

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 1

Key skills exercises

- 1 The fundamental economic problem is one of scarce resources but unlimited wants.
- 2 Resources are inputs available for the production of goods and services.
- 3 Wants are goods and services that people *may like* but are not always realised. Needs are things that *are necessary* for survival.
- 4 Scarcity occurs because wants and needs are greater than the resources available.
- 5 Individuals, firms and governments have to make choices because their resources are scarce in relation to their wants and needs.
- 6 Opportunity cost is the cost in terms of the next best alternative that is foregone when a choice is being made.
- 7 The three basic questions of resource allocation are:
 - what to produce – which goods and services and in what quantities
 - how to produce – how to use resources to get the maximum production
 - for whom to produce – whether some will get more than others or whether all will get the same.
- 8 Resources from taxation are limited. Wants in terms of spending possibilities are unlimited. This means that choices have to be made in preparing the budget.
- 9 Three decisions the Indian government has to make in determining the size of the budget are:
 - Whether to have a budget deficit or budget surplus. (A budget deficit is when spending is greater than income from taxation. A budget surplus is when income from taxation is greater than spending).
 - How to choose which areas of spending to increase and which to decrease.
- 10 Opportunity cost can be used to determine the cost of the best alternative once the size of the budget has been determined. Items of expenditure can be ranked in terms of the choices that are likely to produce the greatest benefits.
- 11 The Indian government has addressed the question of What to produce. Figure 1.1 in the workbook indicates where government spending is to occur.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay question

1 Improve this answer

This is an improved answer for Q1. The skills have been annotated.

The fundamental economic problem is important in a study of economics. It affects families, firms and governments. The problem everyone faces is that because their resources are scarce and wants and needs are unlimited, choices have to be made.

There is an important difference between wants and needs. Wants are goods and services we would really like to have, whether or not we have the income or other resources to buy them. Needs are different – these are goods and services that are essential for survival and include food, housing and other essentials. Families must use their resources to purchase needs before buying their wants [K].

The fundamental economic problem can be applied to my family. Our income is limited to what is being earned by two family members. All of us would like more wants than we can afford. Needs have to come first and the family's income has to be allocated in the best way possible. Initially, this is to satisfy needs, with any spare income being spent on wants, like a new scooter for myself or a new electronic device for my elder brother [A].

Opportunity cost is the cost of the next best alternative. A good way of making choices is to rank purchases in priority order in terms of their benefit to our whole family [A]. When the decision is taken to buy something like new trainers, the money being spent on the trainers is not being used to buy anything else. If a new tracksuit is the next alternative to trainers, the tracksuit that is not bought is the opportunity cost of the trainers [E].

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> Workbook answers

Chapter 2

Key skills exercises

- 1 Microeconomics is the study of how consumers and businesses behave and interact in individual markets.
- 2 Macroeconomics is the study of an economy or group of economies.
- 3 Economists use models in order to provide a simplified view of the reality. The models can then be used to test a particular theory.
- 4 A positive statement is one that is based on fact or on actual evidence.
- 5 A normative statement is one that is based on the economist's own opinion or on a value judgement that cannot be proven and is linked to what ought to be.
- 6 *Ceteris paribus* is widely used by economists where other things remain equal. It is used to simplify change in complex situations. Apart from a single change, everything else is unchanged.
- 7
 - The short run is a time period when a firm can change at least one but not all factor inputs.
 - The long run is a time period when all factor inputs can be changed but where there is a constant state of technology.
 - The very long period is when all inputs into the production process are variable or can be changed.
- 8 Microeconomics questions: Why do some women earn less than men? Why do we ignore information that could help us make better decisions?
- 9 Macroeconomics questions: Why are some countries rich and some countries poor? How can data help us understand the world? What causes recessions?
- 10 The questions are normative statements because each contains some subjective opinion or value judgement.
- 11 Typical positive statements may include:
 - Women earn 10% less pay in the same job as a man.
 - Information on the dangers of cigarette smoking is essential information for those wanting to quit smoking.
 - Rich countries have more productive resources than poor countries.
 - Data on the extent of greenhouse gas emissions provides a clear record of climate change across the world.
 - Recessions are caused by factors such as a global financial crisis or an unexpected event like the COVID-19 pandemic.
- 12 Economics is a social science for two reasons. First, economics is a study of human behaviour. Consumers, managers of firms and government ministers act in various ways when satisfying human needs and wants. Secondly, economics is a science through the way in which economists apply scientific method in their investigation of economic problems.

Practice question

Multiple-choice question

- 1 See worked example in the workbook.

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> Workbook answers

Chapter 3

Key skills exercises

- 1 A factor of production is the means by which an economy produces goods and services.
- 2 Land as a factor of production is the many natural resources in an economy.
- 3 Labour as a factor of production is the human resources that are available in an economy.
- 4 Capital as a factor of production is the human-made resource that aids the production of goods and services.
- 5 Enterprise as a factor of production involves organising production and taking risks.
- 6 The main difference is in terms of GNI per head:
 - low-income country \$1025 or less
 - lower middle-income country \$1026 to \$3995
 - upper middle-income country \$3996 to \$12375
 - high-income country \$12375 and above [Source: World Bank].
- 7 Physical capital is human-made. Human capital is the quality of labour.
- 8 Economic growth occurs when there is an increase in an economy's productive potential.
- 9 Specialisation occurs when individuals, firms and economies concentrate on producing those goods and services for which they have an advantage over others.
- 10 Division of labour is when a manufacturing process is split into a sequence of individual tasks.
- 11 Beaches, wildlife
- 12 Entrepreneurs, youth labour
- 13 Sugar processing factories, hotels
- 14 **Outline:** Mauritius is a small island economy heavily dependent on international tourism, the receipts from which are closely related to economic conditions in high-income countries that generate these tourists. Pressures to cut back on long haul air travel in order to combat climate change are likely to reduce visitor numbers. Also related to climate change is the added, growing risk posed by severe tropical storms.
- 15 See worked example in the workbook.

Practice questions

Multiple-choice question

- 1 B.
Economies that allocate more resources to education and training do so to increase their future rate of economic growth.

Essay questions

1 Improve this answer

This concluding paragraph would improve the answer for Q1. The skills are annotated.

An increase in demand should be good news for the garment manufacturer. If it can be organised in time, before other suppliers increase their production, the business can add to its supply [E]. The entrepreneur can try to improve efficiency in the short run by adding a new shift to the workings of the factory. This assumes that 24-hour 7-days-a-week working is not taking place and there is a supply of trained labour willing to do the work [E]. A second way, which could involve less risk, would be to build up stock in a warehouse with a view to selling it as and when the market demands. A longer-term approach, provided market conditions remain favourable, would be to invest in additional capital resources to increase the productive capacity of the business [E].

2 **Outline:** Human capital refers to the quality rather than the quantity of labour [K]. Human capital is important for an economy that is planning to increase its productive potential. The term covers the skills, qualifications and experience of a country's labour force. It can be viewed as an investment for economic growth. Physical capital is human-made. It includes factories, vehicles, IT, infrastructure and so on [A].

Both types of capital are important for an entrepreneur growing a business. The quality of the entrepreneur's ideas matters in the first instance. Capital will usually be needed to turn the entrepreneur's ideas into reality [E].

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> Workbook answers

Chapter 4

Key skills exercises

- 1 A market system/mechanism is where resource allocation decisions are taken by individual producers and consumers with no government intervention. Prices are determined by demand and supply.
- 2 A market economy is an economic system where most decisions are taken through the market system/mechanism. The USA is an example of a market economy.
- 3 A planned economy is an economic system where resources are state-owned and allocated by a central body. North Korea is this type of economy.
- 4 A mixed economy is an economic system where both market forces and government are involved in resource allocation decisions. The degree of state intervention and role of the free market is likely to change over time. Pakistan is an example of a mixed economy.
- 5 The key difference is the respective roles of government and the market system. Planned economies have extensive government control over decision-making. In mixed economies there tends to be a balance in the respective roles of government and market forces. In market economies decision-making is carried out solely by market forces.
- 6 The roles of the private sector and public sector are variable in mixed economies. There has been an increasing emphasis on the private sector relative to the public sector. For example, in combating the effects of the COVID-19 pandemic, many mixed economies have temporarily extended the role of the public sector relative to the private sector.
- 7 An emerging economy is one that is becoming more involved in international markets. Brazil is a typical example.
- 8 Resource allocation problems included: shortages of supplies, queuing and high levels of air pollution. These problems arise through the difficulty of forecasting future resource needs and responding to changing needs. The polluted environment can be due to state ownership of inefficient basic industries.
- 9 Economists could look at data on government spending as a percentage of GDP. A decreasing percentage over time should indicate a transition from a planned economy to a mixed/market economy.
- 10 Poland's transition to a mixed economy includes: sale of former state industries to home-grown entrepreneurs or to foreign investors, free movement of labour, rising living standards, increase in ownership of private cars. These are all features of a market economy.
- 11 **Outline:** The data refers to examples of how there has been an increase in the quantity and quality of resources in Poland's economy. These have assisted economic growth.
Foreign investment, from the EU and private sources, and domestic funding from Polish entrepreneurs have been important in generating economic growth. A hard-working population is also referred to. There is also a likely positive skill transfer through former migrants returning to Poland.
- 12 See worked example in the workbook.

Practice questions

Multiple-choice question

1 D.

This is the minimum for public sector involvement in a pure market economy. A is a characteristic of other economies as well as a pure market economy. B and C are not characteristics of a pure market economy; they are more likely to be features of a command economy.

Essay questions

1 **Outline:** The market has a different role to play in each type of economy. In a mixed economy, government oversees the workings of the market and provides essential services such as public goods and merit goods [K]. In some mixed economies, the government may provide some goods and services such as water and railways. In a true market economy, the government has only a supporting role in resource allocation compared to firms and consumers – public goods and regulations may be the extent of this role [A].

Both types of economy provide consumers' needs but in a different way. A mixed economy is likely to be more effective through its provision of merit goods [E].

2 **Improve this answer**

This is an improved answer for Q2. The skills have been annotated.

Over the past 20 or 30 years, many economies, particularly in central and eastern Europe, have made the transition from a socialist planned economy to one which meets the criteria for a mixed economy. The process has required that there be a greatly reduced role for government and a more extensive one for market forces [K].

The transitional process takes time and involves selling off state-run businesses such as steel, coal and cement manufacturing to new private owners. Some of these owners are likely to be multinational companies, others could be local entrepreneurs who are willing to take the risks that are involved. For the few who might succeed in a big way others succeed in a more modest way or not at all [A].

The market system allocates resources in a mixed economy through the process of demand and supply. Decisions are taken without government involvement. So, for example, if a product is in short supply, production is expected to increase with a resulting fall in the market price [A].

The transition from a planned to a mixed economy cannot happen if there is no enterprise backing and no entrepreneurs willing to take risks. This is the key to the funding that is required to make the change from a planned to a mixed economy, in particular through the purchase of former state-owned businesses [E].

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> Workbook answers

Chapter 5

Key skills exercises

- 1 A PPC is a simple model that shows the maximum level of output that an economy can produce given its current resources and state of technology.
- 2 A PPC is also known as a production possibility frontier because it shows the maximum level of output that can be achieved.
- 3 A point on the PPC shows the possible combinations of the two goods where there is an efficient allocation of resources.
- 4 A movement along a PPC indicates a re-allocation of output between the two goods while ensuring an efficient allocation of resources.
- 5 An economy operates from a point inside its PPC when there is an inefficient allocation of resources. The economy is producing less of both goods than it could, given the resources available.
- 6 A point outside the PPC is not a possible outcome since the economy does not have the resources required to achieve this level of output.
- 7 The PPC shows the maximum outputs of agricultural goods and manufactured goods that can be produced, given current resources and the state of technology.
- 8 Point Y is cannot be achieved as the economy does not have sufficient resources to produce at this point. Point Z indicates that not all available resources are being used.
- 9 The trade-off is because some of one good has to be given up to produce more of the other good. This means that some manufactured goods have to be sacrificed to produce more agricultural goods.
- 10 See worked example in the workbook.
- 11 The entire PPC will shift outwards, indicating that more of each good can now be produced.
- 12 An increase in employment will result in point Z moving closer to the production frontier. An increase in unemployment will lead to point Z moving back towards the origin.
- 13 If the economy is at any point on the PPC, it is impossible to produce more of one good without decreasing the quantity produced of the other good. So, if more manufactured goods are produced, a quantity of agricultural goods has to be given up. This sacrifice is the opportunity cost. The extent of what is given up depends on the shape of the PPC – at its steepest part less manufactured goods are sacrificed for a given amount of agricultural goods than at a flatter part of the PPC.
- 14 **Outline:** Expanding the manufacturing sector is an appropriate strategy for a lower middle-income country. With low labour costs, exports of low value products especially should be possible, as shown in the case of Vietnam. It is good for a country to reduce its dependence on agricultural products as this market can be more volatile. There will be costs involving the loss of agricultural output and the livelihoods of small farmers and agricultural workers.
- 15 The PPC model is a highly simplified view of an economy but may have some validity for a particular firm making a production decision e.g. a company choosing to make lap over desktop computers. Its value is in showing what is meant by an efficient allocation of resources and how a reallocation of resources affects the economy. Realistically, economies produce hundreds of different products and there are many factors that determine the shape and changes of a PPC for a combination of any two of these products.

Practice questions

Multiple-choice question

1 B.

An improvement in the quality of seeds available to farmers represents a more efficient use of agricultural land meaning more agricultural goods can be produced. Productivity in the economy increases. The PPC will shift outwards meaning that more manufactured goods could also be produced.

Essay questions

- 1 **Outline:** The key point is that the opportunity cost of allocating resources varies as resources are allocated between the two goods. This can be explained in a diagram. The closer to the maximum output, the greater the opportunity cost of the best next alternative [A].
Opportunity cost is zero when no alternatives are available for re-allocation [E].

2 **Improve this answer**

These two additional paragraphs, which follow the sample answer in the workbook, would improve the answer for Q2. The skills have been annotated.

As a factor of production, enterprise, through an entrepreneur, has two main functions in the economy. The first function is to organise the other three factors of production in such a way that will shift the PPC outwards. The second function is that the entrepreneur must be prepared to take risks if this is to happen. Being prepared to take risks is an important part of the entrepreneur's role as the outcome may be financial losses [A].

Enterprise is the most important economic reason for the shift outwards of a production possibility curve in many situations. The other factors of production, especially capital, have a role to play but the shift of the PPC outwards will be more sustained if it is being managed in an enterprising dynamic economic environment [E].

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> Workbook answers

Chapter 6

Key skills exercises

- 1 A free good is not scarce and has zero opportunity cost.
- 2 A private good is one that is consumed by one person and not available to anyone else.
- 3 A public good is non-excludable as it is not possible to stop anyone from using it.
- 4 A public good is non-rival since consumption by one person does not reduce consumption by anyone else.
- 5 A quasi-public good has some but not all of the characteristics of a public good.
- 6 A free rider is someone who enjoys the use of a public good without having to pay for it.
- 7 Examples of a public good include:
 - A flood control system. It is non-excludable since everyone living in the area of flood-risk benefits from the system. It is non-rival since each person benefits to the same extent.
 - Street lighting. This public good is non-excludable since it is available to anyone using a street. It is non-rival since all people benefit to the same extent.
- 8 Information failure occurs in any situation where consumers do not have complete information available when making decisions. Information failure prevents consumers making rational decisions.
- 9 A merit good is thought to be desirable for consumers, but is underprovided by the market because of information failure.
- 10 Examples of a merit good include:
 - An inoculation against polio. People who are eligible for an inoculation may not appreciate the benefits to themselves and to the economy of reduced infections.
 - University education. The benefits in terms of future pay and job prospects may not be properly understood by secondary school leavers and their families.
- 11 A demerit good is thought to be undesirable for consumers and is overprovided by the market because of information failure.
- 12 Examples of a demerit good:
 - High sugar drinks. Consumers do not realise how much sugar there is in these drinks. Overconsumption can cause health problems such as diabetes.
 - 'Junk food'. Consumers are not aware of the contents of what they are eating. Overconsumption, especially by children, can lead to obesity.
- 13 See worked example in the workbook.
- 14 Consumers lack relevant information on the benefits of healthcare. In some countries the correct sort of information may not be available.
- 15 The provision of healthcare services by the private sector is a private good since it is consumed by the person who receives the services and is not available to anyone else.
- 16 African governments, like those elsewhere, face the fundamental economic problem when funding healthcare. If more spending is allocated to healthcare, the opportunity cost is the funding of the next best alternative.

- 17 Outline:** In an ideal world, healthcare should be available free of charge to all in Africa. This would help to provide a healthier population. Charging is a way of restricting demand for healthcare services.
- 18 Outline:** The benefits of a healthier population are that individuals can become more productive and the economy is likely to experience a higher rate of economic growth. To fund this would require an increase in taxation and government budgets, with the possibility of less funding for other areas of government spending.

Practice questions

Multiple-choice question

- 1 C.**
University education is a form of investment in future human capital, leading to an increased economic growth rate.

Essay questions

- 1 Outline:** Demerit goods are neither public goods nor merit goods and will not therefore be provided by the government. Demerit goods have side effects on others, something that government provision would not allow as it distorts prices **[K]**. The private sector can see an opportunity to profit from the provision of demerit goods.

The private sector provides merit goods, but only for those who can afford to pay or where the government contracts the private sector to supply. This would rule out consumption by those who are unable to pay for healthcare **[A]**. It is for this reason that the government provides. Where the private sector provides, this takes some pressure off the government's provision of merit goods **[E]**.

- 2 Improve this answer**

This is an improved answer for Q2. The skills have been annotated.

A public good is one that is provided by the government out of tax revenue. Typical examples are the local police and fire service, or street lights along roads in cities. A public good is an example of market failure, since the private sector is not able to provide them due to problems of how to charge and what to do about 'free riders' **[K]**.

Public goods have two fundamental characteristics. The first is that they are non-excludable. This means that it is not possible to stop anyone benefiting from them, even though they may not have made even a small contribution through taxation. This is called the free rider problem. This means that once provided, the benefit to everyone is the same – as consumption increases with more people consuming the public good, the benefit to the early consumers remains as it was. In the case of street lights, everyone benefits from them to exactly the same extent as anyone else **[A]**.

A pure public good is rare, but refers to cases where both of the above characteristics apply in full. The national army, or possibly a lighthouse, are typical examples. A quasi-public good is one that has some but not all of each of the two characteristics. A public cricket pitch is an example. Nobody can be excluded, but as more and more people want to play cricket, there is not enough space, and so the cricket pitch is no longer non-rival **[E]**.

- 3 Outline:** Higher education is a merit good since it has positive side effects on those who successfully complete a qualification **[K]**. Left to the free market, higher education will be under consumed and under provided, due to information failure. The government's role should be to promote the benefits, including provision of scholarships and grants to students **[A]**.

The free market price is likely to understate the benefits. Tuition fees paid by individuals do not take into account the total longer-term benefits in terms of increased salary, compared to a person not having access to higher education. The benefits to the economy are difficult to estimate, although will include increased economic growth **[E]**.

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> Workbook answers

Chapter 7

Key skills exercises

- 1 The price mechanism is the means of allocating resources in a market economy.
- 2 A market is where buyers and sellers get together to trade.
- 3 Demand is the quantity of a product that consumers are willing and able to buy at different prices.
- 4 Supply is the quantity of a product that producers are willing and able to sell at different prices.
- 5 Notional demand is not always supported by the ability to pay. Effective demand is supported by the ability to pay.
- 6 A demand curve represents the relationship between the quantity demanded and the price of a product.
- 7 A supply curve represents the relationship between the quantity supplied and the price of a product.
- 8 Normal goods are products whose demand increases as income increases. Inferior goods are those where demand decreases as income increases.
- 9 A movement along a demand curve shows how the quantity demanded responds to a change in the price of the product.
- 10 A movement along a supply curve shows how the quantity supplied responds to a change in the price of the product.
- 11 Factors that affect the demand for goods and services include:
 - Income – the ability to pay determines effective demand. An individual's demand for goods and services depends upon [disposable] income.
 - Prices of other goods – a change in the price of a substitute or complement will affect the demand for a given good or service.
 - Fashion, taste and attitudes – consumers have their own likes and dislikes which affect their demand for a good or service.
- 12 Factors that affect the supply of goods and services include:
 - cost – the cost of production and distribution to customers
 - size and nature of the industry – a growing industry will supply more products to the market
 - change in price of other products – businesses need to be continuously aware of the prices charged by competitors
 - government policy – indirect taxes and subsidies affect the supply of goods and services
 - other factors – a wide range of other considerations, such as weather conditions.
- 13 **Outline:** The supply of orange juice is unstable because of unpredictable weather conditions. Orange plantations have also experienced disease which has affected supply. Where there is a fall in global supply, the price of oranges can be expected to increase. An increase in the global supply is likely to result in a fall in the price of oranges, followed by a fall in the price of orange juice.
- 14 A reduction in the price of orange juice should result in an increase in the quantity demanded. This change to the market situation can be shown by a movement along an individual's demand curve or a movement along the market demand curve.

- 15** Increasing awareness of obesity contributes to a fall in demand for orange juice in the USA. This can be shown by a shift to the left of the market demand curve for orange juice in the USA.
- 16 Outline:** The case study gives the following reasons for the decline in orange juice sales in the USA: increasing concerns over the link between sugar in orange juice and the increase in obesity and diabetes; growing consumption of substitutes such as apple juice and smoothies; lifestyle changes including fewer people eating sit-down breakfasts. In the absence of data, it is difficult to say which reason is the most important as each of the three reasons is feasible. Even then some value judgement is needed.
- 17 Outline:** The global price of orange juice is determined by the interaction of demand and supply in the market. It is clear that both sides are subject to change in any one year, particularly the supply-side. The relative strength of each will determine the respective shifts in the global supply and demand curves, and therefore the change in the global price of orange juice. The evidence indicates that demand-side factors are on-going; those affecting supply are less predictable.

Practice questions

Data response question

- 1** See worked example in the workbook.

Essay questions

1 Improve this answer

This is an improved answer for Q1. The skills have been annotated.

There are various factors that determine the demand for a product, in this case holidays taken by international tourists to Mauritius. Demand is taken to mean effective demand, the demand that is fully supported by an ability to pay. Economic theory recognises three factors that determine demand for a product. They are income, the price and availability of substitutes and complements, and a set of variables referred to as fashion, taste and attitudes [K].

Income, or more correctly disposable income, is an important determinant of demand for most products, especially for what is a superior good like a holiday to Mauritius. In general, as incomes rise consumers will demand more normal and superior goods. If income falls, then the demand for this type of holiday will fall [A].

The price and availability of substitutes is a second factor. There will be many alternatives to Mauritius for those seeking an exotic holiday – the Caribbean islands for example. The price of substitutes is also relevant. The overall holiday price, and the quantity demanded, also depends on the other things that tourists have to pay for at the destination, for example, accommodation, food and activities [A].

The third group of factors are more behavioural in the decision-making process. Mauritius is a fashionable place to go for holidays and this may be an over-riding demand-side factor. For others, the temperature may be too hot, and it is not a possible place for a holiday for those who do not like spicy food. [A]

As indicated earlier, it would seem that income is most likely to be the most important reason why people would want to take a holiday in Mauritius. The other factors would seem to be secondary; if consumers cannot afford these holidays, there is little point in considering Mauritius as a holiday destination [E].

- 2 Outline:** Planting more trees will lead to a shift in the supply curve for avocados. If the producer does this, supply will increase and the price of avocados is likely to fall if there is no change in demand [A]*. One producer, though, will not affect the overall market price but if other producers increase supply, the fall in price could be greater [E].

If demand is projected to grow, the price of avocados can be expected to increase if there is no change in supply [A]*. If the growth in demand is only temporary, the producer would be better advised to raise the price [E].

The producer will have to consider both possibilities and assess which is likely to be most appropriate given knowledge of the market [E].

*The analysis for this question could be enhanced through the use of demand and supply diagrams. The diagrams should show a shift to the right of the supply curve and a shift to the right of the demand curve.

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> Workbook answers

Chapter 8

Key skills exercises

- 1 Elastic: where the relative change in the quantity demanded is greater than the change in price, income or the prices of substitutes and complements
Inelastic: where the relative change in the quantity demanded is less than the change in price, income or the prices of substitutes and complements
- 2 Price elasticity of demand (PED) is a numerical measure of the responsiveness of the quantity demanded to a change in price of the product.
$$\text{PED} = \% \text{ change in quantity demanded} / \% \text{ change in price}$$
- 3 Price elastic is where the relative change in quantity demanded is *greater* than the change in the price of the product. Price inelastic is where the relative change in the quantity demanded is *less* than the change in the price of the product.
- 4 Factors that affect the price elasticity of demand (PED) of a good or service include (any three):
 - the availability and attractiveness of substitutes – the greater the number of substitutes and the more closely they can be substituted, the higher will be the price elasticity of demand.
 - the relative expense of the product – the greater the relative proportion of income spent on a product, the higher will be the PED.
 - the time period – the PED is likely to increase over time as consumers become aware of what other products are available.
- 5 Income elasticity of demand [YED] is a numerical measure of the responsiveness of the quantity demanded to a change in income.
$$\text{YED} = \% \text{ change in quantity demanded} / \% \text{ change in income}$$
- 6 Demand for a product is income elastic when the percentage change in quantity demanded is *greater* than the percentage change in income. Demand for a product is income inelastic when the percentage change in quantity demanded is *less* than the percentage change in income.
- 7
 - Normal good – the quantity demanded increases as income increases.
 - Inferior good – the quantity demanded decreases as income increases.
 - Necessity good – a type of normal good for which the quantity demanded is unlikely to change when income changes.
 - Superior or luxury good – the income elasticity of demand is greater than 1, indicating that the quantity demanded is very responsive to an increase in income.
- 8 Cross elasticity of demand (XED) is a numerical measure of the responsiveness of the quantity demanded for a product following a change in price of a related product.
$$\text{XED} = \% \text{ change in quantity demanded of product A} / \% \text{ change in price of product B}$$
- 9 Two goods are substitutes when the XED is positive; two products are complements when the XED is negative.

- 10** $PED = 1.5$ ($15\%/10\%$) This indicates that the demand for meals is price elastic.
- 11** The estimate of -0.8 means that the demand for meals at Mr Patel's restaurant is income inelastic; demand is expected to decrease when income increases, making these meals an inferior good.
- 12** If Mr Patel's competitor increases the price of meals by 10% , Mr Patel will experience a 12% increase in quantity demanded for his restaurant meals. The two restaurant meals are substitutes, with a reasonably strong relationship.
- 13** **Outline:** It is not easy to obtain reliable data to estimate any of the three elasticities. This is why it is best to view them as estimates. Mr Patel's son would have to collect data over two different time periods to estimate each of the elasticity values. He would also have had to obtain data on the price and number of meals sold at the competitor's restaurant.
- 14** See worked example in the workbook.

Practice questions

Multiple-choice question

- 1** C.
The YED is $40\%/20\% = 2$ This estimate indicates that the quantity demanded is income elastic.

Essay questions

- 1** **Outline:** The PED of a product depends on the availability and attractiveness of substitutes, the nature and availability of the good and its expense relative to income and the time period [K]. Which is most important is dependent on the type of good [E].

For example, a staple food like rice will have a low, inelastic PED. As a necessity good, consumers will buy similar quantities almost regardless of price. For people on low incomes, expenditure on rice will take up a sizeable proportion of their income and they will find it difficult to change their eating habits in the short term. The demand for rice is therefore price inelastic [A].

Take the case of a television set. This is likely to be price elastic since there are many makes and models available. The expense is likely to take up a large proportion of most people's income and is not really a necessity. So, the demand for new televisions is likely to be price elastic [A].

The two examples show how different factors affect the PED for a good. In general, it is not possible to say which is the most important as this depends on the type of good [E].

- 2** **Outline:** YED can be used to classify goods in relation to changes in the incomes of consumers. A normal good will have a positive YED, between 0 and 1. The YED of an inferior good will be negative. Necessities will have a positive, low value close to 0. Luxury goods have a positive YED, above 1 [A]. This is only a general guide. It is often difficult to say in which category a particular good belongs. This is due to differences in the income levels of consumers. For example, a bicycle may be a luxury good for someone in a low-income country, yet an inferior good [relative to a motor scooter] in a middle-income country [E].

- 3** **Improve this answer**

This is an improved answer for Q3. The skills have been annotated.

Income elasticity of demand (YED) is a measure of the responsiveness of the quantity demanded to a change in income. It is a positive number for normal goods and a negative number for inferior goods [K].

Cross elasticity of demand (XED) is different. Cross elasticity is a measure of the responsiveness of the quantity demanded for one product following a change in price of another related product.

If the value is positive then the products are substitutes; a negative value indicates that the goods are complements [K].

Both measures can be helpful to the government agency when seeking to expand its tourist industry. The usefulness of each will now be considered.

The sign and size of the estimate of YED are key things. A high positive value for YED indicates that the tourist destination in question is a superior one. This is good. A negative value indicates that the destination is an inferior good – a rise in income on the part of tourists will lead to a fall in visitor numbers. If this is the case, then advertising the best features of the place may help to counteract a fall in tourist numbers [A].

The size and sign of the XED figure are also very important as they will provide some evidence about how this destination compares with its competitors. It will be particularly useful where destinations are similar such as in the case of Caribbean islands, or places that attract only older tourists. A positive coefficient is expected. The higher its value, the more we are dealing with close substitutes [A].

It is difficult to say which of the two measures is likely to be most useful for the government agency. The YED figure is probably of more value in terms of future planning. The XED figure is of more immediate value since it provides information on how competitive one destination is compared to a neighbouring destination [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 9

Key skills exercises

- 1 Price elasticity of supply [PES] is a numerical measure of the responsiveness of the quantity supplied following a change in the price of the product.

$$\text{PES} = \% \text{ change in quantity supplied} / \% \text{ change in price}$$
- 2 Price elastic supply is when the quantity supplied responds *more* proportionately to a change in the price of a product; price inelastic supply is when the quantity supplied responds *less* proportionately to a change in the price of the product.
- 3 Three factors that affect the PES include:
 - Availability of stocks – if a business can build up, reduce or hold stock, it means that it can respond more easily to changes in the price of the product.
 - Time period – how long it takes or the ease with which a business is able to change production in response to a price change.
 - Productive capacity – an increase in investment in a business will increase its productive capacity, making it easier for supply to respond to a change in the price of the product.
- 4 $\text{PES} = 10\% / 25\% = 0.4$
 The supply of water pumps from the Kenyan producer is price inelastic.
- 5 $\text{PES} = 50\% / 25\% = 2$
 The supply of water pumps from the German manufacturer is price elastic.
- 6 The German manufacturer is likely to have more unsold stock or more spare manufacturing capacity than the Kenyan producer.
- 7 The difference in the PES estimates means that the German manufacturer can respond in a more agile way than the Kenyan producer when the price of water pumps changes.
- 8 Assuming they are still willing to supply, the Kenyan producer would supply 8 fewer water pumps, the German manufacturer 40 fewer units. The explanation is:
 If x is the change in the quantity supplied:
 Kenyan producer $0.4 = (x / 200) \times (1/10\%)$
 German producer $2 = (x / 200) \times (1/10\%)$
- 9 See worked example in the workbook.
- 10 The obvious way is to stockpile water pumps and to release them onto the market when the price is appropriate. A longer-term approach would be to organise additional factory capacity on the assumption that the price of water pumps will increase in the future.

Practice questions

Multiple-choice question

- 1 A.
 The PES is equal to $60\% / 25\%$ which equals 2.4. This is a price elastic supply.

Essay questions

- 1 Outline:** Most agricultural products have a supply that is price inelastic. This is because yields and output are variable from one season to the next, due to climatic factors such as drought, floods and tropical storms. Disease can affect livestock production [A].

A good answer to this question should have two diagrams: one diagram should show a shift to the left of a market supply curve; the other diagram should show a shift to the right of a market supply curve. The diagrams can be analysed to show the volatility of prices and producer incomes [A].

Making the supply of agricultural products less price inelastic and more elastic is difficult. This is particularly true where the products are perishable. In other cases, holding stock in a cool warehouse or organising processing of products may help [E].

- 2 Improve this answer**

This is an improved answer for Q2. The skills have been annotated.

The price elasticity of supply (PES) is the term used to measure the responsiveness of supply to a change in the price of a product. Price elasticity of supply is calculated by the following formula:

$$\text{PES} = \% \text{ change in quantity supplied} \div \% \text{ change in price.}$$

PES is a numerical measure that is always positive, since it is assumed that a producer will supply more when the price increases. An estimate of less than 1 indicates that supply is price inelastic; an estimate greater than 1 represents a situation where the quantity supplied is responsive to a change in price [K].

It can be assumed that, unlike an agricultural producer, the manufacturer of garments in Bangladesh will have a relatively elastic price elasticity of supply [K]. With an elastic supply, the garment manufacturer is able to respond quickly to a change in price. This is because there are certain ways in which the quantity of garments can be controlled depending upon price changes.

The first factor that can make the PES more elastic is through building up stock and holding this in a warehouse [K]. Stock can be released or stored as the market price changes. If there is a surge in demand, the manufacturer has the means to meet it. In the short term, production can be increased by operating an additional shift or by getting workers to work longer hours [A].

A second and related factor is the time period. If a firm has spare manufacturing capacity, then this can be quickly put into production, or removed from production, if market prices change [A]. It will also depend on whether there are skilled workers looking for a job.

There may be a third longer-term option. This would be to increase the size of the business through an expansion in capacity to produce garments. This will involve new investment, and very likely new technology [A]. It will also require the manufacturer to be reasonably certain that there will be a future market for these products.

As analysed above, there are several factors that will determine the PES of the garment producer in Bangladesh. Of these, the time period can be viewed as being particularly important, since supply changes could be implemented quickly or take a much longer time to come about. The risk with longer-term measures is that other producers may be better placed to meet the change in price of garments [E].

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> Workbook answers

Chapter 10

Key skills exercises

- 1 Equilibrium is a situation where there is no tendency to change in a market.
- 2 Disequilibrium is a situation in a market where demand and supply are not equal.
- 3 Equilibrium price is determined where demand and supply are equal. Equilibrium quantity is the amount that is traded at the equilibrium price.
- 4 A change in demand occurs when there is a shift of the demand curve due to a change in one of the non-price factors that influence demand. This affects the equilibrium price and quantity depending on the nature and extent of the shift.
- 5 A change in supply occurs when there is a shift of the supply curve due to a change in one of the non-price factors that influence supply. This affects the equilibrium price and quantity depending on the nature and extent of the shift.
- 6 A demand curve may shift as a result of: an increase or decrease in income/ability to pay for a product; a change in the price and availability of substitutes and complements; a change in fashion, taste and attitudes.
- 7 A supply curve may shift as a result of: an increase or decrease in the costs associated with supplying a product; a change in the prices of other products; a change in the size and nature of the industry; any change in government policy towards business.
- 8 The market is in disequilibrium at price P and quantity Q_1 because supply and demand are not equal.
- 9 The market can return to equilibrium if there is an increase in supply or a decrease in demand for avocados.
- 10 Reasons for a fall may include: a reduction in the subsidies paid to US avocado growers; a drought in Mexico leading to a fall in supply.
- 11 Reasons for the increase: an increased awareness of the health benefits of eating avocados; increased demand in new markets such as China.
- 12 A shift to the right of the market demand curve that leads to an increase in the price of avocados and an increase in the quantity traded.
- 13 A shift to the right in the supply curve that leads to a fall in the price of avocados and an increase in the quantity traded.
- 14 The imposition of a new specific tax on avocado imports from the USA will result in a shift to the left of the EU's market supply curve for avocados. The price of avocados will increase and the volume of imports will fall depending on the PED for avocados. Imports from elsewhere are likely to increase.
- 15 This can only occur when the increase in supply and the increase in demand come about simultaneously and when both shifts are of the same proportion.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay questions

1 Improve this answer

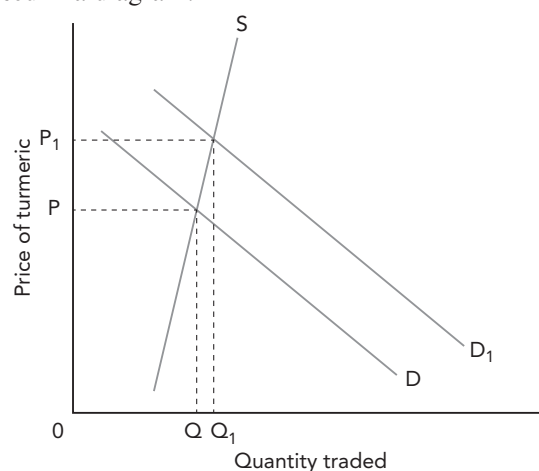
This is an improved answer for Q1. The skills have been annotated.

Turmeric is an important spice in Asian cuisine. The recent television programme has made claims that it can help relieve a wide range of medical problems such as depression and anxiety. It follows from the claim that the demand for turmeric will increase once the claims made in the television programme become widely known [K].

The effect on the market for turmeric can be analysed in a diagram.

As the diagram shows, the claim about turmeric has resulted in a shift to the right of the market demand curve for turmeric. This has led to an increase in the price of turmeric as more is demanded. The new equilibrium price is at P_1 and equilibrium quantity is at Q_1 compared to P and Q before the increase in demand [A].

The change in the equilibrium position as shown in the figure will depend on just how much additional turmeric is demanded. This will determine the gap between D and D_1 . The change will also depend on how confident consumers are about the medical claims that have been made [E].



As analysed in part a, the market has responded through an increase in the price of turmeric and an increase in the quantity traded. This is the assumption made through economic theory – the reality may be different.

On the supply side, as the diagram in part a indicates, the supply of turmeric is likely to be price inelastic. This is because it takes time to grow and may also be a reflection of there not being much spare turmeric stock available for the market. In other words, the price elasticity of supply is inelastic [A]. The extent of the inelasticity will determine how much extra turmeric is put on the market and what will be the new equilibrium price [E].

It is assumed on the demand side that consumers will respond positively to the health claim. The extent of the increase in demand is shown by the shift in the demand curve from D to D_1 . This shift may well be immediate, but then change either more or less depending on how the claims are viewed over time. If consumers question the claim, which could be likely, the new equilibrium position will be different from that described in part a. So the price elasticity of demand will also affect the new equilibrium position once the market has had an initial reaction to the claim [E].

There are therefore factors relating to price elasticity of demand and price elasticity of supply that will together determine how and to what extent the market responds to the claim. It is difficult to say which will be the more important although supply factors would seem to be crucial given the immediate nature of the health claim [E].

2 a **Outline:** A new tax will lead to a shift to the left of the market supply curve for sugar. (A diagram should be included here.)

Depending on the price elasticity of supply, the market price of sugar will increase and the quantity supplied will decrease [A].

A specific tax is more appropriate as sugar is traded in bulk and in volume terms. An *ad valorem* tax is better applied where products containing sugar are retailed to consumers [E].

- b Outline:** Other ways of trying to restrict consumption can include providing information on the health issues associated with excessive consumption of high sugar drinks, regulations limiting the amount of sugar in soft drinks, subsidies for healthier drinks, minimum price for high sugar drinks [A]. There is no 'best way', although in the UK, regulating the amount of sugar in soft drinks has produced a positive response from manufacturers. The composition of high sugar drinks has been altered to avoid paying the sugar tax. Taxing high sugar drinks when retailed is a convenient way of making consumers aware of the need to reduce consumption. If consumers ignore health advice and continue to consume large quantities of high sugar drinks, then this is an issue for the individual [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

Workbook answers

Chapter 11

Key skills exercises

- 1 Consumer surplus is the difference between the price a consumer is willing to pay for a product and its market price.
- 2 Producer surplus is the difference between the price a producer is willing to accept and what is actually paid.
- 3 P_1ZW
- 4 Consumer surplus is reduced to P_4YW .
- 5 Consumer surplus increases to P_2MZW .
- 6 P_1ZP_3
- 7 Producer surplus increases to P_4YZP_3 .
- 8 Producer surplus decreases to P_2MP_3 .
- 9 See worked example in the workbook.
- 10 When the supply of tickets increases, producer surplus decreases.
- 11 Consumer surplus decreases when the demand curve for tickets becomes more price inelastic.
- 12 Producer surplus decreases when the supply curve for tickets becomes more elastic.

Practice questions

Multiple-choice question

- 1 C.

Each of the friends pays \$6 towards the total bill. Their consumer surplus is the difference between what each is willing to pay for a meal and what they actually paid. For example, Ayesha was willing to pay \$14 for the meal. She should pay \$8 to obtain the same consumer surplus as the other two.

Essay question

- 1 **Improve this answer**

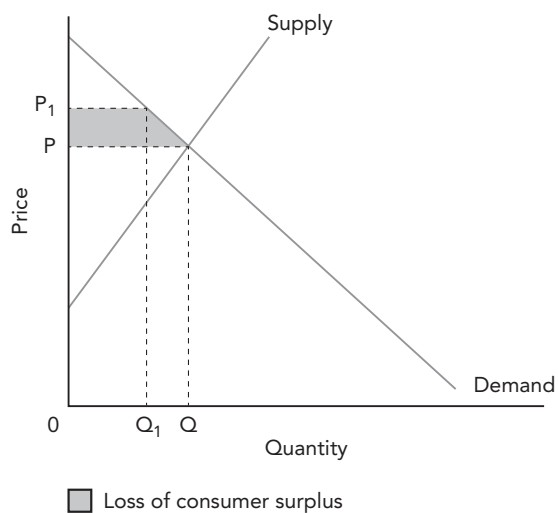
This is an improved answer for Q1. The skills have been annotated.

The term 'consumer surplus' refers to the difference between the price a consumer is willing to pay for a good and its market price. Let us take a simple example. Suppose a consumer is willing to pay \$3 for a packet of rice at the supermarket. If the price has been reduced to £2.50, and this is what is paid, then there is a consumer surplus of \$0.50. Consumer surplus in this example is the difference between what was actually paid and the \$3 that the consumer would have been willing to pay for the rice [A].

Consumer surplus can be shown on a diagram.

Suppose the equilibrium price is P [\$2.50]. When price increases above this to P_1 [say \$2.75], there is a loss of consumer surplus as shown by the shaded area in the figure [A]. The consumer is still willing to pay \$3 but the new price has taken away some consumer surplus.

A new indirect tax will result in a shift to the left of the supply curve. When this happens the equilibrium price increases and less of the product will be demanded. This will cause a loss of consumer surplus as there is now less of a difference between the increased price and what a consumer is willing to pay [E].



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> Workbook answers

Chapter 12

Key skills exercises

- 1 Market failure is when the free market does not make the best use of scarce resources.
- 2 Examples of market failure include: lack of provision of public goods – these are essential for the running of an economy; underproduction of merit goods – individuals do not recognise the true benefits of consumption; information failure-distorts the allocation of scarce resources.
- 3 Public goods are provided by governments and paid for through taxation. Public goods are essential, but the market mechanism is unable to provide them as it is impossible to make arrangements to charge for them at the point of consumption. Public goods are available to all even though not all who consume them have contributed towards their provision.
- 4 Demerit goods are over-consumed in the free market due to information failure. Consumers do not fully appreciate the side effects of overconsumption on themselves, their families and the economy.
- 5 Merit goods are under-consumed in the free market because consumers do not have access to full or accurate information on the benefits of consumption.
- 6 The government can control prices through: fixing a maximum price – this is a price ceiling above which it is illegal to sell a product; fixing a minimum price – this is a price floor below which it is illegal to sell a product; a controlled price that is fixed, for example for low-income families.
- 7 Smoking in public places is a demerit good because of information failure. Smokers are most unlikely to fully appreciate the side effects of their cigarette smoke on others in public places. These side effects include health hazards, and the unpleasant smell and atmosphere created by cigarette smoke.
- 8 Government funding for restricting the consumption of tobacco products has an opportunity cost. The next best alternative could be funding vaccinations for young children.
- 9 The government can control the price of tobacco products through indirect taxation or by imposing a minimum price below which tobacco products must not be sold.
- 10 It is likely that earlier measures have had only a limited impact. Standardised packaging with health warnings is designed to deliver information that smoking is not glamorous.
- 11 See worked example in the workbook.

Practice questions

Multiple-choice question

- 1 C.
Governments provide some services such as transport and water for which charges are made in the same way as if the services were being provided by the private sector.

Essay questions

1 Improve this answer

These additional two paragraphs and a new concluding paragraph would improve the answer to Q1. The skills have been annotated.

Governments also find it necessary to provide merit goods. These are goods such as healthcare and certain types of education that are very likely to be underconsumed because of information failure. Merit goods are therefore undervalued by consumers, but thought to be desirable by the government. For example, it is in the best interests of individuals and the government to have a well-educated, healthy workforce as these characteristics can help to promote economic growth and rising living standards [A].

The private sector itself does provide merit goods in many economies. But it does this only where there are profits to be made. Not everyone of course can afford to pay, hence access to good healthcare and education is restricted. This is why the government steps in, and in some countries, directly provides merit goods for the benefit of the entire population [A].

To conclude, it is very clear that it is essential for governments to provide public goods, and in many countries to also provide merit goods. Both would not be provided on the scale that is needed if left only to the private sector – a typical case of market failure [E].

2 **Outline:** A private good is one that is consumed by one person and is not available to anyone else. Also called an economic good, a price must be paid when consumed. Private goods are mainly provided by the private sector although in some economies, the public sector may provide some goods and services. Typical examples of private goods are take-away meals, clothing, bus fares and economics textbooks [A].

A merit good is one that a government believes is desirable for consumers, but which is underprovided by the free market due to information failure. Merit goods can be provided by the private and public sectors. Typical examples are inoculations against disease, and certain types of education. An important function of government is to provide unbiased information [A].

The view that a government only intervenes in the case of merit goods is only partially true. Private goods are provided in most economies by the government although the extent of provision varies enormously depending on the type of economy [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

Workbook answers

Chapter 13

Key skills exercises

- 1 An *ad valorem* tax is one where the tax consists of a proportion or percentage of the selling price. A General Services Tax which is fixed at a given percentage, say 13%, is an example.
- 2 A specific tax is one where the tax is a fixed sum per unit of the good purchased. A tax of say \$1 per litre of fuel is an example.
- 3 The incidence of an indirect tax is the extent to which the tax burden is paid by the producer, by the consumer or by both. The more price inelastic the demand, the easier it is for the seller to pass on the tax to the consumer in the form of a higher price.
- 4 A subsidy is a direct payment made by a government to producers of goods and services.
- 5 When introduced, a subsidy reduces the price of the product to consumers and increases the quantity of the product that is traded in a market.
- 6 A maximum price is a price ceiling in a market. It is often imposed on the price of staple foodstuffs as a way of assisting low-income families.
- 7
 - a Equilibrium price is P; equilibrium quantity is Q.
 - b Q_2 is supplied; Q_1 is demanded.
 - c Surplus in the market is ZY [$Q_2 - Q_1$].
- 8 The market might return to an equilibrium position if the government buys up surplus stocks of rice. This will reduce supply in the market, forcing the price upwards.
- 9 If the maximum price is below the equilibrium price, farmers would supply less rice; there would be a shortage as demand would exceed supply at this price. Some farmers may be tempted to sell their rice on the informal market.
- 10 See worked example in the workbook.
- 11 **Outline:** There are concerns that subsidies such as the minimum price paid to rice farmers in Myanmar distort the global allocation of resources. High-income countries like the USA and countries in the EU are also to blame as they provide substantial subsidies to their own farmers and impose tariffs on many imported foodstuffs. Wider issues to be addressed include employment in both types of country and not being consistent with the concept of specialisation.

Practice questions

Multiple-choice question

- 1 C.
When the demand is price inelastic, the consumer pays more of the tax than the producer. This applies more to a specific tax since a fixed sum has to be paid.

Essay questions

- 1 **Outline:** A maximum price for basic foodstuffs should be fixed below the usual market equilibrium price. This will result in demand being greater than supply, leading to the usual criticisms of shortages, queuing, rationing and illegal markets [A]. The cost of this for all basic foodstuffs

would be substantial; a compromise would be to restrict maximum prices to a small number of essential foodstuffs. There are likely to be practical issues of restricting maximum prices only to low-income families [E].

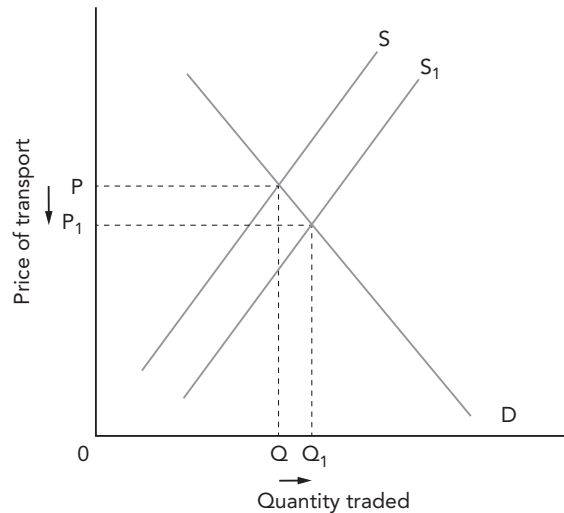
2 Improve this answer

This is an improved answer for Q2.

The skills have been annotated.

Passenger transport is often heavily subsidised in many cities throughout the world. This includes bus, urban railways, trams and even auto rickshaws which are a very important means of transport in lower middle-income cities in Asia such as Lahore, Mumbai and Bangkok [K].

A subsidy is the term used in economics to describe a payment that is made by the government to a producer of goods and services. It is a direct payment that is designed to reduce the cost of consumption, in this case, for using buses or trains. The diagram shows how introducing a subsidy affects the market.



On this diagram the subsidy is represented by a shift to the right of the supply curve. The effect of this is twofold: the price falls from P to P_1 and the quantity traded increases from Q to Q_1 [A].

The main purpose of subsidies in lower middle-income countries like Brazil, India, Pakistan and Kenya is to achieve a redistribution of income. Low-income families will benefit most from transport subsidies. A related benefit is that subsidised bus and local rail fares will also provide better access to employment, especially for those on low wages. This can be beneficial for people in rural areas seeking employment in cities and large towns [E].

Subsidising public transport has additional environmental benefits. Buses are more efficient than cars when used on city roads. There could also be some advantages in terms of improved air quality if more buses allow the traffic speeds to increase.

There are also costs with subsidising public transport. An obvious one is that the subsidies must be paid for locally out of tax revenue. Given that only a small percentage of people in lower middle-income countries pay direct taxes, this is a huge problem. There is never enough resource to meet all the requests for funding. Second, subsidies are a blanket form of payment to, in this case, bus and rail companies. It is not possible to exclude high-earning passengers from benefiting from the subsidy in the same way as low-income passengers. Finally, subsidies will only be effective if their cost is sourced externally. The worst scenario is if fares for some passengers are raised in order to provide cheap fares for others. This is not in the interests of equality [E].

- 3 a Outline:** A sugar tax will increase the price of cans of soft drinks. This can be represented by a shift to the left of the supply curve for cans of soft drinks. The impact of the tax will depend on its size in relation to the retail price and on the price elasticity of demand for cans of soft drinks [A].

The tax is likely to be most effective when supported by other measures such as media advertising and information on the side of cans warning of the possible health hazards associated with over consumption [E].

- b Outline:** Sugar taxes have been mainly introduced in high-income countries where obesity, especially child and youth obesity, is a growing cause for concern. High-income countries have robust systems in place for collecting indirect taxes and for dealing with tax evasion. Some high-income countries have not introduced sugar taxes, taking the view that it is up to individuals to make the choices as to what they consume [A].

Lower- and middle-income countries may not have the same structures in place to collect a sugar tax, particularly if there are a large number of small manufacturers and retailers of canned drinks. Awareness and occurrence of obesity is likely to be less of an issue [E].

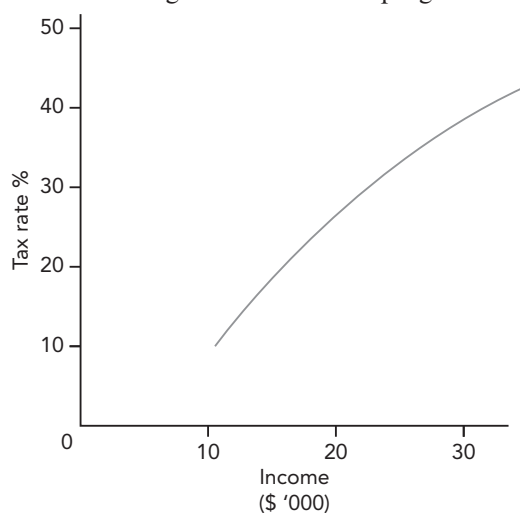
Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

Workbook answers

Chapter 14

Key skills exercises

- 1 Income is the reward for the services of a factor of production, for example, wages as payment for labour; wealth is a stock of assets that has been built up over time.
- 2 A Gini coefficient is a numerical measure of the extent of income inequality in an economy.
- 3 A Gini coefficient with a value of 0 means that the income distribution is equal. A value of 1 means that all of the income goes to just one person.
- 4 The formal part of an economy is regulated by the government. The informal part, also known as the hidden economy, is unregulated.
- 5 A minimum wage rate is a legal minimum that employers must pay their workers. Its purpose is to reduce poverty among poorly paid workers.
- 6 A transfer payment is a direct payment from the government out of tax revenue. An example is unemployment benefit.
- 7 A progressive tax system is one where the rate of taxation rises more than proportionately to the rise in income.
- 8 Inheritance tax – a tax paid by individuals who inherit assets above a certain value. Capital tax – an annual tax on the financial gain made on assets.
- 9 **Outline:** Vietnam is an emerging socialist economy that has consistently recorded strong economic growth over the past few years. The opening up of markets has provided opportunities for a small number of enterprising local people to become billionaires. Some groups in the population, such as ethnic minorities, school leavers and women, do not appear to have benefited like others from the economic and social reforms. Underlying factors include: a lack of educational qualifications that limits the earning power of many workers; poor vocational training which acts as a barrier to people looking for different types of job in the expanding manufacturing sector; too many jobs that pay low wages; poor transport infrastructure which limits access to employment.
- 10 **Outline:** The diagram shows how a progressive tax operates.



At low incomes below \$10000, no tax has to be paid. As income increases, the tax rate increases progressively to around 45% when income is \$35000.

A good tax regime would use the tax revenue to provide additional benefits for the poorest groups. In a lower middle-income country like Vietnam, a progressive tax system may not be the best way for reducing income inequality as there will be a lot of people who do not pay tax, and there will be problems in collecting direct taxes.

- 11 Outline:** Improved public services include education, healthcare, transport, power and water supplies. More funding should produce a more educated, healthier and more mobile population of workers. Improved power and water supplies may lead to more efficient manufacturing facilities. Overall, the improved public services should generate increased employment opportunities and therefore higher wages for workers, so reducing income inequality.
- 12 Outline:** Increasing inequality in income and wealth can have a negative effect on the motivation of the majority of citizens. They will see how a very small proportion of the population is becoming richer, while the majority of citizens are actually becoming worse off. As many people work in low grade manufacturing jobs, it could result in workers becoming less productive.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay question

- 1 **Improve this answer**

This is an improved answer for Q1. The skills have been annotated.

A tax is a payment that is made by individuals to the government. It can be in the form of a regular weekly or monthly payment that is taken out of wages or it can be an immediate payment that is included in the price of goods and services such as petrol, restaurant meals, sugary soft drinks and so on. The main purpose of taxation is to fund government spending on education, healthcare, roads, transfer payments to the poor and so on [K].

In terms of improving the distribution of income, a progressive tax system has been extensively used in many different countries, high to low income countries. Most systems involve taxing incomes, earned and unearned, on a progressive scale above a minimum level below which no income tax is paid. In my country, the tax rate starts at 5% and rises by 5% as income rises to a maximum of 35%. This is why it is called a progressive tax. Unearned income is taxed at the same rate. This system results in high-income earners paying a higher average rate of tax compared to lower-income families [A].

The second type of tax system is a regressive one. Here, as income rises, the proportion of income paid in tax falls. This results in average and marginal tax rates falling. Many countries employ such a system through taxes such as GST and VAT, which are charged at different rates on a wide range of goods and services. This taxation is included in the price that is paid for many types of goods and services such as car repairs, going to the cinema, haircuts etc. These taxes cannot be legally avoided on purchases [A].

A progressive tax system works best in countries that have an established structure for citizens declaring income and the government collecting taxes that are owed on an annual basis. This is not necessarily the case in lower middle-income countries, where a very small percentage of the population are likely to be income tax payers [E]. Avoidance, evasion and corruption have to be addressed before a fair and manageable system can be put in place. It can also be argued that taxes on goods and services that are purchased are rather easier to collect, but they are unlikely to benefit low earners unless revenue from these taxes is put into public services and transfer payments to benefit such people [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 15

Key skills exercises

- 1 National income statistics measure the total output, income and expenditure in an economy.
- 2 GDP is the total output produced in an economy.
- 3 Net property income from abroad.
- 4 Depreciation.
- 5 Net property income from abroad are receipts earned on the ownership of foreign assets minus payments on such receipts to non-residents. Typical receipts are rent, interest, profits and dividends.
- 6 Net income from abroad covers additional items such as workers' earnings and non-financial property income from things such as patents and copyrights.
- 7 See worked example in the workbook.
- 8 Indirect taxes are deducted and subsidies added to give basic prices.
- 9 The value of depreciation or capital consumption is deducted from gross values to give net values.
- 10 Net property income from abroad (NPIA) = GNP – GDP.
(Data on GNP is required for this calculation. GNP is estimated to be \$301 779m. So NPIA is \$17 569m.)
- 11 Net income from abroad = GNI - GDP. This is \$47 154m.
- 12 Pakistan's GDP was heavily weighted towards service sector (57%); agriculture is still important [18%]; relatively low manufacturing sector. Other sectors are relatively insignificant.
- 13 Difficulties collecting data may include:
 - how to estimate output, income or expenditure of subsistence agricultural sector
 - problems of estimating output, income or expenditure for other non-monetarised activities
 - logistical problems of collecting meaningful data
 - corruption may reduce size of estimates.

Practice questions

Data response question

- 1 **a** 63 bn Mauritian rupees. (The net receipts from indirect taxes and subsidies = GDP at market prices – GDP at basic prices) **[K]**.
- b** 20.9 bn Mauritian rupees. (The formula $Y = C + I + G + [X - M]$ is applied with G as the unknown and Y is GDP at market prices) **[K]**.
- c** There is a balance of trade deficit of 72.7bn Mauritian rupees which is about 15% GDP at market prices. This seems high. Mauritius clearly needs substantial imports to support its limited industries. International tourism will rely heavily on imports of food and consumer goods. Imports create employment, especially in factories and hotels **[A]**.

Essay question

1 Improve this answer

This new second paragraph would improve the answer for Q1. The skills have been annotated.

The output method is not as straightforward as it may seem. A particular issue is that of ‘double counting’, where what has been produced is added more than once. An example is the case of food products. The grower produces an output, as does the food processor and in turn, consumers have to pay a price at the point of consumption. To avoid double counting, there are two ways around the problem. The first is by only recording the value of output and the second is to record the value that is being added at each stage of the production process [A].

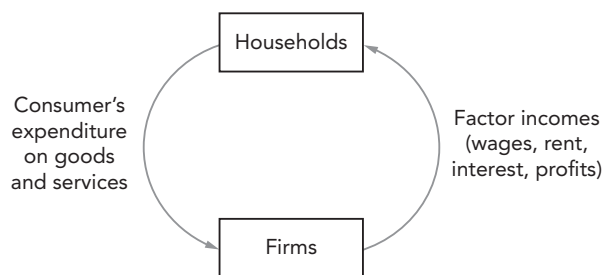
Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

Workbook answers

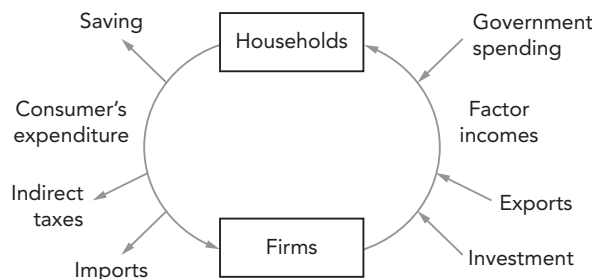
Chapter 16

Key skills exercises

- 1 Model of the circular flow of income in an economy:



- 2 A closed economy does not trade with other economies. An open economy trades with other economies.
- 3 Model of the circular flow of income in an open economy:



- 4 An injection is an addition to the circular flow of income.
- 5 Examples of injections: exports, investment and government spending.
- 6 A leakage is a withdrawal from the circular flow of income.
- 7 Examples of leakages: imports, saving and indirect taxes.
- 8 Equilibrium income in a two-sector economy with households and firms is where injections into the circular flow of income are equal to withdrawals. The value of output is equal to the value of income.
- 9 Equilibrium income in a four-sector economy with households, firms, government and a foreign trade sector is where injections into the circular flow of income are equal to withdrawals. The value of output is equal to the value of income.
- 10 Consumption expenditure by international tourists. Investment by private sector businesses on hotels and facilities for international tourists. Both of these injections will increase income and output in the circular flow of income. An increase in GDP will follow.

- 11** Payments made by the retail sector for imported goods. Indirect taxation levied on hotel accommodation and services for international tourists. These withdrawals will result in a reduction in the circular flow of income. Retailers will have to pay for their imports and hotels will be required to pass on the money collected for indirect taxes to the government.
- 12** The circular flow of income in Mauritius will increase. Households can spend more on consumption, although there will be a leakage when this expenditure is on imports. Some of the reduction in income tax might be saved, in which case the circular flow of income is reduced.
- 13** See worked example in the workbook.

Practice questions

Data response question

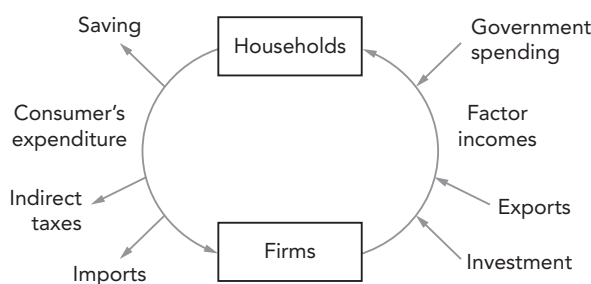
- 1 a** There is an increase in GDP growth in all quarters. January to March is the most important quarter for growth, with lower growth in the third and fourth quarters; July-September 2017 is an exception. **[K]**.
- b** Seasonal fluctuations produce fluctuations in the circular flow of income. In particular, this will lead to fluctuations in consumer spending and expenditure on imports. Government receipts from indirect taxes will also fluctuate. There is likely to be a time lag before changes in the circular flow of income affect the growth of GDP. **[A]**.

Essay question

1 Improve this answer

This diagram and the paragraph of explanation would improve the answer for Q1. The skills have been annotated.

A sudden decrease in the number of international tourists will lead to a reduction in factor incomes, particularly wages in the first instance. As the diagram indicates, the reduction in wages will reduce consumer spending, with less revenue from indirect taxation for the government and less expenditure on imports **[A]**.



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> Workbook answers

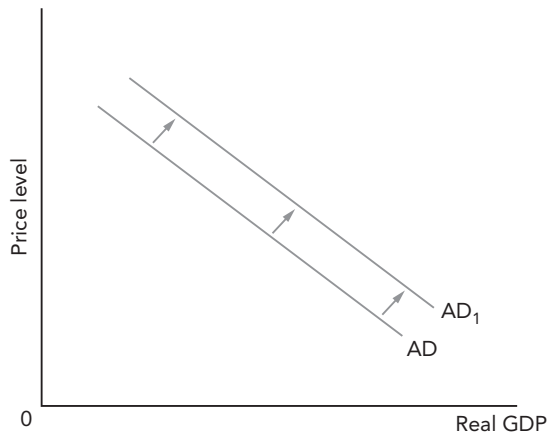
Chapter 17

Key skills exercises

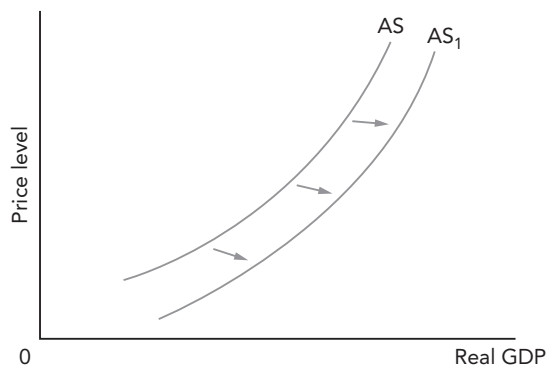
- 1 The four components of aggregate demand [Y] are: consumption [C]; investment [I]; government spending [G]; net exports [X – M], that is: $Y = C + I + G + [X - M]$
- 2 Determinants for each component:
 - Consumption – level of disposable income, rate of interest, availability of credit, expectations, distribution of income.
 - Investment – rate of interest, cost of capital goods, technology, changes in demand, government policy, expectations.
 - Government spending – tax revenue, government policy, demographic change.
 - Net exports – own GDP, GDP of other countries, exchange rate, price and quality competitiveness of exports and imports.
- 3 The aggregate demand (AD) curve is downward sloping. This is due to aggregate demand falling when the price level rises and aggregate demand increasing when the price level falls.
- 4 A change in the price level causes a movement along the AD curve; a shift in the AD curve occurs when there is a change in any other non-price level influences.
- 5 Aggregate supply (AS) is the total output that producers are willing and able to supply at a given price level in a given time period.
- 6 The SRAS curve represents the total output that will be supplied with no change to the prices of factors of production; the LRAS curve represents total output when the prices of factors of production have been fully adjusted.
- 7 A shift in the SRAS curve will occur when there is a change in the prices of factors of production, a change in factor productivity, a change in taxation on firms or a change in the quantity of resources used.
- 8 The LRAS curve shifts for many reasons, such as improved education and training, an increase in net investment, net immigration, discovery of new resources and new technological advances.
- 9 The fall in government spending will reduce spending on consumption as less income is likely to be available households. Firms may decide to cut back on future investment, given a period of contraction in the economy. Expenditure on imports is likely to fall.
- 10 An increase in exports in Namibia could lead to increased employment, resulting in greater consumption by households. It could prompt an increase in investment by firms if the increase in exports is sustained.

The government may receive additional taxation from firms experiencing an increase in demand for their exports. Import expenditure could rise if imported raw materials are required to produce the additional exports.

- 11 The diagram shows that there has been an increase in aggregate demand as a result of investment in the project with additional export earnings expected when the port opened.



- 12 The project has had a substantial impact in increasing the productive potential of Namibia. This is shown by a shift to the right of the aggregate supply curve from AS to AS₁ on the diagram.



- 13 **Outline:** An outward shift of AD will lead to an increase in real output and employment provided, AD is still below the full employment level. If it goes above the full employment level, the price level will increase.

An outward shift of LRAS will increase the productive capacity of the economy due to increases in the quantity and quality of factors of production. If AD also shifts, then it could lead to an increase in the price level if the economy is operating at the full employment level of output.

Practice questions

Data response questions

- 1 See worked example in the workbook.
- 2 See worked example in the workbook.

Essay questions

- 1 **Outline:** AD increases if, say, any or all of C, I, G or X increases. The increase will lead to an increase in real output which will be inflationary if it takes the economy above the full employment level of output [K].

AS will increase in the short run if business costs increase due, say, to an increase in raw material costs such as oil, labour costs, or new regulations that put added costs on producers. These factors will shift AS to the left. The outcome will be an increase in the price level. In the long run, AS is more likely to shift to the right due to an increase in the quantity and quality of the factors of production. This could lead to a fall in the price level [A].

It is not possible to say which of the two changes will cause a higher level of inflation. In the short run the most likely cause will be due to increased costs; in the long run it depends on the relative changes in AD and LRAS [E].

- 2 Outline:** Aggregate supply is the total output [real GDP] that producers are willing and able to supply at a given price level in a given period of time [K].

A reduction in taxes on firms will lead to a shift to the right in the short-run AS curve. The longer-term effect, *ceteris paribus*, will be an increase in the productive capacity of the economy. In both cases, real output can be expected to increase [A].

Real output may not increase if there are changes in other factors that affect AS. For example, an increase in business costs will shift the short run AS curve to the left with a resultant fall in real output. If unchecked, the increase in the price level will undermine the increase in productive capacity [E].

3 Improve this answer

This is an improved answer for Q3, which includes a diagram. The skills have been annotated.

Aggregate supply is defined as the total output that producers are willing and able to supply at a given price level and in a given time period. The significance of the long run is that it refers to aggregate supply when the prices of the resources or factors of production have been fully adjusted for any changes that have taken place in the given time period [K].

An increase in long-run aggregate supply (LRAS) is shown in the diagram.

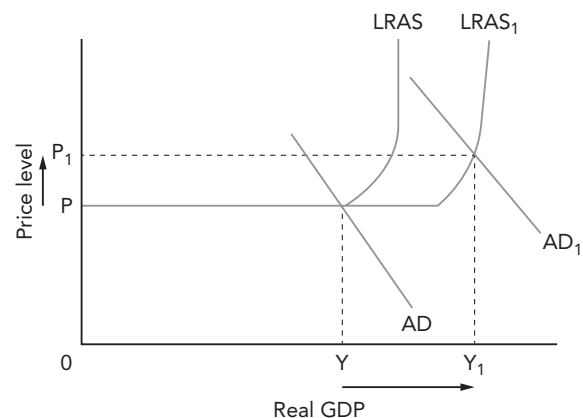
The diagram shows that the increase in LRAS from LRAS to LRAS₁ has resulted in an increase in real GDP/real output from Y to Y₁. There has been an increase in the price level, as changes to aggregate supply have led to an increase in aggregate demand [A].

So what are the reasons for an increase in LRAS? There are many, and depend upon an increase in the quality as well as the quantity of resources being used. A few examples can explain.

A common reason why LRAS increases is due to an increase in the quantity and quality of the workforce.

Improved education and training can make the workforce more productive. An increase in inward migration can increase the number of workers available. Both of these policies have been positively applied by Singapore to increase their real output. In the case of capital resources, improvements in technology (quality) and new investment by businesses [quantity] will shift the LRAS to the right. New investment can occur if a government reduces indirect taxation on business profits [A].

Whether the increase in LRAS is beneficial for the economy depends upon whether there is spare capacity available to support the increase. If the economy is operating below the full employment level, the increase in aggregate supply will see real GDP increase and with no change to the price level. If the economy is at point Y on the diagram, the resultant increase in aggregate demand will lead to a rise in the price level [E].



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> Workbook answers

Chapter 18

Key skills exercises

- 1 Economic growth in the short run is an increase in a country's output. In the long run, it is an increase in the country's economic potential.
- 2 Economic development is the process of improving the economic well-being and quality of life of the population. It is related to economic growth, but much wider in its scope.
- 3 Economic growth is measured in terms of the annual percentage change in output [GDP].
- 4 Nominal GDP is measured in terms of prices that were applicable in the year the output was produced. Real GDP removes the effect of inflation, making it easier to compare data from just one year and over time.
- 5 Actual growth is when output increases. Potential growth occurs in the long run and leads to a rise in the productive potential in an economy.
- 6 See worked example in the workbook.
- 7 Nigeria's economy is susceptible to changes in the world price of crude oil. This is evidenced after 2014 when GDP growth fell. The consequences are that living standards have only increased slightly, government revenue from oil will have fallen, and there is pressure on the government to restructure the economy.
- 8 Benefits may include: increase in employment especially in construction, improved living standards, less reliance on oil sector, more stable food supplies due to agricultural developments.
Costs may include: environmental degradation as large infrastructure projects are completed, more people are likely to move to overcrowded cities, deterioration in air quality, concerns about decline in manufacturing.
- 9 Economic development produces an increase in welfare and in the quality of life. There is no evidence in the data to assess if economic well-being is improving. It is worrying that population growth is forecast to exceed the rate of increase in real GDP.
- 10 'Muted' implies that Nigeria's economic growth is less than might be expected. The World Bank believes it should be much higher, given Nigeria's considerable economic potential.

Practice questions

Data response question

- 1
 - a The data is most likely nominal. This can be justified by the fluctuating rates of GDP growth [K].
 - b There is a clear difference in the growth rates for 2014 and before and after 2014. A time lag seems likely. The growth rate fell in 2015 and was then negative in 2016. Relatively low rates of economic growth have been recorded from 2017 to 2019 [A].

Essay questions

1 Improve this answer

This concluding paragraph will improve the answer for Q1. The skills have been annotated.

It is difficult to say which of the two options will be more beneficial to an economy's population. The key consideration will be the extent to which any increase in consumer goods benefits the entire population and not just a few. There is always this danger, especially when real economic growth occurs. In addition, a reduction in the production of capital goods may have some costs to the economy through an increase in unemployment of those employed in this sector [E].

2 **Outline:** Benefits may include: increased output leading to more consumer goods and services; increase in tax revenue for a government to use to provide better facilities, especially for less well-off groups in the population; improved business confidence that can lead to new domestic and international investment in the country [A].

Costs may include: short-term cost of restructuring the economy to produce more capital goods and fewer goods for current consumption; workers may lack skills to get meaningful employment in the restructured economy; environmental costs including loss of agricultural land to manufacturing, depletion of non-renewable resources, more pollution of the land and air; additional strain and stress, longer working hours [A].

The discussion should consider how an economist might be able to quantify the benefits and costs. The obvious evaluation is that this is difficult, if not impossible in some cases [E].

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> Workbook answers

Chapter 19

Key skills exercises

- 1 Unemployment occurs when people of working age who are willing and able to work cannot get a job.
- 2 A person is economically active when part of the labour force. Someone who is economically inactive is not part of the labour force.
- 3 Unemployment is measured in two ways: those who register as unemployed and those who are classed as unemployed in a sample survey of people of working age.
- 4 The level of unemployment is the total number of people who are unemployed. The rate of unemployment is the numbers who are unemployed as a percentage of the labour force.
- 5 Frictional unemployment is temporary. An example is when someone is unemployed for a short period while changing from one job to another job.
- 6 Structural unemployment occurs when there are substantial changes to the economy. An example is when a coal miner becomes unemployed due to government policy to promote cleaner energy.
- 7 Cyclical unemployment is due to a lack of aggregate demand in the economy. An example is when a government reduces its spending and increases taxation in order to prioritise the need to combat a rising rate of inflation.
- 8 Seasonal unemployment comes about at a particular time of year when demand for a good or service falls away. An example is in tourism where hotels and other facilities are open and employ workers for only a few months during the peak tourist season.
- 9 Technological unemployment is when people are out of work when their jobs can be done more effectively by robots or other labour-saving devices. An example is where a ticket clerk at a railway station is replaced by an automatic ticket machine.
- 10 See worked example in the workbook.
- 11 Causes of rural unemployment may include: the seasonal nature of agricultural production means that some workers are seasonally unemployed for parts of the year. The increasing use of mechanisation in agriculture means that less workers are required. These workers become technologically unemployed.
- 12 **Outline:** Consequences for India's economy include:
 - output will be below its potential level, with the economy operating within its PPC; AD will decrease
 - the government's tax revenue [particularly from indirect taxes] will be reduced
 - the government will have to pay out more benefits since more people will register as unemployed, and there will be an opportunity cost of alternative use of these funds
 - living standards and consumption of unemployed people will fall
 - there is likely to be an increase in the informal economy.

- 13** Problems of collecting data on unemployment in India include:
- in the subsistence sector, there may be no unemployed people; all people will be contributing to the family's circumstances
 - many self-employed people and small business owners do not keep records; the cash economy makes it difficult to know who is employed
 - underemployment is common with workers who are not being employed to their full potential
 - there are difficulties relating to the collection of data in a large country with a massive population.
- 14** **Outline:** Although India has a high rate of economic growth compared to many Asian economies, the lack of skills indicates a low-quality workforce. This weakness is likely to hold back India's future growth prospects.

This weakness has implications for India's international competitiveness, for example in markets where it competes with South Korea. Much will depend on the type of product being traded. It is probably less of an issue with agricultural crops and food compared to manufactured goods where a skilled labour force is required for efficient production. The huge size of India's population is another problem.

Practice questions

Data response question

- 1 a** Unemployment has increased over the period between May 2017 and April 2019. Urban unemployment has been consistently higher than rural unemployment **[K]**.
- b** Unemployment may have increased because of a lack of aggregate demand due to reduced government spending and decrease in exports. Higher urban unemployment may result from labour-saving devices, which have reduced the demand for low-skilled work such as cleaning offices and reception work **[A]**.

Essay questions

- 1** **Outline:** The answer should concentrate on applying frictional, structural and cyclical unemployment types to an economy that learners have studied. Examples of each should be made, along with seasonal and technological unemployment as appropriate **[A]**.

The answer should conclude with a final paragraph that contains an assessment of which type is most prevalent and be supported by evidence from the body of the answer **[E]**.

- 2** **Outline:** The two methods are the Claimant Count and ILO survey. The Claimant Count measures individuals who receive state unemployment benefits. It is dependent on unemployed people registering. The claimant count excludes those looking for work or those who are new to the labour force **[K]**.

The ILO survey is a sample survey used to ascertain whether individuals are unemployed or actively seeking a job. The survey is good for international comparisons. It includes groups not covered by Claimant Count. However, there are problems of accuracy, especially in low-income countries **[K]**.

The ILO survey is likely to give the highest rate of unemployment, particularly in countries that do not have a comprehensive unemployment recording and benefits system **[E]**.

- 3** **Improve this answer**

This is an improved answer for Q3. The skills have been annotated.

There are various consequences of a high rate of unemployment for an economy as well as for individuals and firms in that economy. The consequences are particularly serious in a lower middle-income economy where new job opportunities are likely to be limited.

Before considering these consequences, it is necessary to be clear on what is meant by a 'high' unemployment rate in a lower middle-income country. It is not easy to put a percentage on this, but a figure above 8% would seem reasonable. In Mauritius, for example, the unemployment rate has been between 7% and 9% from 2010 to 2019. This percentage is higher than for other richer economies [K].

The first consequence is lost output. The resources of the economy are not being used to their full potential. The economy is working within and not on its PPC. An opportunity cost is involved in terms of living standards and the quality of life being lower than if more people had been in employment. If the lost output is for export, then there will be a negative impact on the balance of trade [A].

If the unemployment rate is high and has increased to this level, there is likely to be a negative effect on the government's finances. As the unemployed will have less income, receipts from indirect taxation will be reduced. In Mauritius, youth unemployment is a major problem as many college leavers have too high expectations for their first job. A high unemployment rate is unlikely to affect revenue from direct taxation, as few people pay income tax. A consequence could be less government spending on development projects but more spending on unemployment benefits [A]. The government may well have to borrow more if it wants to operate a budget deficit to increase the level of aggregate demand.

In a lower middle-income economy, a likely consequence is how to deal with the drift of unemployed rural, agricultural workers who move to large urban areas in search of work. Some workers may succeed but the majority will lack the skills necessary to find employment at a time when many other people are seeking jobs. The main problem in Mauritius has been the loss of jobs in the sugar plantations and in the fish processing industry where catches by local fleets have been falling [A].

In some respects, businesses are less likely to be affected than individuals and the government. This is because if unemployment is high, wages may be lower than if unemployment was lower [E]. This keeps costs down and helps businesses to stay competitive.

The above analysis needs to be qualified in two respects. First, as stated earlier, the consequence will depend on how high the rate of unemployment is compared to previous rates [E]. Some unemployment can actually be good for the economy since it can reduce inflationary pressures. Second, the consequences also depend on which groups in the economy are unemployed and for how long they have been out of work. Youth unemployment and graduate unemployment are serious problems in many economies, including lower middle-income countries where the employment structure means that it is difficult for new jobs to be created for these unemployed groups [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 20

Key skills exercises

- 1 Inflation is a sustained increase in an economy's price level over a period of time.
- 2 Price stability is where year-on-year prices are increasing at a low and predictable rate of increase.
- 3 Deflation occurs when there is a sustained fall in the price level. Disinflation is when the rate of inflation falls although the price level is still rising but at a slower rate.
- 4 A consumer price index starts with a base year, which then establishes the spending patterns of the population for a wide range of goods and services.
- 5 The prices of the named goods and services are collected annually to determine the change in the price level.
- 6 Money values are values of prices applying at a given time. Real values are values of the prices adjusted for inflation.
- 7 There are two main causes of inflation. Cost-push – increases in the costs of production such as labour costs or energy costs result in an increase in the rate of inflation. Demand-pull – an increase in aggregate demand, not matched by an increase in aggregate supply, leads to an increase in the rate of inflation.
It is also argued that if the money supply grows more rapidly than output, the greater supply of money will produce an increase in the price level.
- 8 Consequences of inflation include: a reduction in net exports; savers lose out compared to borrowers; menu costs to businesses when having to change prices; shoe leather costs incurred when moving money between financial institutions; fiscal drag through some workers being drawn into a higher income tax band; discourages investment.
- 9 The growth of the money supply (by printing) creates inflation since there is now more money chasing the same quantity of output. The price level rises. (monetary)
Rising import prices, for essential goods like oil, have to be passed onto consumers in the form of higher prices. The increased prices will also affect firms since the cost of an essential input has increased. The outcome is a rise the rate of inflation. (cost-push)
Domestic supply shocks have an impact on resource allocation in the market. This is because supply will be disrupted. If there is no change in demand then the price will have to increase due to the reduction in supply. This will lead to an increase in prices. (cost-push)
- 10 See worked example in the workbook.
- 11 Benefits of a falling rate of inflation include:
 - Consumers – holdings in cash will not lose value as quickly as in a period of a rising rate of inflation. This will be particularly beneficial to the many people who do not have a bank account and who are paid in cash.
 - Firms – less menu costs and could produce more confidence to implement future investment plans as the return on borrowed funds improves.
 - Government – benefit payments may be reduced; export prices may become more competitive leading to an improvement in the current account of the balance of payments.

- 12 Outline:** Consumer prices are likely to be highly variable for the same or similar products, depending on whether they are bought in local markets, convenience stores or supermarkets. There may be no prices charged for some transactions. It is also difficult to determine the quality of some products. There will need to be a wide range of products due to the unequal distribution of income. The problems of constructing a consumer price index are no different to those in other countries.

Practice questions

Data response question

- 1 a** Same rate of around 8% in 2019 as in 2010. Peaks and troughs throughout the period **[K]**.
b Rising inflation 2010 to 2012; disinflation 2012 to 2016 **[K]**.

Essay questions

- 1 Outline:** A good approach to this question is to differentiate between cost-push and demand-pull causes of inflation. It would be good practice if you could find some evidence to support your answer. This might include an estimate of the annual increase in wages or fuel prices or whether the budget is in deficit or surplus. Increased costs are evidence of cost-push inflation. Government spending in excess of tax receipts could generate demand-pull inflation if there is no spare capacity in the economy **[A]**. It will also be relevant to find out what has happened to the growth in the money supply **[A]**. An informed judgement can then be made, although it is not likely to be clear-cut since inflation can come about from a mixture of causes **[E]**.

2 Improve this answer

This is an improved answer for Q2. The skills have been annotated.

Inflation is defined as a sustained increase in an economy's price level over a period of time. It can be measured by a consumer price index, which shows the change in prices of a representative cross-section or basket of goods and services that are purchased by households **[K]**.

Inflation is present in most economies. At a low level such as 4% or below, it causes few issues provided it does not increase. A sudden and unexpected increase, depending on its size, can have consequences for consumers, producers and the government of a lower middle-income economy **[A]**.

For consumers, the prices of everyday items will increase as the value of money decreases. In a lower middle-income country, where markets are common and very few products have fixed prices, it can be difficult for consumers to be fully aware of changing prices. An inevitable consequence is that people on low incomes will suffer most, as they will tend to be paid in cash and what savings they have will also be in cash and not in a bank **[A]**.

Agricultural producers and manufacturers will also experience negative consequences if the rise is sharp and unexpected. An obvious way is if rising oil and petrol prices have resulted in the inflation spike. These increases add to costs and will have to be passed on to consumers. Rising inflation is not good for the business environment. It can lead to uncertainty, with producers holding back on their future investments. Farmers, especially subsistence farmers, will have to pay more for fuel and other essential supplies, and will find it difficult to absorb the increased costs of production **[A]**.

Finally, there are consequences for the government. A sharp, unexpected spike in the rate of inflation is likely to reduce the competitiveness of exports, leading to a fall in export revenue. Expenditure on imports is likely to increase, since imported goods and raw materials become competitive compared to domestic goods. This is not good news, especially as most lower middle-income countries have a deficit on their balance of trade **[A]**.

All groups therefore lose out due to the sharp, unexpected spike in the rate of inflation. All are affected, although in different ways. In a lower middle-income country, it is likely that low-income consumers will lose out most as they have no choice but to accept the rise in the rate of inflation **[E]**.

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 21

Key skills exercises

- 1 A government's domestic macroeconomic policy aims are usually price stability, low unemployment and economic growth.
- 2 An inflation target of say 2% to 3% is what a central bank is usually expected to achieve in its management of the economy, particularly in relation to monetary policy.
- 3 An inflation target is usually set by the government. Its purpose is to make the central bank more accountable in its implementation of monetary policy. A target is also a way of advising employers and workers of the government's likely target for any wage increases. It can be useful for firms to know the target when they are forecasting prices for goods and services.
- 4 Low unemployment occurs when a low proportion of the labour force is unemployed.
- 5 Economic growth leads to an increase in output and employment, and an improvement in living standards.
- 6 See worked example in the workbook.

Practice questions

Essay questions

1 Improve this answer

This addition to the beginning of the third paragraph would improve the answer for Q1. The skills have been annotated.

The UK was one of the first countries to set an inflation target. This is now 2%. In Pakistan, the Central Bank's inflation target is 6%. It has been achieved since 2015, although the projected inflation for 2020 is much higher at 10% to 12% [A].

2 **Outline:** The main domestic macroeconomic policy objectives are price stability, low unemployment and economic growth [K].

It is difficult to say which should be the most important. Much will depend on the level of income of a country and the priority at any point in time [E]. For low-income and middle-income countries, economic growth has been the priority on account of the benefits that can become more widely available through improved living standards. In the future, as a result of the reality of climate change, low sustained or even zero economic growth may become the new norm [A].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 22

Key skills exercises

- 1 Fiscal policy is the use of taxation and government spending to manage aggregate demand in order to achieve a government's macroeconomic aims.
- 2 A government's budget is an annual statement of plans for its spending and revenue from taxation.
- 3 The national debt is the accumulated government debt that has built up over time.
- 4 An indirect tax is charged on the sale of goods and services. An example is a General Sales Tax [GST]. A direct tax is charged on income and wealth. An example is income tax.
Indirect taxes are collected by the sellers of goods and services that are taxed. The receipts from this type of taxation are then sent by sellers to the government. Direct taxes are paid to the government by the person or business which is responsible for the tax.
- 5 A progressive tax is one where the tax rate increases as a person's income increases. A regressive tax is one where a tax takes a higher percentage of the income of people on low incomes compared to others on higher incomes. A proportional tax has a fixed percentage rate.
- 6 Current government spending covers the day-to-day costs of operating government services. Capital government spending is on longer-term projects that are expected to produce future economic benefits.
- 7 An expansionary fiscal policy increases aggregate demand. A contractionary fiscal policy reduces aggregate demand.
- 8 Malaysia's government might want to promote an expansionary fiscal policy in order to promote economic growth. An increase in government spending on infrastructure would be an appropriate way of doing this. Growth can improve economic well-being and development with further improvement in the distribution of income.
- 9 An increase in government debt could be used to fund further budget deficits with the objective of promoting further economic growth.
- 10 **Outline:** An increase in government spending is likely to reduce the unemployment rate and fund projects that will enhance Malaysia's economic growth. If the spending is on social programmes, it may improve the distribution of income. The danger is that too much of an increase in government spending could cause demand-pull inflation.
- 11 See worked example in the workbook.
- 12 **Outline:** On the surface, Malaysia's strong GDP growth could be used to evidence its resilience to the challenging global environment. It also has a balance of trade surplus and an economy that benefits from having extensive resources of petroleum and natural gas. It is reasonably well placed to sell more exports to both China and the USA if their trade conflict persists.

Practice questions

Data response question

- 1 **a** Deficit. Government spending is greater than government revenue by 33bn ringgits [A].
b Surplus. Exports of goods and services are greater than imports by 120bn ringgits [A].

Essay questions

1 Improve this answer

This is an improved answer for Q1, which includes a diagram. The skills have been annotated.

It seems likely that the government's decision to double expenditure on infrastructure is part of an expansionary fiscal policy. This means that total government spending in the budget is greater than revenue received through taxation. The decision to spend more resources on infrastructure, such as new roads, water supplies, flood defences and so on, is interesting since it should lead to longer-term as well as short-term benefits [A].

The big increase in government spending will increase aggregate demand in the economy. This is indicated by the shift of AD to AD_1 in the diagram [A].

Infrastructure spending is capital government spending. This is why the diagram shows the long-run aggregate supply curve. The shift to AD_1 increases real GDP [real output]. This is beneficial because it will have resulted in more economic activity, in particular more employment in the construction industries and in other parts of the economy. Provided additional income is spent and not saved, there will be additional benefits [A].

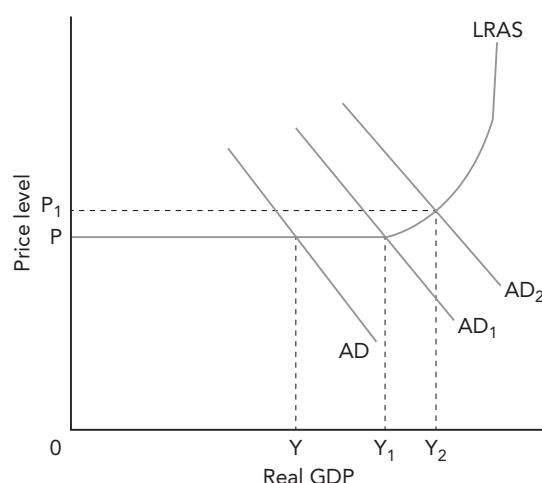
Any increase in government spending must be handled carefully by the government. If too much additional spending is injected into the economy, it could lead to demand-pull inflation if the economy is operating at or close to the full employment level. This is shown by AD_2 on the diagram. This is not good for the economy and will result in a contractionary rather than expansionary fiscal policy in the future [E].

There is a further benefit for the economy. The increase in government spending on infrastructure increases long-run aggregate supply. In turn, the new infrastructure projects could increase competitiveness for the economy. Expenditure on capital spending therefore will produce more overall benefits than if the expenditure had been current on, for example, increased subsidies to poor farmers [A].

So there is no doubt that if the government doubles its expenditure on infrastructure, there will be major benefits in the long run as well as in the short run. The benefits include more employment and an increase in future economic potential. To get these benefits in full though, the process will have to be carefully managed by the government [E].

- 2 **Outline:** A contractionary fiscal policy is one where government revenue from taxes is greater than government spending. This policy would normally be used where a government is concerned about a rising level of inflation, or if there is a danger that debt repayments, interest or capital, cannot be met from current resources [A].

The reason why a contractionary policy should only be for a short time is that the reduction in aggregate demand increases unemployment. This, along with tax increases, is not going to be popular with consumers and firms [E].



Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 23

Key skills exercises

- 1 Monetary policy involves the use of interest rates and changes to the money supply in order to influence the level of aggregate demand in the economy.
- 2 An interest rate is the price charged for borrowing money. It is also the reward for saving.
- 3 The money supply is the total amount of money in a country. Changes in the money supply affect aggregate demand.
- 4 Credit regulations are imposed on commercial banks by the central bank. Their purpose is to maintain financial stability and to influence lending by the commercial banks.
- 5 A central bank is usually responsible for applying monetary policy to meet the macroeconomic policy aims of the government.
- 6 An expansionary monetary policy is one that is used to increase aggregate demand. A contractionary monetary policy decreases aggregate demand.
- 7 **Outline:** A fall in interest rates represents an easing of monetary policy and is an appropriate policy when there is a need to combat a deflationary situation. It produces a rise in aggregate demand.
A lowering of interest rates reduces the cost of borrowing for consumers and for firms. The fall should encourage the purchase of 'big ticket' items especially. It will send a signal to consumers to consider buying other purchases on credit. Businesses are likely to review their capital investment plans due to higher returns. Savings can be expected to decrease.
An increase in the interest rate is a tightening of monetary policy as aggregate demand falls. Borrowing by consumers and firms becomes more expensive so consumer spending and investment will decrease. Saving becomes more attractive.
- 8 **Outline:** The Fed Funds Rate is set to promote full employment and stable prices. These objectives are difficult to achieve at the same time.
A low Fed Funds Rate should help achieve maximum employment. Consumers will be encouraged to buy items on credit and firms will be more likely to invest as the return on investment increases.
An increase in the Fed Funds Rate indicates the need to lower inflation towards or below its 2% target rate. The reduction in aggregate demand will result in a fall in employment.
- 9 **Outline:** A time lag is likely to be in evidence, reducing the short-term effectiveness of changes in interest rates. Other aspects, such as the effect of interest rate changes on consumer spending, domestic and foreign investment, are difficult to forecast. Economic theory and reality do not always match as might be expected.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay questions

- 1 Outline:** Deflation occurs when there is a sustained fall in the price level in a country. At its extreme, the price level may actually be negative, as was the case in Japan in the early years of this century [K]. ‘Bad’ deflation comes about due to falls in aggregate demand and a lack of confidence in future economic prospects. Negative interest rates seek to help an economy return to normality. Savers are penalised and consumers are encouraged to spend. An extreme policy is to use ‘helicopter money’ to get aggregate demand moving [A].

‘Good’ deflation occurs when the aggregate supply curve shifts to the right. It is good because it leads to a rise in real output and employment. Monetary policy should set a low interest rate to promote expansion [E].

- 2 Outline:** Monetary policy through increased interest rates is likely to be the main policy in a middle-income country, since the tax base is likely to be limited and cutbacks in government spending could have a big impact on those on low incomes. This therefore limits the scope for using fiscal policies. There are also likely to be more uncertainties over the impact of either policy in a middle-income country [A].

The context is different for a middle-income country compared to a high-income country. Its inflation target is likely to be higher and economic growth is likely to be a more open policy objective.

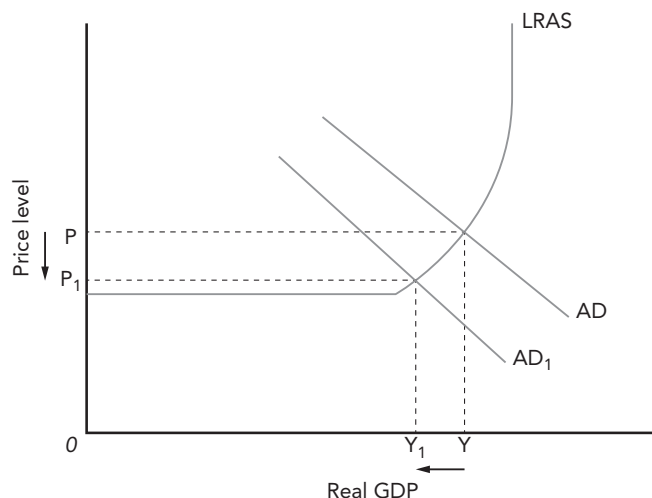
The most likely scenario is that a combination of monetary and fiscal policies will be used to correct rising inflation [E].

3 Improve this answer

This is an improved answer for Q3, which includes a diagram. The skills have been annotated.

Monetary policy works through changing the interest rate and money supply in order to achieve particular macroeconomic objectives. Its main use is to control inflation in an economy. In the USA and in the UK, for example, the authorities responsible for monetary policy have been given an inflation target of 2%. Changes to the interest rate will be made if inflation is above or below this target over a given period [K].

An increase in the interest rate will reduce aggregate demand in the economy as shown in the diagram.



Aggregate demand shifts downwards from AD to AD₁ causing the price level to fall from P to P₁. Consumption, investment and net exports, all components of aggregate demand, will fall [A].

In the case of consumption, the rise in interest rates may tempt consumers to save more of their income and spend less. If they are borrowing money for consumption, they will be particularly affected by the increase in interest repayments. Firms may find that the increased interest rate results in investment plans being no longer feasible, taking risk into account [A].

To conclude, an increase in interest rates is likely to affect aggregate demand and, to a lesser extent, aggregate supply. This is the theory. The reality could be that consumers and firms do not respond as expected in which case, other policies may be needed to control the increase in the rate of inflation [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 24

Key skills exercises

- 1 A supply-side policy is any measure that is designed to increase aggregate supply in the economy.
- 2 See worked example in the workbook.
- 3 The objectives of supply-side policies are to improve the effectiveness of the workings of product and factor markets.
- 4 Supply-side policy tools include:
 - An increase in government spending on education and training. This aims to improve productivity and provide workers with more geographical mobility and job flexibility.
 - Infrastructure development. The purpose is to reduce costs and improve the competitiveness of a country's products compared to other countries.
 - A reduction in the income tax rate. More experienced workers may remain or return to the workforce since they will now receive a higher proportion of what they have earned. Such workers are important if an economy is to reach its economic potential.
 - Privatisation and deregulation. These policies seek to reduce costs and improve the effectiveness of markets that have traditionally been exclusive to the public sector.
- 5 Attracting foreign workers to Singapore is a supply-side policy because it increases the total supply of labour and, in turn, Singapore's economic potential.
- 6 A recession in the global economy will have a big impact on Singapore's economy. There will be an exodus of non-resident foreign workers from Singapore.
- 7 An increase in the number of migrant workers in Singapore will produce the following benefits for Singapore's economy: real output will increase; the price level may increase if Singapore's economy is working at or above its full productive capacity; total employment will increase, although some local workers may lose their jobs if they lack appropriate skills.
When there is a cut back in the number of migrant workers: real output will fall; the price level may be unaffected or fall; total employment will fall.
- 8 **Outline:** Benefits include: higher real GDP; higher per capita income; improved rate of growth; population can be trained for higher skill jobs. Costs include: international transfers are a deficit on the current account of balance of payments; lower pay for migrant workers with risk of exploitation; local population not taking up jobs done by migrant workers; cultural tensions.

Practice questions

Data response question

- 1 **a** The biggest change has been in the local population; there has been a 4% increase from 2015 to 2019. There has been a 3% increase in the number of non-residents [K].
- b** A recession in Singapore's economy will lead to many migrant workers leaving for their home countries. It seems likely that some of their jobs will now be taken by Singapore citizens and permanent residents [A].

Essay questions

1 Outline: When the LRAS curve shifts to the right it means that there has been an increase in the productive potential in an economy. Real output increases. The shift of LRAS takes place for various reasons such as the privatisation of former state-owned businesses, the deregulation of markets, incentives for increasing investment, improved education and training, trade union reforms and an increase in the workforce [A]. The above supply-side policies aim to improve the efficiency of the markets in which they operate. For example, privatisation is expected to reduce average costs; new owners are likely to provide new investment. Both are primarily examples of microeconomic policies that aim to make markets more efficient [E].

2 Improve this answer

There is a new paragraph on Pakistan's policy on privatisation and education and a final paragraph which considers whether an increase in aggregate supply is always beneficial.

A Privatisation Commission operates in Pakistan. Its function is to advise the government on which privatisations should take place and why, in some cases, privatisation is not in the country's best interests. In August 2019, the Commission announced plans for the privatisation of three more power companies, finance and engineering companies. Education policy in Pakistan is the responsibility of provincial governments. There are various schemes to encourage more students to stay in education. There is also a World Bank funded initiative to improve access to all levels of education, particularly for girls. The objective is to increase real incomes and employment.

An increase in long-run aggregate may not always be beneficial. New investment in power supply, finance and engineering firms is likely to increase various forms of pollution and could affect the health of those who work in these privatised firms. The increased resources in education may not lead to the expected increase in incomes and employment if the skills that are being taught are not ones required by employers. In some cases, therefore, an increase in long-run aggregate supply may not be as beneficial as first thought.

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 25

Key skills exercises

- 1 For a given set of resources, a country has an absolute advantage in producing a good if it can produce more of that good than another country.
- 2 For a given set of resources, a country has a comparative advantage in producing a good when it has a lower opportunity cost compared to another country.
- 3 Free trade is when goods and services are exchanged across national frontiers without any restrictions.
- 4 The terms of trade is a numerical measure of the relationship between export prices and import prices.
- 5 The terms of trade is measured by $[\text{Index of export prices} \div \text{Index of import prices}] \times 100$.
- 6 See worked example in the workbook.
- 7 The CPTPP allows members to specialise in those products where they are more efficient compared to other members. This is due to its commitment to free trade between members.
- 8 A CPTPP member, such as Australia or Japan, could set up a factory in Vietnam. As Vietnam also has a free trade deal with the USA, goods made in this factory will be able to enter the US market freely.
- 9 The main benefit is that Proton's vehicles can be sold tariff-free in all other members of the CPTPP. The threat is that more efficient vehicle manufactures elsewhere in the CPTPP, Japan especially, could export more, better vehicles to Malaysia, driving Proton out of the market.
- 10 **Outline:** The main benefit for the UK is that manufactured goods would be able to enter the CPTPP market free of any tariffs. Exports from CPTPP members, particularly food, could freely enter the UK market. Consumers throughout the CPTPP are likely to benefit from lower prices and a wider range of products becoming available. Inefficient UK manufacturers will struggle to compete and could go out of business. There will also be pressures on UK farmers given that three CPTPP members are important agricultural producers.

Practice questions

Multiple-choice question

- 1 C.
A reduction in the terms of trade is a deterioration. The scale of change is represented by a percentage and not absolute change.

Essay questions

- 1 **Outline:** The principle or theory of comparative advantage is used to explain a situation where a country can produce a product at a lower opportunity cost than another country. The usual way of understanding this is by means of a simple 2 x 2 table. It is convenient to show comparative advantage where one country has an absolute advantage in the production of both products. After specialisation, there are gains from trade through increased total production [A].
It is difficult to identify the benefits of comparative advantage as the principle has its limitations and is not always applied or obvious in practice [E].

2 Improve this answer

This is an improved answer for Q2. The skills have been annotated.

The terms of trade are a measure of the ratio of export prices to import prices. It is measured as an index using the following formula:

Terms of trade index = [Index of export prices ÷ Index of import prices] × 100 [K]

As an index, it is compiled from the wide range of goods and services that are traded. Weights are used to determine the relative importance of these products in a country's international trade [K].

When the index increases above 100, this is good news for an economy – it means that the price it is receiving for its exports has improved relative to the price it is required to pay for imported goods and services. The terms of trade have improved. The reverse is also true when there is a deterioration, and can be a particular problem for low-income countries that are heavily dependent on agricultural exports [A].

The domestic price level, or more specifically, any change in the domestic price level, affects a country's terms of trade. In an inflationary period, the price level rises, and the outcome is that all prices, including exports, increase. This increase can affect demand from trading partners, although the extent of any change will depend upon the price elasticity of demand and the relative inflation in the economies of trading partners. This is particularly important where products traded have an elastic demand [A].

A change in the exchange rate of a country also impacts on the terms of trade. A depreciation or devaluation of the exchange rate increases the relative price of imports compared to exports. It is a commonly used policy where an economy's balance of trade is showing an increasing deficit. A depreciation is widely used in such circumstances and can often be undertaken in small discreet stages compared to a devaluation.

The purpose of the depreciation therefore is to improve a country's terms of trade. The expectation is that it will succeed in improving the balance of trade and increase aggregate demand. It may not succeed in the short run if the price of exports and imports are inelastic. In time, provided there are no quality issues, the exports of a country should increase as the foreign exchange rate depreciates [A].

As analysed above, changes in the domestic price level and the external exchange rate affect the terms of trade, and in turn, aggregate demand and the balance of trade in an economy. The impact of change is uncertain though, as the demand for exports and imports depends on a number of factors, only one of which is their price [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 26

Key skills exercises

- 1 Protectionism is where a government protects its domestic producers from foreign competition.
- 2 A tariff is a tax on imported goods. An example is the 10% US tax on aluminium imports.
- 3 A tariff works through increasing the price of a good to consumers. The aim is to encourage them to replace imported goods with the same or similar products that are produced domestically.
- 4 A quota is a limit on imported goods. An example is the US quotas on many different types of steel imports.
- 5 The quota restricts the supply of imports. There is no additional revenue for the government, although the price of imported goods subject to the quota may increase if demand outstrips the quota.
- 6 Exchange control limits the amount of foreign exchange that can be used to buy imports. It is usually used when a country has a long-term deficit on the current account of the balance of payments.
- 7 An embargo is a complete ban on imports of a particular product. It is usually imposed on harmful products or weapons.
- 8 Voluntary export restraint occurs when there is an agreement to place a limit on exports of a product to another country.
- 9 Infant industries (sunrise industries) are new industries that are likely to find it difficult to compete with more established foreign industries.
- 10 Dumping is when a product is sold in a foreign market at below the cost of production. An example is where a French manufacturer sells aluminium panels at below cost elsewhere in the EU.
- 11 **Outline:** The impact on the US economy is: to protect employment in the steel and aluminium industries and in their supply chains; to encourage US steel and aluminium industries to become more competitive; to reduce the value of steel and aluminium imports leading to an improvement in the balance of trade
- 12 See worked example in the workbook.
- 13 **Outline:** A depreciation of the Brazilian real will reduce the relative price of Brazil's exports of steel and agricultural goods compared to prices of trading rivals. The real's depreciation will benefit Brazil's economy. Aggregate demand should increase, creating more jobs in steel manufacture and agriculture. This in turn will produce a positive wider economic effect throughout the economy. The Brazilian government may also receive an increase in its revenue as the money paid in taxes should increase. The US producers of steel and certain agricultural goods will lose out as imports from Brazil increase due to their improved price competitiveness. Aggregate demand will fall and jobs will be lost in these activities. There is also likely to be a negative impact on the balance of trade due to an increase in the value of the imported goods.
- 14 **Outline:** Protectionist measures imposed by the USA aim to protect jobs and in some cases, to protect inefficient producers. These measures are counter to the principle of comparative advantage. It can be argued that the USA should be doing more to assist in the development of an emerging economy such as Brazil.

Practice questions

Multiple-choice question

1 B.

The intention of imposing a tariff on food imports is to protect domestic food producers. The tariff will have most effect when the price elasticity of demand for food is elastic.

Essay questions

1 **Improve this answer**

This concluding paragraph would improve the answer for Q1. The skills have been annotated.

Tariffs especially but also quotas are used by many countries. For high-income countries like the USA and EU members, a tariff is probably better than a quota since it allows market forces to operate, albeit at a higher price, while not being restrictive on consumer choice [E].

2 **Outline:** Typical arguments include:

For:

- to protect infant industries or sunset industries
- to protect employment especially in strategic industries
- to reduce import expenditure and improve the balance of trade
- to protect against dumping of cheap imports [A].

Against:

- reduces the benefits of specialisation and free trade
- encourages inefficient producers to remain in business
- higher prices and less choice of goods for consumers [A].

The evaluation could make a distinction between the above arguments for countries with different levels of income [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 27

Key skills exercises

- 1 The balance of payments is a record of a country's economic transactions with the rest of the world over one year.
- 2 Current account, capital account, financial account, net errors and omissions.
- 3 The four parts of the current account of the balance of payments are:
 - trade in goods – exports and imports of goods [visibles].
 - trade in services – exports and imports of services [invisibles].
 - primary income – profits, interest and dividends earned on direct investment abroad and foreign earnings on investment in the country; includes workers' remittances.
 - secondary income – payments made and receipts received for which there is no exchange of an actual good or service.
- 4 The balance of trade in goods and services is the difference in the value of exports and imports of goods and services.
- 5 The current account balance is the balance of trade in goods and services plus net investment income from overseas assets and net transfers.
- 6 There is a balance in the current account of the balance of payments when total payments are about the same as total receipts. An imbalance is when there is a clear deficit or surplus between total payments and total receipts and which is likely to require some form of government response.
- 7 **Outline:** The US economy has recorded deficits on the current account of the balance of payments for many years. The likely causes are: a high demand for imported goods, particularly when there is growth in aggregate demand and economic growth; a slowing of demand for US exports in some markets; the need to import raw materials and other supplies for US manufacturing businesses; an over-valued dollar; low labour productivity compared to other countries.
- 8 **Outline:** The consequences for the US economy of imbalance in the current account of the balance of payments are: an increase in sovereign debt; a need to implement deflationary fiscal and monetary policies; a need to increase tariffs on certain imported goods; a depreciation of the exchange rate.
- 9 See worked example in the workbook.

Practice questions

Data response questions

- 1 \$308bn [K].
- 2 In 2018, except for March exports and December's imports and exports, the monthly year on year change for imports and exports was positive. In 2019, more monthly changes were negative than positive, although the scale of all of the changes (excluding February exports) was less than for 2018. The change in exports from March 2019 was particularly small [A].
- 3 The other information that is required is for primary and secondary income [K].

Essay questions

1 Outline: The persistent current account surpluses that have accrued in a country such as China could be inflationary. Although consumers will enjoy more consumer goods and a better standard of living, the price level is likely to rise, posing a risk to the competitiveness of export prices. The surpluses could be used to increase investment in infrastructure as a means of increasing the growth rate [A]. The surpluses could lead to international pressure to revalue the currency, something a government will be reluctant to do since its exports will become less competitive compared to goods from elsewhere. An occasional surplus is in some respects more acceptable than persistent surpluses [E].

2 Improve this answer

This additional paragraph would improve the answer for Q2. The skills have been annotated.

Another cause of disequilibrium in the current account is the foreign exchange rate of a country. If this is relatively high, it will make the price of exports uncompetitive compared to similar goods from trading rivals. It might also prompt domestic consumers to buy more imports, which are now a little cheaper compared to domestically produced goods. The final impact will depend on the price elasticity of demand for both exports and imports. The impact on the current account will be greatest if imports are inelastic and exports, price elastic [A].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 28

Key skills exercises

- 1 An exchange rate is the price of one currency in terms of another currency. For example, US1\$ = 160 Pakistan rupees (August 2020).
- 2 The exchange rate is usually expressed in terms of US dollars as the dollar is the most widely used currency for international transactions.
- 3 A floating exchange rate is one that is determined by the market forces of demand and supply.
- 4 A depreciation is a fall in the value of a currency – this will cause a reduction in export prices in terms of foreign currencies and a rise in import prices in terms of the domestic currency.
An appreciation is an increase in the value of a currency – this will cause an increase in export prices in terms of foreign currencies and a fall in import prices in terms of the domestic currency.
- 5 A hot money flow is a short-term movement of money between countries.
- 6 **Outline:** The exchange rate of the Japanese yen changes when there is a change in the demand and supply for this currency. For example, an increase in a country's exports will mean that the demand for its currency increases resulting in an appreciation of its exchange rate. Conversely, an increase in imports means that more of a country's currency has to be sold, causing a depreciation of the exchange rate.
- 7 See worked example in the workbook.
- 8 **Outline:** When trading with the USA, Japanese car exporters will have to forecast a rate of exchange a few months ahead of from when the order was placed. This is difficult, especially when there are fluctuations in the exchange rate as there were between 2012 and 2015. The yen dollar exchange rate has been more stable from 2017 to the start of 2020. This stability will make it easier for the Japanese car exporter to agree an exchange rate with US traders.

Practice questions

Data response questions

- 1 i From the middle of 2010 to the end of 2011
ii From the middle of 2012 to the end of 2015 [K].
- 2 Japanese consumers want to buy more US exports. A Japanese company may want to set up a manufacturing plant in the USA [K].
- 3 Japanese companies sell more products to the USA. An increase in dividends paid to Japanese investors in the USA [K].

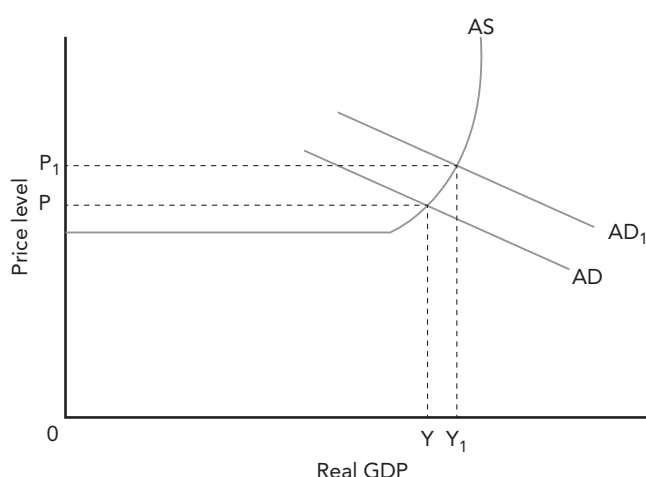
Essay questions

1 Improve this answer

This is an improved answer for Q1, which includes a diagram. The skills have been annotated.

A depreciation of the exchange rate occurs when a currency loses value compared to a foreign currency, usually the US dollar. A typical example is our Malaysian ringgit. Today, there are about 4 ringgits to a dollar – a year ago there were 4.2 [K].

The depreciation of a currency makes exports cheaper in terms of foreign currencies and imports more expensive in terms of the domestic currency. This is good news for businesses exporting goods to other countries and should increase their sales of these goods in the domestic market. Imported goods will be less price competitive than before the depreciation. Overall, a rise in net exports will be the most likely outcome, although this will depend on the price elasticity of demand for exports and imports [A].



The rise in net exports will increase aggregate demand as shown in the diagram. The increase from AD to AD_1 leads to an increase in real GDP but with an increase in the price level from P to P_1 [A].

As the diagram shows, the rise in aggregate demand will lead to an increase in inflation once the economy has reached full capacity. This is demand-pull inflation since resources are becoming scarce, meaning that prices are increasing. Inflationary pressures can also result from the increase in price of imported goods, particularly if imports are used in the production process. Such inflation is cost-push inflation. The increased price of imported consumer goods will be passed on to consumers, providing a further instance of cost-push inflation [A].

In conclusion, it is not easy to say which of the two causes of inflation is most damaging. For most economies, cost-push inflation tends to be the main source of inflation following a depreciation of a currency. Managing higher import prices is mainly outside the scope of most governments, making cost-push the more damaging of the two causes of inflation [E].

- 2 **Outline:** An appreciation of the exchange rate will make a country's exports more expensive in terms of foreign currencies. Imports will become cheaper in terms of the domestic currency [K].

In the short term, the cheaper imports will be increasingly demanded by consumers. They will get additional benefits from the consumption of cheaper imports and may experience a wider range of imported products. The downside is that the demand for domestic goods will fall. In turn, this is likely to reduce inflationary pressure as aggregate demand will decrease. It will also result, though, in an increase in unemployment and a reduction in economic growth [A].

A further issue concerns the current account of the balance of payments. The outcome will depend upon the price elasticity of demand for exports and imports. If the demand for exports is price inelastic, then a current account surplus will persist or a deficit will be reduced. If the demand for imports is price inelastic, then this will increase a deficit or maybe reduce a surplus [A].

Whether there is net benefit will depend on evaluating the impact of the respective benefits and costs. This will vary from one economy to another, particularly depending on the country's level of income and the price elasticity of demand for exports and imports [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 29

Key skills exercises

- 1 There is stability in the balance of payments when over a few years taken together, payments and receipts approximately balance.
- 2 There is imbalance in the current account of the balance of payments when over a few years taken together, there is a persistent deficit or surplus of receipts over payments.
- 3 A contractionary fiscal policy reduces aggregate demand and the demand for goods and services, including imports; an expansionary fiscal policy increases aggregate demand including consumer spending on imports. These policies can correct imbalances.
- 4 An increase in the rate of interest is a way of reducing consumer spending, reducing the demand for imports; this will help to correct a current account deficit. A reduction in the rate of interest increases consumer spending, including spending on imports. This will help to correct a current account surplus.
- 5 Supply-side policies aim to improve the competitiveness of domestic businesses. Where businesses become price competitive, exports will increase so reducing a deficit in the current account of the balance of payments.
- 6 Protectionist measures, such as tariffs and quotas, aim to reduce the amount of imports and to transfer some of the demand to domestically-produced substitutes. If successful, the deficit on the current account of the balance of payments should be reduced.
- 7 See worked example in the workbook.
- 8 A reduction in imports of capital goods could lead to a reduction in Pakistan's rate of economic growth.
- 9 Remittances are transfers of money made by Pakistani workers or residents in other countries back to Pakistan. In value they are about the same as exports. Remittances are essential for the stability of the current account of the balance of payments.
- 10 **Outline:** Other policies include: a depreciation of the rupee; exchange controls; export subsidies. Longer term, deflationary fiscal or monetary policies or supply-side policies could be used. The discussion should refer to a timescale and an evaluation of which policy or policies is likely to be most effective.

Practice questions

Data response questions

- 1 Stable exports; falling imports but still a balance of trade deficit; stable remittances [K].
- 2 The diagram makes it easier to pick out the main features of Pakistan's current account deficit [K].
- 3 The data in Figure 29.1 is quarterly data; the data in the text is monthly data [K].

Essay questions

- 1 **Outline:** An appreciation of the exchange rate will lead to a fall in the relative price of imports compared to goods produced domestically and an increase in the relative price of exports compared to prices of trading rivals [K].

The appreciation will have occurred gradually because of market forces in the international currency market. The success in reducing a surplus in the current account will particularly depend on the price elasticity of demand for exports and imports. If these are both elastic, then the current account surplus should reduce. If both are inelastic, then the reduction in the surplus will be unlikely. Other policies will have to be used [A].

Other considerations include the size of the current account surplus and how long there has been a surplus [E].

2 Improve this answer

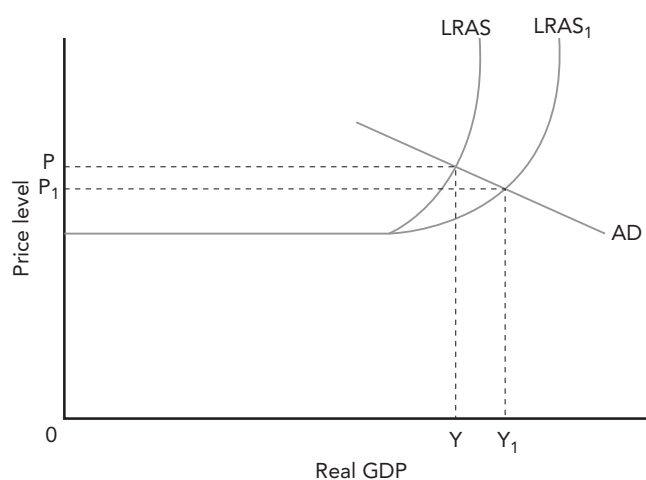
This is an improved answer for Q2. The skills have been annotated.

A deficit occurs in the current account of the balance of payments when the total value of imported goods and services is greater than those that are exported. If the deficits persist over a number of years, then this requires government intervention. Various interventions can occur, one of which is to develop supply-side policies as a means of reducing the deficits [A].

Supply-side policies aim to increase aggregate supply in the economy. They result in the LRAS curve shifting to the right, increasing real GDP. In general, this is shown in the diagram [A].

Some supply-side policies can be specifically geared towards reducing a current balance deficit.

One way of reducing a deficit is to improve the competitiveness of exports relative to similar products made by trading rivals. This can occur if production efficiency [for example output per unit of input] improves. Better more up to date technology or a better qualified workforce are two ways in which this can occur [A].



Governments can achieve increased efficiency by encouraging firms, domestic and multinational, to invest. This can be done through a cut in interest rates, or by making it easier for foreign firms to set up in an economy. Another arguably more radical way could be through the deregulation of markets or selling off state-owned businesses to new private owners. Each of these methods should result in increased investment and efficiency. In turn, the country's exports should become more price competitive and are likely to be of better quality. Assuming demand is price elastic, the value of exports should increase, reducing the current account deficit [A].

A second group of supply-side policies, education and training, is designed to improve the quality of the workforce and, maybe, the quantity employed. Although long term, these policies have been used by many Asian economies to improve their global competitiveness. Typical policies are to raise the school leaving age, fund new apprenticeships and to provide grants for students studying science and engineering subjects at university. As with earlier policies, the objective is to secure a better qualified, more productive workforce that over time will lead to an increase in a country's exports. Alongside, the aim is also to cut back on imported goods which can now be produced by domestic firms. In short, the outcome will be a reduction in the current account deficit on the balance of payments [A].

To conclude, two groups of supply-side policies have been analysed to show how they can lead to improved efficiency which in turn will reduce a current account deficit. Achieving this result will take time and will require not just commitment but also substantial funding from the government to make it happen [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 30

Key skills exercises

- 1 Utility is a measure of satisfaction that someone receives from the consumption of a good. Utility is usually calculated by the price a consumer is willing to pay to consume a good.
- 2 Total utility is the total satisfaction derived from the consumption of all units of a good over a given period of time.
- 3 Marginal utility is the additional satisfaction a consumer gains from the consumption of one more unit of a particular good.
- 4 The law of diminishing marginal utility states that as the consumption of a good increases, the satisfaction from consumption decreases.
- 5 The equi-marginal principle states that consumers maximise their utility when the marginal valuation for each product consumed is the same. (Marginal valuation is calculated as marginal utility divided by the price paid for the product).
- 6 An individual's demand curve for a product can be derived by taking different combinations of the marginal valuation and plotting these on a graph. The market demand curve is plotted in the same way, taking into account all consumers of the product.
- 7 See worked example in the workbook.
- 8 Unlike panic buying, consumers are acting rationally through the precautionary buying of necessities. This buying is taking place due to fears about the availability of necessities in the future. It may also occur when consumers fear that they may not be able to access adequate supplies in the future.

Practice questions

Multiple-choice question

- 1 B.
The consumer is acting rationally when the marginal valuation for each product is equal.
For pizza, the marginal valuation is $10 \div 2 = 5$
For ice cream, $5 = 2/x$, where x is the price of the ice cream. $x = \$0.40$.

Essay questions

- 1 **Outline:** Marginal utility assumes that consumers are rational when making purchases. It is implied that marginal valuation is equal for all goods that are purchased. The law of diminishing marginal utility applies and is represented by the downward sloping demand curve [A].
The reality is that consumers are not always rational in their purchasing decisions. The relative importance of satisfaction and price is often replaced by irrational decisions on purchasing more or less of a product, often not taking price into account [E].

2 Improve this answer

These two concluding paragraphs would improve the answer for Q2. The skills have been annotated.

Not all economists agree that the equi-marginal principle is a relevant explanation of consumer equilibrium. A particular issue is that some economists dispute whether utility can be measured. They argue that at best consumers can only rank their wants in order of preferences [E].

The equi-marginal principle itself has weaknesses. It is based on three assumptions. They are that a consumer has a limited income, always aims to maximise total utility and acts rationally when making consumption decisions [E]. A further criticism is that given the large number of products a consumer has available, it is practically impossible to make sure that the relationship between marginal utility and price is the same for all products consumed [E].

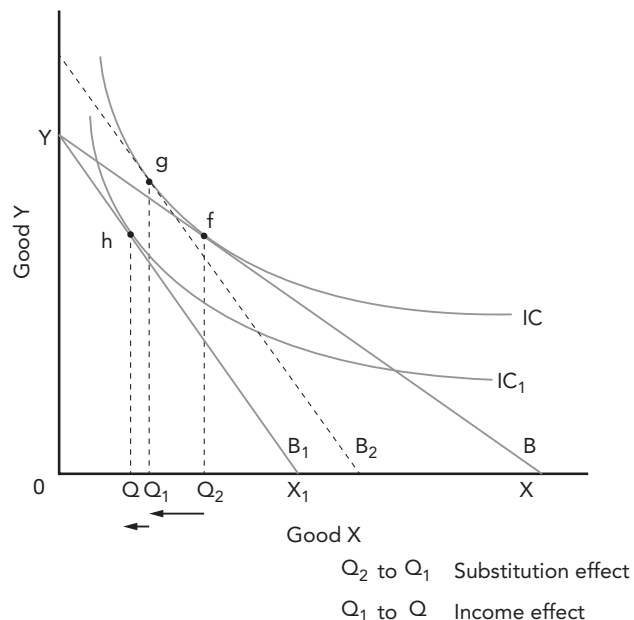
Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

Workbook answers

Chapter 31

Key skills exercises

- 1 An indifference curve shows the combinations of two goods that give the consumer equal satisfaction or utility.
- 2 Indifference curves never cross because if they crossed the consumer would not be acting in a rational way.
- 3 The marginal rate of substitution is the slope of an indifference curve. It represents the rate at which a consumer is willing to substitute one good for another.
- 4 When there is a change in the price of a good, the consumer has more or less money to spend on other goods. Real income has increased or decreased. This means that the consumer can spend more or less on the good. When the price of a good falls, real income increases. When the price of a good increases, real income decreases.
- 5 The substitution effect of a price change is always positive. It refers to a situation where following a price change, a consumer will substitute the cheaper good for one that is now relatively more expensive.
- 6 A Giffen good is a particular type of inferior good. The quantity demanded falls as price falls and the quantity demanded increases as price increases.
- 7 See answer to Q8 for the full set of labels.
- 8 A rise in price of good X means that real income has fallen. Less of good X can now be purchased. The budget line is now B_1 , with a maximum consumption of X_1 [A]. A new budget line is now drawn, B_2 , parallel to B_1 but at a tangent to indifference curve IC. This means that a consumer can have the same utility as before the price increase. The substitution effect is shown by a movement along the indifference curve from f to g [A]. As real income has fallen, the consumer has to choose from a lower indifference curve, IC_1 . The income effect is from g to h. In the case of a normal good, the substitution and income effects both lead to a lower demand for good X.
- 9 See worked example in the workbook.



Practice questions

Multiple-choice question

1 C.

As a Giffen good is a type of inferior good, the income effect will be negative. This rules out A and B. The substitution effect is positive, but less than the negative income effect, so the quantity demanded will fall as price decreases.

Essay questions

1 **Outline:** An indifference curve shows the combinations of two goods that give a consumer equal satisfaction. A budget line shows all the combinations of both goods that can be purchased with a given income and given prices of both goods [K].

In the case of normal goods, consumers will buy more of a good at a lower price as the consumer's real income has increased. The income and substitution effects are positive. If the price of a good increases, then real income falls, as does consumption – the income effect is negative and greater than the substitution effect. [A].

If the good is an inferior good, then the substitution effect will be greater than the negative income effect as consumers substitute better quality goods for the one that has fallen in price. So, in this case, more of a good will not be purchased at a lower price. [A].

Indifference curve analysis is based on the assumption that consumers always act rationally – this is not always the case. It is important that this assumption is clearly made [E].

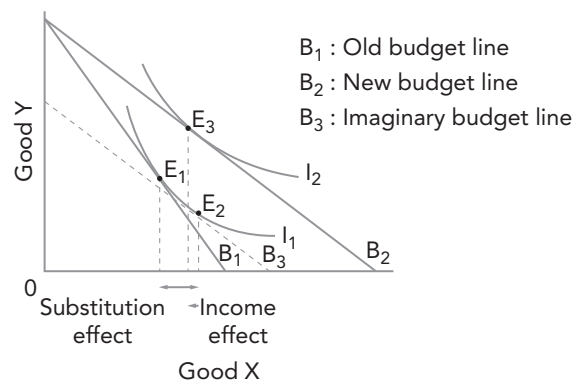
2 **Improve this answer**

This is an improved answer for Q2. The skills have been annotated.

It is true that consumers buy more of a good when its price falls. It is also true that consumers buy less of a good when the price increases. There are two situations where these circumstances are not true. They are in the case of an inferior good and the exceptional case of a Giffen good [K].

An inferior good is one where there will be a fall in demand when a consumer's real income increases. This is due to a decrease in price of the inferior good. The increase in real income will allow the consumer to spend more money on better quality substitutes. An example could be buying more meat and fresh vegetables instead of rice and bread. A Giffen good is a type of inferior good – the quantity demanded falls as its price falls. [A].

The diagram shows the inferior goods case. The overall effect of the decrease in price of the inferior good can be split into the substitution effect and the income effect.



As the price of the good decreases, there is a substitution effect towards this good. This is represented in the diagram by a movement along the indifference curve from E_1 to E_2 . This increase in demand for the good is then offset by a negative income effect. This is shown by a movement from E_2 to E_3 . Less is now consumed as this reduces the increase in consumption caused by the positive substitution effect [A].

In the case of a Giffen good, the income effect of the price fall is also negative but is greater than the substitution effect.

To conclude, it has been shown that it is not always true that consumers always buy more when the price of a good falls or buy less of a good when the price increases. The cases of inferior goods and Giffen goods are exceptions to the general rule. It should also be recognised that the indifference curve model assumes consumers are rational. This is not always the case. Irrational consumers may not buy more when the price falls or buy less when the price of a good increases. [E]

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 32

Key skills exercises

- 1 Economic efficiency is achieved when scarce resources are used in the most efficient way to maximise output.
- 2 Productive efficiency occurs when a firm is producing at the lowest possible cost.
- 3 Allocative efficiency occurs when firms are producing those goods and services most wanted by consumers. It is achieved when price is equal to marginal cost.
- 4 Pareto optimality is achieved when it is impossible to make someone better off without making someone else worse off.
- 5 Dynamic efficiency is a long-run concept and is when resources are allocated efficiently over time.
- 6 Market failure is a situation where the free market does not make the best allocation of scarce resources. Neither productive nor allocative efficiency is being achieved. Typical examples of market failure are where a government provides public goods or finds it necessary because of information failure to provide merit goods and regulate the production and consumption of demerit goods.
- 7 Productive efficiency is achieved when firms are producing at the lowest average cost.
- 8 Allocative efficiency is being achieved when price equals marginal cost.
- 9 Dynamic efficiency can be achieved through a higher long-term growth rate. The changing needs of the market lead to new production techniques and new technology benefiting consumers with lower prices and new products. Output increases relative to the input of resources.
- 10 The consequences of market failure are that resources are not being allocated in the most efficient way. This is evidenced in various ways such as through the non-provision of public goods and the under provision of merit goods.
- 11 Labour productivity is highest in high-income countries. GDP per hour worked is 15% higher in Ireland than in Norway, the second-ranked country. One likely reason for this is that Ireland has been relatively late to industrialise and create service sector jobs. The well-established manufacturing economies of Germany, the USA and France have similar levels of labour productivity. South Korea and Mexico are emerging economies. Their labour productivity lags behind that of other countries on the list.
- 12 See worked example in the workbook.

Practice questions

Multiple-choice question

- 1 C.

This is obtained by calculating the cost per unit of output for each of the four output levels. The cost per unit of output is \$80, \$75, \$73.3, \$77.5 for the four levels of output.

Essay questions

- 1 **Outline:** Privatisation takes place when a state-owned business, such as a manufacturer, is sold to the private sector. This can be for various reasons, one of which is that the industry is not competitive, makes heavy losses and is producing products that are not necessarily wanted by consumers [K].

Privatisation leads to an injection of new investment, technology and ideas. When combined, these should allow the firm to reduce costs and produce a new range of products that consumers want [E]. Economic efficiency is therefore increased [A].

Privatisation is no guarantee of success. Whether the new private sector ownership succeeds will depend on its ability to cut costs, reduce waste and be innovative in its product range [E].

- 2 **Improve this answer**

This an improved answer for Q2. The skills have been annotated.

The market mechanism produces the best or most efficient allocation of resources when there is economic efficiency. This occurs when there is both productive efficiency and allocative efficiency in the market [K].

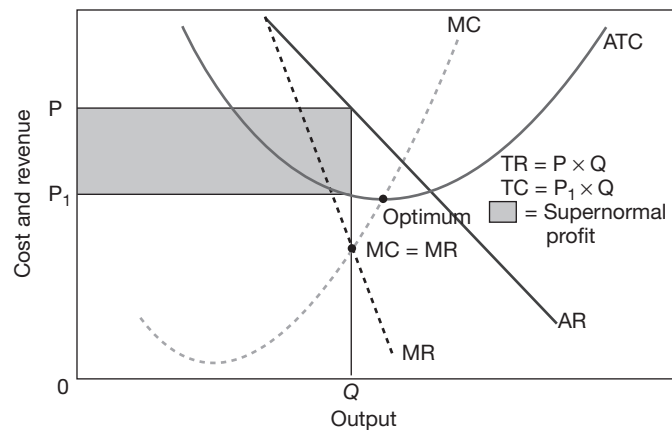
Productive efficiency occurs when a firm is producing its product at the lowest possible cost.

It is making the most efficient use of resources at its disposal. An example could be a garment manufacturer which is producing at the lowest point of the average total cost curve [A]. Allocative efficiency is different, not least because it is more concerned with consumers. Allocative efficiency is where the price of the good equals its marginal cost. This means that firms are producing those goods that are most wanted by consumers, giving maximum satisfaction. Consumers are satisfied with the price that they have to pay. [A].

The market mechanism is not ideal. This is an increasing concern as economies grow and the demand for goods and services increases. Markets are said to 'fail' when they are not producing the most efficient allocation of resources [A]. There are many examples. A typical one is the case of a monopoly firm. This firm is not productively efficient since it is not producing at lowest average total cost. It is not allocatively efficient either, because the price that is charged is above the marginal cost of production. These situations are shown in the diagram.

Other examples are where externalities are present in a market or where market failure requires a government to fund and provide public goods and merit goods.

As can be seen, the market mechanism fails to produce the most efficient allocation of resources in some situations. These situations are becoming increasingly more frequent due to the growing complexity of real-world markets [E].



Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 33

Key skills exercises

- 1 A negative externality occurs where the side effects of an activity have a negative or damaging impact on third parties, involving unexpected costs to them.
- 2 A positive externality is where the side effects of an action provide unexpected benefits to third parties.
- 3 A third party is someone not directly involved in the decision-making.
- 4 Private costs are paid for by an individual consumer or firm that produces a good or service. External costs are incurred and paid for by a third party not involved in the action. Social costs are the total costs (private costs plus external costs) of an action.
- 5 Private benefits are benefits that are received by a consumer or to a firm that produces a good or service. External benefits are those received by a third party not involved in the action. Social benefits are the total benefits (private benefits plus external benefits) of an action.
- 6 A production externality is a spillover effect as a result of production. A consumption externality is a spillover effect arising from the consumption of goods and services. Both types of externality impact on third parties in a negative or positive way.
- 7 Asymmetric information occurs when one party (a buyer or seller) has some information that the other party does not have.
- 8 Moral hazard applies to situations where there is a temptation to take risks when some other party (a buyer or seller) is covering those risks.
- 9 The purpose of a cost–benefit analysis is to assess whether a project such as a new road or a flood defence system should go ahead. It is widely used in the public sector to rank possible projects on the basis of their benefit:cost ratios.
- 10 The following negative externalities can apply:
 - pollution of the sea causing the death of birds, mammals and fish
 - people who consume fish from polluted waters might experience health problems
 - the livelihood of those who fish could be adversely affected through reduced fish stocks
 - discarding non-degradable plastic waste spoils the urban environment
 - requires landfill sites for the disposal of plastic waste.
- 11 See worked example in the workbook.
- 12 **Outline:** Likely costs include: enforcing the ban in towns and cities; manufacturers of single use plastics will have to change their production methods; stocks of single use plastics will have to be destroyed. Likely benefits include: reduced need for landfill sites; less pollution of rivers, canals and the ocean; more attractive urban environment; improved awareness of the dangers of plastic pollution.

Practice questions

Multiple-choice question

1 B.

The disposal of a plastic bag is a form of consumption which has a negative impact.

Essay questions

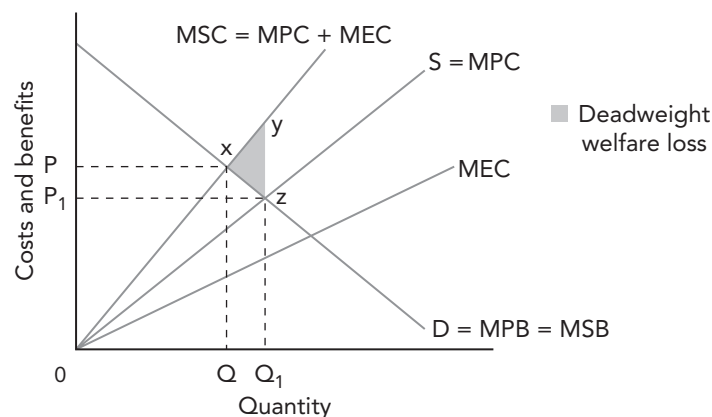
1 **Outline:** Cost–benefit analysis is a widely used technique for appraising capital projects, particularly in the public sector. Its purpose is to take ‘a long view and a wide view’; this means that all possible costs and benefits should be taken into account and that these should be considered over many years in the future. The technique is necessary as public funds are limited and there is no direct charge made to users of a proposed project [A].

With many projects, it is not possible to put monetary values on all of the costs and benefits [A]. A typical example is the wider economic impact of constructing a new road, airport or flood defence system. In such cases, strategic considerations often influence the decision as to whether the project should go ahead [E]. Environmental arguments may also need to be considered in the case of most projects. [E].

2 **Improve this answer**

This is an improved answer for Q2, which includes a new diagram and a paragraph of analysis. The skills have been annotated.

A negative production externality occurs when there is a misallocation of resources in the production process. This results in detrimental spillover effects on third parties who have nothing at all to do with the production action [K]. A typical example is where a chemical factory emits toxic waste into the local environment. This pollutes the air and can cause distress and discomfort to those people who live close by. A situation like that above can be shown in a diagram.



This diagram shows that the marginal external cost increases as more output is produced. In other words, more toxic fumes are emitted as output increases. The total costs of the activity are shown by the MSC curve – this is derived through adding the marginal private cost to the marginal external cost. The output produced by the firm is Q_1 , which is above the optimum level of output. The firm sells its overproduction at price P_1 , which is below the optimum price, P . The deadweight welfare loss due to this overproduction is shown by the shaded triangular area [A].

In conclusion, where a negative production externality exists in a market, there will most likely be a misallocation of resources which results in a welfare loss [A]. The reason for this is that the marginal private cost of an activity is not equal to the marginal social cost since there are external costs that have to be taken into account. These external costs are borne by third parties as a result of the factory emitting toxic fumes [A].

The only time that there will be no deadweight welfare loss is when there are no external costs. This will be where marginal private cost is equal to marginal social cost [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 34

Key skills exercises

- 1 According to the law of diminishing returns, as more and more units of a variable input are added to one or more fixed inputs, the marginal product of the variable input at first increases but there comes a point where the marginal product of the variable input begins to decrease.
- 2 Fixed costs are those costs that are independent of output in the short run.
- 3 Variable costs are those costs that vary directly with output in the short run. All costs are variable in the long run.
- 4 Increasing returns to scale is where output increases at a proportionately faster rate than the increase in factor inputs. Decreasing returns to scale is where factor inputs increase at a faster rate than the increase in output.
- 5 Internal economies of scale are the benefits a firm gains from falling long-run average costs as the scale of output increases. External economies of scale are cost savings that all firms receive as the scale of the industry increases.
- 6 Normal profit is a cost of production that is just sufficient to keep a firm operating in a particular industry. Supernormal profit is any profit that is earned above normal profit. Subnormal profit is that which is earned below normal profit.
- 7 In the long run, average total cost decreases as the scale of output increases. Average total costs are minimised when the firm is operating at the minimum point of its long-run average cost curve. Beyond this point, any further increase in output results in an increase in average total cost.
- 8 Three other types of economies of scale that may benefit large retailers are:
 - Marketing economies of scale. Cost savings can be made through efficient IT systems that can be linked to order stock and to replenish supplies to stores. Bar code scanners are widely used to implement these systems.
 - Managerial economies of scale. Large retailers can employ specialist managers as buyers or within large retail outlets. Such specialists might include managers with responsibility for fresh food, non-food, logistics, human resources and so on.
 - Financial economies of scale. Large retailers are likely to be able to borrow funds for expansion at a lower rate than smaller retailers as large retailers may be less of a risk to lenders.
- 9 Large retailers are able to benefit from external economies of scale by locating close to other retailers, some of which will sell different products. The area becomes a more attractive destination for customers.
- 10 In principle, diseconomies of scale could apply to large retailers such as Walmart. A company could be so large that management is poorly co-ordinated and there are internal problems of communications between managers and with the workforce. The morale of workers could be adversely affected and this could lead to poor quality customer service.
- 11 It is difficult to say. If Walmart's competitors are earning 2%, then this could be viewed as normal profit. If competitors are earning less than 2% or recording losses, then Walmart's 2% margin could be regarded as supernormal profit.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay questions

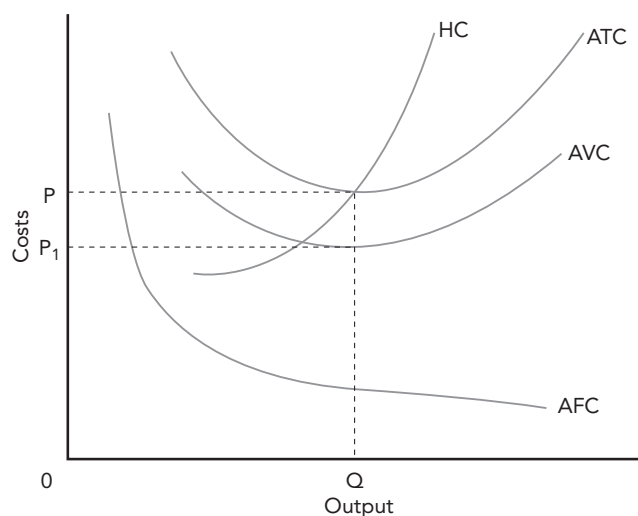
- 1 **Outline:** Economies of scale are benefits gained by a firm from falling long-run average costs as the scale of output increases [K]. In principle, large firms should have good quality data to enable them to calculate average cost. This would be particularly true for a firm that produces just one or a small number of products [A]. As the firm grows and increases the scale of its output, managers may not have the same knowledge of the firm as when it was operating on a smaller scale [A]. The minimum efficient scale may not be known and managers may not be aware that the firm is facing diseconomies of scale [E].

2 **Improve this answer**

This is an improved answer for Q2, which includes a diagram. The skills have been annotated.

The cost fixity problem is one that is faced by firms which have a high proportion of fixed costs in relation to total costs.

Fixed costs cannot be changed in the short run. Fixed costs are the costs a firm has to pay to use its fixed factors of production. Typical examples are the costs of rent for its premises, insurance charges, bank interest and fixed charges for water supplies. Variable costs are what a firm has to pay for variable inputs into its production process. These costs include labour and raw material costs, both of which will depend on the level of output that is produced [K].



Some firms, especially in the service sector, have a high proportion of fixed costs to variable costs in the short run, when they are unable to change their scale of output. A hotel is a good example. Fixed costs have to be paid regardless of how many rooms are sold on any particular night. Similar to a railway service or cinema any regulated network utility monopolies including gas and electricity transmission businesses. The product is perishable since it cannot be stored to be sold later [A].

The diagram shows how the cost fixity problem can be represented. The main point to note is that the AFC curve slopes very steeply to begin with before flattening out. This indicates the high proportion of fixed costs to total costs at a low level of output. The firm should charge a minimum price of P_1 in the short run in order to cover its variable costs. If this is not possible, the obvious thing is for the firm to exit the market [A].

In the long run, in order to make normal profit, assuming an output of Q , the firm should charge a price of P . This covers all costs.

Where firms have a cost fixity problem it is likely that there will be an almost constant need to review prices, as demand is likely to be variable. If this is done regularly, then the firm's profitability is more likely to be protected [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 35

Key skills exercises

- 1 Market structure refers to the way in which a market is organised in terms of certain characteristics such as the number of firms, nature of the product, barriers to entry, control over price and the availability of information cost structures, vertical integration and diversification.
- 2 In perfect competition, there are many firms, an identical product, freedom of entry, perfect information and firms are price takers.
- 3 Monopolistic competition is where there are many firms, a differentiated product, low barriers to entry, firms have some information available to them and are price makers but with limited control over prices.
- 4 An oligopoly operates in a market where there are few firms, high barriers to entry, a differentiated or identical product and where firms have some access to information and some control over price.
- 5 A (pure) monopoly is where there is just one firm in the market due to high barriers to entry. The firm has a unique product and considerable control over price. Little information is known about the firm [A]. A natural monopoly is one that has falling long-run average costs and where it is sensible to have only one firm providing for the market.
- 6 The purpose of barriers to entry is to prevent *new* firms entering an industry or market.
- 7 Examples of barriers to entry include:
 - legal barriers make it impossible for new firms to enter a market
 - cost barriers where the high fixed costs of entering a new market can be prohibitive
 - economies of scale allow existing producers to produce at a lower average cost than new start-up firms
 - marketing factors such as branding can be an obstacle for new firms entering a market.
- 8 A barrier to exit is the sunk costs that a firm will lose when leaving a market.
- 9 A contestable market is one where market entry is free and where there is likely to be a pool of firms waiting to enter the market if excessive profits are being made by firms already in the market.
- 10 A concentration ratio is a measure of power in a market. It is calculated as the market share of a given number of firms (usually 3, 4 or 5 stated as CR3, CR4 and CR5.) in relation to the total size of the market.
- 11 The likely market structure is an oligopoly. The four largest firms have an 89% market share. The top three firms have similar market shares.
- 12 It can be expected that firms compete with non-price competition. Mobile operators are likely to use offers of new devices and extra call time or texts to attract customers. Competition could also be on the strength and connectivity of their networks.
- 13 Additional information that could support the market being an oligopoly could be: the extent to which there is price competition; whether there is product differentiation; an estimate of the cost of entry into the market for a new firm how long the same firms have been in the market, relatively similar market shares between rivals.

Practice questions

Data response

- 1 See worked example in the workbook.

Essay questions

- 1 **Outline:** This is the conventional criticism of monopolies. It is based on price being higher and output lower than in more competitive market structures [A]. A monopoly also makes supernormal profit in the long run [K]. A monopoly is inefficient in the way it allocates resources both to consumers and to the economy. [A].

Not all monopolies can be criticised in this way [A]. A natural monopoly can provide benefits since long-run average costs are falling. Other monopolies, for example in pharmaceuticals, carry out research and development into new products that will over time improve the health of consumers and the community. Some monopolies benefit from economies of scale [A]. Consumers will benefit from lower prices and up to date products. [E].

- 2 **Improve this answer**

Learners' examples might include: transport, especially air transport, perhaps also railways and ride-hailing companies such as Uber; telecommunications where private firms now compete with a former monopoly public company; utilities such as electricity, gas and water where new private companies operate and compete on formerly state-owned infrastructure. For example, in the domestic market for air transport in many countries, new services have developed, and fares remain competitive due to the threat of new entrants into the market. From the firm's point of view, the market is unstable and often, not profitable.

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 36

Key skills exercises

- 1 A conglomerate is a company that has a large number of businesses that produce a wide range of goods and services.
- 2 Small and medium-sized enterprises (SME) are firms that have fewer than 250 employees.
- 3 Diversification is when a firm grows through producing or selling a wide range of different products.
- 4 Horizontal integration occurs when a firm merges or acquires another firm that is in the same type of business; vertical integration is when a firm grows often through merger or acquisition by producing backwards or forwards in its supply chain.
- 5 A cartel works when members formally agree to limit competition and honour their agreement to limit supply or fix the price of their product.
- 6 The principal–agent problem is when one person (the agent) makes decisions on behalf of another person (the principal).
- 7 Two possible suggested reasons:
 - Size of market. Where a market is small or local as in retail of food service, small firms are the typical business unit. They operate alongside big players such as McDonalds, KFC, Dominos and Starbucks.
 - Capital. The large number of SMEs may result from limited funding for new start-ups. Conglomerates have better access to cheaper funds and prove less of a risk to lenders.
- 8 Diversification occurs when a firm grows through producing a wide range of different products. Diversification often comes about when the market for a firm's product has little prospect to grow further. Expansion is usually into a closely related range of products. Samsung, for example, produces smartphones, home appliances, televisions and other types of electronics goods as well as clothing.
- 9 The principal–agent problem is unlikely to affect small firms and most SMEs since the principal is the owner and also the sole agent. In larger firms, the owners are shareholders, who appoint a board of directors to manage the company. Not all of the directors may be involved in running the company – they are dependent on information and feedback from agents to guide their managing of the firm. This can be where there is a gap between the principal and the agent.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay questions

1 Improve this answer

This is an improved answer for Q1. The skills have been annotated.

Production in all countries tends to be dominated by large firms. There are though many industries where small firms (with less than 50 employees and SMEs (less than 250 employees) have a significant role to play [K].

There are three main reasons why large firms exist in an industry. These reasons can also be used to explain why small firms exist alongside large firms in an industry. The three reasons are size of the market, economies of scale and barriers to entry [K].

Where a market is small then it is most likely to be dominated by small firms. Typical examples are local markets for restaurants, food stalls, hairdressers and dentists. Small firms are not able to benefit from economies of scale like larger firms. An example is the case of a local grocery store compared to a supermarket which can gain a cost advantage through bulk buying. Not having a competitive edge will restrict the size of the local firm [A].

The availability of capital, or lack of it, is important in industries like telecommunications. This is both competitive and capital intensive. In my country, for instance, there are just four providers in the market. Each firm has its own network and shops that retail devices for their networks. There is no way a small firm can enter this market [A].

In general, consumers are more likely to benefit where markets are competitive. Many local markets will have a monopolistically competitive market structure. Normal profits are earned in the long run even though firms may engage in non-price competition. Some local markets could be monopolies, for example just one garage or bakery. Consumers may be required to pay higher prices due to a lack of competition [A].

It is often implied that consumers may lose out where there are only a small number of large firms in a market. This is the case with oligopolies. Such firms compete in terms of non-price competition; consumers could benefit even though it would not be on prices. In the smartphone market, for example, firms could offer better contracts and new models to attract customers yet still have the same charges as their competitors.

Overall, therefore, it is most likely that consumers will benefit in markets where there are a large number of small firms. This is not always true, since in some markets with a small number of large firms, there may be situations where consumers can benefit [E].

- 2 Outline:** There are many reasons why it is possible for small firms to operate alongside large firms in all types of economy. The size and nature of the market is an obvious consideration. For example, in retail and food service, small firms are the typical business unit in such markets. They operate alongside multinational firms such as McDonald's, KFC and Costa and large domestic firms in these markets. Small firms are sometimes specialists in areas such as pharmaceuticals, IT or advertising and provide these services to larger firms [A]. A lack of funds for growth is an important reason why many small firms stay small [A].

Small firms operate in all types of economy, including command economies where limited private enterprise was allowed. Large firms have usually grown from a modest beginning as a small firm. For every one that has succeeded, thousands have not. Mixed and market economies provide favourable conditions for the growth of small firms. [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 37

Key skills exercises

- 1 Profit maximisation is the traditional objective of firms as suggested by economic theory. It is achieved when the difference between total revenue and total cost is greatest.
- 2 Survival is a short-term objective of firms and refers to a situation where losses are minimised.
- 3 Profit satisficing occurs when a firm is making a reasonable or minimum level of profit to satisfy its shareholders or stakeholders.
- 4 A sales maximisation objective is when the (physical) volume of products sold is maximised.
- 5 A revenue maximisation objective is where the firm aims to maximise its total revenue from sales.
- 6 Price discrimination is practised by monopolists. It is when the same product is sold at different prices to different market segments and where price differences are not justified by cost differences.
- 7 Limit pricing is where a firm, usually an oligopoly or a monopoly, sets a lower short-run price to deter new firms from *entering* a market. Predatory pricing is where an established firm sets low prices to force a new firm *out* of a market.
- 8 Price leadership is a common feature of oligopolies. All firms in the market accept the price set by the leading firm, usually the one with the largest market share.
- 9 Limon Chai could practise the following forms of price discrimination: first degree – charge each customer a different (wholesale) price; second degree – offer discounts to customers depending on how much they buy; third degree – charge more to customers that charge premium prices for the product (more difficult for a producer than a retailer).
- 10 The relationship between price elasticity of demand (PED) and Limon Chai's revenue depends on whether the product is price elastic or inelastic. If the product is price elastic, a decrease in price will increase revenue and an increase in price will decrease revenue. If the product is price inelastic, then a decrease in price will decrease revenue and an increase in price will increase revenue.
- 11 **Outline:** It is clear from information in the feature that the CEO and the two directors have different objectives in mind. The CEO is keen to pursue a profit maximisation objective, but seems unaware of the practical difficulties of its implementation. A sales maximisation objective is not possible, since the firm is working at almost full capacity and there is no indication that capital is available for capital investment. The most likely objective is that of profit satisficing as this is likely to be less noticeable to the company's employees and to the new owners of its biggest competitor.

Practice questions

Multiple-choice question

- 1 See worked example in the workbook.

Essay questions

1 Improve this answer

This is an improved answer for Q1. The skills have been annotated.

A market is monopolistically competitive when there are many firms competing with each other. Competition tends to be non-price competition largely because each firm has its own distinctive differentiated product **[K]**.

Economic theory assumes that firms in a monopolistically competitive market will have an objective of profit maximisation. This occurs where marginal cost is equal to marginal revenue. In the short run, it can result in a firm earning supernormal profit. The firm is inefficient at this position since its price is above average cost. In the long run, this supernormal profit will be competed away by new firms who see this as a signal for them to enter the market. The firm will now earn normal profit which is included in the firm's costs. It remains inefficient **[A]**.

When a firm earns normal profit in the long run, this is sufficient for it to stay in the industry. It could be argued that normal profit is a form of profit satisficing that keeps its owner or owners satisfied with their return on the time and money they have invested in a firm. Consumers of products from the firm are also likely to be satisfied as they are unlikely to feel that they have been exploited.

Other objectives of a monopolistically competitive firm may attract more attention from competitors and customers. Because of this, these objectives may not be appropriate. This applies especially to sales maximisation and revenue maximisation. Both, when promoted, could attract attention and lead to new firms entering the market.

A final objective that is relevant is that of survival. A firm in a monopolistic competition could be loss-making in the short run. It will continue in the market as long as its variable costs are covered. The aim will be to hope some firms leave the market and so lead to normal profit being earned in the long run **[A]**.

In conclusion, profit maximisation is arguably the best objective for a firm in a monopolistically competitive market, provided it can earn normal profit in the long run. Other objectives may be seen by competitors as a signal for them to enter this market **[E]**.

2 **Outline:** Firms in the same industry are likely to have different objectives for many reasons. These reasons include the size of firm, how long the firm has been in the industry, whether it is private or public sector, the degree of competition in the market, the objectives being promoted by stakeholders and so on. **[K]**.

New firms in an industry are most likely to have a survival strategy on entry. More established firms will have other objectives. The extent and intensity of competition also affects a firm's objective. Profit satisficing may be appropriate where the market is an oligopoly. Firms will be happy to earn what they feel to be a satisfactory return rather than run the risk of a price war. The objective of a state-owned firm may differ from that of a privately-owned firm in the same industry. The state-owned firm may be happy to break even, or possibly minimise its losses. Such objectives would be unlikely to be those of a privately-owned firm in the same industry.

These are just a few of the reasons why firms in the same industry may have different objectives. The differences in objectives will depend on the nature of the industry.

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 38

Key skills exercises

- 1 A specific tax is one that is fixed per unit purchased; an *ad valorem* tax is charged as a given percentage of the price.
- 2 A regulation is a control imposed by a government or by a regulatory organisation.
- 3 Property rights are where the owner has a right to decide how an asset may be used.
- 4 A pollution permit is a type of licence that is given by a government to allow a firm to pollute up to a given level of pollution.
- 5 Governments provide information to correct market failure, for example, through the over consumption of demerit goods.
- 6 The purpose of ‘nudge’ theory is to prompt individuals into making more effective decisions, for example, in relation to consumption.
- 7 Government failure occurs where government intervention to correct market failure leads to a net loss of economic welfare.
- 8 See worked example in the workbook.
- 9 An industry such as a railway may be nationalised if it is believed to be in the public interest. This can include where a private firm or industry which is of strategic importance is in danger of becoming bankrupt [A]. Another reason is if a private owner is not providing the volume or quality of production that consumers need [A]. A further example is where there are negative production externalities that can be best controlled through public rather than private ownership.
- 10 Demerit goods are so-called because consumers are unaware of the adverse effects of overconsumption of such goods. The purpose of providing information is to make consumers as fully aware as possible of the effects of consuming these goods, especially if consumption is excessive.
- 11 **Outline:** The provision of information is an important way in which governments hope to reduce the consumption of high-sugar drinks and chocolate. It is up to individuals whether they take notice of this information [A]. Alternative ways are to impose an additional tax (a sugar tax) or to regulate the maximum amount of sugar that is allowed in the production of such goods. These methods are more interventionist.

Practice questions

Multiple-choice question

- 1 B.
This is the only response where there is a net loss of economic welfare. The government’s tax revenue is reduced, yet its expenditure has increased. The interventions counteract each other. In A, C and D, there is a gain in economic welfare.

Essay questions

- 1 Outline:** There are many situations of market failure as a consequence of negative production externalities [A]. A typical one is where a factory discharges toxic waste into the air or into a water supply [A]. A case of positive production externalities is where a vaccine is developed to combat an infectious disease [A].

For negative production externalities, the usual way to correct the externality is through a type of green tax. Other methods are pollution permits, regulations and property rights. For positive production externalities, subsidies and the provision of information are often used to offset the externality. [A].

It is difficult to say which of the methods is best. Indirect taxes and subsidies are the traditional methods used. The incentives through the application of pollution permit schemes are particularly attractive. In some ways, it is best to use more than one intervention [E].

- 2 Improve this answer**

These two final paragraphs would improve the answer for Q2. The skills have been annotated.

As stated earlier, most governments provide public goods and many provide merit goods, both of which are funded from revenue. If merit goods are provided free of charge, like public goods, the government needs to have a good idea just how much it should be providing. This may be difficult if there is no precedent. If the government over-provides, resources are not being used efficiently. These spare resources could be put to better use elsewhere [A].

As this analysis has shown, government failure can involve a net loss of economic welfare. This has been shown in the three examples that have been analysed. This loss of economic welfare is shown through a higher level of pollution than expected, a reduction in the hours worked by high-income earners, leading to less output and less economic welfare where government spending is greater than required [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 39

Key skills exercises

- 1 Equity is where a society distributes its resources fairly among its people. Equality is where everyone gets the same share of resources.
- 2 The World Bank defines extreme poverty as an income below \$1.90 per day.
- 3 Absolute poverty is where a household's income is below the level required to meet basic needs. Relative poverty is where a household's income is 50% or less below the average income.
- 4 The poverty trap describes a situation where a person or household is worse off financially when in work compared to living off benefits that are available from the government.
- 5 Means-tested benefits are paid out based on income. Universal benefits are paid to everyone who is eligible to receive them, irrespective of income.
- 6 Universal basic income is where a regular payment is made by the government regardless of a person's or household's income.
- 7 Under a negative income tax system each person or household receives a fixed annual income benefit. There is a standard flat rate of income tax. If the tax paid on earnings is less than the annual income benefit, then the difference is paid to the individual or household by the government. This is why it is called a negative income tax. If the difference is above the average income benefit, then this is the amount of income tax that has to be paid.
- 8 South Africa's distribution of income has not improved since 1996 as evidenced by an increase in the Gini coefficient.
- 9 Figure 39.1 in the workbook explains the unequal distribution of income in terms of the difference in occupations. A farm worker earns just 3% of the daily earnings of a high-level professional.
- 10 The most likely reason for the more unequal distribution of wealth is hereditary. Wealth is accumulated by families and passed on from one generation to the next. The extreme inequality in the distribution of income makes it difficult for others to accumulate income and assets which then become wealth.
- 11 The first three policies are likely to improve the earnings prospects of many people. Of these, higher levels of education are likely to be most effective. Higher education, especially if more people go to university, can provide an opening for a professional career. Skills training and increased job creation can also help but not to the same extent. It is difficult to see how low cost housing can improve the distribution of income.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay questions

- 1 Outline:** Governments, particularly in higher middle-income and high-income countries, provide many types of benefit. In meeting the objectives of such payments, a government is very aware of issues relating to equality and equity [K].

Equality is where everyone is treated in the same way [A]. A good example is where a universal benefit is provided to older people or for the birth of a child. These benefits are paid irrespective of income [A]. Equity is when the objective of the benefit is to provide support for those in most need. It is a way of improving the distribution of income [A]. A means tested benefit such as paid to unemployed workers or for university education fees is a good example. This type of benefit is of most help to the poorer members of society [A].

The main problem with the equality objective is that state benefits are received by all, some of whom do not need the handout [E]. Equity is difficult to achieve due to governments having limited resources, and often lacking information to be able to target those in most need [E].

- 2 Improve this answer**

These three concluding paragraphs would improve the answer for Q2. The skills have been annotated.

It is clear from the above analysis that economic growth is the key to households and families moving out of poverty. In this way, living standards measured by GDP per head can be increased and in turn, people will be able to consume an increased quantity and quality of goods and services to improve their quality of life. One way of achieving this is through job creation – family members who may be unemployed may now be able to obtain work and so increase their disposable income.

The solution may point to economic growth. The reality may be different, especially in a country with a growing population. Although GDP may be growing at a few percent a year, if this growth is less than population growth, then the cycle of poverty will persist. A situation like this puts even more pressure on government budgets to provide means-tested and universal benefits to support its population [A].

Not all growth benefits the entire population. Much depends on how the additional resources are allocated. If more capital expenditure is at the expense of current consumption, then the benefits of economic growth are most likely to go to the next generation [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 40

Key skills exercises

- 1 A derived demand is where the demand for a good or service such as labour depends on the use that is made from it in the production of other goods and services.
- 2 The marginal revenue product of labour is the addition to total revenue from employing one more unit of labour.
- 3 The demand for labour in a firm or occupation depends on many factors including the wage rate or earnings, the marginal productivity of labour and the demand for the product.
- 4 The supply of labour in an occupation depends on monetary reasons such as the weekly wage or earnings, and non-monetary reasons such as hours of work, job security, job satisfaction and workplace security.
- 5 In a perfect market, the wage rate is determined where the demand for labour and the supply of labour are equal.
- 6 Transfer earnings is the minimum payment necessary to keep someone in their present occupation. Economic rent is any additional payment above transfer earnings.
- 7 The productivity measure in **a** is productivity per employee in 2018, measured in terms of \$US at purchasing power parity (PPP). The measure in **b** is productivity growth for the economy as a whole over a long period, 2001 to 2018. This measure will include other productivity measures as well as labour productivity.
- 8 Malaysia's productivity level per employee in 2018 is above that of the other developing economies shown in Figure 40.1 in the workbook. The productivity level is below that of the advanced economies, particularly Singapore, the USA and Hong Kong. It is closer to the productivity level of Korea and Japan.
- 9 An increase in labour productivity will mean that more goods and services can be produced from the same amount of resources. Where these goods are exported, then Malaysia's price competitiveness will increase relative to the competitiveness of its trading rivals.
- 10 **Outline:** To be a high-income country, Malaysia's GNI per head must increase to at least \$12 535 by 2024. To achieve this requires an annual growth rate of 4.5% to 5% per year. This seems unlikely given the collapse of oil and gas prices and the forecast negative growth in Malaysia's and the global economy in 2020. These external factors seem likely to override any internal obstacles to growth.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay questions

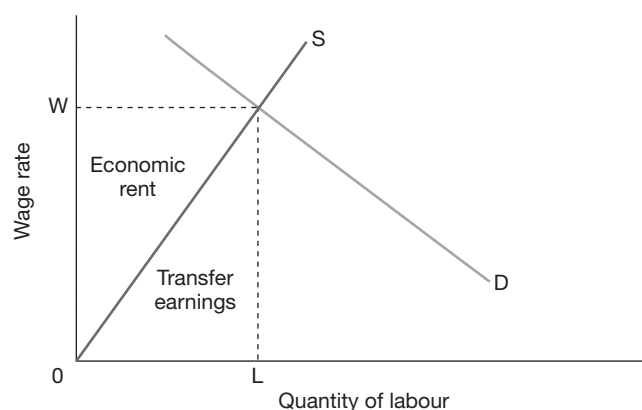
1 Improve this answer

This is an improved answer for Q1, which includes a diagram. The skills have been annotated.

The concepts of transfer earnings and economic rent can be applied to explain why the earnings of individuals or people in the same organisation differ, for example, why the chief executive of a multinational company is paid more than a local manager [K].

The difference between transfer earnings and economic rent is important when analysing differences in earnings. A clue to the difference is in their names. Transfer earnings are the minimum payment or earnings that someone requires in order to keep a person in their current job. If transfer earnings are lower than what is expected, the obvious thing is for this person to leave and get another job where the level of transfer earnings is acceptable [A].

Economic rent is any payment that is made above transfer earnings and, significantly, is what is required by a person to remain in their current role [K]. The diagram can be used to explain the difference.



Transfer earnings are shown by the area under the supply curve for labour. At any wage rate up until W , some workers are willing to supply their labour. This is their best alternative. For someone who is willing to work for a wage rate less than W , economic rent is what they receive over and above what they are prepared to accept [A].

In the case of the chief executive, the biggest proportion of this person's pay will be economic rent. For the local manager, what this person is paid is most likely to be a mixture of transfer earnings and economic rent. For people with exceptional talent, like movie stars and world-class sportspeople, their earnings are most likely to be just economic rent. [A].

Transfer earnings and economic rent can in part explain the difference in earnings between occupations. They are not the only reasons. In some cases, the chief executive of a charity may work for low salary if the person is committed to its cause. In other cases, there may be benefits in addition to pay which can explain why a person is paid a particular salary. These benefits are unlikely to be given to lower-level workers. There are also likely to be regional differences in pay for a given occupation depending on where a firm is located. So, overall, transfer earnings and economic rent provide some but not a complete explanation for differences in earnings [E].

- 2 Outline:** An imperfect labour market is one where wages are not determined by supply and demand; it is where the supply and demand for labour are affected by the actions of trade unions and governments [A].

A strong trade union can affect the supply of labour and wage rates in the labour market. The trade union restricts the supply of labour in order to increase the wage rates paid to its members. This is shown by a shift to the left of the labour supply curve. The result of this action is that fewer workers are employed compared to when wages are determined in the free market. This outcome is not to the benefit of the total workforce, and not to the benefit of employers who have to pay higher wages while dealing with a strong trade union [A].

With a legal minimum wage, there will again be a loss of jobs compared to when the wage rate was determined in a free market. This is because there will be excess supply of labour at the minimum wage rate, which is higher than the previous free market wage rate. It can also be argued that there is a danger of cost-push inflation due to higher labour costs. Other low-paid workers are likely to seek a rise to maintain a wage differential. It can be argued that a minimum wage benefits employers since employees are likely to be expected to work harder to remain in employment [A]. A pool of workers is likely to be waiting to be employed at the minimum wage rate. [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 41

Key skills exercises

- 1 The multiplier process provides an explanation of how an initial change in spending in an economy produces a final rise in GDP. In general terms, the multiplier is the change in income divided by the change in spending.
- 2 In a two-sector economy (households and firms) the multiplier is calculated by using the formula: $k = 1/\text{mps}$ where mps is the marginal propensity to save.
- 3 A closed economy is one that does not trade with other economies. An open economy is involved in trade with other economies.
- 4 Aggregate expenditure is the total amount that is spent at different levels of income in a given time period [A]. Aggregate expenditure consists of consumption (C), investment (I), government spending (G) and net exports (X – M).
- 5 Determinants of consumption include: income – consumption usually increases with an increase in income; rate of interest – a rise in interest rates is likely to reduce consumption as saving becomes more attractive; expectations – consumers may adjust their consumption depending upon their expected future incomes.
- 6 Autonomous consumption does not vary with income; induced consumption is dependent on the level of income.
- 7 Determinants of investment include: rate of interest – firms will find it more expensive to borrow funds for investment when interest rates are high; technological change – prompts firms to invest in up-to-date production systems; expectations – firms are more confident about investing if future expectations are positive; government policy – tax breaks and subsidies can be used to encourage private investment.
- 8 Autonomous investment occurs independently of a change in income. Induced investment is influenced by a change in income.
- 9 The accelerator process is an explanation of how induced investment depends on a change in income. It can be used to show how firms invest in new capital equipment in an irregular way.
- 10 Net exports is the difference between exports and imports. It is determined by various factors including: price competitiveness of exports and imports; changes in the exchange rate; the quantity of exports and imports; the extent of protection in international trade.
- 11 An inflationary gap is where aggregate expenditure is greater than potential output. A deflationary gap is where aggregate expenditure is below potential output.
- 12 a $k = 2.5 / (0.1 + 0.15 + 0.15)$.
b \$250m.
- 13 Spending by UK tourists in the EU creates income and employment for EU countries that receive tourists. This comes at the first stage through tourists spending money on hotels, meals, trips to museums and theme parks and so on. In turn, these businesses purchase supplies from other firms. This creates additional income and employment throughout the entire economy.
- 14 See worked example in the workbook.

- 15** One possible suggested reason is that tourism is a labour-intensive industry compared to other sectors of the economy. More jobs are therefore created for every €m spent by UK tourists than when the same amount of money is being spent by domestic consumers in that country.
- 16** A cut in government spending of say €100m would lead to a fall in national income of €200m.
- 17** **Outline:** The benefits of ‘high-end game lodge’ tourism are substantial in terms of income and employment for those involved. The economic effects will be dispersed widely in the community. They are high because most resources that are required come from the local area. There could be environmental costs if numbers are not regulated. There may also be other costs if not all members of the community are involved.

Practice questions

Multiple-choice question

- 1** B.
The mpm is calculated by $k = 1/(mps + mrt + mpm)$ So, $4 = 1/(0.15 + mpm)$;
 $0.6 + 4 mpm = 1$; $4 mpm = 0.4$ Therefore $mpm = 0.1$.

Essay questions

- 1** **Outline:** A rise in consumer spending will lead to a rise in aggregate expenditure. The multiplier is the extent of the final change in income in relation to the change in consumer spending. The final change depends on the size of the multiplier. The bigger the multiplier, the greater will be the increase in income [A].

The size of the multiplier will depend on leakages from the circular flow of income. These leakages are saving, taxation and imports. Taken together, the larger the extent of the marginal propensities of these leakages, the smaller will be the impact on national income. For example, if the sum of the marginal propensities of the leakages is 0.5, the value of the multiplier is 2. An increase in leakage propensities to 0.6 will reduce the multiplier to 1.67 [E].

- 2** **Improve this answer**

The first paragraph below replaces the first paragraph of the sample answer in the workbook. The following two paragraphs are new concluding paragraphs. Together these paragraphs would improve the answer for Q2. The skills are annotated.

Net exports are the difference between the exports and imports of goods and services in an economy. An increase in net exports is an injection into the circular flow of income. A decrease in net exports is a withdrawal [K].

The exports of an economy also depend on the ability of its trading partners to purchase these exports. So if a trading partner is experiencing an increase in its growth rate, the demand for imports is likely to also increase. This will be particularly true if imports are income elastic. Reference should also be made to barriers to trade. For example, if a trading partner increases tariffs on imported goods, this could reduce an economy’s exports and therefore, its circular flow of income [A].

To conclude, there are a wide range of factors that can account for a change in an economy’s net exports. The circular flow of income may increase or decrease as a result of the combined impact of the factors. On balance, a change in the price of a country’s exports seems to be fundamental in determining the extent of change in the circular flow of income [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 42

Key skills exercises

- 1 Actual growth is when output increases. It is in the short run and can be represented by a movement to a higher point within a production possibility curve. Potential growth is in the long run and can be shown by an outward shift of the production possibility curve.
- 2 A negative output gap is when there is a lack of aggregate demand in the economy. A positive output gap is when the economy is producing at above its maximum level of output.
- 3 A business cycle occurs when there are fluctuations in real GDP. A business cycle usually consists of four phases: upturn – the economy is growing at a faster rate; peak – the top point and a turning point for the rate of growth; downturn – growth rate decreases and may even become negative; trough – lowest point in the cycle with a lack of aggregate demand.
- 4 Inclusive economic growth is where the benefits of growth are distributed fairly and opportunities are provided for all to progress.
- 5 Sustainable economic growth occurs when the actions of the present generation do not threaten the ability of future generations to be able to experience the benefits of growth.
- 6 Using resources is where resources are used to generate future income and employment. Conserving resources is where there is a deliberate policy to replace resources to the same level.
- 7 Automatic stabilisers offset fluctuations in economic activity by reducing the increase in GDP during an upturn and reducing the fall in GDP when there is a downturn in the business cycle.
- 8 Azerbaijan has promoted inclusive economic growth through: improved education – an inclusive policy will provide opportunities for the entire population; work experience and training – a supply-side policy to prepare its young population for employment; providing a competitive market for SMEs to grow, particularly through encouraging more women to become entrepreneurs.
- 9 Azerbaijan promoted sustainable economic growth through: reducing its dependence on oil; exports of high-value agricultural products where it has a comparative advantage.
- 10 See worked example in the workbook.
- 11 Reducing dependence on oil is a positive way of reducing the environmental impact of the country's industry. SMEs, especially in the service sector, are likely to cause less pollution. Specialist agriculture could be sustainable, although the overall impact on climate change will be lessened due to the need to export the products.

Practice questions

Multiple-choice question

- 1 A.
All other ways of producing electricity will require a net use of resources.

Essay questions

- 1 Outline:** Inclusive growth is where the policy objective is to provide the benefits from growth for all on a fair basis. Sustainable growth is where the policies to promote growth should not threaten the ability of future generations to benefit from growth [A].

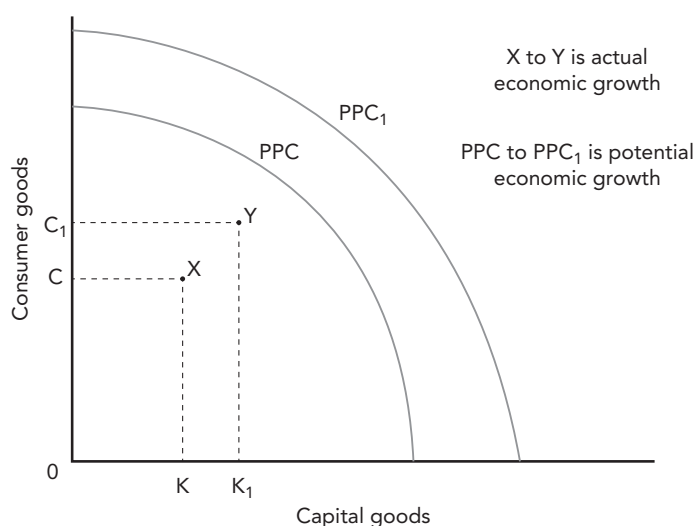
Both types of growth may be difficult to achieve in most middle-income countries. This is due to the already unequal distribution of income, the need to promote growth to reduce poverty and to improve the level of economic development. Most growth strategies that can be pursued in these countries are likely to require a net increase in resources. [E].

2 Improve this answer

This is an improved answer for Q2, which includes a diagram. The skills have been annotated.

Economic growth occurs when there is an increase in the real GDP in an economy. This is normally shown as an annual statistic. Economic growth has been the objective of most economies since it is through growth that economies also experience economic development. Typical examples of such economies are the Asian Tiger economies of China, Malaysia, Singapore and South Korea [A].

It is important to distinguish between actual and potential economic growth. Both are shown on the production possibility curve diagram.



Actual economic growth is shown where output increases from X to Y. This is short term and occurs when there is an increase in the quantity or quality or resources available in an economy. Potential economic growth is longer-term. It can be shown by an outward shift of the PPC indicating an increase in the productive potential of the economy. The difference between these two types of growth is referred to as the output gap [A].

Actual economic growth comes about through an increase in aggregate demand. This is done through expansionary fiscal and monetary policies. The resulting rise in consumer spending will encourage firms to increase their output. Promoting potential economic growth is different. It uses supply-side policies to increase the quality and quantity of resources available. Improving the quality of resources is very important. This has been one of the reasons for the high levels of growth recorded by the Asian Tiger and other emerging economies. Investing in education and training is particularly important in improving the future competitiveness of an economy. Another important supply-side policy is that of providing world-class infrastructure in terms of transport facilities, power supplies and telecommunications. The latter has been a driver behind Vietnam's recent growth [A].

Potential growth especially requires resources from both the private and public sectors. These resources are necessary to fund education and training initiatives, new infrastructure and investment in manufacturing and service industries. In the medium term, these resources are essential. Over time, there should be a payback when the benefits of these resources will be seen through the application of a more sustainable use of resources in the economy [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 43

Key skills exercises

- 1 Full employment is where all those who wish to work have jobs. The definition excludes frictional unemployment, which occurs when some people are experiencing unemployment when changing jobs.
- 2 Equilibrium unemployment occurs when the labour market is in equilibrium—any unemployment is voluntary, frictional or structural. Disequilibrium unemployment is when the aggregate supply of labour is greater than the aggregate demand for labour at the current wage rate.
- 3 The natural rate of unemployment is when the aggregate demand for labour equals the aggregate supply of labour at the current wage rate and price level.
- 4 The natural rate of unemployment is determined by supply-side factors such as the value of unemployment benefits, quality of education and training and information on job vacancies.
- 5 Voluntary unemployment is when workers refuse the work that is available because they do not consider the job or pay to be suitable. Involuntary unemployment is when workers have made every effort to find work, will accept whatever work they are offered, but are unable to secure a job.
- 6 Occupational mobility is the ability of workers to move from one occupation to another occupation. Geographical mobility is the ability of workers to move to a job in a different location.
- 7 Vietnam had a higher unemployment rate than Malaysia in 2005. Malaysia's unemployment rate was around 1% higher than that of Vietnam in 2010 and in 2015.
- 8 Economic growth in Brunei will provide more job opportunities, particularly in emerging and growing sectors of its economy. If young people lack the skills that are required for these jobs, there is likely to be a serious youth unemployment problem.
- 9 The objective of structural reform of the labour market is to provide more appropriate training opportunities and work experience for young people. This should provide a better skills match to secure employment that is not too adversely affected by the business cycle.
- 10 The main cost of youth emigration from Brunei is the loss of workers, especially those who have the skills that are in short supply. These workers could be the foundation for Brunei's future economic prospects. Over time there could be an unbalanced population structure. Brunei's competitiveness compared to other ASEAN member states might also be adversely affected.
- 11 **Outline:** Unemployment rates for ASEAN states, except Brunei and Laos, were higher in 2005 than in 2010 and in 2015. Except for Brunei, unemployment rates elsewhere have been falling since 2005. The most likely reason for fluctuating unemployment rates is the global business cycle. The more open economies especially will be affected by fluctuations in world trade due to currency changes, trade protection measures and the economic situation in trading partners. ASEAN has sought to reduce trade barriers between its members in this period – a decrease in unemployment rates is likely to coincide with a relaxation in protection.

Practice questions

Data response question

- 1 See worked example in the workbook.

Essay questions

1 Improve this answer

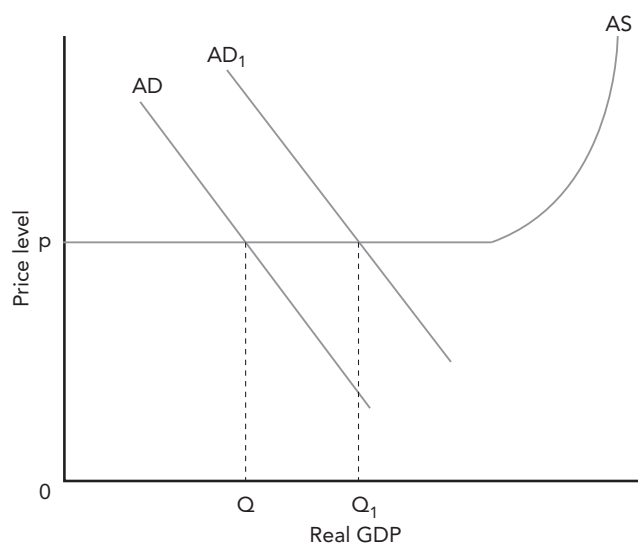
This is an improved answer for Q1, which includes a diagram. The skills have been annotated.

A person who is unemployed is defined as someone who is willing and able to work but is without a job [K]. Reducing unemployment is an important macroeconomic objective of all governments in all types of economy. The focus in this essay will be on how this might be achieved in middle-income countries. These are countries with a national income per head of \$1026 - \$12475. This definition includes many of the world's countries including the BRICS members, Egypt, Ghana and Morocco [K].

Demand-side and supply-side policies can be used to reduce unemployment in many middle-income countries. The best policy will depend on the root cause of the unemployment.

Structural unemployment is common in many middle-income economies that have experienced high rates of increase in real GDP. Many of these economies have seen job losses in agriculture and in some cases, coal mining and other extractive industries. Supply-side policies work best here. Governments should try to provide re-training for workers who have been displaced, although this is often difficult to undertake. Where there is frictional unemployment, then measures such as providing information on job vacancies can assist unemployed workers to return to work. In some countries, there are systems in place to make it easier for more women to enter the labour force [A].

When unemployment is for cyclical reasons, then demand-side policies can be most effective. The business cycle affects all economies and can be particularly severe in middle-income countries that rely on trade with high-income countries. Government policy is to use an expansionary fiscal or monetary policy or a combination of both to reflate the economy [A]. The effect on such policies is shown in the diagram.



Assuming the economy is operating below full employment level, the increase in aggregate demand from AD to AD_1 increases output from Q to Q_1 . This can be achieved through increased government spending on public goods or merit goods. A reduction in the rate of interest will generate new investment from the private sector and increase aggregate demand in a similar way [A].

To conclude, both demand-side and supply-side policies are able to reduce unemployment in middle-income countries. The policy that is best will depend on the cause of unemployment and whether the country is a lower or higher middle-income country. It is likely that higher middle-income countries will have more resources available to deal with unemployment [E].

- 2 Outline:** The natural rate of unemployment is when the labour market is in equilibrium with the aggregate demand for labour equalling the aggregate supply of labour. The natural rate of unemployment is a long-run concept. It varies from one economy to the next **[K]**.

The way to reduce the natural rate of unemployment is through supply-side measures. These measures are varied but all have the same objective: to bring down the natural rate of unemployment. In a high-income country, an effective policy could be one that reforms unemployment benefits. If these are reduced, some people who are unemployed could return to work. Retraining workers who have become unemployed for structural reasons in the economy could have the same impact **[A]**.

Some policies may be more effective than others in reducing the natural rate of unemployment. It would be relevant for a government to monitor the effects of any of the policies it chooses to implement **[E]**.

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 44

Key skills exercises

- 1 Functions of money: a medium of exchange – the basis for transactions between a buyer and a seller; a store of value – money can be kept in reserve for future use; a unit of account – different items can be compared in price; a standard of deferred payment – borrowers and lenders are able to buy and sell in the future.
Characteristics of money: money is generally acceptable, recognisable, portable, divisible, homogeneous, limited in supply, not easy to counterfeit.
- 2 Narrow money consists of notes and coins in circulation, cash held in banks and balances held by commercial banks at the central bank. Broad money is anything that can be reasonably converted into cash. This includes deposit accounts, foreign currency and some types of securities and government bills.
- 3 The quantity theory of money explains how changes in the money supply affect the price level. The theory is based on the Fisher equation $MV = PT$, where M is the money supply, V is the velocity of circulation, P is the price level and T is the transactions or output.
- 4 The bank credit multiplier shows how much additional liquid assets will enable banks to increase their liabilities. It is calculated by the value of new assets created divided by value of the change in liquid assets.
- 5 Quantitative easing is used when interest rates are low. A central bank buys government and private securities, with different maturity dates, from commercial banks and other institutions. The central bank credits the accounts of the commercial banks to enable them to lend money to customers.
- 6 Liquidity preference theory explains the demand for money. The theory recognises three motives for holding money: transactions motive, precautionary motive and speculative motive.
- 7 ‘Helicopter money’ is money that is given to everyone by the government in the expectation that it will be spent and so increase aggregate demand at a time of deep recession.
- 8 See worked example in the workbook.
- 9 An increase in the money supply is made when there is a need to get the economy to move out of recession. A reduction in the money supply is in response to the need to reduce the rate of inflation.
- 10 **Outline:** Helicopter money was just one method used by the federal government in an attempt to get out of recession. Interest rates were cut to their lowest level in order to stimulate consumption and investment. Fiscal policies included tax cuts, new infrastructure spending and grants and loans to business.

Practice questions

Multiple-choice question

- 1 B.

With a negative rate of interest, savers’ deposits are losing value as banks are charging savers to keep money in their accounts. The rate of inflation could be positive. The cost of borrowing from banks is always positive [C]. A is not correct since a negative rate of interest is designed to stimulate not reduce aggregate demand. D is also wrong for this same reason.

Essay questions

- 1 Outline:** The loanable funds theory states that the rate of interest is determined by the demand and supply of loanable funds [K]. Loanable funds is the money that is available to borrowers such as consumers, firms or the government. The demand curve for loanable funds slopes downwards like any demand curve. The upward sloping supply of loanable funds comes from savings. The higher the rate of interest, the more funds will be saved. [A].

The Keynesian theory of interest rate determination is known as liquidity preference. It states that the rate of interest is determined by the demand and supply of money. The money supply is fixed in the short run and usually determined by a central bank. An increase or decrease in the money supply will lead to a decrease or increase in the rate of interest [A].

- 2 Improve this answer**

This is an improved answer for Q2, which includes three new paragraphs. The skills have been annotated.

Inflation is defined as a sustained increase in the price level in an economy. Inflation is caused by demand-pull, cost-push and supply-side reasons. The control of inflation involves the application of contractionary monetary and fiscal policies and in some cases, supply-side policies [K]. The two former policies tend to be used where a short- to medium-term response is required.

There are two main groups of policy used to reduce inflation. They are contractionary monetary policy and deflationary fiscal policy. Both are likely to be used at the same time. These policies involve reducing the money supply and in the case of fiscal policy, cutting back on government spending or increasing taxation or a mixture of both. Supply-side policies could be used to control cost-push inflation although these policies will take time to have an effect. [K].

Getting the best policy is potentially difficult. It will also depend on the relationship between a government and its central bank, especially if the bank has a particular degree of independence. The nature of inflation in an economy is that inflation is usually caused by more than one factor [E]. So demand-pull and cost-push causes combine, leading to the increase in the price level. A further complication is that a depreciation in the exchange rate can cause inflation – this type of cost-push inflation cannot always be corrected by domestic policies [E].

Suppose inflation is primarily caused by an increase in the money supply. A reason for this could be due to quantitative easing when interest rates are low. The intention behind quantitative easing is to encourage the commercial banks to lend more money to businesses. If too much lending is agreed by commercial banks, the danger is that the rate of inflation is likely to accelerate, so off-setting the purpose of quantitative easing [A].

One of the big unknowns in economic policy is how firms and households will respond to policies to reduce inflation. Suppose there is a rise in the rate of interest. Consumers could respond by not reducing their consumption as they fear that further price increases could follow. Another example could be in the case of an increase in income tax. Consumers could work longer hours to maintain living standards or they could draw upon savings, both of which will increase aggregate demand at a time when the most appropriate policy is to reduce aggregate demand [E].

Not all governments have full control over monetary policy. In the EU, for example, the base rate of interest is set by the European Central Bank (ECB). For some member states, this rate may be too low for controlling their level of inflation. In such cases, other policies will have to be used. Another example is where an economy is experiencing cost-push inflation due to a depreciating foreign exchange rate. Many economies link their exchange rates to the US\$. Unless they change this policy, they are unable to do much in the short term to reduce this type of inflation [A].

Monetary and fiscal policies are appropriate policies for reducing inflation in an economy. The reality is that they may not always be effective for the reasons given above. The biggest problem facing policy makers is knowing the cause or causes of the inflation that they are seeking to control. Longer term, the contribution of supply-side policies could help to reduce some of the uncertainty in controlling inflation [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 45

Key skills exercises

- 1 The meaning of a low rate of inflation varies from one economy to another economy. A typical low rate is 2% to 3% per year. If the economy has an inflation target, a low rate of inflation is one that is either below or at the target level. A stable rate of inflation is where there are no serious fluctuations over a few years.
- 2 Balance of payments stability is where export revenue is equal to import expenditure.
- 3 A low unemployment rate in an economy is where any new jobs that are created do not increase economic efficiency.
- 4 Sustained economic growth is where an economy's annual rate of economic growth is stable or at around the same rate over a number of years.
- 5 Sustainable development is where any increase in output does not harm or compromise the needs of future generations.
- 6 See worked example in the workbook.
- 7 Low interest rates encourage firms and the South Korean government to borrow funds for capital investment. This investment can take various forms such as new plant and machinery, advanced technology and infrastructure projects, all of which contribute to future economic growth.
- 8 Low interest rates may contribute to an increase in the rate of inflation in South Korea. Consumers are likely to borrow money for the purchase of 'big ticket' items like cars, apartments and electronic products. A consumer boom can increase the rate of inflation. It will also increase and not decrease consumer debt.

Lower interest rates can also lead to lower unemployment. More workers will be required to produce the additional consumer goods provided these are not imported.

South Korea's current account balance of the balance of payments could fall into deficit if there is an increase in imported consumer goods and components for consumer goods that are produced domestically.

- 9 Supply-side policies can address the problem of youth unemployment through improved training and work experience for school and college leavers. The focus should be on providing training to allow someone to move directly into employment.

Making jobs permanent is difficult. One way may be to introduce new legislation to require employers to give more job security to employees. Trade unions may be able to put pressure on employers.

- 10 The spider chart indicates that for South Korea's economy, gross fixed capital formation has been the most important driver of economic success, closely followed by the control of inflation. GDP per capita receives a positive assessment, along with real interest rates. Economic policy seems to be appropriate. Although still positive, there seems to be most concerns about the future rate of economic growth.

Practice questions

Multiple-choice question

1 C.

Prices have increased in both years [A]. A is therefore not correct. It is not possible to determine if the rate of inflation is low [B]. There is no information to support D.

Essay questions

1 **Outline:** Economic growth has consistently been the main objective of governments in many types of economy. High rates of growth have been recorded in many emerging economies in Asia and among the central and eastern European members of the EU [K].

The main benefit of growth is that it can improve living standards of the population and provide the basis for future improvement. More resources can be made available for education, healthcare and other services that improve the lives of the population. This is the connection to economic development [A].

Economic growth cannot guarantee a rising level of development. If the benefits of growth are unevenly distributed, for example, then some groups in the population will lose out. If growth funds capital programmes and not consumer spending, then the benefits of growth will not be felt by the current members of the population [A]. A serious issue is that of the sustainability of growth; growth can involve huge environmental costs and the loss of valuable natural resources. In these cases, economic growth does not guarantee a rising level of economic development [E].

2 **Improve this answer**

This is an improved answer for Q2. The skills have been annotated.

All governments have a range of macroeconomic policy objectives. Maintaining a low rate of unemployment is one such objective. Unemployment occurs when someone who is willing and able to work does not have a job. This affects the well-being of the individual and the economy. An important consideration for a government is whether this policy should have a target rate for unemployment. The idea of a low rate of unemployment will vary from one economy to the next. It is also difficult to put a numerical value on just what constitutes a low rate of unemployment [A].

Governments have other macroeconomic objectives as well as maintaining a low rate of unemployment. For some economies, a priority is to control the rate of inflation. Many economies have a target, for example 2%, to help them determine whether macroeconomic policies should be directed to meeting this target if the rate of inflation increases above the target. Like unemployment, a high rate of inflation undermines confidence in an economy. Real incomes are likely to fall and there is a danger that export prices may become uncompetitive. If this is of concern, then controlling inflation rather than maintaining a low level of unemployment is likely to become the priority objective [A].

Another macroeconomic objective relates to the balance of payments in an economy. It is impossible for all economies to be able to balance their balance of payments accounts. A fundamental problem can arise if a country faces large deficits in its current account balance over a few years. This is a signal that competitiveness is being eroded and that external debt is increasing. If this occurs, then the government will have to switch its macroeconomic policy focus to controlling imports or increasing exports or to a depreciation of the exchange rate of its currency [A].

A final objective that has been pursued by virtually all economies for many years is one of economic growth. It is through growth that improved living standards can be achieved along with aspects of economic development. Growth policies, though, can be controversial where the growth objective overrides all other objectives. The result may be a higher rate of growth but the benefits are not seen by the working population [A].

To conclude, it is really difficult to confirm that a low rate of unemployment should always be the number one objective of macroeconomic policy. Circumstances may mean that other policy objectives have to be prioritised in order for an economy's economic well-being to take priority. In an economic context with no shocks and few surprises, a low rate of unemployment would seem to be the logical priority of macroeconomic policy [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 46

Key skills exercises

- 1 See worked example in the workbook.
- 2 Inflation can have a damaging effect on the current account balance if a country's rate of inflation is consistently greater than that of its main trading rivals. This is because export prices may become uncompetitive, causing a reduction in net exports.
A surplus on the current account might also cause inflation through an increase in net exports. This is because aggregate demand increases and puts upward pressure on the domestic price level.
- 3 If a country has a high rate of inflation, net exports are likely to fall, reducing the growth in output.
An increase in the growth rate might cause inflation. As more is produced, there is competition for resources, labour especially, and this could increase the likelihood of cost-push inflation.
- 4 An increase in net exports can lead to export-led growth. In turn, this can lead to an improvement in the current account of the balance of payments. This increase may be offset by a rise in the imports of raw materials and other products that are required to produce the higher output.
- 5 There is an inverse relationship between inflation and unemployment. A fall in the rate of unemployment is likely to lead to an increase in the rate of inflation. The increase in aggregate demand puts upward pressure on prices, including wage rates.
- 6 The traditional Phillips curve shows the relationship between the unemployment rate and the inflation rate over a period of time.
- 7 The expectations-augmented Phillips curve indicates that there may be the expected trade-off between unemployment and inflation in the short run, but that there is no recognisable trade-off in the long run.
- 8 Before 2010, the relationship between the unemployment rate and the growth in average earnings is an inverse one, with most observations clustered around the trend line. This is reasonably consistent with the traditional Phillips curve.
- 9 The relationship after 2010 changes. According to the data, the change in hourly earnings has been falling while the unemployment rate has been increasing. The individual observations are not well clustered around the trend line. The relationship is much flatter, meaning that the change in earnings has been less and the unemployment rate is higher.
- 10 The information in Figure 46.1 in the workbook should indicate to policy makers that the traditional relationship between the rate of inflation and the rate of unemployment is no longer a strong one. The choice is now to give priority to one or the other, that is, a low rate of inflation or a low rate of unemployment.

Practice questions

Multiple-choice question

- 1 B.
2017–2018 is the only period when the unemployment rate falls and the rate of inflation increases.

Essay questions

- 1 Outline:** A traditional macroeconomic objective in many countries, especially high-income countries, has been to simultaneously promote low unemployment along with low inflation. There is a trade-off between the two objectives, making it increasingly difficult for governments to end up with an acceptable balance [A].

Many governments now view the control of inflation as the priority. Inflation targets provide a benchmark on which the effectiveness of macroeconomic policies can be judged [A]. Although a low unemployment rate remains an objective, it does not have the same importance that it once had, especially in high-income countries. Supply-side policies are increasingly used to reduce unemployment and promote entrepreneurship [E].

- 2 Improve this answer**

Two additional paragraphs are below. These two paragraphs when added to the end of the sample answer would improve the answer for Q2. The skills are annotated.

Economic growth is defined as the annual change in real GDP in an economy. The productive capacity will only increase when there is an actual increase in the quantity and quality of resources that are available. Inflation in the domestic economy will undermine the increase in aggregate demand causing exports to fall. In turn, growth will fall [A].

It is not possible to say whether an increase in the rate of inflation will cause more harm to the balance of payments or to economic growth. The reason is that the effects are different. Also, the effect of increased inflation on the balance of payments is easier to quantify and is clearly recognised in economic theory. The effect of inflation on growth is more tenuous, especially as growth is a long-term phenomenon and much more difficult for economists to measure [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 47

Key skills exercises

- 1 A Laffer curve shows the relationship between a tax rate and the revenue that it generates. As the tax rate increases, the revenue peaks. Any further increase in the tax rate reduces tax revenue.
- 2 See worked example in the workbook.
- 3 An expansionary monetary policy can be effective in reducing unemployment and promoting economic growth. This could be at the cost of increasing demand-pull inflation and increasing a deficit on the current account of the balance of payments.
- 4 Cuts in income tax and unemployment benefits are supply-side policies that are unlikely to improve the distribution of income as those who are unemployed may be unlikely to find employment.
Spending on education and training and on infrastructure development can increase economic growth, reduce inflation, reduce unemployment, improve the current account of the balance of payments and reduce income inequality.
- 5 A depreciation or devaluation of the exchange rate of a currency should improve the current account balance of the balance of payments, increase economic growth and reduce unemployment. Higher net exports raise aggregate demand. The danger is that demand-pull inflation occurs and the increase in import prices generates cost-push inflation.
- 6 Promoting free trade is consistent with the principle of comparative advantage. An increase in trade should increase economic growth.
Protection is used to protect employment and sunrise and sunset industries. It is also designed to counteract dumping of low-cost imports by trading competitors.
- 7 The article refers to an increase in revenue from sales taxes on petrol, gas and electricity. These taxes are difficult to avoid. Data on tax rates for each product could be plotted against revenue. The data set could be enhanced by information from past records of tax changes on these products. The pattern of the curve could be used to determine whether total revenue is forecast to grow if the sales tax increases further. It can also give an indication of the tax rate when revenue starts to decrease.
- 8 Pakistan has a high interest rate, 12.25% in 2019. This rate is designed to increase savings and make it expensive to borrow money for purchasing consumer goods. (It is only going to be of relevance for the small percentage of the population who are able to save in banks.) The policy is designed to reduce the rate of inflation. The policy appears to be successful, as the projected inflation rate is below what had been forecast. High interest rates have also attracted a welcome flow of 'hot money' into Pakistan.
- 9 The depreciation of Pakistan's rupee has had a positive impact, reducing the current account deficit of the balance of payments. The inflation rate has fallen.
- 10 The policy of import substitution appears to have supported the improvement in the current account of the balance of payments. Export promotion is essential for the longer term.
- 11 **Outline:** Structural reform will involve major changes in these activities to identify which are best placed to secure Pakistan's future economic well-being. Productivity and competitiveness can be improved through a range of supply-side measures such as new skills training, tax and investment incentives for new businesses and expert advice for agricultural producers. Structural reform will enable Pakistan to compete more favourably in the global market.

Practice questions

Data response question

1 The main benefit of a high interest rate policy is that it will encourage more people to save in banks. It is also a way reducing inflationary pressure on the economy. Much needed foreign currency could occur as hot money investors are attracted by Pakistan's high interest rate [A].

The main cost is that it will act as a disincentive for local businesses to invest in new capital equipment and advanced technology, both of which are important for competitiveness. Innovation and enterprise, especially through new businesses, could suffer due to the high cost of borrowing money for start-ups or to fund expansion. Potential growth could be lost [A].

It is difficult to say whether the benefits outweigh the costs. The benefits are short term while the costs of a high interest rate will impact on long-run economic growth. [E].

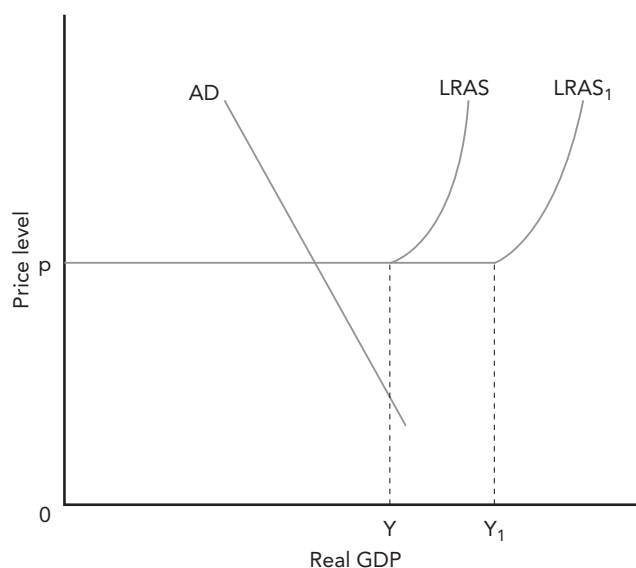
Essay questions

1 Improve this answer

This is an improved answer for Q1, which includes a diagram. The skills have been annotated.

A supply-side policy is one that is designed to increase aggregate supply in the economy, the purpose being to improve the efficient working of the economy [K]. There are many different supply-side policies. These policies include increased spending on education and training, reducing certain types of tax, increased spending on roads and power supplies and the deregulation of markets in order to improve the efficiency of operation [A].

The diagram shows how an increase in aggregate supply affects the equilibrium of the economy. Potential growth increases from Y to Y_1 with no change in the price level [A].



In the short run, an increase in aggregate supply could be caused by a change to taxes on firms. A reduction in taxation on firms will cause an increase in short-run aggregate supply. The effect of this is to increase employment. If the cuts are used to fund new investment in firms, this could increase the rate of economic growth. The balance of trade would also be affected, negatively, if new machinery and technology have to be imported [A].

Many governments in all types of country spend increasing amounts of money on education and training. This spending can lead to an increase in a country's rate of growth. Government spending on re-training workers who have been unemployed for structural reasons will provide new jobs and so reduce unemployment. Government spending on education and training is also designed to increase labour productivity and improve the international competitiveness of the economy. If successful, this could reduce inflation to a low level and provide for stability in the current account of the balance of payments [A].

Another example of a supply-side policy is where a government spends more on roads, high-speed railways, electricity and water supplies. The purpose of the increased spending is to improve the efficiency of the economy. This spending has various effects on the macroeconomic policy objectives. Over time, increased spending on infrastructure should increase the rate of economic growth. In the short term especially, new jobs will be created, reducing unemployment. If the labour market is tight, the increased spending may be inflationary. The current account of the balance of payments could be affected if many of the supplies and expertise required to develop infrastructure have to be imported [A].

Therefore, it can be concluded that supply-side policies like those that have been explained not only change aggregate supply, but have an impact on the macroeconomic objectives of a country. This impact is not just short term. Improving a country's international competitiveness takes time, yet when successful, can have an important influence on a country's macroeconomic policy objectives [E].

- 2 Outline:** Fiscal policies involve the use of taxation and government spending as a means of controlling aggregate demand [K]. They are usually used together. Low unemployment can be achieved through an expansionary fiscal policy, which is likely to include cuts in taxation and an increase in government spending. The aim of an expansionary fiscal policy is to increase aggregate demand in order to create more jobs. Low inflation requires directly opposite fiscal policies. These policies require government spending to be carefully regulated and for the tax level to be adequate to meet this spending. There is a danger that indirect tax increases can lead to cost-push inflation.

The objective of low inflation and low unemployment is very difficult to achieve. Using fiscal policy alone will not achieve this objective. Monetary policies and supply-side policies need to be effectively co-ordinated if the objective is to be achieved let alone sustained for any length of time [E].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 48

Key skills exercises

- 1 See worked example in the workbook.
- 2 The financial account of the balance of payments records the domestic ownership of foreign assets and the foreign ownership of domestic assets; this includes Foreign Direct Investment (FDI).
- 3 The capital account includes non-produced, non-financial assets.
- 4 Expenditure-switching policies aim to persuade consumers to buy more of their own country's products and fewer products from elsewhere. The term can also apply when a country seeks to increase sales of its exports in other countries at the expense of goods from that country and from elsewhere. Expenditure-reducing policies are designed to reduce aggregate demand in the country, including expenditure on imports.
- 5 Examples may include: direct investment-debits and credits due to investment in another country; reserve assets – government holdings of gold and foreign exchange and (if any), special drawing rights from the IMF.
- 6 Examples may include: government debt forgiveness; sale and purchase of copyrights and patents, both of which are non-financial assets
- 7 An expansionary fiscal policy is likely to lead to a rise in import spending and, potentially, a deficit on the current account of the balance of payments. A deflationary fiscal policy reduces aggregate demand and the demand for imported products. This policy should produce an improvement in the current account of the balance of payments.
- 8 An expansionary monetary policy will increase aggregate demand and the demand for imported products. There may be cost-push inflation which will affect the prices of exported and imported goods and services. Both of these situations are likely to lead to a deterioration in the current account of the balance of payments.
An increase in the interest rate will attract additional flows of hot money – this will show as a short-term credit in the financial account of the balance of payments.
- 9 Supply-side policies will increase aggregate supply. If successful, these policies will improve the current account of the balance of payments and possibly the financial account through making a country more attractive to foreign firms that are seeking to expand their operations in another country.
- 10 Protectionist policies aim to limit expenditure on imported goods and services. This will lead to an improvement in the current account of the balance of payments.
- 11 A depreciation of an exchange rate is designed to increase the price of imported goods and services, while improving the relative attractiveness of export prices compared to the export prices of competitors.
- 12 The disequilibrium in Indonesia's balance of payments is mainly due to the volatility of its export prices for petroleum and natural gas. In 2018, low prices led to more monthly balance of trade deficits than surpluses. The overall balance of payments was in surplus due to a surplus in the financial and capital accounts.

- 13 Outline:** Import controls are designed to reduce domestic expenditure on imported goods and services, while improving the price competitiveness of substitutes that are produced domestically. Import controls, according to World Trade Organization rules, should only be short term. Import controls can also anger trading partners. Tariffs are most effective when placed on goods with an elastic price elasticity of demand and where there are good quality substitutes produced at home. Import controls should also be only used when all other possibilities have been applied.

Practice questions

Data response question

- 1** Indonesia's balance of trade moved into surplus in the early months of 2020 after deficits in 2018 and in 2019. The likely reasons were an increase in export prices of natural gas and in the export prices of rubber and agricultural exports [A]. An additional reason could have been an increase in primary and secondary income. The latter could have increased as migrant workers returned home from the more affluent parts of Asia and the Middle East due to the COVID-19 pandemic [A].

Essay questions

- 1 Outline:** If a country has a persistent deficit in the current account of the balance of payments, a depreciation of the currency will improve the competitiveness of its export prices and increase the price of imported goods and services. If imports are price inelastic, there is a danger of cost-push inflation [A]. An alternative policy would be to introduce tariffs and quotas to reduce imports and protect jobs in the domestic economy [A].

When a country has a persistent surplus in its balance of trade, there is likely to be pressure for the country to appreciate its exchange rate. If this happens, export prices become less competitive and the price of imports falls. If appreciation is not an option, it is likely that other countries will impose new protectionist tariffs on this country's imports [E].

- 2 Improve this answer**

This paragraph would improve the answer for Q2. The skills have been annotated.

Namibia has experienced a growing current account trading deficit. Expenditure on imports has been growing at a faster rate than receipts from exports. The main reason is that earnings from diamonds, uranium and agricultural products have fallen. The gap in earnings from exports and imports has reduced through increased invisible earnings, especially from international tourism. The current account deficit is offset through surpluses in the financial and capital accounts, largely through inward foreign investment projects like the Walvis Bay port development [A].

Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 49

Key skills exercises

- 1 A nominal exchange rate is one that is expressed in monetary terms, usually in US dollars. A real exchange rate is a currency's value in terms of its real purchasing power.
- 2 A trade weighted exchange rate is the price of one currency in terms of a basket or selection of other currencies.
- 3 A fixed exchange rate is one that is determined by the government.
- 4 A devaluation of a fixed exchange rate occurs when the government lowers the price of its currency, usually in relation to the US dollar. A revaluation of a fixed exchange rate occurs when the government increases the price of its currency.
- 5 A managed float is when the exchange rate is allowed to fluctuate within a given range, with upper and lower limits.
- 6 The Marshall–Lerner condition states that for a fall in the exchange rate to be successful in reducing a current account deficit, the sum of the price elasticities of demand for exports and imports must be greater than 1.
- 7 See worked example in the workbook.
- 8 The Japanese yen has depreciated against the US dollar over the period 2010 to 2020. This is evidenced by an increase in the number of yen per dollar.
- 9 The likely causes of changes in Japan's exchange rate are variations in the balance of trade which shifts from surplus to deficit over this period. A deficit was recorded from 2012 to 2015. A surplus followed until 2017, but the balance of trade then went back into deficit. When the balance of trade is in deficit, the yen depreciates. A balance of trade surplus leads to an appreciation of the yen.
- 10 **Outline:** The changing exchange rate is likely to have affected Japan's exports and imports. A depreciating exchange rate is expected to increase Japanese exports and result in a reduction in imports to Japan. An appreciating exchange rate is likely to lead to less export of goods and more imports. The effects are not certain and will depend on the price elasticities of demand for exports and imports and other considerations such as the interest rate and its effect on hot money flows.

Practice questions

Multiple-choice question

- 1 A.
The exchange rate has depreciated from 90 to 105 units per dollar, a fall of 16.6%.

Essay questions

- 1 **Outline:** The Marshall–Lerner condition and J-curve analysis are well-known explanations that can be used to monitor the impact of a devaluation or depreciation of an exchange rate [A]. The reliability of the Marshall–Lerner condition depends upon having up-to-date information on the price elasticity of demand for exports and imports. However, it is very difficult to obtain this information, especially

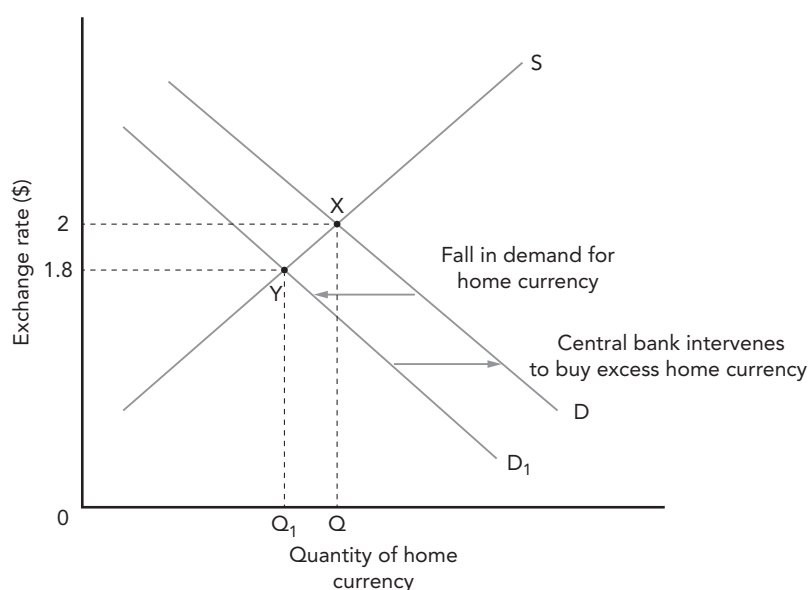
for the hundreds of products that are traded [A]. At best, the data is likely to be for a small number of large product groups. There are also issues about the reliability of the data [E].

There are fewer issues with the J-curve. It is clear from real world studies that a devaluation or depreciation takes time to register an impact on the current account position. This is because changes to orders of exports and imports take time to be agreed and for transactions to be paid for [E].

2 Improve this answer

This additional paragraph, which includes a diagram, would improve the answer for Q2. The skills have been annotated.

The diagram shows how a fixed exchange system works when there is a fall in demand for a currency due to a fall in demand for that country's exports. The exchange rate is fixed at one local currency unit to two \$US. The fall in demand for the currency sees the exchange rate fall to \$1.80. The central bank intervention shifts demand for the home currency back to where it was at \$2 [A].



Practice questions and sample answers have been written by the author. They may not fully reflect the approach of Cambridge Assessment International Education.

> Workbook answers

Chapter 50

Key skills exercises

- 1 The poverty cycle explains the link between low incomes and low savings, leaving limited resources available for investment and to increase output meaning that there is low productivity and continuing low incomes.
- 2 The Human Development Index (HDI) has three components: GNI per head; education – expected years in schooling and mean years of schooling; healthcare – life expectancy at birth.
- 3 Measurable Economic Welfare (MEW) adjusts GDP data to take into account other factors that impact positively or negatively on living standards.
- 4 The Multidimensional Poverty Index (MPI) uses ten indicators of living standards, education and health. It complements monetary measures of poverty with additional measures of living standards, education and health.
- 5 The shadow economy is responsible for the output of goods and services that are not included in official national income statistics. It is sometimes referred to as the informal economy.
- 6 The Kuznets curve shows the relationship between economic growth and income inequality. It suggests that as an economy develops, income becomes more unequally distributed and that after a particular level of income is reached, the distribution of income becomes more equal.
- 7 High-income countries usually have a higher HDI ranking than lower-income countries. High-income countries are able to allocate more resources to health and education, two of the indicators used to compile the HDI. The largest differences between countries are to be found in the two educational components.
- 8 The MEW takes a broader view of living standards than GDP per head. It takes into account other factors that impact on the quality of life, such as how much leisure time people have or, negatively, the extent of environmental damage and its impact on living standards.
- 9 Bhutan's approach is to take a broad yet high level overview of progress, giving equal weight to non-economic as well as economic aspects of well-being. Bhutan has sought to produce a measurable tool to aid governments and businesses in their decision-making. The tool's purpose is to consider the broad consequences of policies prior to their implementation; this approach seeks to maximise GNH. The wider geographical application of Bhutan's model will require a major change of emphasis in how virtually all governments seek to increase living standards.

Practice questions

Multiple-choice question

- 1 See worked example in the workbook.

Essay questions

- 1 **Outline:** Middle-income countries have a GNI per head of between \$1006 and \$12 235 (2018). This is a broad range, covering around three-quarters of the world's population. This makes measuring differences in the level of development difficult [E].

An obvious starting point is GNI per head. Broad differences can be identified. Important variables are included in the HDI – education and health variables are essential measures to be used in any study of differences in the level of development. Other single indicators might include: % employment in agriculture; average hours worked per week; adult literacy rates; mobile devices per '000 population. These are just a few of the variables that could be used [A]. Differences in the level of development are more relevant when comparing countries that have similar levels of GNI per head. Be aware that most statistics for these countries provide an indication rather than an accurate statistical picture of differences in the level of development [E].

2 Improve this answer

This is an improved answer for Q2. The skills have been annotated.

The UN's Human Development Index (HDI) is a measure to assess the comparative level of development of a country. It recognises that economic development is wider than variations in GNI per head. It follows that even if two countries have the same GNI per head, the values of their HDI may be significantly different [A].

The HDI draws upon three dimensions of development. These dimensions are a decent standard of living, a long and healthy life and knowledge obtained through schooling. The indicators are: GNI per head (PPP); life expectancy at birth; expected and mean years spent in schooling [A].

GNI per head is measured in terms of purchasing power parity. This is a much more meaningful measure than GDP per head since it provides an estimate of the cost of a basket of goods in any one country using a theoretical exchange rate. The other measures in the HDI are important from an individual's standpoint. Life expectancy at birth varies widely between countries at different levels of development. The education variables have an important bearing on an individual's future prospects [E].

The strength of the HDI is that it covers more than just the economic standard of living as a measure of economic development. It is of relevance and value to policy makers and to governments. The individual components can help to establish policy priorities. For example, if a country has a low score on the knowledge measures compared to others with a similar GNI per head, there should be a strong argument for allocating more resources for education, provided of course that more resources can be made available [A]. A strength of the HDI is that data is available over a long period of time and can be used to see if progress is being made [E].

The weakness of the HDI is that it only covers three aspects of economic and human development. The current view is that economic and human development is a complex subject, as composite measures have established.

The HDI has value in helping a government to establish priorities, although it has the weakness that only a narrow range of variables is included [E].

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> Workbook answers

Chapter 51

Key skills exercises

- 1 The birth rate describes the number of live births per thousand population in one year.
- 2 The death rate describes the number of deaths per thousand population in one year.
- 3 The infant mortality rate describes the number of deaths in children aged under one year per thousand live births in one year.
- 4 Net migration is the difference between immigration into and emigration from a country in one year. Net migration is negative when the number of emigrants exceeds the number of immigrants.
- 5 A country has an optimum population when it is at the population size that maximises output per head.
- 6 A Gini coefficient can be used to measure income or wealth inequality in a country.
- 7 A Lorenz curve illustrates the extent of income or wealth inequality in a country.
- 8 The employment composition of an economy consists of the following sectors: primary – agriculture and extractive industries; secondary – manufacturing and construction; tertiary – service industries.
- 9 See worked example in the workbook.
- 10 **Outline:** Low-income and many lower middle-income countries rely on primary products for most of their export revenue. In contrast, imports will mainly consist of manufactured goods, oil products and some consumer goods. High-income countries increasingly rely on the export of a range of professional services as well as some manufactured goods. Many high-income countries are dependent on imports of food, raw materials and consumer goods.
Emerging economies are more likely to have based their recent growth on the export of manufactured goods to high-income countries.
- 11 The main changes include: an overall reduction of about 6% in the size of the population from 2020 to 2050; a decrease of around 30% in the population aged 29 and below; an increase of around 130% in the population aged 65 and above.
- 12 With an aging population, there will be fewer people of working age. This could create a labour shortage in manufacturing where wages are likely to be lower than in the growing service sector [A]. An increase in wages will be necessary to attract the numbers required.
- 13 **Outline:** With an aging population the following adaptations may be required:
 - More resources will have to be allocated to providing health and community care. Funding will have to come from additional taxation on the working population.
 - More resources will have to be allocated to other facilities used by an aging population such as public transport (mass transit) and moving walkways.
 - With proportionately fewer workers, production methods will need to be more efficient and at the forefront of technology in order to increase productivity.
 - A change in what is produced may see more products for the elderly and fewer products for babies and infants (for example, more walking frames and fewer baby buggies).

Practice questions

Multiple-choice question

1 A.

A more equal distribution of income has occurred with a reduction in the area of inequality from A to B. C is therefore wrong. B and D refer to the distribution of wealth as well as the distribution of income.

Essay questions

1 **Improve this answer**

This is an improved answer for Q1. The skills have been annotated. The three suggested improvements to the answer are below.

The World Bank defines a high-income country as one that has a GNI per head of over \$12 375 (2018). In contrast, a low-income country has a GNI per head of less than \$1026. Middle-income economies lie between these two extremes.

There are many statistics that can be used to make comparisons between high-income countries and others. A relevant starting point is to consider some demographic measures such as birth rates, death rates, life expectancy and infant mortality rates. In general, high-income countries have lower birth rates and death rates, higher life expectancy and lower infant mortality rates compared to other types of economies. A further related characteristic is the dependency ratio, a measure of the proportion of economically inactive people compared to the total labour force. In Pakistan, this percentage has fallen from 73% in 2010 to 65% in 2018. For cultural as well as economic reasons, the dependency ratio is considerably lower in high-income countries compared to other countries [A].

A second set of characteristics that can be used are statistics of employment for different sectors of the economy. In most high-income countries, for example, the percentage of the workforce employed in agriculture will be very small, often just 2 or 3% of the working population. In low-income countries, this figure is more likely to be over 50 or 60% of the working population. The percentage of employment in manufacturing is also variable, although it is difficult to generalise. This is because all economies have some manufacturing sector, typically accounting for 15–20% of the employed population. In the most developed economies, and also in China and India, employment in the service sector is now dominant. This is particularly the case in the growing IT and knowledge-based services sector [A].

A third set of statistics that can be used to make comparisons are data on the composition of a country's trade. Middle-income economies are now the driving force of exports of manufactured goods such as vehicles, electronics and garments. Production has continued to divert from high-income countries. Cheaper manufactured goods tend to be more greatly produced in lower middle-income countries. In Pakistan, for example, the main exports are textiles, clothing, cotton and leather. The main imports are chemicals, iron and steel, plastics and cooking oils. It is also usually the case that, unlike high-income countries, most other low-income economies do not have the diversified product range that makes up their exports [A].

Comparing the characteristics of high-income and other types of economy involves making broad comparisons and generalisations. There will clearly be differences in any comparisons. It should be made clear, though, that comparisons between two countries at about the same level of development are likely to be more meaningful than for widely disparate countries [E].

2 **Outline:** The employment composition of an economy changes with its level of development [A]. Although a generalisation, as economies develop, the percentage of the population employed in agriculture falls. More jobs are created in manufacturing and in the service sector. High-income countries have most of the working population in the service sector [A].

The pattern of trade broadly follows the composition of the working population. Low-income and many lower middle-income countries rely heavily on agricultural products and raw materials for export revenue. Their imports are some types of manufactured goods and capital equipment, as well as

selected consumer goods. In contrast, high-income countries rely on specialist exports of manufactured goods and a wide range of financial and professional services. Imports tend to include food and manufactured goods from lower cost suppliers [A].

The above are broad generalisations. It must be remembered that not all countries are the same. Some may not conform to the standard pattern for employment and trade composition [E].

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Workbook answers

Chapter 52

Key skills exercises

- 1 International aid includes: tied aid which has conditions attached by the donor; untied aid which is given without conditions; bilateral aid which is given by one country to another country; multilateral aid which is given by international organisations to a country or group of countries.
- 2 Reasons for giving international aid may include: where a country has a low GNI per head; for humanitarian purposes where there has been a natural disaster or famine; to influence economic policies in the recipient's country; to increase demand for the donor country's exports; for political reasons.
- 3 A multinational company (MNC) is a business that operates in more than one country.
- 4 MNCs have global operations in manufacturing, retailing, mining and oil and gas production. Their operations can be diverse or in just one type of activity.
- 5 Foreign direct investment (FDI) is investment by an MNC in a country other than where the MNC is based.
- 6 See worked example in the workbook.
- 7 The International Monetary Fund aims to: promote international monetary co-operation; facilitate international trade; provide exchange rate stability; assist setting up multinational payments systems; make resources available for members experiencing balance of payments difficulties.
- 8 The World Bank aims to provide support for internal investment projects, improving infrastructure and constructing new healthcare facilities.
- 9 Increasing investment and developing export-led growth have been important for India's recent economic growth. India is now a more open economy. Without growing trade links and investment, India's economic progress would be less than has been the case.
- 10 The increase in FDI produces a credit in the financial account of India's balance of payments. Depending on the nature of the FDI, there will be an increase in employment for Indian workers and a rise in the living standards of those who are employed. Net exports could increase.
- 11 **Outline:** Benefits: employment creation, additional export revenue from sale of manufactured products when exported, new technology and ideas that can be used by Indian companies, import substitution.
Costs: may not create employment when taking over a domestic company, could lead to exploitation of resources and environmental degradation, may employ own workers in senior management roles, liable to move elsewhere if market conditions become unfavourable.
An overall assessment is difficult; much depends on the MNC, the attitude of national and local government and the nature of the business.

Practice questions

Multiple-choice question

- 1 C.
Investment for a new Chinese-owned factory in Pakistan will be shown as credit in the financial account.

Essay questions

1 Improve this answer

This is an improved answer for Q1. The skills have been annotated.

'Trade not aid' has long been put forward for low and some middle-income countries to plan their own economic development. It is argued that export-led growth can form the basis for an increased rate of economic growth [A]. A more traditional approach is to rely on international aid in the form of grants and cheap loans to stimulate the economy towards greater productivity and improved living standards [K].

Aid takes many forms. It is given to recipient countries by an individual, the government of the donor country or by an international organisation like the World Bank [A]. Aid is provided for all sorts of reasons, such as promoting agricultural improvement or to allow a country to buy machinery, vehicles or other supplies to increase its rate of economic growth [A]. Aid is important since it can provide almost immediate human relief as well as new jobs and the prospect of an increase in GNI per head [K]. On the downside, conditions may be attached as to how the aid money has to be spent.

The main benefit of trade over aid is that a trade policy can largely be determined by low-income and middle-income countries under WTO conditions. In principle, these conditions are fair to all; an important issue is when the conditions allow tariffs and quotas to be applied. [A]. The outcome of recent WTO meetings has not favoured the interests of low-income and middle-income countries, mainly because the WTO is dominated by members from high-income countries [A]. An on-going dispute is over the use of agricultural subsidies. Poorer countries are highly critical of where subsidies are paid to farmers in high-income countries like the USA and in the EU for products that can be produced more cheaply and more efficiently by farmers in middle-income countries [E]. Examples include sugar, tobacco, tomatoes and exotic vegetables. The USA and the EU protect their farmers for strategic reasons. By using subsidies, the market price is distorted and along with import tariffs, makes products from poorer countries uncompetitive.

Where trade is possible, for example in manufactured goods, some middle-income countries can use their comparative advantage to positive effect [E]. Exports of clothing, footwear, pharmaceuticals, electronic goods and vehicles can form a valuable source of export revenue. The production of these goods is often done through FDI from MNCs. This investment leads to benefits in terms of job creation and additional export revenue [A]. China, and more recently Vietnam, are two examples of countries where FDI has contributed to a sustained rate of economic growth [K].

There are strong arguments for trade rather than aid to be the catalyst for economic growth in low- and in some middle-income countries. The danger facing the global economy is that the growing scale of trade restrictions will make it more difficult for many countries to be confident about their future economic prospects [E].

2 **Outline:** Increasing external debt can be a serious problem for low-income and lower middle-income countries. Typical examples are most of the Caribbean countries. The cause of the external debt is often due to recurring deficits on the current account of the balance of payments. This comes about because of deteriorating terms of trade or for the need to rebuild an economy following a natural disaster [A].

Increasing external debt has an opportunity cost. Funding interest repayments on the debt means that less funds are available for new schools, hospitals and other facilities that would improve current living standards. The level of taxation is likely to increase to help the government meet its debt obligation. Import taxes may have to increase to restrict domestic consumption and stem the drain on foreign currency reserves. The economic growth rate is likely to fall, affecting living standards [A].

If not properly managed, increasing external debt is likely to lead to a financial crisis requiring intervention by the IMF [E].

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> Workbook answers

Chapter 53

Key skills exercises

- 1 Globalisation is the process by which the world has become increasingly interconnected through trade, communications and cultural exchange.
- 2 Causes of globalisation may include: a reduction in global trade restrictions; advances in communications technology and automatic data interchange; lower cost of international transport in part due to economies of scale; fewer restrictions on the free movement of business in the global economy
- 3 A free trade area is where members agree to remove all trade restrictions among themselves.
A customs union is where members agree to free trade among themselves and to erect a common external tariff on imports from non-members.
A monetary union is where members agree to free trade, a common external tariff, the free movement of labour and capital, some common policies and a common currency.
A full economic union has the features of a monetary union with additional common economic policies and an intention to move to a federation of states.
- 4 See worked example in the workbook.
- 5 Consequences of globalisation for low-income and lower middle-income countries may include: more opportunities to trade with higher middle-income countries and high-income countries; increased export revenue; opportunities to develop international tourism; a stimulus for economic growth and economic development.
- 6 **Outline:** The short-term assessment is that the evidence points to an increase in the forces of deglobalisation. Whether this trend will continue is not clear. Much will depend on the attitude of major players in the global economy. There are benefits of globalisation for low-income and middle-income countries. Whether these benefits will be recognised by key players such as the US, China, the EU and the UK is difficult to assess.

Practice questions

Multiple-choice question

- 1 C.
Trade diversion occurs when the new member is obliged to trade with a less efficient partner rather than a country outside the customs union. This increases the price of the product to consumers in the new country.

Essay questions

- 1 **Outline:** Consumers and firms in high-income countries have obtained substantial benefits from globalisation. These benefits have included cheaper food and goods, a wider range of products, more opportunities for travel and enhanced cultural awareness [A].
The benefits for other countries may appear to be less. Jobs have been created, export revenue has increased but there are signs that tariff barriers are being strengthened by high-income countries [E].

2 Improve this answer

This concluding paragraph would improve the answer for Q2. The skills have been annotated.

It is implied that free trade areas and free trade agreements provide more benefits to members compared to the benefits of a customs union. Trade creation applies to both free trade areas and to customs unions. It is where higher cost products in a member state, produced domestically or imported, are replaced by lower cost products from within. This represents a significant benefit to consumers as it provides for a more efficient allocation of scarce resources. For a customs union, these benefits need to be offset against the negative impact of trade diversion through lower cost imports being replaced by higher cost products sourced from within the customs union. The outcome is higher prices and a loss of consumer welfare. This argument is the main reason why a free trade area or a free trade agreement is more likely to provide more benefits than a customs union [E].