The first part of Unit 1 looks at how economics defines itself as a social science and studies complex economic behaviour. It looks at the central economic problem of scarcity and how economic systems and agents make choices between competing alternatives. Some basic terms are introduced. The idea of markets and the role of money in the workings of an economic system is developed. Finally, the different types of economies – free market, mixed and command – are examined, along with a first look at the role of the state.
LEARNING OBJECTIVES

◼ Understand that economics is a social science that uses the scientific method.
◼ Understand that economists build models and theories based on assumptions.
◼ Understand that the ceteris paribus assumption is used in building models and drawing conclusions.
◼ Understand the distinction between positive statements and value judgements.

GETTING STARTED

‘Governments should do more to help the unemployed’. Is this a fact or is it a value judgement? If you wanted to argue for or against this statement, what factual arguments could you use? And what emotional ones could you put forward? Which of these arguments are economic and which are non-economic?

THE SCIENTIFIC METHOD

There are many sciences covering a wide field of knowledge. What links them all is a particular method of work or enquiry called the scientific method. The scientific method at its most basic is relatively easy to understand. A scientist postulates (puts forward) a theory or model – the scientist puts forward a hypothesis that is capable of being disproved (e.g. the Earth travels round the Sun). They then gather evidence to either support the theory or refute it. Observation of space gives evidence to support the theory that the Earth travels round the Sun, however, data refutes the idea that the Earth travels around the sun. They will gather evidence through controlled experiments. From this they will then accept, modify or refute the theory – the Earth does travel round the Sun.

Theories that gain universal acceptance are often called laws. Hence we have the law of gravity and, in economics, the laws of demand and supply.

ECONOMICS – THE SCIENCE

In natural sciences, such as physics or chemistry, it is relatively easy to use the scientific method. In physics, much of the work can take place in laboratories. Observations can be made with some degree of certainty. Control groups can be established. It then becomes relatively easy to accept or refute a particular hypothesis.

This is much more difficult in social sciences such as economics, sociology, politics and anthropology. In economics, it is often not possible to set up experiments to test hypotheses or establish control groups or conduct experiments in environments that enable one factor to be varied while other factors are kept constant. The economist has to gather data in the ordinary everyday world where many variables are changing over any given time period. It then becomes difficult to decide whether the evidence supports or refutes particular hypotheses.

Economists sometimes come to very different conclusions when considering a particular set of data as their interpretations may vary. For example, an unemployment rate of 6 per cent in one area of a country compared to a national average of 3 per cent may indicate a failure of government policy to help this area. Others may conclude that policy had been a success as unemployment may have been far greater without the use of policy.

It is sometimes argued that economics cannot be a science because it studies human behaviour and human behaviour cannot be reduced to scientific laws. There is an element of truth to this. It is very difficult to understand and predict the behaviour of individuals. However, nearly all economics is based on the study of the behaviour of groups of individuals. The behaviour of groups is often far more predictable than that of individuals. Moreover, we tend to judge a science on its ability to establish laws that are certain observations of space. Nonetheless, even in a hard science such as physics, it has become established that some laws can only be stated in terms of probabilities. In economics, much analysis is described using terms such as ‘it is likely that’ or ‘this may possibly happen’. Economists use this type of language because they know they
have insufficient data to make firm predictions. In part it is because other variables may change at the same time, altering the course of events. However, it is also used because economists know that human behaviour, while broadly predictable, is not predictable to the last €1 spent or to the nearest US$1 of income.

**THEORIES AND MODELS**

The terms ‘theory’ and ‘model’ are often used to mean the same thing. There is no exact distinction to be made between the two. However, an economic theory is generally expressed in looser terms than a model. For instance, ‘consumption is dependent upon income’ might be an economic theory.

Theories can often be expressed in words; economic models, because they require greater precision in their specification, are often expressed in mathematical terms. For example, ‘\( Ct = 567 + 0.852Yt \)’ where 567 is a constant, \( Ct \) is current consumption and \( Yt \) is current income, would be an economic model.

**THE PURPOSE OF MODELLING**

Why are theories and models so useful in science? The universe is complex. There is an infinite (endless) number of interactions happening at any moment in time. Somehow we all have to make sense of what is going on. For instance, we assume that if we put our hand into a flame, we will get burned. If we see a large hole in the ground in front of us, we assume that we will fall into it if we carry on walking in that direction.

One of the reasons we construct theories or models is because we want to know why something is as it is. Some people are fascinated by questions such as ‘Why do we fall downwards and not upwards?’ or ‘Why can birds fly?’ More importantly we use theories and models all the time in deciding how to act. We keep away from fires to prevent getting burned. We avoid holes in the ground because we do not want to fall.

**SIMPLIFICATION**

One criticism made of economics is that economic theories and models are ‘unrealistic’. This is true, but it is equally true of Newton’s law of gravity, Einstein’s theory of relativity or any theory or model. This is because any theory or model has to be a simplification of reality if it is to be useful. Imagine, for instance, using a map that described an area perfectly. To do this it would need to be a full-scale reproduction of the entire area, which would give no practical advantage. Alternatively, drop a feather and a metal ball from the top of a tall building. You will find that they do not descend at the same speed, as one law in physics would predict, because that law assumes that factors, such as the drag effect caused by air, do not exist.

If a model is to be useful, it has to be simple. The extent of simplification depends on its use. If you wanted to go from Cape Town to Tokyo by air, it would not be very helpful to have maps that were on the same scale as your local maps. Whereas, if you wanted to visit a friend in a nearby town it wouldn’t be very helpful to have a map of the world with you. A local town map is very much more detailed (that is, closer to reality) than a world map but this does not necessarily make it more useful or make it a ‘better’ model.

Simplification implies that some factors have been included in the model and some have been omitted. It could even be the case that some factors have been distorted to draw attention to particular points in a model. For instance, on a road map of Delhi, map makers will almost certainly not have attempted to name every small village or show the natural features of the area. In contrast, they will have marked in roads and highways that will appear several kilometres wide according to the scale of the map.

**ASSUMPTIONS AND CETERIS PARIBUS**

All sciences make assumptions when developing models and theories. In the case of the feather and the metal ball being dropped from a tall building, both would fall at equal speed if it were assumed that there was no drag effect caused by the air. Making assumptions allows the scientist to simplify a problem to make it easier to solve.

An important way in which economists simplify reality is to adopt the *ceteris paribus* condition. *Ceteris paribus* is Latin for ‘all other things being equal’ or ‘all other things remaining the same’. For example, in demand theory, economists consider how price affects the amount demanded by buyers of a good. To isolate the price factor, they assume that all other factors that affect demand, such as income or the price of other goods, remain unchanged. Then economists see what happens to quantity demanded as the price of the good changes.

**POSITIVE AND NORMATIVE ECONOMICS**

Economics is concerned with two types of investigation. *Positive economics* is the scientific or...
objective study of the subject. It is concerned with finding out how economies and markets actually work. **Positive statements** are statements about economics that can be proven to be true or false. They can be supported or refuted by evidence. For example, the statement ‘The Japanese economy is currently operating on its **production possibility frontier**’ is a positive statement. Economists can search for evidence as to whether there are unemployed resources or not. If there are large numbers of unemployed workers, then the statement is refuted. If unemployment is very low, and we know that all market economies need some unemployment for the efficient workings of labour markets as people move between jobs, then the statement would be supported. Statements about the future can be positive statements too. For example, the hypothetical sentence ‘The service sector in Singapore will grow by 15 per cent in size over the next five years’ is a positive statement. Economists will have to wait five years for the proof to support or refute the statement to be available. However, it is still a statement that is capable of being proved or disproved.

**Normative economics** is concerned with value judgements. It deals with the study of and presentation of policy prescriptions about economics. **Normative statements** are statements that cannot be supported or refuted. Ultimately, they are viewpoints about how economies and markets should work. For example, ‘The government should increase the state pension’, or ‘Manufacturing companies should invest more’ are normative statements.

Economists tend to be interested in both positive and normative economics. They want to find out how economies work. But they also want to influence policy debates. Normative economics also typically contains positive economics within it. Take the normative statement ‘The government should increase the state pension’. Economists putting forward this value judgement are likely to back up their opinion with positive evidence. They might state that ‘The average pensioner has a **disposable income** of 40 per cent of the average worker’ and ‘The average pensioner only goes on holiday once every four years’. These are positive statements because they are capable of being proven or disproven. They are used to build up an argument that supports the final opinion that state pensions should be raised.

Normative statements tend to contain words like ‘should’ and ‘ought’. However, sometimes positive statements also contain these words. ‘Inflation should be brought down’ is a normative statement because it is not capable of being refuted. ‘Inflation should reach 5 per cent by the end of the year’ is a positive statement. At the end of the year, if inflation has reached 5 per cent, then the statement will have been proven to be correct.

**ACTIVITY 1**

**CASE STUDY: PUBLIC HEALTHCARE**

India suffers from an extreme shortage of doctors, with just one physician for every 1800 people. The government is also reluctant about its public health spending, allocating just 1.4 per cent of gross domestic product, compared with 3.1 per cent in China. As a result, India’s public healthcare system – on which working-class and poor Indians still rely – has neither the staff nor equipment to provide a reasonable standard of care for the seriously ill and injured patients seeking treatment.

Many patients are turned away from public hospitals for lack of beds, and even when they are seen, doctors have little time to spend with each patient. Waiting lists for emergency, life-saving surgery can be anything from six months to two years long. ‘The majority of the Indian population is truly disenfranchised from access to healthcare,’ says Dr Vivekanand Jha, executive director of the George Institute for Global Health, India. ‘Public healthcare is completely broken. It’s difficult for everyone to be given the kind of attention they deserve.’

(a) Explain which are the positive statements and which are the normative statements in this passage.
THINKING LIKE AN ECONOMIST

INCOME INEQUALITY

Whether income inequality, the relative gap between the rich and poor in an economy, is important or not is dependent on one’s personal opinion. Some economic journalists have said that income inequality is not a problem while others assert that it is. The question of what level of income inequality is acceptable is a difficult one to answer, because it can be seen from a normative or positive perspective.

In economics, a normative statement is one that is subjective and value-based, while a positive statement is one that is objective and based on facts. From a normative perspective, the numbers are arbitrary (random). Looking at the economic data from a positive perspective, the conclusions are clearer.

From a positive perspective, there are some answers as to what is not an acceptable level of inequality, and there are non-partisan, economic implications of today’s level of income inequality. Recent studies by the International Monetary Fund (IMF) suggest that income inequality can affect economic growth as measured by percentage change in gross domestic product (GDP).

If the share of income earned by the top 20 per cent increases, then GDP growth actually declines. In contrast, when the share of income of the bottom 20 per cent increases, there is higher GDP growth. The analysis from the IMF reveals that significant levels of income inequality cause GDP growth to decline.

The normative statement that ‘rising income inequality is bad for the economy’, becomes a positive statement when reinforced by analysis of data. Thus government actions such as cutting taxes would be counterintuitive to economic growth if it does nothing to address income inequality.

CHECKPOINT

1. What is the scientific method?
2. Why do economists use models?
3. Why do some people argue that economics is not a science?
4. What does ceteris paribus mean?
5. Why do economists use ceteris paribus?
6. What is the difference between a normative and a positive economic statement?

SUBJECT VOCABULARY

ceteris paribus all things being equal, the assumption that, while the effects of a change in one variable are being investigated, all other variables are kept constant.
disposable income the amount of money you have left to spend after you have paid your taxes, bills etc.
deciduous based on scientific testing or practical experience, not on ideas.
good a thing that is produced in order to be sold.
hypothesis (plural: hypotheses) an idea that is suggested as an explanation for something, but that has not yet been proved to be true.
inequality an unfair situation, in which some groups in society have more money, opportunities, or power than others.
law a theory or model that has been verified by empirical evidence.
normative economics the study and presentation of policy prescriptions involving value judgements about the way in which scarce resources are allocated.
normative statements statements that cannot be supported or refuted because it is a value judgement.
positive economics the scientific or objective study of the allocation of resources.
positive statements statements that can be supported or refuted by evidence.
production possibility frontier shows how much an economy can produce given existing resources.
scientific method a method that subjects theories or hypotheses to being disproved by empirical evidence.
social science the study of societies and human behaviour using a variety of methods, including the scientific method.
theory or model a hypothesis that is capable of being refuted by empirical evidence.
India has ambitions to reach the same level of educational standards as developed nations. However, according to a recent research paper by the Associated Chambers of Commerce and Industry of India, it could take at least six generations, or 126 years, if the country continues with its present level of spending.

The paper said that India’s current spending of 3.83 per cent of its gross domestic product (GDP) on education was not sufficient to catch up, ‘It will take six generations or 126 years to catch up with developed countries if we do not change our education system dramatically’.

By comparison, the USA spends 5.22 per cent of its GDP on education, Germany 4.95 per cent and the UK 5.72 per cent. The United Nations wants countries to spend at least 6 per cent of their GDP on education.

If India increases its spending on education, it could become a major supplier of skilled and qualified workers to the rest of the world, given the population advantage that it has. With over 315 million students, it has the largest number of pupils in the world.

The paper also noted that the educational sector in India faced major challenges, including a lack of teachers. At present, the shortage of teachers has been measured at 1.4 million. There are also concerns that some teachers do not measure up to the standards of the National Council for Teachers’ Education (NCTE).

Also, because of an absence of focus on effective skill development, India is one of the least skilled countries. The paper said that only 4.7 per cent of the workforce has any formal training, whereas the figure is 80 per cent for Japan, 95 per cent for South Korea, 75 per cent for Germany, 68 per cent for UK and 52 per cent for the USA.

**EXAM HINT**

Think of the main points about which you could write. These could include an increase in demand for more qualified Indian workers and the impact on their incomes. Indian businesses may become more competitive, more foreign companies may set up in India and this may have a beneficial impact on the Indian economy in terms of GDP and tax revenues.

You may then consider some of the possible drawbacks, such as where the extra money will come from, what other sectors of government spending may have to be cut to provide the funding, how long this will take to have an impact and the question of whether extra spending by itself will be enough to raise standards.

(a) Explain the difference between positive and normative statements. Illustrate your answer with one example of a positive statement from the data and one example of a normative statement.

(4 marks)

(b) Discuss the possible impact on the Indian economy if spending on education were to increase.

(14 marks)
Not all resources are scarce. There is more than enough air on this planet for everyone to be able to breathe as much as they want. Resources that are not scarce are called free goods. In the past, many goods such as food, water and shelter have been free, but as the population of the planet has expanded and as production has increased, so the number of free goods has diminished. Recently, for instance, clean beaches in many parts of the UK have ceased to be a free good to society. Pollution has forced water companies and seaside local authorities to spend resources cleaning up their local environment. With the destruction of the world’s rain forests and increasing atmospheric pollution, the air we breathe may no longer remain a free good. Factories may have to purify (clean) the air they take from the atmosphere, for instance. This air would then become an economic good.

INFINITE WANTS

People have a limited number of needs, which must be satisfied if they are to survive as humans. Some are material needs, such as food, water, heat, shelter and clothing. Others are psychological and emotional needs, such as self-respect and being loved. People’s needs are finite. However, no one would choose to live at the level of basic human needs if they could enjoy a higher standard of living.

This is because human wants are unlimited. It does not matter whether the person is a doctor in Africa, a manager in India, a farmer in the UK or the richest individual in the world, there is always something that person wants more of. This can include more food, a bigger house, a longer holiday, a cleaner environment, more friendship, better relationships, more self-respect, greater fairness or justice, peace, or more time to listen to music or cultivate the arts.

SCARCITY

It is often said that we live in a global village. The world’s resources are finite; there are only limited amounts of land, water, oil, food and other resources on this planet. Economists therefore describe them as scarce resources.

Scarcity means that economic agents, such as individuals, firms, governments and international agencies, can only obtain a limited amount of resources at any moment in time. For instance, a family has to live on a fixed budget; it cannot have everything it wants. A firm might want to build a new factory but not have the resources to be able to do so. A government might wish to build new hospitals or devote more resources to its foreign aid programme but not have the finance to make this possible. Resources that are scarce are called economic goods.

ACTIVITY 1

CASE STUDY: SUNDAY SPIN

There was a time when people used to take their car out for a Sunday afternoon ‘spin’. The newness of owning a car and the freedom of the road made driving a pleasant leisure activity. Today, with 35.8 million vehicles registered in the UK, a Sunday afternoon tour could easily turn into a nightmare traffic jam.
The Basic Economic Problem

Resources are scarce but wants are infinite. It is this that leads to the basic economic problem and forces economic agents to make choices. They have to allocate their scarce resources between competing uses.

Activity 2

Skills: Problem-solving, reasoning

Case Study: Differing Human Needs

Draw up a list of minimum human needs for a teenager living in the USA today. How might this list differ from the needs of a teenager living in Ethiopia?

Activity 3

Skills: Problem-solving, analysis

Case Study: Cost of Education

A recent report from HSBC, the banking corporation, shows that the cost to parents of educating a child from primary school through to the end of university ranges from US$8000 to nearly US$200,000 depending on where they live and how the state system subsidises education.

At the top of the list are Hong Kong, the UAE and Singapore where parents can pay US$200,000. The global average is US$44,221, with early school costing US$12,820, secondary school US$15,111 and university or college US$16,290.

HSBC’s data is based on how much parents report contributing towards tuition, books, transport and accommodation – including state or other subsidies.

(a) What might be the opportunity cost to parents of the global average of US$44,221?

(b) In non-financial terms, what is the opportunity cost to a student of going to a university or college?
WHAT IS AN ECONOMY?
Economic resources are scarce but human wants are infinite. An economy is a system that attempts to solve this basic economic problem. There are many different levels and types of economy. There is the household economy, the local economy, the national economy and the international economy. There are free market economies that attempt to solve the economic problem with the minimum intervention of government and command economies where the state makes most resource allocation decisions. Although these economies are different, they all face the same problem.

Economists distinguish three parts to the economic problem.

- **What** is to be produced? An economy can choose the mix of goods to produce. For instance, what proportion of total output should be spent on defence? What proportion should be spent on protecting the environment? What proportion should be invested for the future? What proportion should be manufactured goods and what proportion services?
- **How** is production to be organised? For instance, are smartphones to be made in the UK, Japan or Taiwan? Should car bodies be made out of steel or fibreglass? Would it be better to use machines on a production line or carry on using unskilled workers?
- **For whom** is production to take place? What proportion of output should go to workers? How much should pensioners get? What should be the balance between incomes in the UK and those in Bangladesh?

An economic system needs to provide answers to all these questions.

ECONOMIC RESOURCES
Economists commonly distinguish four types of resources available for use in the production process. They call these resources the **factors of production**.

**Land** is not only land itself but all natural resources below the earth, on the ground, in the atmosphere and in the sea. Everything from gold deposits to rainwater and natural forests are examples of land.

**Non-renewable resources**, such as coal, oil, gold and copper, are land resources that once used will never be replaced. If we use them today, they are not available for use by our children or our children’s children.

**Renewable resources**, in contrast, can be used and replaced. Examples are fish stocks, forests or water. A forest is a renewable resource. However, it is only a renewable resource if it survives over time despite economic activities, such as cutting wood or farming. It ceases to be a renewable resource if it is cleared to make way for a motorway. **Non-renewable resources** are resources that are diminishing over time due to economic exploitation. Oil is a non-renewable resource because it cannot be replaced.

**Labour** is the workforce of an economy – everybody from housepersons to doctors, teachers and politicians. Not all workers are the same. Each worker has a unique set of personal characteristics including intelligence, physical capability and emotional stability. But workers are also the products of education and training. The value of a worker is called their **human capital**. Education and training will increase the value of that human capital, enabling the worker to be more productive.

**Capital** is the manufactured stock of tools, machines, factories, offices, roads and other resources that are used in the production of goods and services.

ACTIVITY 4

**CASE STUDY: HOUSEHOLD ECONOMY**

Consider your household economy.

(a) **What** is produced by your household (e.g. cooking services, cleaning services, accommodation, products outside the home)?

(b) **How** is production organised (e.g. who does the cooking, what equipment is used, when is the cooking done)?

(c) **For whom** does production take place (e.g. for mother, for father)?

(d) Do you think your household economy should be organised in a different way? Justify your answer.

Capital is of two types. **Working or circulating capital** is stocks of raw materials, semi-manufactured goods and finished goods that are waiting to be sold. These stocks circulate, or move, through the production...
process until they are finally sold to a consumer. **Fixed capital** is the stock of factories, offices, plant and machinery. Fixed capital is fixed in the sense that it will not be transformed into a final product as working capital will. It is used to transform working capital into finished products.

**Enterprise or entrepreneur** is the fourth factor of production. It is the seeking out of profitable opportunities for production and taking risks in attempting to exploit these.

**Entrepreneurs** are individuals who:

- organise production – organise land, labour and capital in the production of goods and services
- take risks – with their own money and the financial capital of others; they buy factors of production to produce goods and services in the hope that they will be able to make a profit but in the knowledge that at worst they could lose all their money and go bankrupt.

Entrepreneurs are typically the owners of small- and medium-sized businesses who run those businesses on a day-to-day basis. However, managers in companies can also be entrepreneurial, if they both organise resources and take risks on behalf of their company.

**THE REWARDS TO THE FACTORS OF PRODUCTION**

Owners of the factors of production receive payments when they allow other economic agents to use them for a period of time. Owners of land may receive rent or lease payments. If ‘land’ is a resource like oil, copper or gold, owners may receive a royalty: a share of the money raised in sales of the resource.

In a modern economy, individuals may offer themselves for hire as workers. The reward to labour is the wage or earnings they receive.

Owners of capital, such as machinery, factories or hospitals, can earn a variety of types of income from renting or leasing these physical assets. They might receive rent or lease income. They might also receive a share of any profits made from their use.

Entrepreneurs earn profit from their activities, risking their financial capital and organising the factors of production to produce goods and services.

**THINKING LIKE AN ECONOMIST**

After A levels, students will have to decide whether to stay on in education, typically by doing a three-year university degree, or whether to try to find a job.

The opportunity costs of going to university are the lost benefits from the next best alternative. Getting a job at age 18 is not guaranteed, but if students can get a job they will be able to earn a wage and enjoy the spending power that goes with it. They are likely, in those three years, to have more money than their friends who have gone to university.

University students will miss out on three years of income, which they could have been earning, and will often build up a student debt to pay for tuition fees and their living expenses during this period. A study by the OECD, using data from the academic year 2008/09, highlighted the considerable differences in tuition fees charged to students across 25 countries in the world. The four countries with the highest average tuition fees were the USA, Korea, the UK and Japan. Some of the cheapest tuition fees included Sweden, Norway, the Czech Republic and Ireland. However, there are often well-developed student support schemes in the countries who charge the most, so students have access to grants and/or student loan schemes. In the UK, student loans are only paid back once earnings are above £21,000 per year.

However, data suggests that even with these debts, students on average will have more money over their lifetime. This is true even after any student debt has been taken from total earnings and the three years of potential earnings has been discounted. A report based on US data from the College Board, ‘Education Pays 2013: The Benefits of Higher Education for Individuals and Society’, states that in 2011 median earnings of individuals with an undergraduate degree were on average US$21,100 higher than those who did not continue their education after age 18. Graduates are also more likely to be employed, have better health and enjoy the experience. The opportunity costs of going to university – the lost benefits – are often lower than the lifetime rewards of being a graduate, even with rising tuition fees.
CHECKPOINT

1. What is scarcity in the economic sense?
2. What is a free good?
3. What is the difference between needs and wants?
4. What is meant by opportunity cost?
5. Give an example of opportunity cost from your own knowledge for (a) consumers, (b) firms and (c) governments.
6. What are the three questions that face every economy?
7. What is the difference between renewable and non-renewable resources?
8. What are the four factors of production?
9. What is the difference between working and fixed capital?

SUBJECT VOCABULARY

**basic economic problem** resources have to be allocated between competing uses because wants are infinite but resources are scarce.

**capital** as a factor of production is the stock of manufactured resources used in the production of goods and services.

**choice** economic choices involve the alternative uses of scarce resources.

**economic goods** goods that are scarce because their use has an opportunity cost.

**enterprise or entrepreneurship** as a factor of production is the seeking out of profitable opportunities for production and taking risks in attempting to exploit these.

**entrepreneurs** individuals who seek out profitable opportunities for production and take risks in attempting to exploit these.

**factors of production** the inputs to the production process: land, labour, capital and enterprise or entrepreneurship.

**fixed capital** economic resources, such as factories and hospitals, that are used to transform working capital into goods and services.

**free goods** goods that are unlimited in supply and therefore have no opportunity cost.

**human capital** the value of the productive potential of an individual or group or workers; it is made up of the skills, talents, education and training of an individual or group and represents the value of future earnings and production.

**labour** as a factor of production is the workforce.

**land** as a factor of production is all natural resources.

**needs** the minimum that is necessary for a person to survive as a human being.

**non-renewable resources** resources, such as coal or oil, which once exploited cannot be replaced.

**non-sustainable resource** a resource which can only be economically exploited in such a way that its stock is being reduced over time.

**opportunity cost** the benefits of the next best alternative that are given up.

**renewable resources** resources, such as fish stocks or forests, that can be exploited over and over again because they have the potential to renew themselves.

**scarce resources** resources that are limited in supply so that choices have to be made about their use.

**wants** desires for the consumption of goods and services.

**working or circulating capital** resources that are in the production system waiting to be transformed into goods or other materials before being finally sold to the consumer.
1. The basic economic problem is:
   (a) What is to be produced, how it is to be produced and when it is to be produced.
   (b) How much is to be produced, what is to be produced and when it is to be produced.
   (c) How much is to be produced, how it is to be produced and for whom it is to be produced.
   (d) What is to be produced, how it is to be produced and for whom it is to be produced. (1 mark)

2. Define the term opportunity cost. (2 marks)

3. Explain why both the UK and US governments have to make choices. (4 marks)

4. Explain how the passage demonstrates the following concepts:
   (a) scarcity (4 marks)
   (b) choice (4 marks)
   (c) opportunity cost (4 marks)
   (d) positive and normative economics. (4 marks)

Sir Andrew Dillon said: ‘The NHS has to exercise choices, sometimes to ensure its resources are allocated as fairly as possible.’ Choosing to expand treatment in one area means that ‘something else cannot be done’.

TRUMP: THE NEW PRESIDENT OF THE USA

In February 2017, President Donald Trump set out plans to increase spending on defence. The proposed budget for 2018 would see defence spending increase by US$54 billion, but this would be at the expense of other departments, particularly foreign aid and environmental. There are many critics of these proposals, but President Trump does not view environmental departments, such as climate change, as a priority for government spending. However, his critics would argue that this will lead to US firms using too much of the world’s energy resources today, and negatively affecting future generations. They believe the environmental budget should be protected.

EXAM HINT
Make sure you clearly define the terms and make sure you find examples from the passage to explain each concept.
LEARNING OBJECTIVES

◼ Understand that the production possibility frontier (PPF) shows the maximum potential output of an economy.
◼ Understand that growth in the economy will shift the PPF outwards, while a shift inwards of the PPF shows that the productive potential of an economy has declined.
◼ Understand that consuming more in the present at the expense of producing capital goods can lead to lower growth of the potential output of an economy in the future.
◼ Understand that production at a point inside the PPF indicates an underuse or an inefficient use of resources.
◼ Understand that the PPF shows only what could be produced but not what should be produced.

GETTING STARTED

Your economics A level group decided to raise money for charity. It took each person a day to take part and you raised £500. You can give the money to two charities. Which two charities would you choose? How much would you give to each? If you give £100 more to one charity, how much less to the other? What would have been the likely outcome if half the group had given excuses and not taken part in the fund-raising activity? Answers to these questions illustrate opportunity cost, choice and production possibility frontiers.

THE PROBLEM OF SCARCITY

Over a period of time, resources are scarce and therefore only a finite amount can be produced. For example, an economy might have enough resources at its disposal to be able to produce 30 units of manufactured goods and 30 units of non-manufactured goods. If it were now to produce more manufactured goods, it would have to give up some of its production of non-manufactured items. This is because the production of a manufactured item has an opportunity cost – in this case the production of non-manufactured items. The more manufactured goods that are produced, the less non-manufactured goods can be produced.

The different combinations are shown in Figure 1. The curved line is called the production possibility frontier (PPF) – other names for it include production possibility curve or boundary, and transformation curve. The PPF shows the different combinations of economic goods that an economy is able to produce if all resources in the economy are fully and efficiently employed. The economy therefore could be:

• at point C on its PPF, producing 30 units of manufactured goods and 30 units of non-manufactured goods
• at point D, producing 35 units of manufactured goods and 20 units of non-manufactured goods
• at point A, devoting all of its resources to the production of non-manufactured goods
• at points B or E, or anywhere else along the line.

FIGURE 1

The production possibility frontier

ABCDE is a PPF. It shows the different combinations of goods that can be produced if all resources are fully and efficiently utilised. The economy can produce at any point on the line. It cannot produce at G because the PPF shows the maximum that can be produced. It can produce within the PPF, such as at F, but less will be produced than the maximum possible.
OPPORTUNITY COST

The production possibility frontier clearly illustrates the principle of opportunity cost. Assume that the economy is producing at point C in Figure 1 and that the aim is to move to point D. This means that the output of manufactured goods will increase from 30 to 35 units. However, the opportunity cost of that (i.e. what has to be given up because of that choice) is the lost output of non-manufactured goods, falling from 30 to 20 units. The opportunity cost at C of increasing manufacturing production by five units is 10 units of non-manufactured goods.

Another way of expressing this is to use the concept of the margin. In economics, the margin is a point of possible change. At point C in Figure 1, the economy could produce more manufactured goods, but at the cost of giving up non-manufactured goods. For example, the marginal cost of five more units of manufactured goods would be 10 fewer units of non-manufactured goods. This is shown by the movement from C to D along the boundary.

ACTIVITY 1

CASE STUDY: THE PRODUCTION POSSIBILITY FRONTIER

The production possibility frontier of an economy is as shown in Figure 1.

(a) (i) If the economy produces 15 units of manufactured goods, what is the maximum number of non-manufactured goods it can produce? (ii) How many manufactured goods could it produce if production of non-manufactured goods was 50 units?

(b) The economy is currently operating at point C. What is the opportunity cost of increasing production of non-manufactured goods by (i) 15 units; (ii) 20 units?

(c) The economy is at D. What is the marginal cost of increasing production of non-manufactured goods to point (i) C; (ii) B?

ECONOMIC GROWTH OR DECLINE

The economy cannot produce at any point outside its existing PPF. This is because the PPF shows the maximum potential output of an economy. In Figure 1, for example, the economy cannot produce at point G. However, the economy might be able to move to the right of its PPF in the future if there is economic growth. An increase in the productive potential of an economy is shown by a shift outwards of the PPF. In Figure 2 economic growth pushes the PPF from LL to MM, allowing the economy to increase its maximum level of production, say, from A to B.

FIGURE 2

Economic growth

An increase in the quantity or quality of the inputs to the production process means that an economy has increased its productive potential. This is shown by a shift to the right of the production possibility frontier from LL to MM. It would enable the economy to move production, for instance, from point A to point B.

Growth in the economy can happen if:
- the quantity of resources available for production increases; for instance there might be an increase in the number of workers in the economy, or new factories and offices might be built
- there is an increase in the quality of resources; education will make workers more productive and technical progress will allow machines and production processes to produce more with the same amount of resources.

The PPF can shift inwards as well as outwards. The productive potential of an economy can fall. For example, war can destroy economic infrastructure. A rapid fall in the number of workers in a population can reduce potential output. Some environmentalists predict that global warming will damage world agriculture and this will then affect all production. Global warming could therefore lead to a shift inwards of the world’s PPF.

Many economies experience high levels of unemployment of workers. Factories and machines may not be used when this occurs. Production then occurs within the boundary and not on the boundary such as at point F in Figure 1. If resources became fully used, the economy could move from inside the boundary to a point on the boundary. In Figure 1, this would mean a move from point F to, say, D or E.

CONSUMPTION VERSUS INVESTMENT

There is a potential conflict between consuming now and economic growth caused by investment. If an economy produces an extra £10 billion worth of restaurant meals for consumers, then they are better
off today. If, however, that £10 billion had been spent on new factories, offices or new machinery, the productive potential of the economy is likely to increase. As a result, consumers may then be better off in the future.

This conflict can be shown in Figure 3. **Consumer goods**, such as food, holidays or DVDs, are shown on the vertical axis. **Capital goods**, such as factories, offices, roads, machines and equipment, are shown on the horizontal axis. Two economies, A and B, at the start are the same size in terms of overall production and population. However, country A produces more consumer goods and fewer capital goods than country B. So initially, country A produces at point C while country B produces at point D.

Over time, both economies grow. However, because country B has invested more, devoting more of its finite resources to capital goods, it grows faster. Ten years later, growth in country A has shifted its PPF to QQ and is producing at point E. However, the PPF of country B has shifted to RR and country B is producing at point F. At the start of the period, consumers in country A were wealthier than in country B because consumption of consumer goods was higher. But at the end, consumers in country B are wealthier. At point F, country B is producing more of both consumer and capital goods than country A, which produces at point E.

**FIGURE 3**

**Consumption versus investment**

Country B, which initially devotes more resources to investment (the production of capital goods), has a higher growth rate than country A, which initially produces more consumer goods.

Eventually, country B produces more capital and consumer goods than country A because of higher growth.

The production possibility frontiers in Figures 1 and 2 have been drawn concave to the origin (curving outwards), rather than as straight lines or convex lines. This is because it has been assumed that not all resources in the economy are as productive in one use compared to another.

**EFFICIENCY**

The production possibility frontier shows the maximum amount that can be produced from a given number of resources. Therefore, for an economy, the boundary shows the level of output where all resources are fully and efficiently employed. In Figure 1, there is full and efficient use of resources at all points along the boundary AE.

Efficiency on the boundary is of two types. There is productive efficiency, which means that production takes place at the lowest cost. Productive efficiency occurs when a given set of resources produces the maximum number of goods. All points on the boundary are productively efficient because they show a combination of goods produced at the lowest cost for that combination.

However, not all points on the boundary are **allocatively efficient**. Allocative efficiency occurs when social welfare is maximised. Not every combination of goods produced will maximise welfare and there could be just one point which does this.

**ACTIVITY 2**

**CASE STUDY: DRAWING A PRODUCTION POSSIBILITY FRONTIER**

Draw a production possibility frontier. The vertical axis shows the production of public sector goods and the horizontal axis shows production of private sector goods. The economy is currently producing at point A on the frontier where 50 per cent of all production is devoted to public sector goods and 50 per cent to private sector goods.

(a) Mark the following points on your drawing.

(i) Point A.

(ii) Point B, which shows production following the election of a government that increases government spending on both education and healthcare.

(iii) Point C, where unemployment is present in the economy.

(iv) Point D, where the government takes over production of all goods and services in the economy.
(b) Draw another diagram, putting the original production possibility frontier you drew for (a) on it, labelling it AA.

(i) Draw a new production possibility frontier on the diagram, labelling it PP, which shows the position after a devastating war has hit the economy.

(ii) Draw another PPF, labelling it QQ, which shows an increase in productivity in the economy such that output from the same amount of resources increases by 50 per cent in the public sector but twice that amount in the private sector.

**THINKING LIKE AN ECONOMIST**

**WATER SHORTAGES**

In many circumstances, water is a free good. It falls from the sky or can be collected from rivers with no opportunity cost. However, with the world’s population predicted to rise to over 11 billion, water is becoming an ever scarcer resource in many countries.

Scarcity is being felt not just by consumers but also by producers. For example, the world’s oil and gas supplies could be transformed by the relatively new process of fracking – forcing liquid through rocks to release oil and a gas called ‘shale’ trapped in the rocks. But each US well (deep hole containing oil, water or gas) requires on average 2 million gallons (1 gallon = around 4.5 litres) of water to extract all the oil or gas in the well. Many wells are in areas of relative water shortage. Hence, Antero Resources,
a US shale gas company, is planning to spend US$525 million on a pipe to carry water to its operations to increase reliability of supplies.

Countries and industries where water is scarce therefore face a trade-off between investing in water facilities or using the money for other purposes. If there is not enough water, there is an immediate conflict between household consumption for drinking and cleaning, and its use by industry including farming and manufacturing. If industry faces water restrictions, in the short term there will be less production forcing the production possibility frontier inwards. In the long term, if there is too little investment in water infrastructure, production will be lower than if more had been invested today. In other words, the production possibility frontier will be to the left of where it might otherwise have been.

Figure 4 Global water use

**CHECKPOINT**

1. What does a production possibility frontier (PPF) show?
2. Create a PPF diagram. Indicate a position where an economy is:
   - producing less than it could
   - using all of its resources efficiently
   - unable to reach, because it does not have enough resources.
3. What does an outwards shift of the PPF indicate?
4. State two reasons why this might happen.
5. Why does the amount of capital goods produced in an economy influence future growth rates?
6. What is productive efficiency?
7. What is allocative efficiency?

**SUBJECT VOCABULARY**

**allocatively efficient** allocative efficiency occurs when social welfare is maximised. The distribution of resources is such that it is not possible to redistribute them without making someone worse off.

**capital goods** goods that are used in the production of other goods, such as factories, offices, roads, machines and equipment.

**consumer goods** goods and services that are used by people to satisfy their needs and wants.

**margin** a point of possible change.

**production possibility frontier** (also known as the production possibility curve or the production possibility boundary or the transformation curve) a curve that shows the maximum potential level of output of one good given a level of output for all others goods in the economy.
1 Define the term production possibility frontier. (2 marks)

2 Using examples from the data, explain why a production possibility frontier might:
   (a) shift inwards (4 marks)
   (b) shift outwards. (4 marks)

3 A peace group has put forward a proposal that the UK should not replace its fleet of nuclear submarines. Using production possibility frontiers, discuss the possible economic implications of this proposal. (14 marks)

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**EXAM HINT**

Identify the alternative ways in which the resources used to build a new fleet of replacement nuclear submarines could be used, including spending on alternative defence goods. Mention opportunity cost and choice. Which would be consumer goods and which would be capital goods? Which might be the best alternative uses and why?
LEARNING OBJECTIVES

- Understand that specialisation and the division of labour give rise to large gains in productivity.
- Understand that the economy can be divided into three sectors: primary, secondary and tertiary. It can also be divided between the state sector and the private sector.
- Know that markets exist for buyers and sellers to exchange goods and services using barter or money.
- Know that money has four functions: as a medium of exchange; a unit of account; a store value; and a standard for deferred payment.
- Understand that near monies, such as time deposits in banks and building societies, are monies that are good units of account and stores of value but cannot be used immediately as a medium of exchange.

GETTING STARTED

Take any piece of clothing that you are wearing right now. Where was it sold? Where was it manufactured? Where did the raw materials for it come from? How many firms do you think might have been involved in getting it to you? Why do you think so many firms were involved in the chain of supply?

SPECIALISATION

Specialisation is the production of a limited range of goods by an individual, firm or country in co-operation with others so that together a complete range of goods is produced.

Specialisation can occur between nations. For instance, a country like Honduras produces bananas and trades those for cars produced in the USA.

Globalisation is currently increasing this process of specialisation between nations. Specialisation can also occur within economies.

Specialisation by individuals is called the division of labour. Adam Smith, in a passage in his famous book An Enquiry into the Nature and Causes of the Wealth of Nations (1776), described the division of labour among pin workers. He wrote: ‘A workman not educated to this business... could scarce... make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on,... it is divided into a number of branches... One man draws out the wire, another straightens it, a third cuts it, a fourth points, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business, to whiten the pins is another; it is even a trade by itself to put them into the paper.’

He pointed out that one worker might be able to make 20 pins a day if he were to complete all the processes himself. But ten workers together specialising in a variety of tasks could, he estimated, make 48,000 pins.

This enormous increase in productivity (output per unit of input employed) arises from both increases in labour productivity (output per worker) and capital productivity (output per unit of capital employed).

- Specialisation enables workers to gain skills in a narrow range of tasks. These skills enable individual workers to be far more productive than if they were responsible for a range of tasks. In a modern economy a person could not possibly hope to be able to take on every job that society requires.
- The division of labour makes it cost effective to provide workers with specialist tools. For instance, it would not be profitable to provide every farm worker with a vehicle. But it is possible to provide a group of workers with a vehicle that they can then share.
- Time is saved because a worker is not constantly changing tasks, moving around from place to place and using different machinery and equipment.
- Workers can specialise in those tasks to which they are best suited.

The division of labour has its limits. If jobs are divided up too much, the work can become tedious and monotonous. Workers do not feel connected to their work. This will result in poorer quality of work and less output per person. Workers will do everything possible to avoid work – going to the toilet, spending too long over breaks and reporting sick, for instance. The size of the market too will limit the division of labour. A shop owner in a village might want to specialise in
selling health foods but finds that in order to survive she has to sell other products as well.

Over-specialisation also has its disadvantages. For example, in Europe, areas such as Wales, the Ruhr, Lorraine and the Basque Country have suffered high levels of unemployment since the 1950s as their traditional heavy industry, such as coal mining and steelmaking, declined and was not replaced by enough new service sector jobs. Another problem with specialisation is that a breakdown in part of the chain of production can cause chaos within the system. The Japanese earthquake of 2016 affected production not just in the local area, but also disrupted overseas production for many manufacturers, including Toyota®, Honda® and Sony®. Similarly, businesses in Mumbai are affected by frequent power cuts.

ACTIVITY 1

CASE STUDY: SPECIALISATION

(a) Explain, with the help of the photograph, what is meant by ‘specialisation’.
(b) What might be some of the (i) advantages to firms and (ii) disadvantages to workers of the division of labour shown in the photograph?

SECTORS OF THE ECONOMY

Economies are divided into three main sectors. In the primary sector of the economy, raw materials are extracted and food is grown. Examples of primary sector industries are agriculture, forest management, fishing, extracting oil and mining. In the secondary or manufacturing sector, raw materials are transformed into goods. Examples of secondary sector industries are motor manufacturing, food processing, furniture making and steel production. The tertiary or service sector produces services such as transport, sport and leisure, distribution, financial services, education and health.

Most firms tend to operate in just one of these sectors, specialising in producing raw materials, manufactured goods or services. Some very large firms, such as BP, operate across all three sectors, from the extraction of oil to its refining (purifying) and sale to the public through petrol stations.

Economies can also be split into two sectors: the public sector and the private sector. The public sector is the state or government sector of the economy. Production of goods and services is achieved by organisations such as government departments, local authorities or state-owned businesses. The private sector is that part of the economy owned by private individuals, companies and charities. For example, in the UK, the public sector organises education for most children. So a state primary school is part of the public sector. However, some parents choose to pay for their children to go to schools that are in the private sector. Most healthcare is provided by the public sector through the National Health Service. However, there is also a smaller private healthcare sector where companies such as Nuffield Health and individual doctors provide patient services.

MARKETS

Markets play a crucial role in almost all economies today. Markets are where buyers and sellers meet. For economists, markets are not just street markets. Buying and selling can take place online, in newspapers and magazines, through mail order or over the telephone in financial deals or on industrial estates as well as in high street shopping centres. A market is any convenient set of arrangements by which buyers and sellers communicate to exchange goods and services.

Economists group buyers and sellers together. For instance, there is an international market for oil in which large companies and governments buy and sell oil. There are also national markets for oil. Not every company or government involved in the buying and selling of oil in Brazil, say, will be involved in the US or Malaysian oil markets. There are also regional and local markets for oil. In your area there will be a small number of petrol filling stations (sellers of petrol) where you (the buyers) are able to buy petrol. All these markets are interlinked (connected) but they are also separate. A worldwide increase in the price of oil may or may not result in an increase in the price of petrol at the pumps in your local area. Equally, petrol prices in your area may increase when prices at a national and international level remain constant. Sometimes, economists refer to sub-markets. This is a
term used to describe a market within a larger market. For example, the market for diesel fuel in Brazil is a sub-market of the market for all oil-based fuels in Brazil. Equally the market for all oil-based fuels in Brazil is a sub-market of the international market for fuels.

How buyers and sellers are grouped together and therefore how markets are defined depends upon what is being studied. We could study the tyre industry or we could consider the market for cars and car components, which includes part but not all of the tyre industry. Alternatively, we might want to analyse the market for rubber, which would require a study of rubber purchased by tyre producers.

Many Western economists argue that specialisation, exchange and the market lie at the heart of today’s economic prosperity in the industrial world. Although it is likely that the market system increases prosperity, we shall see that it does not always lead to the most efficient allocation of resources.

### ACTIVITY 2

#### CASE STUDY: COCHEM FOOD MARKET

<table>
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<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small independent food stores</td>
<td>1</td>
</tr>
<tr>
<td>Convenience food stores</td>
<td>1</td>
</tr>
<tr>
<td>Supermarket food stores</td>
<td>2</td>
</tr>
</tbody>
</table>

▲ Table 1: Shops selling food items in Cochem

Cochem is a town in Germany that has shops selling food items such as fresh vegetables, dairy products or canned food.

(a) Who might be the buyers and sellers in the local Cochem market for food products?
(b) What is the relationship between this market and the market for (i) meat and (ii) petrol?

### MONEY AND EXCHANGE

Specialisation has enabled people to enjoy a standard of living that would be impossible to achieve through self-sufficiency. Specialisation, however, requires exchange. Workers can only specialise in refuse collecting, for instance, if they know that they will be able to exchange their services for other goods and services such as food, housing and transport.

Exchange for most of history has meant barter – swapping one good for another. However, barter has many disadvantages and it would be impossible to run a modern sophisticated economy using barter as a means or medium of exchange. It was the development of money that enabled trade and specialisation to transform economies into what we know today. Money is anything that is widely accepted as payment for goods received, services performed, or repayment of past debt. In a modern economy, it ranges from notes and coins to money in bank accounts and deposits in building society accounts.

### THE FUNCTIONS OF MONEY

Most people in the world today, if asked, ‘What is money?’, would reply, ‘notes and coins’. What is it about notes and coins that make them money, and is there anything else that possesses these same properties? If something is to be money, it must fulfil four functions (i.e. it must do four things).

A medium of exchange This is the most important function of money. Money is used to buy and sell goods and services. A worker accepts payment in money because she knows that she will be able buy the goods that she wants with the money.

Exchange for most of history has meant barter – swapping one good with another. For instance, a farmer might pay 12 eggs for a new water jug or a woman might trade a carpet for a cow. This requires what is called a ‘double coincidence of wants’. If the potter did not want eggs, then he might refuse to give the farmer the water jug. Barter requires that each party to the transaction wants what the other has to trade. This is costly and difficult, if not impossible, and therefore trade is discouraged. Without trade there can be no specialisation. Without specialisation, there can be little or no increase in living standards. So barter is associated with types of economy where individuals or small groups are self-sufficient, and the need for trade is small.

Money separates the two sides of a barter transaction. The potter will accept money for the water jug because he knows that he will be able buy the goods that he wants with the money.

A measure of value Money acts as a unit of account. If a dress costs US$30 and a skirt costs US$15, we know that the value of one dress equals the value of two skirts. At times of very high inflation, such as in Germany in 1923 or Zimbabwe in the early 2000s, money ceases to act as a unit of account. Prices may change by the hour. By 2009, inflation in Zimbabwe had reached 70,600 million per cent and the currency collapsed. High inflation therefore destroys the ability of money to perform this function. It is very difficult under a barter system to establish an agreed unit of account as people’s opinions of the value of certain items differ greatly.
A store of value A worker who receives wages is unlikely to spend the money immediately. She may delay spending because it is more convenient to spend the money later. So money links the present and the future. It acts as a store of value. High inflation destroys this link because money in the future is worth far less than money today. In the German hyperinflation of 1923, people started to refuse payment in German money because it would lose so much value by the time they had spent it.

A method of deferred payment If people lend money today, they will only do so if they think that they will be able to buy roughly the same amount of goods when it is paid back. In trade, a company that accepts an order at a fixed price today for delivery and payment in a year’s time will only do so if it is confident that the money it receives will have a value that can be assessed today. So again money must link different time periods when it comes to borrowed as well as saved money.

When money ceases to have this function, credit and borrowing collapse and this is very damaging to investment and economic growth in an economy.

FORMS OF MONEY IN A MODERN ECONOMY

In a modern economy there are a number of assets that can be classified as money.

Cash Cash means notes and coins. Cash is token (symbolic) money. It has little or no intrinsic (actual) value, unlike gold, which would be classified along with items such as cigarettes as commodity money. It is issued either by government or with the permission of government. Government reinforces the acceptability of cash by making it legal currency. This means that it must be accepted by law as a means of payment.

Cash is not an ideal form of money. In today’s world, it is an almost ideal medium of exchange. But inflation affects three of the functions of money – those of a measure of value, a store of value and a method of deferred payment. In Venezuela, for example, on 1 January 2017, US$1 was worth VEF 3164 (bolivars, the Venezuelan currency). Just eight months later, at the start of August, it was worth VEF 10,389, meaning that the bolivar was worth less than one-third of its earlier value.

The higher the rate of inflation, the less it can be said that cash is a ‘good’ money.

Money in current accounts Banks and building societies offer customers current account facilities. Current accounts have two distinguishing features. First, cash can be withdrawn on demand from the account if it is in credit. So deposits can be immediately converted into money if the account holder, or owner, so wishes. Second, account holders are provided with a debit card and cheque book. Cheques and debit cards can be used to purchase goods and services. Cheque book money therefore is a medium of exchange. It is not perfect because people and firms can refuse to accept cheques and debit cards in a transaction. Moreover, little or no interest is offered on accounts and so current account deposits lose value over time with inflation, damaging their store of value function. But deposits in current accounts are nearly as good a form of money as cash.

Near monies Near monies are assets that fulfil some but not all of the functions of money. In particular, they act as measures of value and stores of value but cannot be used as mediums of exchange. However, they are convertible (changeable) into a medium of exchange quickly and at little cost. The ease with which an asset can be converted into money without loss of value is called liquidity. The more liquid an asset, the more easily it is changeable into money. The most obvious type of near monies is time deposits with savings banks. They pay higher rates of interest than current accounts. They are therefore used more for saving and less for...
making transactions than current accounts. Depositors need to give notice if they wish to withdraw from the account (hence the term ‘time’ deposit). Alternatively, many accounts offer instant access if an interest rate penalty is paid (i.e. the saver loses money for the privilege of instant withdrawal).

**Non-money financial assets** All financial assets can be converted into money. However, for most assets the potential penalties for doing this are great. There can be a long waiting time for withdrawal and there can be considerable loss of money from converting it. This damages their functions as measures of value and stores of value. Economists do not classify these assets as money. Shares, for instance, are easily sold, but it can take up to a month to receive the money from the sale. Shares can also change value rapidly and are therefore not a good store of value (when share prices fall) or a method of deferred payment (when share prices rise).

**Money substitutes** Money is not the only means of payment for goods and services. Charge cards and credit cards have become increasingly important over the past 40 years as a medium of exchange. But they are not stores of value. This is because possession of a card does not show that the person who owns the card has money in the card account. The card only represents an ability to borrow money instantly. So credit cards, for example, are not money but they are money substitutes (i.e. they are used instead of money).

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**ACTIVITY 4**

**CASE STUDY: HOW MUCH MONEY?**

Sayed Yazdani has EGP 250 (Egyptian pounds) in a savings account. He owns a EGP 270,000 apartment in Cairo but owes EGP 150,000 in the form of a mortgage loan. His current account at his bank is in credit by EGP 1500 and he has an overdraft facility of EGP 1000. In his wallet he has EGP 100 in cash. He has recently purchased EGP 100 worth of goods using his credit card. His credit card limit is EGP 3000.

(a) Explain how much money Sayed Yazdani has.

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**FINANCIAL MARKETS**

A financial market is any convenient set of arrangements where buyers and sellers can buy or trade a range of services or assets that are monetary in nature. Financial markets are different from product markets or factor markets. Product markets exist for the buying and selling of physical goods and services. Factor markets exist for the buying and selling of land, labour and capital.

Financial markets exist for two reasons. One is to provide services demanded by households, firms and government. For example, households want to be able to spend money using a credit card. Firms want to be able to pay their suppliers. Governments want to be able to borrow money.

However, financial markets also exist because they allow participants to speculate and realise financial gains. Foreign exchange traders speculating on which way a currency might move in the next few seconds are not providing a service to a customer. They are hoping to make a profit. The combination of speculation and delivery of genuine services means that financial markets are prone to regular crises that cause significant damage to the real economy.

**THE ROLE OF FINANCIAL MARKETS**

Financial markets have a number of important roles to play in an economy. These include the following.

**TO FACILITATE SAVING**

Financial assets, such as money or stocks and shares, are a way of transferring spending power from the present into the future. For example, a worker is paid in July but wants to put aside some money to pay for a holiday in October. Another worker is 25 and wants to save some money for when he is retired. A household, currently renting property, wants to save $1000 a month for three years to put as a deposit on house. A firm has earned $6 million in profit. It wants to put that money aside in case trading falls and it has unexpected bills in the future. Facilitating saving is a key role of financial markets.

**TO MAKE FUNDS AVAILABLE TO BUSINESSES AND INDIVIDUALS**

Households, firms and governments all borrow money. For example, a household might borrow money on a credit card to finance the purchase of a new television. A firm might borrow money to buy equipment. A bank might borrow money to lend more profitably to another financial institution. Or it may borrow to speculate on foreign currency. A government might borrow money to finance government spending which is not paid for by its receipts including taxes.

**TO FACILITATE THE EXCHANGE OF GOODS AND SERVICES**

Financial institutions play a vital role in creating payment systems for goods and services. Central banks, for example, mint coins and print paper money. Retail banks offer services such as debit cards and credit
cards. More hidden from view are institutions which process trillions of cheque transactions per year. Visa, Amex and Mastercard are companies which offer credit card services to banks, retailers and individuals. Banks and bureau de changes buy and sell foreign currencies, exchanging notes, for example, or transferring money from one account into another bank account in a different country and a different currency. Firms might use a factor. This is a company which offers a variety of services, the most important being paying now for goods and services which have been delivered to another company and where the payment is only due in the future.

**TO PROVIDE FORWARD MARKETS IN COMMODITIES AND CURRENCIES**

Firms sometimes want to buy or sell forward. For example, farmers may want to sell the crop they are sowing at a guaranteed price. So they agree to sell 100 tonnes of a crop at $800 a tonne for delivery in six months’ time. Food producers may want to even out price fluctuations by buying forward. A chocolate manufacturer, for example, may agree to buy 1000 tonnes of cocoa beans at $3000 per tonne for delivery in nine months’ time. Forward markets exist in food commodities such as wheat, cocoa and soya beans. They also exist in other commodity markets such as copper or nickel. Foreign exchange such as dollars or euros can be bought and sold forward too.

**TO PROVIDE A MARKET FOR EQUITIES**

Equities are the shares of companies (in the USA, shares are called ‘stocks’ – hence the name stock exchange). Issuing shares, or equity finance, can be an important way in which companies, particularly those that are growing in size, can finance their expansion. Those buying new shares will get a share of profits made by the company. However, few would buy new shares if they could never sell them again. Locking up money forever in shares would be a very large risk for a saver. Not being able to sell means that the shares would be completely illiquid. Stock markets provide a way in which owners of shares can sell them to others. They create liquidity in the market. The greater the number of shares issued, and the more buyers and sellers in the market, the greater the liquidity. Having markets for second-hand shares therefore encourages buyers to purchase new shares when they become available.

**THING LIKE AN ECONOMIST**

**SLAVE LABOUR AND THE SUPPLY CHAIN**

Specialisation can have a dark side. According to the International Labour Organisation, about 21 million men, women and children are in slavery, including forced child labour. You might have bought something that was in part produced by what some people call ‘slave labour’.

Few sellers will admit that their products have a slave labour component. However, according to a 2014 survey in the UK by the Chartered Institute of Purchasing and Supply, nearly three-quarters of managers responsible for buying products for their businesses admitted that they had ‘zero visibility’ (i.e. they did not know what was happening) on the early parts of their supply chain. The problem arises because of specialisation. Many goods and services sold in developed economies have very long supply chains. There may be hundreds of businesses involved in the production of a single item. A mobile phone seller, for example, might have a component of the phone made in China or India. That relatively unimportant component may have been made using slave labour in a manufacturing plant. Slave labour might have also been used in small-scale mining of the metal used in the component. Even in transport, there might be a trace of slave labour in the supply chain of the transport company. So at every stage, in primary, secondary and tertiary industries there is a risk.

Large companies selling directly to consumers are particularly vulnerable to bad publicity about slave labour. They are often the companies that attempt to investigate their supply chain and inspect production facilities across the world. But with so many separate businesses involved, it is usually impossible for them to guarantee that no slave labour has been used. Specialisation allows slavery to be a hidden problem to the consumer at the end of the production chain.

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CHECKPOINT

1. What is specialisation?
2. Give two examples of specialisation from your own knowledge.
3. What is the difference between labour and capital productivity?
4. State two advantages and two disadvantages of the division of labour.
5. Give your own examples of industries in the primary, secondary and tertiary sectors.
6. What is the difference between the private and public sectors?
7. What is the main disadvantage of a barter system?
8. What are the four functions of money?
9. What does liquidity mean in the economic sense?
10. Identify the five roles of financial markets.

SUBJECT VOCABULARY

- **barter** swapping one good for another without the use of money.
- **capital productivity** output per unit of capital employed.
- **division of labour** specialisation by workers, who perform different tasks at different stages of production to make a good or service, in co-operation with other workers.
- **equity** in a company, is the value of the assets owned by the shareholders.
- **financial market** any convenient set of arrangements where buyers and sellers can buy or trade a range of services or assets that are fundamentally monetary in nature.
- **globalisation** the tendency for the world economy to work as one unit, led by large international companies doing business all over the world.
- **hyperinflation** a very fast rise in prices that seriously damages a country’s economy.
- **illiquid** difficult to convert an asset into cash. Completely illiquid means it is impossible to do so.
- **labour productivity** output per worker.
- **liquidity** the ability to change an asset into cash. The more liquid an asset is, the easier it is to do this.
- **market** any convenient set of arrangements by which buyers and sellers communicate to exchange goods and services.
- **money** any item, such as a coin or a bank balance, which fulfils four functions: a medium of exchange, a measure of value, a store of value and a method of deferred payment.
- **money substitutes** anything that can be used as a medium of exchange but are not stores of value. Examples are charge cards or credit cards.
- **primary sector** industries involving extraction and agriculture.
- **private sector** the part of the economy owned by individuals, companies and charities.
- **productivity** output per unit of input employed.
- **public sector** the part of the economy where production is organised by the state or the government.
- **retail banks** banks that provide services to individuals.
- **secondary or manufacturing sector** industries involved in the production of goods, mainly manufactured goods.
- **self-sufficiency** being able to provide all the things you need without help from other people.
- **specialisation** a system of organisation where economic units such as households or nations are not self-sufficient but concentrate on producing certain goods and services and trading the surplus with others.
- **sub-market** a market that is a distinct and identifiable part of a larger market.
- **tertiary or service sector** industries involved in the production of services.

EXAM PRACTICE

**THE iPhone®**

Apple’s iPhone® is a truly international product. Although designed and developed at Apple’s headquarters in the USA, production uses raw materials and components from all over the world. Each phone contains about 16 g of copper, much of which comes from Chile. Cobalt (a metal) is used in the batteries. Over half the world’s supply comes from the Democratic Republic of Congo, and China produces most of the rare, earth elements that are crucial to high-tech products.

Companies from 34 countries manufacture the different parts that go into just one handset. For example, LG® from South Korea make the display panels and Sony®, from Japan, make the cameras. Most iPhones are assembled (put together) in Foxconn’s enormous factories in China before being shipped to the USA and then on to distribution centres and shops all over the world. In July 2016, Apple claimed to have sold its billionth iPhone.

**Q**

1. Explain why producing an iPhone involves the primary, secondary and tertiary sector. (4 marks)
2. Examine the benefits to Apple of using specialisation in producing iPhones. (8 marks)
LEARNING OBJECTIVES

- Understand that the function of an economic system is to resolve the basic economic problem.
- Understand that markets allocate resources determining what is to be produced, how it is to be produced and for whom production is to take place.
- Understand that resources can be allocated by planning rather than markets, as for example happens within firms and by governments.
- Know that free market economies, mixed economies and planned economies are three different types of economic system.
- Know that there are various ways in which economic systems can be evaluated including choice, quality and innovation, efficiency, economic growth, income distribution and risk.

GETTING STARTED

To what extent is your household a planned economy? Is all the spending controlled by one person or perhaps two people? Does anyone in the family get paid for doing jobs for the family like washing up, tidying their rooms or gardening? Would it be better if anyone who did a job within the house got paid? Would it be better if you had to pay rent for your room and money for the food you ate?

ECONOMIC SYSTEMS

The function of an economy is to resolve the basic economic problem – resources are scarce, but wants are infinite. Resources therefore need to be allocated. This allocation has three dimensions.

What is to be produced? Should it be pizzas, tanks or holidays, for example?

How is it to be produced? For example, is it going to be produced in Taipei, Taiwan, or in Nairobi, Kenya? Is it going to be made using the latest technology or by hand? Is production going to be automated or is it going to be labour intensive?

For whom it is to be produced? Should products be equally distributed among the population? Should a small number of people be able to have 100 times the amount that the majority have? Should people living in developed economies enjoy 200 times the number of products available to people in an emerging economy?

An economic system is a complex network of individuals, organisations and institutions that allocates resources. This is done within social systems, such as the family or the local neighbourhood, and legal systems, such as the EU legal system.

Within an economic system, there are various ‘actors’.

Individuals They are consumers and workers. They may own factors of production, which they supply for production purposes.

Groups Firms, political parties, families and charities are just some of the groups that might exist in an economic system.

Government Government might range from a local council, to a local police authority, to a national parliament or supranational organisation like the European Commission. One key role of government is to exercise power. It establishes or influences the relationships between individuals and groups, for instance, through the passing of laws or implementing those laws.

THE ALLOCATION OF RESOURCES

In rich industrialised economies, over the past 100 years, there have been two main ways in which resources have been allocated.

The market mechanism The market mechanism allocates resources through bringing together buyers and sellers who agree on a price for the product or resource being sold. In the market for chocolate bars, for example, chocolate manufacturers sell their products via shops and supermarkets to buyers like you. In the market for teachers, schools hire (i.e. buy the services of) teachers and teachers sell their labour. In the market for copper, copper mining companies sell to buyers, which include manufacturing companies.

Planning Planning allocates resources through administrative decisions. Planning occurs within families when individuals make decisions about who in the family is to get what. For example, adults will make decisions about children’s birthday presents or how much the household spends on heating. Firms are also planned economies where managers decide how to allocate resources. At a national level, governments and government bodies allocate resources through planning. For example, in a budget, the finance minister will announce plans for how the government will spend money.
TYPES OF ECONOMY

In rich, industrialised economies, three main types of economy can be distinguished.

Free market economies In free market economies (also called free enterprise economies or capitalist economies or market economies), the majority of resources are allocated through markets rather than through government and planning. There are no examples of pure free market economies in the world today. However, Hong Kong and the USA have a greater proportion of their resources allocated by the market than economies such as Sweden or Germany. In the USA, public (i.e. government) spending is around 37.5 per cent of total output. The government allocates resources, for example for education, defence, roads, policing and the justice system. Hong Kong and the USA therefore tend to be called ‘free market economies’.

Mixed economies In mixed economies, more resources are allocated through government planning than in free market economies. Typically between 40 per cent and 60 per cent of resources are allocated by government and the free market. Two key areas that distinguish free market and mixed economies are welfare benefits and healthcare. In mixed economies, there tends to be a greater reallocation of income through welfare benefits such as state pensions, unemployment and sickness benefits and child benefits. Mixed economies also tend to be ones where the healthcare system is administered and financed by the state. In pure free market economies, healthcare would be entirely financed by the private sector and, in theory, there would be no welfare benefit system.

Command economies In command (or planned or centrally planned) economies, most resources are allocated by the state and the market mechanism only plays a small part. The largest planned economy
today is China, although it is moving towards a mixed economy. Cuba and North Korea are two other examples. Before 1990, the Soviet Union and Eastern European countries, such as Poland and Romania, were also planned economies.

**ACTIVITY 2**

**CASE STUDY: THE NORTH KOREAN ECONOMY**

North Korea is one of the last remaining planned economies in the world. But it is slowly moving in a more market-orientated direction. In the 1990s, the break up of another planned economy, the Soviet Union, brought mass hunger to North Korea with an estimated 1 million deaths. The Soviet Union had been North Korea’s main trading partner and had subsidised (funded) its economy. When that trade and subsidy disappeared, North Korea’s income fell significantly. It was during this time that informal markets, particularly for food, appeared. Today, these informal markets provide an estimated two-thirds of the population with their main source of income. However, officially, agriculture is all collectivised, meaning that the state owns all farms and directs production. So too with industry. However, the government has established a small number of Special Economic Zones where foreign companies can set up and employ North Korean workers to produce goods for export. It wants to expand their number.

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(a) Explain what it might mean for North Korea as a planned economy to move ‘in a more market-orientated direction’.

**AN EVALUATION OF DIFFERENT TYPES OF ECONOMY**

The different types of economy have advantages and disadvantages.

**Choice** Comparing the USA with the former Soviet Union in 1985, or North Korea or Cuba today, it is clear that individual citizens on average have more choice in free market economies. Planning tends to produce uniform products. So in the Soviet Union, everything from cars to shoes to food was mass-produced in large quantities but with little variety. In a market economy, consumers can choose between thousands of different versions of cars. As workers, in a market economy, people have choices about which jobs to apply for. In planned economies, there tends to be much more direction with workers being allocated jobs. Citizens also have far less income after tax in planned economies than in free market economies. The amount they are free to spend on products of their choice is therefore much smaller. However, choice has its limitations. In free market economies, those with high incomes or high levels of education have far more choice than those with low incomes or low levels of education. Choice for an unemployed worker in a high-unemployment area might very limited indeed.

**Quality and innovation** One advantage claimed of a free market economy is that there are strong motivations built into the system to innovate and produce high-quality goods. Companies that fail to do both are likely to be driven out of business by more efficient firms. However, this assumes that consumers or buyers have the power to make free choices. In practice, many markets are dominated by a few large producers that direct the market through advertising and other forms of marketing in order to exploit the consumer. So while choice and innovation are greater than under planned systems, the advantages of free market economies may not be as great as it might at first seem.

**Efficiency** The planned economies of the Soviet Union and Eastern Europe proved to be inefficient. One major problem was that workers and managers had little incentive to work efficiently. Usually guaranteed their jobs, they only had to meet their minimum work targets to stay safe. Markets tend to lead to greater efficiency because of competition. Firms in a competitive market have to be efficient to survive and make a profit. However, competition in many markets in mixed and free market economies is limited because a few large firms dominate those markets. Also, large firms are small planned economies in themselves and often struggle to maintain efficient production through planning in exactly the same way that planned economies such as the Soviet Union struggled to be efficient.

**Economic growth** One frequently made claim is that the more market-orientated an economy, the higher the rate of growth of its overall economy will be. Markets are assumed to be dynamic while government control is assumed to discourage innovation and best practice. The planned economies of the Soviet Union and Eastern Europe certainly fell behind in terms of growth. Planning the whole economy produced large inefficiencies. However, both mixed and free market economies at the same level of development seem to grow at very similar rates over the long term. Free market economies do not seem to have higher rates of growth than mixed economies over time.
**Distribution of income and wealth** Free market economies tend to have higher levels of inequality than mixed or planned economies. This is because resources produced by government through the planning process tend to be distributed more equally than would be the case in a free market. Higher income earners and wealth owners also tend to pay a larger proportion of tax in mixed compared to free market economies.

**Risk** Free market economies tend to expose their citizens to far more risk than mixed or planned economies. For example, there tends to be far less provision for risks associated with ill health, unemployment and old age in free market economies. The wealthy can afford to spend their way out of problems. However, the poor can be left with no healthcare, no job, no house and no food. In mixed and planned economies, there tend to be a birth-to-death group of services and benefits provided by government for citizens.

**Political freedom** All planned economies in the 20th and 21st century have limited political freedoms to enforce control. Almost all have been totalitarian police states. In contrast, both free market and mixed economies in the rich industrialised world have been associated with political freedom.

Since the 1950s, most planned economies have disappeared. Apart from North Korea, the few that remain, such as China, are moving towards a more market economy. Equally, there has been a tendency for the size of government in free market economies to grow. Among mixed economies, those such as Sweden and Norway, which at one point saw their government spending rise to over 60 per cent of GDP, have generally moved back towards a more market-orientated allocation of resources.

**SMITH, HAYEK AND MARX**

Three writers who have strongly influenced thinking about economic systems are Adam Smith, Friedrich Hayek and Karl Marx.

**Adam Smith** Adam Smith published his famous book, *An Enquiry into the Nature and Causes of the Wealth of Nations*, in 1776. In the book he explained how the ‘invisible hand’ of the market would allocate resources to everyone’s advantage. He argued that the selfish desire for profit by every individual could lead to a whole economy where benefit was maximised. He attacked the economic system of his day, which restricted free trade through protectionism, economic restrictions and legal barriers. Adam Smith is often seen as a supporter of free market economies and laissez-faire government. Laissez-faire means that the government should leave markets as much as possible to regulate themselves. However, there are many points in his writings where he recognises that the state has an important role to play in providing a structure within which free markets can operate.

He saw that individuals and firms would attempt to distort markets to gain more for themselves. He also saw that the poor needed to be defended from those who owned property. For example, he argued that businesses would attempt to combine together to raise prices at the expense of the consumer. He wrote that employers would reduce wages as much as possible whether or not workers could survive on these incomes. He also argued that the state had to provide those goods and services that free markets would otherwise not provide. The whole legal and judicial structure for enforcing property law, for example, needed to be provided by the state. So too did goods such as roads and bridges.

**Friedrich Hayek** Friedrich Hayek was a 20th-century Austrian economist who moved to the UK in 1931. His most famous book is *The Road to Serfdom*, published in 1944. In it, he argued that ever-greater control of the economy by the state leads to totalitarianism and the loss of freedom by the individual. He was reacting to the loss of individual freedom in the Soviet Union under Joseph Stalin and Germany under Adolf Hitler. He correctly saw that individuals were forced to comply with state wishes through the threat of prison and death. However, he then said that greater state control over the economy in both the UK and the USA also led to a loss of freedom for the individual. For Hayek, the poor in the UK and the USA were better off than in Germany or the Soviet Union because at least they had their personal freedom. Proponents of free markets have used Hayek’s thoughts to argue that free unregulated markets are better than regulated markets or direct state provision and control because the liberties of the individual are maintained in free markets. He also said that central planning by governments led to the will of a small minority of individuals being imposed on the whole of society. Critics would argue, however, that this occurs in free market economies too. Those who own property are able to impose their will on everyone else. In a free market economy, the poor have very few ‘spending votes’ compared to the rich. In free market economies, the rich are also able to buy influence over political processes, influencing political decision making. The poor then become politically powerless as well as being economically weaker.
Karl Marx was a 19th-century German thinker and writer and is often considered to be the founder of modern socialism. His most famous book is *Das Kapital*, the first part of which was published in 1867. He correctly saw that there was a great gap between the economic fortunes of the owners of property and workers in 19th-century Europe. He wanted to see that gap eliminated. He developed a theory which said that it was historically inevitable that workers, the proletariat, would rise up in revolution against property owners and seize control of the means of production. A new democratic society would arise, which would lead to equality and where property would be owned by everyone collectively. Karl Marx, although he advocated revolution, would probably not have approved of the Marxist state created by Joseph Stalin in the Soviet Union in the 1920s, 1930s and 1940s. The problem for Marxists was how to go from a capitalist free market economy to an ideal economy in which somehow everyone owned everything to the benefit of all. Joseph Stalin solved this problem by creating a command economy where the state owned most resources. Command economies ultimately have not been anywhere near as successful as free market and mixed economies at delivering economic benefit to their citizens. Also, as Hayek pointed out, they came to rely on the abuse of political power to enforce their decisions.

**THINKING LIKE AN ECONOMIST**

**MIXED ECONOMIES**

The shape of today’s UK economy was formed between 1945 and 1951 in the years following the Second World War. A Labour government created the Welfare State, including a free National Health Service and a system of birth-to-death benefits that eliminated the worst of the poverty seen before 1945.

In common with most industrialised economies, the UK saw the rate of growth of government spending rise faster than national income in the 1950s, 1960s and 1970s. The result was that government spending as a percentage of GDP rose.

The 1980s saw an attempt by a Conservative government under Margaret Thatcher to reduce the role of the state significantly and move the economy back to being more market orientated. The ‘Thatcher revolution’ was influential throughout the industrialised world. It led to a debate that is still continuing today about what should be left for market forces to provide and what should be done by the state.

Sweden was one country that was influenced by this debate. Along with Norway and Denmark, it had created a large welfare state, which helped create much greater equality in society than in, for example, the USA. However, in the early 1990s, it experienced a banking crisis and a major recession. This led to government spending soaring to 71 per cent of GDP. In the years that followed, Sweden recognised that its government spending was too high. By 2014, it had fallen to a little over 50 per cent, not much more than the average for the eurozone.

When the world experienced a banking crisis and major recession in 2008, like Sweden before, government spending as a proportion of GDP tended to rise in most countries. This was because government spending itself rose at a time when GDP was falling. In the UK, government spending as a proportion of GDP rose to 51 per cent in 2009. In 2010, a new coalition government with a Conservative Party chancellor (finance minister), George Osborne, promised to cut public spending. This was to reduce government borrowing. Following their win in the 2015 election the Conservative Party continued with this policy.
However, it was also designed to reduce the size of the state and shift the UK away from Scandinavian and other European mixed economies towards a more free market US-style mix of private and public sectors. The debate about whether the UK should be a mixed economy rather than a free market economy is therefore still very much alive.

Note: Data for 2018–20 are estimates.

Figure 1 Government spending as a percentage of GDP, 2014–20

**CHECKPOINT**

1. What are the three basic questions that all economic systems must address?
2. What is the market mechanism?
3. What is the main difference, in the allocation of resources, between a free market economy and a command economy?
4. How would you expect the following to differ between a free market economy and a command economy?
   - choice
   - quality and innovation
   - efficiency
   - economic growth
   - distribution of income and wealth.

**SUBJECT VOCABULARY**

- **command or planned or centrally planned economy** an economic system where government, through a planning process, allocates resources in society.
- **economic system** a complex network of individuals, organisations and institutions and their social and legal inter-relationships which allocate resources.
- **free market economy, or free enterprise economy or capitalist economy or market economy** an economic system that resolves the basic economic problems mainly through the market mechanism.
- **mixed economy** an economy where both the free market mechanism and the government planning process allocate significant proportions of total resources.
- **protectionism** when a government tries to help industries in its own country by taxing or restricting foreign goods.
- **supranational** involving more than one country.
EXAM PRACTICE

THE US ECONOMY

Money can buy lots of things in the USA for the ordinary foreign tourist. Prices are cheap and service is good. The free market means the tourist has the choice of everything from the most luxurious five-star hotel to a tent or caravan, a Michelin-star restaurant to a burger restaurant, or a walk in the countryside.

However, the US economy is a divided economy. Tourists tend to be served by the half of Americans who are on low wages. According to the 2015 US census, half of all households earn US$56,516 or less per year while one-fifth of households earn US$22,800 or less. The bottom half of Americans cannot expect to see much increase in their incomes over the coming decades. After all, as Figure 2 shows, since 1980, the bottom fifth of income earners have seen very little change in their before-tax income. Contrast that with the top 5 per cent who have seen their incomes grow 84 per cent. The top 1 per cent have seen their incomes rise by nearly 300 per cent. The USA is truly a winner-takes-all society.

Support for the free market is strong in the USA. The free market is supposed to deliver superior growth to the 'socialist' countries of Europe. But the evidence is not conclusive. At least some of the difference in growth rates is explained by the high immigration rates to the USA. More workers means more output and so higher GDP. But it does not mean higher output per person.

Free market supporters also criticise the government-financed healthcare systems of Europe. In America, it has been a strongly defended freedom to have so little money that you cannot afford to visit the doctor, let alone have a life-saving operation. This changed with the introduction of ‘Obamacare’, an insurance scheme designed to give medical access to all.

However, the free market medical care system, to date, has left life expectancy (length) in 2016 in the richest country in the world at only 79.8 years – ranked 42nd by the CIA World Factbook. For Sweden, it is 82.1 years and for Japan it is 85.0 years.

Social promotion is also a real problem in the USA. Barack Obama was very unusual. He was the first person in living memory to be elected president who was not already a millionaire. Even then, he and his wife were in the top 1 per cent of income earners when he began to run for president in 2007. Just as in the UK or in Sweden, individuals in the USA can make it from poverty to riches. But most wealthy people are the sons and daughters of rich parents. The chances of a child from a poor background today making it to the top of the income pile are very low.

Source: with information from www.cia.gov

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<td>Canada</td>
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▲ Table 1 Annual average real growth in GDP per head and GDP (%)

Source: adapted from stats.oecd.org

1 Analyse how resources are allocated in a free market economy such as the USA. (6 marks)

2 Evaluate the extent to which the economy of the USA performs better than mixed economies, such as Sweden’s, when judged by (a) economic growth; (b) distribution of income and wealth; (c) risk for individuals? (20 marks)