IN THIS UNIT

3.5.1	Classification of firms	▸ Distinguish between different types of firm in an economy in terms of the economic sectors in which they operate: primary, secondary and tertiary sectors; whether they are private or public sector enterprises; and their relative size
3.5.2	Small firms	▸ Describe the advantages and disadvantages of small firms, the challenges facing them and reasons for their existence
3.5.3	Causes and forms of the growth of firms	▸ Distinguish between internal growth in the size of firms, for example through increased market share, and external growth in the size of firms, for example through mergers
3.5.4	Mergers	▸ Describe, using examples, the advantages and disadvantages of different types of mergers between firms: horizontal, vertical, and conglomerate
3.5.5	Economies and diseconomies of scale	▸ Analyse how internal and external economies of scale and diseconomies of scale can affect a firm or an entire industry as its scale of production changes

SECTION 3.5.1 Classification of firms

What is a firm?

Human effort and natural and human-made resources are needed to produce goods and services. However, these resources alone will not produce goods and services that satisfy human needs and wants. For example, simply buying some wood and other materials and hiring a group of people to work together in a factory will not result in the production of tables and chairs. Production will only take place if resources are properly organized, financed and important decisions are taken to manage and control what they produce from day to day. These decisions are taken within **firms.** ➤ **1.2.1**

Resources are combined and organized into firms to carry out productive activities. Firms are therefore important decision makers within any economy. Decisions taken within firms by the entrepreneurs and managers who own, finance or run them will determine how scarce resources are allocated and used, and therefore what goods and services are produced, how they are produced and who they are produced for. ➤ **2.2.1**

Different types of firm

There are many different types of firms in a modern, mixed economy. Therefore, in order to identify and compare different types of firms and how they behave, economists classify or group them together according to common characteristics. For example, economists will distinguish between different firms according to:

- the **industrial sector** in which they operate;
- whether they are privately owned, financed and controlled in the **private sector, or state-owned enterprises** in the **public sector;**
- their **size** or scale of production.

Classifying firms into different industrial sectors

Decisions taken by firms in an economy about what and how to produce will result in scarce resources being allocated to different productive activities, often located in different areas or regions of that economy. Economists therefore group or classify similar productive activities together into different **economic sectors.**

An economic sector may also be referred to as an industrial sector. An **industry** or industrial sector contains firms that use similar production processes and specialize in the production of a similar range of products. An industry will include both small, local firms employing very few workers and large, national or even huge multinational firms employing many thousands of workers and selling products all over the world. ➤ **6.2.2**

For example, the automotive manufacturing industry consists of all firms making and supplying vehicles and engines, tyres, body parts and components. Similarly, the air transport industry includes all firms providing air passenger and airfreight transport services and facilities, including airports and airlines.

Most national economies will have a variety of different industries or industrial sectors. In turn, each industry can be classified into one of three broad economic sectors: the **primary sector, secondary sector** or **tertiary sector.**

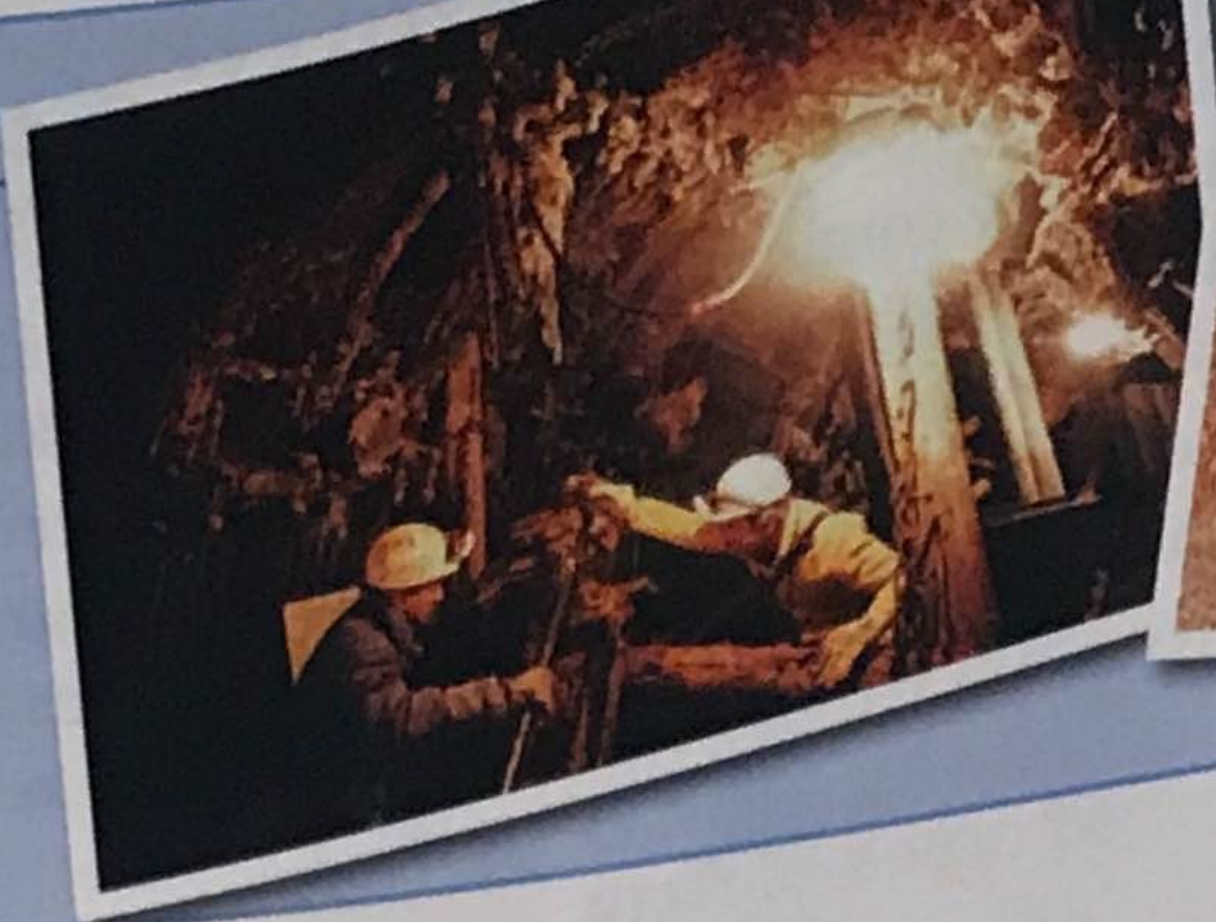
The primary sector

Firms in industries within the primary sector of an economy specialize in the production or extraction of natural resources by growing crops, managing forests, mining coal and other minerals, and extracting oils and gases.

The production or extraction of natural resources is often the first stage of production for most goods and services. ➤ **3.4.5**

Primary sector industries

- Crop and animal production
- Forestry and logging
- Fishing
- Mining
- Quarrying
- Oil and gas extraction



The secondary sector

Firms within industries in the secondary sector of an economy will use unprocessed natural resources and other unfinished products to make other goods. This process is called **manufacturing**. For example, oil is used in plastics, glass is made from sand, and paper is made from pulped wood. Man electrical products are made from metals and plastics.

Construction firms using materials to build homes, offices, roads and other infrastructure, and firms processing oil, gas and other fuels to supply electrici are also part of the secondary sector of an economy.

Some secondary sector industries

- Food processing
- Textiles
- Paper, pulp and paperboard
- Chemicals
- Oil and gas refining
- Pharmaceuticals
- Rubber and plastic products
- Fabricated metals
- Computer, electronic and optical products
- Water collection, treatment and supply
- Electric power generation, transmission and distribution
- Construction

The tertiary sector

Firms within industries that provide services are part of the tertiary sector or **services sector** an economy. The distribution and sale of manufactured goods and the provision of services to consumers is the final stage in their production. Firms in the wholesale and retailing industries specialize in these activities.

However, there are many other firms providing services that are used at every stage of production, such as banking, insurance and transport. Some firms also provide personal services such as hairdressing, decorating, healthcare and personal training.

Some tertiary sector industries

- Wholesaling, retailing and repairs
- Transportation and storage
- Accommodation and food services
- Publishing and broadcasting
- Telecommunications
- Banking and insurance
- Real estate
- Public administration
- Defence services
- Education
- Arts and entertainment
- Healthcare
- Legal services

Every economy can be divided up into primary, secondary and tertiary sectors. However, in some economies more firms and more resources are engaged in primary sector activities than other productive activities. In contrast, other usually more advanced or developed economies allocate far more resources to secondary and tertiary sector activities than to primary sector activities.

The relative size of the primary, secondary and tertiary sectors in an economy, measured by the number and size of firms in each sector, the amount of resources they employ and the amount they produce, therefore provides a useful indicator of how developed an economy is. ➤ **5.4.1**

ACTIVITY 3.17

Which stage of production?

Under three column headings sort the following list of industries into primary, secondary and tertiary industries.

Television broadcasting	Health service	Advertising
Film-making	Farming	Shipbuilding
Shipping	Banking	Universities
Decorating	Hotels	Motor cars
Construction	Furniture	Mining
Fishing	Retailing	Chemicals
Forestry	Engineering	Restaurants

Private sector firms

Most firms are owned and financed by private individuals. Most aim to generate more revenue from their productive activities than their costs so that they earn a surplus or profit. ➤ **3.7.5**

Privately owned firms are part of the private sector in an economy and can take many different legal or organizational forms according to how they are owned, controlled and financed. ➤ 2.11.1

For example, a **sole trader** or sole proprietorship is a business organization owned, controlled and financed by one person. The owner receives any profits but is also personally liable for any debts left by the business in the event it fails. Most sole traders are small firms but they are also the most popular type of firm in the world because they are easy to set up.

In contrast, **public limited companies** are some of the biggest firms in the world. They can finance their operations from the sale of shares to investors through a stock exchange. A public limited company is therefore owned by its shareholders and any profits made by the company will belong to them. They will also appoint a board of directors to manage their company.

While it is useful to know some of the main differences between these and other types of firm in the private sector of an economy, you will not need to learn about them in any detail.

▼ Types of firm or business organizations in the private sector

Legal form	Ownership	Control	Main sources of finance	Distribution of profits (or surplus)
Sole trader	Owned by one person	The owner is the main decision maker	The owner's personal savings	The owner receives any profits but is also personally responsible for any business debts
Joint-stock or limited company	A company is owned by one or more shareholders	A company will be managed by one or more directors appointed by its shareholders	A company is financed by the sale of shares to shareholders. A private limited company can only sell shares to private individuals. A public limited company can sell shares publicly through a stock exchange.	Any profit made by a company belongs to its shareholders. Shareholders are not personally liable to repay any company debts.
Cooperative	A cooperative is owned by its members	A cooperative is managed by a board of directors appointed by its members	From membership fees and drawing on reserves	Members receive any surplus revenue that is not added to reserves
Charity	A charity can be set up and registered by a private individual or another organization to provide beneficial services for public benefit but it cannot be owned	A charity is run by a board of trustees	Gifts and donations from people and organizations	Charities do not aim to make a profit. Any surplus income left over after costs have been deducted will be reinvested in the charity to fund the services it provides

State-owned enterprises

Indian Railways is the state-owned railway company of India, which owns and operates most of the country's rail transport.

Each year the government allocates Indian Railways a budget to operate rail services and to invest in the new and replacement tracks and rolling stock it needs.

Pradesh Verma, a regional manager, explained that all the railway managers are accountable to the Indian Parliament. 'We are entrusted by government to spend public money efficiently' he said, 'and to meet performance targets for punctuality, safety, passenger and freight traffic and more.'

"Ticket prices are kept low to enable people on low incomes to use the rail service and to carry freight to rural areas where there may be no other way of getting goods to people who need them. However, the company is still expected to generate an operating surplus or profit each year for the government.'

XIAN-LI IS THE CHIEF EXECUTIVE of one of Hong Kong's public hospitals funded by the government. Her job is to ensure that the objectives of the hospital and the government's health care policy are met.

'The hospital is not required to make a profit from the provision of health care' she explained, 'but it does have to meet targets including for patient care and satisfaction, treatment waiting times, hospital cleanliness, and surgical and running costs.'

Unlike private sector firms owned and run by private individuals, the two organizations above are owned and controlled by their governments. They are state-owned enterprises and therefore part of the public sectors in the economies of Hong Kong and India.

A **state-owned enterprise (SOE)** is a firm or trading organization that is wholly or partially owned and operated by a government primarily to carry out commercial activities in order to earn revenues and, in many cases, to make profits such as a state-owned railway, postal service, power company or airline. Any profits made by SOEs will be re-invested in improving the goods or services they provide or used by government to fund other public sector spending. However, any losses made by these enterprises will have to be funded from taxes and other government revenues. ➤ 4.3.2

Some SOEs also have public policy objectives including running the central bank, delivering essential public services such as electricity and sanitation or the provision of merit goods such as national parks and affordable healthcare. Governments will often pay subsidies to their state-owned enterprises to reduce the cost of providing essential services and merit goods to people on low incomes who may not otherwise be able to afford them. ➤ 2.11.2

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▼ Some examples of state-owned enterprises from different countries, 2017

Australia	India	United Kingdom
Australian Broadcasting Corporation	Air India	British Broadcasting Corporation
Australian postal service	Cotton Corporation of India	Channel 4 television
Australian Rail Track Corporation	Indian Oil Corporation	National Air Traffic Services
Reserve Bank of Australia	Indian Telephone Industries	National Nuclear Laboratory
	State Bank of India	Network Rail
	State Road Transport Corporation	Scottish Water
France	**Thailand**	**US**
La Poste	Airports of Thailand	Amtrak (national rail corporation)
France Télévisions	Electricity Generating Authority	Corporation for Public Broadcasting
Radio France	Metropolitan Waterworks Authority	Federal Crop Insurance Corporation
Électricité de France	Port Authority of Thailand	Federal Prison Industries
Aéroports de Paris	Provincial Waterworks Authority	Legal Services Corporation
	Thai Airways International	National Park Foundation

Many state-owned enterprises have been created through a process called **nationalization**. This occurs when a government takes over the ownership of private sector organizations, for example, through the compulsory purchase of all the shares in a private or public limited company. ➤ 2.11.1

Local government authorities may also own and control trading enterprises

In addition to the national or central government in a country, local government authorities may also operate public sector enterprises selling services to direct consumers. These may include local theatres, libraries, children's nurseries and swimming pools. Many of these services may be run at a loss or will at least be expected to cover their costs with their revenues. However, some may be able to set their prices or charges at a level that will earn a profit.

▲ Some examples of local government enterprises

The relative size of firms

Walmart Stores is one of the world's largest business organizations employing some 2.3 million people worldwide and with almost $200 billion invested in buildings, computers, vehicles, forklift trucks and other capital assets.

The Toyota Motor Group also ranks as one of the world's largest firms. It employs 348,877 people worldwide but has assets worth over $400 billion. So does this make Toyota a smaller or larger firm than Walmart?

Of course both these giant organizations are huge compared to the many millions of other firms worldwide that serve small local markets, employ very few workers and have few capital assets.

It is useful to group firms together according to whether they are large, **small and medium-sized enterprises (SMEs)** or **micro-enterprises**. The size of firms can be measured in a number of ways and these also provide useful clues about the reasons why some firms grow into very large organizations while others remain small.

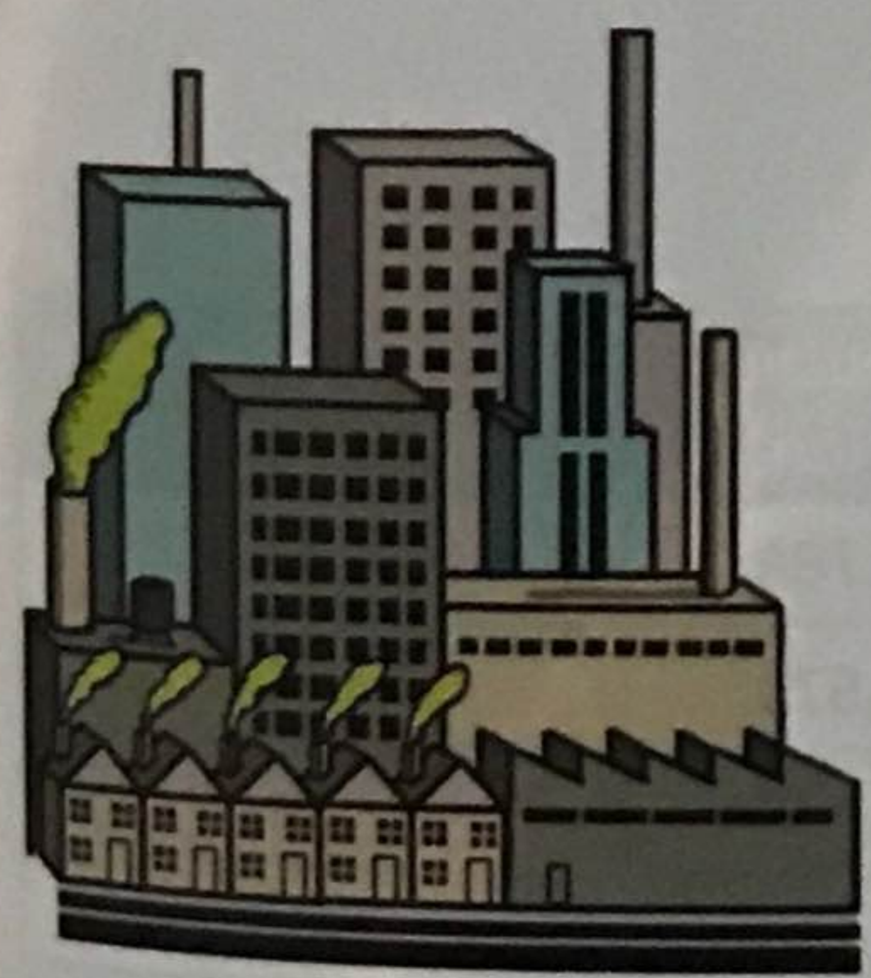
There are a number of ways to measure and compare the size of firms:

- how many workers they employ
- how they are organized
- how much capital they employ
- their market share.

Measure 1: number of employees

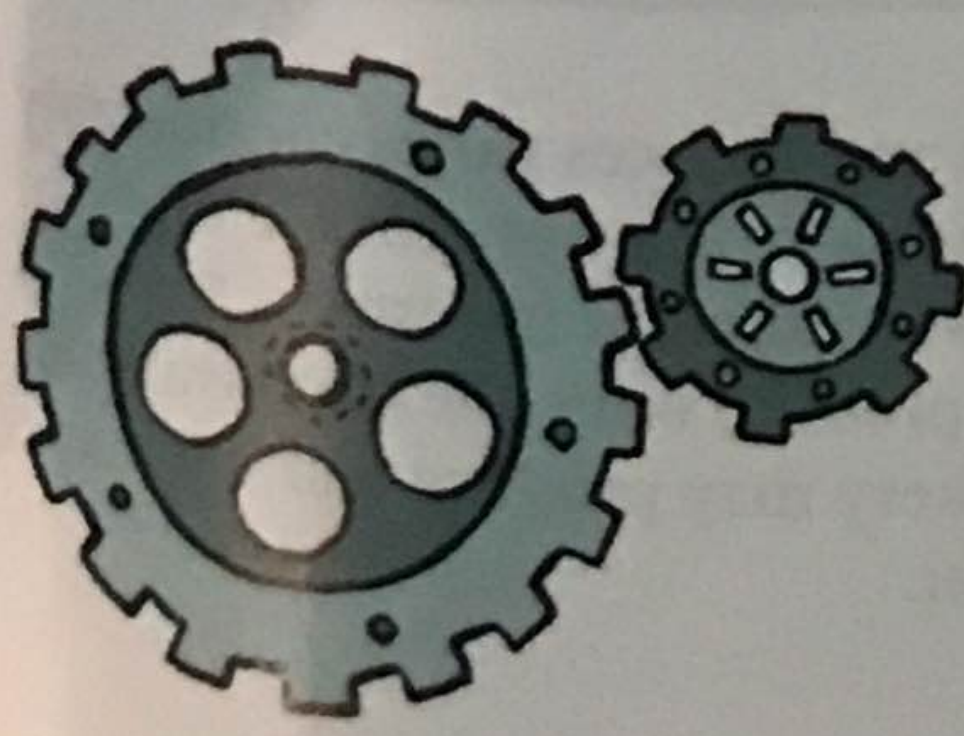
This is a straightforward measure of firm size. Firms employing up to 50 people are usually considered small while a micro-enterprise is generally defined as a small firm employing nine or fewer people.

However, just counting the number of employees a firm employs can be misleading. This is because some large firms are capital-intensive and employ relatively few workers. Instead they use a lot of machinery and computer-controlled equipment to automate their production processes in order to mass-produce large quantities of output. ➤ **3.6.3**



Measure 2: organization

Larger firms are often divided up into different departments specializing in particular functions, such as purchasing, sales and marketing, finance and production. In smaller firms the owners and employees tend to carry out all the various functions between them. Larger firms may also have many different layers of management and different offices, factories and/or retail outlets spread across different locations, and in different countries if the firm is a multinational. The size of an organization can therefore be judged by how it is organized internally.

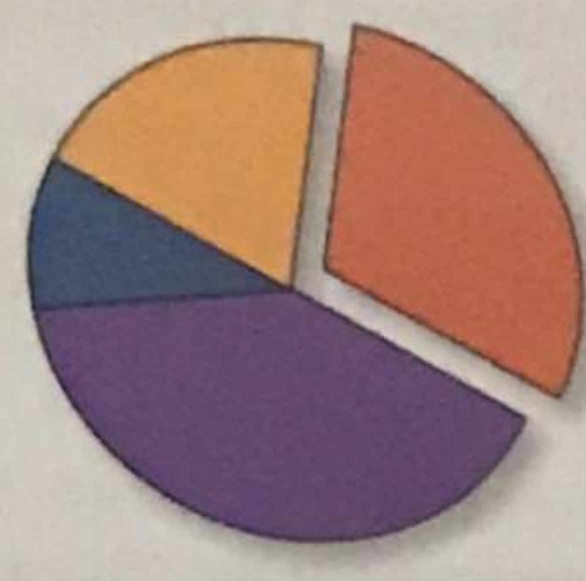


Measure 3: capital employed

Capital employed is money invested in those productive assets in a firm that help it to generate revenue. They are assets used to produce and sell goods and services. ➤ **3.7.3**

Assets used in production include machinery, factory and office buildings, stocks of materials and components and money held by a firm to pay wages and other costs.

The more capital employed in a firm the more it can produce and therefore the greater its size or scale of production. However, some large firms may be labour-intensive. This means their production process requires the employment of a lot of workers but relatively little capital.



Measure 4: market share

The market for any good or service consists of all those consumers willing and able to buy it no matter where they might be located. ➤ 2.2.1

The size of the market for a good or service is measured by the total amount spent by consumers on that product per week, month or year. The bigger the market demand for a particular good or service, the more scope there is for firms supplying that market to increase their scale of production. The share of the total market sales any one firm is able to capture is its market share.

The **market share** of a firm measures the proportion of total sales revenue or turnover that is attributable to that firm. For example, the global market for carbonated soft drinks was worth an estimated $342 billion in 2015. The market is dominated by the Coca-Cola Company. Its share of the global market was 48.6%. In comparison, its major rival PepsiCo captured only 20.5% of the total market.

But not all markets are so large. For example, a local hairdressing salon may be a very small business in terms of the number of people and amount of capital equipment it employs but it may have a very large share of the local market it serves because it is the only salon in a town where most local people can have their hair cut and styled.

ACTIVITY 3.18

Size matters

The table below contains information on four different business organizations.

- Which firm is the largest?
- Is it sensible to use only one measure of a firm's size?
- What are the problems with the individual measures used to determine a firm's size?

Name	Industrial sector	Total employees	Capital employed ($ million)	Total output ($ million)	Global market share (% of revenues)
Google	Software and computers	20,222	21,795	31,768	67%
ExxonMobil	Oil and gas production	79,900	228,052	459,579	10%
GlaxoSmithKline	Pharmaceuticals	35,637	57,647	101,133	6%
Toyota Motors	Automobiles and parts	358,304	112,196	261,837	13%

Because the size of markets for different goods and services varies considerably from huge global markets to small, localized markets, it is not sensible to compare the volume of output or sales of firms in different industries. For example, a major ship building company may produce only one large warship or cruise liner each year while a small local bakery may produce and sell many thousands of bread and cake products each year.