

## The Economic Problem

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The economic problem arises due to **scarcity**. People have unlimited wants but there are insufficient resources to provide these goods and services. People must therefore make choices, and if they act rationally, they choose the choice which provides the lowest opportunity cost. The opportunity cost is defined as the value of the next best alternative forgone.

For example: Someone makes a rational choice about going on a holiday. Even if the holiday is a disaster (e.g. the hotel is half finished) they have still made the rational choice by acting on the information they had when booking the holiday.

Money is no solution to the economic problem. It simply provides the means of rationing or allocating goods between consumers.

### Opportunity cost

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Opportunity cost is the next best alternative which people lose when they take their first choice. This is usually expressed in terms of the goods which you gave up rather than in terms of money. Opportunity is the real cost of the product. The basis of choice gives a good its price and changes it from a free good to an economic good.

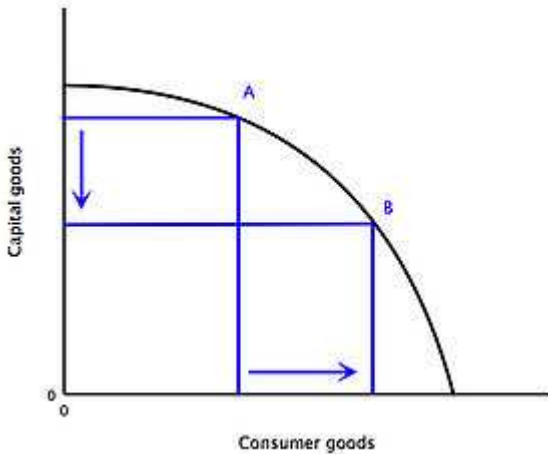
### The economic units

There are three economic units which are found in every society and engaged in making economic choices.

1. The household - the consumptive unit. The household must consider their limited income and their wants as distinct from their needs when making choices. A need is something essential to man's survival; anything else qualifies as a want. Wants must be translated into effective demand before they have any effect on the economy.
2. The firm - the productive unit. The organisation involved in the production of wealth and in our economy it is motivated by the consideration of profit. The business or the firm is responsible for the production of wealth and the creation of all the goods and services which we want as individuals.
3. The government - the role of government varies depending on the views of those currently elected. Left wing governments believe in greater government intervention than right wing governments.

## Production possibility curves

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Production possibility curves/production possibility frontiers (PPF) show the different amounts of 2 goods that can be produced with a fixed amount of resources. Points on the PPF itself produce the same level of welfare. This occurs when all resources are fully utilised. Points inside the curve are wasteful, perhaps due to unemployment or idle factories. Points outside the PPF are unobtainable unless the PPF itself shifts outwards due to growth (an increase in resources available, better efficiency, or new technology).

PPFs can be used to show opportunity cost. A move from A to B on the curve (see diagram) increasing the quantity of consumer goods has an opportunity cost of the drop in capital goods.

PPFs curve usually shift outwards because of the law of diminishing returns. The extra output from an increase in resource allocation decreases.

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## Factors of Production

### Factors of Production

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A factor of production is defined as a productive resource. There are 4 types of factors of production:

- **Land** - all natural resources including oil, fish, soil, forests. The reward for land is rent.
- **Labour** - the skills of the workforce and the quantity of labour they produce. The reward for labour is wages.

- **Capital** - investment in man-made aids to production including buildings, factories, computers. The reward for capital is interest.
- **Entrepreneurship** - the risk-taking role of business owners undertaken in the pursuit of profit. Can be considered as a specialised form of labour. The reward for entrepreneurship is profit.

## Classifying industries

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The three main sectors of the economy are:

- Primary sector - extracting raw materials
- Secondary sector - processing, manufacturing and assembling raw materials into goods
- Tertiary sector - aid the production of goods (e.g. lorry driving) and sell services

In a MEDC such as the UK the majority all economic activity is the tertiary sector (currently 76%).

## Positive and normative economics

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**Positive statements** are one which can be verified and shown to be true or untrue with data.

**Example:** "A poor coffee harvest will raise coffee prices and people will drink more tea"

**Normative statements** are value judgements and opinions. They often use words such as *ought*, *should* and *would*'. **Example:** "We *should* redistribute wealth from the rich to the poor"

## Specialisation and Trade

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Specialisation is when a factor of production is devoted to a specific job. This applies to all factors of production - land, labour, capital and enterprise. By specialising and trading, countries can increase overall output.

## Absolute and comparative advantage

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When a country can produce more of a product per unit resource than its rivals can, it has absolute advantage. The country can produce at a lower factor cost.

More important, however, is Ricardo's idea of comparative advantage. The producer with the lowest opportunity cost of production for a particular product has comparative advantage. For

example, Portugal can produce more wine and cloth than England per unit resource (it has absolute advantage in both). Compared with Portugal, England is bad at producing cloth, but terrible at producing wine. Therefore England should specialise in cloth and Portugal in wine, because the opportunity cost of Portugal producing extra cloth is greater than producing extra wine.

## The Gains from Trade

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The most important gain from trade is increased output. This can lead to increased living standards, greater variety of goods and spread of technology. Other gains include:

- Economies of scale
- Political links may prevent wars
- Competition gives greater efficiency and reduces the power of the monopoly producer

## Division of labour

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Division of labour is a special type of specialisation. The production of a good is split into many tasks which can be undertaken by different people. There are three types of division of labour:

1. Specialisation of people in trades or professions (e.g. milkmen)
2. Specialisation by process (e.g. jam making)
3. Specialisation by area (e.g. Silicon Fen, Cambridge)

### Advantages

1. Time saving
2. Increase in output due to productivity gains from increased economic organisation
3. Improvement in quality of goods because specialists can perform better
4. Makes the best use of natural abilities
5. Reduction in costs because people work faster
6. Automation as the use of machinery takes over repetitive tasks

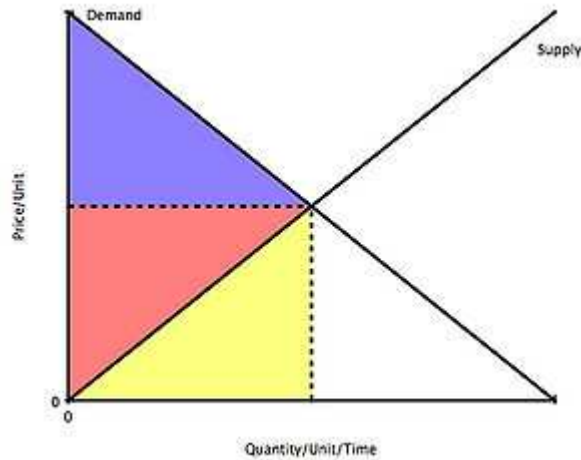
### Disadvantages

1. Mental disadvantages on workers of low job satisfaction
2. Strikes and absenteeism
3. Immobility of labour

### Limits to the division of labour

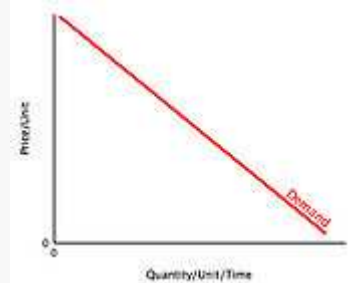
- Some trades, such as handmade craft trades, are not suitable for specialisation.
- Large scale sales are needed for division of labour
- Management may not be efficient

## • **Producer and Consumer Surplus**



- **Consumer surplus** is the difference between the market price and the maximum price the consumer would be willing to pay. The amount that the consumer benefits. On the diagram is the top triangle shown in blue.
- **Producer surplus** is the difference between the minimum price the producer would be willing to sell for and the market price. It is the triangular area below the consumer surplus shown in red.
- The yellow area represents the costs to the firm of producing the good. Together the yellow and red represent the revenue of the firm.

## Demand Theory



A demand curve

For the vast majority of goods, when a good falls in price more people buy it. This is because they are gaining consumer surplus. The market demand consists of the sum of all effective demand of households.

The demand curve is downward sloping because when the price falls, the quantity demanded increases.

## Determinates of demand

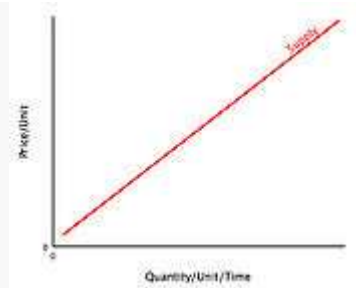
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The following factors may influence demand, shifting the demand curve to the left if there is less demand and to the right if there is an increase in demand.

1. Price
2. Changes in taste
3. Changes in the price of relative goods
4. Changes in income
5. Changes in the distribution of income
6. Changes in the size and distribution of the population
7. Changes in marketing strategy
8. Changes in the expectation of future price levels
9. Changes in the law
10. Changes in the quality and reputation of goods
11. Introduction of a new product
12. Availability of credit

## Supply Theory

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A supply curve

The firm is the main agent of supply (government may also supply some goods). An increase in price leads to an increase in supply as the incentive for firms to produce increases.

A supply curve slopes upwards.

## Determinates of supply

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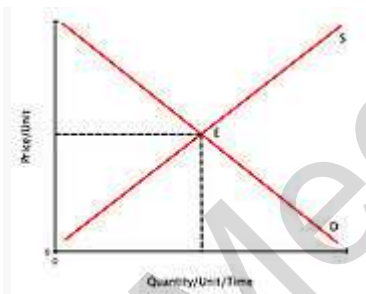
The following factors may influence supply, shifting the supply curve to the left if less is supplied and to the right if there is an increase in supply.

1. Price of the goods
2. Goals of the firm
3. Changes in the price of all other goods
4. Changes in the costs of factors of production
5. Changes in the state of technology
6. Changes in legal restrictions
7. Imposition of a tax or subsidy

## 8. Supply and Demand Equilibrium

### Supply and Demand Equilibrium

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10. Equilibrium is the situation when demand and supply come together and fix the price in the market. The market is cleared because consumers demand what producers have to sell.
11. The equilibrium will change when the demand and supply curves move.
12. A **contraction** occurs when the demand/supply decreases. An **extension** occurs when the demand/supply increases.

## Elasticity of Demand

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Elasticity of demand is the responsiveness of a good to changes in price, income and the demand for substitutes and complements.

### Price elasticity of demand

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Price elasticity of demand (PED) is measurement of how demand for a good responds to a change in price.

$$PED = \frac{\text{proportionate change in quantity}}{\text{proportionate change in price}}$$

The value of PED will always be negative because when price increases the quantity demanded falls (for the same reason the demand curve slopes downwards). The signs here are irrelevant; what is important is the magnitude.

Goods with unit elasticity experience an equally proportionate change in price to a change in quantity. For elastic goods, a proportionate change in price leads to a greater than proportionate change in quantity. For inelastic goods, a proportionate change in price leads to a less than proportionate change in quantity.

- A PED of -1 has unit elasticity
- A PED between 0 and -1 is inelastic
- A PED which is less than -1 (i.e. a "bigger" negative number, such as -2) is elastic

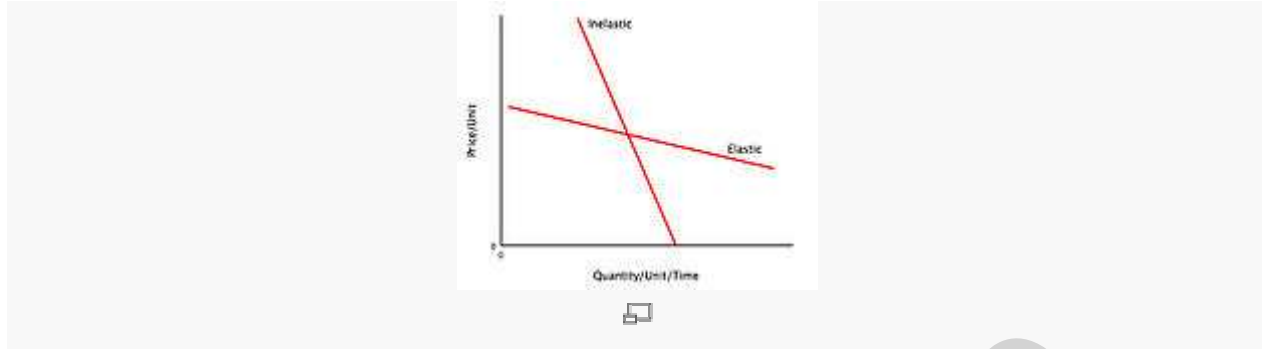
### Worked example

When the price of cinema tickets falls from £8 to £6, the quantity demanded increases from 20 to 25 units. What is the PED of cinema tickets?

- Proportionate change in quantity is  $\frac{20-25}{20} = -0.25$
- Proportionate change in price is  $\frac{8-6}{8} = 0.25$
- Therefore  $PED = \frac{-0.25}{0.25} = -1$
- This shows the PED for cinema tickets is somewhat inelastic.



## Showing PED graphically



PED affects the gradient of demand curves.

- The demand curve for inelastic goods has a steep gradient. Perfectly inelastic goods have vertical demand curves (looks like a capital I)
- The demand curve for elastic goods has a gentle gradient. Perfectly elastic goods have horizontal demand curves (looks a bit like a capital E)

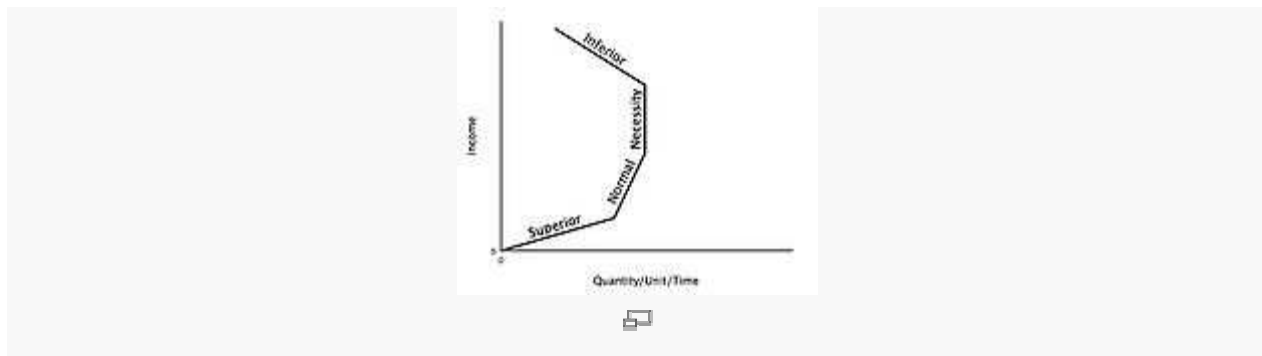
The elasticity of demand falls over the length of any given straight-line demand curve. At low quantities, a fall in price has a large response (i.e. elastic). At high quantities, the market is almost saturated and a fall in price has little response (i.e. inelastic).

## Factors influencing PED

1. Availability of substitutes
2. Luxury or necessity good
3. Bought at short intervals or long intervals
4. Willingness of consumer to try new brands (habit forming goods)
5. Incomes
6. Importance in consumption patterns
7. Market information, transport and communication

## Income elasticity of demand

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Income elasticity of demand (YED) is a measurement of how a good responds to a change in income.

$$YED = \frac{\text{proportionate change in quantity}}{\text{proportionate change in income}}$$

Unlike for PED, for YED the signs are significant:

- A negative YED indicates an inferior good (goods which are demanded less when income rises e.g. builders' tea, tabloid newspapers, cigarettes)
- A YED of 0 indicates a necessity good (goods which are not demanded more or less when income changes e.g. salt)
- A positive YED between 0 and 1 indicates a normal good (goods which are demanded more when income rises e.g. DVDs, cushions)
- A positive YED, greater than 1, indicates a superior good (good which are demanded proportionally more when income rises e.g. foreign holidays)

## Cross elasticity of demand

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Cross elasticity of demand (XED) is the responsiveness of a good to a change in the price of a substitute or a complement.

$$XED = \frac{\text{proportionate change in quantity of good y}}{\text{proportionate change in price of good x}}$$

- Complements (e.g. fish and chips) have a negative XED
- Unrelated goods have a XED of 0.
- Substitutes (e.g. margarine and butter) have a positive XED.

## Elasticity of Supply

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Price elasticity of supply (PES) is measurement of the responsiveness of supply of a good to a change in price.

$$PES = \frac{\text{proportionate change in quantity supplied}}{\text{proportionate change in price}}$$

PES will always be positive because when the price of a good increases, more will be supplied (this is why the supply curve slopes upwards).

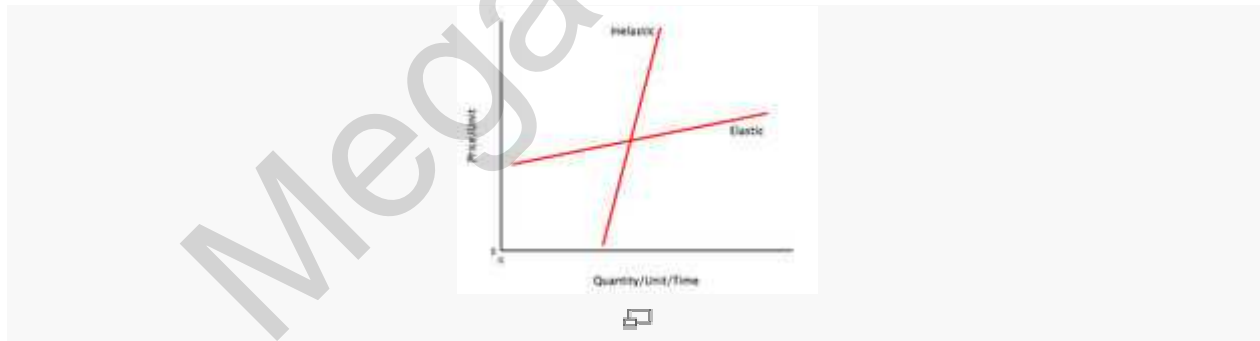
- Goods with an inelastic supply will see a less than proportionate increase in supply when the price increases.
- Goods with an elastic supply will see a more than proportionate increase in supply when the price increases.

Many goods, especially agricultural goods, have an inelastic supply in the short run because producers are unable to increase supply significantly with short notice.

- A PES greater than 1 is elastic
- A PES less than 1 is inelastic

### Showing PES graphically

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The idea of representing PES graphically is similar to that of representing PED:

- The supply curve for goods with an inelastic supply has a steep gradient. Perfectly inelastic PES goods have vertical supply curves (looks like a capital I).
  - The supply curve for goods with an elastic supply has a gentle gradient. Perfectly elastic PES goods have horizontal supply curves (looks a bit like a capital E).
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## Factors affecting PES

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1. Spare capacity
2. Time period of production
3. Quantity of stocks
4. Technology

## The Price Mechanism

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The price mechanism performs three main functions:

1. **Rationing** - when there is a shortage of a good, the price increases (it is "bid up"), leaving only those with the willingness/ability to pay to purchase the product. This causes supply and demand to reach an **equilibrium**.
2. **Signalling** - to demonstrate where resources are required, via a change in demand. For example, the price of goods which are scarce will increase. This increase in price should provide an incentive for producers to increase production of the good (i.e. a "signal" to producers).
3. **Transmission of preferences** - consumers are able to alert producers to changes in wants and needs, so that the market provides the right amount of the right goods.

## Advantages of the price mechanism

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- The great benefit of the price mechanism is the invisible hand of price described by Adam Smith. It is able to signal the cost of purchasing a good to the consumer and signal to the producer the revenue that they will receive from the good.
- The idea of **consumer sovereignty** - consumers have the power to determine what is bought and sold in the market.
- The freedoms of choice, property and enterprise can only be fulfilled in a system with operation of the price mechanism.
- Prices are as low as possible and resources go to the most efficient use.
- The system operates without regulation.

## Disadvantages of the price mechanism

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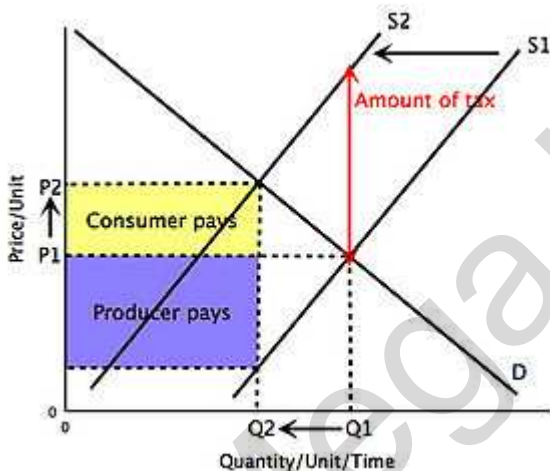
- Inequality of income and wealth
- Without government intervention, there will be under-provision of public and merit good
- Unemployment
- Inflation
- Wastage on advertising etc.

The alternative to using the price mechanism is a planned economy (such as those under communism).

## Indirect Taxes and Subsidies

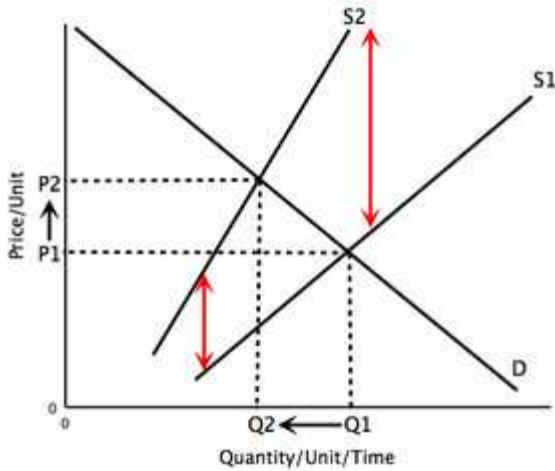
The incidence of taxation is who finally pays the tax. Taxes and subsidies affect the supply curve.

### Taxes



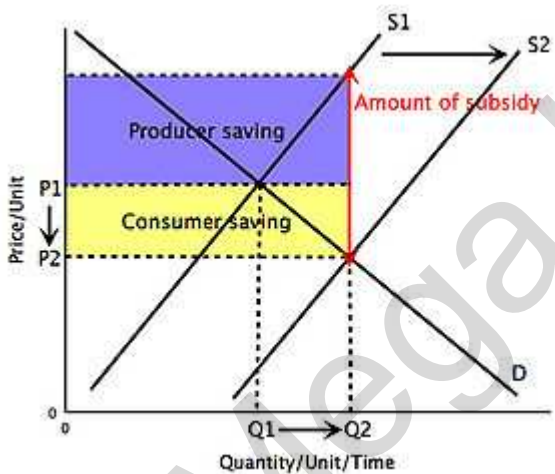
Taxes are designed to limit production of a good. The increase in cost shifts the supply curve to the left.

The greater the PED or the smaller the PES, the greater the burden upon producers. It is mainly goods with an inelastic demand which are taxed; this ensures that the bulk of the incidence of taxation is passed on to the consumer.



Ad valorem taxes, such as VAT, are a fixed percentage of the price of the good, so the amount of tax (indicated by the red arrow) increases as the price increases.

## Subsidies



Subsidies act in the opposite way to taxes. They encourage greater production of a good, shifting the supply curve to the right.

It is mainly goods with elastic PEDs which are subsidised as this ensures most of the cost saving is passed on to the producer.

## Economies of scale

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Economies of scale are savings firms achieve from growing larger. If the average cost of products falls when output increases, the firm or industry is experiencing economies of scale.

### Internal economies of scale

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Internal economies of scale are the savings which occur within a firm, independent of other firms. They take place within the establishment.

#### Technical economies of scale

Large firms have savings in cost during production compared to small firms.

1. **Linked processes** can be used on a larger scale (e.g. a conveyor belt operation).
2. **Increased dimensions.** When a container's length, breadth and height is doubled, eight times the quantity can be stored inside. This is an important economy of scale in areas where bulky material must be transported (e.g. oil tankers).
3. **Indivisibility of capital.** In some industries, one single essential piece of capital equipment is expensive (e.g. blast furnace). In this case only large firms can afford to buy it.
4. **Specialisation.** This is Adam Smith's idea of the division of labour. Workers are able to become more efficient at a particular job when specialisation occurs. It also means no time is lost due to people changing jobs in the middle of a shift.

#### Managerial economies of scale

Savings from delegation and specialisation.

1. **Delegation of authority** so that accountants do the accountancy.
2. **Functional specialisation'** so that there is a separate sales department.
3. **Managerial expertise** - for example head-hunting the best workers.

#### Marketing economies of scale

Large scale buying and selling give the firm important savings in cost.

1. Bulk buying
2. Specialist buyer
3. Branding
4. Specialist transport

5. Sales outlets
6. Advertising

## **Financial economies of scale**

Large firms find raising capital easier because large firms are considered a better risk. Large firms have more opportunity to be floated on the stock market.

## **Diversification**

A large firm engaged in many markets is less risky because if one market goes down, the firm can still make money in the others (e.g. Virgin).

## **External economies of scale**

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### **Concentration**

When a particular part of the country is devoted to one industry (e.g. Silicon Fen in Cambridge).

1. Skilled labour force
2. Transport facilities (e.g. better motorway network in the area)

### **Information**

Firms exchange ideas and publish articles and magazines that promote the spread of information throughout the industry.

1. Trade journals
2. Independent Research

### **Disintegration**

1. Ancillary trades
2. Service trades

## **Diseconomies of scale**

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When a firm grows excessively large it may experience diseconomies of scale. These are:

1. Coordination - firms find it difficult to manage dependencies between activities.
2. Communication - management and the workforce find it difficult to communicate.



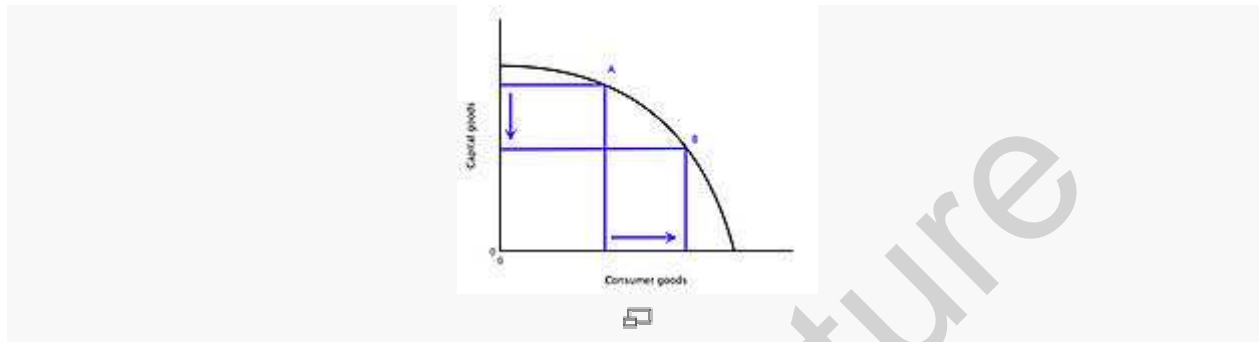
## Market failure

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Market failure occurs when the price mechanism fails to produce the goods consumers want. The Pareto optimum is not achieved. There is no productive or allocative efficiency.

## Efficiency

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Productive efficiency occurs when firms produce at the lowest possible average cost. To achieve this, firms must exploit economies of scale and minimise wastage of resources.

Allocative efficiency is achieved when products are made in the correct quantities to best satisfy consumer wants and needs. This occurs when the marginal cost of an item is equal to the market price. ( $p=mc$ )

Another definition of allocative efficiency is the position where no one can be made better off without making someone else worse off. Such a point is a **Pareto Optimum**, named after Vilfredo Pareto. Any point on the curve of a PPF has Pareto optimality.

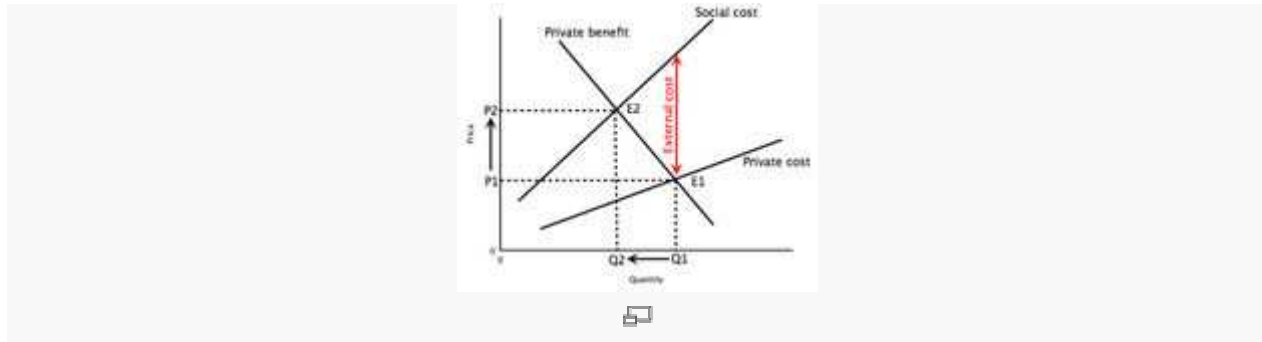
## Externalities

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Externalities are effects of production or consumption of a good on a third party, who is not directly involved in the activity. Externalities can be internalised by bringing the cost home to the producer or consumer so that they have to pay for clean-up.

Externalities cause market failure if the cost/benefit to third parties is not taken into account. The wrong quantity of goods is produced, leading to a loss of welfare.

## Negative Externalities



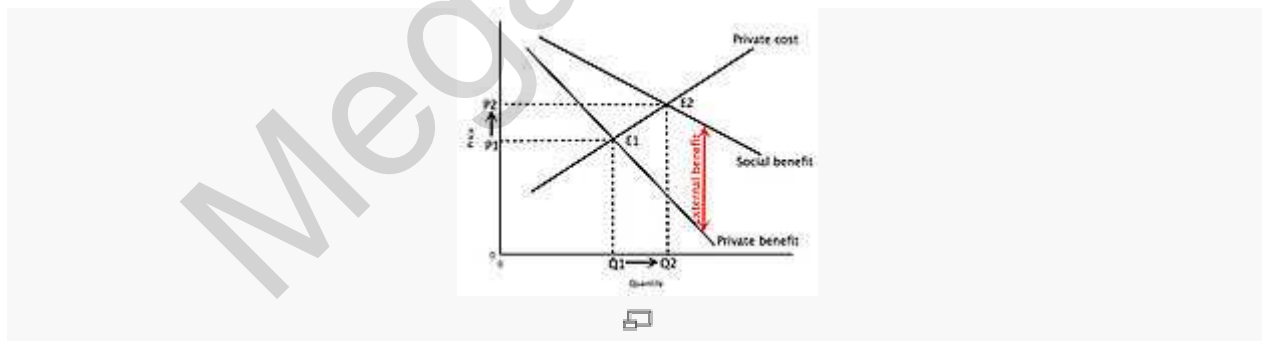
The quantity Q1 to Q2 is overproduction.

Negative externalities occur when the production or consumption of a good causes costs to a third party. Examples include:

- Smoking - passive smoking causes health problems for people who do not consume cigarettes themselves.
- Pollution - causes health problems and long term environmental problems.
- Alcohol abuse - clean-up costs of fights, vomiting etc. as well as long term health problems from binge drinking.

$$\text{Social costs} = \text{private costs} + \text{negative externalities}$$

## Positive Externalities



The quantity Q1 to Q2 is underproduction.

Positive externalities provide benefits to people not directly concerned with the production or consumption of the good. Examples of positive externalities include public transport, vaccinations and education.

$$\text{Social benefits} = \text{private benefits} + \text{positive externalities}$$

## Internalising the externality

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1. Taxes
2. Regulation
3. Subsidies
4. Property rights
5. State-provided goods

## Specialisation and Trade

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### Limits to the division of labour

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- Large scale sales are needed for division of labour
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## Inflation

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### Measurement and Definition

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Inflation is a sustained increase in the general price level over a given period of time.

In the UK it is measured using the CPI (Consumer Price Index) measure. This measures the change in price of a basket of goods and services each given a weighting according to the FES (Family Expenditure Survey). It is often also useful for governments to consider the RPIX measure of inflation, this is often referred to as the "underlying rate of inflation".

## Causes of Inflation

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### Rise in Costs

- Demand Pull
  - Strong currency
- Cost Push
  - Wages due to union pay rise

### Excess supply of Money

- MV PT
  - M Supply of Money
  - V Velocity of Money
  - P Average price of transaction
  - T Average number of transactions
  - V and T are fixed therefore a rise in M will cause an increase in P

## Costs of Inflation

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- Loss of international competitiveness
- Inflation depreciation spiral
- Loss of information, as firms are unable to discern rise in demand from inflation
- Loss of savings, financial collapse
- Menu costs
- Redistribution
- Uncertainty and lack of investment
- Balance of payments
- Income and Substitution Effects

## Measures to deal with Inflation

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- Supply-Side
- Demand-Side
  - Monetary
  - Fiscal
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## Savings and Inflation

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Most studies found a positive correlation between **savings** and **inflation**. However, there are differing explanations:

1. **Deaton (1977)**: suggests that it is *unanticipated* inflation that matters. Consumers initially underestimate the average price level, and shocked by the "excessive" rise in prices cut their consumption in response until they recognise the higher price levels.
2. **Buckley (1981)**: suggests that even if inflation fully anticipated, the savings ratio will increase as long as anticipated inflation is itself increasing.
3. **Cuthbertson (1982)**: suggests that, due to inflation, the real rate of interest (nominal – inflation) often zero or negative, so real purchasing power of a given stock of liquid assets (notes/coins/bank deposits & other short-term assets) falls. Consumers, seeking to maintain the real value of their liquid assets for reasons of security or flexibility, thus have to reduce consumption of current real disposable income/increase saving to do so.

## 4. Revision: Unemployment

### 5. Unemployment

6. • Low levels of unemployment is one of the main macroeconomic goals of every government.
7. • Unemployment is defined as ‘people of a working age who are without work, available to work and actively seeking employment’ (international labour organisation)
8. • The unemployment rate is expressed as a percentage of the total labour force, not the whole population. The labour force is the ‘economically active population.’ people who are not part of the labour force are those out of the age range, students, parents who stay at home, retired people, and people who choose not to work. They are therefore not considered to be unemployed.
9. • Each country has its own national system for measuring the amount of people unemployed. Information is gathered from censuses and surveys, as well as administrative records such as unemployment insurance records and social security information. There may well be inaccuracies and inconsistency in definitions across countries.
10. **Distribution of unemployment** (the rate doesn’t account for these)
11. • Geographical • Age • Ethnic • Gender
- 12.

### Costs of unemployment

13. • *Costs of unemployment to the unemployed people themselves* (lower standard of living because of less income, high levels of stress, depression, mental health problems, breakdowns, suicide levels increase)
14. • *Costs to society* – can be seen in the form of poverty, higher crime rates, vandalism, increases gang activities. While it would be a simplification to blame these problems entirely on unemployment, they are not unconnected.
15. • *Costs of unemployment to the economy as a whole* – a PPF can be used to illustrate the key problem facing an economy with unemployment – if actual output is less than potential output due to unemployment of the factor of production, labour, then the economy is forgoing possible output and would be operating at a point within its production possibility curve. This loss of output, and income to the unemployed, has other implications for the economy as a whole. There is an opportunity cost for the government's spending on unemployment benefits. Also if unemployed people who have lower incomes pay less direct tax and spend less money, so the government earns less in indirect tax as well. The government may have to spend more money to solve the social problems created by unemployment. • The costs above are really those associated with long term unemployment. The costs increase the longer a person is unemployed.
16.  
At any time there will be pool of unemployment. (See sheet on inflows and outflows) The movements in and out of the pool of unemployment affect the supply of labour in an economy at any given time. This, along with the demand for labour, will determine the level of unemployment and employment in an economy.
17. **Types of unemployment**
18. • *Real-wage unemployment*. Same as minimum price. Where the wage rate is above the equilibrium price, meaning there is excess supply. Solutions-reduce the power of trade unions, reduce minimum wage. Evaluate-hard to negotiate, and explain that those affected by minimum wage are the poorest and therefore you are taking money away from those who really need it. Worsening distribution of income.
19. • *Demand-deficient*. As an economy experiences slower growth (or negative growth in the case of a recession) aggregate demand falls. Leads to a fall in demand for labour, as firms cut back on production. Wages are sticky downwards-people don't want their wages to fall and firms don't like to lower them because it will lead to decreased productivity. So unemployment is created. Solutions-demand side policies.
20. • *Equilibrium unemployment*. Jobs exist, but people are unwilling or unable to take the jobs that are available.

21. • At any given wage rate there will be more people looking for jobs than those who are actually willing/able to take jobs. (remember the AS1 curve shows those who are willing and able to take a job at a given wage rate)
22. • The fact that there is no disequilibrium unemployment in the economy means there are jobs available, but people just can't or are unwilling to take them. E.g. perhaps there are vacancies in the financial services industry, but but unemployed assembly line workers are unable to take these jobs because they lack the appropriate education and skills. Or perhaps there are jobs for computer programmers, yet unemployed computer programmers don't know the jobs are available.
23. • Gap between supply of labour and labour force curve is smaller at higher wages because at a higher wage more people will be willing to work/likely to correct the reason they can't work.
24. • An economy is at the full employment level when the unemployment that exists is only the natural unemployment.
25. • There are a few types.
26. • *Frictional unemployment*-short term unemployment that occurs when people are in between jobs, or have left education and are ready to take up their first job. Not considered to be negative-if they have left a job it assumes they are able to work, and if they are looking for a better one, they will be more productive. Solutions-reduce the unemployment benefits that are available whilst looking for a job. Increase information available about jobs-better advertisement through the internet, newspapers etc...
27. • *Seasonal unemployment*-sometimes in an economy people are employed on a seasonal basis. Tourism industry. Ski instructors only work in the winter. Encourage people to take different jobs in their 'off season.'
28. • *Structural unemployment*-the worst type of equilibrium unemployment. Occurs as the result of the changing structure of an economy. Occurs when there is a permanent fall in demand for a particular type of labour. Natural in a growing economy. As some jobs disappear (mining) new ones appear (computers.)
29. Often results in long term unemployment as people who lose jobs in one area lack the appropriate skills to take on the newly created jobs. We say that they lack the occupational mobility to change jobs. Could be geographical immobility too. Causes of structural unemployment-technologies make certain types of labour unnecessary, lower cost labour in foreign countries, changes in consumer taste.
30. Solutions-education system that trains people to be educationally flexible. Long term solution. Spending on adult retraining programmes. Give subsidies to firms to train workers, provide subsidies for firms who want to move to a place where jobs exist.



Apprentice programmes. However they have a high opportunity cost, and policies are only effective in the long term. Or reduce unemployment benefits, and deregulation. BUT evaluate. Market regulations protect workers. So if they were removed, workers would have a worse time. So although unemployment may fall, there would be a high cost for the workers themselves. Contributes to inequality in an economy where the benefits are not shared by all.

31. • **General points**-in order to run an expansionary fiscal policy, a government may have to run a budget deficit and spend more than it takes in revenues. Only a problem in the long term. If governments reduce taxes, there is no guarantee people will spend the extra disposable income, especially if consumer confidence is low. Same with interest rates on spending and investment. Time lag before they come into effect, and by that time the economy could have recovered, making the extra pressures purely inflationary.
32. • Using demand management at the full employment level will only be inflationary because there will always be a natural rate.
33. • Could be difficult to distinguish between the different types of unemployment. Or an economy could be suffering from different types of unemployment. Best to use a mix of policies. Demand side to narrow business cycle fluctuations and reduce output gaps. Supply side to ensure the labour force is suitably skilled and flexible to adapt to changing conditions.
34. • Crowding out-if a government runs a budget deficit, borrows money. These are sold as bonds to financial institutions who sell them to people who want to save money. This is increasing demand for loanable funds in the economy. This results in an increased interest rate, and a disincentive for businesses to invest as they see less return on their investment. This reduces AD.

## Revision: Limits to growth and development

### 1- Primary product dependency

- Comparative advantage – means exports one g/s, imports everything else, so very dependent on one commodity, e.g. Zambia almost 100% dependent on copper. A natural disaster could ruin whole crop, e.g. earthquake ruined much of Chilean wine industry.
- Structural distortion Developed countries pose further problems as they will only import raw materials, and choose to manufacture these themselves. E.g., CAP mean dumping and developing countries cannot compete. Therefore; developing countries cannot process them

(e.g. value added) and move into secondary sector. They lose the job chain that would normally result. Primary sector is not very productive (Lewis model).

35. • Prebisch-Singer Hypothesis the terms of trade between primary products and manufactured goods tend to deteriorate over time because as world incomes rise we tend to demand more manufactured goods, than say, food.
36. • Price fluctuations deter investment and mean farmers cannot invest and plan for the future, to get the best of their harvest. Very inelastic supply and demand curves mean that prices are very volatile
37. • Capital-intensive farming – this is to provide for the world market, often by MNCs. Export prices rise so locals cannot afford food, leading to unemployment, exaggerated urbanisation and falling living standards. Should enforce redistribution of land, and encourage labour intensive farming to make distribution of income equal.
38. **Lack of infrastructure** – transport, telecommunications, energy, water and waste. Therefore difficult to attract FDI; this presents an obstacle to development. Jeffrey Sachs says landlocked countries e.g. S-S Africa at a disadvantage, e.g. high in mountains, lack of navigable rivers. Means harder to trade and CoP much higher. Transport is 14% of exports in landlocked countries.
39. **Savings gap** – Already in a poverty trap, low GDP per capita means little saving by individuals– Harrod-Domar suggests this means they cannot invest, preventing economic growth from occurring.
40. **Corruption and war** – bribery, extortion, diversion of resources by government – this is an inefficient allocation of resources and restrains development. Government officials embezzle money rather than spend it on public services or investment. This will deter aid. Civil war means government resources are diverted towards arms, e.g. Sudan and DRC, disrupting growth and development, destroying infrastructure and people. War and corruption also deter investment.
41. **Population growth** - rapid population growth in poorest countries e.g. Malawi. This means income per capita falls. Malthus said at the end of the 18th C that famine was inevitable because population would increase geometrically, but food production could only increase arithmetically. However, since then technology has disproved this. Poorer countries have high birth rates and slowing death rates.
42. **HIV/AIDS** – Reduced working population – the working population suffer, so there is a loss of highly skilled workers. Zambia now loses 2/3 of teachers to AIDS. In Swaziland, life expectancy is just 31. Productivity declines because of illness, tax revenue to government falls. Labour becomes more expensive, so higher CoP, and can attract less

FDI. Sub-Saharan Africa has 2/3 of the world's AIDS sufferers. Resources diverted from growth to treating AIDS.

43. **Education** - a huge investment in human capital through education has allowed China to shift out its PPF. Countries with little education investment and low school enrolment are likely to have low productivity and little economic growth. It will mean more FDI in the future as firms will not have to train workers.
44. **Debt servicing** - LEDCs borrowed in 1980s. Since then, fall in value of their currency, compared to \$, so have to pay back more; oil prices have increased.
45. **Capital flight** – companies and individuals place cash, buy shares and assets abroad, contributing to savings gap, and reduces tax to government.

## Contestable markets

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The theory of contestable markets states that in imperfect markets, the *threat* of competition may be enough to prevent the firm acting against the public interest (i.e. keeping prices high and output low).

Conditions for contestable markets:

1. Perfect information - all firms have the same access to technology, no patents etc.
2. Freedom to enter the market legally
3. No sunk costs

In contestable markets incumbent firms are forced to act as if they are in competition, and therefore make only normal profits. If they don't, **hit and run** entry will occur - in the short run new rivals enter the market and by charging a lower price, take the incumbent firm's market share. Hit and run entry can only occur if barriers to entry and exit are low.

No market is perfectly contestable. Barriers to contestability always exist. What matters is the degree of contestability.

## Sunk costs

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Sunk costs are costs which are irrecoverable to the owners of the firm if it leaves the market. For example, the Channel Tunnel has very high sunk costs. It is a past expense that cannot be altered by current/future actions.

Sunk costs act as a barrier to entry.

Causes of sunk costs:

- No second hand market
- Industry specific capital
- Future liabilities (e.g. nuclear power plants)

## Implications

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The theory tells us that all markets can be efficient as long as they are contestable. Therefore regulation is not necessary; in fact it may worsen the situation if regulation acts as a barrier to entry, discouraging potential competition. Instead the government's role should be to:

- Make the market more competitive by increasing the degree of contestability
- Lower barriers to entry and exit in an industry
- Allow take-overs (if they don't prevent competition)

## Efficiency

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### Productive efficiency

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Productive efficiency is defined as the production of goods and services using the least possible scarce resources or is achieved when a firm is producing at the lowest possible average cost. This is at the bottom of the average cost curve. Productive efficiency alone does not ensure economic efficiency.

Productive efficiency can be analyzed using three approaches- A firm's cost curve ( where productive efficiency is the point of technical efficiency or x-efficiency i.e the lowest point on the lowest average cost curve of the firm)

The second way of analyzing productive efficiency is through understanding it on a production possibility frontier or a production possibility curve (PPC). This curve shows the maximum production points of any combination of two goods e.g consumer and capital goods. Productive efficiency here would be when an economy is producing on the boundary of its PPC. Any production within the boundary of the PPC would imply inefficient use of resources in production of goods and services or spare capacity.

Finally, productive efficiency is obtained as a direct consequence of competition. Competition in general ensures that a firm produces goods and services at the minimum cost to maximize profits. Firms in a competitive market are hence compelled to produce using the least possible scarce resources or be productively efficient lest they face possible bankruptcy. Perfect competition epitomizes the concept of productive efficiency as firms produce at the lowest point on their respective average cost curves at a point where  $AR=MR=P$ .

Productive efficiency along with allocative efficiency ensures economic efficiency and optimum resource allocation

Productive efficiency is achieved if and only if the firm is producing at the point where  $AC = MC$ .

Allocative efficiency

Allocative efficiency is the concept of producing goods and services using least possible scarce resources that are most wanted or desired by consumers.

Allocative efficiency occurs when the marginal cost of producing a good is equal to the price of the good i.e. the price paid by consumers reflects the true economic cost of producing the good.

Allocative efficiency unlike productive efficiency cannot be illustrated on a PPC as the point of allocative efficiency may be at any point on the PPC and is entirely dependent on consumer preferences.

Competition ensures allocative efficiency as market-oriented businesses in a competitive market are forced to produce goods and services that are most demanded by consumers. Failure to do so would mean loss of business opportunities to rival firms and possible bankruptcy. A perfectly competitive market has production at the point where  $MC=P$ , which is an essential parameter for allocative efficiency.

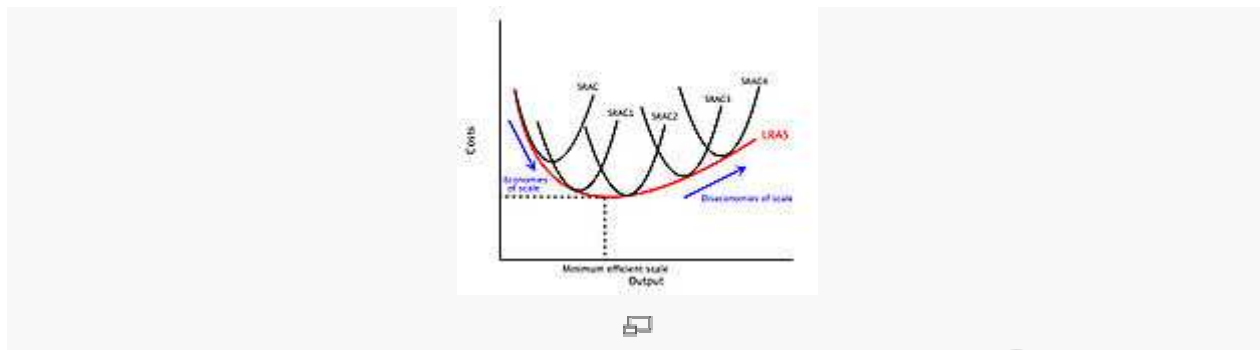
## Allocative efficiency

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Allocative efficiency is achieved when the cost of producing a good is equal to the price consumers are willing to pay - this is how much the consumer values the good. At this point, welfare is maximised. Pareto optimality is achieved. No one can be made better off without making someone else worse off.

The condition for allocative efficiency is  $AR = MC$  (AR is equal to the price by definition).

## Long run costs



The long run cost curve can have a variety of shapes; it is normally drawn approximating a U-shape. Long run costs fall due to economies of scale, and then rise again with diseconomies of scale.

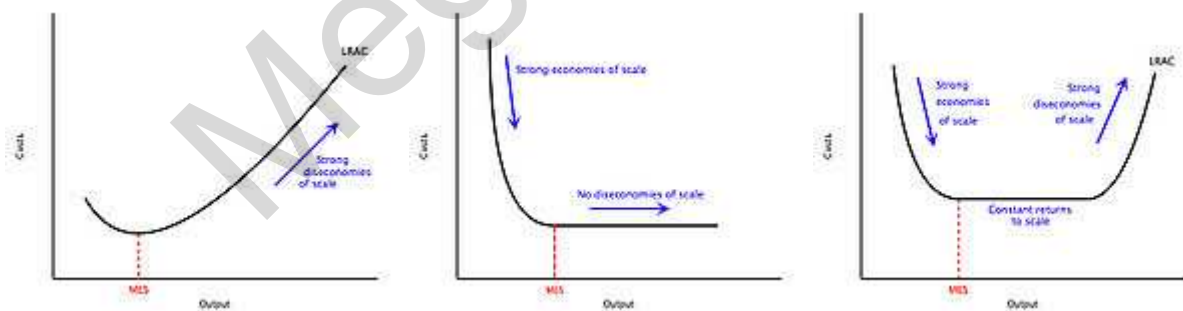
The minimum point of the LRAC is the minimum efficient scale of the firm.

The envelope curve shows how, when SR costs begin to rise, the firm should move along the LRAC by increasing the quantity of capital (assuming capital is the factor kept constant short run). This will move them closer to the MES and they can take better advantage of economies of scale.

A lack of finance may prevent movement along the LRAC.

## Other possible shapes

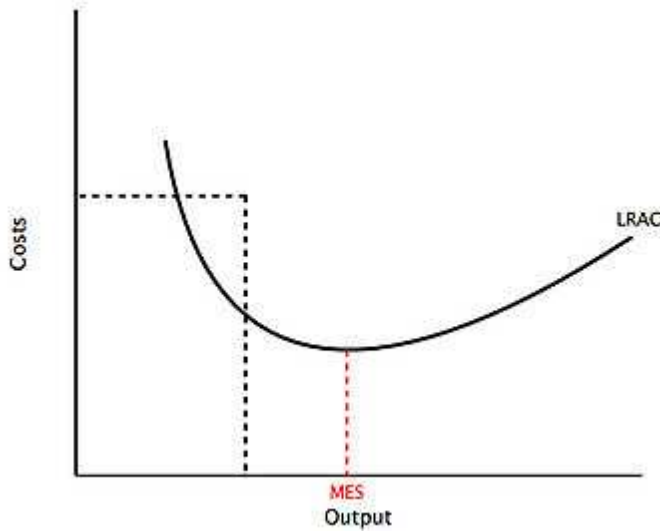
The long run cost curve may have other shapes, depending on the nature of the industry:



## X inefficiency

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Costs may be higher and output lower than necessary. This may be for many reasons, such as the manager taking the afternoon off to go golfing or workers playing minesweeper!



## Revenue

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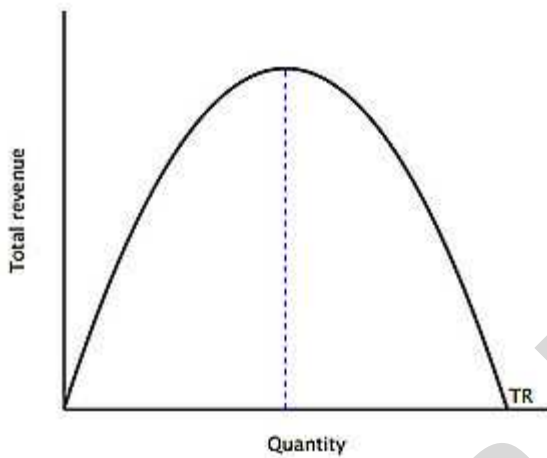
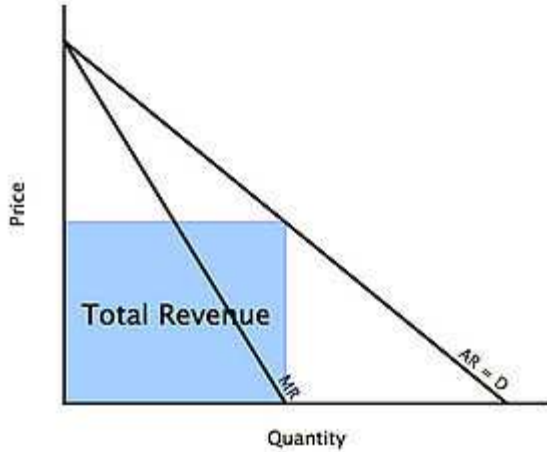
Revenue is the income generated from sales in the market.

$$\text{Total revenue} = \text{price} \times \text{quantity}$$

$$\text{Average revenue} = \frac{\text{price} \times \text{quantity}}{\text{quantity}} = \text{price}$$

From this equation we can see that the demand function for the firm is equal to average revenue.

The gradient of marginal revenue is double that of average revenue. Revenue is maximised when marginal revenue = 0.



## Revenue with elastic demand



*Main article: [Perfect competition](#)*

Under perfect competition, each firm has an elastic PED. This is because in a perfectly competitive market, the firm is a price taker.

When AR is horizontal,  $MR=AR$ .



## Monetarism and Keynesianism

Issue	Keynesianism	Monetarism
<b>Phillips curve</b>	Unit elasticity causing a payoff between unemployment and inflation	Vertical long-run Phillips curve (completely inelastic) - explains stagflation
<b>Savings</b>	Savings lower AD, causing less investment (despite cheaper loans)	.
<b>Quantity theory of money</b>	Wrong because not all the extra money is spent - velocity is may slow down.	$MV = PT$ <ul style="list-style-type: none"> <li>• M is the supply of money</li> <li>• V is the velocity of transactions</li> <li>• P is the average price</li> <li>• T is the total number of transactions</li> </ul> <p>V is believed to be constant. Therefore increasing M increases prices, output and employment.</p>
<b>Conclusions</b>	.	Reducing the rate of growth of the money supply will reduce inflation without leading to long-term unemployment. It will lead to short-term unemployment until wages have adjusted.
<b>Causes of inflation</b>	AD being expanded for too long at too fast a rate.	In the long run, higher demand leads to increased inflation.
<b>Effects of inflation</b>	.	<p>*Damaging to business</p> <ul style="list-style-type: none"> <li>• Reduces competitiveness</li> </ul>
<b>Labour market/unemployment</b>	Sticky wages - when the price level rises, real wages fall, thus allowing firms to hire more workers. This increases output. Hysteresis - high	Unemployment will move towards the natural level in the long run

	levels of unemployment embedded in the economy because of a deficiency of AD, firms respond by hiring fewer people.	
<b>Solutions to unemployment</b>		In the short run, increase AD. Long run, increase the mobility of labour through training and a reduction in unemployment benefit.
<b>Government policy</b>	Maintain high level of stable AD. Control interest rates and exchange rates to reduce uncertainty. Cooperation between industry and government.	Little intervention, except for controlling the money supply. Well-publicised targets to reduce expectations of unemployment.
<b>Effect of increased government spending</b>	Multiplier	Crowding out
<b>Taxation</b>	Good	Bad - incentives better
<b>Thinks the other side is wrong because</b>	They put too much reliance on markets - more complex than they suggest	They cannot explain stagflation

## Monopolistic competition

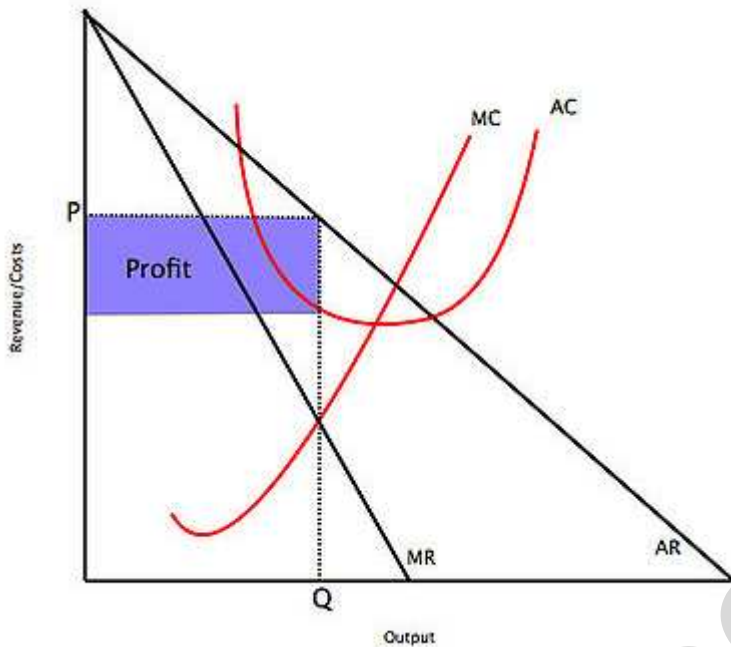
The model of monopolistic competition lies halfway between perfect competition and monopoly. The following assumptions are made:

- Freedom of entry and exit
- Perfect knowledge
- Product differentiation takes place - real/imaginary differences between products creating consumer loyalty

The firm can raise its price without losing all its customers due to the existence of product differentiation. PD is assisted by advertising, which can steepen the demand curve.

## Short run equilibrium

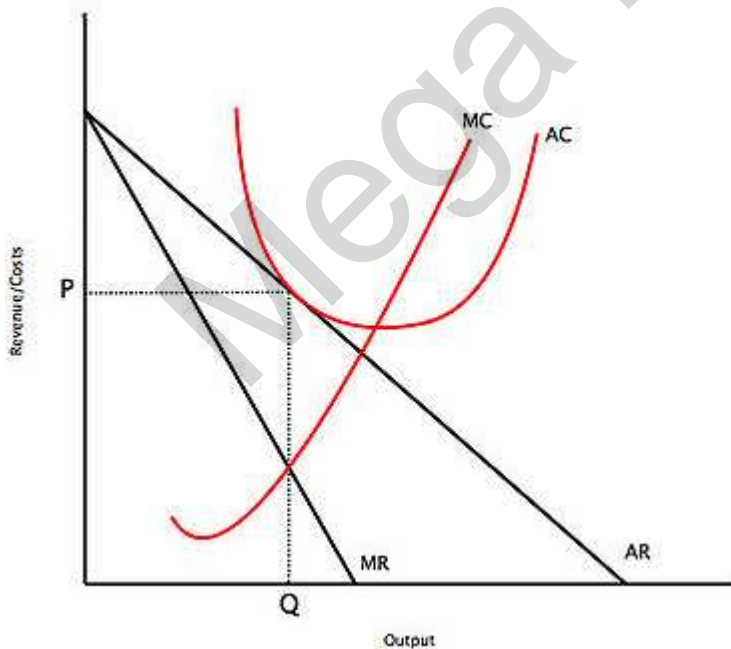
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Abnormal profits are made.

## Long run equilibrium

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Free entry erodes profits. More firms enter the market, lowering the AR and MR of the

incumbent firms. The AR and MR of these firms moves to the left, to the point where  $MR=MC$  and AC is tangent to the AR curve.

This is the tangency solution point.

## How to draw the tangency solution point

1. Draw AR and MR (with the gradient of MR double AR)
2. Draw the AC, with a tangency point  $\frac{3}{4}$  of the way up the AR
3. Put in the price and quantity at this point
4. Draw in the MC. It should cross MR at the level of output you just drew in. It should cross the minimum of AC.

## Evaluation

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Price is higher and output is lower than under perfect competition. However, the consumer gains from the choice that product differentiation brings.

## Monopoly

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A monopolist is defined as a single supplier that constitutes the whole industry. The legal definition of monopoly is a firm which has a market share greater than 25%. Monopolists tend to have the following features:

- High profit levels in comparison with the normal levels of similar levels.
- Barriers to entry and exit.
- Control over the price in the market.
- Evidence of price discrimination.
- Reduced level of service.

Assumptions of monopoly:

- One seller of the good
- No substitutes
- Barriers to entry

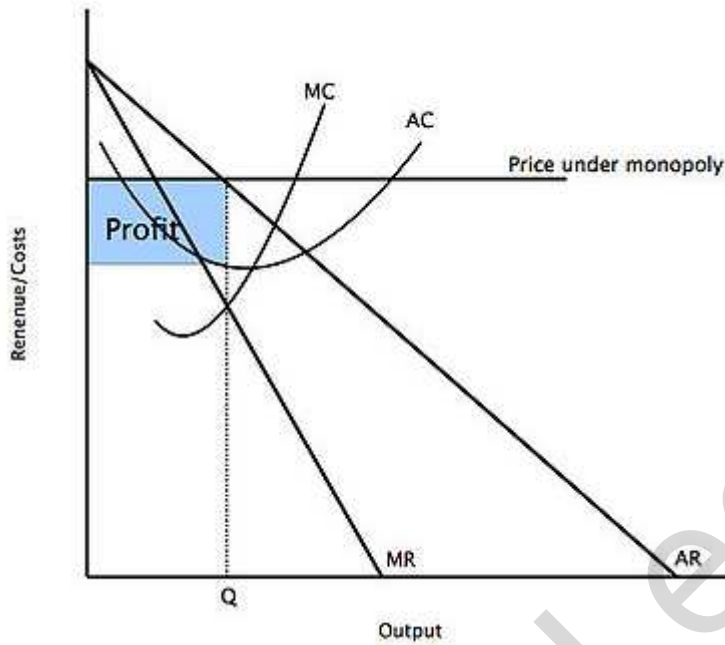
The monopolist is able to raise prices without competitors entering the market. This allows the firm to make abnormal profit.

The monopolist has a downward sloping demand curve because, unlike in perfect competition, when the firm raises its prices it will retain some customers. The monopolist is the only seller in

the market, so the firm's demand curve is the same as that of the industry. It is a price maker and can choose its position along the curve.

## Diagram of monopoly

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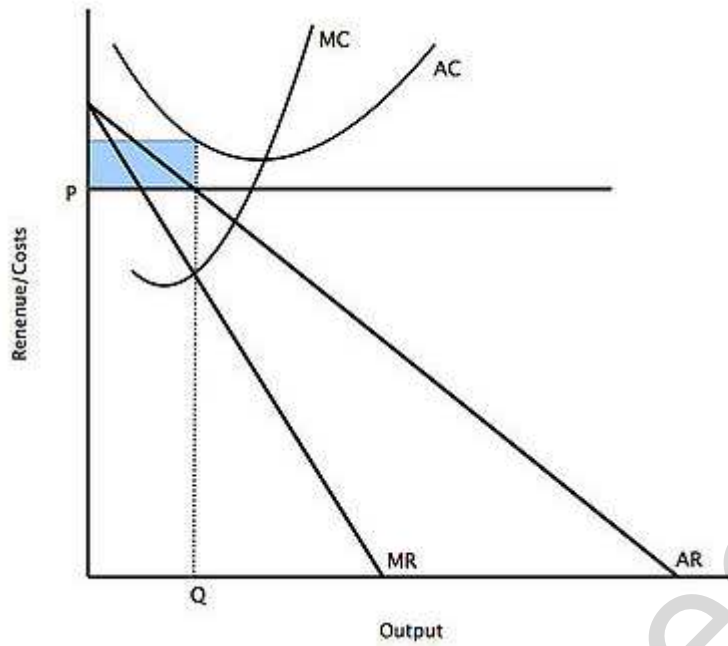
The monopolist produces at the point where  $MC = MR$ . The output is lower and the price is higher than under perfect competition.

This is equilibrium. Profits are not eroded long run because of the existence of barriers to entry.

## Monopolist making a loss

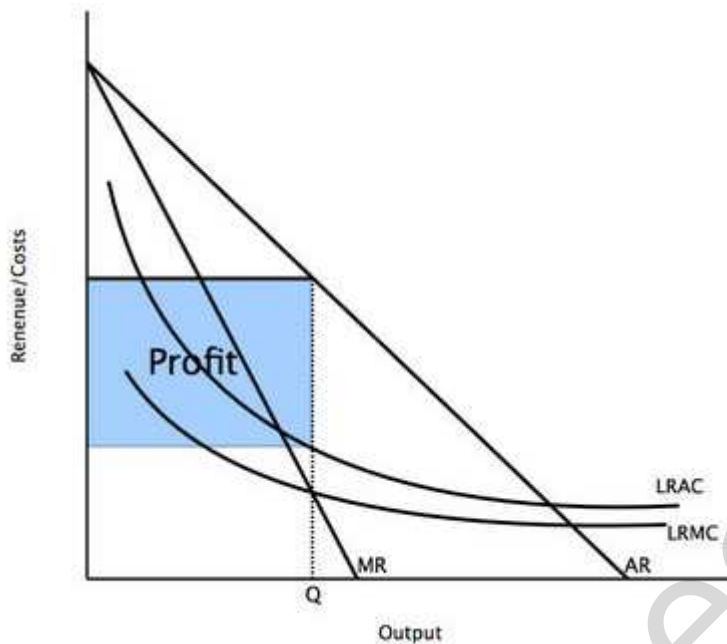
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A monopolist makes a loss if its costs are greater than average revenue.



## Natural monopolies

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Natural monopolies occur in industries where there are no diseconomies of scale. This means that long run costs constantly fall.

The largest firm can always produce at a lower cost than any potential entrant. They are able to price any competitor out of the market.

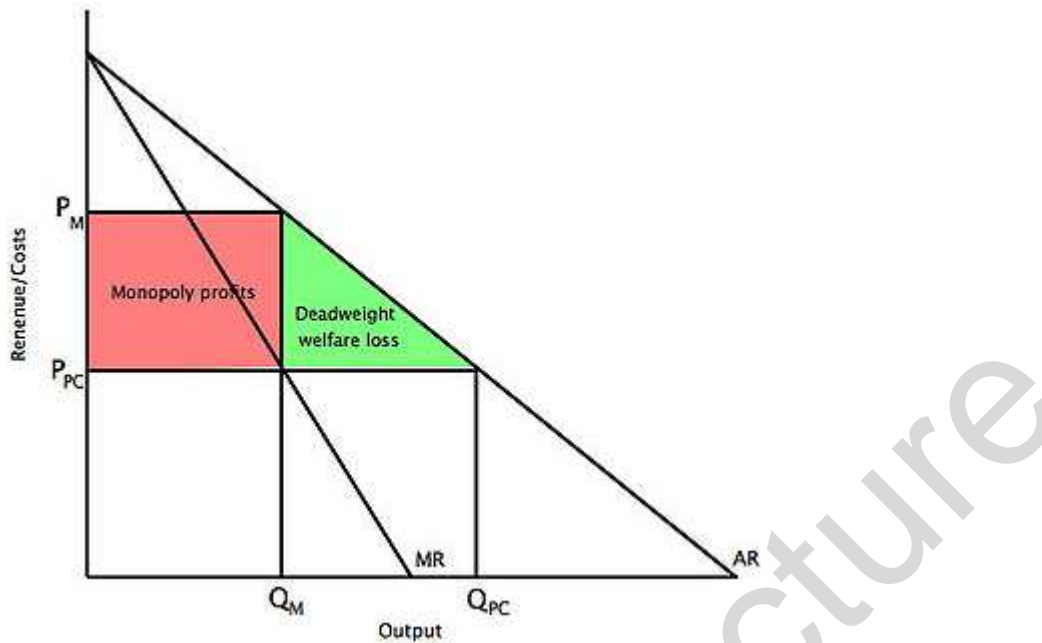
The government may control natural monopolies. When the government nationalised many natural monopolies after the second world war, they introduced marginal cost pricing to protect the public interest.

## Efficiency

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- Productive efficiency is not achieved - the firm is not producing at the lowest point of the AC curve.
- Allocative efficiency is not achieved -  $P > MC$

## Comparison with perfect competition



The price is higher and the output is lower than under perfect competition. The consumer loses consumer surplus (shaded areas in the diagram).

## Perfect competition

Perfect competition is a model of a market structure where allocative and productive efficiency are achieved (long run). A number of assumptions are made:

1. Many small firms (no monopoly power)
2. Many individual buyers (no monopsony power)
3. No barriers to entry or exit
4. Homogenous products (no product differentiation)
5. Perfect knowledge (no asymmetric information)
6. No externalities

## Perfect competition graphically

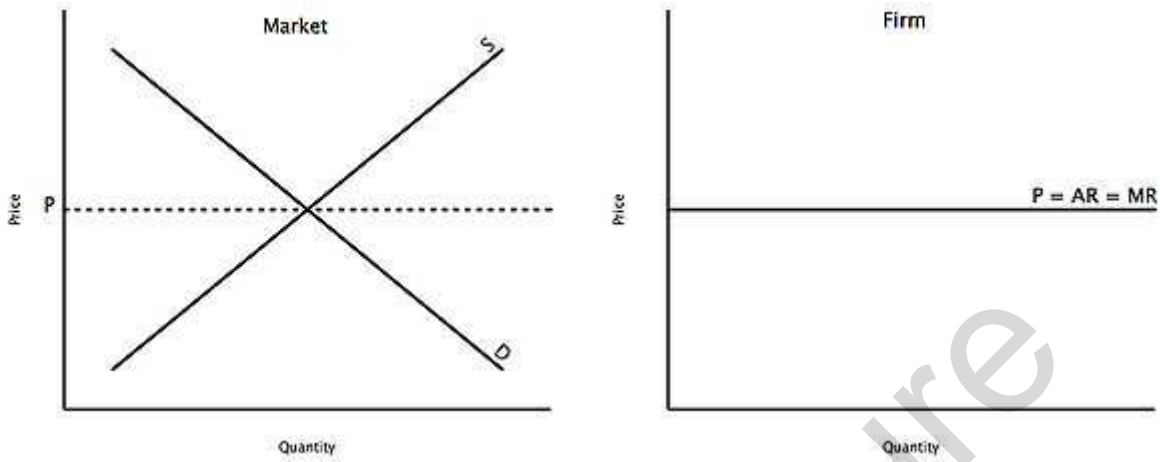
In perfect competition, firms are price takers. If they charged a price other than the market price they would either:

- Lose their customers due to selling at a higher price than competitors

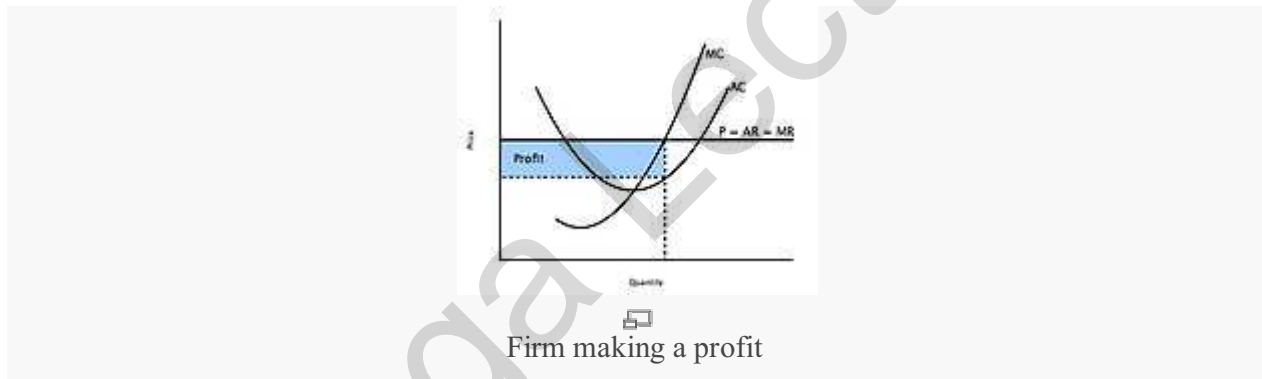


- Go out of business because they are selling below cost

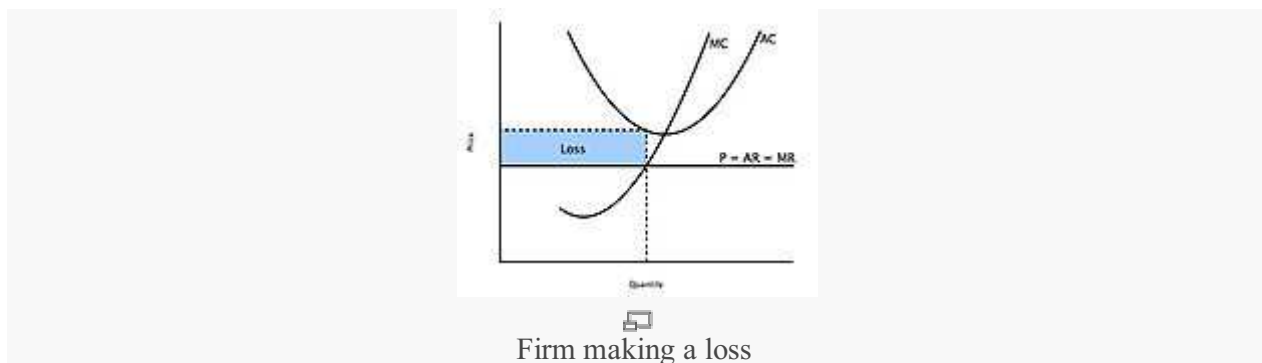
Therefore the firm's demand curve is horizontal and equal to the market price.



## Short run



If the market price is set above or below the costs of the firm, the firm may make profits or losses. The firm produces at the output solution point ( $MR = MC$ ). If the costs are lower than this, the firm makes a profit. Allocative efficiency is achieved because  $AR = MC$ . Productive efficiency is not achieved because  $AC$  does not equal  $MC$  at the output solution point.

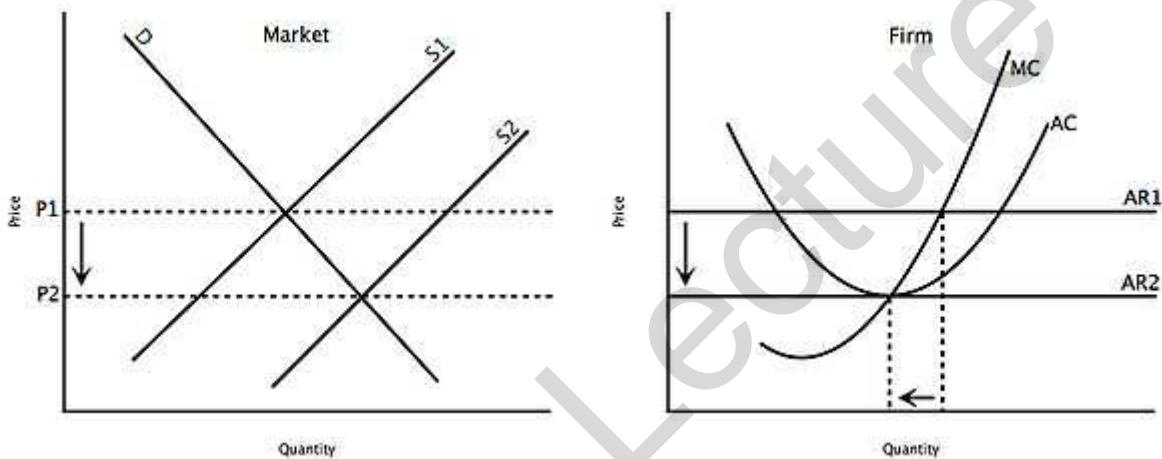


The reverse is also true: a firm which has costs higher than the market price will make a loss. Again, allocative efficiency is achieved. Productive efficiency is not.

## Long run

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If firms in the short run are making profits, there are incentives for new firms to enter the market. This will increase market supply, causing market price to drop and the profit of incumbent firms to be eroded. This can occur because there are no barriers to entry. The price will drop to the point where productive efficiency is achieved.



This is long run equilibrium with no tendency to change.

- Productive efficiency is achieved:  $AC = MC$ .
- Allocative efficiency is achieved:  $MC = AR$

## Evaluation of perfect competition

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Perfect competition is merely a theoretical ideal. However, the model can still be useful even if it's not realistic.

- It provides a measure against which other market structures can be compared
- Economic analysis can be used to investigate the effects of relaxing assumptions (e.g. allowing for product differentiation or asymmetric information)

The model of perfect competition is most applicable in markets such as

- Some **agricultural markets**
  - Many buyers and sellers

- Low barriers to entry
- Mostly homogenous products
- The firm's demand curve is almost horizontal (e.g. a firm's PED for sweetcorn was estimated to be -31353). This means sellers are unable to price at anything other than the market price.
- **Currency markets**
  - Homogenous product
  - Good knowledge in the market
  - Very low transaction costs

Even these markets do not fit the model perfectly. Think of the impact of big supermarket monopsony power and transaction costs in agricultural markets, and the possible barriers to entry in trading currency.

## Price discrimination

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Price discrimination arises if a firm is able to charge different price to different groups of people and gain their consumer surplus. There are three conditions that have to be met in order to achieve price discrimination:

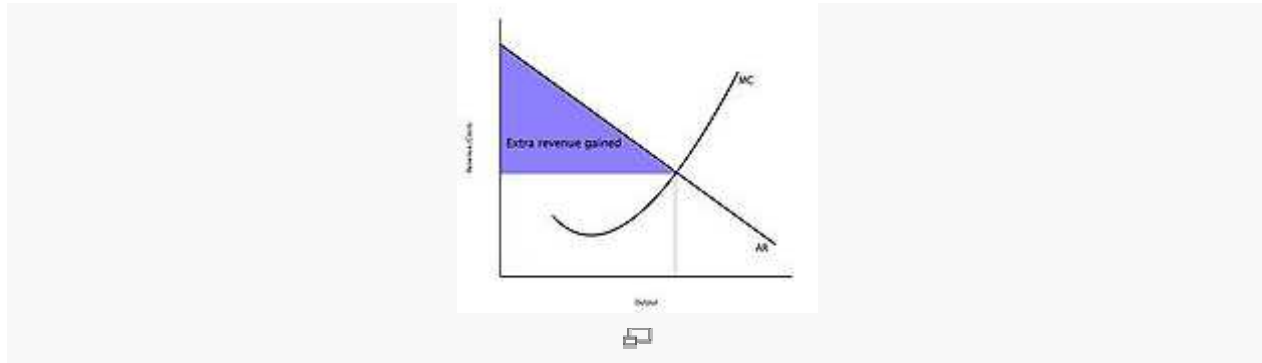
1. The firm must be a **price maker** in the market - price discrimination can only take place under monopoly or monopolistic competition.
2. The firm must be able to **identify different groups** of customers and know their different elasticities of demand.
3. There can be **no resale** in the market between consumers. This is known as arbitrage.

## Effects of price discrimination

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- Buyers lose their consumer surplus to the monopolist
- Profits rise for the monopolist
- Some consumers gain a good or service that they might otherwise not have been able to have

## First degree price discrimination

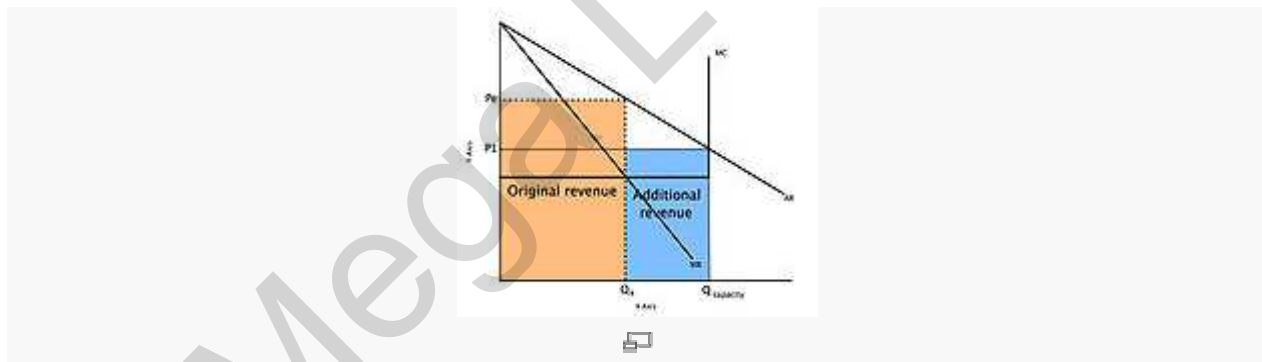


Also known as perfect price discrimination.

The firm separates the whole market into each individual consumer and charges them the price they are willing to pay. The firm extracts all the consumer surplus and turns it into revenue. The firm will sell up to the point where  $AR = MC$ . Beyond this point the price consumers are willing to pay is less than it costs the firm to make.

Examples: haggling, bartering.

## Second degree price discrimination



Occurs in markets where there is a fixed capacity so it is in the firm's interest to "fill every seat", and the firm is prepared to sell at cost to achieve this. Tends to occur where there are high fixed costs. For example, it costs much the same to fly a Boeing 747 whether there is 1 passenger on it or hundreds.

The firm begins by selling at the profit maximising point ( $MC=MR$ ). However this leads to spare capacity. The firm then reduces the price to  $P1$  to sell the remainder.

Examples: theatre tickets, plane tickets (last minute tickets cost less), football tickets in lower divisions ("kid for a quid" - adds to revenue but adds little to costs).

## Third degree price discrimination

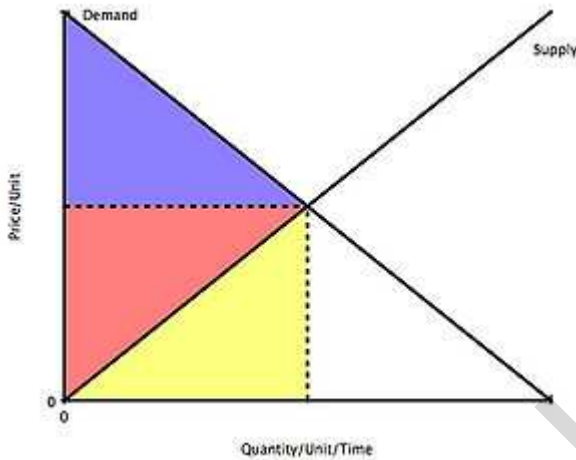
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This is charging different prices to groups with different elasticities. The monopolist charges a lower price to a group of people who have more elastic demand.

Examples: telephone charges (more elastic demand in evenings), rail tickets (young persons railcard - students are more price sensitive), gender pricing in nightclubs.

## Producer and Consumer Surplus

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**Consumer surplus** is the difference between the market price and the maximum price the consumer would be willing to pay. The amount that the consumer benefits. On the diagram is the top triangle shown in blue.

**Producer surplus** is the difference between the minimum price the producer would be willing to sell for and the market price. It is the triangular area below the consumer surplus shown in red.

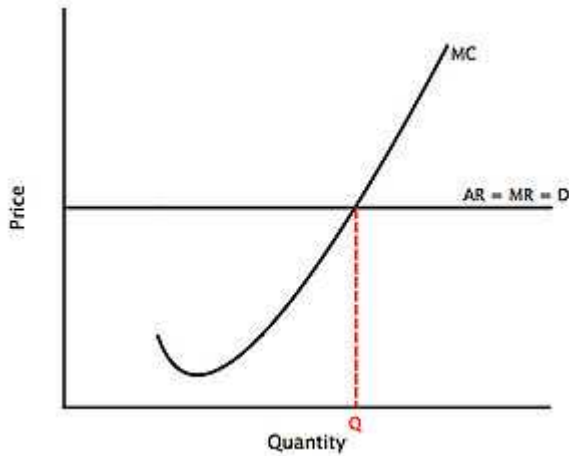
The yellow area represents the costs to the firm of producing the good. Together the yellow and red represent the revenue of the firm.

## Profit maximisation

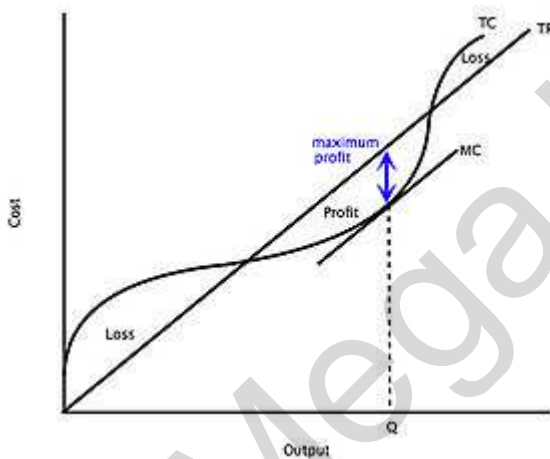
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The economist's profit, **abnormal profit**, is the profit which is above that needed to keep the firm in business long term. When we talk of a firm breaking even, the firm is making just enough profit to stay in business long term.

## With elastic demand

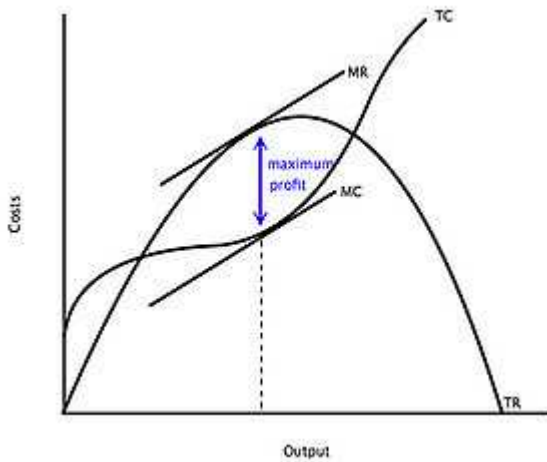


A firm will produce at the **output solution point** (or **profit maximisation point**) when  $MC = MR$ .



MC is drawn as a tangent to TC. The maximum profit is the vertical difference between TR and MC when the two are parallel.

## With downward sloping demand

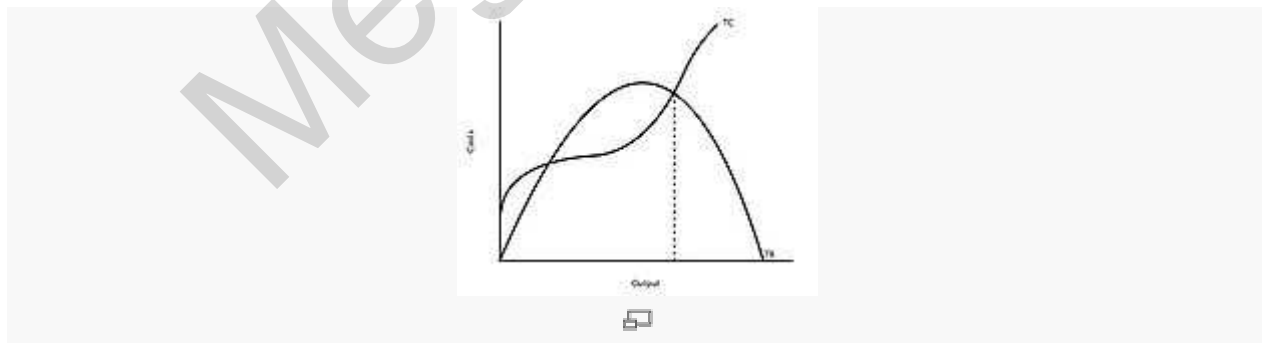


When an industry has imperfect competition, a firm's demand curve slopes downwards. In this case the TR is curved. MR is the tangent of TR. Profit is maximised at the point where the vertical distance between MC and MR is the greatest.

## Sales and Revenue Maximisation

Firms do not always aim to maximise profit. Managers may instead choose to focus on sales maximisation or revenue maximisation.

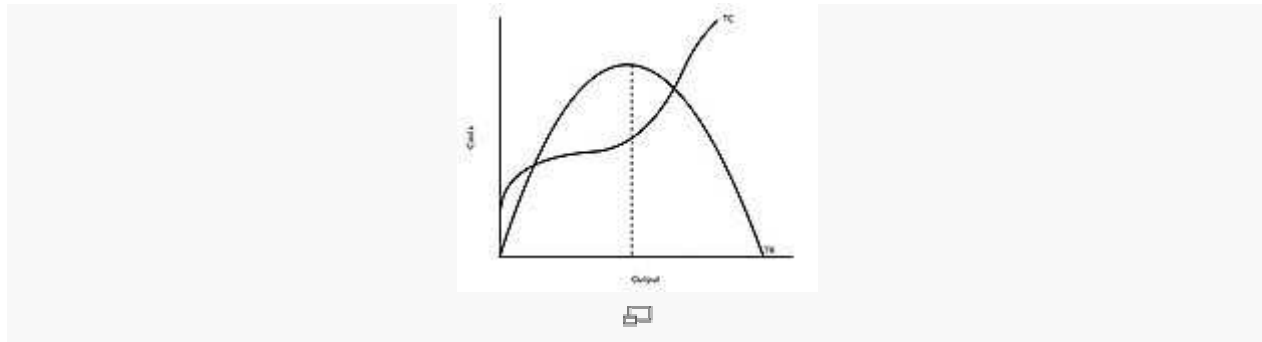
### Sales maximisation



Sales are pushed up to the point where the firm just breaks even, where  $TR = TC$ . The output is set higher than under profit maximisation.

## Revenue maximisation

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The point when  $MR = 0$  and the firm is producing at the point where TR is maximised. The profits will not be maximised. Output will be larger than under profit maximisation.

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## Specialisation and Trade

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Specialisation is when a factor of production is devoted to a specific job. This applies to all factors of production - land, labour, capital and enterprise. By specialising and trading, countries can increase overall output.

## Absolute and comparative advantage

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When a country can produce more of a product per unit resource than its rivals can, it has absolute advantage. The country can produce at a lower factor cost.

More important, however, is Ricardo's idea of comparative advantage. The producer with the lowest opportunity cost of production for a particular product has comparative advantage. For example, Portugal can produce more wine and cloth than England per unit resource (it has absolute advantage in both). Compared with Portugal, England is bad at producing cloth, but terrible at producing wine. Therefore England should specialise in cloth and Portugal in wine, because the opportunity cost of Portugal producing extra cloth is greater than producing extra wine.

## The Gains from Trade

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The most important gain from trade is increased output. This can lead to increased living standards, greater variety of goods and spread of technology. Other gains include:

- Economies of scale



- Political links may prevent wars
- Competition gives greater efficiency and reduces the power of the monopoly producer

## Division of labour

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Division of labour is a special type of specialisation. The production of a good is spilt into many tasks which can be undertaken by different people. There are three types of division of labour:

1. Specialisation of people in trades or professions (e.g. milkmen)
2. Specialisation by process (e.g. jam making)
3. Specialisation by area (e.g. Silicon Fen, Cambridge)

### Advantages

1. Time saving
2. Increase in output due to productivity gains from increased economic organisation
3. Improvement in quality of goods because specialists can perform better
4. Makes the best use of natural abilities
5. Reduction in costs because people work faster
6. Automation as the use of machinery takes over repetitive tasks

### Disadvantages

1. Mental disadvantages on workers of low job satisfaction
2. Strikes and absenteeism
3. Immobility of labour

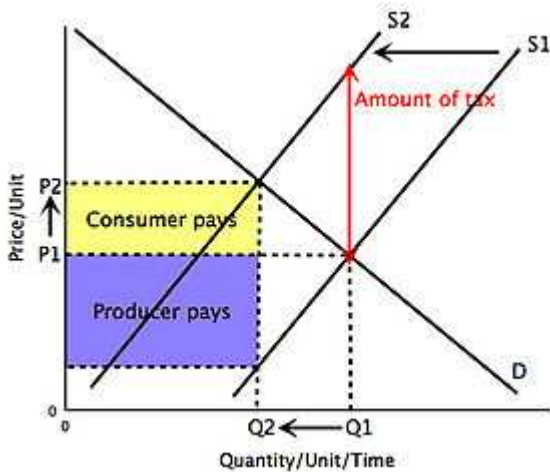
### Limits to the division of labour

- Some trades, such as handmade craft trades, are not suitable for specialisation.
- Large scale sales are needed for division of labour
- Management may not be efficient

## Indirect Taxes and Subsidies

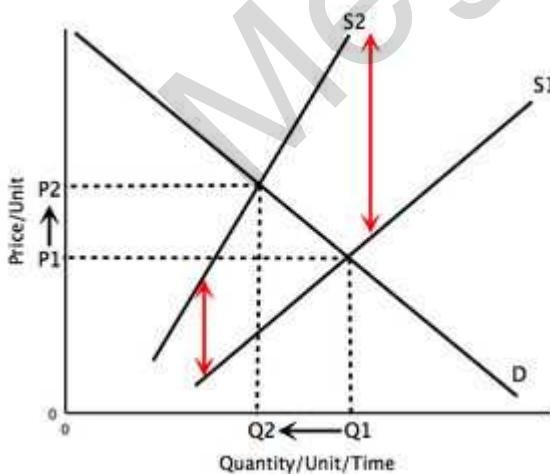
The incidence of taxation is who finally pays the tax. Taxes and subsidies affect the supply curve.

### Taxes



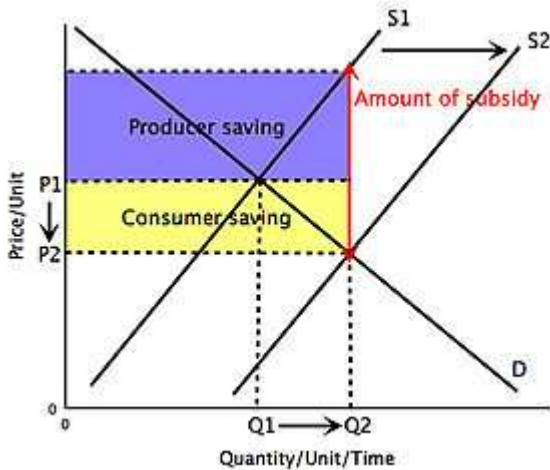
Taxes are designed to limit production of a good. The increase in cost shifts the supply curve to the left.

The greater the PED or the smaller the PES, the greater the burden upon producers. It is mainly goods with an inelastic demand which are taxed; this ensures that the bulk of the incidence of taxation is passed on to the consumer.



Ad valorem taxes, such as VAT, are a fixed percentage of the price of the good, so the amount of tax (indicated by the red arrow) increases as the price increases.

## Subsidies



Subsidies act in the opposite way to taxes. They encourage greater production of a good, shifting the supply curve to the right.

It is mainly goods with elastic PEDs which are subsidised as this ensures most of the cost saving is passed on to the producer.

## A2 Economic Rent and Transfer Earnings

- Transfer earnings are the minimum payment required to keep a factor of production in its present use. It is the opportunity cost an individual forgoes when deciding to work in one job rather than the next best alternative.

**Example** - a man may decide to work as a shop assistant because they pay is better than if he was a waiter. By making this decision he forgoes the opportunity to work at, for example, Pizza Express. The opportunity is seen in terms of this forgone alternative. If Pizza Express were to raise its wage rates in order to attract more staff, there would come a point where the shop assistant might reconsider his decision and decide to be a shop assistant after all, as the opportunity cost of being a shop assistant has risen.

- Economic rent is a payment received by a factor of production over and above what would be needed to keep it in its present value. I.e. it is the amount which someone can earn which is in excess of their transfer earnings (what they could earn elsewhere). It is a demand determined reward to labour and will be earned when labour is to some degree in inelastic supply.

**Example** – doctors are in almost perfectly inelastic supply because the number of places available to study medicine is determined by the government and the profession. To the extent that the demand for doctors exceeds the supply, they will be able to negotiate higher salaries than most could earn as research scientists or in other occupations

- The factor that determines the level of economic rent in comparison to transfer earnings is the elasticity of supply of labour. The more inelastic the supply, the greater proportion of total earnings that is made up of economic rent and therefore there are fewer transfer earnings. Conversely, the more elastic the labour supply is, the more transfer earnings make up of total earnings, and so the economic rent is less.

**Example** – The difference in the earnings of two jobs, for example surgeons and shop assistants demonstrates the importance of supply. Firstly, surgeons are inelastic in supply, especially in the short run. This is because the education required to become a surgeon is long and demanding, and is essential for entry into the occupation. Also, not everyone has the required abilities to become a surgeon. This means that the supply of surgeons is limited, and does not vary greatly with wage rates. So in this case, a large proportion of surgeons' total earnings are made up of economic rent.

- However, in the case of shop assistant there is far less training required, a wider range of possible people suitable for the occupation. So, the labour supply would be relatively elastic, meaning economic rent will be relatively less important than in the case for surgeons. If the wage rates for butchers was to increase, a large amount of people, who would be able to work in the occupation, would be attracted to it (eventually causing wage rates to fall).

## Aid

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Aid can come in many forms such as:

1. help with key workers (for example how a load of nurses and doctors are helping the survivors of the tsunami in those areas; can also be teachers and other key workers)
2. help with supplies (such as food and clean water or even medical supplies)
3. MONEY! - well money is the most complicated one because it can be given conditionally (tied aid) or unconditionally (also as a loan, need i explain the effect this can have? it can be good or bad - i.e. having to pay it off SHOULD ensure that the country receiving it spends it on revenue-generating policies such as education and training or research grants; but the bad side is the interest on the loans may not be able to be paid if the country spends the money on other things such as medical supplies or even WHITE ELEPHANT projects).

Aid can also be from one country to another (bi-lateral) or from the world bank or other organisation (unilateral).

There are major concerns about giving aid to third world countries, some of the concerns include:

1. tied aid may not benefit the country directly due to harsh conditions, an example of this would be the STRUCTURAL ADJUSTMENT SCHEMES (SAPS, look it up!).
2. the country may have a corrupt governance which leads to money being wasted on either white elephant projects or even stolen by the political elite.
3. the aid may not be enough - remember SIZE MATTERS (evaluation marks, anyone?)
4. the interest on loans may not be paid therefore the country will be paying off the debt for years - this will lead to the country losing out in the long run, now that's not the aim of aid is it?!
5. the recipient country may not have the infrastructure required to make use of the aid properly - for example if they want to attract MNCs or foster a good entrepreneurial spirit, a good infrastructure is required (phone lines, transport networks, etc)
6. the recipient country may not have the knowledge in order to make best use of the money they receive (in such cases economic analysts and helpers can be brought in, also as aid or at a cost)

7. I'm sure you people can think of more POST THEM!

Lastly, aid can be very good for the economy due to many factors such as

1. supplies help countries when they need the help most
2. conditional aid may have good conditions, such as the money must be spent on education and training, this by-passes the possibly corrupt political elite
3. free money can be good as long as the recipient country has a good record of handling money well (i.e. not wasting it)
4. key workers such as teachers will have a long lasting effect on those people they work with - increasing the knowledge in the country and shifting the LRAS to the right

## World Bank

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This consists of two organisations now, although when it was set up it was an organisation designed to relieve the short term BoP problems of LDCs. It now has 184 member countries contributing to it and deciding how the money is spent. The two parts are -

### **International Bank for reconstruction and development - IBRD**

This part is responsible for the funding of various projects in cooperation with the local government. It lends out money either directly to private firms or to the government to do so at commercial interest rates.

### **International Development Association - IDA**

This part lends money to the poorest LDCs to tackle BoP problems and the like on concessionary terms, ie long repayment periods and very low or zero interest rates. These are called soft loans.

A third organisation called the International financial corporation (IFC) is closely linked with the world bank and gives a type of aid without going through the local government - hence less likely to be affected by corrupt government officials, although more risky financially, since they buy into shares of firms or lend directly to them if the IFC believes that this will lead to higher levels of development.

## IMF - international monetary fund

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Bad ass press! Similar to the IDA in that it gives loans to governments although these are conditional loans - the loan has structural adjustment policies attached (SAPs). These are pretty set regardless of the country they're being used for and are also pretty harsh as they push the economy too hard to change and try to bypass 'take off'. They all too often lead to short and medium term rises in poverty although they tend to be successful for both growth and development in the long run. The bad press comes because of these SAPs making life worse for people, especially since they try to force the economy to change from LDC to MDC so quickly.

These SAPs include:

1. cut/drop in all subsidies and price controls so that market prices can be charged
2. Reduction in money in circulation (reduce inflation)
3. Reduction in public and rise in private employment
4. Private ownership of essential utilities (monopolies could form w/o regulation)
5. Lowering in barriers to trade

These policies will open up domestic producers to the low world prices and often send them out of business. This creates inflow of imports which could lead to BoP deficit problems. In the long run, efficiency will rise however with the incentive for lower prices. Also, the more open markets will be a greater incentive for MNCs to invest in that country.

Basically, SAPs bone countries like a femur in the short run but usually work out in the long run - of course, there are exceptions.

There are also organisations that help countries by other methods -

- Food and agriculture organisation (FAO) has managed to increase the food supply by more than double over the last 60 years, outstripping the doubling in world population -go them!
- UNICEF works to decrease poverty for children by overcoming obstacles of disease and discrimination

- UNESCO are the Peace keepers, Jedis of the world. Human rights people that enforce equality of race etc.

## MNCs

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MNCs are Multi National Companies! They come in many shapes and forms from coca-cola to Nike, they are much sought after by many countries due to their tendency to be so large that they can fully exploit economies of scale and thus be very competitive in world market, the plus points include (among others):

1. MNCs have such large amount of capital that their yearly turnover can be more than some countries' GDP, thus having an MNC present within your country promotes economics stability.
2. MNCs promote good infrastructure, they will do all they can to better transport links and phone lines - this will benefit the whole country.
3. MNCs create jobs in their local area, this can totally revive some parts of the country, and will lead to higher demand for labour, thus wages will rise (may cause inflation) and AD will shift right, thus economics growth will occur.
4. the main aim of an MNC is to exploit economies of scale in order to be competitive in international markets - this means that one of their primary aims will (indirectly) be to better the current account position.
5. When an MNC first arrives to a country it will require buildings, land labour and capital, the capital aspect (machinery, buildings, etc) will be a positive on the financial account, better the balance of payments straight away!

All those are very good points, promoting price stability, low unemployment, balance of payments on the current account and economic growth (four of the main macroeconomic objectives). but there are negatives associated with MNCs, including:

1. MNCs are driven by producing at the lowest costs, so they usually set up in places where labour is cheap, they will then exploit workers in LDCs (shell oil, or Nike, anyone?).
2. MNCs yield a lot of power over the country they are in - once in the countries governance will do little to regulate them of the fear that they will leave. they will also do a lot to keep them where they are, offering tax breaks, etc.



3. When MNCs set up they may bring in key workers from their own countries - this means that unemployment may not fall as much as would be desired.
4. wages from the workers and profits may be repatriated so all in all, over time, the capital account will worsen, thus the balance of payments might not look so good.

## FDIs

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Everything to do with MNCs pretty much applies to all types of FDI,

Finally the means by which countries attract FDI:

1. low corporation tax acts as an incentive to MNCs and other companies to invest in a given country - low rates will act as an incentive to maximise profits within that country.
2. Stable economies attract FDI because any company likes a stable economy, this means basically low inflation. this is helped by the use of \*fixed rule\* fiscal policies (such as Gordon brown's golden rule)
3. flexible labour laws and low trade union power - this makes it easy for any company to \*hire and fire\* workers, the UK has low trade union power (after the Thatcher years).
4. low wage rate - low wage rates mean a lower cost of production for the company - this leads to them being more competitive in international as well as domestic markets and will increase their profits.
5. Good infrastructure - companies like countries with good transport links and communication lines. transport links are required to get raw materials and to distribute goods.
6. country links - whether the country is in a free trade area, or customs union will have an effect on the MNC this is because they can have access to a market without trade distortion (such as the many forms of protectionism)

## Formulae

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### PED

- $\frac{\% \text{change in quantity}}{\% \text{change in price}}$
- $\frac{\text{change in quantity}}{\text{original quantity}} \times \frac{\text{original price}}{\text{change in price}}$   
 $\frac{\Delta Q}{Q} \times \frac{P}{\Delta P}$
- $\frac{\Delta Q}{Q_1+Q_2} \times \frac{P_1+P_2}{\Delta P}$ 
  - PED > 1 elastic
  - PED < 1 inelastic
  - PED = 1 unitary

### PES

$$PES = \frac{\% \text{change in quantity supplied}}{\% \text{change in price}}$$

### YED

- $\frac{\% \text{change in quantity}}{\% \text{change in income}}$   
 $\frac{\% \Delta Q}{\% \Delta Y}$
- $\frac{\Delta Q}{Q_1+Q_2} \times \frac{Y_1+Y_2}{\Delta Y}$ 
  - positive = normal good
  - negative = inferior good
  - YED > 1 = luxury good

### XED

- $\frac{\Delta Q_x}{\Delta P_x}$ 
  - Substitutes: XED > 0
  - Complements: XED < 0

### Macroeconomics

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- **APC:** the proportion of income consumed

$$APC = \frac{C}{Y}$$

- APS: the proportion of income saved

$$APS = \frac{S}{Y}$$

- $APC + APS = 1$
- $MPC = \frac{\Delta C}{\Delta Y}$
- $MPS = \frac{\Delta S}{\Delta Y}$
- $MPC + MPS = 1$

- Consumption = autonomous C + MPC × Income

$$C = a + b(Y)$$

- $AD = C + I + G + (X - M)$
- $m = \frac{Y}{I}$
- $m = \frac{1}{MPS}$  in a simple closed economy.
- Gov. Spending  $m = \frac{Y}{G}$
- Bank/credit  $m = \frac{1}{\text{Reserve ratio}}$
- $MV = PQ$ 
  - M = Money Supply
  - V = income velocity of circulation
  - P = price level
  - Q = real GDP
  - Monetarists believe:  $\Delta M = \Delta P$

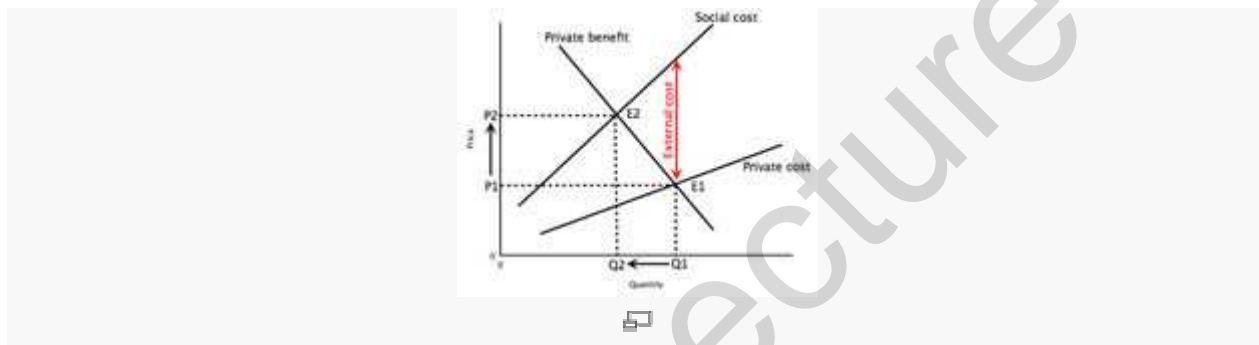
- Standard of Living =  $\frac{\text{Real GDP}}{\text{Population}}$

## Externalities

Externalities are effects of production or consumption of a good on a third party, who is not directly involved in the activity. Externalities can be internalised by bringing the cost home to the producer or consumer so that they have to pay for clean-up.

Externalities cause market failure if the cost/benefit to third parties is not taken into account. The wrong quantity of goods is produced, leading to a loss of welfare.

### Negative Externalities



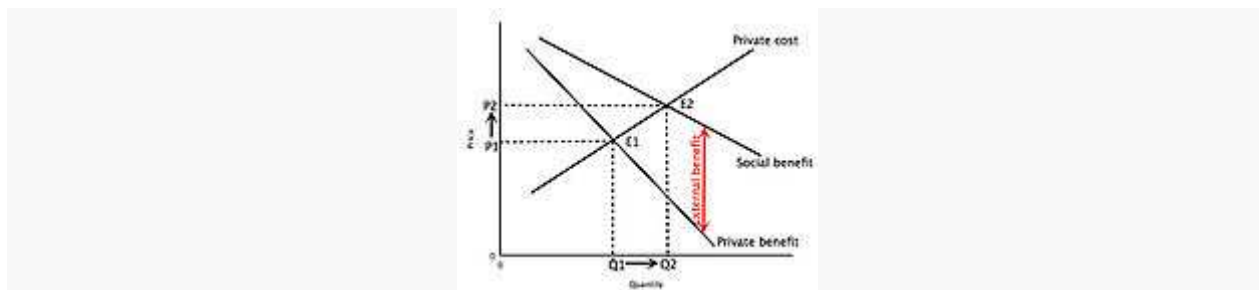
The quantity  $Q_1$  to  $Q_2$  is overproduction.

Negative externalities occur when the production or consumption of a good causes costs to a third party. Examples include:

- Smoking - passive smoking causes health problems for people who do not consume cigarettes themselves.
- Pollution - causes health problems and long term environmental problems.
- Alcohol abuse - clean-up costs of fights, vomiting etc. as well as long term health problems from binge drinking.

$$\text{Social costs} = \text{private costs} + \text{negative externalities}$$

### Positive Externalities





The quantity Q1 to Q2 is underproduction.

Positive externalities provide benefits to people not directly concerned with the production or consumption of the good. Examples of positive externalities include public transport, vaccinations and education.

*Social benefits = private benefits + positive externalities*

### Internalising the externality

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1. Taxes
2. Regulation
3. Subsidies
4. Property rights
5. State-provided goods

Mega Lecture