14 THE FACTORS OF PRODUCTION AND SECTORS OF THE ECONOMY

LEARNING OBJECTIVE

- Understand the four factors of production: land, labour, capital and enterprise
- Understand the different sectors of the economy: primary, secondary and tertiary
- Understand the changes in the importance of these sectors in terms of employment and output over time in developing and developed economies

GETTING STARTED

Businesses use a range of resources to make goods or deliver services. Examples include raw materials, components, buildings, energy, tools, equipment, machinery and people. Businesses will try to make the best use of these resources to help keep costs down and become more efficient. Look at the example below.

CASE STUDY: LG ELECTRONICS

LG Electronics is a large South Korean electronics company. It employs over 80 000 people in operations in over 100 different countries. The company is divided into four key divisions:

- home entertainment
- mobile communications
- home appliances, such as televisions and refrigerators
- vehicle components.

In 2015, the company enjoyed revenue of US$48 800 million – slightly lower than the previous year.

▲ Resources used by LG Electronics

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

2 What is the size of LG's workforce?

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

WHAT IS PRODUCTION?

Production is a process that involves converting resources into goods or services. These goods and services are provided to satisfy the needs and wants of people. Some examples of production include:

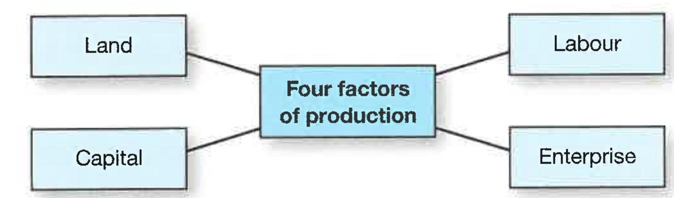
- a baker using flour, yeast, salt and water to make bread
- a large computer manufacturer using people to assemble components in a factory to make laptop computers
- a dentist using surgical instruments to extract a diseased tooth
- a taxi driver using a car to transport a family from their home to an airport.

All of these examples involve using a range of resources to produce goods or provide services. Economists put these resources into different categories called the four **factors of production**. These are summarised in Figure 14.1.

SUBJECT VOCABULARY

factors of production resources used to produce goods and services, which include land, labour, capital and enterprise

production process that involves converting resources into goods or services



▲ **Figure 14.1** Four factors of production

LAND

Businesses often require a plot of land on which to locate or operate their premises. For example, a large supermarket may require one or more hectares of land on the outskirts of a town to locate a large store with car parking facilities. However, land also includes natural resources, such as coal, oil, iron ore, rainwater, forests, rivers, and fertile soil.

- Some of the land resources used by businesses are *non-renewable*. This means that once they have been used they cannot be replaced. Examples include mineral deposits like coal, oil, diamonds and limestone. It is likely that one day these resources will completely run out.
- *Renewable* land resources are those like fish, forests and water, which are replaced by nature. These resources should not run out but there is a risk that if some of them are not protected or over exploited they could disappear.

DID YOU KNOW?

Less than 7 per cent remains of Brazil's Atlantic Forest, which once covered 130 million hectares. Expanding urban areas, increased agricultural and industrial development threaten this rich, endangered forest.

LABOUR

Labour is the workforce in the economy. Manual workers, skilled workers and managers are all members of a nation's workforce. The quality of individual workers will vary considerably. Each worker is unique, possessing a different set of abilities, characteristics, skills, knowledge, intelligence and emotions. The value of an individual worker to a business is their **human capital**. It is possible to increase the value of human capital through training and education. This will help to make workers more productive.

SUBJECT VOCABULARY

human capital value of the workforce or an individual worker

labour people used on production

working capital or circulating capital resources used up in production such as raw materials and components

CAPITAL

Capital is often said to be an artificial resource because it is made by labour. There are two types of capital.

- **Working capital or circulating capital**, which refers to stocks of raw materials and components that will be used up in production. It also includes stocks of finished goods that are waiting to be sold. Retailers such as supermarkets and chain stores often hold large quantities of stocks because they specialise in selling finished goods.

SUBJECT VOCABULARY

fixed capital stock of 'man-made' resources, such as machines and tools, used to help make goods and services
entrepreneurs individuals who organise the other factors of production and risk their own money in a business venture

- **Fixed capital,** which refers to the factories, offices, shops, machines, tools, equipment and furniture used in production. It is fixed because it will not be converted into a final product. Fixed capital is used in production to convert working capital into goods and services. A company like Honda would have very large stocks of fixed capital because their production methods involve using large amounts of hi-tech machinery.

ENTERPRISE

Entrepreneurs play a special role in the economy. They are responsible for setting up and running businesses. Without them production would not take place. But what exactly do entrepreneurs do?

- **They come up with a business idea**: This might involve the production of a completely new product. However, this is unusual. Most new businesses supply goods or services that are currently produced by others. That said, an entrepreneur might feel that there is a gap in the market for a slightly different product, or that it is possible to supply exactly the same product more effectively. For example, an entrepreneur might open a new restaurant in a city centre when there are dozens already trading. However, a different cuisine might be offered, such as Lebanese or Malaysian.
- **They are business owners**: They usually provide some money to help set up a business and are responsible for its direction. For example, a business owner might decide to expand the business in the future or extend the range of products.
- **Entrepreneurs are risk-takers**: For example, they are likely to risk their own money in the venture. If the business collapses, they may lose some or all of their money. However, if the business is successful they may make a lot of profit. But when they start up, they do not know what will happen – they are taking a risk.
- **Entrepreneurs are responsible for organising the other three factors of production**: They have to buy and hire other resources such as raw materials, tools, equipment and labour. Entrepreneurs need to use a range of skills such as decision making, people management, time management and financial judgement to organise production factors effectively.

LABOUR- AND CAPITAL-INTENSIVE PRODUCTION

SUBJECT VOCABULARY

capital intensive production that relies more heavily on machinery relative to labour
labour intensive production that relies more heavily on labour relative to machinery

Some firms use relatively more labour than capital when producing goods and services. Therefore, production is said to be labour intensive. For example, in China, labour is very cheap and many firms choose **labour-intensive** production methods. The provision of services is also generally labour intensive. In contrast, if relatively more capital is used than labour, production is said to be **capital intensive**. Firms in Western economies often favour capital-intensive production methods because labour is more difficult to manage. The production of FMCGs often relies on heavily automated plants.

DID YOU KNOW?

Some economies rely heavily on migrants when increasing production. For example, during the 2000s, large numbers of Eastern Europeans moved to Germany looking for work. Many of them were employed in the service industries to help increase production.

ACTIVITY 1

CASE STUDY: ALONSO CORTEZ

Alonso Cortez set up a small bus company to provide an express passenger transport service from Madrid city centre to Madrid Barajas International Airport, Spain. He invested €20 000 in the venture and employed two drivers to work for him. He spent €10 000 on a 50-seater coach and rented a small office in the bus station. He also purchased a computer, mobile phones for his drivers and some office furniture.

▲ An airport bus service

1 Suggest **two** examples of capital that Alonso will use.

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

PRIMARY SECTOR

SUBJECT VOCABULARY

primary sector/industry production involving the extraction of raw materials from the earth

The economy is divided into different sectors. In developed countries, such as the USA and Germany, most businesses provide services. They may be fitness centres, insurance brokers, retailers or provide services for businesses, such as market research or IT support. In some countries, such as China, there are large numbers of manufacturers. Finally, in less developed countries, many businesses concentrate on producing agricultural goods. Economic activity is classified into three sectors. In the **primary sector**, business activity involves extracting raw materials from the earth. Here are some examples.

- **Agriculture** involves a range of farming activities. It is probably the most important primary sector activity for most countries. Most agriculture is concerned with food production. However, other examples include decorative or exotic products, such as cut flowers, nursery plants and tropical fish.
- **Fishing** involves netting, trapping, angling and trawling fish. It also includes catching or gathering other types of seafood, such as mussels, prawns, lobsters, crabs, scallops and oysters. China is the world's largest fish producer.
- **Forestry** involves managing forests to provide timber for wood products. Modern forestry also involves protecting the natural environment, providing access and facilities to the public and managing areas for wildlife.

- **Mining and quarrying** involves the extraction of raw materials such as coal, iron ore, copper, tin, salt and limestone from the ground. This sector also includes the extraction of oil and gas. Saudi Aramco, the largest oil producer in the world, is an example of a primary sector business, as it extracts oil.

SECONDARY SECTOR

SUBJECT VOCABULARY

assembly plants factory where parts are put together to make a final product

secondary sector/industry production involving the processing of raw materials into finished and semi-finished goods

In the **secondary sector**, business activity involves converting raw materials into finished or semi-finished goods. All of manufacturing, processing and construction lie within this sector. Secondary sector business activities include metalworking, car production, textile production, chemical and engineering industries, aerospace manufacturing, energy utilities, engineering, food processing, construction and shipbuilding.

Some businesses focus on the production of semi-finished goods (sometimes called intermediate goods or producer goods). These goods are sold to other businesses and used as inputs for the production of final goods, which are then sold to consumers. Examples of semi-finished goods might include the parts used in **assembly plants** to make motor cars such as steering wheels, car seats, brakes, light fittings, engines, electric cables, switching mechanisms and exhaust systems. A single car may use around 30 000 different parts in assembly.

In many developed countries, the secondary sector has declined in recent years. This is discussed in more detail below.

TERTIARY SECTOR

SUBJECT VOCABULARY

tertiary sector/industry production of services in the economy

The **tertiary sector** involves the provision of a wide variety of services. Some examples are given below:

- **commercial services**: freight delivery, debt collection, printing and employment agencies
- **financial services**: banking, insurance, investment advice and pensions
- **household services**: plumbing, decorating, gardening and house maintenance
- **leisure services**: television, tourism, hotels and libraries
- **professional services**: accountancy, legal advice and medical care
- **transport**: train, taxi, bus and air services.

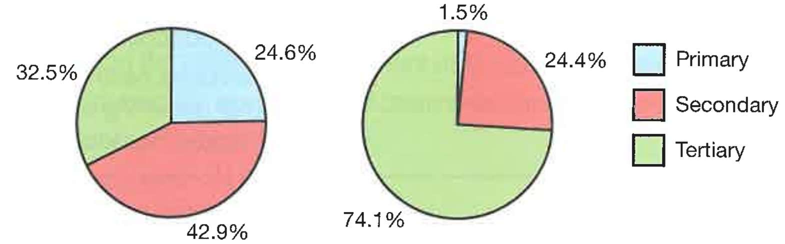
CHANGES IN THE IMPORTANCE OF DIFFERENT SECTORS

SUBJECT VOCABULARY

de-industrialisation decline in manufacturing

The number of people employed in each sector does not stay constant over time. Different sectors grow and decline according to economic and social changes. In the UK, before the Industrial Revolution began in the late 18th century, most production was in the primary sector. During the 19th century, secondary production expanded rapidly as manufacturing grew during the Industrial Revolution.

However, in the last 60 years, the tertiary sector has started to expand at the expense of both agriculture and manufacturing. The decline in manufacturing is called **de-industrialisation**. Figure 14.2 shows the pattern of employment in the primary, secondary and tertiary sectors in Germany between 1950 and 2015. Similar patterns can be identified in other developed nations.



▲ **Figure 14.2** Employment by sector in Germany, 1950 and 2015

Why has manufacturing declined in developed countries while services have grown?

- People may prefer to spend more of their income on services than manufactured goods. There has also been a decline in demand for the goods produced by some of the traditional industries in manufacturing, such as shipbuilding and textiles.
- There is fierce competition in the production of manufactured goods from developing countries such as Brazil, China and India.
- As countries develop, their public sector grows. Since the public sector mainly provides services, this adds to the growth of the tertiary sector.
- Advances in technology mean that employment in manufacturing falls because machines replace people.

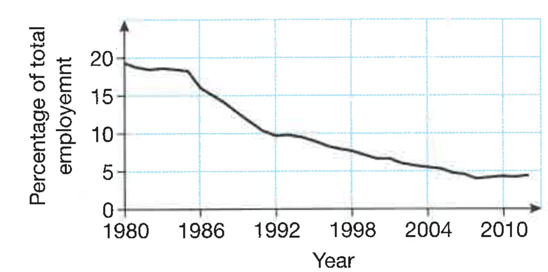
ACTIVITY 2

CASE STUDY: OLIVE OIL PRODUCTION

The largest olive growing region in the world is Andalucía, in southern Spain. Many of the growers in this region are owned and run by small family businesses. The Casillas family grow olives on their farm near Cordoba. Each year they sell their harvest to a local business that processes the olives into oil, much of which is exported. Harvest time between November and March is a very busy time for the family. They usually employ about 15 villagers to help out. However, Marco Casillas has recently thought about investing in some harvesting machinery to reduce labour costs and remain competitive.

▲ The olive harvest

▲ Processing olives for oil



▲ **Figure 14.3** Spanish employment in agriculture (as a percentage of the total employed), 1980–2013

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

Look at Figure 14.3.

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

3 Describe **one** possible reason for the pattern described in (2).

DEVELOPED AND DEVELOPING COUNTRIES

There are some significant differences in the structure of economies in developed and developing countries. In most developed countries, the primary sector is much less important than the tertiary sector. Only a small percentage of the workforce is employed in the primary sector. In many developing countries, the secondary sector is now growing with some expansion of the tertiary sector. For example, many developing countries in Asia are beginning to manufacture goods on a large scale and to export them to developed countries. In very undeveloped countries, such as some African states, most people are still employed in the primary sector with weak growth in manufacturing and services.

Figure 14.4 shows employment in the different sectors of the economy for two countries – Tanzania and Japan. Clearly, Japan, which is the most developed nation of the two, employs fewer people in agriculture and many more in services than Tanzania.

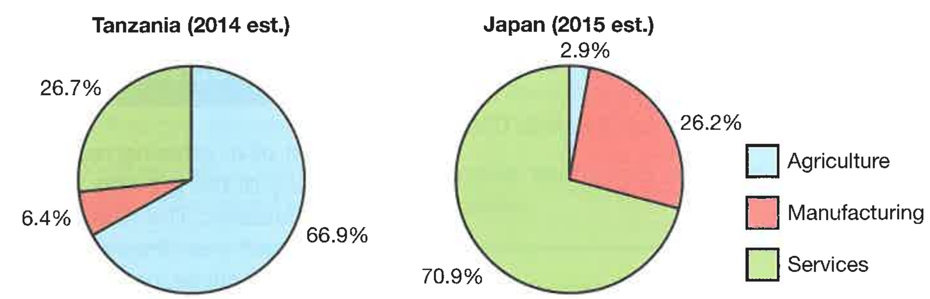


Figure 14.4 Employment by sector, Tanzania and Japan

MULTIPLE-CHOICE QUESTIONS

1 Which of the following businesses operate in the secondary sector?

A Santander
B Qatar Airways
C Ford Motor Company
D McDonald's

2 Which of the following is a factor of production?

A Dental treatment
B Wages
C Birthday card
D Enterprise

ECONOMICS IN PRACTICE

CASE STUDY: HISENSE

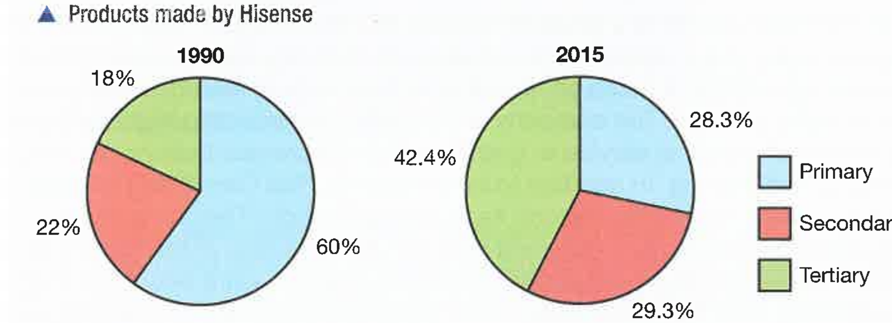
China is well known for its manufacturing capability. The country has many thousands of manufacturers that make a wide range of goods, which are sold all over the world. China has enjoyed a competitive advantage in manufacturing in the last 30 years due to its cheap and large supply of labour. However, producers in other parts of the world are now taking market share away from China as wages in the country are starting to rise.

One very large Chinese manufacturer is the state-owned company Hisense. Hisense makes white goods, such as washing machines and refrigerators, as well as electrical goods, such as televisions, laptops, mobile phones and many other related products. Hisense has a large number of factories in both China and overseas. However, Hisense also provides a range of services, such as product design, information

technology services and property management. Hisense has recently opened two new research and development centres to help speed up product development.

In common with many other countries in the world, the pattern of business has changed in China over time. Figure 14.4 shows the proportion of people in China employed across the primary, secondary and tertiary sectors in 1990 and 2015.

▲ Products made by Hisense



▲ Figure 14.5 Employment by sector in China, 1990 and 2015

CHAPTER QUESTIONS

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

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

Look at Figure 14.5.

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

4 What is meant by de-industrialisation?

5 Assess the main causes of de-industrialisation.

15 PRODUCTIVITY AND DIVISION OF LABOUR

LEARNING OBJECTIVE

- Understand how to define productivity
- Understand the factors that affect productivity: land, labour and capital
- Understand how to define division of labour
- Understand the advantages and disadvantages of the division of labour to workers and businesses

GETTING STARTED

It is important for businesses to make the best possible use of resources during production. This will help keep costs down, raise efficiency and improve their competitiveness in the market. One approach is to make better use of workers to improve labour productivity. Employing specialist labour and training workers can achieve this. Look at the example below.

CASE STUDY: RED CARNATION HOTELS

Red Carnation Hotels is a privately owned, family-run luxury hotel group with 17 hotels on four different continents. The company has a reputation for treating its staff very well. It came third in the *Sunday Times* best companies to work for in 2016. It holds an Investors in People Gold Award and has a staff turnover rate that is far below the industry average. The company is committed to providing high-quality training. The hotels offer very high standards of personal service to guests, which the owners believe can only be delivered if people are given personalised training. In addition to basic training, Red Carnation Hotels offers learning opportunities that are internationally recognised beyond its own organisation. The company encourages staff to develop new skills that helps to motivate them, so keeping their service to guests at the highest level. Workers can get additional training to help career development and the business employs extra people so staff can be released from duty to carry out this training. Red Carnation Hotels runs more than 80 of its own training courses that include:

- foundation skills for team members
- foundation skills for managers
- technical skills for specialist jobs
- developmental skills
- college sponsorships.

1 Suggest **two** possible examples of specialist workers at Red Carnation Hotels.
2 Describe **one** advantage of employing specialist workers.
3 Discuss the importance of training at Red Carnation Hotels.

▲ Training at Red Carnation Hotels

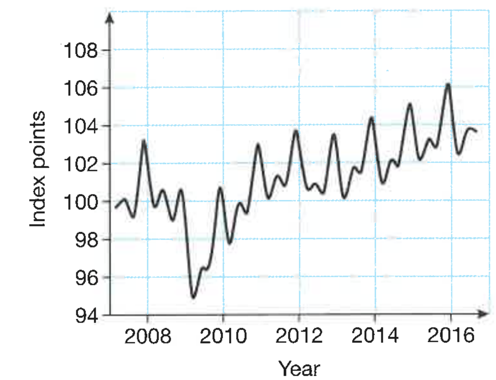
PRODUCTIVITY

SUBJECT VOCABULARY

productivity rate at which goods are produced, and the amount produced in relation to the work, time, and money needed to produce them

Businesses can produce more output if **productivity** can be raised. Productivity is the output per unit of input. For example, the productivity of labour is the *output per worker*. It can be calculated by dividing total output by the number of workers employed. If a car manufacturer produced 24 000 cars in a year with a workforce of 2000, labour productivity would be 12 cars per worker (24 000 ÷ 2000).

Raising productivity in an economy is highly desirable. It means that more goods and services can be produced with the same, or fewer, resources. Countries are likely to measure and monitor productivity levels in their economy. Figure 15.1 shows the pattern of productivity levels in the EU between 2006 and 2016. The graph clearly shows that productivity has increased over the period. The dip in productivity in 2009 was the result of the global financial crisis, which hit the EU quite hard. Over time, firms try to increase productivity because they will lower their costs and make more profit.



▲ Figure 15.1 EU productivity, 2006–16

FACTORS AFFECTING PRODUCTIVITY

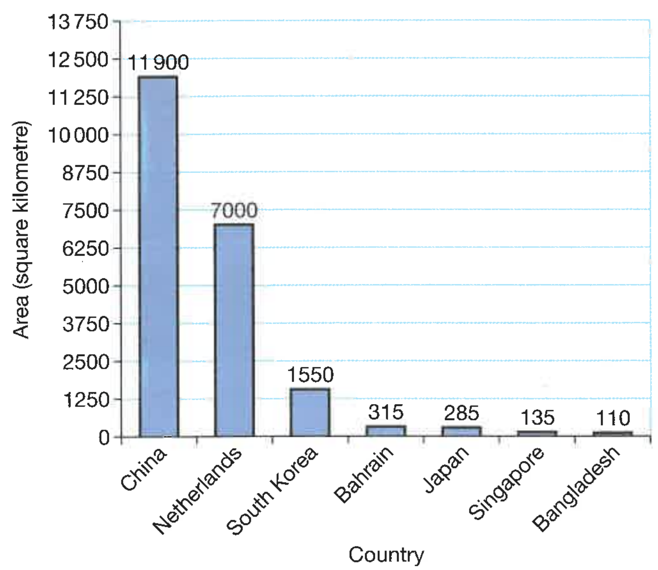
Productivity can be improved if businesses make better use of their resources. There are a number of ways of raising the productivity of production factors, some of which are outlined below.

LAND

The quality of land varies. Some is fertile and can be used to grow crops or farm cattle. Other land is dry or mountainous and is almost useless. However, measures can be used to make agricultural land more productive.

- **Fertilisers and pesticides:** Fertilisers are chemicals given to plants to improve their health and appearance, and raise crop yields. Pesticides are used to kill pests. However, pesticides and some fertilisers can harm people, wildlife and the environment. This is why there are strict controls in place over their sale and use.
- **Drainage:** Some areas of land are unproductive because they are flooded. Drainage can be used to improve the flow of water off this land and thereby make it more productive. A few years ago, with funding help from the World Bank, Uzbekistan set up a major drainage project in the Aral Sea Basin. It was hoped the project would increase the productivity of agriculture in the region and improve the water quality of the Amu Darya River.
- **Irrigation:** This involves redirecting water from natural sources, such as rivers, lakes or streams, to land that needs more water to become more productive. In crop production, it is mainly used in dry areas and in periods of rainfall shortages but also to protect plants against frost. Irrigation systems are used in many parts of the world.

- **Reclamation:** In some circumstances, it is possible to create new land from oceans, riverbeds or lakebeds. Clearly, if more fertile land can be found to grow crops, the productivity of the earth's land will rise. To reclaim land water is drained from wetlands. The graph in Figure 15.2 shows that China leads the world in land reclamation, with an extra 11 900 square kilometres of land to date. About 65 per cent of the tidal flats around the Yellow Sea, the Yangzi lowlands and many parts of Shanghai and Wuhan is reclaimed land. Hong Kong International Airport was also built on reclaimed land.
- **Genetically modified crops:** Land productivity has been increased recently by using genetically modified (GM) crops. Producing GM plants involves transferring genes and DNA from one organism to another. This results in plants that are less likely to be affected by disease, may produce higher yields and, in some cases, more appealing to consumers. However, there has been some opposition to the development of GM crops because genetic engineering is unpredictable. By adding genes from organisms that have never been eaten as food, new proteins are introduced into food chains. There is concern that these could cause allergic reactions or other negative health effects.



▲ **Figure 15.2** Land reclaimed by the top seven countries with reclaimed land

LABOUR

If the quality of human capital can be improved, there will be gains in labour productivity.

- **Training:** One way to improve the quality of human capital is to invest in training. Training involves increasing the knowledge and skills of workers so they can do their jobs more effectively. Training is important because it allows employees to acquire new skills, improve existing ones, perform better and be better leaders. It also helps to improve employee motivation so productivity will be higher. It is also important since training involves, in part, teaching new staff how to work safely in their new environment.

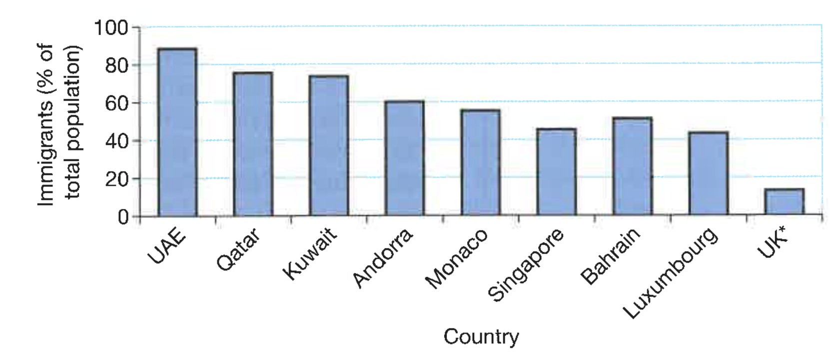
  The government can help to improve the quality of human capital by investing in the education system. This might involve providing more equipment for schools and improving the quality of teaching. To equip young people with the skills needed in the workplace, a government might invest more in vocational education. Firms can also improve the productivity of their workers by providing their own training. In 'Getting started', Red Carnation Hotels is an example of a business committed to the training of its workers. The company offers its employees about 80 different training courses.

SUBJECT VOCABULARY

job rotation practice of regularly changing the person who does a particular job

piece rate amount of money that is paid for each item a worker produces, rather than for the time taken to make it

- **Improved motivation:** If people are motivated at work they will be more productive. One way of motivating staff is to use a financial incentive scheme such as **piece rates**, which involves paying workers according to how much they produce. However, some workers are not motivated by money so non-financial incentives might be needed. For example, a firm might use **job rotation**, which involves an employee changing tasks from time to time. If people are trained to do different jobs, their time at work may be more interesting because there is more variety. They may be less bored and therefore better motivated.
- **Improved working practices:** The way labour is organised and managed can affect productivity. Working practices are the methods and systems of work that employees are expected to adopt when taking on a job. Labour productivity has been improved significantly by adopting new working practices. For example, it may be possible to change the factory layout by moving workstations or reorganising the flow of production. Such changes can improve labour productivity because workers may not have to move around as much, for example.
- **Migration:** It might be possible to improve the quality of human capital by attracting skilled workers from overseas. If immigrants are well trained and highly skilled then an economy is likely to become more productive as a result of their presence in the labour market. However, many immigrants are not skilled but still make a positive contribution to productivity. This may be because an untrained migrant childminder might release a highly skilled parent for work, for example. Many countries in the world openly attract large numbers of overseas workers. Figure 15.3 shows a selection of countries and their reliance on immigrant workers. The Middle East relies particularly heavily on immigrant labour.



▲ **Figure 15.3** Immigrant levels in a selection of countries, 2015

Note: *2014

CAPITAL

Improvements in productivity often arise because of the introduction of new technology. Improvements may occur because more capital is employed, possibly at the expense of labour, or because new technology is more efficient than existing technology. Advances in technology have helped improve productivity in all three sectors of the economy.

- **Primary sector:** In agriculture, for example, the use of machinery such as tractors, combine harvesters, lifting equipment and irrigation systems have helped to increase output, reduce waste and improve working conditions. Chemicals and pesticides have raised crop yields and biological research has developed plants that are less likely to suffer from diseases.
- **Secondary sector:** New technology has featured significantly in manufacturing. Many factories and production lines employ complex plant and equipment. This has led to huge increases in productivity. One example includes the use of robots that can handle a lot of the repetitive work in

factories. Robots have reduced the need to employ people in jobs that were boring and demotivating. Another example is the use of computer numerically controlled (CNC) machines. These computerised machines come in a variety of forms. They may be involved in processes such as cutting, pressing, moulding, sewing and welding.

- **Tertiary sector:** The provision of services has historically been labour intensive but the use of technology is becoming more widespread. For example, in retailing there has been a huge growth in internet shopping in the last few years. In some supermarkets there are unstaffed checkout systems. The packaging used today is lighter, stronger and more attractive. In health care, there have been dramatic technological advances in medicine and surgical techniques that have improved productivity. Developments in new vaccines and drugs have reduced patients' suffering and cured some serious diseases. Surgeons can carry out surgery using lasers, viewing the operation on a screen with the use of fibre optic cables.

ACTIVITY 1

CASE STUDY: PRODUCTIVITY IN COFFEE GROWING

The main species of coffee grown around the world are Arabica and Robusta. The world famous Kenyan Arabica, which is mild and high in quality, is grown on rich mountain soils. Here, the climate is ideal for coffee growing. The temperature range does not exceed 19°C (35°F) and the rainfall is evenly distributed throughout the year. Kenya's coffee growing regions are to be found on broad and gently rounded hills. The fertile soil is deep and well drained.

One coffee grower, Bernard Chukwu, is experienced and successful. He employs 24 workers on his estate and in 2015 produced a total of 380 sacks of coffee beans. However, in 2016, Bernard introduced a financial incentive scheme for workers and as a result production rose to 450 sacks. The number of workers he employed also fell in 2016 to 22.

▲ Coffee harvesting in Kenya

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

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

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

THE DIVISION OF LABOUR

SUBJECT VOCABULARY

division of labour breaking down of the production process into small parts with each worker allocated to a specific task
specialisation production of a limited range of goods by individuals, firms, regions or countries

In many businesses, the production process is broken down into small parts and each worker is allocated a specific task. This is called the **division of labour**. It allows people to concentrate on the task or skill at which they are best. For example, in house construction, specialists are often employed throughout the whole construction process. A building contractor may employ specialist workers, such as bricklayers, electricians, plumbers, roofers, carpenters, painters, decorators, glaziers and labourers. It is argued that **specialisation** raises efficiency in firms and the economy.

DIVISION OF LABOUR AND THE WORKER

An individual worker will benefit from focusing on one specific work task but there will also be some disadvantages.

ADVANTAGES

Focusing on the same task allows the worker to become more skilled at doing that task. It is often said that 'practice makes perfect' and constant repetition of the same task will usually mean a worker will get better and better. Therefore, workers with well practised skills will be able to find employment more easily. Also, the more highly skilled they are, the more they are likely to get paid. Workers can also learn new skills or improve their existing ones. For example, an IT worker will need to keep updated with new technological developments. Finally, workers may enjoy more job satisfaction if they are highly skilled in a specialist task.

DISADVANTAGES

One of the main problems with specialisation is that the work can become boring because it is repetitive. This is most likely to happen if a particular task requires little skill. For example, workers employed on a production line responsible for an assembly task that only takes 30 seconds are likely to get very bored if that single task has to be repeated 120 times an hour, 960 times a day and nearly 4000 times a week! This boredom may lead to job dissatisfaction and affect motivation. Repetitive tasks can also have health implications for workers, such as joint wear. Another serious problem for workers that might be too specialised is the risk of unemployment.

DIVISION OF LABOUR AND BUSINESSES

Generally, if workers are more specialised, efficiency improves and businesses can make more profit. However, there are also some disadvantages regarding the division of labour for firms.

ADVANTAGES

- Efficiency is improved because, through specialisation, workers can perform tasks more quickly and more accurately. There are fewer mistakes and productivity (output per worker) will rise. People who try to perform a wide range of tasks may find it difficult to develop the skills needed to be excellent at each one. Therefore their productivity will be lower.
- A greater use of specialist tools, machinery and equipment is possible when workers specialise. For example, specialist CAD (computer-aided design) software is available for production designers, which they can use to improve efficiency.
- Production time is reduced because workers do not have to waste time moving from one task to another. This often involves moving around the workplace collecting tools, changing workstations and resetting machinery. Specialists are likely to remain at the same workstation repeating their task without the need to move around.

- The organisation of production becomes easier. This is because specialist workers can fit more easily into a structured system of production, such as a production line.

DISADVANTAGES

- One of the main problems of the division of labour is that if tasks are too repetitive and boring, people become dissatisfied and poorly motivated. This might result in poor-quality work, staff arriving at work late, increased rates of absence and high staff turnover. In the worst cases, people become detached and try to avoid work. This will obviously reduce productivity and have an impact on profitability.
- Problems can also occur if one stage of production depends on another stage. If one stage breaks down, all other stages may also have to be stopped. For example, if a specialist supplier of parts to an assembly plant fails to deliver, the whole assembly plant may have to stop production. This is called interdependence.
- Specialisation may result in a loss of flexibility in the workplace. For example, if a highly skilled and specialist worker is absent, and there is no one else with those skills, production may be disrupted.

ACTIVITY 2

CASE STUDY: PINTERS LTD

Pinters Ltd build catamarans and employ 20 staff. The production process has four stages.

- **Moulding:** Production begins with the body of the catamaran. Moulds are used to shape resin, cloth and fiberglass into separate parts. These are then attached together to create the fiberglass shell of the boats.
- **Trimming:** The windows, ports, hatches and other openings are cut out from the fibreglass shells and cleaned. Imperfections are ground out and repaired at a central inspection station.
- **Assembly:** The boat components are joined using assembly lines. The method of bringing the pieces to the stations where workers and their tools are located is extremely efficient in reducing wasted time.
- **Finishing:** The engine and electronics are tested as well as all the hulls for leaks. The finished boats then go to a final inspection stage where the entire craft is checked for quality.

Four workers are employed in each production stage and four in the office. One of the office workers is a specialist marketing manager, one is a specialist designer and the other two handle all the accounts and administration. The workers in each of the production stages require 2 years of on-the-job training. After that, they remain in the same area.

▲ Building a catamaran requires very specialist skills

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

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

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

▶ 1 Which of the following is a non-financial method of motivating workers?

A Job rotation

B Profit sharing

C Piece rates

D Performance-related pay

▶ 2 Which of the following is a reason why specialist workers might get bored?

A The training is too lengthy

B Tasks can be very repetitive

C The pay is low

D There is no opportunity for social interaction at work

CHAPTER QUESTIONS

1 What is meant by labour productivity?

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

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

4 The new manager favours the introduction of robots in the factory. How might this reduce workers' boredom?

5 Assess the advantages to

a Pentangle Plastics and

b the Chinese economy, of improving productivity at the factory.

16 BUSINESS COSTS, REVENUES AND PROFIT

LEARNING OBJECTIVE

- Understand how to define and calculate:
  - total revenue
  - total fixed costs
  - total variable costs
  - total costs
  - average total costs
  - profit

GETTING STARTED

Firms incur expenses when they produce goods and services. These expenses are called costs and are classified by economists according to how they behave when output changes. For example, when output rises some costs also rise. However, there are other costs that stay the same when output rises. Look at the example below.

CASE STUDY: GREENWAY CONSTRUCTION

Finders Construction is a specialist house builder. It is established family business with a successful 79-year trading history. The company buys plots of land and builds residential properties, which it markets to individuals. Like any other business, it incurs a wide range of costs. Some examples of costs incurred in the construction of a house include bricks, sand, cement, timber, pipes, glass, electrical wire, glass, plastic window frames and insulation materials. Other costs include: labour; machinery, such as cement mixers, lifting gear, vehicles; tools and equipment, such as spades, trowels, wire cutters, saws, power tools; protective clothing; computers; smartphones and office furniture at the company office.

Finders Construction employs 140 people and builds about 350 houses each year. In 2016, its total costs were US$56 450 200 and total revenue from selling houses was US$64 340 700.

▲ Construction at a building site

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

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

3 Calculate the profit made by Finders Construction in 2016.

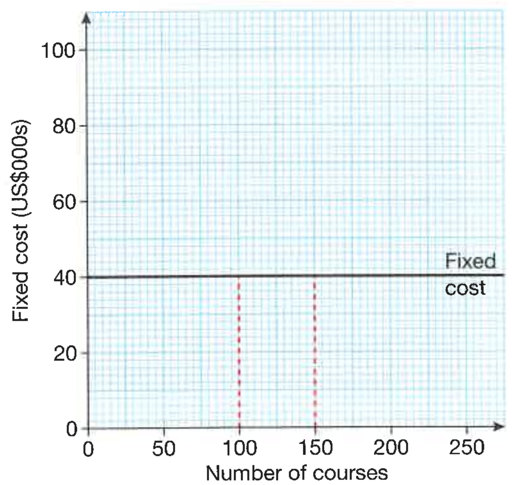
TOTAL FIXED COSTS

SUBJECT VOCABULARY

costs expenses that must be met when setting up and running a business
fixed costs (also known as overheads) costs that do not vary with the level of output

Costs can be classified according to how they behave when output changes. Some production costs remain the same whatever the level of output. These are called **fixed costs**. Examples of fixed costs include rent, business rates, advertising, insurance premiums, interest payments, and research and development costs. These costs will not increase even if a firm produces more output. However, fixed costs will still have to be met if the firm produces nothing. Fixed costs are sometimes called overheads.

Fixed costs can be shown on a graph. Figure 16.1 shows the total fixed cost for Frampton Training. This business provides training courses for HGV drivers. The business incurs total fixed costs of US$40 000 p.a. The graph shows that fixed costs stay the same at all levels of output. If the business provides 100 training places, fixed costs are US$40 000. If the number of places rises to 150, total fixed costs are still US$40 000.



▲ **Figure 16.1** Fixed costs for Frampton Training

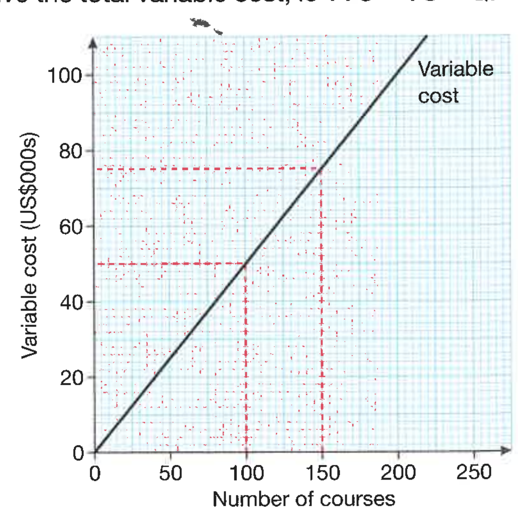
TOTAL VARIABLE COSTS

SUBJECT VOCABULARY

variable costs costs that change when output levels change

Production costs that change when the level of output changes are called **variable costs**. If a firm produces more output, variable costs will increase. Similarly, if output levels are cut, variable costs will fall. Examples of variable costs include raw materials, packaging, fuel and labour. If a firm produces nothing, variable costs will be zero. If the variable cost per unit is mutliplied by the number of units produced, this will give the total variable cost, ie TVC = VC × Q.

Figure 16.2 shows variable costs for Frampton Training. The business has variable costs of US$500 per course. If 100 courses are provided, the total variable costs will be US$50 000 (100 × US$500). If 50 extra courses are provided, total variable costs rise to US$75 000 (150 × US$500). The graph shows that variable costs change whenever output changes.



▲ **Figure 16.2** Variable costs for Frampton Training

TOTAL COSTS

SUBJECT VOCABULARY

total cost fixed costs and variable costs added together

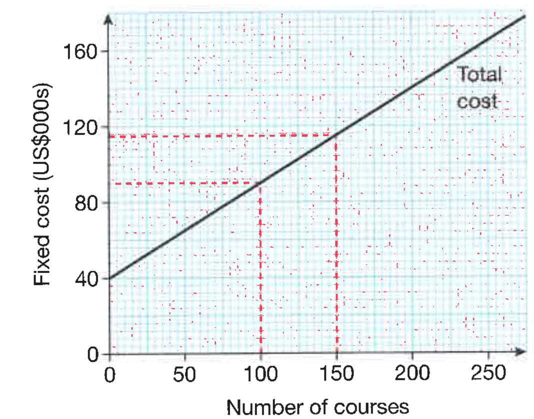
The cost to a firm of producing all output over a period is called **total cost**. Total cost (TC) can be calculated by adding ftotal fixed costs (TFC) and total variable costs (TVC) together.

TC = TFC + TVC

If Frampton Training provides places for 100 training courses, total cost will be:

TC = US$40 000 + (100 × US$500)
= US$40 000 + US$50 000
= US$90 000

The total cost graph in Figure 16.3 shows that total cost increases from US$90 000 to US$115 000 when the number of courses provided rises from 100 to 150.



▲ **Figure 16.3** Total cost for Frampton Training

ACTIVITY 1

CASE STUDY: KANDASAN CRICKET BATS

Kandasan Cricket Bats manufactures high-quality cricket bats. The company, which is based in Colombo, Sri Lanka, employs six skilled craftsmen. Table 16.1 shows some cost information for the business in 2015.

Rent	LKR 50 000 p.a.
Business rates	LKR 5000 p.a.
Other fixed costs	LKR 25 000 p.a.
Wood	LKR 30 per bat
Other raw materials	LKR 10 per bat
Labour	LKR 50 per bat
Other variable costs	LKR 10 per bat

▲ **Table 16.1** Cost information for Kandasan Cricket Bats

▲ Making cricket bats

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

In 2015, Kandasan Cricket Bats produced 4800 bats.

2 Calculate the total cost of production.

In 2016, the rent increased to LKR 60 000.

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

AVERAGE COSTS

The average cost of production is the cost of producing a single unit of output. The formula for calculating average cost is:

$$\text{Average cost} = \frac{\text{Total cost}}{\text{Quantity produced}}$$

So, for example, the average cost of a training course provided by Frampton Training, if 100 places were provided, would be:

$$AC = \frac{TC}{Q} = \frac{\text{US\$90 000}}{100} = \text{US\$900}$$

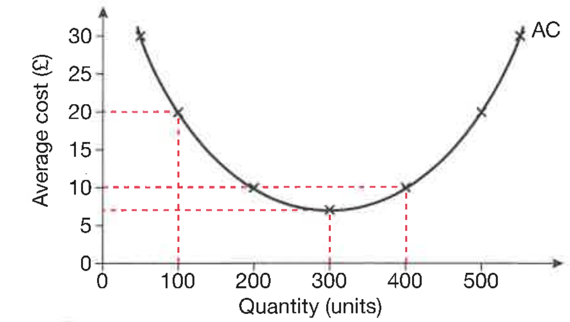
This means that each course provided to trainee HGV drivers costs Frampton Training US$900.

THE AVERAGE COST CURVE

The average costs for a business can be presented graphically. An example is shown in Figure 16.4. The average cost curve is U-shaped, which means that as output increases, average costs fall at first, reach a minimum and then start to rise. At an output level of 100 units, the average cost is £20.

- If output is increased to 300 units, the average cost falls to £7.50. This is the minimum average cost in this example.
- If output is increased further still to 400 units, average costs are now higher at £10.

The reason for the shape of the average cost curve is discussed in Chapter 17 (pages 124–131).



▲ Figure 16.4 Average cost curve

TOTAL REVENUE

The amount of money a firm receives from selling its output is called total revenue. Total revenue can be calculated by multiplying the price of each unit by the number of units sold:

Total revenue = Price × Quantity

If Frampton Training, in the earlier example, charged US$1500 for its HGV training courses, the total revenue from the sale of 100 courses is given by:

Total revenue = US$1500 × 100 = US$150 000

This means that Frampton Training generated US$150 000 of revenue from providing 100 places on its HGV driving course.

CALCULATING PROFIT

One of the main reasons why firms calculate their costs and revenue is to work out profit or loss. Profit is the difference between total revenue and total costs.

Profit = Total revenue – Total costs

The profit made by Frampton Training from providing 100 places is given by:

Profit = US$150 000 × 100 – (US$40 000 + US$50 000)
= US$150 000 – US$90 000
= US$60 000

It is possible to calculate the profit for a firm at any level of output using this method. If total costs exceed total revenue, then a loss is made.

ACTIVITY 2

CASE STUDY: JENKINS LTD

Jenkins Ltd manufactures electronic control systems that open and shut swing gates. Its most popular product is the underground system, which sells for £250. The systems are assembled in a factory using components supplied by firms nearby. In 2015, Jenkins sold 4500 systems. Total fixed costs for the year were £160 000 and variable costs were £120 per system.

In 2015, Jenkins produced and sold 4500 control systems.

1 Calculate the total cost.

2 Calculate the total revenue.

3 Calculate the profit.

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

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

17 ECONOMIES AND DISECONOMIES OF SCALE

LEARNING OBJECTIVE

- Understand how to define economies of scale and internal economies of scale
- Understand the long run average cost curve and the impact economies and diseconomies of scale have on its shape
- Understand the types of internal economies of scale: purchasing, marketing, technical, financial, managerial and risk bearing
- Understand how to define external economies of scale
- Understand the types of external economies of scale: skilled labour, infrastructure, access to suppliers, similar businesses in the area
- Understand how to define diseconomies of scale
- Understand the types of diseconomies of scale: bureaucracy, communication problems, lack of control and the distance between top management and workers at the bottom of the organisation

GETTING STARTED

Setting up a business and surviving is challenging. However, once a business is established, the owners often want it to grow. They want to increase the **scale** of the business. This means that they want to increase its size. One of the benefits of increasing the scale of operations is that certain costs start to fall. Look at the examples below.

SUBJECT VOCABULARY

scale size of a business

CASE STUDY: GILLY'S SNACK SHACK

Gilly's Snack Shack sells sandwiches and other snacks from a kiosk by Grant Park, in central Chicago, Illinois, USA. It serves office workers, shoppers and tourists. Gilly's Snack Shack sells about 900 sandwiches a week. Gilly, the owner, buys sandwich ingredients from supermarkets and wholesalers. For example, the business buys about 20 loaves of bread per day at a cost of US$1.80 each. Tomatoes cost US$2.50 per kilogram and cheese is US$7.00 per kilogram. Most of their sandwiches sell for US$2.00. The business has a US$5000 loan, which was taken out to help set up the business. An interest rate of 8.9 per cent is paid on the loan.

CASE STUDY: GF FOODS

GF Foods is a large catering company based in Chicago. It supplies sandwiches to supermarkets and sells about one million sandwiches a week. GF Foods employs 110 workers and buys ingredients direct from farmers and manufacturers. For example, it buys tomatoes from a local farm for US$1.50 per kilogram and cheese for US$5.00 per kilogram. It buys thousands of loaves of bread from a Chicago baker for US$1.10 each. It sells sandwiches at an average price of US$1.40 per packet. GF Foods pays 7.5 per cent interest on a US$1 million loan.

▲ Sandwich production

1. Which of the two businesses is the largest?
2. Which business has the lowest costs?
3. Which firm is likely to be the most efficient?
4. How might GF Foods benefit from its cost advantage?
5. In groups, draw up a list of the possible advantages that very large firms have over their smaller rivals. Present your ideas to the rest of the class.

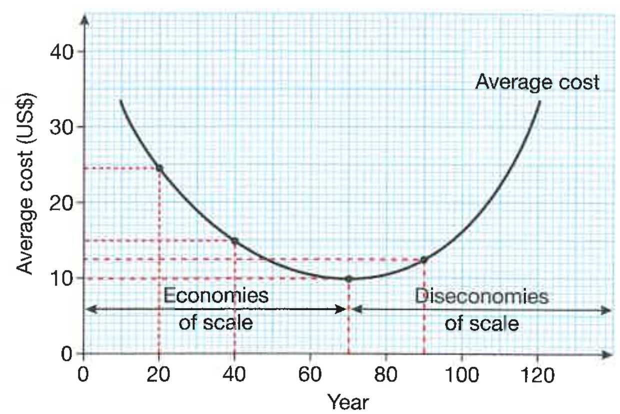
ECONOMIES OF SCALE

Large firms can usually produce goods more cheaply than small firms. The size of a firm has an important effect on the average costs of production. As a firm increases its size, average costs start to fall. This is because of **economies of scale** and is shown in Figure 17.1. When the business is producing 20 000 units of output, the average cost is US$25. If it raises output to 40 000 units, average costs fall to US$15. The firm could carry on expanding and lower its average costs until it is large enough to produce 70 000 units. At this level of output average costs are minimised at US$10 per unit. It is the ideal size because average costs are at an absolute minimum. At this level of output the firm is efficient and waste is avoided. If the firm grows beyond 70 000 units, average costs will start to rise. For example, if the firm increases its size and produces 90 000 units, average costs will now rise to US$12.50 per unit. This is because of **diseconomies of scale**, which occur because of inefficiency.

SUBJECT VOCABULARY

diseconomies of scale rising average costs when a firm becomes too big

economies of scale falling average costs due to expansion



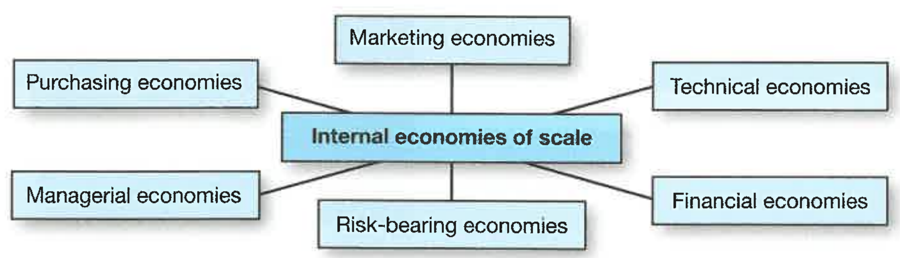
▲ **Figure 17.1** Economies and diseconomies of scale

SUBJECT VOCABULARY

internal economies of scale cost benefits that an individual firm can enjoy when it expands

INTERNAL ECONOMIES OF SCALE

Internal economies of scale are the cost benefits that an individual firm can enjoy when it grows. The reasons why costs fall are summarised in Figure 17.2.



▲ **Figure 17.2** Sources of internal economies of scale

PURCHASING ECONOMIES

Large firms that buy lots of resources get cheaper rates. Suppliers offer discounts to firms that buy raw materials and components in bulk. This is similar to consumers buying multi-packs in supermarkets – they are better value for money. **Bulk buying** is a purchasing economy. In 'Getting started' above, GF Foods was able to buy bread for US$1.10 a loaf. However, Gilly's Snack Shack was having to pay US$1.80 because it was buying smaller quantities. In fact, all the purchases made by GF Foods were cheaper than those of Gilly's Snack Shack for the same products.

SUBJECT VOCABULARY

bulk buying buying goods in large quantities, which is usually cheaper than buying in small quantities

MARKETING ECONOMIES

A number of marketing economies exist. For example, it may be cost effective for a large firm to run its own delivery vehicles. For a large firm, with lots of deliveries to make, this would be cheaper than paying a distributor. Marketing economies can occur because some marketing costs, such as producing a television advert, are fixed. These costs can be spread over more units of output for a larger firm. Therefore, the average cost of the advert is smaller for a large firm.

TECHNICAL ECONOMIES

Technical economies occur because larger factories are often more efficient than smaller ones. There can be more specialisation and more investment in machinery. One example of a technical economy is the way a large firm will make better use of an essential resource than a smaller firm. For example, a small engineering company may buy some CAD (computer-aided design) software for US$1000. It is needed by the business but is only used for one day a week. A much larger engineering company may buy the same software but use it every day of the week. Clearly, the larger company is making better use of the software and therefore its average cost will fall.

FINANCIAL ECONOMIES

Large firms can get access to money more cheaply. They also have a wider variety of sources to choose from. For example, a large limited company can raise money by selling shares. This option is not available to a sole trader. Large firms can put pressure on banks when negotiating the price of loans. Banks are often happier lending large amounts to large companies at lower interest rates. In 'Getting started', GF Foods was paying 7.5 per cent to borrow US$1 million. In contrast, Gilly's Snack Shack was paying 8.9 per cent to borrow just US$5000.

MANAGERIAL ECONOMIES

As firms expand, they can afford specialist managers. A small business may employ a general manager responsible for finance, human resources, marketing and production. The manager may find this role demanding and may be weak in some areas of the job. A large firm can employ specialists and, as a result, efficiency is likely to improve and average costs fall.

RISK-BEARING ECONOMIES

Larger firms are more likely to have wider product ranges and sell into a wider variety of markets. This reduces the risk in business. For example, many supermarkets have extended their product ranges to include household goods, consumer durables, books, a café, financial services, garden furniture, pharmaceuticals and clothes.

ACTIVITY 1

CASE STUDY: IKEA

IKEA is a Swedish multinational that designs and sells ready-to-assemble furniture, such as tables, chairs and beds. It also sells appliances and domestic products. IKEA operates about 500 large stores in nearly 50 different countries. Its own factories manufacture many of its product lines. One of the reasons for its success has been its ability to keep manufacturing costs down. IKEA is very large and is able to exploit economies of scale.

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

IKEA also exploits risk-bearing economies. Although the business first began trading in furniture, IKEA is now involved in other markets such as appliances and domestic products. It operates restaurants and food markets with many stores serving food throughout the day. It also provides childcare with some stores offering safe and supervised play areas. This growth in the business means that IKEA can benefit from good trading conditions in different markets. It can also cope with difficult trading conditions in one market by relying on sales in others.

▲ Inside an IKEA factory

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

EXTERNAL ECONOMIES OF SCALE

SUBJECT VOCABULARY

external economies of scale cost benefits that all firms in an industry can enjoy when the industry expands

Sometimes all firms in an industry can enjoy falling average costs as the whole industry grows. This is called **external economies of scale**. External economies of scale are more likely to occur if an industry is concentrated in a particular region.

SKILLED LABOUR

If an industry is concentrated in one area, there may be a build-up of labour with the skills and work experience required by that industry. As a result, training costs will be lower when workers are recruited. It is also likely that local schools and colleges will provide vocational courses that are required by local industry.

INFRASTRUCTURE

If a particular industry dominates a region, the roads, railways, ports, buildings and other facilities will be shaped to suit that industry's needs. For example, a specialised industrial estate may be developed to help a local IT industry.

ACCESS TO SUPPLIERS

An established industry in a region will encourage suppliers in that industry to set up close by. Specialist marketing, cleaning, banking, waste disposal, distribution, maintenance and components suppliers are likely to be attracted to the area. All firms in the industry will benefit from their services, like the car industry in the Midlands in England, for example.

SIMILAR BUSINESSES IN THE AREA

When firms in the same industry are located close to each other, they are likely to cooperate with each other so that they can all gain. For example, they might work together to share the cost and benefits of a research and development centre, as high-tech businesses do in Silicon Valley, California, USA.

DISECONOMIES OF SCALE

Figure 17.1 shows that if a firm continues to expand beyond a certain point average costs eventually rise. This is because the firm suffers from diseconomies of scale. Average costs start to rise because aspects of production become inefficient. The possible reasons why this might happen are discussed below.

GENERAL VOCABULARY

bureaucracy system of administration that uses a large number of departments and officials

coordinate to organise people or things so that they work together well

BUREAUCRACY

Larger business rely more on **bureaucracy**. If a business becomes too bureaucratic, it means that too many resources are used in administration. Too much time may be spent filling in forms or writing reports. Also, decision making may be too slow and communication channels too long. If resources are wasted in administration, average costs will start to rise.

COMMUNICATION PROBLEMS

Some very large organisations employ hundreds of thousands of workers. They are likely to be spread all over the world. Workers in different countries speak different languages and have different cultures. There are also time differences between different global operations. This can make communication in an organisation challenging.

LACK OF CONTROL

A very large business may be difficult to control and **coordinate**. Thousands of employees, billions of pounds and dozens of plants all over the world can make running a large organisation demanding. There may be a need for more supervision and more layers of management, which will raise costs.

DISTANCE BETWEEN SENIOR STAFF AND SHOP FLOOR WORKERS

If a firm becomes too big, relations between workers and managers may worsen. There may be many layers of management between the chairperson at the top and the shop floor workers in a factory. As a result, senior managers might be so far removed from those at the bottom of the organisation that they may not be aware of their needs. This lack of understanding may result in many workers becoming demotivated. As a result, conflicts may occur and resources may be wasted resolving them.

ACTIVITY 2

CASE STUDY: VOLKSWAGEN

In 2015, Volkswagen (VW), the very large German car manufacturer, was caught falsifying emissions data on its diesel cars. VW had been fitting some special software in its diesel vehicles called a 'defeat device'. This fine-tunes the engine's performance so that nitrogen oxide emissions are limited when being tested. However, when the cars return to the road, the emissions levels rise again. This meant that the cars would pass the strict emissions test.

It appears that around 11 million cars were fitted with this device and since its discovery VW has suffered badly. For example, the value of the company fell by around €30 000 million following a flood of bad publicity across the world. A number of theories have been suggested to explain why this scandal was allowed to happen. Some analysts have suggested that the company is now too big and suffering from diseconomies of scale. Giant companies like VW, which employs over 500 000 employees, become huge bureaucracies rather than commercial organisations. Controlling and monitoring such vast operations, with factories, offices, warehouses and other operational facilities all over the world becomes a very challenging task for managers. Although economies of scale are crucial in the mass production of cars, some people think that a number of companies are beginning to experience diseconomies of scale – particularly when managing information in the organisation.

It is possible that VW has grown too big to manage. It has been claimed that the chief executive officer (CEO) of VW did not know about this activity. In such a large organisation, this might be true. It is unlikely that any CEO, however capable, committed and well-organised, could be in complete control of such a huge quantity of resources that are located all over the world.

To conclude, as businesses grow, at some point, the disadvantages of being big are eventually greater than the benefits. These costs may include:

- loss of control
- communications problems
- the need for more supervision and extra layers of management
- the increasing amounts of delegation
- the geographical spread of resources
- the near impossibility of establishing a common business culture
- employing a single unified IT system.

This may have been the cause of VWs current problems.

▲ A VW vehicle being tested for emissions

1 What is meant by diseconomies of scale?

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

MULTIPLE-CHOICE QUESTIONS

1 Employing a specialist cost accountant in a growing business is an example of which type of economy?

A Technical economy

B Risk-bearing economy

C Managerial economy

D Marketing economy

2 Internal economies of scale affect costs how?

A Falling total costs

B Rising average costs

C Rising variable costs

D Falling average costs

ECONOMICS IN PRACTICE

CASE STUDY: FLAMBOYANCE

Flamboyance is a clothes chain based in Singapore. It sells high-quality clothes, shoes and fashion accessories. It has an excellent reputation for good customer service and operates 21 shops in Singapore and a further 52 in other Asian countries. In 2012, Flamboyance employed a specialist marketing manager. The new manager raised the profile of the Flamboyance brand right across Singapore. As a result, the company grew quickly and became very profitable. Flamboyance buys most of its clothes and shoes from China.

▲ Inside a high-quality clothes store

In 2015, Flamboyance bought a clothes chain in the Middle East. It was thought that the company could further exploit economies of scale and make even more profit. However, there were some problems. Communications became difficult due to language and cultural difficulties. There was also a lack of employee understanding. Many of the staff did not seem to care whether the company succeeded or not. Some of the store managers also complained that the company was becoming too bureaucratic.

CHAPTER QUESTIONS

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

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

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

4 Discuss whether or not Flamboyance has benefited from purchasing economies of scale.

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

US PHARMACEUTICALS INDUSTRY

The US pharmaceuticals industry was criticised in 2016 for some astonishing price increases.

- Mylan Pharmaceuticals increased the price of EpiPens (devices that deliver an emergency shot of epinephrine to someone suffering a potentially fatal allergic reaction) by 550 per cent from US$94 to US$608 since getting the selling rights in 2007.
- Turing Pharmaceuticals increased the price of Daraprim, an anti-malarial drug also used by HIV patients, by more than 5000 per cent.
- Valeant raised the price of Syprine, a blood-cleaning agent, by more than 3000 per cent.

The pharmaceutical companies blame pharmacies and the prescription system for not passing along the discounts they negotiate with manufacturers. However, it is argued that the drug companies are responsible for the massive price increases, not the middlemen. What is needed is more competition from generic drug makers (companies who produce non-branded drugs that are identical to branded drugs). Like Daraprim and Syprine, epinephrine is available in a generic form. At present, however, there is no generic version of the EpiPen injector for sale in the USA. One of the problems is that companies like Mylan keep rivals out of their market. For example, Mylan struck deals with potential competitors to delay them from seeking approval for generic versions of the EpiPen.

CHAPTER QUESTIONS

1 What is meant by the term 'competition'?

2 Who might benefit from the increase in corporate profits in the USA?

3 Discuss the disadvantages to consumers when there is a lack of competition in a market. Use examples from the cases above in your analysis.

There should be more competition between businesses in the USA.

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

19 ADVANTAGES AND DISADVANTAGES OF LARGE AND SMALL FIRMS

LEARNING OBJECTIVE

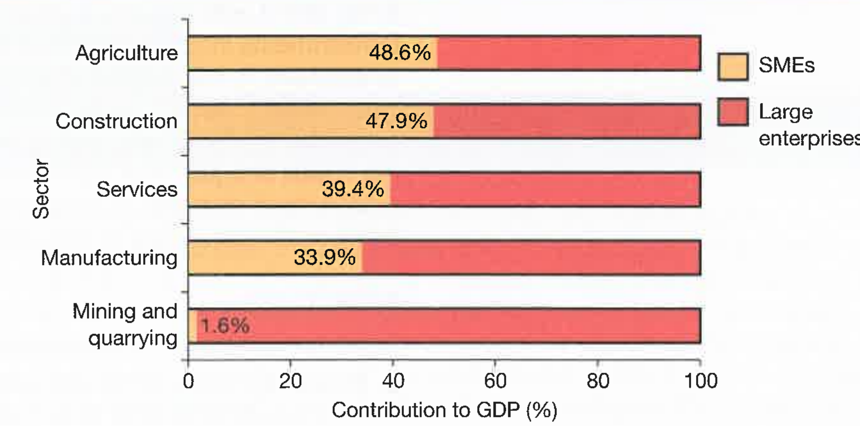
- Understand the advantages and disadvantages of large and small firms
- Understand the factors that influence the growth of firms
- Understand the reasons why some firms stay small

GETTING STARTED

In many countries around the world, the economy is dominated by small- and medium-sized enterprises (SMEs). In some countries, the number of SMEs is as high as 99 per cent. They make significant contributions to output, employment and income generation. However, large firms are also very important. The relatively small number of large firms often contribute far more to the economy than all of the SMEs put together. Also, in some sectors, small firms find it difficult to survive. Look at the example below.

CASE STUDY: THE ROLE OF SMEs IN MALAYSIA

There were an estimated 5 million private sector businesses in Malaysia in 2016. Of these around 97 per cent were SMEs. These businesses are responsible for nearly 36 per cent of the country's GDP, 65 per cent of the country's employment, and nearly 18 per cent of Malaysia's exports. The graph in Figure 19.1 shows the role played by SMEs in the Malaysian economy. SMEs play the biggest role in the agriculture sector with a share of 48.6 per cent. The SMEs in this sector produced rubber, oil palm, livestock, fish and food crops, such as vegetables and fruits.



▲ **Figure 19.1** GDP contributions by SMEs and large firms in Malaysia, 2017 (constant 2010 prices)

In 2014, Malaysia's GDP was US$338 100 million.

1 Calculate the contribution made by (a) SMEs in agriculture and (b) large firms in manufacturing.

2 Describe one possible advantage of operating as an SME.

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

4 In groups, make a list of advantages that large firms might have compared to small firms. Present your ideas to the rest of the class using a poster.

HOW IS THE SIZE OF A FIRM MEASURED?

Several methods can be used to measure the size of a firm. Here are three common methods.

TURNOVER

Firms with high turnovers will tend to be larger than those with small turnovers. For example, in 2015, BP had a turnover (total revenue) of US$225 900 million. This makes BP a very large company. BP is one of the world's leading gas and oil companies.

NUMBER OF EMPLOYEES

Large firms tend to employ larger numbers of employees than smaller firms. In 2015, BP employed about 80 000 people worldwide. By this measure, again BP is classified as a large company.

BALANCE SHEET TOTAL

This measure is based on the amount of money invested in the business by the owners. Generally, more money will be invested in larger firms such as BP. In 2015, the balance sheet total for BP was US$98 300 million. Table 19.1 shows how the European Union (EU) defines different sized firms.

	MICRO	SMALL	MEDIUM	LARGE
Turnover (revenue) (€ million)	< 2	< 10	< 50	> 50
Number of employees	< 10	< 50	< 250	> 250
Balance sheet total (€ million)	< 2	< 10	< 43	> 43

▲ Table 9.1 How the EU defines the size of firms

SMALL FIRMS

The vast majority of firms in many countries are small. The number of small firms, along with self-employment, has also grown in the last 30 years. Governments in many countries have encouraged the development of small businesses. In developed countries, the growth in the tertiary sector has also helped. This is because the provision of many services is more effective on a small scale. Finally, during periods of high unemployment, such as in the 1980s and just after the financial crisis in 2008, many people saw self-employment as a way of supporting themselves. They often used money from being made redundant to help start their own business.

ADVANTAGES

Small firms have some advantages over their larger rivals.

- **Flexibility**: Small firms can adapt to change more quickly. This is because the owners, who tend to be the main decision makers, are actively involved in the business and can react to change. For example, a small baker can produce a personalised birthday cake for individual customers. A large national cake manufacturer may not be able to do this.
- **Personal service**: As firms get bigger, it often becomes difficult to offer customers an individual personal service. Some people prefer to deal with the owner of a firm directly and are prepared to pay a higher price for this benefit. Owners are far more accessible in small firms than larger ones.
- **Lower wage costs**: Many workers in small firms do not belong to trade unions. As a result, their negotiating power is weaker and the owners are often able to restrict pay to the legal minimum wage.

- **Better communication**: Since small firms have fewer employees, communication tends to be informal and more rapid than in larger organisations. The owner will be in close contact with all staff and can exchange information quicker and more efficiently. As a result, decision making will be faster and workers may be better motivated.
- **Innovation**: Although small firms often lack resources for research and development, they may be surprisingly innovative. One reason for this is that small firms face competitive pressure to innovate. For example, if they fail to come up with new ideas for products, they will lose their market share. It may also be because small firms are more prepared to take a risk. Perhaps they have less to lose than large firms.

DISADVANTAGES

There are some disadvantages to being a small firm.

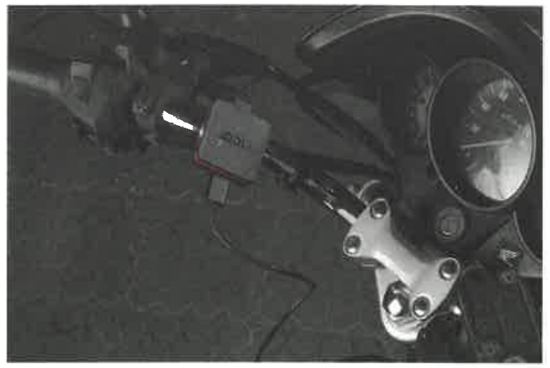
- **Higher costs**: Small firms cannot exploit economies of scale because their output is limited. Consequently, their average costs will be higher than their larger rivals. This means that small firms often lack a competitive edge.
- **Lack of finance**: Small firms often struggle to raise finance. Their choice of sources is limited. For example, a sole trader cannot sell shares to raise more finance. They are also considered to be more risky than larger firms by financial institutions and other moneylenders.
- **Difficult attracting quality staff**: Small firms may find it difficult to attract highly qualified and experienced staff. One reason for this is because they lack resources. For example, they may not be able to afford the wages or the training that high-quality employees require.
- **Vulnerability**: When trading conditions become challenging, small firms may find it more difficult to survive than their larger rivals. This is because they do not have the resources to draw on when economic conditions worsen. Small firms might also be at risk of takeovers. Owners may be forced to accept unattractive takeover terms.

ACTIVITY 1

CASE STUDY: BOLT

In 2015, two entrepreneurs, Satyajeet Mohanty and Ronak Kumar Samantray, set up their own business, Bolt, in Hyderabad, India. They invented and developed a device for charging mobile phones while riding a motorbike. The device, called the Bolt Red Streak, is a compact waterproof mobile charger designed to charge any mobile phone safely and quickly on the motorbike. The unique design makes it easy to unplug and carry around when not riding. The device also tracks the entire ride on a route map and calculates total distance and average speed, using the Bolt Riders App. It sells for Rs1599 and can be purchased online or from around 30 authorised dealers.

The business, which was funded with about Rs25 million raised from family and friends, has a lot of potential. In 2015, around 16 million two-wheeled vehicles, such as scooters, motorcycles and mopeds were sold in India alone. It currently employs five people with primary focus on production quality and aftersales service with customers.



▲ The Bolt Red Streak

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

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

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

3 Discuss two possible disadvantages for small businesses like Bolt.

LARGE FIRMS

The largest firms in the world are multinational companies. Multinationals have a great deal of power. They have huge resources and employ thousands of people. The largest firm in the world in 2016 was the US retailer Walmart.

ADVANTAGES

Large firms tend to be more powerful than smaller rivals. They enjoy a number of key advantages.

- **Economies of scale**: The main advantage to large firms is that their average costs are likely to be lower than those of smaller rivals. They can operate in large-scale plants and exploit economies of scale. For example, they can get cheaper supplies of materials and components because they buy in bulk.
- **Market domination**: Large firms can often dominate a market. They have a higher profile in the public eye than small firms and benefit from such recognition. This may mean that they can charge higher prices that enable them to make higher profits.
- **Large-scale contracts**: There are both small firms and large firms in the construction industry. However, a small firm could not compete with a large firm for a contract to build a new motorway for the government. Only large firms can win these large-scale, often highly profitable contracts because small firms do not have the resources to carry out the work.

DISADVANTAGES

Although big firms can generally produce goods more cheaply than small firms, they do have some disadvantages.

- **Too bureaucratic**: Large firms sometimes become overwhelmed by their administration systems. For example, decision making can be very slow in large firms because so many different people have to be contacted before a decision can be taken. Too many resources may be used up in administration. For example, too much time may be spent filling in forms and writing reports. Also, communication channels may be too long and too many managers may be employed.

- **Coordination and control**: A very large business may be difficult to control and coordinate. Thousands of employees, billions of pounds and dozens of plants all over the world can make running a very large organisation demanding. There may also be a need for more supervision that will raise costs.
- **Poor motivation**: In very large organisations, people can become alienated. The organisation may become so large that the effort made by a single employee seems insignificant. Personal contact between employees in large organisations may be lacking and this can result in poor worker motivation.

FACTORS INFLUENCING THE GROWTH OF FIRMS

Many owners will hope to grow their businesses. However, in some cases growth may not be easy. What might influence the growth of firms?

GOVERNMENT REGULATION

It is in the interests of consumers, and the economy in general, to have healthy competition between businesses. Competition will encourage innovation, improve efficiency and prevent consumer exploitation. Consequently, governments will monitor business activity and ensure that individual markets are not dominated by one or a small number of firms. In this role, the government may sometimes prevent the growth of some firms to stop them becoming too big. They can do this by investigating each merger and takeover, and blocking those that threaten to reduce competition. For example, in 2016, the EU prevented Three's takeover of O_2. Both are telecommunications companies and the EU said that the takeover would have reduced competition in the market.

ACCESS TO FINANCE

Businesses need finance to grow. They may need money to make acquisitions, build new factories, open new stores or develop new products, for example. Firms that can persuade money lenders and other investors to provide finance are in a better position to grow. Consequently, access to finance can have an important influence on growth.

ECONOMIES OF SCALE

One of the main motives for growth is to reduce average costs. As a firm grows, average costs will fall because it is possible to exploit economies of scale. In some industries, such as car manufacturing, air transport, power generation and water distribution, costs can be lowered significantly by producing very large quantities of output. Consequently, businesses are more likely to grow in such industries. However, in other markets it may be more difficult to exploit economies of scale. For example, there are few examples of international taxi firms, giant window cleaning operations and multinational hair salons. There are few opportunities to exploit economies of scale in these markets; therefore business growth will be limited.

THE DESIRE TO SPREAD RISK

Another motive for growth is to spread business risk. Risk can be reduced by diversifying. Selling into new markets and developing new products means that if one venture fails, success in others can keep the firm going. If business risk increases, perhaps because of growing uncertainty in certain sectors, firms are likely to diversify and grow as a result. Events like the UK's decision to leave the EU and sharp falls in commodity prices like oil are likely to result in this behaviour.

THE DESIRE TO TAKE OVER COMPETITORS

One way to grow a business is to take over rivals in the market. This is a quick way of growing and helps to reduce competition. However, over time the amount of merger and acquisition (M&A) activity tends to vary. For example, 2015 was a record year for global M&A deals. One big deal involved Anheuser-Busch InBev's US$100 000 million-plus takeover of SABMiller in the beverages industry. Globally, M&A deals totalled US$4.7 trillion during 2015, an increase of 42 per cent compared with 2014. However, over the first 8 months of 2016, global M&A fell to US$2.2 trillion. Consequently, if the desire to take over rivals falls, this can influence the growth of firms.

ACTIVITY 2

CASE STUDY: BT

In 2015, a communications giant was formed when telecoms group BT confirmed that it would buy mobile operator EE for £12 500 million. This takeover created a communications company offering a range of telecommunications services, such as broadband, fixed telephone and pay-television services. BT plan to sell these services to those EE customers who do not currently subscribe to BT. BT also hopes to speed up the sale of other services to its existing customers. The takeover was subject to approval by BT shareholders and examination by the Competition and Market Authority (CMA). However, the CMA cleared the deal in early 2016 and it went ahead.

The takeover should result in cost savings for BT. It was reported that BT could expect to save about £360 million a year in operating costs and capital costs after 4 years. BT also hoped that by combining the two businesses an extra £1600 million a year could be generated. Although BT would have to raise about £1000 million by selling some fresh shares, BT **chief executive** Gavin Patterson said, 'This is a major milestone for BT as it will allow us to accelerate our mobility plans and increase our investment in them.'

1 How can (a) the desire to take over rivals and (b) government regulation; influence the growth of firms. Use examples from the case in your explanation.

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

GENERAL VOCABULARY

chief executive person who has the highest position in a company or other organisation and who makes all the important decisions about how it is run

REASONS FIRMS STAY SMALL

SIZE OF THE MARKET

Some markets are too small to sustain very large companies. For example, the market for luxury yachts is limited. Only a relatively small number of very wealthy people can afford to buy a luxury yacht. Therefore, businesses in this market will struggle to grow into very large organisations.

NATURE OF THE MARKET

In some markets, such as groceries, painting and decorating, hairdressing and taxi driving, the set-up costs are relatively low. There is little to discourage new businesses joining the market. As a result, fierce competition stops any single firm from growing.

Also, in some markets, businesses serve a particular **market niche**. Customers in niche markets have very particular needs, which are sometimes neglected by larger firms. Consequently there is a gap in the market for a business that is prepared to tailor goods or services to this small customer group. Such businesses are generally small.

SUBJECT VOCABULARY

market niche smaller market, usually within a large market or industry

LACK OF FINANCE

Some businesses would like to grow but are not able to raise the finance needed to expand. Growth usually requires investment in new resources, such as property extensions, new machinery, equipment and more labour. Unfortunately, some businesses are not able to convince money lenders that if the company grows it will be more successful and the finance will be repaid. Many small businesses that want to grow are still seen as too risky.

AIMS OF THE ENTREPRENEUR

Some business owners do not want to grow their businesses. They may be happy running a small business. They may be making enough profit to satisfy their needs and do not want the responsibility of taking on more workers, expanding operations and borrowing more money, for example. Also, some businesses are 'lifestyle' businesses. This means that the owners have interests other than their businesses and they need the time and flexibility to pursue them. As a result, such businesses are likely to remain small.

DISECONOMIES OF SCALE

Once a firm reaches a certain size, any further growth results in diseconomies of scale (see Chapter 17, pages 124–131). If a firm expands beyond the minimum efficient scale, average costs start to rise. A firm is not likely to grow any further if costs start to rise because it would have to charge more for its output.

MULTIPLE-CHOICE QUESTIONS

▶ 1 Which of the following is a reason why some firms remain small?

A Lack of unskilled labour

B Lack of finance

C High tariffs on exports

D Low interest rates

▶ 2 Look at Table 19.1. Which of the following firms is considered to be medium-sized according to the EU definitions of business size?

A One employing 23 workers

B One with a turnover of €23 000 million

C One with capital employed of €2.4 million

D One employing 202 workers

18 COMPETITIVE MARKETS

LEARNING OBJECTIVE

- Understand the advantages and disadvantages of competition to firms, consumers and the economy including:
  - efficiency
  - choice
  - quality
  - innovation
  - price

GETTING STARTED

Not all markets are the same. In some markets, lots of firms compete with each other to sell their goods to customers. They use a variety of methods, such as advertising, promotions and special offers, to encourage customers to buy their products. In other markets, a firm may face very little **competition**. Look at these examples.

SUBJECT VOCABULARY

competition rivalry that exists between firms when trying to sell goods to the same group of customers

CASE STUDY: ONATEL

Onatel is a communications company and is the only internet provider in Burkina Faso, a small country in West Africa. In October 2016, a strike by Onatel's employees cut all internet connections in the country for over a week. Arouna Ouédraogo, an information technology specialist in Burkina Faso, said people without the internet became desperate, rushing to his internet cafe with contracts to sign and documents to send. Unfortunately, he could not help them because there was no internet anywhere in the country. Some people were so desperate to get on the internet that they flew to Bamako, in neighbouring Mali, for access. Burkina Faso is one of the few African countries that have only one internet provider. Ouédraogo said that the internet was too expensive and the service was very poor. He argued that some competition was needed.

▲ Onatel is the only internet provider in Burkina Faso

GENERAL VOCABULARY

deregulation to remove or reduce the number of government controls on a particular business activity, done to make companies work more effectively and to increase competition

CASE STUDY: MILK PRODUCTION IN AUSTRALIA

The dairy industry employs about 38 000 people in Australia in around 6000 farms. Unlike many countries around the world, there is no legal control over the price milk processing companies pay farmers for their milk. Since **deregulation** in 2000/01, all prices within the industry are set by market forces. This means that all farmers supplying the market in a particular Australian state would expect to get much the same for a litre of milk. In 2016, farmers in New South Wales were getting around 50 cents a litre. This was slightly more than they were getting in 2010 when it was 48.7 cents.

▲ Dairy farming

1. How much competition exists in each of these markets?
2. How might consumers benefit from competition in a market?
3. In groups, identify five businesses in your area where you think there is a lot of competition, and five where you think there is very little competition. Present your ideas to the rest of the class giving the reasons for your choices.

WHAT IS A COMPETITIVE MARKET?

SUBJECT VOCABULARY

barriers to entry obstacles that might discourage a firm from entering a market

Competition is the rivalry that exists between firms when trying to sell goods in a particular market. In some markets, there is a lot of competition. In 'Getting started', the market for milk in Australia is very competitive, with around 6000 farms competing for customers. However, in other markets, there is very little competition. In 'Getting started', Onatel is the only internet supplier in the country of Burkina Faso. No other firm competes with Onatel. In a competitive market, there are likely to be some common features.

- There is a large number of buyers and sellers.
- The products sold by each firm are close substitutes for each other.
- Low **barriers to entry**, which means that it is fairly easy to break into the market. For example, it is not technically difficult or it does not require too much capital.
- Each firm has almost no control over the price charged. For example, if a firm tries to charge more than its rivals it is likely to lose business.
- There is a free flow of information about the nature of products, availability at different outlets, prices, methods of production and the cost and availability of production factors.

ACTIVITY 1

CASE STUDY: MARKET FOR CURRENCY

In any city in most countries it is possible to obtain foreign currency for a holiday abroad from a wide range of outlets. Banks, building societies, hotels, post offices, specialist exchange dealers and travel agents are some examples. It is also possible to buy foreign currency over the internet. The price charged by each supplier is very similar. Table 18.1 shows euro prices for AUD 5000 at a selection of outlets in a French city.

OUTLET	A	B	C	D	E	F
PRICE (€)	3497	3500	3509	3492	3494	3496

▲ **Table 18.1** The prices of AUD 5000 in six outlets

▲ Foreign exchange outlet

1 Why is the market competitive in this case?

2 Which outlet would you recommend to someone buying Australian dollars?

COMPETITION AND THE FIRM

SUBJECT VOCABULARY

innovative commercial exploitation of a new invention

product differentiation attempt by a firm to distinguish its product from that of rival

Generally, firms do not welcome competition. Most firms would prefer to dominate the market and operate without the threat of rivals. If there is no threat from competition, a firm can usually charge a higher price. There is also less pressure to be efficient and **innovative**. This reduces the effort needed to survive and be successful. When faced with competition, firms have to offer products that give consumers value for money. This involves:

- operating efficiently by keeping costs as low as possible
- providing good quality products with high levels of customer service
- charging prices that are acceptable to customers
- innovating by constantly reviewing and improving the product.

One aspect of innovation is **product differentiation**. This means that firms try to persuade consumers that their product is different from those of rivals. For example, in Italian towns and cities there are likely to be large numbers of restaurants offering authentic Italian food all competing for customers. However, although each one is offering the same cuisine, there are likely to be differences in the service supplied by each restaurant. There may be differences in menus, food quality, atmosphere, decoration, customer service and location. Over time, each restaurant may be trying to develop their product so that it suggests to customers that it is different and better than rivals.

The main disadvantage to a firm operating in a competitive market is that the amount of profit made will be limited. In markets where competition is fierce, prices are likely to be lower and the potential for profit also lower. The total profit in the industry has to be shared between many firms.

ACTIVITY 2

CASE STUDY: THE FUNHOUSE

Queenstown is a small tourist destination in New Zealand. It has a population of around 18 000 and is famous for its adventure activities, such as snowboarding, jet boating, white-water rafting, bungee jumping, mountain biking, skateboarding, tramping, paragliding and skydiving. The town expects to get about 2 million visitors each year, which means that providing accommodation is an important source of income for many residents. However, competition for guests is fierce. In 2016, there were 118 businesses offering accommodation. These included hotels, motels, apartments, backpackers (lower cost hostels for backpackers) and holiday parks.

Ilene Chappell owns The Funhouse, a backpacker offering affordable accommodation for young adults. Even though competition is fierce, The Funhouse generates good profits for Ilene. The average occupancy rate for backpackers in Queenstown was 73 per cent in 2016. However, occupancy at The Funhouse was 79 per cent. The Funhouse considers itself innovative. It was one of the first businesses in Queenstown to use social media in its promotion. When Ilene took over The Funhouse in 2012, she introduced free sausage sandwiches for breakfast, a free bus service to the airport, a discount bar for guests, free lockers and free Wi-Fi. Ilene said that, 'Competition is good. It keeps you on your toes, every year we sit down and review our performance and try to come up with new ideas for the future. Next year we are going to offer free sunscreen and free mosquito repellent.' The accommodation rates at The Funhouse are slightly higher than rivals. However, Ilene said, 'when you offer free this, and free that, people love it, we get loads of recommendations through social media and the freebies are always mentioned.' Ilene also explained that offering free services actually helped to keep administration costs down.

▲ Bungee jumping in Queenstown

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

2 Discuss the main disadvantage to firms of competition.

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

COMPETITION AND THE CONSUMER

Most consumers would argue that competition in business is desirable. This is because of the advantages that consumers enjoy from healthy competition.

- **Lower prices**: In a competitive market, firms cannot overcharge consumers. If one firm tries to raise its prices, it will lose a lot of its business. This is because the market is full of good substitutes and consumers can easily switch from one supplier to another.
- **More choice**: Competition means there are many alternative suppliers to choose from. Where possible, each supplier is likely to differentiate its product from those of rivals. This helps to widen choice even more. Competitive markets will also have a constant stream of new entrants offering fresh ideas and even more choice.
- **Better quality**: Firms that offer poor goods or services in a competitive market will lose business. Consumers are rational (see Chapter 2, pages 12–17) and will look for value for money. This means they consider both the price and the quality of products when deciding what to buy. Modern consumers are more aware and better informed than ever before.

There are also disadvantages to consumers of a highly competitive market.

- **Market uncertainty**: It could be argued that there may be some uncertainty or disruption in competitive markets. This is because unprofitable firms eventually leave the market. This means that some consumers might be inconvenienced.
- **Lack of innovation**: It could be argued that innovation in a competitive market might be lacking. This is because firms make less profit in competitive markets. As a result, they may not have enough profit to invest in product development.

COMPETITION AND THE ECONOMY

One of the main advantages of competitive markets is that resources will be allocated more effectively. This is because firms have to operate efficiently to survive. They are under pressure to keep their costs down so that their prices are lower.

It is also argued that firms in competitive markets are more innovative. This is because innovative firms can get a competitive edge over their rivals. This means that firms will develop new products, new production techniques, new technologies and new materials. The economy will benefit from this because people will have a better standard of living.

One of the main disadvantages of a highly competitive market is that resources might be wasted. One of the reasons for this is that some factors of production are often immobile. When firms cease trading in a competitive market, resources are released for alternative uses. People are made redundant and resources like machines, tools, equipment, land and buildings come up for sale. However, it often takes time for these resources to be reallocated.

MULTIPLE-CHOICE QUESTIONS

1 Which of the following is likely to be a benefit to the economy of competitive markets?

A Higher interest rates

B Better resource allocation because there is less waste

C Factors of production are more mobile

D Lower unemployment

2 Which of the following is a feature of a competitive market?

A There are a limited number of sellers in the market

B Each firm has total control over the price charged

C There are lots of sellers in the market

D There are high barriers to entry

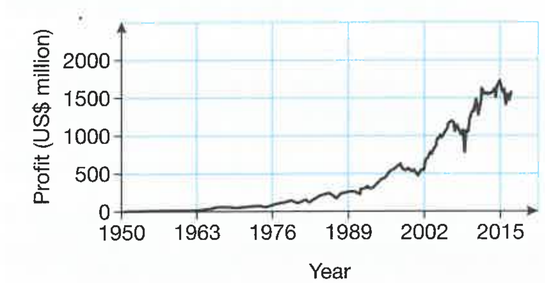
ECONOMICS IN PRACTICE

CASE STUDY: COMPETITION IN THE USA

US CORPORATE PROFITS

The graph in Figure 18.1 shows corporate profits made by companies in the USA between 1950 and 2016. The increase over the time period looks very impressive. For example, between 2000 and 2015, corporate profits rose by more than 200 per cent. The dip shown after 2015 should not be too worrying. It came during a period when the dollar was very strong (which would reduce the demand for exports) and the low oil price impacted negatively on energy firms. In the third quarter of 2016, US corporate profits were US$1 575 400 million.

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



▲ **Figure 18.1** US corporate profits, 1950–2016

US AIRLINE INDUSTRY

It has been argued in the past that US airlines were famous for two things – poor customer service and weak financial management. However, recently, US airlines made an annual profit of US$24 000 million. Unfortunately, improved profits did not mean improved service for passengers. They have had to endure continued hidden charges, poor punctuality, shabby cabins, a lack of legroom in seats and poor in-flight food. Neither have customers benefitted from the recent drop in the price of aircraft fuel. Some argue that there is not enough competition in the industry. During the last decade, the number of operators in the market has fallen. Four airlines now dominate the domestic market.

20 MONOPOLY

LEARNING OBJECTIVE

- Understand how to define monopoly
- Understand the main features of monopoly: one business dominates the market, unique product, price-maker and barriers to entry (legal barriers, patents, marketing budgets, technology and high start-up costs)
- Understand the advantages and disadvantages of monopoly: efficiency, choice, quality, innovation, price and economies of scale

GETTING STARTED

In some markets, there is a lack of competition. As a result, one firm may dominate the market. The firm that dominates the market is said to be a monopolist. It is often said that where there is a **monopoly**, consumers are likely to be exploited. However, there may also be advantages when monopolies exist. Look at the example below.

SUBJECT VOCABULARY

monopoly situation where there is one dominant seller in a market

CASE STUDY: US MARKET FOR SEARCH ENGINES

One provider dominates the US market for search engines. Most people would probably guess that it is Google. Figure 20.1 shows that in the US Google had 79.88 per cent of the market for desktop searches in August 2016. Two other providers, Bing and Yahoo, had much smaller market shares, while others including AOL and DuckDuckGo shared just 1.88 per cent of the market. Google generates revenue by selling online advertising services including the delivery of targeted ads online. In 2015, Google generated US$74 500 million in revenue and made a profit of US$16 300 million.

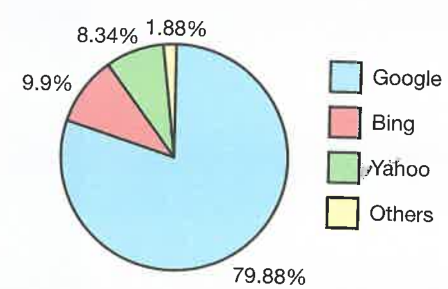
Google has been criticised recently in many countries for avoiding the payment of tax on its profits. For example, in 2014, the company transferred €11 700 million to Bermuda in an effort to minimise the taxes it had to pay on its income. This transfer meant that Google avoided paying tax on much of its foreign income. Google paid just €2.8 million in taxes which was 0.024 per cent on the €11 700 million in revenue. Many people in the world pay up to 25 per cent tax, or more, on their own personal income! Google was also fined US$22.5 million recently because it 'placed an advertising tracking cookie on the computers of Safari users who visited sites within Google's DoubleClick advertising network' (Federal Trade Commission, 2012). This broke a privacy agreement. When powerful firms like Google dominate markets, it is often difficult for the authorities to challenge their 'misdemeanours'. Although it has to be said that Google did not break any laws with its tax avoidance.

One of the possible benefits of market domination is that large powerful firms can invest heavily in research and development (R&D). Google spent US$12 280 million on R&D in 2015. Google also has a reputation for being an innovative company and leading the market in product development.

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

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

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



▲ **Figure 20.1** US desktop search engine market shares, August 2016 (%)

WHAT IS MONOPOLY?

A pure monopoly exists when just one producer supplies a market. However, there is also a legal monopoly. In some countries, if a firm has 25 per cent or more of a market it is said to be a monopolist. Pure monopolies are not common but they do exist. For example, in some countries, pure monopolists operate in the water and rail industries. In some markets, there might be local monopoly. This is where one firm supplies an entire local market in the way a village shop might be the only shop in the village.

FEATURES OF MONOPOLY

ONE BUSINESS DOMINATES THE MARKET

In markets dominated by one seller, a monopoly is said to exist. For example, in India there is only one supplier of rail travel in the whole country. This is Indian Railways, which employs over 1 million people and is owned and operated by the Government of India through the Ministry of Railways. However, a monopoly can exist when one firm dominates the market even though there may others operating alongside. For example, in 'Getting started' there are at least six firms providing a search engine service in the USA. But Google, with a market share fast approaching 80 per cent, dominates the market.

UNIQUE PRODUCT

The product supplied by a monopolist will be highly differentiated. There will not be another exactly like it. For example, where a pure monopoly exists there will be no rivals at all. Therefore, the product supplied is the only one available; there is no choice whatsoever for the consumer. This is often the case with rail travel and water provision, for example.

PRICE-MAKER

Although monopolists face a downward sloping demand curve, they are able to control the prices they charge. Monopolists are sometimes called **price makers**. They can force prices up by restricting the quantity supplied in the market. However, they cannot fix both price and quantity. If they try to sell larger quantities, the price will be forced down.

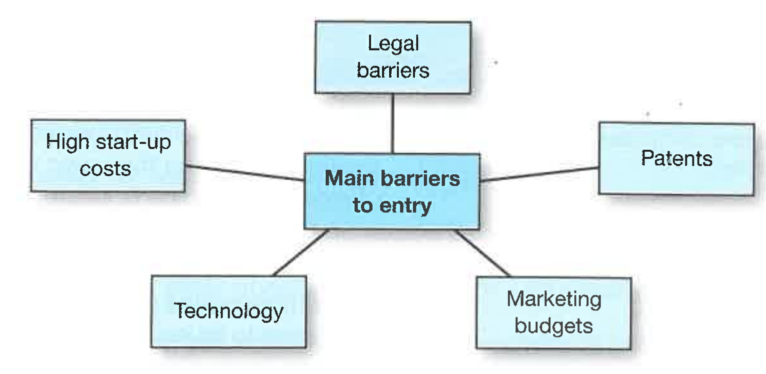
BARRIERS TO ENTRY

Monopolies often exist because competition is discouraged. In some markets, there are obstacles that prevent a **new entrant** from trying to compete. Barriers to entry are a common feature in monopoly and the main ones are summarised in Figure 20.2.

SUBJECT VOCABULARY

new entrant company that starts to sell goods or services in a market where they have not sold them before, or one of these goods or services

price maker where a dominant business is able to set the price charged in the whole market



▲ **Figure 20.2** The main barriers to entry

SUBJECT VOCABULARY

patent licence that grants permission to operate as a sole producer of a newly designed product

- **Legal barriers**: In some markets, it is possible to exclude competition legally. This might happen when a government awards a contract to a single firm to provide a particular service. Two common examples are in the provision of rail travel and water supply. Governments often award contracts to a single supplier to provide rail travel on a particular route or water in a particular district. These contracts may run for between 10 and 30 years. Once a firm has a government contract to provide a service, competition is legally forbidden.
- **Patent**: A **patent** is a licence that prevents firms copying the design of a new product or new piece of technology. The new product developer can be the sole supplier in the market for a period of up to 20 years. This allows the firm to charge a higher price and recover the costs of research and development (R&D). Patents are common in the pharmaceuticals industry where firms are allowed to sell new drugs or medicines without competition. Therefore patents encourage R&D.
- **Marketing budgets**: Monopolists often have strong brand names. This makes it difficult for new entrants to compete because their products will be unfamiliar and may not be trusted by consumers. Dominant firms often spend large amounts of money on advertising to strengthen their brand names. For example, Coca-Cola, which dominates the soft drinks market, spent US$2800 million on advertising in 2014. Such high spending levels like this are very difficult, almost impossible, for new entrants to match.
- **Technology**: If an established and dominant firm has access to complex or up-to-date technology, this can act as a barrier to entry. For example, if a manufacturer develops a sophisticated new machine to improve efficiency in production, its average costs will fall and rivals might be forced out of business. Unless rivals can copy the technology, or buy it at a fair price, they might be forced to leave the market.
- **High start-up costs**: In some markets, the cost of setting up a firm to compete with the existing operators is too high. For example, in the UK, Rolls-Royce is the only producer of jet engines for aircraft. To set up a firm to compete would probably cost many hundreds of millions of pounds. In 2016, Rolls-Royce spent over £800 million on R&D alone. New competitors may find it difficult to match such financial commitment.

THE ADVANTAGES OF MONOPOLY

Many would argue that monopoly is bad for the consumer because choice is limited and prices are often higher. However, there may be some advantages.

SUBJECT VOCABULARY

natural monopolies situation that occurs when one firm in an industry can serve the entire market at a lower cost than would be possible if the industry were composed of many smaller firms

EFFICIENCY

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

INNOVATION

Since monopolies are often large and make high profits, they have the resources to invest in R&D. As a result they are able to develop new products and new technologies from which consumers will benefit. For example, in 'Getting started', Google spent US$12 280 million on R&D in 2015. Google also has a reputation for being innovative.

ECONOMIES OF SCALE

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

ACTIVITY 1

CASE STUDY: UK WATER INDUSTRY

In 2016, it was reported that Britain's privately owned water companies would make unexpectedly high profits of over £1000 million. The reason for this was because the industry regulator, Ofwat, had overestimated some of the costs companies would incur when setting water price limits. Consequently, the water monopolies made excess profits of £1200 million over 5 years. This was because they charged higher prices than necessary. Unfortunately, it was the poorest customers who were hit hardest. Their bills represented 5.3 per cent of their annual income compared with 2.3 per cent a few years ago. At the same time, the share prices of water companies grew by around 50 per cent on average. This was above the general rise in share prices. The supply of water in the UK is delivered by a number of private monopolies, with each company being the sole supplier in a particular region. Some of the different services provided are shown in Figure 20.3.

▲ **Figure 20.3** Services provided by water companies

The market for water provision is a natural monopoly.

1 What is meant by a natural monopoly?
2 Describe one other possible advantage of a monopoly.
3 Why is there an industry regulator in the provision of water in this case?
4 Who is likely to benefit from the mistake made by Ofwat in this case?

THE DISADVANTAGES OF MONOPOLY

Most people would consider monopolies to be undesirable. This is because of the disadvantages associated with markets that are dominated by a single firm.

HIGHER PRICES

A firm that dominates a market is able to charge more for its products. Monopolists will tend to restrict output in order to force up the price. For example, in the US some pharmaceutical companies have been heavily criticised for raising the prices of medication once they have secured sole ownership. A survey in 2014 of 3000 prescription medications found that prices more than doubled for 60 drugs and increased by at least four times for 20 drugs. On average, the cost of drugs is increasing at 10 per cent a year in the USA.

RESTRICTED CHOICE

If there is just one supplier in a market, consumer choice is obviously restricted. For example, 2.9 million households and businesses in the north-west of England have their tap water supplied by United Utilities. United Utilities is the UK's largest operator of water systems and owns and operates the entire water network in north-west England. These 2.9 million customers have no choice but to get their tap water from United Utilities. If they are unhappy with the quality of water, the prices charged or the level of customer service, they cannot switch to another provider.

LACK OF INNOVATION

It is sometimes argued that monopolists do not have enough incentive to spend money on product innovation. If they dominate the market and are able to prevent or restrict entry, there is no need to develop new products. This is because consumers are forced to buy the existing products. If monopolists are making higher profits without innovating, they may consider that resources invested in R&D are wasted.

INEFFICIENCY

It is possible to argue that monopolists may be inefficient. If a firm does not face any competition, there is no incentive to keep costs down. As a result, a monopolist might adopt a 'care-free' approach to business and incur unnecessary costs. If monopolies get too big, they might suffer from diseconomies of scale. As a result, their average costs will rise. Finally, some monopolists have been criticised for offering poor customer services. For example, because monopolists know that their customers cannot switch to another provider, they may operate call centres with too few staff.

DID YOU KNOW?

When senior managers travel to business meetings, they may incur unnecessary expenses that contribute to the overall inefficiency of their company. For example, they may spend a lot of money travelling first class, staying at five-star hotels and eating in Michelin star restaurants – all at the firm's expense. Some may regard this as wasteful.

ACTIVITY 2

CASE STUDY: AIR NAMIBIA

Air Namibia is the only airline in Namibia that offers domestic flights. In recent years, passengers have complained about high prices and poor quality service. For example, in 2015 passengers in Katima Mulilo were very annoyed when Air Namibia switched departure locations from Eros airport to Hosea Kutako International Airport (HKIA). Many passengers, particularly regular business travellers, said that it would be more expensive and inconvenient, as HKIA is over 40 kilometres outside Windhoek. They also pointed out that the local Mpacha Airport is also 20 kilometres away from Katima Mulilo. One businessman accused Air Namibia of failing to respect its clients, stating that flight charges from Katima Mulilo to Windhoek were already very high. People living in Zambezi and Kavango are disadvantaged by this decision.

They already spend around NAD 5000 for a return ticket to Windhoek. This domestic flight was more expensive than going to Cape Town. In its defence, Air Namibia said traffic growth and the importance of minimising positioning costs were the main reasons for the switch. The current arrangement involves flying the aircraft from its original hub of HKIA to Eros Airport while empty in order to carry local passengers to their various destinations. Air Namibia said this was unsustainable.

Air Namibia has also been accused of blocking competition in the market. In September 2015, action taken by Air Namibia resulted in the high court suspending low-cost carrier Fly Africa's operations between Windhoek and Johannesburg. In response to this, Fly Africa posted a comment on Facebook saying it is 'aware of the decisions made in the High Court on Friday. Air Namibia has again used dirty tactics to stop competition so they can continue to charge unreasonable fares for bad service. It needs to stop.' Fly Africa said it wanted to introduce low cost flights on routes where overcharging was evident.

▲ An Air Namibia plane

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

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

3 How are consumers being exploited in this case?

MULTIPLE-CHOICE QUESTIONS

▶ 1 Which of the following is a barrier to entry?

- A Diseconomies of scale
- B High start-up costs
- C Low labour productivity
- D Inflation

▶ 2 Which of the following is a feature of monopoly?

- A Consumers have lots of choice
- B All firms are price takers
- C A large number of sellers in the market
- D Barriers to entry

ECONOMICS IN PRACTICE

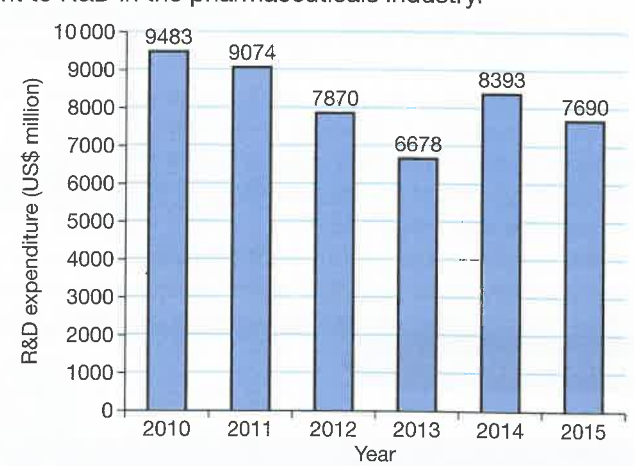
CASE STUDY: PFIZER AND FLYNN PHARMA

Pfizer is one of the largest and most powerful pharmaceuticals companies in the world and dominates the market in a number of **market segments**. For example, in 2015, Pfizer had a 75.84 per cent share of the market to treat infectious and respiratory diseases and a 76.11 per cent share of the consumer health care and vaccines market. In 2016, Pfizer and another drugs company were fined for their involvement in what the Competition and Markets Authority (CMA) described as 'extraordinary price rises'. Pfizer and the UK firm, Flynn Pharma, were fined a total of £90 million for 'unfair' pricing after the price of an anti-epilepsy drug was increased by 2600 per cent. Around 48 000 patients rely on the drug in the UK and the NHS saw expenditure on the medication rise from £2 million in 2012 to £50 million the following year. The CMA also said that the prices of the drug in the UK were far higher than anywhere else in the EU.

SUBJECT VOCABULARY

market segments groups of customers that share similar characteristics, such as age, income, interests, and social class

Pfizer sold the rights to market the drug to Flynn Pharma in 2012. Before the sale, Pfizer was selling the medication under the brand name of Epanutin. However, once the sale went through the name of the drug was changed and the price was increased. The two firms claim that the price increase was lawful because an agreement between Pfizer and the NHS was no longer valid. Pfizer said it was going to appeal against the fine and explained that the deal with Flynn Pharma ensured that the supply of the drug would be continued. Flynn Pharma also said that it would appeal and that the CMA did not fully understand the drugs markets. A representative of Flynn Pharma said, 'We believe that left unchallenged, the CMA's decision would stunt investment in generics, eventually leading to a reduction in supply and less choice for doctors and patients.' Figure 20.4 helps to illustrate Pfizer's commitment to R&D in the pharmaceuticals industry.



▲ Figure 20.4 Pfizer's R&D expenditure, 2010–15

CHAPTER QUESTIONS

1 Describe what a monopoly is.

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

2 What is the purpose of patents?

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

4 Consider the advantages and disadvantages of monopoly.

21 OLIGOPOLY

LEARNING OBJECTIVE

- Understand how to define oligopoly
- Understand the main features of oligopoly: few firms, large firms dominate, different products, barriers to entry, collusion, non-price competition and price competition
- Understand the advantages and disadvantages of oligopoly: choice, quality, innovation, collusion and cartels, fixing prices and price wars

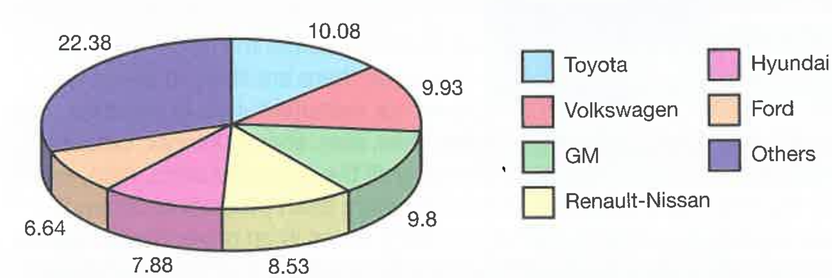
GETTING STARTED

In many markets a few large firms dominate. For example, in Australia, just four providers – ANZ, Westpack, Commonwealth Bank and NAB – dominate the banking industry. A fraction of the market is supplied by a number of small operators. In such markets, prices tend to be fairly stable and firms find other ways of competing with each other. Look at the example below.

CASE STUDY: GLOBAL CAR SALES

In 2015, a total of 75.24 million new cars were sold worldwide. Japanese and European markets were unstable, while higher demand in the USA made up for the fall in sales in Brazil and Russia. Toyota, which has the biggest market share, had strong sales in Japan and China. Indeed, the Chinese market is growing rapidly with car sales amounting to 24.6 million vehicles in 2015.

Just six producers dominate the global car industry, as shown in Figure 21.1. The 'Big Six' compete by regularly updating their models, investing in R&D to develop new motor technology and spending heavily on advertising and other forms of promotion. For example, GM and Ford spent US$3500 million and US$2680 million, respectively, on advertising in 2015. This is called non-price competition.



▲ Figure 21.1 Global car sales and market shares, 2015 (vehicle sales, millions)

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

2 Describe how these companies compete with each other.

3 In groups, draw up a list of other car manufacturers that you can identify. How big do you think their global market share is?

WHAT IS OLIGOPOLY?

SUBJECT VOCABULARY
oligopoly market dominated by a few large firms

A market that is dominated by a few very large producers is called an **oligopoly**. 'Getting started' above shows that the global motor industry is dominated by just six large firms: Toyota, Volkswagen, GM, Renault-Nissan, Hyundai and Ford. These six firms supply about 70 per cent of the total market. However, in common with most other oligopolies, a fraction of the market is served by a number of much smaller firms. Such small firms can often survive alongside huge firms because they supply a market niche – a very small part of the market that is not served by the dominant firms.

DID YOU KNOW?
In the car industry, there are many smaller manufacturers, including Porsche, Rolls-Royce, Bugatti, Peugeot, BMW, Daimler, Opel, Tata, Hindustan, Fiat, Ferrari and many more.

FEATURES OF OLIGOPOLY

Oligopoly is a common market structure. However, the features in each oligopolistic market may differ slightly depending on the circumstances. The main features of oligopolistic markets are outlined briefly below.

FEW FIRMS

One of the main features of oligopoly is that the market often contains just a few firms. There is no exact number but it could be as few as three, four, five or six, for example. Oligopoly is a common market structure and there are many examples in most countries across the world. For example, just three firms dominate the music entertainment industry: Universal Music Group, Sony BMG and Warner Music Group.

LARGE FIRMS DOMINATE

When an oligopoly exists in a market, a few large firms will dominate it. They will have a large proportion of the market to themselves. For example, in 'Getting started', the 'Big Six' car manufacturers took 70 per cent of the total global market. Large firms will be highly influential in the market. For example, they are likely to set the price that the majority of consumers will pay. Smaller firms often just copy the price charged by the dominant firms.

DIFFERENT PRODUCTS

In most oligopolistic markets, the products sold by each of the large firms will be very close substitutes for each other. However, there are likely to be some differences. For example, although the big six car manufacturers all produce cars, there are some significant differences in the style, size, shape, interior, colours, performance, specifications and quality among all the manufacturers. Also, each manufacturer produces a wide product range where each product is different and aimed at a slightly different market segment. Firms in an oligopolistic market usually make a deliberate effort to differentiate its products from those of rivals.

BARRIERS TO ENTRY

The firms that dominate the market are likely to benefit from barriers to entry. For example, the set-up costs might be very high, as they are in the motorcar industry. The dominant firms are also likely to discourage entry by investing heavily in their brands. Without barriers to entry, the high profits enjoyed by the dominant firms would attract new entrants. As a result, their dominance would be reduced.

GENERAL VOCABULARY
collusion informal agreements between firms to restrict competition

COLLUSION

In some oligopolistic markets **collusion** might take place. This is where the dominant firms in the industry set up agreements to restrict competition. For example, firms might agree to share a market geographically. This means that each firm agrees to supply a particular region and not compete in others. Another form of collusion is price fixing, where all firms agree to charge the same (higher) price. Finally, firms may agree to restrict output. By restricting output, supply is decreased and prices rise. In many countries, collusion is illegal because it exploits consumers.

NON-PRICE COMPETITION

Since firms are keen to avoid price wars, they compete using advertising and promotions such as coupons, loyalty cards, competitions and free offers. Branding is a common feature in some markets. This is where firms give products a name, term, sign or symbol, for example. This helps consumers identify them more easily. Firms then try to create brand loyalty through advertising, so that customers carry on buying the brand. Product differentiation is also common. This is where the firm tries to persuade customers that their brands are different from those of competitors. The differences may be real or imaginary. For example, there is a real difference between a Mars Bar and a Cadbury Flake. However, the difference between Kellogg's Cornflakes and supermarket own brand cornflakes may be a product of the imagination. Imaginary differences can be created and reinforced by the work of marketing teams.

SUBJECT VOCABULARY
interdependence where the actions of one country or large firm will have a direct effect on others
price war where one firm in the industry reduces price causing others to do the same

PRICE COMPETITION

In many oligopolistic markets, prices stay the same for quite long periods of time. The market leader often sets the price and others follow. One reason for this pattern is because firms are afraid of a **price war**. If one firm cuts price, others in the market have to do the same or they will lose sales. As a result, revenue and profits would be lower for all firms. However, price wars do occur but tend to last for quite short periods of time. Firms in oligopoly are said to have **interdependence**. For example, if one firm decides to cut its price, this has an impact on the other firms in the industry. They will have to make changes of their own – perhaps match the price cut or invest in some form of promotion. They will need to do this or risk losing market share to rivals.

ACTIVITY 1

CASE STUDY: US FILM INDUSTRY

Some large and well-known distributors dominate the US movie industry. These are shown in Table 21.1. However, there are many hundreds of other smaller film distributors. Making movies is an expensive business. For example, *Finding Dory*, the most successful film for Buena Vista in 2016, cost US$200 million to make. Amazingly, *Batman v Superman: The Dawn of Justice*, which was distributed by Warner Brothers, cost US$410 million. This was one of the most expensive films ever produced. These distributors also spend huge amounts of money advertising and promoting their films. For example, Warner Bros. spent US$727 million on television advertising alone, airing close to 95 000 national ads. This was followed by Universal Studios, which spent US$395 million on 59 000 airings.

RANK	DISTRIBUTOR	MARKET SHARE	SALES (US$ MILLION)
1	Buena Vista	26.30%	3000.9
2	Warner Bros.	16.80%	1907.6
3	20th Century Fox	12.90%	1469.1
4	Universal	12.40%	1408.0
5	Sony / Columbia	8.00%	911.5
6	Paramount	7.70%	876.8
7	Lionsgate	5.80%	665.0
8	Focus Features	1.70%	196.5
9	STX Entertainment	1.70%	195.6
10	Open Road Films	0.90%	107.0

▲ Table 20.1 Top 10 film distributors' market shares and sales from movies released in 2016

1 Calculate the percentage of the market dominated by the top six distributors.

2 What is meant by oligopoly? Use your answer in (1) as part of your explanation.

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

ADVANTAGES OF OLIGOPOLY

Since there is some competition in oligopolistic markets, it is reasonable to assume that consumers will benefit in some way.

CHOICE

Competition in oligopolistic markets ensures that consumers are provided with some choice. One of the ways in which oligopolists compete is by launching new brands. These new brands provide consumers with new products, and often, an ever-growing choice in the market. Small producers also provide choice by supplying a **niche market**. For example, in the car industry, there are small operators that supply sports cars to niche markets. Morgan Cars of Malvern in England is one such example.

However, in other markets there may be little real choice. For example, in many countries, a few large companies dominate the supply of petrol. It might be argued that there is little if any difference between the quality of the petrol sold by each supplier.

SUBJECT VOCABULARY

niche market market for a product or service, perhaps an expensive or unusual one, that does not have many buyers, but that may make good profits for companies that sell it

GENERAL VOCABULARY

superior better in quality than other things of the same kind

QUALITY

Since non-price competition is common in oligopolistic markets, one method firms can use to differentiate their product is to make it better. Consequently, the quality of products in some markets might be **superior**. For example, the soft drink industry in the USA is an oligopoly dominated by the Coca-Cola Company, the Dr. Pepper Snapple Group and PepsiCo. It might be argued that these companies are able to differentiate their products (for example, by taste), and are therefore able to gain market power. However, sometimes the superior quality of products might only be a matter of perception. This means that consumers just think that the quality of certain products is better because the powerful forces exerted by advertising and promotion have shaped their views.

ECONOMIES OF SCALE

If the dominant firms are able to exploit economies of scale, their average costs will be lower. Therefore, it is possible that some of the cost savings will be passed on to consumers in the form of lower prices. The smaller rivals in the market cannot exploit economies of scale. They often survive because they do not compete directly with the dominant firms.

INNOVATION

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

PRICE WARS

In some oligopolistic markets, prices are fairly stable for quite long periods of time. This is helpful for consumers because it provides some certainty. However, consumers might benefit from a price war. Once one firm cuts price aggressively, others in the market are forced to follow or they risk losing market share. As a result, consumers benefit from lower prices in the market. However, price wars do not normally last for very long and there is also the threat that one of the firms is squeezed out of the market. As a result, the market becomes less competitive and in the long term the survivors might push prices even higher.

A price war in the UK supermarket industry was ignited in January 2017 by Morrisons, one of the big four supermarkets dominating the market. It cut the prices of around 800 product lines including fish fingers, potatoes, meatballs, kale and avocado. A representative of Morrisons said that the price cuts were designed to help families on tight budgets and make Morrisons more competitive.

DISADVANTAGES OF OLIGOPOLY

Consumers are not likely to benefit from oligopoly if there is no competition in the market. The main disadvantage of oligopoly is the temptation among firms to collude. If firms agree to restrict competition, by price fixing, for example, consumers will end up paying higher prices. Consumers will also suffer if a market is shared out geographically. There will be a lack of choice because only one firm will supply each area.

In 2016, Colgate-Palmolive was fined AUD 18 million for colluding with rivals to fix the price of detergents in Australian supermarkets. Colgate admitted entering deals with rivals that limited the supply, and controlled the price, of laundry detergents. Colgate also agreed with the Australian Competition authorities on the size of the fine.

SUBJECT VOCABULARY

cartel where a group of firms or countries join together and agree on pricing or output levels in the market

In a minority of oligopolistic markets, a **cartel** might exist. This is where a group of firms or countries formally join together and agree on pricing or output levels in the market. If cartels are successful, they are able to act as a monopoly. In the USA and the EU, cartels and collusion are illegal. One example of an international cartel is OPEC (Organization of the Petroleum Exporting Countries). Its members include some of the world's major oil producing countries. Their aim is to restrict the supply of oil so that the price is forced up. Members meet on a regular basis to agree on output quotas for each country. However, agreement is not guaranteed and the restriction of supply is not always achieved.

If there is genuine competition between the dominant firms in an oligopolistic market, then consumers might benefit. There may be more innovation, genuine product development, increasing choice, open pricing and lower costs. There may even be price wars where prices are cut dramatically. However, if there is collusion, too much spending on advertising and a lack of innovation, consumers will be worse off. Consumers will also lose out if a fierce price war eliminates one or more of the firms. There will be less competition between the remaining, and smaller group, of dominant firms.

ACTIVITY 2

CASE STUDY: CARTEL

In 2016, Daimler, Volvo/Renault and two other lorry manufacturers were fined a total of €2930 million for their part in a price-fixing agreement. A cartel, which also included MAN (owned by Volkswagen), Iveco and DAF, fixed prices and passed on the costs of emissions rules to customers in the EU between 1997 and 2011. The cartel, which served around 90 per cent of the market for medium-sized trucks (such as that shown in Figure 21.2), initiated delays that meant that customers missed out on new technology.

The established cartel began with a first meeting between senior managers in Brussels in 1997. After that they colluded at meetings on the fringes of trade fairs and other events. They also discussed tactics over the telephone. However, from 2004, fewer senior managers ran the cartel through the companies' German subsidiaries. Information was also exchanged online by email. MAN eventually exposed the cartel and, as a result, Volkswagen avoided a fine of €1200 billion. The biggest penalty of €1000 million was imposed on Daimler. DAF, Volvo/Renault and Iveco were fined €753 million, €670 million and €495 million, respectively. The fines were more than double the previous record for a cartel. They would also have been twice as big if the companies had not cooperated. The EU competition authorities said the size of fines depends on how large the market is and how long the cartel had been operating.

▲ **Figure 21.2** A medium sized truck

1 What is meant by a cartel? Use this case as an example in your explanation.
2 Discuss the possible impact on customers of the cartel in this case.
3 How was the size of fines determined in this case?

MULTIPLE-CHOICE QUESTIONS

▶ 1 Which of the following is a possible disadvantage of oligopoly?
- **A** Lower prices
- **B** Collusion
- **C** More choice
- **D** More innovation

▶ 2 Which of the following industries is likely to be oligopolistic?
- **A** Chicken farming
- **B** Petrol
- **C** Restaurant
- **D** Flower selling

ECONOMICS IN PRACTICE

CASE STUDY: DOMESTIC AIR TRAVEL IN INDIA

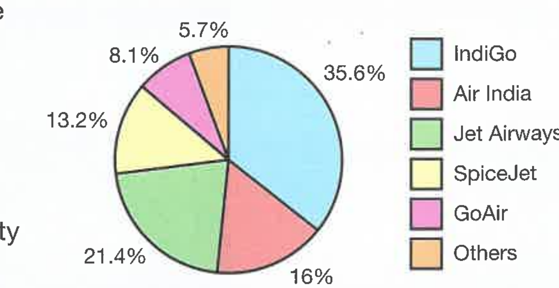
Domestic air travel in India is growing rapidly. The air travel consultancy firm Capa said domestic passenger traffic would reach 100 million by 2016–17. Airlines carried 81 million passengers in 2015, up from 15.7 million in 2003/04 when India's first low-cost airline, Air Deccan, was launched. Figure 21.3 shows the market shares of India's domestic airlines. Passenger traffic grew about 23 per cent in January 2017, compared with about 21 per cent a year ago. Much of the growth was fuelled by cheaper fares resulting from low oil prices. Flights were almost full for SpiceJet at 92.1 per cent, followed by GoAir at 84.9 per cent and IndiGo at 84.7 per cent. Even some of the smaller airlines were running at close to full capacity. For example, Air Costa was operating at 84 per cent and TruJet at 83.4 per cent.

In 2015, the competition authorities in India fined a number of carriers for fixing additional fuel charges for cargo transportation. When fuel prices fell due to the lower oil price, Jet Airways, IndiGo and SpiceJet colluded to keep additional fuel charges high. They received a total fine of Rs258 **crore**. Two carriers, Air India and GoAir, escaped a fine since its conduct was not the same as the three offending firms. The fines for each carrier amounted to 1 per cent of their annual turnover. The authorities suggested that the fines might have been harsher but they recognised the financial difficulties some of the carriers were experiencing.

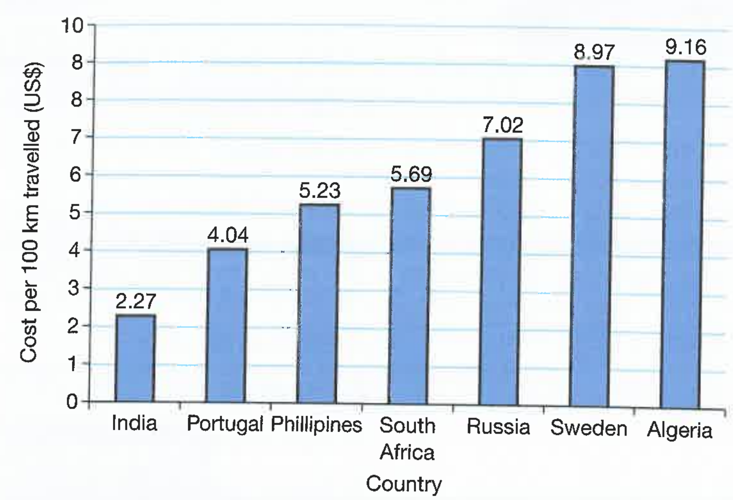
GENERAL VOCABULARY

crore ten million

Competition between the dominant firms in the domestic air travel market has kept prices relatively low for passengers. Figure 21.4 shows that air travel in India is some of the cheapest in the world. However, passengers often complained about poor customer service, baggage and flight problems. Market leader IndiGo understands the importance of punctuality to flyers and makes it a key priority in their service. In contrast, Air India cancelled the most flights of all airlines.



▲ **Figure 21.3** Market shares of domestic air travel in India, 2015 (%)



▲ Figure 21.4 Price of domestic air travel in a selection of countries

CHAPTER QUESTIONS

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

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

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

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

22 THE LABOUR MARKET

LEARNING OBJECTIVE

- Understand the factors that affect the demand for labour: demand for the final product, availability of substitutes and its productivity
- Understand the factors that affect the supply of labour: population size, age and distribution of the population, retirement age, school-leaving age, female participation, skills and qualifications and labour mobility
- Understand the importance of labour to business
- Understand the impact of training on the quality of labour
- Understand how wages are determined

GETTING STARTED

The labour market works like any other market: there are buyers and sellers. The demand for labour comes from firms in the private sector and organisations in the public sector – these are the buyers. The supply of labour comes from the working population – these are the sellers. As the examples below show, several factors affect demand and supply of labour.

CASE STUDY: ROBOTS AT FOXCONN

Foxconn is a Taiwanese multinational electronics manufacturer. It supplies a number of high profile customers such as Apple, Samsung and Sony with components and other electronic products. In 2016, Foxconn said that it was going to reduce the workforce from 110 000 to 50 000 in one Chinese factory and replace the 60 000 workers with robots. In a statement, Foxconn said it was introducing robots and other innovative technologies to replace repetitive tasks previously done by people. The company wanted employees to retrain and focus on higher **value-added** elements in the manufacturing process, such as research and development, process control and quality control.

▲ A robot at work in a factory

SUBJECT VOCABULARY

value-added products or services have an increased value because work has been done on them, they have been combined with other products and so on; this increase in value to the buyer is what the buyer pays for

CASE STUDY: EMPLOYMENT IN US SOLAR POWER

In 2015, the US solar power industry grew by 20 per cent. By the end of the year, around 209 000 people were employed in the industry. This was greater than the number employed in the US gas and oil industry for the first time, which was 184 500. However, the growth in employment in the solar industry is not the same in all the different sectors. The most growth has come in the installation of solar power. Solar installation accounted for around 65 per cent of the jobs growth in the industry. The US solar installation sector now employs 77 per cent more people than the domestic coal mining industry.

▲ Solar power installation

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

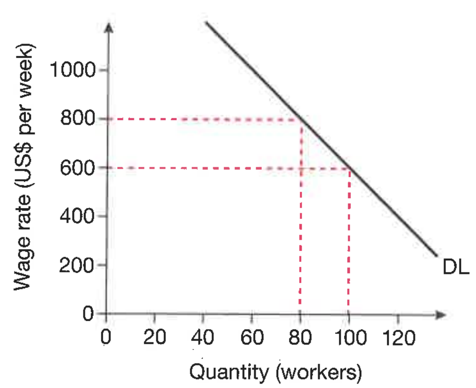
2 What accounts for the change in the demand for labour in each of the examples?

THE DEMAND CURVE FOR LABOUR

SUBJECT VOCABULARY

wage rate the amount of money paid to workers for their services over a period of time (that is, the price of labour)

The price of labour is the **wage rate**. This is the amount of money that has to be paid to people for them to work for a period of time. The demand curve for labour slopes downwards, from left to right. This is because the wage rate and the demand for labour are inversely related. This means that when wages rise, firms demand fewer workers and when wages fall they demand more. A demand curve for labour (DL) is shown in Figure 22.1. If the wage rate is US\$600 per week, 100 workers are required. However, if the wage rate rises to US\$800, the demand for labour falls and only 80 workers are required.



▲ **Figure 22.1** Demand curve for labour

DID YOU KNOW?

The main reason why the demand for labour falls as wages rise is because higher wages lead to higher production costs. As a result, firms cut production and therefore need fewer workers.

FACTORS AFFECTING THE DEMAND FOR LABOUR

SUBJECT VOCABULARY

derived demand demand that arises because there is demand for another good

The wage rate is not the only factor that affects the demand for labour. Below are some other influences.

DEMAND FOR THE PRODUCT

The demand for labour is said to be a **derived demand**. This means that the demand for labour is derived from the demand for the goods and services supplied by firms and public sector organisations.

AVAILABILITY OF SUBSTITUTES

The demand for labour may be affected by the cost and availability of substitutes for labour. For example, in many organisations, it is possible to replace people with machines. If firms believe that machines are more efficient and cheaper than people, they will probably substitute people with machines. In 'Getting started', Foxconn was replacing labour with robots. As technology advances the opportunities for replacing labour with machines seems to increase.

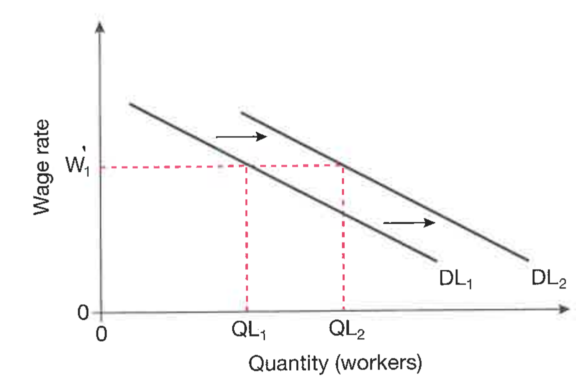
PRODUCTIVITY OF LABOUR

The productivity of labour may also affect demand. If every worker is able to produce more output, demand for workers is likely to increase. This is because production becomes more profitable, provided the extra output can be sold.

OTHER EMPLOYMENT COSTS

The demand for labour may also be affected by other costs linked to employing labour. These include national insurance contributions (NICs), which are paid to the government when employing a worker in some countries; recruitment and selection costs; the costs of pensions; perks such as a company car, private health insurance and free meals; training; sick pay; maternity and paternity pay; holiday pay and the provision of childcare facilities.

Changes in these factors will have an effect on the demand curve for labour. For example, if there is an increase in the demand for air travel, there will be an increase in the demand for cabin crews. This will shift the demand curve for cabin crew workers to the right. This is shown in Figure 22.2 where the demand for cabin crew workers shifts from DL_1 to DL_2. At the wage rate of W_1, this means that the number of cabin crew workers employed rises from QL_1 to QL_2.



▲ **Figure 22.2** Shift in the demand curve for cabin crew workers

ACTIVITY 1

CASE STUDY: FUKOKU MUTUAL LIFE INSURANCE

In 2017, Fukoku Mutual Life Insurance, a Japanese company, said that it planned to replace 34 workers with artificial intelligence (AI). The company will purchase IBM's Watson Explorer AI system for JPY 200 million. The new technology, which can calculate payouts on insurance claims, would save the company about JPY 140 million per year. Fukoku expects the cost of the investment will be recovered in less than 2 years.

The AI system, which the manufacturers claim can think like a human, will improve productivity by around 30 per cent per year. The system is capable of analysing and interpreting a wide range of data. This includes unstructured text, images, audio and video recordings.

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

1 Why is Fukoku Mutual Life Insurance replacing workers with technology?
2 Draw a diagram to show the effect on the demand curve for labour in this market as a result of Fukoku's decision to introduce AI.
3 Discuss one disadvantage of the introduction of new technology in business.

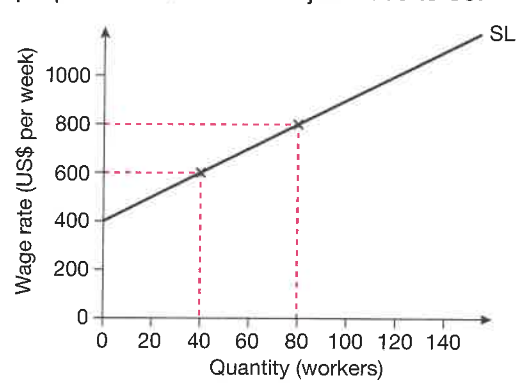
▲ Will humanity be taken over by AI?

THE SUPPLY CURVE FOR LABOUR

The supply curve for labour (SL) slopes upwards, from left to right. This is because wages and the quantity of labour supplied are proportionately related. So, for example, if wage rates rise, more people will make themselves available for work. A supply curve for labour is shown in Figure 22.3. This shows that if the wage rate were US$600 per week, 40 workers would want to work in that labour market. If the wage rises to US$800 per week, the number of people prepared to work in that job rises to 80.

DID YOU KNOW?

The main reason why the supply curve for labour is upward sloping is because as the wage rate rises an increasing number of people are prepared to work. Work is more worthwhile at higher wage rates.



▲ **Figure 22.3** Supply curve for labour

FACTORS AFFECTING THE SUPPLY OF LABOUR

In addition to wages, a number of other factors will affect the supply of labour. A country's workforce, or its working population, includes all those people over the age of 16 but under the age of retirement. A number of factors can affect the size of a nation's workforce and these are outlined below.

POPULATION SIZE

In most countries in the world, the size of the population is growing. The global population was 7400 million in 2016. However, this was predicted to rise to 9700 million by 2050. As the population grows, there will be more people available for work. Therefore, the supply of labour will tend to increase over time.

MIGRATION

Many countries welcome immigrants to help increase the working population. For example, many countries in the Middle East have a history of welcoming foreign workers. In Bahrain in 2015, 69.2 per cent of the population were immigrants. In recent years, a number of countries in the EU have welcomed the arrival of foreign workers as a result of new members enjoying the right to cross international borders (within the EU) to work.

AGE DISTRIBUTION OF THE POPULATION

The age distribution of the overall population of a country may have an effect. In most developed countries in the world there is an aging population. This means that the number of people over the age of about 65 years as a proportion of the total population is increasing. This also means that the *dependency ratio* is rising. This is the proportion of dependents (non-workers) to workers in the population. As the population ages, the dependency ratio may increase and this places a financial burden on the rest of the population.

RETIREMENT AGE

In many countries, once people reach a certain age they are entitled to a state pension. This is called the retirement age. For example, in Canada, the government announced in 2016 that the retirement age would rise from 65 to 67 – although the change is not due to be introduced until 2023. This means that people will have to work for longer before they are entitled to any state benefit. Therefore the supply of labour will increase in Canada.

SCHOOL LEAVING AGE

In most countries, children must attend school until they reach a certain age. This is called the school leaving age. Once this age is reached, children are allowed to work. Consequently, any changes to the school leaving age can affect the supply of labour. For example, in Ireland, the government announced that it would raise the school leaving age from 16 to 17 in 2016. This means that the supply of labour will be reduced because children will not be allowed to work until they are 17.

FEMALE PARTICIPATION

In the last 50 years, in many countries, there has been a change in the role of women. An increasing number of women have elected to work due to changes in society and more favourable equality legislation to work and pursue careers (see Activity 2). This has increased the size of the working population.

SKILLS AND QUALIFICATION

The supply of labour will tend to increase if people become more employable. This can happen if people have good skills and are well qualified. The quality of labour is discussed in more detail below.

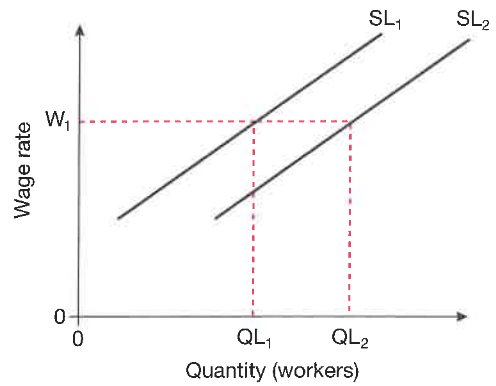
SUBJECT VOCABULARY

labour mobility ease with which workers can move geographically and occupationally between different jobs

LABOUR MOBILITY

Labour mobility can have an impact on the supply of labour in a particular labour market. For example, if workers are geographically mobile, it means that they can move easily from one region to another to find work. If workers are occupationally mobile, it means they can switch from one type of job to another more easily. As workers become increasingly mobile, the supply of a labour in a particular market can be boosted. In recent years, improvements in the transport networks in many countries have improved the geographical mobility of labour.

Changes in these factors will have an effect on the supply curve for labour. For example, if there is an increase in immigration, there will be an increase in the supply of labour. This will shift the supply curve for labour to the right. This is shown in Figure 22.4, where the supply curve for labour shifts to the right from SL_1 to SL_2. At the wage rate of W_1, this means that the number of workers employed rises from QL_1 to QL_2.



▲ **Figure 22.4** Effect of an increase in immigration on the supply curve for labour

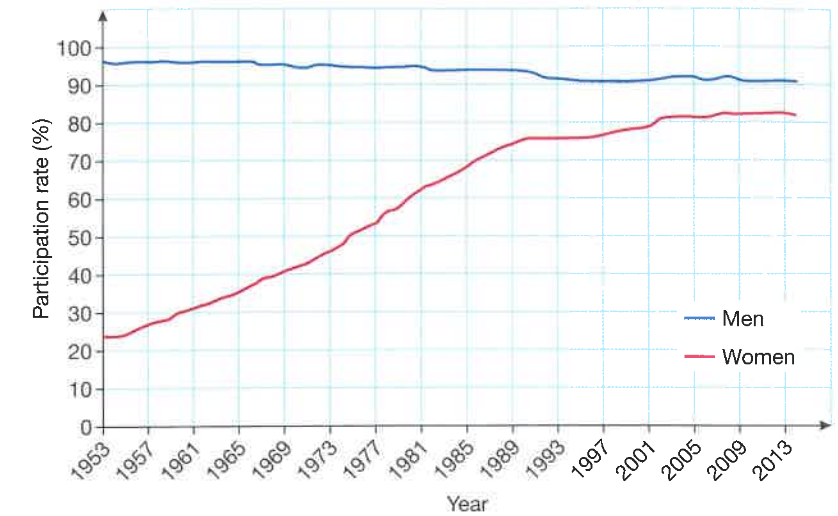
ACTIVITY 2

CASE STUDY: WOMEN AT WORK IN CANADA

Since the early 1950s, there has been a dramatic change in the role played by women in the workplace. In Canada in 1953, about one-quarter of women aged 25 to 54 contributed to the working population. In contrast, virtually every man was either employed or looking for a job. However, the number of women entering the labour market has increased significantly since then, mainly due to changes in social norms regarding gender roles. For example, new technologies such as electrical appliances reduced the time needed to perform household tasks. This released many women from the traditional household duties associated with their gender at the time. Also, families had fewer children, which reduced the traditional need at the time for mothers to stay at home. Other possible reasons may include the following.

- Employment opportunities in the service sector increased. This meant that mental ability became more important than physical ability (where men are perceived to have an advantage) in many of the new jobs created.
- Economic necessity has resulted in more women seeking work to help generate more income for the family.
- New laws that gave women equal rights in pay and opportunities have encouraged more women into work.
- The feminist movement has promoted the rights of women both in the workplace and in general.
- More women have entered higher education so they were better equipped to seek employment.

Figure 22.5 shows the labour force participation rates for Canadian men and women ages 25 and 54 for the period from 1953 to 2014.

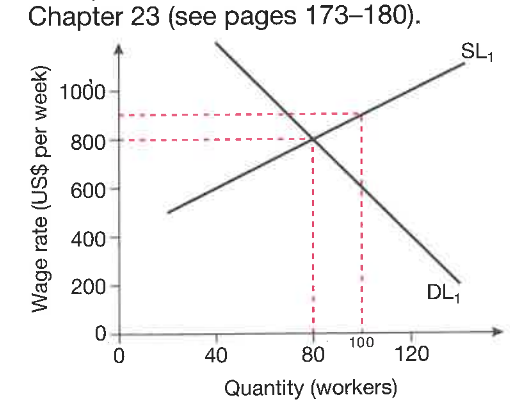


▲ **Figure 22.5** Labour force participation rates in Canada of men and women aged 25–54, 1953–2014

1. What were the labour force participation rates for men and women in 2014?
2. What has happened to the proportion of women employed in Canada over the period?
3. How might you account for the changes you identified in response to question (2)?
4. Use a diagram to show the effect on the labour supply in Canada of the changes shown by the data.

WAGE DETERMINATION

The wage rate in any labour market is determined by the interaction of the supply and demand for labour. The equilibrium wage is determined where the supply and demand for labour is equal. A labour market is shown in Figure 22.6. The equilibrium wage is US$800 per week and at this wage rate both the supply of labour and the demand for labour is 80 workers. The impact of changes in the supply and demand for labour on the wage rate is discussed in Chapter 23 (see pages 173–180).



▲ **Figure 22.6** Wage determination in a labour market

THE IMPORTANCE OF THE QUANTITY AND QUALITY OF LABOUR TO BUSINESSES

When a business is considering locations for its operations, it is not just the cost of labour that is important, it is also the quantity and quality of human capital. A business is not likely to locate a factory in a particular place just because labour is cheap. A business has to consider whether the labour available meets the skills required to maintain quality standards. Businesses cannot afford the consequences of poor quality work. In some of the locations where labour is cheap, most of the workers are unskilled and often poorly educated. Consequently, a business setting up an operation in that location may have to invest substantial sums of money in training unless all the work on offer is unskilled.

When choosing a location, businesses have to ensure that there are enough workers near to the site chosen. They will also have to consider whether there would be enough workers in the future if operations needed to expand. Some businesses are beginning to find recruitment difficult in China. For example, Jenlo Apparel Manufacturing, a Canadian-owned clothing company, opened a factory in southern China in 2008. It now has recruitment problems. First, the availability of workers has been reduced due to China's one-child policy. But also, many do not want to work in factories, nor do they want to work for exporters. This is because the quality standards are more challenging than those for goods produced for the domestic market. Businesses need access to sufficient numbers of skilled workers in order to minimise costs, operate efficiently and make more profit.

IMPACT OF EDUCATION AND TRAINING ON THE QUALITY OF HUMAN CAPITAL

GENERAL VOCABULARY

recruit to find new people to work in a company, join an organisation, do a job

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

The responsibility for education and training in most countries is divided between the state and firms. Over time, a country will want to improve the quality of labour so that it is more productive. This will require investment by the state and firms in training and education.

The main reason for training is to provide workers with the skills and knowledge needed to do their jobs effectively. As a result, their productivity will increase. However, there are several other reasons. For example, workers will need training if there are changes that might affect their jobs. Some examples might include new health and safety procedures, new technology or new working practices. Some businesses train their workers in a range of different jobs so that they are multi-skilled. This provides businesses with added flexibility. Also, workers will feel secure if they have been trained to do their job effectively. Not being able to do a job properly will be a source of anxiety, frustration and dissatisfaction for workers. It is also argued that training can be used to motivate staff.

MULTIPLE-CHOICE QUESTIONS

1 Which of the following would help to increase the labour supply in a country?

A Reduce the retirement age

B Raise the school leaving age

C Encourage more people to stay on in higher education

D Raise the retirement age

2 Which of the following might be a reason for a business to invest more in training?

A Improve labour flexibility

B Increase labour turnover

C Improve the punctuality of workers

D Reduce the average cost of recruitment

ECONOMICS IN PRACTICE

CASE STUDY: LABOUR SHORTAGE IN NEW ZEALAND

In 2016, it was reported that the construction industry in Auckland, New Zealand, was very short of workers. Although the unemployment rate in the city was 6.6 per cent, which is above the national average, construction firms were struggling to recruit decent quality construction workers. During the year, over 17 000 building jobs were created in New Zealand with the majority being taken up in Auckland where there is currently a building **boom**.

SUBJECT VOCABULARY

boom time when business activity increases rapidly, so that the demand for goods increases, prices and wages go up, and unemployment falls

boom and bust when an economy regularly becomes more active and successful and then suddenly fails

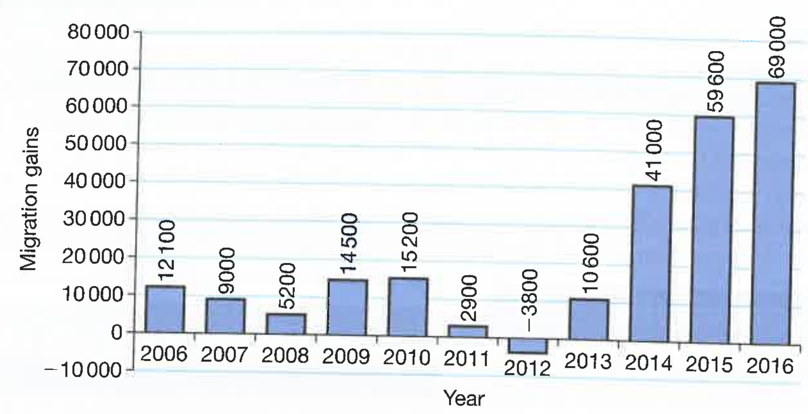
One company director said that his employment agency, Labour Exchange, was being stretched with more and more work coming in. He said that other agencies were also busy and that there were lots of new construction projects planned for Auckland. He also suggested that there were people who had paid for new apartments but they were not yet completed.

Another problem faced by the construction industry is that the flow of trained and skilled construction workers was allowed to fall when there was a dip in demand. The industry did not deal with the **boom and bust** period very well. During the global financial crisis, there was limited training. The industry also needs to provide some clear routes from schools to construction sites, many say. It has been suggested with unemployment so high in New Zealand, more young people leaving school need to be pointed in the right direction – that is, towards construction.

The construction industry also failed to predict the rapid increase in growth it is now experiencing. Auckland's Chamber of Commerce said, 'I think you could sit back and look at the current growth that's in Auckland and some of the major projects that we need to undertake, and say the delayed action in completing some of this work means that it's all coming to a head quickly, and that's the reason for some of the shortages.'

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

However, many say that immigration is only a short-term answer. In the long term, universities need to have a better understanding of the nation's construction needs. In particular, they need to know the planned construction projects over the next 5 to 10 years. They can then make adjustments to their curriculums in order to meet these needs. Figure 22.6 shows New Zealand's migration gains for the 2006–16 period.



▲ **Figure 22.6** New Zealand's migration gains (losses), 2006–16

CHAPTER QUESTIONS

1 Describe what the derived demand for labour is. Use the example in this case in your explanation.

2 Describe what labour mobility is.

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

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

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

23 THE IMPACT OF CHANGES IN THE SUPPLY AND DEMAND FOR LABOUR AND TRADE UNION ACTIVITY IN LABOUR MARKETS

LEARNING OBJECTIVE

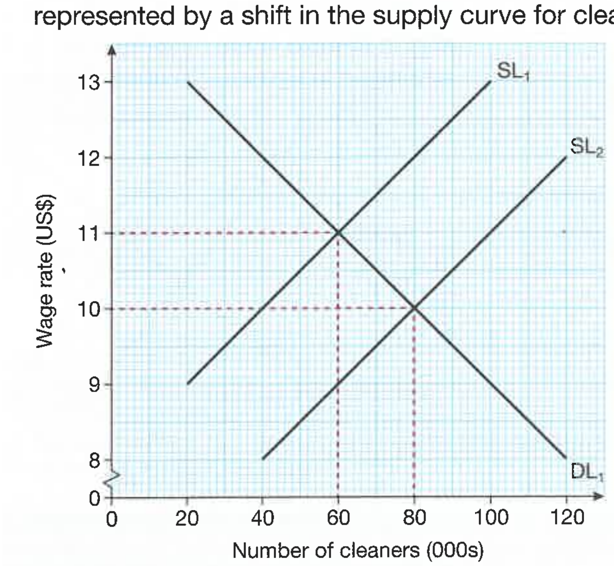
- Understand the effects of shifts in the demand and the supply of labour
- Understand trade union involvement in the labour market: the impact of trade union activity to improve working conditions and increase wages

GETTING STARTED

Wages are determined by the supply and demand for labour in a labour market. If there is a change in the supply or demand for labour, there is likely to be an impact on wage rates and the total quantity of labour employed. Look at the example below.

CASE STUDY: WAGE RATES FOR CLEANERS

The diagram in Figure 23.1 shows the supply and demand for cleaners in a particular country. In recent years, there has been an increase in the labour supply due to rising immigration. Many of the workers arriving in the country are unskilled and have looked to the cleaning industry as a means of earning income. In Figure 23.1, the increase in supply is represented by a shift in the supply curve for cleaners to the right.



▲ **Figure 23.1** Market for cleaners in a particular country

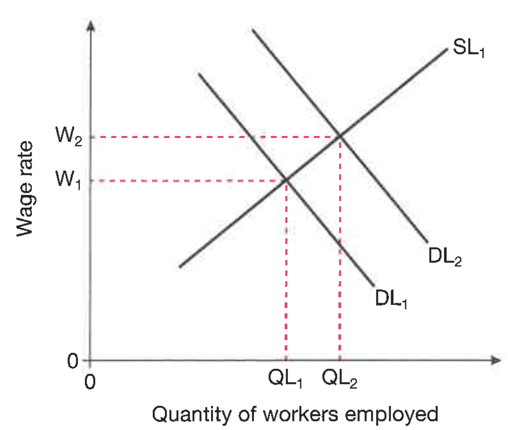
▲ Rising immigration recently has increased the labour supply of cleaners

1 What has happened to the wage rates of cleaners as a result of the increase in supply?
2 What has happened to the numbers of cleaners employed in the market as a result of the increase in supply?
3 Suggest three other factors that could increase the supply of labour in a country.
4 What impact might new legislation to reduce immigration have in the market shown in Figure 23.1?

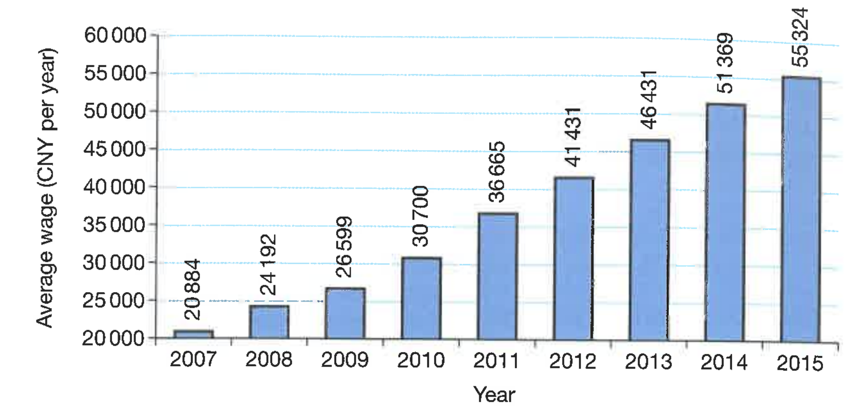
CHANGES IN THE DEMAND FOR LABOUR

The demand for labour in a particular industry is not likely to remain constant over a long period of time. For example, since the demand for labour is a derived demand, if there is a fall in the demand for a particular product, there will be a fall in demand for workers involved in the production and selling of that product.

In some countries, the demand for certain types of labour has been growing in recent years. For example, in China, demand for factory workers in manufacturing has increased. Manufacturing output in China has been rising for many years to meet the rising demand for manufactured exports. This increase in the demand for factory workers is shown by a shift in the demand curve for labour to the right from DL_1 to DL_2 as shown in Figure 23.2. The effect of this shift is to raise wage rates from W_1 to W_2. Note also that the number of people employed in Chinese factories has increased from QL_1 to QL_2.



▲ **Figure 23.2** Effect on wages and employment of an increase in the demand for labour in Chinese manufacturing



▲ **Figure 23.3** Rising wages in Chinese manufacturing

The bar chart in Figure 23.3 supports the view that the rising demand for factory workers in China has caused wages to increase. Over the time period, average yearly earnings have increased from CNY 20 884 to CNY 55 324.

CHANGES IN THE SUPPLY OF LABOUR

The supply of labour can change for a number of reasons. One of the main driving forces behind the growth in the supply of labour in many countries has been global population growth. In 2016, the world's population was 7400 million. However, in 2002, it was only 6280 million and by 2050 it is expected to be 9700 million. Naturally, if there are more people on the globe, there are more people available for work.

In some countries, governments have raised the retirement age. For example, in Greece the retirement age has been increased twice in recent years, first from 60 to 65, and then again to 67. This means that people have to work longer before they can receive any state pension. Therefore, raising the retirement age will increase the supply of labour. This is shown in Figure 23.4 by a shift in the supply curve for labour to the right from SL_1 to SL_2. This causes wage rates to fall from W_1 to W_2 and the number of people employed to rise from QL_1 to QL_2.

▲ **Figure 23.4** Effect on wages and employment of an increase in the supply of labour caused by an increase in the retirement age

It could be said that there is little evidence to suggest that wages have fallen over the years as both the global population and the supply of labour have grown.

ACTIVITY 1

CASE STUDY: WAGE DETERMINATION IN A DECLINING INDUSTRY

Over time, it is not unusual for an industry to decline. It may be because the products supplied in that industry have been replaced by more up-to-date versions. For example, in many countries, the coal mining industry has declined. This is because more countries are using 'cleaner' energy sources. When this happens, demand for the resources used in that industry starts to decline. Table 23.1 shows the supply and demand for labour at different wage rates in a declining industry in 2013.

WAGE RATE (US$)	4	8	12	16	20
DEMAND FOR LABOUR (000)	100	150	200	150	100
SUPPLY OF LABOUR (000)	0	100	200	300	400

▲ **Table 23.1** Supply and demand for labour in a declining industry, 2013

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

2 What was the equilibrium wage rate in 2013?

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

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

WAGE RATE (US$)	4	8	12	16	20
DEMAND FOR LABOUR (000)	225	175	125	75	25

▲ **Table 23.2** Demand for labour in a declining industry, 2017

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

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

7 Describe the reason for the changes identified in response to question (6).

TRADE UNIONS

GENERAL VOCABULARY

trade unions organisation representing people working in a particular industry or profession that protects their rights

Trade unions are organisations that exist to protect the interests of workers. In most countries, there are numerous different trade unions that represent different types of workers. The main aims of trade unions are to:

- negotiate pay and working conditions with employers
- provide legal protection for members, such as representation in court if an employee is fighting a case against an employer (discrimination in the workplace, for example)
- put pressure on the government to pass legislation that improves the rights of workers
- provide financial benefits, such as strike pay whenever necessary.

THE POWER OF TRADE UNIONS

GENERAL VOCABULARY

disputes serious disagreement between two groups of people, especially a disagreement between workers and their employers in which the workers take action to protest

secret ballot way of voting in which people write their choices on a piece of paper in secret

SUBJECT VOCABULARY

closed shop company or factory where all the workers must belong to a particular trade union

secondary picketing workers in one workplace or company strike in a group at a particular location in order to support the striking workers in a different workplace or company

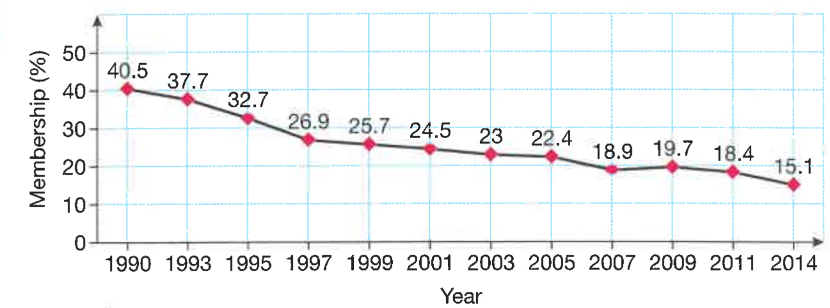
KEY FACTS: EXAMPLES OF SOME TRADE UNIONS IN THE UK

- The NUJ (National Union of Journalists) represents journalists.
- Equity represents actors.
- The NUT (National Union of Teachers) represents teachers.
- The largest union in the UK is UNITE. It has around 2 million members and is a general union. This means that it represents the interests of lots of different types of workers.

In the 1960s and 1970s, many trade unions in the UK were involved in **disputes** with employers. There was a considerable amount of disruption to production and some people thought that trade unions were responsible. Some people felt that unions had become too powerful. As a result, in the 1980s, the government passed legislation to limit the power of trade unions. For example, new laws:

- required trade unions to have a **secret ballot** before a strike; a strike could only go ahead if the majority of members voted in favour
- allowed businesses to sue for compensation if trade unions did not obey the law
- banned **secondary picketing**
- made **closed shops** illegal.

Partly as a result of this anti-trade union legislation, trade unions became weaker in the UK. They also became less popular and as a result their membership fell. This weakened their position further. For example, in 1980 around 10 million workers belonged to trade unions in the UK. By 2015, this had fallen to about 6.5 million. Trade union membership has fallen in other countries. Figure 23.6 shows the decline in trade union membership in Australia since 1990.



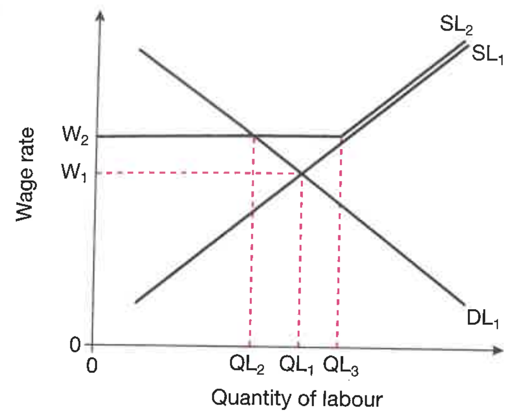
▲ **Figure 23.6** Australian trade union membership, 1990–2014

EFFECTS OF TRADE UNIONS ON WAGES AND EMPLOYMENT

A strong trade union may be able to force wages up in some labour markets. If a union has the full support of its members, it can put pressure on employers during wage negotiations. When this happens, unions are able to affect wages and employment levels. In Figure 23.7, the equilibrium wage without trade union interference is W_1, where the supply, SL_1, and demand, DL_1, for labour is equal. If a trade union becomes involved, it will force wages up. In this case, trade unions have insisted that wages of W_2 are paid to workers. This means that an employer cannot hire workers below the wage rate of W_2. As a result, a new supply curve for labour, SL_2, emerges. This supply curve has a horizontal section, which is perfectly elastic. This means that the employer must pay W_2 for all workers employed up to QL_3. If the firm needs to hire more workers beyond QL_3, wages will rise further.

One of the effects of trade union interference here is that the higher wage of W_2 has resulted in fewer workers being employed. Employment has dropped from QL_1 to QL_2. This is because the demand for labour falls when wages increase. Therefore, it could be argued that trade union interference has increased wages at the expense of jobs for some of its members. However, job losses might be avoided:

- if labour productivity rises at the same time
- if employers are able to pass on wage increases to customers in the form of price rises
- if profit margins are reduced (which means that employers meet the cost of the wage increase).



▲ **Figure 23.7** Effect on wages and employment of trade union interference in the labour market

ACTIVITY 2

CASE STUDY: IG METALL

In 2015, IG Metall, Germany's biggest trade union, secured a substantial pay increase for its members. The deal involved an annual pay increase of 3.4 per cent plus a one-off payment of €150 for workers in the southwest region of the country. The offer appears attractive since the level of **inflation** in the country was only 0.9 per cent. The union also reached an agreement with an employers' representative regarding conditions of work for some part-time workers. Specifically, the agreement related to the part-time conditions for older workers and job-related training for some employees in Baden-Württemberg. This is an industrial and car-making region in Germany, where the headquarters of Daimler and Bosch are located.

IG Metall, which has around 3.7 million members, had originally requested a 5.5 per cent pay increase. However, employers were only offering 2.2 per cent. A representative of IG Metall said that the agreement was a satisfactory compromise after very lengthy negotiations. The deal meant that workers would be getting some of the profits made by the company. A representative of the employers said that the deal was painful for companies – it represented one of biggest real pay increases for many years.

▲ Industry in Baden-Württemberg

1 Using this case as an example, describe the main purpose of a trade union.
2 How might the increase in wages secured by the trade union result in job losses?

SUBJECT VOCABULARY

inflation rate at which prices rise, a general and continuing rise in prices

MULTIPLE-CHOICE QUESTIONS

▶ 1 Which of the following will cause wage rates to rise in a labour market?

A An increase in the supply of labour
B An increase in the demand for labour
C An increase in supply and a fall in demand for labour
D A fall in the demand for labour

▶ 2 Which of the following would reduce the power of trade unions?

A An increase in anti-trade union legislation
B Low wages
C A decrease in trade union subscriptions
D Favourable media coverage of trade union activity

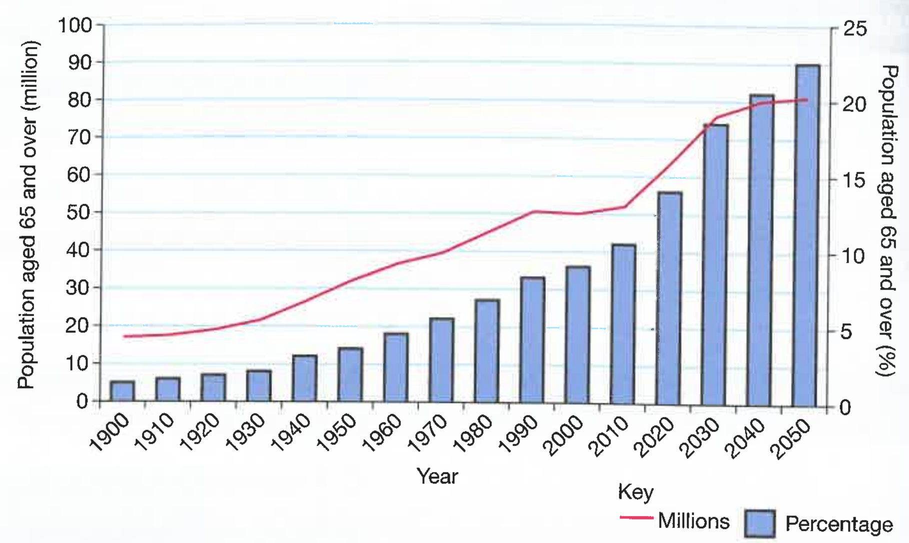
ECONOMICS IN PRACTICE

CASE STUDY: AGING POPULATION IN THE USA

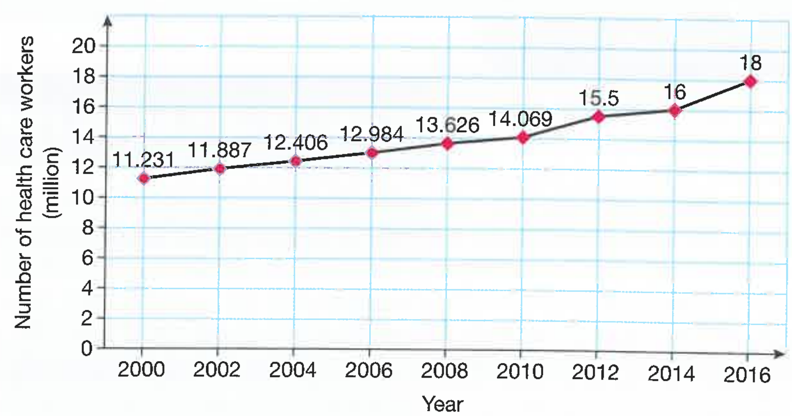
In many countries in the world, the population is aging. This means that a rising proportion of the population is over the retirement age. For example, Figure 23.8 shows that in the USA more than 22 per cent of the population will be over 65 by 2050. This compares with just over 10 per cent in 2010 and only 1 per cent in 1900. This may have consequences for the supply of labour in the USA. When the population ages, the amount of young people joining the workforce is smaller than the number who retire. As a result, the supply of labour is likely to fall.

An aging population also places demands on certain industries. The main one is health care. In the USA, it is estimated that by 2050 the number of people requiring health care services – such as care at home, residential care (assisted living) or skilled nursing facilities – will probably double from 13 million in 2000 to 27 million. Health care is the fastest-growing sector of the US economy, currently employing around 18 million workers. Interestingly, women represent nearly 80 per cent of the health care workforce in the USA. Figure 23.9 shows the growth in the number of health care workers in the US between 2000 and 2016.

Employment in health care increased and is expected to grow faster than any other occupation between 2010 and 2020. Historically, the USA has employed a growing number of migrants in the health care industry. The total grew from 1.5 million to 1.8 million between 2006 and 2010. Today, immigrants make up a significant proportion of the US health care workforce. In 2010, around 16 per cent of all care workers were from overseas. In some health care professions, this share was larger. For example, 27 per cent of physicians and surgeons were foreign-born, as were 22 per cent of persons working in health care support jobs such as nursing, psychiatric and home health aides.



▲ **Figure 23.8** Percentage of people aged over 65 in the USA



▲ **Figure 23.9** Number of health care workers in the USA

CHAPTER QUESTIONS

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

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

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

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

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

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

24 GOVERNMENT INTERVENTION

LEARNING OBJECTIVE

- Understand government policy to deal with externalities: taxation, subsidies, fines, regulation and pollution permits
- Understand government regulation of competition to: promote competition, limit monopoly power, protect consumers interests and control mergers and takeovers
- Understand intervention in the labour market: reasons for the minimum wage, advantages and disadvantages of the minimum wage and the impacts of it in labour markets

GETTING STARTED

One of the roles played by the government is to ensure that business activity is conducted in a fair way. This might involve dealing with the problem of externalities, making sure that competition exists in markets and protecting consumers from exploitation. The government might also try to influence businesses in other ways, such as ensuring that workers are paid a fair wage. Look at the example below.

CASE STUDY: DU PONT

DuPont is one of the world's largest chemical companies. In 2014, it was fined over US$1 million for eight chemical releases in West Virginia, USA. The leaks happened at DuPont's Belle production plant in Kanawha County, where an employee was killed after being exposed to phosgene. DuPont was also ordered to improve safety and emergency response systems to prevent future leaks. In 2015, DuPont was fined US$531 000 for alleged Clean Air Act violations at its chemical plant in Deepwater, New Jersey. The US Environmental Protection Agency (EPA) fined DuPont for failing to maintain and repair two large refrigeration units adequately. With proper maintenance, the units should minimise chlorofluorocarbon (CFC) leaks. CFCs destroy the ozone layer, which protects the earth from harmful radiation, which can cause skin cancer. In addition to the fine, DuPont was ordered to correct the problems in its leak detection programme and comply with legal reporting requirements.

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

2 Describe the nature of government intervention in these cases.

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

4 In groups, discuss whether you think the penalties received in these examples are adequate. Record your ideas on a poster and present them to the rest of the class.

▲ DuPont's Belle plant, Kanawha County, West Virginia, USA

THE NEED FOR GOVERNMENT INTERVENTION

Without **government intervention**, some businesses might neglect the needs of certain stakeholders. For example, the environment might be damaged, workers might be paid low wages, small businesses might be unduly pressurised or consumers might be overcharged. One of the roles of the government is to provide a legal system in which businesses can operate and a system of incentives and penalties to ensure that 'at-risk' groups are protected. However, it is important for the government to find the right balance. Too much intervention will discourage enterprise and reduce foreign investment. This might restrain growth in national income, reduce job creation, decrease tax revenues and reduce consumer choice. Too little, and some stakeholders' best interests might be neglected.

GENERAL VOCABULARY

government intervention where the government becomes involved in a situation in order to help deal with a problem

GOVERNMENT INTERVENTION TO DEAL WITH EXTERNALITIES

Chapter 13 (pages 89–96) explained that economic activity can have an impact on third parties such as individuals, organisations, property owners or resources such as woodlands. For example, a business might clear 200 hectares of rainforest to provide more grassland to rear cattle. This may destroy some ancient rainforest and eliminate a natural habitat for a wide range of plant and animal species. This negative impact on the environment is an example of an external cost or a negative externality. Both production and consumption can result in external costs.

It is also possible for economic activity to generate benefits to third parties. For example, if a business sets up a waste recycling operation, this is likely to encourage recycling. This will benefit the environment and the economy in general since a greater quantity of resources would be reused. These are called external benefits or positive externalities. In many countries, the government is likely to use a range of measures to reduce external costs and provide external benefits. These could include taxes, subsidies, fines, regulation and pollution permits. The nature, advantages and disadvantages of these measures are discussed in detail in Chapter 13 (pages 89–96).

GOVERNMENT REGULATION OF COMPETITION

PROMOTING COMPETITION

One of the roles of the government in the economy is to promote competition and prevent **anti-competitive practices**. Some examples of the action a government might take are outlined below.

Encourage the growth of small firms: If more small firms are encouraged to join markets, there will be more competition. In some countries, both central and local government have taken measures to help the growth of small firms. For example, business start-up schemes have been used to provide funds for new businesses when they first set up. There may be business services that provide information and advice on running a business and obtaining finance. Taxes are also lower for small firms.

Lower barriers to entry: If barriers are lowered or removed, then more firms will join a market making it more competitive. In recent years, many countries have removed some of these legal barriers. For example, the provision of bus services in the UK used to be the sole responsibility of local authorities. There was no competition at all. However, the law was changed so that new operators, such as Stagecoach, could join the market.

SUBJECT VOCABULARY

anti-competitive practices (or restrictive trade practices) attempts by firms to prevent or restrict competition

Introduce anti-competitive legislation: In many countries, legislation exists to prevent practices that result in reduced competition. For example, in India, the Competition Commission of India (CCI) acts as a regulator to:

- eliminate practices that reduce competition
- promote and sustain competition in markets
- protect the interests of consumers
- ensure freedom of trade.

LIMIT MONOPOLY POWER

If monopolies exist in markets, they need to be carefully monitored. Without government intervention, the temptation to exploit consumers may be too great for some organisations. In many countries, there is an appointed body that is responsible for overseeing monopolies. For example, in China, the State Administration for Industry and Commerce (SAIC) is responsible for developing and enforcing legislation relating to the administration of industry and commerce in the country. It has many divisions, one of which is the Antimonopoly and Anti-unfair Competition Enforcement Bureau. In 2016, SAIC found that Tetra Pak, the Swiss packaging firm, had broken anti-monopoly regulations. It was discovered to be abusing its monopoly status by forcing customers to purchase packaging materials. Tetra Pak had also prevented other suppliers from providing materials to its rivals. Tetra Pak was fined US$97 million.

In some countries, where a whole industry is dominated by just one, or a few very powerful firms, a special industry 'watchdog' is set up to monitor their activities. For example, in the UK, Ofwat (the Office of Water Services) was established to regulate the water and sewerage industry. Most tap water in the UK is supplied by monopolies. Such bodies often control the prices charged by monopolies and issue fines if quality standards are not met.

PROTECT CONSUMER INTERESTS

Consumers want to buy good quality products at a fair price and receive good customer service. They want information about products that is accurate and clear. They do not want to buy goods that may be dangerous, overpriced or sold to them on the grounds of false claims. Without government intervention, some firms may exploit consumers by using anti-competitive practices or restrictive practices. These might include:

- increasing prices to higher levels than they would be in a competitive market
- price fixing, where a number of firms agree to fix the price of a product to avoid price competition
- restricting consumer choice by market sharing
- raising barriers to entry by spending huge amounts of money on advertising, which smaller companies could not match, for example.

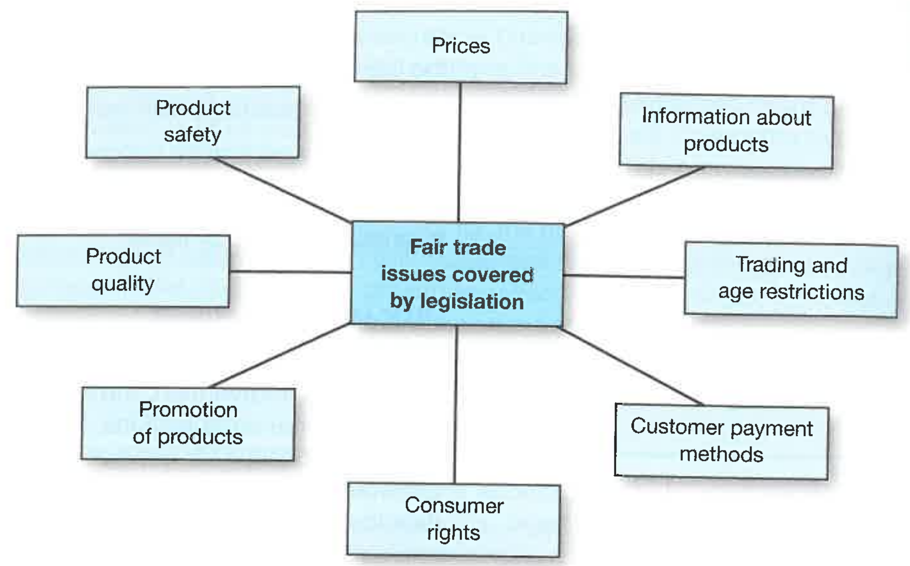
In some countries, there is a lot of consumer legislation. Such legislation covers a variety of consumer issues and aims to protect consumers from some of the practices mentioned above. Figure 24.1 shows some examples. Legislation exists to prevent businesses from activities such as making false claims about the performance of their products, selling goods that are not fit for human consumption and selling goods that are not **fit for purpose**. If businesses break consumer laws, they may be fined and have to **compensate** consumers for any loss.

SUBJECT VOCABULARY

fit for purpose usable (by a consumer) for the purpose for which it was intended

GENERAL VOCABULARY

compensate to replace or balance the effect of something bad



▲ **Figure 24.1** Fair trade issues covered by legislation

KEY POINT

Some examples of UK consumer legislation are:

- **Sale of Goods Act 1979:** This states that products sold by businesses must be of an appropriate quality and fit for purpose. For example, customers cannot be sold paint that peels off in the sun after 1 month or a waterproof coat that lets in the rain.
- **Food Safety Act 1990:** This law means that food should be fit for human consumption and comply with safety standards. For example, a business should not sell frozen food if it has defrosted and been refrozen or fresh produce that is decaying.

CONTROL MERGERS AND TAKEOVERS

In order to ensure that markets remain competitive, governments often monitor mergers and takeovers. Mergers and takeovers usually result in a reduction of competition in a market. Consequently, large mergers or takeovers are likely to be investigated by government bodies. They may be blocked or allowed to go ahead if certain conditions are met. For example, in 2016, the European Commission blocked Telefonica's sale of O_2 to CK Hutchison, the owner of Three. The commission ruled that the £10 300 billion deal would have left the UK with just three major mobile phone network operators. It was concerned that the takeover would reduce customer choice and raise prices. The European Commission said, 'The goal of EU merger control is to ensure that tie-ups do not weaken competition at the expense of consumers and businesses.'

In another EU ruling, Microsoft, the global technology company, was given the go ahead to take over LinkedIn, the social networking service that focuses on promoting professional connections. However, the deal, worth US$26 200 million, was subject to three key conditions relating to the preservation of competition in the industry. One of these was that PC manufacturers and distributors would be free not to install LinkedIn on Windows. Also, users would be able to remove LinkedIn from Windows if PC manufacturers and distributors install it onto new machines.

ACTIVITY 1

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

In Spain, the CNMC (The National Commission of Markets and Competition) is responsible for monitoring industry in general and ensuring that markets are sufficiently competitive. The CNMC has a number of legal duties, which include:

- supervising and monitoring a range of economic sectors in Spain, such as electricity and gas, electronic communications and audio-visual, railways and airports and the postal markets
- enforcing competition law which addresses anti-competitive behaviour, merger control and state aid
- resolve trade disputes between a range of organisations
- promote competition.

In 2015, the CNMC fined 21 car manufacturers and two consultancy firms €171 million for anti-competitive practices. GM and Ford were hit hardest with fines of €22.8 million and €20.2 million, respectively. Three French firms – Renault, Peugeot and Citroen – were fined €18.2 million, €15.7 million and €14.8 million, respectively. The Spanish competition authorities said that the firms acted like a cartel. They exchanged information relating to car sales, repairs, maintenance activities and car parts to avoid competition. For example, some of the information included details of price incentives to avoid a price war for new-car sales. Volkswagen and its **subsidiaries**, including its Spanish brand Seat, avoided a penalty because they cooperated fully with the CNMC.

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

2 Describe the role of the CNMC in Spain.

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

SUBJECT VOCABULARY

subsidiaries companies that are at least half-owned by another company

GOVERNMENT INTERVENTION IN THE LABOUR MARKET

One way in which governments intervene in the labour market is to set a **minimum wage**. This involves passing legislation that means no employer is allowed to pay their workers an hourly rate below the limit set. In some countries, governments appoint a body to review minimum wage levels every year. Employers face a penalty if they pay wages that are lower than the national minimum wage. Also, workers will be entitled to have money owed repaid at current rates.

SUBJECT VOCABULARY

minimum wage minimum amount per hour which most workers are legally entitled to be paid

KEY FACTS

Canada introduced minimum wages many years ago to help reduce poverty in the country. It uses a region system so that wages can reflect local conditions. For example, in 2016, the following rates applied:

- Alberta CAD 12.20 per hour
- Manitoba CAD 11.00 per hour
- Nova Scotia CAD 10.70 per hour
- Quebec CAD 10.75 per hour

REASONS FOR A MINIMUM WAGE

The general reason for introducing minimum wages is to raise the incomes of low paid workers. However, some specific reasons are also given.

Minimum wages will benefit disadvantaged workers. It is argued that people such as women, ethnic minorities and low-income families benefit from minimum wages since they reduce inequality and increase fairness. In many countries, the gap between the rich and the poor is rising and it is argued that minimum wages might help to close this gap.

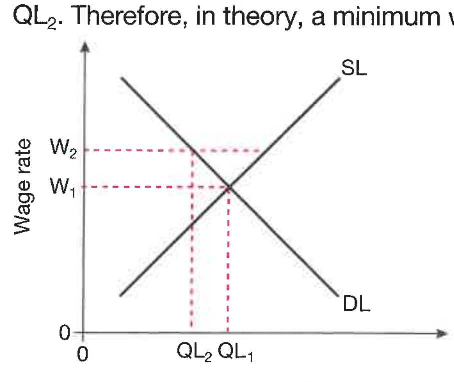
In some countries, many workers on low incomes are entitled to claim welfare benefits from the state. However, if their incomes are increased by the minimum wage, the amount they are entitled to claim will fall. This will save the government money. Also, as incomes rise, workers may pay more tax, which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

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

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

THE IMPACT OF A MINIMUM WAGE ON WAGES AND EMPLOYMENT

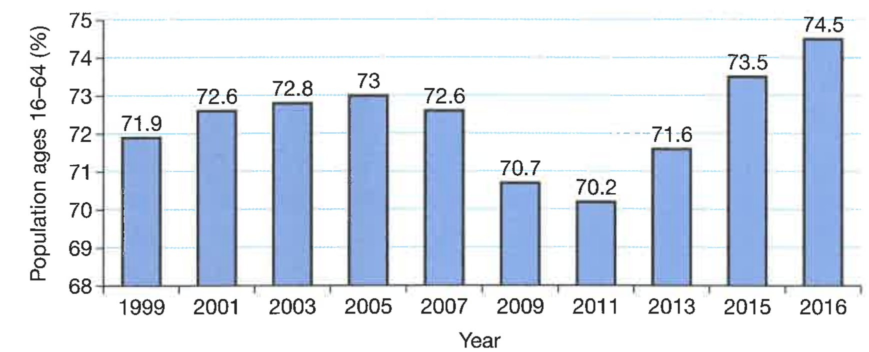
Supply and demand analysis can be used to show the effects of a minimum wage on wages and employment in labour markets. Figure 24.2 shows a labour market and the equilibrium wage is W_1. If the government imposes a minimum wage of W_2, above the equilibrium wage, by law all workers will receive at least W_2. Unfortunately though, economic theory suggests that the minimum wage of W_2 will have a negative effect on the level of employment. According to the diagram, at a wage of W_2, the number of workers employed falls from QL_1 to QL_2. Therefore, in theory, a minimum wage will result in job losses.



▲ **Figure 24.2** Effect of a minimum wage on wages and employment in a labour market

DO MINIMUM WAGES CAUSE JOB LOSSES?

Some have argued that minimum wages do not reduce the level of employment in the economy, as shown in Figure 24.2. There is some evidence to support this view. For example, since the introduction of the minimum wage in the UK in 1999, the number of people employed has actually risen. Figure 24.3 shows that in 1999 employment was 71.9 per cent. However, this rose to 74.5 per cent in 2016. There was a dip for a few years but this was almost certainly due to the global financial crisis when employment fell in many countries during a global recession.



▲ **Figure 24.3** UK employment rates since the introduction of the minimum wage in 1999, 1999–2016

Furthermore, in the USA, a study by the Economic Policy Institute (EPI) found that the 1996/97 minimum wage increases did not reduce employment in the economy. In fact, after the increase, the low-wage labour market performed better than it had in many years (for example, lower unemployment rates, increased average hourly wages). However, it is important to note that both the UK and the US economies grew strongly during this period, which means that demand for labour would have been increasing.

ACTIVITY 2

CASE STUDY: IMPACT OF MINIMUM WAGE

Figure 24.4 shows a labour market for a country. The government has imposed a minimum wage of US$10 per hour.

▲ **Figure 24.4** Effects of a minimum wage in a country

1. What is the equilibrium wage in this labour market?
2. What happens to the number of people employed in the market when the minimum wage is imposed?
3. Describe two reasons why a government would impose a minimum wage.

MULTIPLE-CHOICE QUESTIONS

1 The introduction of a minimum wage in a labour market will:

A Raise employment and lower the wage rate
B Raise the wage rate and increase employment
C Raise the wage rate and increase unemployment
D Reduce the wage rate but boost employment

2 Which of the following is an example of an anti-competitive practice?

A Product differentiation
B Advertising
C Paying high wages to workers
D Price fixing

ECONOMICS IN PRACTICE

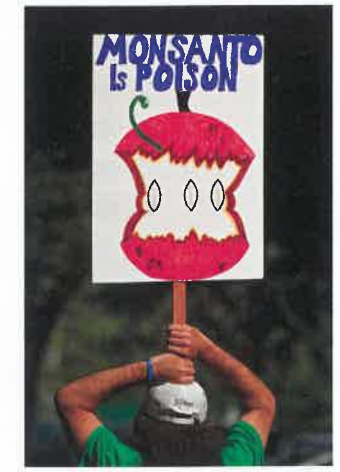
CASE STUDY: THE MINIMUM WAGE AND THE BAYER-MONSANTO MERGER

In 2016, Bayer, the German chemical company, said it would take over Monsanto, the giant US seed company, in a deal worth US$66 000 million. Bayer is known mainly for its pharmaceuticals and was linked with the development of Aspirin and Alka-Seltzer. However, its connection with Monsanto would make the company heavily involved in agriculture. In particular, it would have an important influence in the market for agricultural chemicals, crop supplies, pesticides and weed killers. Monsanto is the world's largest supplier of genetically modified (GM) seeds. These dominate the US farming industry but are still a major source of environmental protests overseas.

Many have objected to the merger in the belief that it would not be in the interests of consumers. The merger would mean that the new company would control about 25 per cent of the world's seed and pesticide market. It would also mean that about 90 per cent of the world's food supply would be in the hands of just four giant multinationals. Opponents of the merger say that food would be sprayed with more pesticides and produced with more GM seeds. They also say that food choices would be restricted and prices all over the world would rise. Senator Bernie Sanders, one leading opponent of the merger, said, 'these mergers boost the profits of huge corporations and leave Americans paying even higher prices. Not only should this merger be blocked, but the DOJ should reopen its investigation of Monsanto's monopoly over the seed and chemical market.'

In India, Monsanto has been accused of exploiting its monopoly power in the supply of GM cotton seeds. Unlike the seeds farmers can collect from this year's crop to use the following year, farmers have to buy GM cotton seeds every year. Monsanto's cotton seeds can sometimes cost up to four times more than traditional varieties. Monsanto has a 90 per cent market share in cotton seeds, Monsanto has a tight grip on cotton growing in India as farmers become dependent on expensive seeds and chemicals.

After the merger, Bayer has promised to keep all of Monsanto's 9000 plus US employees. The company also hopes to add 3000 new jobs – most of which will be in R&D. Bayer and Monsanto plan to spend about US$16 000 million on agriculture R&D over the next 6 years if the merger goes ahead – at one least half of which will be in the USA. In a joint statement, the companies said, 'The United States is a global leader in agriculture, and the combination of Bayer-Monsanto will underscore that role and ensure the United States retains a pre-eminent position as the anchor of the industry.'



▲ Protests against Monsanto's influence in agriculture

CHAPTER QUESTIONS

1 Describe what a minimum wage is.
2 Describe two possible benefits to the economy of the introduction of a minimum wage.
3 How might mergers and takeovers result in less competition? Use an example in this case in your explanation.
4 Discuss whether government intervention is needed in the merger between Bayer and Monsanto. Make a clear judgement in your evaluation.

CHAPTER QUESTIONS

1 Describe what a mixed economy is.

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

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

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

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

12 PRIVATISATION

LEARNING OBJECTIVES

- Understand how privatisation is defined
- Understand the effects of privatisation on consumers, workers, businesses and the government

SUBJECT VOCABULARY

monopolies situation where a business activity is controlled by only one company or by the government, and other companies do not compete with it
privatisation act of selling a company or activity controlled by the government to private investors

GENERAL VOCABULARY

bankrupt not having enough money to repay your debts

GETTING STARTED

Since the 1980s, some governments around the world have transferred public sector resources to the private sector. This process is called **privatisation.** In Europe, some large industrial **monopolies** were privatised to improve competitiveness and efficiency. In Eastern Europe, privatisation was a result of the political and economic changes that took place after the break-up of the Soviet Union. Look at the example below.

CASE STUDY: GREEK AIRPORT PRIVATISATION

After the financial crisis in 2008, it was discovered that the Greek government had acquired extremely large debts. To help deal with these debts, Greece had to borrow large amounts of money from the EU to prevent the country from going **bankrupt**. In order to receive a package of loans worth €86 000 million, it had to promise international lenders that it would start selling some state assets. One significant deal was made in 2015 when the Frankfurt airport operator, Fraport, obtained a 40-year agreement to upgrade and operate some Greek airports, including those on the tourist islands of Corfu, Mykonos, Rhodes and Santorini. The deal raised €1230 million for the Greek government. Fraport will also pay Greece an annual operating fee of €22.9 million and invest €330 million in airport facilities. The investment was expected to improve the quality and efficiency of airport operations.

▲ Fraport began operating Corfu airport in 2015

In the future, Greece is expected to sell other assets such as the railways, the national lottery, utilities, ports and perhaps some of its islands.

1 Why were the Greek airports privatised?

2 Describe the possible benefits of the privatisation to consumers.

3 In pairs, carry out some research to see if any state organisations have been privatised in your country. Try to identify the reasons why they have been transferred to the private sector and how much money the government raised. Present your results in a report.

WHAT IS PRIVATISATION?

SUBJECT VOCABULARY

nationalised industries public corporations previously part of the private sector that were taken into state ownership
natural monopolies situation that occurs when one firm in an industry can serve the entire market at a lower cost than would be possible if the industry were composed of many smaller firms

Privatisation involves transferring public sector resources to the private sector. During the 1980s and 1990s in the UK, the government sold off a large number of state assets to the private sector. For example, in 1987, British Airways, Rolls-Royce, Leyland Bus, Leyland Truck and the British Airport Authority were all privatised. It was argued that these organisations would be more efficient if they were operated without government interference. Privatisation has taken a number of forms in the UK.

- **Sale of nationalised industries:** **Nationalised industries** such as British Rail, British Airways and British Telecom were once private sector business organisations. However, for a number of reasons they were taken into public ownership. For example, it was felt that they should supply services that were unprofitable, such as railways in remote areas. Many were **natural monopolies** and would serve consumers more effectively under state control. However, after years under state control, they were sold off. They became private sector businesses, owned by private shareholders.
- **Contracting out:** Many government and local authority services have been 'contracted out' to private sector businesses. This is where contractors are given a chance to bid for services previously supplied by the public sector. Examples include the provision of school meals, hospital cleaning and refuse collection.
- **The sale of land and property:** During the 1980s, people renting local, council-owned properties were given the right to buy their own homes. They were given generous discounts to persuade them to buy. As a result, about 1.5 million council-owned houses were sold to private individuals in the UK.

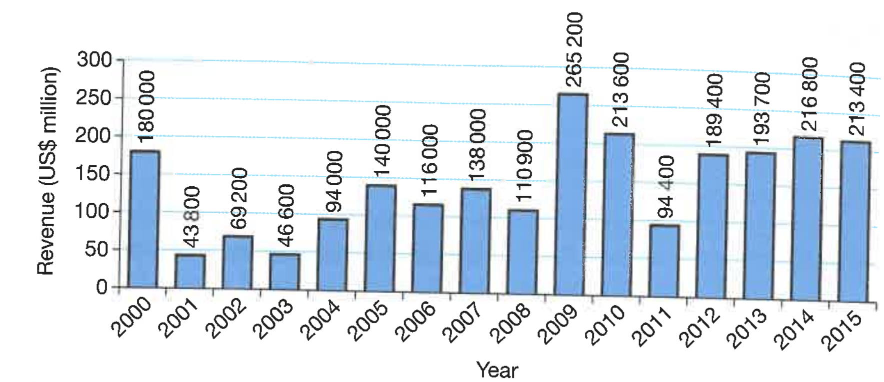
WHY DOES PRIVATISATION TAKE PLACE?

GENERAL VOCABULARY

accountable being responsible for the effects of your actions and willing to explain or be criticised for them
incentive something that is used to encourage people to do something, especially to make them work harder, produce more or spend more money

Different reasons have been put forward for privatisation.

- **To generate income:** The sale of state assets generates income for the government. Figure 12.1 shows the revenue raised globally by privatisation between 2000 and 2015. The graph suggests that governments around the world are still keen to sell off state assets for money. As outlined in 'Getting started', Greece has been under pressure in recent years to raise money from the sale of state assets in order to meet the demands of international lenders.
- **Public sector organisations were inefficient:** Some nationalised industries lacked the **incentive** to make a profit and often made losses. It was argued that in the private sector they would have to cut costs, improve services and return profits for shareholders. They would also be more **accountable**. For example, in the private sector, if customer needs were not met, a company may lose customers and struggle to generate enough revenue and profit to survive (assuming there was competition in the market).
- **To reduce political interference:** In the private sector, the government could not use these organisations for political aims. They would be free to choose their own investment levels, prices, product ranges and growth rates, for example. In the past, some nationalised industries have been unstable due to constant government interference. This has often held back their performance.



▲ Figure 12.1 Global revenue from privatisation, 2000–15

In recent years, a number of countries around the world have adopted privatisation programmes. For example, because of the economic crisis, and pressure from the World Bank and the International Monetary Fund, in 1991, India began privatising state assets. It began by selling the Bharat Aluminium Company and a few airports such as Bangalore, Delhi, Hyderabad and Mumbai. More recently, in 2016, India has said it will sell off controlling stakes (ownership of more than 50 per cent of shares in a company) in 22 companies. This includes some large state-run companies such as Container Corporation of India, Bharat Earthmovers, three steel plants and the Cement Corporation of India.

There have also been huge privatisation programmes in many Eastern European countries. Before the break-up of the Soviet Union, public sector groups conducted nearly all production. Afterwards, governments decided to develop mixed economies (see Chapter 11, pages 70–80) and began privatising vast quantities of public sector resources.

ACTIVITY 1

CASE STUDY: PRIVATISATION MOTIVES

Below is an extract from a government White Paper 'Working Together'.

'Just as a strong government is required to steer the economy through a recession, it is also the case that a responsive state should withdraw from areas in which it is no longer required. Now more than ever government must prioritise its interventions and secure the greatest possible efficiency for every pound of taxpayers' money it spends. As we redouble our efforts to reform and renew our public services, it is vital we are bolder in our efforts to strip out waste, improve productivity and sell off public assets that the state no longer needs to own. The government will set out proposals on these issues at the budget.'

1 To what extent does this extract suggest that the government is committed to more privatisation in the future?
2 According to this extract, what are the motives for future possible privatisation?
3 Suggest two other possible reasons for privatisation.

EFFECTS OF PRIVATISATION

Privatisation has had a big impact in some nations. The effects have been felt in a number of areas and some evidence suggests that there have been both advantages and disadvantages resulting from privatisation.

CONSUMERS

It is hoped that consumers will benefit from privatisation. Once in the private sector, businesses are under pressure to meet customer needs and return a profit for the owners. This should mean that businesses will be efficient, try to provide good quality products, charge a reasonable price and grow. However, consumers have seen both improvements and a decline in price and service. For example, in the UK, according to the water and sewerage regulator Ofwat, since the privatisation of ten water providers in 1989, the number of customers at risk of low water pressure has fallen by 99 per cent. In telecommunications, the waiting time for a new BT line has fallen from around 6 months to just 15 days. In contrast, though, since the privatisation of the rail industry in the UK, the amount of government subsidies given to the rail industry rose from just over £1000 million in the late 1980s to more than £6000 million in 2006/07. Even in 2014/15 the subsidy was still £4000 million. Taxpayers feel this increased financial responsibility. Rail fares to consumers have also risen sharply. Rail users in the UK now pay some of the highest fares in the world. For example, tickets similar to the £357.90 monthly season pass from Chelmsford to London would cost just £37 in Italy, £56 in Spain and £95 in Germany. There have been suggestions in recent years from some UK politicians that the country's railways could be renationalised in future to improve service to customers.

KEY FACTS: CONSUMERS

In 2016, the UK regulatory body Ofwat proposed fining South West Water £1.7 million for missing performance targets after it was discovered leaking sewerage into the sea. Another water company, Southern Water, was threatened in 2014 with a £176 million fine for poor customer service and mismanaging sewerage systems.

WORKERS

Quite often in the run up to privatisation, and after an organisation has moved into the private sector, quite large numbers of people are made redundant. Although this may reduce costs, many see this as a negative effect. Evidence of this is provided by what happened in the UK after a number of privatisations. For example:

- when the coal industry was privatised, more than 200 000 jobs were lost
- British Telecom shed more than 100 000 jobs when it was sold to the private sector
- the Rail, Maritime and Transport Union suggested that there were 20 000 to 30 000 job losses as a result, of rail privatisation
- British Energy shed one-quarter of its workforce just before privatisation
- British Steel shed 20 000 jobs before it was privatised.

Mass redundancies often weaken companies through the loss of experienced staff and make it more difficult and more expensive to scale up in future. In addition to job losses, in an effort to improve efficiency, many workers may have been pressed into raising their productivity. They might have been forced to adopt more flexible working practices, for example. Those who support the process of privatisation would suggest that these measures were necessary in order compete in global markets. However, the impact on many communities of mass unemployment within the UK is still felt today.

BUSINESSES

Once in the private sector, firms are left without government interference and have to face competition. They have been affected in a number of ways in the UK.

- Their objectives have changed. For most firms, profit has become an important objective. For example, the profits of British Telecom increased from around £1000 million in 1984, when the company was first privatised, to nearly £3170 million in 2016.
- Many firms have increased investment following privatisation. For example, many of the water companies raised investment levels to fund new sewerage systems and water treatment plants. Immediately after privatisation, investment rose by about £1000 million in the water industry. However, more recently, some figures suggest that investment levels are falling.
- There have been a number of mergers and **takeovers** involving newly privatised firms. For example, Hanson bought Eastern Electricity and an American railway company bought the British Rail freight service. North West Water and Norweb joined together to form United Utilities and Scottish Power bought Manweb.
- Many privatised businesses have **diversified** into new areas. For example, British Telecom now provides television programmes and has invested heavily in broadcasting Premier League and Champions League football in the UK.

SUBJECT VOCABULARY

diversified if a company or economy diversifies, it increases the range of goods or services it produces
hostile takeover takeover that the company being taken over does not want or agree to
takeovers act of getting control of a company by buying over 50 per cent of its shares

GOVERNMENT

One way in which governments have benefited from privatisation is the huge amount of revenue that has been generated. However, privatisation has been expensive. In particular, the amount of money spent advertising each sale has been criticised. The money spent on television advertising was at the taxpayer's expense. It has also been suggested that some state assets were sold off too cheaply. As a result, governments failed to maximise the revenue from sales. Governments are no longer responsible for running the newly privatised companies. As a result, it can focus more sharply on the business of government.

The Polish government has almost completely stopped the privatisation process. In 2016, a minister said that the privatisation policies of previous governments were wrong and would be ended. Only companies in trouble, or those 'without importance to the national economy', would be sold off in future. One reason for the change in policy was that too many state-owned companies were the subject of a **hostile takeover** after privatisation. Furthermore, the government also said that it might try to renationalise some of the companies that had been privatised. One target would be energy, it was claimed.

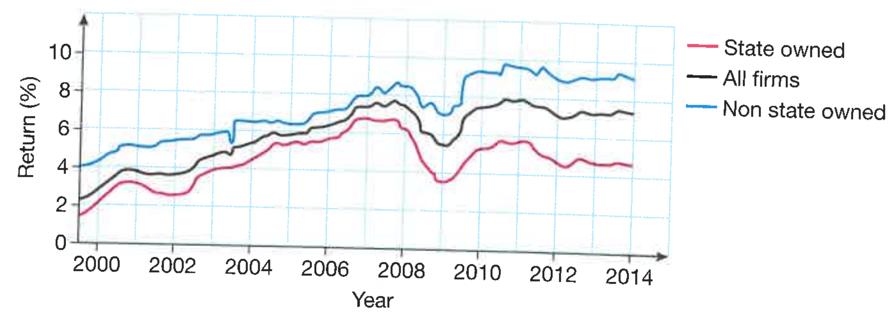
ACTIVITY 2

CASE STUDY: PRIVATISATION IN CHINA

In recent years, China has begun to sell off state-owned assets. However, in 2014, the government made a statement saying that it planned to accelerate the process in order to 'clean up and integrate some of China's state-owned enterprises (SOEs)'. Little detail was given in the announcement but it was clear that the government wanted make its SOEs more innovative and internationally competitive. SOEs have underperformed in recent years and it is felt that private sector involvement will help to increase investment and improve efficiency. The announcement also made it clear that mixed ownership was preferred.

Over 100 companies were under central government ownership in China in 2014 with local governments also owning and managing around 25 000 SOEs. This sector employs nearly 7.5 million people. The privatisation process will allow state firms to attract investors to help spread share ownership. In addition, many state firms will be encouraged to reorganise so that they are eventually suitable for a stock market listing. Some felt that the slowing of growth in the Chinese economy caused the acceleration of privatisation. The government said growth in China's investment and factory output had missed forecasts. As a result, it was felt that Chinese economic growth might dip below 7 per cent for the first time since the global financial crisis.

Finally, it has been suggested that there may be some opposition to the acceleration in privatisation. For example, many local governments may not be happy about sharing ownership of SOEs with private investors. This is because their ties with SOEs are very strong. Another problem might be attracting interest from the private sector. There was a stock market crash in China in 2016 and many private investors will be wary of buying shares again.



▲ **Figure 12.2** Performance of state-owned enterprises compared to private sector organisations

1 What is meant by mixed ownership in this case?

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

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

MULTIPLE-CHOICE QUESTIONS

▶ 1 Which of the following is a motive for privatisation?

A Improve the welfare of shareholders

B Generate money for the government

C Increase growth in the public sector

D Reduce externalities

▶ 2 Many workers suffer as a result, of privatisation because of which of the following reasons?

A They are often relocated

B They are not allowed to belong to a **trade union**

C Their jobs are at risk

D They have to pay more tax

GENERAL VOCABULARY

trade union organisation representing people working in a particular industry or profession that protects their rights

ECONOMICS IN PRACTICE

CASE STUDY: WATER PRIVATISATION

The World Bank has predicted that by 2025 two-thirds of the world's population will not have enough water. In addition, 2400 million people will face serious water shortages. After many years of privatisation, the water supply in many countries has been placed in the hands of private sector businesses. Many argue that the privatisation of water is not in the interests of consumers. However, supporters of water privatisation disagree. It is not easy to settle the argument. In some cities, like Guayaquil in Ecuador, Bucharest in Romania and in Colombia, Morocco and Senegal, it has been claimed that water privatisation has been successful. However, in Bolivia, Tanzania, Indonesia, and in parts of Europe, water privatisation is said to have failed. In one example, in Manila, the Philippines, a 25-year, US$2700 million project, using both private and public sector ownership, took control of the water supply. This was claimed to be a success because the project provided an extra 1.7 million people with clean water, reduced cases of illness such as diarrhoea by 51 per cent, and offered customers significant savings, charging 20 times less than previous water vendors. However, opponents claimed that Manila's water privatisation led to continual price increases, legal challenges, investigations, failures to provide certain districts with water, and has given the companies unfair returns for their work.

Generally, one of the main criticisms of water privatisation is that prices rise. Once water supply is taken into private ownership, there is very little, if any, competition. As a result, water companies can raise prices with very little opposition. Table 12.1 shows the prices charged by a selection of water companies in the UK.

	2003/04	2013/14
Northumbrian	£207	£359
Southern	£252	£449
Wessex	£263	£478
Thames	£203	£354

Note: Inflation between 2003 and 2012 was 36.1 per cent

▲ Table 12.1 Annual prices charged by a selection of UK water companies in 2003/04 and 2013/14

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

Opponents also say that private water providers, as a result of the 25–30-year deals done with governments, become monopolies and are accountable only to shareholders. This means that profits become the main focus of the companies and the interests of consumers are ignored. For example, Northumbrian Water's operating profit jumped from £165.3 million in 2001/02 to £338.8 million in 2011/12 (more than double), while

South West Water's operating profit increased dramatically from £107 million to £204.7 million over the same time period.

Water privatisation also results in job losses as companies minimise costs. The privatisation is also difficult to reverse. This is because once water companies have been sold to the private sector, the cost of buying them back is too high. Plus, many of the water companies are (or are part of) giant multinationals, which have a great deal of power.

Those in favour water privatisation argue that efficiency and the quality of service will improve. This is because businesses in the private sector have to perform well or they will not survive. They also say that the private sector will provide far more investment in water infrastructure than the public sector. For example, since privatisation, UK water companies have invested nearly £120 000 million in water infrastructure, such as new pipes, treatment plants and sewers. Private companies are more capable than governments of raising funds to finance investment. This is because private companies specialise in one area whereas governments have many different areas of investment to consider.

Finally, another benefit of water privatisation is the money generated for the government. Not only does the government get the money from the sale of water companies, but it also receives taxes every year on the profits made by the water companies once they start operating in the private sector.

▲ A water treatment plant

CHAPTER QUESTIONS

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

2 Describe one reason why a government might benefit from the privatisation of water supplies.

3 Why might privatisation result in better efficiency?

4 What impact might privatisation have on businesses? Give two impacts in your analysis.

5 Consider the impact of water privatisation on consumers.

13 EXTERNALITIES

LEARNING OBJECTIVES

- Understand how external costs are defined with examples
- Understand how external benefits are defined with examples
- Understand the definitions and formulae for social costs and social benefits
- Understand the government policies used to deal with externalities

SUBJECT VOCABULARY

spillover effects effect that one situation or problem has on another situation

GENERAL VOCABULARY

emissions gas or other substance that is discharged into the air.

GETTING STARTED

Economic activity, such as building a new factory or transporting a ship full of oil from Qatar to Japan, will affect those inside the business. However, economic activity can also have an impact on those outside. There are **spillover effects**, which can result from both production and consumption. Look at the examples below.

CASE STUDY: PRODUCTION

In 2016, a European waste management company was fined €1.4 million for breaking **emissions** limits in an urban area. For 2 years, residents had complained to the local authorities about the 'dreadful smell' coming from the waste disposal plant located near to the area. The plant was using an industrial incinerator to burn refuse that it collected from households. A local television broadcaster interviewed one resident. She said, 'The situation has become intolerable. There are times when the smell penetrates through the structure of the house. If you go outside into the garden sometimes your eyes sting from the fumes.' A spokesman from the company said that measures would now be taken to reduce emissions to comply with EU standards.

CASE STUDY: CONSUMPTION

Every year from 1 December, children and many adults, look forward to passing the house belonging to Mr and Mrs Salomonsson. This is the day that the couple turn on their Christmas lights. They spend 2 weeks decorating their house in Gothenburg, Sweden, with around SEK 5000 of new lights. People from many miles away make a special journey to ensure that they pass the attractive display of lights.

▲ Christmas lights

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

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

3 In pairs, make a list of examples of business activity that has an impact on third parties. Present your ideas to the rest of the class, explaining the various impacts.