Economics Revision

# Paper 1 - MicroEconomics

## The fundamental problem

**The fundamental economic problem is SCARCITY AND CHOICE.**

**The planets resources are scarce so we must choose how to use them because once they are used the same resource can't be used again.**

### **Opportunity Cost**

**This is the cost of an economic decision expressed in terms of the next best alternative foregone.**

**E.g. if an hour is spent watching TV that same hour can't be spent doing homework. There is an opportunity cost to everything we do/make**

## **Limited Resources**

In Economics the scarce resources are called **factors of production** they are:

1. Capital
2. Enterprise
3. Land
4. Labour

Otherwise remembered as CELL

### Land

This is the surface of the Earth. It includes sea, rivers, lakes and the physical area. Also various raw materials such as oil, coal, gas, wood and water.

These resources are **scarce** and so we must choose carefully how we use them. Oil used to make plastic can then not be used as fuel.

The payment firms must make for the use of land is **rent**.

### Labour

This is the people - the number of people available to work is the **population**. However not all the population are able to work. Some are too old others too young. Some choose not to. Not all labour is the same quality - better educated/qualified so the quality is better

The payments firms make to use labour are wages.

### Enterprise

Enterprise is entrepreneurship.

Entrepreneurs are enterprising people who organise land, labour and capital. Somebody has to come up with the idea to make a product.

Someone also has to take a risk with his or her money.

The reward firms receive for their risk is **profit**.

### Capital Goods

These are anything man made which helps firm to produce things such as factories, machinery or tools.

These goods are essentially goods, which make other goods.

Money is an example of capital

The payments firms make for the use of capital is **interest**.

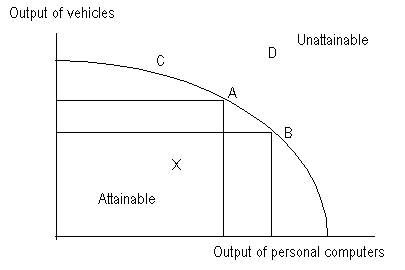
## Factor Edowment

Some countries / economies have vast amounts of the 4 factors of production e.g. USA, China. Others like Ethiopia have very little except labour.

Countries with lots of resources can produce a lot of goods and services in order to satisfy its population. They are said to have a very high **factor endowment**. Countries with few resources can produce very little and so are dependent upon outside help.

Some developing countries have a lot of land and labour yet lack capital resources, such as India and China. Very few people have money left over to save in order to provide funds to borrow - in banks.

### Production Possibility Frontier

A '**PPF'** shows the combination of 2 or more goods that can be produced **using all available resources.** Output on the curve is efficient, as it is using **all** the resources. It is said to be maximising the use of its scarce resources.

In the diagram points A, B and C are considered **efficient.**

Points lying inside the PPF occur when there are **unemployed resources** or when the economy is not making efficient use of the scarce resources available. Point X is an example of this, here the economy isn't efficient - we could increase efficiency by moving towards the PPF line.

Point D is unobtainable at the moment - we need an increase in quality and quantity of the factors of production to produce cars and PC's at point D - This is called **Economic Growth**.

The relocation of resources creates an opportunity cost, producing more of product X means giving up production of product Y.

If consumers want more vehicles so output climes from A to C, you can't keep producing PC's at B - the **opportunity cost** of more cars is the output of PC's that is given up.

## Sectors of Industry

There are 3 sectors of industry:

* Primary Sector
* Secondary Sector
* Tertiary Sector

### Primary Sector

This sector gathers raw materials for use in production of goods and services.

It includes industries like - coal mining, quarrying, farming, fishing and oil exploration

### Secondary Sector

This sector turns raw materials into finished goods - it contains things like car production, shipbuilding, food processing, and making chocolate.

### Tertiary sector

This sector deals with services. It provides essential services like high street retail, teaching, nursing, accountancy and law. Etc.

### De-industrialisation

In 1780's Britain went through the industrial revolution, which shifted most people from primary sectors jobs to secondary sector jobs-as the wages were higher and living conditions better in cities (India & China going through this).

In the past 40 years there has been a decline in the UK manufacturing sector as factories are closing here in favour of law wage economies like China. Most Britain’s now work in the tertiary sector - this is called **de-industrialisation**.

## Specialisation

This is when workers focus on doing just one task. People specialise but also countries and firms can - it is also known as **the division of labour**.

### For & Against

#### Advantages of Specialisation

1. Workers are more efficient as they practice one task
2. Productivity will increase
3. Costs may fall as work is done more efficiently
4. Fewer tools are required
5. It is easier to automate the process of production

#### Disadvantages of Specialisation

1. The work may be repetitive and boring
2. Workers may only have one skill so there is less flexibility
3. Workers have more power to disrupt production

##### Multitasking

This is when workers are trained to perform more than one task- this can overcome some of the disadvantages of specialisation

## Money

### Functions of Money

1. Medium of Exchange
2. Unit of Account
3. Store of Value
4. Method of Deferred payment

#### Medium of Exchange

This is the most important function of money.

It is used to buy goods and services. We accept money as a method of payment because we know we can spend it anywhere.

Before money the **barter system** was used - trade was awkward and slow under this system. Cash solved the problem

We all accept money as a method of payment because we can spend it on something else - it’s a simple medium of exchange.

#### Unit of Account

Money acts as a measure of value. For example if a piece of beef costs £2 and a piece of lamb is £1. We know the value of 1 piece beef equals 2 pieces of lamb.

#### A Store of Value

Money links the present and future. We know that we can save our money and spend it later - providing inflation is low it should still have a similar purchasing power.

#### A Method of Deferred payment

This is similar to the function 'a store of value' - if you lend someone £10 today you would be quite happy to accept the same £10 back in six months.

### The Characteristics of Money

Pigs, goats, silver and gold has been used on money. All have many disadvantages.

Ideally money should be:

1. Acceptable to all
2. Portable
3. Durable
4. Divisible
5. Limited
6. Difficult to forge

## Business Objectives

All firms aim to achieve certain things.

### Private Sector Objectives

The main **objectives** of a business in the Private Sector include the following:

1. To make profit - this is left after the costs of producing its foods and services. Making profits is important so a business can:
   1. Pay wages
   2. Buy raw materials
   3. Pay its bills
   4. Have a reserve to buy new machinery etc.
2. Survival. A business needs to survive.
3. To have a good public image
4. To grow larger
5. To increase its sales and therefore its market share

### Public Sector Objectives

Businesses in the Public Sector are not necessarily expected to make a profit. They provide services of the good of a community

Publicly owned businesses do not escape from the need to make a surplus (profits). They are expected:

* At least break even
* Make enough profit to buy new equipment etc.

### Timeline of Buisness oBjectives

Short Term 0-12 Months

* Survival
* Breaking Even (no profit but no loss)
* Build up a customer base

Medium Term 1-3 Years

* Expansion
* Expand product range
* Increase market share
* Take on more employees
* To make a profit

Long Term 3-5 Years

* To continue expansion
* Increase profit
* National or Global coverage
* To gain a prestige brand name

## Cost

### Types of Cost

#### Fixed Costs

**Do not change** in line with output

Fixed costs are the costs the business incurs whether or not it produces anything.

Fixed costs are cost such as the factory, the machinery, vehicles etc.

The company needs these things to make their products and whether they make one unit or one million units they need these things.

#### Variable Costs

Variable costs **do change** in line with output.

Variable costs are things like raw material costs and labour cost. They vary directly with the amount of product made.

#### Equations

*Total Costs = Fixed Costs + Variable Costs*

*Average Costs = Total Costs / Quantity* ***Sold***

*Total Revenue = Unit Sales \* Selling Price*

*Average Revenue = Total Revenue / Unit Sales*

*Profit = Total Revenue - Total Costs*

Increasing total revenue and/or reducing total costs can improve profit. Ultimately all firms aim to make profit.

## Production and Productivity

### Difference

Production is making things whereas Productivity is output per worker or per machine or per factory.

### Productivity

Productivity is output per worker (or machine or factory) over given period of time.

E.g. Total Factory Output in Units per week / Total Number of Workers

10,000 Units per week/100 workers = 1000 units per employee per week

### Conclusion

Firms with higher productivity can spread their fixed costs out over more units and reduce their average costs of production. If costs can be reduced they can reduce selling price and gain an advantage over their rivals - this will hopefully increase market share and generate more revenue and profit

Productivity can be improved by using specialised dedicated specialised machinery or by specialising the work force.

## Growth in Firms

### How firms Grow

1. **Internal Growth** is when a firm expands without involving other businesses. Sometimes referred to as **Organic growth** it expands by selling more of its existing products. **Diversification** a firm can diversify into other product/service markets.
2. **External Growth or Inorganic Growth** This involves other businesses.
   1. Takeover/Acquisition the purchase of one business by another.
   2. Merger the joining together of two businesses usually to create a third new company.

Firms want to grow as it increases profits and revenues and makes them more secure.

### Reasons for Mergers & Takeovers

1. it is a quick and easy way to expand
2. Buying businesses is often cheaper than internal growth
3. Some businesses have cash available which they want to use. Buying a business is one way of doing this.
4. Mergers have taken place for defensive reasons (if a firm increases size it may avoid being victim of a takeover)
5. In response to economic changes
6. Access to foreign markets by merging with foreign companies
7. The globalisation process has encouraged mergers between foreign companies
8. A business way want to get economies of scale
9. Some firms are asset strippers
10. Management may want to increase the size of the company

## Economies of Scale

**As output increase average costs per unit decrease or put more simply the more you make the cheaper it gets.**

Economies of scale occur when mass-producing a good, results in lower average costs. Economies of scale occur within a firm (internal) or within an industry (external).

### Internal Exonomies of scale

* **Technical Economies** made in the actual production of the good - e.g. the purchase of expensive machinery
* **Managerial Economies** made in administration of a large firm by splitting up management jobs and employing specialist accountants, salesmen
* **Financial Economies** made by borrowing money at lower rates of interest than smaller firms
* **Marketing Economies** made by spreading the high cost advertising on television and in national newspapers, across a large level of output.
* **Purchasing Economies** made when buying supplies in bulk and therefore gaining a larger discount
* **Research and Development Economies** made when developing new and better products

### External Economies of Scale

These are made outside the firm as a result of location and occur when:

* A local skilled labour force is already available
* Specialist local back-up firms can supply parts or services
* An area has a good transport network
* An area has an excellent reputation for producing that good

## Diseconomies of Scale

### Internal Diseconomies of Scale

These occur when a firm is too big and inefficient. Then average costs rise because:

* The disadvantages of the division of labour occur
* Management becomes out of touch with the shop floor and some machinery becomes over-manned
* Decisions are not taken quickly and there is too much form filling
* Lack of communication means that management tasks can be done twice
* Poor labour relations may develop in large companies

### External Diseconomies of Scale

These occur when too many firms are in one area and costs rise because:

* Local labour becomes scarce and firms now have to offer higher wages to attract new workers
* Land and factories become scarce and rents begin to rise
* Local roads become congested and so transport costs begin to rise

## The Competitive Market

**A market is basically a place, which brings buyers and sellers together for the purposes of exchanging money for goods and services.**

Usually sellers come to provide goods and services in exchange for buyer’s money. Buying and selling can only take place when a **price** has been agreed.

Buyers and sellers reacting to each other determine this price. Also during times of shortage the price goes up, in times of surplus price goes down. A competitive is one in which there are many buyers and many sellers.

### Benefits to a competitive market

Consumers benefit as they get:

1. More choice
2. A variety of different competitive prices
3. Improved quality
4. New innovative products are constantly launched
5. Buyers have a good market knowledge
6. Lower prices for consumers

To operate in competitive markets **sellers** have to improve what they make and who they make it for in order to remain competitive. Markets therefore improve the allocation of scarce resources as they force suppliers to constantly think about:

1. Only making products people want to buy
2. They must make quality products in the cheapest and most efficient way (best use their scarce factors of production)

If there isn’t a demand for the product they are making then sellers must move to other markets where there is higher demand - and money to be made.

Buyers want the best deal. Sellers want to make a profit. A good market should satisfy the needs of both buyers and sellers.

## Monopolies

A market where **one firm dominates is called a monopoly**. The monopoly firm is fortunate, as it has no real competition it can therefore:

1. Set prices high preventing other firms entering and competing in the market
2. Make greater profits by determining price

This is bad news for consumers who get very little choice of products and are forced to pay higher prices. Monopolies often occur in utilities like gas, electricity, water and postal services.

### Governments and monopolies

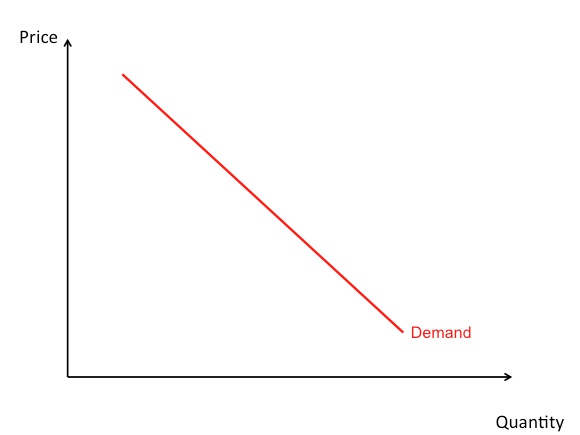
To prevent monopolies abusing power the government monitors business activities closely. They are regulated to ensure they don’t set their prices too high - as this is unfair for the consumers. The government forces monopoly firms to allow firms into the market to promote competition - sometimes its better for one firm to dominate a market.

E.g. Network Rail - 2 firms have the same set up costs and yet carry half the passengers so costs will be spread over fewer passengers increasing average cost - which in turn would increase ticket price and worse quality.

## Supply and Demand

### Demand

#### THe Downward Sloping Deman curve

Dont forget to label Q, P & D/D1

The demand curve shows the relationship between the price and quantity demanded.

It is inversely proportional - meaning that as price falls quantity demanded rises.

**If the price of the product changed it only ever causes a movement along the demand curve**

**Any** other alteration and is causes a **shift**.

The acronym **STICA** is used to remember the factors, which cause the demand curve to shift:

S Substitutes

T Tastes

I Incomes

C Complementary

A Advertising

Demand is defined as... the quantity of a good or service consumers are willing and able to buy at a given price in a given period of time.

Only when the consumers desire to buy something is backed up by willingness and an ability to pay for it do we speak of demand. To emphasize this point economists use the term effective demand.

#### Stica

##### Substitutes

A change in the price of Pepsi will cause a shift in demand for Coke. A rise in the price of Pepsi will cause a right shift (increase) in demand for Coke. A decrease in price will have the opposite effect.

##### Tastes

If a product suddenly becomes fashionable more will be demanded at all prices - a right shift. The same thing would happen if the Government told us that something was good and vice-versa.

##### Incomes

Demand for some expensive products is heavily influenced by how much somebody earns. If incomes rise then demand of cars for example increase, and it will shift to the right - and vice-versa.

##### Complements

These are products, which go together. A rise in the price of fish makes chips less affordable so demand for chips will fall and demand curve for chips will shift left and vice-versa.

##### Advertising

If a firms advertising campaign goes well then more may be demanded at all prices causing the demand curve to shift right.

### Supply

#### The upward sloping supply curve

The market supply curve shows the relationship between the price and the quantity supplied. It is a directly proportional relationship showing that as price increases quantity supplied rises.

Supply

**If the price of the product in question changes it only ever causes a movement along the supply curve.**

Factors that cause the supply curve to shift are remembered by the acronym **GIRL**

G Government Subsidies

I Improved Technology

R Raw Material Prices

L Labour Costs

#### GIRL

##### Government Subsidies

If the government subsidises an industry it means that they will cover some of the costs allowing firms to increase their supply without increasing costs. A rise in government subsidies would cause a right shift in supply and vice-versa.

##### Imporved technology

When technology improves it means products can be made more cheaply and efficiently and so firms can supply more - supply curve shift to the right.

##### Raw Material prices

If raw material prices fall production costs will fall so firms can supply more and the supply curve will shift right, and vice-versa.

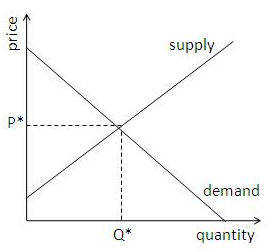
##### Labour costs

If a company can hire labour more cheaply they can make good more cheaply and the supply curve will shift right and vice-versa.

##### Other factors

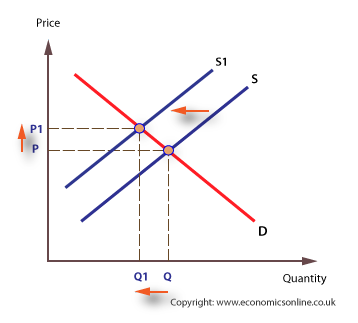
Other factors can affect supply such as weather conditions on crops and large companies leaving the market.

## Determination of prices in competitive markets

The free market price is determined by the demand for the product and the supply for the product. The equilibrium price is where supply and demand are in balance - it is shown by the intersection of the demand curve and supply curve. The equilibrium price is the only price where the market will clear (demanded good = supplied goods). - Also at this point there is no pressure on price.

### The Impact of Taxes and subsidies

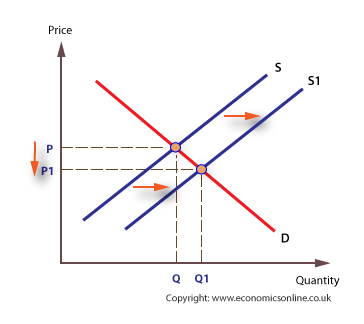
#### Taxes

If the government put a tax on a product it's supply curve will shift to the left which will cause an increase in price and so a decrease in demand.

The government places taxes on things it wants us to consume less of for either health or environment - e.g. cigarettes, alcohol, and petrol.

**Tax causes a LEFT SHIFT.**

#### Subsidies

The government subsidises products it wants us to consume more of such as education, healthcare, and public transport.

The subsidy covers some of the costs of production allowing the firm to increase output and lower prices, which should increase demand.

**Subsidies cause a RIGHT SHIFT.**

## Price Elasticity

**Price Elasticity is the responsiveness of one economic variable to a change in another.**

E.g. how much will consumer demand change when selling price changes?

### Price Elasticity of Demand

This is a measure of how demand changes when price changes. The knowledge is very important it firms when making price decisions.

If demand is **elastic** a small price change will bring about a large change in quantity demanded.

If demand is **inelastic** a large price change will only bring about a small change in quantity demanded.

The formula to calculate Price Elasticity of Demand is

PED = % change in Quantity Demanded / % change in price

E.g.

*Product A costs £10 and at that price quantity demanded is 100 units*

*Product B costs £10 and at that price quantity demanded is 100 units*

*The price for both products rises to £11*

*Demand for Product A falls to 95 units*

*Demand for Product B falls to 80 units*

*Product A PED = 5% / 10% = 0.5% (demand is* ***inelastic*** *as PED < 1)*

*Product B PED = 20% / 10% = 2% (demand is* ***elastic*** *as PED > 1)*

#### Price ELasticity of Demand for Firms

Firms need to knowhow consumers will respond to a change in the price of their product because this has a big effect on their **sales revenue**.

They need to know if a change in price will cause their **sales revenue** to rise or fall.

##### Elasticity Rules

* If demand is **elastic** a **rise** in price will cause a **fall** in quantity demanded and a **fall** in sales revenue.

*Because the percentage fall in the quantity demanded is larger than the percentage rise in price the firm will make* ***less*** *sales revenue - as even though they sell goods at a higher price they sell considerably less.*

* If demand is **inelastic** a **rise** in price will cause a **fall** in quantity demanded and a **rise** in sales revenue.

*Because the percentage fall in quantity demanded is smaller than the percentage rise in price the firm will make* ***more*** *sales revenue - as even though they are selling goods at a higher price they are only selling slightly less.*

* If demand is **elastic** a **fall** in price will cause a **rise** in quantity demanded and a **rise** in sales revenue.

*Because the percentage rise in quantity demanded is larger than the percentage fall in price the firm will make* ***more*** *sales revenue - as even though they are selling goods at a lower price they are selling significantly more.*

* If demand is **inelastic** a **fall** in price will cause a **rise** in quantity demanded and a **fall** in sales revenue.

*Because the percentage rise in quantity demanded is smaller than the percentage fall in price the firm will make* ***less*** *sales revenue - as even though they are selling more goods they are selling them considerably cheaper.*

So increasing the product price is **a good idea** if demand is inelastic but a **bad idea** if it is elastic.

So decreasing the product price **a good idea** if demand is elastic but a **bad idea** if it is inelastic.

### Price Elasticity of Supply

This is a measure of how demand changes when price changes. The knowledge is very important it firms when making price decisions.

If demand is **elastic** a small price change will bring about a large change in quantity supplied.

If demand is **inelastic** a large price change will only bring about a small change in quantity supplied.

The formula to calculate Price Elasticity of Supply is

PES = % change in Quantity Supplied / % change in price

E.g.

*Product A costs £10 and at that price quantity supplied is 100 units*

*Product B costs £10 and at that price quantity supplied is 100 units*

*The price for both products rises to £11*

*Supply for Product A falls to 95 units*

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*Product A PED = 5% / 10% = 0.5% (supply is* ***inelastic*** *as PES < 1)*

*Product B PED = 20% / 10% = 2% (supply is* ***elastic*** *as PES > 1)*

#### Factors which influence PES

1. **Level of stock.**
2. **Capacity Utilisation or amount of factory being used.**
3. **Length of the production process.**

##### Level of stock

Some firms have large levels of stock to allow them to respond quickly to variations in demand – they can increase output quickly in response to a price change.

##### Capacity utilisation

Some firms can increase production quickly because they have spare capacity (factors, space, machines) - they can increase output quickly to meet production if demand rises

##### Length of Production process

The production process for some products is much longer than others e.g. houses. Therefore the supply is inelastic as it cannot respond quickly as it takes years to build a house.

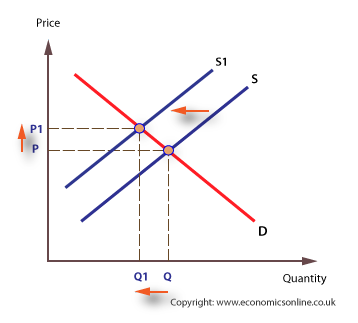
## Effect of Taxes and subsidies

The government uses subsidies and taxes to control demand and supply of goods.

### Taxes

**Taxes reduce demand**

If the government wants us to consume less of a product (As it is bad for the environment of health) then it puts a tax on it.

The tax causes a shift in the supply curve and thus a movement along the demand curve.

The tax shifts the supply curve from **S to S1**, which increases price from **P to P1**, which in turn reduces the quantity demanded from **Q to Q1**.

It effects the