exchange rate in Nigeria is falling but unfortunately the current account balance is worsening. This is because the price of oil is set in US dollars and when Nigeria's exchange rate falls the proceeds from oil exports also fall. The information in Figure 3 shows that Nigeria has suffered current account deficits since 2014 when the price of oil fell.

Another problem with the depreciating exchange rate is that inflation can rise. This is because the price of imports goes up. When inflation is measured, the CPI will include a sample of goods and services in the economy, some of which will be imports. Therefore, when the price of imports rises, inflation will also rise. Inflation in Nigeria has risen to around 18 per cent since the exchange rate depreciated.

The depreciating exchange rate has clearly troubled Nigeria's economy. It is not helping to boost exports because oil is sold in US dollars. Also, demand for oil is price inelastic so the falling price is not likely to stimulate a significant increase in demand.

However, in the longer term, the depreciating exchange rate might help to improve Nigeria's balance on the current account. This is because demand for imports might eventually fall since they are more expensive. Also, demand for Nigeria's non-oil exports might begin to rise since they are cheaper. Whether the improvement comes depends on the elasticity of demand for imports and how quickly Nigeria can rebalance its economy, away from oil production.

Comment

- (a) One mark for AO1 is likely to be awarded for this multiple-choice question. The correct answer is C. GDP (gross domestic product) is used to measure economic growth around the world. In A, the RPI stands for the retail price index, and in B, CPI stands for consumer price index. These are both measures of inflation. In D, PPC stands for production possibility curve.
- (c) One mark for AO1 is likely to be awarded here. You just need to give one reason why a country might have a surplus on the current account. The reason given in this answer is that the goods sold overseas are very attractive to foreign buyers and therefore exports are strong.
- (e) Three marks for AO2 are likely to be awarded here. One mark might be given for identifying one method of environmental protection, that is, fines in this case. Two more marks are likely to be given for development. One for using an example to clarify why a fine might be imposed, that is, for discharging dirty waste water into waterways, and another for saying that fines, if they are high enough, should act as an incentive not to damage the environment.
- (g) Three marks each for AO2, AO3 and AO4 are likely to be awarded here. To gain all AO2 marks for level 3, you must demonstrate clear knowledge and understanding by developing relevant points. You must also use appropriate application of economic terms, concepts, theories and calculations. In this answer, knowledge and understanding of depreciating exchange rates is given. Two effects of a falling exchange rate are identified and economic terms such as depreciation, exchange rates, inflation, current account and imports and exports are used and clearly understood.
- To gain all three marks for AO3, your answer should demonstrate excellent selectivity and organisation. It should also interpret economic information effectively and provide a thorough analysis of issues. In this answer, the two negative impacts of falling exchange rates on Nigeria's economy are analysed effectively. For example, the answer explains that a depreciating exchange rate can cause inflation. This is because the prices of imports go up. When inflation is measured, the CPI will include a sample of goods and services in the economy, some of which will be imports. Therefore, when the price of imports rises, inflation will also rise. Inflation in Nigeria has risen to around 18 per cent since the exchange rate depreciated.
- To gain all three AO4 marks at level 3, the answer must offer more than one viewpoint. The argument must be well balanced and coherent. It must also lead to an evaluation that demonstrates full understanding and awareness. This answer not only identifies the two main negative effects of falling exchange rates on Nigeria's economy, but also considers the possible long-term effect which could be positive. This is that demand for imports will eventually fall and the demand for non-oil exports will rise, which would improve the current account. This perspective provides balance to the answer. Evidence of evaluation in the answer is the consideration shown to the importance of the price elasticity of demand for both imports and exports.

3 ► (a) D

- (b) There is no sample answer for this question so you can try it yourself, for exam practice.
- (c) Protectionism involves the use of trade barriers to reduce imports. One of the main reasons why governments use protectionism is to resist dumping. Dumping is where foreign businesses sell goods in overseas countries at below cost. This gives them an unfair advantage over domestic producers. As a result, domestic producers might start to struggle for survival.
- (d) There is no sample answer for this question so you can try it yourself, for exam practice.
- (e) Most people would argue that economic growth is beneficial. For example, economic growth is the result of firms generating more output. As firms produce more, they need more workers. Consequently, economic growth raises employment levels and thus reduces unemployment. Increases in GDP mean that on average people have more income. With more disposable income, people can buy more goods and services. They can buy better quality food, improved housing and more leisure goods. The graph in Figure 4 shows that GDP per capita in India has risen consistently from US\$1130 in 2007 to US\$1750 in 2015. This means that on average living standards in India have improved by over 50 per cent in under 10 years.

Also, due to economic growth, people are now living longer. People can afford healthier diets and are more

likely to get access to education and health care. This has helped to reduce poverty in India. A large proportion of people in India live in absolute poverty. High levels of economic growth can help to lift people out of poverty.

Another impact of high economic growth is that the government will receive a boost in tax revenues. As a result, the Indian government can invest in developing the infrastructure and spend more on services such as health care, education and provision for the poor. In India, such spending has increased the literacy rate and reduced infant mortality. In India, the government is also committed to a huge road construction programme. This will help improve communications. Firms will be able to transport goods more easily and people will be able to travel more quickly, to jobs, for example.

However, economic growth might also have a negative impact. For example, rapid economic growth can lead to inflation. If firms run short of capacity, they may not be able to meet the rising aggregate demand. As a result, inflation may rise as the economy 'overheats'. Inflation can be harmful to the economy, for example, it leads to an increase in the cost of living.

Rapid growth can also damage the environment. Environmental groups believe that the benefits of growth are outweighed by the costs of generating that growth. For example, as economies grow, more cars are purchased and more flights are taken. Both car and air transport contribute to greenhouse gases which cause global warming. According to a report by the World Bank, environmental degradation costs India about US\$80 billion a year.

To conclude, the impacts of economic growth are generally positive. For most people, the benefits of growth are greater than the disadvantages. For a developing country like India, some inflation and environmental damage may be an acceptable price to pay for lower levels of poverty, higher life expectancy, more jobs and income, better infrastructure and higher literacy levels!

Comment

- (a) One mark for AO1 is likely to be awarded for this multiple-choice question. The correct answer is D. Frictional unemployment occurs when people are temporarily unemployed as they move from one job to another. In A, voluntary unemployment is caused by people who have no desire to work at all at the 'going' wage rates. In B, structural unemployment is caused by declining industries and in C, cyclical unemployment is caused by a downturn in the economy in the trade cycle.
- (c) Three marks for AO2 are likely to be awarded here. One mark might be given for identifying dumping as a reason for protectionism. The other two marks might be awarded for further development. For example, in this answer the nature of dumping is explained for one mark, that is, dumping is where foreign businesses sell goods in overseas countries at below cost. A third mark might be awarded for explaining the effect of dumping, it gives foreign companies an unfair advantage over domestic producers. As a result, domestic producers might start to struggle for survival.

- (e) Three marks each for AO2, AO3 and AO4 are likely to be awarded here. To gain all AO2 marks for level 3, you must demonstrate clear knowledge and understanding by developing relevant points. You must also use appropriate application of economic terms, concepts, theories and calculations. In this answer, knowledge and understanding of economic growth is given. Several impacts of economic growth are identified and economic terms such as GDP per capita, aggregate demand, unemployment and inflation are used appropriately and understood.

To gain all three marks for AO3, your answer should demonstrate excellent selectivity and organisation. It should also interpret economic information effectively and provide a thorough analysis of issues. In this answer several positive impacts of economic growth are analysed effectively. For example, the answer explains that the government will receive a boost in tax revenues. As a result, the Indian government can invest in developing the infrastructure and spend more on services such as health care, education and provision for the poor. In India, such spending has increased the literacy rate and reduced infant mortality. In India the government is also committed to a huge road construction programme. This will help improve communications. Firms will be able to transport goods more easily and people will be able to travel more quickly, to jobs, for example.

To gain all three AO4 marks at level 3, the answer must offer more than one viewpoint. The argument must be well balanced and coherent. It must also lead to an evaluation that demonstrates full understanding and awareness. This answer also considers the negative impacts of economic growth. For example, growth can damage the environment. Environmental groups believe that the benefits of growth are greater than the costs of generating that growth. For example, as economies grow, more cars are purchased and more flights are taken. Both car and air transport contribute to greenhouse gases which cause global warming. According to a report by the World Bank, environmental degradation costs India about US\$80 billion a year. This provides balance to the answer. Evidence of evaluation in the answer is provided in the conclusion which states that for most people, the benefits of growth are greater than the disadvantages. For a developing country like India, some inflation and environmental damage may be an acceptable price to pay for lower levels of poverty, higher life expectancy, more jobs and income, better infrastructure and higher literacy levels.

- 4 ► (a) The percentage change in forecast government expenditure in New Zealand between 2016 and 2017 is given by:
- $$= \text{NZD } 77,110 \text{ million} / \text{NZD } 74,935 \text{ million} - \text{NZD } 74,935 \text{ million} / \text{NZD } 74,935 \text{ million} \times 100 = \text{NZD } 2,175 \text{ million} \times 100 = \mathbf{2.9 \text{ per cent}}$$
- (b) There is no sample answer for this question so you can try it yourself, for exam practice.
- (c) If people are unemployed, the productive potential of a country is not being fully exploited. As a result, levels of output are lower than they could be. This means that national income and living standards will be lower (on average). Also, people who are out of work do not make any contribution to production. This is a waste of resources and results in lower levels of national income.

If there is full employment in an economy output will be higher and income per head will be higher. In some countries, youth unemployment is very high. This is the case in Turkey where general unemployment is 12 per cent but youth unemployment is 28 per cent. Many consider that this is particularly wasteful and demoralising.

In some developing countries, many people have never worked in their lives. There have never been any employment opportunities for them. As a result, they have to live in poverty. They may try to make a subsistence living by growing some food on a plot of land, for example. But even in developed countries such as Turkey, most people who find themselves without a job have to suffer hardship. Their incomes fall because state benefits are generally lower than wages. In extreme cases, unemployed people lose their homes because they cannot meet mortgage payments. Sometimes the costs can extend to family break-ups and a lower self-esteem for those who are long-term unemployed.

In most developed countries, when people are unemployed they are entitled to receive some financial benefit from the state. If unemployment levels rise, the government has to allocate more money to unemployment benefit. For example, in this case, the cost of youth unemployment alone is said to be £25 billion per annum. This extra expenditure will incur an opportunity cost. For example, the money could be better spent on education or health care in Turkey.

When unemployment rises, tax revenues will fall because most taxes are linked to income and spending. This means the Turkish government has less to spend and may have to cut public sector services. Alternatively, it may borrow more which will increase national debt or it may have to increase tax rates. For example, taxes on incomes, corporate profits and spending may have to rise.

Unemployment can also have a negative impact on business confidence. When firms lay off workers, they have to pay them redundancy money. Also, the remaining workers may be demotivated because they may fear that they are next. A firm will be left with spare capacity when laying people off and there is likely to be a fall in demand. Sales are likely to fall for most businesses when unemployment starts to rise in the economy. This is because people have less to spend. However, firms producing non-essential goods and services are likely to be hit harder. All these effects are likely to reduce the confidence of business decision makers. As a result they are likely to become risk averse and postpone or cancel investment projects.

Sometimes unemployment can have an impact on local communities. For example, in some towns and villages, a large proportion of the population may be employed by the same business. If this business closes down, local unemployment can be very high indeed. As a result, the spirit in many of these communities deteriorates. Such areas become run down. Smaller businesses start to struggle and fail. Households do not have enough money to maintain their houses and gardens and the residential environment starts to look 'shabby'.

Unfortunately, there are few, if any, positive effects of unemployment. The only real benefit might accrue to firms that are recruiting staff. They will have a larger pool of labour to choose from. There may also be downward pressure on wage rates as the supply of labour increases. Most people in Turkey, and in other countries where unemployment is high, would say that the impact of unemployment is very negative and that the government should take measures to reduce it. For those who lose their jobs, and for the youngsters who are desperate for job opportunities, unemployment can be particularly painful.

Comment

(a) Two marks are likely to be awarded for AO2 here: one mark for identifying the correct numbers to be used and one for arriving at the right answer. The percentage change is given by:

$$= \text{NZD } 77,110 \text{ million} / \text{NZD } 74,935 \text{ million} - \text{NZD } 74,935 \text{ million} / \text{NZD } 74,935 \text{ million} \times 100 = \text{NZD } 2,175 \text{ million} \times 100$$
= 2.9 per cent

(c) Four marks each for AO2, AO3 and AO4 are likely to be awarded here. To gain all four AO2 marks for level 3, you must demonstrate clear knowledge and understanding by developing relevant points. You must also use appropriate application of economic terms, concepts, theories and calculations. In this answer, several impacts on a country of unemployment are identified such as a fall in the productive potential of the economy, lower tax revenues for the government, lower living standards and higher costs to the government. Economic terms such as productive potential, national income, labour supply and business confidence have been used appropriately in context and demonstrate clear understanding.

To gain all four marks for AO3, your answer should demonstrate excellent selectivity and organisation. It should also interpret economic information effectively and provide a thorough analysis of issues. In this answer, several impacts of unemployment were analysed. For example, unemployment can have a negative impact on business confidence. When firms lay off workers, they have to pay them redundancy money. Also, the remaining workers may be demotivated because they may fear that they are next. A firm will be left with spare capacity when laying people off and there is likely to be a fall in demand. Sales are likely to fall for most businesses when unemployment starts to rise in the economy. This is because people have less to spend. All these effects are likely to reduce the confidence of business decision makers. As a result, they are likely to become risk averse and postpone or cancel investment projects. This is an example of very detailed analysis.

To gain all four AO4 marks at level 3, the answer must offer more than one viewpoint. The argument must be well balanced and coherent. It must also lead to an evaluation that demonstrates full understanding and awareness. In this case, the answer does consider the possible positive impacts of unemployment such as falling wage rates which will benefit firms. However, in evaluation, there is a clear view that unemployment is generally bad for a country such as Turkey and few would disagree with that. The conclusion is expressed directly and coherently.