

**Edexcel Economics (A) A-level**  
**Theme 1: Introduction to Markets  
and  
Market Failure**

**1.1 Nature of Economics**

**Detailed Notes**



## 1.1.1 Economic as a social science

### Developing models:

- Economists **develop models to explain how the economy works**, for example theories of supply and demand or the circular flow of income. These are developed by putting forward a model, gathering evidence and then accepting, changing or disregarding the model.
- The words “**theory**” and “**model**” can be used interchangeably and there is no exact distinction between the two. However, theories can often be expressed in words whilst models, because they require greater precision, are expressed in mathematical terms. The purpose of theories and modelling is to explain why something is as it is. They are **simplified** to make them more useful.
- There are too many variables which can change within an economic model and so **assumptions** must be made.

### Ceteris paribus:

- All sciences make assumptions when developing models and theories, and this allows them to simplify the problem. Economists use the term ‘**ceteris paribus**’ meaning ‘all other things remaining equal’. For example, when there is a change in income, demand will shift, ceteris paribus.

### Scientific experiments:

- There are many different types of science covering a wide field of knowledge, all linked by the method of building a model or theory. Theories or models which gain universal acceptance are called laws.
- However, economics is a **social science** and so, unlike with natural sciences like physics and chemistry, it is **difficult to set up experiments to test hypothesis**. As the economist has to gather data in the ordinary, everyday world, **other variables are always changing** so it difficult to decide whether or not evidence supports or disagrees with a hypothesis. Therefore, economists tend to come up with very different conclusions for a particular set of data.
- Some people argue economics is **not a science** because it studies human behaviour and human behaviour cannot be reduced to scientific law. However, groups of individuals are much more predictable than individuals themselves, and much of economics deals with groups rather than individuals. The **laws can not be definite** because we cannot know exactly what each individual will do.



## 1.1.2 Positive and normative economic statements

- A **positive statement** is a statement which is objective and made without any obvious value judgements or emotions. They can be tested to be proven or disproven and they are often expressed in the form of a hypothesis that can be analysed and evaluated. Statements about the future can be positive if they can be proven or disproven in the future.
- For example, “Raising taxes will lead to an increase in tax revenue” is a positive statement as it can be tested to see whether it is true or false. Another example is “Warm weather will lead to an increase in ice cream sales”.
- A **normative statement** is one which is subjective and based on opinion, so cannot be proven or disproven. It often includes words such as ought, maybe, unwise, should etc. or says that one action is better than another.
- One example of a normative statement is “The free market is the best way to allocate resources” as it is suggesting one method of resource allocation is better than another, which cannot be tested. “The government should increase taxes” is also a normative statement, since it presents an opinion.

### The role of value judgements:

- Economists tend to **use positive statements to back up normative statements**. For example, ‘The government should increase the interest rate’ is a normative statement which can be backed up by ‘The rate of inflation is at 5%’, a positive statement.
- **Value judgements can influence economic decision making** and policy. Different economists may make different judgements from the same statistic, for example rising inflation could mean different things.

## 1.1.3 The economic problem

### Problem of scarcity:

- The **basic problem of economics is that of scarcity**. People have **finite needs**, but **infinite wants**, as no one would choose to live at the level of basic human living standards if they can enjoy more. Although wants are infinite, **resources are finite and limited**.
- Scarcity is a **relative concept** as resources are not necessarily scarce in themselves but they are **scarce in relation to the demands placed upon them**.
- Some examples of scarcity is water in India and China and food shortages around the world.



- Economies try to solve the basic economy problem by working out **what to produce, how to produce it and for whom production should take place.**

### Renewable and non-renewable resources:

- A **renewable resource** is resource of economic value that can be replenished or replaced on a level equal to consumption. For example, oxygen, solar power and fish are renewable. As long as the rate of consumption is less than or equal to the rate of replenishment, the stock will not decrease.
- A **non-renewable resource** is a resource of economic value that cannot be readily replaced by natural means on a level equal to consumption. This includes fossil fuels such as coal, oil and gas.

### Opportunity costs:

- The same resources **cannot be used to produce different goods at the same time** so decisions have to be made on how to use them, this leads to the opportunity cost. The limited amount of resources allied to the unlimited wants means that choices have to be made.
- The opportunity cost is the **cost of one thing in terms of the next best option which has been given up.**
- For example, if you go into a shop with £1, you can only buy a chocolate bar or a bag of crisps. If you chose the chocolate bar, the opportunity cost is the bag of crisps that you could not buy due to your limited resources.
- Consumers will make choices on how to use their limited income based on what gives them the greatest level of satisfaction. Producers must choose what to do with their limited resources and their decisions will be based on profit. The government must make decisions on where they should spend their limited tax revenues based on what will maximise social welfare. There is no opportunity cost for free resources.



### Four factors of production:

In economics, resources are split up into the four factors of production:

- **Land** is all natural resources used in production, such as raw materials, minerals, land and produce of the sea. Owners receive rent from land or sums of money from the sale of land.
- **Labour** is all productive human effort, both physical and mental, paid or unpaid. The value of a worker is their human capital. Labourers receive wages.
- **Capital** refers to all man-made resources that are used to produce goods or services in the future. Owners of capital receive interest on their land.
- **Entrepreneurship** is the willingness and ability to take the risks of combining the other three factors of production in order to make a product or service. Successful entrepreneurs earn a profit from their activities.

Different industries will need to combine the factors of production in different combinations: some are labour intensive, e.g. construction, education; some are land intensive e.g. farming; and some are capital intensive e.g. manufacturing.

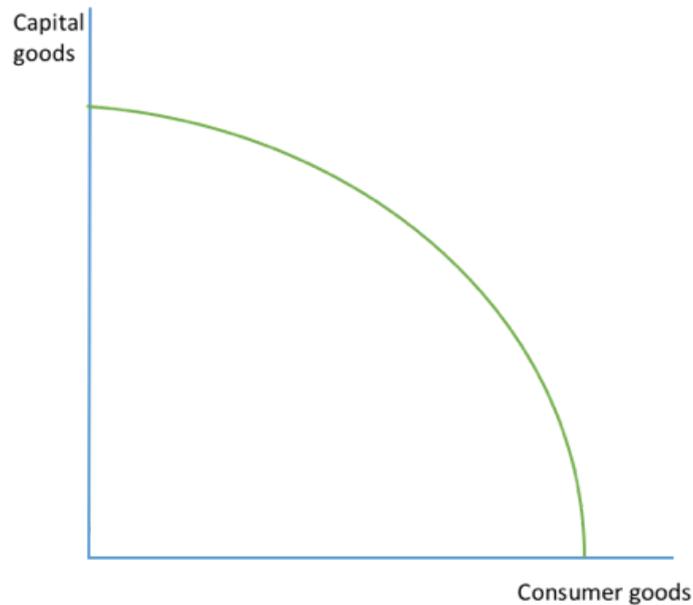
## 1.1.4 Production possibility frontiers

- The PPF shows the **maximum possible combinations of capital and consumer goods that the economy can produce with its current resources and technology**.
- It tends to be drawn as a **curve** because the first resources switched from capital to consumer good production are resources that are not adding much to capital goods but will be much more productive in the production of consumer goods, and vice versa.
- It gives no indication of which combination of goods is best and so countries have a choice of what to produce: economics is concerned with explaining why they chose this point.



## The maximum potential potential of an economy:

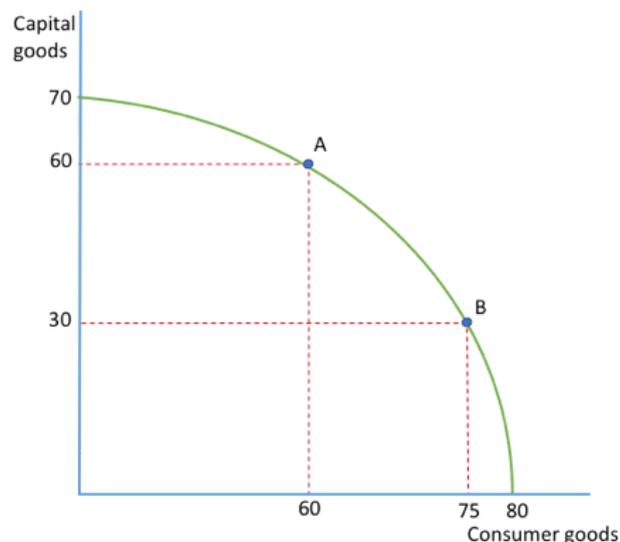
- Any point on the curve represents the maximum productive potential of the economy, the most that the country can produce.



## Opportunity cost:

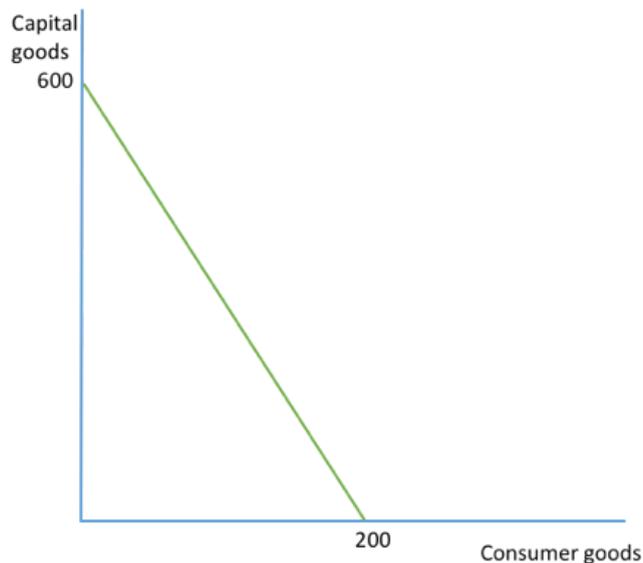
This diagram can be used to work out the opportunity cost:

- Moving from A to B, the opportunity cost of producing an extra 15 consumer goods is 30 capital goods.
- The opportunity cost of producing 60 capital goods is 20 consumer goods. If they produced 0 capital goods, then 80 consumer goods could be produced. By producing 60 capital goods, they can only produce 60 consumer goods. Producing these 60 capital goods means they lose 20 consumer goods.



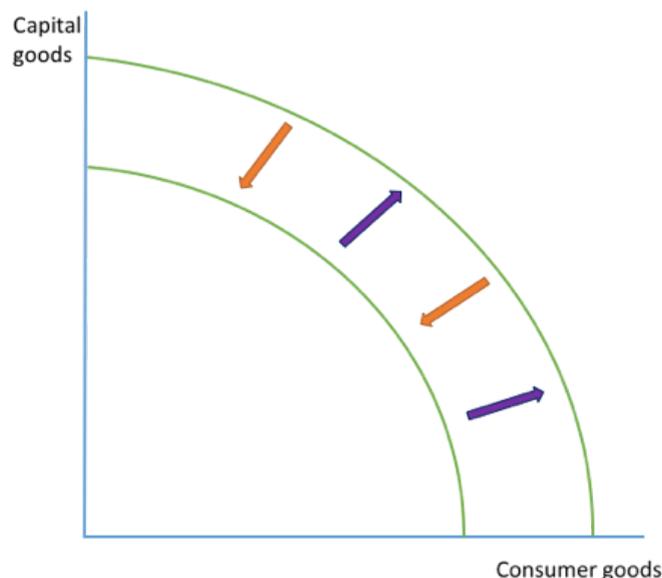
This diagram can also be used to work out the opportunity cost:

- The opportunity cost of producing 1 consumer good is 3 capital goods because  $600/200=3$ . This means for every 1 consumer good produced, 3 capital goods are lost.
- The opportunity cost of producing one capital good is  $\frac{1}{3}$  of a consumer good as  $200/600= \frac{1}{3}$ . For every 1 capital good produced,  $\frac{1}{3}$  of a consumer good is lost.



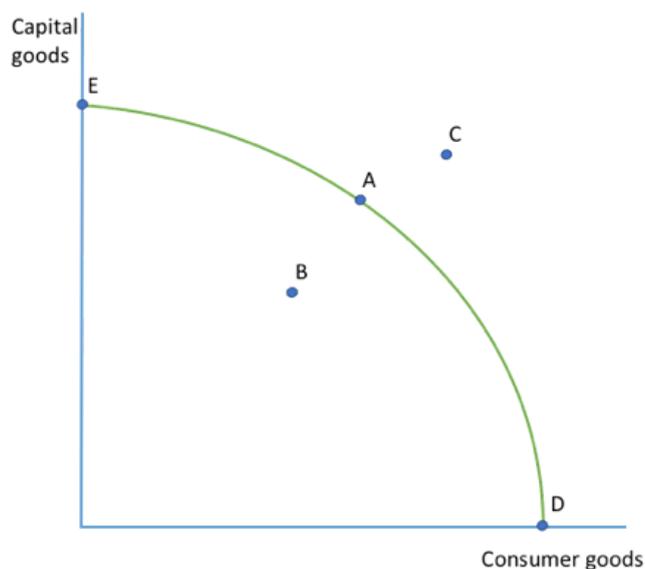
### Economic growth or decline:

- The purple arrows show that the economy has grown because it can produce more of both goods. This growth may be achieved by increasing the quantity and/or quality of resources.
- The orange arrows show the economy is declining as it can produce less goods than previously. This could be caused by a number of factors such as: natural disasters; natural resources running out; or a decrease in the quantity/quality of labour, due to war, migration or a fall in spending on education.



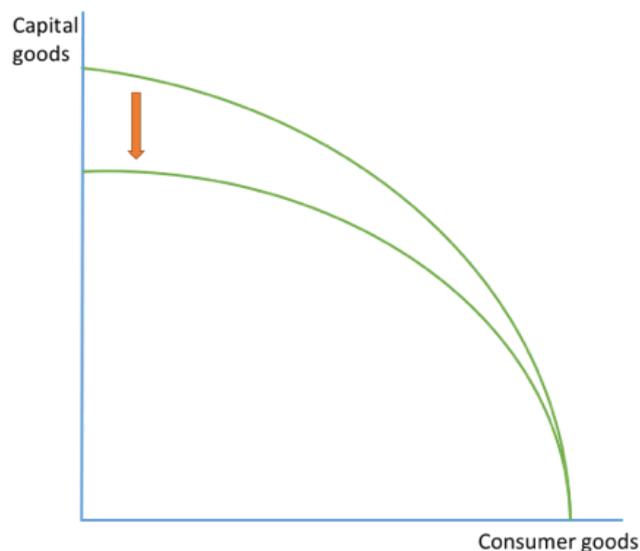
### Efficient or inefficient allocation of resources and possible or unobtainable production:

- Economic efficiency is achieved when resources are used for their best use. At all points on the PPF, resources are allocated efficiently.
- The economy will aim to produce at point A (or any other point on the curve), this is possible and efficient production. Point B is possible but inefficient, as they are producing within the curve so not maximising output. Point C is unobtainable production, because it is beyond the PPF so they don't have enough resources/technology to produce there.
- If the economy decides to use all its resources to produce consumer goods, they can produce at D whilst if they decide to produce only capital goods, they can produce at E. Neither of these points are likely.

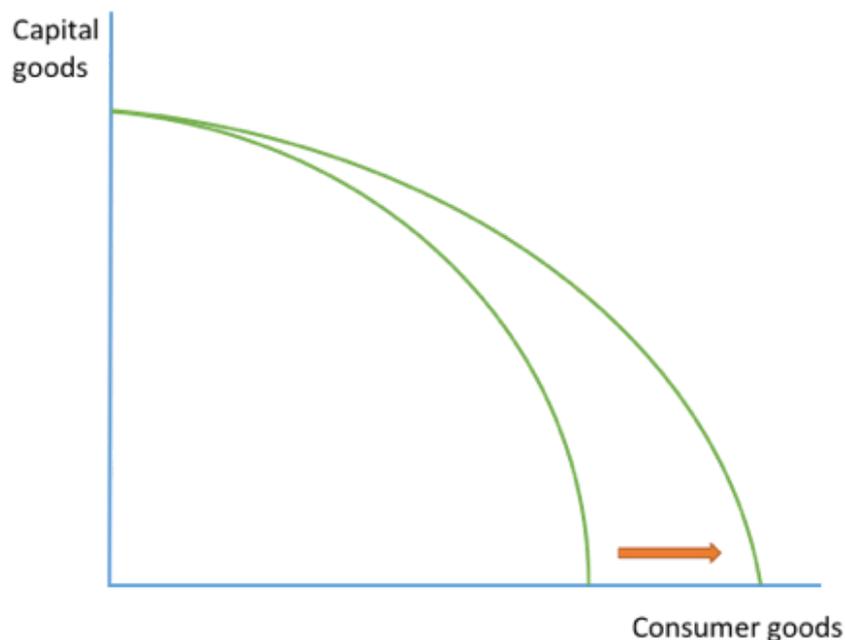


### Change in production:

- The diagram below shows a fall in capital production but no change in consumer production. This shows a fall in efficiency or a change in resources that only affects capital good manufacture.



- The diagram below shows an increase in the ability to produce consumer goods but no change in capital goods which could be due to an improvement in technology that makes production of consumer goods more efficient.



### Movement and shifts:

- A movement along the curve indicates a **change in the combination of goods produced**: more capital goods are produced and less consumer goods are produced, or vice versa. The same amount of resources are allocated amongst the two goods differently.
- A shift of the curve indicates a **change in the productive potential of the economy**: more consumer and capital goods can be produced or less consumer and capital goods can be produced. There has been a change in the number of resources and/or the technology available to the country and so their potential output has changed.

### Capital and consumer goods:

Goods are split into two types of goods: consumer and capital goods. **Consumer goods** are goods that are demanded and bought by households and individuals. **Capital goods** are goods that are produced in order to aid the production of consumer goods in the future. Some goods can be both consumer and capital goods, for example computers.

#### Synoptic point:

This topic links well with macroeconomics and economic growth: an outward shift of the PPF represents potential growth and an outward shift of the LRAS curve. This is looked at in more detail in unit 2.5.



## 1.1.5 Specialisation and the division of labour

- **Specialisation** is the production of a limited range of goods by a company/individual/country which means that trade is essential as it is the only way they are able to access all that they need.
- The **division of labour** is when labour becomes specialised in a particular part of the production process.
- Whilst some resources have many different uses, some may only have one use. Labour can differ greatly in terms of what they can do and what they are good at: some may be good at building things, whilst others may be good at designing computers. Therefore, if a country wants to maximise the amount of goods and services it can produce they **need to ensure that all factors of production, including workers, undertake the tasks that they are best at.**

### Adam Smith:

- Adam Smith stated the concept of specialisation and the division of labour and showed how it can **increase labour productivity** (output per worker), allowing firms to increase efficiency and lower their costs of production.
- He visited a factory and observed that the pin making process had been split into **18 different operations**. As a result, the company were able to produce 5,000 pins per person employed. If the work had been carried out by workers making the whole pin from start to finish, it would have been less a few dozen.

### Specialisation and the division of labour in organising production:

#### Advantages:

- The division of labour enables **labour productivity to be increased**. Workers will be quicker, better and more efficient as they are concentrating on one thing and so can quickly develop their skills. It also is likely they will have natural abilities or talents in their task.
- This may also lead to a **higher quality of goods and services**, since workers are more skilled at their jobs.
- It is more cost effective to **develop specialist tools**, improving speed or quality.
- **Time is not wasted** moving between jobs and getting out tools etc.
- Workers only need to be **trained to do one specific task**, rather than many, saving time and money.



### Disadvantages:

- If someone is only doing one specific task, it can make work very boring which will lead to **poor quality of work** and people leaving the business. Firms can take some action to reduce this, for example by playing music.
- There is a **reduction of craftsmanship** and a much more standardised product because of mechanisation.
- If for some reason production in one process is delayed, every other task has to stop until that problem is solved.
- The workforce do not have wide industrial training and could therefore suffer from **structural unemployment**.

The degree to which specialisation or the division of labour is possible will **depend on the nature of the task and the size of the firm**.

### Specialising in the production of goods and services to trade:

If countries specialise, it is essential that they trade in order to obtain all the goods and services that consumers demand. Trade has some advantages and disadvantages.

#### Advantages:

- The theory of **comparative advantage** states countries should specialise in producing those goods where they have a lower opportunity cost, and so they are relatively best at producing. This will help them boost their economy. On the whole, there is **greater output** globally.

#### Disadvantages:

- Countries may become **over-dependent** on one particular export and if this fails their economy may collapse. For example, many developing countries specialise in farming and if crops fail due to weather they will have no income. Areas such as Manchester suffered high unemployment as traditional areas of employment, like shipbuilding, became less important.
- Other countries specialise in non-renewable resources and these could **run out**, which will result in a huge loss of income for that country. It will also mean the loss of these resources.
- There will be **high interdependence** and this will cause problems if trade is prevented, for example because of war.
- Some say that increased specialisation means there will be more competition to cut costs and therefore **wages will fall**, but this is not necessarily true.

#### Synoptic point:

Specialisation at a global level is important in unit 4.1 and this unit goes into more depth on comparative advantage. At a macroeconomic level, specialisation leads to increased production and increased trade.



## Functions of money:

The introduction of specialisation in production means that a form of exchange is necessary to allow everyone to access what they need. The earliest method of exchange was barter but this had many problems. These problems led to the development of money which has four key functions:

- **A medium of exchange:** It can be used to buy and sell goods and services and is acceptable everywhere. The problem with barter was that people could only trade if there was a double coincidence of wants: where both parties want the good the other party offers. Since money can be used to buy all goods and services, everyone will accept money as they know they can use it to buy what they want.
- **A measure of value:** It can compare the value of two goods, such as a table and a skirt. It is also able to put a value on labour.
- **A store of value:** It is able to keep its value and can be kept for a long time. With barter, goods such as fruits often went out of date and so could not keep their value.
- **A method for deferred payment:** Money can allow for debts to be created. People can therefore pay for things without having money in the present, and can pay for it later. This relies on money storing its value.

### 1.1.6 Free market economies, mixed economy and command economy

Different types of markets answer the 'what to produce', 'how to produce it' and 'for whom to produce it' questions in different ways.

#### Free market economy:

In a free market economy, individuals are **free to make their own choices** and **own the factors of production** without government interference. Resources are allocated through the price **mechanism**. The consumer determines what is produced by their willingness to spend their money on a good. Consumers make decisions based on **satisfaction** and producers based on **profit**. There are no completely free markets in the world today, because the government has to intervene at least to an extent, for example by issuing money, protecting property rights and breaking up monopolies. Without this, the market mechanism could not work.

**Adam Smith** (1723-1790) believed in the free market economy and the laissez-faire approach by governments. He explained how there was an 'invisible hand' in the market which allocated resources to everyone's advantage, allowing the greatest good for the greatest number of people. He believed competition in the market caused lower prices as firms wanted to be competitive and so this benefits the consumer as they can get goods cheaply. Smith concluded that each individual's self-interest managed to produce and purchase the goods and services that society needed. However, he did argue that the state



needed to provide goods/services which free markets wouldn't such as. the laws, property rights and goods such as bridges and roads.

**Friedrich Hayek** (1899-1992) argued that state control of the economy leads to the loss of freedom. He believed that the poor in free market (or freer market) countries were better off than those in command economies because at least they had personal freedom. Also, he said that central planning by governments led to what a small minority wanted being forced on the whole of society. Hayek believed that, although individuals don't make supply and demand decisions based on perfect information, they best know what they need in their own situation i.e. a consumer knows how much bread they need and a manager knows how many raw materials they need.

### Advantages:

- The system is **automatic** due to the invisible hand; resources are moved out of production of a good when people stop wanting it or costs are too high.
- Consumers have freedom of choice, called **consumer sovereignty**.
- There is **high motivation** as people know working hard could lead to high potential rewards, creating conditions where initiative and enterprise flourish.
- There is **political freedom**.
- Because firms are in competition, they will produce goods at the lowest cost they can, ensuring **productive efficiency**.
- In general, freer market economies tend to have **higher growth**.

### Disadvantages:

- There tends to be high levels of **inequality**, since the rich own more factors of production and so can grow richer.
- There may be a **lack of merit goods** (goods considered as intrinsically good) and little control of **demerit goods** (intrinsically bad).
- Resources could be wasted on **unproductive expenses** such as advertising, switching the factors of production and providing competitive services.
- If competition disappears then there may be **monopolies**, who charge high prices and offer low quality of service.
- There is the problem of **externalities**.

### Command economy:

In a command (planned) economy, **all factors of production, except labour, is owned by the state** and labour is directed by the state. There is **no private property** and everyone is assumed to be selfless, **working for a common good**. Resource allocation is carried out by the government, rather than the price mechanism. The government's allocation may represent the wishes of the consumer and often focuses on the need to expand certain areas of the economy, such as weapon building. However, planning is so complex that **some decisions are left up to the consumer**. Workers receive wages and can spend this on what they want, within limits. Some goods can be purchased whilst others, such as houses, are allocated. Income distribution is determined by the government and **all workers**,



**no matter their job, tend to receive the same wage, products are standardised** and prices are limited causing excess demand and queueing.

**Karl Marx** (1818-1883) believed in the command economy and criticised capitalism. Marx believed that capitalist's profit came from exploiting labour as they underpaid workers for the value that they actually created. He wanted to remove the difference between the incomes of owners and workers and believed that capitalism would collapse leading to communism. Marx saw businesses growing and workers getting poorer, creating a two class system with a few wealthy capitalists and many underpaid workers. He thought more firms would fail because of competition causing unemployment, lower wages and higher prices and this would lead to discontent amongst the working class. His theory stated that these workers would inevitably rise against property owners and seize control of the means of production. This would lead to a democratic society where everything would be owned by everyone i.e. the fall of capitalism to begin communism.

### Advantages:

- The state provides a **minimum standard of living**, ensuring no one is extremely poor as there is less inequality.
- There is **less wastage of resources** as there is no need for competitive services nor advertising, which is very expensive.
- **Long term planning** means that the industry doesn't have to keep changing and shifting resources. This is important as some industries may take a number of years to get established and would fail if planning was short term.
- **Standardised products** means that they are produced cost effectively.
- As the government, who are generally motivated by the **wellbeing of the country**, rather than the companies, who are motivated by profit, decide resource allocation, objectives other than profit can be followed: merit goods are encouraged and increased whilst demerit goods aren't produced.

### Disadvantages:

- It is impossible for the state to make so many decisions correctly, which could lead to over or under supply and a **waste of resources**.
- Decision making will be slow as it has to go through various stages and there could be an increase in **bribery and corruption** (an increase in bureaucracy).
- As everyone receives the same wage, there is **less motivation and efficiency** because people know that working harder will not increase their standard of living.
- Consumers **lose their freedom** and it is often led by dictators.

### Mixed economy:

Both types of economies have benefits but also major problems so most economies have tried to move towards **some form of compromise economy**, called a mixed economy. This is an economy where **both the free market mechanism and the government planning process allocate a significant amount of the total resources in the country**. Each



country will have a different amount of control by the government, but it is usually between 40-60%.

### The government's role in a mixed economy:

- **Creating a framework of rules:** They prevent the abuse of monopolies: a company with more than 25% of market share can be considered as having monopoly power so can take advantage of their customers due to the lack of competition and charge higher prices/provide a poorer service. They can protect customers as they pass a large amount of consumer protection laws to protect the consumers from poor quality products or services. They protect property rights, ensuring whatever a person owns cannot be taken away by someone else. Also, they ensure safety standards, protecting employers and employees.
- **Supplements and modifies the price system:** They produce public and merit goods, such as emergency services and transport, and limit the production of demerit goods like child pornography. Government action ensures the consideration of externalities.
- **Redistributes income:** They move income from one group of people to another, from the rich to the poor. They use tax, such as income tax, to take money away from one group then give the money to the poor. This is in the form of benefits for those who are out of work or on low incomes, and in the provision of services for all, such as education and the NHS, allowing the poor to access these services when they might not have been able to afford to.
- **Stabilises the economy:** The government will attempt to manage the level of demand in the economy to prevent extremes of too much or too little demand. They do this through fiscal and monetary policy, which is looked at in Theme 2.

