O level Economics Notes

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Chapter 1: The Basic Economic Problem

Introduction

In every country, resources are limited in supply and decisions have to be made by governments, firms (businesses) and individuals about how to allocate scarce resources to satisfy unlimited needs and wants. This is the **basic economic problem** that exists in every economy: how to allocate scarce resources to satisfy unlimited needs and wants (see Figure 1.1).

An **economic good** is one that is limited in supply, such as oil, wheat, cotton, housing and cars. **Free goods** are unlimited in supply, such as the air, sea, rain water and sunlight.

Economics is the study of how resources are allocated to satisfy the unlimited needs and wants of individuals, governments and firms in an economy.
The three main **economic agents** or decision-makers in an economy are:

1. Individuals or households
2. Firms (businesses that operate in the private sector of the economy)
3. The government.

Firms and individuals produce goods and services in the **private sector** of the economy and the government produces goods and services in the **public sector**. Governments, firms and individuals both produce and consume goods and services. For example, the government might provide education and health care services for the general public.

Goods are physical items such as tables, clothing, toothpaste and pencils. **Services** are non-physical items such as haircuts, bus journeys, telephone calls and internet access.

Needs are the essential goods and services required for human survival. These include nutritional food, clean water, shelter, protection, clothing and access to health care and education.

Wants are goods and services that are not necessary for survival. An individual's wants, or desires, tend to be unlimited as most people are rarely satisfied with what they have and are always striving for more. Wants are a matter of personal choice and human nature.

Factors of production

Production of any good or service requires resources. These are divided into four categories, known as the **factors of production**:

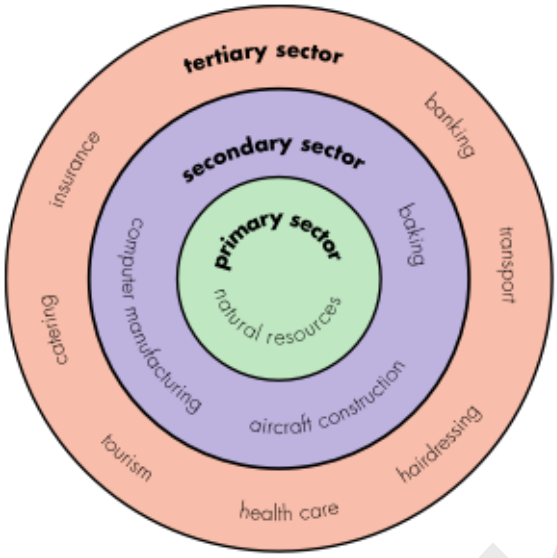
1. **Land** refers to the natural resources required in the production process (such as oil, coal, water, wood, metal ores and agricultural products)
2. **Labour** refers to the human resources required in the production process (such as
   skilled and unskilled labour).
3. **Capital** refers to the manufactured resources required in the production process (such as machinery, tools, equipment and vehicles).
4. **Enterprise** refers to the skills a businessperson requires to combine and manage successfully the other three factors of production and the ability to undertake risk.

Production of all goods and services requires the four factors of production in varying proportions. For example, in a school, capital resources and labour are required in greater quantities than land (natural resources). By contrast, production of soft drinks, such as Coca-Cola, requires a large amount of machinery and therefore this process is **capital intensive**) as it requires more machinery (a capital resource) than labour.

Primary, secondary and tertiary sectors of industry

An economy is divided into three sectors of industry (see Figure 1.2):

- **Primary sector** – this contains firms that extract raw materials from the Earth (e.g. farming, fishing and mining).
- **Secondary sector** – this contains firms that manufacture goods and change raw materials into finished products construct buildings, roads and bridges.
- **Tertiary sector** – this contains firms that provide services to the general public and other firms (such as retail shops, doctors, dentists, schools, hairdressers, advertising agencies, lawyers, financial advisers, insurance companies and banks).



The primary, secondary and tertiary sectors of an economy are **interdependent** (they are dependent upon each other), as a firm cannot operate without using goods and services from all three sectors of industry to make its goods or services and to sell them to the final customer. The three sectors of industry are linked together in what is known as a **chain of production**.

Opportunity cost

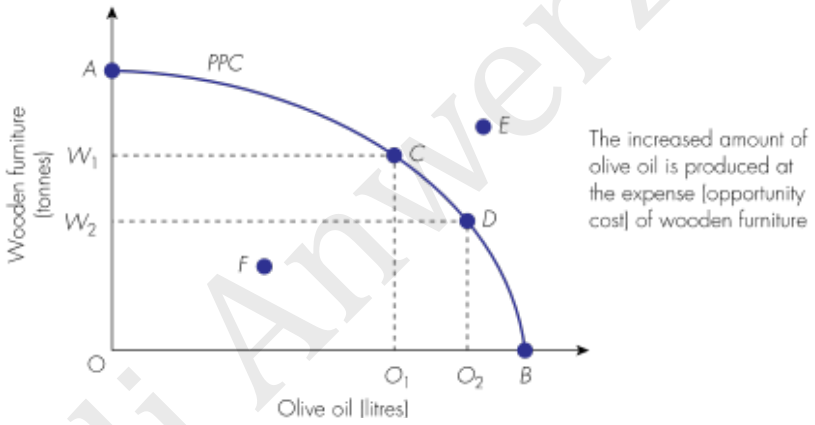
Opportunity cost is a very important concept in economics. Opportunity cost is the cost measured in terms of the next best choice given up when making a decision. Every choice made has an opportunity cost because in most cases there is an alternative. Some examples of opportunity cost are as follows:

- The opportunity cost of taking IGCSE Economics is the other subject you could be studying instead.
- The opportunity cost of visiting the cinema on Saturday night is the sum of money you could have earned from babysitting for your neighbour instead of going to the cinema.
- The opportunity cost of building an additional airport terminal is the public housing for low-income families that the same government funds could have been used for.
- The opportunity cost of a school purchasing 100 laptops for use in the classroom might be the science equipment that cannot be bought as a result.

Production Possibility Curve

Opportunity cost can be represented on a diagram known as a **production possibility curve** (PPC). The PPC represents the maximum amount of goods and services, which can be produced in an economy, if all resources are used efficiently. It represents the **productive capacity** (maximum output) of an economy.

Assume a country called Tullasa can only produce two types of good: wooden furniture and olive oil. Tullassa has a limited amount of land, labour and capital. In Figure 1.4, if producers wish to increase production of olive oil from O_1 to O_2 then the amount of wooden furniture manufactured will have to decrease from W_1 to W_2. The opportunity cost of producing an extra $O_1 – O_2$ litres of olive oil is therefore $W_1 – W_2$ tonnes of wooden furniture. The production possibility curve is usually drawn concave as, in order to produce more litres of olive oil, it is necessary to give up an increasing amount of wooden furniture, thus reflecting the increasing opportunity cost.

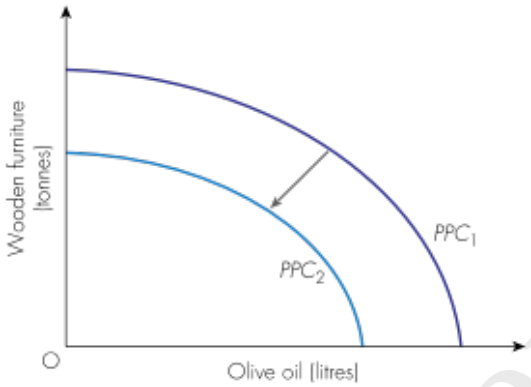


Key:
A – All resources dedicated to the production of wooden furniture
B – All resources dedicated to the production of olive oil
C – W_1 tonnes of wooden furniture are produced alongside O_1 litres of olive oil
D – W_2 tonnes of wooden furniture and O_2 are litres of olive oil are produced
E – This point is beyond the production possibility curve and lies outside the productive capacity of the economy, so it is unattainable
F – This point is within the productive capacity of the economy and production of both olive oil and wooden furniture can increase without any opportunity cost as some factors of production are not being used

Shift of the PPC curve: Any increase in the quality or quantity of factors of production results in a shift. For example, if there is an advancement in technology in Tullassa, it means that yields

of olive oil and the productivity of furniture makers have increased. In Figure 1.5, the PPC shifts outwards, from PPC_1 and PPC_2, and represents an increase in the productive capacity of Tullassa. With the same amount of factors of production, more can be produced.

Similarly, a powerful storm hits Tullassa and destroys a large percentage of the factories and buildings. Much of the olive crop is destroyed and transport links are interrupted. In Figure 1.6, the PPC shifts inwards from PPC1 to PPC2 and represents a decrease in the productive capacity of Tullassa. Any decrease in quality or quantity of factors of production will shift the PPC backwards.



Exam Questions

MCQs

1.

How does a production possibility curve show that scarcity exists?

A It shows that a rise in demand for one of the products increases its price.

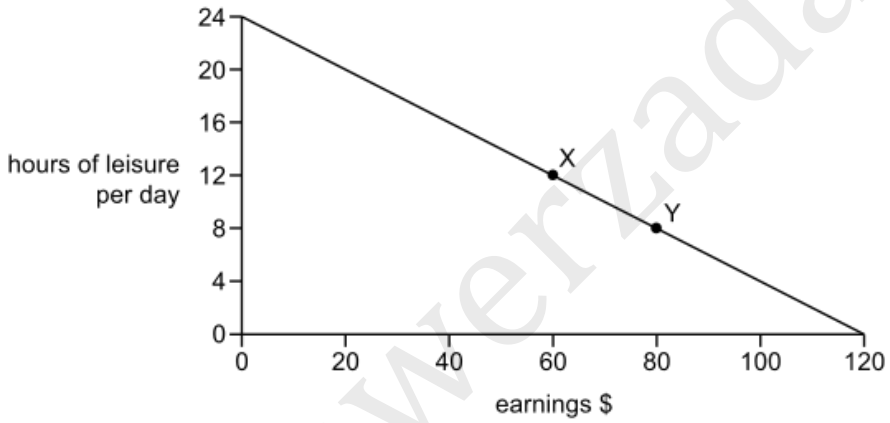
B It shows that as more resources are used to produce a product, its price rises.

C It shows that at any point outside the production possibility curve an economy is wasting resources.

D It shows that there is a limit to the quantity of products that can be produced with existing resources and technology.

2.

The diagram shows the choices for an individual between leisure and earnings.



What is the opportunity cost to the individual of the extra earnings when moving from position X to position Y?

A $20

B $80

C 4 hours of leisure per day

D 8 hours of leisure per day

3.

Reena makes a living by selling paintings of the town in which she lives. She sells them in an open-air market once a week.

In order to be able to sell more pictures in a week she decides to buy a studio, pay someone to help in the studio and try to increase demand by advertising in the local paper.

Which factors of production were changed?

A capital and enterprise

B enterprise and labour

C labour and capital

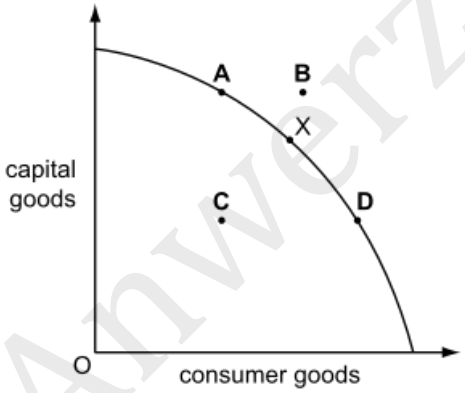
D labour only

4.

A country is producing at point X on its production possibility curve which shows how it can allocate its production between capital goods and consumer goods.

A period of recession then causes some of its factories to close.

Which point could represent the country's new position?



5.

In which case is it possible to set the level of reward before production takes place for the first factor of production but **not** for the second?

	first factor	second factor
A	capital	land
B	enterprise	labour
C	labour	capital
D	land	enterprise

6.

A country with a low income per head discovers large quantities of oil, which eventually makes everybody better off.

Why is the basic economic problem of scarcity **not** solved by this discovery?

A People may not get jobs in the oil industry.

B People's wants are always changing and increasing.

C Prices of oil can fluctuate on the world market.

D Production of oil can damage the environment.

7.

Two telecommunications companies are to merge to finance investments in new technology, which will be more efficient and require smaller buildings. Three hundred workers will lose their jobs.

What will happen to the factors of production used?

	land	labour	capital	enterprise
A	fall	fall	rise	fall
B	fall	fall	uncertain	rise
C	rise	rise	rise	rise
D	uncertain	rise	fall	fall

8.

Economics is primarily concerned with

A allocating scarce resources for unlimited wants.

B controlling unemployment and inflation.

C determining the level of government expenditure.

D studying how new wants and economic resources can be produced.

9.

Which statement about the factors of production is correct?

A Capital includes factories and machinery but not roads and ports.

B Enterprise is more often found in the public sector rather than the private sector.

C Labour is the factor that takes risks and can become unemployed.

D Land is the natural factor that can be improved by human action.

10.

A student leaves school and decides to spend the next two years at a college to improve her qualifications.

What is the opportunity cost to the student of taking this decision?

A the cost of the course fees at the college

B the increase in job opportunities she will have as a result of her extra qualifications

C the lost production due to her not being in work

D the money she would have earned if she had been in work for the two years

Essay Questions

1) Production involves the use of the four factors of production. The use of these resources involves an opportunity cost.
   a) Using appropriate examples, describe the four factors of production. [6]
   b) Using a production possibility curve, explain what is meant by opportunity cost. [6]
   c) Discuss whether more factors of production should be used to build houses. [8]

2)
   a) Describe, with the use of examples, two factors of production [4]
   b) Explain what is meant by the economic problem and why opportunity cost is relevant to the allocation of resources. [6]

3) Many governments have increased their spending on police and armed forces but there is an opportunity cost of this policy.
   a) Explain the term opportunity cost and discuss why an increase in spending on police and armed forces
   may result in an opportunity cost. [4]

Chapter 2: Allocation of Resources

Economic Systems

An **economic system** describes the way in which an economy is organized and run, including alternative views of how resources are best allocated. A key question in economics is the extent to which a government should intervene in the economy or leave **economic agents** (households and firms) to operate freely.

1. **Market economy** – This economic system relies on the market forces of demand and supply to allocate resources, with minimal government intervention.
2. **Planned economy** – This economic system relies on the government allocating resources. It is often associated with a communist political system that strives for social equality. Examples include North Korea, Laos and Cuba.
3. **Mixed economy** – As its name suggests, this economic system is a combination of the planned and market economic system, with some resources being owned and controlled by private individuals and firms whilst others are owned and controlled by the government in the public sector. Examples include the UK, Germany and Canada.

Economic Questions

Whichever economic system is used, all countries must address three **fundamental economic questions**:

1. **What** production should take place? This question is about deciding which goods and services should be provided in the economy.
   For example, is it better for the economy to have more roads and airports or to have more schools and hospitals? As resources are limited in supply, decision-makers realize there is an opportunity cost in answering this question.
2. **How** should production take place? This question is about the methods and processes used to produce the desired goods and services. For example, decision-makers have to decide which combination of factors of production should be used in the production process.
3. **For whom** should production take place? This question is about which economic agents receive goods and services. For example, should any goods and services be provided free to everyone in the economy, irrespective of their willingness and ability to pay for these? Or should goods and services only be produced for those who can pay?

Planned economic system

The planned economic system is sometimes referred to as the socialist or command system. In the past, China and the former USSR were often used as the best examples of planned economies, with over 95 per cent of economic activities state controlled. The main features of such an economic system are:

1. Production decisions (what, how and for whom production should take place) are decided by the government.
2. Hence, resources are controlled by the government on behalf of its citizens.
3. Production schedules are devised on a long-term basis, such as 5-year plans.
4. Wage differentials are minimal (i.e. labour is paid almost equally due to the belief
   in equality).
5. There is minimal engagement in international trade (i.e. the government prefers the economy to be **self-sufficient**).

Advantages of the planned system

The planned system has a number of advantages:

- **Economies of scale** – Large state monopolies can achieve huge cost savings known as economies of scale. This is achieved by operating on a very large scale, such as a national supplier of electricity or postal services.
- **Prevent wastage** – Economists believe that competition can be wasteful in some instances and so should be eliminated. The state will only provide the goods and services deemed necessary, so there is less wastage of scarce resources.
  For example, some economists argue that excessive advertising is wasteful; ultimately it is the customer who pays for the marketing costs of a business.
- **Social equality** – A planned economic system enables basic needs to be met for everyone in society. For example, everyone in society has access to education, health care and employment. Prices do not need to be excessively high either, as private firms do not exist to maximize profits. Hence, in command economies, there is far less inequality in income and wealth distribution.

Market system

This economic system relies on the market forces of demand and supply to allocate resources. The private sector decides on the fundamental questions of what, how and for whom production should take place. The market economic system is also known as the **free market system** or the capitalist economy. Features of the market system include the following:

- No government interference in economic activities – resources are owned by private economic agents who are free to allocate them without interference from the government.

- Resources are allocated on the basis of price – a high price encourages more supply whereas a low price encourages consumer spending. Resources are sold to those who have the willingness and ability to pay.
- Financial incentives allocate scarce resources – for example, agricultural land is used for harvesting crops with the greatest financial return, whilst unprofitable products are no longer produced.
- Competition creates choice and opportunities for firms and private individuals. Consumers can thus benefit from a variety of innovative products, at competitive prices and of high quality.

Advantages of the market system

The market system has the following benefits:

1) **Efficiency** – Competition helps to ensure that private individuals and firms pay attention to what customers want. This helps to stimulate innovation, thereby making market economies more responsive and dynamic.
2) **Freedom of choice** – Individuals can choose which goods and services to purchase and which career to pursue, without being restricted by government regulations.
3) **Incentives** – The profit motive for firms and the possibility for individuals to earn unlimited wealth creates incentives to work hard. This helps to boost economic growth and living standards in the country.

Disadvantages of the market system

The market system also has a number of disadvantages:

1) **Environmental issues** – There are negative consequences of economic prosperity under the market system, such as resource depletion, pollution and climate change.
2) **Income and wealth inequalities** – In a market system, the rich have far more choice and economic freedom. Production is geared to meet the needs and wants of those with plenty of money, thus basic services for the poorer members of society may be neglected.
3) **Social hardship** – The absence of government control means the provision of **public goods** such as street-lighting, public roads and national defence may not be provided.
4) **Wasteful competition** – Competitive pressures can mean that firms use up unnecessary resources to gain competitive advantages over their rivals, such as excess packaging and advertising clutter. Consumers might be exploited by marketing tactics. The lack of government involvement could also mean that products are less safe for consumers.

Mixed system

The mixed economic system is a combination of both the planned economy and the market economy. The government determines the degree of public and private sector involvement in economic activity. Essential services are provided by the public sector, such as state education, health care and postal services. The government exists to redistribute income by providing unemployment benefits and state pensions, for example. In the private sector, profit acts as the motive for firms to provide the goods and services demanded by consumers.

The mixed economic system obtains the best of both the planned and market systems. For example, necessary services are provided for everyone whilst most other. The disadvantages of the extreme economic systems also apply to the mixed economy. Government decisions can also introduce disadvantages to a mixed economic system:

- High taxes on profits may reduce enterprise and high taxes on wages can reduce people's incentives to work. Consumers will also have less money after tax to spend on the goods and services they want
- Regulations can impose significant costs on firms and as a result they will produce less goods and services, increase their prices or lower the wages of their workers
- Public sector provision may be inefficient and produce poor quality goods and services because public sector organizations are not motivated to make profits
- Government spending may be politically motivated instead of correcting market failures and improving economic welfare.

Exam Questions

MCQs

1.

In a mixed economy, resources are used as a result of

A the decisions of consumers only.

B the decisions of firms only.

C the decisions of consumers and firms.

D the decisions of consumers, firms and government.

2.

Which argument can be used in favour of the market economy?

A It enables consumers to show their preferences for goods.

B It ensures that all capital resources are used.

C It guarantees full employment.

D It leads to an equal distribution of wealth.

3.

What is an advantage of the market economic system?

A It aims for equality of income.

B It ensures the provision of defence and law and order.

C It gives an incentive to produce.

D It reduces pollution and congestion.

4.

What is true of a mixed economy but is **not** true of a free market economy?

A There is a mixture of agricultural, manufacturing and service industries.

B There is a mixture of central authorities, firms and consumers.

C There is a mixture of external benefits and private costs.

D There is a mixture of large and small companies.

5.

A country needs extra nurses. How could this be encouraged in a mixed economy but not in a market economy?

A Extra part-time nursing courses could be arranged by private colleges.

B Nurses could be given a higher statutory minimum wage.

C Nursing students could be asked to pay increased fees.

D Nursing training colleges could have their subsidies reduced.

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Essay Questions

1) One feature of many mixed economies is that governments may intervene by giving subsidies to some producers.

   a) Identify the **three** questions faced by every type of economic system. [3]
   b) Discuss why virtually every country today has a mixed economy. [8]

2) What is the difference between a mixed economy and a market economy? [4]

3) The economic problem exists everywhere in the world, whatever type of economic system a country may have.
   a) Giving an example of each, define the **four** factors of production. [4]
   b) Explain the nature of the economic problem. [4]
   c) Compare how resources are allocated in market and mixed economic systems. [4]
   d) Discuss whether people living in a country would benefit if their country's economic system changed from a mixed to a market economy

Chapter 3: Demand and Supply

Theory of Demand

Demand refers to both the *willingness* and the *ability* of customers to pay a given price to buy a good or service. This is sometimes referred to as **effective demand** to distinguish genuine demand from a want or a desire to buy something. The amount of a good or service demanded at each price level is called the **quantity demanded**.

In general, the quantity demanded falls as price rises, whilst the quantity demanded rises at lower prices. Therefore, there is an inverse relationship between the price of a good or service and the demand. This rule is known as the **law of demand**. There are two reasons for this relationship:

- As the price of a good or service falls, the customer's 'real' income rises (i.e. with the same amount of income, the customer is able to buy more products at lower prices).
- As the price of a good or service falls, more customers are able to pay, so they are more likely to buy the product.

Demand Curve

Diagrammatically, the demand curve is shown as a downward-sloping curve to show the inverse relationship between price and quantity demanded (see Figure 3.1).

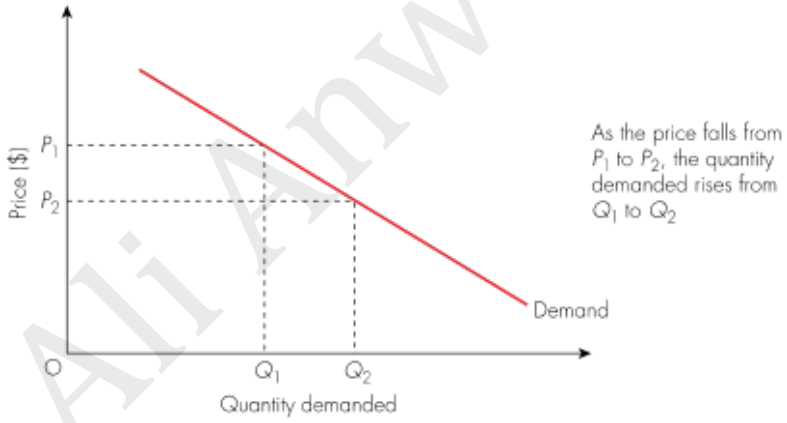
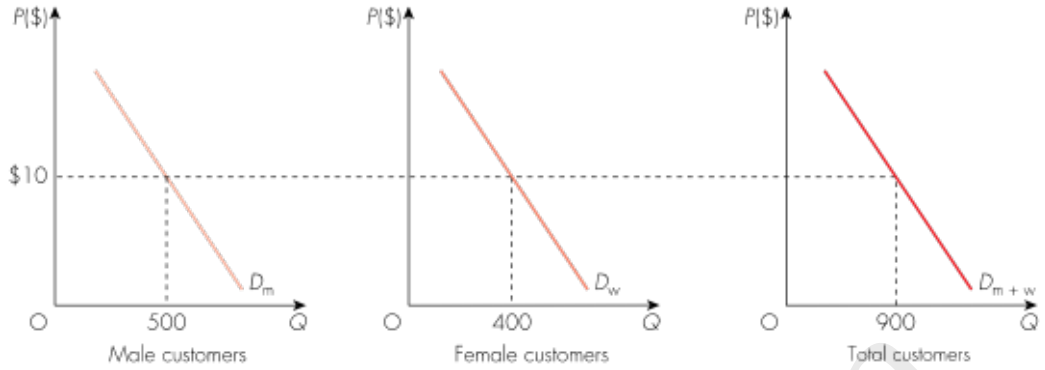


Figure 3.1 The demand curve

The **market demand** curve refers to the sum of all individual demand for a product. It is found by adding up all individual demand at each price level (see Figure 3.2). For instance, suppose that a cinema charges $10 for its movie tickets and the demand from male customers totals 500 per week while 400 females purchase tickets at that price per

week. The market demand for cinema tickets at $10 per ticket is therefore 900 tickets per week.



Movements and shifts in demand

A change in the price of a good or service causes a movement along the demand curve. A price rise will cause a decrease (contraction) in the quantity demanded of the product, whereas a reduction in price will cause an increase (expansion) in the quantity demanded, as shown in Figure 3.3

A movement along the demand curve is caused by price changes only. A change in all other (non-price) factors that affect demand, such as income levels, will cause a **shift in demand**.

An **increase in demand** (rather than an increase in the quantity demanded) is represented by a rightward shift of the demand curve from D_1 to D_3 in Figure 3.4.

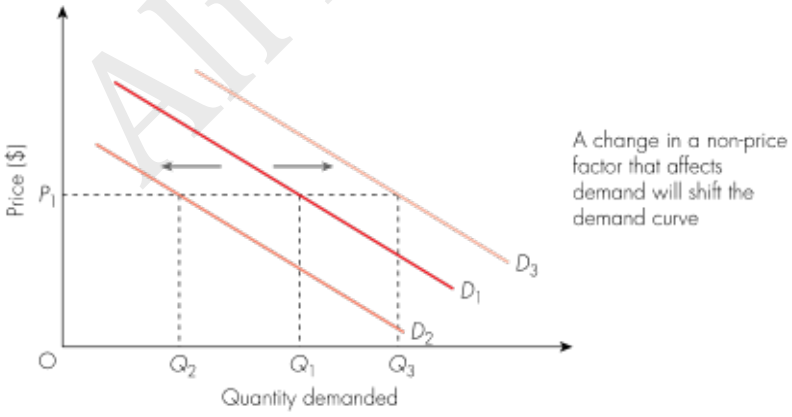


Figure 3.4 Shifts in the demand curve

By contrast, a **decrease in demand** (rather than a fall in the quantity demanded) is shown by shifting the demand curve to the left, from D_1 to D_2, resulting in less quantity being demanded at all price levels. For example, at a price of P_1, demand was previously Q_1, but has now fallen to Q_2.

Determinants of Demand

Although, price is regarded as the key determinant of the level of demand for a good or service, it is not the only factor that affects the quantity demanded. Other non-price factors that affect a person's level of demand for goods and services and cause a shift of the demand are listed below:

1) **Income** – Demand for a **normal good** will tend to rise as incomes rise. However, demand for **inferior goods** will tend to fall as incomes rise. For example, as consumers become better off they might prefer to travel by taxi rather than by bus.
2) **Substitutes** and **complements** – **Substitutes** are goods or services that can be used instead of each other, such as Coca-Cola or Pepsi and tea or coffee. If the price of a product falls, then it is likely the demand for the substitute will also fall.
   Complements are products that are jointly demanded, such as tennis balls and tennis racquets or cinema movies and popcorn. If the price of a product increases, then the demand for its complement is likely to fall.
3) **Advertising** – Marketing messages are used to inform, remind and persuade customers to buy a firm's products. Companies such as Coca-Cola, McDonald's, Apple and Samsung spend hundreds of millions of dollars each year on their advertising budgets to increase the demand for their products.
4) **Habits, fashion and tastes** –
   Changes in habits, fashion and taste can affect the demand for all types of goods and services. Products that become fashionable (such as smartphones) enjoy an increase in demand, whereas those that become unfashionable (such as last season's clothes) experience a fall in the level of demand.
5) **Government policies** – **Disposable income** refers to the amount of income people have left to spend or save after taxes on their incomes have been deducted. Any change in the level of income tax rates and allowances are therefore likely to result in a change in the quantity of goods and services demanded.

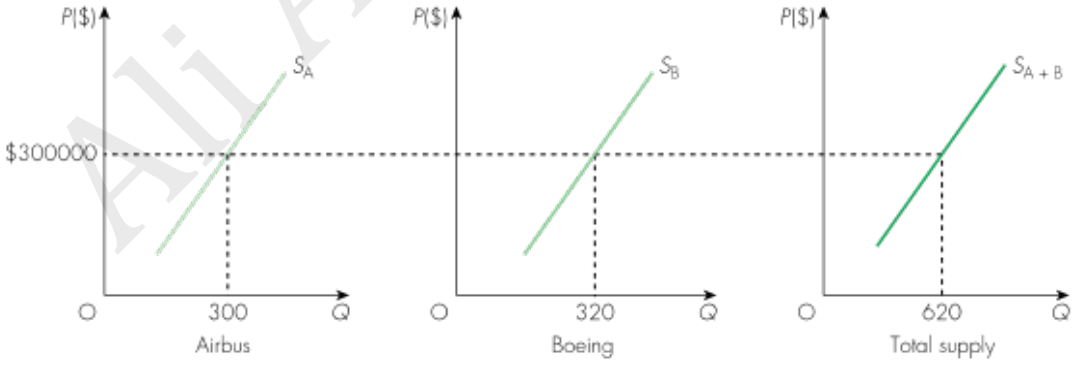
Theory of Supply

Supply is the *ability* and *willingness* of firms to provide goods and services at given price levels. Firms will have more incentives to supply their products at higher prices – the higher the price, the greater supply tends to be (see Figure 3.5).

There are two reasons for this relationship:

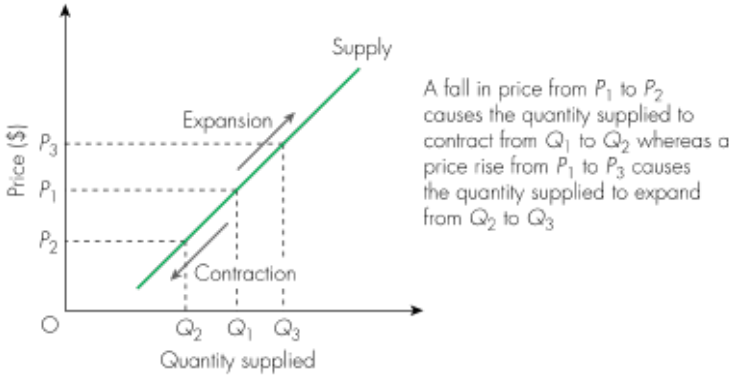
1) Existing firms can earn higher profits if they supply more.
2) New firms are able to join the market if the higher price allows them to cover their production costs.

The **market supply** curve is the sum of all supply at each price level, as shown in Figure 3.6. Suppose that at a price of $300000 Airbus is willing and able to supply 300 aircraft per time period while its rival Boeing supplies 320 aircraft. At this price, the total market supply is 620 aircraft per time period.

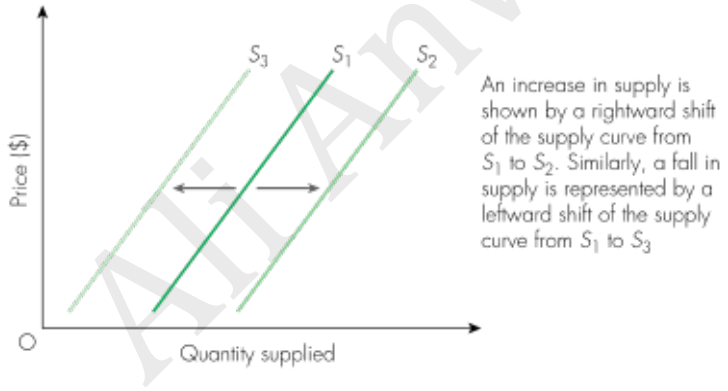


Movements and shifts in supply

A change in the price of a good or service causes a **movement along** the supply curve. A price rise will cause an increase (**expansion**) in the quantity supplied of a product, while a price fall will cause a decrease (**contraction**) in the quantity supplied (see Figure 3.7).



By contrast, a change in all non-price factors that affect the supply of a good or service will lead to a **shift** in the supply curve. In Figure 3.8, a rightward shift of the supply curve from S_1 to S_2 is described as an **increase in supply** (rather than an increase in the quantity supplied) whereas a leftward shift of the supply curve from S_1 to S_3 results in a **decrease in supply** (rather than a fall in the quantity supplied).



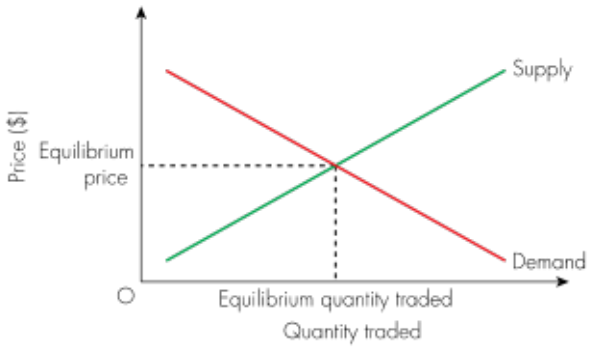
Determinants of supply

Although price is regarded as the key determinant of the level of supply of a good or service, it is not the only factor that affects the quantity supplied. Non-price factors that affect the level of supply of a product and cause a shift of the supply include the following:

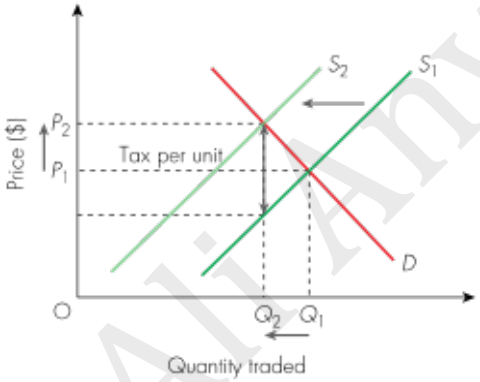
1) **Costs of production** – If the price of raw materials and the cost of other factors of production fall, then the supply curve will shift to the right, assuming all other things remain unchanged. There is an increase in supply at each price level as the costs of production fall and vice versa.
2) **Taxes** – Indirect taxes imposed on the supplier of a product add to the costs of production. Therefore the imposition of taxes on a product reduces its supply, shifting the supply curve to the left.
3) **Subsidies** – Subsidies are a form of financial assistance from the government to help encourage output by reducing the costs of production. Subsidies are usually given to reduce the costs of supplying goods and services that are beneficial to society as a whole, such as education, training and health care.
4) **Technological progress** – Technological advances such as automation, computers etc. mean that there can be greater levels of output at every price level. Hence, technological progress will tend to shift the supply curve to the right.
5) **Price and profitability of other products** – Price acts as a signal to producers to move their resources to the provision of goods and services with greater levels of profit. For example, if the market price of corn falls while the price of rice increases, then farmers are likely to reduce their supply of corn and raise their supply of rice.
6) **Time** – The shorter the time period in question, the less time suppliers have to increase their output, so the lower the supply tends to be. Over time, output can be increased. For example, it is not possible for a farmer to increase the supply of agricultural products in a short time period.
7) **Weather** – The supply of certain goods and services can also depend on the weather. Agricultural output will clearly depend on whether suppliers have favourable or unfavourable weather conditions. Similarly, some service providers may also limit or close their operations during adverse weather conditions, thereby shifting the supply curve to the left.

Market equilibrium

The **equilibrium** price (also known as the **market-clearing price**) is determined where the demand for a product is equal to the supply of the product. This means that there is neither excess quantity demanded nor excess quantity supplied at the equilibrium price (see Figure 3.9).



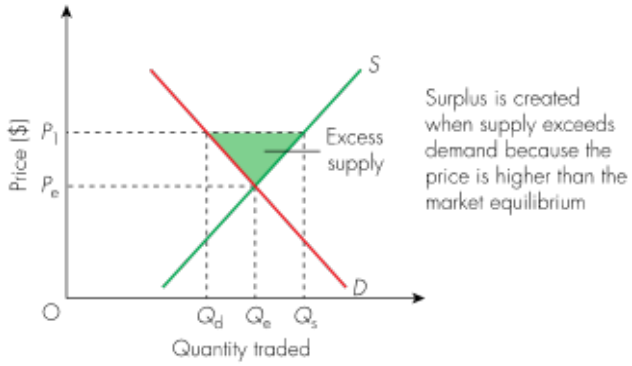
Changes in a non-price factor that affects demand or supply will tend to cause a change in the equilibrium price and therefore quantity traded. For example, in Figure 3.10, a government sales tax imposed on tobacco will shift the supply curve for cigarettes to the left. This raises the market-clearing price from P_1 to P_2 and reduces the equilibrium quantity traded from Q_1 to Q_2.



In contrast, favourable weather conditions will shift the supply of agricultural output outwards to the right (see Figure 3.11). The increase in supply reduces the equilibrium price of agricultural output from P_1 to P_2 but increases the quantity traded from Q_1 to Q_2.

If price is set too high (above the market-clearing price), then supply will exceed demand, as shown in Figure 3.12. This results in surplus production known as **excess**

supply. In order for firms to get rid of their excess supply (shown by the distance between Q_s and Q_d), they will need to reduce price (from P_1 to P_e).



By contrast, if the selling price of a product is set too low (i.e. below the equilibrium price), the demand will exceed the supply. This creates a shortage in the market, caused by the **excess demand** (see Figure 3.13). At a price of P_1, the demand is Q_d while supply is only Q_s so demand exceeds supply. The excess demand causes prices to rise back to the equilibrium price of P_e.

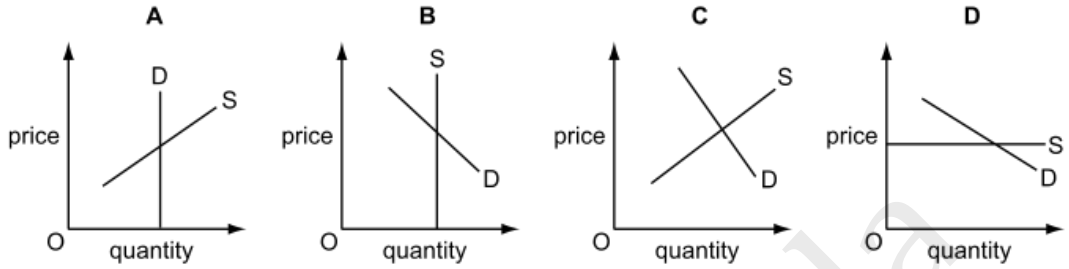
Exam Questions

MCQs

1.

The diagrams show different conditions of demand and supply for a product.

In which diagram would market price remain unchanged if consumers' incomes fell?



2.

In 2011, a company selling milk in glass bottles replaced them with new plastic bottles. When they were introduced, the equilibrium quantity on the market fell.

What could be a reason for this fall?

A Consumers preferred the new bottle because it was lighter to carry.

B Milk from the farms used to fill the bottle cost more.

C The bottle was cheaper than the existing glass bottle to produce.

D The new bottle was introduced with a successful advertising campaign.

3.

Which will encourage domestic producers to grow more maize?

A granting subsidies to maize producers

B increasing the sales tax on maize

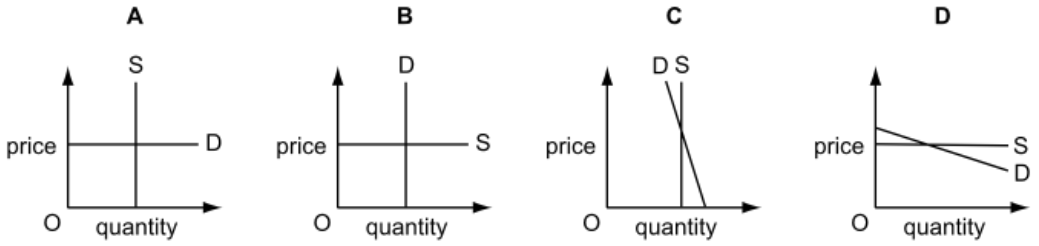
C removing guaranteed minimum prices for maize

D removing quotas on imported maize

4.

There are a fixed number of seats at a concert. Most of the audience would continue to attend even if the seat prices were increased.

Which demand and supply diagram represents this situation?



5.

Many countries buy oil from Saudi Arabia.

Which change is most likely to lead to a fall in the price of a barrel of oil?

A an increase in demand of 10% with no change in supply

B an increase in demand of 10% with an increase in supply of 10%

C no change in demand with a 10% decrease in supply

D no change in demand with a 10% increase in supply

6.

A supply curve for a commodity is drawn to show how quantity supplied varies with

A government taxes.

B income.

C tastes.

D the price of the commodity.

7.

In 2010, floods caused severe damage to wheat production.

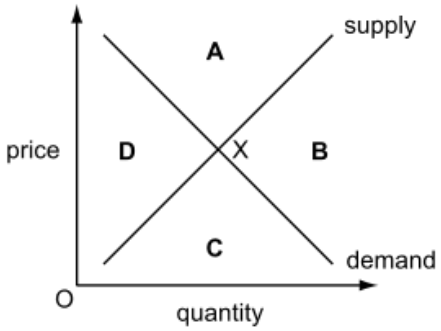
How would this be shown on a market demand and supply diagram for wheat?

	supply curve	demand curve
A	no change	shift to the right
B	shift to the left	no change
C	shift to the left	shift to the left
D	shift to the right	shift to the left

8.

The market for a normal good is in equilibrium at point X. Consumers' incomes fall and the cost of producing the good rises.

In which area of the diagram will the new equilibrium be?



9.

What is **not** held constant in constructing a demand schedule?

A the incomes of consumers

B the prices of complementary goods

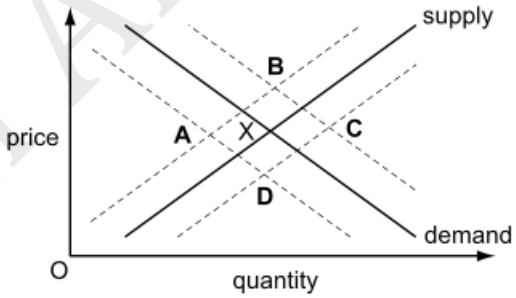
C the price of the good itself

D the tastes of consumers

10.

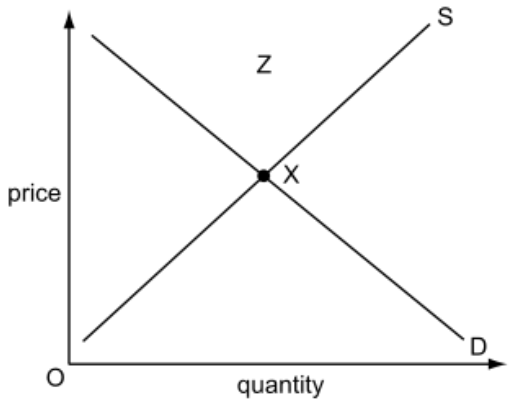
The diagram shows the demand and supply curves for digital cameras. The original equilibrium point is X.

What will be the new equilibrium point if these cameras become more fashionable and the rate of sales tax rises?



11.

What changes would move the equilibrium in the diagram from point X to a new point within area Z?



A a decrease in demand with a decrease in supply

B a decrease in demand with an increase in supply

C an increase in demand with a decrease in supply

D an increase in demand with an increase in supply

12.

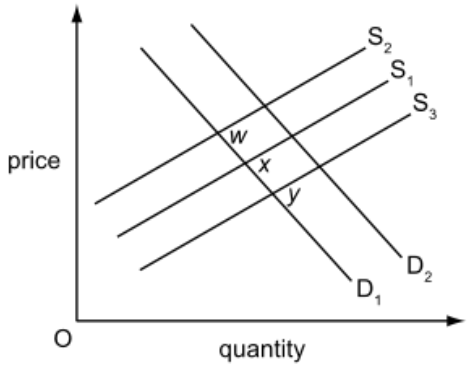
The table shows the changes in two influences on the demand for and supply of televisions.

If these two changes occurred at the same time, in which case is it **impossible** for the price of televisions to rise?

	consumers' incomes	costs of production
A	fall	fall
B	fall	rise
C	rise	fall
D	rise	rise

13.

Due to changes in the costs of production, an industry's supply curve shifted at various times from S_1 to either S_2 or S_3.



If a shift in supply was due to a seasonal increase in the cost of raw materials, what would have been the effect on demand?

A The demand curve would move from D_1 to D_2.

B The quantity demanded would move from *x* to *w*.

C The quantity demanded would move from *x* to *y*.

D The quantity demanded would remain the same at *x*.

14.

Wet weather in 2009 led to a fall in the sales of summer clothes. To support businesses the government reduced the sales tax (VAT).

How would these events be shown on a demand and supply diagram for summer clothes?

	demand curve	supply curve
A	move to the left	move to the right
B	move to the left	no change
C	move to the right	move to the left
D	no change	move to the right

15.

Drought in African countries often results in poor harvests. Other countries then help by sending quantities of food.

What are the likely results of these events for the price of food in the drought-affected countries?

A It will fall and then rise.

B It will rise and continue to rise.

C It will rise and remain at this higher level.

D It will rise and then fall.

Essay Questions

1. There are usually many different taxes in an economy and they can be divided into direct and indirect taxes.
    a. Using a demand and supply diagram, analyze how an increase in tax on fuel can affect the
    equilibrium price and equilibrium quantity of fuel. (6)

2. The demand for flat screen televisions has increased enormously in many countries and this has had an effect on the market.
    a. Describe what can influence the demand for flat screen televisions. [4]
    b. Using a demand and supply diagram, analyse how an increase in income can affect the
    equilibrium price and equilibrium quantity of flat screen televisions. [6]

3. Both the private sector and the public sector are involved in building houses. In one country a private firm has built an extra 100 000 houses but, at the same time, its government has increased income tax significantly.
    a. Explain, using a demand and supply diagram, how these two actions would have affected the equilibrium price and the equilibrium quantity of houses. [6]
    b. Explain what determines the demand for houses. [6]

4. One feature of many mixed economies is that governments may intervene by giving subsidies to some producers.
    a. What is meant by a subsidy? [3]
    b. Explain, using a demand and supply diagram, how a subsidy can affect the equilibrium price
    and equilibrium quantity in a market. [6]

Chapter 4: Price Elasticity

Price elasticity of demand

The law of demand (see Chapter 3) states that as the price of a product increases, the quantity demanded of that product will tend to fall. However, the responsiveness of change in the quantity demanded may vary depending on **price elasticity of demand** (PED).

PED measures the degree of responsiveness of quantity demanded for a product following a change in its price. If a price change causes a relatively small change in the quantity demanded, then demand is said to be **price inelastic**: that is, buyers are not highly responsive to changes in price.

By contrast, demand is said to be **price elastic** if there is a relatively large change in the quantity demanded of a product following a change in its price: that is, buyers are very responsive to changes in price.

Calculating price elasticity of demand
Price elasticity of demand is calculated using the formula:

PED =

For example, if a cinema increases its ticket price from $10 to $11 and this leads to demand falling from 3500 to 3325 customers per week, then the PED for cinema tickets is calculated as:

- Percentage change in quantity demanded = × 100 = −5%
- Percentage change in price = × 100 = + 10%
- PED = = -0.5

Worked Example
Assume the demand for football match tickets at $50 is 50000 per week. If the football club raises its price to $60 per ticket and demand subsequently falls to 45000 per week, what is the value of price elasticity of demand?

1) Calculate % change in Quantity Demanded:

2) Calculate % change in Price:

3) Put it into PED formula to find the value:

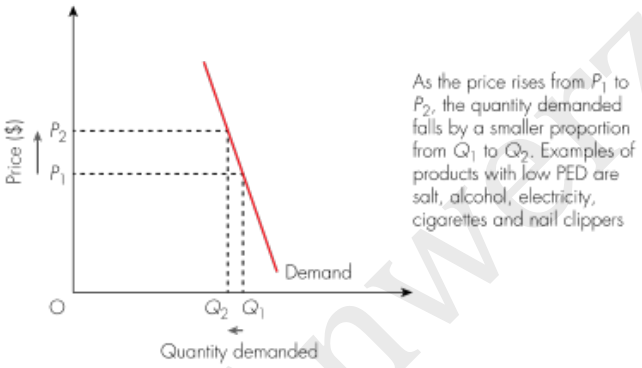
Interpreting PED calculations

So what does a PED value of −0.5 actually mean? The cinema ticket example suggests that the demand for cinema tickets is *price inelastic* (i.e. relatively unresponsive to changes in price). This is because a 10 per cent increase in the price (from $10 to $11) only caused quantity demanded to drop by 5 per cent (from 3500 tickets per week to 3325).

The value of PED is negative due to the **law of demand** – an increase in the price of a product will tend to reduce its quantity demanded. The inverse relationship between price and quantity demanded also applies in the case of a price reduction – that is, a price fall tends to lead to an increase in the quantity demanded.

The calculation of PED generally has two possible outcomes:

- If the PED for a product is less than 1 (ignoring the minus sign), then demand is **price inelastic** (i.e. demand is relatively unresponsive to changes in price). This is because the percentage change in quantity demanded is smaller than the percentage change in the price (see Figure 4.1).



- If the PED for a product is greater than 1 (ignoring the minus sign), then demand is **price elastic** (i.e. demand is relatively responsive to changes in price). This is because the percentage change in quantity demanded is larger than the percentage change in the price of the product (see Figure 4.2).

However, there are three special cases:

- If the PED for a product is equal to 0, then demand is **perfectly price inelastic**: that is, a change in price has no impact on the quantity demanded. This suggests that there is absolutely no substitute for such a product, so suppliers can charge whatever price they like (see Figure 4.3).

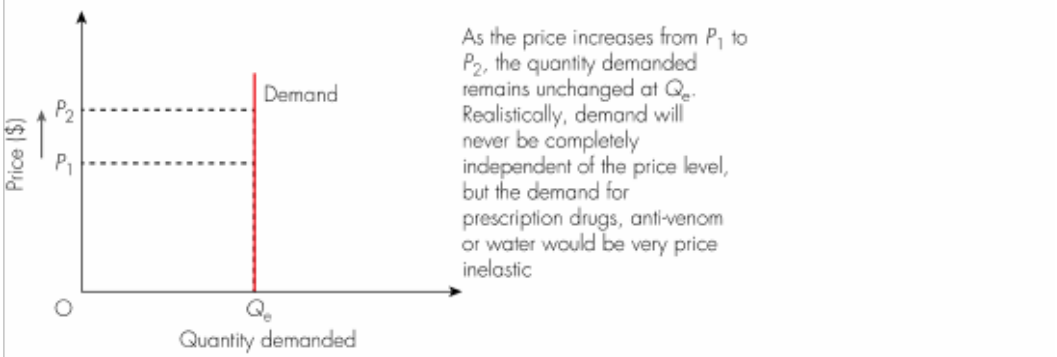


Figure 4.3 The perfectly price inelastic demand curve

- If the PED for a product is equal to infinity (∞) then demand is **perfectly price elastic**: that is, a change in price leads to zero quantity demanded. This suggests that customers switch to buying other substitute products if suppliers raise their price (see Figure 4.4).

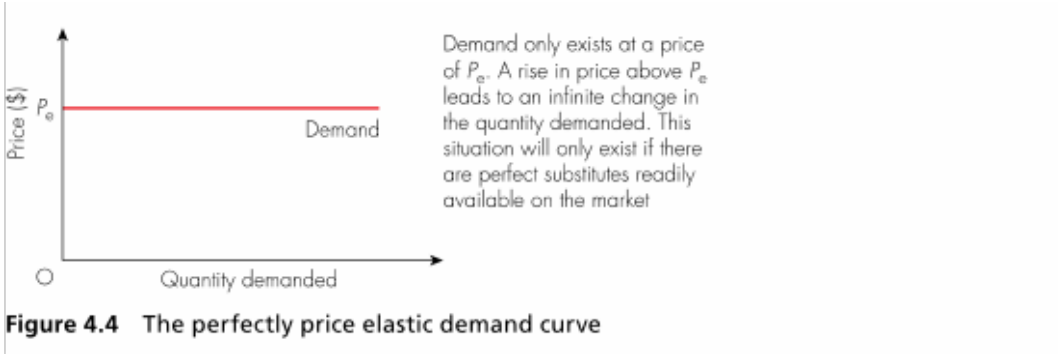
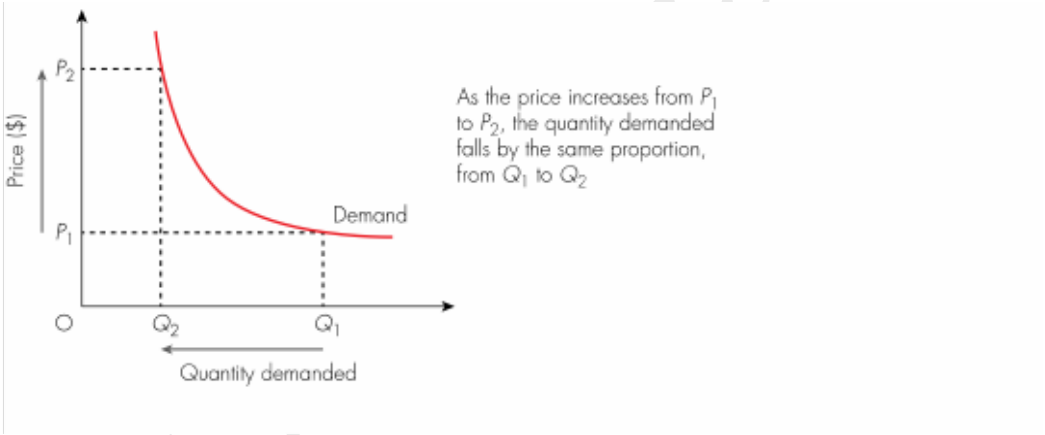


Figure 4.4 The perfectly price elastic demand curve

- If the PED for a product is equal to 1 (ignoring the minus sign), then demand has **unitary price elasticity**: that is, the percentage change in the quantity demanded is proportional to the change in the price (see Figure 4.5).



Determinants of price elasticity of demand

There are many interlinked determinants of the PED for a product:

1. **Substitution** – This is the key determinant of the PED for a good or service. In general, the greater the number and availability of close substitutes there are for a good or service, the higher the value of its PED will tend to be. This is because such products are easily replaced if the price increases, due to the large number of close substitutes that are readily available. By contrast, products with few substitutes, such as toothpicks, private education and prescribed medicines, have relatively price inelastic demand.
2. **Income** – The proportion of a consumer's income that is spent on a product also affects the value of its PED. If the price of a box of toothpicks or a packet of salt were to double, the percentage change in price is so insignificant to the

consumer's overall income that quantity demanded would be hardly affected, if at all. Therefore, the larger the proportion of income that the price of a product represents, the greater the value of its PED tends to be.

3. **Necessity** – The degree of necessity of a good or service will affect the value of its PED. Products that are regarded as essential (such as food, fuel, medicines, housing and transportation) tend to be relatively price inelastic because households need these goods and services, and so will continue to purchase them even if their prices rise.
4. **Habits, addictions, fashion and tastes** – If a product is habit forming (such as tobacco) or highly fashionable (such as smartphones in many countries), its PED tends to be relatively price inelastic.
5. **Advertising and brand loyalty** – Marketing can have a huge impact on the buying habits of customers. Effective advertising campaigns for certain products not only help to shift the demand curve outwards to the right, but can also reduce the
price elasticity of demand for the product.
6. **Time** – The period of time under consideration can affect the value of PED because people need time to change their habits and behavioral norms. Over time, they can adjust their demand in response to more permanent price changes by seeking out alternative products.

PED, consumer expenditure and revenue changes

Knowledge of the price elasticity of demand for a product can be used to assess the impact on consumer expenditure and therefore sales revenue following changes in price. Sales revenue is the amount of money received by a supplier from the sale of a good or service. It is calculated by multiplying the price charged for each product by the quantity sold, i.e.

Revenue = price × quantity demanded

For example, if Apple sells 5000 laptops at $700 each in the first quarter of the month, its sales revenue is $3.5 million. Suppose that the computer maker reduces its price to $650 and quantity demanded rises to 5200 units in the following quarter. Was this a good business decision?

A quick calculation of PED reveals that the demand for Apple laptops is price elastic:

- Percentage change in quantity demanded = × 100 = +10%
- Percentage change in price = × 100 = −7.14%
- Thus, PED = 1.4

This means the PED for Apple laptops is price elastic. Hence a fall in price causes a relatively larger increase in the quantity demanded, so sales revenues should increase. This can be checked as follows:

Original sales revenue = $700 × 5000 = $3,500,000
New sales revenue = $650 × 5500 = $3,575,000

Difference in sales revenue = $3.575m − $3.5m = +75 000
Given that demand for Apple laptops in the above example is price elastic, a reduction in price was a sensible business decision. Therefore, it can be seen that knowledge of PED for a product can inform firms about their pricing strategy in order to maximize sales revenues. These relationships are summarized in Table 4.1 and Figures 4.6 and 4.7.

Table 4.1 The relationship between PED and sales revenue

Price change	Inelastic	Unitary	Elastic
Increase price	Revenues rise	No change in revenues	Revenues fall
Reduce price	Revenues fall	No change in revenues	Revenues rise

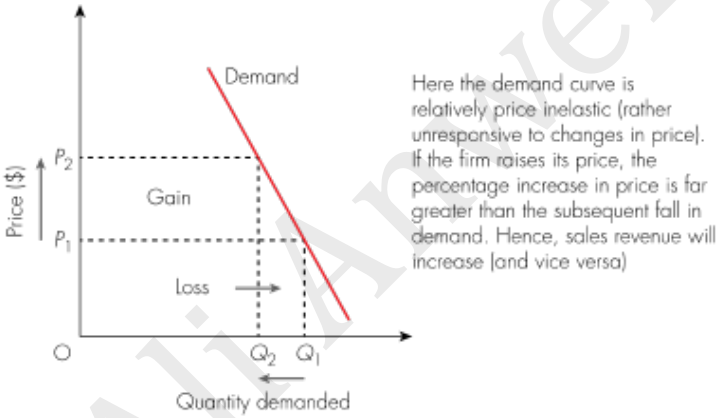


Figure 4.6 Price inelastic demand and sales revenue

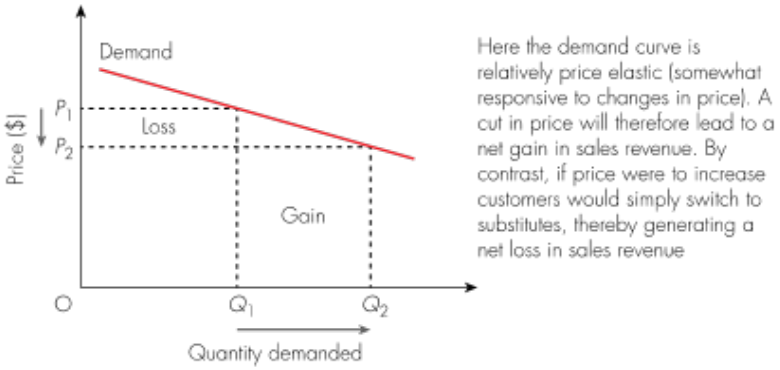


Figure 4.7 Price elastic demand and sales revenue

The uses of price elasticity of demand

Knowledge of PED can give firms valuable information about how demand for their products is likely to change if prices are adjusted. This information can be used in several ways:

1. Helping firms to decide on their pricing strategy – for example, a business with price inelastic demand for its products is likely to increase its prices, knowing that quantity demanded will be hardly affected. Therefore, the firm will benefit from higher revenue from selling its products at a higher price.
2. Predicting the impact on firms following changes in the exchange rate – for instance, firms that rely on exports will generally benefit from lower exchange rates (as the price of exports become cheaper) and thus will become more price competitive. This assumes that the PED for exports is elastic, of course.
3. Deciding how much of a sales tax can be passed on to customers – for example, products such as alcohol, tobacco and petrol are price inelastic in demand, so government taxes on these products can quite easily be passed on to customers without much impact on the quantity demanded.

Price elasticity of supply

Price elasticity of supply (PES) measures the responsiveness of the quantity supplied of a product following a change in its price. Supply is said to be price elastic if producers can quite easily increase supply without a time delay if there is an increase in the price of the product. This can help to give such firms a competitive advantage, as they are able to respond to changes in price. By contrast, supply is price inelastic if firms find it difficult to change production in a given time period when the market price changes.

Calculating price elasticity of supply

Price elasticity of supply is calculated using the formula:

PES =

For example, if the market price of beans increased from $2 per kilo to $2.20 per kilo, causing quantity supplied to rise from 10000 units to 10500 units, then the PES is calculated as:

- Percentage change in quantity demanded = = +5%
- Percentage change in price = = +10%
- PES = = 0.5

What this means is that the supply of beans is hardly affected by the change in price – supply is relatively price inelastic. Note that the value of PES is positive due to the law of supply – that is, an increase in price tends to increase the quantity supplied (and vice versa).

The value of PES reveals the degree to which the quantity supplied of a product responds to changes in price. The calculation of PES generally has two possible outcomes:

• If PES > 1.0 supply is price elastic, i.e. supply is responsive to changes in price (the percentage change in quantity supplied is greater than the percentage change in price – see Figure 4.8).

• If PES < 1.0 supply is price inelastic, i.e. quantity supplied is relatively unresponsive to changes in price (percentage change in quantity supplied is less than the percentage change in price – see Figure 4.9).

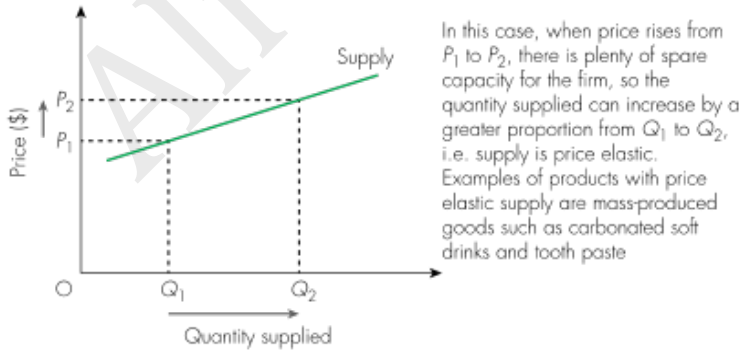


Figure 4.8 The price elastic supply curve

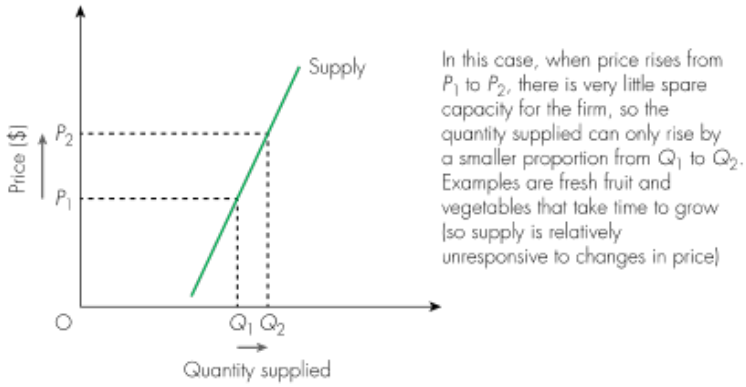
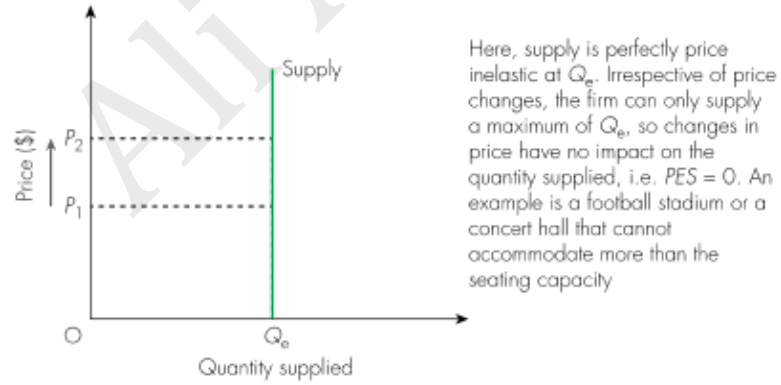


Figure 4.9 The price inelastic supply curve

However, there are three special cases, which are theoretical possibilities for PES:

- If the PES of a product is equal to 0, then supply is **perfectly price inelastic**: that is, a change in price has no impact on the quantity supplied. This suggests that there is absolutely no spare capacity for suppliers to raise output, irrespective of increases in price (see Figure 4.10).
- If the PES of a product is equal to infinity (∞) then supply is **perfectly price elastic**: that is, the quantity supplied can change without any corresponding change in price. Due to the spare capacity that exists, suppliers are able to raise output at the current price level (see Figure 4.11).
- If the PES for a product is equal to 1 then supply has **unitary price elasticity**: that is, the percentage change in the quantity supplied matches the proportional change in price (see Figure 4.12). Any upwards sloping supply curve that starts at the origin will have unitary price elasticity.



Determinants of price elasticity of supply

There are several interlinked determinants of the PES for a product:

1) **The degree of spare productive capacity** – If a firm has plenty of spare capacity then it can increase supply with relative ease: that is, without increasing its costs of production. This means that supply is relatively price elastic.
2) **The level of stocks** – If a firm has unused raw materials, components and finished products (collectively known as **stocks** or **inventories**) that are available for use, then the firm is more able to respond quickly to a change in price, as it can supply these stocks on to the market.
3) **The number of producers in the industry** – The more suppliers of a product there are in the industry, the easier it tends to be for firms to increase their output in response to a price increase. The greater the number of firms in an industry, the more price elastic supply tends to be.
4) **The time period** – Supply is more likely to be price elastic in the long run because firms can adjust their levels of production according to price changes in the market. In the short run, most firms are not able to change their factor inputs, such as the size of their workforce or the fixed amount of capital equipment they employ.
5) **The ease and cost of factor substitution** – This refers to the extent to which it is possible to introduce factor resources (such as labour and capital) to the production process. If capital and labour resources are **occupationally mobile**, this means they can be substituted into the production process easily.

Exam Questions

MCQs

1)

Which change would make the supply of a product more price elastic?

A an increase in the number of close substitutes for the product

B an increase in the proportion of firms working at full capacity

C a reduction in the time taken to make the product

D a reduction in the time that the product can be stored

2)

A recent study has found that the price elasticity of demand for cigarettes in the USA is –0.7.

What can be concluded from this information?

A A fall in the price of cigarettes would lead to a fall in the revenue of cigarette producers.

B A rise in the price of cigarettes would lead to a fall in consumer expenditure on cigarettes.

C A 7% increase in the price of cigarettes would reduce the quantity demanded by 10%.

D A 10% increase in the cost of producing cigarettes would lead to a 7% fall in the quantity demanded.

3)

When the price of a good doubles the demand falls by less than half, and the revenue received by the seller increases.

What does this suggest about the good?

A it has substitutes

B it is a necessity

C it is in fixed supply

D it is perfectly elastic in demand

4)

The demand for a good is totally inelastic with regard to price.

What will happen to the firm's revenue if the price rises by 20%?

A It will fall by 20%.

B It will fall to zero.

C It will remain unchanged.

D It will rise by 20%.

5)

The table shows the demand for chocolates at two different prices.

price $	quantity demanded
0.50	400
0.45	480

What is the price elasticity of demand when the price falls from $0.50 to $0.45?

A less than 0.5

B between 0.5 and 1

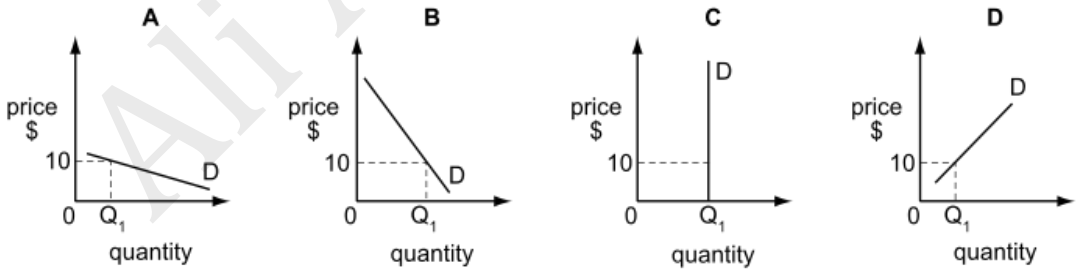
C between 1 and 1.5

D greater than 1.5

6)

The graphs, drawn to the same scale, show the demand curves of four firms. The market price is $10. The price then falls to $8.

Which firm will have the largest increase in total revenue?



7)

In a country where the demand for petrol (gas) is price-inelastic, the incidence of any increase in petrol tax will be mainly on

A the company that refines the oil.

B the motorist who buys the petrol.

C the petrol station that sells the petrol.

D the wholesale company that stores the petrol.

8)

The table illustrates the demand and supply for rice in a market in Africa.

price per kg ($)	quantity demanded (kg)	quantity supplied (kg)
10	50	10
20	40	20
30	30	30
40	20	40

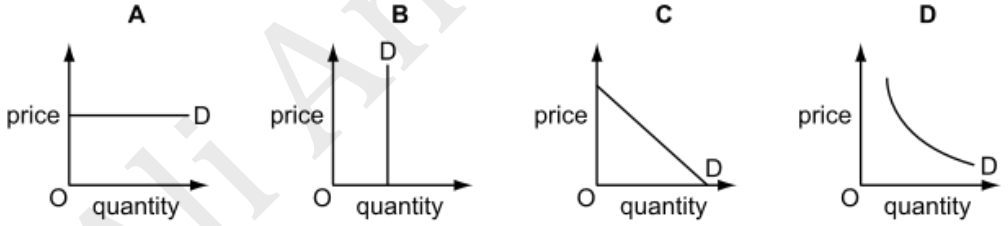
When the price rises from $20 to $30 per kg, what is the approximate price elasticity of demand for rice?

A 0.25 **B** 0.5 **C** 1.0 **D** 2.0

9)

The diagrams show possible demand curves for four commodities.

Which diagram shows a completely inelastic demand curve?



10)

It was reported that a company producing designer clothes had increased its revenue by 20 % at a time when it decreased its prices.

What does this suggest about the demand for these goods at that time?

A It was perfectly price elastic.

B It was perfectly price inelastic.

C It was price elastic.

D It was price inelastic.

Essays

1) A company produces cigarettes, which it believes have a low price elasticity of demand.
    a. Explain what is meant by price elasticity of demand. [4]
    b. How might knowledge of price elasticity be of use to a producer? [6]

2) Firms are keen to know what influences consumers in their buying decisions. Publishing firms in India have researched why people buy particular magazines and have found that the price elasticity of demand for different magazines varies.
    a. Describe the factors that can affect the demand for a product. [6]
    b. Explain what is meant by price elasticity of demand. [6]
    c. Discuss how knowledge of the price elasticity of demand for magazines may be used by a firm which produces and sells magazines. [8]
3) Explain what is meant by price elasticity of demand and use this concept to discuss what might happen in the market for oil if the price of oil was raised. [6]
4) Discuss whether the demand for chocolate is likely to be price elastic or price inelastic. [7]

Chapter 5: Market Failure

Market failure occurs when the production or consumption of a good or service causes additional positive or negative **externalities (spillover effects)** on a third party not involved in the economic activity. In other words, the market forces of demand and supply fail to allocate resources efficiently.

The following may cause market failure:

1) Production of goods or services, which cause negative side-effects on a third party. For example, the production of oil or the construction of offices may cause damage to the environment and a loss of green space.
2) Production of goods or services, which cause a positive spillover effect on a third party. An example is training programmes, such as first-aid or coaching skills for employees, which create benefits that can be enjoyed by others.
3) Consumption of goods or services, which cause a negative spillover effect on a third party. Such goods are known as **demerit goods** and include cigarettes, alcohol, gambling and driving a car.
4) Consumption of goods or services, which cause a positive spillover effect on a third party. Such goods are known as **merit goods** and include education, health care and vaccinations.
5) Failure of the private sector to provide goods and services such as street lighting, road signs and national defense due to a lack of a profit motive. Such goods and services are known as **public goods**.
6) The existence of a firm in a monopoly market that charges prices which are too high and exploits customers.

Private and social costs

The **private costs** of production and consumption are the actual costs of a firm, individual or government. For example, the driver of a car pays for the insurance, road tax, petrol and cost of purchasing the car. The **external costs** are the negative side-effects of production or consumption incurred by third parties, for which no compensation is paid. For example, a car driver does not pay for the cost of the congestion and air pollution created when driving the car. This is an example of market failure because the private costs (of driving) do not represent the true costs (of driving) to society. The true cost of a car journey is called the **social cost**.

Social costs = private costs + external costs

Other examples of external costs are:

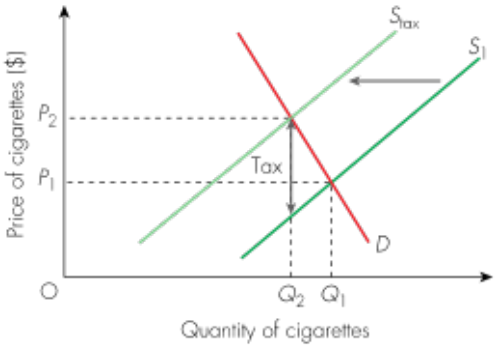
a) Air pollution caused by fumes from a factory
b) Cigarette smoke

c) Litter

Government Intervention

Governments try to solve market failure in a number of ways, such as by placing a tax on the price of a demerit good with the aim of reducing demand for the good.

1) Indirect Taxation



In Figure 5.1, the tax (see Chapter 3) imposed on a packet of cigarettes causes the supply curve to shift from S to S_{tax}. The tax is the vertical distance between the two supply curves. As a result, price increases from P_1 to P_2 and the quantity of cigarettes demanded decreases from Q_1 to Q_2. The demand for cigarettes tends to be price inelastic (see Chapter 4) and therefore the percentage change in quantity demanded is less than the percentage increase in price.

2) Rules and Regulations

Governments can also impose rules and regulations in an attempt to solve market failure. For example, imposing a minimum age that a person must be before they are legally allowed to purchase cigarettes or alcohol may reduce the consumption of such demerit goods (see Figure 5.2). Laws can also restrict where a person can smoke. In many countries, smoking is banned in public places such as shopping centres, bars, restaurants, airports, railways stations and even the beach!

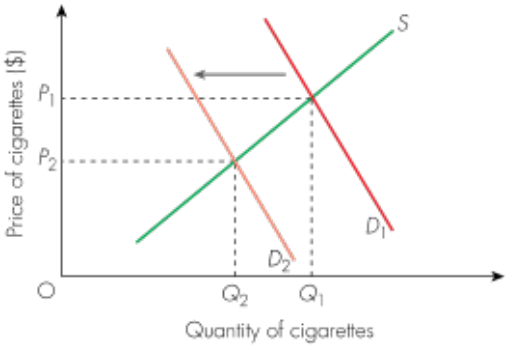


Figure 5.2 illustrates the impact of a ban on smoking in public places on the demand curve for cigarettes. The demand curve shifts from D_1 to D_2, resulting in the quantity of cigarettes demanded falling from Q_1 to Q_2.

3) Education and Marketing

A third approach to correcting market failures is to use education and advertising. Many schools educate students about the negative side-effects of smoking and passive smoking. In many countries, cigarette packets must carry a government health warning that clearly explains the dangers of smoking.

Conserving resources versus using resources

All economic activities involve social costs and benefits, at least to some extent, and every decision has an opportunity cost. For example, the decision to allow a firm to build a factory on a green field has a cost to the environment through the loss of green space, increased road traffic and potential pollution, but it also brings jobs to the area and creates business for related firms.

Production and consumption of goods and services uses the Earth's resources and can cause damage to the environment. It is therefore important that economic development is sustainable, which means that development today does not compromise the lives of future generations so that they cannot meet their own needs. Therefore, there is a potential conflict between the production of goods in the short term and the conservation of resources in the long term.

Following table summarizes the debate whether government should conserve resources or not.

No	Yes
▪ The free market encourages the most efficient allocation of resources through the price mechanism. Firms that waste resources will face higher costs and will not be able to compete with more efficient firms. ▪ Conserving resources will mean resources are left idle. If we use fewer resources to produce fewer goods and services, there will be fewer jobs and less income. More people will be worse off. Rather than conserving resources we should be using resources more efficiently to achieve environmental goals. ▪ In a free market, prices will rise as resources are used up and this will discourage their consumption and encourage conservation and waste reduction instead. ▪ As some resources run out and their costs rise, we will develop or find cheaper alternatives, such as the use of plants and animal waste to produce biofuels instead of using oil.	▪ If the prices of goods and services are too low to cover the external costs of their production in terms of the damage they do to the environment then demand for them will be too high. Taxes on these goods and services can be used to raise their price and cut demand to an economically efficient level. ▪ Measures designed to conserve resources will not result in less food, nor will fewer goods and services be produced, just different and more efficient methods of production, which do not deplete resources or damage the environment. ▪ Resources will be reallocated from the production of goods and services with high external costs to those with low or zero external costs. More jobs will be created in organic farming, energy-saving devices such as wind machines and solar panels and the production of other environmentally friendly products. As their production expands so their costs of production and prices will tend to fall, encouraging consumers to change their consumption patterns.

Private and social benefits

Private benefits are the benefits of production and consumption incurred by a firm, individual or government. For example, a car owner gains the benefits of driving the car and owning a means of private transport. Similarly, a person who owns a garden enjoys the personal benefits of having green space and plants, flowers and possibly vegetables to enjoy.

External benefits or positive externalities are the positive side-effects of production or consumption incurred by third parties, for which no money is paid by the beneficiary. For example, the sight and smell of a well-kept garden gives pleasure to a neighbor or a person walking past. The plants and trees also absorb carbon dioxide and therefore are good for the environment. Other examples of external benefits are education, training, health care and law enforcement.

When a person has a vaccination against tuberculosis, they receive the private benefit of being immune to the disease, but other people are also protected from this highly contagious disease. To eradicate diseases, many governments make it a legal requirement for children to be vaccinated against certain diseases before they can start school. Many governments provide such vaccinations free of charge to children.

This is an example of market failure because there are external benefits to society of vaccination programs. If vaccinations were left to the choice of individuals, they would be under-consumed, mainly due to the price that would be charged for them. The true benefit of the vaccination is called the **social benefit**.

Social benefit = private benefit + external benefit

Governments often subsidize goods and services to encourage consumption. For example, public transport might be subsidized to encourage people to use buses and trains rather than private cars. Figure 5.4 shows the impact of a **subsidy** on the demand for public transport. The bus and railway firms receive a sum of money from the government, which lowers their production costs and causes the supply curve to shift from S_1 (pre-subsidy) to S_2 (post-subsidy). Price falls from P_1 to P_2 and the quantity demanded increases from Q_1 to Q_2. An increase in the use of public transport should lower congestion and reduce the amount of pollution caused by driving cars. Therefore the subsidy reduces external costs created by driving.

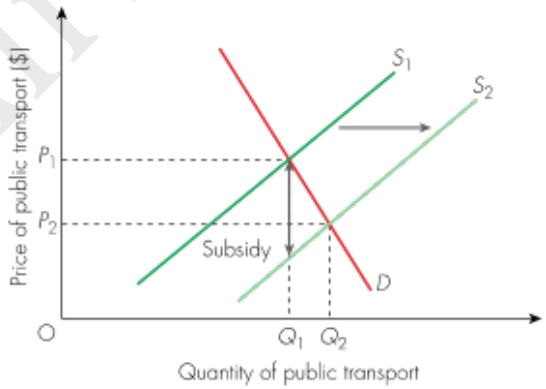


Figure 5.4 The effects of a producer subsidy

Public expenditure versus private expenditure

In many countries, governments provide certain goods and services free of charge to their citizens (see Chapter 2), who may have paid for them indirectly through personal taxation. Examples include education, health care, public libraries, parks, museums, public roads and motorways (highways), garbage or refuse collection, street lighting, street signs and national defence.

There is a conflict between the provision of goods and services directly to people and asking them to pay for the goods and services. The law of demand (see Chapter 3) dictates that, as the price of a good or service rises, less of it will be consumed. Health care and education are under-consumed in some countries because people cannot afford to pay. In the short term this has a negative effect directly on the quality of their lives, and in the long term it causes a potential decrease in life expectancy and earnings potential (see Chapter 7). This impacts upon the whole of society because it means that human resources are not being used to their full capacity.

The advantages of government provision of goods and services are that:

1. The goods and services are accessible to all people, regardless of their income or social status
2. Consumption of the goods and services has private benefits to the individual and external benefits enjoyed by third parties in society

The disadvantages of government provision of goods and services are that:

1. There is an opportunity cost, as the money could have been spent on something else, such as paying off government debt or possibly lowering the rate of taxation
2. Goods and services that are free of charge may be over-consumed, so long queues or shortages may arise (for example, the waiting list for a hip replacement operation in a government hospital may be very long)
3. In the case of a shortage of supply due to excess demand, it can be difficult to decide who should be able to take advantage of the free government service
4. Some people (known as **free riders**) are able to take advantage of free goods and services without contributing to government revenue through paying taxes.

Exam Questions

MCQs

1.

Journeys in city centres may be made by bus or by car.

What is an external cost of this?

A bus fares

B car fumes and noise

C licence fees for cars

D purchase of buses

2.

What is an example of market failure?

A a monopoly making abnormal profit

B prices charged to cover social cost

C the closure of small, independent shops in a rural area

D the inability of a car producer to achieve economies of scale

3.

Which is a type of market failure?

A a general increase in the price of hotel rooms in busy summer seasons

B an increase in house prices caused by easier borrowing for house buyers

C an increase in travel time caused by a road accident

D an increase in unsold goods because of a change in tastes

4.

What is an example of an external cost?

A a company's transport costs

B the cost of bringing about a merger

C the cost of buying components from suppliers

D the cost of industrial pollution

5.

Which action by the operators of an airport directly reduces external costs?

A the stopping of night flights

B the building of a new runway

C the payment of a productivity bonus

D the reduction of charges for landing aircraft

6.

What is an external benefit when a charge is made for vehicles entering a city centre?

A increased government revenue

B increased traffic

C reduced air pollution

D reduced business activity

7.

A large supermarket applied to build on land which was an area of natural beauty. The local government allowed the building, even though the natural beauty of the area would be lost, because many jobs would be created and much needed income would be brought to the local community.

Which economic ideas **cannot** be found in the above statement?

A external cost and private enterprise

B free market and the conservation of resources

C opportunity cost and improved standards of living

D public sector and external benefit

8.

What could a government do to reduce external costs in the economy?

A Decrease direct tax for higher income earners.

B Decrease direct tax for lower income earners.

C Increase indirect tax on petrol/gasoline.

D Remove indirect tax on tobacco.

9.

Greenhouse gases caused by burning fuel in Europe are leading to global warming.

This results in effects on non-European countries which are called

A average costs.

B external costs.

C private costs.

D social costs.

10.

It was reported in 2002 that South Africa, a mixed economy, would face sharp increases in air and water pollution unless action was taken to develop environmentally friendly policies for its citizens.

Why is a mixed economy thought to be a satisfactory means of achieving environmentally friendly development?

A because all development is paid for by the government

B because it allows external costs to be considered

C because it ensures development at lowest cost

D because it is the most productive system

Essay Questions

1.

An entrepreneur plans to cut down timber in a rainforest. The local community, however, are concerned that the social costs will be greater than the social benefits.

(a) Define the factor of production, enterprise. [4]

(b) Distinguish between the social benefits and the social costs involved in this example. [6]

(c) Discuss whether a resource, such as a rainforest, should be conserved rather than used. [10]

2.

A government is planning to build a high speed railway through a large area of fertile land and scenic beauty. A decision to construct the railway will depend upon how the project is financed and the social costs and social benefits arising from its construction.

(a) Describe, with the aid of examples from the construction of a railway, the meaning of social costs. [4]

(b) Explain why a government might consider using private funding rather than public funding to finance the project. [6]

(c) Discuss the advantages and disadvantages of such a high speed railway to a country's economy, both locally and nationally. [10]

3.

The Government of Bangladesh is planning to build a new motorway with the help of private companies. It recognises that there are a number of costs and benefits, both private and social, that need to be taken into account before a final decision is taken.

(a) Explain what is meant by **(i)** a private cost, **(ii)** a private benefit, **(iii)** an external cost and **(iv)** an external benefit. [4]

(b) For **each** of the following, identify **one** example of **(i)** a private cost, **(ii)** a private benefit, **(iii)** an external cost and **(iv)** an external benefit that might be involved in the building of a motorway. [4]

(c) Why might a government want to involve private companies in a motorway project? [4]

(d) Discuss how nearby communities are likely to be affected by the building of a motorway. [8]

Chapter 6: Money

The meaning of money

Money is any commodity, which can be used as a **medium of exchange** that is accepted for the purchase of goods and services. In today's modern society, money includes officially issued banknotes and coins (collectively called **legal tender**), gold and bank account deposits. Money has the following characteristics:

1) **Durability**: Money, such as banknotes and coins, should be fairly long lasting yet easily replaced if it becomes worn.
2) **Acceptability** – Money is widely recognized and accepted as a medium of payment for goods and services. Legal tender is the official money of a country (such as Canada's dollar or the UK's pound sterling).
3) **Divisibility** – As money is a measure of the value of goods and services, it must be divisible.
4) **Uniformity** – For money to be easily recognizable there must be uniformity within a country. This means all banknotes of similar denomination will look virtually identical in terms of shape, size and design. The same applies to all legal tender denominations of banknotes and coins.
5) **Scarcity** – Money must be limited in supply in order for it to keep its value. The supply of money, including banknotes and coins, is regulated by the country's central bank so that the money retains its value over time.
6) **Portability** – Money must be conveniently portable.

The functions of money

Economists suggest that there are four key **functions of money**:

1) Money acts as a **medium of exchange** – For something to be considered as money it must function as a way to conduct trade. Money is widely recognized and accepted as a means of payment for goods and services.
2) Money is a **measure of value** – Money is a unit of account, as it measures the market value of different goods and services. It is far more efficient for trading purposes to express the price of goods and services in dollars (or another monetary value) rather than using products such as cloth, shells, salt or livestock – all of which have been unsuccessful forms of money in history.
3) Money is a **store of value** as it can be stored and used at a later date in the future. This means that money must be able to hold its purchasing power over time. Money therefore gives firms and households flexibility in the timing of their sales and their purchases, thus removing the urgency to trade straightaway.

4) Money is a **standard of deferred payment** – This means that money is used as the standard for future (deferred) payments of debt. For example, loans taken out today are repaid in money at some time in the foreseeable future.

Bartering and the need for exchange

In the absence of money, people have to use a barter system in order to trade goods and services. **Bartering** is the act of swapping items in exchange for other items through a process of bargaining and negotiation. For example, someone might trade five sacks of rice for one cow, or four chickens for a sheep.

- The key problem with a barter system is the need for a **double coincidence of wants** – the person with chickens must find a trader who wants chickens in exchange for their sheep. As two people engaged in a trade must both want what the other person is offering, bartering is highly inefficient.
- A second problem with bartering is that of divisibility – half a sheep or two-thirds of a chicken is not very useful for traders.
- A third problem is that of portability – compare the portability of a sheep or fish with that of paper money (banknotes).

  The problems associated with bartering meant that countries around the world eventually developed the use of commodity money, such as cowry shells, grain and cloth. For much of history, precious metals such as gold and silver have served a monetary role.

The functions of central banks

The **central bank** of a country is the monetary authority that oversees and manages the nation's **money supply** and banking system. These banks are responsible for overseeing the **monetary policies** of their respective countries, including being responsible for the nation's entire money supply and the manipulation of interest rates to affect the economy. Pakistan's central bank is called State Bank of Pakistan.

Central banks tend to have the following four key functions:

1. **The sole issuer of banknotes and coins** – In almost every country, the central bank has the sole right to issue legal tender in its own country: in other words, it is the only authority that can print banknotes and mint coins. This helps to bring uniformity to, and improves public confidence in, the country's monetary system.
2. **The government's bank** – The central bank operates as a banker to the government, performing the same functions as a commercial bank does for its customers. Hence, as the government's bank, it maintains the bank accounts of the central government, such as receiving deposits from government, making short-term loans to the government and making payments for items of government expenditure. The central bank also manages public-sector debt and represents the government in the international financial markets, such as foreign exchange.

3. **The bankers' bank** – The central bank acts as the bank for other banks in the country. This function includes overseeing the cash reserves of commercial banks. This means that all banks in the country must have their accounts with the central bank, enabling the central bank easily to manage the claims made by banks against each other.
4. **The lender of last resort** – Given that the authorities require all commercial banks to keep a certain percentage of their cash balances as deposits with the central bank, these cash reserves can be used by the country's banking system during financial emergencies. This function helps to build public confidence in the country's banking system. For example, if a certain commercial bank faces temporary financial difficulties, it can, as a last resort, seek financial assistance from the central bank. This helps to ensure the bank does not collapse, protects jobs and thus safeguards the nation's banking system and economic welfare.

The functions of stock exchanges

A **stock exchange** is an institutional marketplace for trading the shares of public limited companies. It provides a platform for individuals, organizations and governments to buy and sell shares. The efficient functioning of a stock exchange helps to create business and consumer confidence, thereby boosting investment opportunities in the economy.

1. **Raising share capital for businesses** – As a marketplace for buying shares, the stock exchange provides public limited companies (see Chapter 10) with the facility to raise huge amounts of finance for business growth and expansion. This is done by selling shares in the company to the general public. Share capital (the money raised from selling shares in the company) is the main source of finance for public limited companies.
2. **Facilitating company growth** – In addition to making an IPO, existing companies can choose to sell additional shares to raise funds to finance their growth. This process is known as a share issue.
3. **Facilitating the sale of government bonds** – Governments can raise capital to fund their development projects via the stock exchange, which sells securities known as bonds (a type of loan).
4. **Price mechanism for trading shares** – Share prices are generally determined by the relative forces of demand and supply (see Chapter 3). Price fluctuations and the valuation of share prices are handled by the stock exchange. This function of the stock exchange provides important and up-to-date information to both buyers and sellers in the stock market.
5. **Safety of transaction** – All companies that trade on a stock exchange are regulated. The share dealings of public limited companies are defined in accordance with the country's legal framework. This helps to boost the level of confidence in buying and selling shares. Thus, this function of a stock exchange can have a large impact on the economic growth prospects of a country as it facilitates capital formation (investment).

The functions of commercial banks

A **commercial bank** is a retail bank that provides financial services to its customers, such as accepting savings deposits and approving bank loans.

The functions of commercial banks can be split into two categories: primary and secondary (or general utility) functions.

The **primary functions** of commercial banks include the following:

1. **Accepting deposits** – Commercial banks accept deposits from their customers, including private individuals, businesses and governments.
2. **Making advances** – Commercial banks provide advances (loans) to their customers.
3. **Credit creation** – This describes the process by which banks increase the supply of money in an economy by making money available to borrowers. Credit allows the borrower (or debtor) to gain purchasing power (money) now with the promise to pay the lender (or creditor) at a future time.

Exam Questions

MCQs

1.

Which function of money enables people to compare the worth of different products?

A medium of exchange

B standard for deferred payments

C store of value

D unit of account

2.

A function of money is to act as a measure of value.

What does this mean?

A It is used to compare the worth of different goods.

B It is used to enable monthly payments for expensive goods.

C It is used to pay the price of a good.

D It is used for future savings.

3.

Why do banknotes function as money?

A They are backed by gold.

B They are durable.

C They are generally acceptable.

D They have intrinsic value.

4.

Which function is performed by **both** commercial banks and central banks?

A acting as bankers to the government

B advising the government on monetary policy

C dealing in foreign exchange

D fixing the main interest rate

5.

For anything to be used as money, it must be

A a fixed value.

B in fixed supply.

C legal tender.

D readily acceptable.

6.

Which is a major function of a commercial bank?

A acting as the lender of last resort

B collecting direct and indirect taxes

C issuing bank notes and coins

D lending money to its customers

7.

Which statement about a country's banks is correct?

A Commercial banks hold the financial accounts of the government.

B Commercial banks settle debts by clearing customers' cheques.

C The central bank sets the government's tax and spending policies.

D The central bank supplies foreign currency to members of the public.

8.

A stock exchange is a market in which

A a system of barter operates.

B the interest rate is fixed.

C the value of the exchange rate is determined.

D shares are bought and sold.

9.

In most countries, which organisation controls the banking system?

A central bank

B commercial bank

C investment bank

D World Bank

10.

What function does a central bank provide for the general public?

A accepting deposits

B issuing banknotes

C making loans

D providing overdrafts

11.

A commercial bank is appointed to act as a country's central bank.

What new function would it now have?

A controlling monetary policy

B dealing in foreign exchange

C ensuring security for loans

D holding liquid assets

Essay Questions

1.

Money plays a significant role in all economies.

(a) Explain why it is better for individuals to use money rather than barter. [6]

(b) Describe the functions that commercial banks perform in an economy. [6]

2.

Money is said to be of vital importance in all economies.

(a) Describe the **four** functions of money. [4]

(b) Explain how commercial banks may encourage saving. [6]

Chapter 7: Labor Market

Influences on an individual's choice of occupation

Wage Factor

The level of **salary** or **wage** that a person receives in return for their labour is a major influence on their choice of occupation. Table 7.1 outlines the different methods of payment by which a worker may be paid in return for their labour.

Table 7.1 Different methods of payment for labour

Methods of payment	Explanation	Examples
Wages	Wages are paid hourly or weekly, so are a variable cost to firms	Part-time workers in a shop or restaurant (e.g. $7 per hour)
Salary	Salaries are paid monthly at a fixed value, so are fixed costs	Full-time job (e.g. teachers, shop managers and nurses)
Piece rate	A fixed amount paid per item produced or sold	Workers producing individual items in a factory (e.g. $2 per garment completed)
Commission	A percentage of the value of products or services sold	Real estate agents earning 1% of the value of each property that they sell
Bonus	An additional lump sum of money paid during year, usually dependent upon performance	Royal Bank of Scotland and Barclays paid 523 staff members more than £1m ($1.56m) in bonuses in 2013
Profit-related pay	Payment related to the profits earned by a firm	A partner in a law firm may receive 20% of the annual profits
Share options	Workers receive shares in the firm, so they have an incentive to work hard so that the firm is profitable	Public limited companies
Fringe benefits (or perks)	Additional benefits, which have a monetary value	Pensions, health insurance, company car, laptop, mobile phone, education for children, or membership of a health club

Non-wage factors

Non-wage factors are also a major influence on an individual's choice of occupation, as a person may be motivated by money in the short term but in the long term they will also want to feel happy and motivated at work. Non-wage factors that influence an individual's choice of occupation include the following:

- **Level of challenge** – does the job require thinking skills or is it repetitive and boring?
- **Career prospects** – will there be progression within the firm or will a person have to change jobs to be promoted?

- **Level of danger involved** – is the job dangerous? For example, some people face a high degree of risk at work, such as lifeboat rescue teams, firefighters, window cleaners and scaffold erectors.
- **The length of training required** – Some jobs require few skills, such as cleaners and shop assistants. By contrast, other jobs require years of training, such as electrical engineers, plastic surgeons, pilots, accountants, lawyers and dentists.
- **The level of education required** – Some jobs require no or minimal education whereas other jobs require post-graduate levels of education (such as university professors).
- **Recognition in the job** – does the worker get praise and recognition for their performance at work? If a worker feels respected at work, they may be motivated to work harder.
- **Personal satisfaction gained from the job** – This is important because if a worker feels satisfied and happy in their work, they may work harder and stay in the job longer. Voluntary work might be carried out by people who are happy to work for no pay, as the reward they get is the personal satisfaction of working for a charity, such as taking care of the elderly or sick.
- **The level of experience required** – Some jobs require no or minimal experience whereas other jobs require a minimum amount of experience (such as judges and law-makers)

Changes in earnings over a lifetime

Earnings change over a person's lifetime for the following reasons:

- The level of education a person has tends to affect, in most cases, their earnings and earning potential.
- Inexperienced workers, such as graduates in their first year of work, earn less than experienced workers.
- Salaries and wages usually increase with experience and time spent working at a firm.
- After workers reach the peak of their career, their salaries and wages tend to remain
  fairly constant.
- After retirement, earnings fall and people are dependent on their pensions and savings to cover their living expenses.

Wage determination

Wages are determined by the interaction of demand for labour and the supply of workers in an industry. For example, the combination of the high demand (ability and willingness to pay) for, and the low supply of, neurosurgeons mean their pay is very high.

The demand for labour

The **demand for labour** is a **derived demand**. This means that labour is demanded for the goods and services it produces and not for itself. For example, bakers are demanded for the bread they bake, not for the sake of hiring bakers.

Figure 7.1 shows a downward-sloping demand for labour (D_L) curve. When the wage rate falls from W_1 to W_2, the number of workers employed increases from N_1 to N_2. This is because firms (employers) can afford to hire more workers when the wage rate is lower.

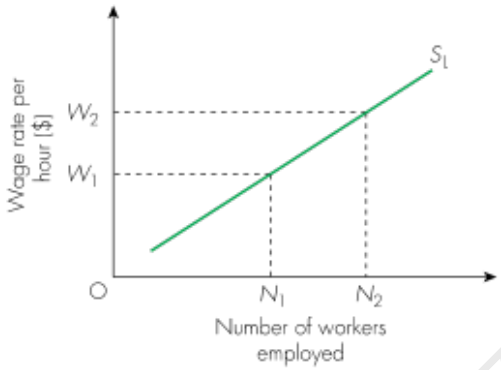
The factors that influence the demand for labour include the following:

- The level of total demand in the economy (known as **aggregate demand**) – During a boom or period of economic growth, the demand for goods and services, and therefore the demand for labour to produce them, is higher than during a recession or period of declining growth.
- An increase in the productivity of labour (output per worker over a period of time) – The demand for workers increases as their productivity increases through training and changes to production methods (see Chapter 11).
- The **cost of labour** as compared with the cost of machinery and technology that could replace the labour – Although technology and machinery are expensive to purchase in the short run, they can save money for the business in the long run.

The supply of labour

The **labour supply** in an economy consists of people who are of working age and who are willing and able to work. This does not include those who are in full-time education or those who do not work by choice, such as housewives or househusbands.

Figure 7.3 shows an upward-sloping supply of labour (S_L) curve. If the wage rate in an industry increases from W_1 to W_2 the number of workers willing to work will increase from N_1 to N_2 because workers are attracted by higher wages.



1. **Labour force participation rate**

The labour force participation rate is the percentage of the working population that is working, rather than unemployed. It is influenced by:

- the number of full-time and part-time workers in the labour force
- the number of women in the workforce
- the age distribution of the workforce
- the official retirement age of the country.

2. **Availability and level of welfare benefits**

Welfare benefits are paid to the unemployed. However, if welfare benefits are high and readily available, this can discourage people from seeking work because the opportunity cost of not working and receiving welfare payments is too high.

3. **Changing social climate**

In many countries, more women are entering the workforce and delaying having families while more men are looking after the home and children. As a result of falling birth rates, some countries have ageing populations. These factors affect the composition of the workforce.

4. Geographical mobility

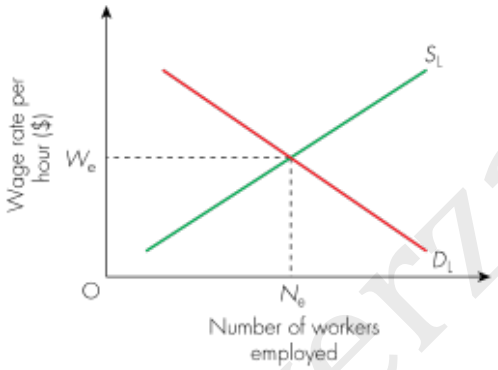
Geographical mobility refers to the willingness and ability of a person to relocate from one part of a country to another for work. Some people may not be geographically mobile due to family commitments and costs of living may vary between regions.

5. Occupational mobility

Occupational mobility refers to the ease with which a person is able to change between jobs. The degree of occupational mobility depends on the cost and length of training required to change profession.

Equilibrium Wage Rate

For the vast majority of jobs, wages are determined by the interaction of the demand for, and supply of, labour (see Figure 7.5).



The equilibrium wage rate is determined when the wage rate workers are willing to work for equals the wage rate that firms (employers) are prepared to pay: that is, the demand for labour is equal to the supply of labour. In Figure 7.5 the equilibrium wage rate is W_e and N_e workers are employed. Changes in the demand for, or supply of, labour in an industry will therefore change the equilibrium wage rate.

Wage Differential

Wage differentials between different occupations and groups of employees can be explained by differences in labour market demand and supply conditions. For example, workers with occupational skills that are in high demand but in short supply are likely to be paid higher wage rates or salaries than other workers.

Wages will therefore tend to be higher in occupations in which:

- Employees are required to have very specific abilities, **skills** or **qualifications** that may take a long time or are expensive to obtain, for example, to become a doctor or a lawyer, or even a talented footballer
- Employees are required to work **unsociable hours** or undertake **dangerous tasks**, such as police or armed forces personnel
- Job vacancies in particular locations are difficult to fill because workers are not prepared to move, for example, because housing is more expensive. The reluctance or inability of workers to change location is called the **geographic immobility of labour**.

Wage differentials can also exist between employees doing the same job because:

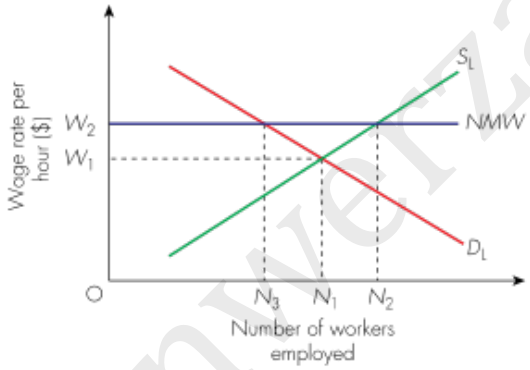
- There are **regional pay differences**
- Different employers offer different **non-wage benefits** instead
- Older employees may receive higher wages than younger employees as a reward for their **experience and length of service**
- **Discrimination** whereby some employers choose to pay some employees differently simply because of their sex, race, age or religion. This is illegal in many countries.

National minimum wage legislation

A **national minimum wage** (NMW) is the lowest amount a firm can pay its workers, as set by the government. Any firm that pays workers less than the legal minimum wage is breaking the law.

In Figure 7.2 the **equilibrium wage rate** before the national minimum wage is W_1 and N_1 workers are demanded and supplied. If the government introduces a NMW, which is above the equilibrium wage at W_2 then the quantity of labour, supplied to the market increases from N_1 to N_2 as more workers are prepared to work for a higher wage rate.

However, the quantity of labour demanded falls from N_1 to N_3 because firms (employers) are less able or willing to pay as many workers at a higher wage rate. As the quantity supplied of labour is greater than the quantity demanded, there is a surplus of labour at a wage rate of W_2. Thus, if the NMW is set too high, this may lead to unemployment in the economy.



The advantages and disadvantages of a national minimum wage are listed in Table 7.5.

Advantages	Disadvantages
• Workers receive a fair wage for an hour's work and are not exploited by employers • Unemployed people may have an incentive to work, as the wage may be more attractive than relying on welfare payments. • Low-income earners may have more money to spend and this may increase consumption in the economy, thus easing any fears that higher wages (costs of production) might cause unemployment.	• Workers who earn more than the minimum wage (perhaps due to their seniority) may request a higher wage rate to maintain the wage differential between them and workers who earn less than they do. • Unemployment might increase because firms could face higher wage bills as a result of increased wage rates.

Government interference in labour market

- **Employment rights** – Governments impose laws to protect the rights of workers and employers, and these laws vary between countries. Laws are designed to prevent discrimination against workers due to gender, race, religion and disability, and also to protect the rights of employers and their ability to hire and fire workers.
- **Trade union legislation** – Governments can reduce the powers of trade unions in order to make labour markets more flexible and efficient (see Chapter 8).
  This happened in the UK during the 1980s when Margaret Thatcher was prime minister, and many countries have followed her lead. Trade unions now have less bargaining power and are less powerful generally.

Specialization of labor

Specialization of labour occurs when a worker becomes an expert in a particular profession, such as a landscape architect, a psychiatric nurse, an electrical engineer or an economics professor.

Specialization of labour can also occur when a worker becomes an expert in a part of a production process. Examples are supermarket checkout operators, waiters serving people in a restaurant, and factory workers who operate machinery.

Advantages of specialization for the individual (worker) include the following:

- Workers become experts in their field, so their productivity increases.

- The quality of the product or service increases.
- Workers can become very skillful, so their earning potential may increase.

Disadvantages of specialization for the individual include the following:

- The work may become repetitive and boring.
- Workers may become alienated, especially those specializing in low-skilled work.
- The production process may become overspecialized – that is, too dependent on an individual worker or group of workers.
- The workers may become deskilled in other areas – in other words, there is lack of flexibility.

Differences in earnings

Differences in earnings between skilled and unskilled workers

In general, skilled workers earn more than unskilled workers due to their relatively higher demand and relatively lower supply. This is because there is a large supply of people able to work as waiters due to few skills being required, but to be a doctor requires a university degree and professional training. Therefore, the supply of doctors is lower than that of waiters.

Differences in earnings between male and female workers

In literally all countries, the average earnings of males differ from the average earnings of females.

Possible reasons for the difference in male and female earnings include the following:

- There are more women in part-time work than men, so their earnings are lower on average.
- Women take career breaks to have children and therefore miss out on promotional opportunities.
- Women may accept low-paid and part-time jobs, as hours are flexible and can fit in with childcare arrangements.
- Women may face discrimination at work.

Differences in earnings between private and public sector workers

Workers in the private and public sectors tend to earn different wages. In theory, people in the private sector can earn more than workers in the public sector. In many countries, salaries in the public sector are typically less than those which can be earned in the private sector, but public-sector jobs are more secure and are accompanied by a pension in retirement. Examples of public-sector jobs are teachers, nurses, police officers, fire service officers and civil servants.

Private-sector jobs typically have higher earning potential as private individuals and firms strive for profit maximization. However, this comes with more risk as jobs are less secure in the private sector and workers often have to save up for their own pensions in

retirement. For example, the global financial crisis, which started in late 2008, had caused over 11000 job losses
at Citibank Group by the end of 2013. US investment bank JP Morgan Chase cut 19000 jobs during the same period.

Differences in earnings between industrial sectors

Workers in the agricultural, fishery and forestry industries
generally earn lower wages, which generally offer unskilled work. The main reason for the low earnings in these industries is that the products produced, such as fish and food products, have a low sales value. In general, as the value of a good or service increases, so does the wage of the person who produces it.

These tertiary sector occupations produce services of a higher value than those in the primary sector. People in tertiary sector professions tend to have high earnings because to become a fully qualified accountant, doctor or lawyer requires postgraduate level study, professional examinations and many years of experience. The reward for this time and effort is higher wages, which attract people to those professions.

Exam Questions

MCQs

1.

A worker's choice of occupation can be influenced by wage and non-wage factors.

What is a non-wage factor when choosing to work in a factory?

A bonuses paid for increases in productivity

B changes in hourly rates for items produced

C financial rewards for length of service

D opportunities for promotion and advancement

2.

What might be a direct benefit to the individual worker of a specialised job?

A Specialisation enables a better quality product to be produced.

B Specialisation enables the firm to introduce more machinery.

C Specialisation enables the worker to become more skilled.

D Specialisation makes better use of resources.

3.

Which of the following is most likely to limit wage increases in an industry?

A an increased demand for the industry's product

B a rise in the industry's profits

C a rise in wages for workers in similar jobs

D the replacement of workers with robots

4.

Each worker in a firm specialises in performing one task. The firm then decides that each worker should carry out a variety of tasks.

Which benefit will the firm be expecting to gain from the change?

A a decrease in the equipment workers need to be given

B a decrease in the time it takes to train workers

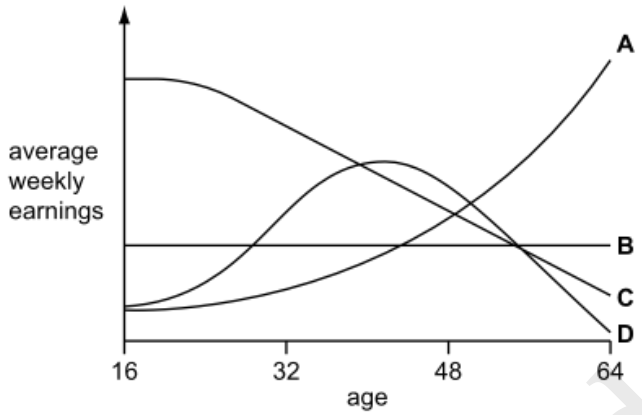
C an increase in the ability to cover for absent staff

D an increase in the skill gained from repetition

5.

The diagram shows how the weekly earnings of four workers changed between ages 16 and 64.

Which line is most likely to represent the change in the weekly earnings of an unskilled, manual labourer?



6.

On average, doctors earn more than bus drivers.

Which change would be likely to reduce the earnings gap between doctors and bus drivers?

A a decrease in the profits earned by bus companies

B a decrease in the qualifications needed to be a doctor

C an increase in demand for medical care

D an increase in the number of people passing the driving test

7.

Why might factory workers have higher wage rates than agricultural workers?

A Factory workers are in greater supply.

B Factory workers face fewer risks of accidents.

C Factory workers have cleaner working conditions.

D Factory workers use more productive equipment.

8.

Which change would be most likely to cause the earnings of hotel managers in Mauritius to rise more than the earnings of sugar cane workers in Mauritius?

A a decrease in the number of tourists visiting Mauritius

B a decrease in the supply of sugar cane workers in Mauritius

C an increase in the price of sugar cane from Mauritius

D an increase in the productivity of hotel managers in Mauritius

9.

What is an example of occupational mobility of labour?

A A Japanese car manufacturer locates in England.

B A nurse returns to work after her children have grown up.

C A student takes an evening job in a restaurant.

D Farm workers retrain as call-centre workers.

10.

Why are farm workers likely to be paid a lower wage rate than workers in manufacturing?

A Farm workers are more likely to be in a trade union.

B Farm workers are more likely to have a shorter working life.

C Farm workers are more likely to have poorer working conditions.

D Farm workers are more likely to produce goods with a lower value.

Essay Questions

1. Describe how an individual's earnings are likely to change over their lifetime. [3]

2. A person is choosing between different occupations and realizes that there are both wage and non-wage factors that need to be taken into account.
    a. Describe the non-wage factors that can influence a person's choice of occupation. [4]
    b. Explain the different forms of payment that a worker can receive. [4]
    c. Consider the likely changes in earnings over an individual's lifetime. [3]
    d. Discuss whether a worker in the services sector is always likely to receive a higher wage than one in the manufacturing sector.

Chapter 8: Trade Union

A **trade union** or labour union is an organization of workers formed to promote and protect the interests of its members concerning wages, benefits and working conditions.

Functions of a Trade Union

- Negotiating wages and other non-wage benefits with employers
- Defending employee rights and jobs
- Improving working conditions, such as better hours of work and health and safety
- Improving pay and other benefits, including holiday entitlement, sick pay, pensions
- Encouraging firms to increase worker participation in business decision- making
- Supporting members taking industrial action
- Developing the skills of union members, by providing training and education courses
- Providing social and recreational amenities for their members.

Collective Bargaining

Trade unions act as a means of communication and negotiation between employers and employees through a process called **collective bargaining**. This occurs when a trade union representative, who is voted into the position by colleagues, negotiates on behalf of the union's members (the workers) with the employer for better pay and working conditions. A collective voice is more powerful than each worker negotiating individually with the employer. Trade unions can therefore be an effective means of communication between the employer and employees.

A trade union will be in a strong bargaining position to negotiate higher wages and better conditions if:

- It represents most or all of the workers in a firm or an entire industry
- Union members provide goods and services that consumers need and for which there are few alternatives, such as electricity and water supplies, health care and education.

Industrial Action

If collective bargaining between a union and employer fails to result in an agreement on wages or other conditions, trade union members may take **industrial action**.

Industrial action can help a union increase its bargaining strength to force employers to agree to wage and other demands. However, union action also has major implications:

- **Firms** suffer higher costs and lose output, revenues and profits during industrial action. If the action is prolonged a firm may also lose big and regular customers to rival firms
- **Union members** will lose wages during a strike although some may receive income support from their union. Some may also lose their jobs if employers cut back their demand for labour because industrial action has lost them customers and profits
- **Consumers** may be unable to obtain the goods and services they need and may also have to pay higher prices if firms pass on their increased costs
- The reputation of **an economy** as a good place for business may be damaged by frequent and widespread industrial action. Firms may decide to invest and set up businesses elsewhere. This will increase unemployment and lower incomes.

Exam Questions

MCQs

1.

When will a trade union find it easier to achieve higher wages for its members?

A when consumers demand more of the product made

B when the company has a decrease in profits

C when the cost of raw materials increases

D when unemployment increases

2.

What could reduce the ability of a trade union to gain a pay rise for its members in a shoe factory?

A an increase in sales of shoe exports

B a rise in the demand for shoes

C a rise in the productivity of shoe workers

D more people willing to work in the shoe industry

3.

What might be an advantage to a trade union when arguing for an increase in its members' pay?

A an increase in imports of a similar product

B the development of a new and profitable brand of the company's product

C the development of new machines requiring fewer workers

D the establishment of a local college providing training

4.

A group of workers in a firm join a trade union.

What would the union be expected to do?

A arrange for labour-saving technology to be introduced

B discuss safety issues in the workplace with the employer

C ensure job security by promoting the firm's products through advertising

D negotiate new contracts with major buyers of the firm's products

5.

What is a function of a trade union?

A to negotiate workers' contracts

B to promote workers to more responsible jobs

C to recruit workers for the firm

D to supervise the workers in the firm

6.

Why are farm workers likely to be paid a lower wage rate than workers in manufacturing?

A Farm workers are more likely to be in a trade union.

B Farm workers are more likely to have a shorter working life.

C Farm workers are more likely to have poorer working conditions.

D Farm workers are more likely to produce goods with a lower value.

7.

What is **not** a function of a trade union?

A to act as a pressure group to change labour laws

B to negotiate with employers over conditions of work

C to promote the sales of products made by its members

D to protect the living standards of its members

8.

In which situation will a trade union be **least** likely to be effective in supporting the interests of its members?

A The economy is experiencing an increase in unemployment.

B The firms have a large increase in demand for the product.

C The government passes a law weakening the powers of employers.

D The workers' wages are a small proportion of total costs.

9.

The workers in a company belong to a trade union.

Which change might the union use to support a claim for an increase in its members' wages?

A a decrease in demand for the company's product

B a decrease in the rate of inflation

C an increase in company profits

D an increase in the supply of workers

Essay

1.

Trade unions play a role in the New Zealand economy, but **not** every worker belongs to one. This is especially the case in small firms.

(a) Describe the functions of a trade union. [4]

(b) Why might some workers **not** belong to a trade union? [4]

2.

Deciding on an occupation is difficult for some individuals. There are so many factors that need to be taken into consideration. One of these is whether or not there is a trade union they can join.

(a) Describe the factors, other than possible membership of a trade union, which can affect an individual's choice of occupation. [6]

(b) Is it always true that individuals are paid more as they get older? [4]

(c) Explain the benefits that an individual may get from being a member of a trade union. [4]

(d) Discuss whether trade unions always have a harmful effect on the wider economy. [6]

Chapter 9: Income and Expenditure

Consumer spending

Consumer spending – the amount that individuals spend on goods and services – largely depends upon their level of **income**. Most people exchange their labour services for wages or salaries, but people may also earn income from the other factors of production, for example:

1. interest on savings (return on capital)
2. rent earned from leasing property (return on land)
3. dividends (a share of a company's profits) from shares owned in a company (return on enterprise)
4. profits earned from running a business (return on enterprise).

Disposable income refers to the income earned by an individual after income tax and other charges such as pension contributions and trade union fees have been deducted. It is therefore the amount of income a person has available to spend on goods and services. There is a positive relationship between the level of spending and the income earned – higher levels of disposable income usually lead to higher spending.

Direct taxation reduces the amount of income a person receives. So higher income tax rates can lower the level of disposable income and therefore consumption. Table 9.1 shows the reasons why different income groups have different expenditure patterns (spending, saving and borrowing).

Low-income earners spend a greater proportion of their income on food and necessities, whereas high-income earners will spend a lower proportion of their income on food and necessities.

The **wealth** of an individual is measured by the amount of assets they own minus their liabilities (the amount they owe). When the value of assets, such as property and other investments, increases there is said to be a **positive wealth effect**. This causes people to spend more and, in some cases, causes owners of assets to borrow against the value of their assets such as residential or commercial property. Alternatively, if the value of an asset decreases, the wealth effect can become negative. For example, a severe recession can cause some people to experience **negative equity** – when the value of their secured loan or mortgage exceeds the value of the property.

Table 9.1 Reasons for different expenditure patterns

Income group	Spending	Saving	Borrowing
Low	• Spend most of their income on necessities (e.g. food, clothing and housing)	• Tends to be low as there is not much income left over after spending on necessities	• Borrow to fund their expenditure on capital items (e.g. furniture, cars and computers) • In extreme circumstances, people may borrow to fund current expenditure on necessities • Banks less likely to lend money to low-income earners as they represent higher risk
Middle	• Spend on necessities and some luxuries • Spend a lower proportion of their income on food and other necessities	• Able to save some money from their wages or salaries	• Borrow money to fund expenditure on capital items (e.g. furniture, cars and computers) • Use credit cards to pay for both capital and current expenditure • Take out a **mortgage** (long-term secured loan) to purchase a home
High	• Spend the smallest proportion of income on necessities (compared with other income earners) • Purchase luxury goods and services	• High level of savings possible • Save a greater proportion of their income than other income groups	• Borrowing occurs but there is only a small risk of not being able to repay loans and mortgages • Banks lend money rather easily to high-income earners • Generally, there is less of a need to borrow money to fund items of capital expenditure

Other determinants of consumer spending

Apart from levels of income, there are several other determinants of consumer spending, saving and borrowing.

Inflation

The general level of prices in the economy influences consumer spending because an increase in inflation reduces the purchasing power of individuals. Therefore, inflation tends to cause reduced spending, less savings and more borrowing, and vice versa (see Figures 9.6 and 9.7).

Interest rates

The interest rate refers to the cost of borrowing or lending money. An increase in interest rates may lead to decreased consumer spending, less borrowing and more saving because:

1. Borrowing has become more expensive and therefore the demand for loans falls, which leads to less consumer spending
2. Saving may become more attractive due to the higher return, so individuals may save more and spend less
3. If an individual has a loan or mortgage, the increase in interest repayments may lead to a decrease in demand for other goods and services, so spending falls.

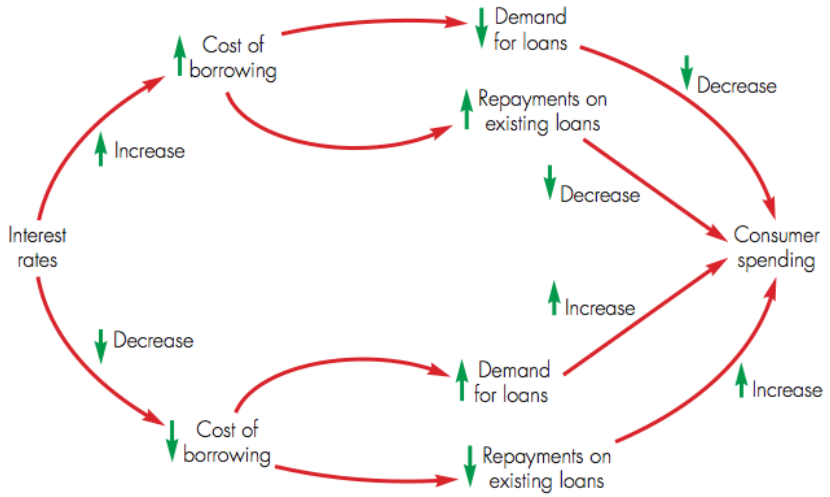


Figure 9.8 The effects of a change in interest rates on consumer spending

Confidence levels

The level of personal spending in an economy is heavily influenced by the level of consumer and business confidence. During a recession or a period of low economic growth, people may prefer to save rather than spend as they lack confidence about the future of the economy – for example, fearing that they may lose their job.

Age

A person's age impacts upon their level of consumer spending. A young single person may earn a relatively low income and may spend most of it on goods and services to support their lifestyle. As a person gets older, their earnings will typically rise and they may start to save a greater proportion of their income to buy a property or in anticipation of marriage and children. After retirement, people **dissave** as they have no earned income and so must spend from their savings.

The size of households

The average size of households has changed over time. In economically developed countries, birth rates are falling as people choose to marry and have children later in

life. There has also been an increase in single households. This influences expenditure patterns as a family with three children will usually consume more goods and services than a single-person household.

Savings

Saving occurs when a person puts away part of their current income for future spending. Reasons for saving include the following:

- A person may decide to sacrifice current spending so that they have funds to spend in the future. For example, people may save for a holiday or for their retirement. Parents may save money for their children's education.
- A person may choose to save a portion of their income in a bank or other financial institution in order to earn interest. Banks also provide a secure place for depositing savings.
- A person may save for precautionary reasons so that they have money put aside in case of an emergency, such as an accident, job loss or unforeseen event in the future.

The level of savings is affected by the following factors:

- **Age** – In many modern economies, people from about the age of 25 start to save for their future. They will be likely to have secured permanent employment and paid off any student loans. The amount a person will save is influenced by the amount of support a government gives its citizens in terms of old-age pensions and health care provision. If people have to fund their own health care and pensions, they will have to save more during their working lives.
- **Attitude to saving** – As every person is different, they each have a different attitude to saving. For example, in the USA and the UK many consumers borrow to fund expenditure by using credit cards to make purchases or by getting loans to buy large item such as cars. In other countries, such as Japan, the use of credit cards is low. The Chinese also tend to be cautious and conservative with money, so like to save for a 'rainy day' (unforeseen emergencies).
- **Consumer and business confidence** – If people and firms have confidence in the performance of the economy, the level of savings will usually fall as people will be more willing to spend money. Savings tend to rise during recessions when consumers are feeling less optimistic about the future.
- **Interest rates** – A rise in interest rates means that people with existing debts have higher repayments to make to the lender. This will therefore reduce their level of spending in other areas. At the same time, people may save more in a bank to take advantage of the higher rate of return. When interest rates are low, people have a disincentive to save and may choose to spend their money instead or find an alternative means of increasing the value of their savings – by purchasing shares in a firm, for example.

Borrowing

Borrowing occurs when an individual, firm or the government takes out a loan from a bank or financial institution, paying it back over a period of time with interest. Borrowing leads to debt, which is manageable if monthly repayments are affordable and interest rates are relatively low. An increase in interest rates causes repayments to rise and this can affect the purchasing power of individuals, firms and governments.

Individuals and firms may borrow for different reasons, including:

- to fund expensive items, such as a car, a motorcycle or an overseas holiday
- to purchase property or land, such as a factory, office or home
- to start up a new business
- to fund large projects such as a business expansion in foreign countries
- to fund private and tertiary education
- to fund current expenditure in the event of job losses or economic decline.

Factors that affect the level of borrowing in an economy include the following:

- **Availability of funds** – Banks and other financial institutions lend money to individuals and firms in the form of loans. The central bank of a country controls the amount of funds which are available for borrowing by setting the **cash reserve ratio** (the percentage of a bank's assets which must be kept in cash in bank vaults or with the central bank). A decrease in the cash reserve rate ratio means that more funds are available for lending and an increase in the money supply can therefore lead to an increase in borrowing.
- **Credit cards** – Credit allows people to purchase goods and services with deferred payment. People or firms take ownership of the goods and services immediately and must repay the amount to the credit card company several weeks later – in other words, they 'buy now and pay later'. If the full amount owed to the credit card company is repaid in full each month then no interest is charged, but if only a portion is repaid then interest is charged on the remainder. Interest rates on credit card borrowing are extremely high: for example, the annual percentage rate charged on Citibank credit cards in 2013 was 35.81 per cent.
- **Wealth** – The wealth of a person may affect their level of borrowing, as a bank will be more willing to lend money to wealthier individuals or highly profitable firms. This is because they have valuable assets and so are more likely to repay the loan, whereas less wealthy customers have a higher risk of defaulting on the loan (being unable to repay their borrowing).

Exam Questions

MCQs

1.

Why may a rise in the rate of interest cause some people to save less?

A They may be saving for a fixed 10 year term.

B They may be saving out of habit.

C They may be saving to leave as much money as possible to their children.

D They may be saving to raise a particular sum of money.

2.

What will be the most likely effect of a fall in interest rates on saving and borrowing?

	saving	borrowing
A	decrease	decrease
B	decrease	increase
C	increase	decrease
D	increase	increase

3.

A person is keen to repay a large debt owed on his credit card.

What is likely to cause that person to reduce the credit card repayment and spend more from his weekly wage?

A an increase in interest rates

B an increase in the price of essential products

C an increase in the range of products available

D an increase in weekly earnings

4.

In 2008–2009 the central bank of a developed country reduced interest rates from 5 % to 0.5 % per year to stimulate the economy.

How would this policy have affected the amount saved and the cost of borrowing by individuals?

	amount saved	cost of borrowing
A	decrease	decrease
B	decrease	increase
C	increase	decrease
D	increase	increase

5.

The table shows information for two workers.

	doctor	window cleaner
annual income ($)	50 000	20 000
total deductions ($)	10 000	8 000

Both workers save 10 % of their disposable income.

How much is this in each case?

	doctor	window cleaner
A	$12 000	$40 000
B	$1 200	$4 000
C	$40 000	$12 000
D	$4 000	$1 200

6.

In which way will an increase in income be most likely to affect the amount of spending and saving of an individual?

	spending	saving
A	fall	fall
B	fall	rise
C	rise	fall
D	rise	rise

7.

In 2009, the Chinese Government tried to increase household spending.

Which policy measure would have been **most** likely to achieve this objective?

A an increase in both direct and indirect taxes

B a reduction in subsidies given to manufacturers

C a requirement for commercial banks to reduce their lending

D a switch from public to private sector provision of health care and pensions

8.

Which motive is **most** likely to increase the wish to open a savings account?

A to have cash immediately available

B to prepare for future expenditure

C to satisfy essential needs

D to widen present consumption choices

9.

What might encourage a consumer to save rather than to spend?

A being made unemployed

B discounts on products

C government subsidies to producers

D high interest rates

Chapter 10: Business Organization

Types of business organizations

The main types of business organization in the private sector are classified as:

- sole traders
- partnerships
- private limited companies
- public limited companies
- multinationals
- co-operatives

Public corporations exist in the public sector. Each type of organization has its merits and drawbacks, which help the owners to determine the best type of legal form for their business organization.

Sole traders

A **sole trader** is a business owned by a single person, also known as a **sole proprietorship**. This person can employ as many people as needed, but remains the only owner of the business. Examples of sole proprietors are market traders, hairdressers, physiotherapists, and owners of small shops such as a bakery, café or stationery shop. The advantages of being a sole trader are detailed in Table 10.1.

Table 10.1 Advantages of being a sole trader

Advantage	Explanation
Can set up the business easily	Sole proprietorships are the cheapest and easiest type of business to set up. There are very few legal procedures needed to start the business.
Has autonomy in decision making	The owner is the boss and does not need to consult anyone about their decisions. This makes the business relatively easy to run.
Keeps all the profits made by the business	This gives an incentive for the sole trader to work hard as they are rewarded with more profits as the business becomes more successful.
Enjoys tax advantages	In many countries small businesses pay a lower rate of tax on profits than large companies.
Enjoys privacy	The business does not need to publish its accounts to the general public. Only the tax authorities need to see the financial information of the sole trader.
Can be flexible in what the business does	For example, the owner has some flexibility in the choice of working hours. Also, if one business idea does not work out, the sole trader can quite easily introduce new trading activities or close down the business and start another one.
Has a sense of achievement	Sole traders are motivated by running their own business. There is a real sense of personal achievement if the business is successful.

The disadvantages of being a sole trader are listed in Table 10.2.

Table 10.2 Disadvantages of being a sole trader

Disadvantage	Explanation
Bears all the risks	There is no one else to share the burden, problems, decision making or responsibilities.
Has added workload and pressures from having to run the business as a sole proprietor	As the only person in the business, the sole trader often has to work long hours, especially during the early stages after the business has been set up.
Limited specialisation	Unlike large companies, sole traders cannot rely on the marketing, finance, production and human resource management expertise of others. This limits the extent to which sole proprietors can benefit from large-scale specialisation and the division of labour (see Chapter 7).
Limited access to sources of finance	Being a small business, the sole proprietorship represents high risk. This limits the extent to which the sole trader can raise finance from banks and other sources.
Lack of continuity	If the owner is sick or wishes to go on holiday, the business will struggle to continue. If the owner dies, the business will cease to operate in its current legal form.
Has restricted ability to exploit economies of scale	Large businesses are usually able to enjoy **economies of scale** (see Chapter 14), i.e. lower unit costs of production resulting from large-scale operations. This means that sole traders struggle to gain cost advantages and therefore have to charge higher prices for their products.
Has **unlimited liability**	This means that if the business goes into debt and makes a loss, the sole trader is personally liable for repaying the debts, even if this means personal belongings have to be sold to do so. This is because there is no legal difference between the owner (the sole trader) and the business itself (the sole proprietorship).

Partnerships

A **partnership** is a business organization owned by more than one person. In an **ordinary partnership**, there are between 2 and 20 owners, known as **partners** (the co-owners of the partnership). At least one of these partners will have unlimited liability, although it is usual practice for all the partners to share responsibility for any losses made by the business. The government does allow some businesses, such as law and accountancy firms and health clinics, to operate with more than 20 partners.

It is possible for a partnership to have a **sleeping partner** (or **silent partner**) who invests money in the partnership but does not take part in the daily management of the business. It may also be possible for a partnership to be a **limited liability partnership (LLP)** where the partners have limited liability and the partnership has a legal identity separate from its owners.

The advantages of partnerships are as follows:

- As there are up to 20 owners, a partnership is usually able to raise far more capital than a sole trader.
- Similarly, as there are more owners, the business can benefit from having more ideas and expertise. Most partnerships can therefore benefit from specialization and division of labour.
- Like sole traders, the business affairs of partnerships are kept confidential. Again, only the tax authorities need to know about the financial position of the business. This makes the partnership an appropriate form of organization for businesses such as private health care providers, accountancy firms and law firms, as they need to keep their business affairs confidential.
- As partnerships tend to be small businesses, there tend to be good working relationships with both colleagues and customers. One of the potential drawbacks of being a large organization is the lack of clear communication between staff, because there are simply too many of them.
- There is more continuity than for the sole trader, as the partnership can remain in business if a partner is ill or goes on holiday.
- In some cases, additional finance can be raised from silent partners. These partners simply invest in the business without taking an active role in the running of it.

The disadvantages of partnerships include the following:

- As there is more than one owner, there might be disagreements and conflict between the owners. This can undoubtedly harm the running of the partnership.
- Although the business can operate on a larger scale than a sole trader, any profits made must be shared between all the owners.
- In most cases, the partners have unlimited liability. Although it is possible to have limited liability partnerships, limited liability usually applies only to sleeping partners, as they are not directly involved in the daily running of the partnership and so are not personally liable for any debts incurred.

Limited liability companies

Limited liability companies are owned by shareholders. The owners have the benefit of **limited liability**, which means that in the event of the company going bankrupt they would not lose more than the amount they had invested in the company – they cannot be forced to sell their personal belongings to repay the debts of the company. In legal terms, there is a **divorce of ownership and control**, since the *owners* (shareholders) are treated as separate legal entities from those who *control* and run the business (the directors and managers).

Limited liability companies can raise finance by selling shares. However, a **private limited company** cannot sell shares to the general public whereas a **public limited company** can raise finance in this way. When a firm becomes a public limited company

it offers shares to the general public in an Initial Public Offering (IPO) on a stock exchange. To attract investors the firm will publicise the IPO in newspapers and on media websites.

All limited liability companies must be registered with a government agency that keeps records of all public limited and private limited companies in the country. In the UK, for example, the agency is called the Registrar of Companies, and to set up a limited liability company, the owners must submit two important documents:

- The **Memorandum of Association** – a document that records the name, registered business address, amount of share capital and outline of the company's operations (what it does).
- The **Articles of Association** – a lengthier document that contains information about: the details and duties of the directors of the company shareholders' voting rights the transferability of shares details and procedures for the company's Annual General Meeting how profits are to be distributed (dividend policy) procedures for winding up (closing) the company. Once the Registrar of Companies (or equivalent) is satisfied with the paperwork, a **Certificate of Incorporation** is issued to the limited liability company so that it can start trading.

Table 10.3 Differences between private and public limited companies in the UK

	Private limited company	Public limited company
Legal status	Carries the initials 'Ltd' after its name in official business communication	Carries the initials 'PLC' after its name in official business communication*
Buying shares	Shares are not available on an open stock exchange, thereby limiting the amount of funds	Shares are tradable on a stock exchange, so the general public can buy shares in the company
Selling shares	Shares can only be sold to family, friends and employees with the prior approval of the majority of the shareholders; hence it can be difficult to sell shares in the company	Shares can be sold instantaneously to anyone via a stock exchange such as the London Stock Exchange or the New York Stock Exchange
Minimum start-up share capital	$3.04 (£2)	$76 219 (£50 000)
Number of shareholders	No upper limit, but likely to have far fewer shareholders than a public limited company	No upper limit, but likely to have far more shareholders than a private limited company
Raising further finance	The sale of more shares in the company must first be approved by the directors	A subsequent 'share issue' can be used to sell more shares and raise more funds

The shareholders elect a **Board of Directors** (BOD) to represent their interests. The BOD is in charge of the strategic management of the company on behalf of its

shareholders. The top director on the BOD is known as the **Managing Director** (MD) or **Chief Executive Officer** (CEO), who oversees the operations of the company. It is at the Annual General Meeting that shareholders vote in the BOD to represent their interests.

The advantages of limited liability companies are as follows:

- Since shareholders have limited liability, it is usually easier to raise a large amount of finance from selling shares.
- The vast sum of money that can be raised from selling shares allows limited liability companies to enjoy the benefits of being large, such as economies of scale, market power and market presence/dominance.
- Additional finance can be raised through a share issue, which is the process of selling more shares in the company.

The disadvantages of limited liability companies include these:

- Companies have to file their financial accounts and have these audited (checked) by an external accountant. This is both time consuming and potentially expensive.
- These completed documents can be accessed and examined by all shareholders and the general public – the affairs of the business cannot be kept private.
- Companies are more administratively difficult, time consuming and expensive to set up compared with sole proprietorships and partnerships.
- The preparation, publication and distribution of company annual reports to shareholders can be highly expensive. The internet has gone some way to reducing this cost to companies that offer online annual reports (although shareholders can demand a printed version of the report).

For public limited companies, there are further potential drawbacks. These include the following:

- There are high costs in complying with the rules and regulations of the stock exchange.
- There is a potential threat of takeover by a rival company that purchases a majority stake in the business (as shares are openly available for purchase on the stock exchange).
- As they tend to be the largest form of business organisation, there is the possibility that they will become too large to manage efficiently and therefore will suffer from **diseconomies of scale** – that is, higher average costs of production
- The firm is subject to fluctuations in value caused by investor speculation (buying and selling of shares to make a profit) on the stock market.

Multinationals

A **multinational corporation** (MNC) is an organisation that operates in two or more countries. Various factors have made it easier for businesses to operate on a global scale. These include lower transportation costs, advances in technology such as e-commerce, more efficient communication systems, and trade liberalization (the removal of barriers to international trade).

The advantages of being a multinational company include the following:

- MNCs operate on a very large scale, so they are able to exploit economies of scale. This means that the MNC can pass on cost savings to customers in the form of lower prices, thereby enhancing its international competitiveness.
- Through job creation, MNCs are able to help improve standards of living in the countries where they operate.
- By operating in overseas markets, MNCs are able to generate more profit by selling to a larger customer base.
- MNCs are able to spread risks by operating in overseas markets. For example, adverse trading conditions in one part of the world can be offset by more favourable circumstances in other parts of the world.
- By producing in a foreign country, a MNC is often able to avoid any trade restrictions. For example, Japan's Honda is able to avoid import taxes in the European Union because it has manufacturing plants in the UK, Belgium, Italy and France.
- The MNC can set up factories in new markets and benefit from lower transport costs. For example, the Japanese car manufacturers Honda, Nissan and Toyota all have factories in China – the world's largest market for private cars.
- Multinationals might choose to move or expand operations in foreign countries to benefit from lower rates of corporation tax. For example, corporation tax rates in Japan, Australia and the UK are far higher than those in Hong Kong, Singapore and Bahrain.

Multinational corporations suffer from the following disadvantages:

- MNCs face an array of issues to deal with, such as different legal systems, tax regulations and environmental guidelines. The lack of local knowledge can also cause major problems for an MNC.
- The sheer size and geographic spread of an MNC makes it harder to manage the overall business. It becomes more difficult for managers to ensure everyone works well together and to the same standard. Effective communication can also be an issue if workers are located in countries with different languages, national cultures and time zones.
- Fluctuating exchange rates can make it difficult to measure and compare the value of an MNC's sales and profits in overseas markets.

- Multinational corporations have often been criticised for their cost-cutting practices, resulting in poor working conditions and low wages paid to workers in some countries.
- Since many MNCs earn far more revenue than the gross domestic product of the host country, they are often in a powerful negotiating position with foreign governments over location decisions and access to finance (government subsidies, grants and loans).
- While jobs might be created, MNCs can force local firms that are less competitive to close down. Their huge market power and ability to exploit economies of scale mean that local firms might struggle to compete.
- The over reliance on MNCs in low-income countries means that there are major consequences should an MNC choose to relocate its operations to another country. For example, in 2010 French supermarket chain Carrefour pulled out of Thailand, Malaysia and Singapore, creating unemployment in these countries.
- MNCs may be unsuccessful in a country as the goods and services offered may not appeal to local tastes and customs. For example, British retailer Tesco closed all of its US 'Fresh & Easy' supermarkets in April 2013.

Co-operatives

Co-operatives are business organisations that are owned and run by their members (who may be employees or customers) and have a common aim of creating value for their members in a socially responsible way. The employees (members) work together towards a shared goal and each has a vote, so they can contribute to decision making. Co-operatives share profits between their members and they are distributed according to how much each person contributes to the co-operative.

Co-operatives operate in many areas of business, such as retail shops, financial services, credit unions, child care services, housing and agriculture.

Types of co-operative

Consumer co-operatives are co-operatives that are owned by the customers who purchase the goods or services. Examples are child care, housing, health care services, telecommunications and utilities. The members of these co-operatives can get access to goods and services at prices usually less than those charged by a for-profit firm.

Worker co-operatives are co-operatives set up, owned and organised democratically by the employees. Examples include small shops, cafés, printers and other business enterprises. Mondragon Corporation is a Spanish co-operative that produces food and industrial products. It is one of the largest business organisations in Spain with approximately 50000 members.

Producer co-operatives exist when firms co-operate and support each other in several ways. For example, farmers might create a co-operative to buy equipment, fertiliser and seeds, and to market and sell their produce collectively.
The advantages and disadvantages of co-operatives are listed in Table 10.4.

Table 10.4 Advantages and disadvantages of co-operatives

Advantages	Disadvantages
• Employees have a share in the business and therefore are interested in how it performs. This may lead to high levels of staff motivation and engagement in their work. • The employees also have a say in how the business is run (voting rights are equal between members) and how the capital in the business is used. This, too, may lead to higher levels of commitment and motivation. • Productivity may be high as workers are motivated by the values of the co-operative and the desire to add value to their members and the wider community. • Co-operatives tend to be run on socially responsible principles and therefore may create positive externalities that are enjoyed by the wider society.	• Decision making may be slow as all members of the co-operative can contribute to the decision-making process and this may be time consuming. • It can be difficult to settle disputes because of the number of people involved in decision making. • Co-operatives may suffer from a lack of capital as they cannot raise funds through selling shares and so are limited to the amount contributed by their members. • Productivity and profitability may be low as people are not motivated by self-interest. • There may be inefficient managers because the co-operative is unable to use high salaries to provide incentives to work harder. • Only a small amount of the profits is shared between members as the rest is re-invested in the co-operative.

Public corporations (or **public-sector organisations**) are wholly owned by the government and are therefore funded through tax revenues. They are organisations that provide goods and services for the general public. Examples of public-sector organisations are: water suppliers, sewerage providers, utilities (electricity and gas boards), the post office and state-owned news and broadcasting organisations (such as ABC in Australia).
The advantages of public-sector corporations include the following:

- Essential goods and services, such as housing and education, are under the control of the state, ensuring adequate provision for the general public.
- Prices can be regulated by the government and therefore essential goods and services, such as health care, are made affordable to all.
- Government can fund unprofitable services so that everybody has access to essential services such as postal services or bus services to remote areas of the country.

- Public corporations can generate revenue for the government. For example, Petróleos de Venezuela (PDVSA) is the state-owned oil company of Venezuela. All profits made by PDVSA form part of the Venezuelan government's revenue.

The disadvantages of public sector corporations include the following:

- Public corporations are funded using taxpayers' money, so there is an opportunity cost (see Chapter 1) – in other words, the money could have been used for other purposes, such as welfare benefits, government debt repayment or to improve the economy's infrastructure.
- A public-sector corporation could be inefficient, as there is little incentive to maximise profits because the aim of the organisation is to provide a service to the general public.
- A public corporation may be a **monopoly** (see Chapter 13), so it could charge high prices and provide a poor service as it is not subject to any competition.

Factors affecting the choice of business organisation

People setting up a business have to decide which legal form of business organisation they wish to establish. This will depend on numerous factors, as outlined below and in Table 10.6:

- **Ownership** – Does the owner want to be in complete control of the business? Can the owner(s) afford to risk having unlimited liability? Do they want to be held accountable to the shareholders of the company?
- **Control** – How many people will own the business? Do they want complete privacy of their financial accounts? Do the owners prefer to work alone or with others, perhaps to share the workload?
- **Sources of finance** – How much money is needed to set up the business? Do the owners have the necessary money to start the business or are additional funds required? Are the owners prepared to share the profits in return for greater sources of finance to fund the organisation's business operations?
- **Use of profits** – Does the owner want to keep all the profits of the business? Are the profits going to be reinvested in the business or distributed to shareholders?

Table 10.6 Choice of business organisation

Type of organisation	Access to finance	Liability	Privacy	Control
Sole trader	Owner's capital	Unlimited	Yes	Owner has full control
Partnership	Partners' capital	Unlimited	Yes	Partners share control
Private limited company (Ltd)	Shares sold to private individuals	Limited	Financial accounts are prepared and audited but do not have to be made available to the general public	Divorce of control and ownership, run by directors of company
Public limited company (PLC)	Shares sold to general public	Limited	Financial accounts are prepared, audited and made available to the general public	Divorce of control and ownership, run by directors of company
Co-operative	Capital invested by members	Limited	Financial accounts are prepared, audited and made available to members	Controlled by the members, who have one vote each
Public corporation	Government funded	Unlimited	Financial accounts are prepared, audited and made available to the general public	Controlled by directors (individuals) appointed by the government

Exam Questions

Essay Questions

1.

In Nigeria, firms vary in size from the smallest businesses up to very large enterprises.

(a) Distinguish between a sole proprietor and a partnership. [4]

(b) Explain why a business might wish to change from a partnership to a private limited company. [4]

2.

(a) Identify the differences between a partnership and a company. [4]

3.

In Brazil, firms vary in size from the very small to the very large.

(a) Describe the main characteristics of a multi-national company. [4]

4.

(a) Describe the main features of **(i)** a co-operative and **(ii)** a public corporation. [4]

(b) Explain to what extent **(i)** a co-operative and **(ii)** a public corporation have profit maximisation as an objective. [4]

MCQs

1.

Three doctors decide to work together in one health centre.

What form of business organisation are they most likely to choose?

A a partnership

B a private company

C a public company

D a public corporation

2.

Which pair of economic institutions can be found in a market economy?

A commercial banks and public companies

B public corporations and partnerships

C public corporations and private companies

D stock exchange and local government schools

3.

Cathay Pacific, Hong Kong's largest airline, flies to a number of countries.

Shares in the firm are owned by both individuals and other firms in a number of countries. The shares are traded on the Hong Kong Stock Exchange.

Which type of business organisation is Cathay Pacific?

A a partnership

B a private limited company

C a public corporation

D a public limited company

4.

Which of these statements made by an Economics student about different types of busines organisation is true?

A Partnerships face problems in raising large sums of finance.

B Private companies cannot have limited liability.

C Public companies operate in the public sector of the economy.

D Public corporations operate in the private sector of the economy.

5.

Partnerships in the United States of America (US) can now issue tradable shares and can limit the amount of money that shareholders may lose.

To which type of business organisation do these changes make US partnerships similar?

A co-operatives

B public corporations

C public limited companies

D sole traders

Chapter 11: Production

The demand for factors of production

Factors of production (see Chapter 1) are the resources used to produce goods and to provide services. The four factors of production, or **factor inputs**, are:

1. **Land** – natural resources used in the production process, such as raw materials, fish and physical land.
2. **Labour** – the physical and mental human input into the production process. This includes the level of skills, qualities and qualifications of the workforce, and not only the number of workers.
3. **Capital** – manufactured goods used to produce other goods and to provide services, such as tools, machinery, vehicles, computers, factories, roads and money.
   Enterprise – risk-takers who provide the ideas and resources to organise the other three factors of production in the pursuit of profit.

In general, the demand for any factor of production is a derived demand. This means that the demand for factors of production depends on the demand for the goods and services that they will be used to produce. For example, economics lecturers at university are hired only if there is demand for economics courses from undergraduates.

On a macroeconomic scale, the demand for the factors of production in a country results from the total level of demand for goods and services in an economy. For instance, during an economic recession (see Chapter 20), firms will demand less labour.

In addition to the derived demand for factors of production, the demand for land, labour and capital also depends on their cost, availability and quality.

1. The **cost** of factors of production – The higher the cost of land, labour and capital, the lower their demand tends to be. For example, if labour costs are relatively high compared with the cost of capital then workers might be replaced by machinery and technology. Also, the demand for capital depends on the cost of borrowing money – that is, interest rates.
2. The **quantity** (or availability) of land, labour and capital – The greater the availability of factors of production, the lower their cost tends to be, and hence the higher their demand.
3. The **quality** of land, labour and capital – Higher-quality resources tend to demand a higher price. For example, surgeons, pilots and barristers are in high demand

Labour-intensive and capital-intensive production

The production or provision of different goods and services requires varying amounts of factors of production. In **labour-intensive** industries, the use and cost of labour is proportionately higher than the cost of other factors of production. Examples are teaching, psychiatry, sports coaching and management consultancy.

By contrast, in **capital-intensive** industries the use and cost of capital is more than that of any other factor of production. Examples are car manufacturing, soft drinks production and oil extraction.

Productivity

Productivity is a measure of how well resources are used in the production process: that is, the economic efficiency of land, labour, capital and enterprise. For example, **labour productivity** measures the efficiency of the workforce in terms of output per worker. It can be improved by having a better-skilled workforce (through education and training) or by allowing workers to use better, more efficient technologies to increase their output.

Higher productivity is important for an economy for several reasons:

1. **Economies of scale** – Higher levels of output, whether through capital-intensive or labour-intensive methods of production, help to reduce unit costs of production. These cost-saving benefits can be passed on to consumers in the form of lower prices. In addition, cost savings from higher productivity levels can help firms to earn more profit on each item sold.
2. **Higher profits** – Productivity gains are a source of higher profits for firms. These efficiency gains can be reinvested in the business to fund research and development or used to expand the operations of the business. Either way, higher profits help to fund the long-term survival of the firm.
3. **Higher wages** – Highly productive firms that enjoy cost savings and higher profitability can afford to pay higher wages to their workers, especially if they become more efficient. Such firms also tend to attract the best workers, as people prefer to work for firms with better prospects and profitability.
4. **Economic growth** – Productivity is a source of economic growth because it increases the productive capacity of an economy, thus shifting its production possibility curve outwards. This helps to raise employment and standards of living in the economy. Higher wages, from improved efficiency of firms and higher labour productivity, also mean that the government collects more tax revenues to fund its expenditure on the economy.

Determinants of productivity

The five main determinants of productivity growth are as follows:

1. **Investment** – This is the expenditure on physical capital such as machinery, vehicles and buildings. For example, investment in the latest technologies generally helps workers to do their jobs better – that is, to produce more output and of better quality.
2. **Innovation** – This refers to the commercialisation of new ideas and products. Innovations have increased the speed of work, improved communications and enhanced organization at work. Thus, innovation helps to boost productivity.
3. **Skills and experience** – The productivity of labour is determined by its quantity and quality. The latter can be increased by improving the skills and experience of the labour force. Education and training, for example, enhance the **human capital** (skills and experience of the workforce) in the economy, thus boosting productivity.
4. **Entrepreneurial spirit** – Entrepreneurs take risks in the production process in the pursuit of profit. They plan and organise the various factors of production in the production process. Productivity is dependent on the drive (motivation) of entrepreneurs, such as their willingness and ability to exploit new business opportunities.
5. **Competition** – This creates an incentive for firms to be more productive. Without competition, firms might lack the incentive to be efficient or innovative. By contrast, competition forces firms to be more efficient, thus helping to boost the economy's overall productivity.

Chapter 12: Costs, Revenue and Profits

Costs of production

Costs are the payments made by firms in the production process. Examples of costs of production include:

- wages and salaries paid to employees
- rent paid to landowners for hiring of business premises
- advertising expenses
- purchases of raw materials and components from suppliers
- utility bills for telephone, gas and electricity services
- dividend payments to shareholders
- taxes paid to the government based on the value of company profits made.

Costs of production can be categorised in four different ways.

Fixed costs are the costs of production that have to be paid regardless of how much a firm produces or sells. For example, salaries for senior managers, insurance payments and rent all have to be paid regardless of the firm's output level. This relationship is illustrated in Figure 12.1.

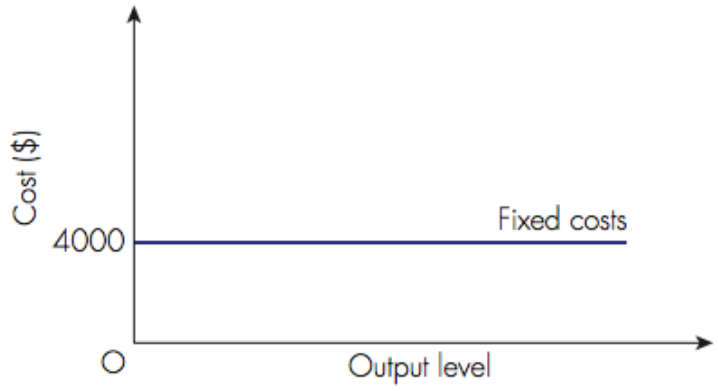


Figure 12.1 Fixed costs for a firm (with $4000 of fixed costs)

Variable costs are costs of production that change when the level of output changes. Examples are the costs of raw materials or components needed to build houses – the more houses that are built, the higher these variable costs become. The total variable

cost line (see Figure 12.2) starts at the origin because when there is no output, no variable costs are incurred.

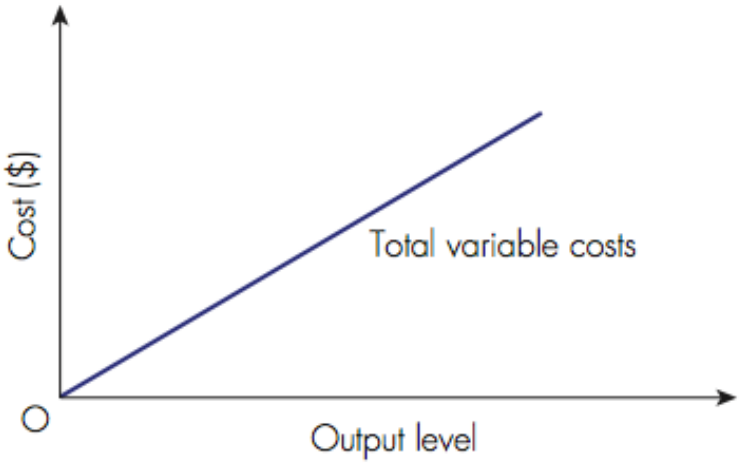


Figure 12.2 Variable costs of a firm

Total costs

As the name suggests, the **total costs** of production are the sum of all fixed and variable costs. The total cost line, shown in Figure 12.3, starts at the same value as fixed costs because even when nothing is produced, fixed costs still have to be paid by the firm.

Total costs = fixed costs + variable costs

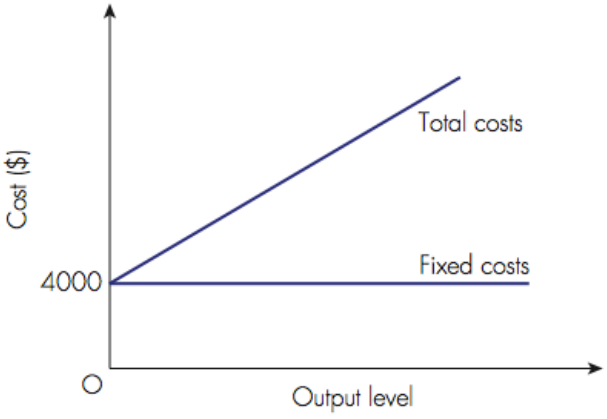


Figure 12.3 Total costs for a firm

Average costs

Average costs refer to the total cost of making *one* product – it is the unit cost of production.

Average costs = total costs ÷ output level

Firms that operate on a large scale are able to reduce their average costs of production (see Chapter 14). For example, Coca-Cola's bottling plants can produce 10000 cans of soft drinks per minute. This enables Coca-Cola to benefit from lower unit costs of production, as shown in Figure 12.4. Here, the firm is able to enjoy **economies of scale** (lower average costs as it expands output from O*a* to O*b*). If the firm becomes too large, by operating beyond O*b*, it will suffer from inefficiencies, thus leading to **diseconomies of scale** (see Chapter 14).

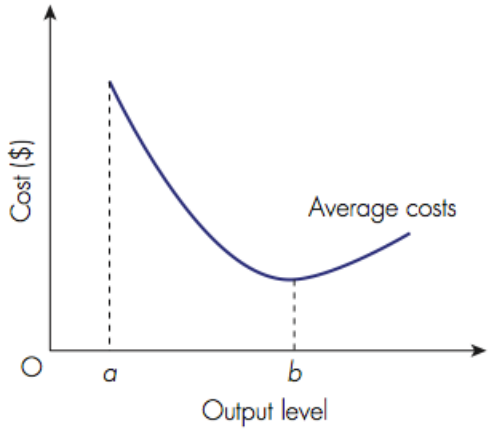


Figure 12.4 Average costs of a firm

Revenues

Revenue refers to the money payable to a business from the sale of its products.

Revenue is often referred to as **sales revenue** or **sales turnover**. It is calculated by using the formula:

Revenue = price × quantity sold

For example, if a cinema charges an average price of $10 for a movie and manages to sell 5500 tickets in a week, its total revenue will be $55000 (that is, $10 × 5500).

Average revenue refers to the typical price received from the sale of a good or service. It is calculated using the formula:

Average revenue = total revenue ÷ quantity sold

So, if instead the cinema earns $60000 from the sale of 7500 tickets, the average revenue (or average price) would be $60000 ÷ 7500 = $8 per ticket.

Profit and profit maximization

A firm earns **profit** if its total revenues exceed its total costs of production. Profit is calculated by using the formula:

Profit = total revenue − total costs

Profit provides an incentive for entrepreneurs to take risks. Without profit, firms will struggle to survive in the long run.

Profit maximisation and business objectives

Profit maximisation is the goal of most private-sector firms. Profits are maximised when the positive difference between a firm's sales revenues and its costs of production is at its greatest.

Alternative business objectives

Businesses have a variety of **objectives** and do not necessarily strive to maximise profit. Other business objectives include:

- **Survival** – While business survival is a vital objective for new businesses, even well-established firms will need to focus on this, especially during unfavourable trading times. To survive in the long run, firms need to earn a profit.
- **Market share** – This refers to a firm's sales revenues as a proportion of the industry's total sales revenue. An increase in sales revenues will, other things being constant, lead to greater market share for the firm. Higher market share has several advantages, such as economies of scale (see Chapter 14) and customer loyalty.
- **Image and reputation** – Businesses might aim to improve how the general public perceives them. A bad image can turn suppliers and customers against the firm's products and services.
- **Ethical objectives** – This refers to the moral principles (values and beliefs) that guide business activity. These objectives focus on what is considered to be socially responsible. Ethical businesses strive to improve the treatment of workers, customers, shareholders and the natural environment. Not-for-profit organisations such as charities aim to provide services to enhance the welfare of people in society.

Exam Questions

MCQs

1.

Which costs will be reduced if a factory decreases the amount of pollution it causes to the environment?

A average costs

B external costs

C fixed costs

D variable costs

2.

How does a firm guarantee that it makes the maximum profit?

A by maximising the difference between its total revenue and total cost

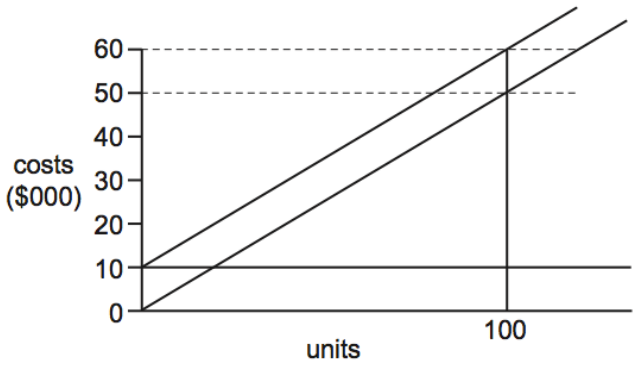
B by maximising the number of goods that it sells

C by minimising the amount of goods that it keeps in stock

D by minimising the difference between average revenue and average cost

3.

The diagram shows the fixed costs, variable costs and total costs of a firm.



What is the firm's variable cost at an output of 100 units?

A $500 **B** $10 000 **C** $50 000 **D** $60 000

4.

An entrepreneur buys a workshop for $200 000 to make plastic boxes. In the first year of operation he spends $70 000 on materials, employs ten production workers paid by the amount produced (piece rate) at a total cost of $80 000 and buys two delivery vehicles for $10 000 each.

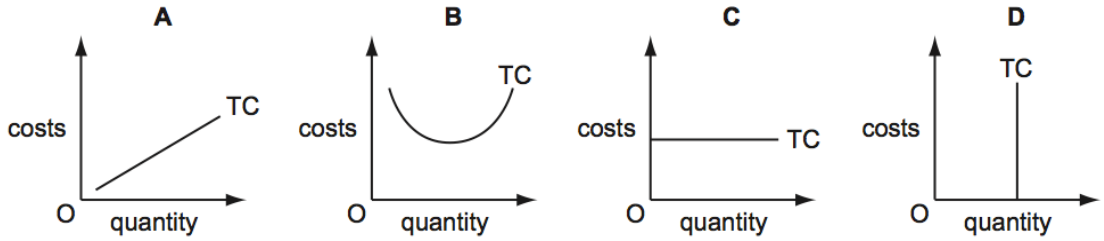
What are his total variable costs?

A $100 000 **B** $150 000 **C** $220 000 **D** $370 000

5.

The diagrams represent total cost curves (TC) of four firms in the short run.

Which firm has only fixed costs?



6.

An Economics student made the following statements about costs of production.

Average costs remain the same at all levels of output.

Fixed costs can exist when there is no output.

Total costs can include both fixed and variable costs.

Total variable costs fall as output increases.

How many of these statements are correct?

A 1 **B** 2 **C** 3 **D** 4

7.

A Japanese company which has spare capacity has agreed to refine 20 000 barrels of oil a day for a Chinese company.

What is likely to happen in the Japanese firm to fixed cost, to variable cost and to total cost?

	fixed cost	variable cost	total cost
A	rise	rise	rise
B	rise	fall	stay the same
C	stay the same	rise	rise
D	stay the same	fall	fall

8.

A firm sells its products for $10 each. It produces 100 units. Its average variable cost is $5 and its average fixed cost is $2.

How much profit does the firm make from selling 100 units?

A $1000 **B** $700 **C** $500 **D** $300

9.

A firm which sells its product for $6 has the following total costs.

output (units)	0	10	20	30
total costs ($)	40	100	120	150

Which statement is correct?

A Average cost is lowest when 10 units are produced.

B The firm breaks even when 20 units are sold.

C The firm has no fixed costs.

D Total variable costs fall continuously over these outputs.

10.

Barilla, an Italian company, is the world's largest pasta maker. It also produces bread.

In 2006 its bread production contributed $1.5 billion (bn) to its total revenue of $5.1 bn. Overall profit was $0.6 bn.

What was the total cost to Barilla of producing pasta and bread in 2006?

A $2.1 bn **B** $3.0 bn **C** $3.6 bn **D** $4.5 bn

11.

If a firm increases its output in the short run, what will happen to its average fixed cost (AFC)?

A AFC will decrease continually.

B AFC will equal zero.

C AFC will increase then decrease.

D AFC will increase continually.

12

The following report appeared in a newspaper.

> 'British American Tobacco (BAT), the cigarette producer, said it would invest $1.5 million in China during the next two years as it set up new factories. China is estimated to be the world's most important market for the sale of cigarettes.'

What is likely to happen to the total cost, total revenue and profit of BAT?

	total cost	total revenue	profit
A	decrease	increase	uncertain
B	decrease	decrease	increase
C	increase	increase	uncertain
D	increase	decrease	increase

Chapter 13: Perfect competition and monopoly

Perfect competition

In economics, the term **market structure** refers to the key characteristics of a particular market. These features include the number and size of firms in the market, the degree and intensity of price and non-price competition, and the nature of barriers to entry. The two extreme market structures in economics are perfect competition and monopoly. The model of **perfect competition** describes a market where there is immense competition.

The main characteristics of firms in perfect competition are as follows:

- There are **many buyers and sellers** in the industry, none of which has any significant market power to influence the market supply or demand (see Chapter 3).
- Hence, firms are said to be **price takers** – the price they charge is determined by the market forces of demand and supply rather than firms setting their own prices.
- As there are literally **no barriers to entry** in perfect competition, there is freedom of entry to, and exit from, the market.
- Firms produce a **homogeneous product**. This means that the products being sold are identical, such as bananas or strawberries being sold in fresh fruit markets.
- Both buyers and sellers have **perfect knowledge**. This means that customers and firms have ease of access to information about the product and the prices being charged by competitors.

However, perfect competition is a theoretical possibility only and in reality the vast majority of markets are imperfect. For example:

- In most industries, there are market leaders (those with a high market share) who have significant power to influence the market supply and hence prices. Hence, these firms are **price makers** (or price setters) rather than price takers.
- In reality, barriers to entry exist in virtually all markets. For example, there may be legal entry barriers to some industries, such as the professional qualifications needed to practise law and medicine, or the high **set-up costs** to enter other markets, such as the airline or pharmaceutical industries.
- Consumers and suppliers are likely to have **imperfect knowledge** rather than perfect knowledge. This means that customers and rival firms do not have easy access to information about the products and the prices being charged by competitors.
- Firms are likely to produce **differentiated products**, rather than homogeneous ones.

Pricing and output policies in perfect competition

A high degree of competition in a market can benefit consumers. This is because they get good-quality products and good customer service, all at the right prices. In addition, competition brings about greater choice, higher output and more competitive prices (see Figure 13.1).

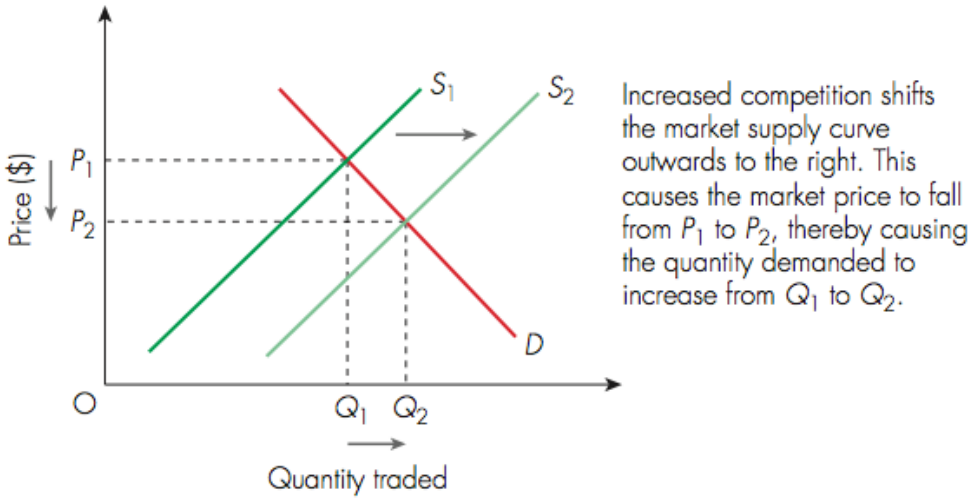


Figure 13.1 Impact of competition on market price and output

Monopoly

There are different interpretations of what is meant by a monopoly. In general, a **monopoly** is a market structure where one supplier dominates the market. A **pure monopoly** exists if only one firm supplies the whole market. Hence, monopoly can be defined as a market structure where there is only one supplier of a good or service.

Features of monopoly include:

- **Single supplier** – As its name suggests, a monopolist is the sole supplier of a product in a given market. This is due to high barriers to entry (see below), which result in a lack of substitutes.
- **Price maker** (or price setter) – The monopolist has significant market power, controlling enough of the market supply that it can charge higher prices yet produce lower output than would be the case if it faced real competition.
- **Imperfect knowledge** – A monopolist is able to protect its prestigious position because customers and rivals have imperfect knowledge, partly as a result of the monopolist's ability to protect its trade secrets.

- **High barriers to entry** – A monopolist can remain so only if in the long run there are very high barriers to entry. These obstacles effectively prevent other firms from entering the market. Examples include: economies of scale of existing firms, ownership of essential resources, the existence of intellectual property rights (namely, patents, trademarks and copyrights), advertising expenditure and legal barriers to entry.

Pricing and output policies in monopoly

Due to the lack of competition, the monopolist is able to restrict market supply. This is shown in Figure 13.2 by the shift in supply from S_1 to S_2, which reduces output from Q_1 to Q_2. Alternatively, we can say that supply would be higher at S_1 in the absence of monopoly power. As the monopolist limits the supply of its good or service, the price is higher (at P_2 rather than P_1).

Monopolists are also able to use **price discrimination**. This is the practice of charging different prices to different customers for essentially the same product.
For example, public transport operators, theme parks and cinemas charge students different prices compared with other adults. Another example, often used by supermarkets, is price discrimination based on the quantity sold. For example, supermarket customers who buy 'multipacks' of a product usually get to enjoy a lower price for each unit bought. This discriminates against those who buy in smaller quantities.

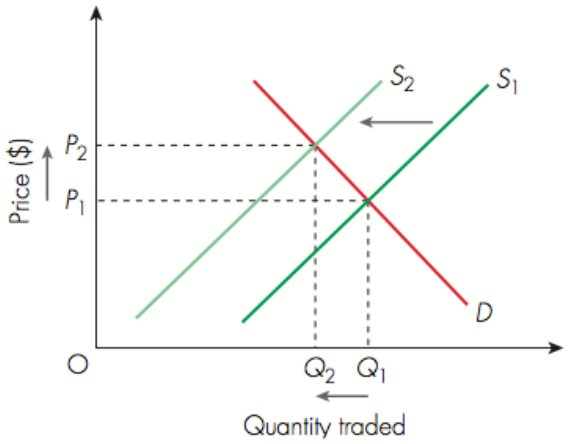


Figure 13.2 Impact of monopoly power on market price and quantity traded

Monopolists are also able to use **price discrimination**. This is the practice of charging different prices to different customers for essentially the same product. For example, public transport operators, theme parks and cinemas charge students different prices compared with other adults. Another example, often used by supermarkets, is price

discrimination based on the quantity sold. For example, supermarket customers who buy 'multipacks' of a product usually get to enjoy a lower price for each unit bought. This discriminates against those who buy in smaller quantities.

Other pricing policies that might be used by firms include:

- **Cost-plus pricing** – This involves working out the average cost of each unit of output and then adding a certain amount or certain percentage on top to earn profit.
- **Competition-based pricing** – This occurs when a firm sets its price according to the prices being charged by its rivals. This allows the firm to be competitive in terms of price, but also means it may need to rely on non-price factors to maintain its market share.
- **Penetration pricing** – This involves setting a low price in order to enter a new market. This pricing policy is often used by firms when launching new products in untested markets in order to gain market recognition and market share. It can help to give a product a competitive edge.
- **Loss leader pricing** – This happens when the price is set below the costs of production, thus making a loss in the short run.
- **Price skimming** – This pricing policy involves a firm setting an initially high price in order to maximise profits and to recover its pre-launch costs, such as marketing and R&D (research and development). Price skimming is often used when selling new innovative products with few, if any, substitutes. The price is continually reduced (or 'skimmed') as competitors enter the market to launch rival products and compete for market share.
- **Promotional pricing** – This commonly used pricing policy involves firms temporarily reducing their prices to attract more customers. Promotional pricing can be used to clear excess stock when a product is being withdrawn from the market or to boost demand for products in a new market.

Note that if monopolies exploit their market power and act against the public interest, perhaps by deliberately charging unreasonably high prices, then the government can intervene to break up their monopoly powers. For example, a merger between the two largest firms in a market can be prohibited by the government if there is reason to believe that the monopolist's resulting gain in **market share** (or **market dominance**) will act against the interest of the general public. In 2013, Visa and Mastercard were fined a record $7.25 billion for colluding to fix the credit card fees that they charged retailers.

Disadvantages of monopoly

Monopolies have a number of disadvantages:

- Private-sector monopolies can be inefficient in terms of resource allocation. In pursuit of profit maximisation, the monopolist can restrict the output of a product and/or charge a higher price for it. This creates a loss in the welfare of consumers
- High barriers to entry prevent new firms from entering the market. This limits the degree of competition and ensures monopolists can continue to charge relatively high prices.
- As there are no substitutes for the products supplied by monopolists, demand is price inelastic. However, as monopolists are price makers, they can charge higher prices to maximise profit from the relatively low PED.
- Imperfect knowledge about prices and products means that consumers may not necessarily make rational choices. For example, the confusing pricing policies used by utilities companies (gas, telephone, water and electricity) mean that customers find it troublesome to switch between suppliers, especially as they might not know if they would be better off. Thus, imperfect knowledge enables monopolists to maintain market power.
- Monopolists may have less incentive to innovate than firms in competitive markets. Innovation is the commercial exploitation of an invention. The lack of competitive pressures means that monopolists can become complacent (as there is no need to be worried about competition), rather than focus on innovations to ensure their survival.

Advantages of monopoly

- As monopolists control market supply, they operate on a very large scale, thus benefiting from huge economies of scale – that is, lower average costs of production. This means that monopolists can actually supply larger quantities of output and at lower prices. This market power can be a source of international competitiveness against foreign competitors.
- Monopolists have the financial resources to invest in innovation. Research and development expenditure can help to generate new ideas, products and production processes. Innovation can therefore act as a source of profit and improve the productive capacity of the economy.
- Some monopolies can eliminate wasteful competition. For example, it makes more economic sense to have one monopoly supplier of postal services in a town, state or country rather than allowing private-sector firms to compete to provide such services. This is because profit-seeking firms may not have much of a financial incentive to provide services to remote areas of the country and a single provider can gain huge economies of scale. The same applies to suppliers of water pipes,

railway tracks, telephone lines and electricity grids.

Exam Questions

1.

Why is a firm in perfect competition a price taker?

A Demand for its product is perfectly inelastic.

B Demand for its product is unaffected by changes in market conditions.

C It is one of a small number of firms in the industry.

D Its output is too small to have any effect on a proportion of the total market.

2.

What is a difference between a monopoly and a perfectly competitive firm?

A A monopoly always has economies of scale and a perfectly competitive firm has diseconomies of scale.

B A monopoly always operates in the public sector and a perfectly competitive firm always operates in the private sector.

C A monopoly is a price maker and a perfectly competitive firm is a price taker.

D A monopoly seeks to maximise profits and a perfectly competitive firm seeks to maximise output.

3.

In a competitive industry, a firm's aim is to become a monopoly supplier.

Which policy is it most likely to use to eliminate competition?

A adopt price reductions and advertising

B avoid diseconomies of scale

C maximise output and profit

D reduce financial barriers to entry

4.

What is a possible advantage to the consumer of a monopoly supplier in a market?

A It achieves average costs which are lower than if there were many suppliers.

B It achieves profits which are higher than if there were many suppliers.

C It conducts advertising campaigns to discourage competition.

D It decides which retail outlets may sell and distribute its goods.

5.

A firm is producing an output which enables it to make more than normal profit.

What must be true at that output?

A Average revenue must be greater than total revenue.

B Average revenue must equal average cost.

C Total revenue must be greater than total cost.

D Variable cost must equal price.

6.

What is **unlikely** to be a feature of a large firm in a monopoly position in a market?

A It achieves economies of scale.

B It charges high prices.

C It removes barriers to entry.

D It will attract government attention.

7.

Prices tend to be lower in a competitive industry than in a monopoly.

Why is this?

A A monopoly has less influence on the market.

B Competitive industry has more economies of scale.

C New firms are free to enter the competitive industry.

D Profits are lower in a monopoly.

8.

A monopoly takes over an industry from competitive firms.

What is **not** likely to be true about the monopoly compared with a competitive firm?

A A monopoly will earn a higher rate of profit.

B A monopoly will gain a greater share of the market.

C A monopoly will offer a wider choice to the consumer.

D A monopoly will operate on a larger scale of production.

9.

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Essay Questions

1.

Perfect competition is one type of market structure with a number of distinctive characteristics. It is often compared favourably with monopoly.

(a) Analyse **three** characteristics of perfect competition. [6]

(b) Distinguish between a firm that is a price taker and one that is a price maker. [4]

(c) Discuss whether pricing and output policies in perfect competition are more favourable to the consumer than those in monopoly. [10]

2.

(a) Describe the main features of **(i)** a co-operative and **(ii)** a public corporation. [4]

(b) Explain to what extent **(i)** a co-operative and **(ii)** a public corporation have profit maximisation as an objective. [4]

(c) Firms can grow large through integration. Explain, with the aid of examples, the difference between horizontal and vertical integration. [4]

(d) Discuss whether the disadvantages of a monopoly always outweigh the advantages. [8]

Chapter 14: Business growth

Size of firms

In every economy there are firms of different sizes. The size of a firm can be measured in the following ways:

- The number of employees
- The size of the market (market share)
- The capital employed in a firm
- The sales turnover (sales revenue) of the firm.

How do firms grow?

Internal growth (organic growth)

- Firms can grow by **increasing the number of branches** (stores) within a particular country or by opening branches in different countries. They can also expand by selling their products in a greater number of countries and can finance this expansion using profits earned within the business.
- Firms can grow by **franchising**. This means that an individual or a firm purchases a licence from another firm to trade using the name of the parent company. The Subway sandwich chain, established in the USA, has approximately 141 stores in the United Arab Emirates (UAE) and this expansion is due to franchising.
- Firms may **attract investment from larger businesses**.

External growth (inorganic growth)

- Takeovers – A firm can instantly increase its size by buying a majority stake (share) in another business.
- Mergers – Two firms can merge together to form one new company.

Types of integration

Integration refers to the combining of two or more firms, either through a merger or a takeover.

Horizontal integration occurs when two firms in the same sector of industry integrate together, by either a merger or a takeover. The two combined businesses can benefit from:

- getting an increased market share
- gaining skilled employees from one another
- operating with fewer employees (as there is no need to hire two finance departments, for example), so this may reduce costs

- taking advantage of economies of scale.

However, the potential costs or drawbacks include the following:

- There may be duplication of resources and therefore some workers may be made redundant – that is, lose their jobs. Redundancies can cause anxiety, lead to demotivated staff and cause a decrease in productivity.
- The newly formed larger firm may face increasing costs arising from diseconomies of scale (see below).
- The combined firm may suffer from a culture clash if the two businesses are very different. This may initially cause communication and organizational problems.

Vertical integration occurs when a firm from one sector of industry merges with, or is taken over by, a firm from another sector of industry. There are two types of vertical integration: backward and forward.

Backward vertical integration occurs when a firm from the secondary sector of industry merges with a firm from the primary sector, or a firm from the tertiary sector merges with a firm from the secondary sector. For example, a factory in China that makes chicken nuggets for McDonald's might buy a chicken farm.

The benefits of backward vertical integration in the previous example include the following:

- The firm in the secondary sector has control over the quality of raw materials with which it is supplied.
- There is no wastage as all produce from the primary sector can be used.
- The price of raw materials falls as the manufacturer does not have to pay another (external) firm for the raw materials.

  However, there are also costs of backward vertical integration in the example:
- Costs of running the farm in the primary sector increase total costs as more land, labour and capital resources are required.
- Transport costs increase for the integrated firm as raw materials were previously delivered by external suppliers.

Forward vertical integration occurs when a firm from the primary sector of industry integrates with a firm from the secondary sector, or a firm from the secondary sector integrates with a firm from the tertiary sector. For example, Apple, Levi's and Replay all own shops in which to sell their manufactured products. Shell, the global oil company, owns its entire chain of production: oil mines, oil processing plants and the petrol stations where consumers purchase fuel for their cars.

Conglomerate integration (also known as **lateral integration** or **diversification**) occurs when firms from different sectors of industry, which operate in unrelated areas of business, merge or are taken over by another firm. They may form a single company or be part of a large group of companies. They can take advantage of risk-bearing economies of scale (see below), as diversification spreads risk.

Diversification spreads risks because the firm has a number of businesses in different sectors of industry and therefore a failing business, which is part of a larger group, may be protected by the successful businesses within the group's larger portfolio. However, the conglomerate may become too diverse and this may cause problems with the management of capital and human resources. If a segment of the diversified firm is under-performing, it may drain resources from other areas of the business.

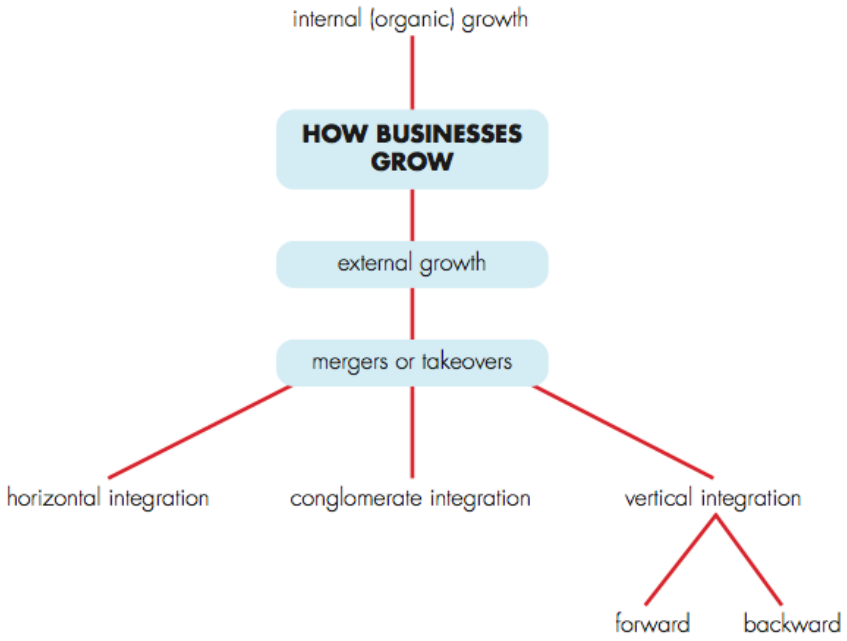


Figure 14.1 How businesses grow

Why do small firms co-exist beside large firms?

Large firms are able to take advantage of **economies of scale** (see below) and therefore their **average costs** of production are lower than those of a small firm. In many economies there are small grocery stores alongside large supermarkets. Supermarkets provide customers with:

- a wide choice of particular products, such as various types of yogurt, cheese or wine

- a wide product range, as in one store you can buy fresh milk, a pair of shoes, a tea pot and a hairdryer.

Economies of scale

One meaning of the word 'economy' is reduced expenditure or saving, while the word 'scale' refers to size. Therefore the phrase 'economies of scale' means that average costs of production fall as a firm grows or increases output.

Internal economies of scale

Internal economies of scale are cost savings that arise from within the business.

- Purchasing or bulk-buying economies of scale occur when the cost of raw materials falls as they are bought in large quantities.
- Technical economies of scale occur as large firms can afford to purchase expensive pieces of machinery and automated equipment for the manufacturing process.
- Managerial economies of scale occur as large firms have the resources to employ specialists to undertake functions within the firm: for example, accountants, engineers and human resources specialists. High salaries paid by large firms will attract experts.
- Risk-bearing economies of scale occur as large firms tend to produce a range of products and operate in many locations. This diversity spreads risks as weak sales in one country can be supported by strong sales in another.
- Research and development economies of scale occur as large firms may be able to fund research and development, and therefore can be innovative and create products that enable them to be leaders in their area of business.
- Marketing economies of scale occur as big firms tend to have a large advertising budget and therefore can spend large amounts of money on promoting their products.

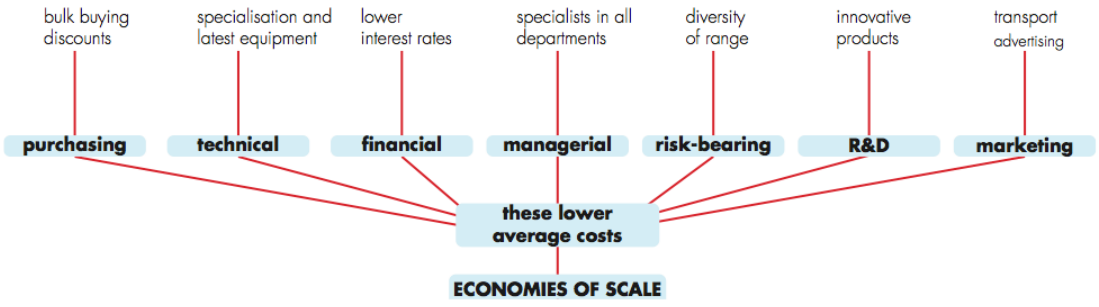


Figure 14.2 Economies of scale

External economies of scale

External economies of scale are economies of scale that arise due to the location of the firm and are therefore external to the business. Examples of external economies of scale are:

- Proximity to related firms
- Availability of skilled labour
- The reputation of the geographical area
- Access to transport – Manufacturing firms benefit from being located near to major road networks, ports and cargo facilities.

Diseconomies of scale

Diseconomies of scale arise when a firm gets too large and average costs of production start to rise. Therefore, the disadvantages of growth start to outweigh the advantages.

Reasons for increased average costs of production include the following:

- Communication issues may arise when a firm becomes too large. There may be too many branches to control and communicate with effectively, and decision making may be slow due to the number of people in the communication chain. This may lead to increased costs of production.
- A merger between two firms may be unsuccessful due to a clash of cultures, so it may be beneficial to demerge.
- It may be necessary to employ more employees for all the branches of the firm, or a new factory may need to be built to accommodate the increased level of production. This will add to total costs of production and average costs of production may rise.
- Workers within a large organisation may find it difficult to feel part of a large firm, so this may lead to a lack of motivation and reduced productivity. Thus average costs will tend to rise.
- The business may become too diverse and start to operate in areas in which it has less expertise. Reduced control and co-ordination may cause costs to increase. Again, this can lead firms to demerge.

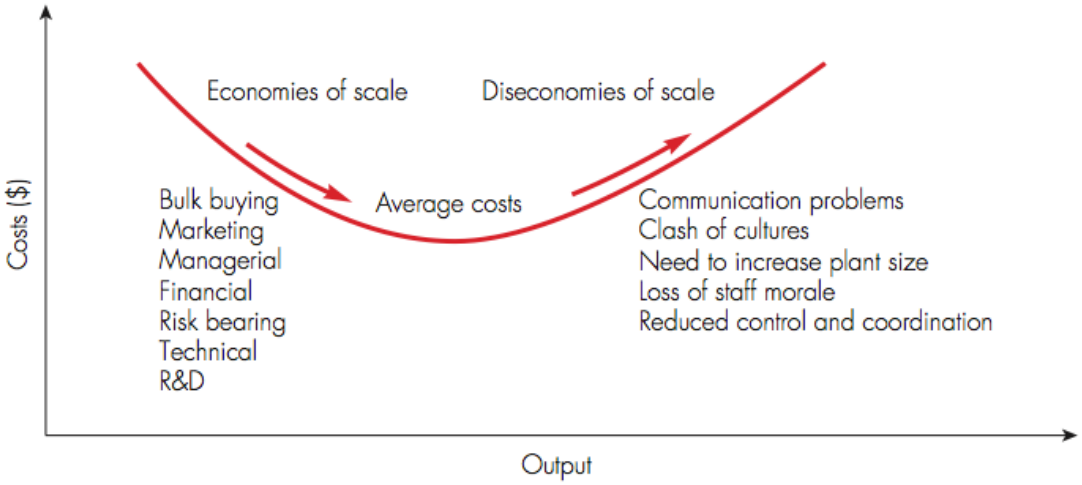


Figure 14.4 Economies and diseconomies of scale and average costs

Exam Questions

MCQs

1.

In August 2008, Infosys, an Indian information technology company, bought Axon, a UK information technology company.

Which type of integration is this?

A conglomerate

B horizontal

C vertical backwards

D vertical forwards

2.

In a city, both large and small shops sell clothes.

Why do large and small shops exist together?

A Large clothing shops create barriers to entry.

B Small shops always sell clothes at lower prices.

C The market for clothing operates under perfect competition.

D There is demand from consumers for a range of fashions.

3.

What is a reason why firms making similar products sometimes locate near each other?

A competition is decreased

B there are external economies of scale

C there are internal economies of scale

D transport costs may be eliminated

4.

Domino's, the largest US pizza chain, decided also to sell sandwiches in an attempt to increase its revenue.

Which term describes this change?

A amalgamation

B diversification

C externalities

D vertical integration

5.

Which is an external economy of scale?

A availability of training facilities in local colleges

B greater production from employees

C increased credit facilities from banks

D lower costs through bulk buying

6.

In January 2008, ICI, a major UK chemical firm, was bought by its rival, a Dutch chemical firm.

What definitely occurred when the Dutch firm bought ICI?

A a partnership

B economies of scale

C horizontal integration

D increased profits

7.

General Motors, a large multi-national company based in the United States, sold some of its European car assembly plants to other car manufacturers during the world recession (economic downturn) in 2009.

Which economic reason would have been **most** likely to influence this decision?

A to benefit from horizontal integration of manufacturing

B to diversify and expand its product range

C to encourage vertical integration of sales and production

D to reduce its excess capacity in car production

8.

A milk processing company takes over a group of dairy farms before merging with a chain of supermarkets.

Which types of integration have taken place?

A diversification followed by horizontal

B horizontal followed by vertical backward

C vertical backward followed by vertical forward

D vertical forward followed by diversification

9.

What is usually an advantage of a small firm?

A the ability to benefit from bulk buying arrangements

B the ability to raise finance from a stock exchange

C the ability to respond quickly to changes in consumer demand

D the ability to run a national advertising campaign

10.

In 2008, XL, the UK's third largest tour operator went out of business.

What would have been the effect of this on the level of competition in the industry, the external economies of scale experienced by the remaining firms and the level of business confidence in the UK?

	level of competition	external economies of scale	UK business confidence
A	increase	increase	reduce
B	increase	reduce	increase
C	reduce	increase	increase
D	reduce	reduce	reduce

11.

India is experiencing rapid growth in air travel. The number and size of airlines is increasing every year.

Which effect arising from this growth is an external economy of scale?

A Banks are more prepared to lend to large airlines rather than small airlines.

B Fuel suppliers charge less to airlines that buy in bulk.

C Institutions are established to train flight crew.

D Larger airlines operate aircraft which can carry more passengers.

12.

Which change must occur when a firm starts to experience diseconomies of scale?

A Average costs begin to rise.

B Employees are made redundant.

C Profits turn into losses.

D Variable costs become fixed.

13.

What is an advantage of small-scale production?

A diseconomies of scale

B division of labour

C flexible production

D spreading of overheads

14.

In August 2008, Infosys, an Indian information technology company, bought Axon, a UK information technology company.

Which type of integration is this?

A conglomerate

B horizontal

C vertical backwards

D vertical forwards

Essay Questions

1.

Trade unions play a role in the New Zealand economy, but **not** every worker belongs to one. This is especially the case in small firms.

(a) Describe the functions of a trade union. [4]

(b) Why might some workers **not** belong to a trade union? [4]

(c) Explain why small firms continue to exist in most economies. [4]

(d) Discuss whether firms always benefit from growing larger. [8]

2.

(a) Identify the differences between a partnership and a company. [4]

(b) Explain why a firm's profits might increase. [4]

(c) Distinguish between internal and external economies of scale. [4]

(d) Discuss whether all small firms will eventually become large firms. [8]

3.

The size of firms in the United Arab Emirates can vary enormously, from very small sole proprietor businesses to very large public limited companies.

(a) Describe the disadvantages of a sole proprietor business. [4]

(b) Explain why a private limited company might wish to become a public limited company. [6]

(c) Explain how firms can grow in size. [4]

(d) Discuss whether some large firms might benefit from reducing their size. [6]

Chapter 15: Inflation

Inflation

Inflation is a sustained rise in the general price level in an economy over time. This does not mean that the price of every good and service increases, but that on average the prices are rising. Governments aim to control inflation because it reduces the value of money and the spending power of households, governments and firms.

The consumer price index

The **consumer price index** (CPI) is a common method used to calculate the inflation rate. It measures price changes of a representative **basket** of goods and services (those consumed by an average household) in the country. For example, items such as staple food products, clothing, petrol and transportation are likely to be included. However, different weights are applied to reflect the relative importance of each item in the average household's expenditure. For example, a 10 per cent increase in the price of petrol will affect people far more than a 50 per cent increase in the price of light bulbs, batteries or tomatoes. Changes in the CPI therefore represent changes in the cost of living for the average household in the economy.

The statistical weights in the CPI are based on the proportion of the average household's income spent on the items in the representative basket of goods and services. For example, if the typical household in a country spent 15 per cent of its income on food, then 15 percent of the weights in the index would be assigned to food. Therefore, items of expenditure that take a greater proportion of the typical household's spending are assigned a larger weighting. Changing fashions and trends, such as a hike in household expenditure on smartphones, online apps and tablet computers, require a review (or update) of the weights in the CPI.

The CPI versus the RPI
Both the consumer price index and the **retail price index** (RPI) can be used to calculate the rate of inflation. However, there are three key differences to these price indices:

- **The items included in the calculations** – The main difference is that the RPI includes the cost of housing, such as mortgage interest payments and other housing costs. The RPI also includes overseas expenditure by domestic households. The CPI includes costs paid for financial services.
- **The population base** – Both price indices try to measure changes in the cost of living for the average household. However, the RPI excludes low-income pensioner households and very high-income households, as it is argued that these do not represent the 'average' household or the expenditure of the average family.

- **The method of calculation** – The RPI is calculated using the arithmetic mean whereas the CPI uses the geometric mean. What this means is that the RPI tends to be lower than the CPI (unless interest rates for mortgage repayments are extremely low).

A key political and economic reason for calculating both price indices is that inflation affects the whole economy and can have major impacts on certain stakeholders. For example, payments for state-funded pensions and welfare benefits are linked to inflation, so the use of the CPI will usually save the government money compared with using the RPI. By contrast, the taxes imposed on fuel, alcohol and tobacco are linked to the RPI, thus generating the government more revenue than if it used the CPI. The RPI is also used by trade unions and firms as a starting point for wage negotiations (see Chapter 8).

The CPI is the preferred method for international comparisons of inflation. This is partly because it uses a wider sample of the population when calculating and assigning statistical weights to the index. The CPI, as the key measure of inflation for most countries, is also important as a benchmark when the government sets interest rates.

Calculating CPI or RPI

A price index is used to indicate the average percentage change in prices compared with a starting period called the **base year**. The CPI and RPI compare the price index of buying a representative basket of goods and services with the base year, which is assigned a value of 100. Hence, a price index of 115.2 means that prices have in general increased by 15.2 per cent since the starting period. If prices were to rise by another 5 per cent in the subsequent year, the price index number would become 120.96 (that is, 115.2 × 1.05), or 20.96 per cent higher since the base year. Price changes in the CPI and RPI are measured on a monthly basis but reported for a 12-month period.

Calculating changes in the CPI or RPI gives the rate of inflation. To do so, two steps are involved:

- collection of the price data on a monthly basis
- assigning the statistical weights, representing different patterns of spending over time.

Items	Base Year Price	Weights	Price in Year 1
Food	$2	60%	$2.5
Fuel	$3	30%	$3.25
Housing	$5	10%	$5.5

Step 1: Find the percentage change in prices for each item
Food:

Fuel:

Housing:

Step 2: Find the weighted average for each item

Food:

Fuel:

Housing:

Step 3: Find in value of index in Year 1 and rate of inflation

Rate of Inflation:

Index in Year 1:

Now for example if the value of index in Year to rises from 118.49 to 120, the rate of inflation for Year 2 will be:

Rate of Inflation in Year 2 =

The causes of inflation
There are two main causes of inflation. These relate to demand-pull inflation and cost-push inflation.
Cost-push inflation is caused by higher costs of production, which makes firms raise their prices in order to maintain their profit margins. For example, in Figure 18.4, higher raw material costs, increased wages and soaring rents shift the aggregate supply (total supply) curve for the economy to the left from AS_1 to AS_2, forcing up the general price level from P_1 to P_2 and reducing national income from Y_1 to Y_2.

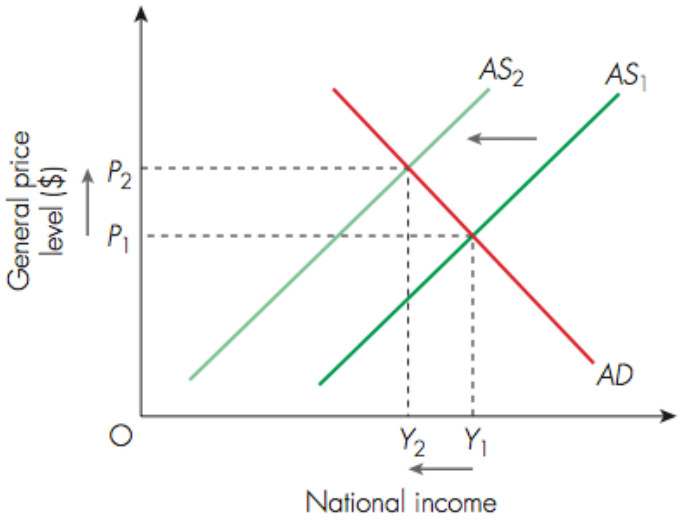


Figure 18.4 Cost-push inflation

Demand-pull inflation is caused by higher levels of aggregate demand (total demand in the economy) driving up the general price level of goods and services. For example, during an economic boom, household consumption of goods and services increases due to higher GDP per capita and higher levels of employment. In Figure 18.5, this is shown by a rightward shift of the aggregate demand curve from AD_1 to AD_2, raising national income from Y_1 to Y_2 and forcing up the general price level from P_1 to P_2.

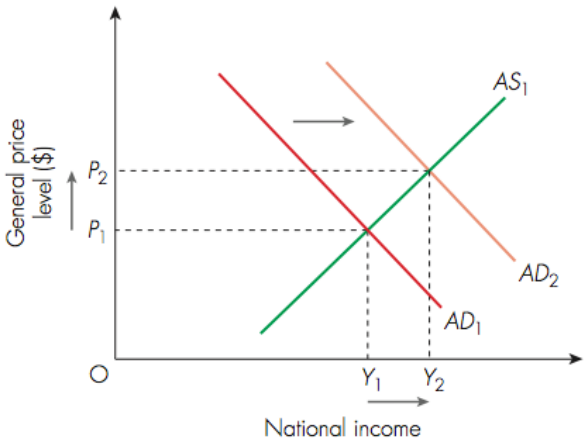


Figure 18.5 Demand-pull inflation

In general, inflation can be controlled by limiting the factors that cause demand-pull inflation and cost-push inflation. For example, the government can raise taxes and interest rates to limit consumption and investment expenditure in the economy.
Other possible causes of inflation are:

- **Monetary causes of inflation** are related to increases in the money supply and easier access to credit, e.g. loans and credit cards.
- **Imported inflation** occurs due to higher import prices, forcing up costs of production and therefore causing domestic inflation.

The consequences of inflation
Inflation can complicate planning and decision making for households, firms and governments, with many consequences as outlined below.

- **Menu costs** – Inflation impacts on the prices charged by firms. Catalogues, price lists and menus have to be updated regularly and this is costly to businesses. Of course, workers also have to be paid for the time they take to reprice goods and services.
- **Consumers** – The purchasing power of consumers goes down when there is inflation – there is a fall in their real income because money is worth less than before. Therefore, as the cost of living increases, consumers need more money to buy the same amount of goods and services.
- **Shoe leather costs** – Inflation causes fluctuations in price levels, so customers spend more time searching for the best deals. This might be done by physically visiting different firms to find the cheapest supplier or searching online. Shoe leather costs represent an opportunity cost for customers.
- **Savers** – Savers, be they individuals, firms or governments, lose out from inflation, assuming there is no change in interest rates for savings. This is because the money they have saved is worth less than before. For example, if interest rates average 2 per cent for savings accounts in a country but its inflation rate is 3 per cent, then the real interest rate on savings is actually −1 per cent. Hence, inflation can act as a disincentive to save. In turn, this leads to fewer funds being made available for investment in the economy.
- **Lenders** – Lenders, be they individuals, firms or governments, also lose from inflation. This is because the money lent out to borrowers becomes worth less than before due to inflation.
- **Borrowers** – By contrast, borrowers tend to gain from inflation as the money they need to repay is worth less than when they initially borrowed it – in other words, the real value of their debt declines due to inflation. For example, if a borrower takes out a mortgage at 5 per cent interest but inflation is 3.5 per cent, this means the real interest rate is only 1.5 per cent.

- **Fixed income earners** – During periods of inflation, fixed income earners (such as pensioners and salaried workers whose pay do not change with their level of

output) see a fall in their real income. Thus, they are worse off than before as the purchasing power of their fixed income declines with higher prices. Even if employees receive a pay rise, the rate of inflation reduces its real value. For example, if workers get a 4 per cent pay rise but inflation is 3 per cent, then the real pay increase is only 1 per cent.

- **Exporters** – The international competitiveness of a country tends to fall when there is domestic inflation. In the long run, higher prices make exporters less price competitive, thus causing a drop in profits. This leads to a fall in export earnings, lower economic growth and higher unemployment.
- **Employers** – Workers are likely to demand a pay rise during times of inflation in order to maintain their level of real income. As a result, labour costs of production rise and, other things being equal, profits margins fall. Those in highly skilled professions such as surgeons, doctors, pilots and barristers are in a strong bargaining position because their skills are in short supply and high demand. This can create a **wage–price spiral** whereby demand for higher wages to keep in line with inflation simply causes more inflation.
- **Business confidence levels** – Inflation also causes business uncertainty. The combination of uncertainty and the lower expected real rates of return on investment (due to higher costs of production) tends to lower the amount of planned investment in the economy.

Deflation

While the prices of goods and services tend to rise, the prices of some products actually fall over time. This is perhaps due to technological progress or a fall in consumer demand for the product, both of which can cause prices to fall. **Deflation** is defined as a persistent fall in the general price level of goods and services in the economy – in other words, the inflation rate is negative.

The causes of deflation

The causes of deflation can be categorized as either demand or supply factors. Deflation is a concern if it is caused by falling aggregate demand for goods and services (often associated with an economic recession and rising levels of unemployment).

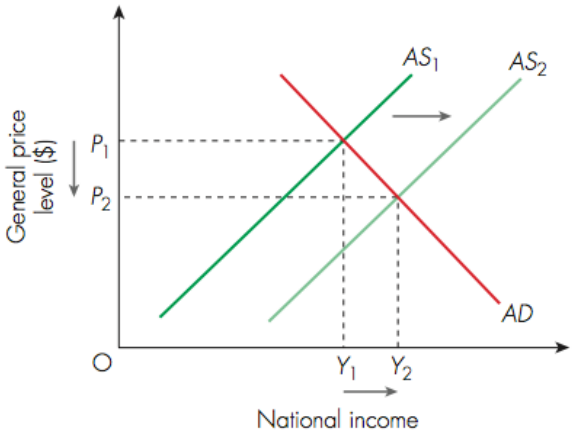


Figure 18.7 Deflation caused by supply factors

Aggregate supply

Deflation can be caused by higher levels of aggregate supply, increasing the productive capacity of the economy (see Chapter 11). This drives down the general price level of goods and services while increasing national income. Such deflation is called **benign deflation** (non-threatening deflation). For example, supply-side policies such as investment in education and infrastructure (see Chapter 16), higher productivity, improved managerial practices, technological advances and government subsidies for major industries all help to raise national income in the long run.

In Figure 18.7, this is shown diagrammatically by a rightward shift of the aggregate supply curve from AS_1 to AS_2, reducing the general price level from P_1 to P_2. This happened in China during the past three decades with the Chinese government pouring huge amounts of investment funds into building new roads and rail networks (the country spent $104 billion on railway investment in 2013).

Aggregate demand

Deflation can also be caused by lower levels of aggregate demand in the economy, driving down the general price level of goods and services due to excess capacity in the economy. This causes what is known as **malign deflation** (deflation that is harmful to the economy). For example, during an economic recession (see Chapter 20), household consumption of goods and services falls due to lower GDP per capita and higher levels of unemployment.

In Figure 18.8, this is shown by a leftward shift of the aggregate demand curve from AD_1 to AD_2, reducing national income from Y_1 to Y_2, and forcing down the general price level from P_1 to P_2. This happened in Japan for much of the past two decades as the Japanese suffered from severe economic recession. This cause of deflation is a concern as it is associated with a decline in national income and standards of living.

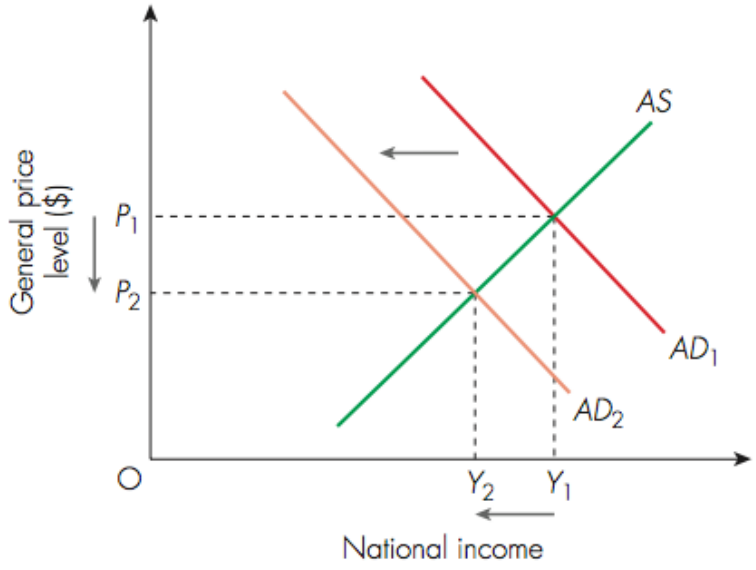


Figure 18.8 Deflation caused by demand factors

The consequences of deflation

The consequences of deflation depend on whether we are considering benign deflation or malign deflation. The consequences of benign deflation are positive as the economy is able to produce more, thus boosting national income and employment, without causing an increase in the general price level. This therefore boosts the international competitiveness of the country. However, malign deflation is generally harmful to the economy. The consequences of malign deflation include the following:

- **Unemployment** – As deflation usually occurs due to a fall in aggregate demand in the economy, this causes a fall in the demand for labour – that is, deflation causes

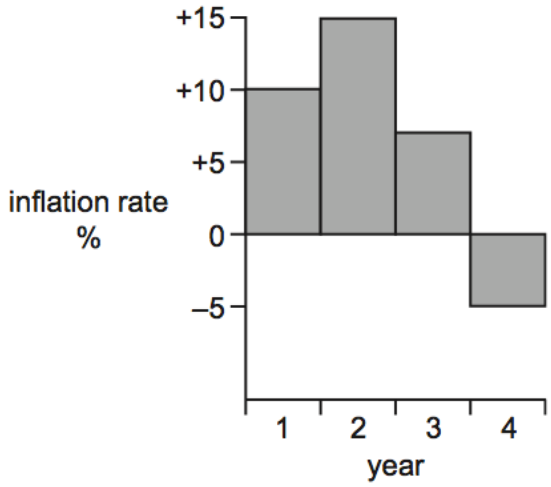
job losses in the economy.

- **Bankruptcies** – During periods of deflation, consumers spend less so firms tend to have lower sales revenues and profits. This makes it more difficult for firms to repay their costs and liabilities (money owed to others, such as outstanding loans and mortgages). Thus, deflation can cause a large number of bankruptcies in the economy.
- **Debt effect** – The real cost of debts (borrowing) increases when there is deflation. This is because real interest rates rise when the price level falls. For example, if interest rates average 1.0 per cent but the inflation rate is −1.5 per cent, then the real interest rate is 2.5 per cent. Thus, with deflation and the subsequent rising real value of debts, both consumer and business confidence levels fall, further adding to the economic problems in the country.
- **Government debt** – With more bankruptcies, unemployment and lower levels of economic activity, tax revenues fall while the amount of government spending rises (due to the economic decline associated with malign inflation). This creates a budget deficit for the government, meaning that it needs to borrow money even though the real cost of borrowing rises with deflation.
- **Consumer confidence** – Deflation usually causes a fall in consumer confidence levels, as consumers fear that things will get worse for the economy. Thus, they may postpone their spending, especially on consumer durable goods such as cars and furniture, as they expect prices to fall even further in the future or wait until the economy improves. This clearly does not help the economy to recover, thereby causing a downward deflationary spiral.

It is difficult to break out of a downward deflationary spiral. To do so would require a significant boost to aggregate demand. Business and consumer confidence levels would also need to increase. Interest rates (see Chapter 16) could be cut to encourage consumer spending and increased investment expenditure in the economy.

Exam Questions

The diagram shows a country's inflation rate in four successive years.



In which year was the country's general price level lowest and highest?

	lowest general price level year	highest general price level year
A	1	3
B	3	2
C	3	4
D	4	2

MCQs

1.

In July 2011 the monthly rate of inflation decreased to 2%. At that time it was expected that it would be 1% in August but would not continue to decline in September.

If this occurred, what happened to prices in July, August and September?

	July	August	September
A	fell	fell	uncertain
B	fell	rose	rose
C	rose	fell	uncertain
D	rose	rose	rose

2.

In 2013 there was a period of low interest rates and high inflation in an economy.

Who would be most likely to benefit and who most likely to lose during such a period?

	benefit	lose
A	borrowers	savers
B	consumers on fixed incomes	firms wishing to invest
C	credit card companies	sellers of luxury goods
D	exporters	banks

3.

What is deflation?

A a falling general price level

B a falling wage level

C a rising output level

D a rising profit level

4.

A person is most likely to save more when there is an increase in a country's

A exchange rate.

B inflation rate.

C interest rates.

D money supply.

5.

What is likely to happen in an economy that experiences uncontrolled hyperinflation?

A Economic activity will cease.

B Inequality of income and wealth will cease.

C Internal trade will cease.

D Trust in money will cease.

6.

Which people are **most** likely to gain at a time of inflation?

A companies who sell abroad

B foreign tourists visiting the country

C those living on their savings

D those who are repaying borrowed money

7.

8.

'Savers suffer as inflation rises to 4.4%.'

Which function of money is most involved in this statement?

A means of deferred payments

B medium of exchange

C store of value

D unit of account

9.

What is the most obvious sign of inflation?

A an increase in imports

B an increase in productivity

C an increase in retail prices

D an increase in total expenditure

Essays

1.

(a) What is meant by inflation? [4]

(b) Explain how a government might calculate the rate of inflation in its economy. [6]

(c) How might inflation affect a person's spending, saving and borrowing? [10]

2.

Many governments are concerned about inflation in their economies. This was, for example, a particular problem in Zimbabwe where there has been a very high rate of inflation.

(a) What is meant by inflation? [3]

(b) Describe how a retail (consumer) price index is calculated. [7]

(c) Explain what is meant by demand-pull inflation. [4]

(d) Discuss whether a government should be concerned about a high rate of inflation in its economy. [6]

Chapter 16: Unemployment

Unemployment occurs when people of working age are both willing and able to work but cannot find employment. The United Nation's International Labour Organisation (ILO) states the lower age limit for employment as 15 years old. While there is no official upper limit, many countries use an age limit of between 65 and 70.

The unemployment rate shows the percentage of the country's workforce (those of working age) that is unemployed. It is calculated by the formula:

$$\text{unemployment rate} = \frac{\text{number of unemployed}}{\text{workforce}} \times 100$$

Where workforce = unemployed+ employed
The ILO measures a country's unemployment based on the number of people who are:
• willing to work, but unable to find it
• actively looking for work – that is, they have looked for a job in the last 4 week
• able to start work within the next 2 weeks or waiting to start a new job within in the next 2 weeks.

Employment as a macroeconomic objective

High employment, or low unemployment, is a key macroeconomic objective of all governments. There are several reasons for this, as high employment helps to:

- raise standards of living for the average person in the country
- increase economic growth – another key macroeconomic objective
- raise tax revenues (due to higher levels of income and spending in the economy) to finance government spending
- reduce the financial burden and opportunity cost for the government, as spending on welfare benefits falls
- prevent 'brain drain' from the economy – this can occur during periods of high unemployment when highly skilled workers leave the country in search of job opportunities elsewhere
- reduce income and wealth inequalities – poorer people are more affected by unemployment, as they lack savings and wealth.

Causes of unemployment

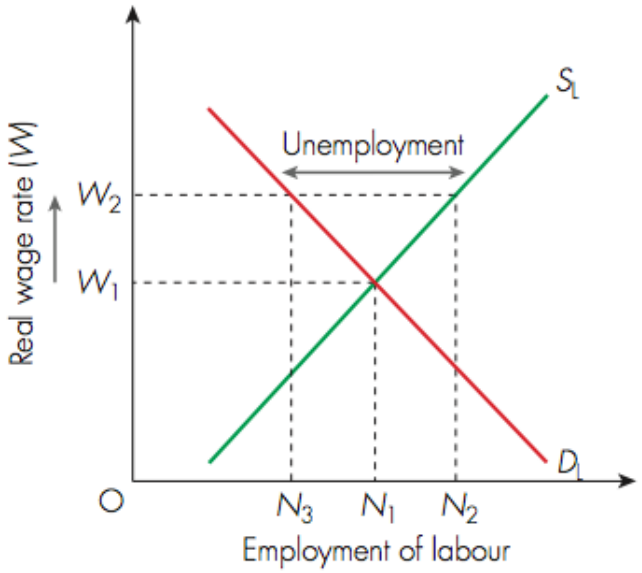
There are many potential causes of unemployment. These causes can be explained by examining the various types of unemployment.

- **Frictional unemployment** is transitional unemployment that occurs when people change jobs, due to the time delay between leaving a job and finding or starting a

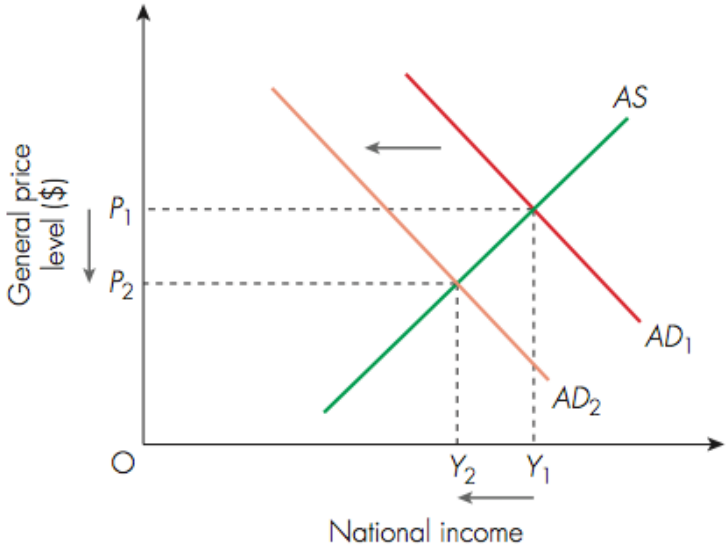
new one. Therefore, frictional unemployment always exists in the economy because it takes time for the labour market to match available jobs with the people looking for jobs.

- **Seasonal unemployment** is caused by regular and periodical changes in demand for certain products. For example, fruit pickers are in high demand during the summer months while retailers tend to hire more temporary workers during the Christmas season (the busiest time of the year for most retailers).

- **Structural unemployment** occurs when the demand for products produced in a particular industry falls continually, often due to foreign competition. There are structural and long-term changes in demand for the products of certain industries. The UK, for example, has suffered from structural unemployment in shipping, textiles, steel production, coal mining and car manufacturing. Those who suffer from structural unemployment usually find it quite difficult to find a new job without retraining.
- **Classical (real-wage) unemployment** occurs when real wage rates are set above the market-clearing level, such as in the case of a national minimum wage. This leads to excess supply of labour, as the number of job-seekers exceeds the demand for labour. In Figure below, the imposition of a minimum wage raises the cost of labour from W_1 to W_2. At the higher wage rate, demand for labour is N_3 but the supply of labour is N_2; the difference represents unemployment, as firms are unable and/or unwilling to pay workers more than their market (equilibrium) value.



- **Cyclical unemployment**, also known as **demand-deficient unemployment**, is the most severe type of unemployment because it can affect every industry in the



economy. It is caused by a lack of aggregate demand, which causes a fall in national income. In Figure below, the fall in aggregate demand in the economy from AD_1 to AD_2 causes national income to fall from Y_1 to Y_2, creating mass unemployment. Demand-deficient unemployment is experienced during an economic downturn – that is, in recessions and slumps.

Consequences of unemployment

Unemployment affects a range of stakeholders: the unemployed themselves; their families; employers and firms; the government; and society as a whole. The consequences of unemployment include the following:

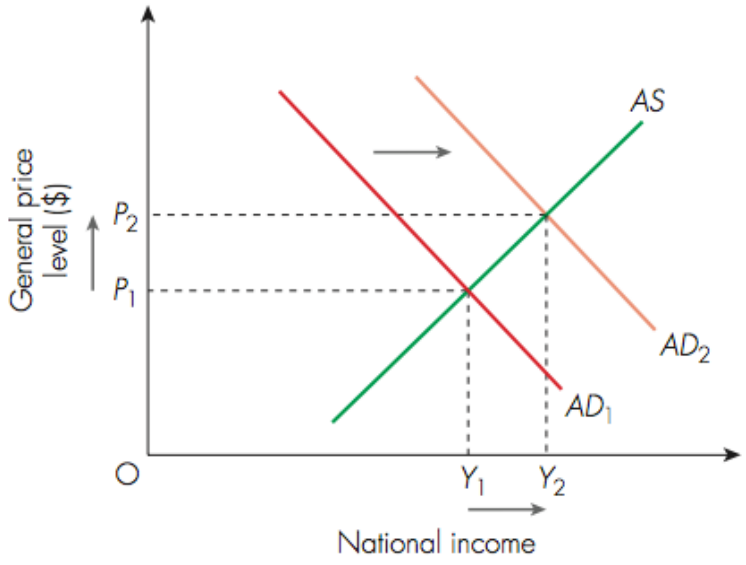
- The unemployed suffer from stress, low self-esteem, homelessness, depression and other health problems. In extreme cases, unemployment has led to suicide.
- Family and friends may also suffer from lower incomes and this often leads to arguments and even separation or divorce.
- The local community can suffer if there is mass unemployment – for example, there may be poverty, falling house prices (and hence asset values) and increased crime rates in the neighborhood.
- Firms lose out as there are lower levels of consumer spending, investment and profits. Business failures and bankruptcies are more likely to occur during periods of high unemployment.
- The government may face higher expenditure on welfare benefits and health care for the unemployed. Prolonged periods of high unemployment can lead to increased government debts.
- Taxpayers stand to lose due to the opportunity costs of unemployment – the expenditure projects forgone due to increased spending on unemployment and welfare benefits.

- The economy suffers from being less internationally competitive, due to falling levels of spending and national output.

Policies to deal with unemployment

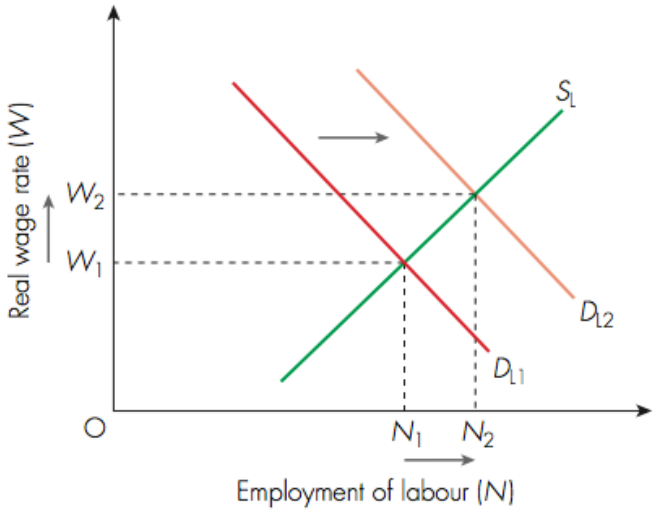
Governments can try to deal with the problems of unemployment in a number of ways. This partly depends on the causes of unemployment in the economy. As there are many types and causes of unemployment, the government needs to identify the best policies to deal with the problem. There are four general policies for reducing unemployment: fiscal policy, monetary policy, supply-side policy and protectionist measures.

- **Fiscal Policy:** This is the use of taxation and government spending policies to influence the level of economic activity. It can be used to tackle unemployment caused by demand-side issues, such as cyclical and structural unemployment. The use of expansionary fiscal policy (tax cuts and increased government spending) can boost aggregate demand and real national income, as shown in Figure below. In turn, this will lead to more employment opportunities.



- **Monetary policy** – This refers to the use of interest rates to affect the level of economic activity. By lowering interest rates, the cost of borrowing falls, thus encouraging households and firms to spend and invest. In Figure below, higher aggregate demand boosts the demand for labour curve from D_{L1} to D_{L2}. This results in higher levels of employment in the economy, as shown by the move from N_1 to

N_2. The resulting rise in real wage rates from W_1 to W_2 also helps to attract more labour, causing an expansion along the supply of labour (S_L) curve. Like fiscal policy, monetary policy tackles demand-side causes of unemployment.



- **Protectionist measures** such as tariffs and quotas can be used to safeguard domestic jobs from the threat of international competition. For example, the Japanese government imposes up to 778 per cent import taxes on rice – the highest rate in the world – in order to protect agricultural jobs in the country.

- **Supply-side policies** – These government strategies are used to deal with imperfections in the labour market and to reduce unemployment caused by supply-side factors. Thus, these policies are aimed at addressing frictional, voluntary and classical unemployment, although they can also be used to help reduce structural and cyclical unemployment. Examples of supply-side policies are as follows:

- **Investment in education and training** helps unemployed people to gain new skills so they can find employment. An example is retraining structurally unemployed manufacturing workers to help them find work in the tertiary sector. Education and training expenditure should also help future generations to become more skilled and employable.

- **A reduction in trade union powers** means that labour unions are not in such a strong bargaining position to obtain higher wages (see Chapter 8). Strong trade unions have often been able to demand annual pay rises in excess of inflation and the market equilibrium level. Hence, government intervention to reduce the influence and power of trade unions can help to reduce classical (real-wage) unemployment.

- **Employment incentives** can be offered to firms for training and hiring the long-term unemployed. For example, the government can offer firms tax allowances and/or subsidies to reduce their costs of training and hiring workers. Similarly, **enterprise zones** could be set up in areas of high unemployment to create jobs. However, firms might be reluctant to do so because of the lower productivity and higher risk of hiring the long-term unemployed.

- A **review of welfare benefits** ensures that there are incentives to seek employment rather than to rely on state welfare benefits. If it is made more difficult for people to claim unemployment benefits, they become more proactive in searching for jobs. This could significantly help to reduce unemployment.

While supply-side policies tend to have more permanent impacts on employment, these effects take longer to accomplish compared with demand-side policies aimed at reducing unemployment in the economy.

Exam Questions

1.

Low inflation, low unemployment and high economic growth are all government economic aims.

(a) Explain the possible causes of inflation. [5]

(b) Distinguish between structural unemployment and demand-deficient (cyclical) unemployment. [5]

(c) Discuss whether it is always possible for a government to achieve a high rate of economic growth. [10]

2.

Most countries are faced with economic problems including unemployment and inflation.

(a) Describe what is meant by full employment. [3]

(b) Explain the different types of unemployment that can exist in an economy. [6]

3.

Governments usually aim to have a low rate of inflation and a high rate of employment, but these two aims can sometimes conflict.

(a) Explain why inflation can be harmful to an economy. [6]

(b) Explain why unemployment which lasts for more than a year has more harmful effects than short-term unemployment for **(i)** the unemployed and **(ii)** the economy. [6]

(c) Discuss to what extent the aims of a low rate of inflation and a high rate of employment are likely to conflict. [8]

Chapter 17: Economics Growth

Gross domestic product

Gross domestic product (GDP) measures the monetary value of goods and services produced within a country for a given period of time, usually one year. The components of GDP are as follows:

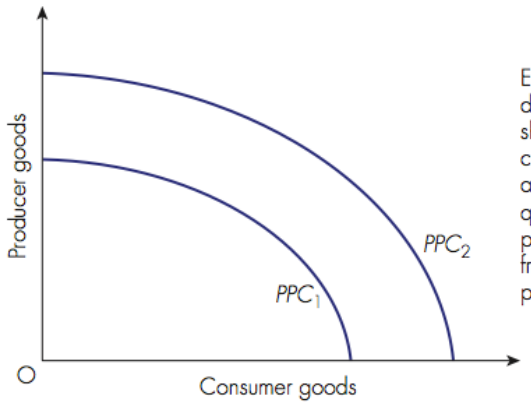
- Consumption expenditure (C) – This refers to the total spending on goods and services by individuals and households in an economy. Examples of consumer expenditure are the economy's spending on housing, transport, food, clothing and domestic holidays.
- Investment expenditure (I) – This refers to the capital expenditure of firms, which is used to further production and expand the economy's productive capacity. Examples are the spending on new machinery and the construction of new factories.
- Government expenditure (G) – This is the total consumption and investment expenditure of the government. Examples are the spending on infrastructure (such as rail and road networks) and the construction of new schools and hospitals.
- Export earnings (X) – This measures the monetary value of all exports sold to foreign buyers. For example, France exports a huge amount of wine, dairy products and fruits, so the earnings from these exports are calculated in the measure of GDP.
- Import expenditure (M) – This measures the monetary value of the payments made for all imports. France imports a lot of cars, oil and smartphones. The spending on these items means that money leaves the French economy, so this must be deducted from its calculation of GDP. The difference between the value of a country's exports and imports (X − M) is called net exports.

Therefore, GDP is calculated using the formula: GDP = C + I + G + (X − M)

Economic growth

Economic growth is the increase in the level of national output – that is, the annual percentage change in GDP. Hence, in theory, an increase in any of the components of GDP (consumption, investment, government spending and net exports) can cause economic growth. An increase in the quantity and/or the quality of factors of production can also create economic growth, such as an increase in the labour supply or improvements in the state of technology.

Economic growth increases the long-term productive capacity of the economy, shown by an outward shift of the production possibility curve (see Chapter 1 and Figure 20.1).



Economic growth can be shown diagrammatically by an outward shift of the production possibility curve for an economy. In this case, a combination of an increase in the quantity and quality of factors of production shifts the *PPC* outwards from PPC_1 to PPC_2, creating more producer and consumer goods

- **Factor endowments** – This refers to the quantity and quality of a country's factors of production. For example, Saudi Arabia is well endowed in the supply of oil, France has plenty of arable land for its agricultural output, and Australia has many natural resources such as coal, gold and iron ore. These countries can therefore specialise production on a large scale, thus benefiting from economies of scale, and export their lower-priced products to overseas markets. By contrast, countries that lack natural resources, land and productive labour tend to struggle to achieve economic growth.
- **The labour force** – The size, skills and mobility of the economy's workforce has an impact on the country's economic growth. For example, India's large labour force and Germany's highly skilled workers have contributed to the economic growth of these countries. The mobility of labour refers to the extent to which workers can change between jobs (known as occupational mobility) and the extent to which they are willing and able to move to different locations for employment (known as geographical mobility). Generally, the more occupationally and geographically mobile workers are in a country, the greater its economic growth is likely to be.
- **Labour productivity** – This refers to the amount of goods and services that workers produce in a given time period. It is often referred to as output per worker, expressed as a monetary value (GDP divided by the country's labour force). Labour productivity (the productive use of labour) is a key determinant of economic growth. This is determined by several interrelated factors, such as the qualifications, experience and training, and motivation of the labour force. Technological advances, such as the use of internet technology in e-commerce (online trading), can also enhance labour productivity. An increase in the labour productivity of a country helps to improve its international competitiveness and hence its prospects for economic growth.

- **Investment expenditure** – In order to remain competitive in the long run, countries must invest in capital resources. Investment is a component of aggregate demand, so any increase in investment should help to boost the country's GDP. Investment helps to boost the country's productive capacity in the long run. Investment expenditure on physical capital, such as the use of computers in production can also help to improve labour productivity. Policies to encourage foreign direct investment (the investments made by foreign multinational companies in overseas markets) can also help a country's economic growth and development. For example, Japan's Honda, Nissan and Toyota have production plants in the UK, which helps to create jobs in the UK and therefore to boost its GDP.

Advantages of economic growth

In general, economic growth is desirable due to the advantages that it brings for members of society. These advantages include:

- **Improved standards of living** – Economic growth tends to lead to a higher standard of living for the average person. Higher income levels in a country enable people to spend more money to meet their needs and wants (see Chapter 1). This helps to eliminate absolute poverty in the country.
- **Employment** – Economic growth leads to higher levels of employment in the economy. This helps to raise consumption and encourages further investment in capital, helping to sustain economic growth.
- **Tax revenues** – Economic growth is associated with higher levels of spending in the economy. This generates more tax revenues for the government. For example, the government can collect more from sales taxes (on consumption), corporation tax (on the profits of firms) and import taxes. Hence, there are more funds for the government to use to sustain the growth of the economy.

Disadvantages of economic growth

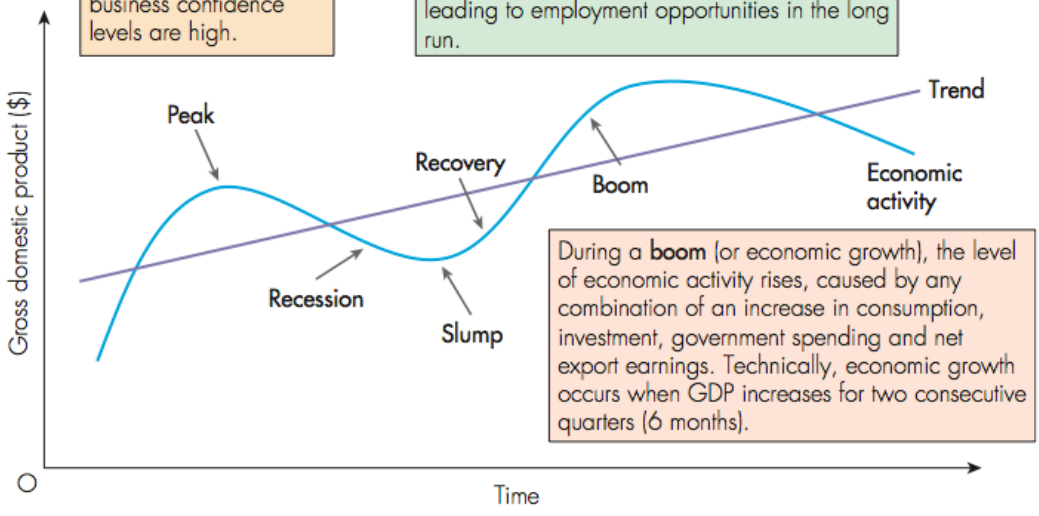
Despite the advantages of economic growth, there are also potential drawbacks:

- **Environmental consequences** – High rates of economic growth can create negative externalities such as pollution, congestion, climate change and land erosion. Such environmental impacts can damage the wellbeing of people and their quality of life in the long run.
- **The risk of inflation** – If the economy grows due to excessive demand in the economy, there is the danger of demand-pull inflation (see Chapter 18). This can lead to prices of goods and services rising to unstable levels, with negative consequences on the economy such as a decline in the country's international competitiveness.
- **Inequalities in income and wealth** – Although a country might experience economic growth, not everyone will benefit in the same way. Economic growth often creates greater disparities in the distribution of income and wealth – the rich get

richer and the poor get relatively poorer, creating a widening gap between rich and poor.

The business cycle

Economic growth occurs when there is an increase in the level of economic activity in a country over time. The term **business cycle** (also known as the **trade cycle**) describes the fluctuations in economic activity in a country over time. These fluctuations create a long-term trend of growth in the economy.



At the **peak** of the trade cycle, economic activity is at its highest level. Unemployment is low, while consumer and business confidence levels are high.

A **recovery** in the business cycle occurs when the level of GDP starts to rise, thus recovering from the slump. The levels of consumption, investment and net exports gradually rise, thus leading to employment opportunities in the long run.

During a **boom** (or economic growth), the level of economic activity rises, caused by any combination of an increase in consumption, investment, government spending and net export earnings. Technically, economic growth occurs when GDP increases for two consecutive quarters (6 months).

There is a fall in GDP during an economic recession. Technically, a **recession** occurs when a country's GDP falls for two consecutive quarters. During a **recession**, there is a decline in consumption, investment and net exports (due to falling export earnings).

At the bottom of a recession in the trade cycle, a **slump** (or **trough**) is said to exist. There will be high unemployment while consumption, investment and net export earnings will be low. Many businesses will have collapsed and consumers have little confidence in the economy. Hence, government spending may be needed to help the economy to recover from the recession.

Measures and indicators of living standards

Economists believe that sustained economic growth is an important macroeconomic objective because it is the most practical measure of **standards of living** in a country. For example, China's phenomenal economic growth over the past three decades has led to an increase in the standard of living for the majority of its population. With an average growth of 10 per cent per year, the average Chinese citizen would double their income every seventh year.

The two main measures or indicators of living standards are **GDP per head** (or **GDP per capita**) and the **Human Development Index** (HDI). One problem in using GDP figures to measure standards of living is that the size of the population is ignored. For example, China's GDP is significantly larger than that of Luxembourg or Sweden. However, China's much larger population means that the GDP per head of Sweden and Luxembourg is greater. Hence, GDP per capita (per person) is a better measure of standards of living.

Another consideration is inflation – a persistent increase in the general level of prices over time. Inflation erodes the value of GDP because the value of money falls if there is inflation.

For example, if a country's GDP increases by 5 per cent in a year but inflation also increases by 5 per cent, then the real value of GDP has not changed. Hence, for a more accurate measure of GDP as an indicator of standards of living, the monetary value of GDP must be adjusted for price changes. This adjusted measure is known as **real GDP**. Hence, **real GDP per capita** is a better measure of standards of living.

An alternative measure of standards of living that looks at factors beyond real GDP is called the **Human Development Index** (HDI). This is a composite indicator of living standards in a country, obtained by measuring three dimensions of human development:

- **Health care** – this indicator measures life expectancy at birth. The better the health care in a country, the greater social and economic wellbeing tends to be.
- **Education** – this indicator measures the mean years of schooling and the expected years of schooling in the country.
- **Income levels** – the higher the national income (or GDP) of a country, the greater human development tends to be.

Hence, poor countries such as Mozambique, Afghanistan, Sudan and Rwanda have a low HDI. Wealthy countries such as Norway, New Zealand and Canada have a high HDI.

However, there are limitations in using the HDI to measure standards of living:

- **Qualitative factors** – the HDI ignores qualitative measures affecting standards of living, such as gender inequalities and human rights.
- **Income distribution** – the HDI does not take account of inequitable income distribution, thus being less accurate in measuring living standards for the 'average' person.
- **Environmental issues** – the HDI ignores environmental and resource depletion resulting from economic growth.
- **Cultural differences** – although the HDI is a composite indicator, it ignores cultural differences and interpretations of the meaning of standards of living.

Exam Questions

MCQs

1.

What is likely to increase with economic growth?

A cyclical unemployment

B income per head

C the budget deficit

D the conservation of natural resources

2.

Why is the Human Development Index (HDI) often considered to be better than GDP per head as a measure of living standards?

A GDP per head excludes economic growth.

B GDP per head ignores population growth.

C HDI includes more than the production of goods and services.

D HDI is calculated by the national government.

3.

Which would best indicate the start of an economic recession?

A falling interest rates

B fluctuating levels of employment

C negative growth of GDP

D steadily increasing price levels

4.

What might a government increase if it wished to raise the growth rate of an economy?

A expenditure on road building

B goods and services tax (value added tax)

C the rate of income tax

D the rate of interest

5.

Between 2002 and 2007, approximately 18 million Latin American households moved out of poverty.

Which change in the region is most likely to have caused this fall in poverty?

A an increase in economic growth

B an increase in inflation

C a reduction in employment

D a reduction in exports

6.

Why is the Human Development Index (HDI) a better indicator of comparative living standards than Gross Domestic Product (GDP) per head?

A It includes international trade.

B It includes more measures of living standards.

C It is measured in money terms.

D It is more directly linked to economic growth.

7.

The table shows the index numbers for Gross Domestic Product (GDP) for four countries between 2001 and 2005.

Which country experienced the greatest economic growth over the period 2001 to 2005?

country	2001	2002	2003	2004	2005
A	96.7	98.6	100	103.7	106.1
B	85.3	98.5	100	102.6	105.0
C	94.4	99.0	100	106.6	108.1
D	92.8	94.5	100	105.8	110.0

8.

The table shows a number of economic indicators for four countries in 2004.

Which country best fits the description of 'the fastest real economic growth with the strongest international position'?

	country	GDP (annual % change)	prices (annual % change)	trade balance ($bn)	foreign reserves ($bn)
A	Chile	4.8	1.1	+6.2	15.9
B	Hungary	4.2	7.5	–4.2	12.6
C	Peru	4.2	4.3	+1.5	10.4
D	Philippines	6.4	5.1	–1.3	13.0

Chapter 18: Specialisation

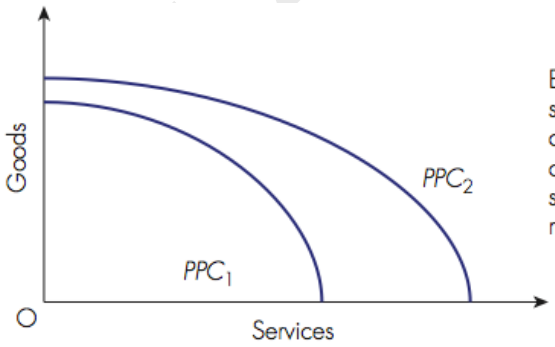
Specialisation occurs when individuals, firms, regions or countries concentrate on the production of a particular good or service.

1. **Individuals:** People might specialise, for example, as accountants, bankers, construction workers, dentists or engineers. Specialisation allows workers to become more skilled and efficient at their jobs, thus increasing the quantity and quality of the goods or services being provided.
2. **Firms**: specialize in the production of goods to gain economies of scale and competitive advantage as compared to other firms.
3. **Countries:** specialize in production of those goods where they have a lower relative cost. **International specialization** occurs when certain countries concentrate on the production of certain goods or services due to cost advantages – perhaps arising from an abundance of resources.

Benefits of specialisation

The benefits of specialisation at regional and national level include the following:

- **Efficiency gains** – Specialisation makes better use of scarce resources. As a result, productivity increases, thereby increasing the country's gross domestic product.
- **Labour productivity** – Workers become more skilled in the jobs they do because they are able to concentrate on what they do best. Therefore, it improves labour productivity and enables better-quality products to be produced. Thus specialisation can benefit firms, regions and the country.
- **Increased productive capacity** – International specialisation can help to shift the production possibility curve of a country outwards due to its increased productive capacity, as shown below. Thus, specialisation leads to increased national output.



By specialising, the country's *PPC* will shift outwards. In this case, as the country chooses to specialise in the output of services, there is a larger shift along the *x*-axis as the economy moves from PPC_1 to PPC_2.

- **Economies of scale** – Specialisation increases national output and global trade. Therefore, firms are able to enjoy cost-saving benefits from large-scale operations, known as economies of scale. This can help to keep prices down and therefore helps to keep inflation under control.

- **Improved competitiveness** – Specialisation helps to enhance international trade and exchange. Competitive prices also improve the international competitiveness of a country, thereby boosting its economic growth. After all, specialisation and trade are essential for improving a country's standard of living.

Disadvantages of specialisation

The benefits and disadvantages of specialisation for the individual are covered in Chapter 7. Despite the potential benefits of regional and national specialisation, there are several drawbacks.

- **Overspecialisation** in a region can cause structural and regional unemployment Countries that overspecialize suffer the most during an economic downturn, as they do not have a variety of goods and services that they can rely on to survive.
- **High labour turnover** occurs if lots of workers choose to leave their jobs in search of more challenging and less boring ones. The higher this rate, the more expensive it is for the economy, as firms have to continually hire and train workers.
- **Low labour mobility** – Job specialisation makes cross-functional training difficult – in other words, workers only have a narrow understanding of the overall business. By contrast, cross-functional training would help to make workers more versatile and expand their skills. This lack of labour market flexibility can reduce the economic efficiency and international competitiveness of the country.
- **Lack of variety for consumers** – Specialisation often leads to standardised, mass-produced goods. Domestic customers may look at alternative imported products from foreign suppliers, thereby reducing the competitiveness of domestic firms that overspecialise.

Chapter 19: Balance of payments

The **balance of payments** is a financial record of a country's transactions with the rest of the world for a given time period, usually over 1 year. This includes the country's trade in goods and services with other countries. In theory, the balance of payments must always balance over time. This is because a country, like an individual, can only spend (on imports, for example) what it earns (from export earnings, for example).

The current account

One of the components of the balance of payments is the **current account**, which is a record of all exports and imports of goods and services between a country and the rest of the world. The current account is structured in three parts.

- ***Visible trade balance****:* The **visible trade balance** is a record of the export and import of physical goods. It is also known as the **balance of trade in goods**. It is the trade in goods, such as raw materials, semi-manufactured products and manufactured goods. **Visible exports** are goods that are sold to foreign customers, with money flowing into the domestic economy. For example, the export of Toyota cars results in an inward flow of money to Japan's visible balance. **Visible imports** are goods bought by domestic customers from foreign sellers, such as Japanese residents buying German-made cars. This results in money flowing out of the Japanese economy.

- **Invisible trade balance:** The **invisible trade balance** is a record of the export and import of services (intangible products), such as banking, insurance, shipping and tourism. It is sometimes called the **balance of trade in services**. For example, American tourists in France would represent export earnings (or an **invisible export**) for the French economy. By contrast, French customers who fly on American Airlines represent an **invisible import** for the country.
- Net income flows and transfers **Net income flows and transfers** are a record of a country's net income earned from capital flows. Examples include:
  - Interest, profits and dividends paid to foreigners who own assets in the country
  - income earned on foreign assets owned by domestic residents and firms Examples of transfers include:
  - money spent on foreign aid
  - money sent home by people working abroad
  - taxes received by the government from foreign residents and firms
  - bank deposits held in overseas banks.

The sum of the visible and invisible trade balances gives what is known as the **balance of trade** or simply the **trade balance** – the difference between a country's total export earnings and its total import expenditure. The trade balance is the largest component of the current account. It is often referred to as **net exports**.

Current account deficits

A deficit on the current account can occur due to a combination of two factors:

- **Lower demand for exports** – This could be caused by a decline in manufacturing competitiveness, perhaps due to higher labour costs in the domestic economy. Another factor is declining incomes in foreign markets, perhaps due to an economic recession. This means households and firms have less money available to spend on another country's exports. A third cause of lower demand for exports is a higher exchange rate. This makes exports more expensive for foreign buyers, so it reduces the volume and value of exports.
- **Increased demand for imports** – Domestic buyers tend to buy more imports if they are cheaper or of better quality. For example, a higher exchange rate means the domestic currency can buy more foreign currency, so this makes it cheaper to buy imports. Alternatively, domestic inflation means that imports are relatively cheaper, so more domestic residents and firms will tend to buy foreign goods and services.

Consequences of current account deficits

There are consequences of current account deficits for the domestic economy. Like an individual, a country cannot spend more (on imported goods, services and capital flows) than it earns (from the export of goods, services and capital).

The severity of these consequences depends on the size and duration of the deficit. Nevertheless, a current account deficit is generally considered to be unfavorable for the economy for the reasons outlined below:

- **Reduced aggregate demand** – A trade deficit means the economy is spending more money on imports than it receives from the export of goods and services. This can cause aggregate demand in the economy to fall, thus triggering a recession
- **Unemployment** – As the demand for labour is a derived demand, a fall in aggregate demand is likely to cause unemployment in the economy. Workers may also have to take a pay cut in order to correct the deficit .
- **Lower standards of living** – If the current account deficit is caused by a negative balance on net income flows and transfers, this means monetary outflows exceed monetary inflows for the country. An economy with less income is likely to suffer from lower standards of living. In addition, to cut the current account deficit, households and firms may need to reduce their spending.

- **Increased borrowing** – Just like an individual cannot spend more than he or she earns in the long run, countries need to borrow money or attract foreign investment in order to rectify their current account deficits. In addition, there is an opportunity cost of debt repayment, as the government cannot use this money to stimulate economic growth.
- **Lower exchange rate** – A fall in demand for exports and/or a rise in the demand for imports (causing the current account deficit) reduces the exchange rate. While a lower exchange rate can mean exports become more price competitive, it also means that essential imports (such as oil and foodstuffs) will become more expensive.

Chapter 20: Exchange Rates

An exchange rate is the price of one currency measured in terms of other currencies. For example, the exchange rate of the US dollar in terms of the pound sterling might be $1.5 = £1 (or $1 = £0.67). This means that a British tourist spending $600 on hotel accommodation in the USA would have spent the equivalent of £400 ($600 ÷ 1.5).

Exchange rates can change over time, so if the US dollar fell against the pound sterling to $1.60 = £1, then the tourist would pay £375 ($600 ÷ 1.6) for staying at the hotel in the USA. The British tourist would pay the same price in US dollars but this equates to fewer pounds sterling.

The importance of exchange rates

Since different countries use different forms of money, exchange rates are fundamental in facilitating international trade. In theory, the demand for exports of goods and services increases if exports become cheaper. Likewise, the demand for imports falls if the price of imports becomes more expensive.
For example, the price of an iPad in Hong Kong is HKD6000 (Hong Kong dollars). As the price of the pound sterling increases from $10.5 to $13.5, the price of the iPad falls from £571.43 to £444.44 for the British tourist in Hong Kong. This means that as the value of a country's currency rises, its demand for imports tends to increase. Hong Kong's exports to the UK should therefore increase.

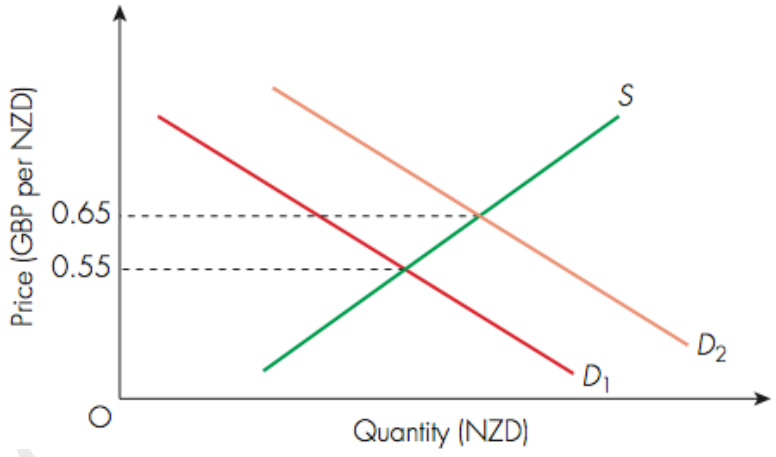
Looking at this from the perspective of Hong Kong, the fall in its exchange rate (from $10.5 = £1 to $13.5 = £1) means that imports will become more expensive. To illustrate this, suppose that a Hong Kong supermarket imports supplies from the UK. An order valued at £50000 used to cost the Hong Kong firm $525000 (i.e. £50000 × $10.5), but will now cost $675000 (i.e. £5000 × $13.5). This means that as the value of a country's currency falls, its demand for imports tends to fall. The UK's exports to Hong Kong should therefore fall.

Floating exchange rate systems

There are two broad types of exchange rate system: floating and fixed.

In the **floating exchange rate system**, the value of a currency is determined by the market forces of demand for the currency and supply of the currency. For example, overseas tourists buy (demand) the foreign currency by selling their domestic currency. Countries that adopt this system allow the value of their currency to be determined by the market. Examples are Belgium, Chile, Luxembourg, Spain, Japan, New Zealand, Sweden and the United Kingdom.

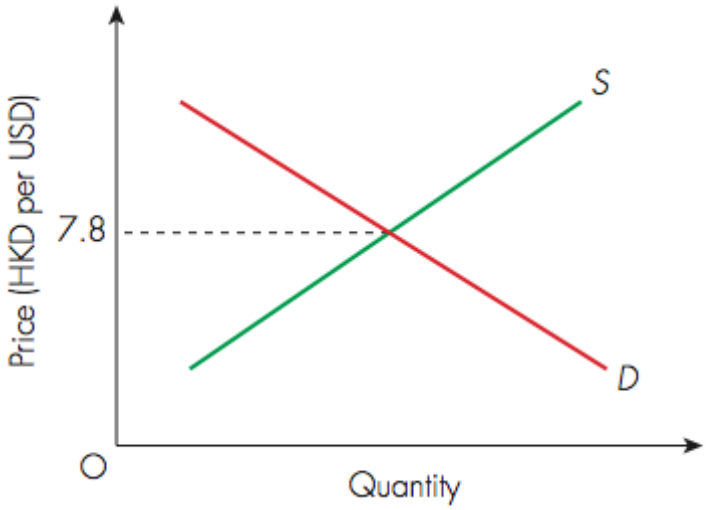
If banks in New Zealand offer investors higher interest rates than those in the UK, this can cause investors to take advantage by buying the NZD. This will increase the demand for the NZD, thus shifting its demand from D_1 to D_2 in Figure 25.1. This raises the price (or exchange rate) of the NZD from £0.55 to £0.65. By contrast, a fall in interest rates is likely to drive investors away as they search for investments that generate a better financial return.
In a floating exchange rate system, there is an **appreciation** in the exchange rate if the exchange rate is rising against other currencies. By contrast, there is a **depreciation** of the exchange rate if its value falls against other currencies.



Fixed exchange rate systems

Under the **fixed exchange rate system**, the government intervenes in **foreign exchange markets** to maintain its exchange rate at a predetermined level. For example, the Hong Kong dollar has been pegged (fixed) against the US dollar since 1972.

The main advantage of fixing exchange rates is that it reduces uncertainties for international trade. This allows firms, both foreign and domestic, to be certain about future costs and prices, thereby encouraging international trade and exchange.



The exchange rate between the USD and the HKD is pegged at HK$7.8 = US$1. This is achieved by the respective governments buying and selling foreign currencies to maintain this 'peg'.

For example, if the HKD declines against the pegged USD, the Hong Kong Monetary Authority (HKMA) can raise the value by increasing the demand for its currency. To prevent the HKD falling from 7.8 to 7.7, the HKMA intervenes in the foreign exchange market by buying enough HKD (thus raising its price) to maintain the exchange rate at the fixed rate of 7.8. Similarly, the HKMA would sell HKD if the exchange rate were to approach 7.9 (increasing the supply of HKD in order to reduce its price). This function of central banks (see Chapter 6) requires careful management and plenty of currency reserves.

There are two main criticisms of a fixed exchange rate system. First, it reduces the country's ability to use monetary policy changes in order to affect the economy (which is particularly useful during an economic recession). Second, there is a huge opportunity cost in using large amounts of foreign exchange reserves to maintain the fixed rate.

It is possible to change the pegged rate over time. For example, the HKD was originally fixed at HK$5.65 = USD1 back in 1972. As the USA's economy developed, it currency was revalued to HK$7.8. In a fixed exchange rate system, there is a **revaluation** of the exchange rate if it is rising against other currencies. By contrast, the exchange rate is **devalued** under a fixed exchange rate system if the value of the currency falls against other currencies.

Causes of exchange rate fluctuations

Any factor that influences the demand for a currency or its supply will have an impact on the exchange rate. These factors include the following:

- **Changes in demand for exports** – An increase in the demand for exports, perhaps due to improved quality or successful advertising, will also increase the demand for the country's currency. Therefore this increases the exchange rate.
- **Changes in demand for imports** – An increase in the demand for imports, perhaps due to an increase in the competitiveness of foreign firms, will raise the value of the foreign currency in order to facilitate the purchase of foreign goods and services.
- **Prices and inflation** – An increase in the price of goods and services caused by domestic inflation will tend to decrease the demand for exports. This will therefore tend to cause the exchange rate to fall in value.
- **Foreign direct investment** (FDI) – Globalization and the economic activity of multinational companies mean that investment in overseas production plants requires the use of foreign currencies. For example, Nissan's car manufacturing plant in India requires the Japanese car-maker to buy Indian rupees to pay for the materials, labour and other production costs. Thus, inward FDI will boost the demand for a currency. By contrast, outward FDI will increase the supply of a currency.
- **Speculation** – Foreign exchange traders and investment companies move money around the world to take advantage of higher **interest rates** (and variations in exchange rates to earn a profit. As huge sums of money are involved (known as 'hot money'), this can cause exchange rate fluctuations, at least in the short run. Speculators might also lack confidence in certain economies and therefore withdraw their investments, thereby depreciating the currency.
- **Government intervention** – All the above factors can affect the exchange rate under a freely floating exchange rate system. In addition, government intervention in the foreign exchange market can affect the exchange rate. For example, if greater demand for American goods causes an appreciation of the dollar, the US Federal Reserve can sell its dollar reserves (thereby increasing the supply of dollars), leading to a fall in the value of its currency.

Consequences of exchange rate fluctuations

Exchange rate fluctuations affect different stakeholders in different ways, depending on whether the consequences are seen from the perspective of customers or producers (importers and exporters). The following is an analysis of a strong US dollar, due to either a currency appreciation or a currency revaluation. The opposite results would apply in the case of a currency depreciation or devaluation.

- **Customers** have greater purchasing power when the exchange rate increases. For example, if the exchange rate changes from $1.6 = £1 to $1.4 = £1, then Americans would require fewer dollars to buy British goods and services. Thus, American firms and individuals are likely to buy more British goods and services.

- **Exporters** face more difficult trading conditions when the exchange rate increases. This is because the price of their goods and services will become more expensive for foreign customers. For example, if the exchange rate changes from $1.5 = €1 to $1.3 = €1 then customers from the European Union will need to spend more money to buy American goods and services. Therefore, demand for US exports is likely to drop.
- **Importers** potentially gain from a strong dollar because this makes it cheaper for US firms to import raw materials, components and finished goods from abroad. For example, if the exchange rate appreciates from $1.5 = €1 to $1.3 = €1, the American importers only need to spend $1300 on each €1000 order of goods and services from Europe, rather than $1500. While this is bad for US firms trying to compete with American imports, it can help to reduce cost-push inflation

Exchange rate fluctuations also have consequences for macroeconomic objectives. An increase in the exchange rate will have the following effects on the balance of payments, employment, inflation and economic growth:

- **Balance of payments** – If a currency appreciation has a larger impact on exports than imports (that is, there is a net fall in the value of exports), then the balance of payments will worsen. This is because a strong currency will make it more difficult for exporters to sell their goods and services in overseas markets.
- **Employment** – A fall in net exports and deteriorating profits will, in the long run, cause job losses in export-oriented businesses. This will therefore cause unemployment in the economy.
- **Inflation** – Lower levels of spending in the economy, caused by higher unemployment, will tend to reduce the rate of inflation. In addition, if the country relies heavily on certain imports, such as oil or food supplies, then the higher exchange rate will help to reduce the general price level even further.
- **Economic growth** – In the long run, economic growth is likely to fall due to the combination of lower export sales and higher unemployment caused by the higher exchange rate.

Chapter 21: Trade and trade protection

International trade

International trade is the exchange of goods and services beyond national borders. It entails the sale of **exports** (goods and services sold to overseas buyers) and **imports** (foreign goods and services bought by domestic households and firms).

Free trade means that international trade can take place without any forms of protection (**barriers to trade**), such as quantitative limits or taxes being imposed on exports. The merits of international trade (that is, the reasons why countries trade with one another) include the following:

- **Access to resources** – International trade enables firms and consumers to gain access to goods and services that they cannot produce themselves.
- **Lower prices** – Free trade reduces the costs of trading, whereas protectionism increases the costs of trading. For example, it is cheaper for Germans to purchase foreign-produced smartphones made in China and Taiwan because of the high labour costs in Germany.
- **Economies of scale** – By operating on a larger scale in global markets, firms can benefit from economies of scale). These cost savings can be passed on to consumers in the form of lower prices and/or kept by the firms in the form of higher profits.
- **Greater choice** – Free trade enables consumers and firms to access a larger variety of goods and services from different producers around the world.
- **Increased market size** – International trade enables firms to earn more revenues and profits.
- **Efficiency gains** – Free trade forces domestic firms to focus on improving the quality of their output due to foreign competition.
- **Improved international relations** – The absence of trade barriers encourages international trade and cooperation between countries. By contrast, if a country uses international trade barriers, other nations are likely to retaliate by doing the same.

Trade protection

Despite the benefits of international trade, there are drawbacks that mean there could be a need for trade protection. **Trade protection** refers to the use of trade barriers to restrain foreign trade, thereby limiting overseas competition. There are a variety of restrictive government measures designed to discourage imports and to prevent competition in domestic markets.

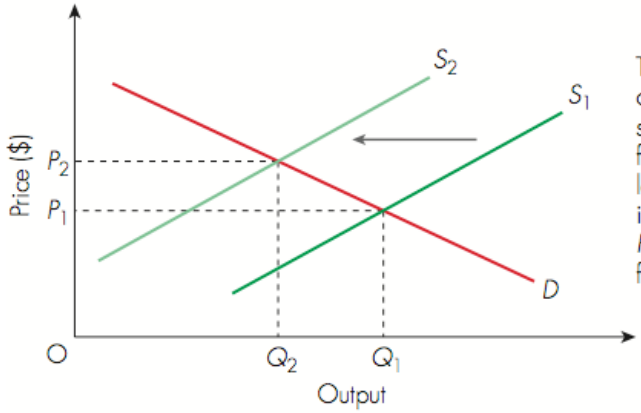
Reasons for trade protection

- Protectionist measures help to protect **infant industries** (new, unestablished businesses) from foreign competition. These industries, with time, can achieve economies of scale and withstand international competition
- Protection from free trade can also help to protect **domestic jobs** especially those that employ a significant number of workers and earn a large proportion of income for the country.
- It prevents foreign countries from **dumping** their goods in the domestic economy. Dumping occurs when foreign firms sell their products in large quantities at prices deliberately below those charged by domestic firms, often even below the cost of production. This clearly gives the foreign firms an unfair price advantage, so protectionist measures may be needed.
- Protection can also be a source of **government revenue**. For example, India imposes a $535 per 10 gram tariff on the import of gold, thus helping to raise tax revenue for the government.
- Protection might also be required to overcome a **balance of payments deficit**. If a country's expenditure on imports exceeds the revenue earned from its exports, the country will experience problems as it spends more than it earns. Protectionist measures to restrict imports would help to deal with this imbalance.
- In terms of **strategic arguments**, the government might use protectionism to safeguard the country against being too dependent on goods and services from other countries.

Types of trade protection

The most common form of trade protection is the use of **tariffs**. The other types of trade protection are collectively known as **non-tariff barriers**. These are explained below.

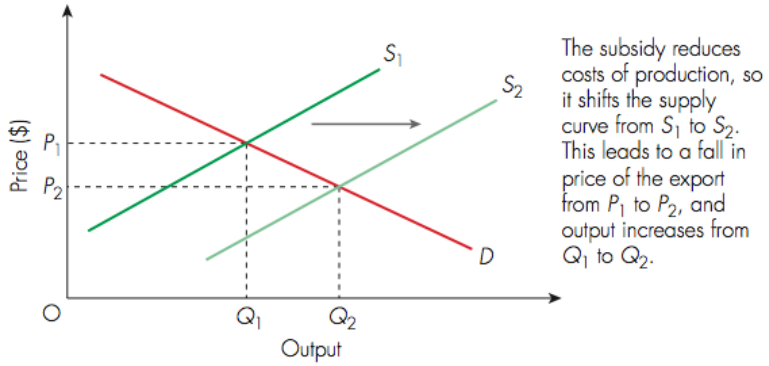
- **Tariffs** – A tariff is a tax on imports. For example, the USA has recently placed a 35 per cent tariff on all tyres imported from China. Tariffs increase the costs of



The tariff raises costs of production, so it shifts the supply curve from S_1 to S_2. This leads to prices of the import rising from P_1 to P_2, and output falling from Q_1 to Q_2.

production to importers, thus raising the price of foreign goods in the domestic market and lowering the amount of products imported.

- **Quotas** – An import quota sets a quantitative limit on the sale of a foreign good into a country. For example, the Indonesian government imposes import quotas on fruits and vegetables from Thailand. The quota limits the quantity imported and thus raises the market price of foreign goods
- **Subsidies** – Governments can provide subsidies (lump-sum payments or cheap loans to domestic producers) to help local firms to compete against foreign imports. Subsidies lower the costs of production for home firms, thereby helping to protect local jobs. For example, the European Union subsidises its farmers to encourage agricultural output.



- **Administrative barriers** – Countries often use bureaucratic rules and regulations as a form of protection. Examples include strict rules regarding food safety, environmental standards and product quality. Complying with these rules and regulations consumes a lot of time, and increases the costs for overseas firms.
- **Embargo** – An embargo is a ban on trade with a certain country, often due to a trade dispute. An embargo rarely benefits local consumers, who suffer from a lack of choice and higher prices (due to the lack of supply). For example, Malaysia has imposed trade embargoes on the Philippines while the USA has trade embargoes with Cuba.

Chapter 22: Government Aims and Influences

The role of government in an economy

The government plays a key role as a **producer** of goods and services and as an **employer**. As a producer, the government supplies goods and services to the general public. For example, it will provide:

- **Public goods** – These products are non-excludable and non-rivalrous in consumption. Examples are national defence, law and order, street lighting, flood control systems, public fireworks displays, lighthouses, online search engines and public roads.
- **Merit goods** – These products are deemed to have social benefits yet are under-consumed without government intervention or provision (see Chapter 5). Examples are education, health care services, work-related training schemes and public libraries.
- **Public services** – In many countries, the government also directly provides other essential public services, such as postal services, public transport systems, the emergency services (fire, police and ambulance) and immigration services. In some countries, the government goes further to provide public utilities services (such as gas, electricity and telecommunications) and terrestrial television broadcasting services. These services are not run in the same way as they would be if private-sector firms were seeking to maximise profits.
- **Welfare services** – In mixed economic systems (see Chapter 2), the government provides social and welfare services to people in need. These include transfer payments such as unemployment benefits and state pension schemes for the elderly.

Government influence on private producers

Governments influence private producers through the use of regulation, subsidies and taxation policies.

- Regulation: Government **regulations** determine the boundaries within which private producers can operate. Examples are the use of employment legislation, consumer protection laws, environmental protection and competition laws etc.
- Subsidy: A **subsidy** is financial assistance provided by a government to reduce the costs of production for firms. Subsidies are used to encourage output and consumption of certain goods and services. Governments often provide subsidies for educational services, employment purposes, public transport, tourism and agricultural output.
- Taxes: A **tax** is a levy or charge imposed by a government to raise costs of production and to reduce consumption of certain goods or services. Governments

can use **direct taxes** (imposed on income, wealth or profits) to reduce income inequalities in the economy. They can also use **indirect taxation** (imposed on spending) to affect consumer expenditure. Indirect taxes include sales taxes and excise duties on items such as petroleum, alcohol, tobacco and air passenger travel. The government can also impose **tariffs** (import taxes) to discourage the purchase of foreign goods and services in order to protect domestic businesses and jobs. The government can then spend its tax revenues to fund items of public-sector expenditure including: social security, national defence, law-and-order systems, transport, infrastructure, health care and education.

Aims of government policies

Government policies tend to be aimed at achieving the five key macroeconomic (economy-wide) objectives: full employment (or reduced unemployment), controlled inflation (price stability), sustainable economic growth, the redistribution of income (lower income inequality) and balance of payments stability.

Full employment (or low unemployment)

- **Unemployment** refers to people who are out of work, but who are of working age, are physically and mentally able to work, and are actively looking for work. Governments strive to reduce the **unemployment rate** – the proportion of a country's workforce who are unemployed.
- Price stability (control of inflation): **Inflation** refers to a persistent rise in the general level of prices in the economy. Low and sustainable rates of inflation are vital to achieving economic stability and social wellbeing. For example, inflation reduces the international competitiveness of a country as its prices will be relatively higher. This will lead to lower export sales, thus causing potential job losses. Inflation can be caused by excessive aggregate demand (total demand) in the economy. This is known as **demand-pull inflation**. By contrast, **cost-push inflation** is caused by higher costs of production.
- Economic growth: **Economic growth** is the increase in a country's gross domestic product (GDP) over time. Achieving economic growth brings greater prosperity to an economy and therefore tends to raise the standard of living for most people. Economic growth can be achieved by increasing the quantity and/or quality of factors of production, such as through education and training. Discovering resources such as oil will increase the potential output of an economy.
- **Redistribution of income**: As an economy grows, the gap between top and bottom income earners tends to widen. For example, huge bonuses are often awarded to executives in the finance industry. This causes greater income inequalities in the economy. The government might therefore intervene by using progressive taxes to redistribute income to low-income households. In some cases, the government could even cut taxes for low-income groups to improve their standard of living.
- **Balance of payments stability:** The balance of payments is a record of a country's financial transactions with other nations. This includes the money flows into and out

of a country from the sale of exports and the purchase of imports. If the money inflows exceed the outflows, then a balance of payments surplus exists. If the outflows exceed the inflows, the country has spent more than it has earned, so a balance of payments deficit occurs. While a deficit drains money from the country, a balance of payments surplus can be inflationary in the long run due to the excess amount of money entering the country. Governments therefore tend to aim to achieve a balance of payments equilibrium.

Conflicts between government aims

As it is not possible simultaneously to achieve all five macroeconomic objectives, there is said to be a trade-off or conflict between these targets. Examples of possible conflicts between a government's macroeconomic goals are considered below.

- **Economic growth versus low inflation** – If an economy grows due to excessive consumer demand, this will force prices to increase, thus creating inflation in the economy. Similarly, the government might choose to deflate the economy to control inflation, but this limits the ability to achieve economic growth. Therefore, it is rather difficult to achieve both macroeconomic objectives at the same time.
- **Low unemployment (or full employment) versus inflation** – In theory, there is an inverse relationship between the level of unemployment and the rate of inflation. For example, an attempt to reduce unemployment via the use of expansionary fiscal policy, such as lowering taxes or increasing government spending, can cause demand-pull inflation. Similarly, when the government tries to control inflation by using deflationary policies such as higher taxes or higher interest rates, the resulting fall in both consumer spending and investment will result in job losses.
- **Economic growth versus a balance of payments equilibrium** – Consumer spending and business investments tend to be high during an economic boom. However, if this is fueled by a significant rise in spending on imports relative to exports, this leads to a worsening trade deficit on the country's balance of payments.

Chapter 23: Government policies

Fiscal policy

Fiscal policy is the use of taxation and government expenditure strategies to influence the level of economic activity and macroeconomic objectives such as employment, economic growth and the control of inflation. For example, taxation (see Chapter 17) can be used to redistribute income and wealth to benefit less wealthy members of society. Government spending can be used to improve standards of living, such as building schools, hospitals and transportation networks.

Use of fiscal policy

Fiscal policy can be used either to expand or to contract economic activity in order to achieve macroeconomic objectives and to promote economic stability.

Expansionary fiscal policy is used to stimulate the economy, by increasing government spending and/or lowering taxes. For example, by increasing social security payments (such as unemployment benefits or state pensions), domestic consumption should increase. This type of fiscal policy is used to reduce the effects of an economic recession, by boosting gross domestic product and reducing unemployment.

By contrast, **contractionary fiscal policy** is used to reduce the level of economic activity by decreasing government spending and/or raising taxes. For example, countries such as China and the USA have used property taxes to slow down escalating house prices. Contractionary fiscal policies are used to reduce inflationary pressures during an economic boom.

Fiscal policy is also used to **redistribute income and wealth** in the economy. Some countries have quite high rates of income tax to reallocate resources from wealthier individuals to the poorer members of society. Examples include Austria, Belgium, Cuba and Senegal, which all have a top tax rate of 50 per cent. High income tax rates can, however, cause severe distortions to the labour market.

Monetary policy

Monetary policy is the manipulation of interest rates, exchange rates and the money supply to control the amount of spending and investment in an economy. Interest rates can refer to the price of borrowing money or the yield from saving money at a financial institution. The money supply refers to the entire quantity of money circulating an economy, including notes and coins, bank loans and bank deposits.

Use of monetary policy

Like fiscal policy, monetary policy can be used either to expand or to contract economic activity in the economy.

Expansionary monetary policy, also known as **loose monetary policy**, aims to boost economic activity by expanding the money supply. This is done mainly by lowering interest rates. This makes borrowing more attractive to households and firms because they are charged lower interest repayments on their loans. Those with existing loans and mortgages have more disposable income, so they have more money available to spend.

With **contractionary monetary policy**, also known as **tight monetary policy**, an increase in interest rates tends to reduce spending and investment in the economy. Thus, this slows down economic activity. Tight monetary policy is used to control the threat of inflation, although it can harm economic growth and therefore cause job losses in the long run.

Supply-side policies

Supply-side policies are long-term strategies aimed at increasing the productive capacity of the economy by using policies to improve the quality and/or quantity of factors of production. This means that the economy can produce more goods and services at all price levels. This can be shown as an outward shift of the country's **production possibility curve**. Examples of supply-side policies are given below.

- Privatization: **Privatization** is the policy of selling off state-owned assets (such as property or public-sector businesses) to the private sector, if they can be run more efficiently. This is because private-sector firms are motivated by profit and can, in theory, develop better products and deliver better services. Competition, productivity and efficiency are essential components of the private sector, which help to boost the productive potential of the economy. For example, during the 1980s and 1990s, the UK government privatized British Steel, British Petroleum, Rolls-Royce and British Airways. In Hong Kong, the government privatised its rail services in October 2000.
- Deregulation: **Deregulation** refers to the removal of barriers to entry, thereby making markets more competitive. For example, labour market reforms can make the labour force more competitive and more productive. Such reforms involve the removal of labour market imperfections, such as decreasing the power of trade unions and reducing the national minimum wage.

The merits of supply-side policies

The advantages of using supply-side policies to achieve economic stability include:

- **Improved economic growth** – Supply-side policies can be used to achieve sustainable economic growth by increasing the productive capacity of the economy.
- **Lower inflation** – As supply-side policies increase the productive potential of the economy, they help to prevent the general price level from rising beyond control.
- **Lower unemployment** – An increase in the economy's productive capacity will tend to increase national output, thereby creating jobs in the economy in the long term. Also, supply-side policies can help to reduce both frictional and structural unemployment.
- **Improved balance of payments** – Since supply-side policies can improve productivity and national output without increasing the general price level, the international competitiveness of the country should improve. For example, firms should become more productive and competitive, which will help to boost the economy's export earnings. Therefore, supply-side policies tend to improve a country's balance of payments.

Taxation

A **tax** is a government levy on income or expenditure. There are various reasons why the government imposes taxes. For example:

- Taxes on salaries and profits raise government revenue and can be used to redistribute income and wealth in the economy.
- Taxes on goods and services raise the costs of production and therefore can limit the output of certain demerit products, such as alcohol and tobacco.
- Tariffs imposed on foreign goods and services help to protect domestic firms from overseas rivals.

Types of taxation

There are various classifications of taxes, including the following:

- **Direct taxes** – This type of tax is paid from the income, wealth or profit of individuals and firms. Examples are taxes on salaries, inheritance and company profits.
- **Indirect taxes** – These are taxes imposed on expenditure on goods and services. For example, countries such as Australia and Singapore use a goods and services tax (GST), whereas the European Union uses value added tax (VAT). Other examples are taxes on petrol, alcohol and cigarettes.
- **Progressive taxation** – Under this tax system, those with a higher ability to pay are charged a higher rate of tax. This means that as the income, wealth or profit of the taxpayer rises, a higher rate of tax is imposed. Examples of progressive taxation are income tax, capital gains tax and stamp duty.
- **Regressive taxation** – Under this tax system, those with a higher ability to pay are actually charged a lower rate of tax: that is, the wealthier the individual, the lower the tax paid as a percentage of income. For example, although a high-income earner pays the same amount of airport tax or television licence fee as a less wealthy person, the amount of tax paid is a smaller proportion of the wealthier person's income.
- **Proportional taxation** – Under this tax system, the percentage of tax paid stays the same, irrespective of the taxpayer's level of income, wealth or profits. An example would be a flat rate sales tax, such as VAT or GST.

The impact of taxation

Taxation has varying impacts depending on the type of tax in question. The impact of taxation on economic agents and the economy are considered below.

- **Impact on price and quantity** – The imposition of a sales tax will shift the supply curve of a product to the left) due to the higher costs of production. This will increase the price charged to customers and reduce the quantity produced and sold.
- **Impact on economic growth** – Taxation tends to reduce incentives to work and to produce. By contrast, tax cuts can boost domestic spending, thus benefiting businesses and helping to create jobs. Nevertheless, tax revenues are essential to fund government spending (for the construction of schools, hospitals, railways, airports, roads and so on), which fuels economic growth.
- **Impact on inflation** – As taxation tends to reduce the spending ability of individuals and the profits of firms, it helps to lessen the impact of inflation. By contrast, a cut in taxes boosts the disposable income of households and firms, thus fuelling inflationary pressures on the economy.
- **Impact on social behaviour** – Taxation can be used to alter social behaviour with the intention of reducing the consumption of demerit goods. For example, taxing tobacco and alcohol should, in theory, reduce the demand for such products. Taxes are also used to protect the natural environment by charging those who pollute or damage it. For example, countries such as the UK and China tax cars based on the engine size because vehicles with larger engines tend to cause more pollution.
- **Impact on the distribution of wealth** – The use of taxes can help to redistribute income and wealth from the relatively rich to the poorer members of society. For example, wealthier individuals will pay more income tax, sales taxes and stamp duty on their private properties. These funds can be used by the government to support education, health care and social benefits for less affluent individuals in the economy.
- **Impact on the distribution of wealth** – The use of taxes can help to redistribute income and wealth from the relatively rich to the poorer members of society. For example, wealthier individuals will pay more income tax, sales taxes and stamp duty on their private properties. These funds can be used by the government to support education, health care and social benefits for less affluent individuals in the economy.

Chapter 24: Developed and developing economies

Different countries and regions are at very different stages of economic development. Some countries and areas have very low levels of economic development. These are **less developed economies**. Incomes and wealth, health care and life expectancy, education and literacy, employment and industry, and living standards, all vary greatly between less developed and developed economies.

Stages of Development

Less developed economy	Developed economy
Too much reliance on agriculture, and poor farming methods, to provide jobs and incomes	Most jobs and incomes are provided by manufacturing and especially service industries
Lacks capital to invest in new industries and machinery to develop an industrial base. This means few jobs and products are available	Attracts capital to invest in new industries due to a skilled workforce, a large consumer base with high incomes and modern infrastructure
A lack of investment in education, skills and health care. Many people may be unable to work if they are unskilled or in poor health	High levels of investment in education, skills training and health care provision, to create a skilled, innovative and productive workforce
Low levels of investment in infrastructure, including road, rail and communications networks. This makes travel and the movement of goods very difficult	High levels of investment in modern infrastructure, which enables trade and travel to take place efficiently
High population growth due to a high birth rate, exceeds growth in national income and output	A stable but ageing population due to low birth and death rates
Other factors, such as wars, corruption, economic mismanagement and unstable governments	A stable system of government, good economic management, a strong legal system and lower levels of corruption

A **developed economy**, advanced economy or industrialized economy, has a relatively high average income per person, a well developed road and rail network, modern

communications systems, produces a wide variety of goods and services, has a stable government and legal system and a healthy and educated population.

A **less developed economy** or **developing economy** has a low level of economic development, low average income per person, under-developed transport and communications systems, relies on agriculture for many jobs and incomes, and has low levels of health care and education provision.

Countries that are quickly developing their industries, workforce skills and living standards, but are not yet developed, are **rapidly developing economies** or **emerging economies**. Examples include Brazil, China and India.

Development Indicators

A large number of indicators are used to measure and compare living standards and economic welfare in different countries and regions of the world.

The main indicator used is **Gross Domestic Product (GDP) per capita**. GDP per capita, or per head, measures average income per person but therefore takes no account of what people can buy with their income, or the distribution of income within a country.
People in a country with a relatively high average income may be no better off than people in another country with lower average income if prices in the first country are so much higher.
The distribution of income is very unequal. Some people may be very rich while most of the population are poor and lack access to good quality health care, education, water and housing.

Some other measures of living standards and economic development	
Population living on less than $1 per day	Prevalence of underweight children
Life expectancy at birth	School and college enrolment rates
Adult literacy rate	Population with HIV/AIDS
Population without access to clean water	Share of women in paid employment
Ownership of consumers goods	Share of employment in non-agricultural sector
Interest payments on national debt	Land protected to maintain biological diversity

Policies to Alleviate Poverty

Less developed countries often need help from other countries to improve their living standards and economic welfare. This assistance can take many forms.

Policy	Why is it needed?	What are the problems?
Food aid	Poor farming methods produce insufficient food supplies to feed their populations	Free supplies of food to developing countries can force their own farmers out of business
Financial aid	Developing countries lack sufficient capital to invest in an industrial base, modern machinery and infrastructure	Loans have to be repaid Grants are often on condition they are spent on projects requiring contracts with firms from developed nations
Technological aid	Developing countries lack access to modern machinery, equipment and knowledge of modern production methods	Many people in developing countries lack skills to use modern technology Instead of using more machinery, more jobs are needed to employ people
Debt relief	Loan and interest repayments are a huge burden. In some developing countries debt interest grows at a faster rate than their national income. This money could be used for economic development instead	It may encourage developing countries to borrow more money in the belief the repayments may be cancelled again Some governments are corrupt and the money saved will simply be misused
Removing barriers to overseas trade	Developing countries have many natural commodities, including many metal and mineral ores, which they can export to earn income	Developed countries dominate global market demand for natural commodities, and will force down the price they pay for them
Economic advice	Governments in many developing countries lack the knowledge and understanding they need to manage their economies and encourage economic growth	Advice is not enough. Many developing countries need more capital for investment, a trained and healthy workforce, and more stability

Chapter: Population

There has been a **world population** explosion since the eighteenth century following improvements in housing, sanitation, agricultural technology and medicine.

The world population in 2008 was estimated at 6.6 billion people and is expected to reach over 9 billion by 2050 due to high **birth rates** and falling **death rates**. Around 90% of the world population will live in less developed countries.

The growing population is placing ever-increasing pressure on all scarce resources, but especially on water supplies and land for housing, farming and industry. This can lead to tensions between people resulting in civil unrest and wars.

Natural Rate of Increase in Population

In many countries birth rates are high and exceed death rates, so populations are rising except in some developed countries.

Both birth and death rates are low in many European countries but birth rates are so low that they expect their populations to shrink by 2050. As death rates are also low this means the average age of their populations is rising.

	Less developed countries	Developed countries
Birth rate = number of babies born for every 1000 people	High	Low
Death rate = number of people for every 1000 people	High but falling	Low
Natural rate of increase = birth rate – death rate	High and rising	Low or negative

Birth rates vary between countries and change over time because of changes in…	
Living standards	In many less developed countries, people living in poor conditions want large families to help them produce food and work for money. They have many children because some will die young due to poor living standards Improvements in food quality, housing, sanitation and medical care have reduced the number of children dying and reduced birth rates
Contraception	Increased use of contraception to prevent pregnancies has led to fewer births in many developed countries
Custom and religion	Many people in less developed and developing countries are unaware of birth control or hold beliefs that will not allow them to use contraception
Female employment	Many women in developed countries go to work to earn an income, and some may not want to take time off to raise children
Marriage	Many people have children when they are married. In developed countries people are marrying later in life and so birth rates have fallen

Death rates vary between countries and have tended to fall over time due to changes in…	
Living standards	Better quality food, housing and sanitation can improve life expectancy but eating fatty foods, smoking and lack of exercise has increased rates of diabetes, cancer and heart disease in many developed countries
Medical advance and health care	Improved medicine and health care has prevented or cured many diseases and increased life expectancy In some countries, especially in the less developed world, diseases such as HIV/AIDS are prevalent and have reduced life expectancy
Other factors	Natural disasters such as earthquakes and tsunamis, famines, wars and escalating violence have also had a big impact on death rates especially in many less developed countries

Dependent Population

The **working population** in an economy supports the dependent population. People in work not only produce goods and services for themselves but also for people who do not or cannot work.

The **dependent population** includes people who are too young, too old or too ill to work, school and college students in education, and the unemployed.

The dependent population is growing relative to the working population in many countries. As economies develop, many young people are encouraged to stay in education longer and more people take early retirement from work and tend to live longer. People in work therefore have increasingly more people to support and living standards can fall.

To address this problem, some governments have raised the official retirement age and are actively encouraging women into employment and inward migration.

Net migration is the difference between inward and outward migration to and from a country.

Many people from less developed and developing countries have been migrating to more developed countries to enjoy better living standards and jobs with higher incomes.

The **dependency ratio** measures the number of economically dependent people relative to the economically active population in an economy:

$$\text{Dependency ratio} = \frac{\text{Total population}}{\text{Working population}}$$

Less developed countries	Developed countries
Dependency ratios are high and rising	Dependency ratios are low but rising
High birth rates have increased the number of children and young people	Low birth and death rates are increasing the number of older and retired people
Relatively low life expectancy, poor skills and education, and lack of an industrial base constrains growth in working populations	Life expectancy is high and rising. One in three people in developed countries in 2050 is expected to be over 60 years of age
Outward migration to developed countries is reducing working populations. Many less developed countries have lost skilled workers including doctors, engineers and entrepreneurs	Net inward migration has boosted working populations but has also increased pressure on housing, education, health care and the welfare system

Changes in Population size and structure

As economies develop the size and structure of their populations can change.

Demographic changes will have an impact on the size of their working and dependent populations, the supply of labour to different industries and occupations, the pattern of demand for different goods and services and pressure on natural and other resources including on government to provide education and welfare services.

Structural feature	Less developed economies	Developed economies
Age distribution Percentage of population in different age groups	Due to high birth and death rates children under 15 years of age account for 40–50% of many of their populations, while people over 60 years account for less than 5%	The average age of many populations is increasing due to low birth and death rates. Up to 25% of their populations are over 60 years of age. This is increasing the demand for health care, leisure facilities and pensions
Geographic distribution Where people live and the population density (number of people per km^2)	Many people live in rural areas but increasing numbers are moving to cities to find work Cities are expanding rapidly in many developing countries. Shanghai and Macau in China are the most densely populated urban areas in the world	Around 60% of the global population live in cities Congestion and pollution are big problems in many major cities
Occupational distribution Types of Industries people work in and what they do	Most employees work in agriculture, up to 90% of the workforce in some countries In developing economies like China and India, employment in manufacturing and service industries is growing rapidly	Most employees work in service industries. Only a small percentage work in agriculture Female participation in the workforce and self-employment are high